



Analytical Resources, LLC
Analytical Chemists and Consultants

03 January 2023

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

RE: AOC4 UR Phase 3

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

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

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

Associated Work Order(s)
22L0105

Associated SDG ID(s)
N/A

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

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

Analytical Resources, LLC

Susan Dunnihoo, Director, Client Services

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



1 of 3 2210105

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 4162

Project/Client Name: AOC4 UR Phase 3
 Project Number: 180067-02.034
 Contact Name: Amara Vanderwaal
 Sampled By: Windward

Ship to: ARI
 Attn: Sue Donihoo Shipping Date: _____
 Shipper: Courier Airbill Number: _____
 Form filled out by: _____ Turnaround requested: 5+d

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]	
					PCB	PAT	BBP	mercury	Arsenic	DIF	Total Solids		Archive
12/5/22	0815	LDW22-SC772	3	Sediment	X	-	-	-	-	-	X	X	
	0833	LDW22-SC771	3		X	-	-	-	-	-	X	X	
	0933	LDW22-SC756	3		X	-	-	-	-	-	X	X	
	1023	LDW22-SC780	3		X	-	-	-	-	-	X	X	
	11:00	LDW22-IT792	3		X	-	-	-	-	-	X	X	
	09:37	LDW22-SC775A	3		X	-	-	-	-	-	X	X	
	09:37	LDW22-SC775B	3		X	-	-	-	-	-	X	X	
		LDW22-SC775C	3		X	-	-	-	-	-	X	X	
		LDW22-SC775D	3		X	-	-	-	-	-	X	X	
		LDW22-SC775E	3		X	-	-	-	-	-	X	X	
		LDW22-SC775F	3		X	-	-	-	-	-	X	X	
		LDW22-SC775G	3		X	-	-	-	-	-	X	X	
Total Number of Containers			36	Purchase Order / Statement of Work # <u>APJ-110222-AOC4-ARI</u>									

1) Released by: Print name: <u>Amara Vanderwaal</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>12/5/22 1632</u>	1) Rec'd by: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/5/22 4:32PM</u>	2) Released by: <u>[Signature]</u> Print name: <u>YARED</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/5/22 5:00PM</u>	2) Rec'd by: <u>[Signature]</u> Print name: <u>Phillip Bates</u> Signature: <u>[Signature]</u> Company: <u>AR</u> Date/Time: <u>12/05/22 12:00</u>
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* Distribution: White copies accompany shipment; yellow retained by consignee.



200 West Mercer Street
 Suite 401
 Seattle, WA 98119
 Tel: (206) 378-1364
 Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature: <u>3.1, 5.1, 1.0, 6.0</u>	Received by:

2 of 3 ^{22L0105}

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3395

Project/Client Name: ADCY WR Phase 3
 Project Number: 180067-02.04
 Contact Name: Amara Vanderwort
 Sampled By: Windward

Ship to: ARI
 Attn: Sue Dunnihoo Shipping Date: _____
 Shipper: Courier Airbill Number: _____
 Form filled out by: _____ Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]	
					PCB	PAH	BBP	mercury	Arsenic	D/F	TOC/Total Solids		Archive
12/5/22	09:37	LDW22-SC775H	3	Sediment	X	-	-	-	-	-	X	X	
		LDW22-SC775I	3		X	-	-	-	-	-	X	X	
		LDW22-SC775J	3		X	-	-	-	-	-	X	X	
		LDW22-SC775K	3		X	-	-	-	-	-	X	X	
		LDW22-SC775L	3		X	-	-	-	-	-	X	X	
		LDW22-SC775M	3		X	-	-	-	-	-	X	X	
	11:25	LDW22-1T796	3		X	-	-	-	-	-	X	X	
	11:43	LDW22-1T79B	3		X	-	-	-	-	-	X	X	
	11:22	LDW22-SC782B	3		X	-	-	-	-	-	X	X	
		SC782C	3		X	-	-	-	-	-	X	X	
		SC782D	3		X	-	-	-	-	-	X	X	
12/5/22	11:22	SC782E	3		X	-	-	-	-	-	X	X	
Total Number of Containers			36	Purchase Order / Statement of Work # <u>APT-110222-ADCY-ARI</u>									

1) Released by: <u>Amara Vanderwort</u> Print name: <u>Amara Vanderwort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>12/5/22 1632</u>	1) Rec'd by: <u>[Signature]</u> Print name: <u>[Name]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/5/22 4:32 PM</u>	2) Released by: <u>[Signature]</u> Print name: <u>[Name]</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/5/22 5:00 PM</u>	2) Rec'd by: <u>[Signature]</u> Print name: <u>[Name]</u> Company: <u>AR</u> Date/Time: <u>12/05/22 17:00</u>
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* Distribution: White copies accompany shipment; yellow retained by consignee.



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

To be completed by Laboratory upon sample receipt:

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

3 of 3

22L0105

CHAIN-OF-CUSTODY/TEST REQUEST FORM

No 3393

Project/Client Name: AOC4 U2 Phase 3
 Project Number: 180067-02-04
 Contact Name: Amara Vandervort
 Sampled By: Windward

Ship to: ARL
 Attn: Sue Dunnington Shipping Date: 12/5/22
 Shipper: Cowler Airbill Number: _____
 Form filled out by: AV/BQ Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Jar tag number(s)]
					PCB	PAH BBP	mercury	arsenic	DIF	Tox Total Solids	Archive	
12/5/22	11:22	LDW22-SC7B2F	3	sediment	X					X	X	
		LDW22-SC7B2G	3		X					X	X	
		LDW22-SC7B2H	3		X					X	X	
		LDW22-SC7B2I	3		X					X	X	
		LDW22-SC7B2J	3		X					X	X	
		LDW22-SC7B2K	3		X					X	X	
		LDW22-SC7B2L	3		X					X	X	
		LDW22-SC7B2M	3		X					X	X	
		LDW22-SC7B2N	3		X					X	X	
Total Number of Containers			27	Purchase Order / Statement of Work # <u>APJ-110222-AOC4-ARL</u>								

1) Released by: <u>Amara Vandervort</u> Print name: <u>Amara Vandervort</u> Signature: <u>[Signature]</u> Company: <u>Windward</u> Date/Time: <u>12/5/22 1632</u>	1) Rec'd by: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/5/22 4:32 PM</u>	2) Released by: <u>[Signature]</u> Print name: <u>YAREJ</u> Signature: <u>[Signature]</u> Company: <u>YA YA SAFETY</u> Date/Time: <u>12/5/22 5:00 PM</u>	2) Rec'd by: <u>Philip Dattos</u> Print name: <u>Philip Dattos</u> Signature: <u>[Signature]</u> Company: <u>AR</u> Date/Time: <u>12/05/22 17:00</u>
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* Distribution: White copies accompany shipment; yellow retained by consignor.



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

To be completed by Laboratory upon sample receipt:

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



Cooler Receipt Form

ARI Client: windward/Anchor QEA Project Name: AOC 4 UR Phase 3
 COC No(s): _____ NA Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
 Assigned ARI Job No: 22L0105 Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
 Were custody papers included with the cooler? YES NO
 Were custody papers properly filled out (ink, signed, etc.) YES NO
 Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)
 Time 17:00 3.1 5.1 1.0 6.0
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: J009708
 Cooler Accepted by: PIB Date: 12/05/22 Time: 17:00

Complete custody forms and attach all shipping documents

Log-In Phase:

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

Samples Logged by: [Signature] Date: 12/06/22 Time: 9:01 Labels checked by: PIB

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

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

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



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

Project: AOC4 UR Phase 3
Project Number: 180067-02.04
Project Manager: Ali Judkins

Reported:
01/03/2023 08:33

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
22L0105-01	LDW22-SC772	Solid	12/05/22 08:15	12/05/22 17:00
22L0105-02	LDW22-SC771	Solid	12/05/22 08:33	12/05/22 17:00
22L0105-03	LDW22-SC756	Solid	12/05/22 09:33	12/05/22 17:00
22L0105-04	LDW22-SC780	Solid	12/05/22 10:23	12/05/22 17:00
22L0105-05	LDW22-IT792	Solid	12/05/22 11:00	12/05/22 17:00
22L0105-06	LDW22-SC775A	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-07	LDW22-SC775B	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-08	LDW22-SC775C	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-09	LDW22-SC775D	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-10	LDW22-SC775E	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-11	LDW22-SC775F	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-12	LDW22-SC775G	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-13	LDW22-SC775H	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-14	LDW22-SC775I	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-15	LDW22-SC775J	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-16	LDW22-SC775K	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-17	LDW22-SC775L	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-18	LDW22-SC775M	Solid	12/05/22 09:37	12/05/22 17:00
22L0105-19	LDW22-IT796	Solid	12/05/22 11:25	12/05/22 17:00
22L0105-20	LDW22-IT798	Solid	12/05/22 11:43	12/05/22 17:00
22L0105-21	LDW22-SC782B	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-22	LDW22-SC782C	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-23	LDW22-SC782D	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-24	LDW22-SC782E	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-25	LDW22-SC782F	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-26	LDW22-SC782G	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-27	LDW22-SC782H	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-28	LDW22-SC782I	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-29	LDW22-SC782J	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-30	LDW22-SC782K	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-31	LDW22-SC782L	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-32	LDW22-SC782M	Solid	12/05/22 11:22	12/05/22 17:00
22L0105-33	LDW22-SC782N	Solid	12/05/22 11:22	12/05/22 17:00



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

Project: AOC4 UR Phase 3
Project Number: 180067-02.04
Project Manager: Ali Judkins

Reported:
03-Jan-2023 08:33

Case Narrative

Client: Anchor QEA, LLC
Project: AOC4 UR Phase 3
Work Order: 22L0105

Sample receipt

Samples as listed on the preceding page were received 05-Dec-2022 17:00 under ARI work order 22L0105. For details regarding sample receipt, please refer to the Cooler Receipt Form.

PCB Aroclors - EPA Method SW8082A

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits on the second column. Hexabromobiphenyl was low of control limits on the first column for several samples, attributed to matrix interference as the effect was consistent in the parent and MS/MSD for LDW22-SC782C.

The surrogate percent recoveries were within control limits.

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

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries were within limits. The relative percent differences (RPD) were high of control limits for batch BLK0158.

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

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

Several results have been "P1" flagged, indicating a greater than 40% difference between peak responses on the two analytical columns.

Samples diluted for results over the calibrated range of the instrument have both analyses reported.

Wet Chemistry (Total Organic Carbon and Total Solids)

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

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

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

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

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



QUALIFIERS AND NOTES

<u>Qualifier</u>	<u>Definition</u>
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
J	Estimated concentration value detected below the reporting limit.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
D	The reported value is from a dilution
*	Flagged value is not within established control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>22L0105</u>
Client: <u>Anchor QEA, LLC</u>	
Project: <u>AOC4 UR Phase 3</u>	
Matrix: <u>Solid</u>	Laboratory ID: <u>22L0105-01 A</u>
Sampled: <u>12/05/22 08:15</u>	Prepared: <u>12/07/22 13:40</u>
% Solids: <u>42.52</u>	Preparation: <u>EPA 3546 (Microwave)</u>
Batch: <u>BKL0157</u>	Sequence: <u>SKL0282</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>
	Column 2: <u>ZB35</u>
	File ID: <u>12192231ECD7.D</u>
	Analyzed: <u>12/20/22 01:11</u>
	Initial/Final: <u>29.47 g Wet / 2.5 mL</u>
	Calibration: <u>FL00010</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	12.2	1.6	4.0	
11097-69-1	Aroclor 1254	1	1	18.7	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	27.0	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9804	7.05	88.3	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9804	4.96	62.1	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192231ECD7.D
Data file 2: /221219.b/221219.b/12192231ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-01
Client ID:
Injection Date: 20-DEC-2022 01:11
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.004	184780	5.709	-0.005	112533	24.8	27.5	10.1	Tetrachloro-m-xylene
13.897	-0.011	165993	14.126	-0.011	155382	35.3	31.0	13.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	524957	17.3
Hexabromobiphenyl	798898	512816	-35.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	298865	20.0
Hexabromobiphenyl	362541	353552	-2.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.414	-0.014	16443	72.8	1	8.317	-0.009	11087	90.8	
Aroclor-1248	2	8.582	-0.022	13388	46.5	2	8.723	-0.010	8026	62.5	
Aroclor-1248	3	9.001	-0.022	33398	64.4	3	9.155	-0.022	13153	84.2	
Aroclor-1248	4	9.302	-0.009	40805	160.7	4	9.550	-0.053	24991	136.3	
Total CollAve (4 peaks):				86.1	Total Col2Ave (4 peaks):				93.5	RPD = 8	
Corrected Ave (3 peaks):				61.2	Corrected Ave (3 peaks):				79.2	RPD = 26	
Aroclor-1254	1	9.302	-0.019	40805	88.3	1	9.454	-0.013	25252	131.0	
Aroclor-1254	2	9.422	0.020	6227	34.6	2	9.971	-0.015	13198	85.2	
Aroclor-1254	3	9.678	-0.017	40519	138.8	3	10.120	-0.019	40932	122.9	
Aroclor-1254	4	9.803	-0.028	64631	113.6	4	10.368	-0.021	51765	150.1	
Aroclor-1254	5	10.131	-0.058	76412	195.9	5	10.568	-0.018	40545	243.8	
Total CollAve (5 peaks):				114.2	Total Col2Ave (5 peaks):				146.6	RPD = 25	
Corrected Ave (4 peaks):				93.8	Corrected Ave (4 peaks):				122.3	RPD = 26	
Aroclor-1260	1	11.046	-0.016	26831	143.7	1	11.657	-0.012	21673	116.1	
Aroclor-1260	2	11.360	-0.018	20471	106.0	2	11.918	-0.015	44072	94.1	
Aroclor-1260	3	11.730	-0.021	67635	133.3	3	12.436	-0.016	25575	205.1	
Aroclor-1260	4	12.132	-0.026	33034	127.9	4	12.501	-0.015	32808	105.1	
Aroclor-1260	5	12.246	-0.015	17553	166.0	NS	---			---	
Total CollAve (5 peaks):				135.4	Total Col2Ave (4 peaks):				130.1	RPD = 4	
Corrected Ave (4 peaks):				127.7	Corrected Ave (3 peaks):				105.1	RPD = 19	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 1413382 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 888961 Col2 Total PCB = 0.4 ppm*

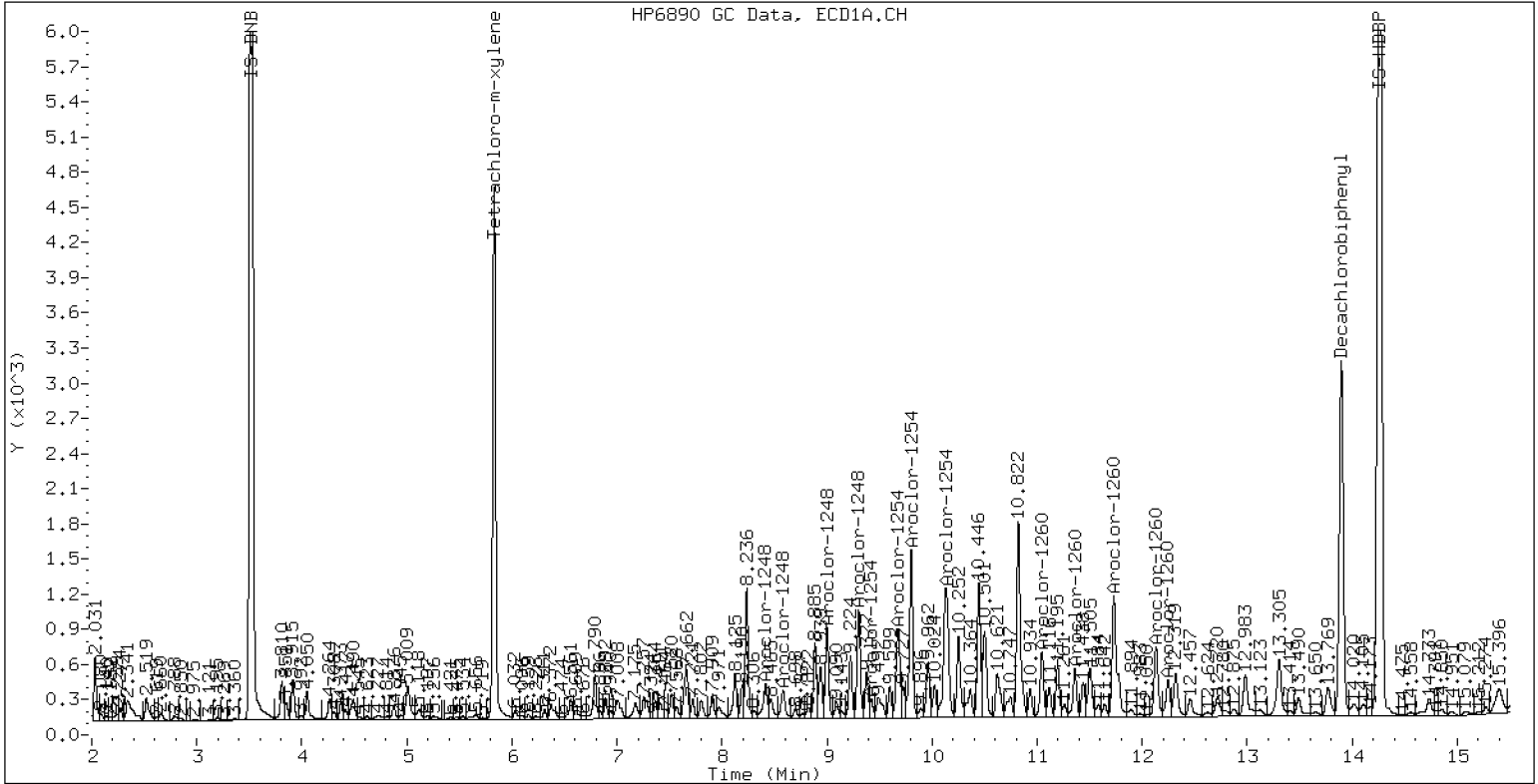
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-01

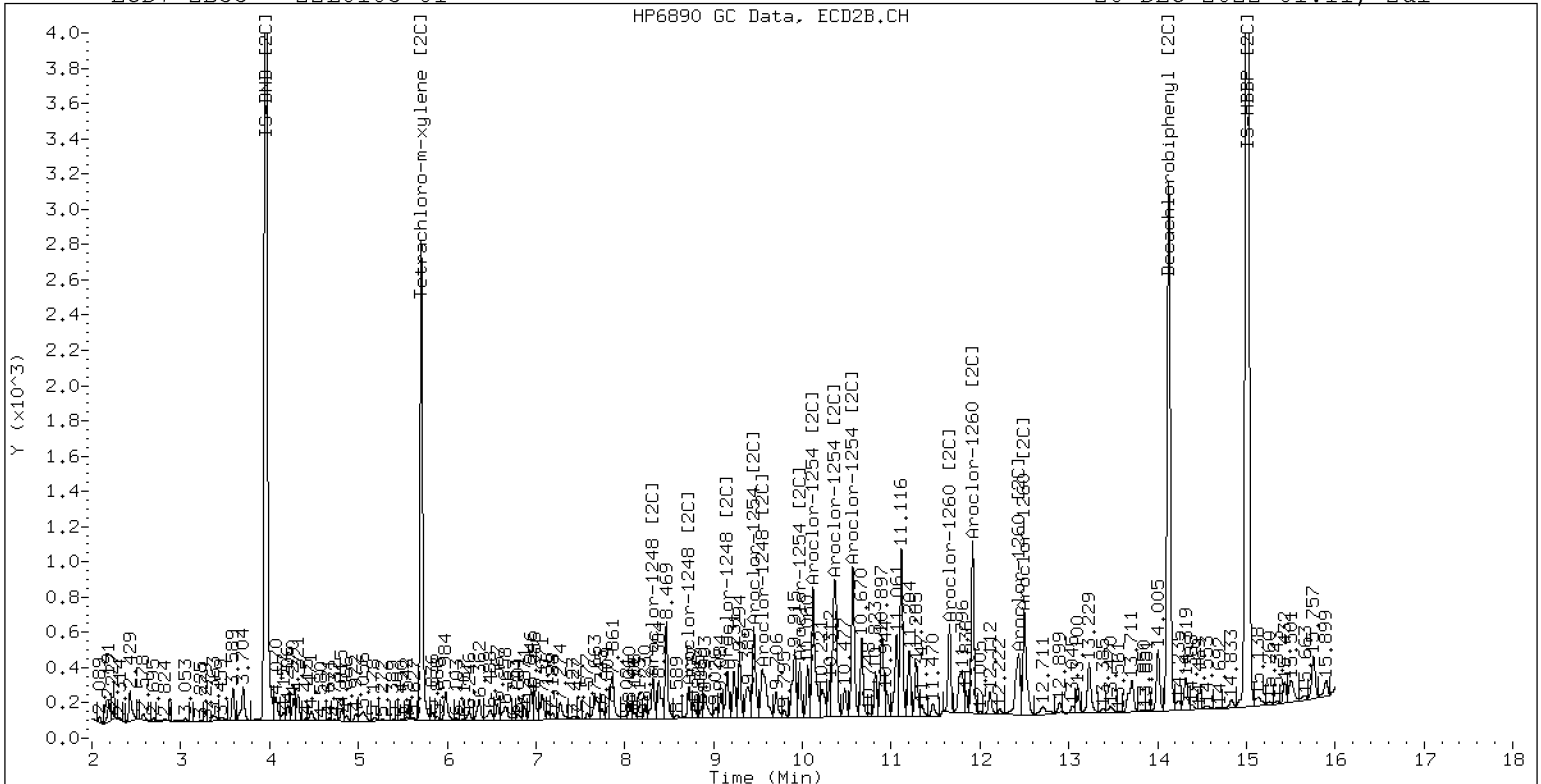
20-DEC-2022 01:11, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-01

20-DEC-2022 01:11, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192232ECD7.D
Data file 2: /221219.b/221219.b/12192232ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-02
Client ID:
Injection Date: 20-DEC-2022 01:32
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.830	-0.006	200821	5.707	-0.006	125868	28.2	31.8	11.9	Tetrachloro-m-xylene
13.897	-0.011	172075	14.128	-0.009	168261	40.4	36.2	11.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	502091	12.2
Hexabromobiphenyl	798898	464113	-41.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	288818	15.9
Hexabromobiphenyl	362541	327605	-9.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.413	-0.014	25422	117.8	1	8.316	-0.010	18562	157.3	
Aroclor-1248	2	8.580	-0.024	20269	73.5	2	8.722	-0.011	12550	101.1	
Aroclor-1248	3	9.001	-0.021	81538	164.4	3	9.154	-0.023	17876	118.4	
Aroclor-1248	4	9.302	-0.010	107860	444.0	4	9.631	0.029	4493	25.4	
Total CollAve (4 peaks):				199.9	Total Col2Ave (4 peaks):				100.6	RPD = 66*	
Corrected Ave (3 peaks):				118.6	Corrected Ave (3 peaks):				81.6	RPD = 37	
Aroclor-1254	1	9.302	-0.019	107860	244.0	1	9.453	-0.014	65698	352.8	
Aroclor-1254	2	9.422	0.020	6080	35.4	2	9.971	-0.016	25718	171.8	
Aroclor-1254	3	9.673	-0.022	69473	248.8	3	10.120	-0.020	132507	411.8	
Aroclor-1254	4	9.801	-0.029	175179	321.9	4	10.373	-0.016	185129	555.5	
Aroclor-1254	5	10.253	0.063	72831	195.2	5	10.568	-0.018	176023	1095.1	
Total CollAve (5 peaks):				209.0	Total Col2Ave (5 peaks):				517.4	RPD = 85*	
Corrected Ave (4 peaks):				180.8	Corrected Ave (4 peaks):				373.0	RPD = 69*	
Aroclor-1260	1	11.047	-0.015	139206	824.0	1	11.657	-0.012	110714	640.2	
Aroclor-1260	2	11.361	-0.016	122808	702.9	2	11.918	-0.015	285304	657.5	
Aroclor-1260	3	11.731	-0.021	343819	748.9	3	12.438	-0.014	88602	766.8	
Aroclor-1260	4	12.132	-0.027	189042	808.6	4	12.501	-0.016	188887	653.0	
Aroclor-1260	5	12.246	-0.015	74626	779.7	NS	---			---	
Total CollAve (5 peaks):				772.8	Total Col2Ave (4 peaks):				679.4	RPD = 13	
Corrected Ave (4 peaks):				760.0	Corrected Ave (3 peaks):				650.2	RPD = 16	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 3928018 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2773395 Col2 Total PCB = 1.3 ppm*

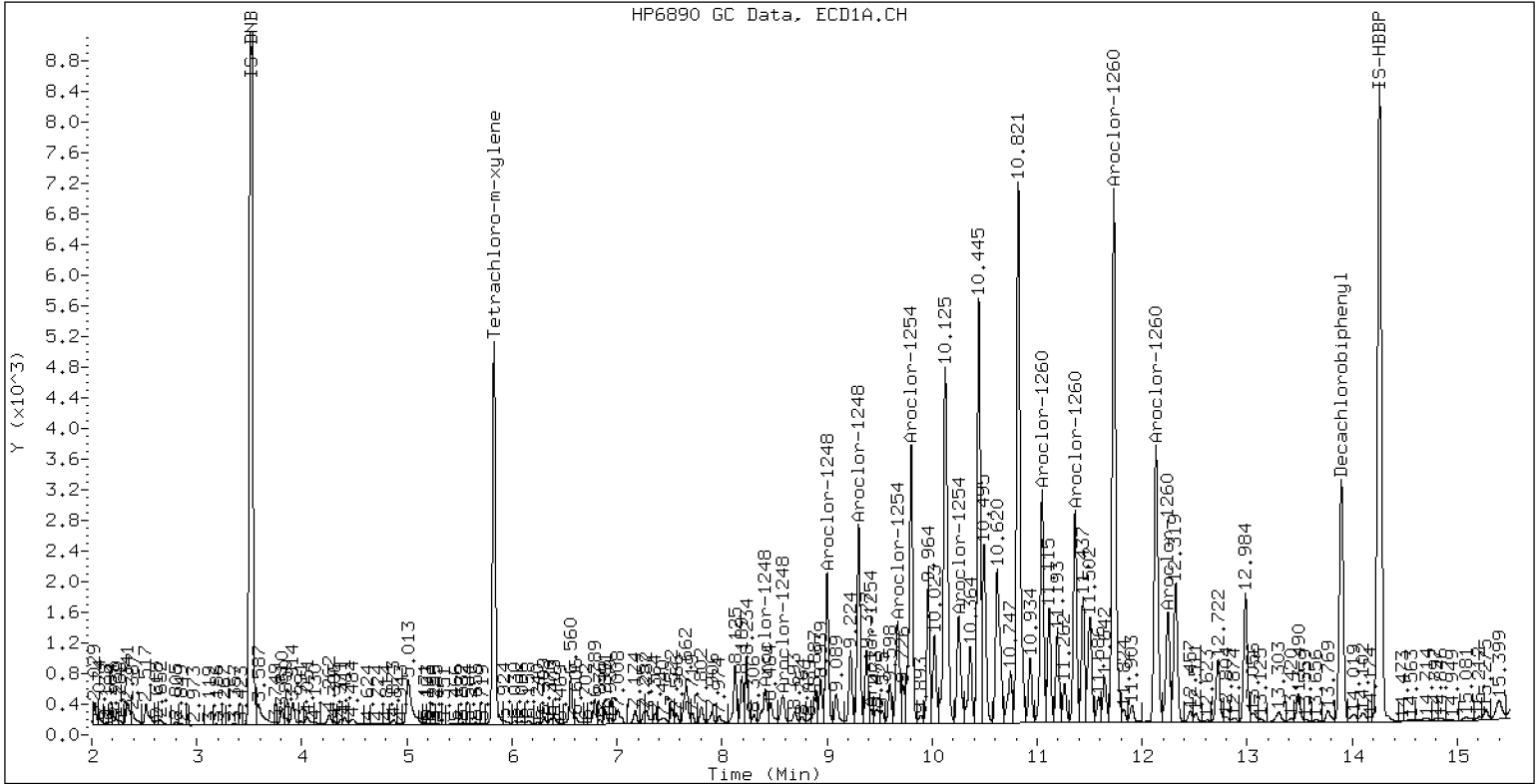
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-02

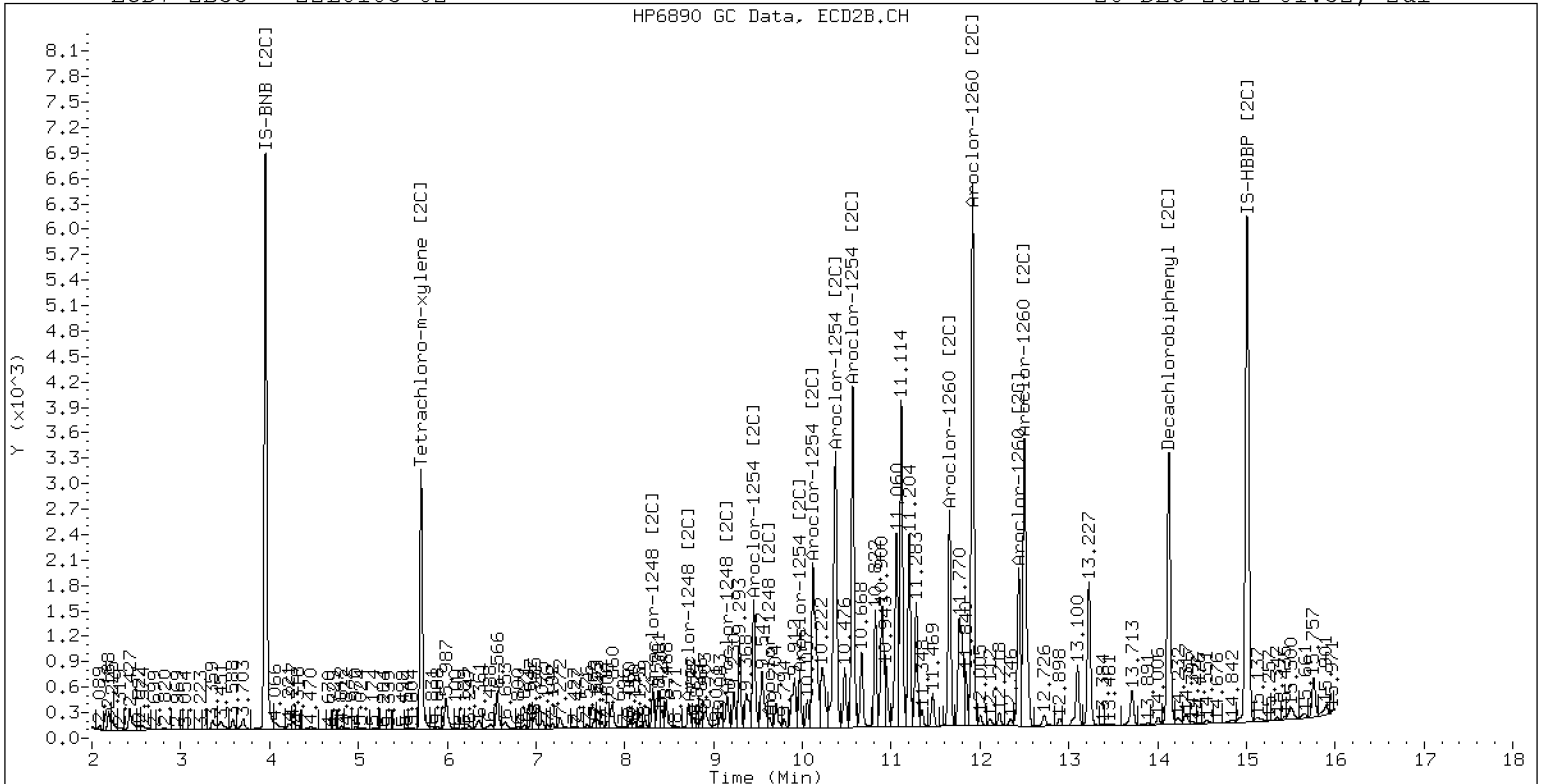
20-DEC-2022 01:32, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-02

20-DEC-2022 01:32, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192233ECD7.D
Data file 2: /221219.b/221219.b/12192233ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-03
Client ID:
Injection Date: 20-DEC-2022 01:53
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.004	192786	5.709	-0.005	119279	27.8	31.0	10.7	Tetrachloro-m-xylene
13.897	-0.010	162213	14.127	-0.010	163444	39.7	36.5	8.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	488730	9.2
Hexabromobiphenyl	798898	446149	-44.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	280951	12.8
Hexabromobiphenyl	362541	315462	-13.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.413	-0.014	41548	197.7	1	8.317	-0.010	30729	267.7	
Aroclor-1248	2	8.582	-0.023	30877	115.1	2	8.722	-0.010	23945	198.4	
Aroclor-1248	3	9.000	-0.022	101868	211.1	3	9.154	-0.024	31685	215.8	
Aroclor-1248	4	9.301	-0.010	110560	467.6	4	9.630	0.028	4391	25.5	
Total CollAve (4 peaks):				247.9	Total Col2Ave (4 peaks):				176.8	RPD = 33	
Corrected Ave (3 peaks):				174.6	Corrected Ave (3 peaks):				146.5	RPD = 17	
Aroclor-1254	1	9.301	-0.020	110560	256.9	1	9.452	-0.015	61497	339.5	
Aroclor-1254	2	9.377	-0.025	49140	293.6	2	9.971	-0.016	31528	216.5	
Aroclor-1254	3	9.670	-0.025	71373	262.6	3	10.119	-0.020	113145	361.4	
Aroclor-1254	4	9.801	-0.030	151387	285.8	4	10.369	-0.020	134960	416.3	
Aroclor-1254	5	10.129	-0.060	189935	523.0	5	10.568	-0.018	99224	634.6	
Total CollAve (5 peaks):				324.4	Total Col2Ave (5 peaks):				393.7	RPD = 19	
Corrected Ave (4 peaks):				274.7	Corrected Ave (4 peaks):				333.4	RPD = 19	
Aroclor-1260	1	11.047	-0.016	67106	413.2	1	11.657	-0.012	59682	358.4	
Aroclor-1260	2	11.362	-0.015	56350	335.5	2	11.918	-0.015	131716	315.2	
Aroclor-1260	3	11.731	-0.020	161224	365.3	3	12.437	-0.014	47302	425.1	
Aroclor-1260	4	12.131	-0.027	87511	389.4	4	12.502	-0.015	94441	339.1	
Aroclor-1260	5	12.246	-0.015	41603	452.2	NS	---			----	
Total CollAve (5 peaks):				391.1	Total Col2Ave (4 peaks):				359.5	RPD = 8	
Corrected Ave (4 peaks):				375.8	Corrected Ave (3 peaks):				337.6	RPD = 11	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 2832306 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1946888 Col2 Total PCB = 1.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



Dual Column

LDW22-SC780

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>22L0105</u>	
Client: <u>Anchor QEA, LLC</u>		
Project: <u>AOC4 UR Phase 3</u>		
Matrix: <u>Solid</u>	Laboratory ID: <u>22L0105-04 A</u>	File ID: <u>12192234ECD7.D</u>
Sampled: <u>12/05/22 10:23</u>	Prepared: <u>12/07/22 13:40</u>	Analyzed: <u>12/20/22 02:15</u>
% Solids: <u>69.61</u>	Preparation: <u>EPA 3546 (Microwave)</u>	Initial/Final: <u>17.96 g Wet / 2.5 mL</u>
Batch: <u>BKL0157</u>	Sequence: <u>SKL0282</u>	Calibration: <u>FL00010</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	72.8	1.6	4.0	
11097-69-1	Aroclor 1254	1	1	99.8	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	137	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9987	8.14	102	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9987	5.10	63.8	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192234ECD7.D
Data file 2: /221219.b/221219.b/12192234ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-04
Client ID:
Injection Date: 20-DEC-2022 02:15
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.830	-0.006	187431	5.708	-0.006	118924	25.5	29.3	13.9	Tetrachloro-m-xylene
13.896	-0.011	160997	14.127	-0.010	168420	40.7	37.9	7.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	518524	15.8
Hexabromobiphenyl	798898	431386	-46.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	295953	18.8
Hexabromobiphenyl	362541	312650	-13.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.413	-0.015	81717	366.5	1	8.316	-0.010	59504	492.2	
Aroclor-1248	2	8.581	-0.023	81212	285.3	2	8.721	-0.012	61193	481.2	
Aroclor-1248	3	8.998	-0.025	224833	439.1	3	9.153	-0.025	85933	555.6	
Aroclor-1248	4	9.301	-0.010	223652	891.5	4	9.631	0.028	11498	63.3	
Total CollAve (4 peaks):				495.6	Total Col2Ave (4 peaks):				398.1	RPD = 22	
Corrected Ave (3 peaks):				363.6	Corrected Ave (3 peaks):				345.6	RPD = 5	
Aroclor-1254	1	9.301	-0.020	223652	489.9	1	9.452	-0.014	136077	713.1	
Aroclor-1254	2	9.420	0.019	9257	52.1	2	9.971	-0.016	69430	452.6	
Aroclor-1254	3	9.669	-0.026	139824	484.9	3	10.119	-0.020	235826	715.2	
Aroclor-1254	4	9.800	-0.030	293563	522.3	4	10.365	-0.024	297942	872.4	
Aroclor-1254	5	10.134	-0.056	417746	1084.2	5	10.568	-0.018	209199	1270.1	
Total CollAve (5 peaks):				526.7	Total Col2Ave (5 peaks):				804.7	RPD = 42*	
Corrected Ave (4 peaks):				387.3	Corrected Ave (4 peaks):				688.3	RPD = 56*	
Aroclor-1260	1	11.046	-0.016	117737	749.8	1	11.657	-0.013	123020	745.4	
Aroclor-1260	2	11.361	-0.016	106243	654.2	2	11.917	-0.015	250397	604.6	
Aroclor-1260	3	11.731	-0.021	289161	677.6	3	12.438	-0.014	70242	637.0	
Aroclor-1260	4	12.130	-0.028	165672	762.4	4	12.500	-0.016	164155	594.6	
Aroclor-1260	5	12.245	-0.016	58767	660.6	NS	---			---	
Total CollAve (5 peaks):				700.9	Total Col2Ave (4 peaks):				645.4	RPD = 8	
Corrected Ave (4 peaks):				685.6	Corrected Ave (3 peaks):				612.1	RPD = 11	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 10862606 Col1 Total PCB = 1.8 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 6614166 Col2 Total PCB = 3.1 ppm*

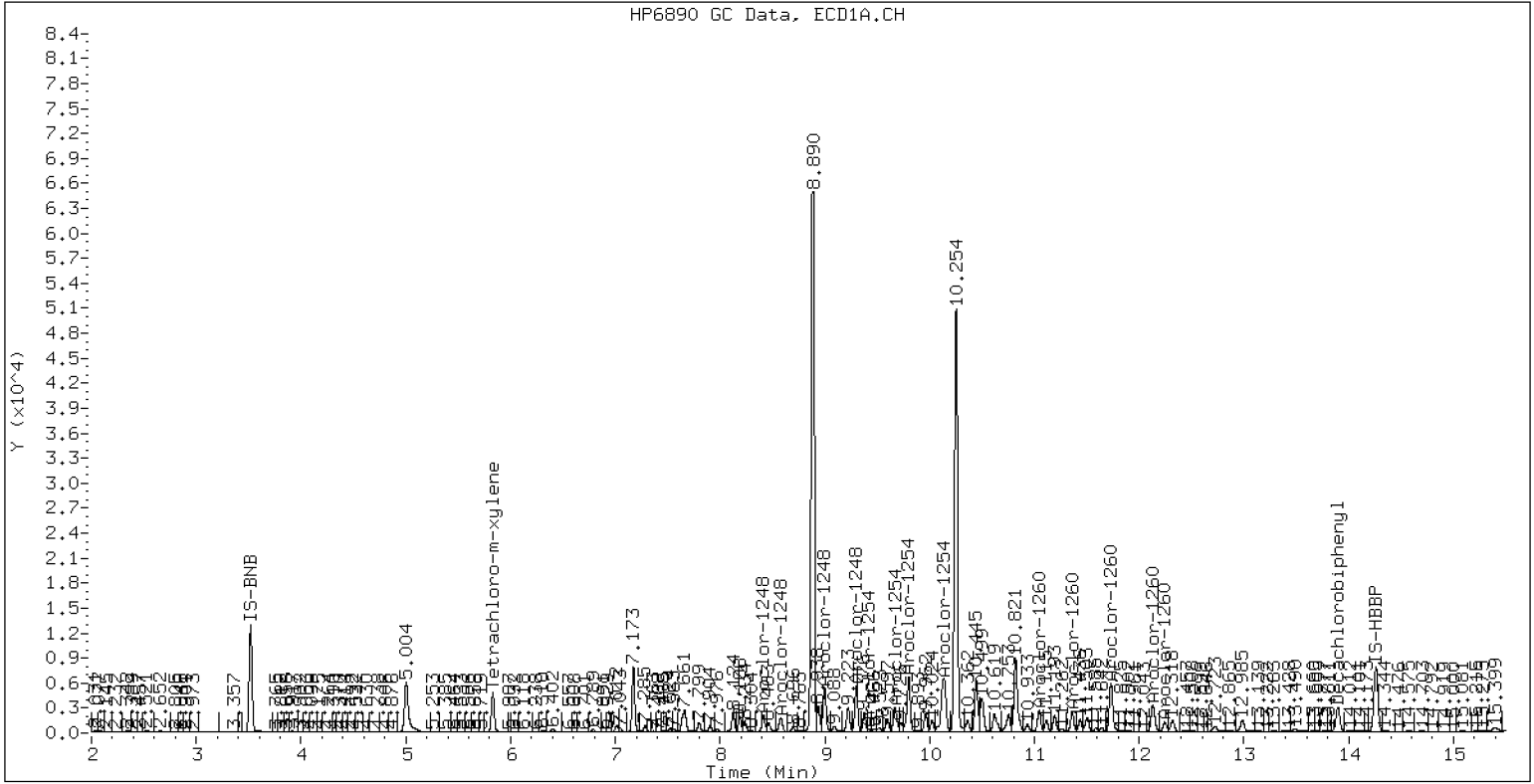
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-04

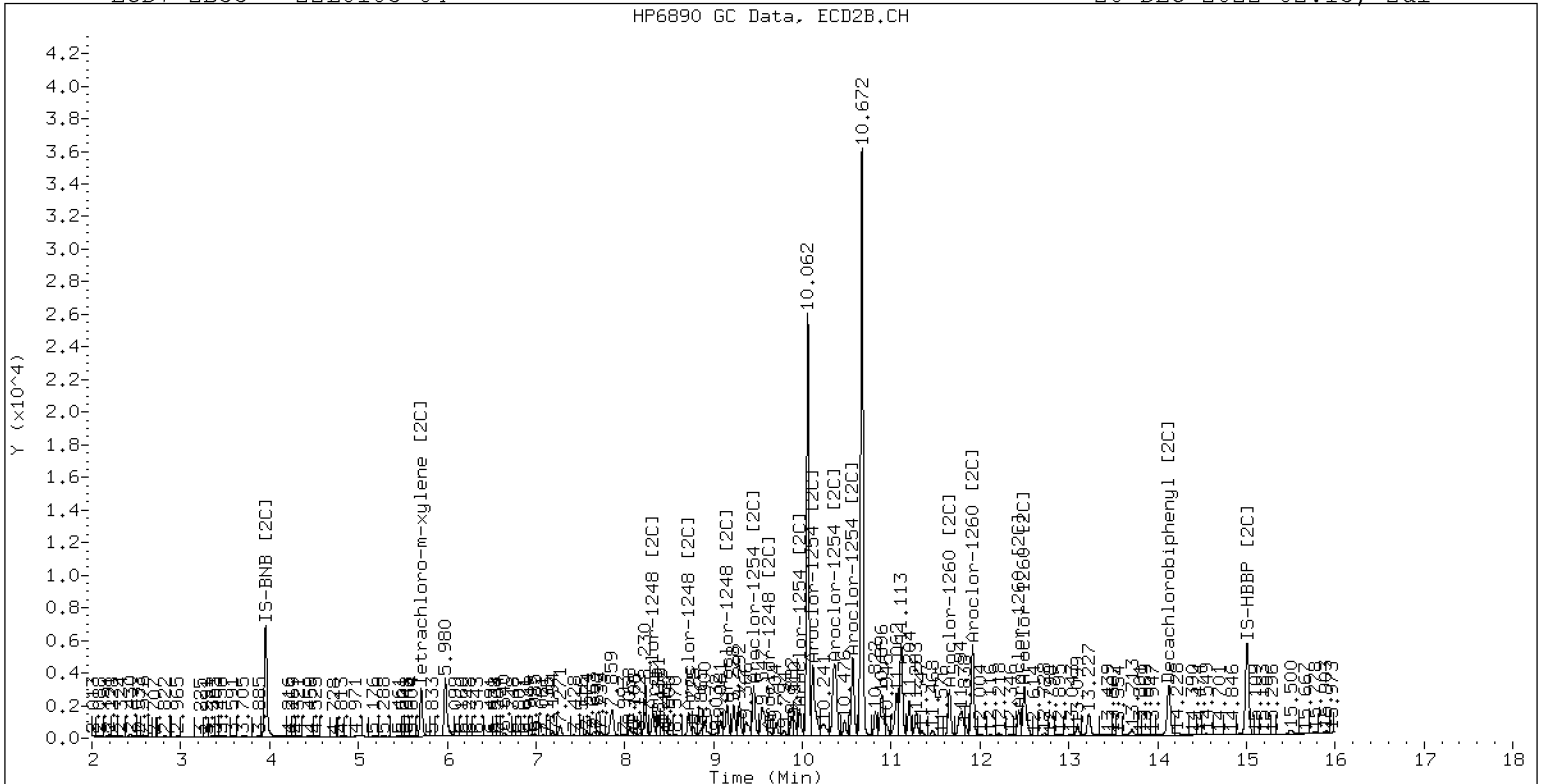
20-DEC-2022 02:15, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-04

20-DEC-2022 02:15, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192235ECD7.D
Data file 2: /221219.b/221219.b/12192235ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-05
Client ID:
Injection Date: 20-DEC-2022 02:36
Report Date: 12/21/2022 10:57
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	-0.003	215619	5.710	-0.003	131512	29.9	31.6	5.4	Tetrachloro-m-xylene
13.898	-0.009	203283	14.127	-0.010	180893	39.0	36.3	7.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	508790	13.7
Hexabromobiphenyl	798898	568076	-28.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	303858	22.0
Hexabromobiphenyl	362541	350867	-3.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	---			0.0	1	---			0.0	
Aroclor-1248	2	---			0.0	2	---			0.0	
Aroclor-1248	3	---			0.0	3	---			0.0	
Aroclor-1248	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1254	1	9.305	-0.017	23257	51.9	1	9.455	-0.012	9789	50.0	
Aroclor-1254	2	9.380	-0.022	13449	77.2	2	9.974	-0.012	5694	36.2	
Aroclor-1254	3	9.672	-0.022	13276	46.9	3	10.122	-0.017	20186	59.6	
Aroclor-1254	4	9.805	-0.026	38142	69.2	4	10.369	-0.020	27457	78.3	
Aroclor-1254	5	10.147	-0.042	41202	109.0	5	10.573	-0.014	11165	66.0	
Total CollAve (5 peaks):				70.8		Total Col2Ave (5 peaks):				58.0	RPD = 20
Corrected Ave (4 peaks):				61.3		Corrected Ave (4 peaks):				52.9	RPD = 15
Aroclor-1260	1	11.043	-0.020	6416	31.0	1	11.661	-0.008	9582	51.7	
Aroclor-1260	2	11.364	-0.013	6869	32.1	2	11.921	-0.012	12716	27.4	
Aroclor-1260	3	11.734	-0.018	14381	25.6	3	12.438	-0.014	6019	48.6	
Aroclor-1260	4	12.135	-0.023	11760	41.1	4	12.503	-0.014	9196	29.7	
Aroclor-1260	5	12.247	-0.014	2934	25.0	NS	---			----	
Total CollAve (5 peaks):				31.0		Total Col2Ave (4 peaks):				39.4	RPD = 24
Corrected Ave (4 peaks):				28.4		Corrected Ave (3 peaks):				35.2	RPD = 21
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.936 - 13.808) = 724452 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 384108 Col2 Total PCB = 0.2 ppm*

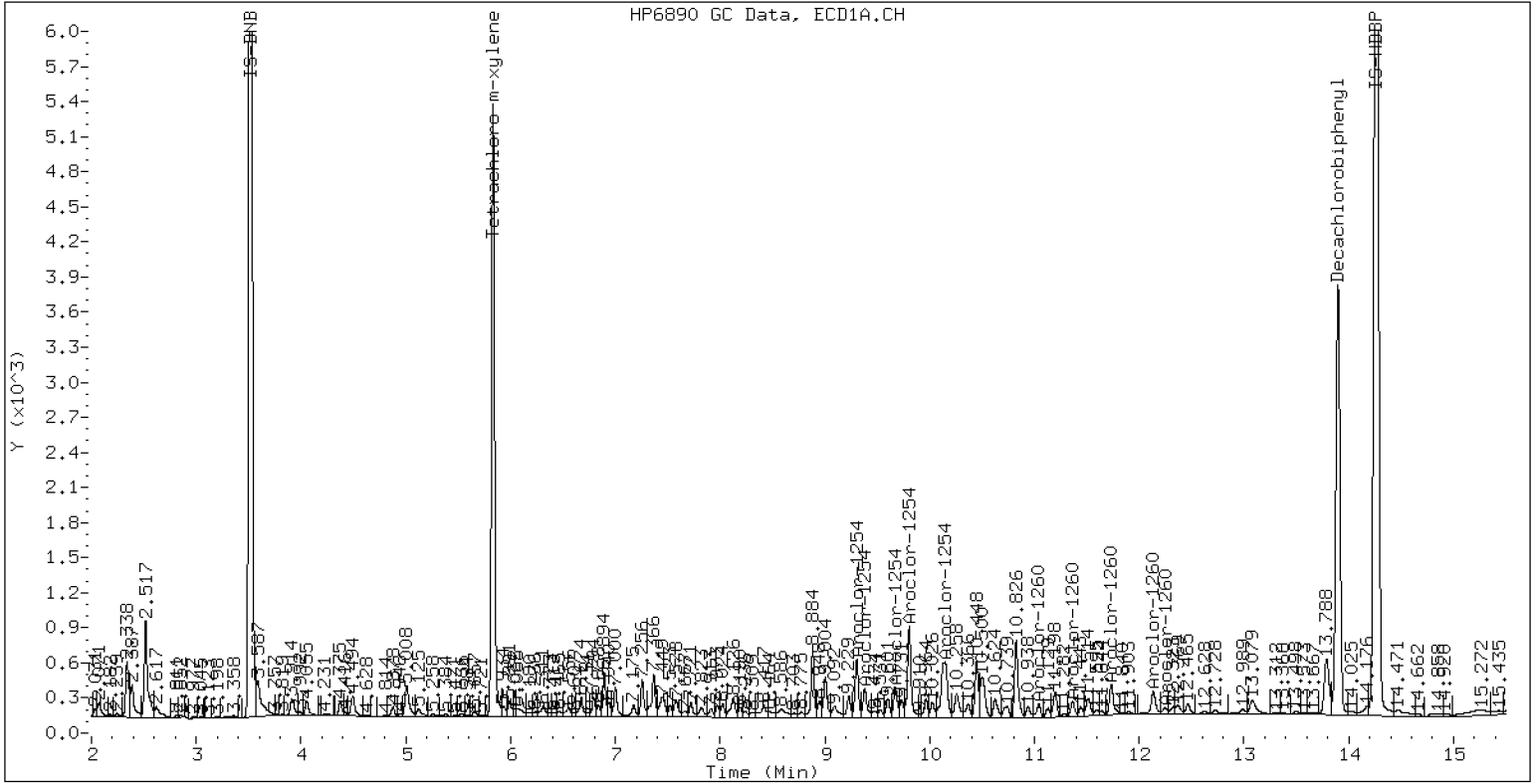
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-05

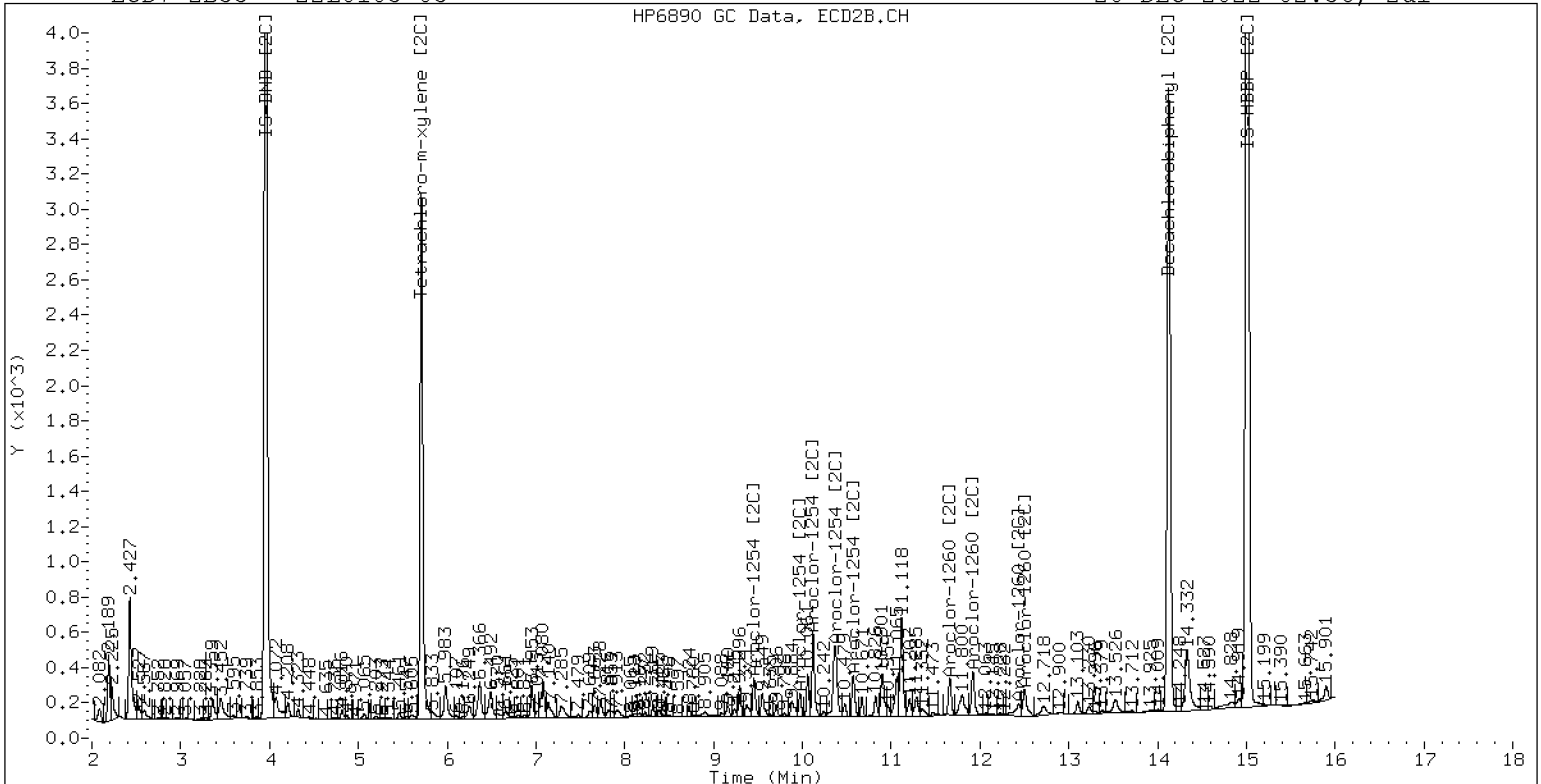
20-DEC-2022 02:36, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-05

20-DEC-2022 02:36, 2ul



ZB-35 Manual Integration: NO



Dual Column

LDW22-SC775A

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>22L0105</u>	
Client: <u>Anchor QEA, LLC</u>		
Project: <u>AOC4 UR Phase 3</u>		
Matrix: <u>Solid</u>	Laboratory ID: <u>22L0105-06 A</u>	File ID: <u>12192236ECD7.D</u>
Sampled: <u>12/05/22 09:37</u>	Prepared: <u>12/07/22 13:40</u>	Analyzed: <u>12/20/22 02:57</u>
% Solids: <u>.58.14</u>	Preparation: <u>EPA 3546 (Microwave)</u>	Initial/Final: <u>21.52 g Wet / 2.5 mL</u>
Batch: <u>BKL0157</u>	Sequence: <u>SKL0282</u>	Calibration: <u>FL00010</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	11.9	1.6	4.0	
11097-69-1	Aroclor 1254	1	1	10.7	1.6	4.0	P1
11096-82-5	Aroclor 1260	1	1	15.6	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9925	8.04	101	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9925	6.20	77.6	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192236ECD7.D
Data file 2: /221219.b/221219.b/12192236ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-06
Client ID:
Injection Date: 20-DEC-2022 02:57
Report Date: 12/21/2022 10:59
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.830	-0.006	227330	5.707	-0.006	139441	31.0	34.2	9.8	Tetrachloro-m-xylene
13.897	-0.010	187676	14.127	-0.010	176751	40.2	36.2	10.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	516698	15.4
Hexabromobiphenyl	798898	508767	-36.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	297045	19.3
Hexabromobiphenyl	362541	344291	-5.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.410	-0.017	15338	69.0	1	8.314	-0.012	7867	64.8	
Aroclor-1248	2	8.582	-0.022	12224	43.1	2	8.717	-0.015	9822	77.0	
Aroclor-1248	3	9.002	-0.020	33807	66.3	3	9.154	-0.024	7245	46.7	
Aroclor-1248	4	9.301	-0.010	22654	90.6	4	9.578	-0.024	12294	67.5	
Total CollAve (4 peaks):				67.3	Total Col2Ave (4 peaks):				64.0	RPD = 5	
Corrected Ave (3 peaks):				59.5	Corrected Ave (3 peaks):				59.7	RPD = 0	
Aroclor-1254	1	9.301	-0.020	22654	49.8	1	9.454	-0.013	18791	98.1	
Aroclor-1254	2	9.422	0.020	3367	19.0	2	9.977	-0.009	16736	108.7	
Aroclor-1254	3	9.680	-0.014	22805	79.4	3	10.090	-0.049	4714957	14245.8	
Aroclor-1254	4	9.803	-0.028	37072	66.2	4	10.370	-0.019	32159	93.8	
Aroclor-1254	5	10.130	-0.060	42729	111.3	5	10.569	-0.017	25715	155.5	
Total CollAve (5 peaks):				65.1	Total Col2Ave (5 peaks):				2940.4	RPD = 191*	
Corrected Ave (4 peaks):				53.6	Corrected Ave (4 peaks):				114.0	RPD = 72*	
Aroclor-1260	1	11.047	-0.015	19181	103.6	1	11.658	-0.011	11055	60.8	
Aroclor-1260	2	11.359	-0.018	13150	68.7	2	11.919	-0.014	25863	56.7	
Aroclor-1260	3	11.732	-0.020	40861	81.2	3	12.435	-0.017	16593	136.6	
Aroclor-1260	4	12.132	-0.026	18051	70.4	4	12.502	-0.014	19960	65.7	
Aroclor-1260	5	12.247	-0.015	9638	91.9	NS	---			----	
Total CollAve (5 peaks):				83.1	Total Col2Ave (4 peaks):				80.0	RPD = 4	
Corrected Ave (4 peaks):				78.0	Corrected Ave (3 peaks):				61.1	RPD = 24	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 10260422 Col1 Total PCB = 1.7 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 7608955 Col2 Total PCB = 3.6 ppm*

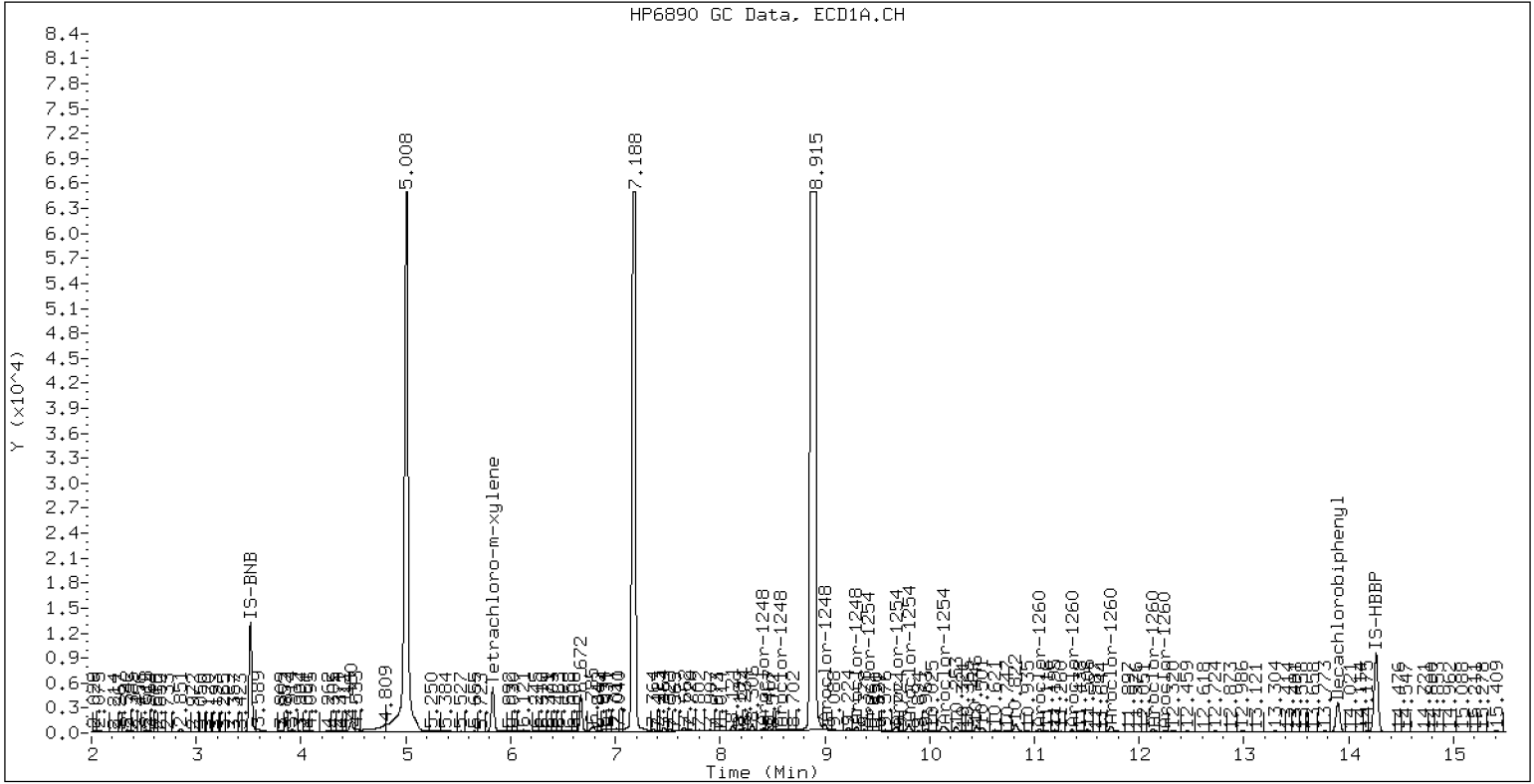
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-06

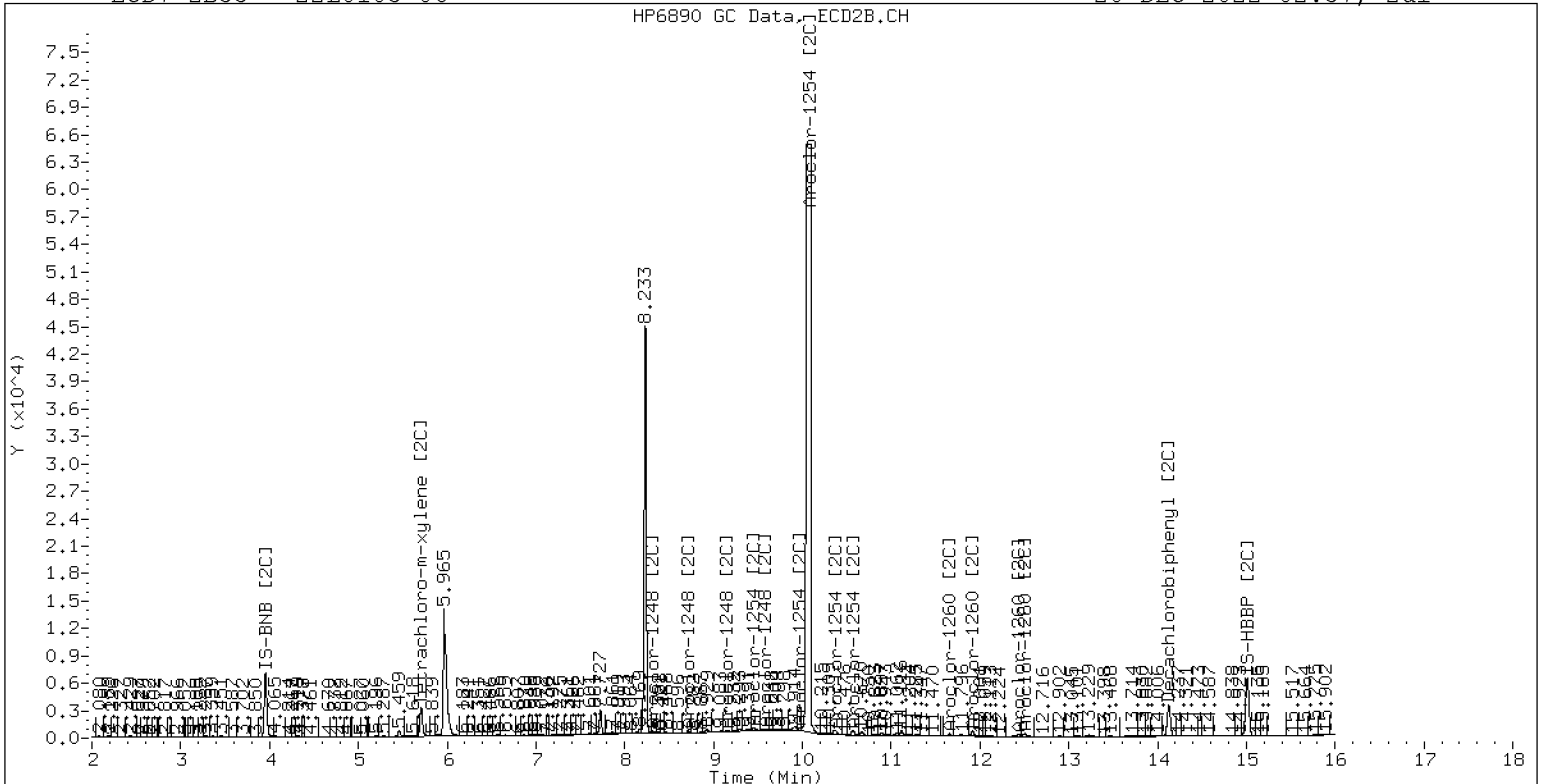
20-DEC-2022 02:57, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 22L0105-06

20-DEC-2022 02:57, 2ul



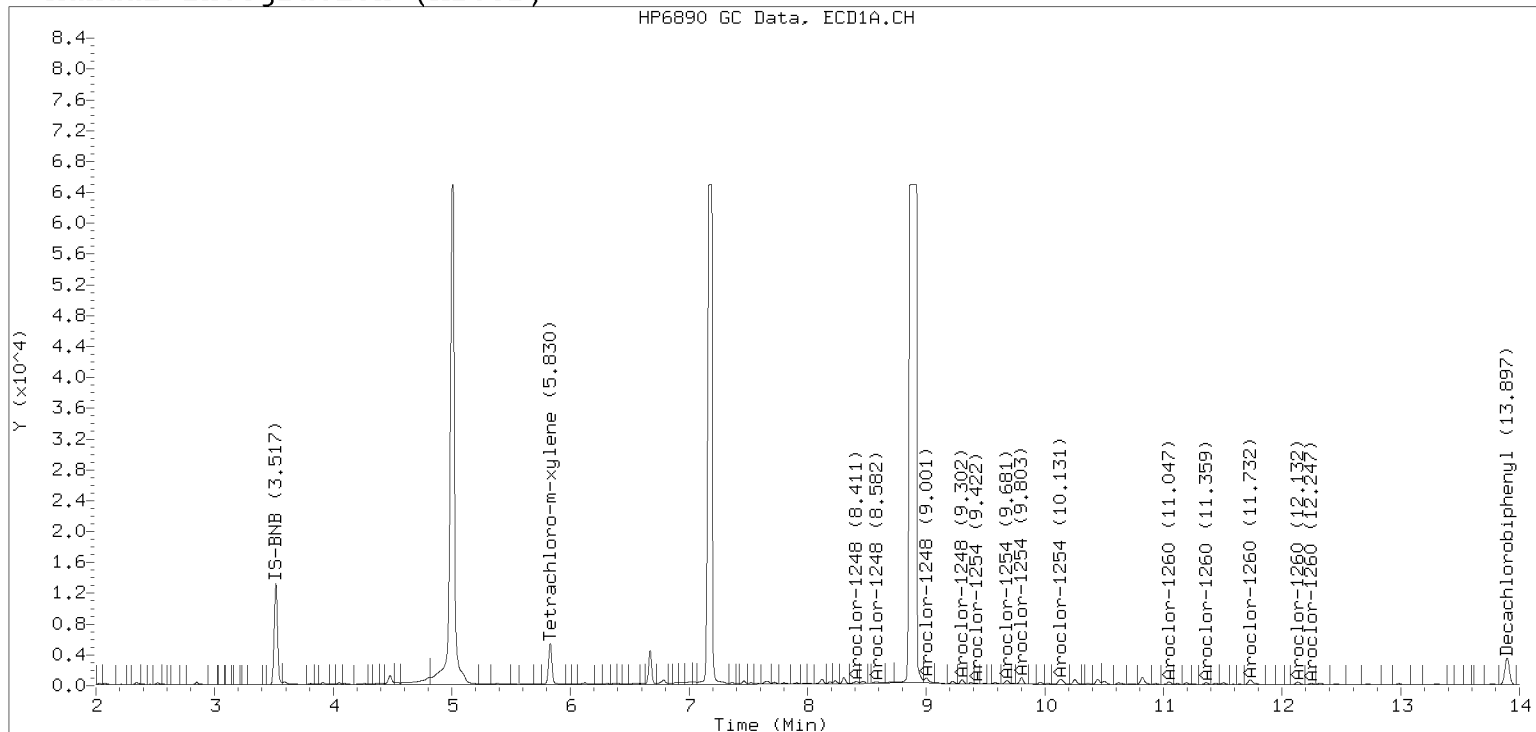
ZB-35 Manual Integration: YES

Manual Peak Adjustment, ZB-5

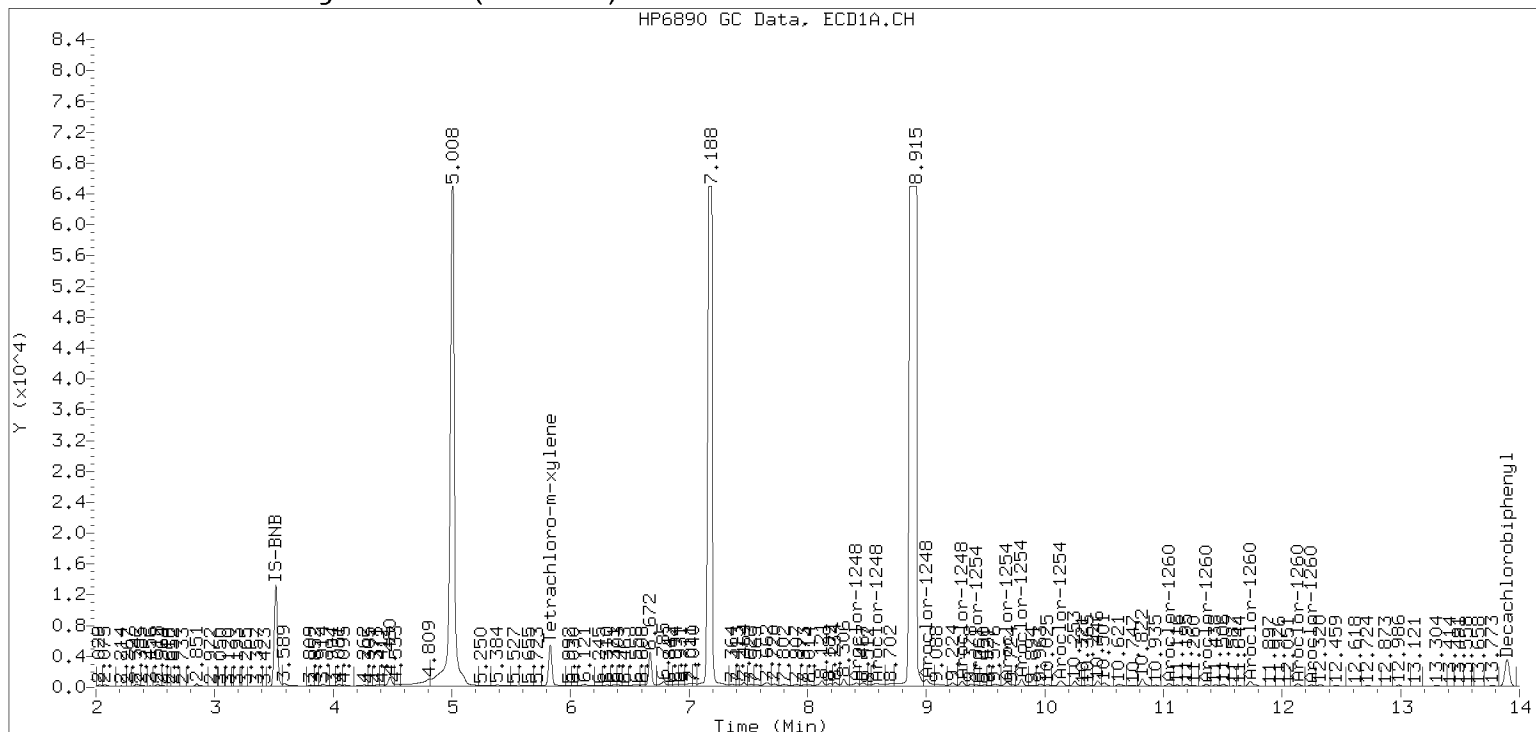
Datafile: ecd7.i/221219.b/12192236ECD7.D

Injection Date: 20-DEC-2022 02:57

Manual Integration (After)



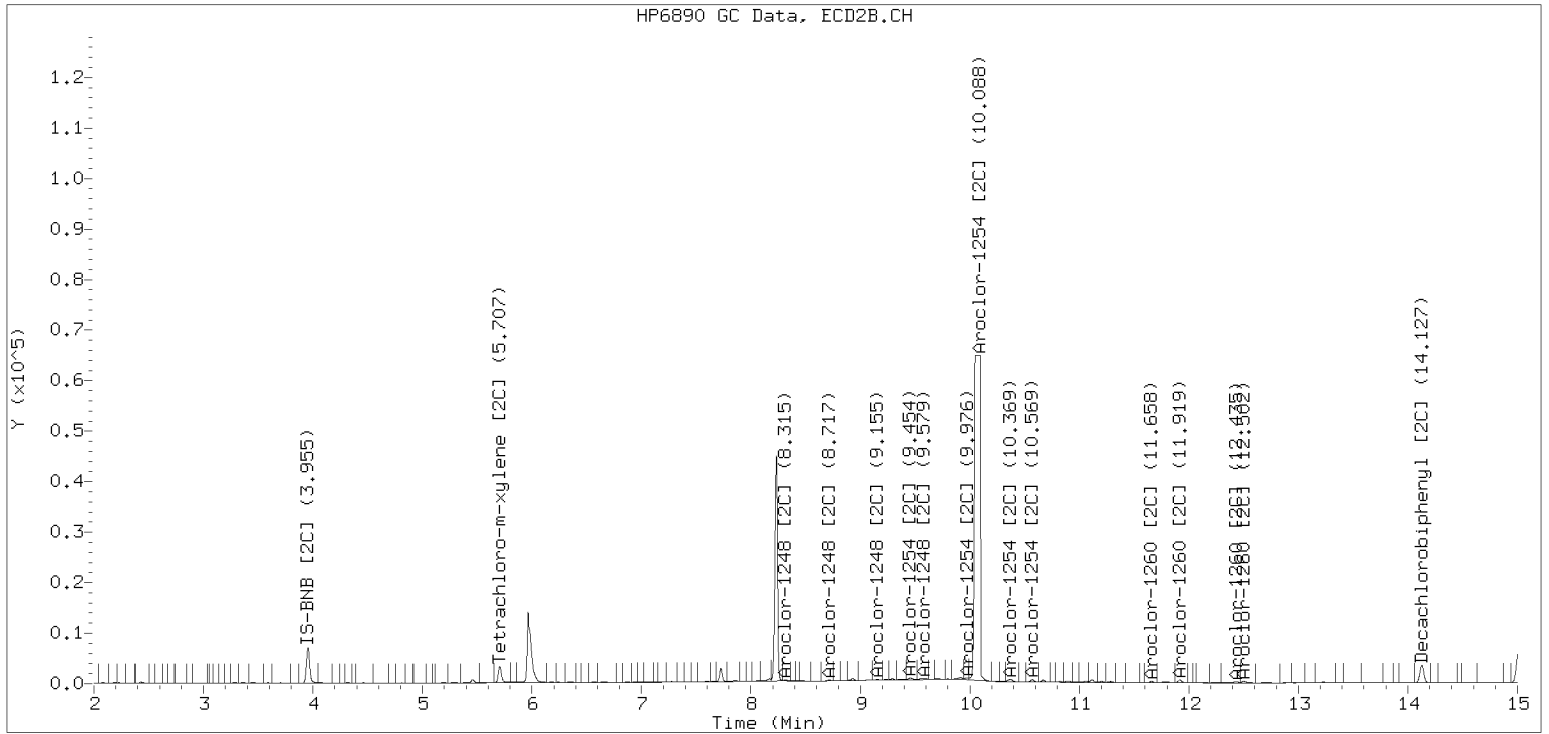
Processed Integration (Before)



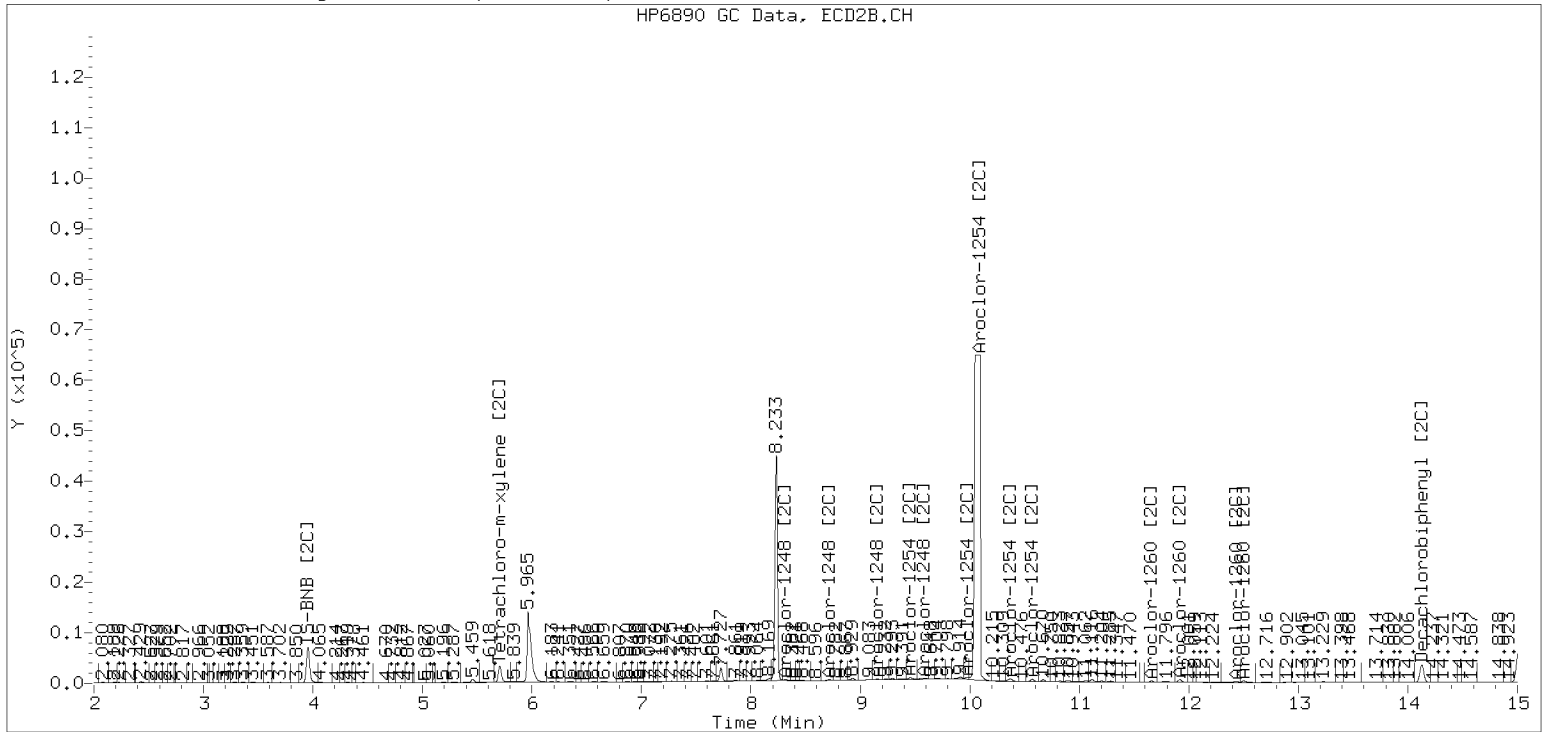
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/221219.b/221219.b/12192236ECD7.D Injection Date: 20-DEC-2022

Manual Integration (After)



Processed Integration (Before)





ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: Analytical Resources, LLC SDG: 22L0105
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Solid Laboratory ID: 22L0105-07 A File ID: 12192237ECD7.D
 Sampled: 12/05/22 09:37 Prepared: 12/07/22 13:40 Analyzed: 12/20/22 03:18
 % Solids: 53.50 Preparation: EPA 3546 (Microwave) Initial/Final: 23.39 g Wet / 2.5 mL
 Batch: BKL0157 Sequence: SKL0282 Calibration: FL00010
 Instrument: ECD7 Column 1: ZB5 Column 2: ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	20.0	1.6	4.0	
11097-69-1	Aroclor 1254	1	1	21.8	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	21.2	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9913	9.48	119	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9913	6.87	85.9	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192237ECD7.D
 Data file 2: /221219.b/221219.b/12192237ECD7.D
 Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
 Compound Sublist: PCB.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 22L0105-07
 Client ID:
 Injection Date: 20-DEC-2022 03:18
 Report Date: 12/21/2022 10:23
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.828	-0.008	195655	5.705	-0.008	122890	34.4	38.6	11.7	Tetrachloro-m-xylene
13.896	-0.012	167674	14.127	-0.010	163664	47.5	42.4	11.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	401714	-10.3
Hexabromobiphenyl	798898	385428	-51.8 <-

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	232086	-6.8
Hexabromobiphenyl	362541	271628	-25.1

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.411	-0.016	20961	121.4	1	8.315	-0.011	16641	175.5	
Aroclor-1248	2	8.580	-0.025	18178	82.4	2	8.720	-0.013	13383	134.2	
Aroclor-1248	3	8.999	-0.023	37654	94.9	3	9.152	-0.025	13809	113.8	
Aroclor-1248	4	9.300	-0.011	38946	200.4	4	9.547	-0.056	25131	176.5	
Total CollAve (4 peaks):				124.8	Total Col2Ave (4 peaks):				150.0	RPD = 18	
Corrected Ave (3 peaks):				99.6	Corrected Ave (3 peaks):				141.2	RPD = 35	
Aroclor-1254	1	9.300	-0.021	38946	110.1	1	9.452	-0.015	23801	159.1	
Aroclor-1254	2	9.421	0.019	6082	44.2	2	9.970	-0.017	10975	91.2	
Aroclor-1254	3	9.677	-0.018	34221	153.2	3	10.118	-0.021	37570	145.3	
Aroclor-1254	4	9.801	-0.030	56135	128.9	4	10.367	-0.022	45462	169.8	
Aroclor-1254	5	10.131	-0.058	66994	224.4	5	10.567	-0.019	34167	264.5	
Total CollAve (5 peaks):				132.2	Total Col2Ave (5 peaks):				166.0	RPD = 23	
Corrected Ave (4 peaks):				109.1	Corrected Ave (4 peaks):				141.3	RPD = 26	
Aroclor-1260	1	11.044	-0.018	21288	151.7	1	11.656	-0.013	17089	119.2	
Aroclor-1260	2	11.357	-0.020	14699	101.3	2	11.917	-0.015	32618	90.7	
Aroclor-1260	3	11.772	0.020	17655	46.3	3	12.430	-0.022	22115	230.8	
Aroclor-1260	4	12.130	-0.029	24469	126.0	4	12.500	-0.017	24708	103.0	
Aroclor-1260	5	12.244	-0.017	12341	155.3	NS	---			----	
Total CollAve (5 peaks):				116.1	Total Col2Ave (4 peaks):				135.9	RPD = 16	
Corrected Ave (4 peaks):				106.3	Corrected Ave (3 peaks):				104.3	RPD = 2	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 1644653 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 998846 Col2 Total PCB = 0.6 ppm*

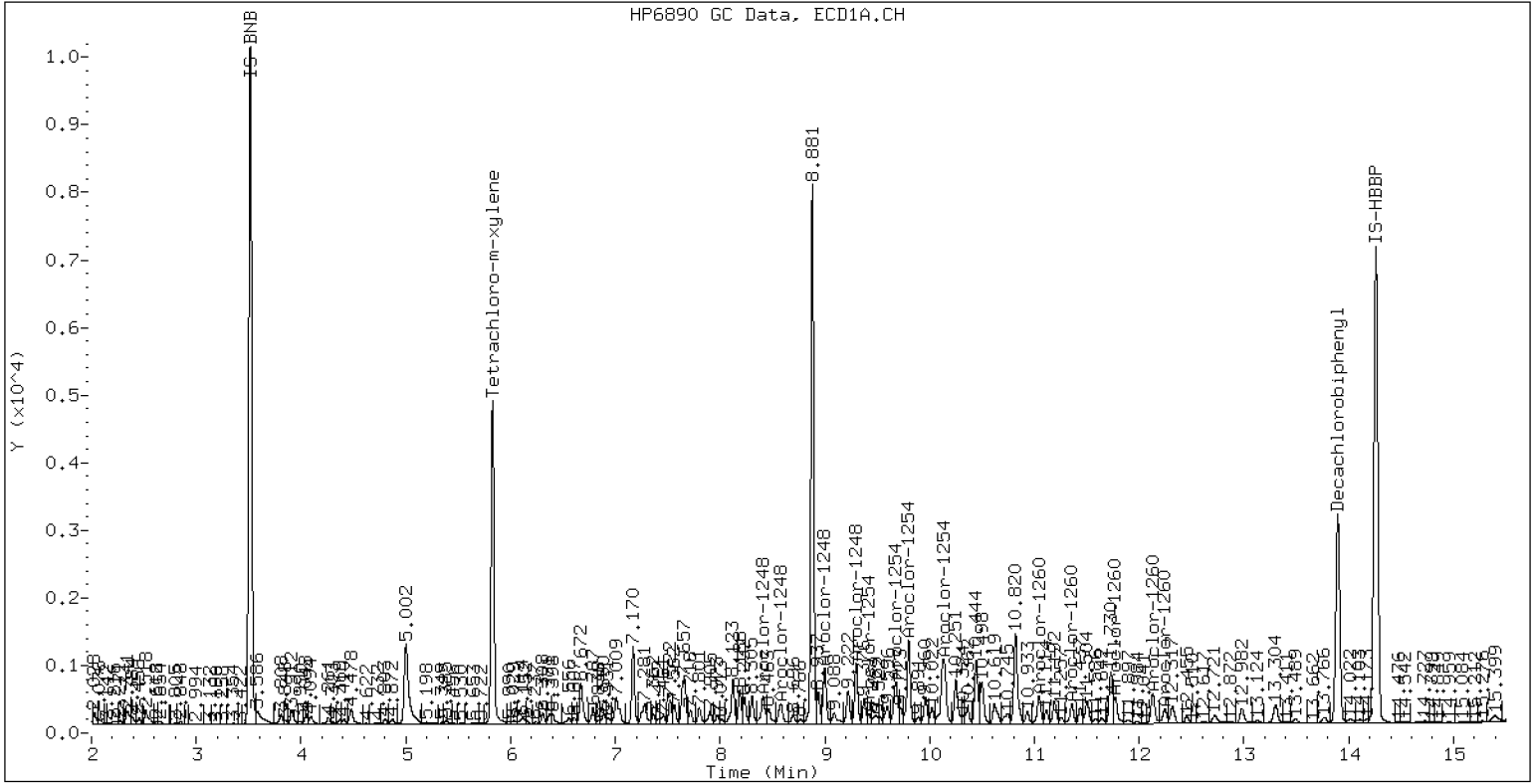
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-07

20-DEC-2022 03:18, 2ul





ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: Analytical Resources, LLC SDG: 22L0105
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Solid Laboratory ID: 22L0105-08 A File ID: 12192238ECD7.D
 Sampled: 12/05/22 09:37 Prepared: 12/07/22 13:40 Analyzed: 12/20/22 03:39
 % Solids: 52.74 Preparation: EPA 3546 (Microwave) Initial/Final: 23.74 g Wet / 2.5 mL
 Batch: BKL0157 Sequence: SKL0282 Calibration: FL00010
 Instrument: ECD7 Column 1: ZB5 Column 2: ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	16.4	1.6	4.0	
11097-69-1	Aroclor 1254	1	1	17.4	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	20.6	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9869	7.72	96.6	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9869	5.66	70.8	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192238ECD7.D
Data file 2: /221219.b/221219.b/12192238ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-08
Client ID:
Injection Date: 20-DEC-2022 03:39
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.829	-0.007	193534	5.706	-0.007	121538	28.3	31.8	11.4	Tetrachloro-m-xylene
13.896	-0.011	158435	14.126	-0.011	158899	38.7	34.9	10.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	481986	7.7
Hexabromobiphenyl	798898	447077	-44.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	279234	12.1
Hexabromobiphenyl	362541	320460	-11.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.411	-0.016	21579	104.1	1	8.315	-0.011	13758	120.6	
Aroclor-1248	2	8.581	-0.023	16538	62.5	2	8.721	-0.011	11604	96.7	
Aroclor-1248	3	8.998	-0.024	38209	80.3	3	9.153	-0.024	14436	98.9	
Aroclor-1248	4	9.300	-0.012	38441	164.8	4	9.547	-0.055	25365	148.1	
Total CollAve (4 peaks):				102.9	Total Col2Ave (4 peaks):				116.1	RPD = 12	
Corrected Ave (3 peaks):				82.3	Corrected Ave (3 peaks):				105.4	RPD = 25	
Aroclor-1254	1	9.300	-0.022	38441	90.6	1	9.453	-0.014	22332	124.0	
Aroclor-1254	2	9.421	0.019	6155	37.3	2	9.970	-0.017	9264	64.0	
Aroclor-1254	3	9.677	-0.018	31844	118.8	3	10.118	-0.022	36311	116.7	
Aroclor-1254	4	9.800	-0.031	53110	101.7	4	10.366	-0.023	44330	137.6	
Aroclor-1254	5	10.134	-0.055	65495	182.9	5	10.567	-0.019	32853	211.4	
Total CollAve (5 peaks):				106.2	Total Col2Ave (5 peaks):				130.7	RPD = 21	
Corrected Ave (4 peaks):				87.1	Corrected Ave (4 peaks):				110.6	RPD = 24	
Aroclor-1260	1	11.044	-0.018	20563	126.4	1	11.657	-0.012	15871	93.8	
Aroclor-1260	2	11.357	-0.021	13447	79.9	2	11.917	-0.015	31589	74.4	
Aroclor-1260	3	11.729	-0.022	49823	112.7	3	12.433	-0.018	18907	167.3	
Aroclor-1260	4	12.130	-0.029	21385	95.0	4	12.500	-0.017	24287	85.8	
Aroclor-1260	5	12.245	-0.016	12272	133.1	NS	---			----	
Total CollAve (5 peaks):				109.4	Total Col2Ave (4 peaks):				105.3	RPD = 4	
Corrected Ave (4 peaks):				103.5	Corrected Ave (3 peaks):				84.7	RPD = 20	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 1177277 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 769694 Col2 Total PCB = 0.4 ppm*

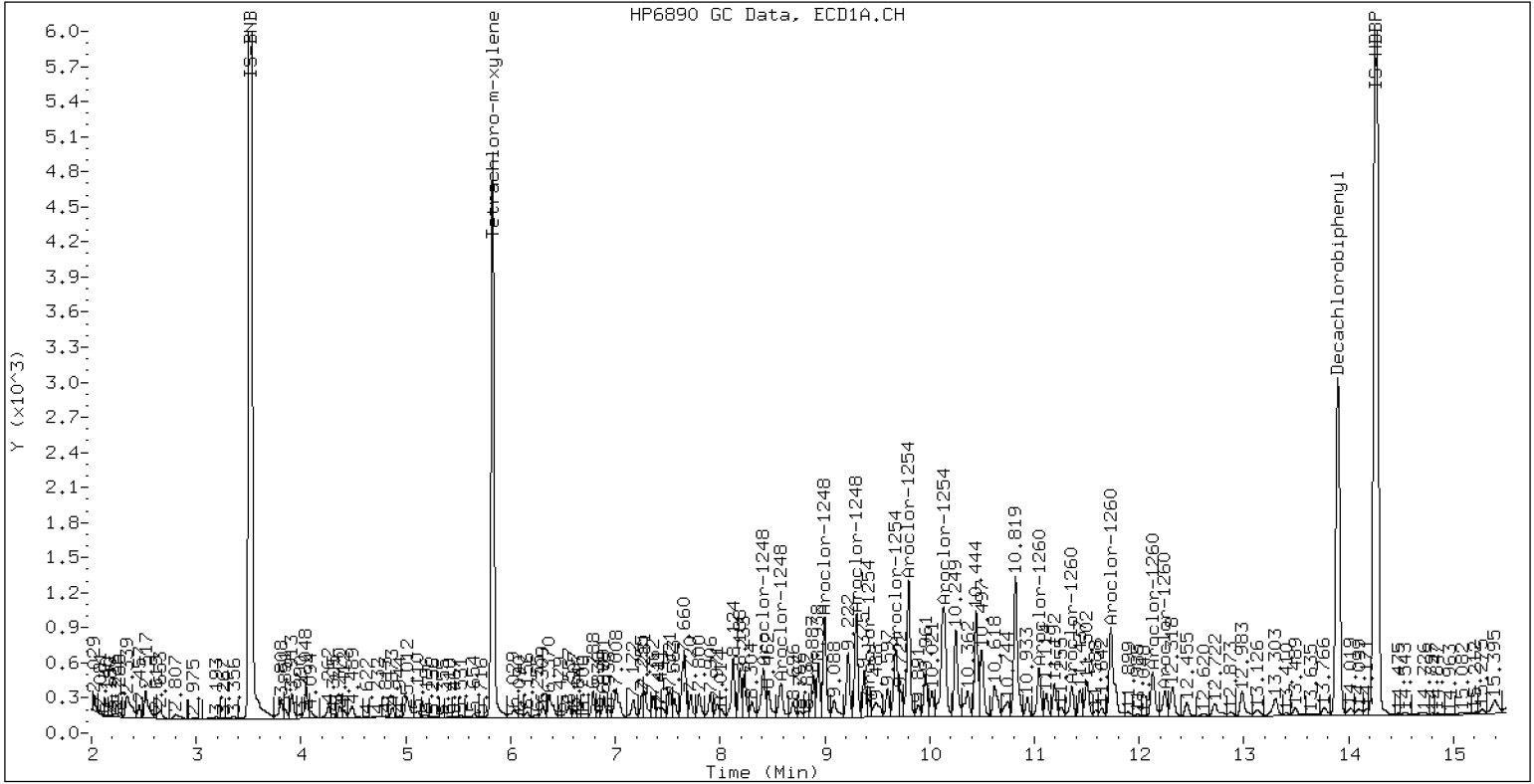
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-08

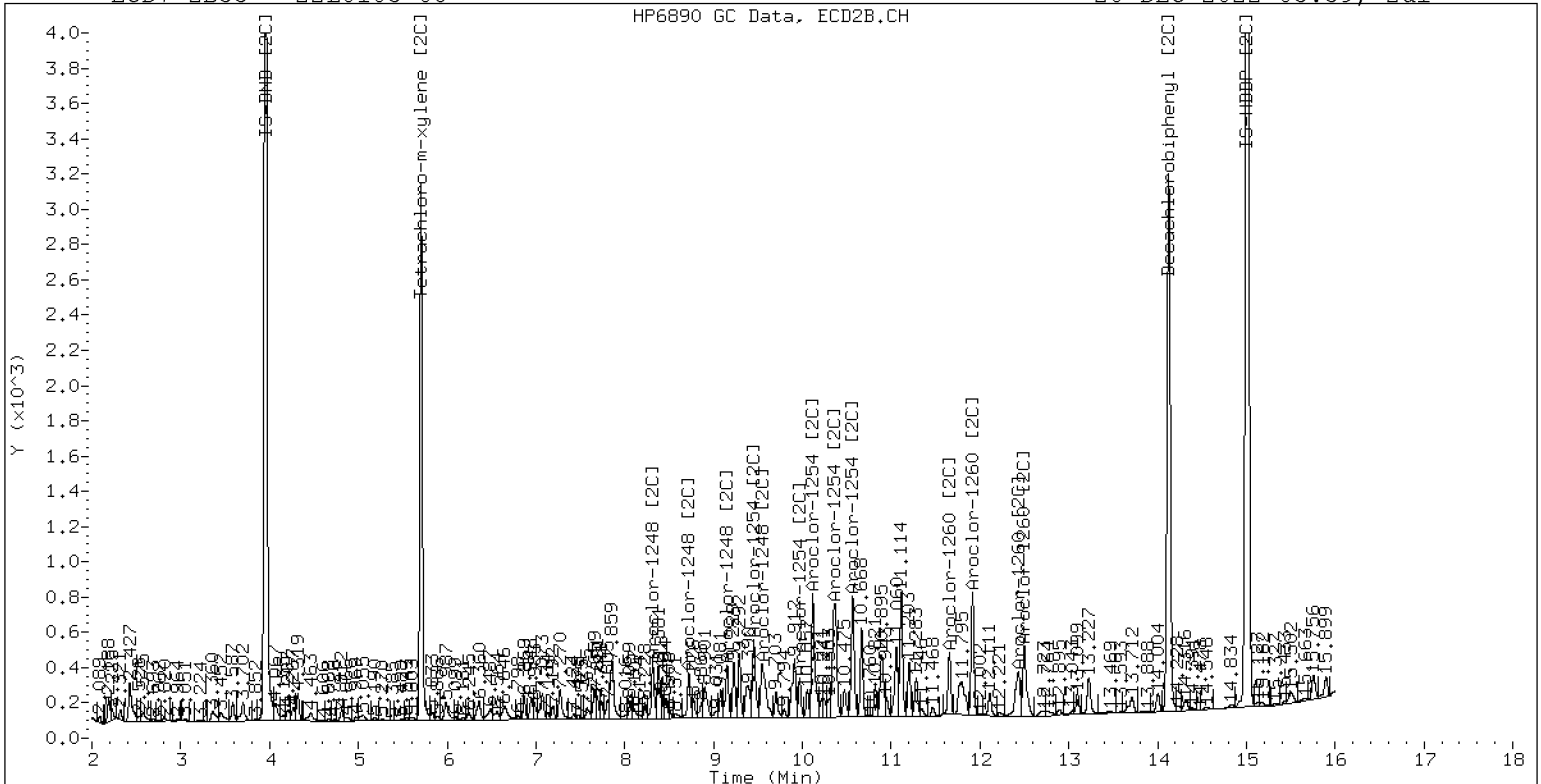
20-DEC-2022 03:39, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-08

20-DEC-2022 03:39, 2ul



ZB-35 Manual Integration: NO



ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: Analytical Resources, LLC SDG: 22L0105
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Solid Laboratory ID: 22L0105-09 A File ID: 12192241ECD7.D
 Sampled: 12/05/22 09:37 Prepared: 12/07/22 13:40 Analyzed: 12/20/22 04:43
 % Solids: 54.13 Preparation: EPA 3546 (Microwave) Initial/Final: 23.08 g Wet / 2.5 mL
 Batch: BKL0157 Sequence: SKL0282 Calibration: FL00010
 Instrument: ECD7 Column 1: ZB5 Column 2: ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	47.8	1.6	4.0	
11097-69-1	Aroclor 1254	1	1	30.4	1.6	4.0	
11096-82-5	Aroclor 1260	1	1	41.1	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	8.0044	7.69	96.0	40 - 126	
<i>Tetrachlorometaxylene</i>	1	8.0044	5.30	66.2	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192241ECD7.D
Data file 2: /221219.b/221219.b/12192241ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-09
Client ID:
Injection Date: 20-DEC-2022 04:43
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.827	-0.009	186593	5.705	-0.009	117047	26.5	29.5	10.6	Tetrachloro-m-xylene
13.896	-0.011	158136	14.126	-0.011	157882	38.4	34.7	10.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	496954	11.0
Hexabromobiphenyl	798898	449120	-43.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	289734	16.3
Hexabromobiphenyl	362541	320446	-11.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.412	-0.016	60673	284.0	1	8.315	-0.011	47461	401.0
Aroclor-1248	2	8.578	-0.026	63174	231.6	2	8.720	-0.012	37865	304.2
Aroclor-1248	3	8.996	-0.026	98438	200.6	3	9.152	-0.026	47758	315.4
Aroclor-1248	4	9.299	-0.012	76958	320.1	4	9.630	0.027	4518	25.4
Total CollAve (4 peaks):				259.0	Total Col2Ave (4 peaks):				261.5	RPD = 1
Corrected Ave (3 peaks):				238.7	Corrected Ave (3 peaks):				215.0	RPD = 10
Aroclor-1254	1	9.299	-0.022	76958	175.9	1	9.452	-0.015	42346	226.7
Aroclor-1254	2	9.420	0.019	7325	43.0	2	9.970	-0.017	22171	147.6
Aroclor-1254	3	9.671	-0.024	54139	195.9	3	10.118	-0.022	74781	231.6
Aroclor-1254	4	9.799	-0.032	103648	192.4	4	10.362	-0.027	88900	265.9
Aroclor-1254	5	10.134	-0.055	124089	336.0	5	10.567	-0.019	58538	363.0
Total CollAve (5 peaks):				188.7	Total Col2Ave (5 peaks):				247.0	RPD = 27
Corrected Ave (4 peaks):				151.8	Corrected Ave (4 peaks):				218.0	RPD = 36
Aroclor-1260	1	11.045	-0.017	38865	237.7	1	11.656	-0.013	30779	182.0
Aroclor-1260	2	11.358	-0.020	28843	170.6	2	11.916	-0.016	64645	152.3
Aroclor-1260	3	11.730	-0.022	96176	216.5	3	12.435	-0.016	27149	240.2
Aroclor-1260	4	12.129	-0.029	40038	177.0	4	12.500	-0.017	44665	157.9
Aroclor-1260	5	12.244	-0.017	20928	226.0	NS	---			----
Total CollAve (5 peaks):				205.5	Total Col2Ave (4 peaks):				183.1	RPD = 12
Corrected Ave (4 peaks):				197.5	Corrected Ave (3 peaks):				164.0	RPD = 19
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.936 - 13.808) = 3482131 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2057258 Col2 Total PCB = 1.0 ppm*

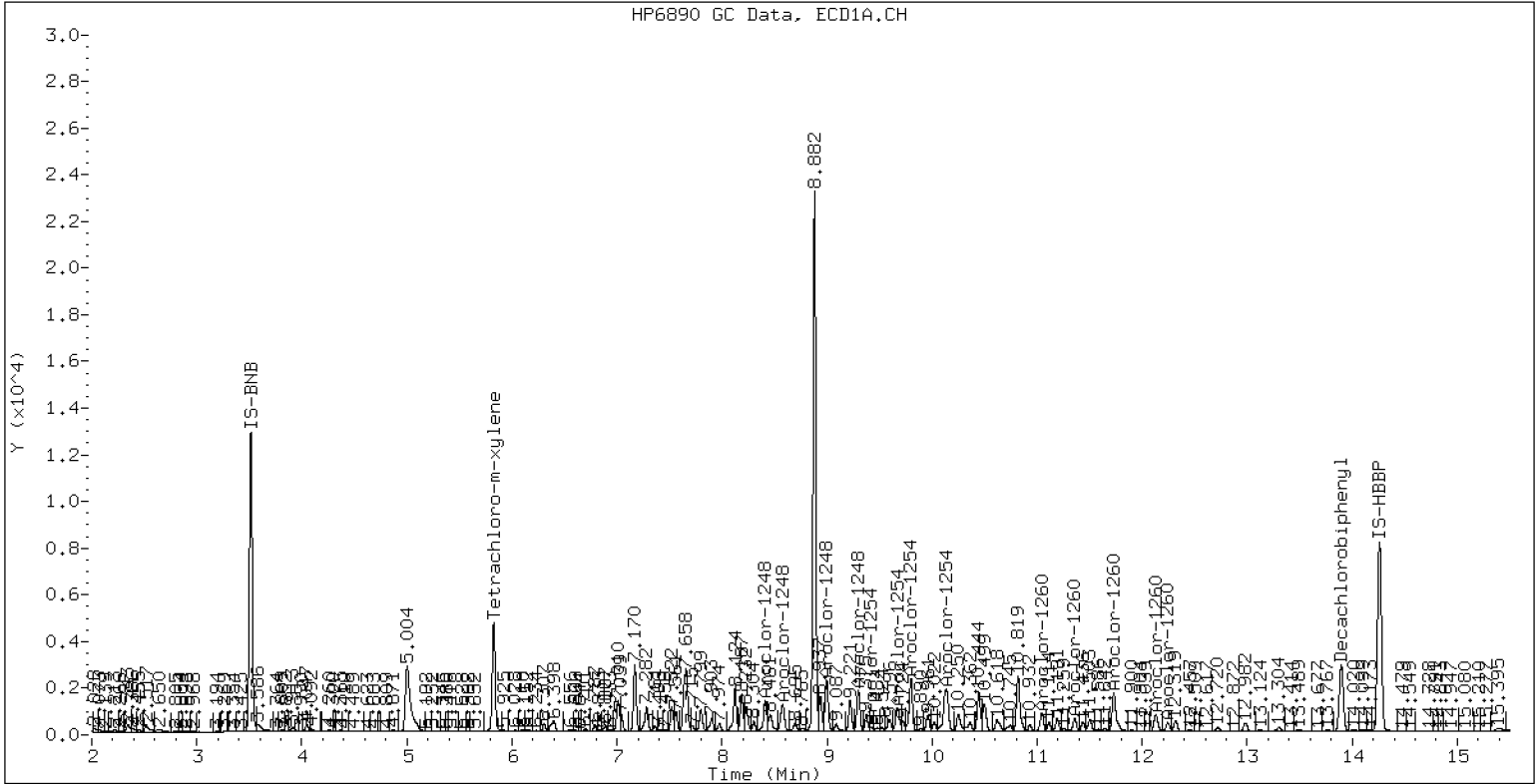
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-09

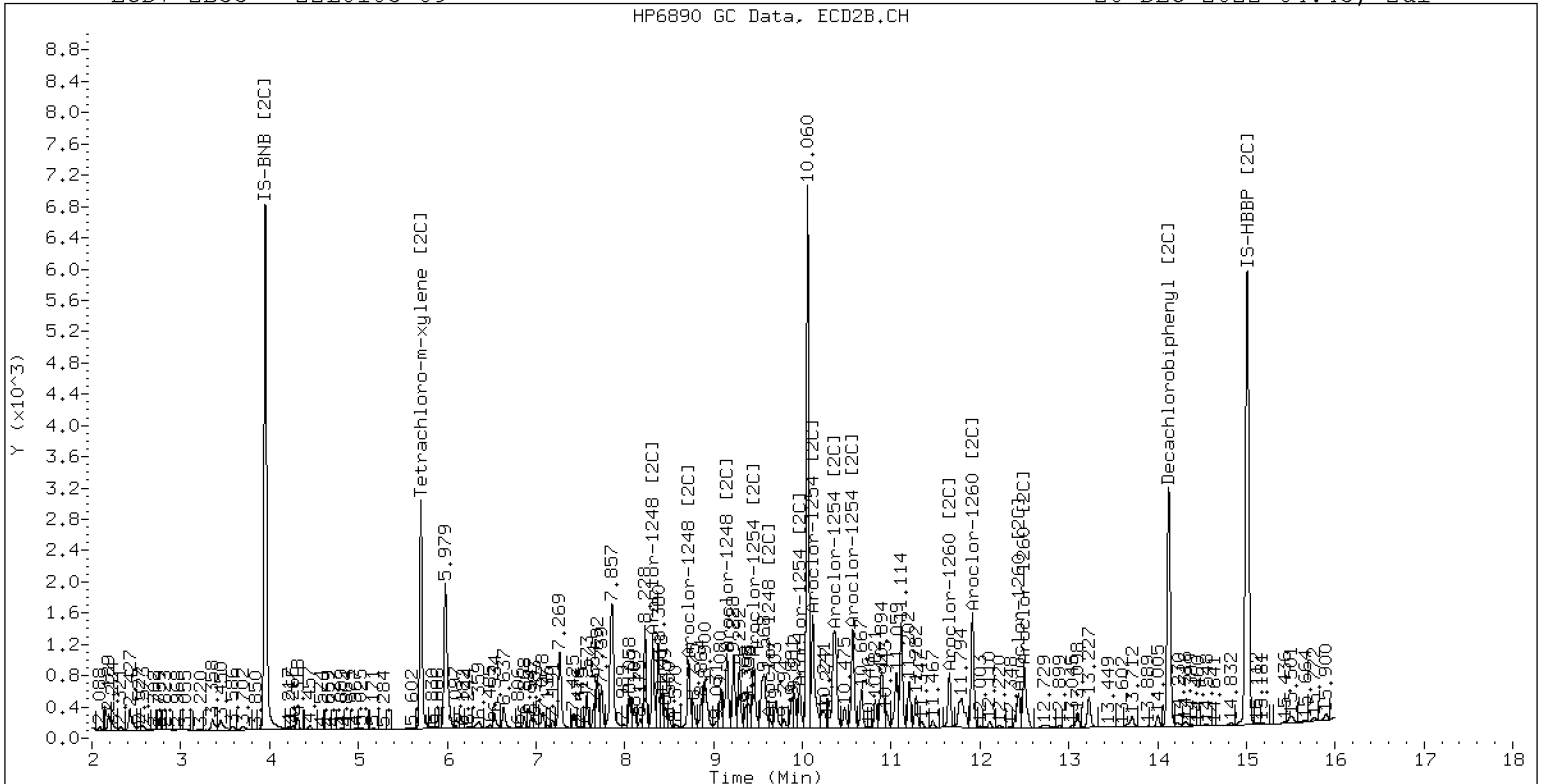
20-DEC-2022 04:43, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-09

20-DEC-2022 04:43, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192242ECD7.D
Data file 2: /221219.b/221219.b/12192242ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-10
Client ID:
Injection Date: 20-DEC-2022 05:04
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.828	-0.008	167420	5.705	-0.009	107806	24.3	28.9	17.3	Tetrachloro-m-xylene
13.896	-0.011	149236	14.127	-0.010	150381	39.3	35.3	10.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	485971	8.6
Hexabromobiphenyl	798898	413838	-48.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	272086	9.2
Hexabromobiphenyl	362541	299762	-17.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.412	-0.016	52686	252.1	1	8.315	-0.011	35370	318.2	
Aroclor-1248	2	8.579	-0.025	49454	185.4	2	8.721	-0.012	35960	307.6	
Aroclor-1248	3	8.996	-0.026	122620	255.5	3	9.152	-0.025	49091	345.2	
Aroclor-1248	4	9.299	-0.012	113664	483.4	4	9.630	0.028	5684	34.0	
Total CollAve (4 peaks):				294.1	Total Col2Ave (4 peaks):				251.3	RPD = 16	
Corrected Ave (3 peaks):				231.0	Corrected Ave (3 peaks):				220.0	RPD = 5	
Aroclor-1254	1	9.299	-0.022	113664	265.6	1	9.452	-0.015	67162	382.8	
Aroclor-1254	2	9.420	0.019	9848	59.2	2	9.970	-0.016	27886	197.7	
Aroclor-1254	3	9.672	-0.022	73695	272.7	3	10.118	-0.022	116290	383.6	
Aroclor-1254	4	9.799	-0.032	148428	281.8	4	10.367	-0.022	137012	436.4	
Aroclor-1254	5	10.132	-0.057	192095	532.0	5	10.567	-0.019	99927	659.9	
Total CollAve (5 peaks):				282.2	Total Col2Ave (5 peaks):				412.1	RPD = 37	
Corrected Ave (4 peaks):				219.8	Corrected Ave (4 peaks):				350.1	RPD = 46*	
Aroclor-1260	1	11.045	-0.017	60113	399.1	1	11.656	-0.013	54559	344.8	
Aroclor-1260	2	11.359	-0.018	48170	309.2	2	11.917	-0.016	113373	285.5	
Aroclor-1260	3	11.730	-0.022	132509	323.7	3	12.437	-0.015	36700	347.1	
Aroclor-1260	4	12.130	-0.029	70937	340.3	4	12.501	-0.016	75891	286.7	
Aroclor-1260	5	12.246	-0.016	31177	365.3	NS	---			---	
Total CollAve (5 peaks):				347.5	Total Col2Ave (4 peaks):				316.0	RPD = 9	
Corrected Ave (4 peaks):				334.6	Corrected Ave (3 peaks):				305.7	RPD = 9	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 3280618 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2243995 Col2 Total PCB = 1.2 ppm*

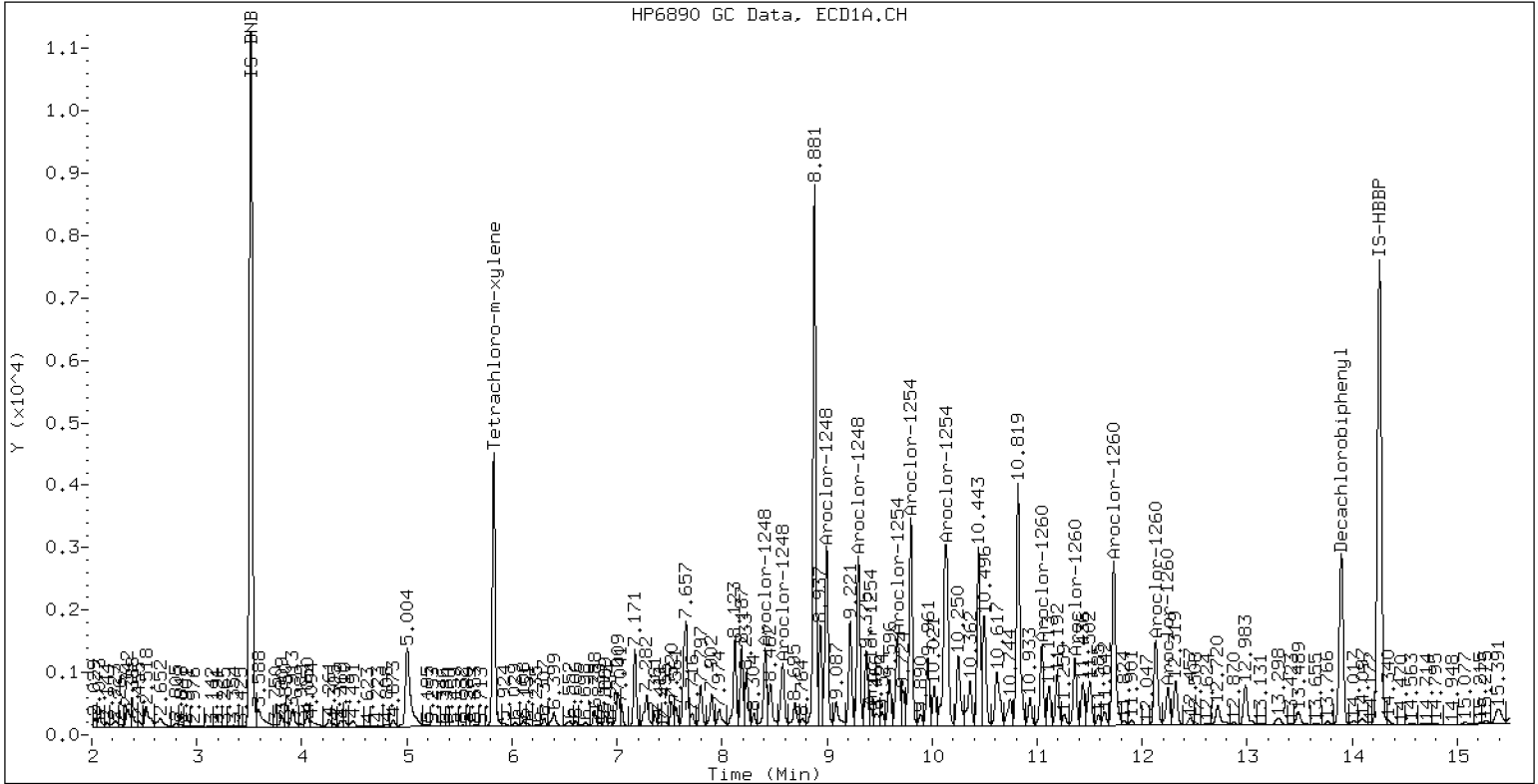
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-10

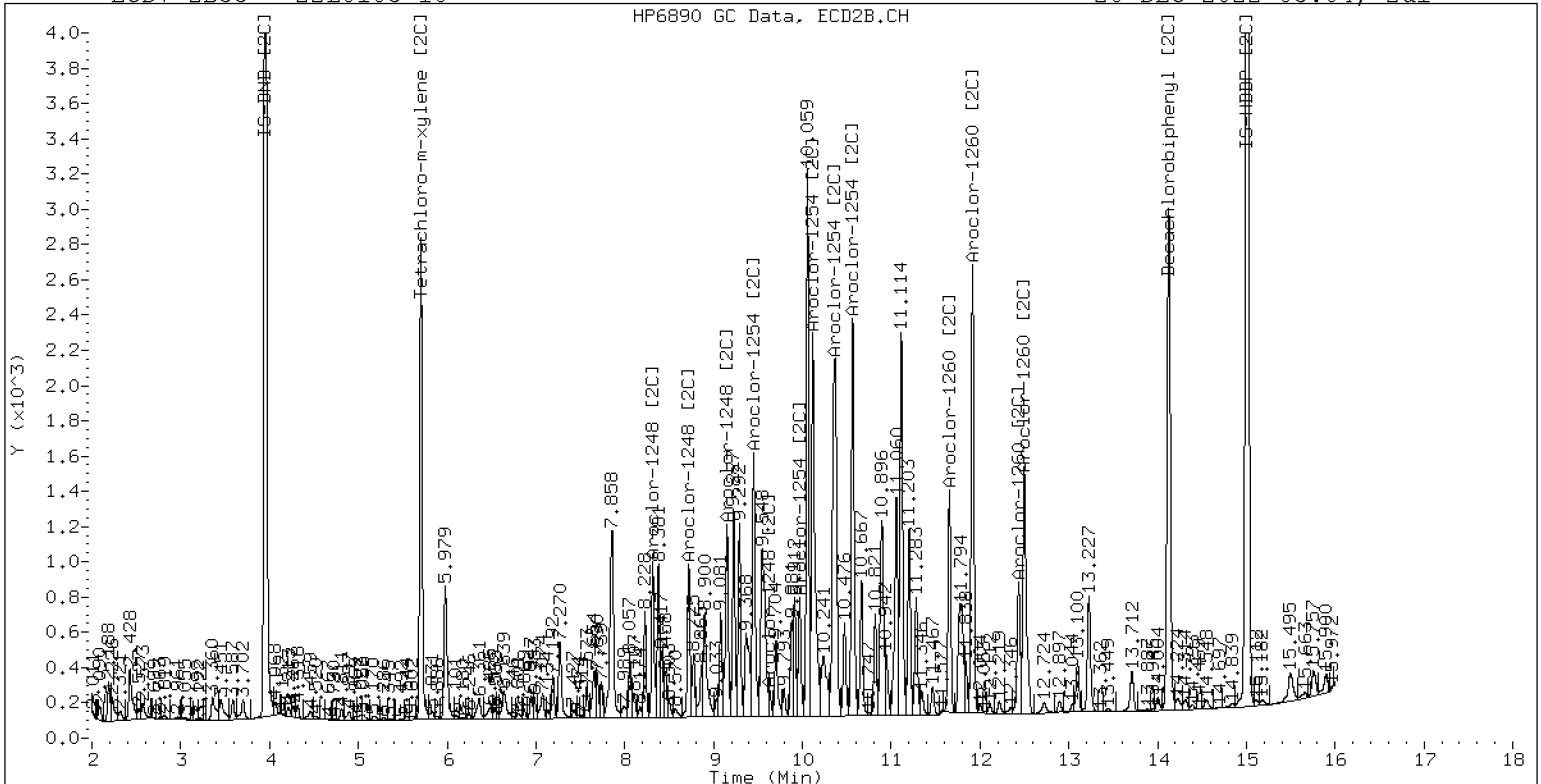
20-DEC-2022 05:04, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-10

20-DEC-2022 05:04, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192243ECD7.D
Data file 2: /221219.b/221219.b/12192243ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-11
Client ID:
Injection Date: 20-DEC-2022 05:25
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.826	-0.010	152700	5.704	-0.010	98229	23.5	27.7	16.5	Tetrachloro-m-xylene
13.896	-0.011	144122	14.127	-0.010	149148	40.0	36.1	10.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	458648	2.5
Hexabromobiphenyl	798898	393248	-50.8 <-

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	258394	3.7
Hexabromobiphenyl	362541	291296	-19.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.410	-0.017	37200	188.6	1	8.314	-0.013	28690	271.8	
Aroclor-1248	2	8.578	-0.026	33773	134.1	2	8.720	-0.013	25487	229.6	
Aroclor-1248	3	8.995	-0.028	112042	247.4	3	9.151	-0.026	38708	286.6	
Aroclor-1248	4	9.299	-0.012	116126	523.3	4	9.630	0.028	6976	44.0	
Total CollAve (4 peaks):				273.4	Total Col2Ave (4 peaks):				208.0	RPD = 27	
Corrected Ave (3 peaks):				190.0	Corrected Ave (3 peaks):				181.8	RPD = 4	
Aroclor-1254	1	9.299	-0.022	116126	287.6	1	9.451	-0.016	70001	420.2	
Aroclor-1254	2	9.419	0.017	11300	72.0	2	9.970	-0.017	20769	155.1	
Aroclor-1254	3	9.676	-0.018	72229	283.2	3	10.117	-0.022	116716	405.4	
Aroclor-1254	4	9.798	-0.033	151072	303.9	4	10.367	-0.022	137054	459.7	
Aroclor-1254	5	10.133	-0.056	181817	533.5	5	10.567	-0.019	99484	691.8	
Total CollAve (5 peaks):				296.0	Total Col2Ave (5 peaks):				426.4	RPD = 36	
Corrected Ave (4 peaks):				236.6	Corrected Ave (4 peaks):				360.1	RPD = 41*	
Aroclor-1260	1	11.045	-0.017	56359	393.7	1	11.656	-0.013	50190	326.4	
Aroclor-1260	2	11.358	-0.019	41887	282.9	2	11.917	-0.016	99509	257.9	
Aroclor-1260	3	11.729	-0.022	113369	291.4	3	12.436	-0.015	35570	346.2	
Aroclor-1260	4	12.129	-0.029	63293	319.5	4	12.500	-0.017	70595	274.5	
Aroclor-1260	5	12.244	-0.017	31628	390.0	NS	---			---	
Total CollAve (5 peaks):				335.5	Total Col2Ave (4 peaks):				301.2	RPD = 11	
Corrected Ave (4 peaks):				321.0	Corrected Ave (3 peaks):				286.3	RPD = 11	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 2696916 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1941563 Col2 Total PCB = 1.1 ppm*

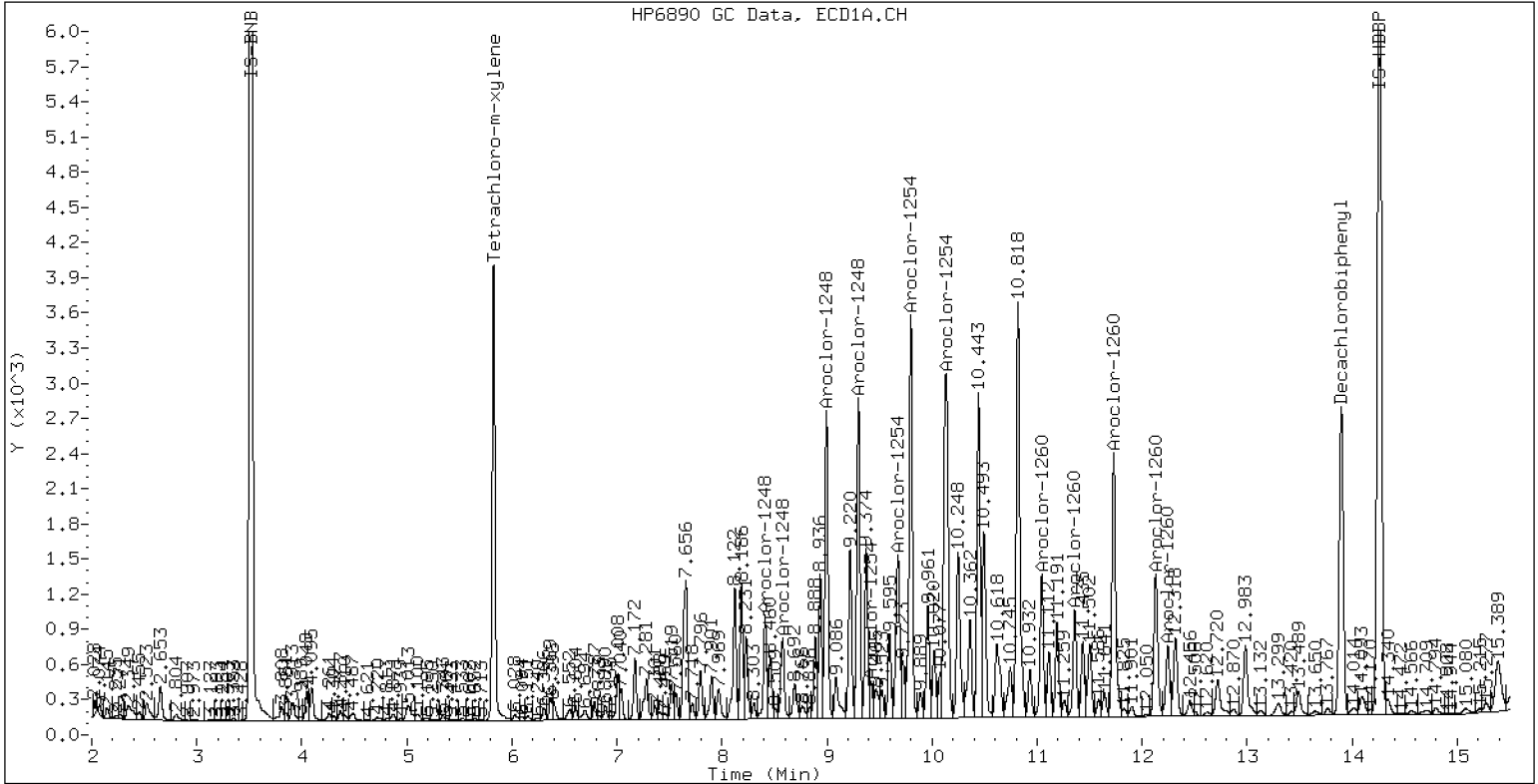
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-11

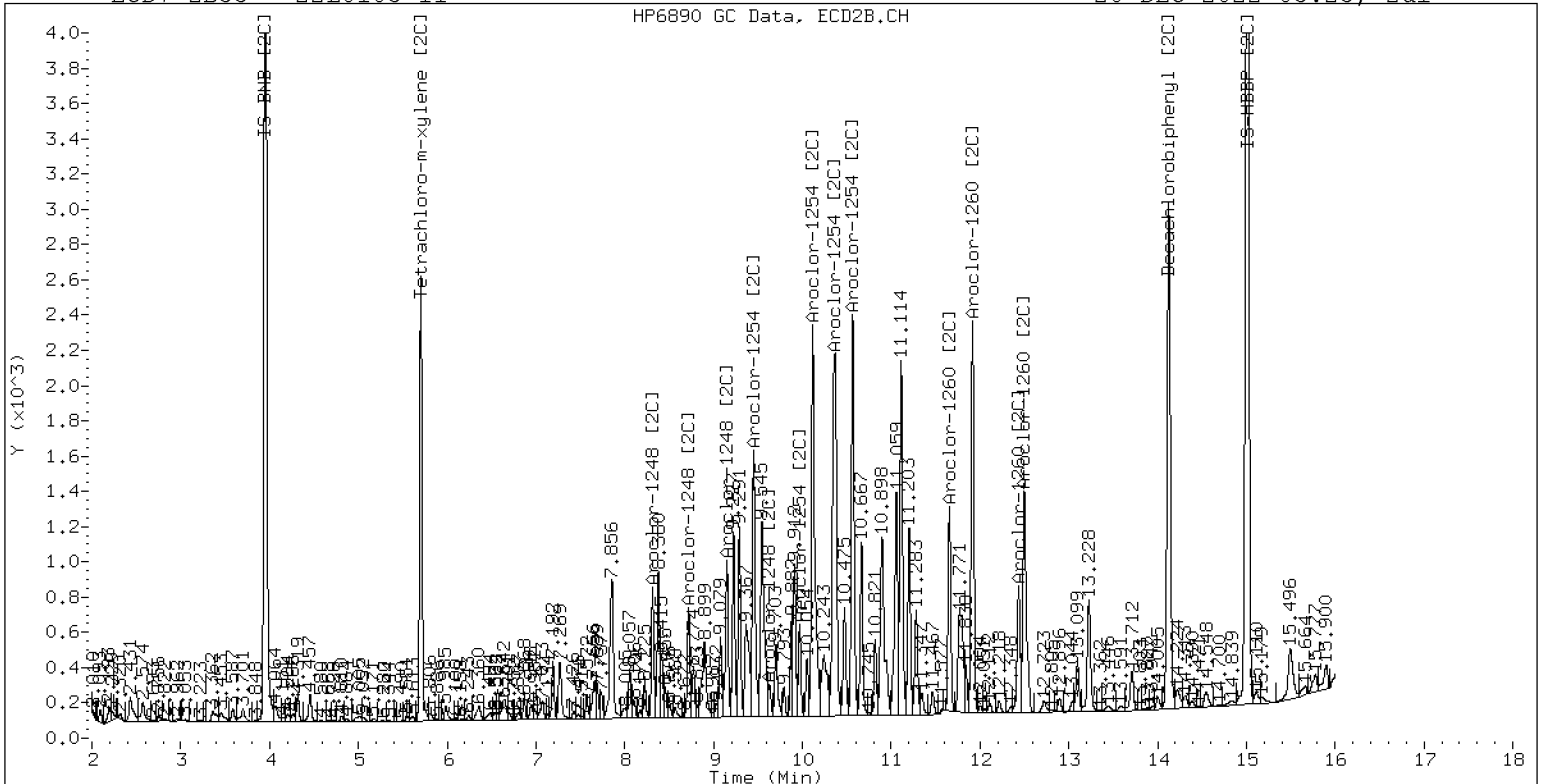
20-DEC-2022 05:25, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-11

20-DEC-2022 05:25, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192244ECD7.D
Data file 2: /221219.b/221219.b/12192244ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-12
Client ID:
Injection Date: 20-DEC-2022 05:47
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.828	-0.008	157261	5.705	-0.008	99976	23.0	27.2	16.9	Tetrachloro-m-xylene
13.895	-0.012	143727	14.127	-0.010	155033	40.1	36.9	8.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	482440	7.8
Hexabromobiphenyl	798898	391492	-51.0 <-

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	267748	7.5
Hexabromobiphenyl	362541	296302	-18.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.411	-0.016	82724	398.8	1	8.314	-0.012	61939	566.3
Aroclor-1248	2	8.579	-0.026	73971	279.3	2	8.720	-0.012	58666	509.9
Aroclor-1248	3	8.995	-0.028	271275	569.4	3	9.151	-0.026	84200	601.7
Aroclor-1248	4	9.300	-0.011	276763	1185.7	4	9.630	0.028	16344	99.5
Total CollAve (4 peaks):				608.3	Total Col2Ave (4 peaks):				444.4	RPD = 31
Corrected Ave (3 peaks):				415.8	Corrected Ave (3 peaks):				391.9	RPD = 6
Aroclor-1254	1	9.300	-0.021	276763	651.6	1	9.452	-0.015	157630	913.1
Aroclor-1254	2	9.374	-0.028	150220	909.3	2	9.970	-0.017	49227	354.7
Aroclor-1254	3	9.672	-0.023	143964	536.6	3	10.118	-0.021	280919	941.6
Aroclor-1254	4	9.799	-0.032	357898	684.4	4	10.358	-0.031	326423	1056.5
Aroclor-1254	5	10.134	-0.055	429928	1199.3	5	10.567	-0.019	225093	1510.6
Total CollAve (5 peaks):				796.2	Total Col2Ave (5 peaks):				955.3	RPD = 18
Corrected Ave (4 peaks):				695.5	Corrected Ave (4 peaks):				816.5	RPD = 16
Aroclor-1260	1	11.045	-0.017	115824	812.8	1	11.657	-0.012	123135	787.3
Aroclor-1260	2	11.360	-0.017	94046	638.1	2	11.917	-0.015	223236	568.8
Aroclor-1260	3	11.730	-0.022	244638	631.7	3	12.437	-0.014	70392	673.5
Aroclor-1260	4	12.131	-0.028	139662	708.2	4	12.501	-0.016	154232	589.5
Aroclor-1260	5	12.246	-0.015	62092	769.1	NS	---			----
Total CollAve (5 peaks):				712.0	Total Col2Ave (4 peaks):				654.8	RPD = 8
Corrected Ave (4 peaks):				686.8	Corrected Ave (3 peaks):				610.6	RPD = 12
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.936 - 13.808) = 5818584 Col1 Total PCB = 1.0 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 4204954 Col2 Total PCB = 2.2 ppm*

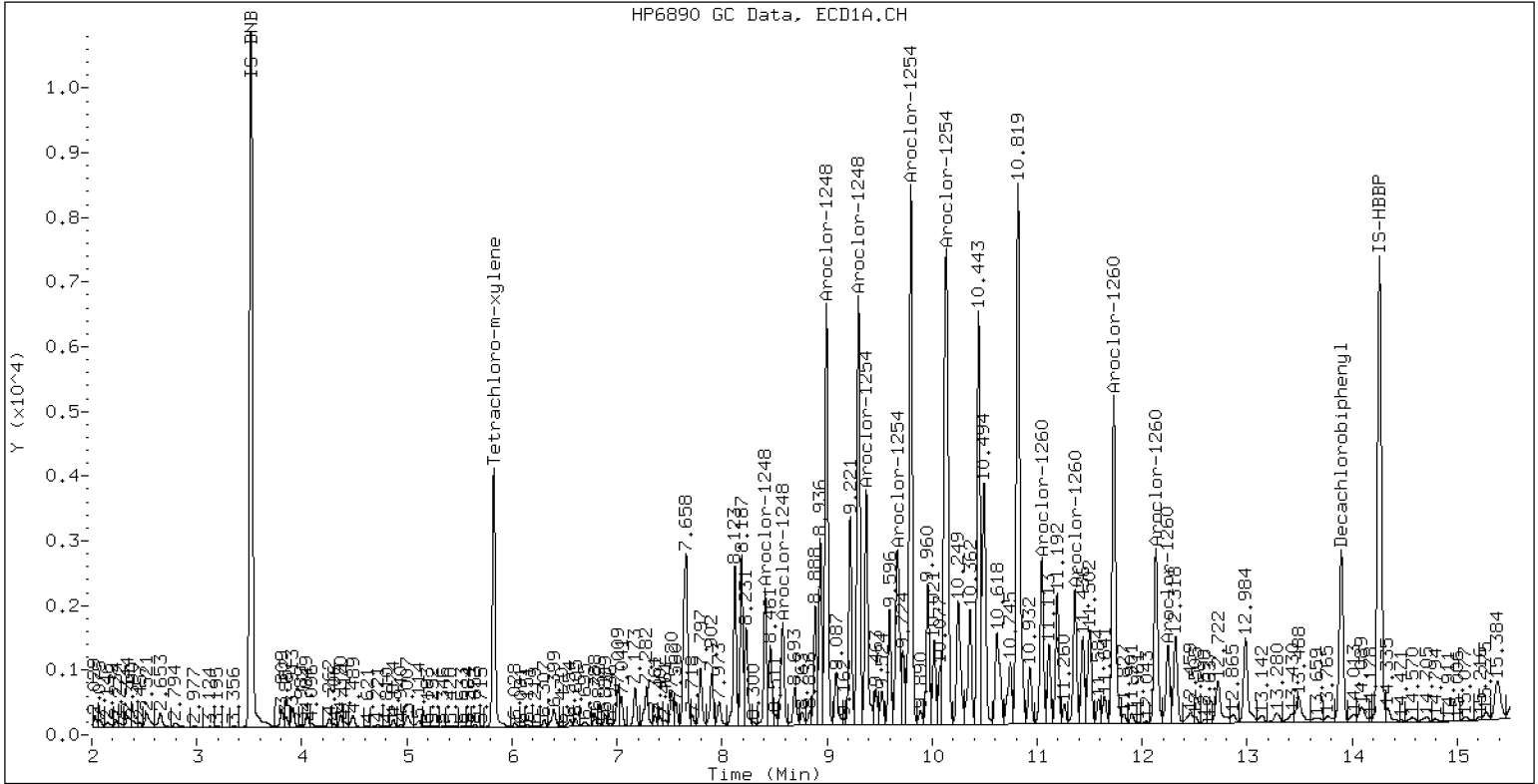
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-12

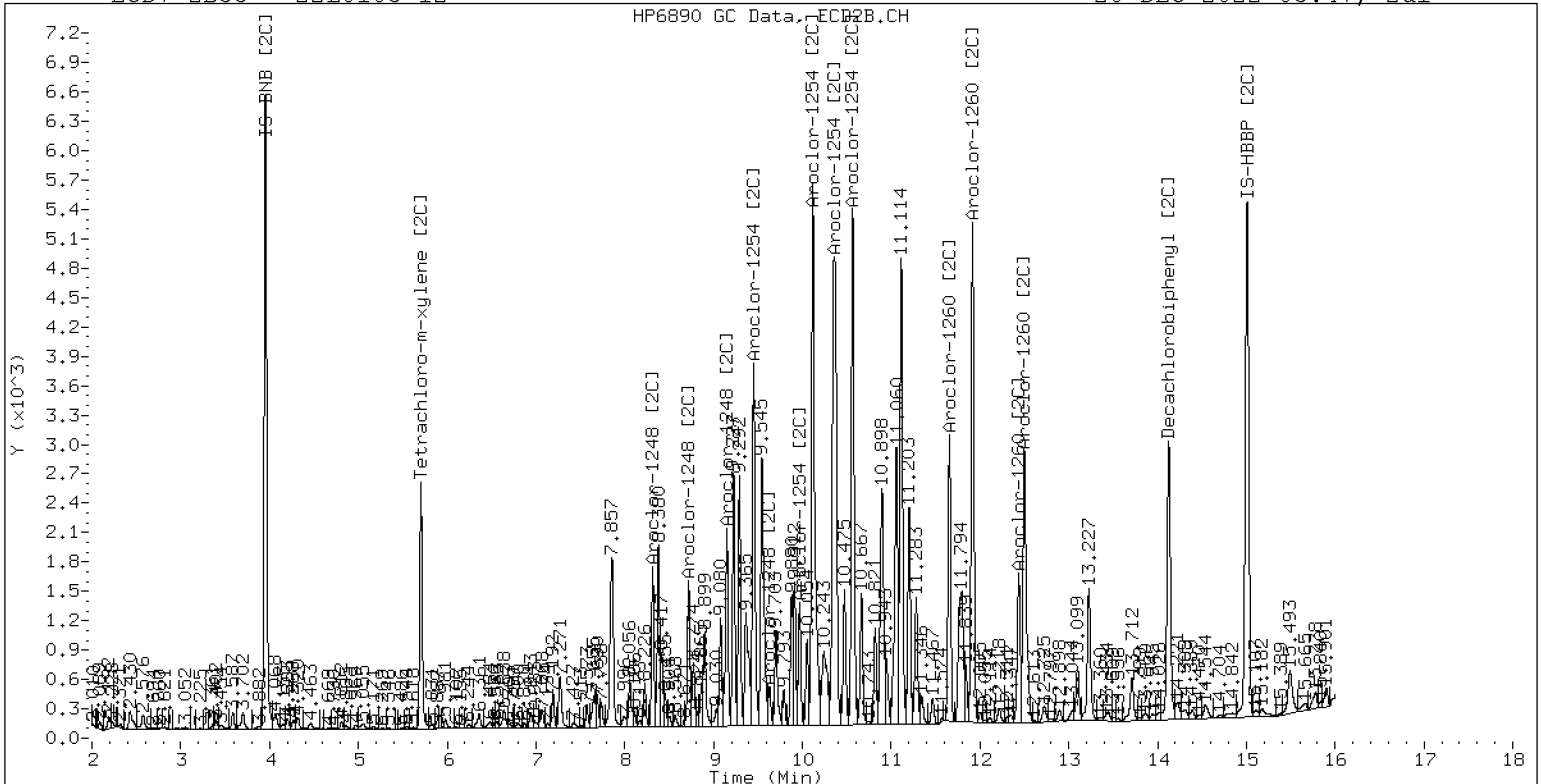
20-DEC-2022 05:47, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-12

20-DEC-2022 05:47, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192245ECD7.D
Data file 2: /221219.b/221219.b/12192245ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-13
Client ID:
Injection Date: 20-DEC-2022 06:08
Report Date: 12/21/2022 10:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.826	-0.010	174547	5.703	-0.010	113992	27.3	31.0	12.6	Tetrachloro-m-xylene
13.896	-0.012	152751	14.128	-0.009	155190	39.5	36.0	9.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	451120	0.8
Hexabromobiphenyl	798898	422331	-47.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	268460	7.8
Hexabromobiphenyl	362541	303441	-16.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.412	-0.016	52363	270.0	1	8.315	-0.011	46783	426.6
Aroclor-1248	2	8.577	-0.027	57374	231.7	2	8.720	-0.013	41811	362.5
Aroclor-1248	3	8.996	-0.026	107351	241.0	3	9.152	-0.025	38163	272.0
Aroclor-1248	4	9.299	-0.012	87279	399.9	4	9.631	0.029	8350	50.7
Total CollAve (4 peaks):				285.6	Total Col2Ave (4 peaks):				277.9	RPD = 3
Corrected Ave (3 peaks):				247.5	Corrected Ave (3 peaks):				228.4	RPD = 8
Aroclor-1254	1	9.299	-0.022	87279	219.7	1	9.453	-0.014	49884	288.2
Aroclor-1254	2	9.421	0.019	9973	64.6	2	9.971	-0.016	15310	110.0
Aroclor-1254	3	9.676	-0.018	48551	193.5	3	10.118	-0.022	82101	274.5
Aroclor-1254	4	9.799	-0.031	112063	229.2	4	10.368	-0.021	88538	285.8
Aroclor-1254	5	10.134	-0.055	115358	344.1	5	10.568	-0.018	57408	384.2
Total CollAve (5 peaks):				210.2	Total Col2Ave (5 peaks):				268.5	RPD = 24
Corrected Ave (4 peaks):				176.7	Corrected Ave (4 peaks):				239.6	RPD = 30
Aroclor-1260	1	11.045	-0.017	32873	213.8	1	11.657	-0.012	25081	156.6
Aroclor-1260	2	11.359	-0.019	21982	138.3	2	11.917	-0.016	46576	115.9
Aroclor-1260	3	11.730	-0.022	58298	139.5	3	12.437	-0.015	20434	190.9
Aroclor-1260	4	12.130	-0.028	33659	158.2	4	12.501	-0.016	34099	127.3
Aroclor-1260	5	12.245	-0.016	16957	194.7	NS	---			---
Total CollAve (5 peaks):				168.9	Total Col2Ave (4 peaks):				147.7	RPD = 13
Corrected Ave (4 peaks):				157.7	Corrected Ave (3 peaks):				133.2	RPD = 17
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.936 - 13.808) = 3623570 Col1 Total PCB = 0.7 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 2123000 Col2 Total PCB = 1.1 ppm*

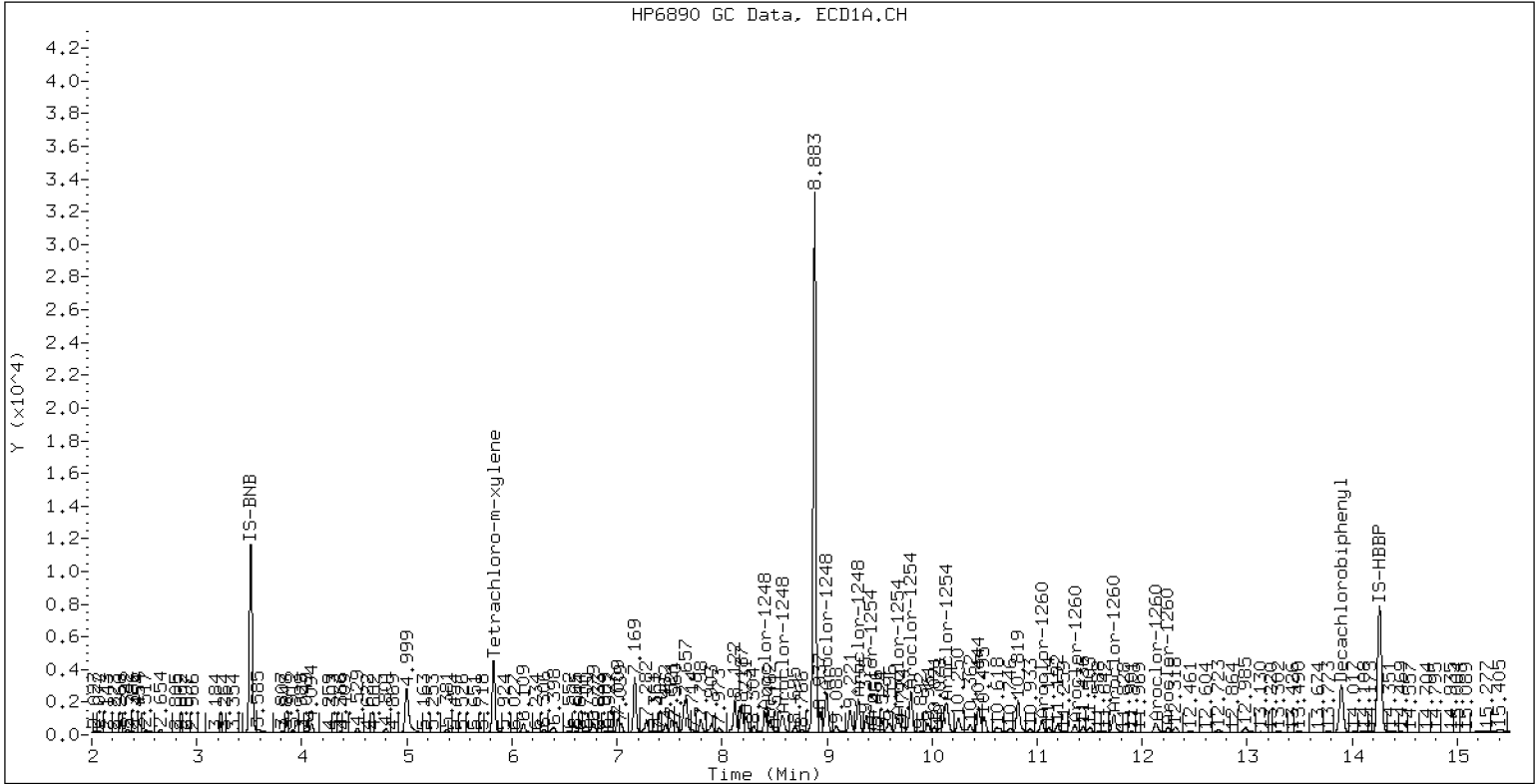
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-13

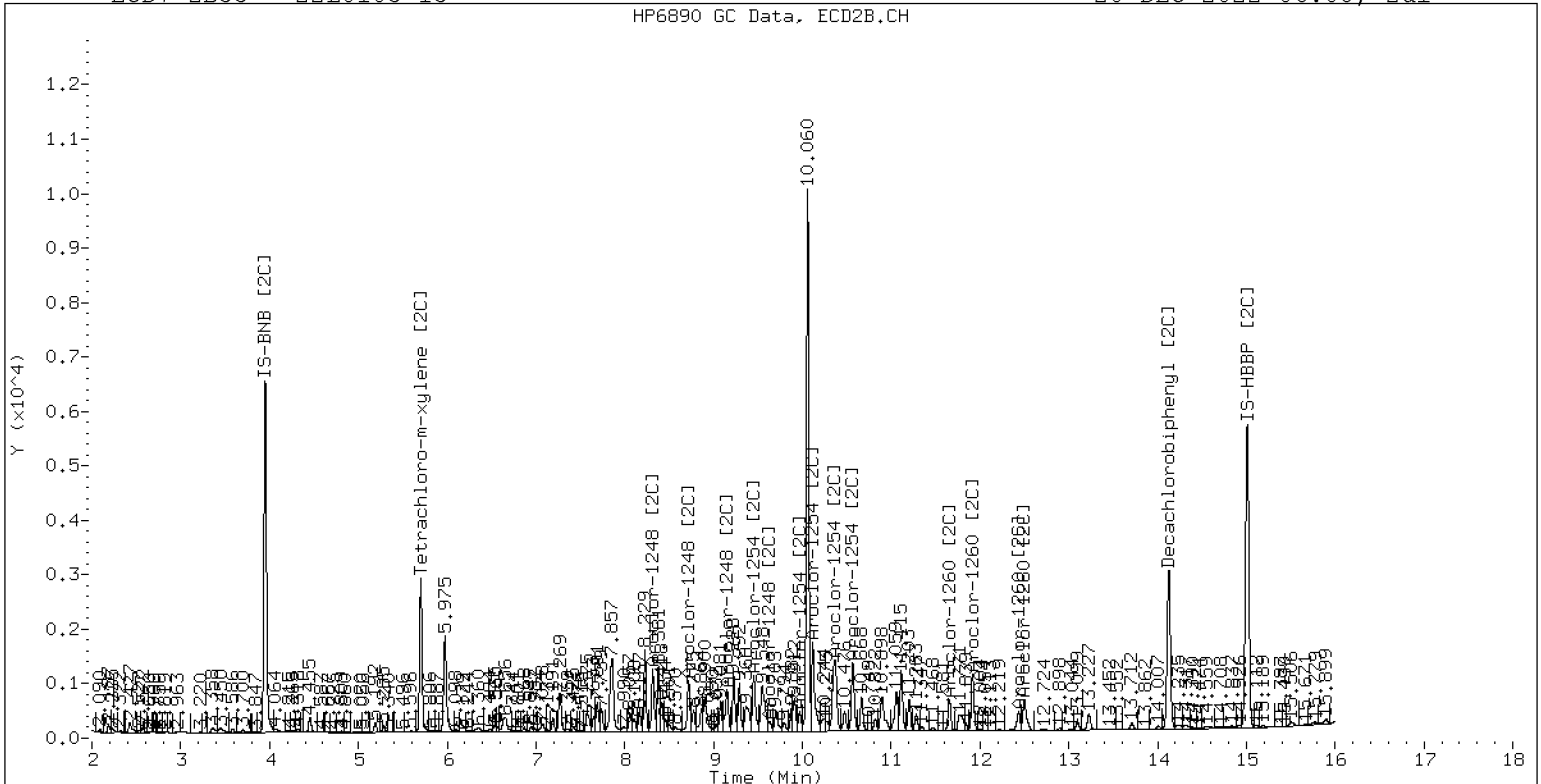
20-DEC-2022 06:08, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-13

20-DEC-2022 06:08, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192246ECD7.D
Data file 2: /221219.b/221219.b/12192246ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-14
Client ID:
Injection Date: 20-DEC-2022 06:29
Report Date: 12/21/2022 10:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.827	-0.009	172454	5.704	-0.009	110590	26.4	29.0	9.4	Tetrachloro-m-xylene
13.897	-0.011	154246	14.127	-0.010	152417	38.8	34.9	10.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	460781	2.9
Hexabromobiphenyl	798898	434105	-45.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	278123	11.7
Hexabromobiphenyl	362541	307430	-15.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.412	-0.016	46925	236.9	1	8.315	-0.011	36922	325.0	
Aroclor-1248	2	8.579	-0.025	47707	188.6	2	8.719	-0.013	41149	344.3	
Aroclor-1248	3	8.996	-0.026	132713	291.6	3	9.152	-0.025	49172	338.3	
Aroclor-1248	4	9.300	-0.011	115911	519.9	4	9.632	0.030	16628	97.4	
Total CollAve (4 peaks):				309.3	Total Col2Ave (4 peaks):				276.3	RPD = 11	
Corrected Ave (3 peaks):				239.0	Corrected Ave (3 peaks):				253.6	RPD = 6	
Aroclor-1254	1	9.300	-0.021	115911	285.7	1	9.452	-0.015	74935	417.9	
Aroclor-1254	2	9.420	0.018	6845	43.4	2	9.970	-0.016	27925	193.7	
Aroclor-1254	3	9.675	-0.019	60380	235.6	3	10.117	-0.022	113261	365.5	
Aroclor-1254	4	9.800	-0.031	145854	292.0	4	10.366	-0.023	131929	411.1	
Aroclor-1254	5	10.134	-0.056	172737	504.5	5	10.567	-0.019	92316	596.4	
Total CollAve (5 peaks):				272.2	Total Col2Ave (5 peaks):				396.9	RPD = 37	
Corrected Ave (4 peaks):				214.2	Corrected Ave (4 peaks):				347.0	RPD = 47*	
Aroclor-1260	1	11.045	-0.017	56237	355.9	1	11.656	-0.013	41684	256.9	
Aroclor-1260	2	11.359	-0.019	37403	228.9	2	11.917	-0.015	81750	200.8	
Aroclor-1260	3	11.730	-0.021	99259	231.2	3	12.436	-0.015	28900	266.5	
Aroclor-1260	4	12.130	-0.028	53075	242.7	4	12.500	-0.016	58396	215.1	
Aroclor-1260	5	12.246	-0.016	28337	316.5	NS	---			----	
Total CollAve (5 peaks):				275.0	Total Col2Ave (4 peaks):				234.8	RPD = 16	
Corrected Ave (4 peaks):				254.8	Corrected Ave (3 peaks):				224.3	RPD = 13	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 7469672 Col1 Total PCB = 1.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 4767687 Col2 Total PCB = 2.4 ppm*

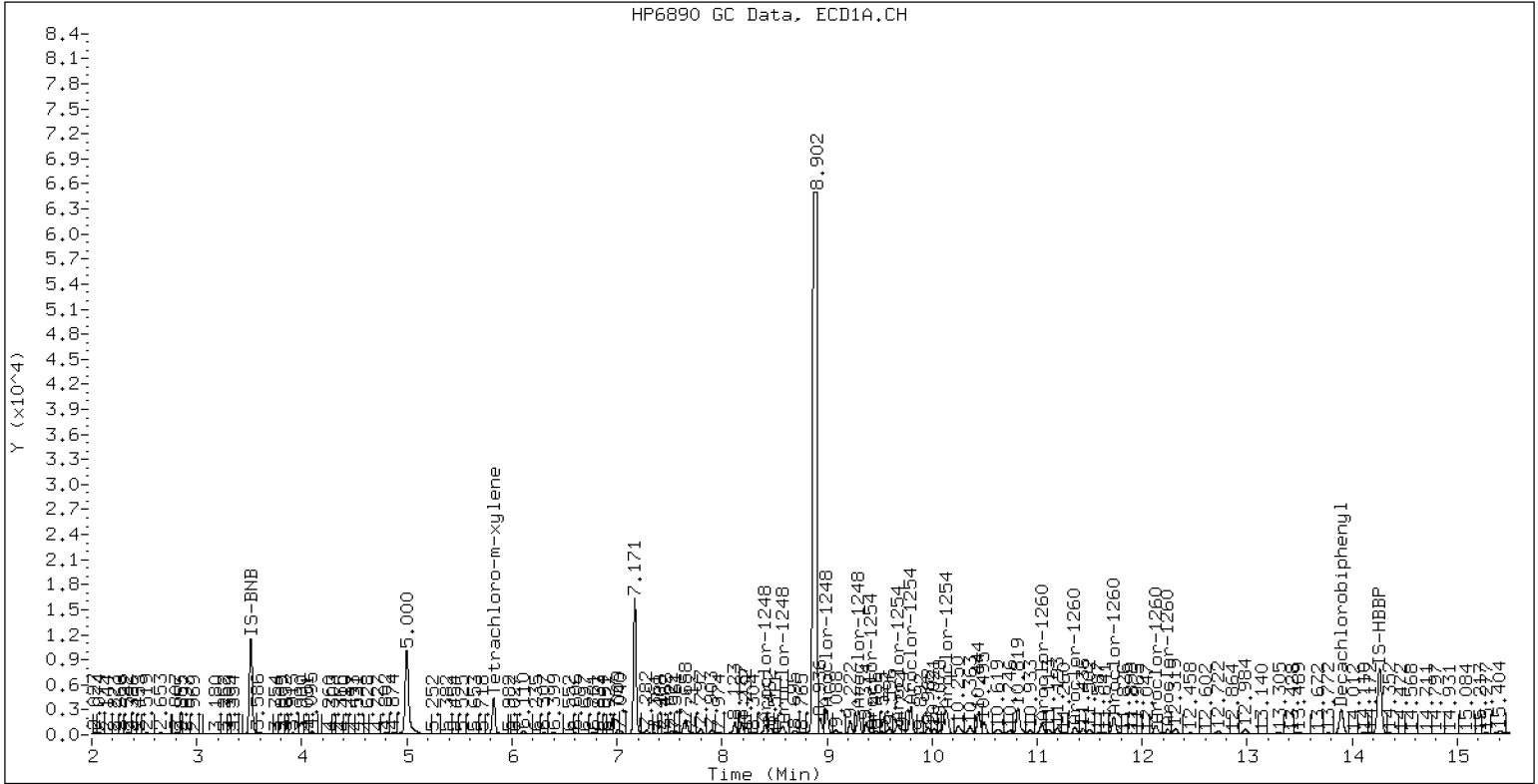
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-14

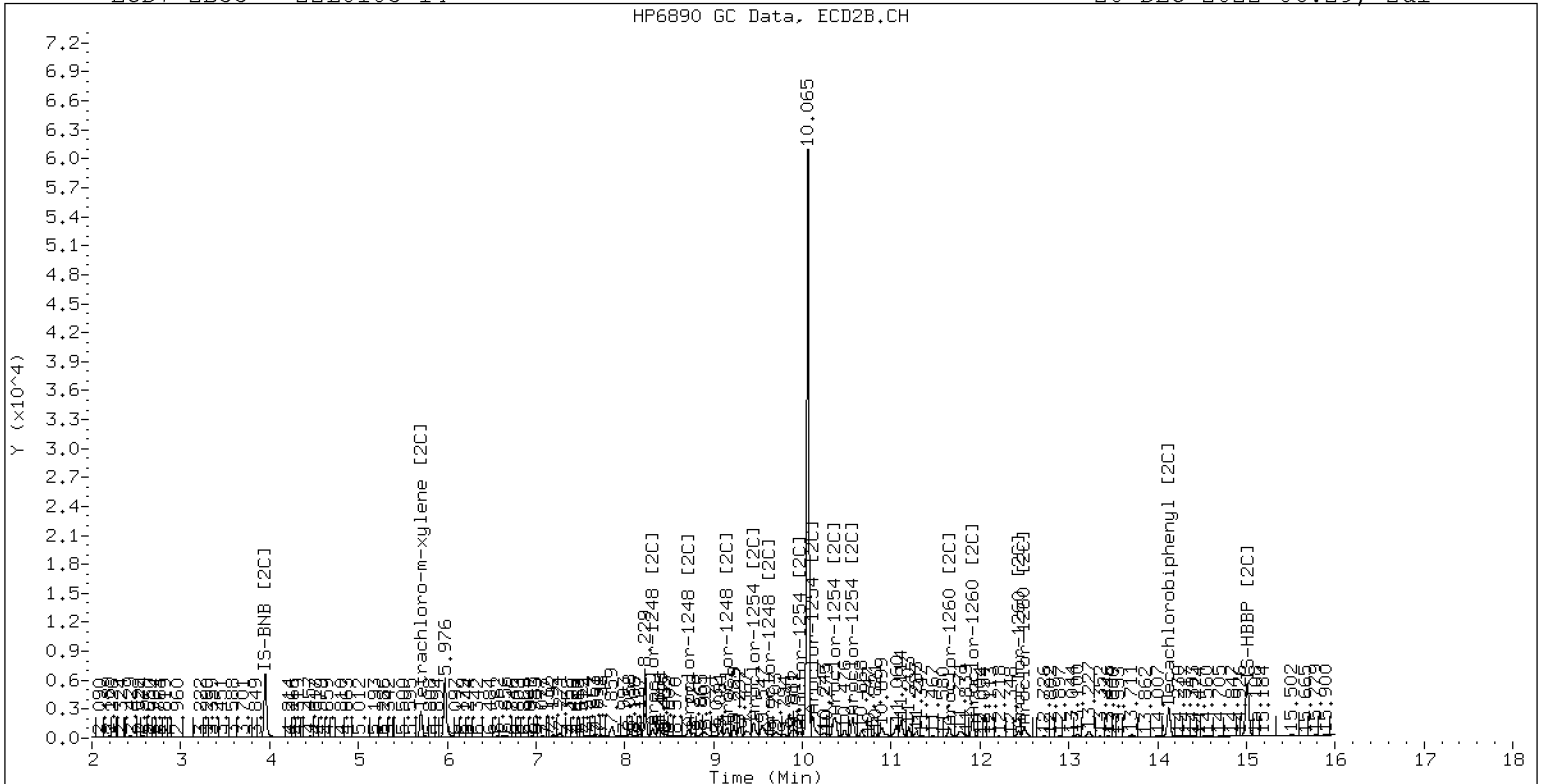
20-DEC-2022 06:29, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-14

20-DEC-2022 06:29, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192247ECD7.D
Data file 2: /221219.b/221219.b/12192247ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-15
Client ID:
Injection Date: 20-DEC-2022 06:50
Report Date: 12/21/2022 10:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col		ZB5	ZB35	RPD	Compound/Flag	
RT	Shift Response	RT	Shift Response	on col	on col			
5.827	-0.009	155431	5.705 -0.009	98284	23.5	27.0	14.0	Tetrachloro-m-xylene
13.896	-0.011	149235	14.126 -0.011	166841	40.1	37.9	5.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	467715	4.5
Hexabromobiphenyl	798898	405750	-49.2

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	265786	6.7
Hexabromobiphenyl	362541	309924	-14.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.412	-0.015	247793	1232.2	1	8.315	-0.011	286197	2635.8	
Aroclor-1248	2	8.578	-0.026	271419	1057.1	2	8.720	-0.012	188013	1646.4	
Aroclor-1248	3	8.996	-0.026	618438	1338.9	3	9.151	-0.026	174198	1254.0	
Aroclor-1248	4	9.300	-0.011	470465	2079.1	4	9.631	0.028	31445	192.8	
Total CollAve (4 peaks):				1426.8	Total Col2Ave (4 peaks):				1432.3	RPD = 0	
Corrected Ave (3 peaks):				1209.4	Corrected Ave (3 peaks):				1031.1	RPD = 16	
Aroclor-1254	1	9.300	-0.021	470465	1142.4	1	9.452	-0.015	245356	1431.8	
Aroclor-1254	2	9.375	-0.027	227874	1422.8	2	9.970	-0.017	90985	660.4	
Aroclor-1254	3	9.668	-0.027	215224	827.5	3	10.119	-0.021	484193	1635.0	
Aroclor-1254	4	9.799	-0.031	656187	1294.3	4	10.365	-0.024	488322	1592.2	
Aroclor-1254	5	10.134	-0.055	640772	1843.7	5	10.568	-0.018	277585	1876.6	
Total CollAve (5 peaks):				1306.2	Total Col2Ave (5 peaks):				1439.2	RPD = 10	
Corrected Ave (4 peaks):				1171.8	Corrected Ave (4 peaks):				1329.8	RPD = 13	
Aroclor-1260	1	11.046	-0.017	131830	892.6	1	11.657	-0.013	150827	922.0	
Aroclor-1260	2	11.360	-0.017	108553	710.6	2	11.917	-0.016	257329	626.9	
Aroclor-1260	3	11.730	-0.021	282143	703.0	3	12.437	-0.014	79889	730.8	
Aroclor-1260	4	12.130	-0.028	175237	857.3	4	12.500	-0.016	184855	675.5	
Aroclor-1260	5	12.245	-0.016	73591	879.5	NS	---			----	
Total CollAve (5 peaks):				808.6	Total Col2Ave (4 peaks):				738.8	RPD = 9	
Corrected Ave (4 peaks):				787.6	Corrected Ave (3 peaks):				677.7	RPD = 15	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 11189847 Col1 Total PCB = 2.1 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 7714218 Col2 Total PCB = 4.1 ppm*

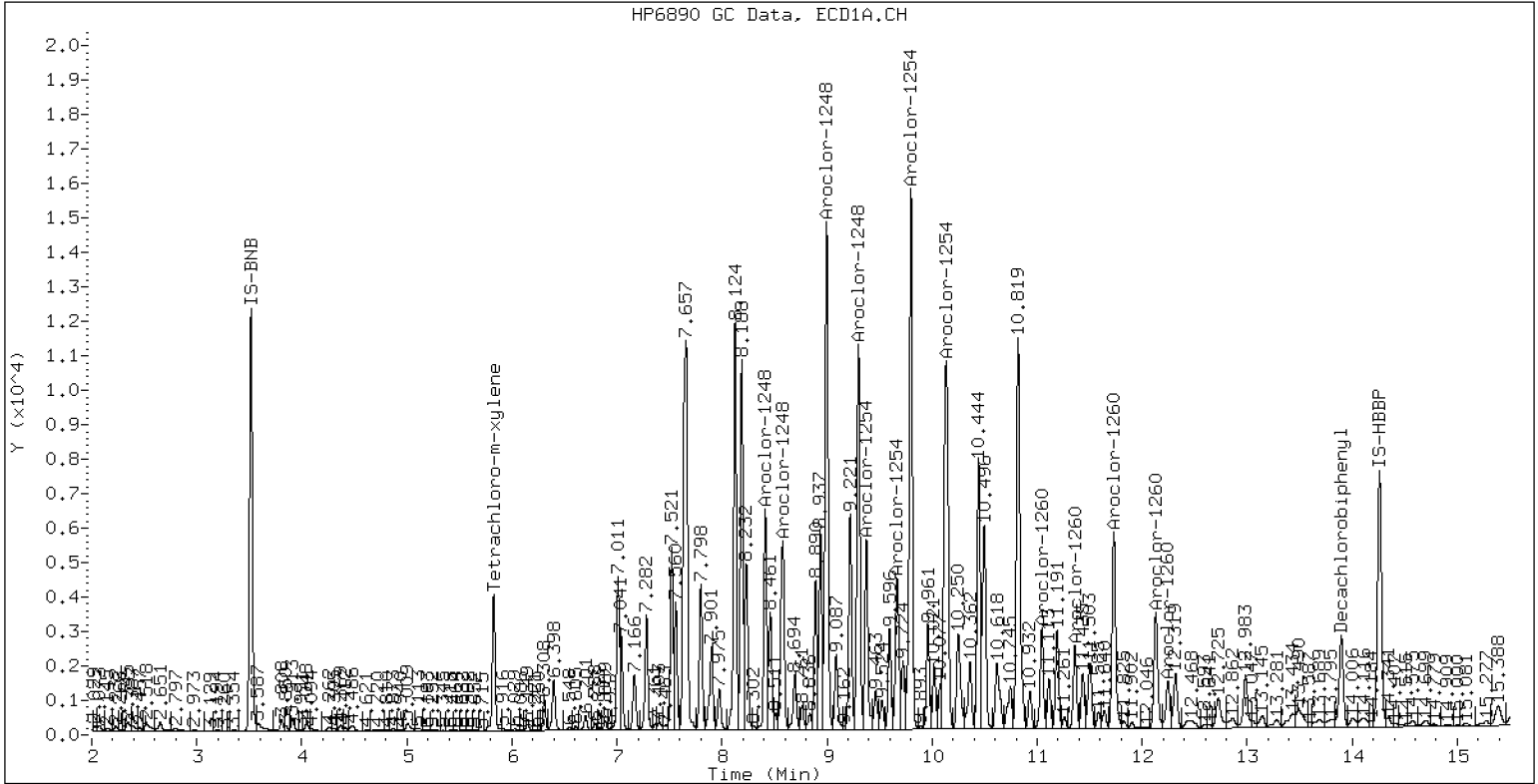
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-15

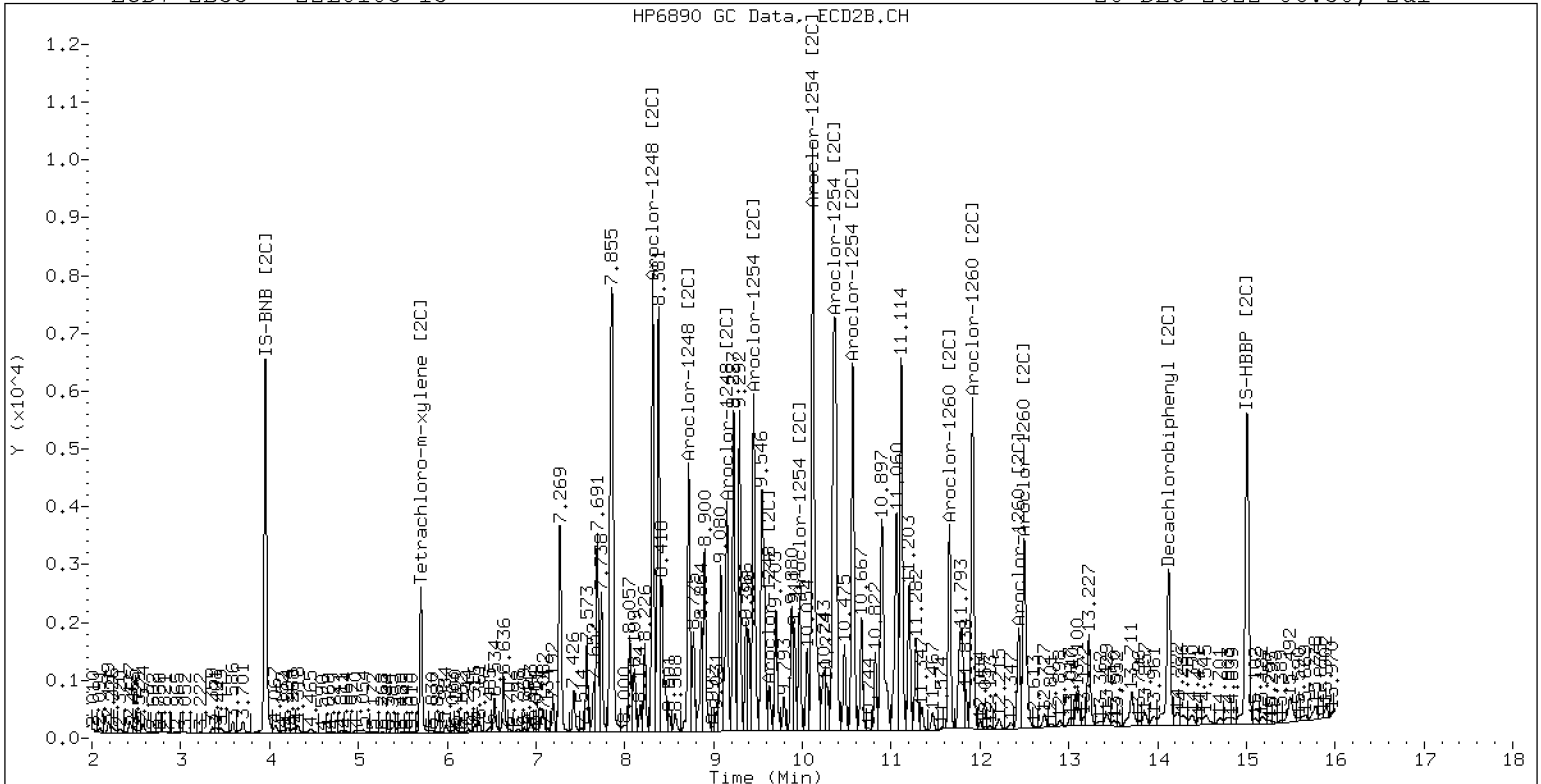
20-DEC-2022 06:50, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-15

20-DEC-2022 06:50, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222204ECD7.D
Data file 2: /221222.b/221222.b/12222204ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-15RE1
Client ID:
Injection Date: 22-DEC-2022 16:55
Report Date: 12/27/2022 17:46
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.830	-0.003	37074	5.707	-0.006	21106	5.5	5.8	4.9	Tetrachloro-m-xylene
13.898	-0.006	49892	14.127	-0.010	36369	9.0	7.1	23.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	473319	5.7
Hexabromobiphenyl	798898	604916	-24.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	265152	6.4
Hexabromobiphenyl	362541	359749	-0.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.414	-0.013	67913	333.7	1	8.317	-0.009	68194	629.6	
Aroclor-1248	2	8.581	-0.023	75386	290.1	2	8.722	-0.011	43430	381.2	
Aroclor-1248	3	9.000	-0.023	161544	345.6	3	9.155	-0.023	43005	310.3	
Aroclor-1248	4	9.302	-0.009	131644	574.9	4	9.633	0.031	8741	53.7	
Total CollAve (4 peaks):				386.1	Total Col2Ave (4 peaks):				343.7	RPD = 12	
Corrected Ave (3 peaks):				323.1	Corrected Ave (3 peaks):				248.4	RPD = 26	
Aroclor-1254	1	9.302	-0.019	131644	315.9	1	9.454	-0.013	60913	356.3	
Aroclor-1254	2	9.378	-0.024	66634	411.1	2	9.972	-0.014	22497	163.7	
Aroclor-1254	3	9.671	-0.023	59806	227.2	3	10.121	-0.019	117253	396.9	
Aroclor-1254	4	9.802	-0.028	182538	355.8	4	10.367	-0.022	121158	396.0	
Aroclor-1254	5	10.133	-0.057	109147	310.3	5	10.570	-0.016	69270	469.4	
Total CollAve (5 peaks):				324.1	Total Col2Ave (5 peaks):				356.5	RPD = 10	
Corrected Ave (4 peaks):				302.3	Corrected Ave (4 peaks):				328.2	RPD = 8	
Aroclor-1260	1	11.047	-0.009	40423	183.6	1	11.658	-0.011	37412	197.0	
Aroclor-1260	2	11.362	-0.011	32518	142.8	2	11.919	-0.014	62490	131.1	
Aroclor-1260	3	11.733	-0.014	84312	140.9	3	12.432	-0.019	37215	293.3	
Aroclor-1260	4	12.133	-0.016	52853	173.4	4	12.502	-0.015	44962	141.5	
Aroclor-1260	5	12.247	-0.011	22481	180.2	NS	---			---	
Total CollAve (5 peaks):				164.2	Total Col2Ave (4 peaks):				190.7	RPD = 15	
Corrected Ave (4 peaks):				159.3	Corrected Ave (3 peaks):				156.6	RPD = 2	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.933 - 13.804) = 3238086 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 1917637 Col2 Total PCB = 0.8 ppm*

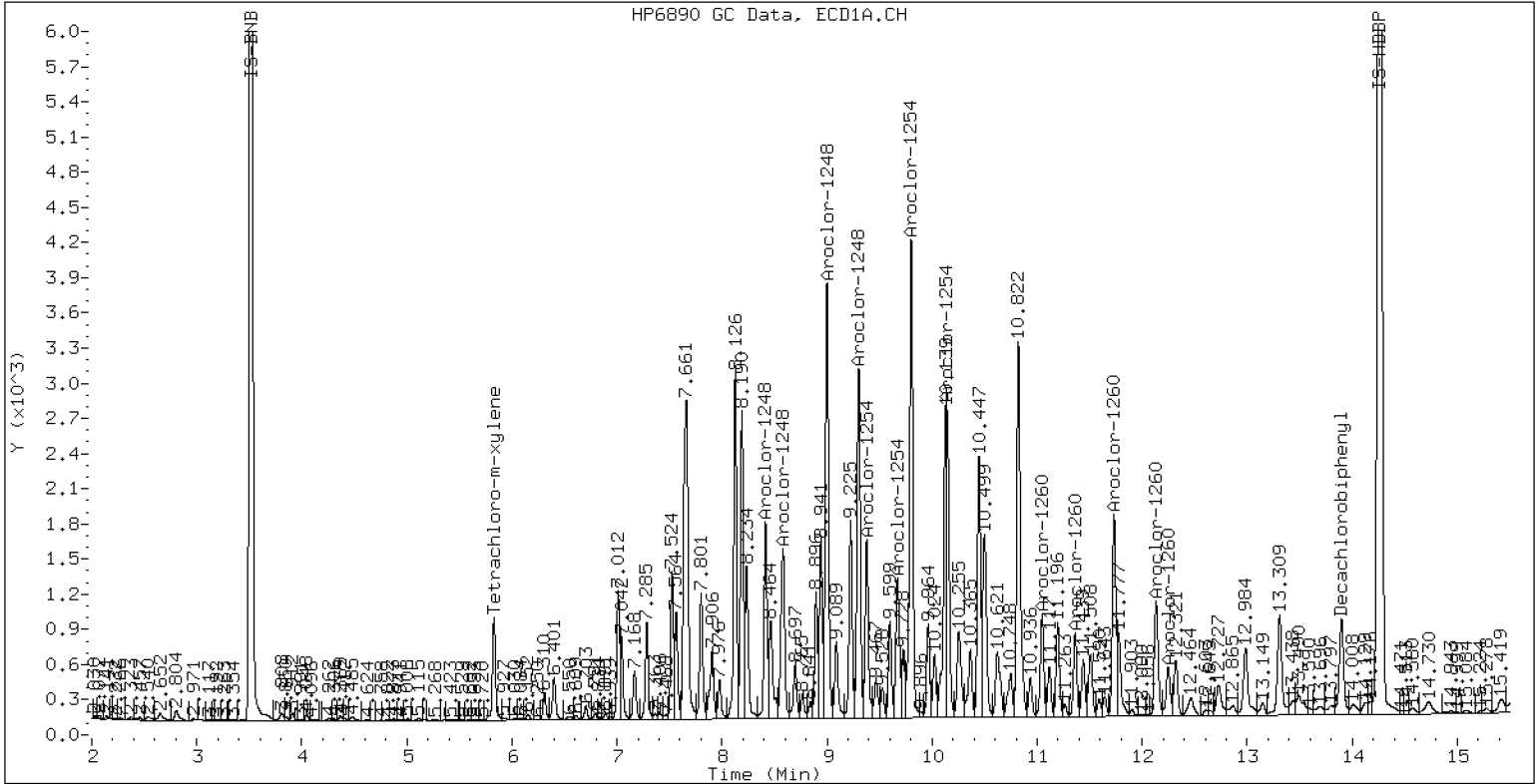
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-15RE1

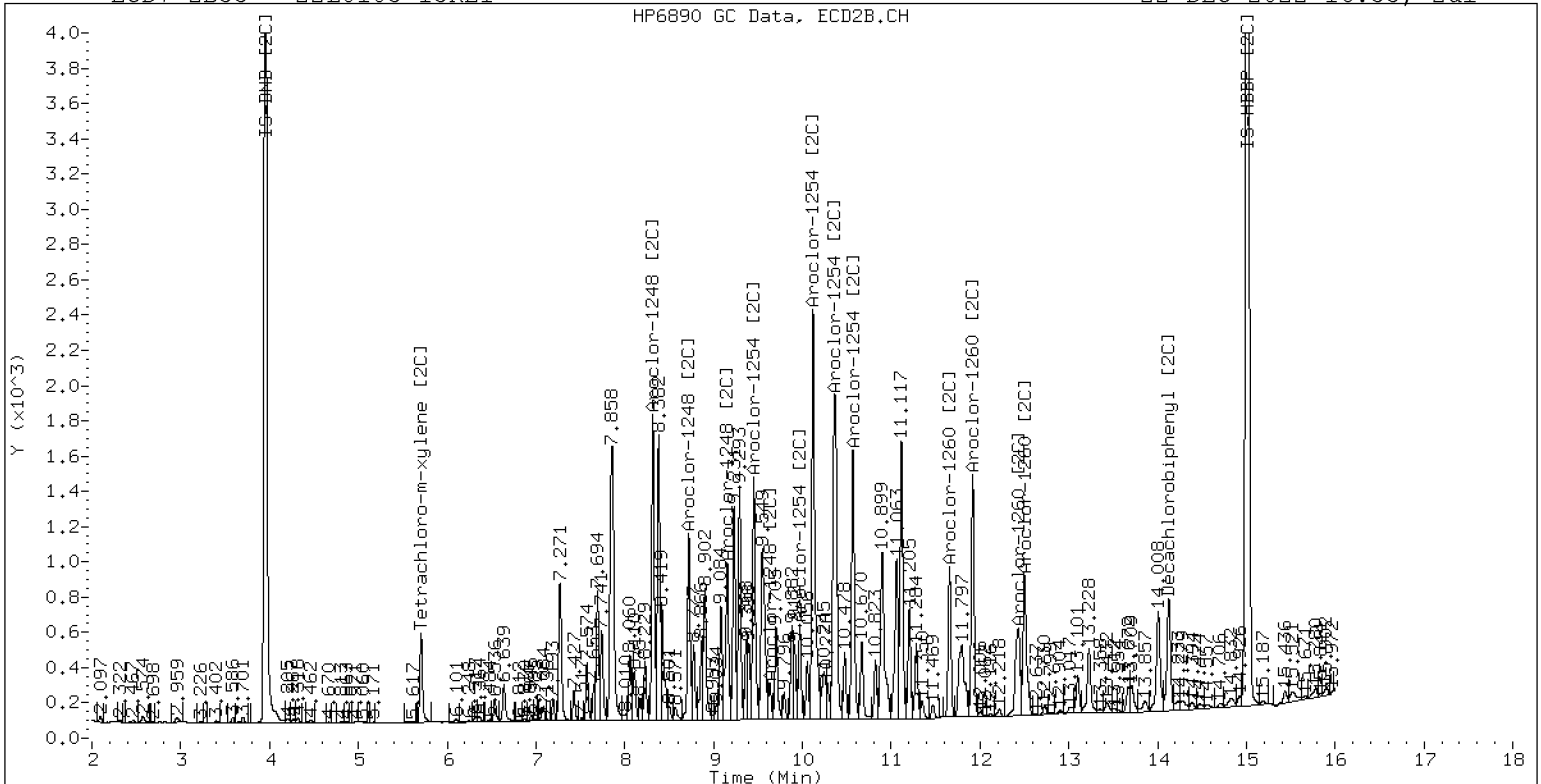
22-DEC-2022 16:55, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 22L0105-15RE1

22-DEC-2022 16:55, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192248ECD7.D
Data file 2: /221219.b/221219.b/12192248ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-16
Client ID:
Injection Date: 20-DEC-2022 07:12
Report Date: 12/21/2022 10:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.826	-0.010	157110	5.704	-0.010	99207	26.0	28.4	8.8	Tetrachloro-m-xylene
13.896	-0.012	146204	14.126	-0.011	155518	41.2	38.0	8.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	426843	-4.6
Hexabromobiphenyl	798898	387506	-51.5 <-

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	255120	2.4
Hexabromobiphenyl	362541	288616	-20.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.412	-0.016	291446	1588.0	1	8.315	-0.011	256954	2465.4	
Aroclor-1248	2	8.577	-0.027	326325	1392.6	2	8.720	-0.012	222325	2028.2	
Aroclor-1248	3	8.994	-0.028	608651	1443.9	3	9.151	-0.027	200925	1506.9	
Aroclor-1248	4	9.299	-0.012	423827	2052.3	4	9.630	0.028	24124	154.1	
Total CollAve (4 peaks):				1619.2	Total Col2Ave (4 peaks):				1538.7	RPD = 5	
Corrected Ave (3 peaks):				1474.9	Corrected Ave (3 peaks):				1229.7	RPD = 18	
Aroclor-1254	1	9.299	-0.022	423827	1127.7	1	9.452	-0.015	219756	1336.0	
Aroclor-1254	2	9.374	-0.028	205705	1407.4	2	9.969	-0.017	82144	621.2	
Aroclor-1254	3	9.668	-0.026	202014	851.1	3	10.118	-0.022	412142	1449.9	
Aroclor-1254	4	9.799	-0.032	569243	1230.3	4	10.355	-0.035	412489	1401.2	
Aroclor-1254	5	10.137	-0.052	523082	1649.2	5	10.567	-0.019	227734	1603.9	
Total CollAve (5 peaks):				1253.1	Total Col2Ave (5 peaks):				1282.4	RPD = 2	
Corrected Ave (4 peaks):				1154.1	Corrected Ave (4 peaks):				1202.1	RPD = 4	
Aroclor-1260	1	11.045	-0.018	101408	718.9	1	11.656	-0.013	110867	727.7	
Aroclor-1260	2	11.359	-0.018	77851	533.6	2	11.917	-0.015	184131	481.7	
Aroclor-1260	3	11.729	-0.022	201624	526.0	3	12.436	-0.015	57375	563.6	
Aroclor-1260	4	12.129	-0.029	117707	603.0	4	12.500	-0.016	128259	503.3	
Aroclor-1260	5	12.244	-0.017	51229	641.1	NS	---			---	
Total CollAve (5 peaks):				604.5	Total Col2Ave (4 peaks):				569.1	RPD = 6	
Corrected Ave (4 peaks):				575.9	Corrected Ave (3 peaks):				516.2	RPD = 11	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 10753168 Col1 Total PCB = 2.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 7386135 Col2 Total PCB = 4.1 ppm*

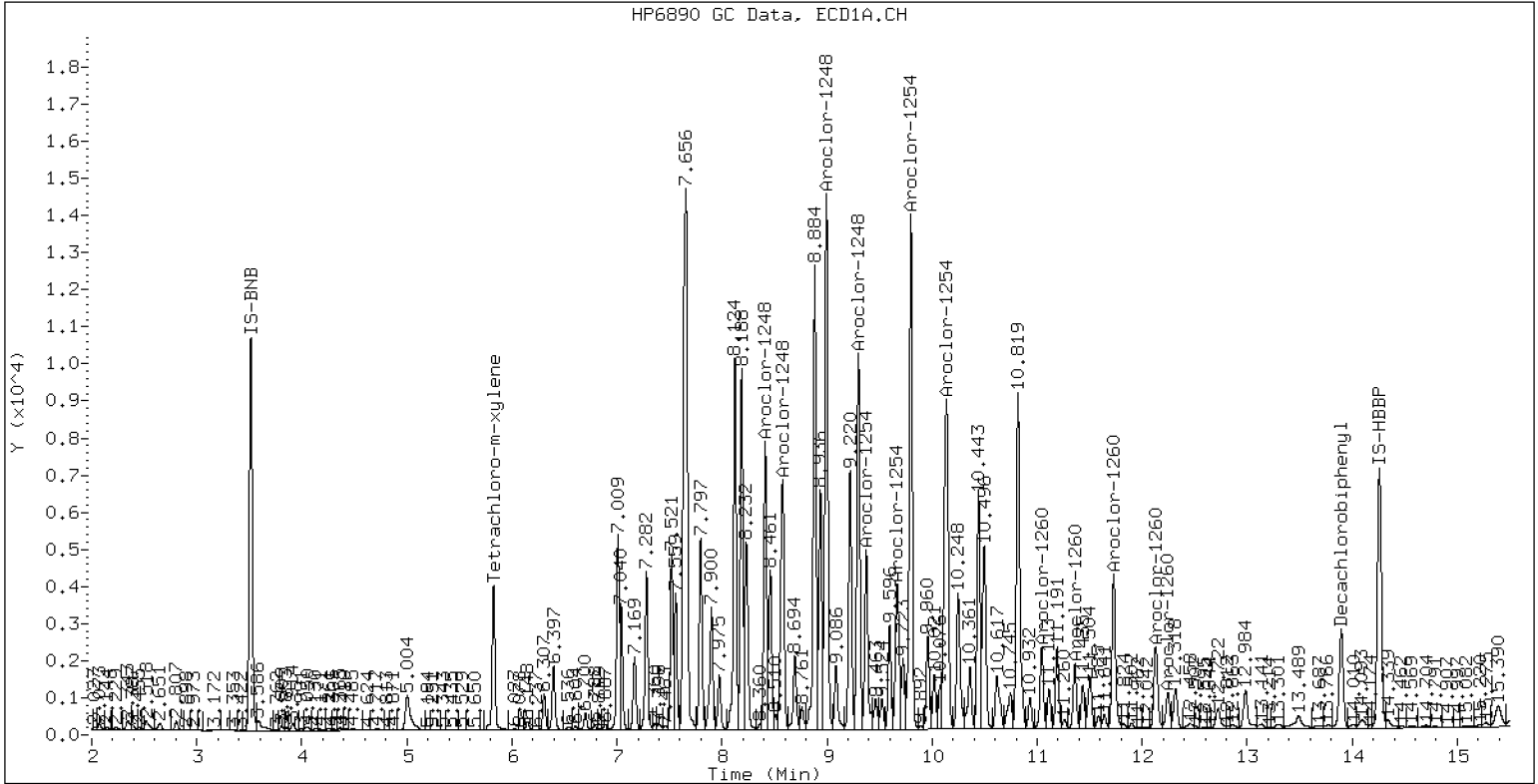
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-16

20-DEC-2022 07:12, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222205ECD7.D
Data file 2: /221222.b/221222.b/12222205ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-16RE1
Client ID:
Injection Date: 22-DEC-2022 17:16
Report Date: 12/27/2022 17:46
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.829	-0.004	40506	5.706	-0.007	23266	5.9	6.2	3.6	Tetrachloro-m-xylene
13.898	-0.006	47335	14.128	-0.009	37383	8.4	7.1	17.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	481403	7.5
Hexabromobiphenyl	798898	616525	-22.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	275817	10.7
Hexabromobiphenyl	362541	373355	3.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.414	-0.014	83284	402.4	1	8.317	-0.009	64633	573.6	
Aroclor-1248	2	8.581	-0.024	92502	350.0	2	8.722	-0.011	52750	445.1	
Aroclor-1248	3	8.998	-0.024	163257	343.4	3	9.155	-0.023	50550	350.7	
Aroclor-1248	4	9.302	-0.010	122087	524.2	4	9.633	0.031	7047	41.6	
Total CollAve (4 peaks):				405.0	Total Col2Ave (4 peaks):				352.8	RPD = 14	
Corrected Ave (3 peaks):				365.3	Corrected Ave (3 peaks):				279.1	RPD = 27	
Aroclor-1254	1	9.302	-0.020	122087	288.0	1	9.454	-0.012	55951	314.6	
Aroclor-1254	2	9.377	-0.024	56837	344.8	2	9.972	-0.015	21260	148.7	
Aroclor-1254	3	9.671	-0.023	57361	214.3	3	10.120	-0.019	103583	337.1	
Aroclor-1254	4	9.803	-0.028	162843	312.1	4	10.363	-0.026	105441	331.3	
Aroclor-1254	5	10.134	-0.055	78907	220.6	5	10.569	-0.017	58490	381.0	
Total CollAve (5 peaks):				275.9	Total Col2Ave (5 peaks):				302.5	RPD = 9	
Corrected Ave (4 peaks):				258.7	Corrected Ave (4 peaks):				282.9	RPD = 9	
Aroclor-1260	1	11.047	-0.009	32284	143.9	1	11.659	-0.010	27655	140.3	
Aroclor-1260	2	11.361	-0.012	23878	102.9	2	11.918	-0.014	46366	93.8	
Aroclor-1260	3	11.733	-0.014	65197	106.9	3	12.438	-0.013	15614	118.6	
Aroclor-1260	4	12.133	-0.015	37132	119.6	4	12.503	-0.014	32561	98.8	
Aroclor-1260	5	12.248	-0.011	16860	132.6	NS	---			----	
Total CollAve (5 peaks):				121.2	Total Col2Ave (4 peaks):				112.9	RPD = 7	
Corrected Ave (4 peaks):				115.5	Corrected Ave (3 peaks):				103.7	RPD = 11	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.933 - 13.804) = 3054534 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 1846308 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192206ECD7.D
Data file 2: /221219.b/221219.b/12192206ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-17RE1
Client ID:
Injection Date: 19-DEC-2022 16:21
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 10.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.830	-0.006	20967	5.708	-0.005	12020	3.3	3.3	2.1	Tetrachloro-m-xylene
13.899	-0.009	27020	14.130	-0.007	18701	4.9	3.5	33.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	445147	-0.6
Hexabromobiphenyl	798898	600050	-24.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	269317	8.1
Hexabromobiphenyl	362541	376720	3.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.417	-0.010	45257	236.5	1	8.320	-0.006	32672	297.0	
Aroclor-1248	2	8.585	-0.019	50270	205.7	2	8.725	-0.007	29288	253.1	
Aroclor-1248	3	9.003	-0.019	80342	182.8	3	9.159	-0.018	29193	207.4	
Aroclor-1248	4	9.305	-0.007	61825	287.1	4	9.571	-0.032	39289	237.8	
Total CollAve (4 peaks):				228.0	Total Col2Ave (4 peaks):				248.8	RPD = 9	
Corrected Ave (3 peaks):				208.3	Corrected Ave (3 peaks):				232.8	RPD = 11	
Aroclor-1254	1	9.305	-0.017	61825	157.7	1	9.458	-0.009	29668	170.9	
Aroclor-1254	2	9.381	-0.021	30418	199.6	2	9.975	-0.012	13059	93.5	
Aroclor-1254	3	9.675	-0.019	30358	122.6	3	10.124	-0.015	51837	172.7	
Aroclor-1254	4	9.807	-0.024	80639	167.1	4	10.369	-0.020	54552	175.5	
Aroclor-1254	5	10.149	-0.041	80592	243.7	5	10.573	-0.014	28908	192.9	
Total CollAve (5 peaks):				178.1	Total Col2Ave (5 peaks):				161.1	RPD = 10	
Corrected Ave (4 peaks):				161.8	Corrected Ave (4 peaks):				153.2	RPD = 5	
Aroclor-1260	1	11.049	-0.013	13922	63.7	1	11.662	-0.007	13009	65.4	
Aroclor-1260	2	11.363	-0.015	9854	43.6	2	11.922	-0.011	21755	43.6	
Aroclor-1260	3	11.735	-0.017	27808	46.8	3	12.440	-0.011	8568	64.5	
Aroclor-1260	4	12.136	-0.022	16339	54.1	4	12.506	-0.011	15512	46.6	
Aroclor-1260	5	12.250	-0.012	7637	61.7	NS	---			---	
Total CollAve (5 peaks):				54.0	Total Col2Ave (4 peaks):				55.0	RPD = 2	
Corrected Ave (4 peaks):				51.6	Corrected Ave (3 peaks):				51.6	RPD = 0	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 1499717 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 968948 Col2 Total PCB = 0.5 ppm*

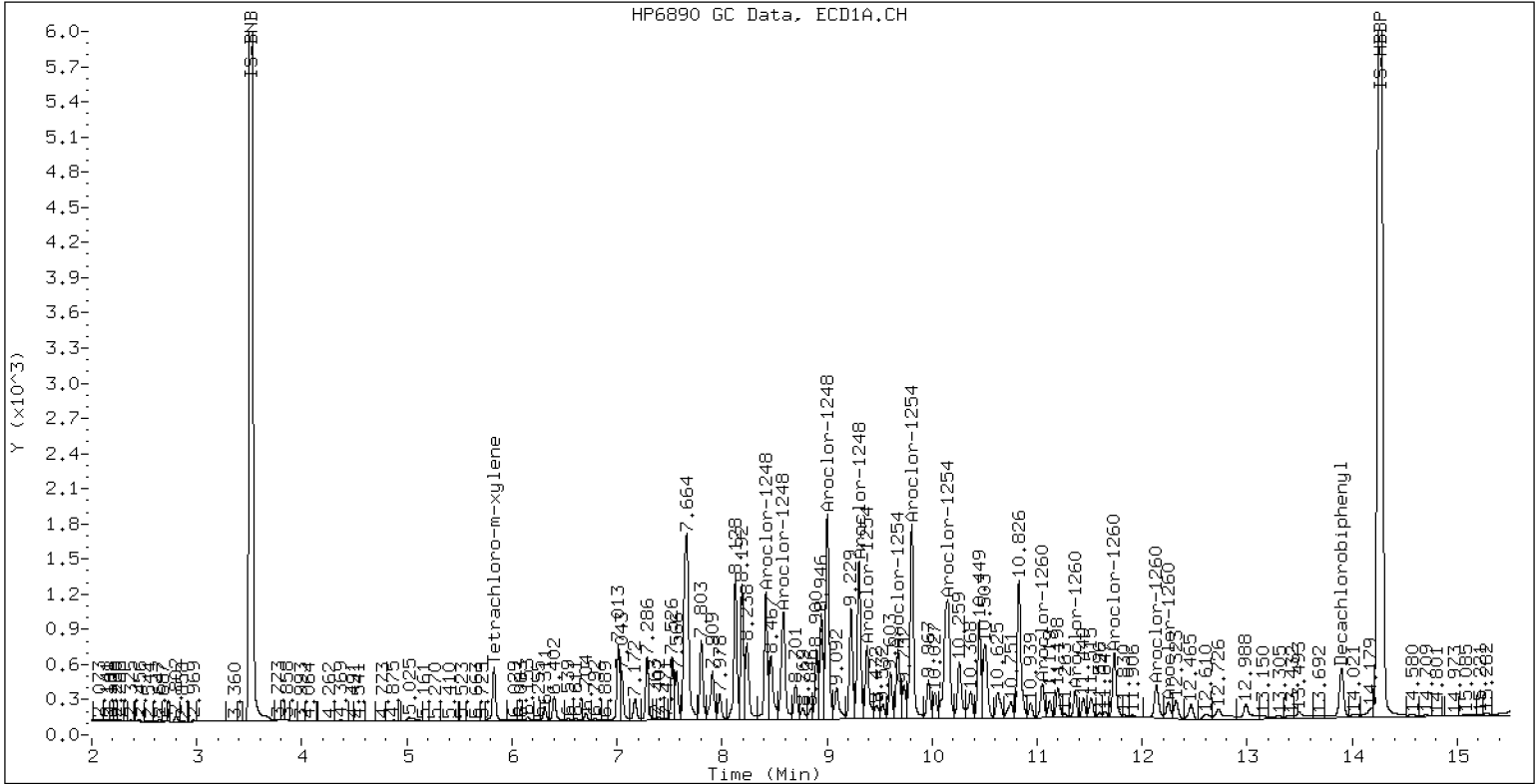
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-17RE1

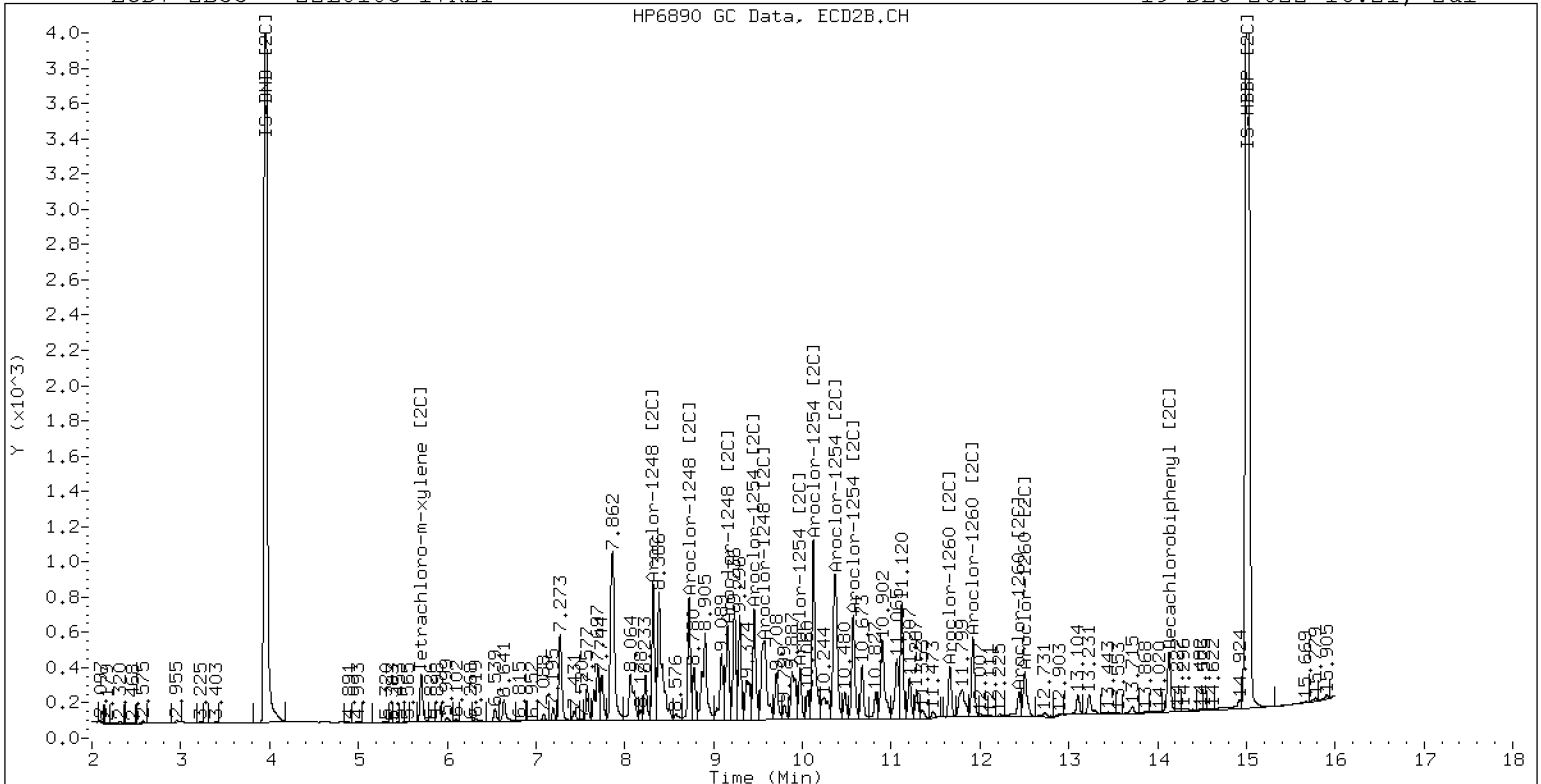
19-DEC-2022 16:21, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-17RE1

19-DEC-2022 16:21, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192207ECD7.D
Data file 2: /221219.b/221219.b/12192207ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-18RE1
Client ID:
Injection Date: 19-DEC-2022 16:42
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 10.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.004	19586	5.710	-0.003	11921	3.1	3.2	4.4	Tetrachloro-m-xylene
13.900	-0.008	25005	14.130	-0.007	19364	4.1	3.4	19.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	448530	0.2
Hexabromobiphenyl	798898	657595	-17.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270012	8.4
Hexabromobiphenyl	362541	398528	9.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.418	-0.010	53900	279.5	1	8.320	-0.006	40797	369.9	
Aroclor-1248	2	8.586	-0.018	59377	241.1	2	8.726	-0.007	35299	304.3	
Aroclor-1248	3	9.004	-0.018	101199	228.5	3	9.160	-0.018	35927	254.6	
Aroclor-1248	4	9.305	-0.006	71860	331.1	4	9.575	-0.027	43861	264.8	
Total CollAve (4 peaks):				270.1	Total Col2Ave (4 peaks):				298.4	RPD = 10	
Corrected Ave (3 peaks):				249.7	Corrected Ave (3 peaks):				274.5	RPD = 9	
Aroclor-1254	1	9.305	-0.016	71860	182.0	1	9.458	-0.009	35688	205.0	
Aroclor-1254	2	9.382	-0.020	36250	236.0	2	9.976	-0.011	19101	136.5	
Aroclor-1254	3	9.676	-0.018	40894	163.9	3	10.124	-0.015	62142	206.6	
Aroclor-1254	4	9.807	-0.023	102479	210.8	4	10.369	-0.020	64697	207.6	
Aroclor-1254	5	10.152	-0.037	99687	299.1	5	10.573	-0.013	32443	215.9	
Total CollAve (5 peaks):				218.4	Total Col2Ave (5 peaks):				194.3	RPD = 12	
Corrected Ave (4 peaks):				198.2	Corrected Ave (4 peaks):				188.9	RPD = 5	
Aroclor-1260	1	11.050	-0.012	17179	71.8	1	11.663	-0.006	13379	63.6	
Aroclor-1260	2	11.362	-0.015	11818	47.7	2	11.922	-0.010	20686	39.2	
Aroclor-1260	3	11.736	-0.016	30918	47.5	3	12.441	-0.010	6781	48.2	
Aroclor-1260	4	12.136	-0.022	20305	61.3	4	12.506	-0.011	15276	43.4	
Aroclor-1260	5	12.250	-0.011	9449	69.7	NS	---			---	
Total CollAve (5 peaks):				59.6	Total Col2Ave (4 peaks):				48.6	RPD = 20	
Corrected Ave (4 peaks):				56.6	Corrected Ave (3 peaks):				43.6	RPD = 26	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 2801680 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1526163 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192208ECD7.D
Data file 2: /221219.b/221219.b/12192208ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-19RE1
Client ID:
Injection Date: 19-DEC-2022 17:03
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	-0.003	48139	5.712	-0.002	27522	6.9	6.9	0.7	Tetrachloro-m-xylene
13.897	-0.011	47646	14.128	-0.009	38504	8.7	7.2	18.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	492441	10.0
Hexabromobiphenyl	798898	598320	-25.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	293076	17.7
Hexabromobiphenyl	362541	374748	3.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.417	-0.010	40292	190.3	1	8.320	-0.006	64098	535.4	
Aroclor-1248	2	8.570	-0.034	105702	391.0	2	8.726	-0.007	22227	176.5	
Aroclor-1248	3	9.004	-0.019	154567	317.8	3	9.160	-0.017	40713	265.8	
Aroclor-1248	4	9.306	-0.005	199203	836.1	4	9.638	0.035	12573	69.9	
Total CollAve (4 peaks):				433.8	Total Col2Ave (4 peaks):				261.9	RPD = 49*	
Corrected Ave (3 peaks):				299.7	Corrected Ave (3 peaks):				170.7	RPD = 55*	
Aroclor-1254	1	9.306	-0.015	199203	459.4	1	9.457	-0.009	103331	546.8	
Aroclor-1254	2	9.381	-0.021	131021	777.0	2	9.975	-0.012	39314	258.8	
Aroclor-1254	3	9.672	-0.022	81710	298.4	3	10.124	-0.015	122803	376.1	
Aroclor-1254	4	9.806	-0.025	192219	360.1	4	10.362	-0.028	174777	516.8	
Aroclor-1254	5	10.153	-0.036	266304	727.8	5	10.572	-0.014	92094	564.6	
Total CollAve (5 peaks):				524.5	Total Col2Ave (5 peaks):				452.6	RPD = 15	
Corrected Ave (4 peaks):				461.4	Corrected Ave (4 peaks):				424.6	RPD = 8	
Aroclor-1260	1	11.049	-0.013	36632	168.2	1	11.661	-0.008	42681	215.8	
Aroclor-1260	2	11.365	-0.012	29141	129.4	2	11.921	-0.011	59625	120.1	
Aroclor-1260	3	11.735	-0.017	79792	134.8	3	12.441	-0.010	17060	129.1	
Aroclor-1260	4	12.135	-0.023	47789	158.6	4	12.505	-0.012	40173	121.4	
Aroclor-1260	5	12.249	-0.012	16869	136.7	NS	---			----	
Total CollAve (5 peaks):				145.5	Total Col2Ave (4 peaks):				146.6	RPD = 1	
Corrected Ave (4 peaks):				139.9	Corrected Ave (3 peaks):				123.5	RPD = 12	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 3359616 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1991958 Col2 Total PCB = 1.0 ppm*

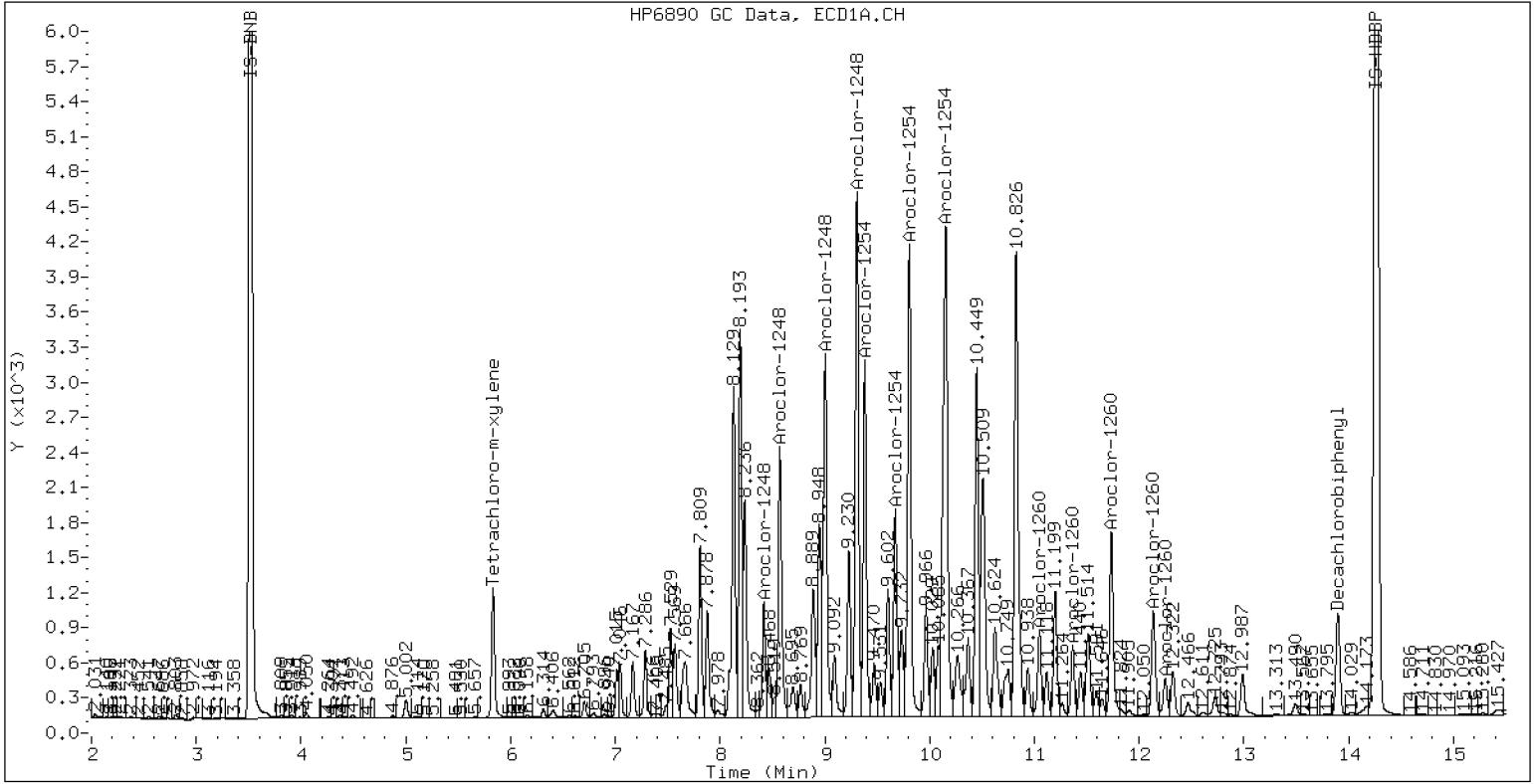
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-19RE1

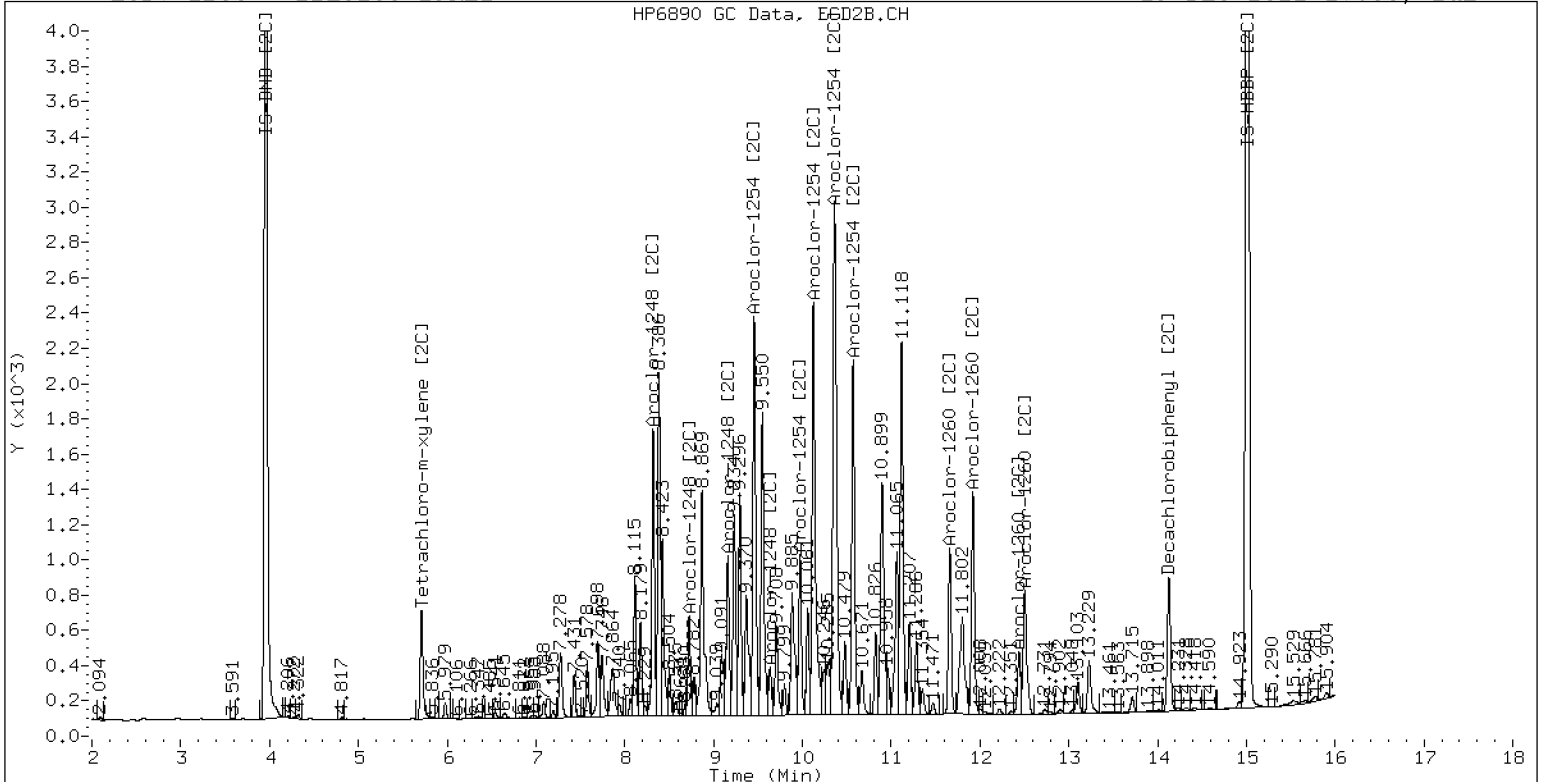
19-DEC-2022 17:03, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-19RE1

19-DEC-2022 17:03, 2ul



ZB-35 Manual Integration: NO



ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: 22L0105-20 A

File ID: 12172248ECD7.D

Sampled: 12/05/22 11:43

Prepared: 12/08/22 11:45

Analyzed: 12/18/22 01:55

% Solids: 68.04

Preparation: EPA 3546 (Microwave)

Initial/Final: 18.4 g Wet / 2.5 mL

Batch: BKL0158

Sequence: SKL0280

Calibration: FL00010

Instrument: ECD7

Column 1: ZB5

Column 2: ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	1	4.0	1.6	4.0	U
11104-28-2	Aroclor 1221	1	1	4.0	1.6	4.0	U
11141-16-5	Aroclor 1232	1	1	4.0	1.6	4.0	U
53469-21-9	Aroclor 1242	1	1	4.0	1.6	4.0	U
12672-29-6	Aroclor 1248	1	1	4.0	1.6	4.0	U
11097-69-1	Aroclor 1254	1	1	68.3	1.6	4.0	
11096-82-5	Aroclor 1260	2	1	18.2	0.6	4.0	

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9876	7.99	100	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9876	6.75	84.5	44 - 120	
<i>Decachlorobiphenyl</i>	2	7.9876	7.40	92.7	40 - 126	
<i>Tetrachlorometaxylene</i>	2	7.9876	6.65	83.2	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172248ECD7.D
 Data file 2: /221217.b/221217.b/12172248ECD7.D
 Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
 Compound Sublist: PCB.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 22L0105-20
 Client ID:
 Injection Date: 18-DEC-2022 01:55
 Report Date: 12/20/2022 15:09
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.830	-0.006	224785	5.707	-0.003	132482	33.8	33.3	1.5	Tetrachloro-m-xylene
13.896	-0.012	183895	14.127	-0.006	171039	40.0	37.1	7.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	469425	4.9
Hexabromobiphenyl	798898	501494	-37.2

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	290286	16.5
Hexabromobiphenyl	362541	324879	-10.4

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1254	1	9.304	-0.017	116902	282.8	1	9.456	-0.008	57049	304.8
Aroclor-1254	2	9.379	-0.023	49879	310.3	2	9.974	-0.007	40634	270.0
Aroclor-1254	3	9.671	-0.024	75674	289.9	3	10.121	-0.013	93088	287.8
Aroclor-1254	4	9.805	-0.026	160157	314.7	4	10.361	-0.022	118114	352.6
Aroclor-1254	5	10.148	-0.041	178652	512.2	5	10.571	-0.008	45175	279.6
Total CollAve (5 peaks):				342.0	Total Col2Ave (5 peaks):				299.0	RPD = 13
Corrected Ave (4 peaks):				299.4	Corrected Ave (4 peaks):				285.6	RPD = 5
Aroclor-1260	1	11.045	-0.017	14328	78.5	1	11.660	-0.007	26638	155.3
Aroclor-1260	2	11.362	-0.015	12897	68.3	2	11.920	-0.010	26078	60.6
Aroclor-1260	3	11.733	-0.018	36350	73.3	3	12.439	-0.010	9957	86.9
Aroclor-1260	4	12.134	-0.024	25137	99.5	4	12.502	-0.011	17661	61.6
Aroclor-1260	5	12.246	-0.016	6145	59.4	NS	---			---
Total CollAve (5 peaks):				75.8	Total Col2Ave (4 peaks):				91.1	RPD = 18
Corrected Ave (4 peaks):				69.9	Corrected Ave (3 peaks):				69.7	RPD = 0
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.936 - 13.808) = 1698479 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1057727 Col2 Total PCB = 0.5 ppm*

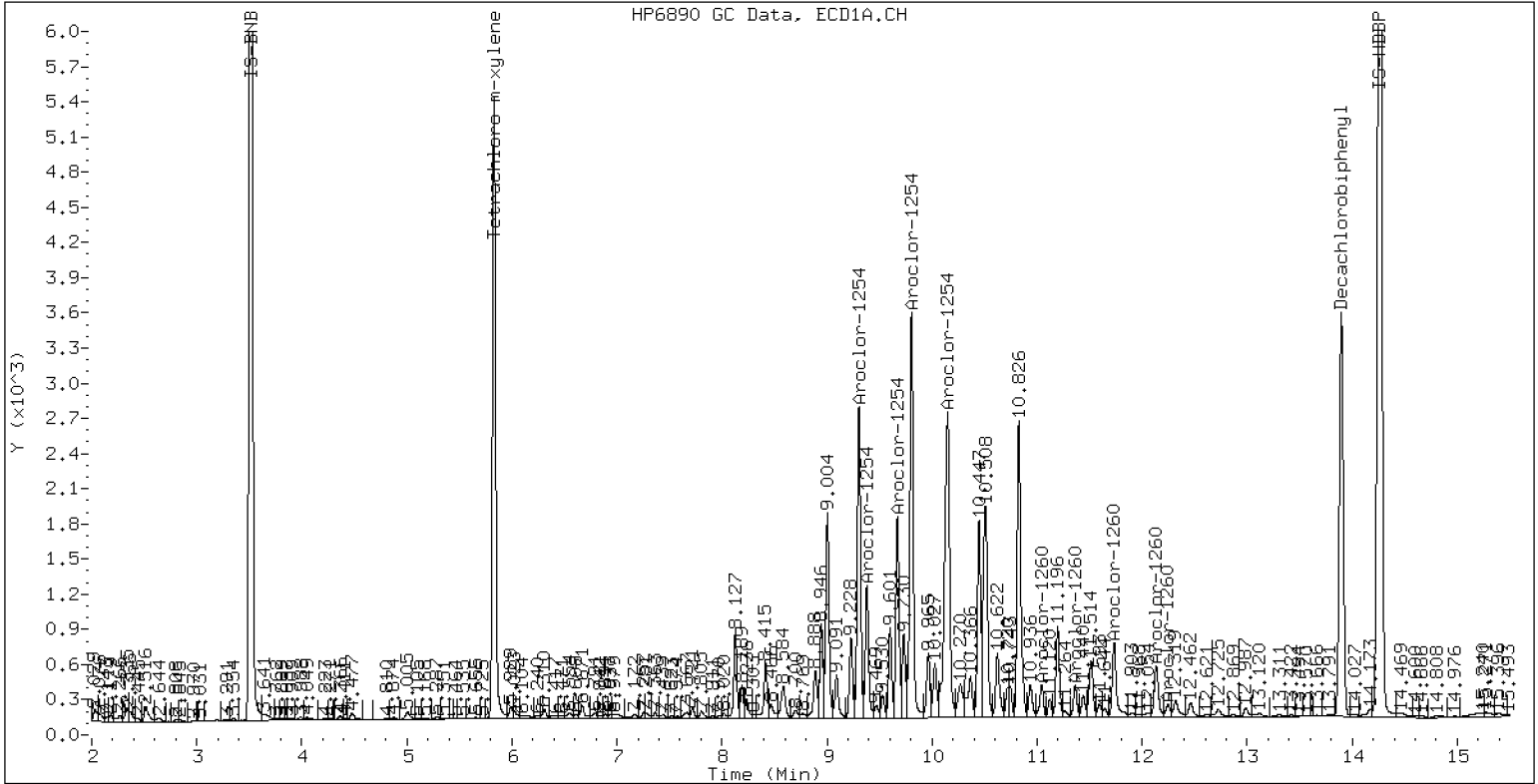
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-20

18-DEC-2022 01:55, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172249ECD7.D
Data file 2: /221217.b/221217.b/12172249ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-21
Client ID:
Injection Date: 18-DEC-2022 02:16
Report Date: 12/20/2022 15:09
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.828	-0.008	181905	5.705	-0.005	110056	26.7	30.0	11.6	Tetrachloro-m-xylene
13.897	-0.011	146424	14.127	-0.007	142335	38.2	34.8	9.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	481003	7.5
Hexabromobiphenyl	798898	417641	-47.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	267895	7.5
Hexabromobiphenyl	362541	288422	-20.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.412	-0.015	31613	152.9	1	8.315	-0.009	21442	195.9	
Aroclor-1248	2	8.580	-0.024	26173	99.1	2	8.721	-0.009	18145	157.6	
Aroclor-1248	3	8.998	-0.024	73439	154.6	3	9.153	-0.022	24816	177.2	
Aroclor-1248	4	9.300	-0.011	77146	331.5	4	9.629	0.031	3277	19.9	
Total CollAve (4 peaks):				184.5	Total Col2Ave (4 peaks):				137.7	RPD = 29	
Corrected Ave (3 peaks):				135.5	Corrected Ave (3 peaks):				118.3	RPD = 14	
Aroclor-1254	1	9.300	-0.021	77146	182.2	1	9.452	-0.012	43963	254.5	
Aroclor-1254	2	9.420	0.018	5386	32.7	2	9.970	-0.011	20613	148.4	
Aroclor-1254	3	9.671	-0.023	54138	202.4	3	10.119	-0.015	79730	267.1	
Aroclor-1254	4	9.800	-0.031	105509	202.4	4	10.370	-0.012	95864	310.1	
Aroclor-1254	5	10.129	-0.060	142814	399.6	5	10.568	-0.012	75208	504.4	
Total CollAve (5 peaks):				209.8	Total Col2Ave (5 peaks):				296.9	RPD = 37	
Corrected Ave (4 peaks):				154.9	Corrected Ave (4 peaks):				245.0	RPD = 45*	
223.33											
Aroclor-1260	1	11.045	-0.017	50767	333.9	1	11.657	-0.010	42966	282.2	
Aroclor-1260	2	11.361	-0.016	42991	273.4	2	11.917	-0.013	92227	241.4	
Aroclor-1260	3	11.730	-0.022	118273	286.3	3	12.436	-0.013	32350	318.0	
Aroclor-1260	4	12.132	-0.027	63989	304.1	4	12.501	-0.013	63859	250.8	
Aroclor-1260	5	12.246	-0.015	26284	305.2	NS	---			---	
Total CollAve (5 peaks):				300.6	Total Col2Ave (4 peaks):				273.1	RPD = 10	
Corrected Ave (4 peaks):				292.3	Corrected Ave (3 peaks):				258.1	RPD = 12	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 2328596 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1541743 Col2 Total PCB = 0.8 ppm*

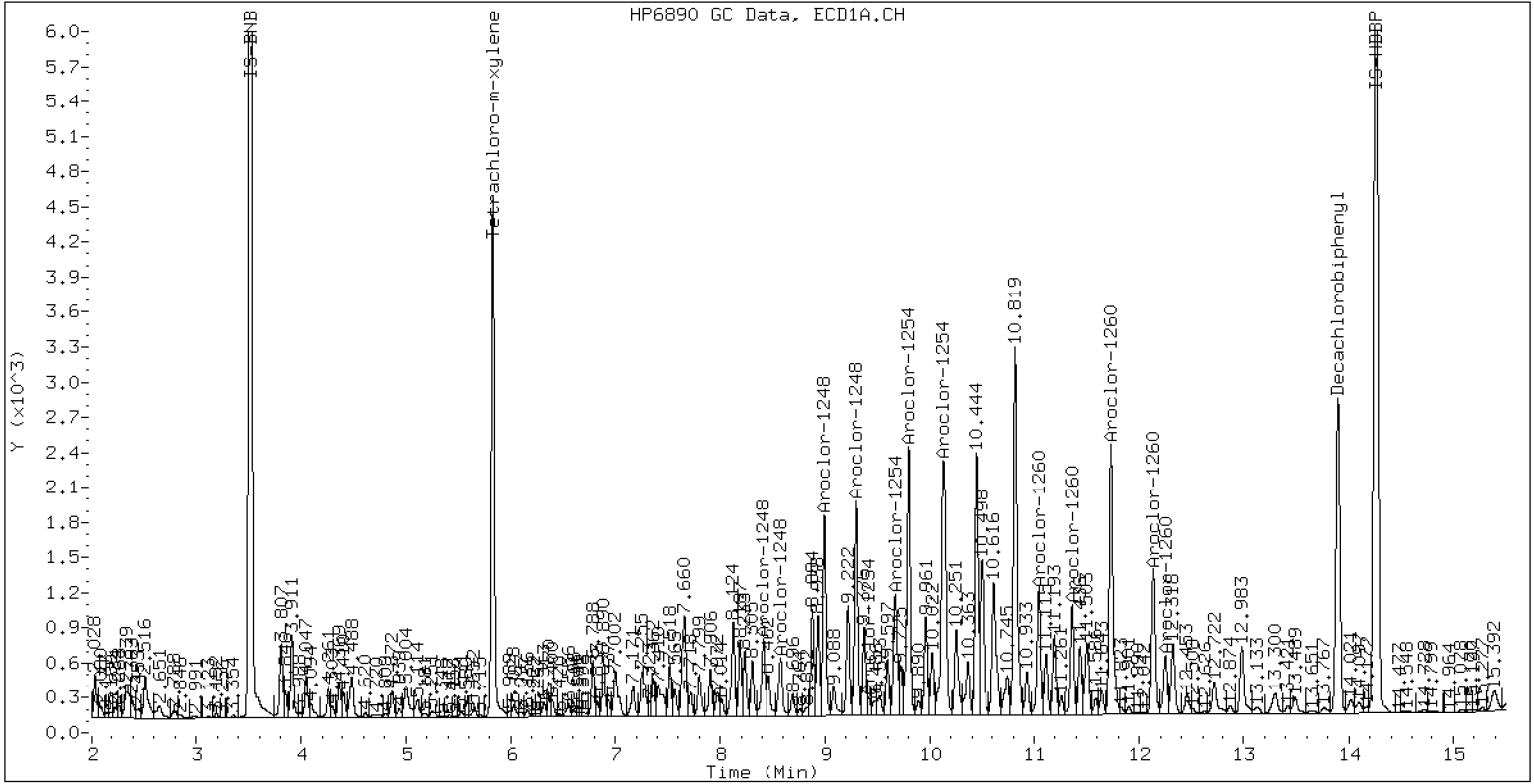
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-21

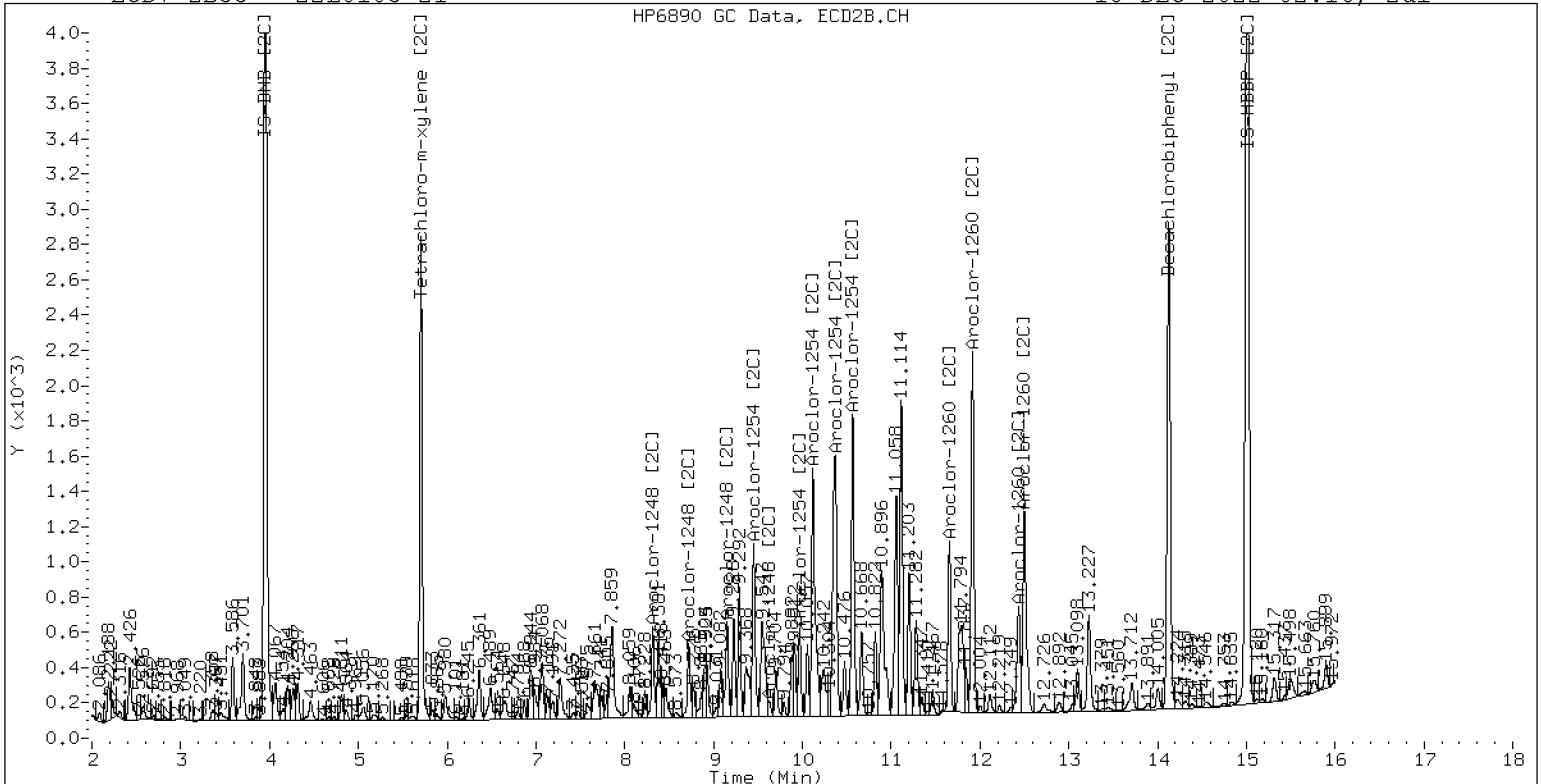
18-DEC-2022 02:16, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-21

18-DEC-2022 02:16, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172250ECD7.D
 Data file 2: /221217.b/221217.b/12172250ECD7.D
 Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
 Compound Sublist: PCB.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 22L0105-22
 Client ID:
 Injection Date: 18-DEC-2022 02:37
 Report Date: 12/20/2022 15:09
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.829	-0.007	184031	5.706	-0.005	112742	28.1	31.2	10.4	Tetrachloro-m-xylene
13.896	-0.011	153700	14.127	-0.007	148443	40.0	36.0	10.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	462276	3.3
Hexabromobiphenyl	798898	419105	-47.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	263874	5.9
Hexabromobiphenyl	362541	290236	-19.9

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.411	-0.016	21821	109.8	1	8.316	-0.009	13937	129.3	
Aroclor-1248	2	8.581	-0.023	13660	53.8	2	8.722	-0.009	9659	85.2	
Aroclor-1248	3	8.999	-0.023	41925	91.8	3	9.153	-0.022	13987	101.4	
Aroclor-1248	4	9.301	-0.010	48601	217.3	4	9.547	-0.051	26825	165.7	
Total CollAve (4 peaks):				118.2	Total Col2Ave (4 peaks):				120.4	RPD = 2	
Corrected Ave (3 peaks):				85.1	Corrected Ave (3 peaks):				105.3	RPD = 21	
Aroclor-1254	1	9.301	-0.020	48601	119.4	1	9.453	-0.011	29921	175.9	
Aroclor-1254	2	9.420	0.018	7355	46.5	2	9.971	-0.010	12890	94.2	
Aroclor-1254	3	9.675	-0.019	38582	150.1	3	10.120	-0.015	50185	170.7	
Aroclor-1254	4	9.801	-0.030	65726	131.2	4	10.371	-0.012	59464	195.3	
Aroclor-1254	5	10.128	-0.062	87587	255.0	5	10.568	-0.011	48627	331.1	
Total CollAve (5 peaks):				140.4	Total Col2Ave (5 peaks):				193.4	RPD = 32	
Corrected Ave (4 peaks):				111.8	Corrected Ave (4 peaks):				159.0	RPD = 35	
Aroclor-1260	1	11.046	-0.016	31899	209.1	1	11.657	-0.010	27692	180.8	
Aroclor-1260	2	11.360	-0.017	27382	173.5	2	11.917	-0.013	59942	155.9	
Aroclor-1260	3	11.730	-0.022	91780	221.4	3	12.434	-0.015	20842	203.6	
Aroclor-1260	4	12.131	-0.028	40208	190.4	4	12.500	-0.013	35179	137.3	
Aroclor-1260	5	12.245	-0.016	16651	192.7	NS	---			---	
Total CollAve (5 peaks):				197.4	Total Col2Ave (4 peaks):				169.4	RPD = 15	
Corrected Ave (4 peaks):				191.4	Corrected Ave (3 peaks):				158.0	RPD = 19	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 1557140 Col1 Total PCB = 0.3 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 1037956 Col2 Total PCB = 0.6 ppm*

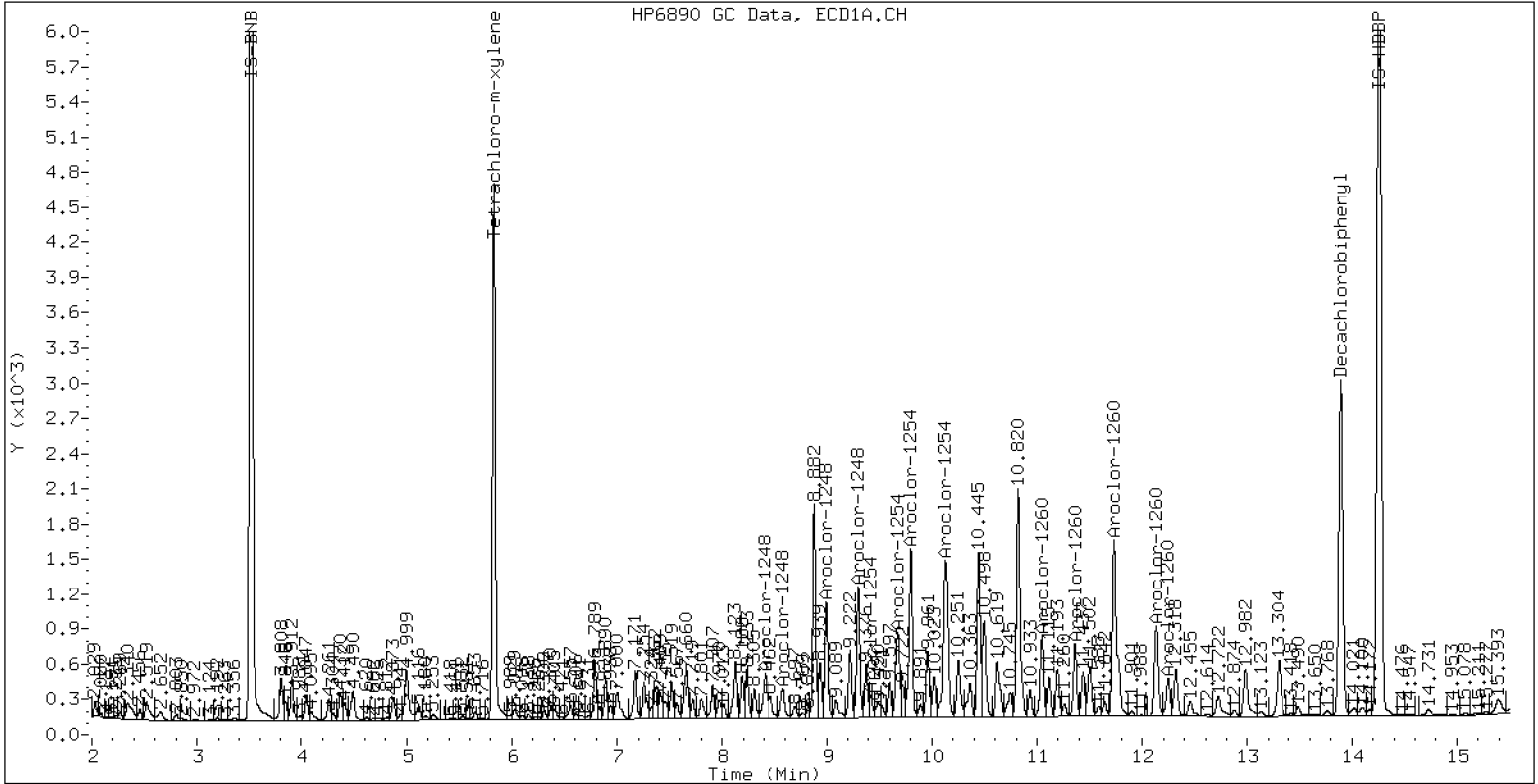
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-22

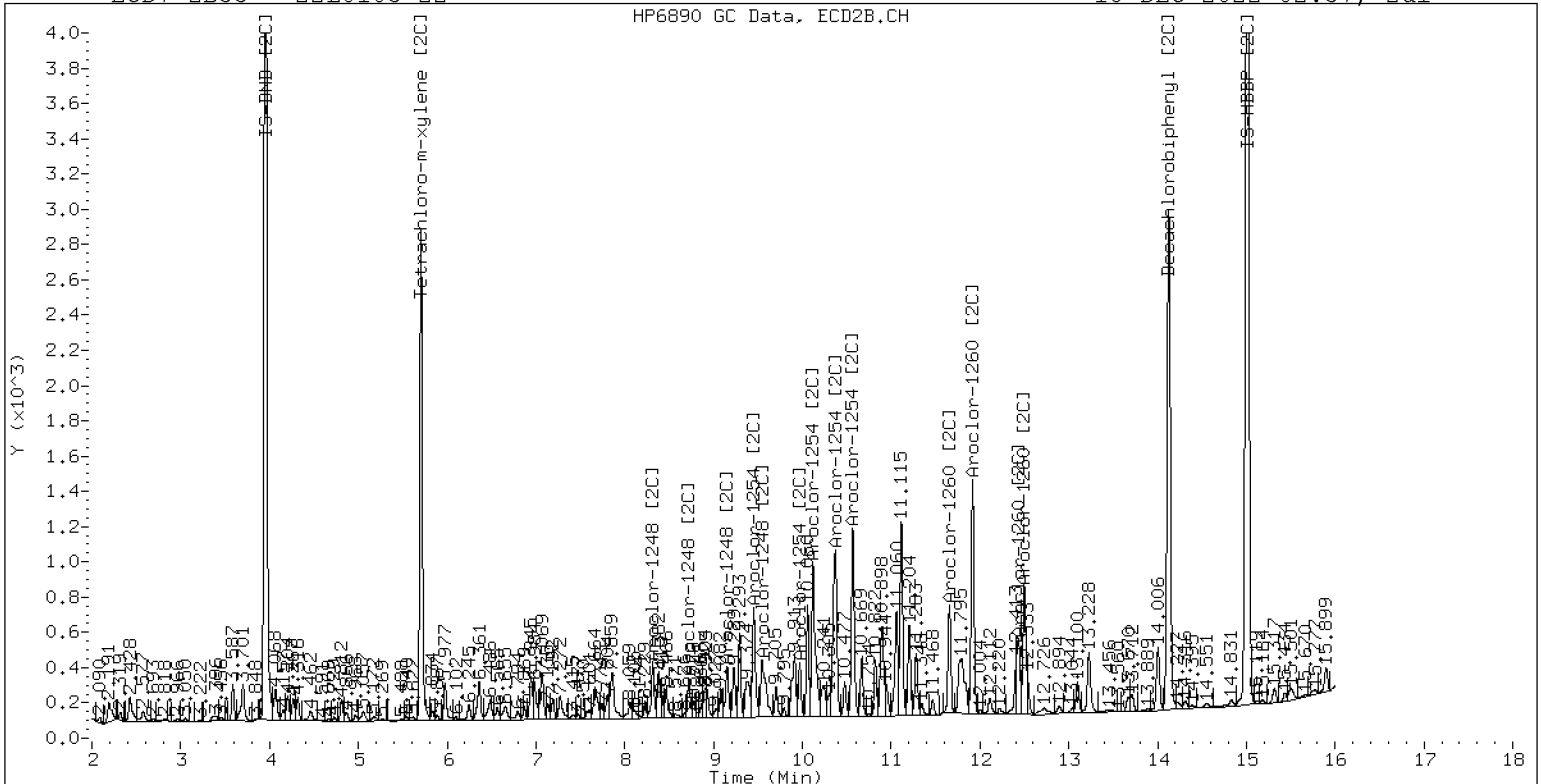
18-DEC-2022 02:37, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-22

18-DEC-2022 02:37, 2ul



ZB-35 Manual Integration: YES

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192209ECD7.D
Data file 2: /221219.b/221219.b/12192209ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-23
Client ID:
Injection Date: 19-DEC-2022 17:24
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.829	-0.007	172631	5.706	-0.007	109291	28.5	31.3	9.6	Tetrachloro-m-xylene
13.897	-0.010	152064	14.129	-0.008	150658	43.0	37.9	12.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	427979	-4.4
Hexabromobiphenyl	798898	385962	-51.7 <-

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	254559	2.2
Hexabromobiphenyl	362541	279644	-22.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	8.412	-0.015	33819	183.8	1	8.317	-0.009	20796	200.0
Aroclor-1248	2	8.581	-0.023	24596	104.7	2	8.722	-0.010	18662	170.6
Aroclor-1248	3	8.999	-0.023	70476	166.7	3	9.154	-0.023	25028	188.1
Aroclor-1248	4	9.301	-0.010	75537	364.8	4	9.630	0.028	3036	19.4
Total CollAve (4 peaks):				205.0		Total Col2Ave (4 peaks):				144.5 RPD = 35
Corrected Ave (3 peaks):				151.7		Corrected Ave (3 peaks):				126.1 RPD = 18
Aroclor-1254	1	9.301	-0.020	75537	200.5	1	9.454	-0.013	44100	268.7
Aroclor-1254	2	9.421	0.019	6146	41.9	2	9.972	-0.015	20037	151.8
Aroclor-1254	3	9.674	-0.021	56546	237.6	3	10.120	-0.019	79301	279.6
Aroclor-1254	4	9.801	-0.030	103857	223.9	4	10.369	-0.020	98406	335.0
Aroclor-1254	5	10.131	-0.058	132954	418.1	5	10.569	-0.017	72108	509.0
Total CollAve (5 peaks):				224.4		Total Col2Ave (5 peaks):				308.8 RPD = 32
Corrected Ave (4 peaks):				176.0		Corrected Ave (4 peaks):				258.8 RPD = 38
Aroclor-1260	1	11.046	-0.016	44012	313.3	1	11.658	-0.011	39092	264.8
Aroclor-1260	2	11.361	-0.016	33805	232.6	2	11.918	-0.014	78395	211.6
Aroclor-1260	3	11.731	-0.020	95628	250.5	3	12.438	-0.013	28026	284.1
Aroclor-1260	4	12.132	-0.026	54587	280.8	4	12.502	-0.014	55645	225.4
Aroclor-1260	5	12.248	-0.013	27544	346.1	NS	---			---
Total CollAve (5 peaks):				284.6		Total Col2Ave (4 peaks):				246.5 RPD = 14
Corrected Ave (4 peaks):				269.3		Corrected Ave (3 peaks):				233.9 RPD = 14
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Col1 (5.936 - 13.808) = 1971402 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1372797 Col2 Total PCB = 0.8 ppm*

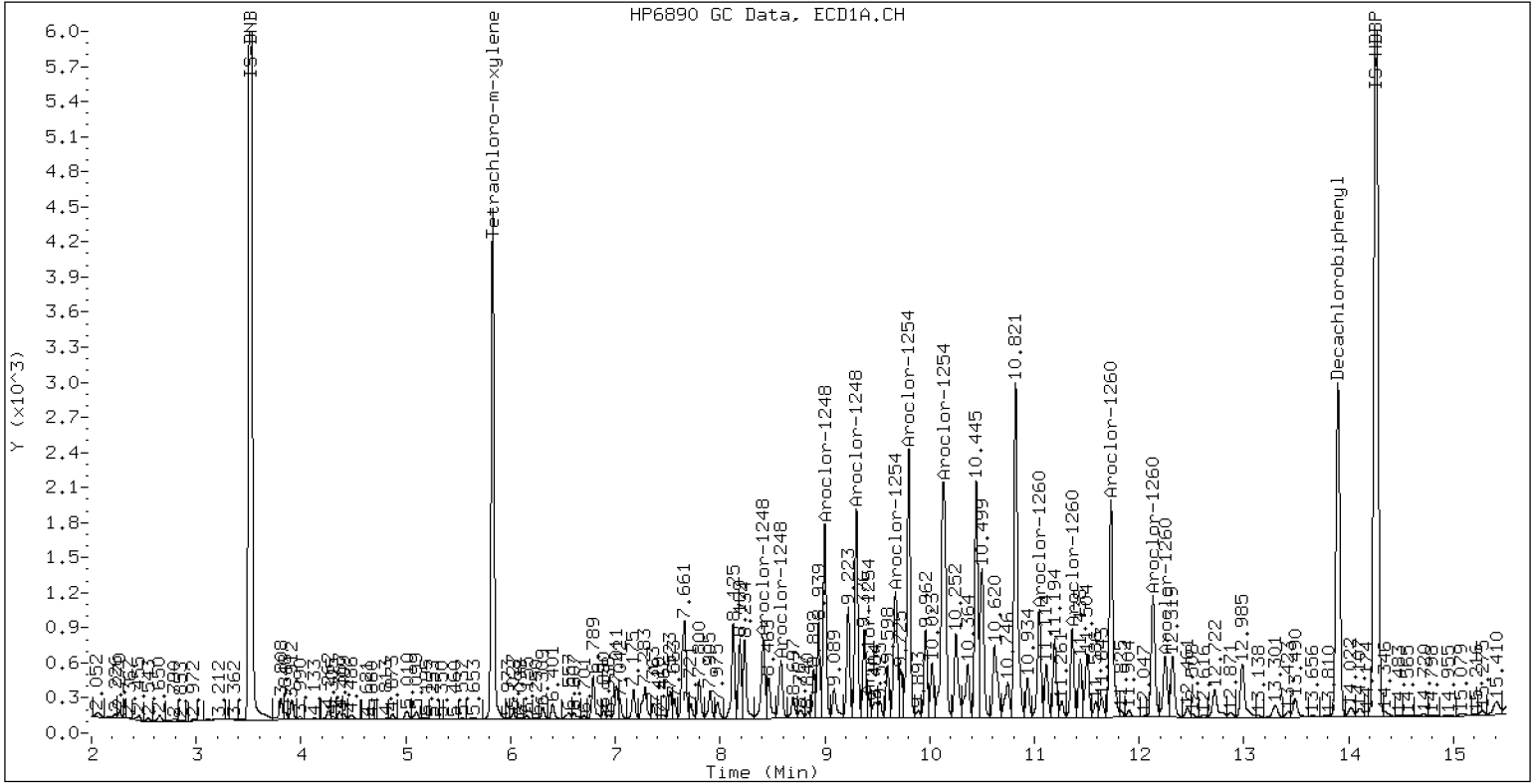
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-23

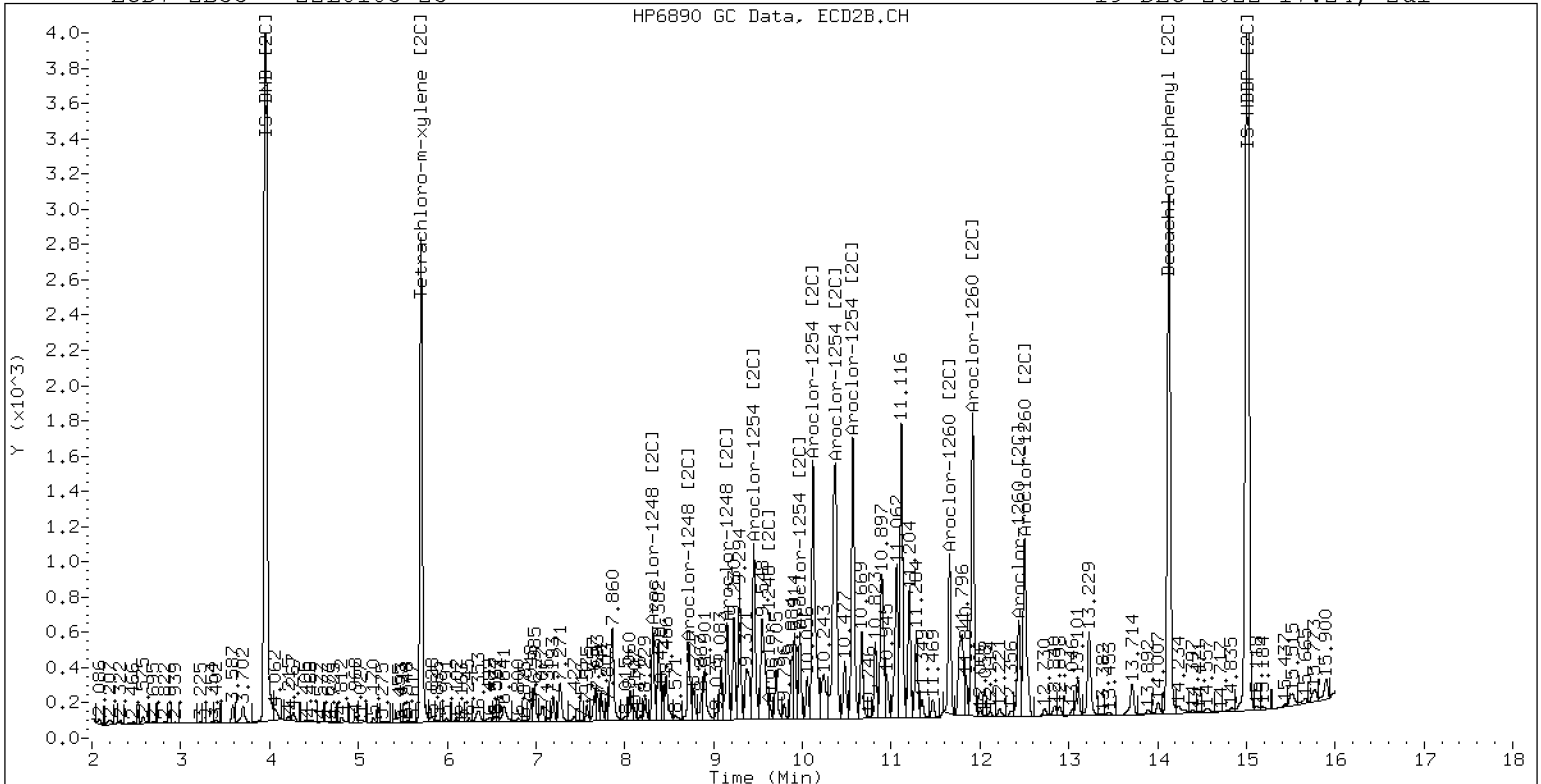
19-DEC-2022 17:24, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-23

19-DEC-2022 17:24, 2ul



ZB-35 Manual Integration: NO



Dual Column

LDW22-SC782E

ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: <u>Analytical Resources, LLC</u>	SDG: <u>22L0105</u>	
Client: <u>Anchor QEA, LLC</u>		
Project: <u>AOC4 UR Phase 3</u>		
Matrix: <u>Solid</u>	Laboratory ID: <u>22L0105-24 A</u>	File ID: <u>12192210ECD7.D</u>
Sampled: <u>12/05/22 11:22</u>	Prepared: <u>12/08/22 11:45</u>	Analyzed: <u>12/19/22 17:46</u>
% Solids: <u>53.05</u>	Preparation: <u>EPA 3546 (Microwave)</u>	Initial/Final: <u>23.58 g Wet / 2.5 mL</u>
Batch: <u>BKL0158</u>	Sequence: <u>SKL0282</u>	Calibration: <u>FL00010</u>
Instrument: <u>ECD7</u>	Column 1: <u>ZB5</u>	Column 2: <u>ZB35</u>

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	5	20.0	7.8	20.0	U
11104-28-2	Aroclor 1221	1	5	20.0	7.8	20.0	U
11141-16-5	Aroclor 1232	1	5	20.0	7.8	20.0	U
53469-21-9	Aroclor 1242	1	5	20.0	7.8	20.0	U
12672-29-6	Aroclor 1248	1	5	391	7.8	20.0	D
11097-69-1	Aroclor 1254	1	5	279	7.8	20.0	D
11096-82-5	Aroclor 1260	1	5	129	2.9	20.0	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9941	8.79	110	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9941	6.29	78.7	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192210ECD7.D
Data file 2: /221219.b/221219.b/12192210ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-24RE1
Client ID:
Injection Date: 19-DEC-2022 17:46
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.004	42453	5.709	-0.004	25404	6.3	6.4	2.1	Tetrachloro-m-xylene
13.898	-0.010	43410	14.128	-0.009	36277	8.8	7.2	20.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	475992	6.3
Hexabromobiphenyl	798898	538155	-32.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	288236	15.7
Hexabromobiphenyl	362541	355459	-2.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.416	-0.012	98530	481.4	1	8.318	-0.008	63035	535.3	
Aroclor-1248	2	8.585	-0.020	95731	366.4	2	8.723	-0.009	63159	510.0	
Aroclor-1248	3	9.001	-0.021	152776	325.0	3	9.157	-0.021	56982	378.2	
Aroclor-1248	4	9.303	-0.008	111293	483.3	4	9.572	-0.030	67047	379.1	
Total CollAve (4 peaks):				414.0	Total Col2Ave (4 peaks):				450.7	RPD = 8	
Corrected Ave (3 peaks):				390.9	Corrected Ave (3 peaks):				422.5	RPD = 8	
Aroclor-1254	1	9.303	-0.018	111293	265.6	1	9.455	-0.012	53172	286.1	
Aroclor-1254	2	9.379	-0.022	52774	323.8	2	9.973	-0.014	26466	177.1	
Aroclor-1254	3	9.671	-0.023	61041	230.6	3	10.122	-0.018	106168	330.6	
Aroclor-1254	4	9.804	-0.027	152883	296.3	4	10.364	-0.026	104892	315.4	
Aroclor-1254	5	10.145	-0.045	151296	427.8	5	10.570	-0.017	55734	347.4	
Total CollAve (5 peaks):				308.8	Total Col2Ave (5 peaks):				291.3	RPD = 6	
Corrected Ave (4 peaks):				279.1	Corrected Ave (4 peaks):				277.3	RPD = 1	
Aroclor-1260	1	11.047	-0.015	28457	145.3	1	11.659	-0.010	30801	164.2	
Aroclor-1260	2	11.363	-0.015	23025	113.6	2	11.919	-0.013	48514	103.0	
Aroclor-1260	3	11.733	-0.018	62629	117.6	3	12.439	-0.013	16368	130.6	
Aroclor-1260	4	12.133	-0.025	37638	138.8	4	12.502	-0.014	35015	111.6	
Aroclor-1260	5	12.247	-0.014	14666	132.2	NS	---			----	
Total CollAve (5 peaks):				129.5	Total Col2Ave (4 peaks):				127.3	RPD = 2	
Corrected Ave (4 peaks):				125.6	Corrected Ave (3 peaks):				115.1	RPD = 9	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 2875820 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1853511 Col2 Total PCB = 0.9 ppm*

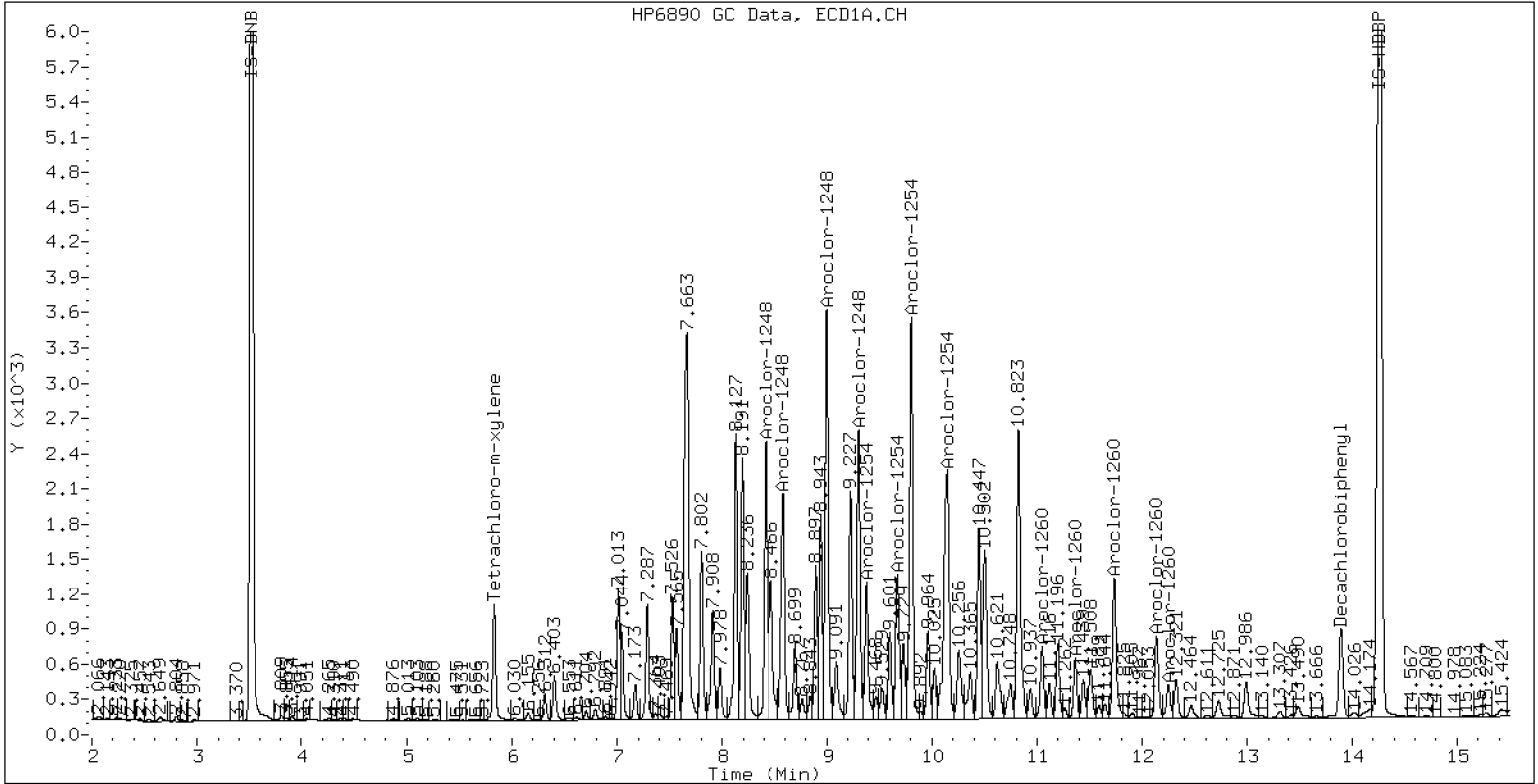
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-24RE1

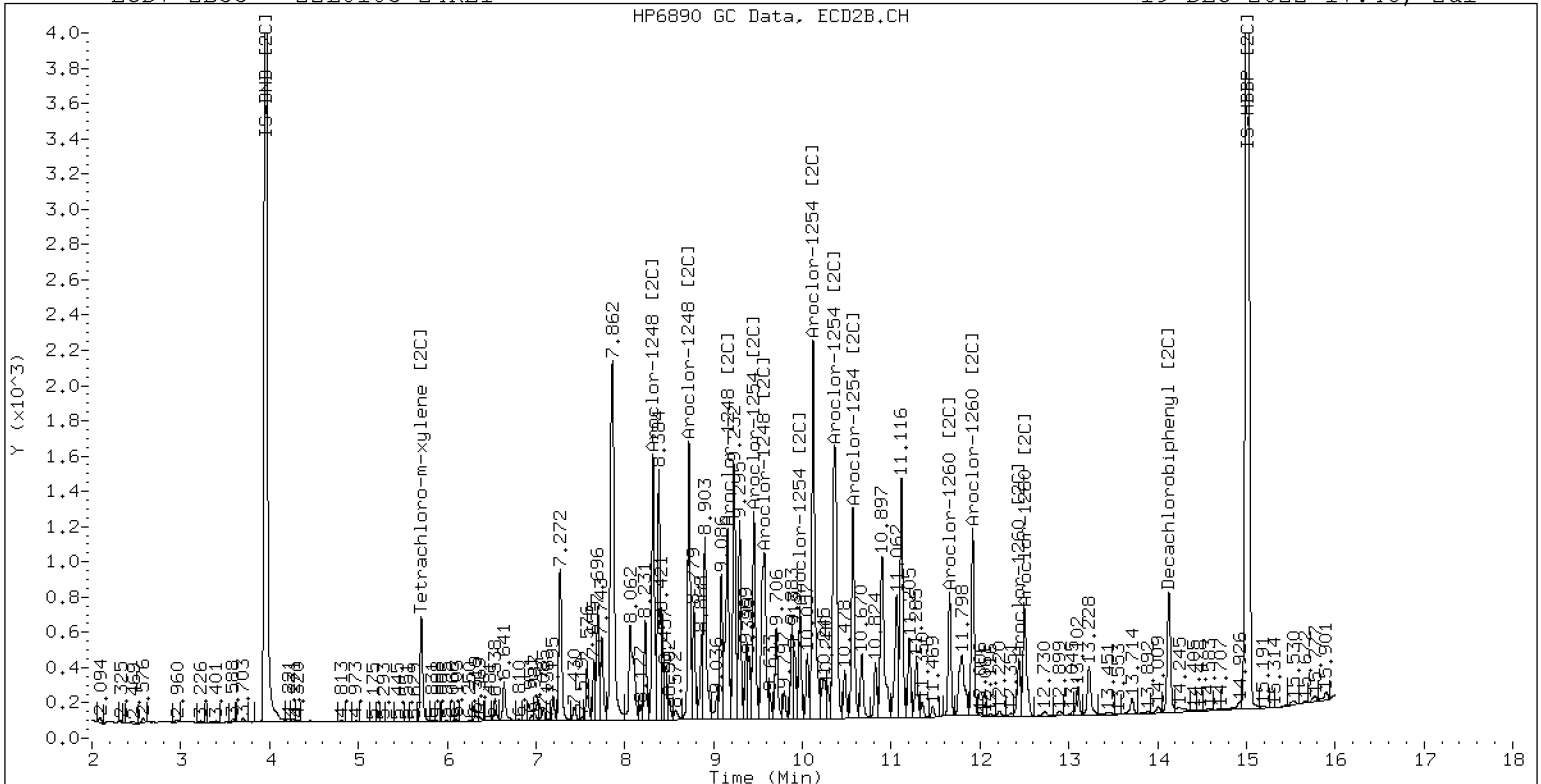
19-DEC-2022 17:46, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-24RE1

19-DEC-2022 17:46, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192211ECD7.D
Data file 2: /221219.b/221219.b/12192211ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-25RE1
Client ID:
Injection Date: 19-DEC-2022 18:07
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 10.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.004	21197	5.709	-0.004	13472	3.2	3.5	9.4	Tetrachloro-m-xylene
13.900	-0.008	25928	14.129	-0.008	20635	4.6	3.8	18.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	472041	5.4
Hexabromobiphenyl	798898	621214	-22.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	282247	13.3
Hexabromobiphenyl	362541	384903	6.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.417	-0.010	112481	554.2	1	8.319	-0.007	77562	672.7
Aroclor-1248	2	8.586	-0.019	120893	466.5	2	8.724	-0.008	72337	596.5
Aroclor-1248	3	9.003	-0.019	192885	413.8	3	9.158	-0.019	69146	468.7
Aroclor-1248	4	9.305	-0.006	131310	575.0	4	9.575	-0.027	76335	440.8
Total CollAve (4 peaks):				502.4	Total Col2Ave (4 peaks):				544.7	RPD = 8
Corrected Ave (3 peaks):				478.2	Corrected Ave (3 peaks):				502.0	RPD = 5
Aroclor-1254	1	9.305	-0.016	131310	315.9	1	9.456	-0.011	57604	316.5
Aroclor-1254	2	9.381	-0.021	61773	382.2	2	9.975	-0.012	29004	198.2
Aroclor-1254	3	9.674	-0.020	67872	258.6	3	10.124	-0.015	112732	358.5
Aroclor-1254	4	9.808	-0.023	181860	355.4	4	10.367	-0.022	109853	337.3
Aroclor-1254	5	10.152	-0.037	169429	483.0	5	10.572	-0.014	50501	321.5
Total CollAve (5 peaks):				359.0	Total Col2Ave (5 peaks):				306.4	RPD = 16
Corrected Ave (4 peaks):				328.0	Corrected Ave (4 peaks):				293.4	RPD = 11
Aroclor-1260	1	11.050	-0.012	25200	111.4	1	11.661	-0.008	27696	136.3
Aroclor-1260	2	11.365	-0.012	19878	85.0	2	11.921	-0.012	36960	72.5
Aroclor-1260	3	11.735	-0.016	49182	80.0	3	12.441	-0.011	11747	86.5
Aroclor-1260	4	12.137	-0.021	30981	99.0	4	12.505	-0.012	26784	78.8
Aroclor-1260	5	12.250	-0.012	11892	92.8	NS	---			----
Total CollAve (5 peaks):				93.7	Total Col2Ave (4 peaks):				93.5	RPD = 0
Corrected Ave (4 peaks):				89.2	Corrected Ave (3 peaks):				79.3	RPD = 12
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.936 - 13.808) = 3286548 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2013730 Col2 Total PCB = 1.0 ppm*

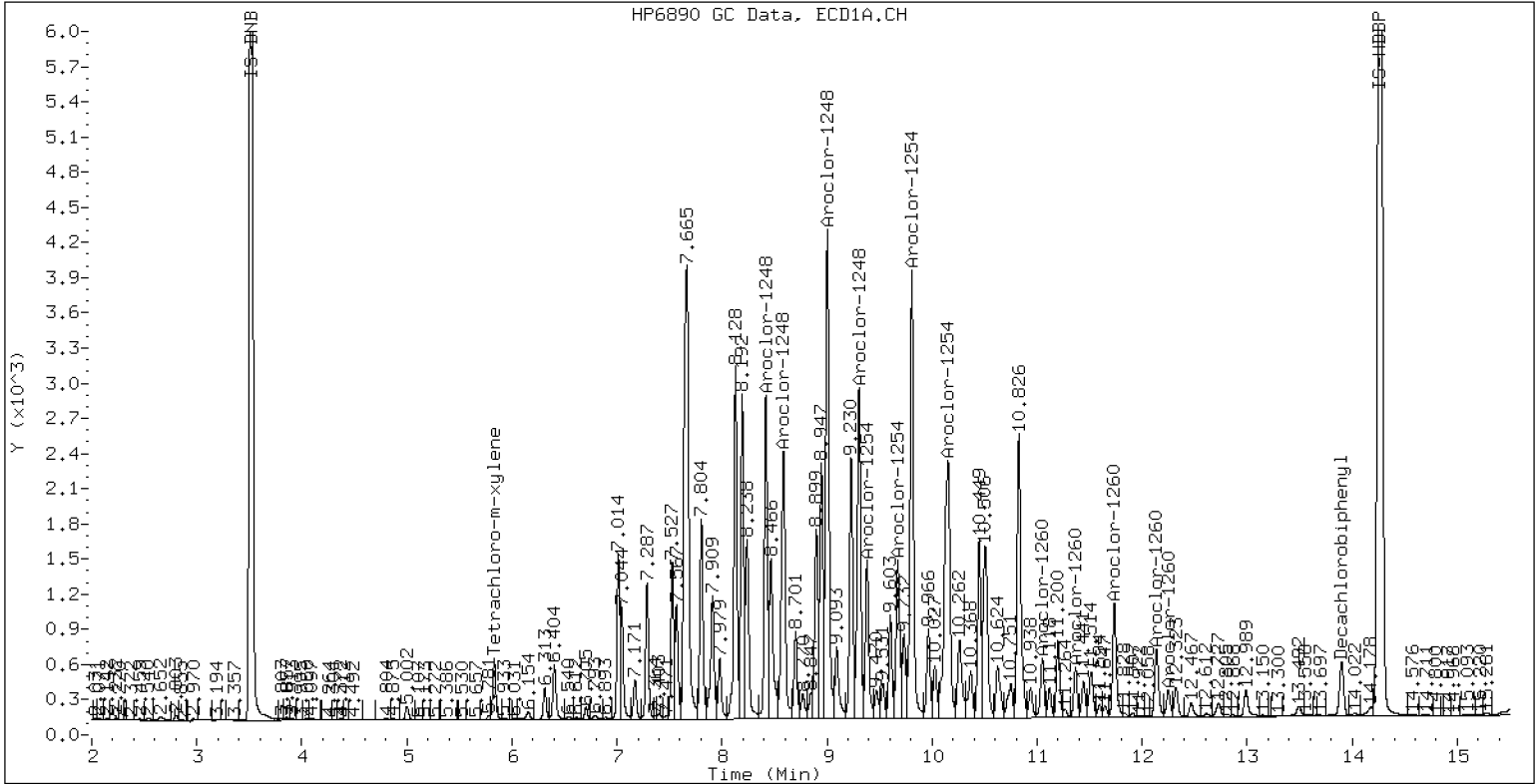
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-25RE1

19-DEC-2022 18:07, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192212ECD7.D
Data file 2: /221219.b/221219.b/12192212ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-26RE1
Client ID:
Injection Date: 19-DEC-2022 18:28
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.831	-0.005	36851	5.708	-0.006	32894	5.1	8.2	47.3*	Tetrachloro-m-xylene
13.898	-0.010	45612	14.128	-0.009	37936	8.6	7.2	18.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	511490	14.3
Hexabromobiphenyl	798898	579398	-27.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	291518	17.0
Hexabromobiphenyl	362541	373267	3.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.415	-0.013	98854	449.5	1	8.317	-0.009	81807	686.9	
Aroclor-1248	2	8.583	-0.022	106675	379.9	2	8.723	-0.010	78244	624.7	
Aroclor-1248	3	9.000	-0.023	217785	431.1	3	9.156	-0.021	84271	553.1	
Aroclor-1248	4	9.303	-0.008	148422	599.8	4	9.635	0.032	21368	119.5	
Total CollAve (4 peaks):				465.1	Total Col2Ave (4 peaks):				496.0	RPD = 6	
Corrected Ave (3 peaks):				420.2	Corrected Ave (3 peaks):				432.4	RPD = 3	
Aroclor-1254	1	9.303	-0.018	148422	329.6	1	9.455	-0.012	90086	479.3	
Aroclor-1254	2	9.378	-0.023	72140	411.9	2	9.973	-0.013	50358	333.3	
Aroclor-1254	3	9.673	-0.022	75173	264.3	3	10.121	-0.018	143166	440.8	
Aroclor-1254	4	9.804	-0.027	195271	352.2	4	10.363	-0.026	140983	419.1	
Aroclor-1254	5	10.145	-0.044	201524	530.2	5	10.570	-0.016	73943	455.8	
Total CollAve (5 peaks):				377.6	Total Col2Ave (5 peaks):				425.6	RPD = 12	
Corrected Ave (4 peaks):				339.5	Corrected Ave (4 peaks):				412.2	RPD = 19	
Aroclor-1260	1	11.048	-0.015	32540	154.3	1	11.660	-0.009	34369	174.4	
Aroclor-1260	2	11.363	-0.015	27701	127.0	2	11.920	-0.012	52571	106.3	
Aroclor-1260	3	11.733	-0.019	68035	118.7	3	12.440	-0.012	15870	120.5	
Aroclor-1260	4	12.133	-0.025	41976	143.8	4	12.503	-0.013	37280	113.1	
Aroclor-1260	5	12.248	-0.013	16272	136.2	NS	---			----	
Total CollAve (5 peaks):				136.0	Total Col2Ave (4 peaks):				128.6	RPD = 6	
Corrected Ave (4 peaks):				131.4	Corrected Ave (3 peaks):				113.3	RPD = 15	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 9636183 Col1 Total PCB = 1.6 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 6609431 Col2 Total PCB = 3.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192215ECD7.D
Data file 2: /221219.b/221219.b/12192215ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-27RE1
Client ID:
Injection Date: 19-DEC-2022 19:32
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.831	-0.005	40212	5.709	-0.005	25775	5.4	6.3	14.9	Tetrachloro-m-xylene
13.898	-0.010	46506	14.127	-0.010	36342	8.3	6.6	23.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	520904	16.4
Hexabromobiphenyl	798898	612136	-23.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	297384	19.4
Hexabromobiphenyl	362541	389221	7.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.415	-0.013	127829	570.7	1	8.317	-0.009	112006	921.9
Aroclor-1248	2	8.583	-0.022	147128	514.5	2	8.723	-0.009	87443	684.3
Aroclor-1248	3	9.000	-0.022	243026	472.4	3	9.156	-0.022	74583	479.9
Aroclor-1248	4	9.302	-0.009	162299	644.0	4	9.633	0.031	11048	60.6
Total CollAve (4 peaks):				550.4	Total Col2Ave (4 peaks):				536.7	RPD = 3
Corrected Ave (3 peaks):				519.2	Corrected Ave (3 peaks):				408.3	RPD = 24
Aroclor-1254	1	9.302	-0.019	162299	353.9	1	9.455	-0.012	75315	392.8
Aroclor-1254	2	9.379	-0.023	80457	451.1	2	9.973	-0.014	41698	270.5
Aroclor-1254	3	9.672	-0.022	96231	332.2	3	10.121	-0.018	157330	474.8
Aroclor-1254	4	9.804	-0.026	240898	426.6	4	10.364	-0.025	147071	428.6
Aroclor-1254	5	10.144	-0.046	219309	566.6	5	10.570	-0.016	70033	423.1
Total CollAve (5 peaks):				426.1	Total Col2Ave (5 peaks):				398.0	RPD = 7
Corrected Ave (4 peaks):				390.9	Corrected Ave (4 peaks):				378.8	RPD = 3
Aroclor-1260	1	11.047	-0.015	32419	145.5	1	11.659	-0.010	36608	178.2
Aroclor-1260	2	11.363	-0.015	26507	115.0	2	11.919	-0.013	51063	99.0
Aroclor-1260	3	11.733	-0.019	72932	120.4	3	12.439	-0.013	18130	132.1
Aroclor-1260	4	12.135	-0.023	43083	139.7	4	12.503	-0.013	37099	107.9
Aroclor-1260	5	12.249	-0.013	15339	121.5	NS	---			----
Total CollAve (5 peaks):				128.4	Total Col2Ave (4 peaks):				129.3	RPD = 1
Corrected Ave (4 peaks):				124.2	Corrected Ave (3 peaks):				113.0	RPD = 9
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.936 - 13.808) = 5564613 Col1 Total PCB = 0.9 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 3207068 Col2 Total PCB = 1.5 ppm*

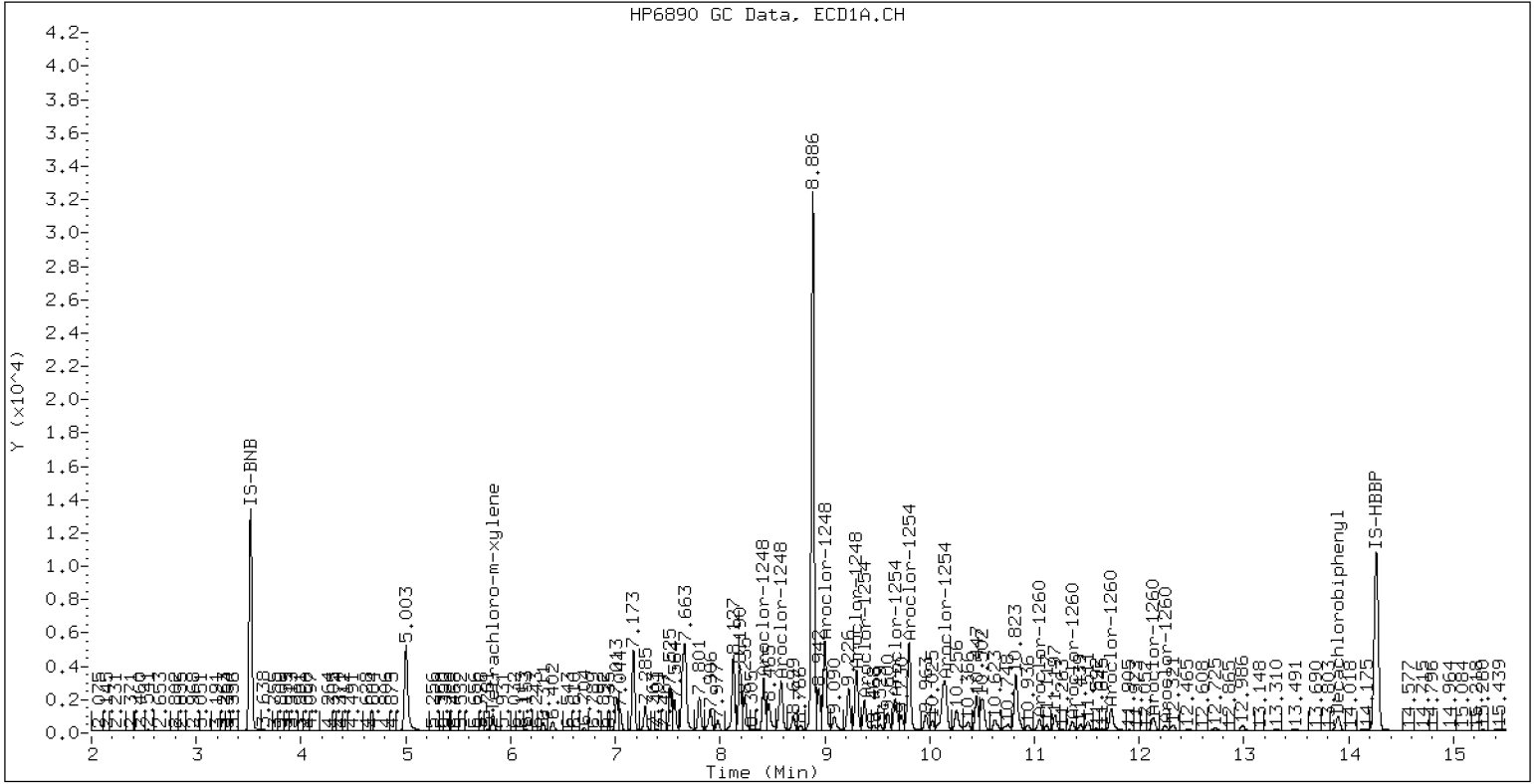
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-27RE1

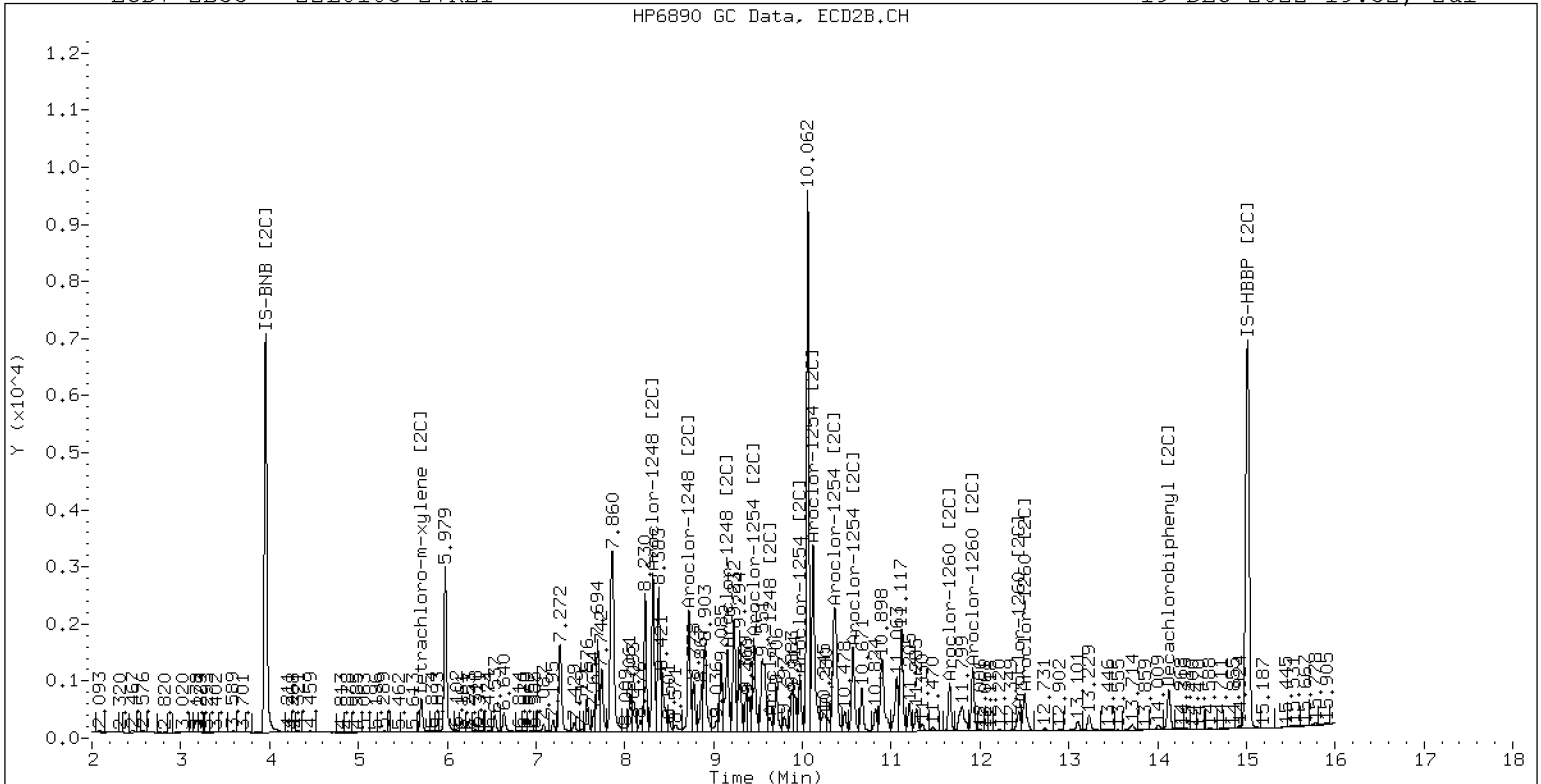
19-DEC-2022 19:32, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 22L0105-27RE1

19-DEC-2022 19:32, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192216ECD7.D
Data file 2: /221219.b/221219.b/12192216ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-28RE1
Client ID:
Injection Date: 19-DEC-2022 19:53
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.830	-0.006	42850	5.708	-0.006	33016	5.8	8.4	36.1	Tetrachloro-m-xylene
13.898	-0.009	48417	14.128	-0.009	39802	9.0	7.5	17.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	521090	16.4
Hexabromobiphenyl	798898	588170	-26.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	288264	15.7
Hexabromobiphenyl	362541	373115	2.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.414	-0.014	74515	332.6	1	8.317	-0.009	88718	753.4
Aroclor-1248	2	8.583	-0.021	49479	173.0	2	8.722	-0.010	62408	503.9
Aroclor-1248	3	9.001	-0.021	199336	387.4	3	9.156	-0.022	51685	343.1
Aroclor-1248	4	9.303	-0.008	184281	730.9	4	9.634	0.032	25730	145.5
Total CollAve (4 peaks):				406.0	Total Col2Ave (4 peaks):				436.4	RPD = 7
Corrected Ave (3 peaks):				297.6	Corrected Ave (3 peaks):				330.8	RPD = 11
Aroclor-1254	1	9.303	-0.018	184281	401.7	1	9.455	-0.012	106152	571.1
Aroclor-1254	2	9.378	-0.024	86371	484.1	2	9.973	-0.014	69682	466.3
Aroclor-1254	3	9.672	-0.023	123864	427.4	3	10.121	-0.019	202914	631.8
Aroclor-1254	4	9.804	-0.027	287219	508.5	4	10.369	-0.021	193653	582.2
Aroclor-1254	5	10.134	-0.056	288964	746.3	5	10.570	-0.016	105099	655.1
Total CollAve (5 peaks):				513.6	Total Col2Ave (5 peaks):				581.3	RPD = 12
Corrected Ave (4 peaks):				455.4	Corrected Ave (4 peaks):				562.9	RPD = 21
Aroclor-1260	1	11.048	-0.015	52100	243.4	1	11.659	-0.010	57156	290.2
Aroclor-1260	2	11.361	-0.016	41870	189.1	2	11.919	-0.014	81436	164.8
Aroclor-1260	3	11.733	-0.019	106152	182.5	3	12.439	-0.012	23307	177.1
Aroclor-1260	4	12.134	-0.025	68669	231.8	4	12.503	-0.013	58742	178.3
Aroclor-1260	5	12.247	-0.014	22434	185.0	NS	---			----
Total CollAve (5 peaks):				206.3	Total Col2Ave (4 peaks):				202.6	RPD = 2
Corrected Ave (4 peaks):				197.1	Corrected Ave (3 peaks):				173.4	RPD = 13
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.936 - 13.808) = 9850301 Col1 Total PCB = 1.6 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 6678350 Col2 Total PCB = 3.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192217ECD7.D
Data file 2: /221219.b/221219.b/12192217ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-29RE1
Client ID:
Injection Date: 19-DEC-2022 20:14
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 10.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.831	-0.005	20285	5.709	-0.005	11804	2.9	3.0	3.6	Tetrachloro-m-xylene
13.898	-0.010	25676	14.128	-0.009	19470	4.5	3.5	24.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	487247	8.8
Hexabromobiphenyl	798898	623206	-22.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	282652	13.5
Hexabromobiphenyl	362541	388360	7.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.416	-0.012	62635	299.0	1	8.318	-0.008	75143	650.8	
Aroclor-1248	2	8.586	-0.019	35350	132.2	2	8.723	-0.009	41196	339.2	
Aroclor-1248	3	9.002	-0.020	165103	343.1	3	9.157	-0.021	29929	202.6	
Aroclor-1248	4	9.303	-0.008	176288	747.8	4	9.635	0.033	12004	69.2	
Total CollAve (4 peaks):				380.5	Total Col2Ave (4 peaks):				315.4	RPD = 19	
Corrected Ave (3 peaks):				258.1	Corrected Ave (3 peaks):				203.7	RPD = 24	
Aroclor-1254	1	9.303	-0.018	176288	410.9	1	9.455	-0.012	82609	453.3	
Aroclor-1254	2	9.379	-0.023	85635	513.3	2	9.973	-0.014	50449	344.3	
Aroclor-1254	3	9.672	-0.023	117505	433.7	3	10.122	-0.018	185347	588.5	
Aroclor-1254	4	9.804	-0.026	287775	544.9	4	10.370	-0.020	181661	557.0	
Aroclor-1254	5	10.136	-0.053	288760	797.6	5	10.571	-0.016	94282	599.3	
Total CollAve (5 peaks):				540.1	Total Col2Ave (5 peaks):				508.5	RPD = 6	
Corrected Ave (4 peaks):				475.7	Corrected Ave (4 peaks):				485.8	RPD = 2	
Aroclor-1260	1	11.048	-0.014	43506	191.8	1	11.660	-0.010	58822	286.9	
Aroclor-1260	2	11.363	-0.014	36827	157.0	2	11.920	-0.012	68546	133.3	
Aroclor-1260	3	11.734	-0.018	90158	146.2	3	12.440	-0.012	19062	139.2	
Aroclor-1260	4	12.135	-0.023	63549	202.4	4	12.503	-0.014	50750	148.0	
Aroclor-1260	5	12.248	-0.013	17331	134.9	NS	---			---	
Total CollAve (5 peaks):				166.5	Total Col2Ave (4 peaks):				176.8	RPD = 6	
Corrected Ave (4 peaks):				157.5	Corrected Ave (3 peaks):				140.1	RPD = 12	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 3422946 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2115434 Col2 Total PCB = 1.1 ppm*

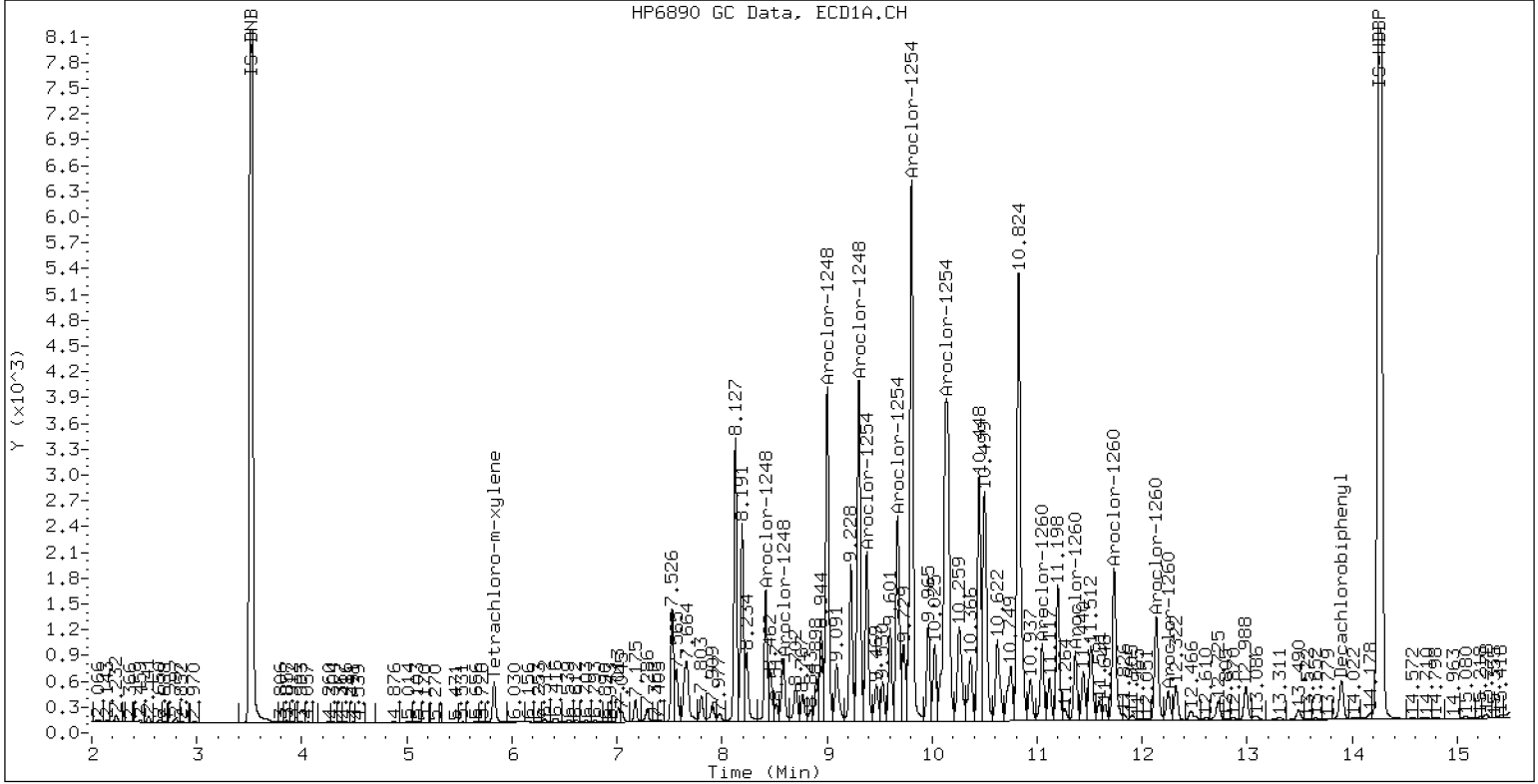
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-29RE1

19-DEC-2022 20:14, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192218ECD7.D
Data file 2: /221219.b/221219.b/12192218ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-30RE1
Client ID:
Injection Date: 19-DEC-2022 20:35
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 10.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.005	22777	5.709	-0.004	13456	3.3	3.5	5.4	Tetrachloro-m-xylene
13.898	-0.010	28373	14.129	-0.007	22670	4.8	4.1	17.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	480797	7.4
Hexabromobiphenyl	798898	639297	-20.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	278224	11.7
Hexabromobiphenyl	362541	391796	8.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1248	1	8.416	-0.012	72599	351.2	1	8.318	-0.008	86150	758.0
Aroclor-1248	2	8.585	-0.019	40372	153.0	2	8.723	-0.010	48264	403.7
Aroclor-1248	3	9.002	-0.020	181903	383.1	3	9.157	-0.020	32311	222.2
Aroclor-1248	4	9.303	-0.008	191312	822.4	4	9.636	0.033	13241	77.6
Total CollAve (4 peaks):				427.4	Total Col2Ave (4 peaks):				365.4	RPD = 16
Corrected Ave (3 peaks):				295.7	Corrected Ave (3 peaks):				234.5	RPD = 23
Aroclor-1254	1	9.303	-0.018	191312	451.9	1	9.456	-0.011	88518	493.5
Aroclor-1254	2	9.379	-0.023	90407	549.1	2	9.973	-0.013	54386	377.1
Aroclor-1254	3	9.672	-0.023	126550	473.3	3	10.122	-0.017	203067	655.1
Aroclor-1254	4	9.805	-0.026	313953	602.4	4	10.371	-0.019	193995	604.3
Aroclor-1254	5	10.134	-0.055	308791	864.3	5	10.570	-0.016	99909	645.2
Total CollAve (5 peaks):				588.2	Total Col2Ave (5 peaks):				555.0	RPD = 6
Corrected Ave (4 peaks):				519.2	Corrected Ave (4 peaks):				530.0	RPD = 2
Aroclor-1260	1	11.049	-0.014	49871	214.3	1	11.660	-0.010	62428	301.9
Aroclor-1260	2	11.363	-0.014	40919	170.0	2	11.921	-0.012	76634	147.7
Aroclor-1260	3	11.734	-0.018	100294	158.6	3	12.440	-0.011	21494	155.5
Aroclor-1260	4	12.135	-0.024	70491	218.9	4	12.503	-0.013	57165	165.2
Aroclor-1260	5	12.248	-0.014	20290	153.9	NS	---			----
Total CollAve (5 peaks):				183.1	Total Col2Ave (4 peaks):				192.6	RPD = 5
Corrected Ave (4 peaks):				174.2	Corrected Ave (3 peaks):				156.1	RPD = 11
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks					

Total PCB Area Col1 (5.936 - 13.808) = 3756401 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2324480 Col2 Total PCB = 1.2 ppm*

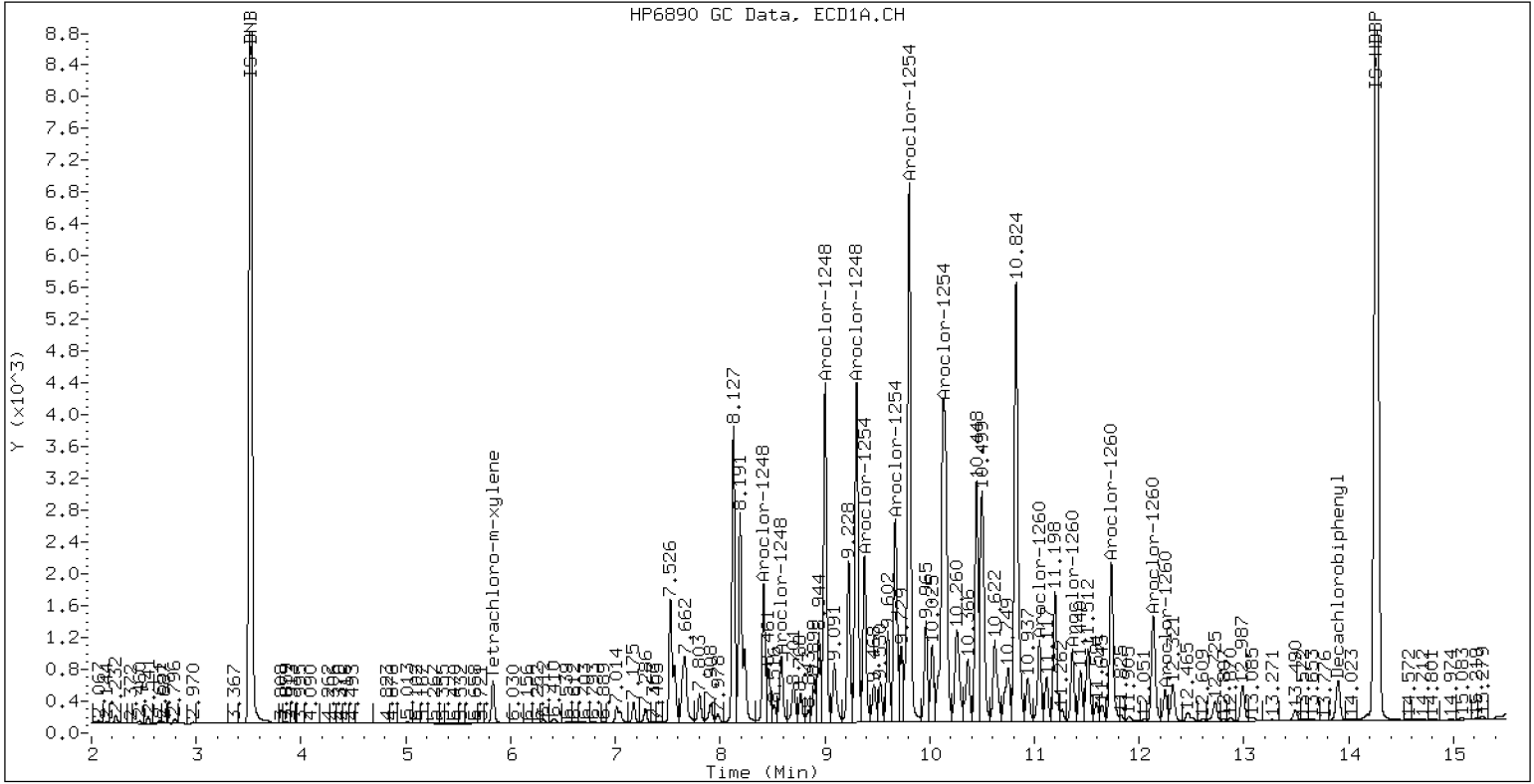
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-30RE1

19-DEC-2022 20:35, 2ul





ORGANIC ANALYSIS DATA SHEET
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: 22L0105-31 A

File ID: 12192219ECD7.D

Sampled: 12/05/22 11:22

Prepared: 12/08/22 11:45

Analyzed: 12/19/22 20:57

% Solids: 66.78

Preparation: EPA 3546 (Microwave)

Initial/Final: 18.8 g Wet / 2.5 mL

Batch: BKL0158

Sequence: SKL0282

Calibration: FL00010

Instrument: ECD7

Column 1: ZB5

Column 2: ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/kg dry)	MDL	MRL	Q
12674-11-2	Aroclor 1016	1	5	19.9	7.8	19.9	U
11104-28-2	Aroclor 1221	1	5	19.9	7.8	19.9	U
11141-16-5	Aroclor 1232	1	5	19.9	7.8	19.9	U
53469-21-9	Aroclor 1242	1	5	19.9	7.8	19.9	U
12672-29-6	Aroclor 1248	1	5	143	7.8	19.9	D
11097-69-1	Aroclor 1254	1	5	277	7.8	19.9	D
11096-82-5	Aroclor 1260	1	5	94.1	2.9	19.9	D

SURROGATES	Col #	ADDED (ug/kg dry)	CONC (ug/kg dry)	% REC	QC LIMITS	Q
<i>Decachlorobiphenyl</i>	1	7.9652	8.40	106	40 - 126	
<i>Tetrachlorometaxylene</i>	1	7.9652	5.80	72.8	44 - 120	

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192219ECD7.D
Data file 2: /221219.b/221219.b/12192219ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-31RE1
Client ID:
Injection Date: 19-DEC-2022 20:57
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 5.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.004	39732	5.710	-0.004	23568	5.8	6.2	6.3	Tetrachloro-m-xylene
13.898	-0.009	49824	14.128	-0.008	37479	8.4	6.7	23.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	481425	7.5
Hexabromobiphenyl	798898	643912	-19.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	277165	11.3
Hexabromobiphenyl	362541	396150	9.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.416	-0.011	32219	155.7	1	8.318	-0.008	26491	234.0	
Aroclor-1248	2	8.585	-0.019	23332	88.3	2	8.724	-0.008	19467	163.5	
Aroclor-1248	3	9.003	-0.019	90214	189.7	3	9.158	-0.020	24504	169.2	
Aroclor-1248	4	9.304	-0.007	107696	462.4	4	9.635	0.033	5076	29.8	
Total CollAve (4 peaks):				224.0	Total Col2Ave (4 peaks):				149.1	RPD = 40*	
Corrected Ave (3 peaks):				144.6	Corrected Ave (3 peaks):				120.8	RPD = 18	
Aroclor-1254	1	9.304	-0.017	107696	254.1	1	9.455	-0.011	52893	296.0	
Aroclor-1254	2	9.379	-0.023	51368	311.6	2	9.973	-0.013	23565	164.0	
Aroclor-1254	3	9.678	-0.016	72164	269.5	3	10.122	-0.018	90288	292.4	
Aroclor-1254	4	9.805	-0.026	144778	277.4	4	10.366	-0.023	99798	312.0	
Aroclor-1254	5	10.147	-0.042	157179	439.4	5	10.571	-0.016	54858	355.6	
Total CollAve (5 peaks):				310.4	Total Col2Ave (5 peaks):				284.0	RPD = 9	
Corrected Ave (4 peaks):				278.2	Corrected Ave (4 peaks):				266.1	RPD = 4	
Aroclor-1260	1	11.049	-0.013	26248	112.0	1	11.660	-0.009	27939	133.6	
Aroclor-1260	2	11.363	-0.014	20467	84.4	2	11.920	-0.012	38816	74.0	
Aroclor-1260	3	11.735	-0.017	52904	83.1	3	12.439	-0.012	12097	86.6	
Aroclor-1260	4	12.135	-0.023	31566	97.3	4	12.503	-0.013	27747	79.3	
Aroclor-1260	5	12.249	-0.013	12693	95.6	NS	---			---	
Total CollAve (5 peaks):				94.5	Total Col2Ave (4 peaks):				93.4	RPD = 1	
Corrected Ave (4 peaks):				90.1	Corrected Ave (3 peaks):				80.0	RPD = 12	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 1898768 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1172605 Col2 Total PCB = 0.6 ppm*

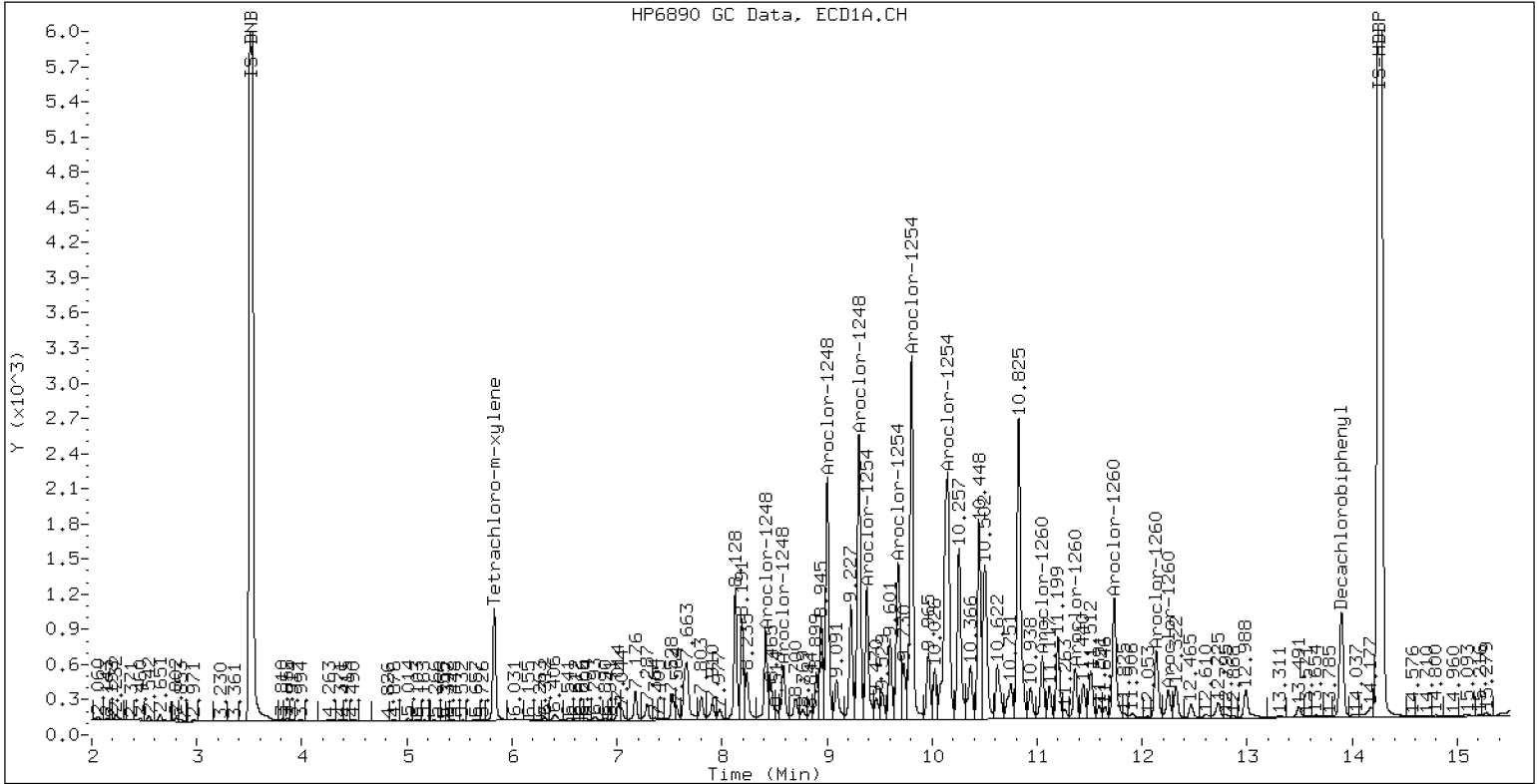
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 22L0105-31RE1

19-DEC-2022 20:57, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192220ECD7.D
Data file 2: /221219.b/221219.b/12192220ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-32
Client ID:
Injection Date: 19-DEC-2022 21:18
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.829	-0.007	171580	5.707	-0.007	107257	28.4	30.7	7.8	Tetrachloro-m-xylene
13.899	-0.009	179239	14.127	-0.010	163129	42.4	37.2	13.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	426403	-4.7
Hexabromobiphenyl	798898	461478	-42.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	254956	2.4
Hexabromobiphenyl	362541	308773	-14.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	---			0.0	1	---			0.0	
Aroclor-1016	2	---			0.0	2	---			0.0	
Aroclor-1016	3	---			0.0	3	---			0.0	
Aroclor-1016	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1221	1	---			0.0	1	---			0.0	
Aroclor-1221	2	---			0.0	2	---			0.0	
Aroclor-1221	3	---			0.0	3	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1232	1	---			0.0	1	---			0.0	
Aroclor-1232	2	---			0.0	2	---			0.0	
Aroclor-1232	3	---			0.0	3	---			0.0	
Aroclor-1232	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1242	1	---			0.0	1	---			0.0	
Aroclor-1242	2	---			0.0	2	---			0.0	
Aroclor-1242	3	---			0.0	3	---			0.0	
Aroclor-1242	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1248	1	8.415	-0.013	7247	39.5	1	8.317	-0.009	4964	47.7	
Aroclor-1248	2	8.583	-0.022	3687	15.8	2	8.722	-0.010	2402	21.9	
Aroclor-1248	3	9.001	-0.021	16785	39.9	3	9.155	-0.022	4508	33.8	
Aroclor-1248	4	9.302	-0.009	22039	106.8	4	9.632	0.029	1606	10.3	
Total CollAve (4 peaks):				50.5	Total Col2Ave (4 peaks):				28.4	RPD = 56*	
Corrected Ave (3 peaks):				31.7	Corrected Ave (3 peaks):				22.0	RPD = 36	
Aroclor-1254	1	9.302	-0.019	22039	58.7	1	9.454	-0.013	12813	77.9	
Aroclor-1254	2	9.377	-0.025	10618	72.7	2	9.973	-0.014	4426	33.5	
Aroclor-1254	3	9.681	-0.013	16569	69.9	3	10.120	-0.020	20074	70.7	
Aroclor-1254	4	9.803	-0.028	32248	69.8	4	10.370	-0.019	25351	86.2	
Aroclor-1254	5	10.131	-0.058	34375	108.5	5	10.569	-0.017	17601	124.0	
Total CollAve (5 peaks):				75.9	Total Col2Ave (5 peaks):				78.5	RPD = 3	
Corrected Ave (4 peaks):				67.8	Corrected Ave (4 peaks):				67.1	RPD = 1	
Aroclor-1260	1	11.046	-0.016	19761	117.6	1	11.658	-0.011	11075	68.0	
Aroclor-1260	2	11.361	-0.016	11750	67.6	2	11.919	-0.013	27033	66.1	
Aroclor-1260	3	11.731	-0.020	37010	81.1	3	12.437	-0.014	13014	119.5	
Aroclor-1260	4	12.133	-0.025	14328	61.6	4	12.502	-0.014	18938	69.5	
Aroclor-1260	5	12.247	-0.014	13275	139.5	NS	---			----	
Total CollAve (5 peaks):				93.5	Total Col2Ave (4 peaks):				80.8	RPD = 15	
Corrected Ave (4 peaks):				82.0	Corrected Ave (3 peaks):				67.8	RPD = 19	
Aroclor-1262	1	---			0.0	1	---			0.0	
Aroclor-1262	2	---			0.0	2	---			0.0	
Aroclor-1262	3	---			0.0	3	---			0.0	
Aroclor-1262	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						
Aroclor-1268	1	---			0.0	1	---			0.0	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	---			0.0	3	---			0.0	
Aroclor-1268	4	---			0.0	4	---			0.0	
CollAve: <3 Quant Peaks					Col2Ave: <3 Quant Peaks						

Total PCB Area Col1 (5.936 - 13.808) = 619611 Col1 Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 419040 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192221ECD7.D
Data file 2: /221219.b/221219.b/12192221ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 22L0105-33
Client ID:
Injection Date: 19-DEC-2022 21:39
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.830	-0.006	187051	5.708	-0.006	115377	29.5	32.0	8.0	Tetrachloro-m-xylene
13.898	-0.009	184406	14.127	-0.010	164964	41.1	35.1	15.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	446864	-0.2
Hexabromobiphenyl	798898	488965	-38.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	262966	5.6
Hexabromobiphenyl	362541	330709	-8.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Coll (5.936 - 13.808) = 125381

Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 74434 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



Batch: BKL0157

Prepared using: EPA 3546 (Microwave)

8082A PCB Solid 4 in Solid (Version:7 Aroclors)

Matrix: Solid

Date Prepared: 12/07/22

Balance ID: B146462614

Set Up By: CPO 12/7/22

WO Comments

22L0105: <G> BPR Project batch as much as possible </G> <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM H002055, SIM RM H010158, PCB RM J006840-43, 7935-36, MS/MSD </E> <H>BPR J006840-43, 7935-36 Dup </H>

The following standards may be missing from this batch!

Designator	Description
QLS 5	QLS Spike

Analysis: 8082A PCB Solid 4

Lab Number & Container	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
22L0105-01 A	42.5	(29.40)	29.47	5mL	5mL	2mL	2.5	1.0	
22L0105-02 A	47.8	(26.13)	26.13	5mL	5mL	2mL	2.5	1.0	
22L0105-03 A	60.2	(20.76)	20.79	5mL	5mL	2mL	2.5	1.0	
22L0105-04 A	69.6	(17.96)	17.96	5mL	5mL	2mL	2.5	1.0	
22L0105-05 A	78.0	(16.03)	16.05	5mL	5mL	2mL	2.5	1.0	
22L0105-06 A	58.1	(21.50)	21.52	5mL	5mL	2mL	2.5	1.0	
22L0105-07 A	53.5	(23.36)	23.39	5mL	5mL	2mL	2.5	1.0	
22L0105-08 A	52.7	(23.70)	23.74	5mL	5mL	2mL	2.5	1.0	
22L0105-09 A	54.1	(23.09)	23.08	5mL	5mL	2mL	2.5	1.0	
22L0105-10 A	59.2	(21.13)	21.13	5mL	5mL	2mL	2.5	1.0	
22L0105-11 A	57.6	(21.72)	21.73	5mL	5mL	2mL	2.5	1.0	
22L0105-12 A	58.8	(21.26)	21.28	5mL	5mL	2mL	2.5	1.0	
22L0105-13 A	58.1	(21.53)	21.55	5mL	5mL	2mL	2.5	1.0	
22L0105-14 A	53.8	(23.26)	23.28	5mL	5mL	2mL	2.5	1.0	
22L0105-15 A	60.4	(20.69)	20.73	5mL	5mL	2mL	2.5	1.0	
22L0105-16 A	60.6	(20.63)	20.68	5mL	5mL	2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
BKL0157-BLK1	100.0	(12.50)	12.50	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BKL0157-BS1	100.0	(12.50)	12.50	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BKL0157-BSD1	100.0	(12.50)	12.50	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BKL0157-MS1	58.1	(21.50)	21.50	5mL	5mL	2mL	2.5	1.0	Use 22L0105-06
BKL0157-MSD1	58.1	(21.50)	21.50	5mL	5mL	2mL	2.5	1.0	Use 22L0105-06
BKL0157-SRM1	100.0	(12.50)	2.50	5mL	5mL	2mL	2.5	1.0	Use 100641 J00659

+1g DI WATER

Client ID verified By: [Signature] 12/07/22 Date

Preparation Reviewed By: [Signature] 12/17/22 Date

Extraction Date and Time: 12/07/22 13:44



Batch: BKL0157

Prepared using: EPA 3546 (Microwave)

8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments

22L0105: <G> BPR Project batch as much as possible </G> <C> BPR SRM, MS, DUP </C> <M> BPR PS, MS/MSD </M> <E> BPR 8270E RM H002055, SIM RM
H010158, PCB RM J006840-43, 7935-36, MS/MSD </E>
<H> BPR J006840-43, 7935-36 Dup </H>

Prep Steps

Reagents Used

Surrogates & Spike Standards Used

Microwave	Station/Reagent	Standard ID
① 2 3 CT 12/17/22 CT Analyst/Date	Microwave	
	Analyst: CT/Date: 12/17/22	
KD 100°C Hexane Exchange (2 X 20 mL)	Neutral Glass Wool	K010266
	1:1 Hexane/Acetone	K010163
	Hexane	K008310
	Anhydrous Sodium Sulfate	K010995
① 2 3 4 ⑤ 6 LJ 12/14/22 Analyst/Date	KD	
	Analyst: LJ Date: 12/14/22	
TurboVap Pre Cleanups	Anhydrous Sodium Sulfate	K010265
	Hexane	K011373
	Vialing	
1 2 3 ④ 5 M 12/17/22 Analyst/Date	Analyst: M Date: 12/17/22	
	Hexane	K011373
	Concentrated Sulfuric Acid	K009956
TurboVap Post Cleanups	Silica Gel (SPE) Darts	K011573
	Sodium Sulfite	K005744
	Tetrabutylammonium hydrogensulfate (TBAS)	K010832
Vialing		
Analyst/Date		

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate	N K010600	50µL	CT	Y
	Exp Date: 1/23/23			
Spike	1 K008150	63µL	CT	Y
	Exp Date: 3/5/23			

MANUALLY ENTER EXPIRATION DATES!

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

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



Extraction Parameter: PCB Extraction Batch BKLA157

Total Solids Batch: BKLA129 Work Order(s): 22L0105 01-16

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>01-04, 06-16</u>	<u>CR 12/17</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input checked="" type="checkbox"/> Rocks (%+size)? <u>05=20%:</u>	<u>CR 12/16</u>
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>01-04, 06-16</u>	<u>CR 12/16</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y/ <u>N</u>	<u>CR 12/16</u>
<input checked="" type="checkbox"/> Multiple Jars Y/ <u>N</u>	<u>CR 12/16</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Batch: BKL0157

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments
22L0105: <G> BPR Project batch as much as possible </G> <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM H002055, SIM RM H010158, PCB RM J006840-43, 7935-36, MS/MSD </E> <H>BPR J006840-43, 7935-36 Dup </H>

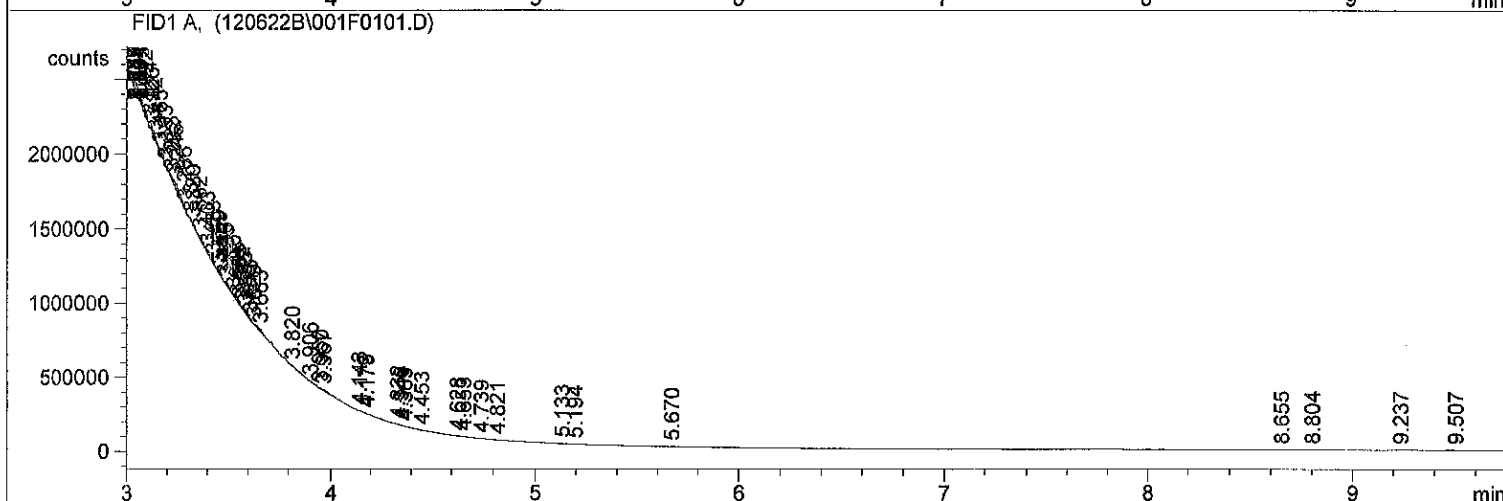
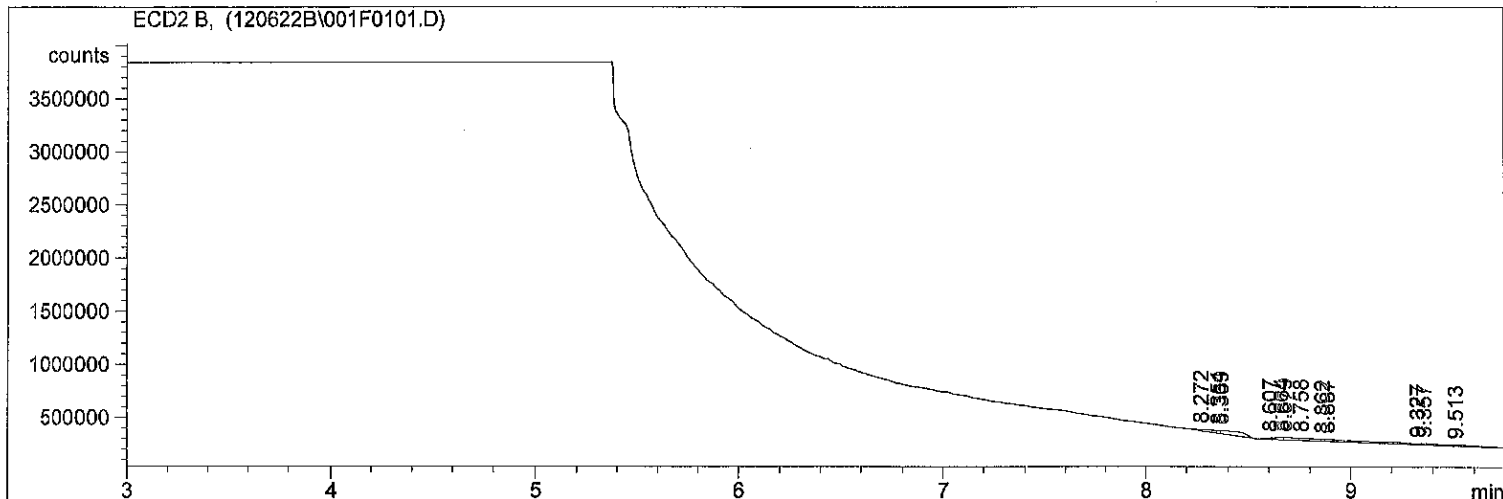
Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"> 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3 inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in R-05 15 minutes. Re-homogenize while cool. 7. Decant 1:1 Hex/Ace into Erlenmeyer flask with sodium sulfate in bottom and funnel with neutral glasswool plug. 8. Re-homogenize and rinse with 1:1 Hexane/Acetone. 9. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 10. KD on 100° bath. 11. Exchange (2 X with 20mL) Hexane. 12. TurboVap. 13. Clean-ups. 14. TurboVap. 15. Vial with Hexane. <p>A. Need Total Solids Y <input checked="" type="checkbox"/> N</p> <p>B. Archive/Freeze <input checked="" type="checkbox"/> Y N</p>	

```

=====
Injection Date : 12/6/2022 5:34:32 PM      Seq. Line : 1
Sample Name    : DCM RINSE                  Location  : Vial 1
Acq. Operator  : YL                         Inj       : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\1\SEQUENCE\120622B.S
Method         : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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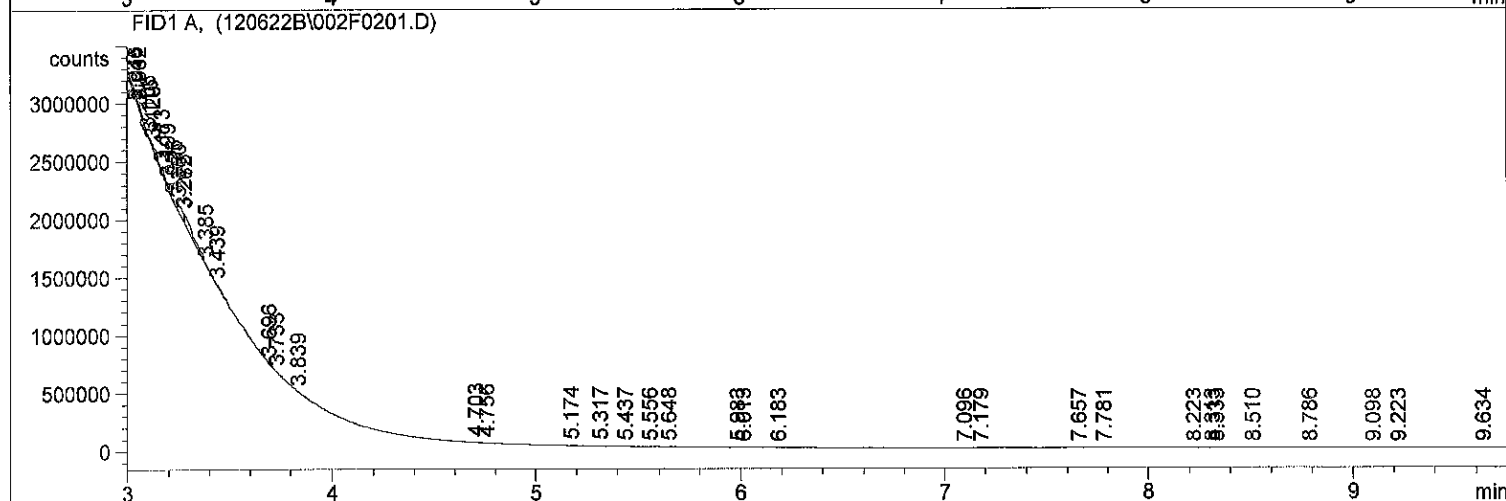
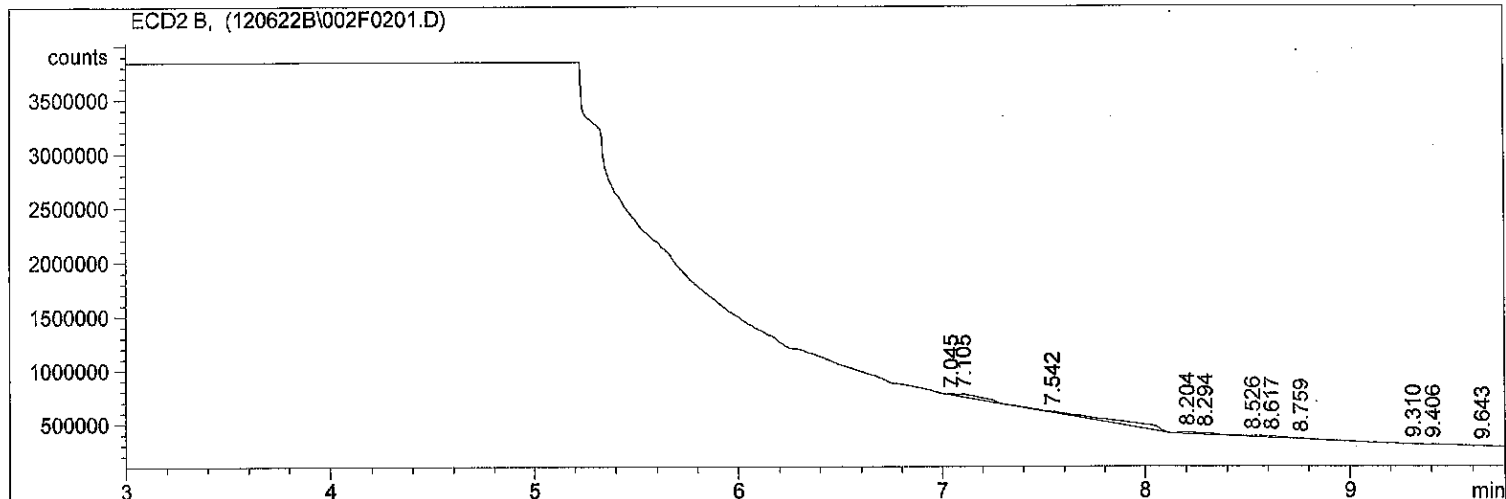
*** End of Report ***


```

=====
Injection Date   : 12/6/2022 5:48:18 PM      Seq. Line :    2
Sample Name     : PNA STD 10PPM             Location  : Vial 2
Acq. Operator   : YL                       Inj       :    1
                                           Inj Volume: 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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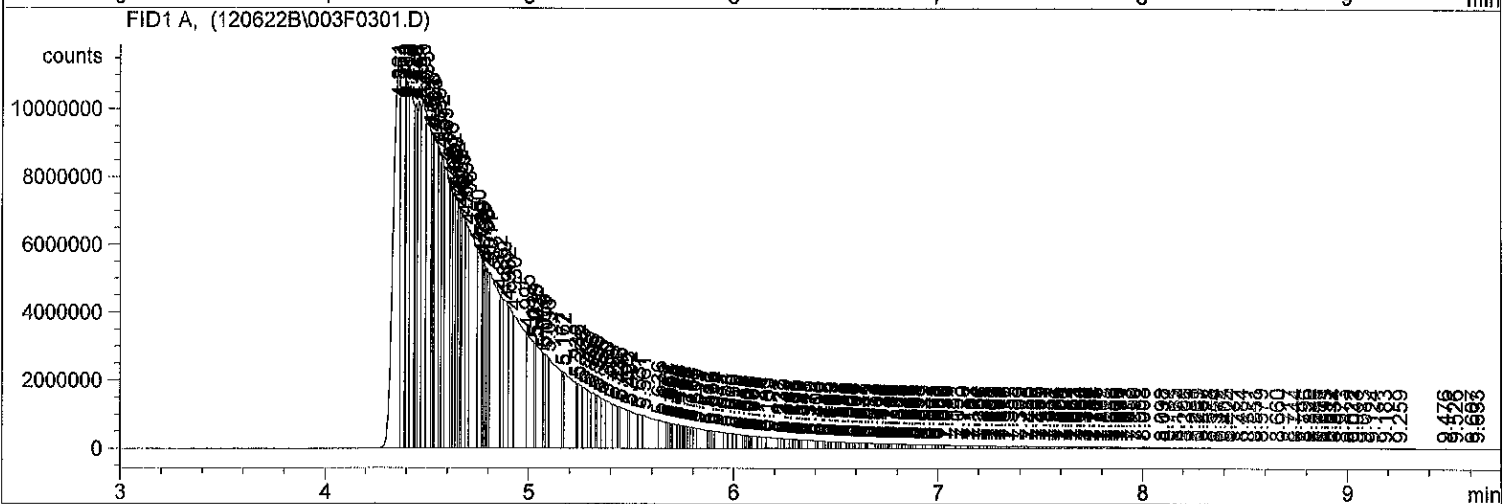
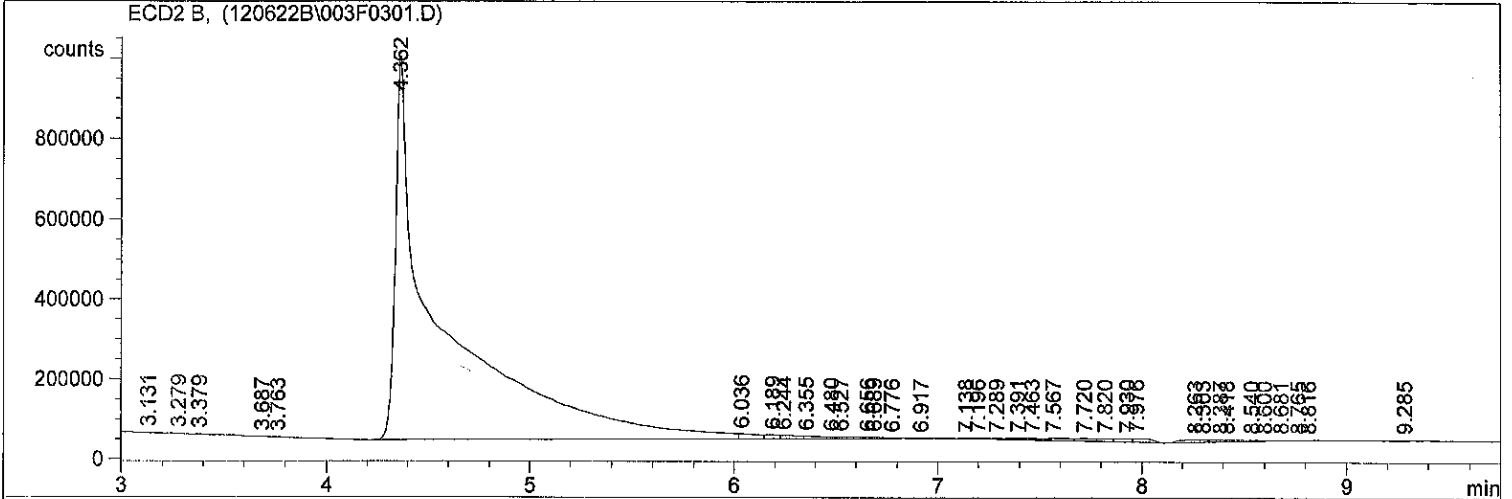
*** End of Report ***

```

=====
Injection Date   : 12/6/2022 6:00:23 PM      Seq. Line   :    3
Sample Name     : AR1660 1PPM                Location    : Vial 3
Acq. Operator   : YL                          Inj         :    1
                                           Inj Volume  : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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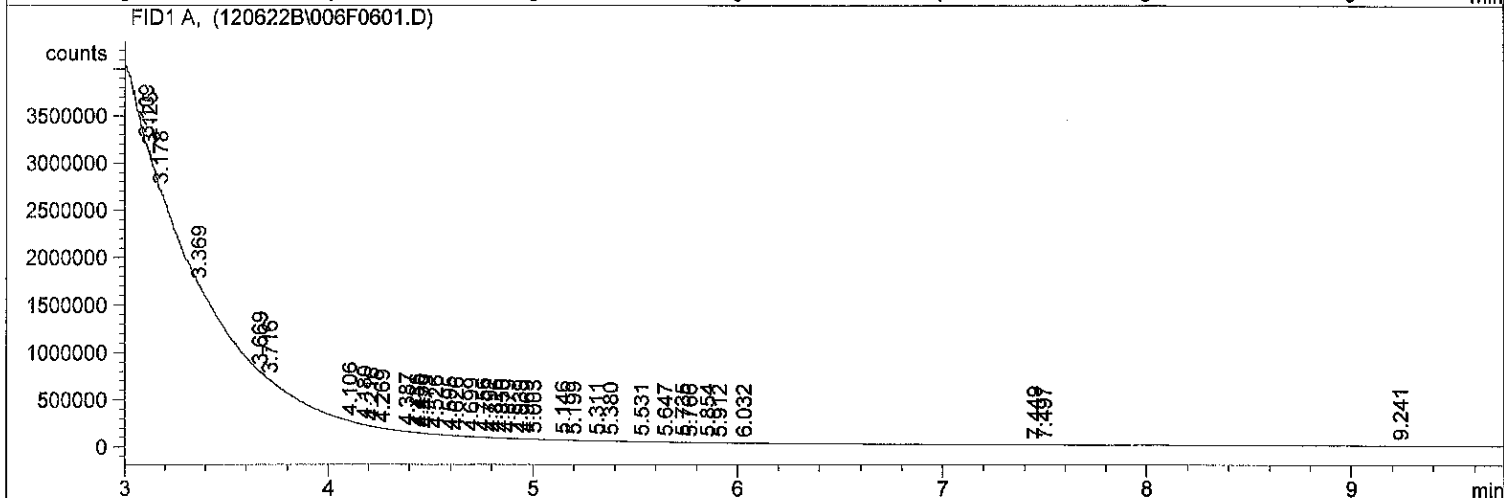
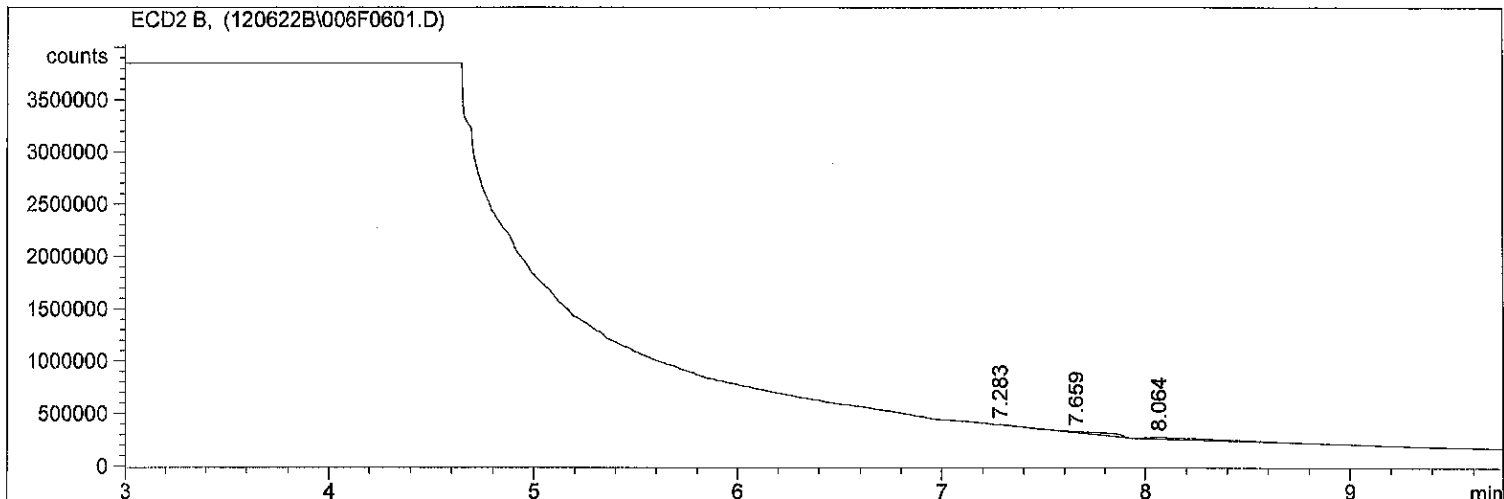
*** End of Report ***

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=====
Injection Date   : 12/6/2022 6:47:06 PM      Seq. Line :    6
Sample Name     : 22L0105 01                Location  : Vial 6
Acq. Operator   : YL                       Inj      :    1
                                           Inj Volume: 1 µl

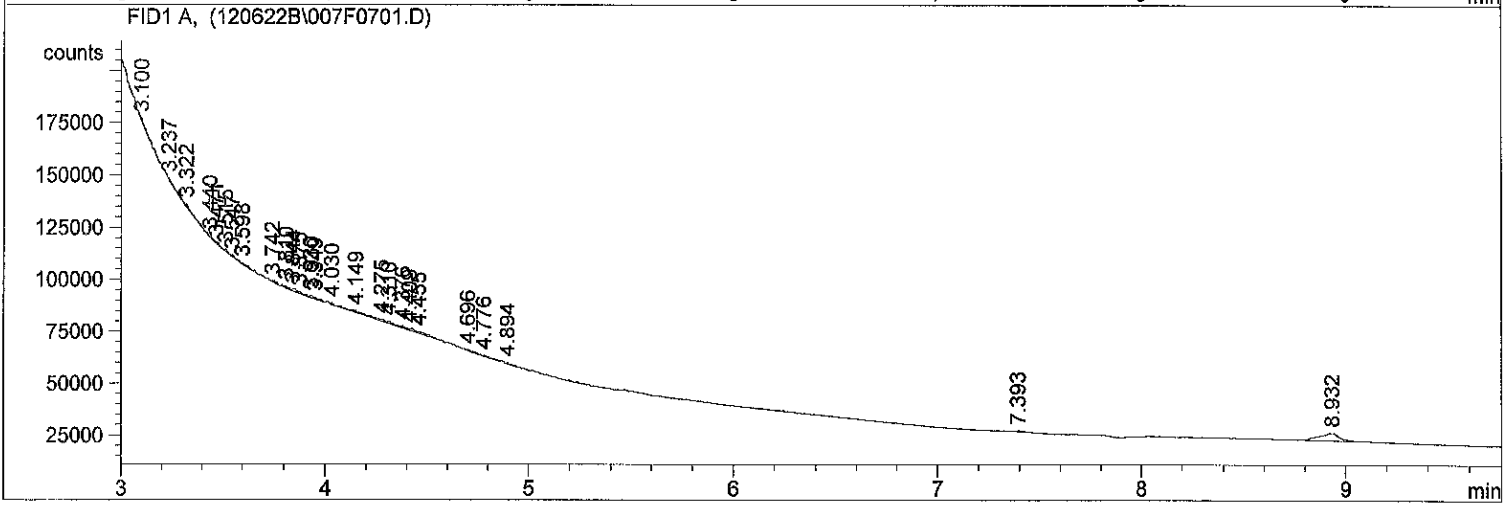
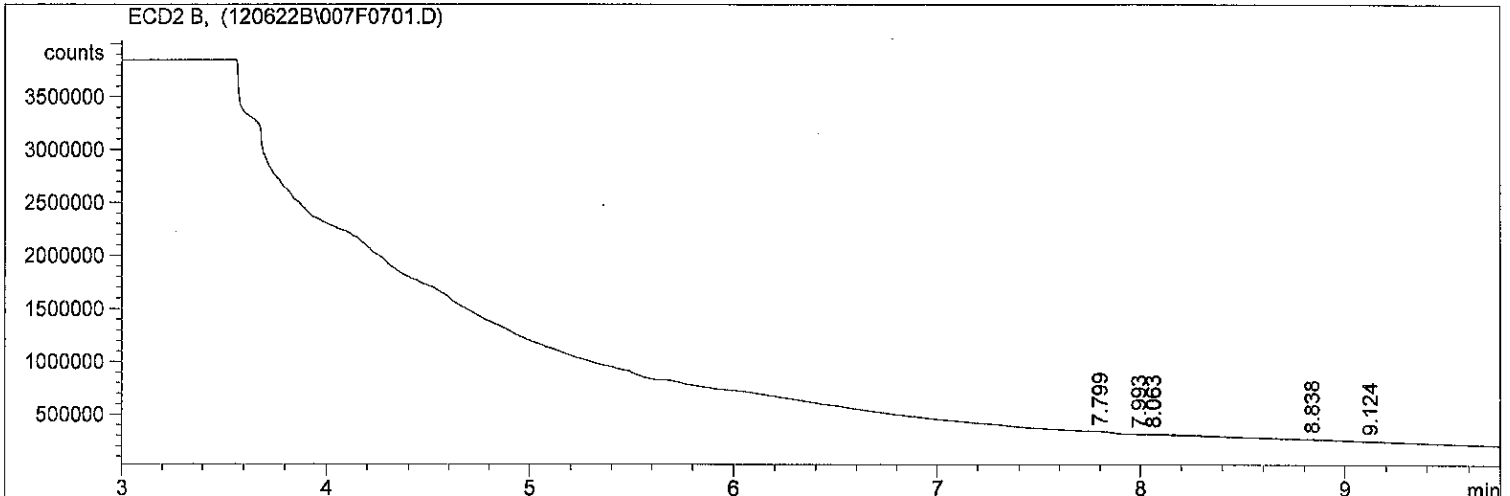
Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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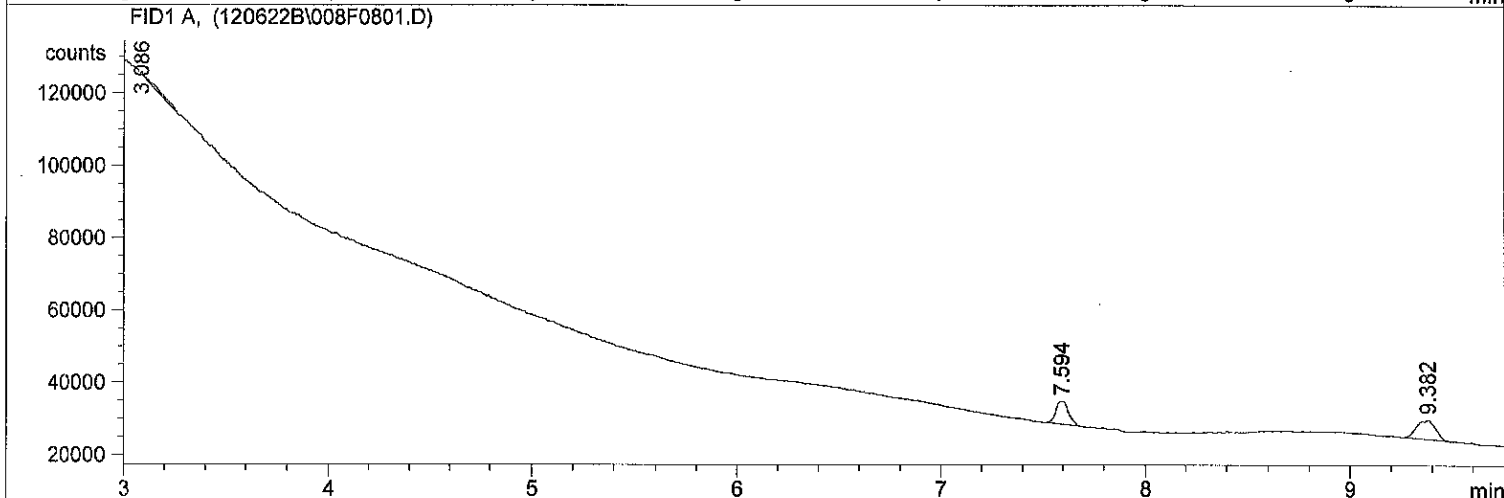
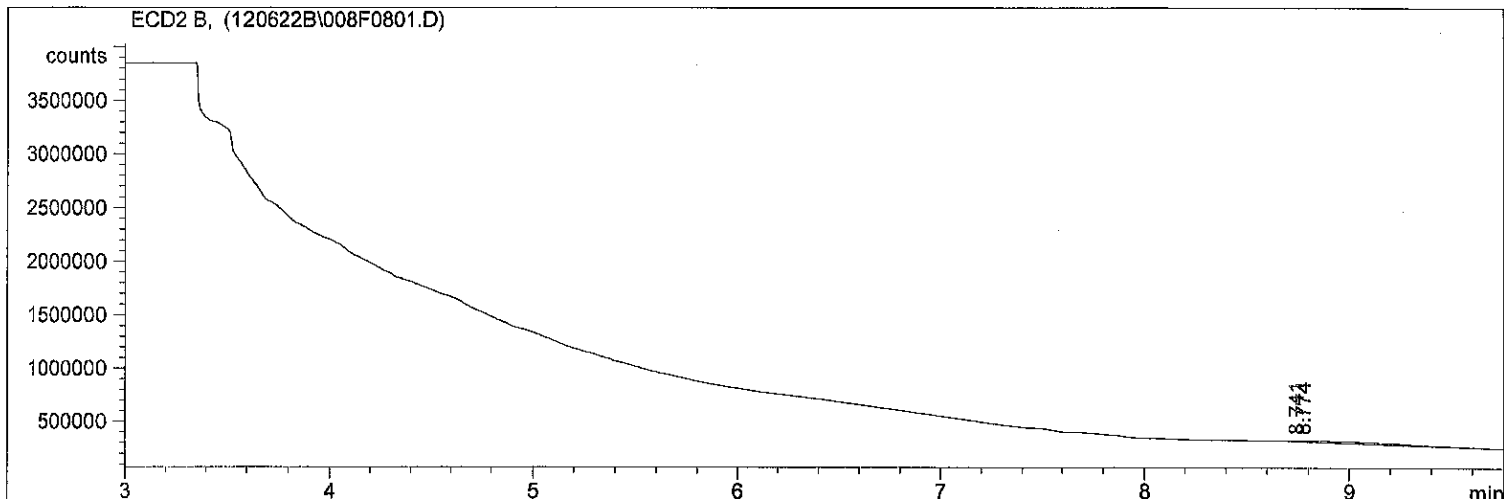
*** End of Report ***

=====
Injection Date : 12/6/2022 7:00:39 PM Seq. Line : 7
Sample Name : 22L0105 02 Location : Vial 7
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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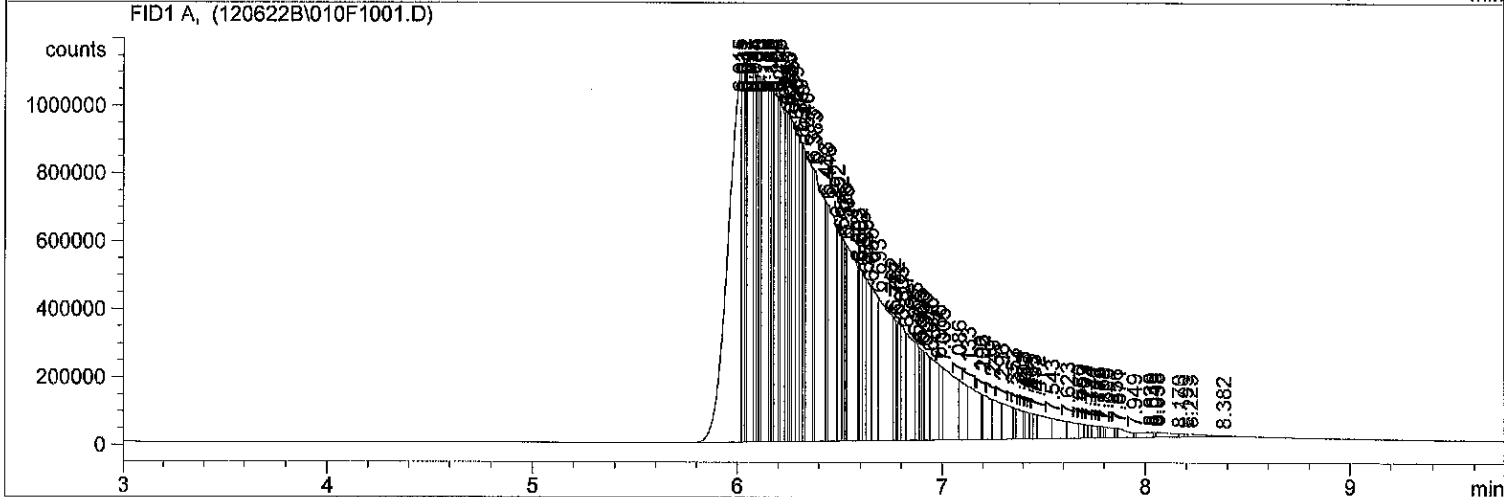
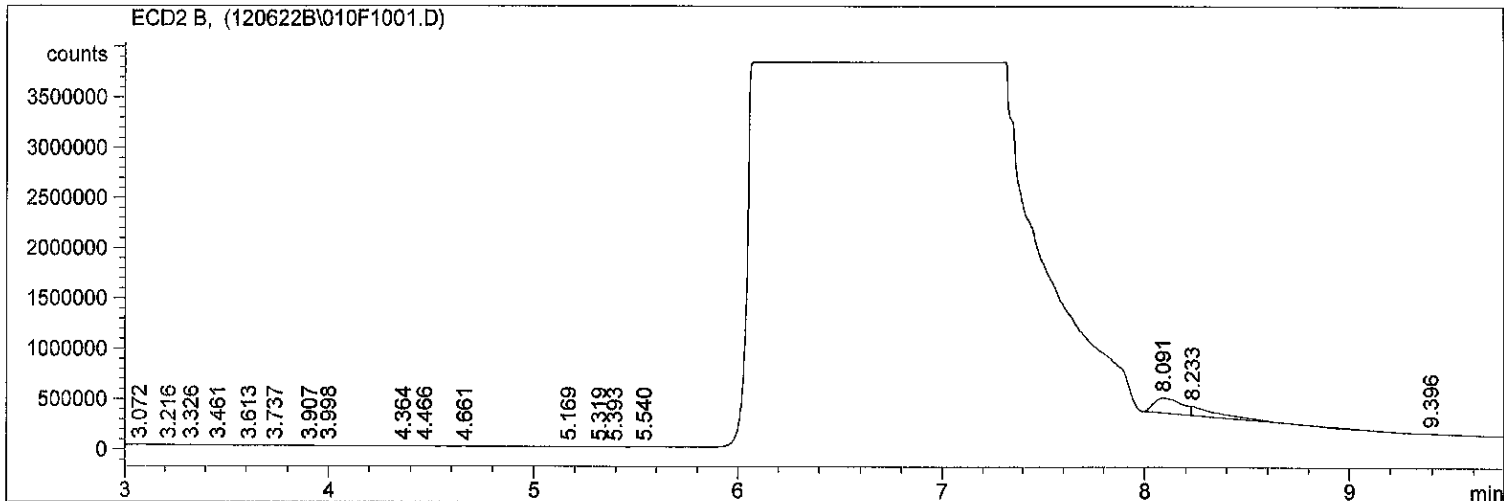
*** End of Report ***

=====
Injection Date : 12/6/2022 7:12:17 PM Seq. Line : 8
Sample Name : 22L0105 03 Location : Vial 8
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

=====
Injection Date : 12/6/2022 7:43:49 PM Seq. Line : 10
Sample Name : 22L0105 05 Location : Vial 10
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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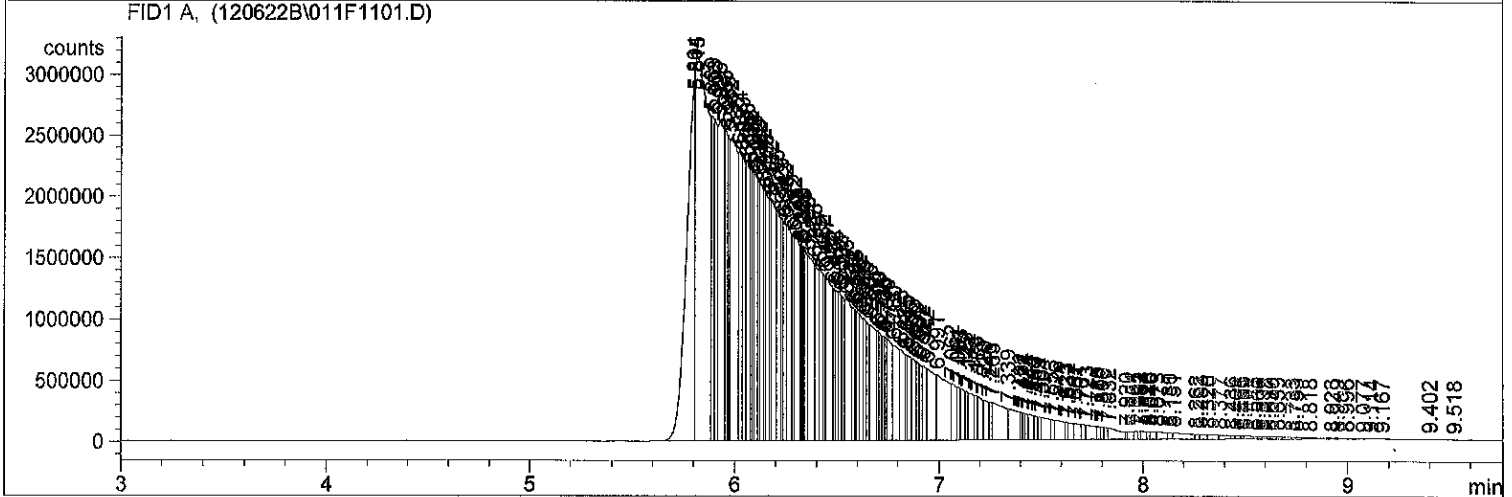
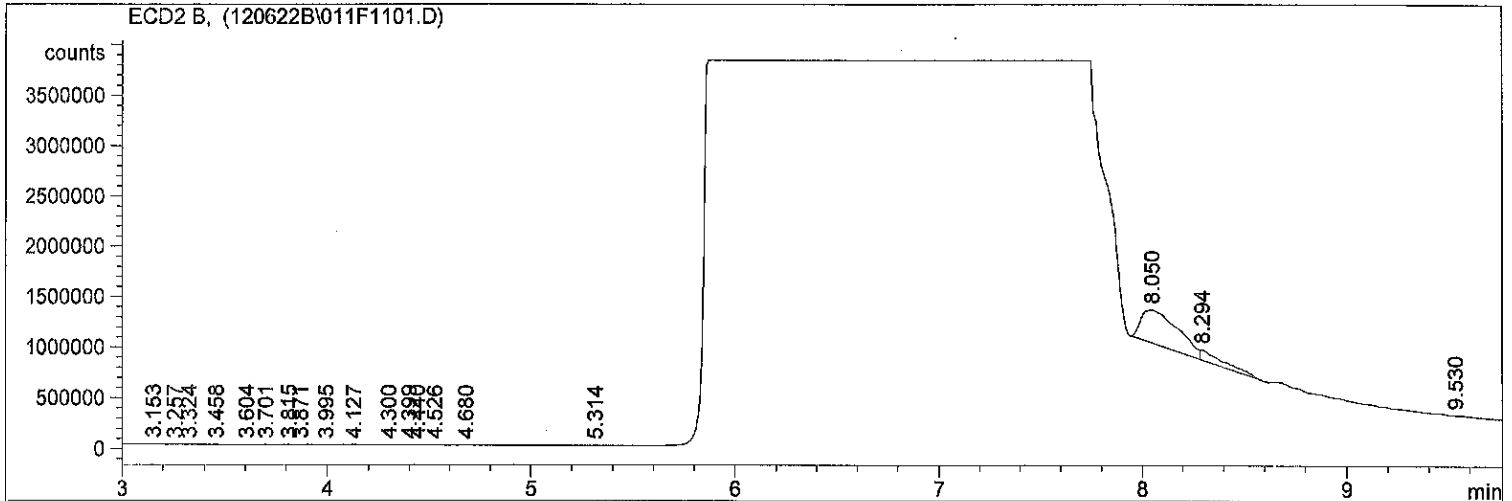
*** End of Report ***

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=====
Injection Date   : 12/6/2022 7:58:18 PM      Seq. Line : 11
Sample Name     : 22L0105-06                 Location  : Vial 11
Acq. Operator  : YL                          Inj      : 1
                                           Inj Volume: 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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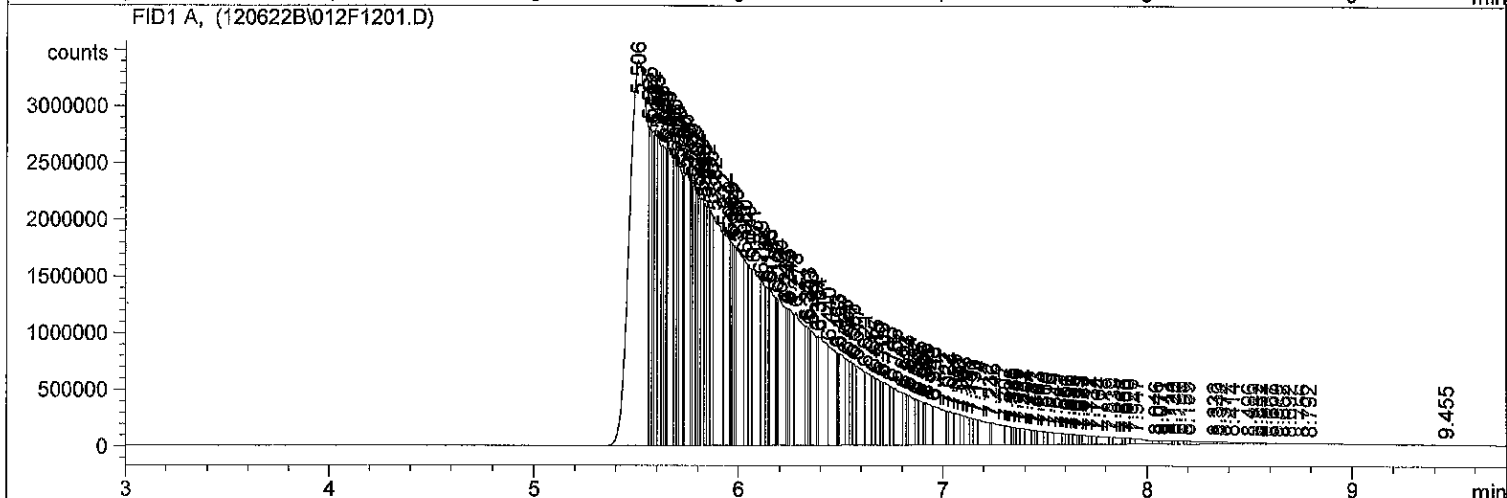
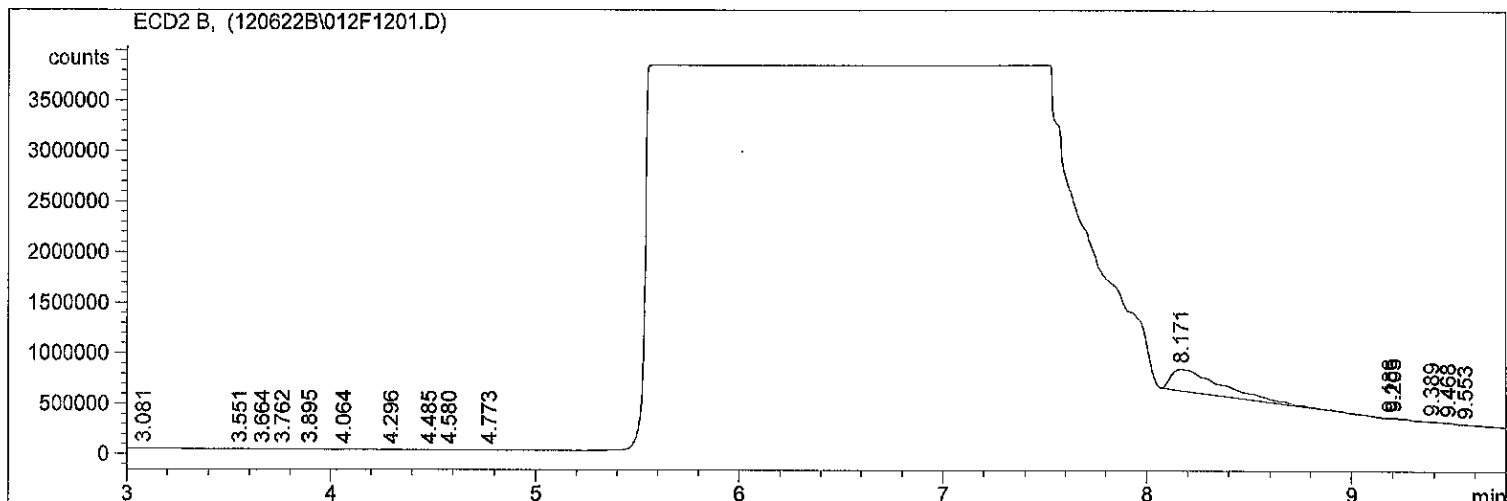
*** End of Report ***


```

=====
Injection Date : 12/6/2022 8:10:14 PM      Seq. Line : 12
Sample Name    : 22L0105 07                Location  : Vial 12
Acq. Operator  : YL                        Inj      : 1
                                           Inj Volume : 1 µl

Sequence File  : C:\HPCHEM\1\SEQUENCE\120622B.S
Method        : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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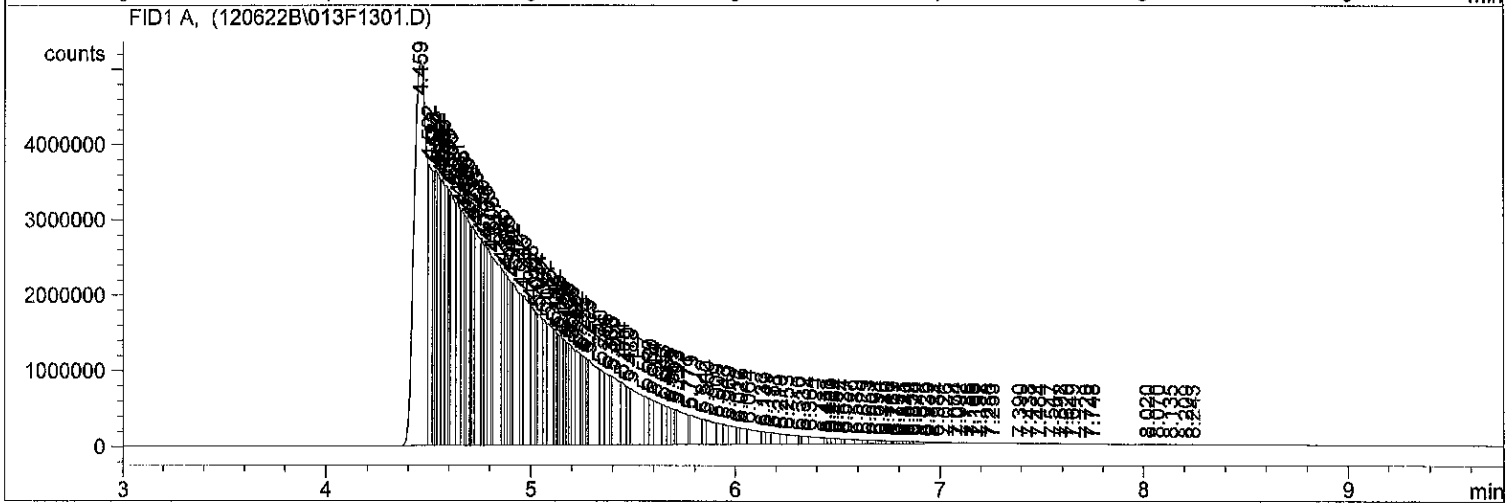
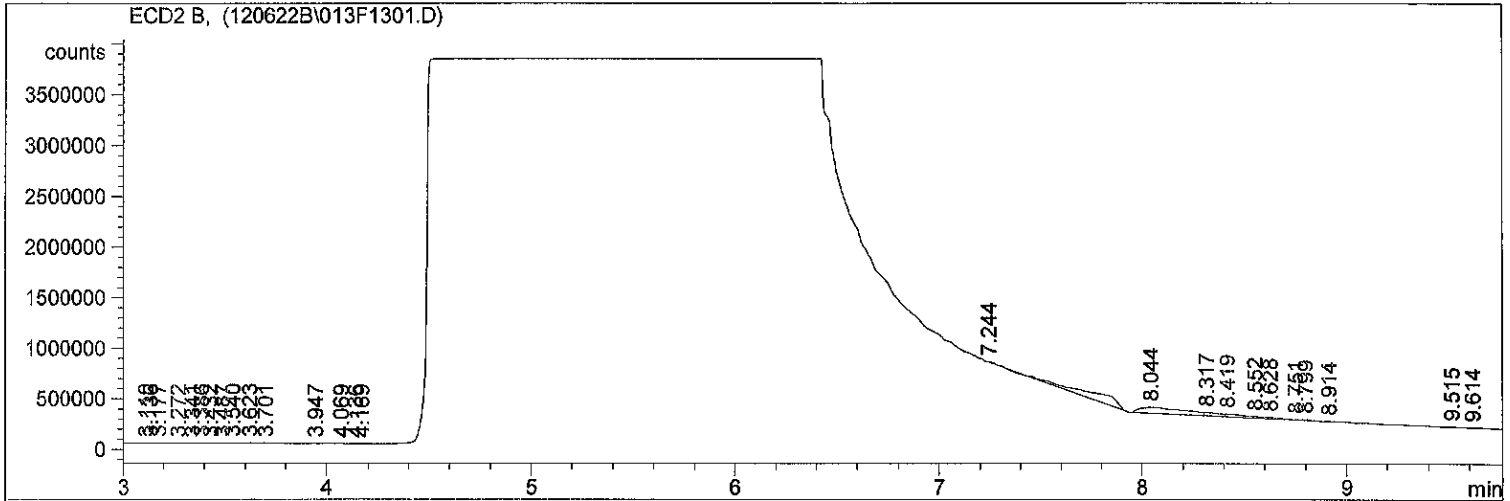
*** End of Report ***

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=====
Injection Date : 12/6/2022 8:29:32 PM      Seq. Line : 13
Sample Name    : 22L0105 08                Location  : Vial 13
Acq. Operator  : YL                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\1\SEQUENCE\120622B.S
Method         : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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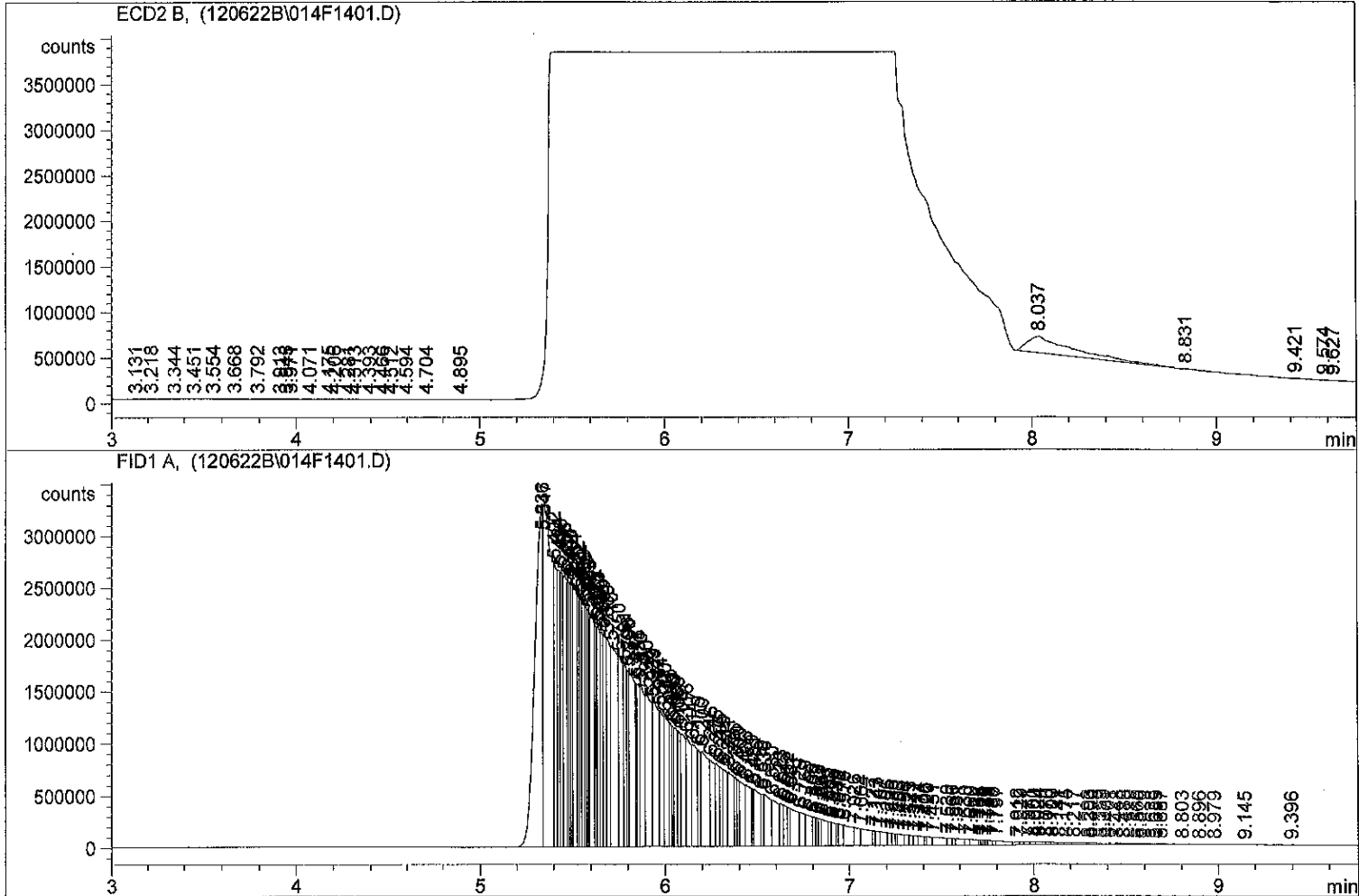


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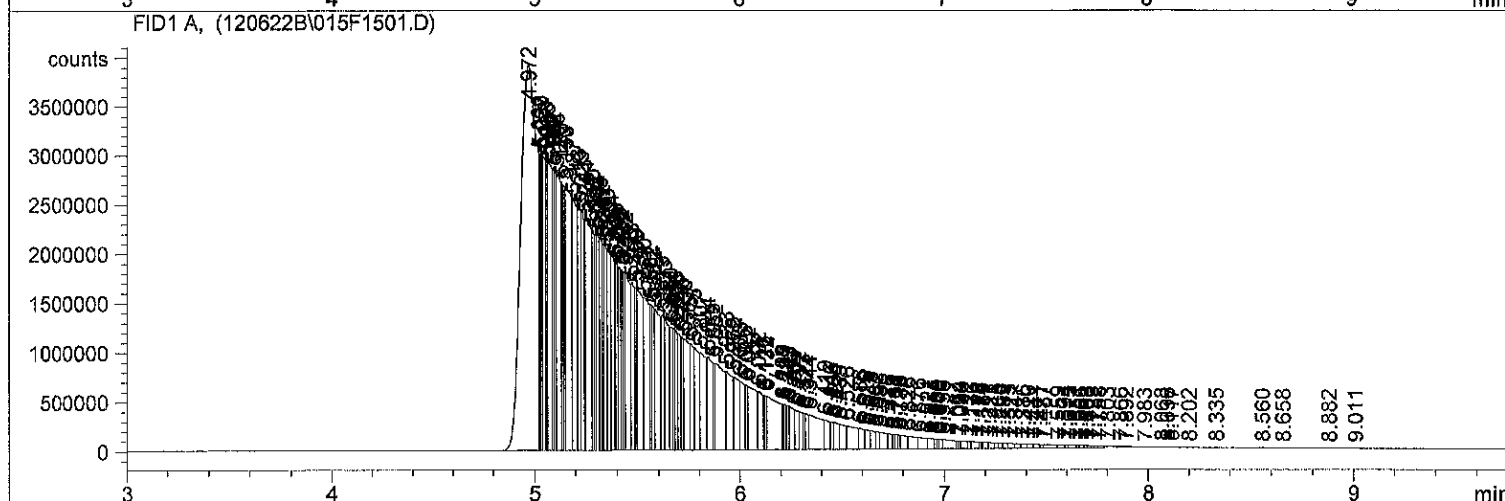
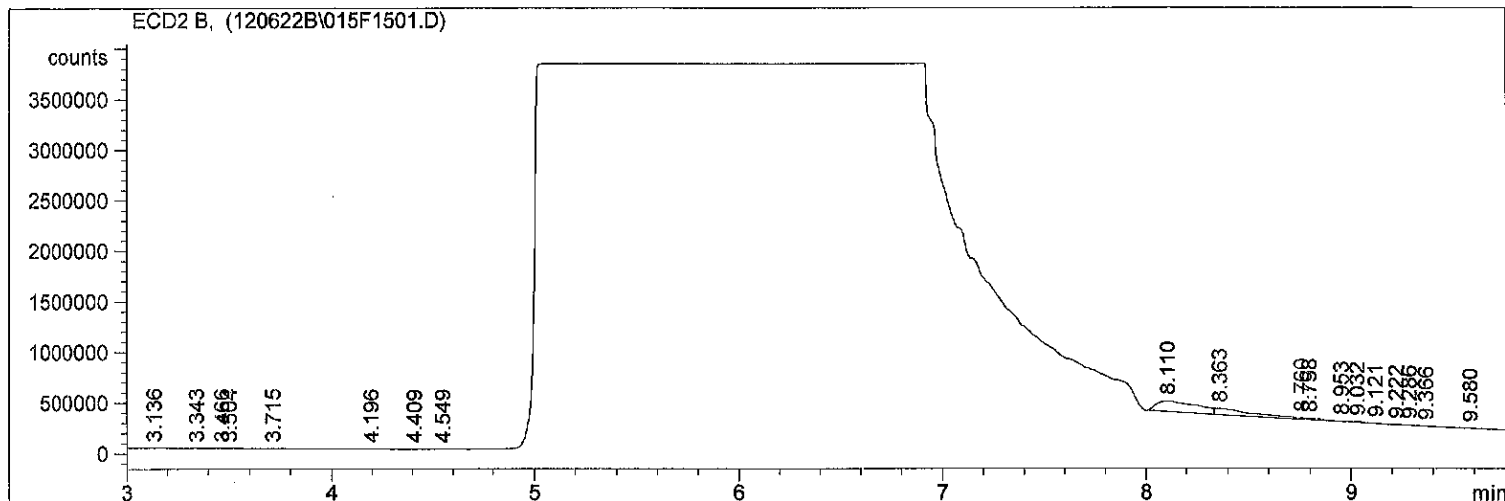
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Injection Date   : 12/6/2022 8:43:52 PM   Seq. Line : 14
Sample Name     : 22L0105 09             Location  : Vial 14
Acq. Operator  : YL                      Inj      : 1
                                           Inj Volume : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method         : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

Injection Date : 12/6/2022 8:56:18 PM Seq. Line : 15
Sample Name : 22L0105 10 Location : Vial 15
Acq. Operator : YL Inj : 1
Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD



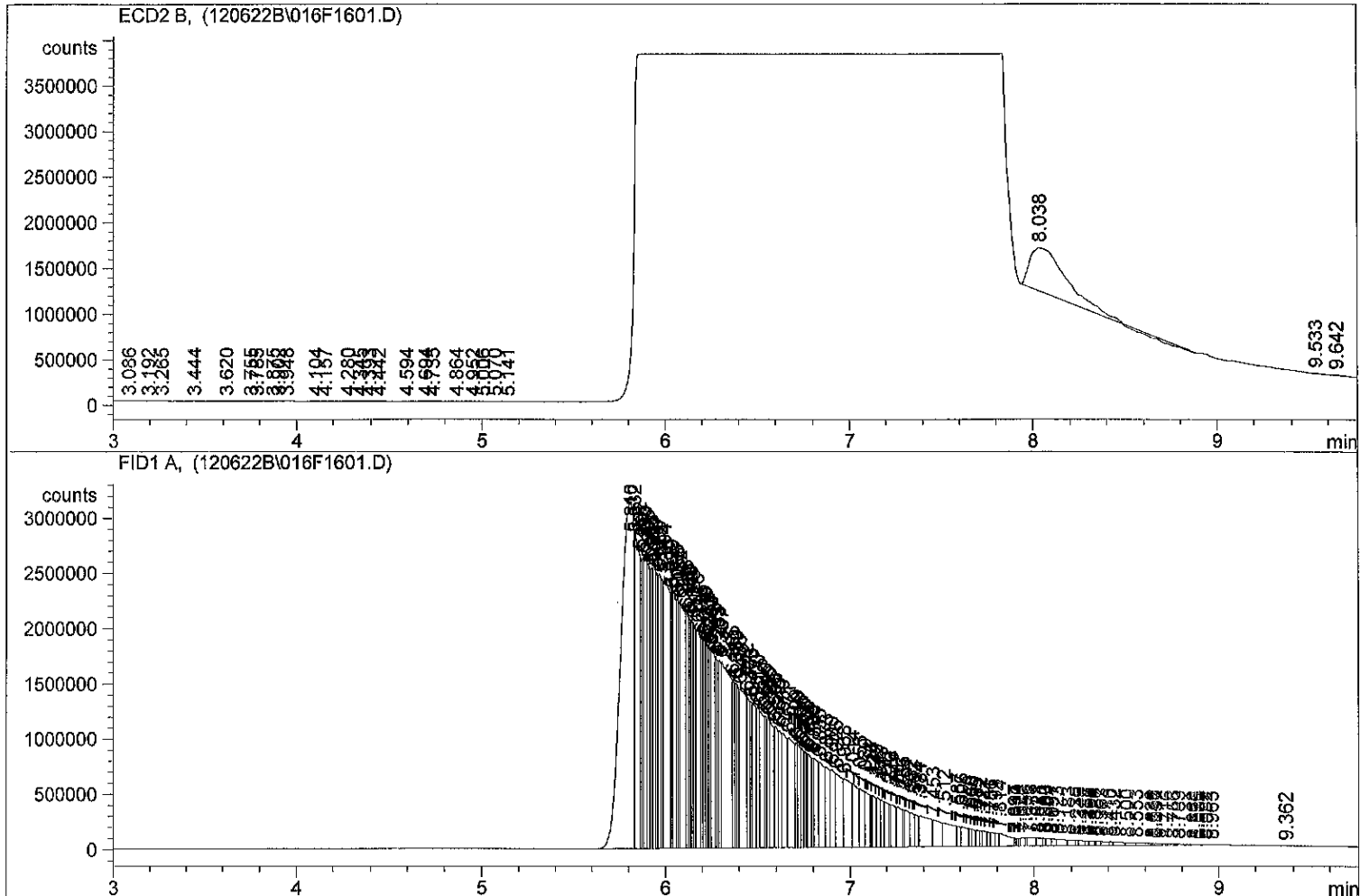
*** End of Report ***

```

=====
Injection Date   : 12/6/2022 9:14:10 PM      Seq. Line : 16
Sample Name     : 22L0105 11                 Location  : Vial 16
Acq. Operator   : YL                         Inj       : 1
                                           Inj Volume: 1 µl

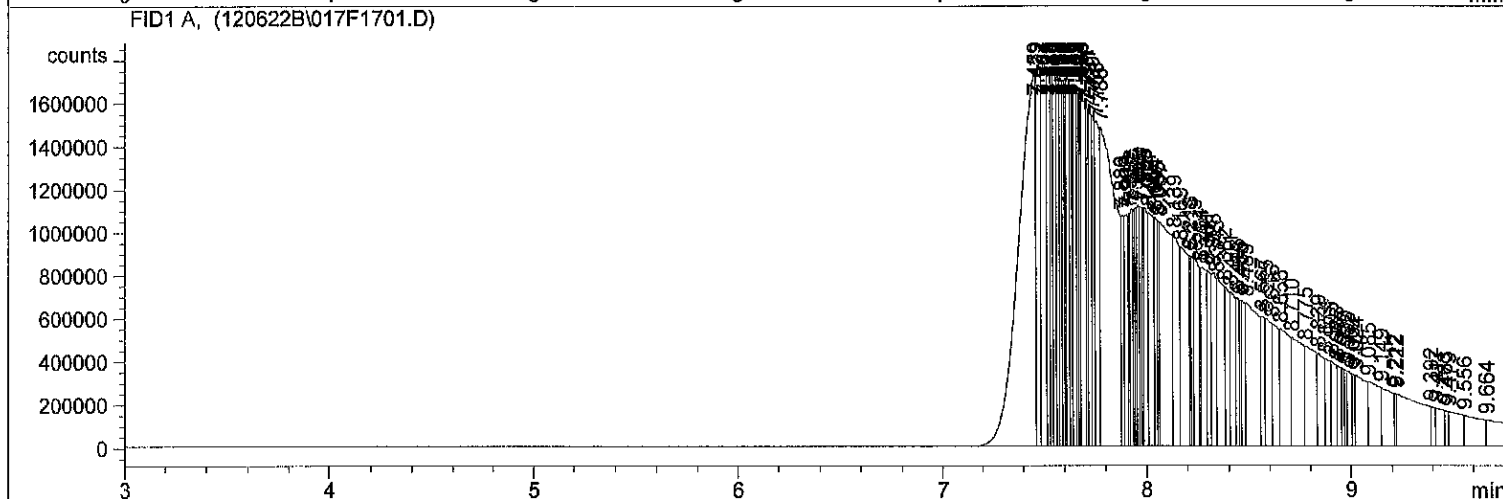
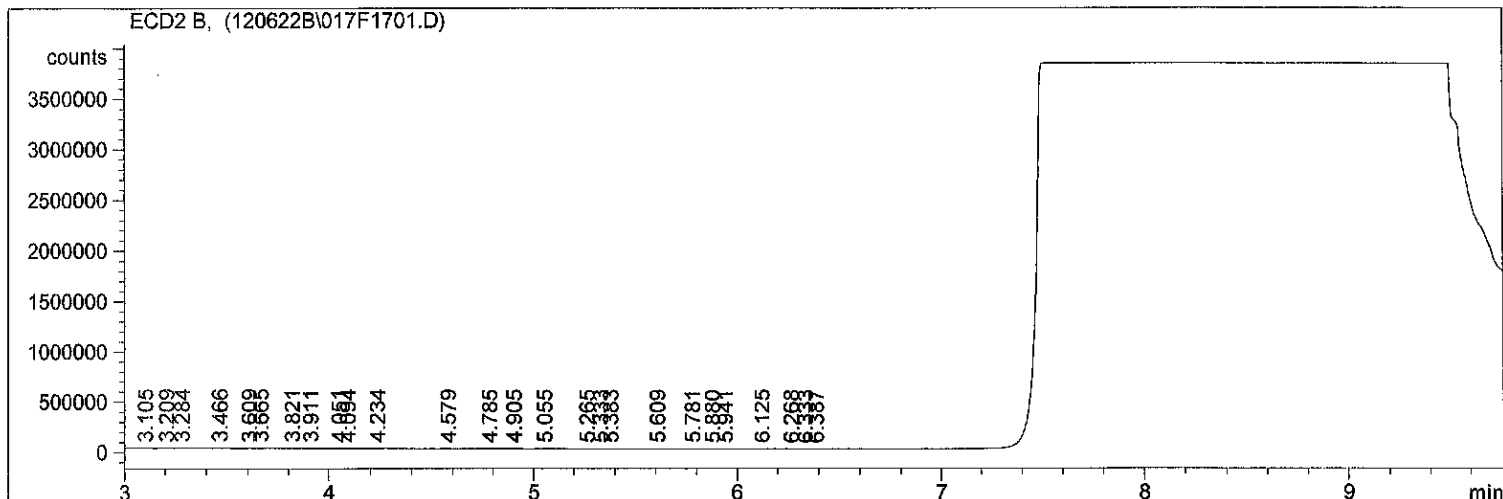
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Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====

```



*** End of Report ***

=====
Injection Date : 12/6/2022 9:27:41 PM Seq. Line : 17
Sample Name : 22L0105 12 Location : Vial 17
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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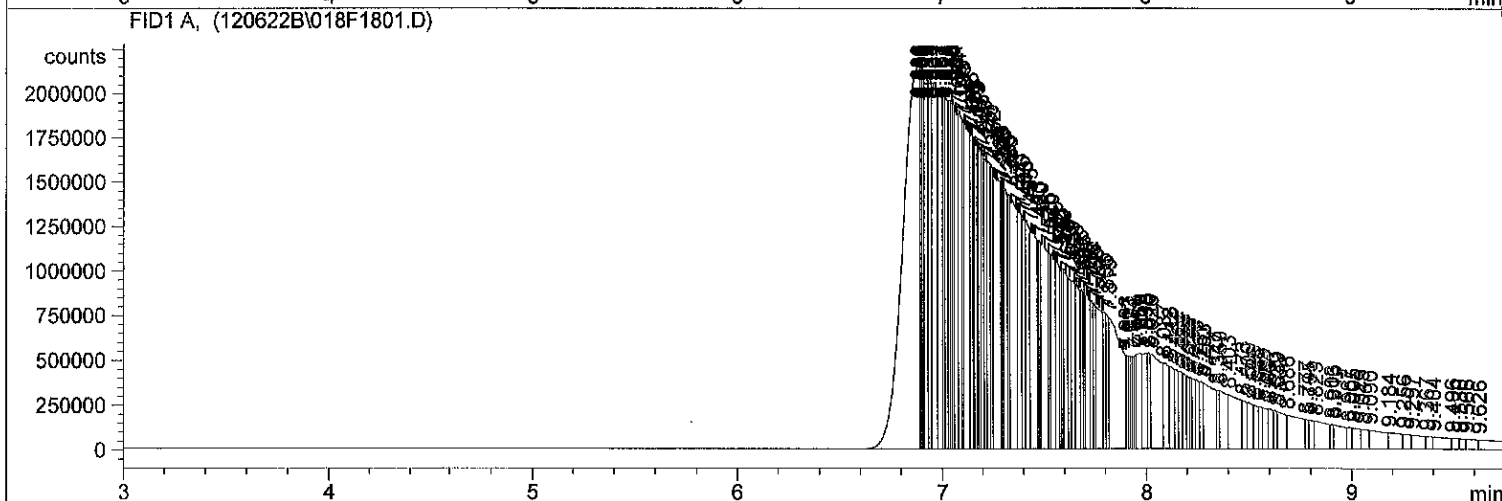
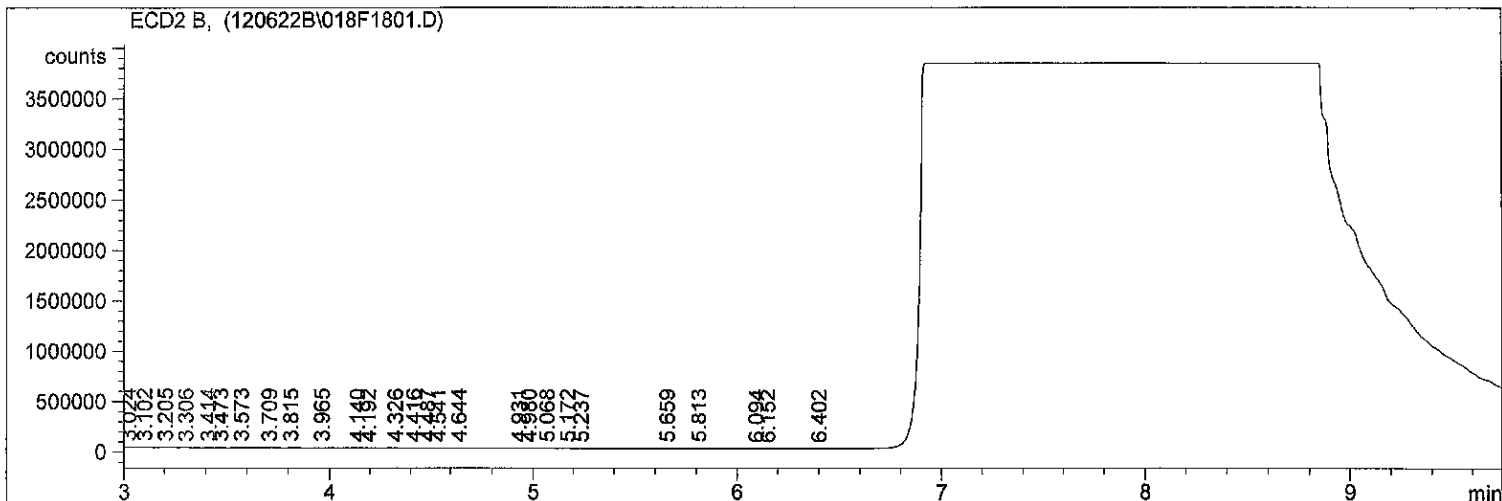
*** End of Report ***

```

=====
Injection Date   : 12/6/2022 9:42:22 PM      Seq. Line : 18
Sample Name     : 22L0105 13                Location  : Vial 18
Acq. Operator   : YL                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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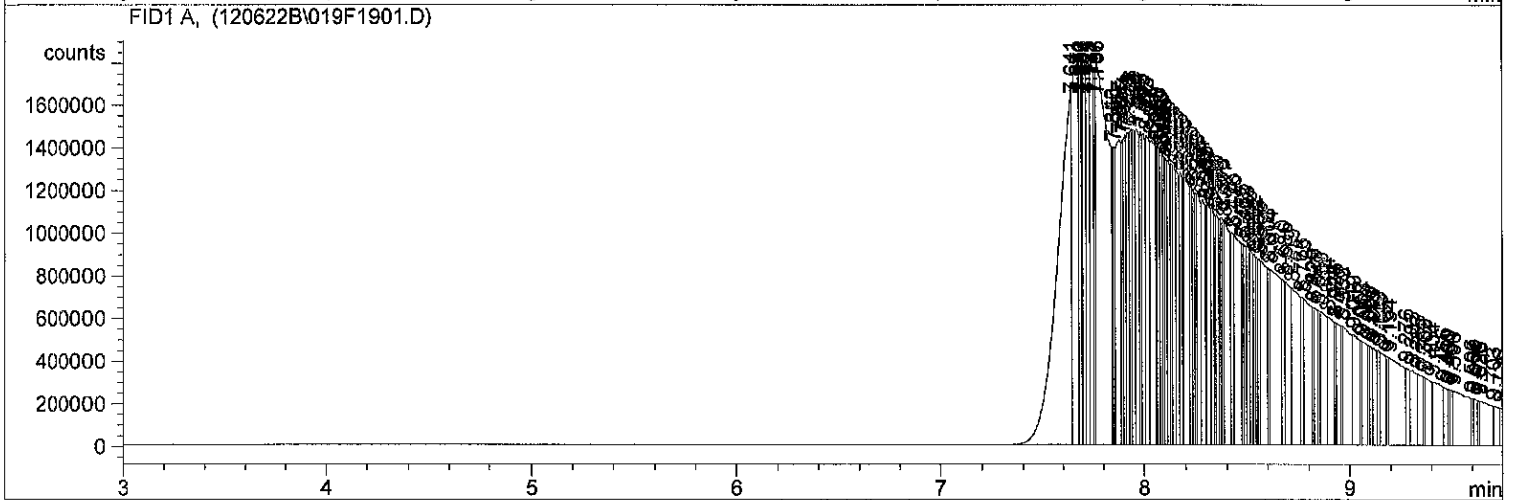
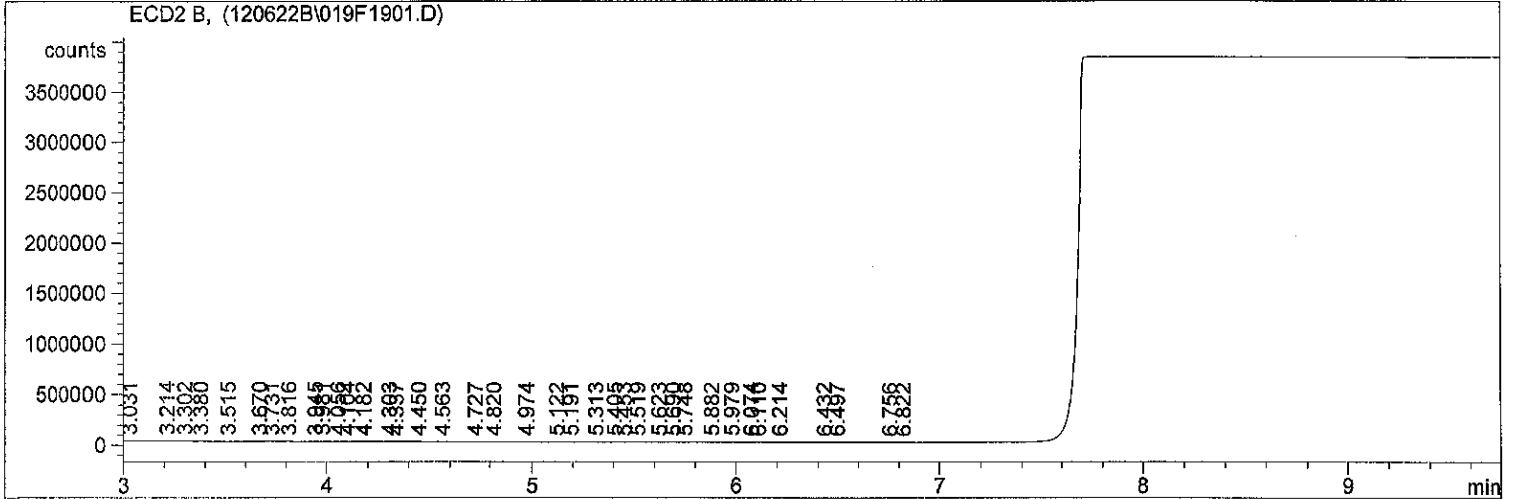
*** End of Report ***

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=====
Injection Date   : 12/6/2022 9:56:49 PM      Seq. Line : 19
Sample Name     : 22L0105 14                 Location  : Vial 19
Acq. Operator   : YL                          Inj       : 1
                                           Inj Volume: 1 µl

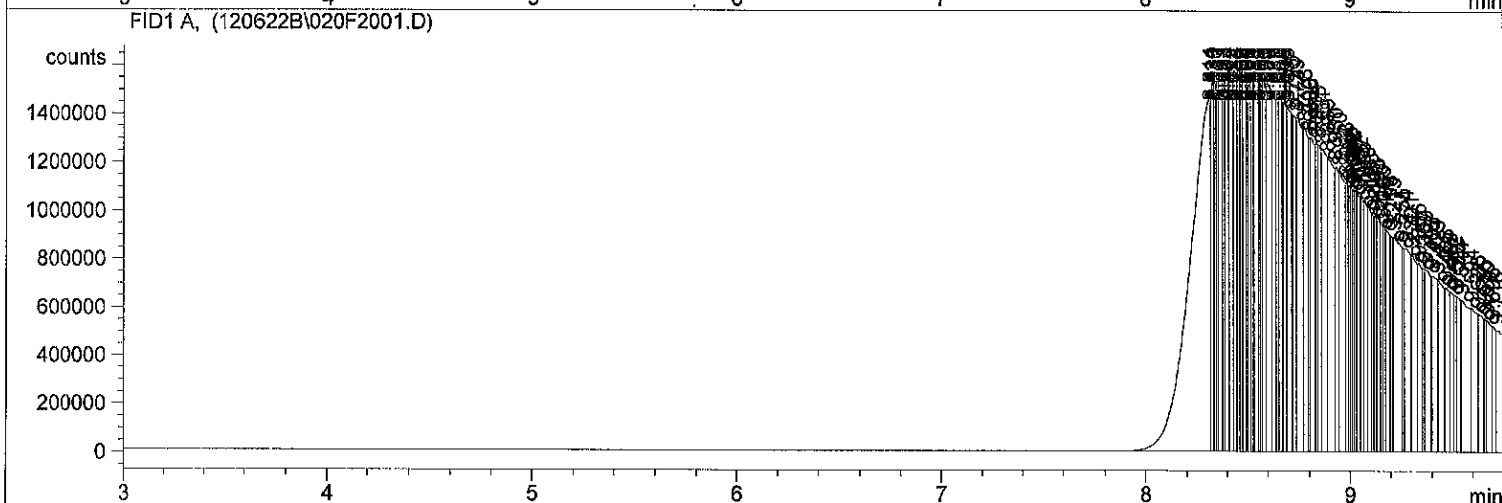
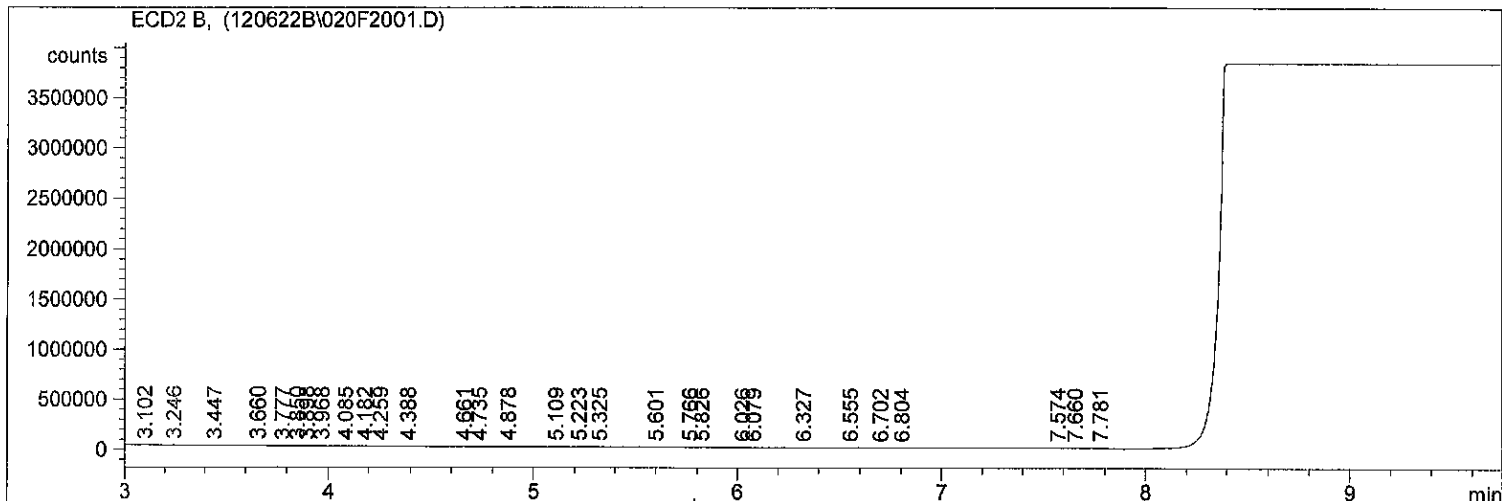
Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====

```



*** End of Report ***

=====
Injection Date : 12/6/2022 10:10:25 PM Seq. Line : 20
Sample Name : 22L0105 15 Location : Vial 20
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====



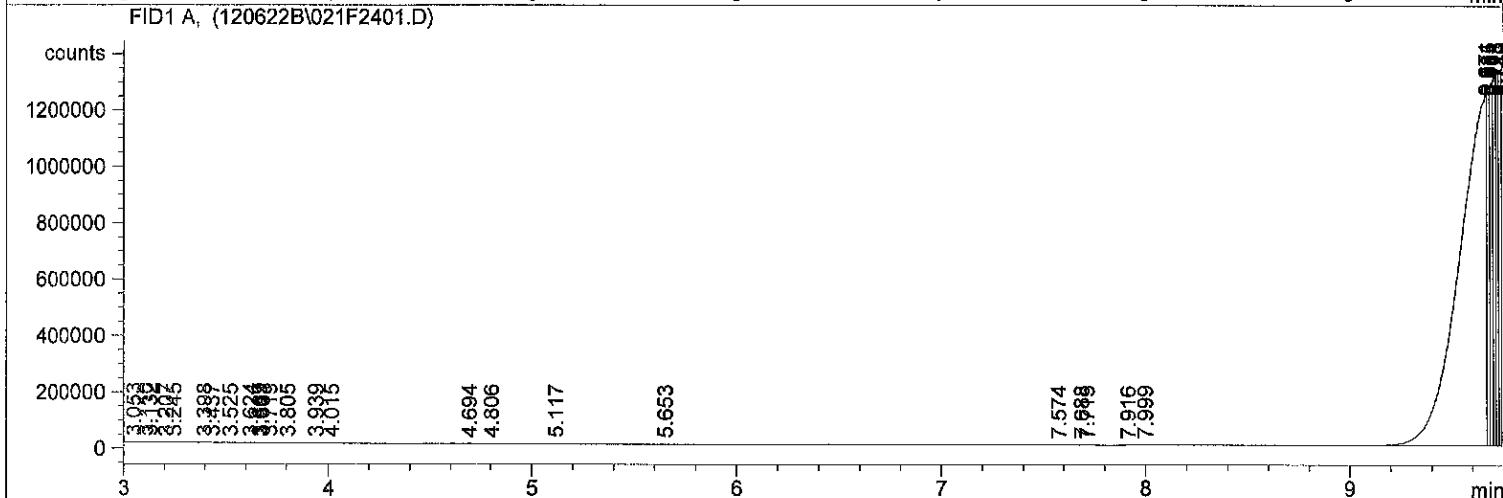
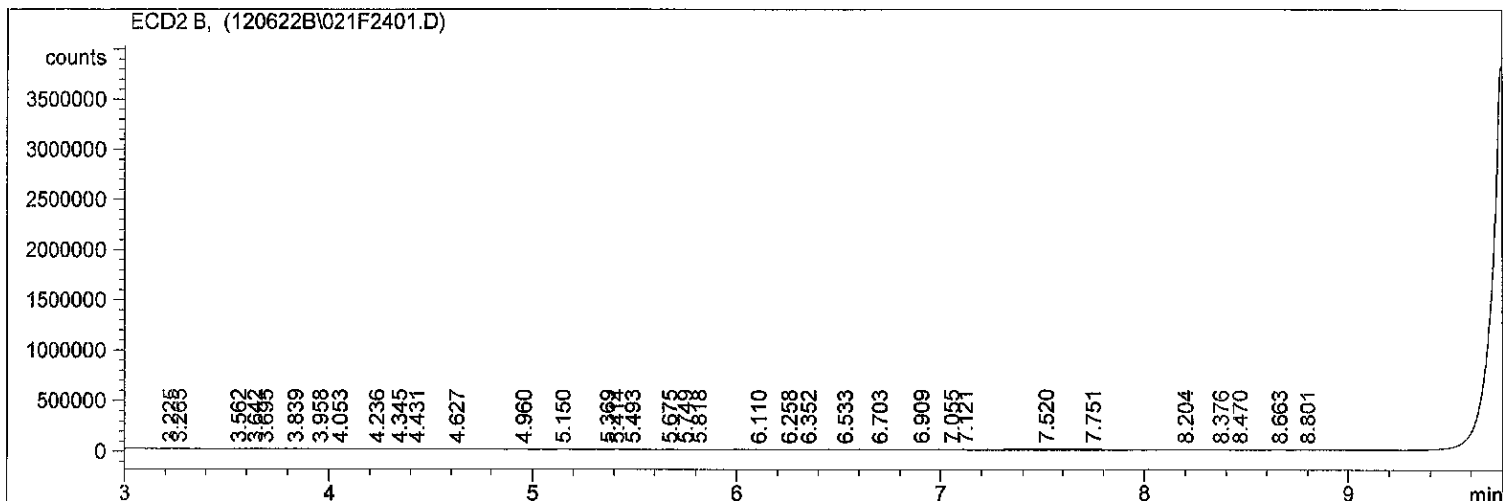
*** End of Report ***

```

=====
Injection Date   : 12/6/2022 11:06:53 PM      Seq. Line   : 24
Sample Name     : 22L0105 16                  Location    : Vial 21
Acq. Operator  : YL                          Inj         : 1
                                           Inj Volume  : 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====

```



*** End of Report ***



PREPARATION BATCH SUMMARY

EPA 8082A

Laboratory: Analytical Resources, LLC SDG: 22L0105
Client: Anchor QEA, LLC Project: AOC4 UR Phase 3
Batch: BKL0158 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-SC775L	22L0105-17	12192206ECD7.D	12/08/22 11:45	
LDW22-SC775M	22L0105-18	12192207ECD7.D	12/08/22 11:45	
LDW22-IT796	22L0105-19	12192208ECD7.D	12/08/22 11:45	
LDW22-IT798	22L0105-20	12172248ECD7.D	12/08/22 11:45	
LDW22-SC782B	22L0105-21	12172249ECD7.D	12/08/22 11:45	
LDW22-SC782C	22L0105-22	12172250ECD7.D	12/08/22 11:45	
LDW22-SC782D	22L0105-23	12192209ECD7.D	12/08/22 11:45	
LDW22-SC782E	22L0105-24	12192210ECD7.D	12/08/22 11:45	
LDW22-SC782F	22L0105-25	12192211ECD7.D	12/08/22 11:45	
LDW22-SC782G	22L0105-26	12192212ECD7.D	12/08/22 11:45	
LDW22-SC782H	22L0105-27	12192215ECD7.D	12/08/22 11:45	
LDW22-SC782I	22L0105-28	12192216ECD7.D	12/08/22 11:45	
LDW22-SC782J	22L0105-29	12192217ECD7.D	12/08/22 11:45	
LDW22-SC782K	22L0105-30	12192218ECD7.D	12/08/22 11:45	
LDW22-SC782L	22L0105-31	12192219ECD7.D	12/08/22 11:45	
LDW22-SC782M	22L0105-32	12192220ECD7.D	12/08/22 11:45	
LDW22-SC782N	22L0105-33	12192221ECD7.D	12/08/22 11:45	
Blank	BKL0158-BLK1	12172239ECD7.D	12/08/22 11:45	
LCS	BKL0158-BS1	12172240ECD7.D	12/08/22 11:45	
LCS Dup	BKL0158-BSD1	12172241ECD7.D	12/08/22 11:45	
LDW22-SC782C	BKL0158-MS1	12172243ECD7.D	12/08/22 11:45	
LDW22-SC782C	BKL0158-MSD1	12192205ECD7.D	12/08/22 11:45	
Reference	BKL0158-SRM1	12172242ECD7.D	12/08/22 11:45	



Batch: BKL0158

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

Matrix: Solid

Date Prepared: 12/08/22

Balance ID: B146462614 Set Up By: CPO 12/7/22

WO Comments

22L0105: <G> BPR Project batch as much as possible </G> <C> BPR SRM, MS, DUP </C> <M> BPR PS, MS/MSD </M> <E> BPR 8270E RM H002055, SIM RM H010158, PCB RM J006840-43, 7935-36, MS/MSD </E> <H> BPR J006840-43, 7935-36 Dup </H>

The following standards may be missing from this batch!

Designator	Description
QLS 5	QLS Spike

Analysis: 8082A PCB Solid 4

Lab Number & Container	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
22L0105-17 A	58.9	(21.23)	21.27	5mL	5mL	2mL	2.5	1.0	
22L0105-18 A	58.9	(21.22)	21.22	5mL	5mL	2mL	2.5	1.0	
22L0105-19 A	62.0	(20.16)	20.17	5mL	5mL	2mL	2.5	1.0	
22L0105-20 A	68.0	(18.37)	18.40	5mL	5mL	2mL	2.5	1.0	
22L0105-21 A	52.1	(23.98)	23.99	5mL	5mL	2mL	2.5	1.0	
22L0105-22 A	54.4	(22.99)	22.99	5mL	5mL	2mL	2.5	1.0	
22L0105-23 A	56.1	(22.30)	22.38	5mL	5mL	2mL	2.5	1.0	
22L0105-24 A	53.1	(23.56)	23.58	5mL	5mL	2mL	2.5	1.0	
22L0105-25 A	64.2	(19.49)	19.49	5mL	5mL	2mL	2.5	1.0	
22L0105-26 A	61.1	(20.47)	20.02	5mL	5mL	2mL	2.5	1.0	
22L0105-27 A	62.7	(19.94)	19.95	5mL	5mL	2mL	2.5	1.0	
22L0105-28 A	65.2	(19.16)	19.18	5mL	5mL	2mL	2.5	1.0	
22L0105-29 A	61.8	(20.22)	20.23	5mL	5mL	2mL	2.5	1.0	
22L0105-30 A	61.5	(20.33)	20.38	5mL	5mL	2mL	2.5	1.0	
22L0105-31 A	66.8	(18.72)	18.80	5mL	5mL	2mL	2.5	1.0	
22L0105-32 A	70.9	(17.62)	17.65	5mL	5mL	2mL	2.5	1.0	
22L0105-33 A	69.9	(17.89)	17.89	5mL	5mL	2mL	2.5	1.0	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) Acid C/U (5mL)	(REQ) Sulfur C/U (5mL)	(REQ) Silica Gel C/U (2:5)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 12.5 (Wet)	Actual						
BKL0158-BLK1	100.0	(12.50)	12.54	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BKL0158-BS1	100.0	(12.50)	12.50	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BKL0158-BSD1	100.0	(12.50)	12.50	5mL	5mL	2mL	2.5	1.0	(10g Actual Wt.)
BKL0158-MS1	54.4	(22.99)	22.99	5mL	5mL	2mL	2.5	1.0	Use 22L0105-22
BKL0158-MSD1	54.4	(22.99)	22.99	5mL	5mL	2mL	2.5	1.0	Use 22L0105-22
BKL0158-SRM1	100.0	(12.50) ^(2.50)	2.54	5mL	5mL	2mL	2.5	1.0	Use J006841 J006159

+1g DI WATER

Client ID verified By: [Signature] Date: 12/08/22

Preparation Reviewed By: TWC Date: 12/16/22

Extraction Date and Time: 12/08/22 11:45



Batch: BKL0158

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments
22L0105: <G> BPR Project batch as much as possible </G> <C> BPR SRM, MS, DUP </C> <M> BPR PS, MS/MSD </M> <E> BPR 8270E RM H002055, SIM RM
H010158, PCB RM J006840-43, 7935-36, MS/MSD </E>
<H> BPR J006840-43, 7935-36 Dup </H>

Prep Steps	Reagents Used	Surrogates & Spike Standards Used																					
Microwave 1 2 3 Analyst/Date: 12/08/22 CT	Station/Reagent Standard ID Microwave Analyst: <i>[Signature]</i> Date: 12/08/22 Neutral Glass Wool K010266 1:1 Hexane/Acetone K010163 Hexane K010834 Anhydrous Sodium Sulfate K010995	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>N K010600</td> <td>50µL</td> <td rowspan="2">CT</td> <td rowspan="2">Y</td> </tr> <tr> <td>2µg/mL</td> <td>Exp Date: 1/23/2023</td> <td></td> </tr> <tr> <td>Spike</td> <td>1 K008150</td> <td>63µL</td> <td rowspan="2">CT</td> <td rowspan="2">Y</td> </tr> <tr> <td>20µg/mL</td> <td>Exp Date: 3/15/2023</td> <td></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	N K010600	50µL	CT	Y	2µg/mL	Exp Date: 1/23/2023		Spike	1 K008150	63µL	CT	Y	20µg/mL	Exp Date: 3/15/2023	
Type	Vial ID / Standard ID	Vol uL	Analyst	Witness																			
Surrogate	N K010600	50µL	CT	Y																			
2µg/mL	Exp Date: 1/23/2023																						
Spike	1 K008150	63µL	CT	Y																			
20µg/mL	Exp Date: 3/15/2023																						
KD 100°C Hexane Exchange (2 X 20 mL) 1 2 3 4 5 6 Analyst/Date: 12/14/22 CP	KD Analyst: CP Date: 12/14/22 Anhydrous Sodium Sulfate Hexane K010373	<p>MANUALLY ENTER EXPIRATION DATES!</p> <p>(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.</p> <p>If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).</p>																					
TurboVap Pre Cleanups 1 2 3 4 5 Analyst/Date: 12/16/22 LJ	Vialing Analyst: LJ/TWC Date: 12/16/22 Hexane K011373 Concentrated Sulfuric Acid K009796																						
TurboVap Post Cleanups 1 2 3 4 5 Analyst/Date: 12/16/22 TWC	Silica Gel (SPE) Darts TWC 12/16/22 K011573 Sodium Sulfite K003744 Tetrabutylammonium hydrogensulfate (TBAS) K010832																						
Vialing Analyst/Date: 12/16/22 TWC																							



Batch: BKL0158

Prepared using: EPA 3546 (Microwave)
8082A PCB Solid 4 in Solid (Version:7 Aroclors)

WO Comments
22L0105: <G> BPR Project batch as much as possible </G> <C>BPR SRM, MS, DUP </C> <M>BPR PS, MS/MSD </M> <E>BPR 8270E RM H002055, SIM RM H010158, PCB RM J006840-43, 7935-36, MS/MSD </E> <H>BPR J006840-43, 7935-36 Dup </H>

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"> 1. Weigh soil/sed into beakers-lightly dry with sodium sulfate. 2. Transfer to microwave vessel(s). Note: (do not fill vessels more than 2/3rd full. Some samples may require two vessels). 3. Add 1:1 Hexane/Acetone until the solvent layer is 3 inches above the soil layer after homogenization. 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-Re-homogenize while hot then cool vessels in R-05 15 minutes. Re-homogenize while cool. 7. Decant 1:1 Hex/Ace into Erlenmeyer flask with sodium sulfate in bottom and funnel with neutral glasswool plug. 8. Re-homogenize and rinse with 1:1 Hexane/Acetone. 9. Let cool and decant solvent then empty the soil into the funnel and rinse with Hexane. 10. KD on 100° bath. 11. Exchange (2 X with 20mL) Hexane. 12. TurboVap. 13. Clean-ups. 14. TurboVap. 15. Vial with Hexane. <p>A. Need Total Solids Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>B. Archive/Freeze Y <input checked="" type="checkbox"/> N <input type="checkbox"/></p>	



Extraction Parameter: PUB Extraction Batch BKLO158

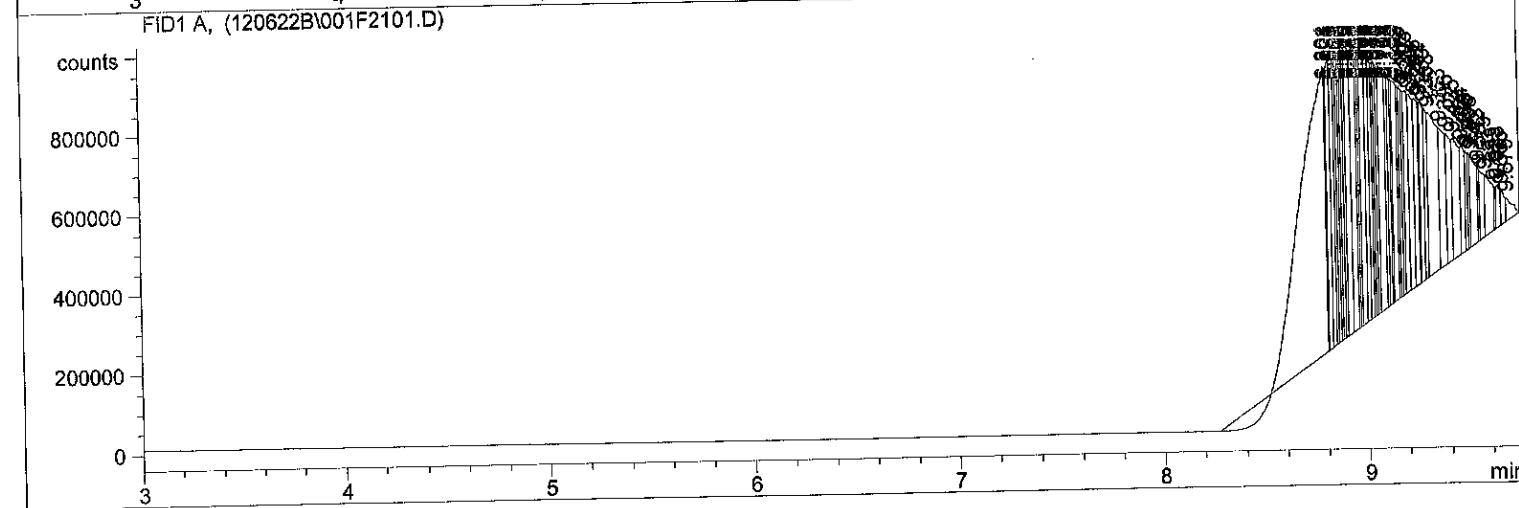
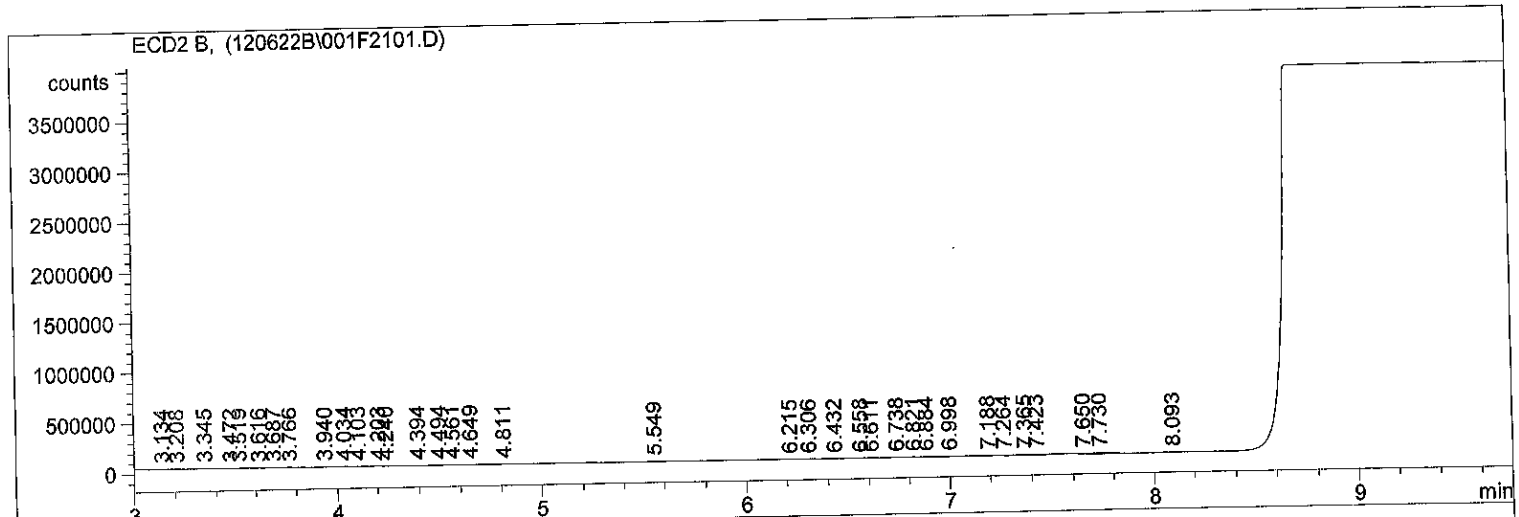
Total Solids Batch: BKLO131 Work Order(s): 22L0105 17-33

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>24, 29, 34, 31, 32, 33.</u>	<u>y</u> 12/06/22
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>19, 21,</u>	<u>y</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>fuel odor = 17, 18, 19, 25, 26, 27, 28, 21-24, sulfur odor</u>	<u>y</u> 12/06/22
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y/N	<u>y</u> 12/06/22
<input checked="" type="checkbox"/> Multiple Jars Y/N	<u>y</u> 12/06/22
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

```

=====
Injection Date : 12/6/2022 10:24:12 PM      Seq. Line : 21
Sample Name    : DCM RINSE                  Location  : Vial 1
Acq. Operator  : YL                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\1\SEQUENCE\120622B.S
Method        : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed  : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====
    
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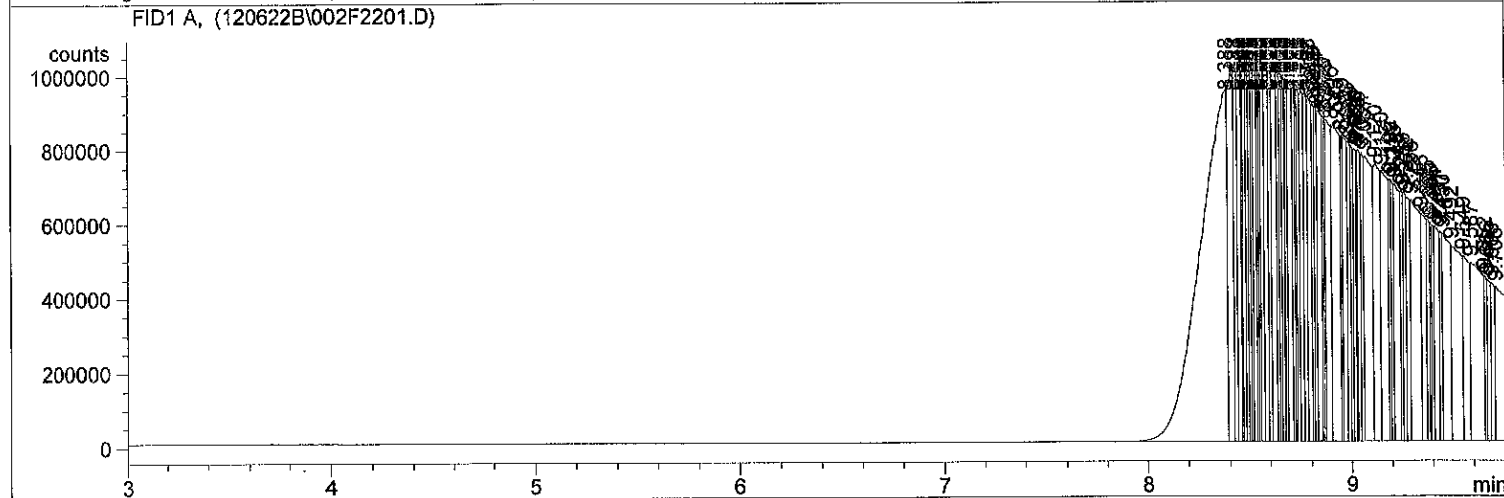
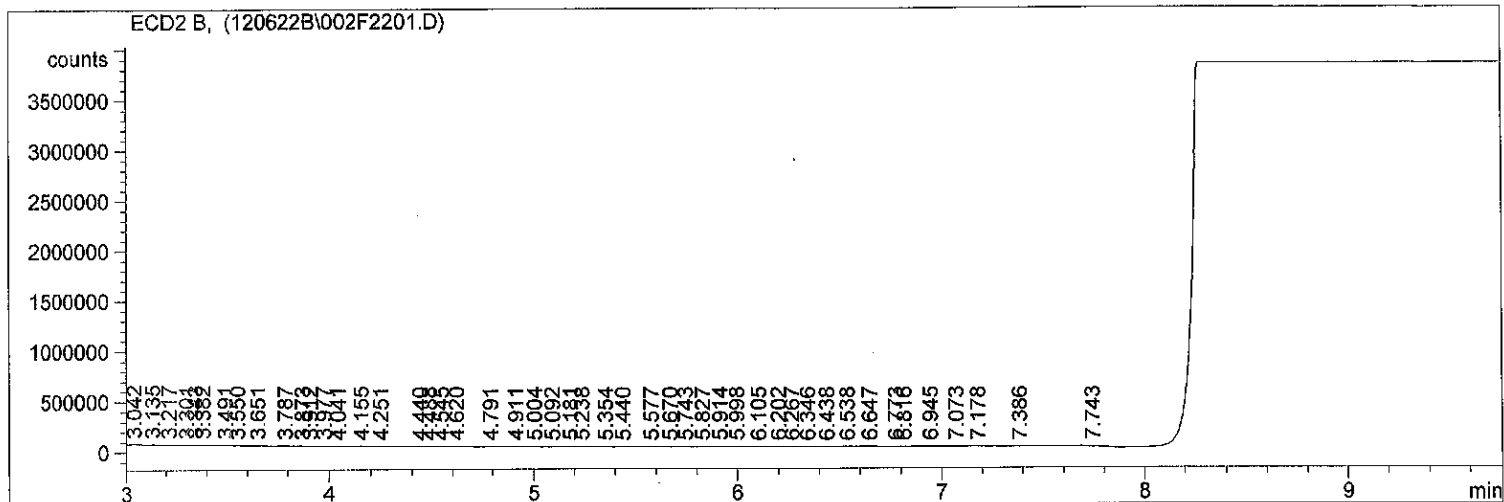
*** End of Report ***


```

=====
Injection Date : 12/6/2022 10:38:48 PM      Seq. Line : 22
Sample Name    : PNA STD 10PPM              Location  : Vial 2
Acq. Operator  : YL                          Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\1\SEQUENCE\120622B.S
Method         : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====

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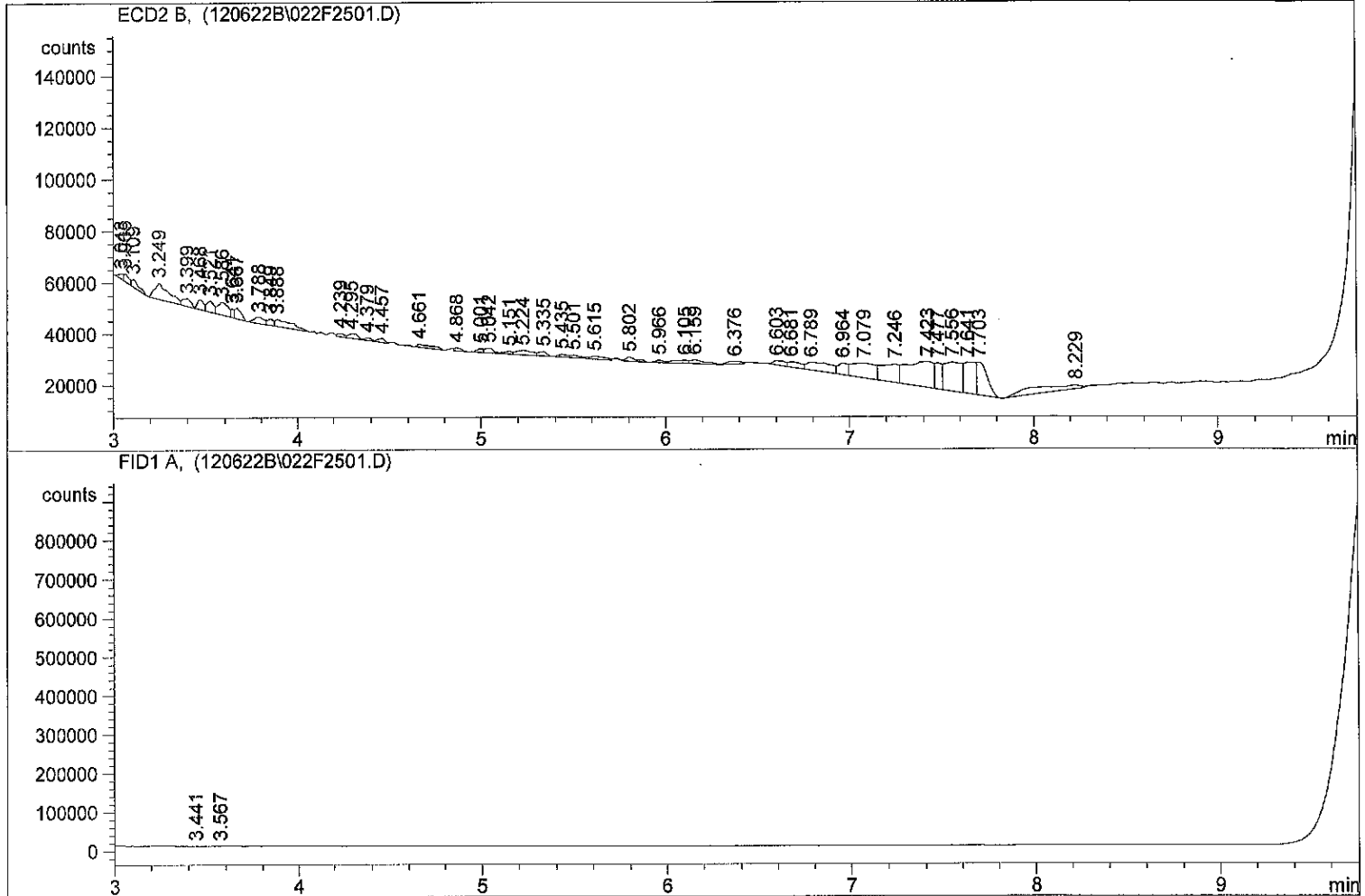


*** End of Report ***


```

=====
Injection Date : 12/6/2022 11:20:41 PM      Seq. Line : 25
Sample Name    : 22L0105 17                  Location  : Vial 22
Acq. Operator  : YL                          Inj      : 1
                                           Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\1\SEQUENCE\120622B.S
Method        : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====
    
```



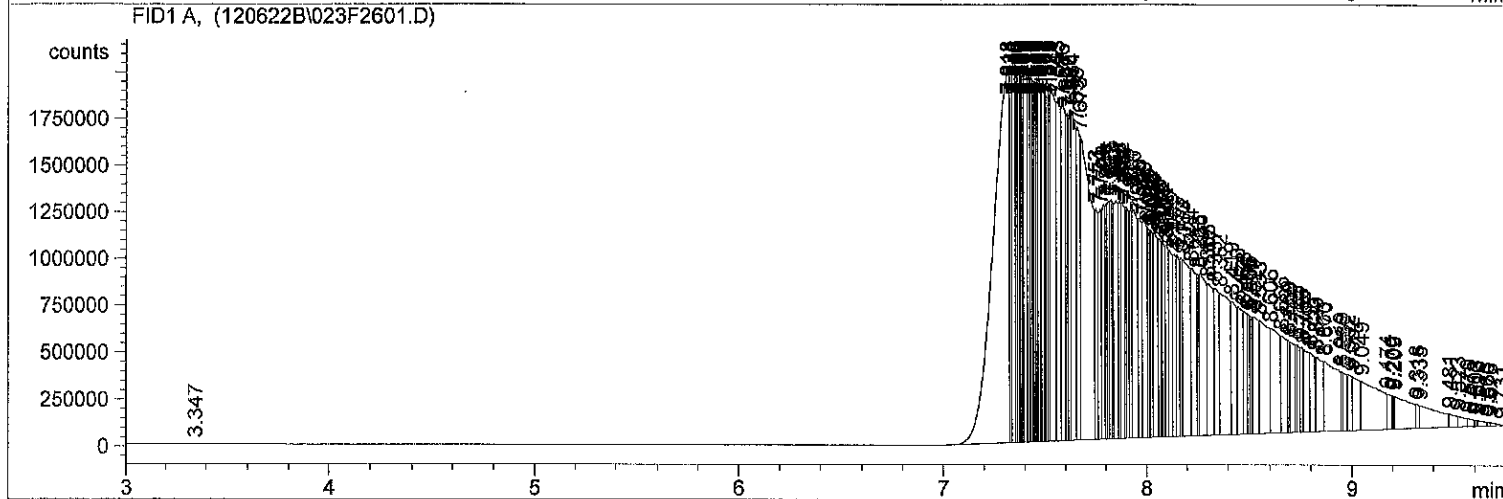
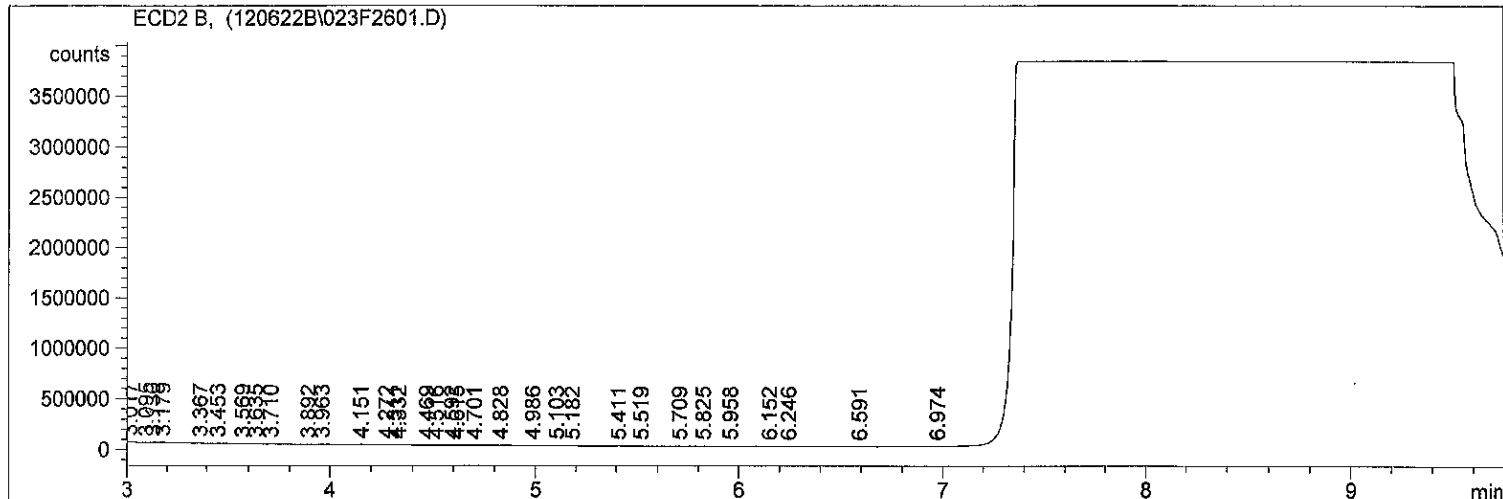
*** End of Report ***

```

=====
Injection Date   : 12/6/2022 11:34:13 PM   Seq. Line : 26
Sample Name     : 22L0105 18               Location  : Vial 23
Acq. Operator  : YL                       Inj      : 1
                                           Inj Volume: 1 µl

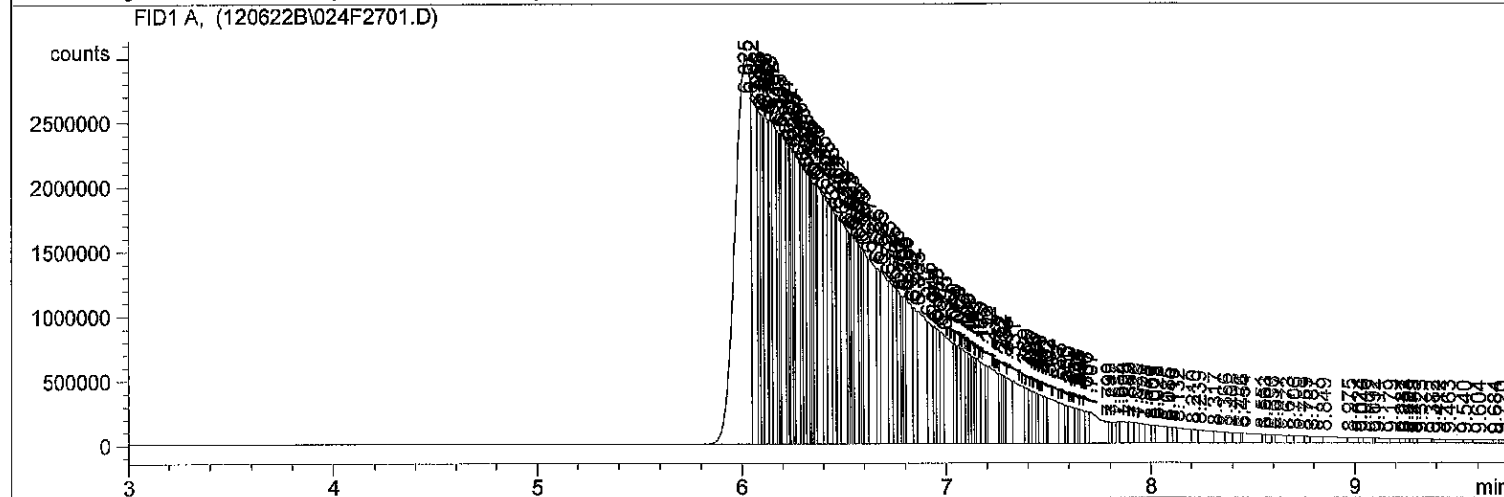
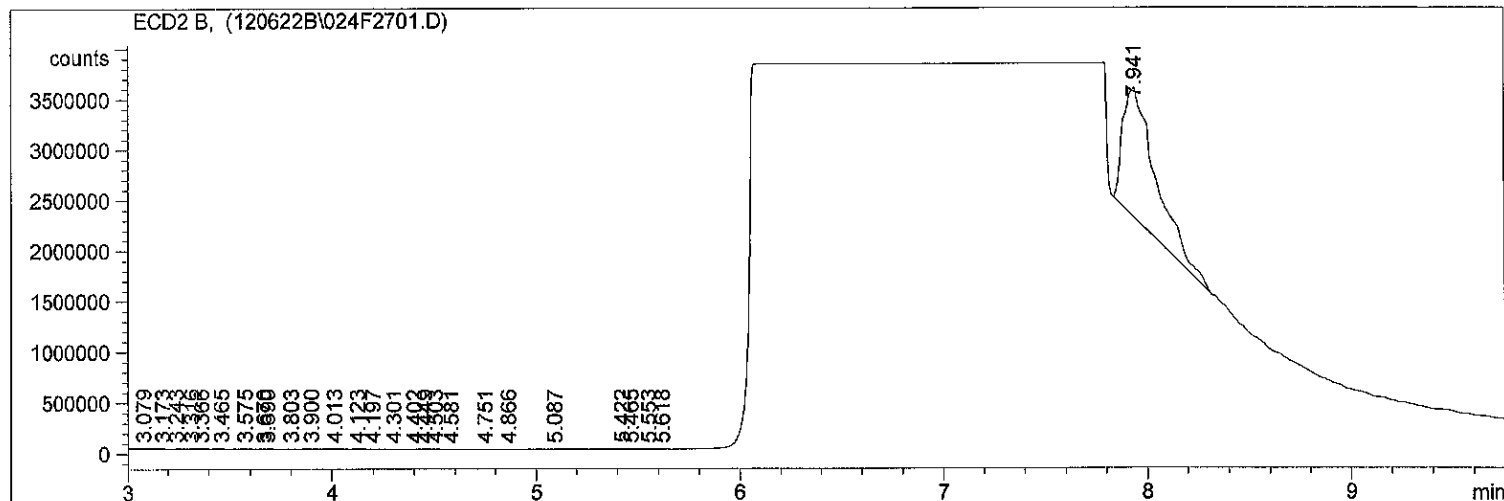
Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====

```



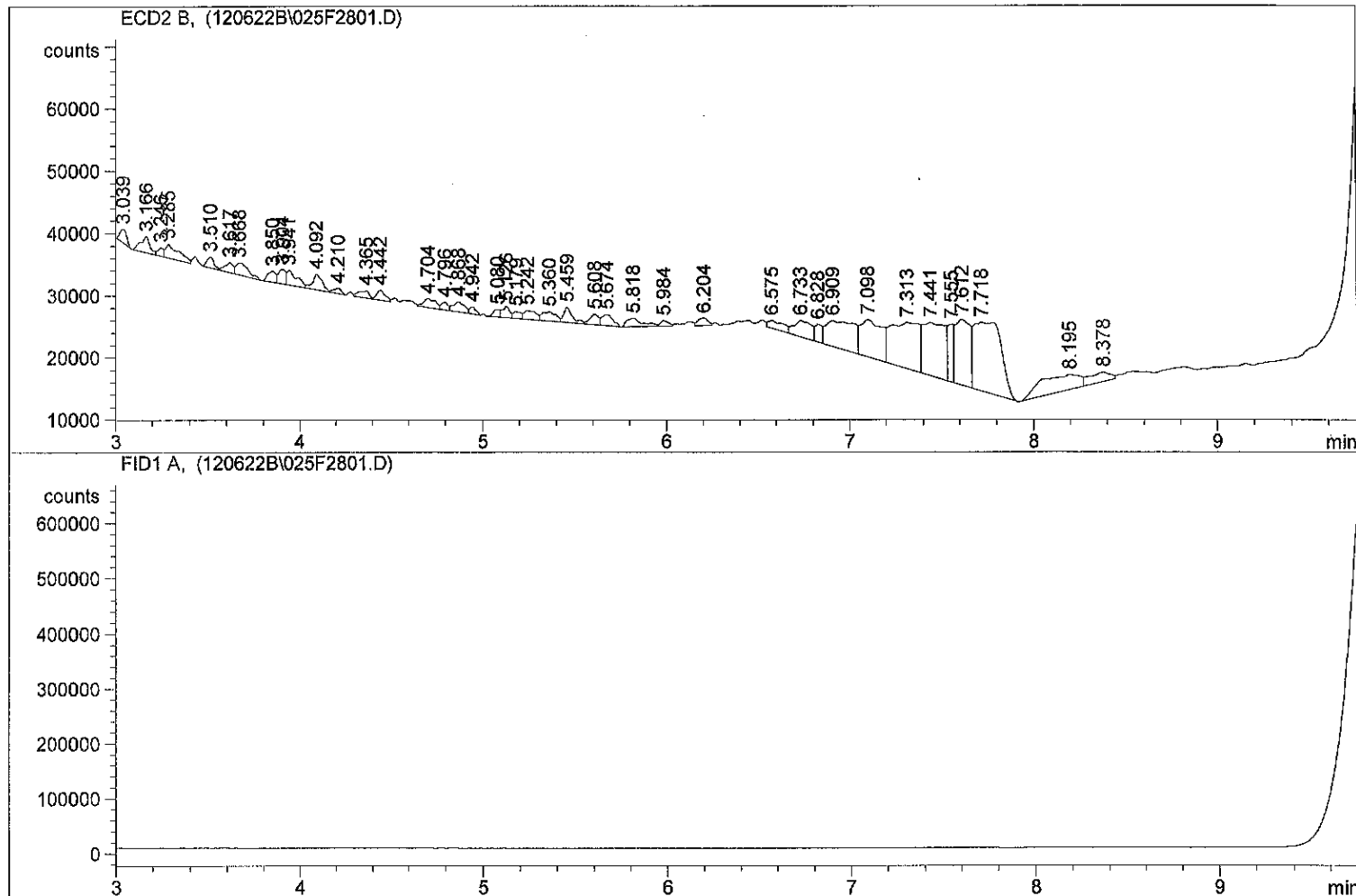
*** End of Report ***

=====
Injection Date : 12/6/2022 11:48:00 PM Seq. Line : 27
Sample Name : 22L0105 19 Location : Vial 24
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====



*** End of Report ***

Injection Date : 12/7/2022 12:02:35 AM Seq. Line : 28
Sample Name : 22L0105 20 Location : Vial 25
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD



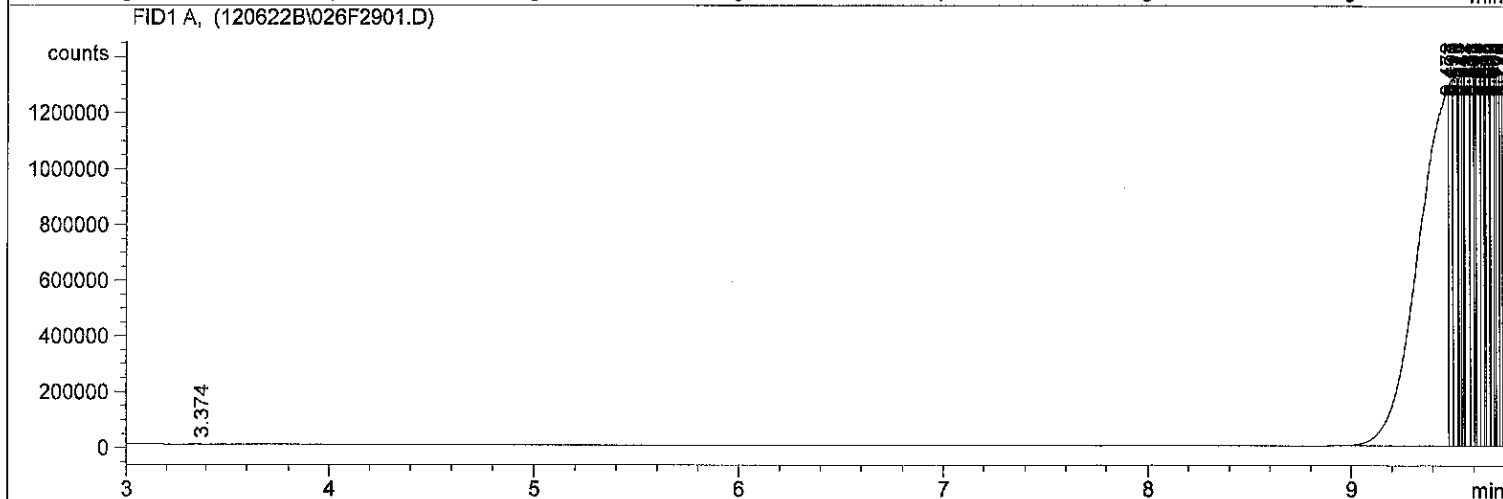
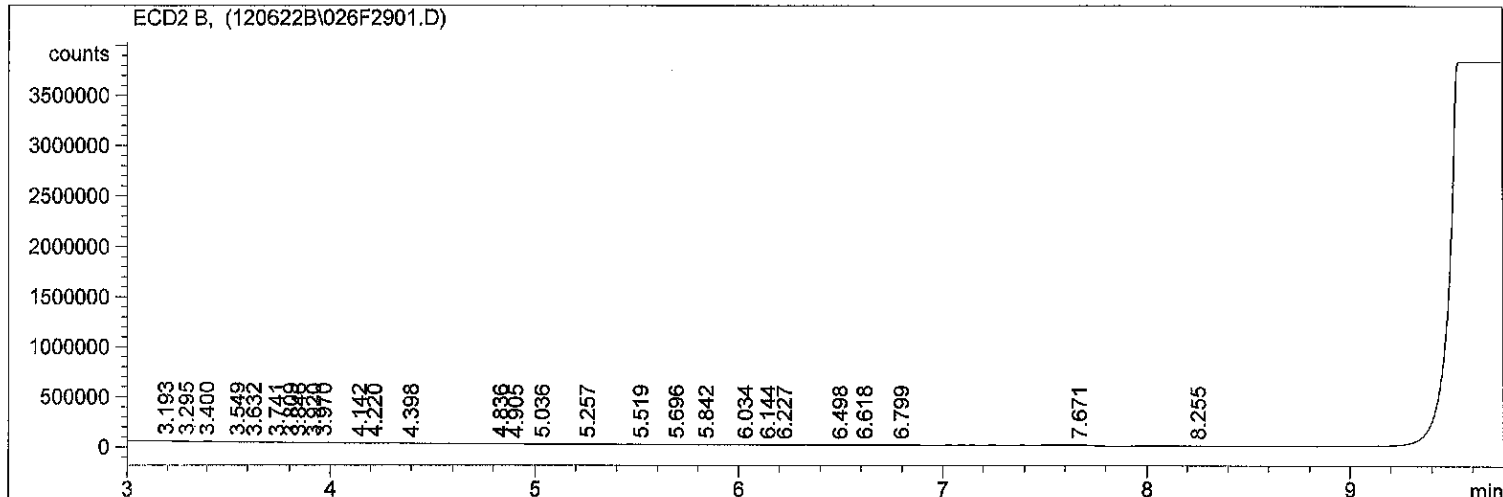
*** End of Report ***

```

=====
Injection Date   : 12/7/2022 12:16:02 AM      Seq. Line : 29
Sample Name     : 22L0105 21                 Location  : Vial 26
Acq. Operator  : YL                          Inj      : 1
                                           Inj Volume: 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====

```



*** End of Report ***



GPC1
 BAN_Method_GPC1
 BKK0743

Sample Description:

Sample ID : BKK0743
 Sample : 22K0399-22

Method : BAN_Method_GPC1

By : Administrator

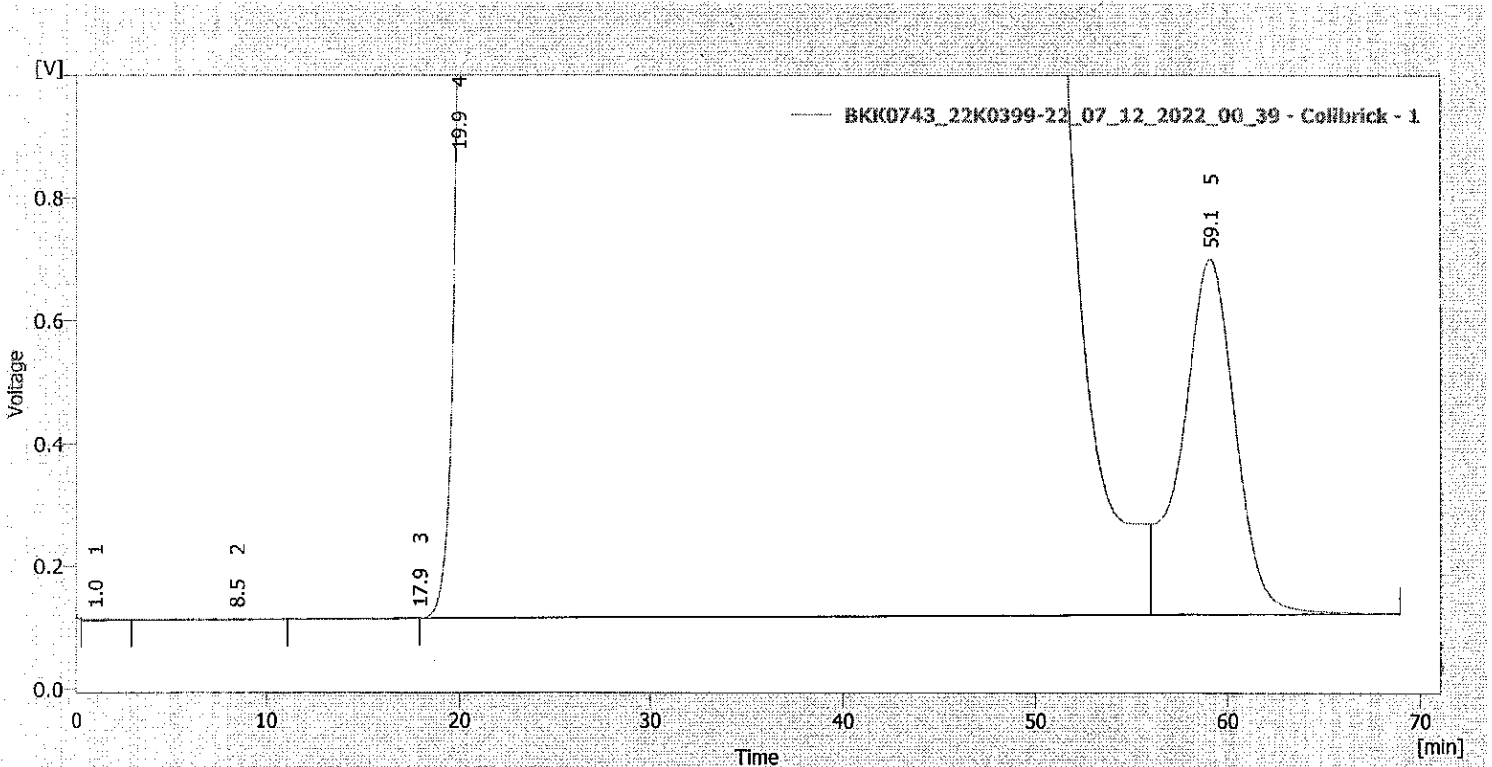
Description : GPC1- BAN

Created : 10/18/2013 6:05 AM

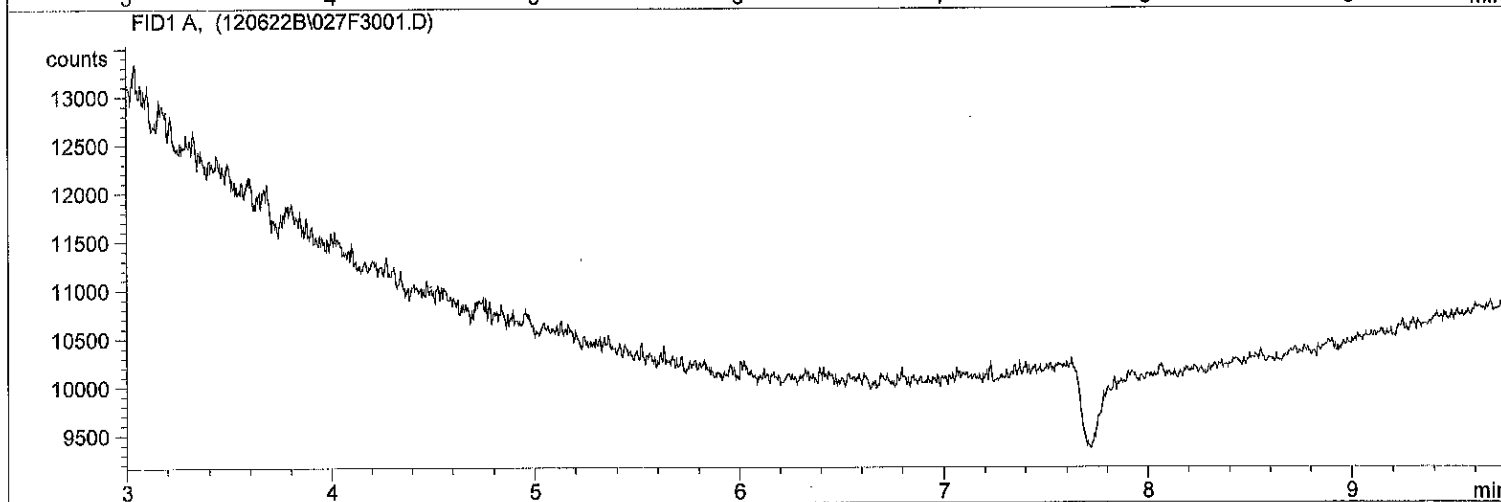
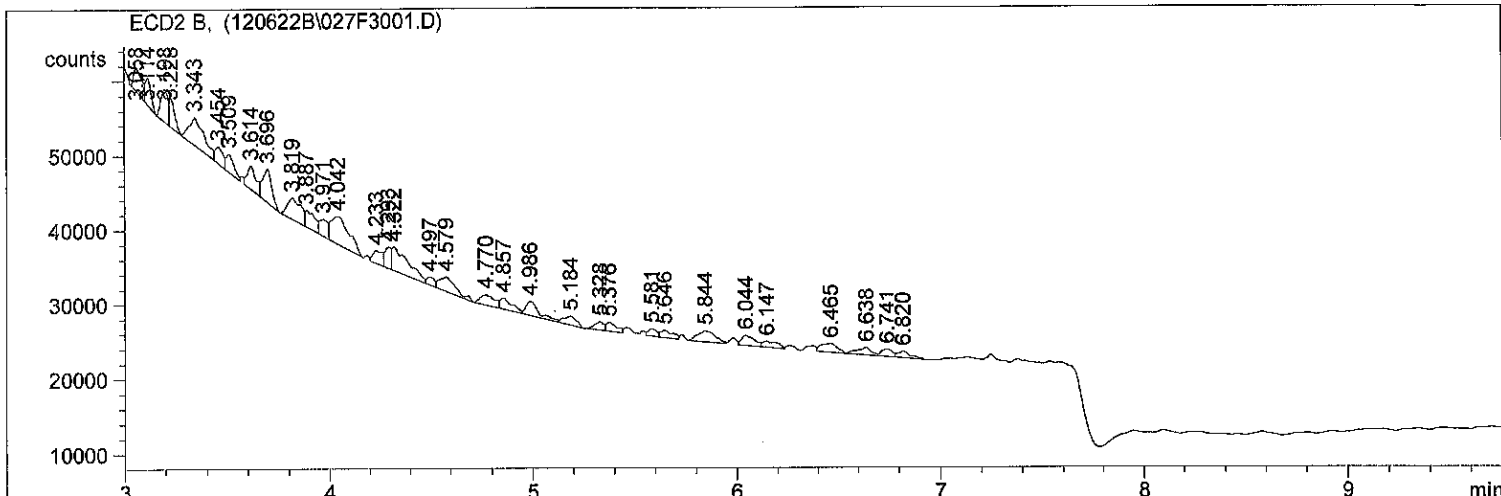
Modified : 12/7/2022 12:39 AM

Time and Input Events Table (BAN_Method_GPC1)

Name	Type	Input				Output			
		Source	Input	Value	Units	Output Type	Output	Parameter	Store
Set_dump	Time Idle >	---	---	0.010	min	Colibrick	gpc1collect	High	<input type="checkbox"/>
Start_collect	Run Time >	---	---	30.000	min	Colibrick	gpc1collect	Low	<input type="checkbox"/>
Start_dump	Run Time >	---	---	58.000	min	Colibrick	gpc1collect	High	<input type="checkbox"/>
Next_fract	Run Time >	---	---	67.800	min	GPC1Fraction	Next	---	<input type="checkbox"/>
Error-Pump-Off	Time Idle >	---	---	78.000	min	Colibrick	GPC1-Poweroff	Low	<input type="checkbox"/>



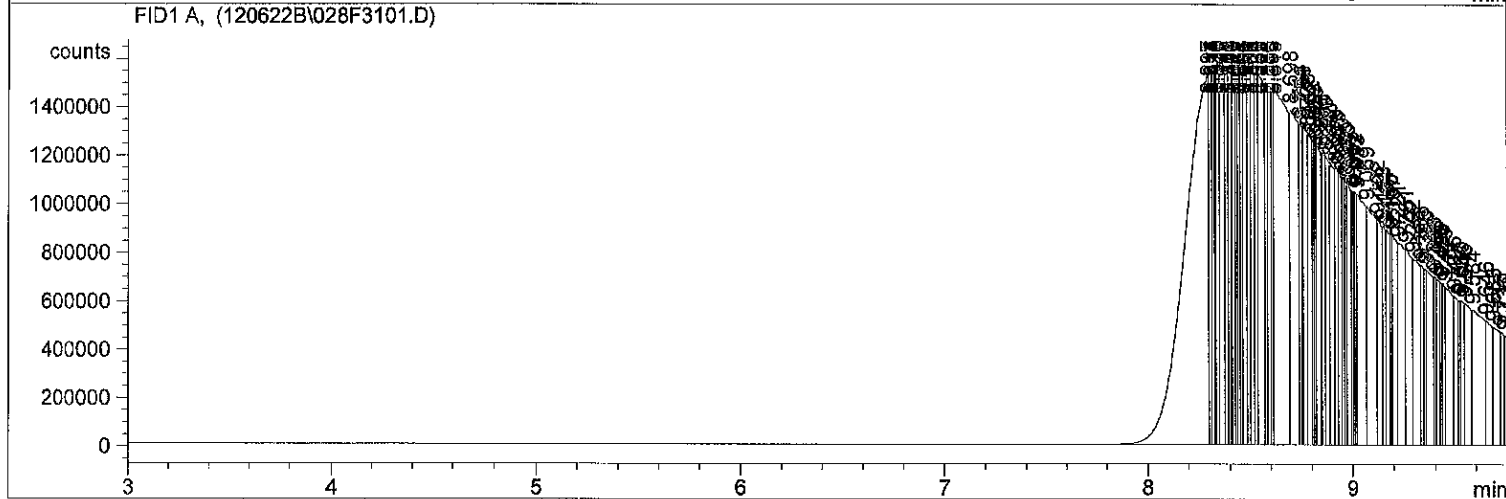
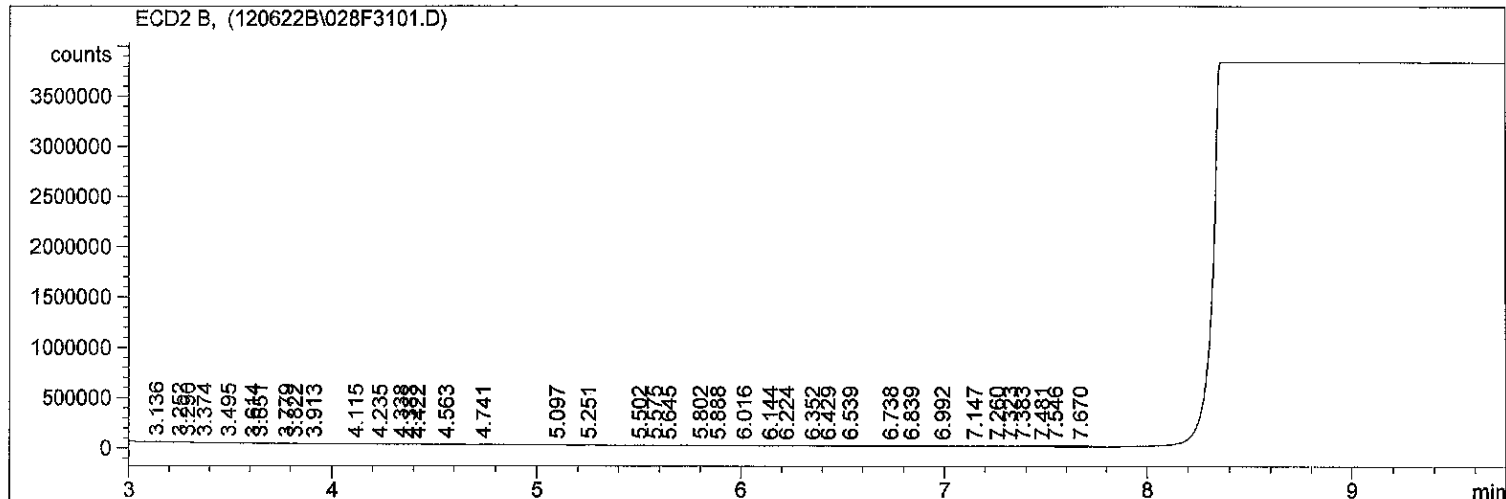
Injection Date : 12/7/2022 12:29:50 AM Seq. Line : 30
Sample Name : 22L0105 22 Location : Vial 27
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD



*** End of Report ***

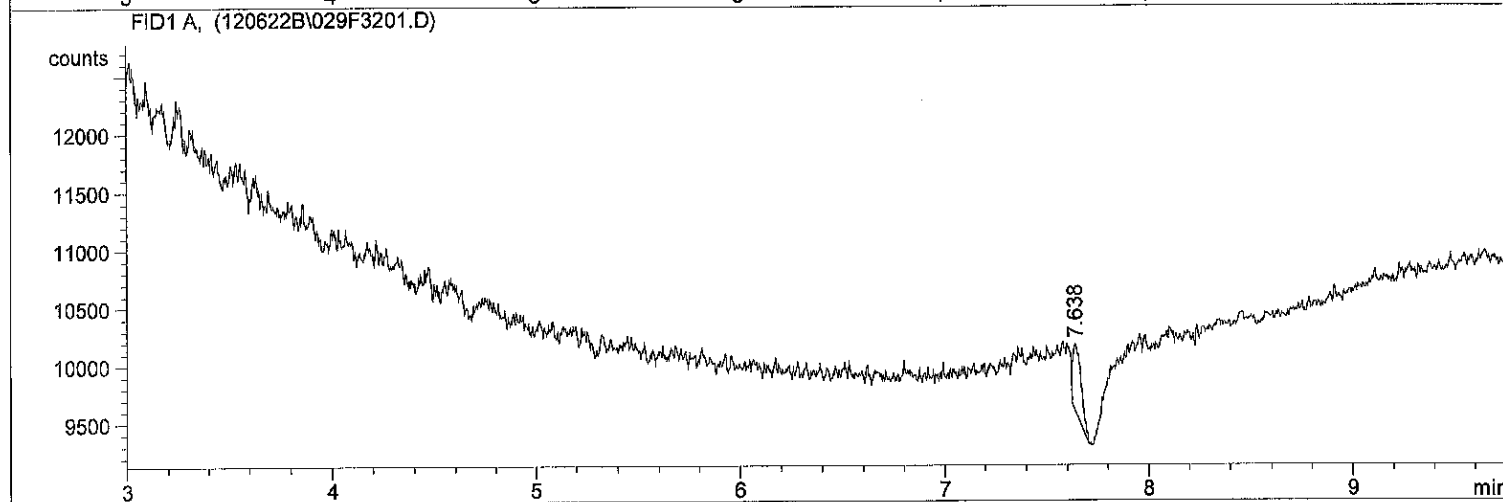
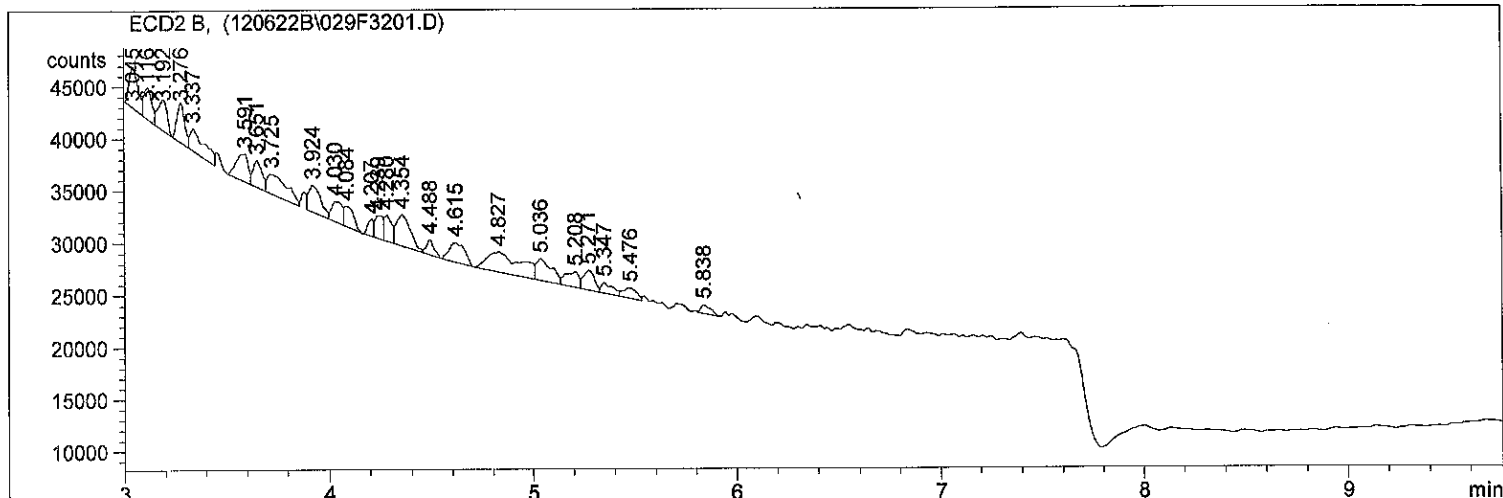
=====
Injection Date : 12/7/2022 12:43:24 AM Seq. Line : 31
Sample Name : 22L0105 23 Location : Vial 28
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====



*** End of Report ***

Injection Date : 12/7/2022 12:57:13 AM Seq. Line : 32
Sample Name : 22L0105 24 Location : Vial 29
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD

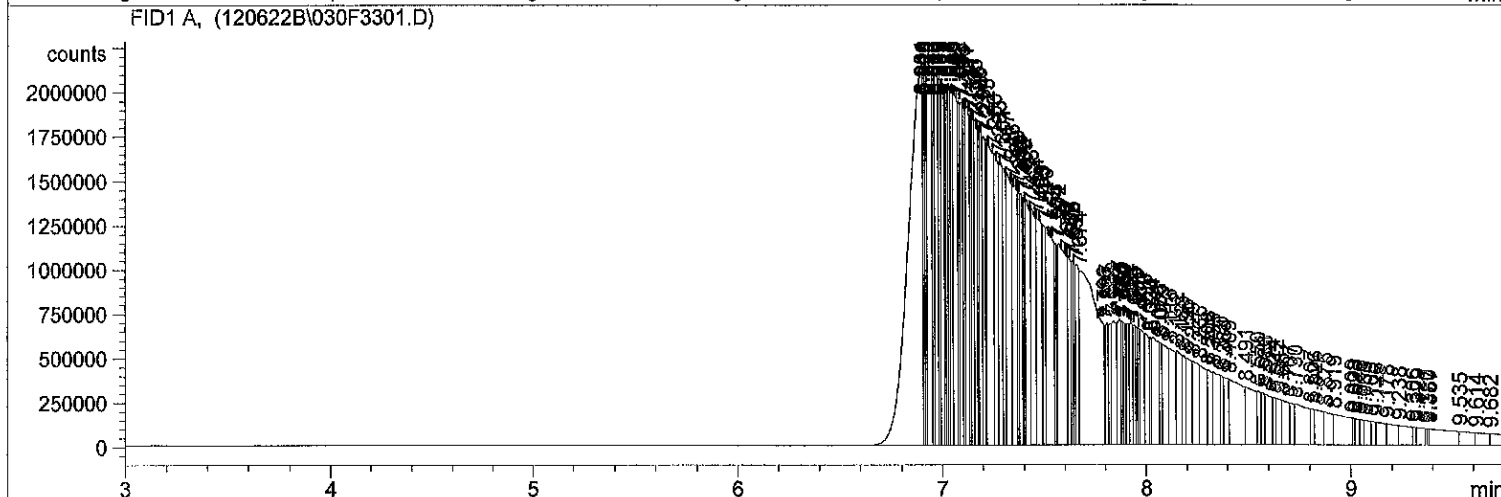
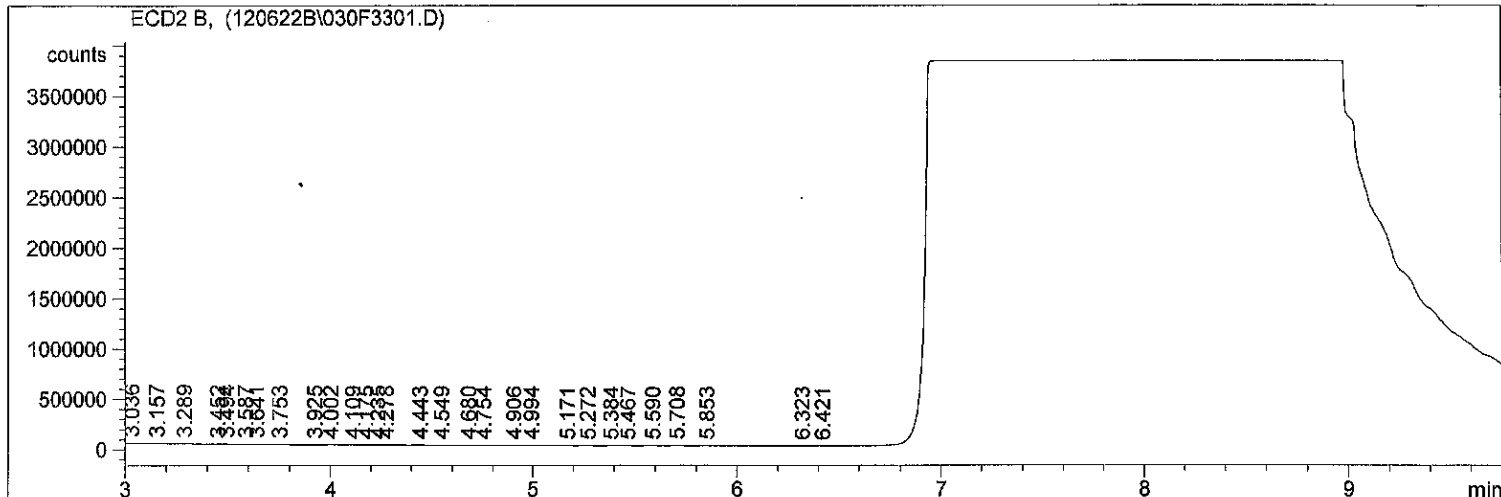


*** End of Report ***

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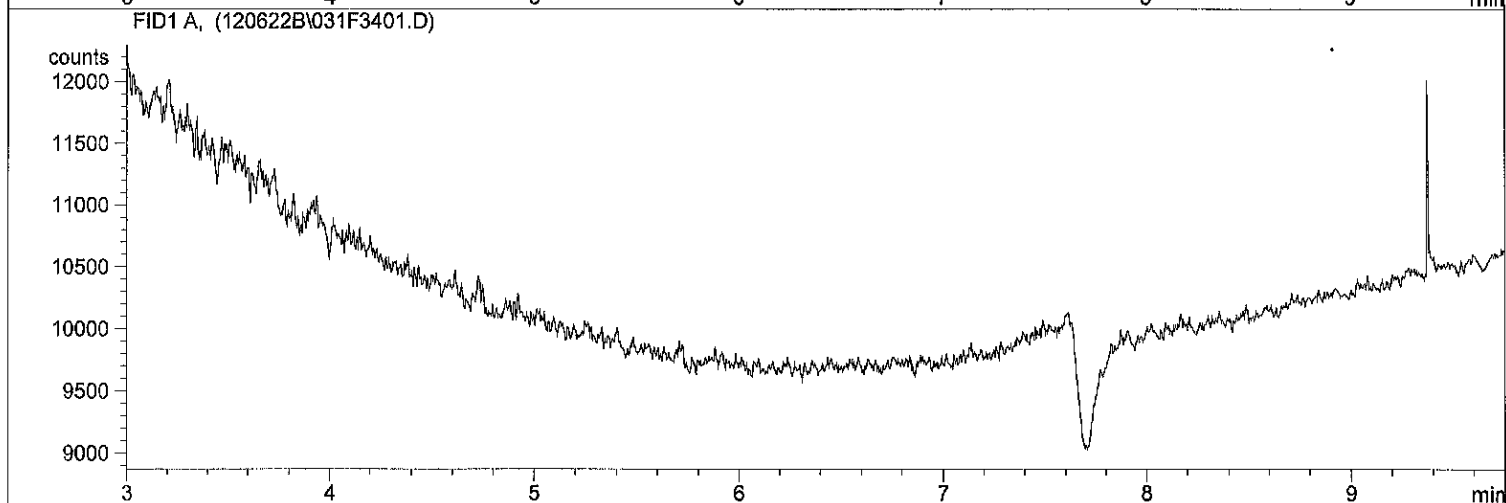
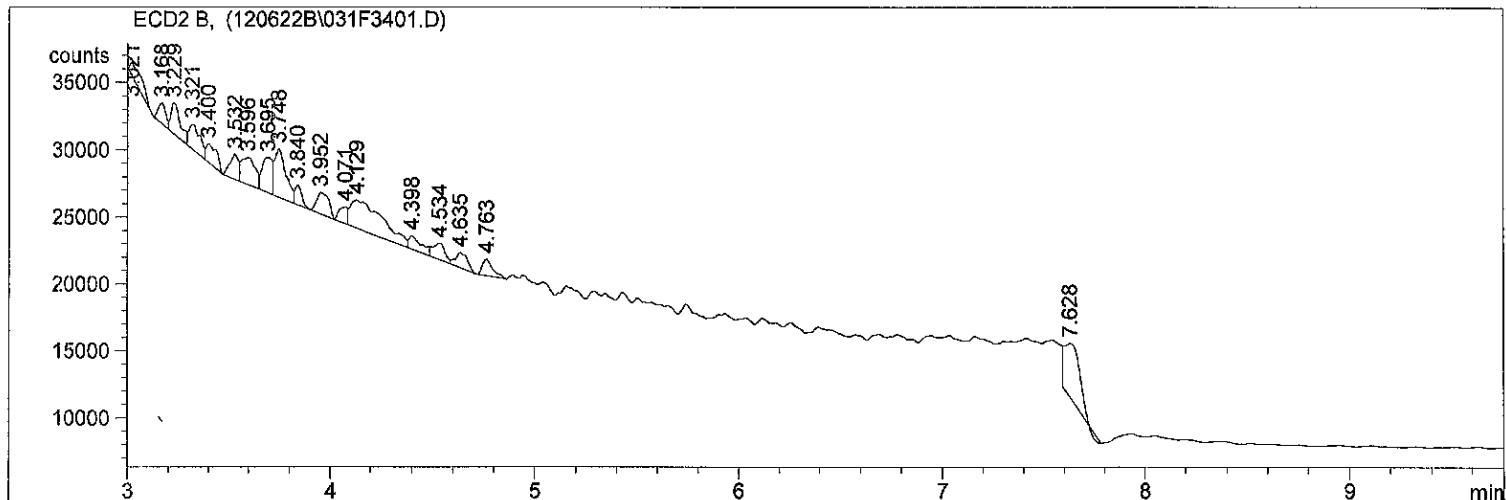
=====
Injection Date   : 12/7/2022 1:11:46 AM      Seq. Line   : 33
Sample Name     : 22L0105 25                 Location    : Vial 30
Acq. Operator   : YL                          Inj         : 1
                                           Inj Volume  : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

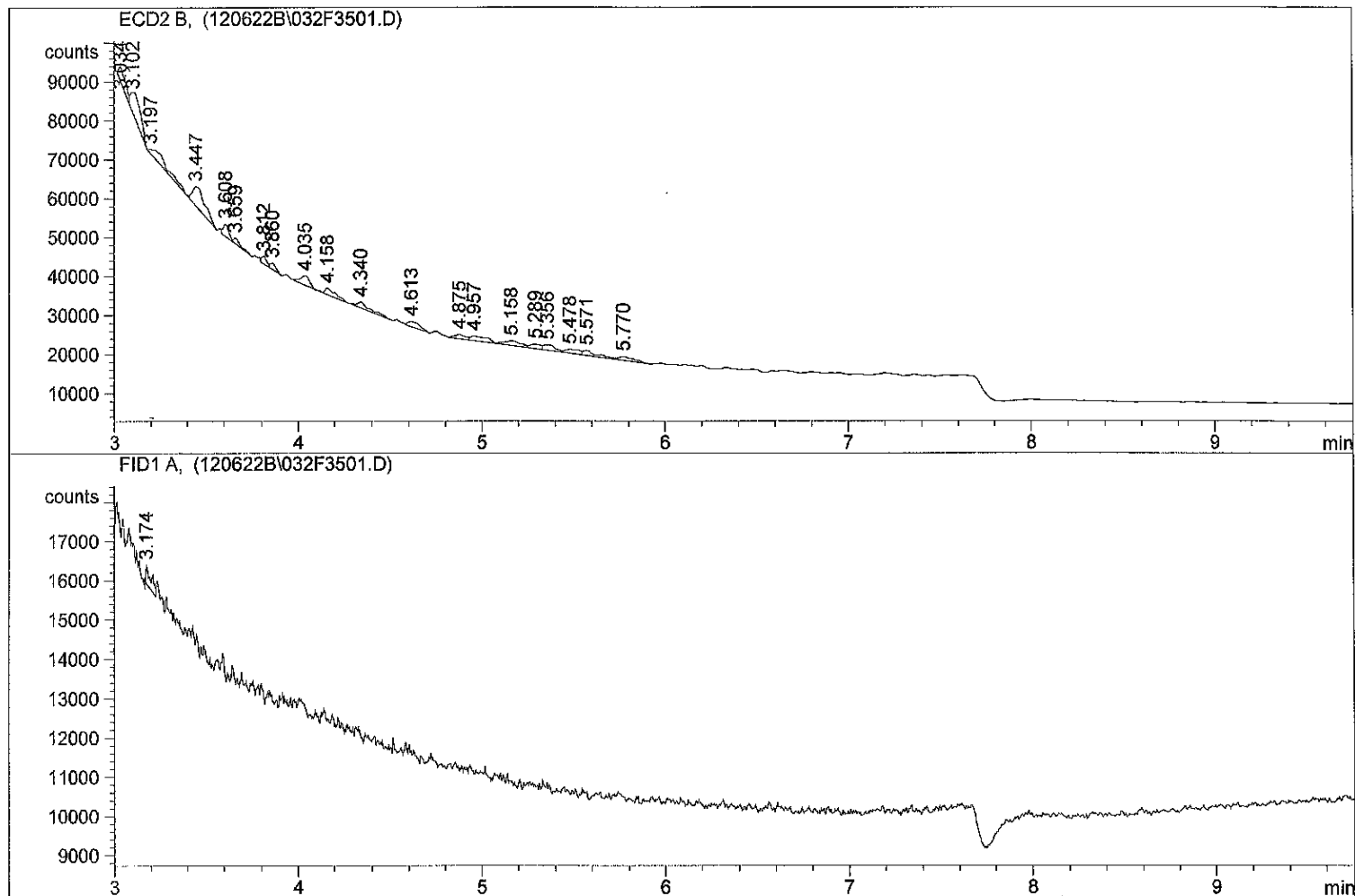
=====
Injection Date : 12/7/2022 1:25:16 AM Seq. Line : 34
Sample Name : 22L0105 26 Location : Vial 31
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====



*** End of Report ***

```
=====
Injection Date   : 12/7/2022 1:39:07 AM      Seq. Line : 35
Sample Name     : 22L0105 27                Location  : Vial 32
Acq. Operator  : YL                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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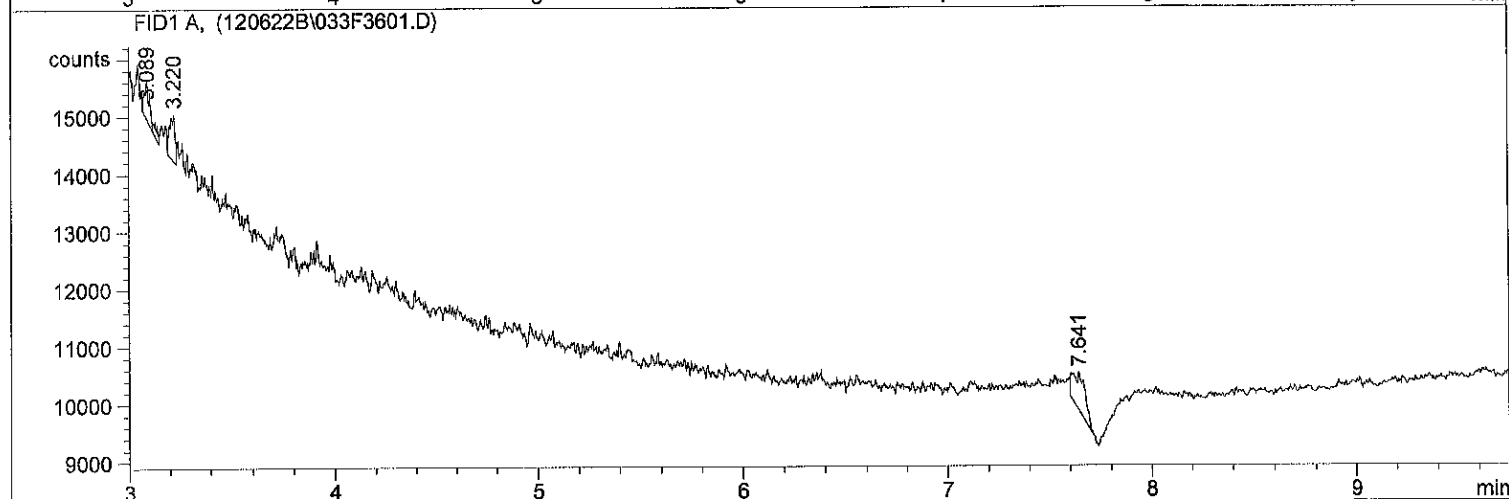
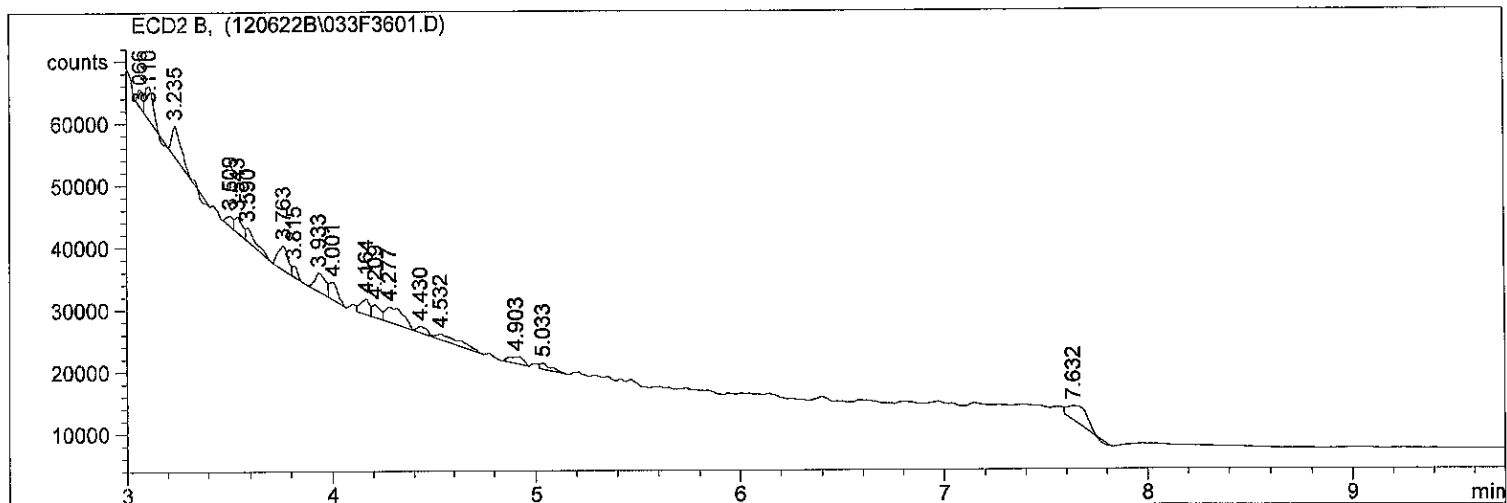


*** End of Report ***

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=====
Injection Date   : 12/7/2022 1:53:43 AM      Seq. Line :   36
Sample Name     : 22L0105 28                Location  : Vial 33
Acq. Operator  : YL                        Inj      :    1
                                           Inj Volume: 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====
    
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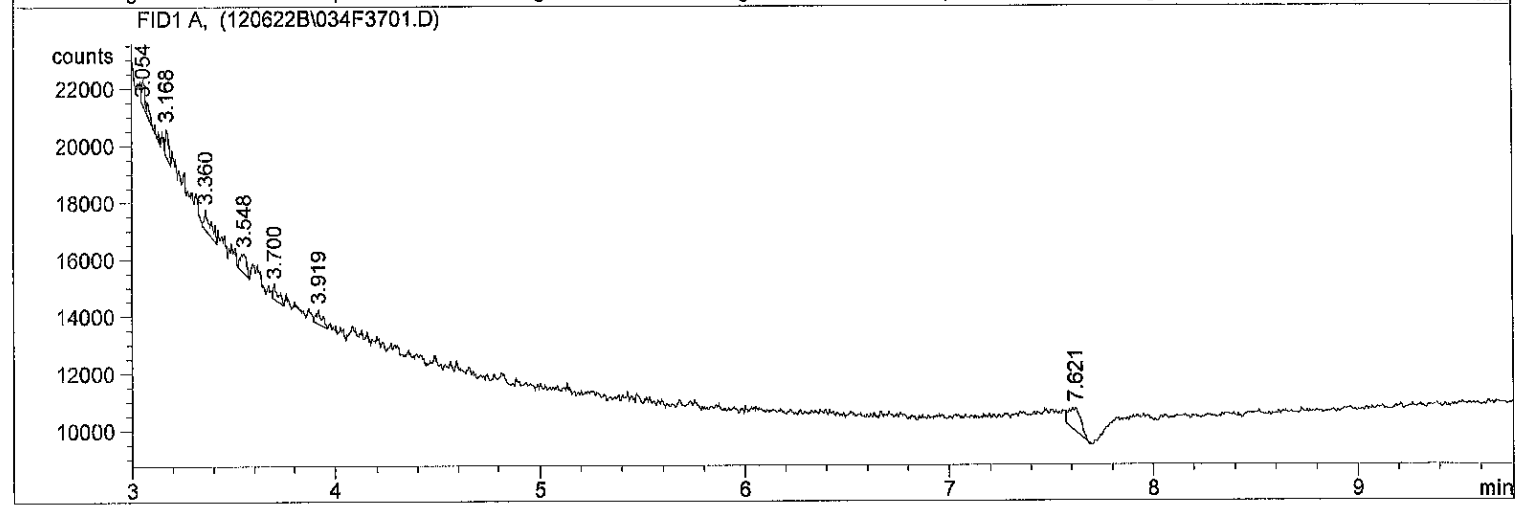
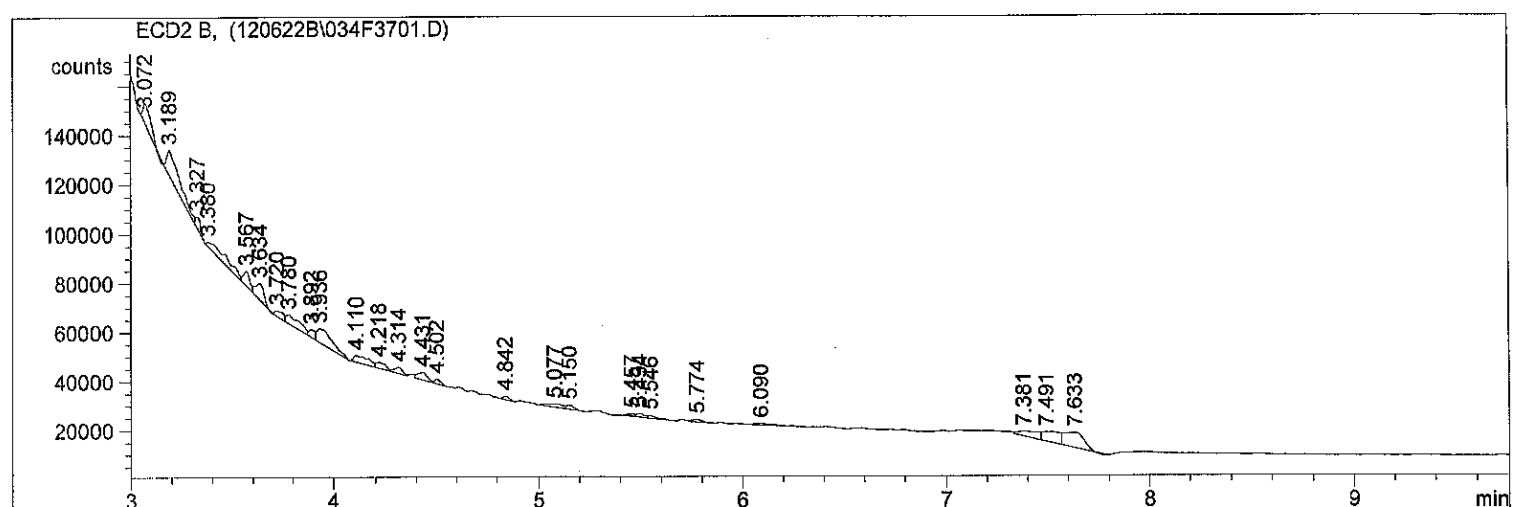
*** End of Report ***

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=====
Injection Date   : 12/7/2022 2:07:13 AM      Seq. Line : 37
Sample Name     : 22L0105 29                Location  : Vial 34
Acq. Operator  : YL                        Inj      : 1
                                           Inj Volume: 1 µl

Sequence File   : C:\HPCHEM\1\SEQUENCE\120622B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed   : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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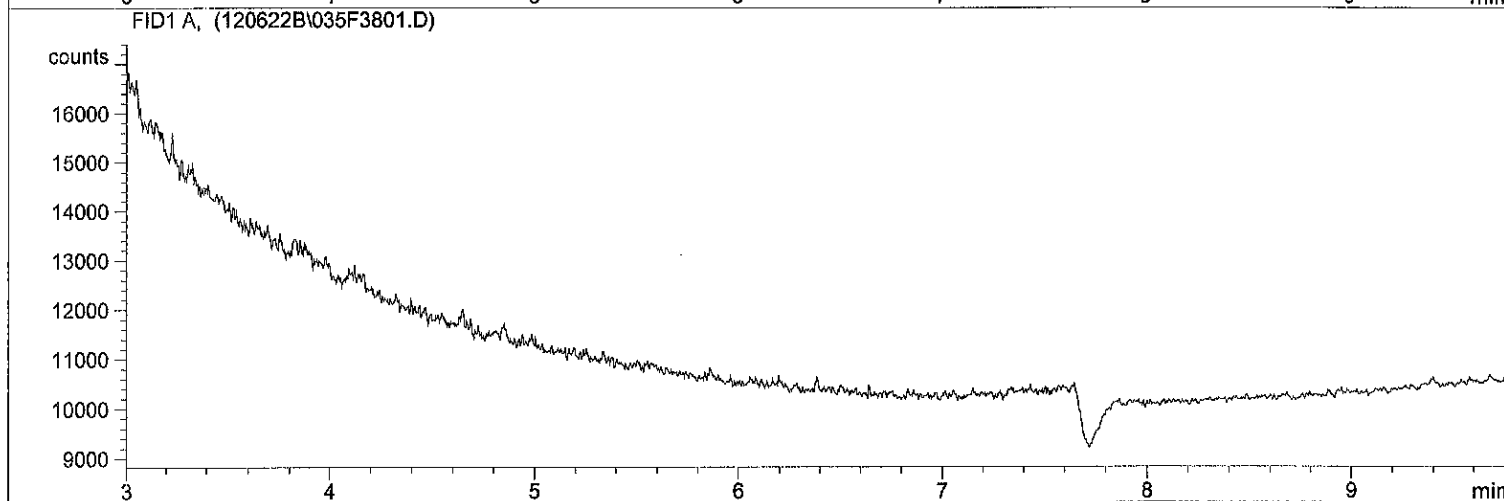
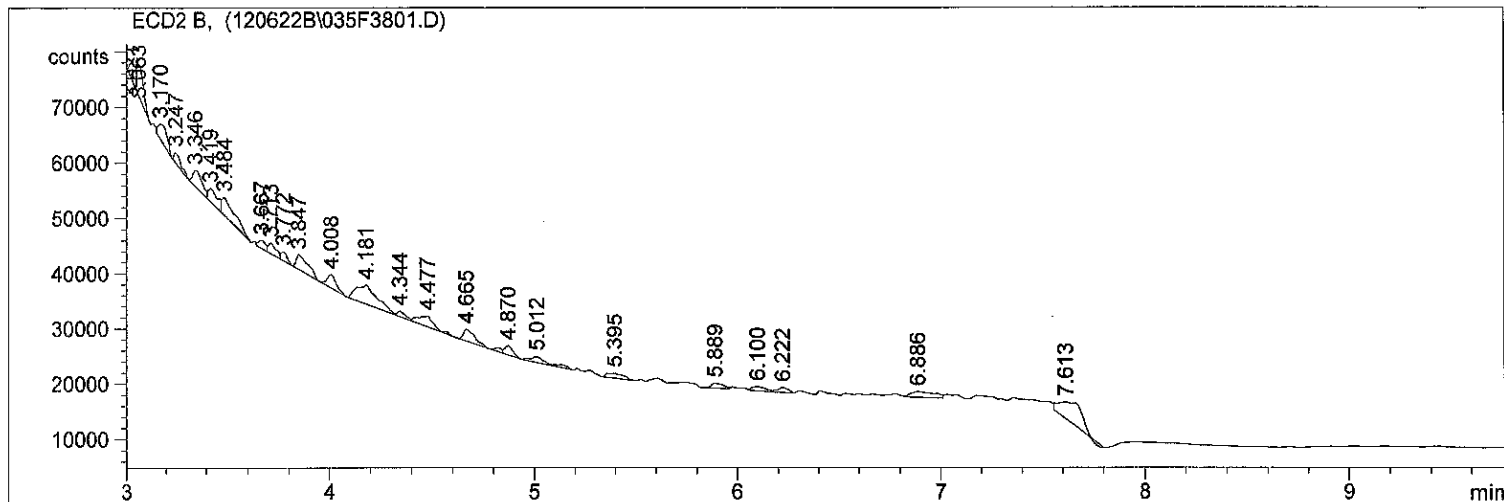
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*** End of Report ***

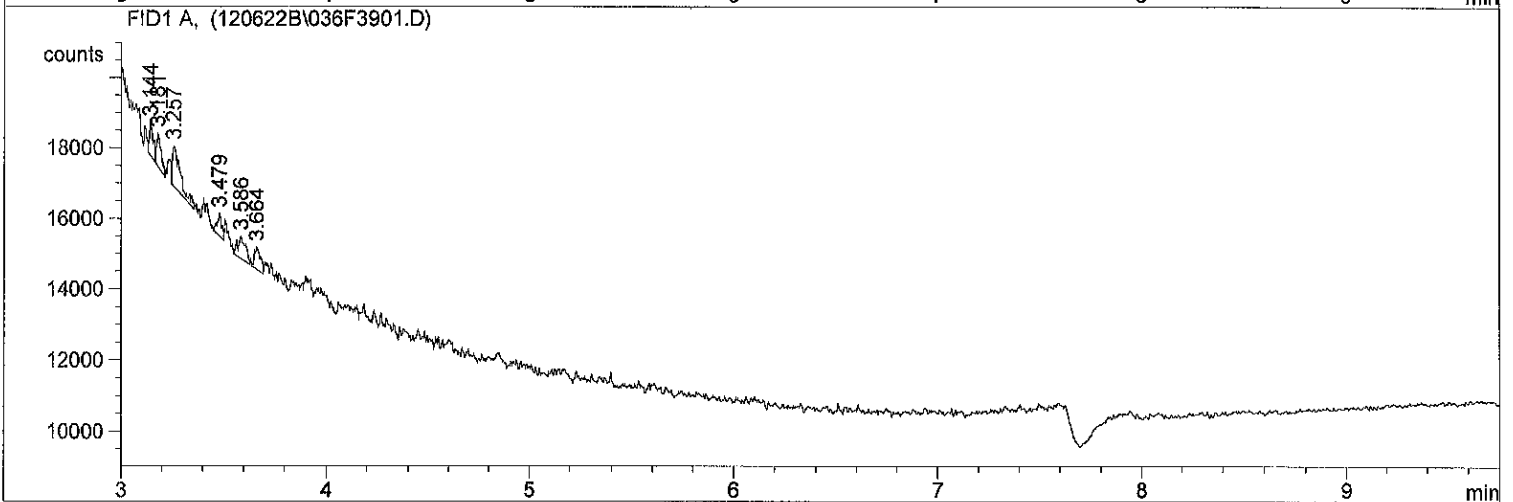
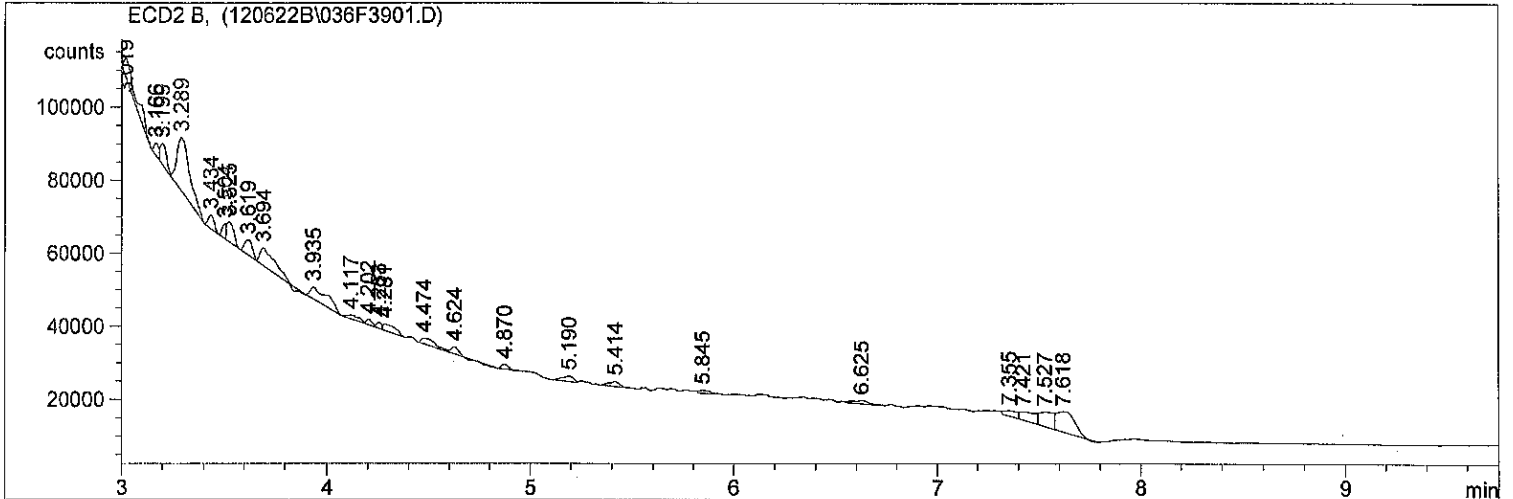
=====
Injection Date : 12/7/2022 2:20:58 AM Seq. Line : 38
Sample Name : 22L0105 30 Location : Vial 35
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
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*** End of Report ***

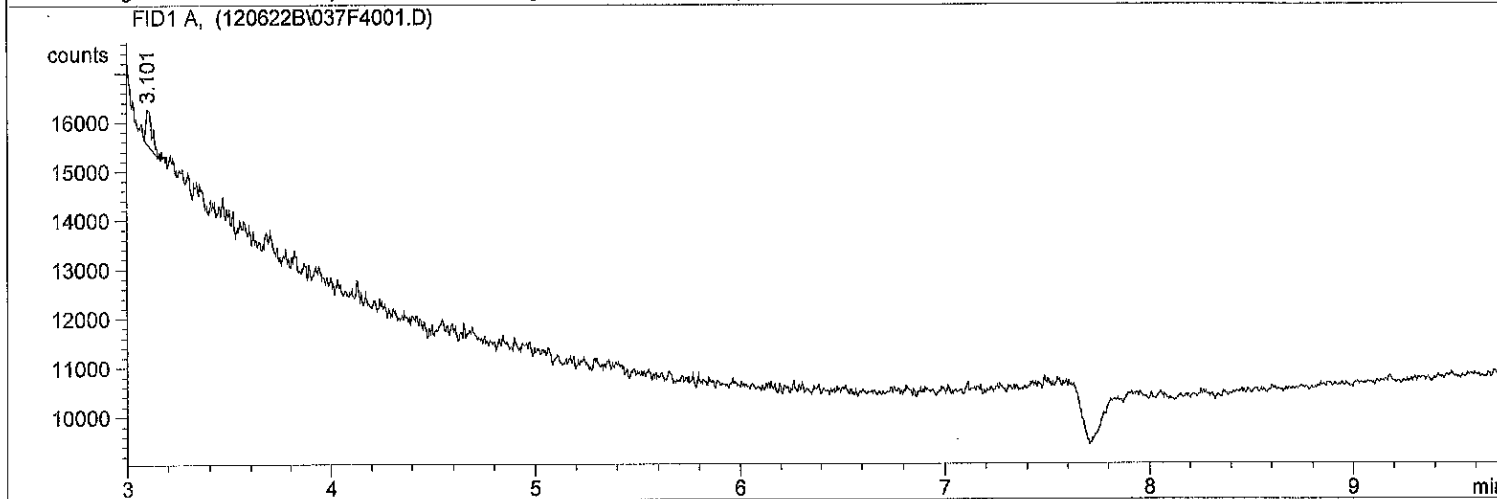
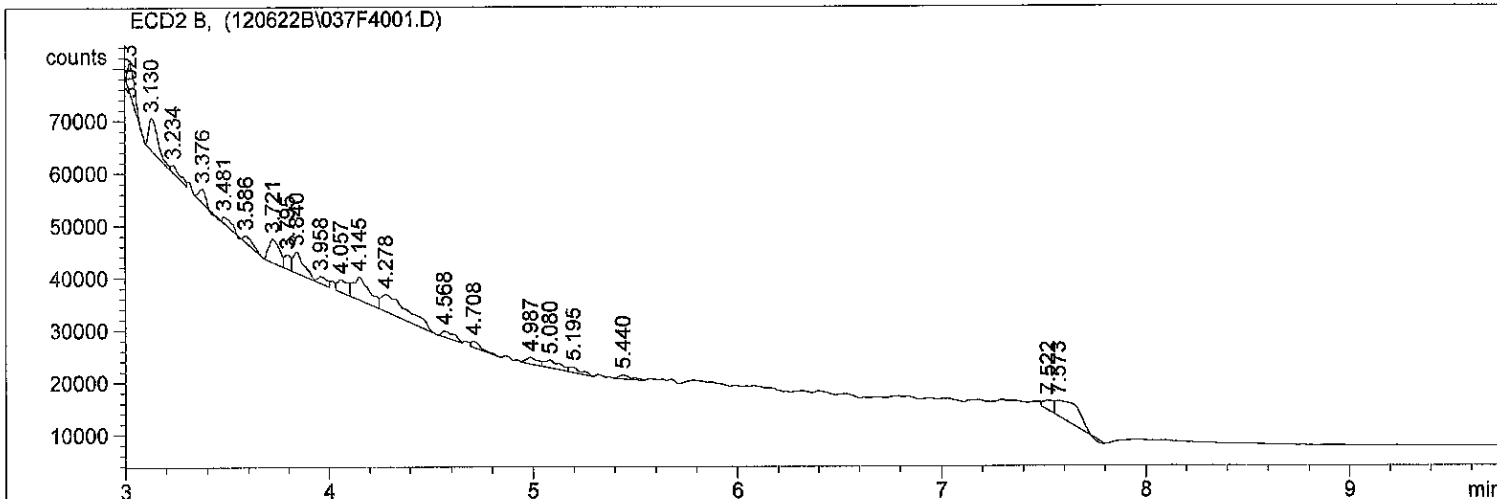
=====
Injection Date : 12/7/2022 2:34:28 AM Seq. Line : 39
Sample Name : 22L0105 31 Location : Vial 36
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====



*** End of Report ***

=====
Injection Date : 12/7/2022 2:48:18 AM Seq. Line : 40
Sample Name : 22L0105 32 Location : Vial 37
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\120622B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 7/9/2021 3:37:33 AM by TW
SCREEN METHOD
=====



*** End of Report ***



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Cleanup Batch: CKL0196

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-SC782H	22L0105-27	12192215ECD7.D	12/16/2022	
LDW22-SC782N	22L0105-33	12192221ECD7.D	12/16/2022	
LDW22-SC782M	22L0105-32	12192220ECD7.D	12/16/2022	
Reference	BKL0158-SRM1	12172242ECD7.D	12/16/2022	
LDW22-SC782L	22L0105-31	12192219ECD7.D	12/16/2022	
Matrix Spike Dup	BKL0158-MSD1	12192205ECD7.D	12/16/2022	
Matrix Spike	BKL0158-MS1	12172243ECD7.D	12/16/2022	
LCS Dup	BKL0158-BSD1	12172241ECD7.D	12/16/2022	
LCS	BKL0158-BS1	12172240ECD7.D	12/16/2022	
Blank	BKL0158-BLK1	12172239ECD7.D	12/16/2022	
LDW22-IT796	22L0105-19	12192208ECD7.D	12/16/2022	
LDW22-SC782I	22L0105-28	12192216ECD7.D	12/16/2022	
LDW22-SC782J	22L0105-29	12192217ECD7.D	12/16/2022	
LDW22-SC782G	22L0105-26	12192212ECD7.D	12/16/2022	
LDW22-SC782F	22L0105-25	12192211ECD7.D	12/16/2022	
LDW22-SC782E	22L0105-24	12192210ECD7.D	12/16/2022	
LDW22-SC782D	22L0105-23	12192209ECD7.D	12/16/2022	
LDW22-SC782C	22L0105-22	12172250ECD7.D	12/16/2022	
LDW22-SC782B	22L0105-21	12172249ECD7.D	12/16/2022	
LDW22-SC775M	22L0105-18	12192207ECD7.D	12/16/2022	
LDW22-SC775L	22L0105-17	12192206ECD7.D	12/16/2022	
LDW22-IT798	22L0105-20	12172248ECD7.D	12/16/2022	
LDW22-SC782K	22L0105-30	12192218ECD7.D	12/16/2022	



CLEANUP BENCH SHEET

CKL0196

Printed: 12/16/2022 5:13:14PM

Matrix: Solid Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
22L0105-17	A	LDW22-SC775L	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-18	A	LDW22-SC775M	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-19	A	LDW22-IT796	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-20	A	LDW22-IT798	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-21	A	LDW22-SC782B	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-22	A	LDW22-SC782C	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-23	A	LDW22-SC782D	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-24	A	LDW22-SC782E	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-25	A	LDW22-SC782F	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-26	A	LDW22-SC782G	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-27	A	LDW22-SC782H	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-28	A	LDW22-SC782I	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-29	A	LDW22-SC782J	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-30	A	LDW22-SC782K	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-31	A	LDW22-SC782L	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-32	A	LDW22-SC782M	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-33	A	LDW22-SC782N	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
BK10158-BLK1	-	Blank	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-BS1	-	LCS	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-BSD1	-	LCS Dup	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-MS1	-	Matrix Spike	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	12/16/2022	TWC	



CLEANUP BENCH SHEET

CKL0196

Printed: 12/16/2022 5:13:14PM

Matrix: Solid Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BKL0158-SRM1	-	Reference	-	2.5	2.5	-	12/16/2022	TWC	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Cleanup Batch: CKL0197

Cleanup Type: Sulfur

Cleanup Method: EPA 3660B Sulfur Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-SC782L	22L0105-31	12192219ECD7.D	12/16/2022	
LDW22-IT798	22L0105-20	12172248ECD7.D	12/16/2022	
LDW22-IT796	22L0105-19	12192208ECD7.D	12/16/2022	
LDW22-SC775L	22L0105-17	12192206ECD7.D	12/16/2022	
LDW22-SC782B	22L0105-21	12172249ECD7.D	12/16/2022	
LDW22-SC782D	22L0105-23	12192209ECD7.D	12/16/2022	
LDW22-SC782E	22L0105-24	12192210ECD7.D	12/16/2022	
LDW22-SC782F	22L0105-25	12192211ECD7.D	12/16/2022	
LDW22-SC782H	22L0105-27	12192215ECD7.D	12/16/2022	
LDW22-SC775M	22L0105-18	12192207ECD7.D	12/16/2022	
LDW22-SC782I	22L0105-28	12192216ECD7.D	12/16/2022	
LDW22-SC782K	22L0105-30	12192218ECD7.D	12/16/2022	
LDW22-SC782C	22L0105-22	12172250ECD7.D	12/16/2022	
LDW22-SC782M	22L0105-32	12192220ECD7.D	12/16/2022	
LDW22-SC782N	22L0105-33	12192221ECD7.D	12/16/2022	
LDW22-SC782G	22L0105-26	12192212ECD7.D	12/16/2022	
LCS	BKL0158-BS1	12172240ECD7.D	12/16/2022	
LCS Dup	BKL0158-BSD1	12172241ECD7.D	12/16/2022	
Matrix Spike	BKL0158-MS1	12172243ECD7.D	12/16/2022	
Matrix Spike Dup	BKL0158-MSD1	12192205ECD7.D	12/16/2022	
Reference	BKL0158-SRM1	12172242ECD7.D	12/16/2022	
Blank	BKL0158-BLK1	12172239ECD7.D	12/16/2022	
LDW22-SC782J	22L0105-29	12192217ECD7.D	12/16/2022	



CLEANUP BENCH SHEET

CKL0197

Printed: 12/16/2022 5:13:54PM

Matrix: Solid Cleanup using: Organics - EPA 360B Sulfur Cleanup - uL

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
22L0105-17	A	LDW22-SC775L	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-18	A	LDW22-SC775M	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-19	A	LDW22-IT796	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-20	A	LDW22-IT798	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-21	A	LDW22-SC782B	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-22	A	LDW22-SC782C	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-23	A	LDW22-SC782D	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-24	A	LDW22-SC782E	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-25	A	LDW22-SC782F	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-26	A	LDW22-SC782G	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-27	A	LDW22-SC782H	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-28	A	LDW22-SC782I	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-29	A	LDW22-SC782J	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-30	A	LDW22-SC782K	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-31	A	LDW22-SC782L	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-32	A	LDW22-SC782M	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-33	A	LDW22-SC782N	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
BK10158-BLK1	-	Blank	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-BS1	-	LCS	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-BSD1	-	LCS Dup	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-MS1	-	Matrix Spike	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	12/16/2022	TWC	



CLEANUP BENCH SHEET

CKL0197

Printed: 12/16/2022 5:13:54PM

Matrix: Solid Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BKL0158-SRM1	-	Reference	-	2.5	2.5	-	12/16/2022	TWC	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Cleanup Batch: CKL0198

Cleanup Type: Silica Gel

Cleanup Method: EPA 3660C Silica Gel Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-SC782N	22L0105-33	12192221ECD7.D	12/16/2022	
LDW22-SC775M	22L0105-18	12192207ECD7.D	12/16/2022	
LDW22-SC782B	22L0105-21	12172249ECD7.D	12/16/2022	
LDW22-SC782C	22L0105-22	12172250ECD7.D	12/16/2022	
LDW22-SC782E	22L0105-24	12192210ECD7.D	12/16/2022	
LDW22-SC782G	22L0105-26	12192212ECD7.D	12/16/2022	
LDW22-SC775L	22L0105-17	12192206ECD7.D	12/16/2022	
LDW22-SC782M	22L0105-32	12192220ECD7.D	12/16/2022	
LDW22-SC782D	22L0105-23	12192209ECD7.D	12/16/2022	
LDW22-SC782K	22L0105-30	12192218ECD7.D	12/16/2022	
LDW22-SC782L	22L0105-31	12192219ECD7.D	12/16/2022	
LDW22-SC782I	22L0105-28	12192216ECD7.D	12/16/2022	
LDW22-IT796	22L0105-19	12192208ECD7.D	12/16/2022	
Matrix Spike Dup	BKL0158-MSD1	12192205ECD7.D	12/16/2022	
LDW22-IT798	22L0105-20	12172248ECD7.D	12/16/2022	
LDW22-SC782F	22L0105-25	12192211ECD7.D	12/16/2022	
Matrix Spike	BKL0158-MS1	12172243ECD7.D	12/16/2022	
Reference	BKL0158-SRM1	12172242ECD7.D	12/16/2022	
LCS Dup	BKL0158-BSD1	12172241ECD7.D	12/16/2022	
LCS	BKL0158-BS1	12172240ECD7.D	12/16/2022	
Blank	BKL0158-BLK1	12172239ECD7.D	12/16/2022	
LDW22-SC782H	22L0105-27	12192215ECD7.D	12/16/2022	
LDW22-SC782J	22L0105-29	12192217ECD7.D	12/16/2022	



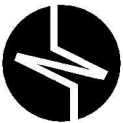
CLEANUP BENCH SHEET

CKL0198

Printed: 12/16/2022 5:14:22PM

Matrix: Solid Cleanup using: Organics - EPA 3660C Silica Gel Cleanup - uL

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
22L0105-17	A	LDW22-SC775L	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-18	A	LDW22-SC775M	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-19	A	LDW22-IT796	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-20	A	LDW22-IT798	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-21	A	LDW22-SC782B	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-22	A	LDW22-SC782C	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-23	A	LDW22-SC782D	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-24	A	LDW22-SC782E	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-25	A	LDW22-SC782F	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-26	A	LDW22-SC782G	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-27	A	LDW22-SC782H	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-28	A	LDW22-SC782I	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-29	A	LDW22-SC782J	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-30	A	LDW22-SC782K	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-31	A	LDW22-SC782L	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-32	A	LDW22-SC782M	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
22L0105-33	A	LDW22-SC782N	A 01	2.5	2.5	8082A PCB Solid 4	12/16/2022	TWC	
BK10158-BLK1	-	Blank	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-BS1	-	LCS	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-BSD1	-	LCS Dup	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-MS1	-	Matrix Spike	-	2.5	2.5	-	12/16/2022	TWC	
BK10158-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	12/16/2022	TWC	



CLEANUP BENCH SHEET

CKL0198

Printed: 12/16/2022 5:14:22PM

Matrix: Solid Cleanup using: Organics - EPA 3660C Silica Gel Cleanup - uL

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BKL0158-SRM1	-	Reference	-	2.5	2.5	-	12/16/2022	TWC	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Cleanup Batch: CKL0202

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665 Sulfuric Acid Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-SC775H	22L0105-13	12192245ECD7.D	12/17/2022	
LDW22-SC780	22L0105-04	12192234ECD7.D	12/17/2022	
LDW22-SC756	22L0105-03	12192233ECD7.D	12/17/2022	
LDW22-SC771	22L0105-02	12192232ECD7.D	12/17/2022	
LDW22-SC772	22L0105-01	12192231ECD7.D	12/17/2022	
LDW22-SC775A	22L0105-06	12192236ECD7.D	12/17/2022	
LDW22-SC775B	22L0105-07	12192237ECD7.D	12/17/2022	
LDW22-IT792	22L0105-05	12192235ECD7.D	12/17/2022	
LDW22-SC775C	22L0105-08	12192238ECD7.D	12/17/2022	
LDW22-SC775F	22L0105-11	12192243ECD7.D	12/17/2022	
LDW22-SC775G	22L0105-12	12192244ECD7.D	12/17/2022	
LDW22-SC775D	22L0105-09	12192241ECD7.D	12/17/2022	
LDW22-SC775I	22L0105-14	12192246ECD7.D	12/17/2022	
LDW22-SC775J	22L0105-15	12192247ECD7.D	12/17/2022	
LDW22-SC775K	22L0105-16	12192248ECD7.D	12/17/2022	
Reference	BKL0157-SRM1	12192230ECD7.D	12/17/2022	
Blank	BKL0157-BLK1	12192225ECD7.D	12/17/2022	
LCS	BKL0157-BS1	12192226ECD7.D	12/17/2022	
LCS Dup	BKL0157-BSD1	12192227ECD7.D	12/17/2022	
Matrix Spike	BKL0157-MS1	12192228ECD7.D	12/17/2022	
Matrix Spike Dup	BKL0157-MSD1	12192229ECD7.D	12/17/2022	
LDW22-SC775E	22L0105-10	12192242ECD7.D	12/17/2022	



CLEANUP BENCH SHEET

CKL0202

Matrix: Solid Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 12/17/2022 10:40:54AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
22L0105-01	A	LDW22-SC772	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-02	A	LDW22-SC771	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-03	A	LDW22-SC756	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-04	A	LDW22-SC780	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-05	A	LDW22-IT792	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-06	A	LDW22-SC775A	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-07	A	LDW22-SC775B	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-08	A	LDW22-SC775C	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-09	A	LDW22-SC775D	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-10	A	LDW22-SC775E	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-11	A	LDW22-SC775F	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-12	A	LDW22-SC775G	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-13	A	LDW22-SC775H	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-14	A	LDW22-SC775I	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-15	A	LDW22-SC775J	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-16	A	LDW22-SC775K	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
BKL0157-BLK1	-	Blank	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-BS1	-	LCS	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-BSD1	-	LCS Dup	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-MS1	-	Matrix Spike	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-SRM1	-	Reference	-	2.5	2.5	-	12/17/2022	NPL	



CLEANUP BENCH SHEET

CKL0202

Matrix: Solid

Cleanup using: Organics - EPA 3665 Sulfuric Acid Cleanup - uL

Printed: 12/17/2022 10:40:54AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
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CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Cleanup Batch: CKL0203

Cleanup Type: Sulfur

Cleanup Method: EPA 3660B Sulfur Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-SC775I	22L0105-14	12192246ECD7.D	12/17/2022	
Blank	BKL0157-BLK1	12192225ECD7.D	12/17/2022	
LCS	BKL0157-BS1	12192226ECD7.D	12/17/2022	
LCS Dup	BKL0157-BSD1	12192227ECD7.D	12/17/2022	
Matrix Spike	BKL0157-MS1	12192228ECD7.D	12/17/2022	
LDW22-IT792	22L0105-05	12192235ECD7.D	12/17/2022	
Matrix Spike Dup	BKL0157-MSD1	12192229ECD7.D	12/17/2022	
LDW22-SC756	22L0105-03	12192233ECD7.D	12/17/2022	
Reference	BKL0157-SRM1	12192230ECD7.D	12/17/2022	
LDW22-SC775K	22L0105-16	12192248ECD7.D	12/17/2022	
LDW22-SC775J	22L0105-15	12192247ECD7.D	12/17/2022	
LDW22-SC775C	22L0105-08	12192238ECD7.D	12/17/2022	
LDW22-SC775E	22L0105-10	12192242ECD7.D	12/17/2022	
LDW22-SC771	22L0105-02	12192232ECD7.D	12/17/2022	
LDW22-SC772	22L0105-01	12192231ECD7.D	12/17/2022	
LDW22-SC775A	22L0105-06	12192236ECD7.D	12/17/2022	
LDW22-SC775B	22L0105-07	12192237ECD7.D	12/17/2022	
LDW22-SC775D	22L0105-09	12192241ECD7.D	12/17/2022	
LDW22-SC775H	22L0105-13	12192245ECD7.D	12/17/2022	
LDW22-SC775F	22L0105-11	12192243ECD7.D	12/17/2022	
LDW22-SC775G	22L0105-12	12192244ECD7.D	12/17/2022	
LDW22-SC780	22L0105-04	12192234ECD7.D	12/17/2022	



CLEANUP BENCH SHEET

CKL0203

Matrix: Solid Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL

Printed: 12/17/2022 10:41:08AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
22L0105-01	A	LDW22-SC772	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-02	A	LDW22-SC771	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-03	A	LDW22-SC756	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-04	A	LDW22-SC780	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-05	A	LDW22-IT792	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-06	A	LDW22-SC775A	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-07	A	LDW22-SC775B	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-08	A	LDW22-SC775C	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-09	A	LDW22-SC775D	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-10	A	LDW22-SC775E	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-11	A	LDW22-SC775F	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-12	A	LDW22-SC775G	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-13	A	LDW22-SC775H	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-14	A	LDW22-SC775I	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-15	A	LDW22-SC775J	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-16	A	LDW22-SC775K	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
BKL0157-BLK1	-	Blank	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-BS1	-	LCS	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-BSD1	-	LCS Dup	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-MS1	-	Matrix Spike	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-SRM1	-	Reference	-	2.5	2.5	-	12/17/2022	NPL	



CLEANUP BENCH SHEET

CKL0203

Matrix: Solid

Cleanup using: Organics - EPA 3660B Sulfur Cleanup - uL

Printed: 12/17/2022 10:41:08AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
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CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Cleanup Batch: CKL0204

Cleanup Type: Silica Gel

Cleanup Method: EPA 3660C Silica Gel Cleanup - uL

Analysis: EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-SC775G	22L0105-12	12192244ECD7.D	12/17/2022	
LCS	BKL0157-BS1	12192226ECD7.D	12/17/2022	
LCS Dup	BKL0157-BSD1	12192227ECD7.D	12/17/2022	
Matrix Spike	BKL0157-MS1	12192228ECD7.D	12/17/2022	
LDW22-SC775K	22L0105-16	12192248ECD7.D	12/17/2022	
LDW22-SC775B	22L0105-07	12192237ECD7.D	12/17/2022	
Matrix Spike Dup	BKL0157-MSD1	12192229ECD7.D	12/17/2022	
LDW22-SC780	22L0105-04	12192234ECD7.D	12/17/2022	
LDW22-SC775J	22L0105-15	12192247ECD7.D	12/17/2022	
Blank	BKL0157-BLK1	12192225ECD7.D	12/17/2022	
LDW22-SC775H	22L0105-13	12192245ECD7.D	12/17/2022	
LDW22-SC775D	22L0105-09	12192241ECD7.D	12/17/2022	
LDW22-SC775F	22L0105-11	12192243ECD7.D	12/17/2022	
LDW22-SC775E	22L0105-10	12192242ECD7.D	12/17/2022	
LDW22-SC775C	22L0105-08	12192238ECD7.D	12/17/2022	
LDW22-SC775A	22L0105-06	12192236ECD7.D	12/17/2022	
LDW22-SC772	22L0105-01	12192231ECD7.D	12/17/2022	
LDW22-SC771	22L0105-02	12192232ECD7.D	12/17/2022	
LDW22-SC756	22L0105-03	12192233ECD7.D	12/17/2022	
LDW22-IT792	22L0105-05	12192235ECD7.D	12/17/2022	
Reference	BKL0157-SRM1	12192230ECD7.D	12/17/2022	
LDW22-SC775I	22L0105-14	12192246ECD7.D	12/17/2022	



CLEANUP BENCH SHEET

CKL0204

Matrix: Solid Cleanup using: Organics - EPA 3660C Silica Gel Cleanup - uL

Printed: 12/17/2022 10:41:17AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
22L0105-01	A	LDW22-SC772	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-02	A	LDW22-SC771	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-03	A	LDW22-SC756	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-04	A	LDW22-SC780	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-05	A	LDW22-IT792	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-06	A	LDW22-SC775A	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-07	A	LDW22-SC775B	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-08	A	LDW22-SC775C	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-09	A	LDW22-SC775D	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-10	A	LDW22-SC775E	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-11	A	LDW22-SC775F	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-12	A	LDW22-SC775G	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-13	A	LDW22-SC775H	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-14	A	LDW22-SC775I	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-15	A	LDW22-SC775J	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
22L0105-16	A	LDW22-SC775K	A 01	2.5	2.5	8082A PCB Solid 4	12/17/2022	NPL	
BKL0157-BLK1	-	Blank	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-BS1	-	LCS	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-BSD1	-	LCS Dup	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-MS1	-	Matrix Spike	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-MSD1	-	Matrix Spike Dup	-	2.5	2.5	-	12/17/2022	NPL	
BKL0157-SRM1	-	Reference	-	2.5	2.5	-	12/17/2022	NPL	



CLEANUP BENCH SHEET

CKL0204

Matrix: Solid

Cleanup using: Organics - EPA 3660C Silica Gel Cleanup - uL

Printed: 12/17/2022 10:41:17AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
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Form I
METHOD BLANK DATA SHEET
EPA 8082A

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BKL0157-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>12/07/22 13:40</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BKL0157</u>	Sequence:	<u>SKL0282</u>
Instrument:	<u>ECD7</u>	Column:	<u>ZB5</u>
		File ID:	<u>12192225ECD7.D</u>
		Analyzed:	<u>12/19/22 23:04</u>
		Initial/Final:	<u>12.5 g / 2.5 mL</u>
		Calibration:	<u>FL00010</u>
		Cleanups:	<u>Silica Gel, Sulfur, Sulfuric Acid</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
12674-11-2	Aroclor 1016	1	4.0	U	1.6	4.0
11104-28-2	Aroclor 1221	1	4.0	U	1.6	4.0
11141-16-5	Aroclor 1232	1	4.0	U	1.6	4.0
53469-21-9	Aroclor 1242	1	4.0	U	1.6	4.0
12672-29-6	Aroclor 1248	1	4.0	U	1.6	4.0
11097-69-1	Aroclor 1254	1	4.0	U	1.6	4.0
11096-82-5	Aroclor 1260	1	4.0	U	0.6	4.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl	8.0000	8.96	112	40 - 126	
Tetrachlorometaxylene	8.0000	7.32	91.4	44 - 120	
Decachlorobiphenyl [2C]	8.0000	8.43	105	40 - 126	
Tetrachlorometaxylene [2C]	8.0000	7.13	89.1	44 - 120	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192225ECD7.D
Data file 2: /221219.b/221219.b/12192225ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0157-BLK1
Client ID:
Injection Date: 19-DEC-2022 23:04
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.835	-0.001	276198	5.712	-0.002	152079	36.6	35.7	2.6	Tetrachloro-m-xylene
13.903	-0.005	453339	14.132	-0.005	303645	44.8	42.1	6.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	532866	19.0
Hexabromobiphenyl	798898	1103605	38.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	311199	24.9
Hexabromobiphenyl	362541	507553	40.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Coll (5.936 - 13.808) = 75847

Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 35236 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



Form I
METHOD BLANK DATA SHEET
EPA 8082A

Blank

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BKL0158-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>12/08/22 11:45</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BKL0158</u>	Sequence:	<u>SKL0280</u>
Instrument:	<u>ECD7</u>	Column:	<u>ZB5</u>
		File ID:	<u>12172239ECD7.D</u>
		Analyzed:	<u>12/17/22 22:44</u>
		Initial/Final:	<u>12.5 g / 2.5 mL</u>
		Calibration:	<u>FL00010</u>
		Cleanups:	<u>Silica Gel, Sulfur, Sulfuric Acid</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
12674-11-2	Aroclor 1016	1	4.0	U	1.6	4.0
11104-28-2	Aroclor 1221	1	4.0	U	1.6	4.0
11141-16-5	Aroclor 1232	1	4.0	U	1.6	4.0
53469-21-9	Aroclor 1242	1	4.0	U	1.6	4.0
12672-29-6	Aroclor 1248	1	4.0	U	1.6	4.0
11097-69-1	Aroclor 1254	1	4.0	U	1.6	4.0
11096-82-5	Aroclor 1260	1	4.0	U	0.6	4.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Decachlorobiphenyl	8.0000	6.63	82.9	40 - 126	
Tetrachlorometaxylene	8.0000	5.13	64.1	44 - 120	
Decachlorobiphenyl [2C]	8.0000	6.03	75.4	40 - 126	
Tetrachlorometaxylene [2C]	8.0000	4.83	60.4	44 - 120	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172239ECD7.D
Data file 2: /221217.b/221217.b/12172239ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0156-BLK1
Client ID:
Injection Date: 17-DEC-2022 22:44
Report Date: 12/20/2022 15:09
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.833	-0.003	192398	5.710	-0.000	100197	25.7	24.2	6.0	Tetrachloro-m-xylene
13.905	-0.003	356983	14.132	-0.001	219540	33.2	30.2	9.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	529169	18.2
Hexabromobiphenyl	798898	1174199	47.0
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	302662	21.5
Hexabromobiphenyl	362541	512689	41.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Coll (5.936 - 13.808) = 78267

Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 9807 Col2 Total PCB = 0.0 ppm*

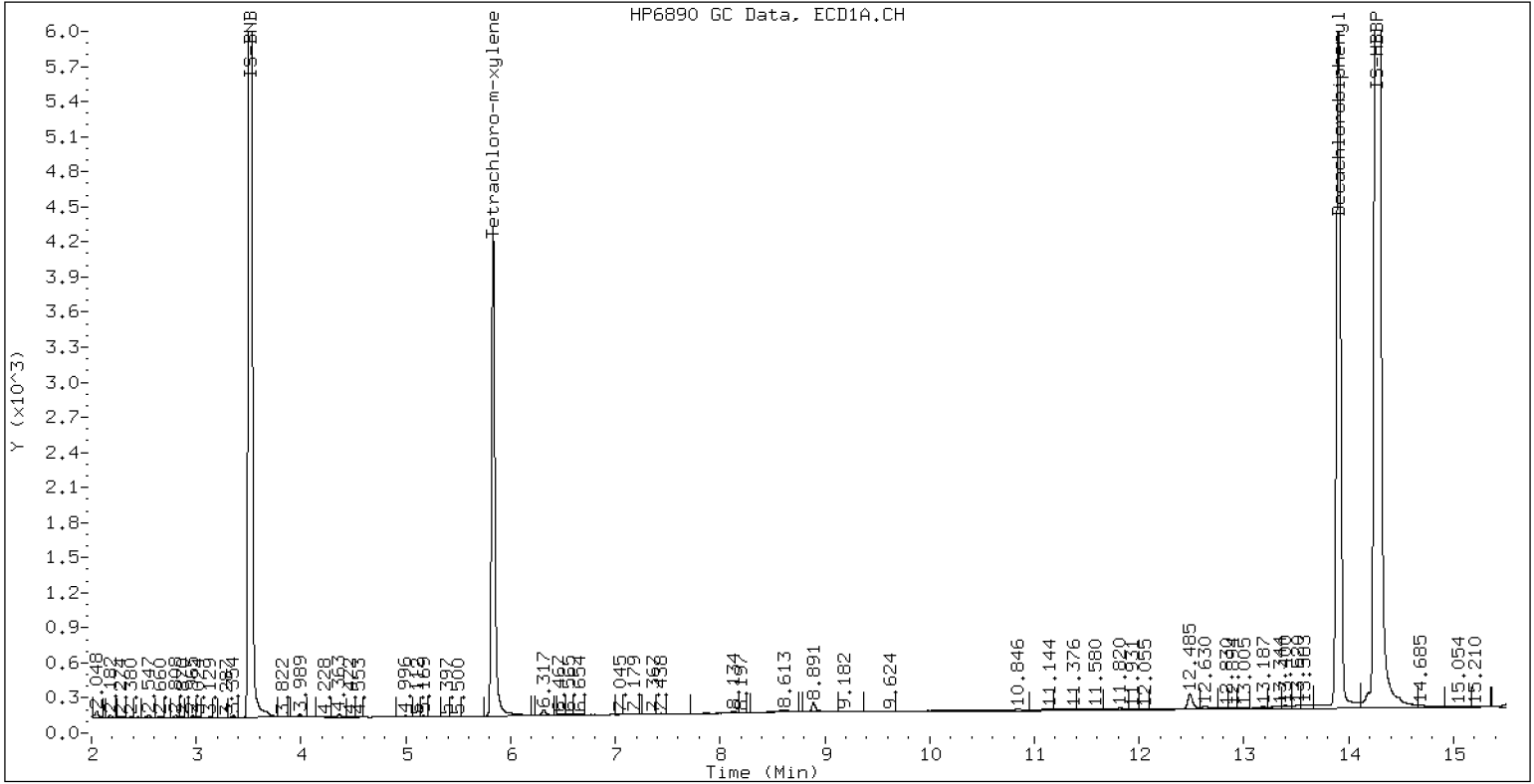
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0156-BLK1

17-DEC-2022 22:44, 2u1



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192226ECD7.D
Data file 2: /221219.b/221219.b/12192226ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0157-BS1
Client ID:
Injection Date: 19-DEC-2022 23:25
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	0.000	257805	5.713	-0.000	139740	33.2	31.9	3.7	Tetrachloro-m-xylene
13.904	-0.003	422663	14.133	-0.004	286347	38.8	38.2	1.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	548786	22.6
Hexabromobiphenyl	798898	1188185	48.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	319212	28.1
Hexabromobiphenyl	362541	528534	45.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.291	-0.003	73294	400.4	1	7.275	-0.000	61934	379.5
Aroclor-1016	2	7.673	-0.012	252103	426.6	2	7.869	-0.001	140615	399.5
Aroclor-1016	3	7.810	-0.008	102462	382.6	3	8.068	-0.002	62754	415.1
Aroclor-1016	4	8.422	-0.007	74337	435.4	4	8.240	-0.001	33372	419.8
Total CollAve (4 peaks):				411.2		Total Col2Ave (4 peaks):				403.5 RPD = 2
Corrected Ave (3 peaks):				403.2		Corrected Ave (3 peaks):				398.0 RPD = 1
Aroclor-1221	1	4.751	-0.009	2490	54.9	1	4.990	0.003	314	11.7
Aroclor-1221	2	6.156	-0.002	8744	109.4	2	6.322	0.000	6353	123.7
Aroclor-1221	3	6.408	-0.001	46021	249.6	3	6.644	-0.001	27064	313.2
Total CollAve (3 peaks):				138.0		Total Col2Ave (3 peaks):				149.5 RPD = 8
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.751	-0.010	2490	91.2	1	4.990	0.000	314	20.2
Aroclor-1232	2	6.156	-0.003	8744	151.6	2	7.275	-0.002	61934	781.3
Aroclor-1232	3	7.673	-0.011	252103	973.4	3	7.869	-0.007	140615	907.4
Aroclor-1232	4	8.596	-0.010	97839	890.4	4	8.729	-0.005	43574	1037.0
Total CollAve (4 peaks):				526.6		Total Col2Ave (4 peaks):				686.5 RPD = 26
Corrected Ave (3 peaks):				377.7		Corrected Ave (3 peaks):				569.6 RPD = 41*
Aroclor-1242	1	7.291	-0.003	73294	471.2	1	7.275	-0.002	61934	458.4
Aroclor-1242	2	7.673	-0.012	252103	510.4	2	7.869	-0.006	140615	490.3
Aroclor-1242	3	8.422	-0.007	74337	523.1	3	9.171	-0.007	7845	84.8
Aroclor-1242	4	9.011	-0.020	101001	342.3	4	9.595	-0.010	3815	34.3
Total CollAve (4 peaks):				461.8		Total Col2Ave (4 peaks):				267.0 RPD = 53*
Corrected Ave (3 peaks):				441.3		Corrected Ave (3 peaks):				192.5 RPD = 79*
Aroclor-1248	1	8.422	-0.005	74337	315.0	1	8.323	-0.003	41819	320.7
Aroclor-1248	2	8.596	-0.008	97839	324.8	2	8.729	-0.004	43574	317.7
Aroclor-1248	3	9.011	-0.011	101001	186.4	3	9.171	-0.007	7845	47.0
Aroclor-1248	4	9.316	0.005	80699	303.9	4	9.595	-0.007	3815	19.5
Total CollAve (4 peaks):				282.5		Total Col2Ave (4 peaks):				176.2 RPD = 46*
Corrected Ave (3 peaks):				268.4		Corrected Ave (3 peaks):				128.1 RPD = 71*
Aroclor-1254	1	9.316	-0.005	80699	167.0	1	9.462	-0.004	36983	179.7
Aroclor-1254	2	---			0.0	2	9.982	-0.005	7863	47.5
Aroclor-1254	3	9.682	-0.012	14358	47.0	3	10.159	0.019	83149	233.8
Aroclor-1254	4	9.821	-0.010	46135	77.6	4	10.384	-0.005	108145	293.6
Aroclor-1254	5	10.134	-0.055	214136	525.1	5	10.579	-0.008	145672	820.0
Total CollAve (4 peaks):				204.2		Total Col2Ave (5 peaks):				314.9 RPD = 43*
Corrected Ave (3 peaks):				97.2		Corrected Ave (4 peaks):				188.6 RPD = 64*
Aroclor-1260	1	11.057	-0.005	178203	412.0	1	11.665	-0.004	113642	407.3
Aroclor-1260	2	11.375	-0.003	190484	425.8	2	11.929	-0.004	281250	401.7
Aroclor-1260	3	11.746	-0.006	495561	421.6	3	12.447	-0.004	79294	425.3
Aroclor-1260	4	12.150	-0.008	265744	444.0	4	12.513	-0.004	196781	421.7
Aroclor-1260	5	12.256	-0.005	105740	431.5	NS	---			----
Total CollAve (5 peaks):				427.0		Total Col2Ave (4 peaks):				414.0 RPD = 3
Corrected Ave (4 peaks):				422.8		Corrected Ave (3 peaks):				410.2 RPD = 3
Aroclor-1262	1	10.839	-0.009	359857	905.7	1	11.212	-0.005	104495	260.0
Aroclor-1262	2	12.256	-0.006	105740	171.2	2	11.665	-0.005	113642	326.5
Aroclor-1262	3	12.332	-0.005	127966	194.0	3	12.447	-0.004	79294	206.5
Aroclor-1262	4	12.999	-0.006	121382	229.2	4	12.513	-0.006	196781	327.2
Total CollAve (4 peaks):				375.0		Total Col2Ave (4 peaks):				280.1 RPD = 29
Corrected Ave (3 peaks):				198.1		Corrected Ave (3 peaks):				264.3 RPD = 29
Aroclor-1268	1	12.256	-0.006	105740	63.6	1	12.447	-0.002	79294	79.5
Aroclor-1268	2	12.332	-0.003	127966	78.7	2	12.513	-0.004	196781	192.4
Aroclor-1268	3	12.736	0.020	57262	43.0	3	12.905	-0.005	3512	9.3
Aroclor-1268	4	13.499	-0.006	36014	8.8	4	13.721	-0.006	22605	8.3
Total CollAve (4 peaks):				48.5		Total Col2Ave (4 peaks):				72.3 RPD = 39

Corrected Ave (3 peaks): 38.5 Corrected Ave (3 peaks): 32.3 RPD = 17

Total PCB Area Col1 (5.936 - 13.808) = 4936978 Col1 Total PCB = 0.8 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 2663920 Col2 Total PCB = 1.2 ppm*

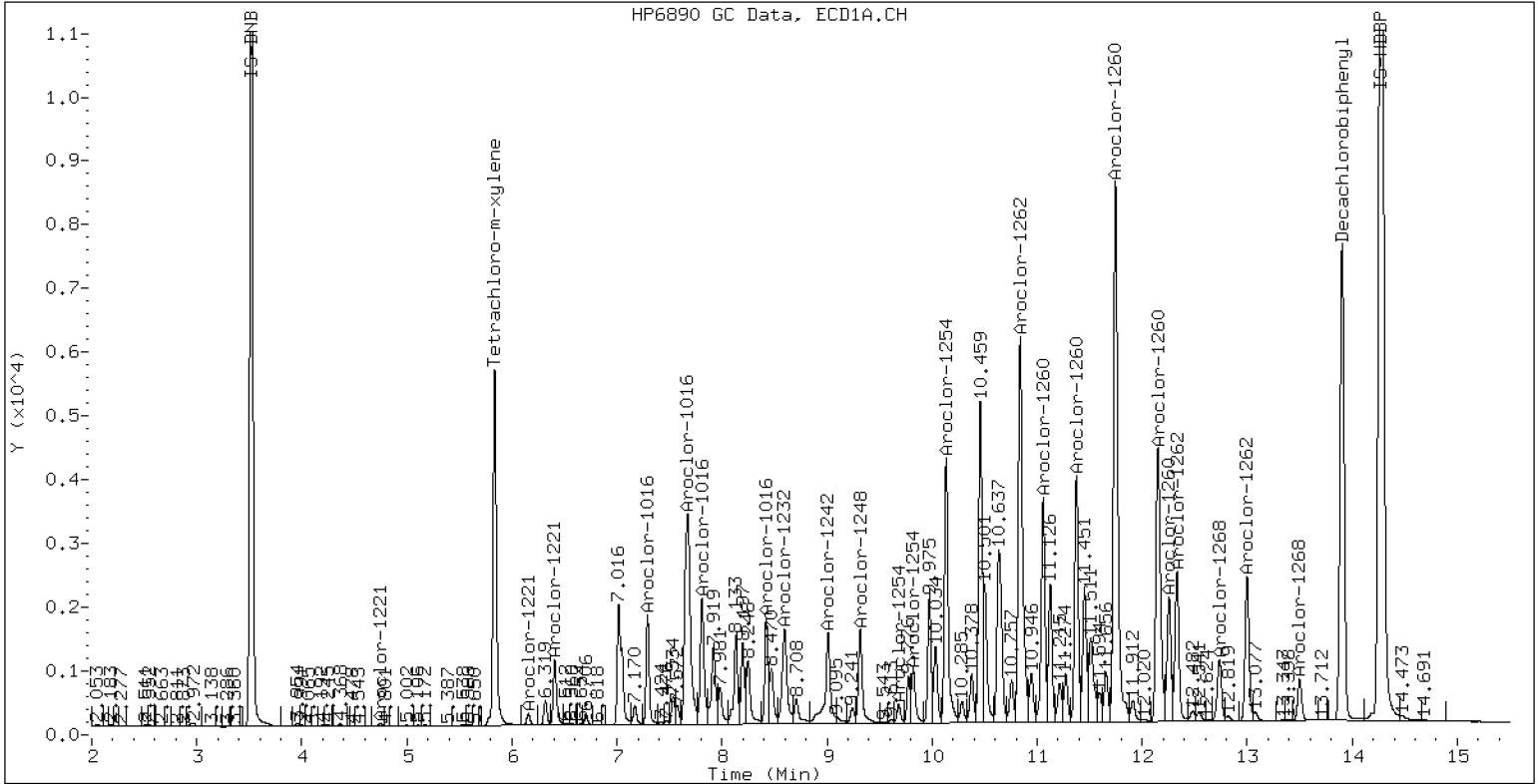
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0157-BS1

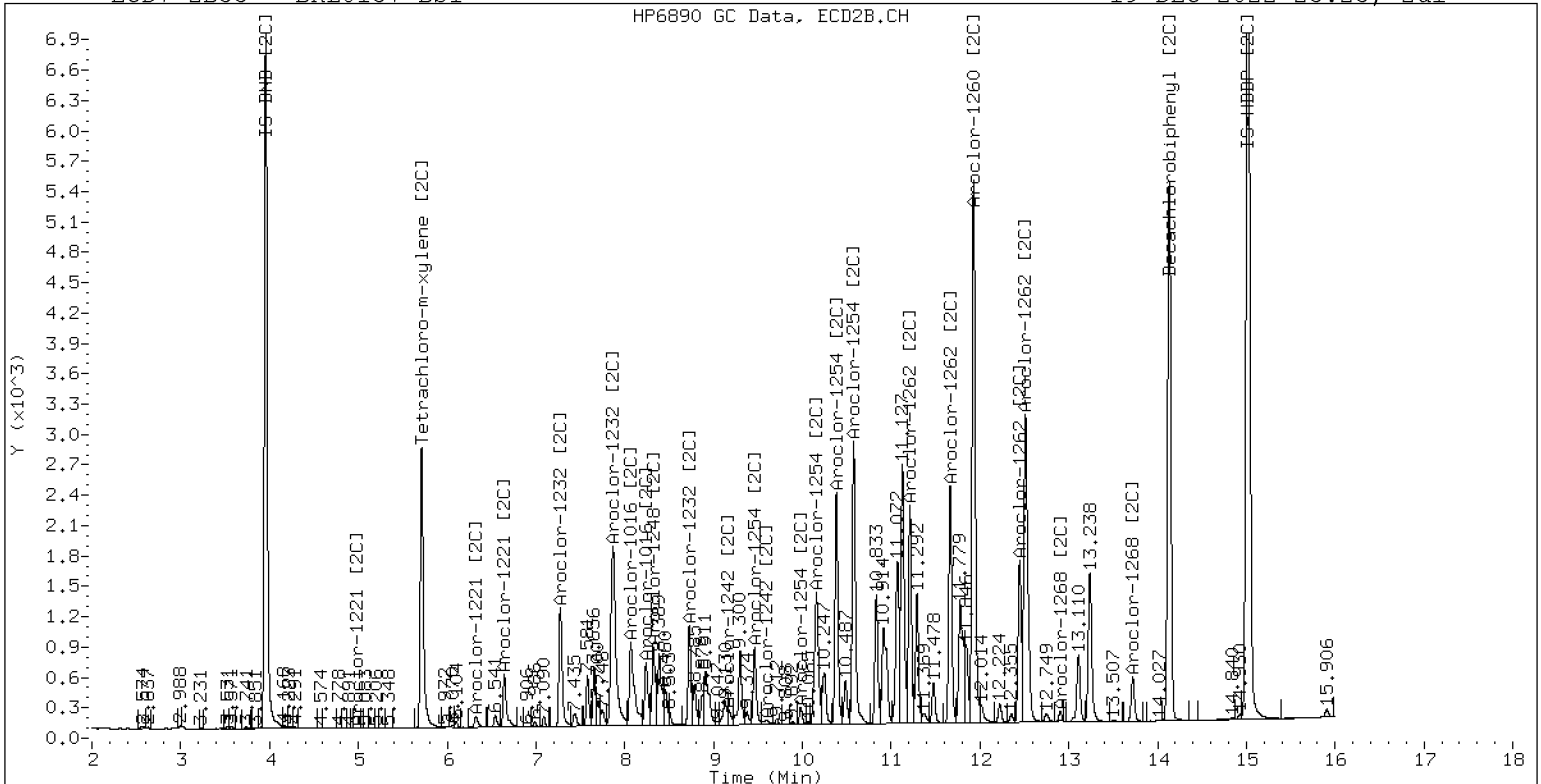
19-DEC-2022 23:25, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BKL0157-BS1

19-DEC-2022 23:25, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192227ECD7.D
Data file 2: /221219.b/221219.b/12192227ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0157-BSD1
Client ID:
Injection Date: 19-DEC-2022 23:46
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.001	275277	5.712	-0.001	146160	34.5	33.0	4.5	Tetrachloro-m-xylene
13.905	-0.003	445440	14.132	-0.005	307373	40.6	40.0	1.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	562914	25.8
Hexabromobiphenyl	798898	1196518	49.8
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	323095	29.7
Hexabromobiphenyl	362541	540647	49.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.290	-0.004	77493	412.7	1	7.274	-0.001	65210	394.7
Aroclor-1016	2	7.673	-0.012	278373	459.2	2	7.868	-0.002	149700	420.2
Aroclor-1016	3	7.808	-0.010	109747	399.5	3	8.068	-0.002	58390	381.6
Aroclor-1016	4	8.422	-0.007	78353	447.4	4	8.239	-0.002	36079	448.4
Total CollAve (4 peaks):				429.7		Total Col2Ave (4 peaks):				411.2 RPD = 4
Corrected Ave (3 peaks):				419.9		Corrected Ave (3 peaks):				398.9 RPD = 5
Aroclor-1221	1	4.748	-0.012	10353	222.5	1	4.977	-0.011	925	33.9
Aroclor-1221	2	6.152	-0.007	15709	191.6	2	6.321	-0.001	6584	126.7
Aroclor-1221	3	6.406	-0.003	49391	261.2	3	6.643	-0.002	29365	335.8
Total CollAve (3 peaks):				225.1		Total Col2Ave (3 peaks):				165.5 RPD = 31
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.748	-0.013	10353	369.7	1	4.977	-0.013	925	58.9
Aroclor-1232	2	6.152	-0.008	15709	265.6	2	7.274	-0.003	65210	812.7
Aroclor-1232	3	7.673	-0.011	278373	1047.8	3	7.868	-0.008	149700	954.4
Aroclor-1232	4	8.596	-0.010	99583	883.5	4	8.728	-0.006	50911	1197.1
Total CollAve (4 peaks):				641.6		Total Col2Ave (4 peaks):				755.8 RPD = 16
Corrected Ave (3 peaks):				506.2		Corrected Ave (3 peaks):				608.7 RPD = 18
Aroclor-1242	1	7.290	-0.005	77493	485.7	1	7.274	-0.003	65210	476.9
Aroclor-1242	2	7.673	-0.013	278373	549.5	2	7.868	-0.006	149700	515.7
Aroclor-1242	3	8.422	-0.008	78353	537.6	3	9.169	-0.009	8163	87.2
Aroclor-1242	4	9.010	-0.021	114798	379.3	4	9.594	-0.012	4375	38.9
Total CollAve (4 peaks):				488.0		Total Col2Ave (4 peaks):				279.7 RPD = 54*
Corrected Ave (3 peaks):				467.5		Corrected Ave (3 peaks):				201.0 RPD = 80*
Aroclor-1248	1	8.422	-0.005	78353	323.7	1	8.322	-0.004	44405	336.4
Aroclor-1248	2	8.596	-0.008	99583	322.3	2	8.728	-0.004	50911	366.7
Aroclor-1248	3	9.010	-0.012	114798	206.5	3	9.169	-0.009	8163	48.3
Aroclor-1248	4	9.316	0.004	87950	322.9	4	9.594	-0.009	4375	22.1
Total CollAve (4 peaks):				293.9		Total Col2Ave (4 peaks):				193.4 RPD = 41*
Corrected Ave (3 peaks):				283.9		Corrected Ave (3 peaks):				135.6 RPD = 71*
Aroclor-1254	1	9.316	-0.006	87950	177.5	1	9.463	-0.004	38780	186.2
Aroclor-1254	2	---			0.0	2	9.983	-0.003	8432	50.3
Aroclor-1254	3	9.683	-0.012	15774	50.4	3	10.159	0.019	86628	240.6
Aroclor-1254	4	9.820	-0.011	49298	80.8	4	10.384	-0.005	112061	300.6
Aroclor-1254	5	10.135	-0.054	221980	530.7	5	10.579	-0.007	150193	835.3
Total CollAve (4 peaks):				209.8		Total Col2Ave (5 peaks):				322.6 RPD = 42*
Corrected Ave (3 peaks):				102.9		Corrected Ave (4 peaks):				194.4 RPD = 62*
Aroclor-1260	1	11.058	-0.004	183903	422.2	1	11.666	-0.004	117420	411.4
Aroclor-1260	2	11.375	-0.003	196060	435.2	2	11.929	-0.004	291504	407.1
Aroclor-1260	3	11.747	-0.005	513544	433.9	3	12.448	-0.003	82251	431.3
Aroclor-1260	4	12.151	-0.007	276169	458.2	4	12.513	-0.003	203869	427.1
Aroclor-1260	5	12.257	-0.005	110866	449.3	NS	---			----
Total CollAve (5 peaks):				439.8		Total Col2Ave (4 peaks):				419.2 RPD = 5
Corrected Ave (4 peaks):				435.2		Corrected Ave (3 peaks):				415.2 RPD = 5
Aroclor-1262	1	10.840	-0.008	369292	922.9	1	11.212	-0.005	107644	261.9
Aroclor-1262	2	12.257	-0.006	110866	178.2	2	11.666	-0.004	117420	329.8
Aroclor-1262	3	12.333	-0.004	134507	202.5	3	12.448	-0.003	82251	209.4
Aroclor-1262	4	13.000	-0.005	126971	238.1	4	12.513	-0.006	203869	331.4
Total CollAve (4 peaks):				385.4		Total Col2Ave (4 peaks):				283.1 RPD = 31
Corrected Ave (3 peaks):				206.3		Corrected Ave (3 peaks):				267.0 RPD = 26
Aroclor-1268	1	12.257	-0.005	110866	66.2	1	12.448	-0.001	82251	80.6
Aroclor-1268	2	12.333	-0.002	134507	82.1	2	12.513	-0.004	203869	194.8
Aroclor-1268	3	12.737	0.021	60282	44.9	3	12.906	-0.004	3547	9.1
Aroclor-1268	4	13.500	-0.006	35122	8.6	4	13.721	-0.005	23949	8.6
Total CollAve (4 peaks):				50.5		Total Col2Ave (4 peaks):				73.3 RPD = 37

Corrected Ave (3 peaks): 39.9 Corrected Ave (3 peaks): 32.8 RPD = 20

Total PCB Area Col1 (5.936 - 13.808) = 5265056 Col1 Total PCB = 0.8 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2831815 Col2 Total PCB = 1.2 ppm*

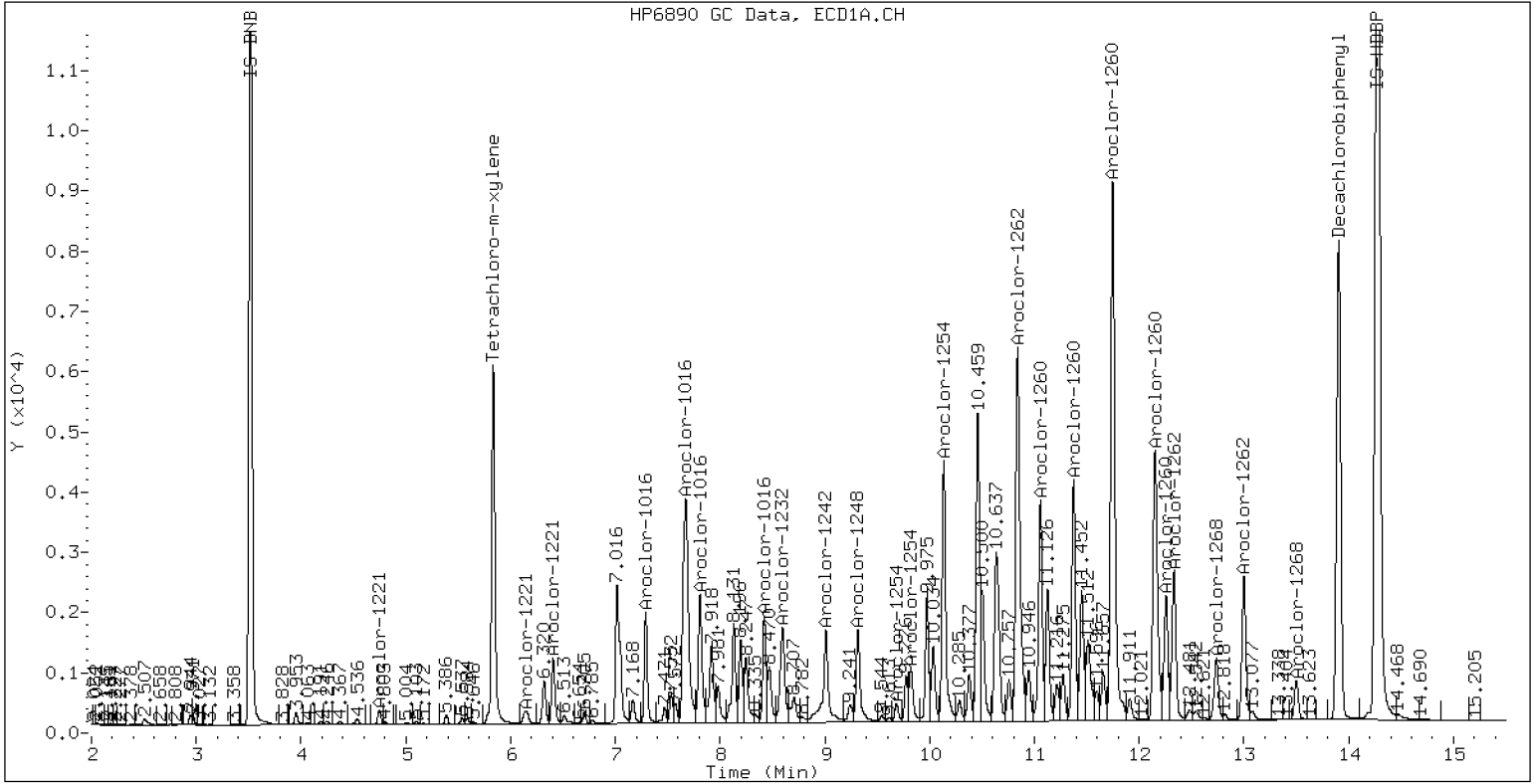
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0157-BSD1

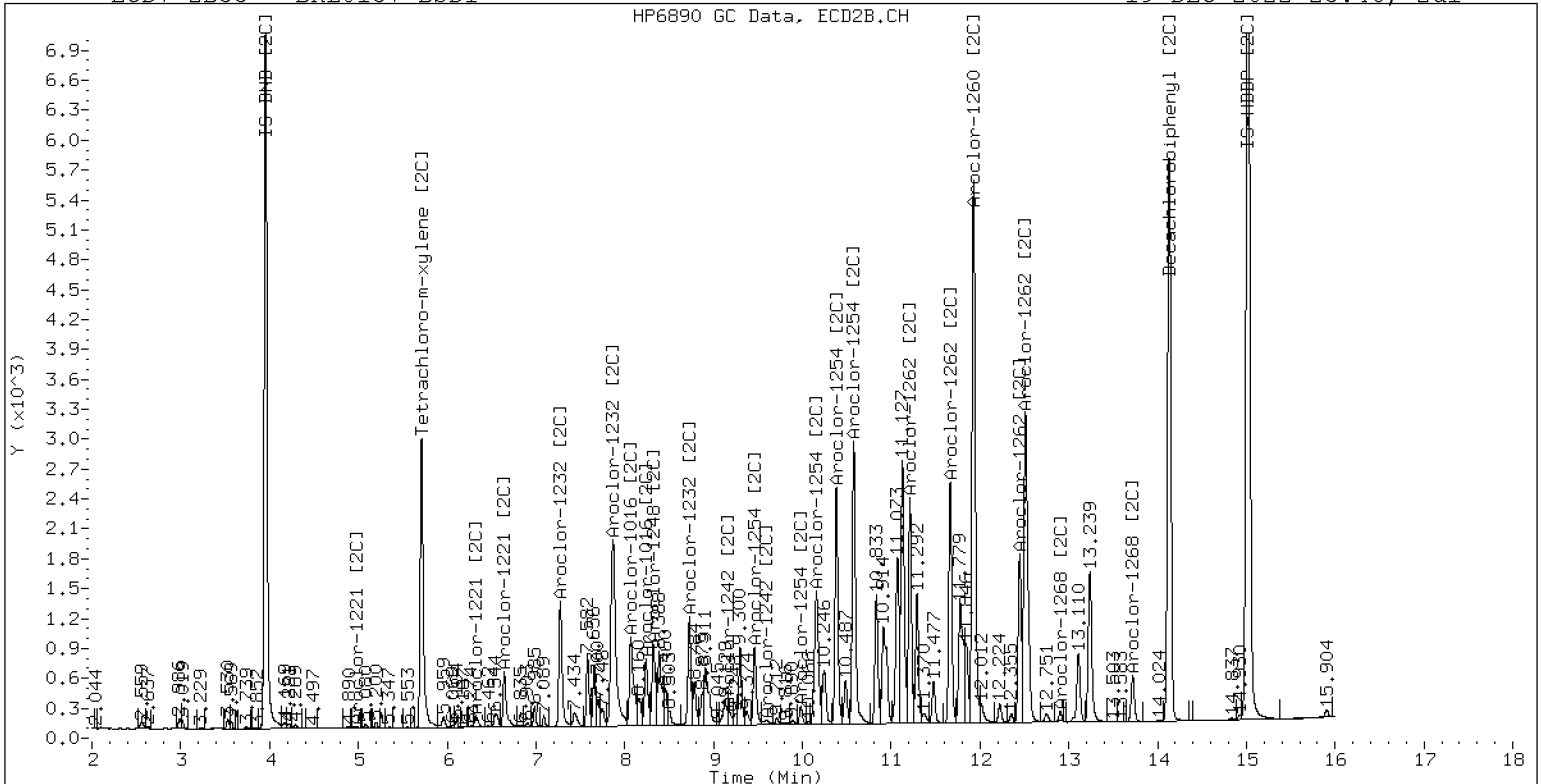
19-DEC-2022 23:46, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BKL0157-BSD1

19-DEC-2022 23:46, 2u1



ZB-35 Manual Integration: NO



LCS / LCS DUPLICATE RECOVERY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Analyzed: 12/17/22 23:05

Batch: BKL0158

Laboratory ID: BKL0158-BS1

Preparation: EPA 3546 (Microwave)

Sequence Name: LCS

Initial/Final: 12.5 g / 2.5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	101	59.7		59.2	56 - 120
Aroclor 1260	101	61.4		60.9	58 - 120

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/kg wet)	LCSD CONCENTRATION (ug/kg wet)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016	101	85.9	*	85.2	35.9 *	30	56 - 120
Aroclor 1260	101	86.5	*	85.8	33.9 *	30	58 - 120

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172240ECD7.D
Data file 2: /221217.b/221217.b/12172240ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0156-BS1
Client ID:
Injection Date: 17-DEC-2022 23:05
Report Date: 12/20/2022 15:09
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	-0.003	249621	5.710	-0.001	129120	33.0	30.8	6.9	Tetrachloro-m-xylene
13.904	-0.003	426473	14.132	-0.001	279153	39.9	38.0	5.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	533130	19.1
Hexabromobiphenyl	798898	1166169	46.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	305473	22.6
Hexabromobiphenyl	362541	518051	42.9

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 03-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.289	-0.006	52900	297.5	1	7.273	-0.001	42850	274.4
Aroclor-1016	2	7.673	-0.012	173176	301.6	2	7.868	-0.004	96764	287.3
Aroclor-1016	3	7.808	-0.009	72699	279.4	3	8.068	-0.004	38827	268.4
Aroclor-1016	4	8.421	-0.008	52405	315.9	4	8.239	-0.004	22399	294.5
Total CollAve (4 peaks):				298.6	Total Col2Ave (4 peaks):				281.1	RPD = 6
Corrected Ave (3 peaks):				292.8	Corrected Ave (3 peaks):				276.7	RPD = 6
Aroclor-1221	1	4.759	-0.001	401	9.1	1	4.984	-0.003	251	9.7
Aroclor-1221	2	6.154	-0.005	7270	93.6	2	6.321	-0.001	4599	93.6
Aroclor-1221	3	6.405	-0.004	34985	195.3	3	6.643	-0.002	18233	220.5
Total CollAve (3 peaks):				99.4	Total Col2Ave (3 peaks):				107.9	RPD = 8
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	4.759	-0.002	401	15.1	1	4.984	-0.006	251	16.9
Aroclor-1232	2	6.154	-0.006	7270	129.8	2	7.273	-0.004	42850	564.9
Aroclor-1232	3	7.673	-0.011	173176	688.3	3	7.868	-0.008	96764	652.5
Aroclor-1232	4	8.595	-0.010	69061	646.9	4	8.728	-0.006	29114	724.1
Total CollAve (4 peaks):				370.0	Total Col2Ave (4 peaks):				489.6	RPD = 28
Corrected Ave (3 peaks):				263.9	Corrected Ave (3 peaks):				411.4	RPD = 44*
Aroclor-1242	1	7.289	-0.006	52900	350.1	1	7.273	-0.002	42850	331.4
Aroclor-1242	2	7.673	-0.013	173176	360.9	2	7.868	-0.005	96764	352.6
Aroclor-1242	3	8.421	-0.008	52405	379.6	3	9.169	-0.006	5501	62.1
Aroclor-1242	4	9.009	-0.022	77537	270.5	4	9.593	-0.005	2245	21.1
Total CollAve (4 peaks):				340.3	Total Col2Ave (4 peaks):				191.8	RPD = 56*
Corrected Ave (3 peaks):				327.2	Corrected Ave (3 peaks):				138.2	RPD = 81*
Aroclor-1248	1	8.421	-0.006	52405	228.6	1	8.322	-0.002	29026	232.6
Aroclor-1248	2	8.595	-0.009	69061	236.0	2	8.728	-0.002	29114	221.8
Aroclor-1248	3	9.009	-0.013	77537	147.3	3	9.169	-0.007	5501	34.5
Aroclor-1248	4	9.315	0.004	58751	227.8	4	9.593	-0.005	2245	12.0
Total CollAve (4 peaks):				209.9	Total Col2Ave (4 peaks):				125.2	RPD = 51*
Corrected Ave (3 peaks):				201.2	Corrected Ave (3 peaks):				89.4	RPD = 77*
Aroclor-1254	1	9.315	-0.006	58751	125.2	1	9.462	-0.002	25530	129.6
Aroclor-1254	2	---			0.0	2	9.982	0.001	5373	33.9
Aroclor-1254	3	9.682	-0.012	10279	34.7	3	10.159	0.024	57888	170.1
Aroclor-1254	4	9.821	-0.009	32686	56.6	4	10.383	0.001	75766	214.9
Aroclor-1254	5	10.134	-0.055	154210	389.3	5	10.578	-0.001	101986	599.9
Total CollAve (4 peaks):				151.4	Total Col2Ave (5 peaks):				229.7	RPD = 41*
Corrected Ave (3 peaks):				72.1	Corrected Ave (4 peaks):				137.1	RPD = 62*
Aroclor-1260	1	11.057	-0.005	127034	299.3	1	11.665	-0.002	79481	290.7
Aroclor-1260	2	11.373	-0.004	134635	306.7	2	11.928	-0.002	195522	284.9
Aroclor-1260	3	11.747	-0.005	354006	306.9	3	12.447	-0.002	50412	275.9
Aroclor-1260	4	12.150	-0.008	185554	315.9	4	12.511	-0.002	135309	295.8
Aroclor-1260	5	12.256	-0.005	73587	306.0	NS	---			----
Total CollAve (5 peaks):				306.9	Total Col2Ave (4 peaks):				286.8	RPD = 7
Corrected Ave (4 peaks):				304.7	Corrected Ave (3 peaks):				283.8	RPD = 7
Aroclor-1262	1	10.839	-0.009	256501	657.7	1	11.212	-0.006	72565	184.2
Aroclor-1262	2	12.256	-0.007	73587	121.4	2	11.665	-0.005	79481	233.0
Aroclor-1262	3	12.331	-0.005	89308	137.9	3	12.447	-0.004	50412	134.0
Aroclor-1262	4	12.998	-0.006	81000	155.9	4	12.511	-0.008	135309	229.5
Total CollAve (4 peaks):				268.2	Total Col2Ave (4 peaks):				195.2	RPD = 32
Corrected Ave (3 peaks):				138.4	Corrected Ave (3 peaks):				182.6	RPD = 28
Aroclor-1268	1	12.256	-0.006	73587	45.1	1	12.447	-0.002	50412	51.6
Aroclor-1268	2	12.331	-0.004	89308	56.0	2	12.511	-0.006	135309	134.9
Aroclor-1268	3	12.737	0.020	39640	30.3	3	12.904	-0.005	2287	6.2
Aroclor-1268	4	13.499	-0.006	28992	7.3	4	13.721	-0.005	15402	5.8
Total CollAve (4 peaks):				34.7	Total Col2Ave (4 peaks):				49.6	RPD = 35

Corrected Ave (3 peaks): 27.6 Corrected Ave (3 peaks): 21.2 RPD = 26

Total PCB Area Col1 (5.936 - 13.808) = 3517558 Col1 Total PCB = 0.6 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 1832892 Col2 Total PCB = 0.8 ppm*

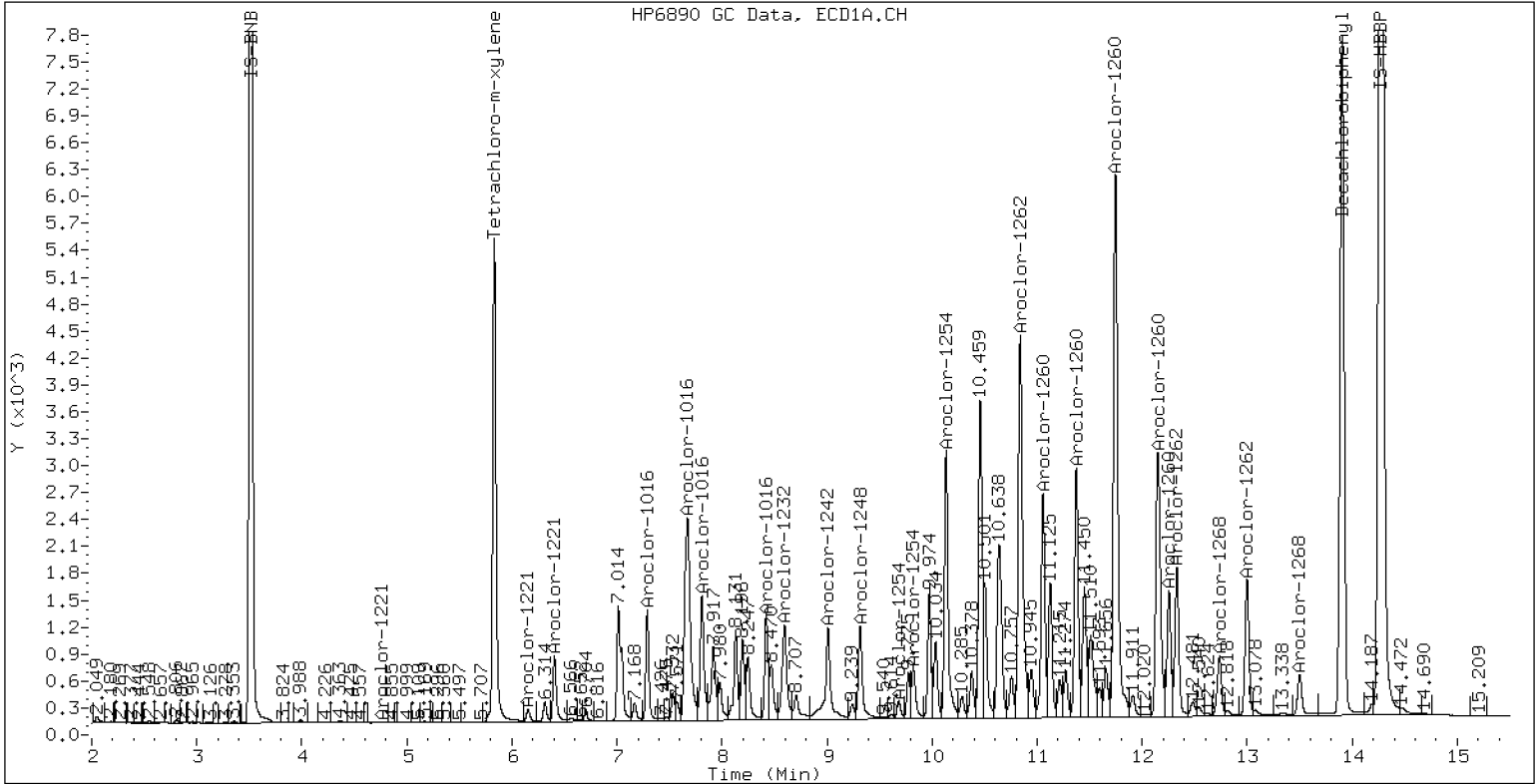
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0156-BS1

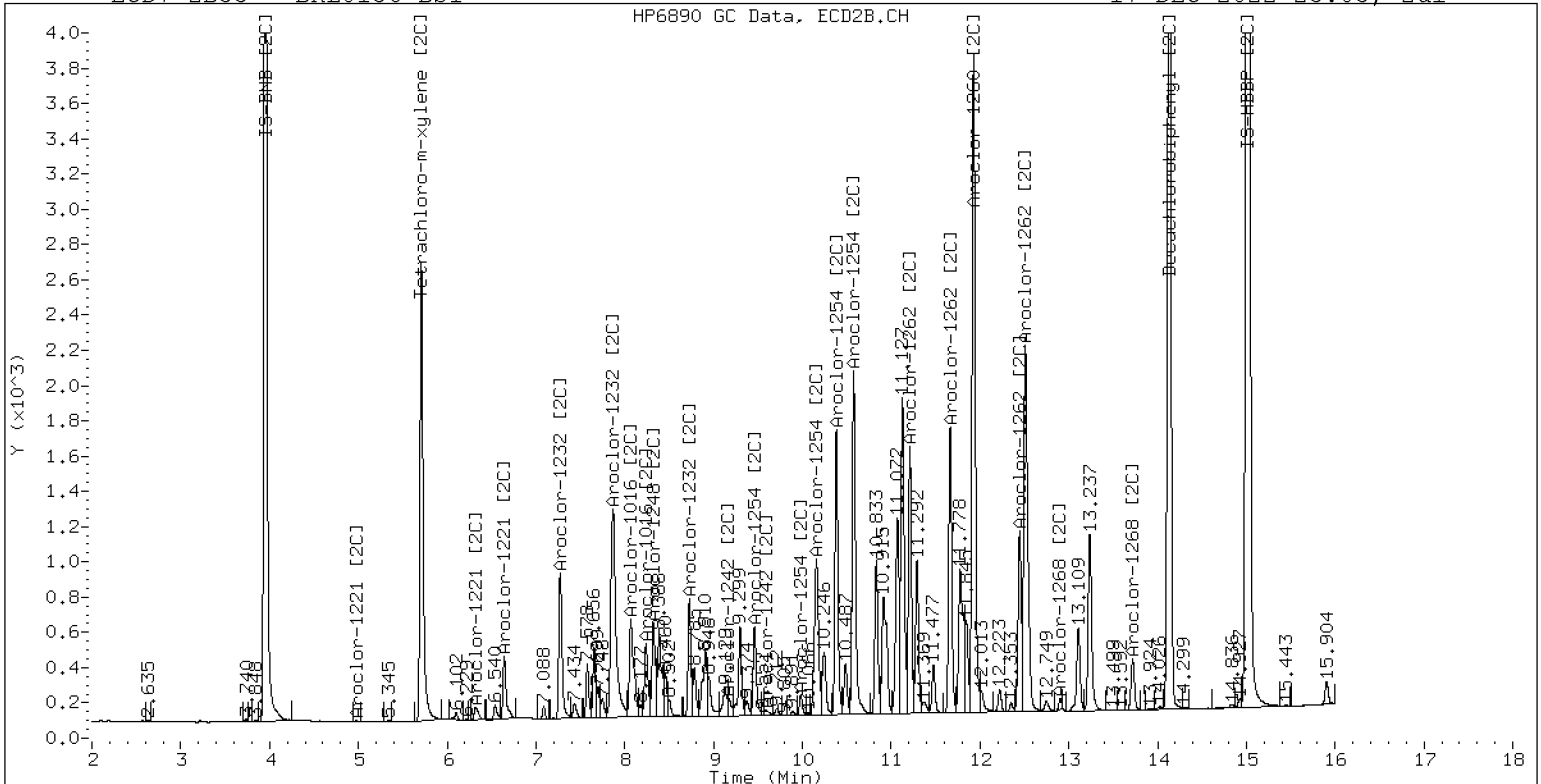
17-DEC-2022 23:05, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BKL0156-BS1

17-DEC-2022 23:05, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172241ECD7.D
Data file 2: /221217.b/221217.b/12172241ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0156-BSD1
Client ID:
Injection Date: 17-DEC-2022 23:26
Report Date: 12/20/2022 15:09
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	-0.003	267550	5.711	0.000	137991	35.2	32.4	8.3	Tetrachloro-m-xylene
13.905	-0.003	430030	14.133	-0.000	286372	39.2	38.1	2.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	536133	19.8
Hexabromobiphenyl	798898	1197465	49.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	310709	24.7
Hexabromobiphenyl	362541	529048	45.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.289	-0.005	75480	422.1	1	7.273	-0.001	62539	393.7
Aroclor-1016	2	7.671	-0.013	253962	439.8	2	7.868	-0.005	141840	414.0
Aroclor-1016	3	7.808	-0.010	104945	401.1	3	8.068	-0.004	56774	385.9
Aroclor-1016	4	8.421	-0.008	75762	454.2	4	8.239	-0.004	33258	429.8
Total CollAve (4 peaks):				429.3		Total Col2Ave (4 peaks):				405.8 RPD = 6
Corrected Ave (3 peaks):				421.0		Corrected Ave (3 peaks):				397.8 RPD = 6
Aroclor-1221	1	4.759	-0.001	566	12.8	1	4.985	-0.002	439	16.7
Aroclor-1221	2	6.154	-0.004	10051	128.7	2	6.320	-0.001	6379	127.6
Aroclor-1221	3	6.406	-0.003	49693	275.9	3	6.643	-0.002	27006	321.1
Total CollAve (3 peaks):				139.1		Total Col2Ave (3 peaks):				155.2 RPD = 11
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.759	-0.002	566	21.2	1	4.985	-0.004	439	29.1
Aroclor-1232	2	6.154	-0.005	10051	178.4	2	7.273	-0.003	62539	810.5
Aroclor-1232	3	7.671	-0.012	253962	1003.7	3	7.868	-0.008	141840	940.3
Aroclor-1232	4	8.595	-0.011	99593	927.7	4	8.728	-0.006	42321	1034.8
Total CollAve (4 peaks):				532.8		Total Col2Ave (4 peaks):				703.7 RPD = 28
Corrected Ave (3 peaks):				375.8		Corrected Ave (3 peaks):				593.3 RPD = 45*
Aroclor-1242	1	7.289	-0.005	75480	496.7	1	7.273	-0.001	62539	475.6
Aroclor-1242	2	7.671	-0.014	253962	526.3	2	7.868	-0.005	141840	508.1
Aroclor-1242	3	8.421	-0.008	75762	545.7	3	9.168	-0.007	7833	87.0
Aroclor-1242	4	9.010	-0.021	107221	372.0	4	9.594	-0.004	3983	36.8
Total CollAve (4 peaks):				485.2		Total Col2Ave (4 peaks):				276.9 RPD = 55*
Corrected Ave (3 peaks):				465.0		Corrected Ave (3 peaks):				199.8 RPD = 80*
Aroclor-1248	1	8.421	-0.006	75762	328.7	1	8.322	-0.003	42161	332.2
Aroclor-1248	2	8.595	-0.009	99593	338.4	2	8.728	-0.002	42321	317.0
Aroclor-1248	3	9.010	-0.013	107221	202.5	3	9.168	-0.008	7833	48.2
Aroclor-1248	4	9.315	0.004	82615	318.5	4	9.594	-0.004	3983	20.9
Total CollAve (4 peaks):				297.0		Total Col2Ave (4 peaks):				179.6 RPD = 49*
Corrected Ave (3 peaks):				283.2		Corrected Ave (3 peaks):				128.7 RPD = 75*
Aroclor-1254	1	9.315	-0.006	82615	175.0	1	9.462	-0.002	37073	185.1
Aroclor-1254	2	---			0.0	2	9.983	0.002	7993	49.6
Aroclor-1254	3	9.682	-0.012	15124	50.7	3	10.159	0.025	83514	241.2
Aroclor-1254	4	9.820	-0.010	46355	79.8	4	10.383	0.001	108759	303.3
Aroclor-1254	5	10.135	-0.055	219948	552.1	5	10.579	-0.001	146207	845.5
Total CollAve (4 peaks):				214.4		Total Col2Ave (5 peaks):				325.0 RPD = 41*
Corrected Ave (3 peaks):				101.8		Corrected Ave (4 peaks):				194.8 RPD = 63*
Aroclor-1260	1	11.058	-0.004	183187	420.3	1	11.666	-0.001	114428	409.8
Aroclor-1260	2	11.374	-0.003	195555	433.8	2	11.928	-0.002	281614	401.9
Aroclor-1260	3	11.747	-0.005	506139	427.3	3	12.450	0.001	72102	386.4
Aroclor-1260	4	12.150	-0.009	268907	445.8	4	12.513	-0.000	194473	416.3
Aroclor-1260	5	12.256	-0.005	107212	434.2	NS	---			----
Total CollAve (5 peaks):				432.3		Total Col2Ave (4 peaks):				403.6 RPD = 7
Corrected Ave (4 peaks):				428.9		Corrected Ave (3 peaks):				399.3 RPD = 7
Aroclor-1262	1	10.839	-0.009	369296	922.2	1	11.213	-0.005	104883	260.7
Aroclor-1262	2	12.256	-0.006	107212	172.2	2	11.666	-0.004	114428	328.4
Aroclor-1262	3	12.331	-0.005	129393	194.6	3	12.450	-0.002	72102	187.6
Aroclor-1262	4	12.998	-0.007	116520	218.4	4	12.513	-0.006	194473	323.0
Total CollAve (4 peaks):				376.8		Total Col2Ave (4 peaks):				275.0 RPD = 31
Corrected Ave (3 peaks):				195.1		Corrected Ave (3 peaks):				257.1 RPD = 27
Aroclor-1268	1	12.256	-0.006	107212	64.0	1	12.450	0.000	72102	72.2
Aroclor-1268	2	12.331	-0.004	129393	78.9	2	12.513	-0.004	194473	189.9
Aroclor-1268	3	12.736	0.020	56827	42.3	3	12.905	-0.005	3233	8.5
Aroclor-1268	4	13.499	-0.006	35323	8.6	4	13.720	-0.006	22467	8.2
Total CollAve (4 peaks):				48.5		Total Col2Ave (4 peaks):				69.7 RPD = 36

Corrected Ave (3 peaks): 38.3 Corrected Ave (3 peaks): 29.6 RPD = 25

Total PCB Area Col1 (5.936 - 13.808) = 5022584 Col1 Total PCB = 0.8 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 2651095 Col2 Total PCB = 1.2 ppm*

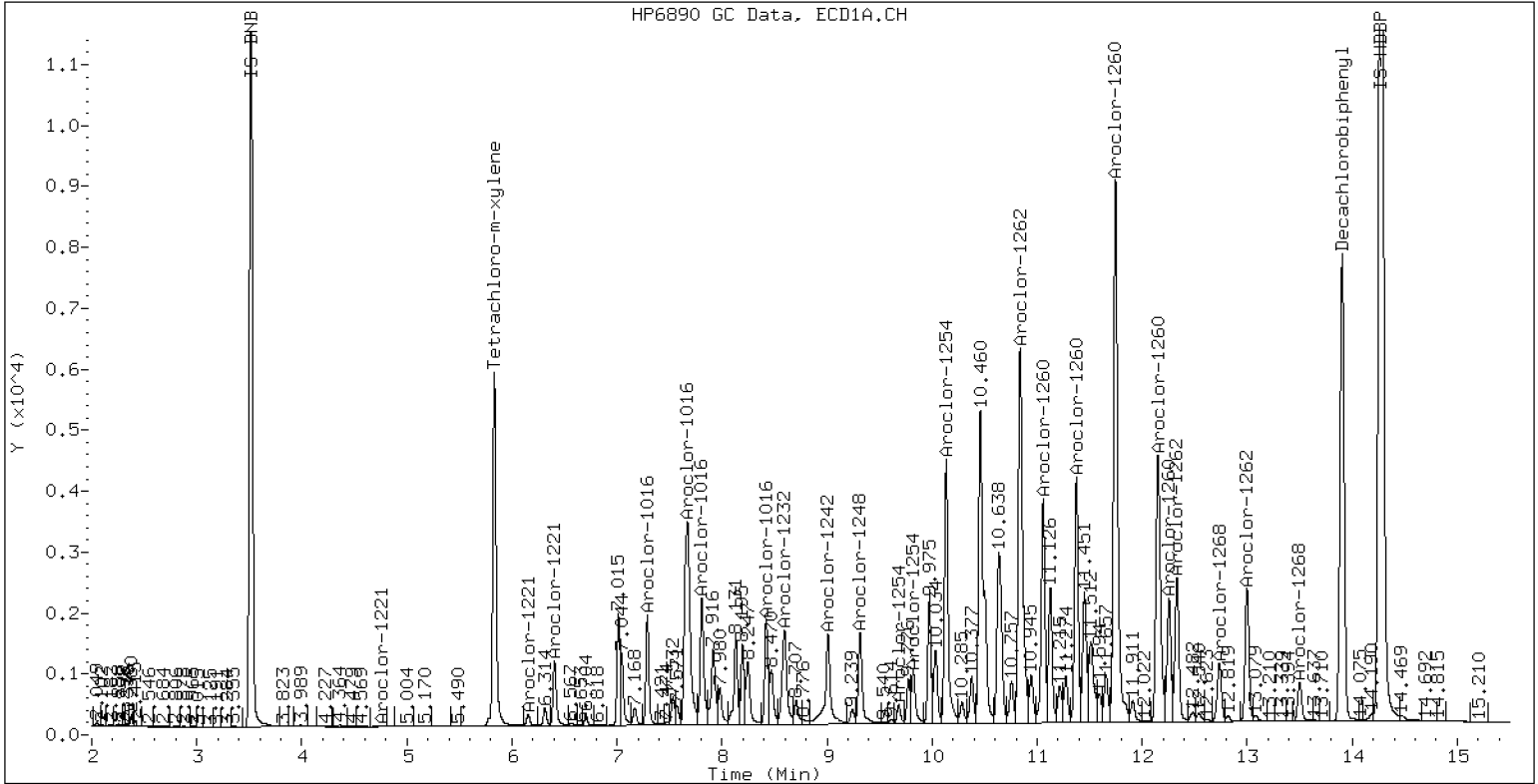
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0156-BSD1

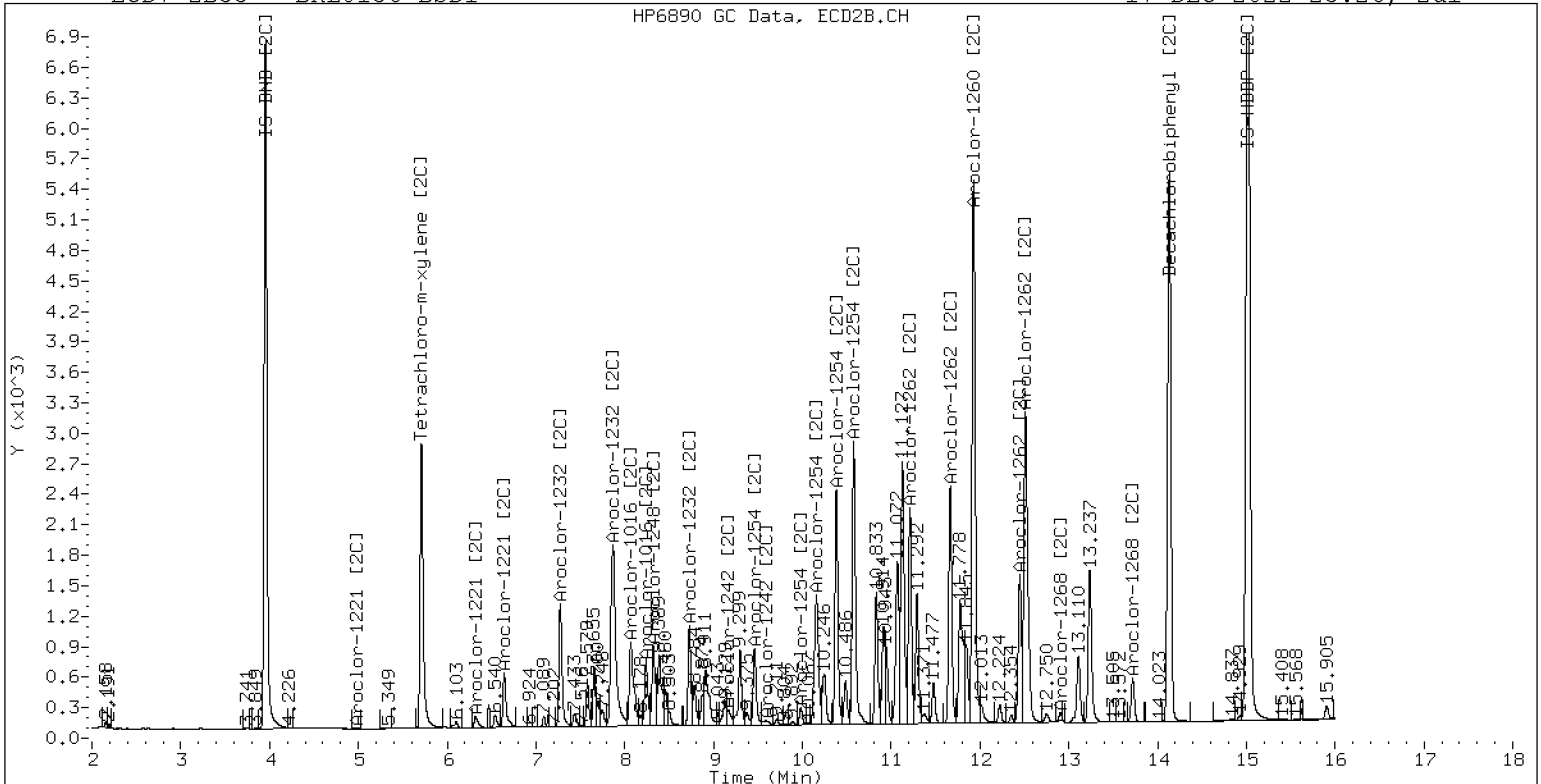
17-DEC-2022 23:26, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 BKL0156-BSD1

17-DEC-2022 23:26, 2u1



ZB-35 Manual Integration: NO



MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>12/20/22 00:07</u>
Batch:	<u>BKL0157</u>	Laboratory ID:	<u>BKL0157-MS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>21.5 g / 2.5 mL</u>	Source Sample:	<u>LDW22-SC775A</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Aroclor 1016	101	ND	U	81.0		80.4	56 - 120
Aroclor 1260	101	15.6		100		83.6	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.



MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>12/20/22 00:29</u>
Batch:	<u>BKL0157</u>	Laboratory ID:	<u>BKL0157-MSD1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>21.5 g / 2.5 mL</u>	Source Sample:	<u>LDW22-SC775A</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016	101	73.9	P1	73.3	9.18	30	56 - 120
Aroclor 1260	101	101		84.6	1.20	30	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192228ECD7.D
Data file 2: /221219.b/221219.b/12192228ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0157-MS1
Client ID:
Injection Date: 20-DEC-2022 00:07
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.830	-0.006	221025	5.708	-0.006	133396	30.2	33.5	10.5	Tetrachloro-m-xylene
13.897	-0.011	204056	14.127	-0.009	184868	41.1	36.0	13.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	517175	15.5
Hexabromobiphenyl	798898	542234	-32.1

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	290598	16.7
Hexabromobiphenyl	362541	361735	-0.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.286	-0.009	74960	434.5	1	7.271	-0.004	62619	421.5
Aroclor-1016	2	7.662	-0.023	225491	404.8	2	7.860	-0.010	136637	426.4
Aroclor-1016	3	7.800	-0.018	85114	337.2	3	8.061	-0.009	52846	384.0
Aroclor-1016	4	8.414	-0.015	71340	443.4	4	8.230	-0.011	35793	494.6
Total CollAve (4 peaks):				405.0	Total Col2Ave (4 peaks):				431.6	RPD = 6
Corrected Ave (3 peaks):				392.2	Corrected Ave (3 peaks):				410.6	RPD = 5
Aroclor-1221	1	4.804	0.044	12800	299.4	1	4.975	-0.012	1358	55.4
Aroclor-1221	2	6.150	-0.009	11451	152.0	2	6.319	-0.003	6299	134.8
Aroclor-1221	3	6.401	-0.008	51512	296.5	3	6.639	-0.006	32866	417.8
Total CollAve (3 peaks):				249.3	Total Col2Ave (3 peaks):				202.7	RPD = 21
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	4.804	0.042	12800	497.5	1	4.975	-0.014	1358	96.1
Aroclor-1232	2	6.150	-0.010	11451	210.7	2	7.271	-0.006	62619	867.7
Aroclor-1232	3	7.662	-0.022	225491	923.9	3	7.860	-0.016	136637	968.5
Aroclor-1232	4	8.584	-0.022	76555	739.3	4	8.722	-0.012	46692	1220.7
Total CollAve (4 peaks):				592.8	Total Col2Ave (4 peaks):				788.2	RPD = 28
Corrected Ave (3 peaks):				482.5	Corrected Ave (3 peaks):				644.1	RPD = 29
Aroclor-1242	1	7.286	-0.009	74960	511.4	1	7.271	-0.006	62619	509.1
Aroclor-1242	2	7.662	-0.023	225491	484.5	2	7.860	-0.014	136637	523.3
Aroclor-1242	3	8.414	-0.015	71340	532.7	3	9.155	-0.023	24107	286.2
Aroclor-1242	4	9.002	-0.029	66945	240.8	4	9.574	-0.032	13632	134.7
Total CollAve (4 peaks):				442.3	Total Col2Ave (4 peaks):				363.3	RPD = 20
Corrected Ave (3 peaks):				412.2	Corrected Ave (3 peaks):				310.0	RPD = 28
Aroclor-1248	1	8.414	-0.013	71340	320.8	1	8.317	-0.009	42727	359.9
Aroclor-1248	2	8.584	-0.021	76555	269.6	2	8.722	-0.010	46692	374.0
Aroclor-1248	3	9.002	-0.021	66945	131.1	3	9.155	-0.023	24107	158.7
Aroclor-1248	4	9.302	-0.009	72539	289.9	4	9.574	-0.029	13632	76.5
Total CollAve (4 peaks):				252.9	Total Col2Ave (4 peaks):				242.3	RPD = 4
Corrected Ave (3 peaks):				230.2	Corrected Ave (3 peaks):				198.4	RPD = 15
Aroclor-1254	1	9.302	-0.019	72539	159.3	1	9.454	-0.012	43417	231.7
Aroclor-1254	2	9.422	0.021	5388	30.4	2	9.972	-0.015	14830	98.5
Aroclor-1254	3	9.674	-0.020	38615	134.3	3	10.151	0.011	44319	136.9
Aroclor-1254	4	9.802	-0.029	91113	162.5	4	10.376	-0.014	110665	330.0
Aroclor-1254	5	10.125	-0.064	171638	446.6	5	10.569	-0.017	119177	736.9
Total CollAve (5 peaks):				186.6	Total Col2Ave (5 peaks):				306.8	RPD = 49*
Corrected Ave (4 peaks):				121.6	Corrected Ave (4 peaks):				199.3	RPD = 48*
Aroclor-1260	1	11.046	-0.016	108238	548.4	1	11.658	-0.011	76074	398.4
Aroclor-1260	2	11.358	-0.019	91082	446.2	2	11.918	-0.014	205293	428.5
Aroclor-1260	3	11.731	-0.021	262563	489.5	3	12.437	-0.014	64575	506.1
Aroclor-1260	4	12.132	-0.026	136234	498.7	4	12.503	-0.014	131582	412.0
Aroclor-1260	5	12.246	-0.015	58629	524.3	NS	---			----
Total CollAve (5 peaks):				501.4	Total Col2Ave (4 peaks):				436.2	RPD = 14
Corrected Ave (4 peaks):				489.7	Corrected Ave (3 peaks):				412.9	RPD = 17
Aroclor-1262	1	10.822	-0.026	233060	1285.3	1	11.204	-0.013	70859	257.6
Aroclor-1262	2	12.246	-0.016	58629	208.0	2	11.658	-0.012	76074	319.3
Aroclor-1262	3	12.319	-0.018	69107	229.5	3	12.437	-0.014	64575	245.7
Aroclor-1262	4	12.985	-0.020	57641	238.5	4	12.503	-0.017	131582	319.7
Total CollAve (4 peaks):				490.3	Total Col2Ave (4 peaks):				285.6	RPD = 53*
Corrected Ave (3 peaks):				225.4	Corrected Ave (3 peaks):				274.2	RPD = 20
Aroclor-1268	1	12.246	-0.016	58629	77.3	1	12.437	-0.012	64575	94.6
Aroclor-1268	2	12.319	-0.016	69107	93.1	2	12.503	-0.015	131582	187.9
Aroclor-1268	3	12.721	0.005	34828	57.3	3	12.900	-0.010	3525	13.6
Aroclor-1268	4	13.489	-0.016	17120	9.2	4	13.714	-0.013	19132	10.2
Total CollAve (4 peaks):				59.2	Total Col2Ave (4 peaks):				76.6	RPD = 26

Corrected Ave (3 peaks): 47.9 Corrected Ave (3 peaks): 39.5 RPD = 19

Total PCB Area Col1 (5.936 - 13.808) = 3864952 Col1 Total PCB = 0.6 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 2506776 Col2 Total PCB = 1.2 ppm*

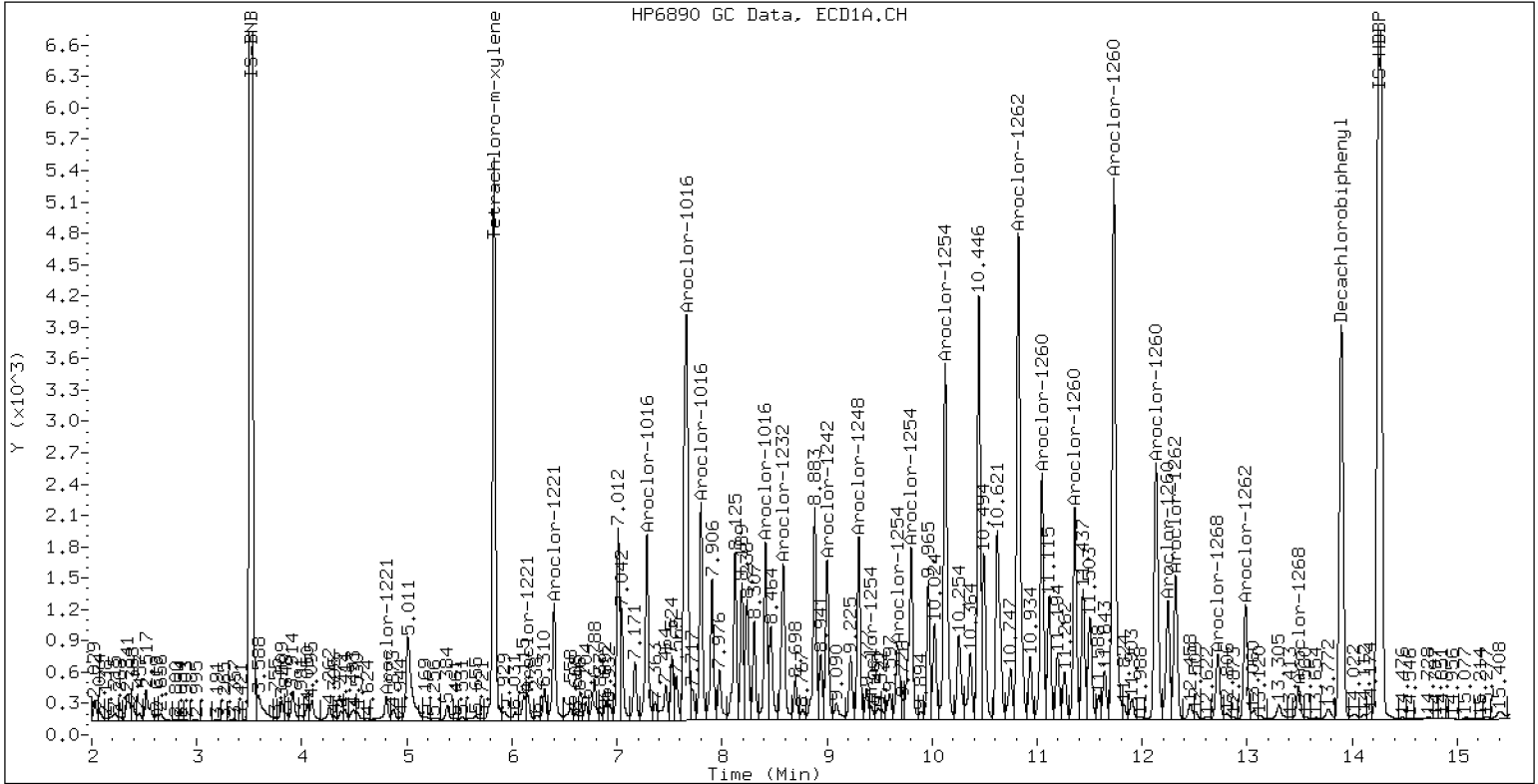
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0157-MS1

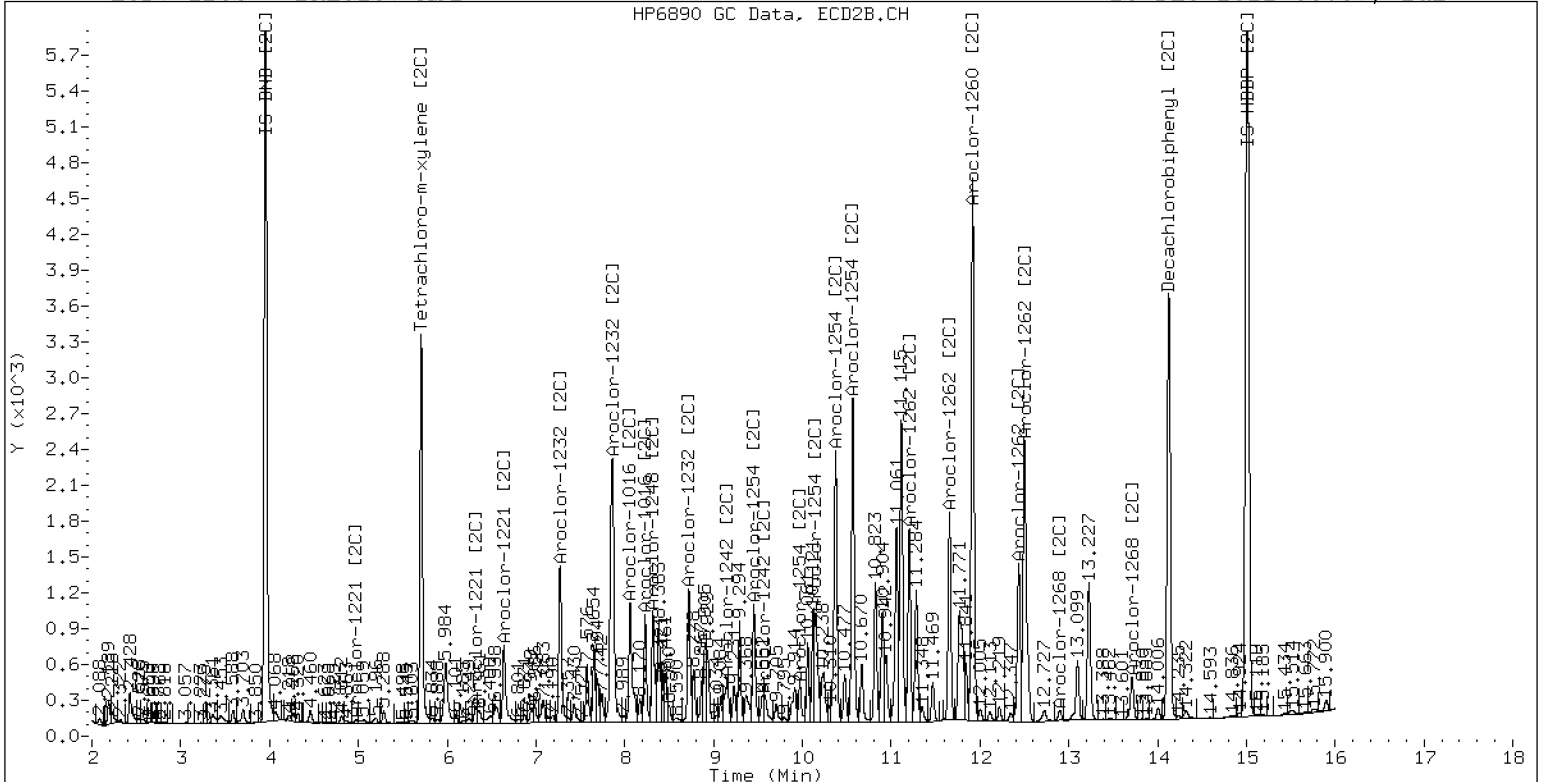
20-DEC-2022 00:07, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 BKL0157-MS1

20-DEC-2022 00:07, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192229ECD7.D
Data file 2: /221219.b/221219.b/12192229ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0157-MSD1
Client ID:
Injection Date: 20-DEC-2022 00:29
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.831	-0.005	219250	5.709	-0.005	131489	30.5	33.4	9.2	Tetrachloro-m-xylene
13.897	-0.011	192466	14.127	-0.010	176891	41.6	36.6	12.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	507666	13.4
Hexabromobiphenyl	798898	504554	-36.8
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	287161	15.3
Hexabromobiphenyl	362541	340430	-6.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.286	-0.008	59620	352.1	1	7.271	-0.004	53614	365.2	
Aroclor-1016	2	7.661	-0.024	203306	371.9	2	7.861	-0.009	116315	367.3	
Aroclor-1016	3	7.799	-0.019	77934	314.6	3	8.061	-0.009	39659	291.6	
Aroclor-1016	4	8.414	-0.015	69373	439.2	4	8.234	-0.008	1162396	16255.6	
Total CollAve (4 peaks):				369.4		Total Col2Ave (4 peaks):				4319.9	RPD = 168*
Corrected Ave (3 peaks):				346.2		Corrected Ave (3 peaks):				341.4	RPD = 1
Aroclor-1221	1	4.807	0.047	120297	2866.5	1	4.981	-0.006	2911	120.1	
Aroclor-1221	2	6.149	-0.010	12818	173.4	2	6.319	-0.003	5707	123.6	
Aroclor-1221	3	6.402	-0.007	60215	353.0	3	6.640	-0.005	25286	325.3	
Total CollAve (3 peaks):				1131.0		Total Col2Ave (3 peaks):				189.7	RPD = 143*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks					
Aroclor-1232	1	4.807	0.046	120297	4762.8	1	4.981	-0.009	2911	208.5	
Aroclor-1232	2	6.149	-0.011	12818	240.3	2	7.271	-0.006	53614	751.8	
Aroclor-1232	3	7.661	-0.023	203306	848.6	3	7.861	-0.015	116315	834.3	
Aroclor-1232	4	8.584	-0.021	80795	794.8	4	8.721	-0.013	44533	1178.1	
Total CollAve (4 peaks):				1661.6		Total Col2Ave (4 peaks):				743.2	RPD = 76*
Corrected Ave (3 peaks):				627.9		Corrected Ave (3 peaks):				598.2	RPD = 5
Aroclor-1242	1	7.286	-0.009	59620	414.3	1	7.271	-0.006	53614	441.1	
Aroclor-1242	2	7.661	-0.024	203306	445.0	2	7.861	-0.014	116315	450.8	
Aroclor-1242	3	8.414	-0.015	69373	527.7	3	9.154	-0.024	20068	241.1	
Aroclor-1242	4	9.003	-0.028	84669	310.2	4	9.580	-0.025	16865	168.6	
Total CollAve (4 peaks):				424.3		Total Col2Ave (4 peaks):				325.4	RPD = 26
Corrected Ave (3 peaks):				389.8		Corrected Ave (3 peaks):				283.6	RPD = 32
Aroclor-1248	1	8.414	-0.013	69373	317.8	1	8.318	-0.009	31387	267.6	
Aroclor-1248	2	8.584	-0.020	80795	289.9	2	8.721	-0.011	44533	360.9	
Aroclor-1248	3	9.003	-0.020	84669	168.9	3	9.154	-0.023	20068	133.7	
Aroclor-1248	4	9.304	-0.008	62942	256.3	4	9.580	-0.022	16865	95.7	
Total CollAve (4 peaks):				258.2		Total Col2Ave (4 peaks):				214.5	RPD = 19
Corrected Ave (3 peaks):				238.4		Corrected Ave (3 peaks):				165.7	RPD = 36
Aroclor-1254	1	9.304	-0.018	62942	140.8	1	9.454	-0.012	41884	226.2	
Aroclor-1254	2	9.424	0.022	5609	32.3	2	9.972	-0.015	13074	87.8	
Aroclor-1254	3	9.674	-0.020	30410	107.7	3	10.150	0.011	20741	64.8	
Aroclor-1254	4	9.803	-0.028	81173	147.5	4	10.375	-0.014	97490	294.2	
Aroclor-1254	5	10.125	-0.065	160499	425.5	5	10.569	-0.018	114916	719.0	
Total CollAve (5 peaks):				170.8		Total Col2Ave (5 peaks):				278.4	RPD = 48*
Corrected Ave (4 peaks):				107.1		Corrected Ave (4 peaks):				168.3	RPD = 44*
Aroclor-1260	1	11.047	-0.016	104495	569.0	1	11.658	-0.011	70954	394.9	
Aroclor-1260	2	11.360	-0.018	87351	459.9	2	11.919	-0.014	196681	436.2	
Aroclor-1260	3	11.731	-0.021	233576	468.0	3	12.438	-0.013	63640	530.0	
Aroclor-1260	4	12.132	-0.026	128658	506.2	4	12.503	-0.014	126121	419.6	
Aroclor-1260	5	12.246	-0.016	55600	534.4	NS	---			----	
Total CollAve (5 peaks):				507.5		Total Col2Ave (4 peaks):				445.2	RPD = 13
Corrected Ave (4 peaks):				492.1		Corrected Ave (3 peaks):				416.9	RPD = 17
Aroclor-1262	1	10.822	-0.026	220148	1304.7	1	11.205	-0.012	63727	246.2	
Aroclor-1262	2	12.246	-0.017	55600	212.0	2	11.658	-0.012	70954	316.5	
Aroclor-1262	3	12.320	-0.017	65598	234.2	3	12.438	-0.013	63640	257.3	
Aroclor-1262	4	12.985	-0.020	54076	240.5	4	12.503	-0.017	126121	325.6	
Total CollAve (4 peaks):				497.8		Total Col2Ave (4 peaks):				286.4	RPD = 54*
Corrected Ave (3 peaks):				228.9		Corrected Ave (3 peaks):				273.3	RPD = 18
Aroclor-1268	1	12.246	-0.016	55600	78.8	1	12.438	-0.011	63640	99.0	
Aroclor-1268	2	12.320	-0.015	65598	95.0	2	12.503	-0.015	126121	191.4	
Aroclor-1268	3	12.722	0.006	33343	58.9	3	12.901	-0.009	3638	14.9	
Aroclor-1268	4	13.490	-0.015	18056	10.4	4	13.713	-0.014	18856	10.7	
Total CollAve (4 peaks):				60.8		Total Col2Ave (4 peaks):				79.0	RPD = 26

Corrected Ave (3 peaks): 49.4 Corrected Ave (3 peaks): 41.5 RPD = 17

Total PCB Area Col1 (5.936 - 13.808) = 12201270 Col1 Total PCB = 2.1 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 8367898 Col2 Total PCB = 4.1 ppm*

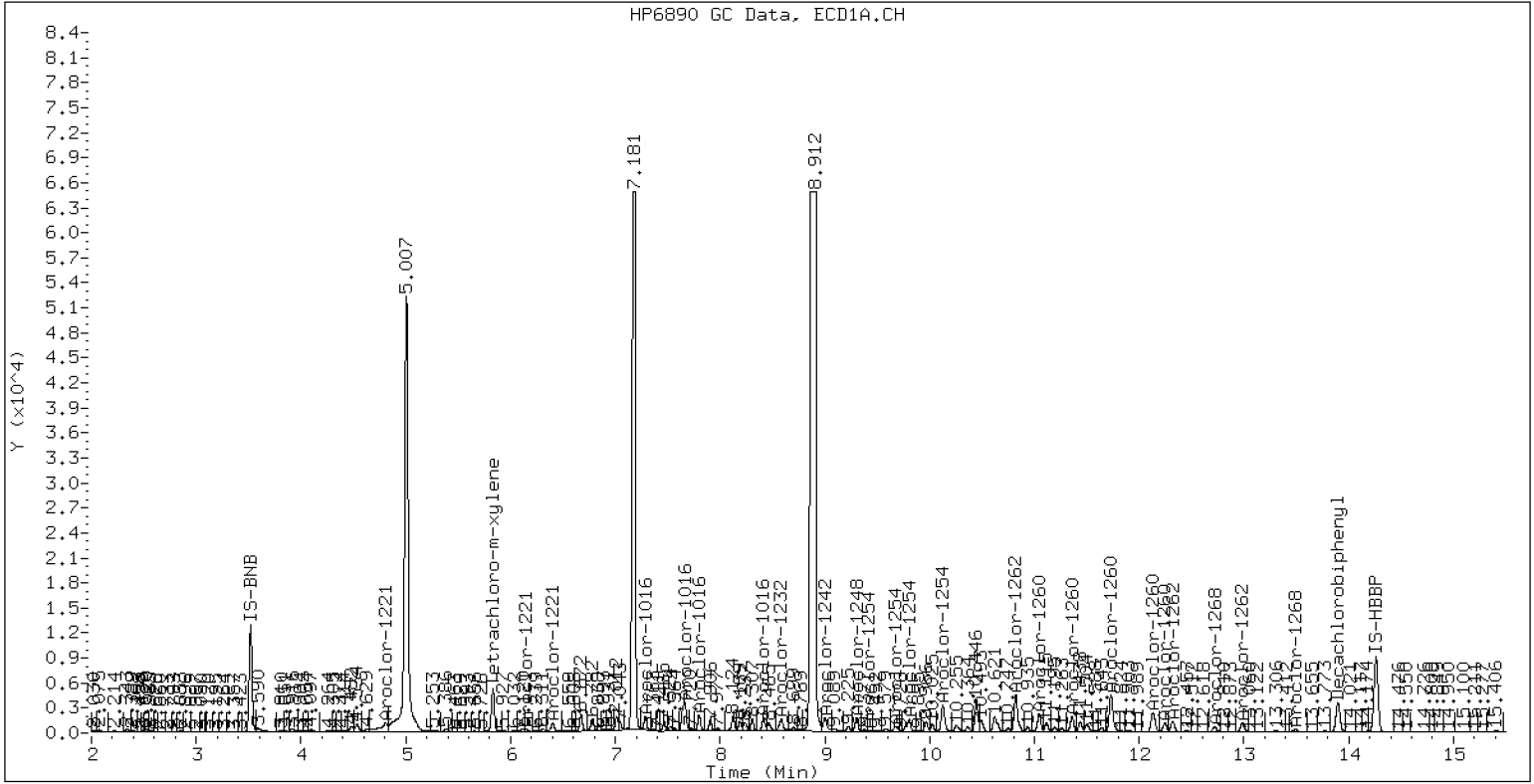
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0157-MSD1

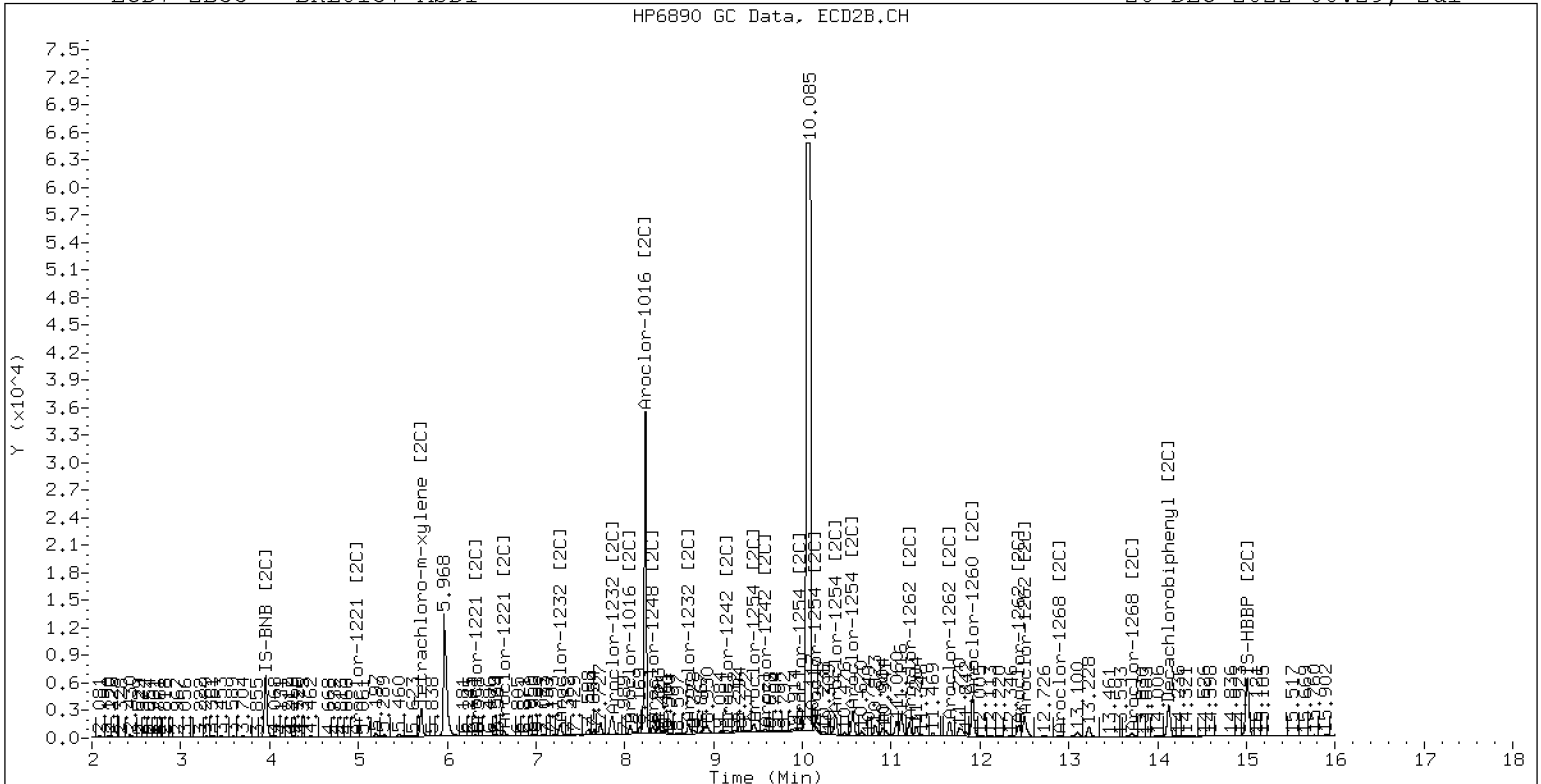
20-DEC-2022 00:29, 2u1



ZB-5 Manual Integration: YES

ECD7-ZB35 BKL0157-MSD1

20-DEC-2022 00:29, 2u1

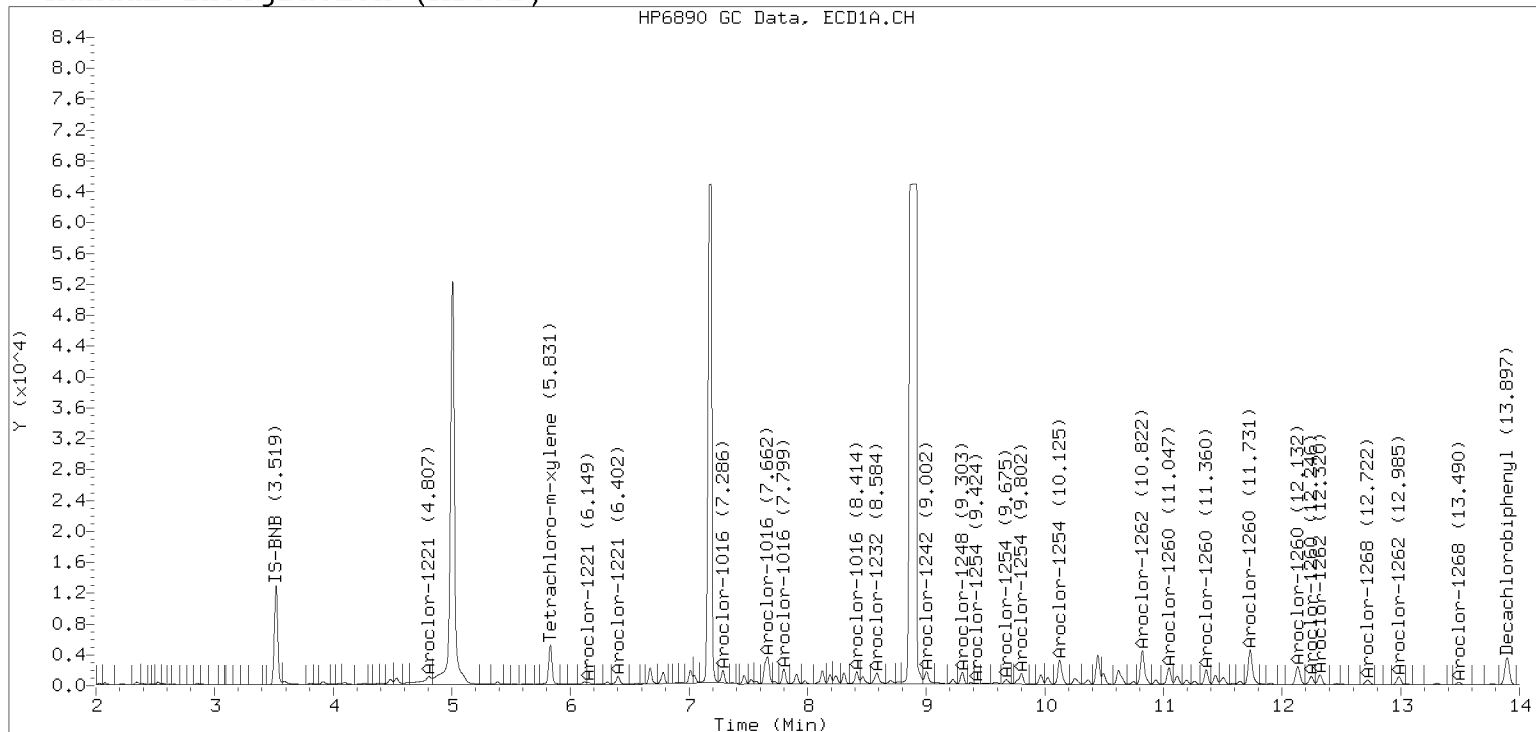


ZB-35 Manual Integration: YES

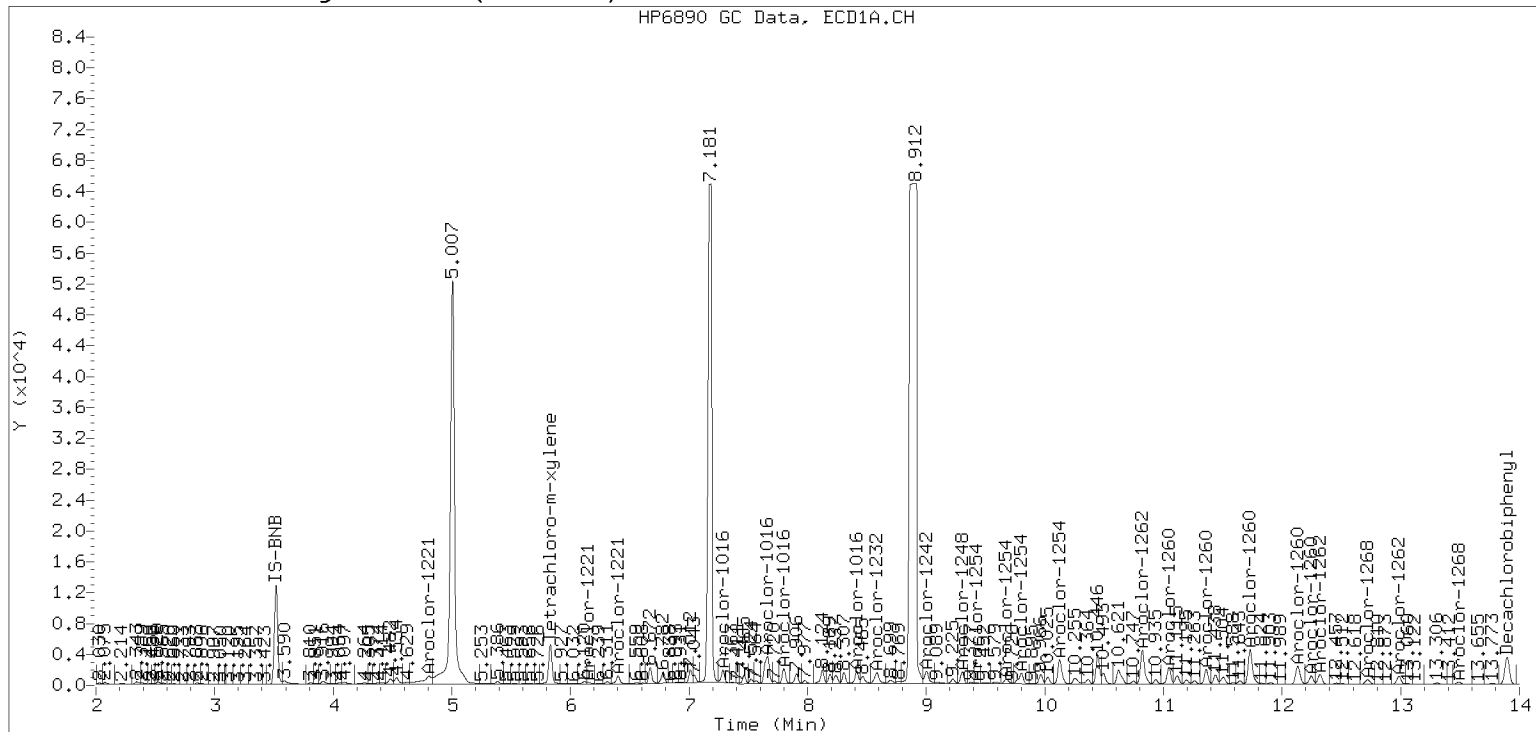
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/221219.b/12192229ECD7.D Injection Date: 20-DEC-2022 00:29

Manual Integration (After)



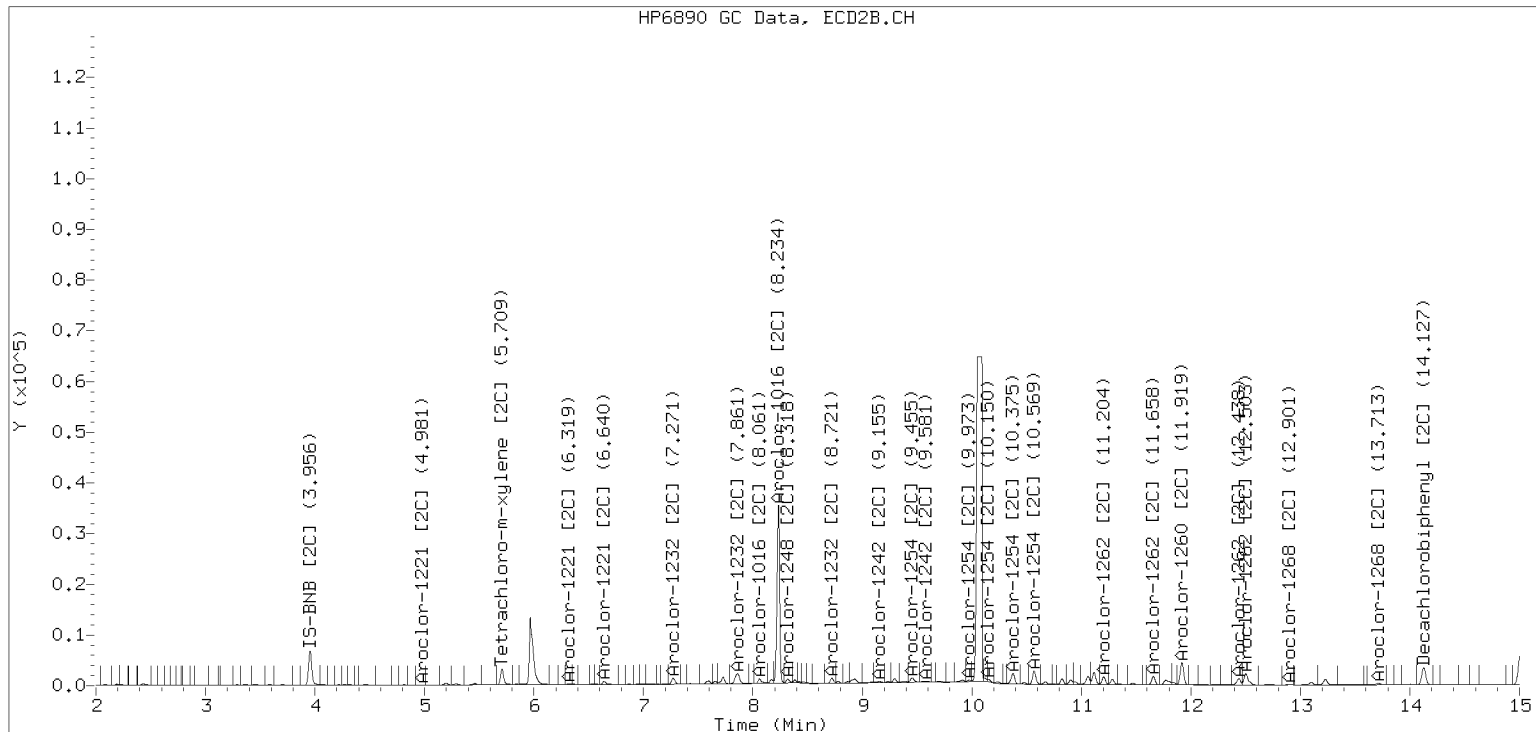
Processed Integration (Before)



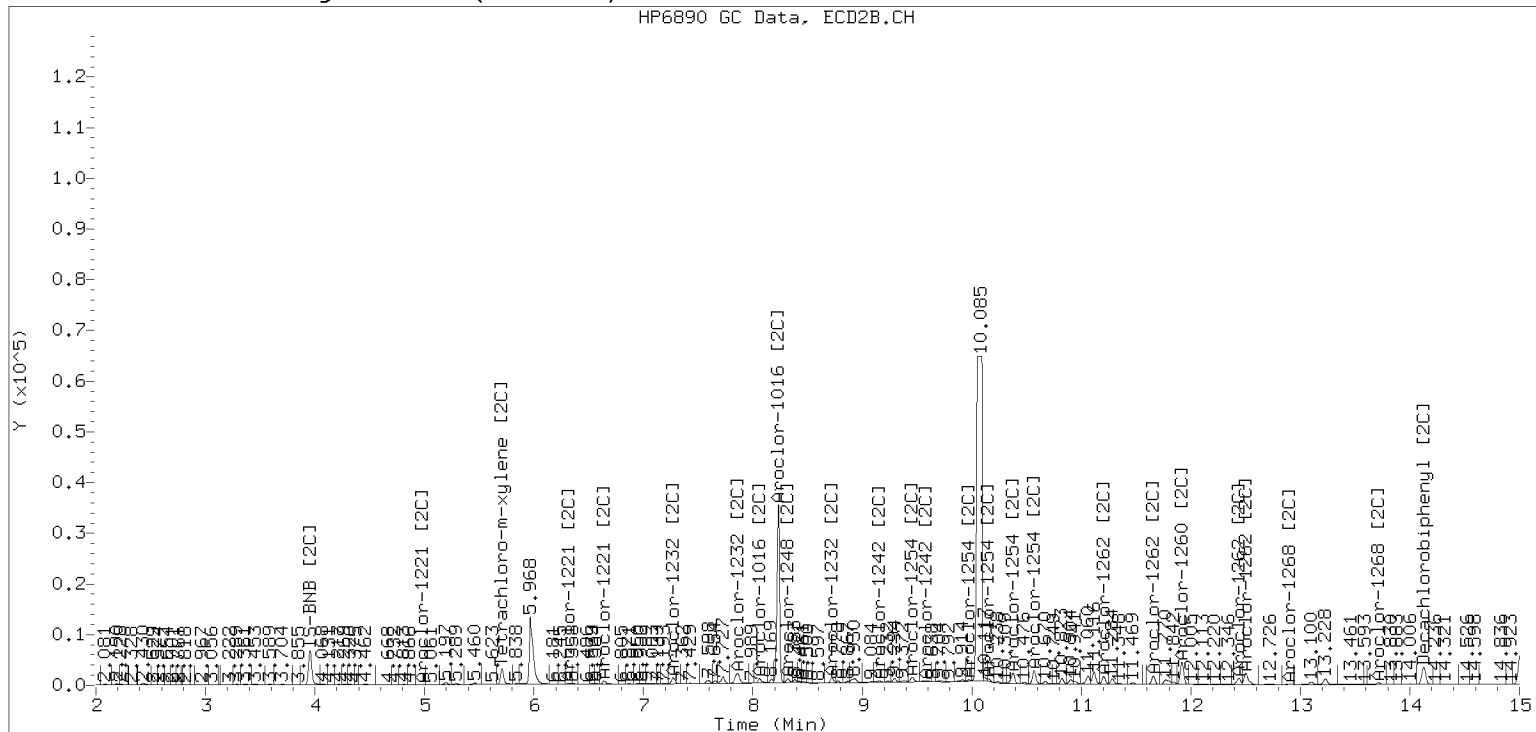
Manual Peak Adjustment, ZB-35

Datafile: ecd7.i/221219.b/221219.b/12192229ECD7.D Injection Date: 20-DEC-2022

Manual Integration (After)



Processed Integration (Before)





MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>12/18/22 00:09</u>
Batch:	<u>BKL0158</u>	Laboratory ID:	<u>BKL0158-MS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>22.99 g / 2.5 mL</u>	Source Sample:	<u>LDW22-SC782C</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Aroclor 1016	101	ND	U	70.4		69.8	56 - 120
Aroclor 1260 [2C]	101	33.9		107		72.5	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.



MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>12/19/22 16:00</u>
Batch:	<u>BKL0158</u>	Laboratory ID:	<u>BKL0158-MSD1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>22.99 g / 2.5 mL</u>	Source Sample:	<u>LDW22-SC782C</u>

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016	101	67.4		66.9	4.26	30	56 - 120
Aroclor 1260 [2C]	101	104		69.2	3.19	30	58 - 120

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172243ECD7.D
Data file 2: /221217.b/221217.b/12172243ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0156-MS1
Client ID:
Injection Date: 18-DEC-2022 00:09
Report Date: 12/20/2022 15:09
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.830	-0.007	193077	5.707	-0.003	113504	27.8	30.2	8.3	Tetrachloro-m-xylene
13.896	-0.011	164090	14.127	-0.007	152465	38.7	33.7	13.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	489754	9.4
Hexabromobiphenyl	798898	462071	-42.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	273902	10.0
Hexabromobiphenyl	362541	318196	-12.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.285	-0.010	60780	372.0	1	7.270	-0.004	51878	370.4
Aroclor-1016	2	7.661	-0.024	179132	339.6	2	7.859	-0.013	116603	386.1
Aroclor-1016	3	7.799	-0.019	67065	280.6	3	8.059	-0.013	44360	342.0
Aroclor-1016	4	8.413	-0.017	63274	415.3	4	8.228	-0.015	27073	396.9
Total CollAve (4 peaks):				351.9		Total Col2Ave (4 peaks):				373.9 RPD = 6
Corrected Ave (3 peaks):				330.7		Corrected Ave (3 peaks):				366.2 RPD = 10
Aroclor-1221	1	4.759	-0.001	960	23.7	1	4.970	-0.017	1798	77.8
Aroclor-1221	2	6.153	-0.005	9627	135.0	2	6.318	-0.004	4855	110.2
Aroclor-1221	3	6.400	-0.008	43326	263.3	3	6.638	-0.007	25629	345.7
Total CollAve (3 peaks):				140.7		Total Col2Ave (3 peaks):				177.9 RPD = 23
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.759	-0.002	960	39.4	1	4.970	-0.019	1798	135.0
Aroclor-1232	2	6.153	-0.006	9627	187.1	2	7.270	-0.007	51878	762.7
Aroclor-1232	3	7.661	-0.023	179132	775.0	3	7.859	-0.017	116603	876.9
Aroclor-1232	4	8.582	-0.023	60778	619.8	4	8.722	-0.012	38648	1072.0
Total CollAve (4 peaks):				405.3		Total Col2Ave (4 peaks):				711.6 RPD = 55*
Corrected Ave (3 peaks):				282.1		Corrected Ave (3 peaks):				591.5 RPD = 71*
Aroclor-1242	1	7.285	-0.010	60780	437.8	1	7.270	-0.005	51878	447.5
Aroclor-1242	2	7.661	-0.024	179132	406.4	2	7.859	-0.014	116603	473.8
Aroclor-1242	3	8.413	-0.017	63274	499.0	3	9.153	-0.021	23275	293.2
Aroclor-1242	4	9.000	-0.031	71753	272.5	4	9.547	-0.051	27173	284.8
Total CollAve (4 peaks):				403.9		Total Col2Ave (4 peaks):				374.8 RPD = 7
Corrected Ave (3 peaks):				372.2		Corrected Ave (3 peaks):				341.8 RPD = 9
Aroclor-1248	1	8.413	-0.015	63274	300.5	1	8.316	-0.008	36623	327.3
Aroclor-1248	2	8.582	-0.022	60778	226.1	2	8.722	-0.008	38648	328.4
Aroclor-1248	3	9.000	-0.022	71753	148.4	3	9.153	-0.022	23275	162.6
Aroclor-1248	4	9.301	-0.010	81722	344.9	4	9.547	-0.051	27173	161.7
Total CollAve (4 peaks):				254.9		Total Col2Ave (4 peaks):				245.0 RPD = 4
Corrected Ave (3 peaks):				225.0		Corrected Ave (3 peaks):				217.2 RPD = 4
Aroclor-1254	1	9.301	-0.020	81722	189.5	1	9.452	-0.012	49844	282.2
Aroclor-1254	2	9.421	0.019	7749	46.2	2	9.971	-0.010	16525	116.4
Aroclor-1254	3	9.671	-0.023	45254	166.2	3	10.148	0.014	47621	156.0
Aroclor-1254	4	9.799	-0.031	102643	193.3	4	10.373	-0.009	121796	385.4
Aroclor-1254	5	10.125	-0.065	187791	516.0	5	10.568	-0.011	130447	855.7
Total CollAve (5 peaks):				222.3		Total Col2Ave (5 peaks):				359.2 RPD = 47*
Corrected Ave (4 peaks):				148.8		Corrected Ave (4 peaks):				235.0 RPD = 45*
Aroclor-1260	1	11.046	-0.016	108984	648.0	1	11.657	-0.010	84745	504.6
Aroclor-1260	2	11.360	-0.017	102745	590.6	2	11.917	-0.013	217978	517.2
Aroclor-1260	3	11.730	-0.021	284430	622.3	3	12.437	-0.012	68517	610.5
Aroclor-1260	4	12.130	-0.028	146931	631.2	4	12.500	-0.013	142500	507.2
Aroclor-1260	5	12.246	-0.016	58496	613.9	NS	---			----
Total CollAve (5 peaks):				621.2		Total Col2Ave (4 peaks):				534.9 RPD = 15
Corrected Ave (4 peaks):				614.5		Corrected Ave (3 peaks):				509.6 RPD = 19
Aroclor-1262	1	10.820	-0.028	259182	1677.3	1	11.204	-0.014	75350	311.4
Aroclor-1262	2	12.246	-0.017	58496	243.5	2	11.657	-0.013	84745	404.4
Aroclor-1262	3	12.318	-0.018	70464	274.6	3	12.437	-0.015	68517	296.4
Aroclor-1262	4	12.983	-0.022	65338	317.3	4	12.500	-0.019	142500	393.6
Total CollAve (4 peaks):				628.2		Total Col2Ave (4 peaks):				351.5 RPD = 56*
Corrected Ave (3 peaks):				278.5		Corrected Ave (3 peaks):				333.8 RPD = 18
Aroclor-1268	1	12.246	-0.017	58496	90.5	1	12.437	-0.013	68517	114.1
Aroclor-1268	2	12.318	-0.017	70464	111.4	2	12.500	-0.017	142500	231.4
Aroclor-1268	3	12.721	0.005	34411	66.4	3	12.898	-0.012	3632	15.9
Aroclor-1268	4	13.488	-0.017	18194	11.5	4	13.712	-0.014	19392	11.8
Total CollAve (4 peaks):				69.9		Total Col2Ave (4 peaks):				93.3 RPD = 29

Corrected Ave (3 peaks): 56.1 Corrected Ave (3 peaks): 47.3 RPD = 17

Total PCB Area Col1 (5.936 - 13.808) = 3718421 Col1 Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2480485 Col2 Total PCB = 1.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192205ECD7.D
Data file 2: /221219.b/221219.b/12192205ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0156-MSD1
Client ID:
Injection Date: 19-DEC-2022 16:00
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.831	-0.005	168025	5.709	-0.005	103572	26.8	28.9	7.8	Tetrachloro-m-xylene
13.896	-0.012	144807	14.128	-0.008	137129	40.2	34.8	14.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	442629	-1.1
Hexabromobiphenyl	798898	393210	-50.8 <-

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	261005	4.8
Hexabromobiphenyl	362541	277618	-23.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.286	-0.009	51599	349.5	1	7.271	-0.004	45407	340.3
Aroclor-1016	2	7.661	-0.023	155644	326.5	2	7.861	-0.010	101227	351.7
Aroclor-1016	3	7.799	-0.018	58184	269.3	3	8.060	-0.010	39862	322.5
Aroclor-1016	4	8.413	-0.016	55563	403.5	4	8.231	-0.010	28201	433.9
Total CollAve (4 peaks):				337.2		Total Col2Ave (4 peaks):				362.1 RPD = 7
Corrected Ave (3 peaks):				315.1		Corrected Ave (3 peaks):				338.2 RPD = 7
Aroclor-1221	1	4.762	0.002	448	12.2	1	4.972	-0.015	1574	71.5
Aroclor-1221	2	6.153	-0.006	6787	105.3	2	6.318	-0.003	6819	162.4
Aroclor-1221	3	6.402	-0.007	32811	220.6	3	6.640	-0.005	22834	323.2
Total CollAve (3 peaks):				112.7		Total Col2Ave (3 peaks):				185.7 RPD = 49*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	4.762	0.001	448	20.3	1	4.972	-0.017	1574	124.0
Aroclor-1232	2	6.153	-0.006	6787	145.9	2	7.271	-0.006	45407	700.5
Aroclor-1232	3	7.661	-0.022	155644	745.1	3	7.861	-0.016	101227	798.9
Aroclor-1232	4	8.583	-0.022	52538	592.8	4	8.722	-0.011	33248	967.7
Total CollAve (4 peaks):				376.0		Total Col2Ave (4 peaks):				647.8 RPD = 53*
Corrected Ave (3 peaks):				253.0		Corrected Ave (3 peaks):				541.1 RPD = 73*
Aroclor-1242	1	7.286	-0.009	51599	411.3	1	7.271	-0.006	45407	411.1
Aroclor-1242	2	7.661	-0.024	155644	390.7	2	7.861	-0.014	101227	431.7
Aroclor-1242	3	8.413	-0.016	55563	484.8	3	9.155	-0.023	20436	270.1
Aroclor-1242	4	9.001	-0.030	63519	266.9	4	9.548	-0.057	25466	280.1
Total CollAve (4 peaks):				388.4		Total Col2Ave (4 peaks):				348.2 RPD = 11
Corrected Ave (3 peaks):				356.3		Corrected Ave (3 peaks):				320.4 RPD = 11
Aroclor-1248	1	8.413	-0.014	55563	292.0	1	8.318	-0.008	33227	311.6
Aroclor-1248	2	8.583	-0.021	52538	216.2	2	8.722	-0.010	33248	296.5
Aroclor-1248	3	9.001	-0.021	63519	145.3	3	9.155	-0.022	20436	149.8
Aroclor-1248	4	9.302	-0.009	71973	336.1	4	9.548	-0.054	25466	159.0
Total CollAve (4 peaks):				247.4		Total Col2Ave (4 peaks):				229.2 RPD = 8
Corrected Ave (3 peaks):				217.8		Corrected Ave (3 peaks):				201.8 RPD = 8
Aroclor-1254	1	9.302	-0.019	71973	184.7	1	9.454	-0.013	44163	262.4
Aroclor-1254	2	9.422	0.020	7863	51.9	2	9.972	-0.015	14628	108.1
Aroclor-1254	3	9.673	-0.021	40653	165.2	3	10.149	0.010	41502	142.7
Aroclor-1254	4	9.801	-0.030	89602	186.7	4	10.375	-0.014	107005	355.3
Aroclor-1254	5	10.254	0.065	28892	87.8	5	10.569	-0.017	113502	781.4
Total CollAve (5 peaks):				135.3		Total Col2Ave (5 peaks):				330.0 RPD = 84*
Corrected Ave (4 peaks):				122.4		Corrected Ave (4 peaks):				217.1 RPD = 56*
Aroclor-1260	1	11.046	-0.016	92175	644.0	1	11.658	-0.011	71848	490.3
Aroclor-1260	2	11.361	-0.016	85419	577.0	2	11.919	-0.014	185675	504.9
Aroclor-1260	3	11.731	-0.021	236280	607.5	3	12.439	-0.013	57511	587.3
Aroclor-1260	4	12.132	-0.026	119325	602.4	4	12.502	-0.015	120060	489.8
Aroclor-1260	5	12.246	-0.016	48471	597.8	NS	---			----
Total CollAve (5 peaks):				605.7		Total Col2Ave (4 peaks):				518.1 RPD = 16
Corrected Ave (4 peaks):				596.2		Corrected Ave (3 peaks):				495.0 RPD = 19
Aroclor-1262	1	10.821	-0.027	216005	1642.7	1	11.205	-0.012	65413	309.9
Aroclor-1262	2	12.246	-0.017	48471	237.1	2	11.658	-0.012	71848	393.0
Aroclor-1262	3	12.320	-0.017	57018	261.2	3	12.439	-0.013	57511	285.2
Aroclor-1262	4	12.985	-0.020	51463	293.7	4	12.502	-0.017	120060	380.1
Total CollAve (4 peaks):				608.7		Total Col2Ave (4 peaks):				342.0 RPD = 56*
Corrected Ave (3 peaks):				264.0		Corrected Ave (3 peaks):				325.0 RPD = 21
Aroclor-1268	1	12.246	-0.017	48471	88.1	1	12.439	-0.011	57511	109.7
Aroclor-1268	2	12.320	-0.015	57018	105.9	2	12.502	-0.015	120060	223.4
Aroclor-1268	3	12.722	0.005	27780	63.0	3	12.898	-0.011	3477	17.5
Aroclor-1268	4	13.489	-0.016	14618	10.9	4	13.713	-0.014	16381	11.4
Total CollAve (4 peaks):				67.0		Total Col2Ave (4 peaks):				90.5 RPD = 30

Corrected Ave (3 peaks): 54.0 Corrected Ave (3 peaks): 46.2 RPD = 16

Total PCB Area Col1 (5.936 - 13.808) = 3100703 Col1 Total PCB = 0.6 ppm*
Total PCB Area Col2 (5.936 - 13.808) = 2135505 Col2 Total PCB = 1.1 ppm*

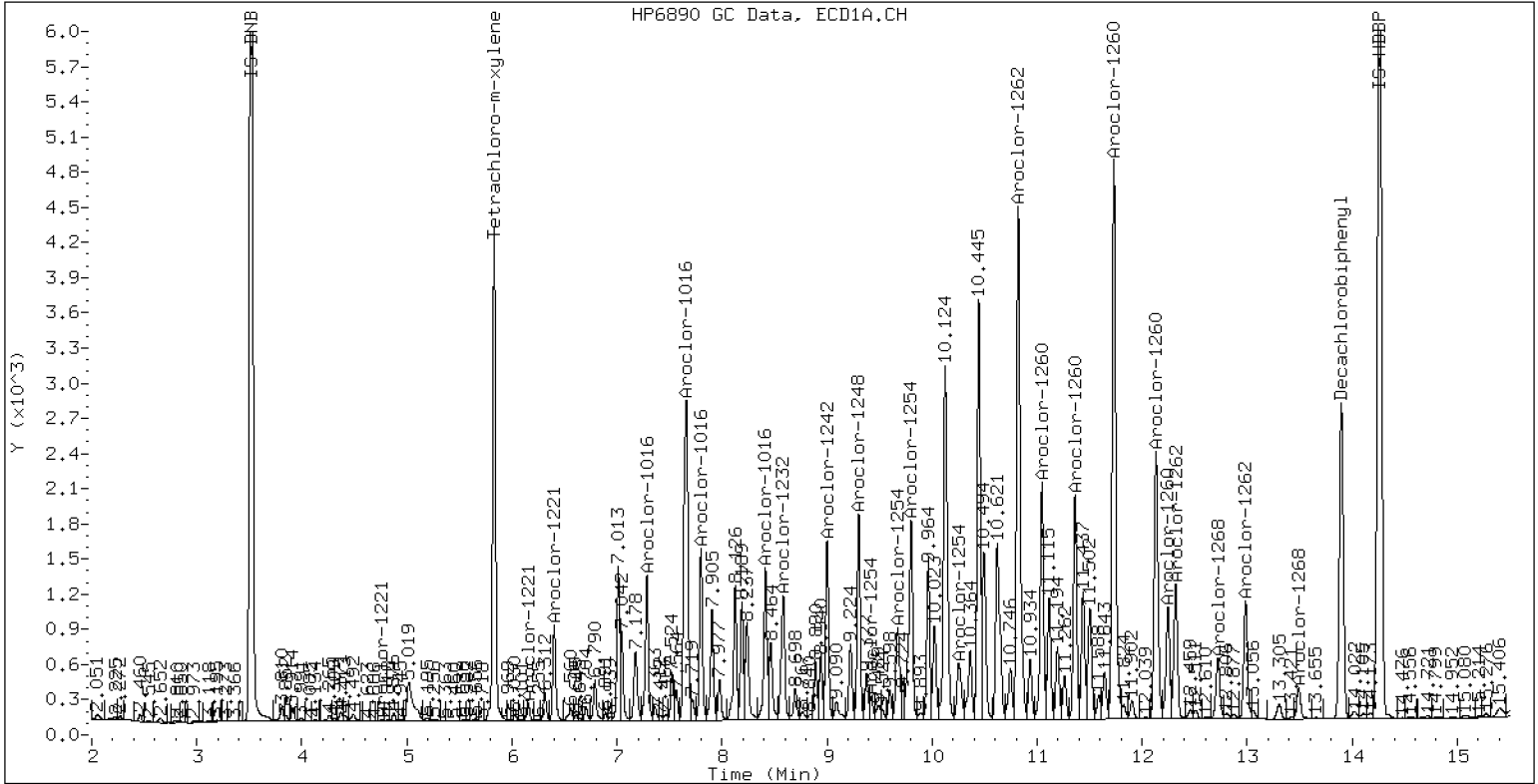
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0156-MSD1

19-DEC-2022 16:00, 2u1





STANDARD REFERENCE MATERIAL RECOVERY

EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0157-SRM1

Batch: BKL0157

Initial/Final: 2.5 g / 2.5 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 12/20/2022 0:50

Standard ID: J006841

Expires: 12/28/2021

Standard Lot#: PSRM0135

Description: Puget Sound reference-SRM

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Aroclor 1260	108.00	145	2.9	20.0		135	38 - 167
Aroclor 1260 [2C]	108.00	136	2.9	20.0		126	38 - 167

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192230ECD7.D
Data file 2: /221219.b/221219.b/12192230ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0157-SRM1
Client ID:
Injection Date: 20-DEC-2022 00:50
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.004	240781	5.709	-0.004	134092	32.0	31.9	0.2	Tetrachloro-m-xylene
13.899	-0.009	262887	14.129	-0.008	215867	40.1	36.3	10.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	531248	18.7
Hexabromobiphenyl	798898	715569	-10.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	306509	23.0
Hexabromobiphenyl	362541	419182	15.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.325	0.030	2260	12.8	1	7.279	0.004	6818	43.5	
Aroclor-1016	2	7.666	-0.019	10295	18.0	2	7.861	-0.010	12439	36.8	
Aroclor-1016	3	7.812	-0.006	5986	23.1	3	8.064	-0.006	2134	14.7	
Aroclor-1016	4	8.418	-0.011	10434	63.1	4	8.232	-0.009	4367	57.2	
Total CollAve (4 peaks):				29.2	Total Col2Ave (4 peaks):				38.1	RPD = 26	
Corrected Ave (3 peaks):				17.9	Corrected Ave (3 peaks):				31.7	RPD = 55*	
Aroclor-1221	1	4.815	0.055	267	6.1	1	4.973	-0.014	1079	41.7	
Aroclor-1221	2	6.192	0.033	919	11.9	2	6.364	0.043	7151	145.0	
Aroclor-1221	3	6.407	-0.002	3544	19.9	3	6.659	0.014	4246	51.2	
Total CollAve (3 peaks):				12.6	Total Col2Ave (3 peaks):				79.3	RPD = 145*	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						
Aroclor-1232	1	4.815	0.054	267	10.1	1	4.973	-0.016	1079	72.4	
Aroclor-1232	2	6.192	0.032	919	16.5	2	7.279	0.002	6818	89.6	
Aroclor-1232	3	7.666	-0.018	10295	41.1	3	7.861	-0.016	12439	83.6	
Aroclor-1232	4	8.587	-0.019	10819	101.7	4	8.723	-0.011	6766	167.7	
Total CollAve (4 peaks):				42.3	Total Col2Ave (4 peaks):				103.3	RPD = 84*	
Corrected Ave (3 peaks):				22.5	Corrected Ave (3 peaks):				81.9	RPD = 114*	
Aroclor-1242	1	7.325	0.030	2260	15.0	1	7.279	0.002	6818	52.6	
Aroclor-1242	2	7.666	-0.019	10295	21.5	2	7.861	-0.014	12439	45.2	
Aroclor-1242	3	8.418	-0.012	10434	75.9	3	9.160	-0.018	7365	82.9	
Aroclor-1242	4	9.005	-0.026	21923	76.8	4	9.552	-0.054	10714	100.3	
Total CollAve (4 peaks):				47.3	Total Col2Ave (4 peaks):				70.2	RPD = 39	
Corrected Ave (3 peaks):				37.5	Corrected Ave (3 peaks):				60.2	RPD = 47*	
Aroclor-1248	1	8.418	-0.009	10434	45.7	1	8.319	-0.007	6212	49.6	
Aroclor-1248	2	8.587	-0.018	10819	37.1	2	8.723	-0.010	6766	51.4	
Aroclor-1248	3	9.005	-0.017	21923	41.8	3	9.160	-0.017	7365	46.0	
Aroclor-1248	4	9.306	-0.005	29390	114.3	4	9.552	-0.051	10714	57.0	
Total CollAve (4 peaks):				59.7	Total Col2Ave (4 peaks):				51.0	RPD = 16	
Corrected Ave (3 peaks):				41.5	Corrected Ave (3 peaks):				49.0	RPD = 16	
Aroclor-1254	1	9.306	-0.015	29390	62.8	1	9.457	-0.010	16661	84.3	
Aroclor-1254	2	9.382	-0.020	11039	60.7	2	9.975	-0.012	7626	48.0	
Aroclor-1254	3	9.676	-0.018	17382	58.8	3	10.126	-0.013	33231	97.3	
Aroclor-1254	4	9.808	-0.023	40476	70.3	4	10.376	-0.013	41572	117.5	
Aroclor-1254	5	10.128	-0.061	66326	168.0	5	10.571	-0.015	42705	250.3	
Total CollAve (5 peaks):				84.1	Total Col2Ave (5 peaks):				119.5	RPD = 35	
Corrected Ave (4 peaks):				63.2	Corrected Ave (4 peaks):				86.8	RPD = 32	
Aroclor-1260	1	11.050	-0.013	40354	154.9	1	11.660	-0.009	29568	133.6	
Aroclor-1260	2	11.363	-0.014	34804	129.2	2	11.920	-0.013	71022	127.9	
Aroclor-1260	3	11.734	-0.017	101578	143.5	3	12.439	-0.012	23029	155.8	
Aroclor-1260	4	12.136	-0.022	56221	156.0	4	12.504	-0.012	46860	126.6	
Aroclor-1260	5	12.249	-0.013	21081	142.9	NS	---			----	
Total CollAve (5 peaks):				145.3	Total Col2Ave (4 peaks):				136.0	RPD = 7	
Corrected Ave (4 peaks):				142.6	Corrected Ave (3 peaks):				129.4	RPD = 10	
Aroclor-1262	1	10.826	-0.022	90171	376.8	1	11.206	-0.011	27715	87.0	
Aroclor-1262	2	12.249	-0.014	21081	56.7	2	11.660	-0.010	29568	107.1	
Aroclor-1262	3	12.322	-0.014	25898	65.2	3	12.439	-0.012	23029	75.6	
Aroclor-1262	4	12.987	-0.018	23906	75.0	4	12.504	-0.015	46860	98.2	
Total CollAve (4 peaks):				143.4	Total Col2Ave (4 peaks):				92.0	RPD = 44*	
Corrected Ave (3 peaks):				65.6	Corrected Ave (3 peaks):				86.9	RPD = 28	
Aroclor-1268	1	12.249	-0.014	21081	21.1	1	12.439	-0.010	23029	29.1	
Aroclor-1268	2	12.322	-0.013	25898	26.4	2	12.504	-0.013	46860	57.8	
Aroclor-1268	3	12.726	0.010	11752	14.6	3	12.903	-0.007	696	2.3	
Aroclor-1268	4	13.492	-0.013	3981	1.6	4	13.714	-0.012	4923	2.3	
Total CollAve (4 peaks):				15.9	Total Col2Ave (4 peaks):				22.9	RPD = 36	

Corrected Ave (3 peaks): 12.4 Corrected Ave (3 peaks): 11.2 RPD = 10

Total PCB Area Col1 (5.936 - 13.808) = 1312451 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 822076 Col2 Total PCB = 0.4 ppm*

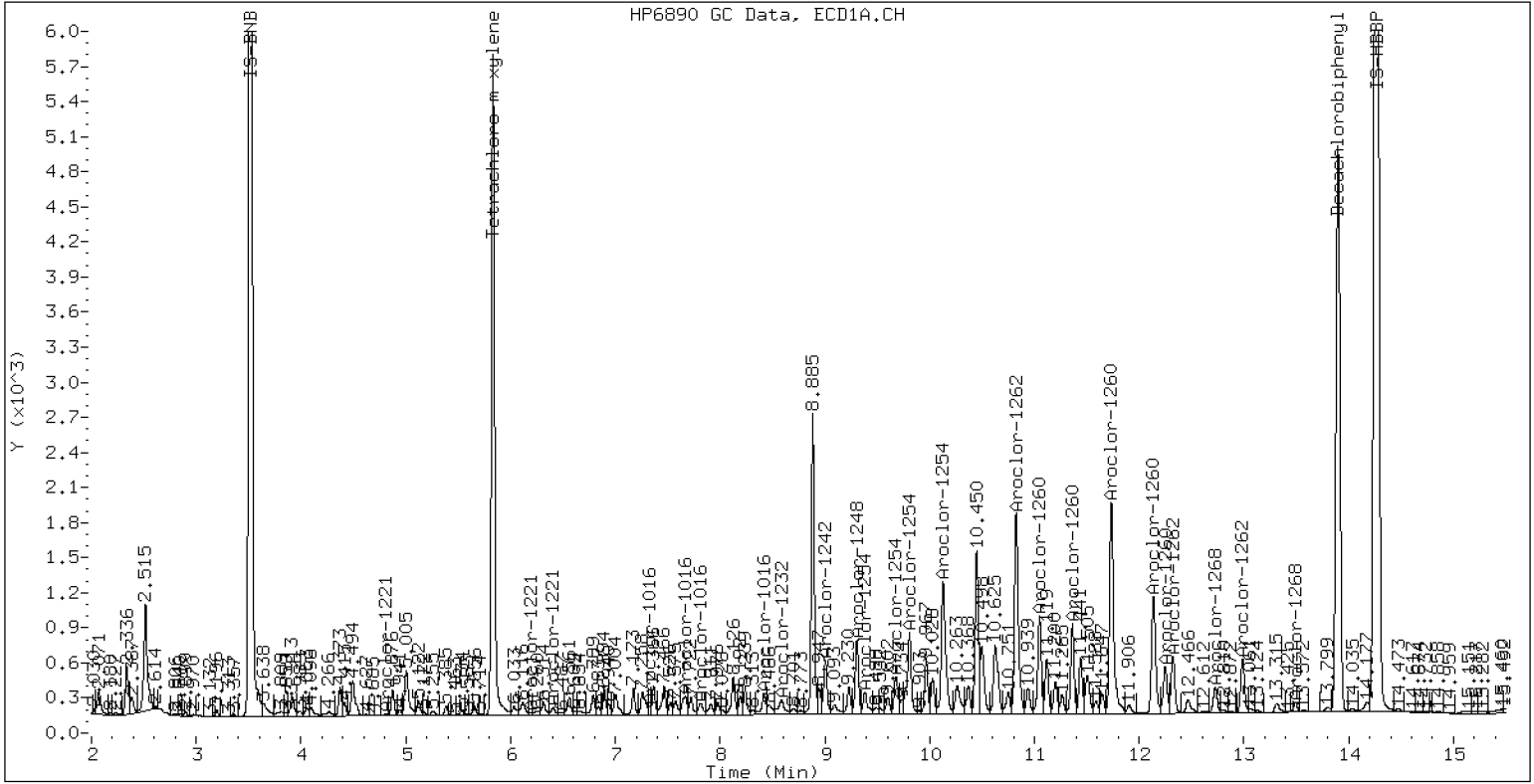
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0157-SRM1

20-DEC-2022 00:50, 2u1





STANDARD REFERENCE MATERIAL RECOVERY

EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0158-SRM1

Batch: BKL0158

Initial/Final: 2.5 g / 2.5 mL

Preparation: EPA 3546 (Microwave)

Analyzed: 12/17/2022 23:47

Standard ID: J006841

Expires: 12/28/2021

Standard Lot#: PSRM0135

Description: Puget Sound reference-SRM

ANALYTE	TRUE (ug/kg wet)	FOUND (ug/kg wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Aroclor 1260	108.00	116	2.9	20.0		107	38 - 167
Aroclor 1260 [2C]	108.00	112	2.9	20.0		103	38 - 167

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172242ECD7.D
Data file 2: /221217.b/221217.b/12172242ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: BKL0156-SRM1
Client ID:
Injection Date: 17-DEC-2022 23:47
Report Date: 12/20/2022 15:09
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.832	-0.004	245646	5.709	-0.001	135231	31.7	32.0	0.8	Tetrachloro-m-xylene
13.899	-0.009	307916	14.128	-0.005	228457	39.8	35.2	12.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	546077	22.0
Hexabromobiphenyl	798898	844558	5.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	308357	23.8
Hexabromobiphenyl	362541	456529	25.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.283	-0.011	4958	27.2	1	7.275	0.001	2919	18.5	
Aroclor-1016	2	7.667	-0.017	12618	21.5	2	7.867	-0.006	11173	32.9	
Aroclor-1016	3	7.806	-0.012	4857	18.2	3	8.065	-0.007	8772	60.1	
Aroclor-1016	4	8.417	-0.012	13076	77.0	4	8.231	-0.013	171533	2233.9	
Total CollAve (4 peaks):				36.0	Total Col2Ave (4 peaks):				586.3	RPD = 177*	
Corrected Ave (3 peaks):				22.3	Corrected Ave (3 peaks):				37.1	RPD = 50*	
Aroclor-1221	1	---			0.0	1	4.974	-0.013	1215	46.7	
Aroclor-1221	2	6.185	0.027	669	8.4	2	6.350	0.028	2347	47.3	
Aroclor-1221	3	6.408	-0.001	1461	8.0	3	6.660	0.014	1661	19.9	
CollAve: <3 Quant Peaks					Col2Ave:				38.0		
Aroclor-1232	1	---			0.0	1	4.974	-0.015	1215	81.0	
Aroclor-1232	2	6.185	0.026	669	11.7	2	7.275	-0.001	2919	38.1	
Aroclor-1232	3	7.667	-0.016	12618	49.0	3	7.867	-0.010	11173	74.6	
Aroclor-1232	4	8.585	-0.021	17800	162.8	4	8.724	-0.010	23807	586.5	
Total CollAve (3 peaks):				74.5	Total Col2Ave (4 peaks):				195.1	RPD = 89*	
Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				64.6		
Aroclor-1242	1	7.283	-0.011	4958	32.0	1	7.275	0.001	2919	22.4	
Aroclor-1242	2	7.667	-0.018	12618	25.7	2	7.867	-0.006	11173	40.3	
Aroclor-1242	3	8.417	-0.013	13076	92.5	3	9.162	-0.013	19564	218.9	
Aroclor-1242	4	9.003	-0.028	45689	155.6	4	9.583	-0.014	12975	120.8	
Total CollAve (4 peaks):				76.4	Total Col2Ave (4 peaks):				100.6	RPD = 27	
Corrected Ave (3 peaks):				50.1	Corrected Ave (3 peaks):				61.2	RPD = 20	
Aroclor-1248	1	8.417	-0.010	13076	55.7	1	8.319	-0.005	9975	79.2	
Aroclor-1248	2	8.585	-0.020	17800	59.4	2	8.724	-0.007	23807	179.7	
Aroclor-1248	3	9.003	-0.020	45689	84.7	3	9.162	-0.014	19564	121.4	
Aroclor-1248	4	9.306	-0.005	31796	120.3	4	9.583	-0.015	12975	68.6	
Total CollAve (4 peaks):				80.0	Total Col2Ave (4 peaks):				112.2	RPD = 33	
Corrected Ave (3 peaks):				66.6	Corrected Ave (3 peaks):				89.7	RPD = 30	
Aroclor-1254	1	9.306	-0.015	31796	66.1	1	9.457	-0.007	33444	168.2	
Aroclor-1254	2	9.382	-0.020	13984	74.8	2	9.976	-0.005	17961	112.4	
Aroclor-1254	3	9.678	-0.017	17368	57.2	3	10.066	-0.069	1996274	5810.3	
Aroclor-1254	4	9.808	-0.023	42415	71.7	4	10.377	-0.005	43474	122.2	
Aroclor-1254	5	10.128	-0.062	64858	159.8	5	10.571	-0.008	41995	244.7	
Total CollAve (5 peaks):				85.9	Total Col2Ave (5 peaks):				1291.6	RPD = 175*	
Corrected Ave (4 peaks):				67.4	Corrected Ave (4 peaks):				161.9	RPD = 82*	
Aroclor-1260	1	11.050	-0.012	38507	125.3	1	11.660	-0.007	25866	107.3	
Aroclor-1260	2	11.363	-0.014	30908	97.2	2	11.920	-0.010	61389	101.5	
Aroclor-1260	3	11.736	-0.016	102747	123.0	3	12.440	-0.009	21843	135.6	
Aroclor-1260	4	12.137	-0.022	51818	121.8	4	12.503	-0.010	41276	102.4	
Aroclor-1260	5	12.248	-0.013	19549	112.2	NS	---			----	
Total CollAve (5 peaks):				115.9	Total Col2Ave (4 peaks):				111.7	RPD = 4	
Corrected Ave (4 peaks):				113.6	Corrected Ave (3 peaks):				103.8	RPD = 9	
Aroclor-1262	1	10.827	-0.021	87585	310.1	1	11.207	-0.011	25115	72.4	
Aroclor-1262	2	12.248	-0.014	19549	44.5	2	11.660	-0.010	25866	86.0	
Aroclor-1262	3	12.322	-0.014	24351	51.9	3	12.440	-0.011	21843	65.9	
Aroclor-1262	4	12.987	-0.017	23217	61.7	4	12.503	-0.016	41276	79.5	
Total CollAve (4 peaks):				117.1	Total Col2Ave (4 peaks):				75.9	RPD = 43*	
Corrected Ave (3 peaks):				52.7	Corrected Ave (3 peaks):				72.6	RPD = 32	
Aroclor-1268	1	12.248	-0.014	19549	16.5	1	12.440	-0.010	21843	25.3	
Aroclor-1268	2	12.322	-0.013	24351	21.1	2	12.503	-0.014	41276	46.7	
Aroclor-1268	3	12.726	0.010	11612	12.3	3	12.902	-0.008	671	2.0	
Aroclor-1268	4	13.492	-0.013	4744	1.6	4	13.714	-0.012	4838	2.1	
Total CollAve (4 peaks):				12.9	Total Col2Ave (4 peaks):				19.0	RPD = 39	
Corrected Ave (3 peaks):				10.1	Corrected Ave (3 peaks):				9.8	RPD = 3	

Total PCB Area Col1 (5.936 - 13.808) = 6364922 Col1 Total PCB = 1.0 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 3290650 Col2 Total PCB = 1.5 ppm*

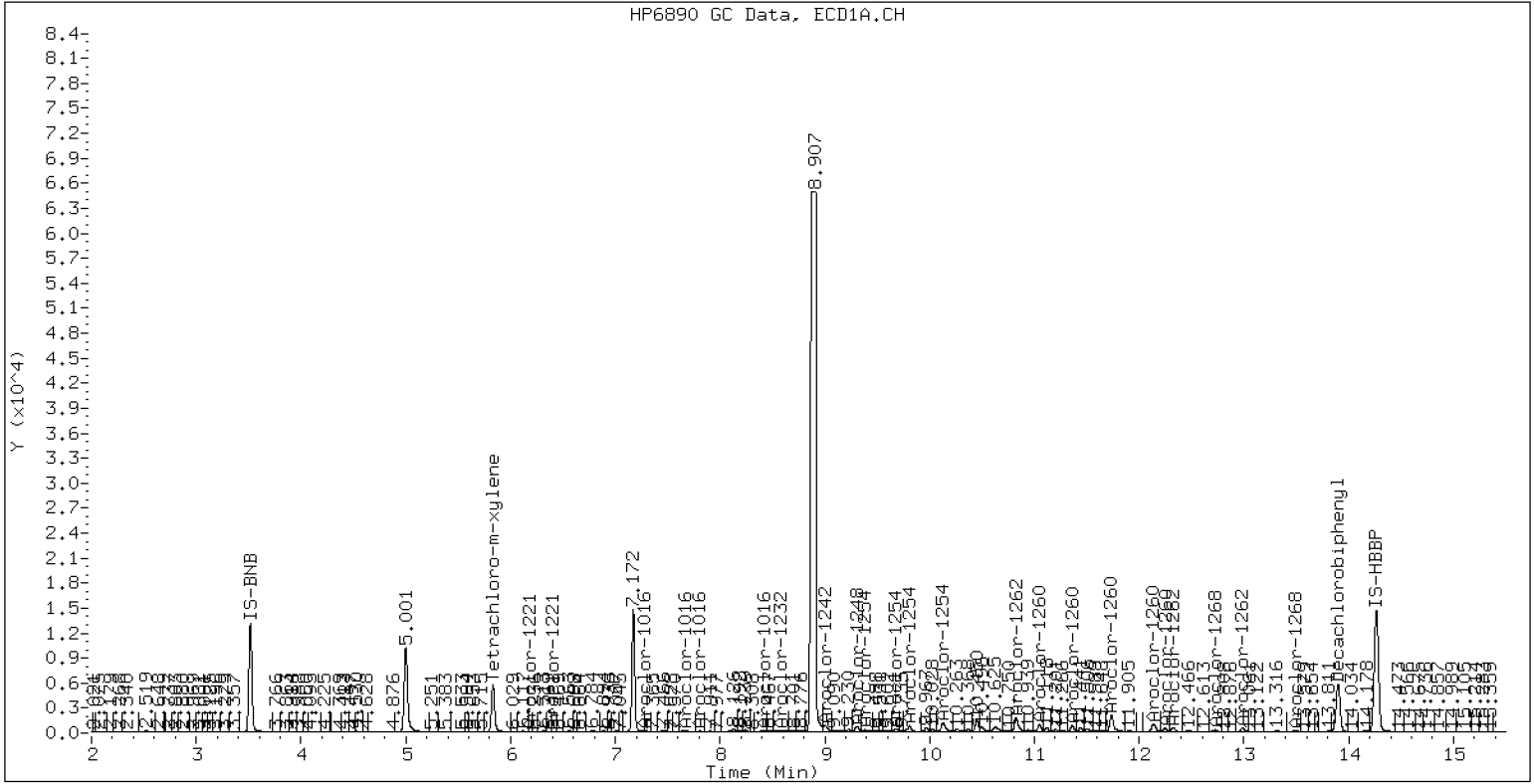
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 BKL0156-SRM1

17-DEC-2022 23:47, 2u1





INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	22L0105
Client:	Anchor QEA, LLC	Project:	AOC4 UR Phase 3
Calibration:	FL00010	Instrument:	ECD7
Calibration Date:	12/03/2022	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016	0.0441939	6.9			RSD (20)	
Aroclor-1016 (1)	0.026686	8.1			RSD (20)	
Aroclor-1016 (2)	8.615718E-02	5.0			RSD (20)	
Aroclor-1016 (3)	3.904252E-02	13.0			RSD (20)	
Aroclor-1016 (4)	2.488989E-02	4.4			RSD (20)	
Aroclor 1221		0.0			RSD (20)	
Aroclor-1221 (1)		0.0			RSD (20)	
Aroclor-1221 (2)		0.0			RSD (20)	
Aroclor-1221 (3)		0.0			RSD (20)	
Aroclor 1232		0.0			RSD (20)	
Aroclor-1232 (1)		0.0			RSD (20)	
Aroclor-1232 (2)		0.0			RSD (20)	
Aroclor-1232 (3)		0.0			RSD (20)	
Aroclor-1232 (4)		0.0			RSD (20)	
Aroclor 1242		0.0			RSD (20)	
Aroclor-1242 (1)		0.0			RSD (20)	
Aroclor-1242 (2)		0.0			RSD (20)	
Aroclor-1242 (3)		0.0			RSD (20)	
Aroclor-1242 (4)		0.0			RSD (20)	
Aroclor 1248		0.0			RSD (20)	
Aroclor-1248 (1)		0.0			RSD (20)	
Aroclor-1248 (2)		0.0			RSD (20)	
Aroclor-1248 (3)		0.0			RSD (20)	
Aroclor-1248 (4)		0.0			RSD (20)	
Aroclor 1254		0.0			RSD (20)	
Aroclor-1254 (1)		0.0			RSD (20)	
Aroclor-1254 (2)		0.0			RSD (20)	
Aroclor-1254 (3)		0.0			RSD (20)	
Aroclor-1254 (4)		0.0			RSD (20)	
Aroclor-1254 (5)		0.0			RSD (20)	
Aroclor 1260	0.0390342	3.8			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	22L0105
Client:	Anchor QEA, LLC	Project:	AOC4 UR Phase 3
Calibration:	FL00010	Instrument:	ECD7
Calibration Date:	12/03/2022	Column (1):	ZB5

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1)	2.912011E-02	4.7			RSD (20)	
Aroclor-1260 (2)	3.011807E-02	3.6			RSD (20)	
Aroclor-1260 (3)	7.913511E-02	4.3			RSD (20)	
Aroclor-1260 (4)	0.0403003	3.2			RSD (20)	
Aroclor-1260 (5)	1.649739E-02	3.9			RSD (20)	
Aroclor-1262 (1)		0.0			RSD (20)	
Aroclor-1262 (2)		0.0			RSD (20)	
Aroclor-1262 (3)		0.0			RSD (20)	
Aroclor-1262 (4)		0.0			RSD (20)	
Aroclor-1268 (1)		0.0			RSD (20)	
Aroclor-1268 (2)		0.0			RSD (20)	
Aroclor-1268 (3)		0.0			RSD (20)	
Aroclor-1268 (4)		0.0			RSD (20)	
Decachlorobiphenyl	0.7333327	8.6			RSD (20)	
Tetrachlorometaxylene	1.133671	3.2			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	22L0105
Client:	Anchor QEA, LLC	Project:	AOC4 UR Phase 3
Calibration:	FL00010	Instrument:	ECD7
Calibration Date:	12/03/2022	Column (2):	ZB35

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF	Conc	RRF
Aroclor-1262 (4) [2C]							250	9.103002E-02				
Aroclor-1268 (1) [2C]									250	0.1510112		
Aroclor-1268 (2) [2C]									250	0.1548399		
Aroclor-1268 (3) [2C]									250	5.741847E-02		
Aroclor-1268 (4) [2C]									250	0.4132099		



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	22L0105
Client:	Anchor QEA, LLC	Project:	AOC4 UR Phase 3
Calibration:	FL00010	Instrument:	ECD7
Calibration Date:	12/03/2022	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016 [2C]	4.673103E-02	7.3			RSD (20)	
Aroclor-1016 (1) [2C]	4.090297E-02	8.9			RSD (20)	
Aroclor-1016 (2) [2C]	8.821535E-02	6.9			RSD (20)	
Aroclor-1016 (3) [2C]	0.0378846	10.9			RSD (20)	
Aroclor-1016 (4) [2C]	1.992121E-02	3.9			RSD (20)	
Aroclor 1221 [2C]		0.0			RSD (20)	
Aroclor-1221 (1) [2C]		0.0			RSD (20)	
Aroclor-1221 (2) [2C]		0.0			RSD (20)	
Aroclor-1221 (3) [2C]		0.0			RSD (20)	
Aroclor 1232 [2C]		0.0			RSD (20)	
Aroclor-1232 (1) [2C]		0.0			RSD (20)	
Aroclor-1232 (2) [2C]		0.0			RSD (20)	
Aroclor-1232 (3) [2C]		0.0			RSD (20)	
Aroclor-1232 (4) [2C]		0.0			RSD (20)	
Aroclor 1242 [2C]		0.0			RSD (20)	
Aroclor-1242 (1) [2C]		0.0			RSD (20)	
Aroclor-1242 (2) [2C]		0.0			RSD (20)	
Aroclor-1242 (3) [2C]		0.0			RSD (20)	
Aroclor-1242 (4) [2C]		0.0			RSD (20)	
Aroclor 1248 [2C]		0.0			RSD (20)	
Aroclor-1248 (1) [2C]		0.0			RSD (20)	
Aroclor-1248 (2) [2C]		0.0			RSD (20)	
Aroclor-1248 (3) [2C]		0.0			RSD (20)	
Aroclor-1248 (4) [2C]		0.0			RSD (20)	
Aroclor 1254 [2C]		0.0			RSD (20)	
Aroclor-1254 (1) [2C]		0.0			RSD (20)	
Aroclor-1254 (2) [2C]		0.0			RSD (20)	
Aroclor-1254 (3) [2C]		0.0			RSD (20)	
Aroclor-1254 (4) [2C]		0.0			RSD (20)	
Aroclor-1254 (5) [2C]		0.0			RSD (20)	
Aroclor 1260 [2C]	6.176189E-02	6.4			RSD (20)	



INITIAL CALIBRATION DATA
EPA 8082A

Laboratory:	Analytical Resources, LLC	SDG:	22L0105
Client:	Anchor QEA, LLC	Project:	AOC4 UR Phase 3
Calibration:	FL00010	Instrument:	ECD7
Calibration Date:	12/03/2022	Column (2):	ZB35

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1) [2C]	4.222833E-02	7.8			RSD (20)	
Aroclor-1260 (2) [2C]	0.1059643	6.9			RSD (20)	
Aroclor-1260 (3) [2C]	2.821732E-02	3.9			RSD (20)	
Aroclor-1260 (4) [2C]	7.063759E-02	6.3			RSD (20)	
Aroclor-1262 (1) [2C]		0.0			RSD (20)	
Aroclor-1262 (2) [2C]		0.0			RSD (20)	
Aroclor-1262 (3) [2C]		0.0			RSD (20)	
Aroclor-1262 (4) [2C]		0.0			RSD (20)	
Aroclor-1268 (1) [2C]		0.0			RSD (20)	
Aroclor-1268 (2) [2C]		0.0			RSD (20)	
Aroclor-1268 (3) [2C]		0.0			RSD (20)	
Aroclor-1268 (4) [2C]		0.0			RSD (20)	
Decachlorobiphenyl [2C]	1.135818	3.9			RSD (20)	
Tetrachlorometaxylene [2C]	1.096608	4.4			RSD (20)	



ANALYSIS SEQUENCE

SKL0048

Instrument: ECD7
Calibration ID: FL00010

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0048-CAL1	0.25PPM AR1660	QC		1	K006954	K006953		
SKL0048-CAL2	0.02PPM AR1660	QC		2	K010070	K006953		
SKL0048-CAL3	0.05PPM AR1660	QC		3	K010069	K006953		
SKL0048-CAL4	1PPM AR1660	QC		4	K006741	K006953		
SKL0048-CAL5	0.1PPM AR1660	QC		5	K010068	K006953		
SKL0048-CAL6	0.5PPM AR1660	QC		6	K010067	K006953		
SKL0048-CAL7	0.25PPM AR1242	QC		7	K006955	K006953		
SKL0048-CAL8	0.25PPM AR1248	QC		8	K006956	K006953		
SKL0048-CAL9	0.25PPM AR1254	QC		9	K006957	K006953		
SKL0048-CALA	0.25PPM AR2162	QC		10	K010071	K006953		
SKL0048-CALB	0.25PPM AR3268	QC		11	K010072	K006953		
SKL0048-SCV1	AR1660SCV1	QC		12	K007655	K006953		
SKL0048-SCV2	AR1242SCV2	QC		13	K007656	K006953		
SKL0048-SCV3	AR1248SCV3	QC		14	K007657	K006953		
SKL0048-SCV4	AR1254SCV4	QC		15	K007658	K006953		
SKL0048-SCV5	AR2162SCV5	QC		16	K007659	K006953		
SKL0048-SCV6	AR3268SCV6	QC		17	K007660	K006953		

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221203.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	03-DEC-2022	17:58	12032210ECD7.D	1	IB	
2	03-DEC-2022	18:19	12032211ECD7.D	1	0.25PPAR1660	
3	03-DEC-2022	18:40	12032212ECD7.D	1	0.02PPAR1660	
4	03-DEC-2022	19:01	12032213ECD7.D	1	0.05PPAR1660	
5	03-DEC-2022	19:23	12032214ECD7.D	1	1PPMAR1660	
6	03-DEC-2022	19:44	12032215ECD7.D	1	0.1PPMAR1660	
7	03-DEC-2022	20:05	12032216ECD7.D	1	0.5PPMAR1660	
8	03-DEC-2022	20:26	12032217ECD7.D	1	AR1242	
9	03-DEC-2022	20:48	12032218ECD7.D	1	AR1248	
10	03-DEC-2022	21:09	12032219ECD7.D	1	AR1254	
11	03-DEC-2022	21:30	12032220ECD7.D	1	AR2162	
12	03-DEC-2022	21:52	12032221ECD7.D	1	AR3268	
13	03-DEC-2022	22:13	12032222ECD7.D	1	AR1660SCV1	
14	03-DEC-2022	22:34	12032223ECD7.D	1	AR1242SCV2	
15	03-DEC-2022	22:55	12032224ECD7.D	1	AR1248SCV3	
16	03-DEC-2022	23:17	12032225ECD7.D	1	AR1254SCV4	
17	03-DEC-2022	23:38	12032226ECD7.D	1	AR2162SCV5	
18	03-DEC-2022	23:59	12032227ECD7.D	1	AR3268SCV6	
19	04-DEC-2022	00:20	12032228ECD7.D	1	0.1 PPM DDTS	
20	04-DEC-2022	00:42	12032229ECD7.D	1	DDT BD	
21	04-DEC-2022	01:03	12032230ECD7.D	1	AR1254ICV1	
22	04-DEC-2022	01:24	12032231ECD7.D	1	AR1660ICV2	
23	04-DEC-2022	01:46	12032232ECD7.D	1	BKK0834-BLK1	
24	04-DEC-2022	02:07	12032233ECD7.D	1	BKK0834-BS1	
25	04-DEC-2022	02:28	12032234ECD7.D	1	BKK0834-BSD1	
26	04-DEC-2022	02:49	12032235ECD7.D	1	22K0523-01	
27	04-DEC-2022	03:11	12032236ECD7.D	1	22K0525-01	
28	04-DEC-2022	03:32	12032237ECD7.D	1	BKK0374-BLK1	
29	04-DEC-2022	03:53	12032238ECD7.D	1	BKK0374-BS1	
30	04-DEC-2022	04:15	12032239ECD7.D	1	BKK0374-BSD1	
31	04-DEC-2022	04:36	12032240ECD7.D	1	22K0161-01	
32	04-DEC-2022	04:57	12032241ECD7.D	1	AR1248CCV1	
33	04-DEC-2022	05:18	12032242ECD7.D	1	AR1660CCV2	
34	04-DEC-2022	05:40	12032243ECD7.D	1	BKL0017-BLK1	
35	04-DEC-2022	06:01	12032244ECD7.D	1	BKL0017-BS1	
36	04-DEC-2022	06:22	12032245ECD7.D	1	BKL0017-BSD1	
37	04-DEC-2022	06:44	12032246ECD7.D	1	22J0139-01	
38	04-DEC-2022	07:05	12032247ECD7.D	1	BKK0383-BLK1	
39	04-DEC-2022	07:26	12032248ECD7.D	1	BKK0383-BS1	
40	04-DEC-2022	07:47	12032249ECD7.D	1	BKK0383-BSD	
41	04-DEC-2022	08:09	12032250ECD7.D	1	22K0075-01	
42	04-DEC-2022	08:30	12032251ECD7.D	1	BKK00803-BLK1	
43	04-DEC-2022	08:51	12032252ECD7.D	1	BKK00803-BS1	
44	04-DEC-2022	09:13	12032253ECD7.D	1	BKK00803-BSD1	
45	04-DEC-2022	09:34	12032254ECD7.D	1	22K0511-01	
46	04-DEC-2022	09:55	12032255ECD7.D	1	AR1242CCV3	
47	04-DEC-2022	10:17	12032256ECD7.D	1	AR1660CCV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221203.b

Instrument: ecd7.i Date: 03-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
1758	12032210ECD7.D	IB	1	NO MANUAL INTEGRATION
1819	12032211ECD7.D	0.25PPAR1660	1	NO MANUAL INTEGRATION
1840	12032212ECD7.D	0.02PPAR1660	1	NO MANUAL INTEGRATION
1901	12032213ECD7.D	0.05PPAR1660	1	NO MANUAL INTEGRATION
1923	12032214ECD7.D	1PPMAR1660	1	NO MANUAL INTEGRATION
1944	12032215ECD7.D	0.1PPMAR1660	1	NO MANUAL INTEGRATION
2005	12032216ECD7.D	0.5PPMAR1660	1	NO MANUAL INTEGRATION
2026	12032217ECD7.D	AR1242	1	Aroclor-1242,
2048	12032218ECD7.D	AR1248	1	NO MANUAL INTEGRATION
2109	12032219ECD7.D	AR1254	1	NO MANUAL INTEGRATION
2130	12032220ECD7.D	AR2162	1	NO MANUAL INTEGRATION
2152	12032221ECD7.D	AR3268	1	NO MANUAL INTEGRATION
2213	12032222ECD7.D	AR1660SCV1	1	NO MANUAL INTEGRATION
2234	12032223ECD7.D	AR1242SCV2	1	NO MANUAL INTEGRATION
2255	12032224ECD7.D	AR1248SCV3	1	NO MANUAL INTEGRATION
2317	12032225ECD7.D	AR1254SCV4	1	NO MANUAL INTEGRATION
2338	12032226ECD7.D	AR2162SCV5	1	NO MANUAL INTEGRATION

Instrument: ecd7.i Date: 03-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
2359	12032227ECD7.D	AR3268SCV6	1	NO MANUAL INTEGRATION

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032210ECD7.D
Data file 2: /221203.b/221203.b/12032210ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: PCB.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 03-DEC-2022 17:58
Report Date: 12/05/2022 13:27
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	-0.001	239778	5.713	-0.000	128576	38.5	38.5	0.1	Tetrachloro-m-xylene
13.907	-0.001	273387	14.135	-0.002	193829	39.5	39.9	1.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	439478	-1.8
Hexabromobiphenyl	798898	755658	-5.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	243327	-2.3
Hexabromobiphenyl	362541	342503	-5.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	---			0.0	1	---			0.0
Aroclor-1016	2	---			0.0	2	---			0.0
Aroclor-1016	3	---			0.0	3	---			0.0
Aroclor-1016	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1221	1	---			0.0	1	---			0.0
Aroclor-1221	2	---			0.0	2	---			0.0
Aroclor-1221	3	---			0.0	3	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	---			0.0	1	---			0.0
Aroclor-1232	2	---			0.0	2	---			0.0
Aroclor-1232	3	---			0.0	3	---			0.0
Aroclor-1232	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1242	1	---			0.0	1	---			0.0
Aroclor-1242	2	---			0.0	2	---			0.0
Aroclor-1242	3	---			0.0	3	---			0.0
Aroclor-1242	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1248	1	---			0.0	1	---			0.0
Aroclor-1248	2	---			0.0	2	---			0.0
Aroclor-1248	3	---			0.0	3	---			0.0
Aroclor-1248	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1254	1	---			0.0	1	---			0.0
Aroclor-1254	2	---			0.0	2	---			0.0
Aroclor-1254	3	---			0.0	3	---			0.0
Aroclor-1254	4	---			0.0	4	---			0.0
Aroclor-1254	5	---			0.0	5	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1260	1	---			0.0	1	---			0.0
Aroclor-1260	2	---			0.0	2	---			0.0
Aroclor-1260	3	---			0.0	3	---			0.0
Aroclor-1260	4	---			0.0	4	---			0.0
Aroclor-1260	5	---			0.0	NS	---			----
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1262	1	---			0.0	1	---			0.0
Aroclor-1262	2	---			0.0	2	---			0.0
Aroclor-1262	3	---			0.0	3	---			0.0
Aroclor-1262	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				
Aroclor-1268	1	---			0.0	1	---			0.0
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	---			0.0	3	---			0.0
Aroclor-1268	4	---			0.0	4	---			0.0
CollAve: <3 Quant Peaks						Col2Ave: <3 Quant Peaks				

Total PCB Area Coll (5.936 - 13.808) = 14711

Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 6305 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032211ECD7.D
Data file 2: /221203.b/221203.b/12032211ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.25PPAR1660
Client ID:
Injection Date: 03-DEC-2022 18:19
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	-0.000	255851	5.713	-0.000	137407	40.3	40.2	0.2	Tetrachloro-m-xylene
13.908	-0.001	282218	14.135	-0.001	204430	38.5	39.7	3.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	447645	0.0
Hexabromobiphenyl	798898	798898	0.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	249094	0.0
Hexabromobiphenyl	362541	362541	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.293	0.001	37624	252.0	1	7.277	0.002	31793	249.6
Aroclor-1016	2	7.679	0.005	121929	252.9	2	7.873	0.002	68340	248.8
Aroclor-1016	3	7.813	0.003	53937	246.9	3	8.072	0.002	28420	240.9
Aroclor-1016	4	8.426	0.002	35116	252.1	4	8.243	0.002	15828	255.2
Total CollAve (4 peaks):				251.0		Total Col2Ave (4 peaks):				248.6 RPD = 1
Corrected Ave (3 peaks):				250.3		Corrected Ave (3 peaks):				246.5 RPD = 2

CalAmt %D: 0.4

CalAmt %D: -0.5

Aroclor-1260	1	11.062	0.001	73858	254.0	1	11.670	0.001	47881	250.2
Aroclor-1260	2	11.378	0.000	76426	254.1	2	11.933	0.000	122823	255.8
Aroclor-1260	3	11.752	0.002	198339	251.0	3	12.452	0.001	31682	247.8
Aroclor-1260	4	12.156	0.002	101327	251.8	4	12.518	0.001	79568	248.6
Aroclor-1260	5	12.262	0.002	41048	249.2	NS	---			----
Total CollAve (5 peaks):				252.0		Total Col2Ave (4 peaks):				250.6 RPD = 1
Corrected Ave (4 peaks):				251.5		Corrected Ave (3 peaks):				248.8 RPD = 1

CalAmt %D: 0.8

CalAmt %D: 0.2

Total PCB Area Coll (5.936 - 13.808) = 2139467 Coll Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1168134 Col2 Total PCB = 0.7 ppm*

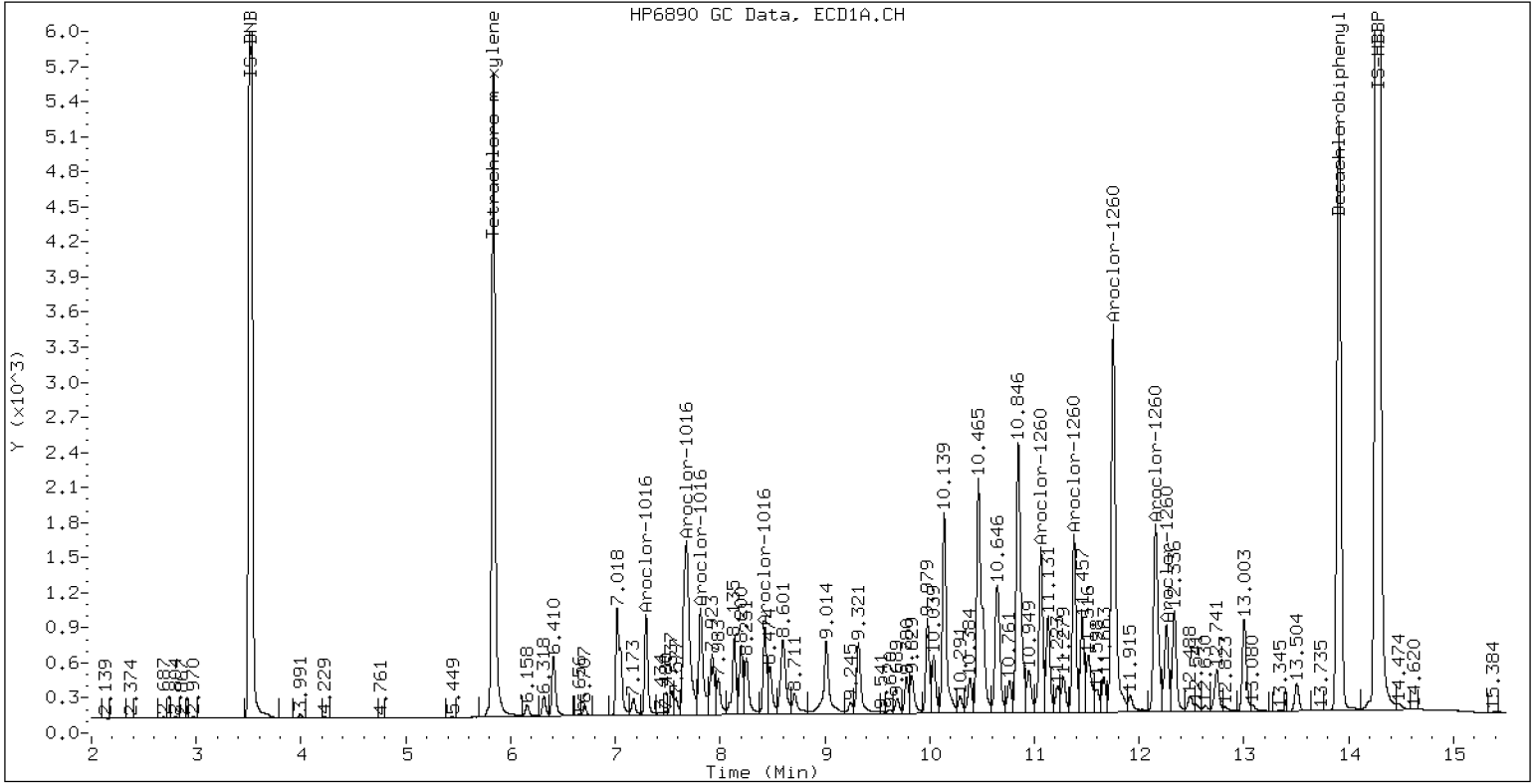
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.25PPAR1660

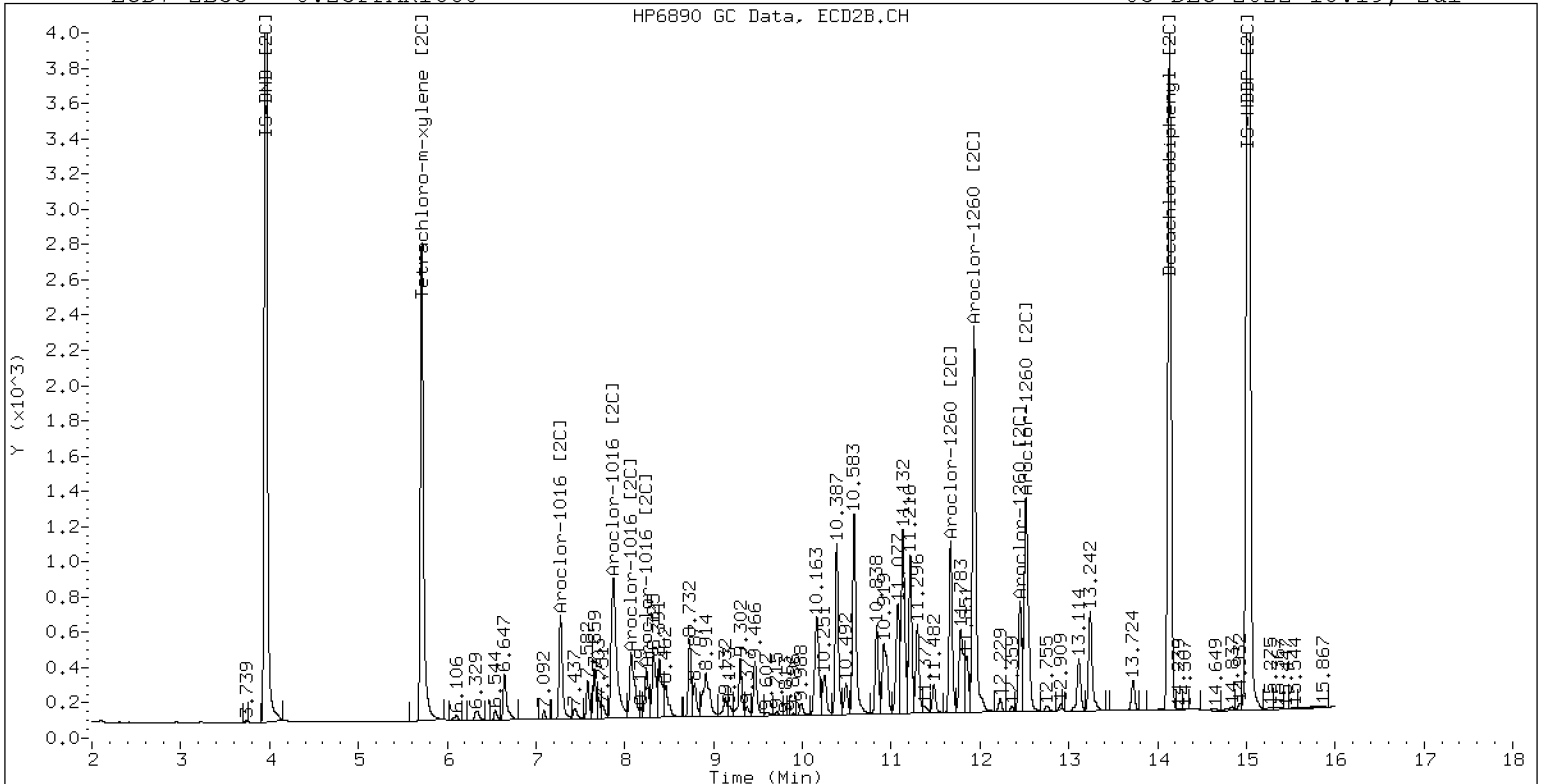
03-DEC-2022 18:19, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.25PPAR1660

03-DEC-2022 18:19, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032212ECD7.D
Data file 2: /221203.b/221203.b/12032212ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.02PPAR1660
Client ID:
Injection Date: 03-DEC-2022 18:40
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	-0.001	21148	5.713	-0.000	11703	3.3	3.4	2.8	Tetrachloro-m-xylene
13.907	-0.002	27903	14.135	-0.002	17860	3.7	3.4	7.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	456831	2.1
Hexabromobiphenyl	798898	833597	4.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	254070	2.0
Hexabromobiphenyl	362541	372232	2.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.294	0.002	3234	21.2	1	7.276	0.001	2808	21.6	
Aroclor-1016	2	7.687	0.013	10166	20.7	2	7.879	0.009	5797	20.7	
Aroclor-1016	3	7.819	0.009	4988	22.4	3	8.077	0.007	2653	22.1	
Aroclor-1016	4	8.430	0.006	2807	19.7	4	8.249	0.008	1173	18.5	
Total CollAve (4 peaks):				21.0	Total Col2Ave (4 peaks):				20.7	RPD = 1	
Corrected Ave (3 peaks):				20.5	Corrected Ave (3 peaks):				20.3	RPD = 1	
CalAmt %D:				5.0	CalAmt %D:				3.6		
Aroclor-1260	1	11.066	0.004	6255	20.6	1	11.672	0.003	4216	21.5	
Aroclor-1260	2	11.382	0.004	6329	20.2	2	11.937	0.005	10262	20.8	
Aroclor-1260	3	11.758	0.008	16621	20.2	3	12.453	0.002	2734	20.8	
Aroclor-1260	4	12.162	0.008	8146	19.4	4	12.521	0.004	6997	21.3	
Aroclor-1260	5	12.264	0.004	3406	19.8	NS	---			----	
Total CollAve (5 peaks):				20.0	Total Col2Ave (4 peaks):				21.1	RPD = 5	
Corrected Ave (4 peaks):				19.9	Corrected Ave (3 peaks):				21.0	RPD = 5	
CalAmt %D:				0.2	CalAmt %D:				5.5		

Total PCB Area Coll (5.936 - 13.808) = 188011 Coll Total PCB = 0.0 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 100527 Col2 Total PCB = 0.1 ppm*

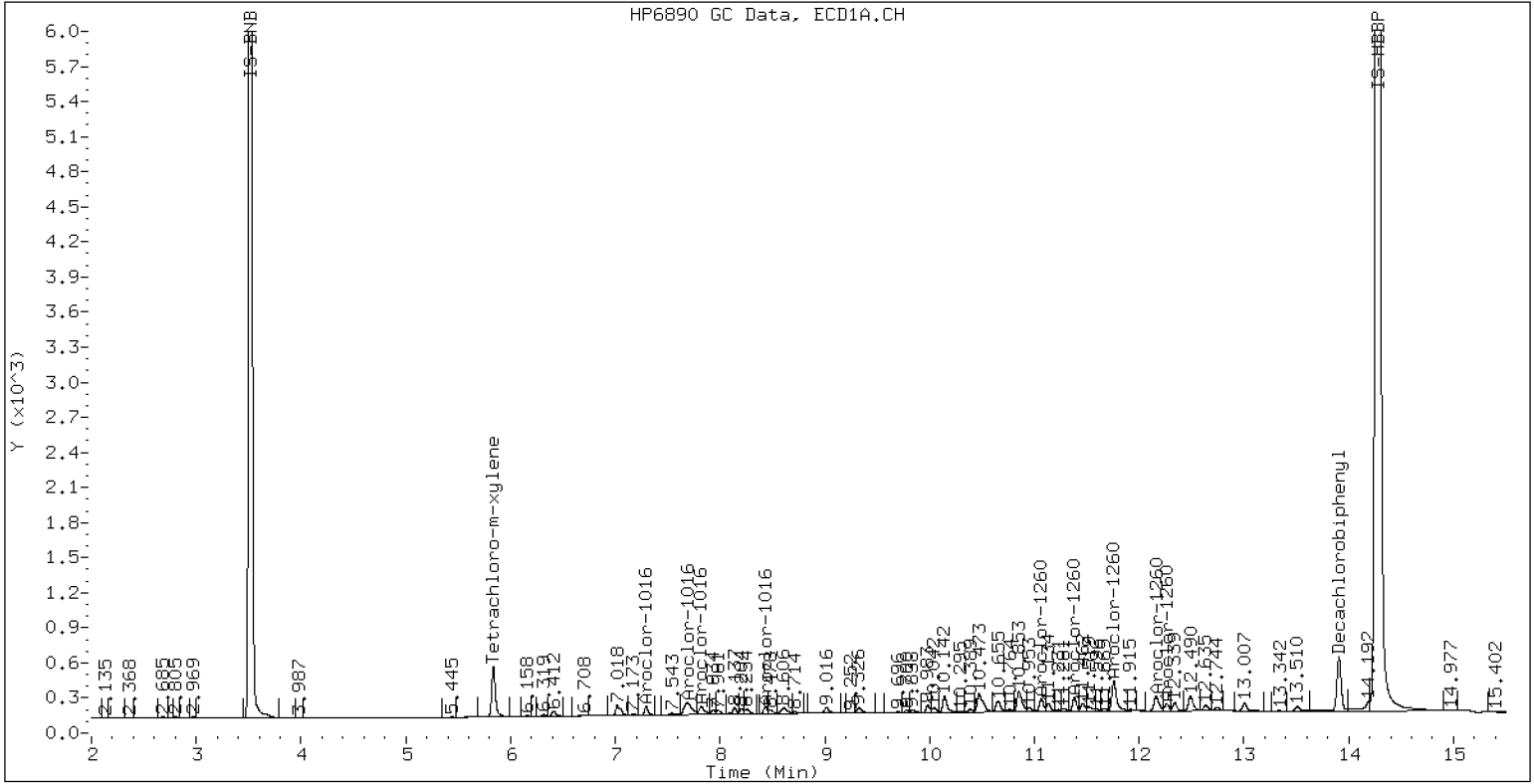
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.02PPAR1660

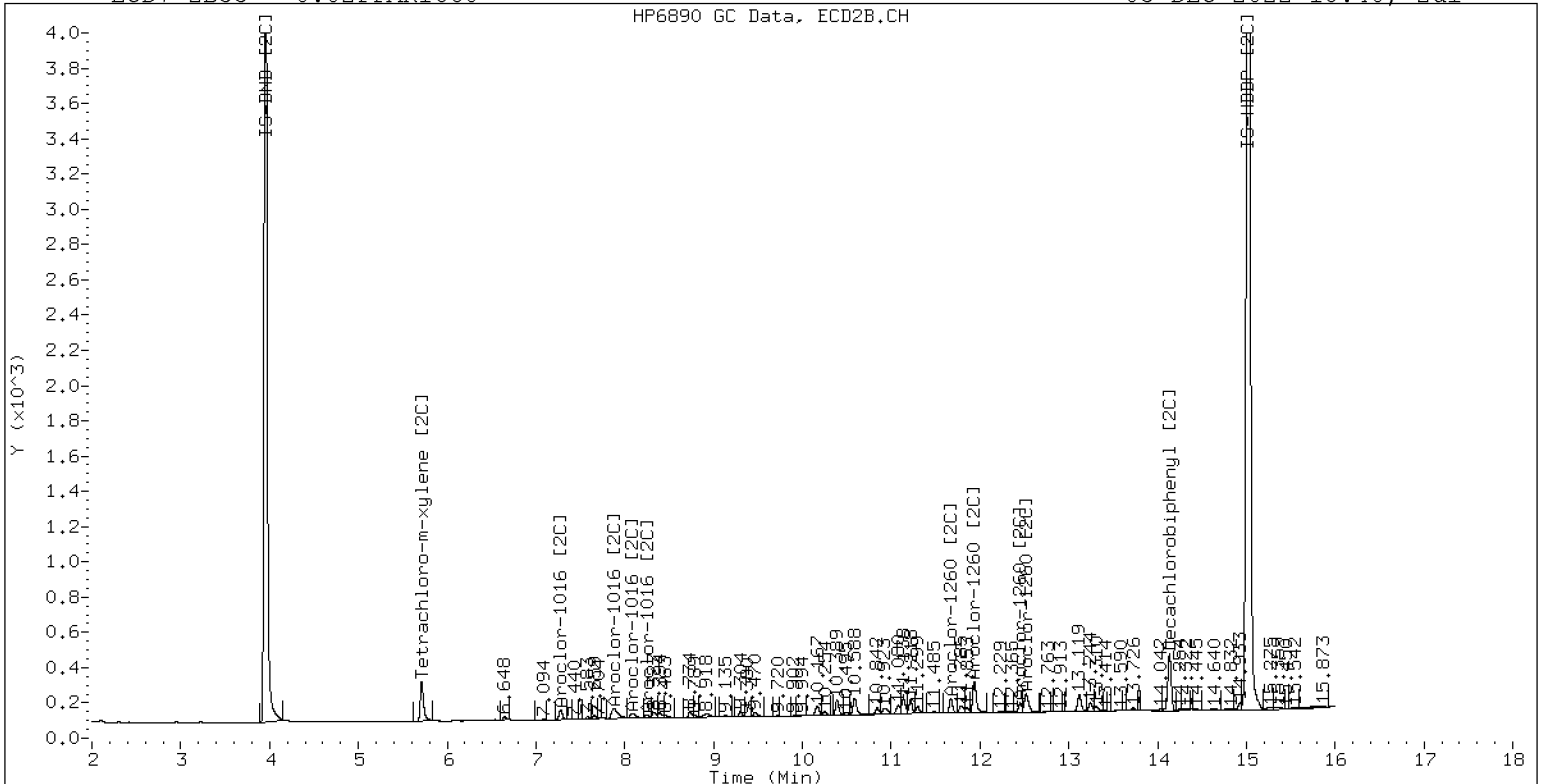
03-DEC-2022 18:40, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.02PPAR1660

03-DEC-2022 18:40, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032213ECD7.D
 Data file 2: /221203.b/221203.b/12032213ECD7.D
 Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.05PPAR1660
 Client ID:
 Injection Date: 03-DEC-2022 19:01
 Report Date: 12/05/2022 13:28
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	-0.000	51078	5.713	-0.000	27008	8.0	7.8	1.5	Tetrachloro-m-xylene
13.907	-0.001	63325	14.137	-0.000	42829	8.2	8.0	3.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	453269	1.3
Hexabromobiphenyl	798898	840633	5.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	251466	1.0
Hexabromobiphenyl	362541	378380	4.4

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.294	0.002	7743	51.2	1	7.277	0.002	6704	52.1	
Aroclor-1016	2	7.686	0.012	24543	50.3	2	7.879	0.008	14768	53.3	
Aroclor-1016	3	7.818	0.008	12052	54.5	3	8.078	0.007	6672	56.0	
Aroclor-1016	4	8.429	0.005	7291	51.7	4	8.249	0.007	3185	50.9	
Total CollAve (4 peaks):				51.9	Total Col2Ave (4 peaks):				53.1	RPD = 2	
Corrected Ave (3 peaks):				51.1	Corrected Ave (3 peaks):				52.1	RPD = 2	
CalAmt %D:				3.8	CalAmt %D:				6.1		
Aroclor-1260	1	11.066	0.004	15578	50.9	1	11.673	0.003	10647	53.3	
Aroclor-1260	2	11.382	0.005	16010	50.6	2	11.937	0.004	25845	51.6	
Aroclor-1260	3	11.757	0.007	42278	50.8	3	12.454	0.002	6703	50.2	
Aroclor-1260	4	12.160	0.006	20971	49.5	4	12.520	0.004	17174	51.4	
Aroclor-1260	5	12.263	0.004	8785	50.7	NS	---			----	
Total CollAve (5 peaks):				50.5	Total Col2Ave (4 peaks):				51.6	RPD = 2	
Corrected Ave (4 peaks):				50.4	Corrected Ave (3 peaks):				51.1	RPD = 1	
CalAmt %D:				1.0	CalAmt %D:				3.3		

Total PCB Area Coll (5.936 - 13.808) = 457627 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 253240 Col2 Total PCB = 0.1 ppm*

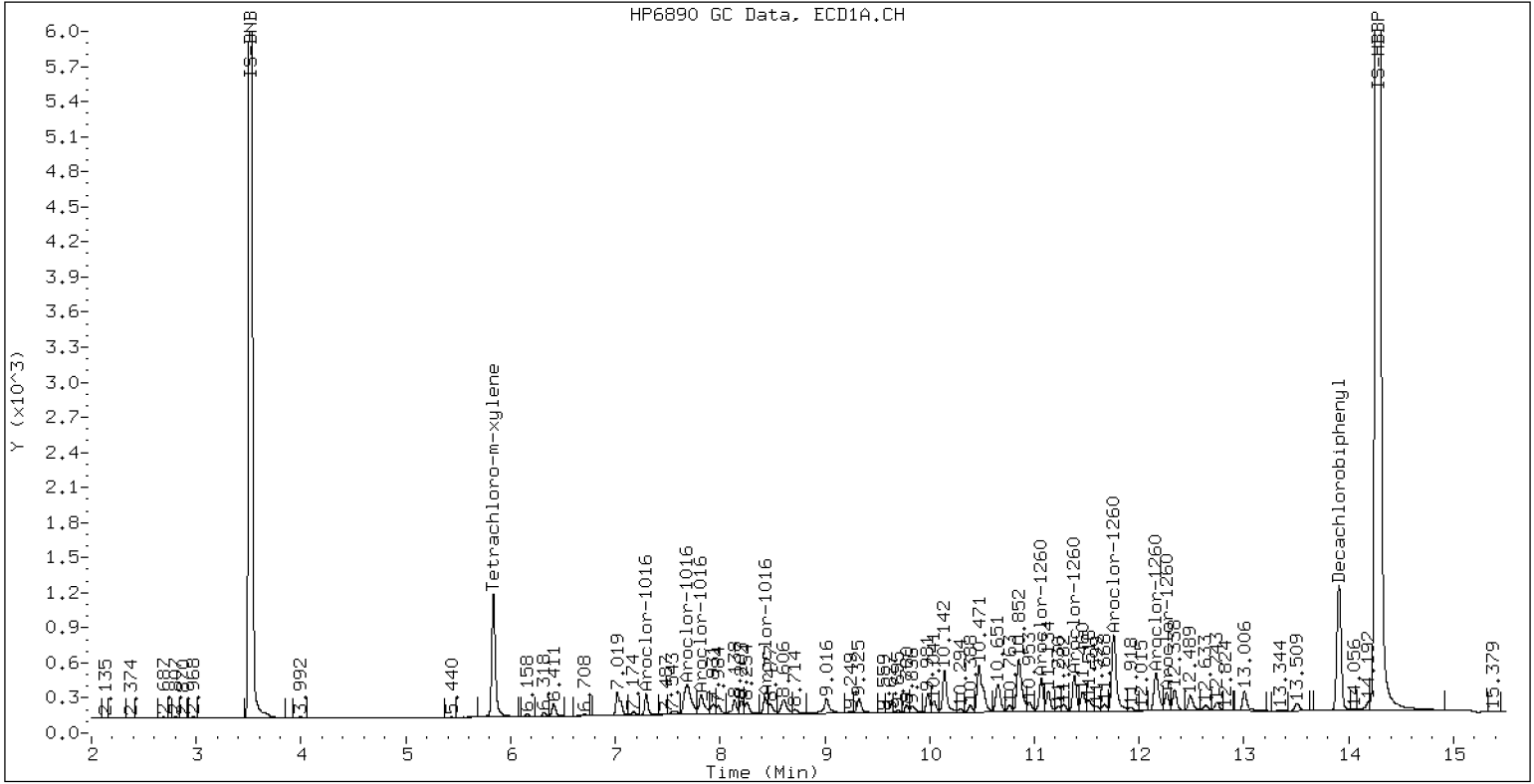
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.05PPAR1660

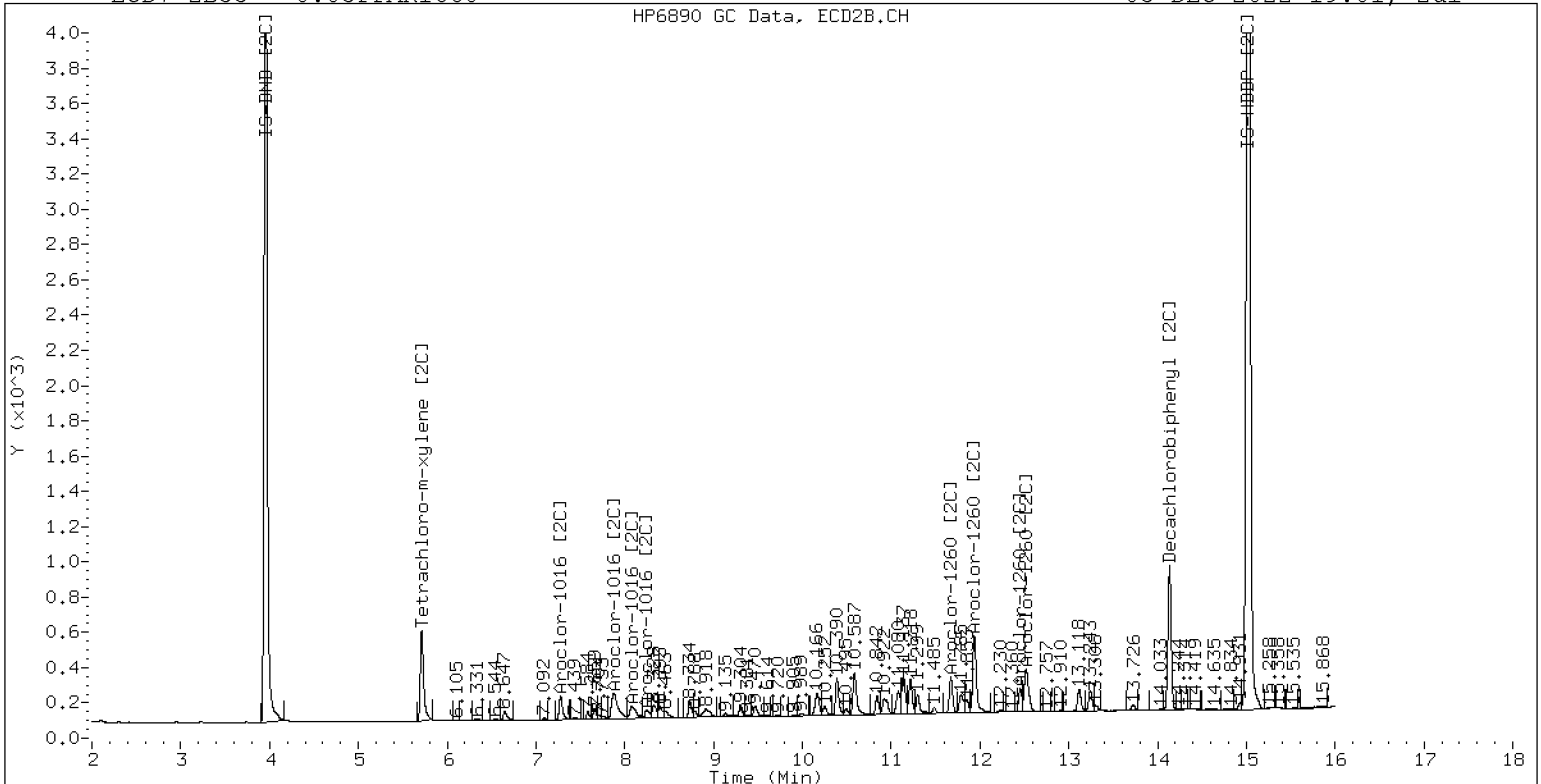
03-DEC-2022 19:01, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 0.05PPAR1660

03-DEC-2022 19:01, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032214ECD7.D
Data file 2: /221203.b/221203.b/12032214ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 1PPMAR1660
Client ID:
Injection Date: 03-DEC-2022 19:23
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	-0.001	1010529	5.712	-0.002	531708	152.6	150.7	1.3	Tetrachloro-m-xylene
13.908	-0.001	1103073	14.137	-0.000	836962	144.8	153.1	5.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	467179	4.4
Hexabromobiphenyl	798898	830915	4.0

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	257438	3.3
Hexabromobiphenyl	362541	385067	6.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.291	-0.001	135017	866.4	1	7.276	0.001	112973	858.3	
Aroclor-1016	2	7.671	-0.003	458351	911.0	2	7.869	-0.001	252319	888.8	
Aroclor-1016	3	7.807	-0.003	183320	804.0	3	8.068	-0.002	103219	846.7	
Aroclor-1016	4	8.423	-0.001	135184	930.1	4	8.239	-0.002	63199	985.9	
Total CollAve (4 peaks):				877.9		Total Col2Ave (4 peaks):				894.9	RPD = 2
Corrected Ave (3 peaks):				860.5		Corrected Ave (3 peaks):				864.6	RPD = 0

CalAmt %D: -12.2

CalAmt %D: -10.5

Aroclor-1260	1	11.058	-0.003	277616	917.9	1	11.668	-0.002	180676	888.9	
Aroclor-1260	2	11.375	-0.002	293627	938.6	2	11.930	-0.002	450760	883.8	
Aroclor-1260	3	11.748	-0.002	769872	936.7	3	12.449	-0.002	129799	955.7	
Aroclor-1260	4	12.151	-0.003	405939	969.8	4	12.514	-0.002	308791	908.2	
Aroclor-1260	5	12.259	-0.001	161370	941.8	NS	---			----	
Total CollAve (5 peaks):				941.0		Total Col2Ave (4 peaks):				909.1	RPD = 3
Corrected Ave (4 peaks):				933.7		Corrected Ave (3 peaks):				893.6	RPD = 4

CalAmt %D: -5.9

CalAmt %D: -9.1

Total PCB Area Coll (5.936 - 13.808) = 7995465 Coll Total PCB = 1.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 4426537 Col2 Total PCB = 2.4 ppm*

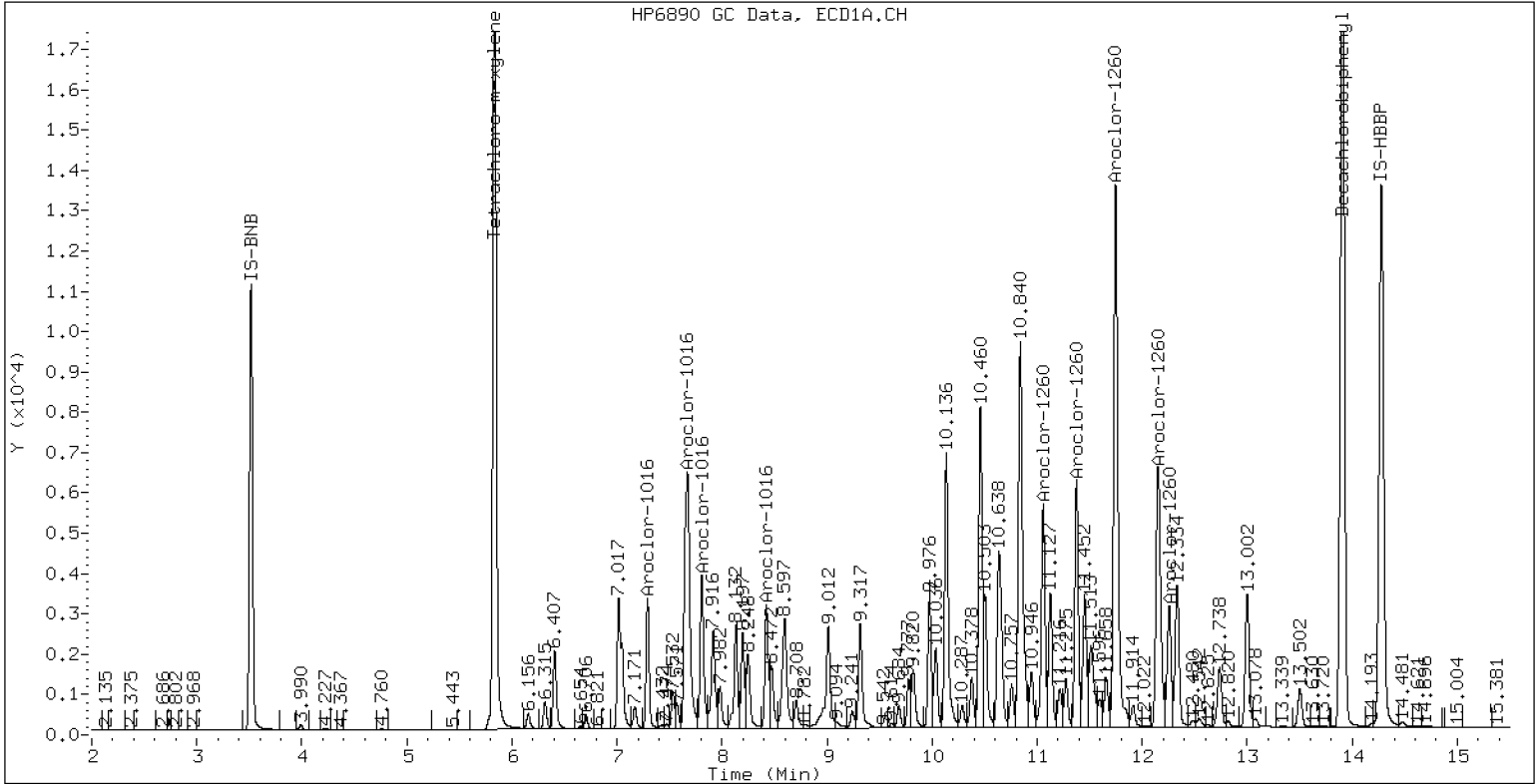
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 1PPMAR1660

03-DEC-2022 19:23, 2u1



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032215ECD7.D
 Data file 2: /221203.b/221203.b/12032215ECD7.D
 Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
 Client ID:
 Injection Date: 03-DEC-2022 19:44
 Report Date: 12/05/2022 13:28
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	-0.000	108416	5.713	-0.000	58717	16.7	16.8	0.6	Tetrachloro-m-xylene
13.907	-0.002	126876	14.136	-0.001	91231	16.5	16.6	0.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	457669	2.2
Hexabromobiphenyl	798898	837264	4.8

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	254712	2.3
Hexabromobiphenyl	362541	387892	7.0

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.293	0.001	16631	108.9	1	7.277	0.001	14117	108.4
Aroclor-1016	2	7.680	0.007	52058	105.6	2	7.876	0.006	29792	106.1
Aroclor-1016	3	7.816	0.006	24753	110.8	3	8.076	0.005	12664	105.0
Aroclor-1016	4	8.428	0.004	15027	105.5	4	8.247	0.006	6540	103.1
Total CollAve (4 peaks):				107.7		Total Col2Ave (4 peaks):				105.6 RPD = 2
Corrected Ave (3 peaks):				106.7		Corrected Ave (3 peaks):				104.7 RPD = 2

CalAmt %D: 7.7

CalAmt %D: 5.6

Aroclor-1260	1	11.064	0.003	31860	104.5	1	11.671	0.002	21501	105.0
Aroclor-1260	2	11.381	0.003	32914	104.4	2	11.935	0.003	54902	106.9
Aroclor-1260	3	11.756	0.006	88153	106.4	3	12.453	0.002	14336	104.8
Aroclor-1260	4	12.159	0.005	44477	105.5	4	12.520	0.004	36244	105.8
Aroclor-1260	5	12.262	0.002	18369	106.4	NS	---			----
Total CollAve (5 peaks):				105.4		Total Col2Ave (4 peaks):				105.6 RPD = 0
Corrected Ave (4 peaks):				105.2		Corrected Ave (3 peaks):				105.2 RPD = 0

CalAmt %D: 5.4

CalAmt %D: 5.6

Total PCB Area Coll (5.936 - 13.808) = 933356 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 523507 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032216ECD7.D
Data file 2: /221203.b/221203.b/12032216ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
Client ID:
Injection Date: 03-DEC-2022 20:05
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.835	-0.001	510310	5.711	-0.002	273850	78.2	77.7	0.7	Tetrachloro-m-xylene
13.908	-0.001	570893	14.137	-0.000	431489	74.4	77.0	3.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	460250	2.8
Hexabromobiphenyl	798898	837210	4.8
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	257013	3.2
Hexabromobiphenyl	362541	394788	8.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.292	0.000	73008	475.5	1	7.275	0.000	61467	467.8	
Aroclor-1016	2	7.674	0.000	243498	491.2	2	7.870	0.000	135395	477.7	
Aroclor-1016	3	7.810	0.000	100165	445.9	3	8.070	0.000	55783	458.3	
Aroclor-1016	4	8.424	0.000	70493	492.3	4	8.241	0.000	32578	509.0	
Total CollAve (4 peaks):				476.3		Total Col2Ave (4 peaks):				478.2	RPD = 0
Corrected Ave (3 peaks):				470.9		Corrected Ave (3 peaks):				467.9	RPD = 1
CalAmt %D:				-4.7		CalAmt %D:				-4.4	
Aroclor-1260	1	11.062	0.000	148089	485.9	1	11.669	0.000	95983	460.6	
Aroclor-1260	2	11.377	0.000	154542	490.3	2	11.933	0.000	249045	476.3	
Aroclor-1260	3	11.750	0.000	401802	485.2	3	12.451	0.000	66824	479.9	
Aroclor-1260	4	12.154	0.000	212604	504.1	4	12.517	0.000	165020	473.4	
Aroclor-1260	5	12.260	0.000	85762	496.7	NS	---			----	
Total CollAve (5 peaks):				492.5		Total Col2Ave (4 peaks):				472.5	RPD = 4
Corrected Ave (4 peaks):				489.5		Corrected Ave (3 peaks):				470.1	RPD = 4
CalAmt %D:				-1.5		CalAmt %D:				-5.5	

Total PCB Area Coll (5.936 - 13.808) = 4267475 Coll Total PCB = 0.8 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2352394 Col2 Total PCB = 1.3 ppm*

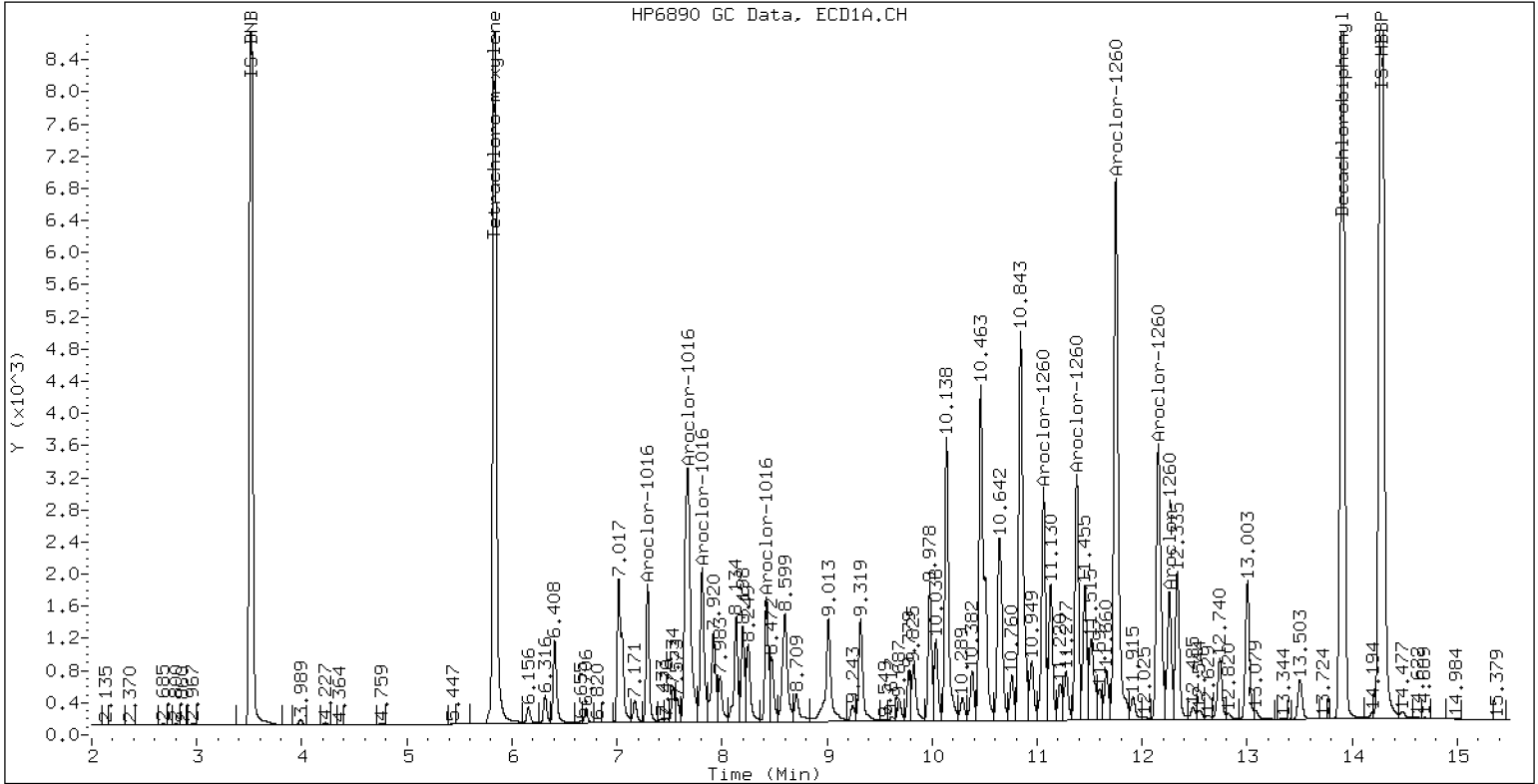
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 0.5PPMAR1660

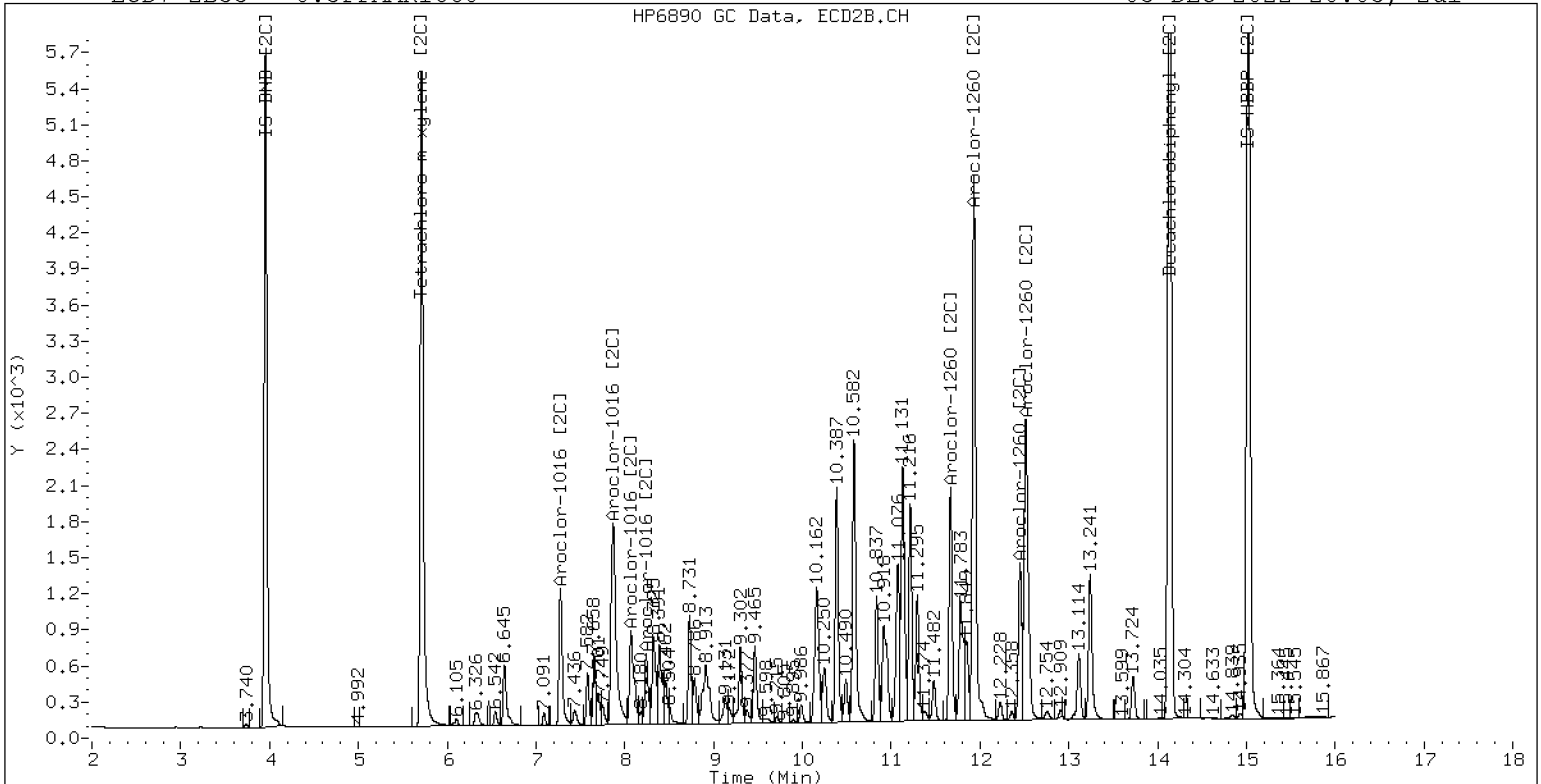
03-DEC-2022 20:05, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 0.5PPMAR1660

03-DEC-2022 20:05, 2u1



ZB-35 Manual Integration: NO

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.294	0.000	32669	250.0	1	7.277	0.000	27198	250.0
Aroclor-1242	2	7.680	0.000	103727	250.0	2	7.875	0.000	57737	250.0
Aroclor-1242	3	8.427	0.000	29844	250.0	3	9.178	0.000	18627	250.0
Aroclor-1242	4	9.030	0.000	61970	250.0	4	9.605	0.000	22388	250.0
Total CollAve (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Coll (5.936 - 13.808) = 766457 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 407128 Col2 Total PCB = 0.2 ppm*

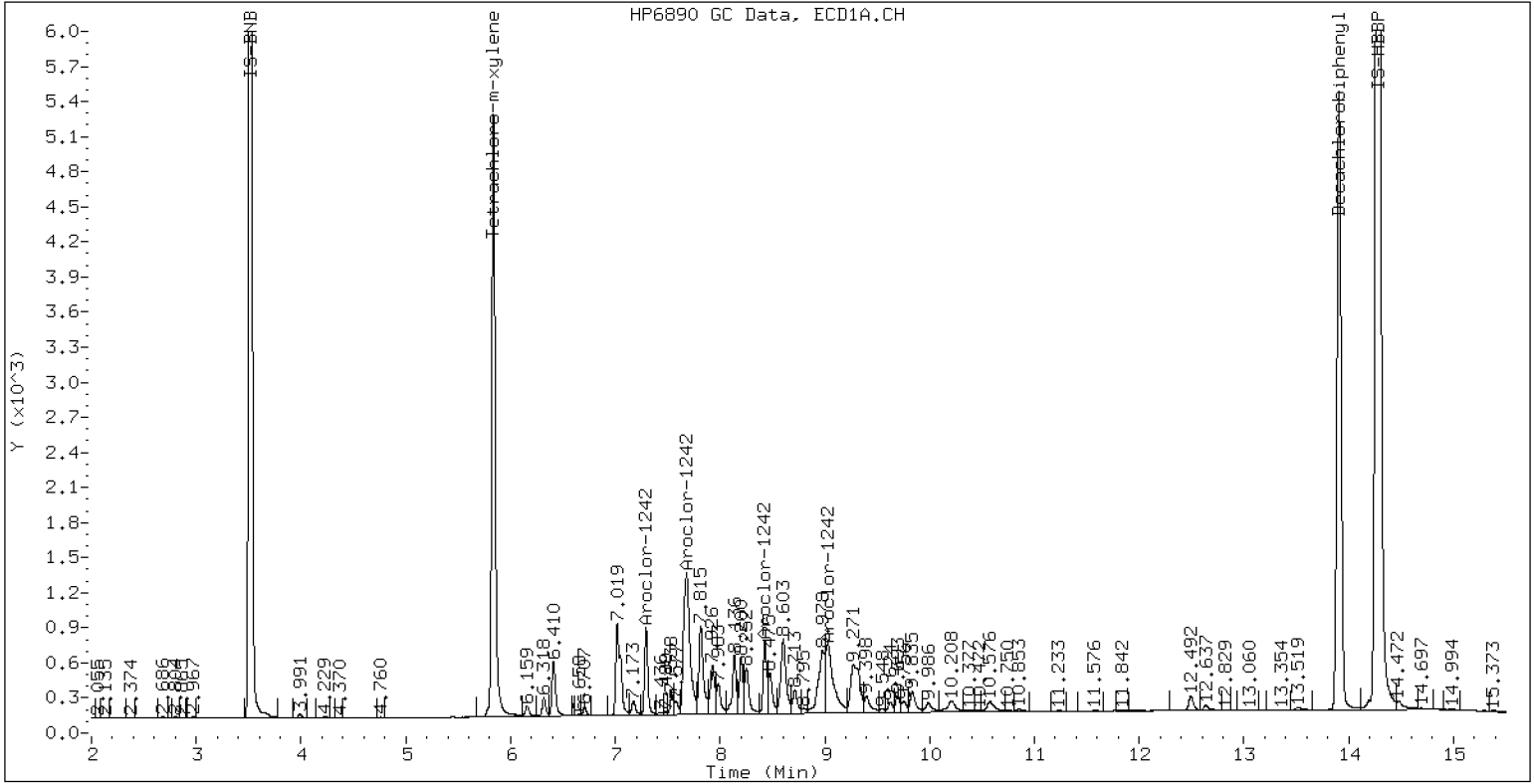
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242

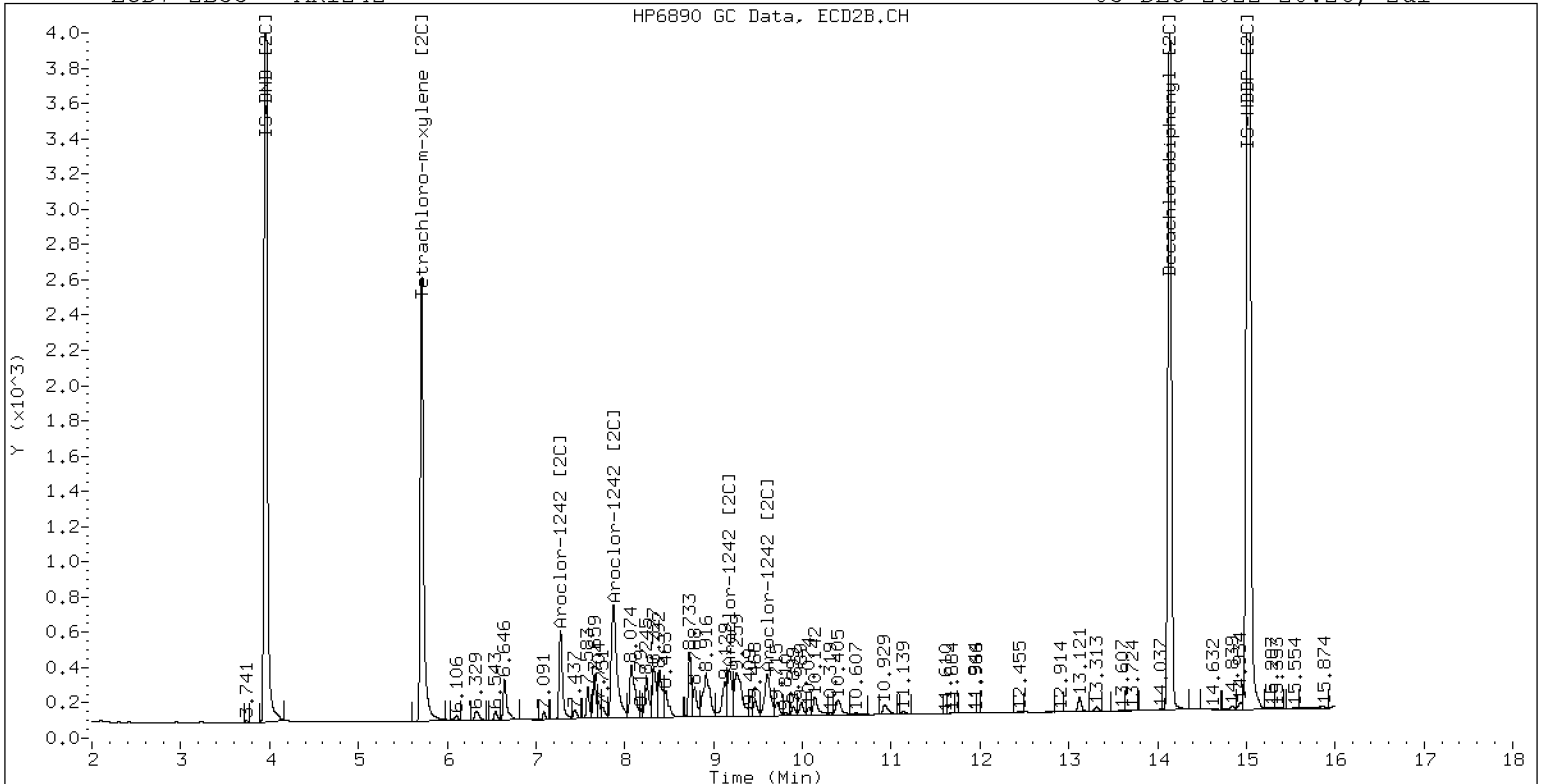
03-DEC-2022 20:26, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1242

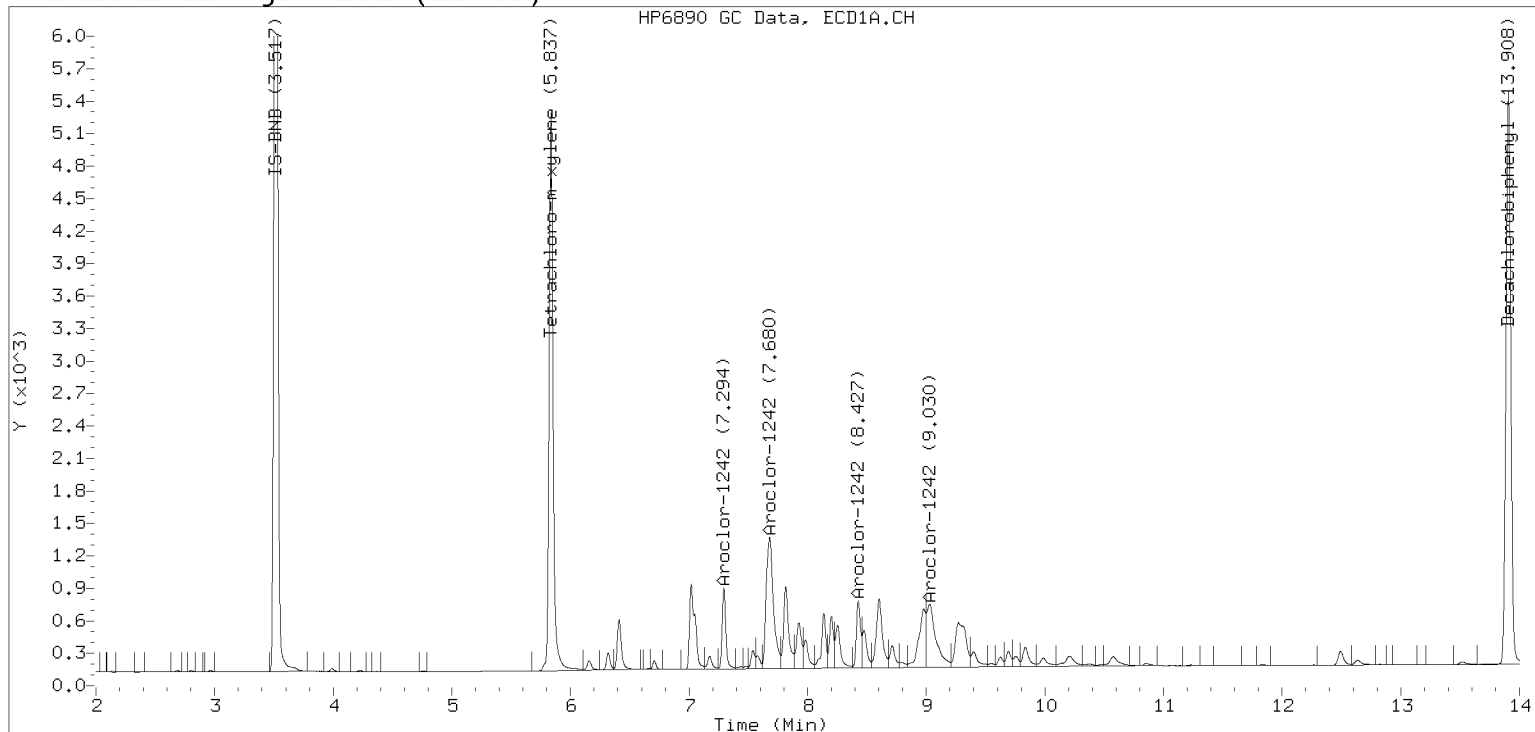
03-DEC-2022 20:26, 2ul



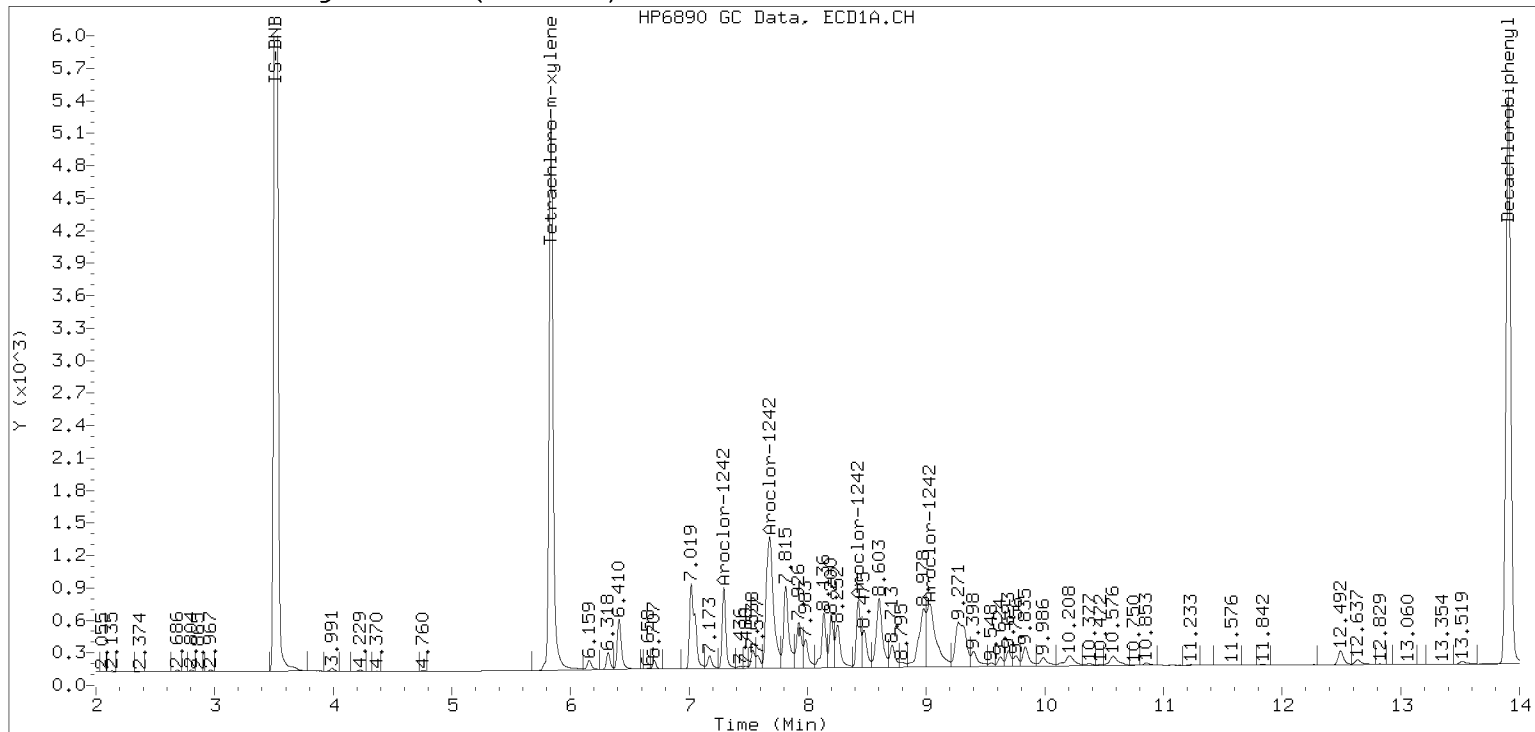
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/221203.b/12032217ECD7.D Injection Date: 03-DEC-2022 20:26

Manual Integration (After)



Processed Integration (Before)



ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.427	0.000	48733	250.0	1	8.326	0.000	25909	250.0
Aroclor-1248	2	8.603	0.000	62221	250.0	2	8.733	0.000	27250	250.0
Aroclor-1248	3	9.023	0.000	111933	250.0	3	9.177	0.000	33147	250.0
Aroclor-1248	4	9.315	0.000	54837	250.0	4	9.602	0.000	38911	250.0
Total Col1Ave (4 peaks):				250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):				250.0	Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Col1 (5.936 - 13.808) = 964384 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 514558 Col2 Total PCB = 0.3 ppm*

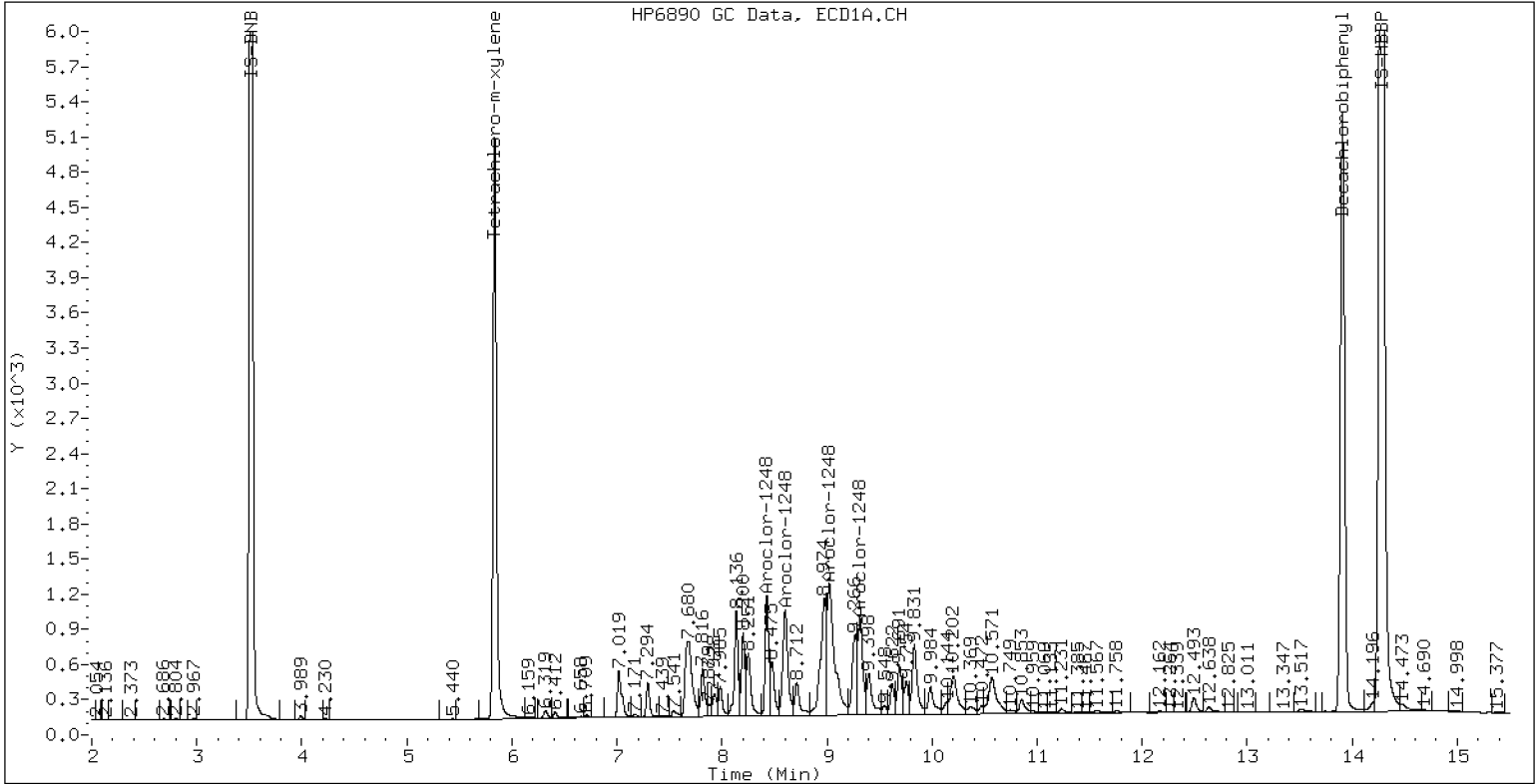
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248

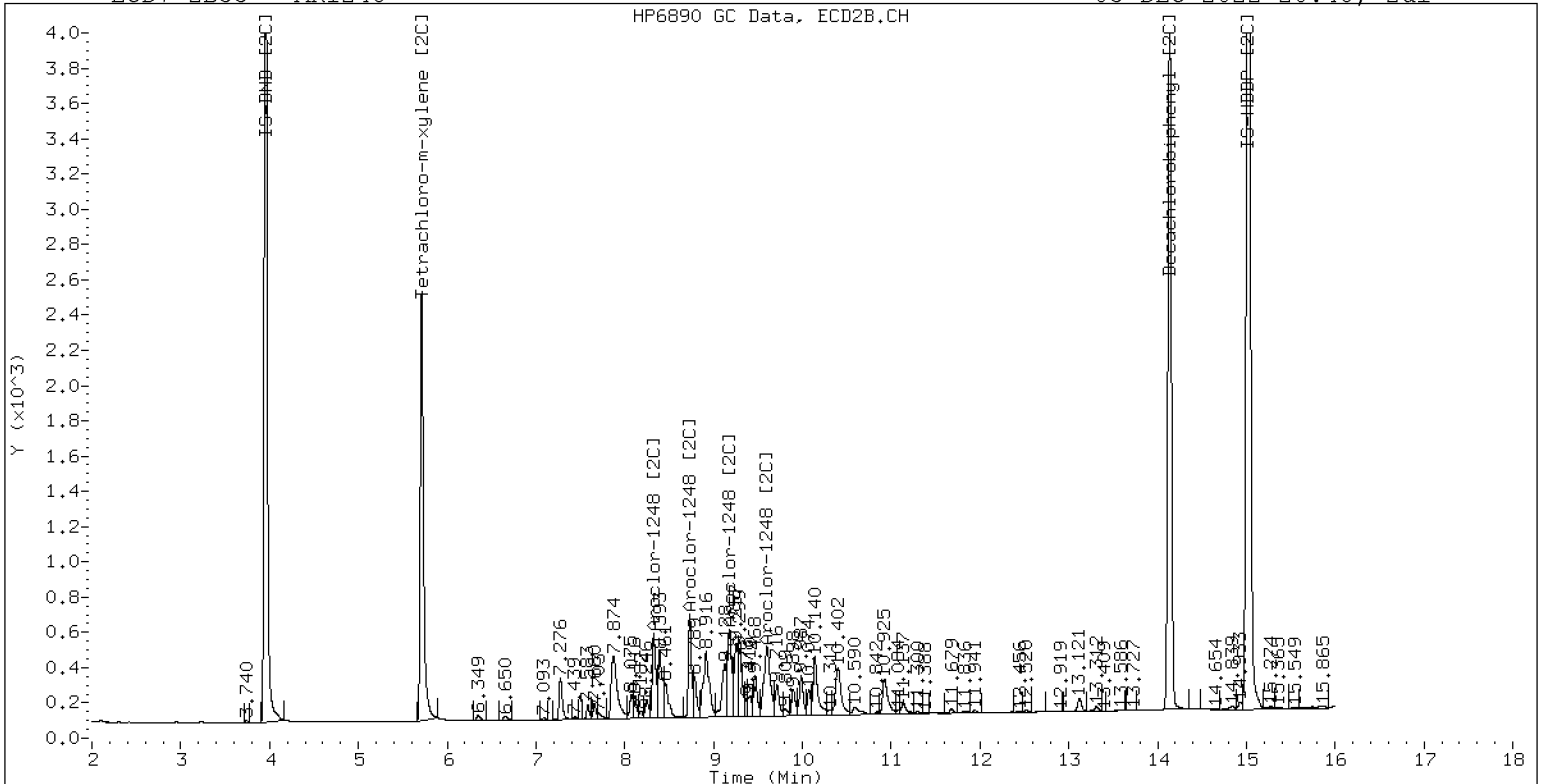
03-DEC-2022 20:48, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248

03-DEC-2022 20:48, 2u1



ZB-35 Manual Integration: NO

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.319	0.000	100858	250.0	1	9.467	0.000	41352	250.0	
Aroclor-1254	2	9.397	0.000	39224	250.0	2	9.987	0.000	33246	250.0	
Aroclor-1254	3	9.688	0.000	63702	250.0	3	10.139	0.000	71462	250.0	
Aroclor-1254	4	9.828	0.000	124170	250.0	4	10.389	0.000	74009	250.0	
Aroclor-1254	5	10.194	0.000	85117	250.0	5	10.586	0.000	35695	250.0	
Total CollAve (5 peaks):				250.0		Total Col2Ave (5 peaks):				250.0	RPD = 0
Corrected Ave (4 peaks):				250.0		Corrected Ave (4 peaks):				250.0	RPD = 0

Total PCB Area Coll (5.936 - 13.808) = 1310899 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 697760 Col2 Total PCB = 0.4 ppm*

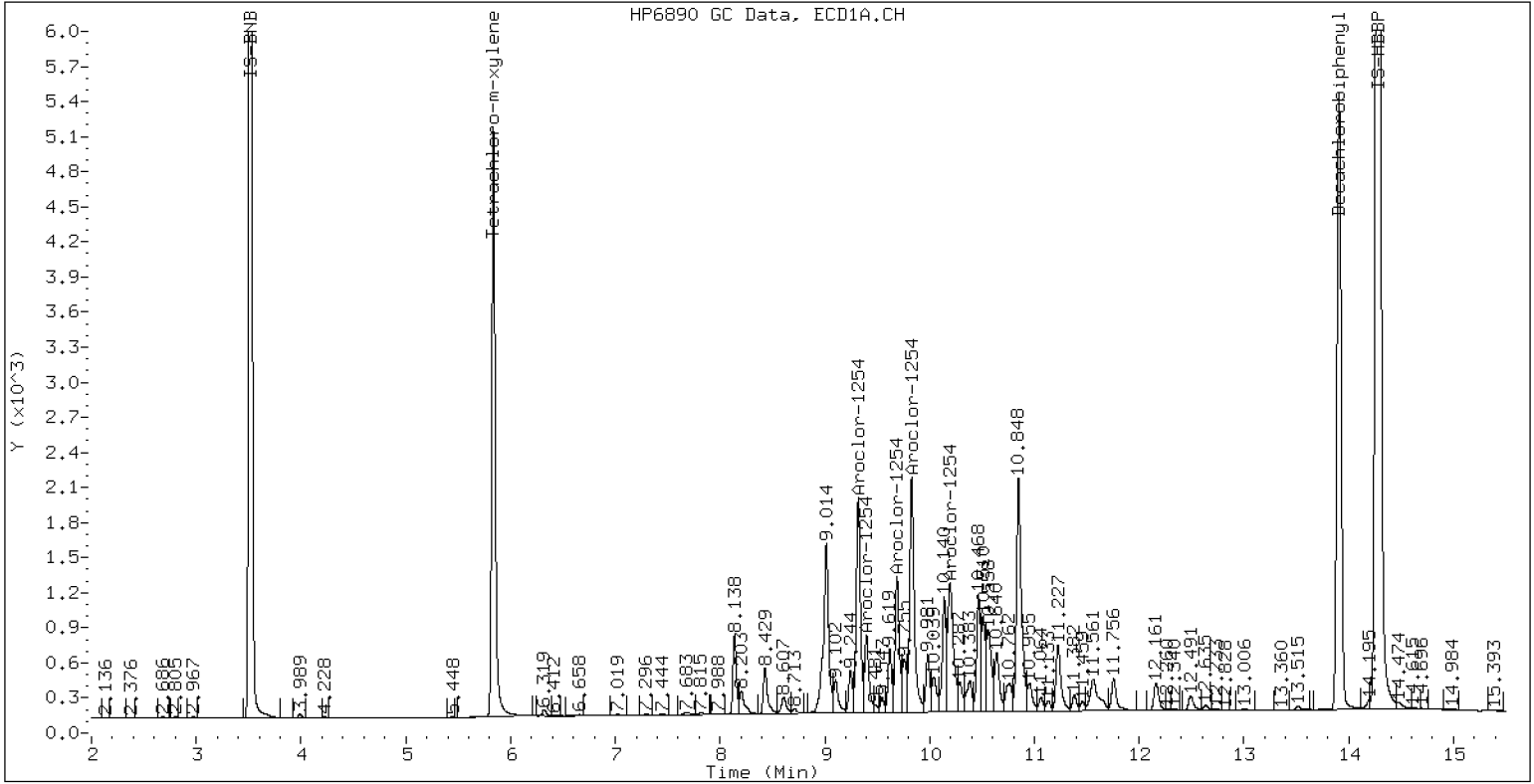
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254

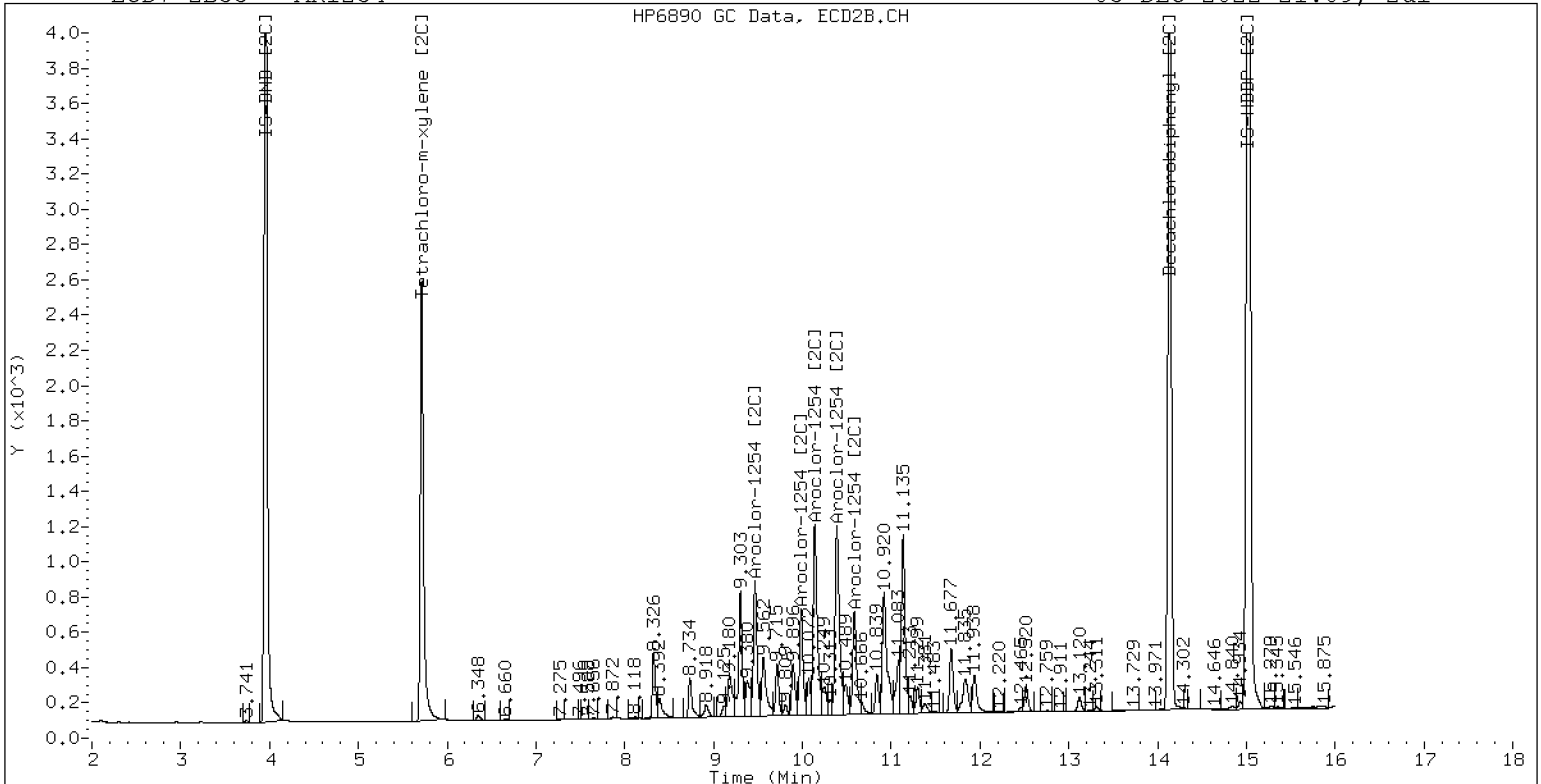
03-DEC-2022 21:09, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254

03-DEC-2022 21:09, 2u1



ZB-35 Manual Integration: YES

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032220ECD7.D
 Data file 2: /221203.b/221203.b/12032220ECD7.D
 Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
 Compound Sublist: AR2162.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR2162
 Client ID:
 Injection Date: 03-DEC-2022 21:30
 Report Date: 12/05/2022 13:28
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.001	241351	5.713	-0.001	129143	36.5	36.2	0.7	Tetrachloro-m-xylene
13.908	0.000	313862	14.136	-0.001	226219	40.2	38.7	4.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	466944	4.3
Hexabromobiphenyl	798898	850987	6.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	260026	4.4
Hexabromobiphenyl	362541	412003	13.6

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1221	1	4.760	0.000	9650	250.0	1	4.987	0.000	5486	250.0
Aroclor-1221	2	6.159	0.000	17000	250.0	2	6.322	0.000	10456	250.0
Aroclor-1221	3	6.409	0.000	39219	250.0	3	6.645	0.000	17596	250.0
Total CollAve (3 peaks):				250.0		Total Col2Ave (3 peaks):				250.0 RPD = 0
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Aroclor-1262	1	10.848	0.000	71145	250.0	1	11.217	0.000	78317	250.0
Aroclor-1262	2	12.263	0.000	110609	250.0	2	11.670	0.000	67831	250.0
Aroclor-1262	3	12.337	0.000	118127	250.0	3	12.451	0.000	74822	250.0
Aroclor-1262	4	13.005	0.000	94805	250.0	4	12.519	0.000	117202	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Coll (5.936 - 13.808) = 1878739 Coll Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1073324 Col2 Total PCB = 0.6 ppm*

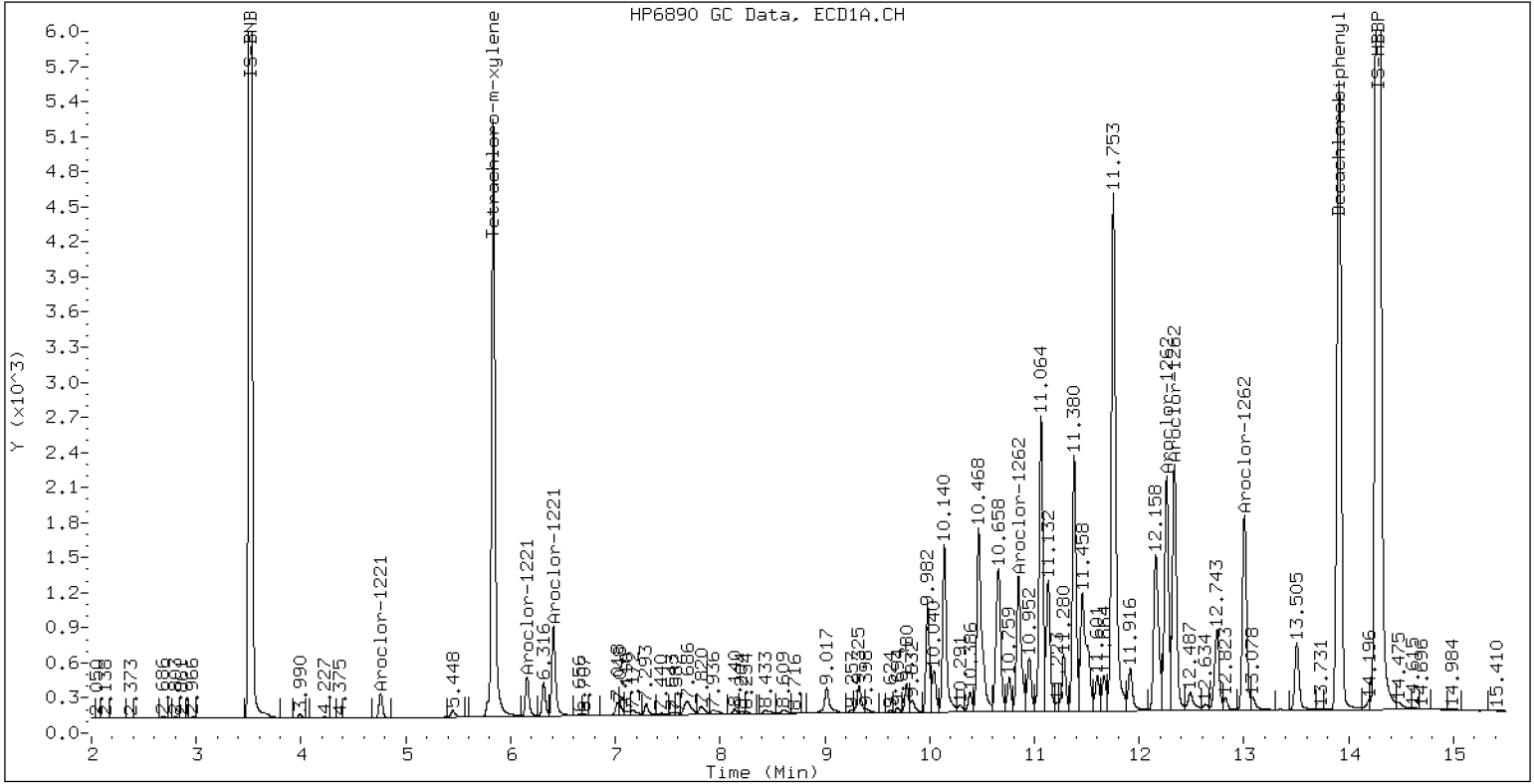
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162

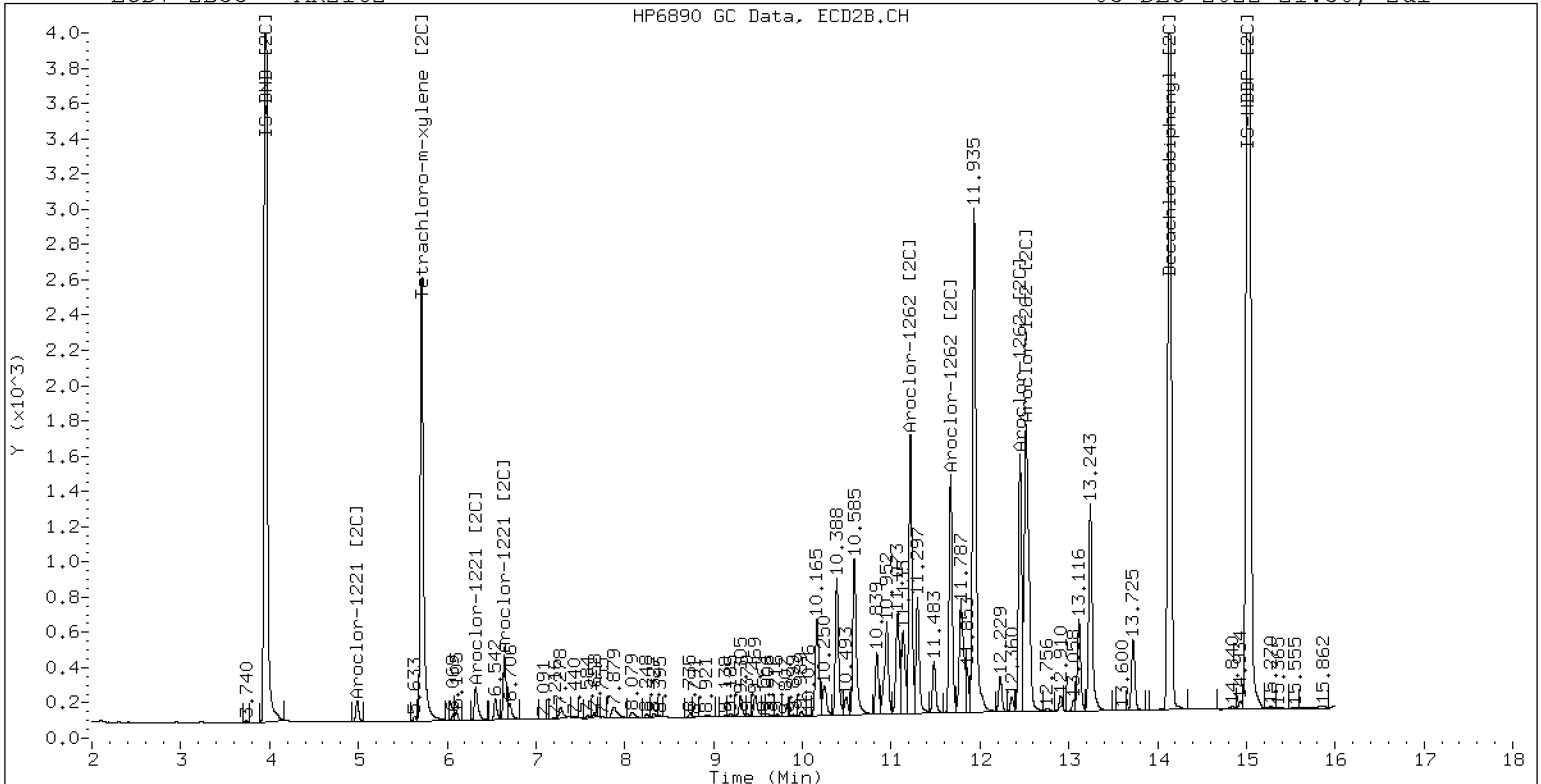
03-DEC-2022 21:30, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162

03-DEC-2022 21:30, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032221ECD7.D ARI ID: AR3268
Data file 2: /221203.b/221203.b/12032221ECD7.D Client ID:
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m Injection Date: 03-DEC-2022 21:52
Compound Sublist: AR3268.sub Report Date: 12/05/2022 13:28
Instrument, Inj. Vol.: ecd7.i, 2ul Matrix: NONE
Quant Method: Internal Std Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	0.000	243663	5.713	0.000	131067	37.5	37.4	0.3	Tetrachloro-m-xylene
13.908	0.000	449152	14.137	0.000	328563	57.2	55.9	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	458589	2.4
Hexabromobiphenyl	798898	855928	7.1
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	255655	2.6
Hexabromobiphenyl	362541	413793	14.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.761	0.000	5704	250.0	1	4.989	0.000	3108	250.0
Aroclor-1232	2	6.160	0.000	12048	250.0	2	7.277	0.000	15872	250.0
Aroclor-1232	3	7.684	0.000	54107	250.0	3	7.876	0.000	31029	250.0
Aroclor-1232	4	8.606	0.000	22956	250.0	4	8.734	0.000	8413	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0
Aroclor-1268	1	12.262	0.000	299378	250.0	1	12.450	0.000	195273	250.0
Aroclor-1268	2	12.335	0.000	292877	250.0	2	12.517	0.000	200224	250.0
Aroclor-1268	3	12.716	0.000	240046	250.0	3	12.910	0.000	74248	250.0
Aroclor-1268	4	13.505	0.000	732880	250.0	4	13.726	0.000	534323	250.0
Total CollAve (4 peaks):				250.0		Total Col2Ave (4 peaks):				250.0 RPD = 0
Corrected Ave (3 peaks):				250.0		Corrected Ave (3 peaks):				250.0 RPD = 0

Total PCB Area Col1 (5.936 - 13.808) = 2400701 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1468669 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032222ECD7.D
Data file 2: /221203.b/221203.b/12032222ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV1
Client ID:
Injection Date: 03-DEC-2022 22:13
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.000	247495	5.714	0.000	133904	36.1	36.1	0.2	Tetrachloro-m-xylene
13.909	0.001	325466	14.137	0.000	234467	39.8	38.2	4.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	483506	8.0
Hexabromobiphenyl	798898	892033	11.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270882	8.7
Hexabromobiphenyl	362541	432562	19.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.293	0.001	36100	223.8	1	7.277	0.002	30155	217.7
Aroclor-1016	2	7.681	0.007	113995	218.9	2	7.875	0.004	64468	215.8
Aroclor-1016	3	7.815	0.004	53043	224.8	3	8.074	0.004	27130	211.5
Aroclor-1016	4	8.428	0.004	33958	225.7	4	8.245	0.004	14848	220.1
Total CollAve (4 peaks):				223.3		Total Col2Ave (4 peaks):				216.3 RPD = 3
Corrected Ave (3 peaks):				222.5		Corrected Ave (3 peaks):				215.0 RPD = 3
Aroclor-1260	1	11.063	0.001	93173	286.9	1	11.671	0.002	56796	248.7
Aroclor-1260	2	11.380	0.003	95530	284.5	2	11.935	0.002	153247	267.5
Aroclor-1260	3	11.754	0.004	250548	283.9	3	12.452	0.001	41316	270.8
Aroclor-1260	4	12.159	0.005	120399	267.9	4	12.519	0.003	100704	263.7
Aroclor-1260	5	12.263	0.003	55639	302.5	NS	---			----
Total CollAve (5 peaks):				285.1		Total Col2Ave (4 peaks):				262.7 RPD = 8
Corrected Ave (4 peaks):				280.8		Corrected Ave (3 peaks):				260.0 RPD = 8

Total PCB Area Col1 (5.936 - 13.808) = 2318083 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1275603 Col2 Total PCB = 0.7 ppm*

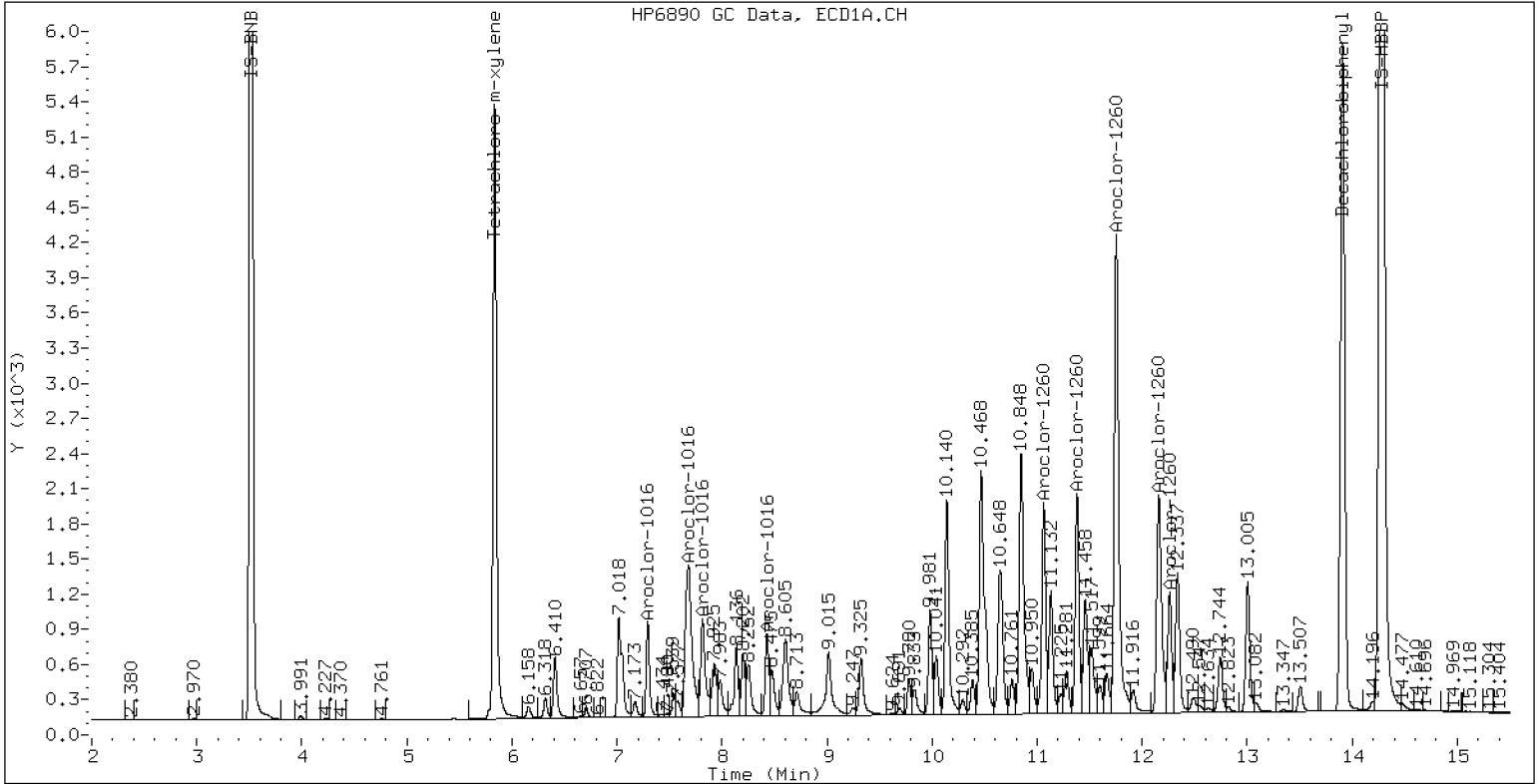
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV1

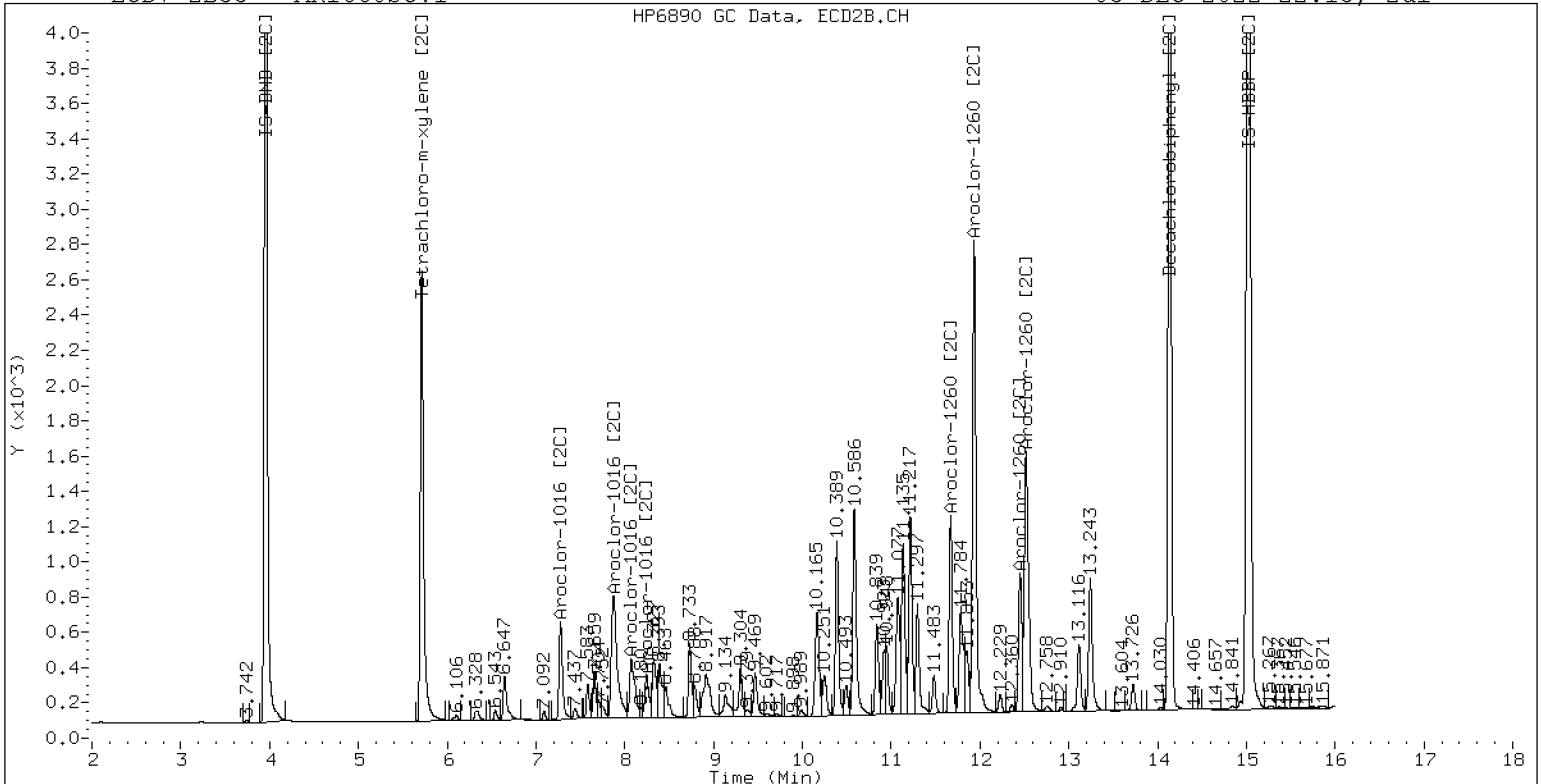
03-DEC-2022 22:13, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660SCV1

03-DEC-2022 22:13, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032223ECD7.D
 Data file 2: /221203.b/221203.b/12032223ECD7.D
 Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
 Compound Sublist: AR1242.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR1242SCV2
 Client ID:
 Injection Date: 03-DEC-2022 22:34
 Report Date: 12/05/2022 13:28
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	-0.000	242356	5.713	-0.001	132586	35.6	35.8	0.7	Tetrachloro-m-xylene
13.909	0.001	321690	14.136	-0.001	228130	39.1	38.0	2.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	480791	7.4
Hexabromobiphenyl	798898	896515	12.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270117	8.4
Hexabromobiphenyl	362541	422729	16.6

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.294	0.000	26316	193.1	1	7.277	-0.001	23973	209.7	
Aroclor-1242	2	7.677	-0.003	89703	207.3	2	7.873	-0.002	50204	206.9	
Aroclor-1242	3	8.427	0.000	26786	215.2	3	9.176	-0.002	19686	251.4	
Aroclor-1242	4	9.025	-0.005	54647	211.4	4	9.599	-0.006	21874	232.4	
Total CollAve (4 peaks):				206.7	Total Col2Ave (4 peaks):				225.1	RPD = 9	
Corrected Ave (3 peaks):				203.9	Corrected Ave (3 peaks):				216.3	RPD = 6	

Total PCB Area Coll (5.936 - 13.808) = 731052 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 398143 Col2 Total PCB = 0.2 ppm*

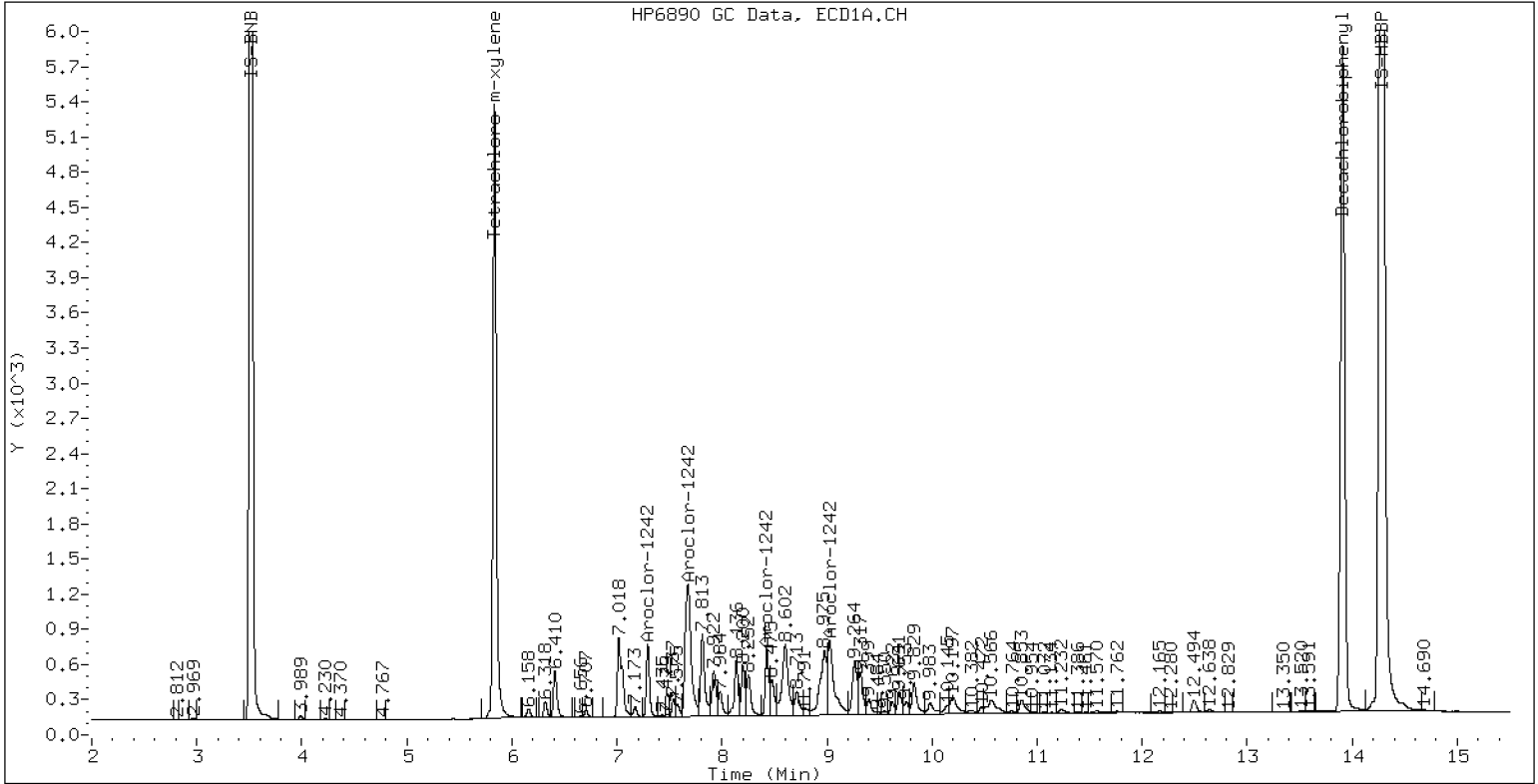
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV2

03-DEC-2022 22:34, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032224ECD7.D
Data file 2: /221203.b/221203.b/12032224ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV3
Client ID:
Injection Date: 03-DEC-2022 22:55
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.000	238518	5.713	-0.001	130772	34.7	35.1	1.0	Tetrachloro-m-xylene
13.909	0.001	329816	14.137	0.000	230748	39.3	38.1	3.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	484977	8.3
Hexabromobiphenyl	798898	915518	14.6
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	272055	9.2
Hexabromobiphenyl	362541	426674	17.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.427	-0.000	49184	235.9	1	8.326	0.000	25647	230.8	
Aroclor-1248	2	8.604	0.002	62884	236.2	2	8.733	0.000	26944	230.5	
Aroclor-1248	3	9.021	-0.002	117065	244.4	3	9.179	0.001	32692	229.9	
Aroclor-1248	4	9.315	0.000	62309	265.6	4	9.604	0.002	38342	229.7	
Total Col1Ave (4 peaks):				245.5	Total Col2Ave (4 peaks):				230.2	RPD = 6	
Corrected Ave (3 peaks):				238.8	Corrected Ave (3 peaks):				230.0	RPD = 4	

Total PCB Area Col1 (5.936 - 13.808) = 991353 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 508870 Col2 Total PCB = 0.3 ppm*

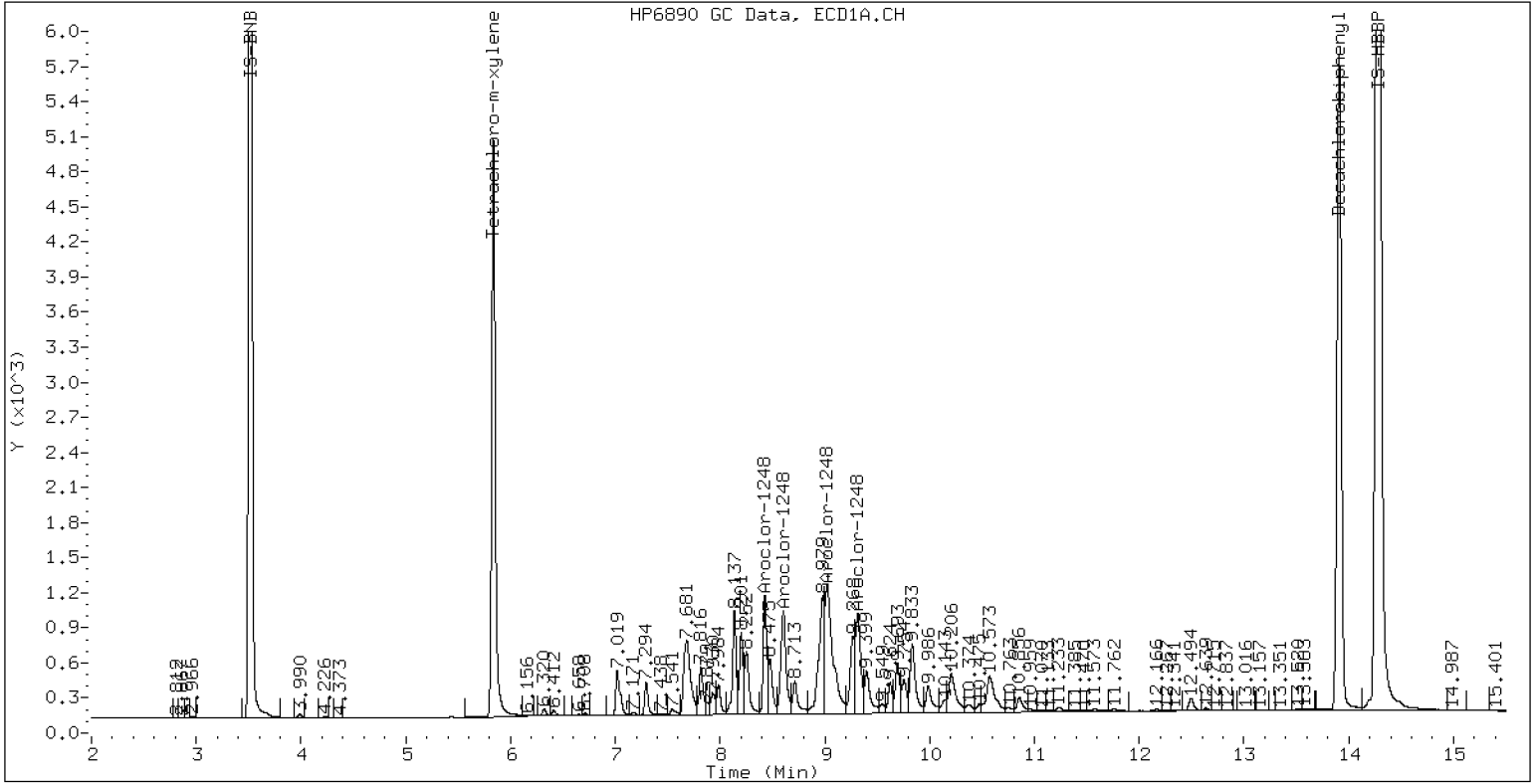
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV3

03-DEC-2022 22:55, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032225ECD7.D
Data file 2: /221203.b/221203.b/12032225ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV4
Client ID:
Injection Date: 03-DEC-2022 23:17
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.000	243863	5.713	-0.000	133610	35.5	36.0	1.4	Tetrachloro-m-xylene
13.909	0.001	332566	14.137	-0.000	233115	39.5	38.1	3.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	484642	8.3
Hexabromobiphenyl	798898	917405	14.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270782	8.7
Hexabromobiphenyl	362541	431238	18.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.321	0.003	94448	221.3	1	9.469	0.002	39410	225.7	
Aroclor-1254	2	9.401	0.003	41171	248.1	2	9.989	0.002	31415	223.8	
Aroclor-1254	3	9.692	0.004	60946	226.1	3	10.143	0.004	66244	219.6	
Aroclor-1254	4	9.832	0.004	116490	221.7	4	10.392	0.003	70095	224.3	
Aroclor-1254	5	10.199	0.005	80050	222.3	5	10.588	0.002	39206	260.2	
Total CollAve (5 peaks):				227.9	Total Col2Ave (5 peaks):				230.7	RPD = 1	
Corrected Ave (4 peaks):				222.9	Corrected Ave (4 peaks):				223.4	RPD = 0	

Total PCB Area Col1 (5.936 - 13.808) = 1261470 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 664781 Col2 Total PCB = 0.3 ppm*

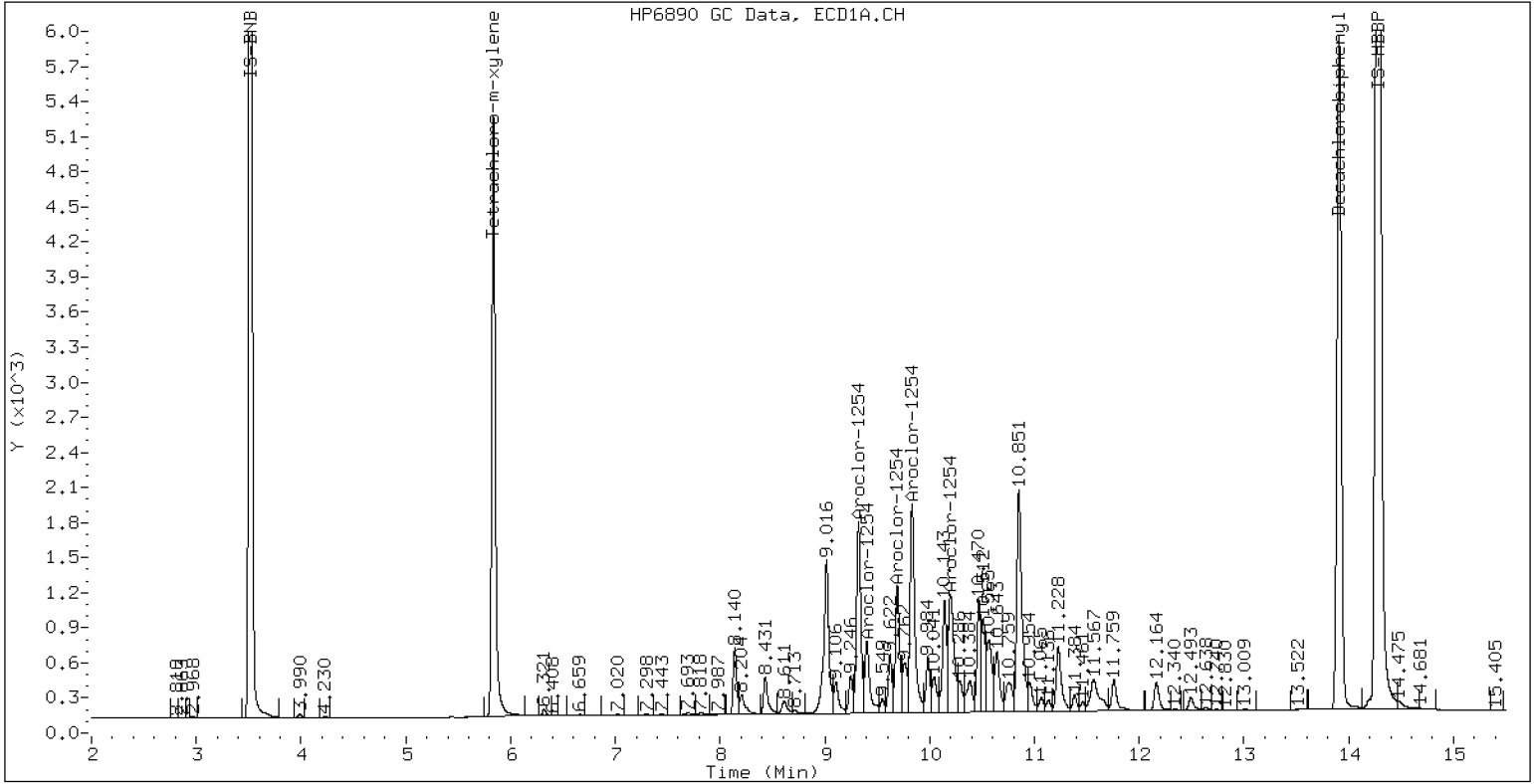
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254SCV4

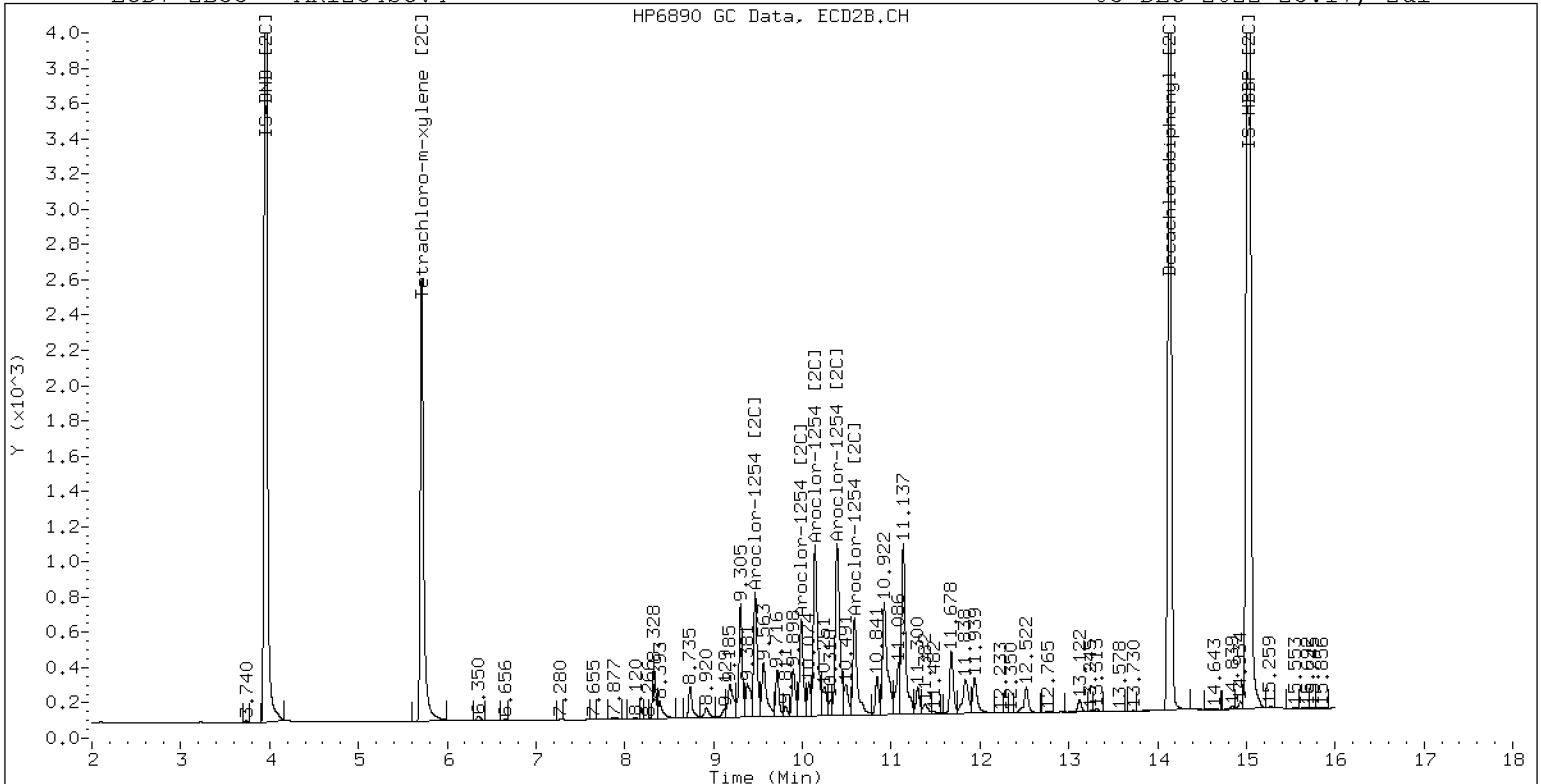
03-DEC-2022 23:17, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254SCV4

03-DEC-2022 23:17, 2ul



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032226ECD7.D
Data file 2: /221203.b/221203.b/12032226ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV5
Client ID:
Injection Date: 03-DEC-2022 23:38
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	0.000	246394	5.713	-0.000	131378	36.1	35.7	1.1	Tetrachloro-m-xylene
13.908	-0.001	334929	14.136	-0.001	237241	40.0	38.4	4.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	482097	7.7
Hexabromobiphenyl	798898	913775	14.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	268757	7.9
Hexabromobiphenyl	362541	434790	19.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1221	1	4.761	0.001	9579	240.4	1	4.988	0.001	5527	243.7	
Aroclor-1221	2	6.159	0.001	16402	233.6	2	6.323	0.001	10041	232.3	
Aroclor-1221	3	6.410	0.001	38315	236.6	3	6.646	0.001	16814	231.1	
Total CollAve (3 peaks):				236.8	Total Col2Ave (3 peaks):				235.7	RPD = 0	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Aroclor-1262	1	10.845	-0.003	145305	475.5	1	11.216	-0.001	152840	462.3	
Aroclor-1262	2	12.261	-0.001	222795	469.0	2	11.668	-0.002	131097	457.9	
Aroclor-1262	3	12.336	-0.001	238475	470.0	3	12.449	-0.002	148386	469.8	
Aroclor-1262	4	13.004	-0.001	188009	461.7	4	12.518	-0.001	231081	467.1	
Total CollAve (4 peaks):				469.1	Total Col2Ave (4 peaks):				464.3	RPD = 1	
Corrected Ave (3 peaks):				466.9	Corrected Ave (3 peaks):				462.4	RPD = 1	

Total PCB Area Coll (5.936 - 13.808) = 3654831 Coll Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2063978 Col2 Total PCB = 1.1 ppm*

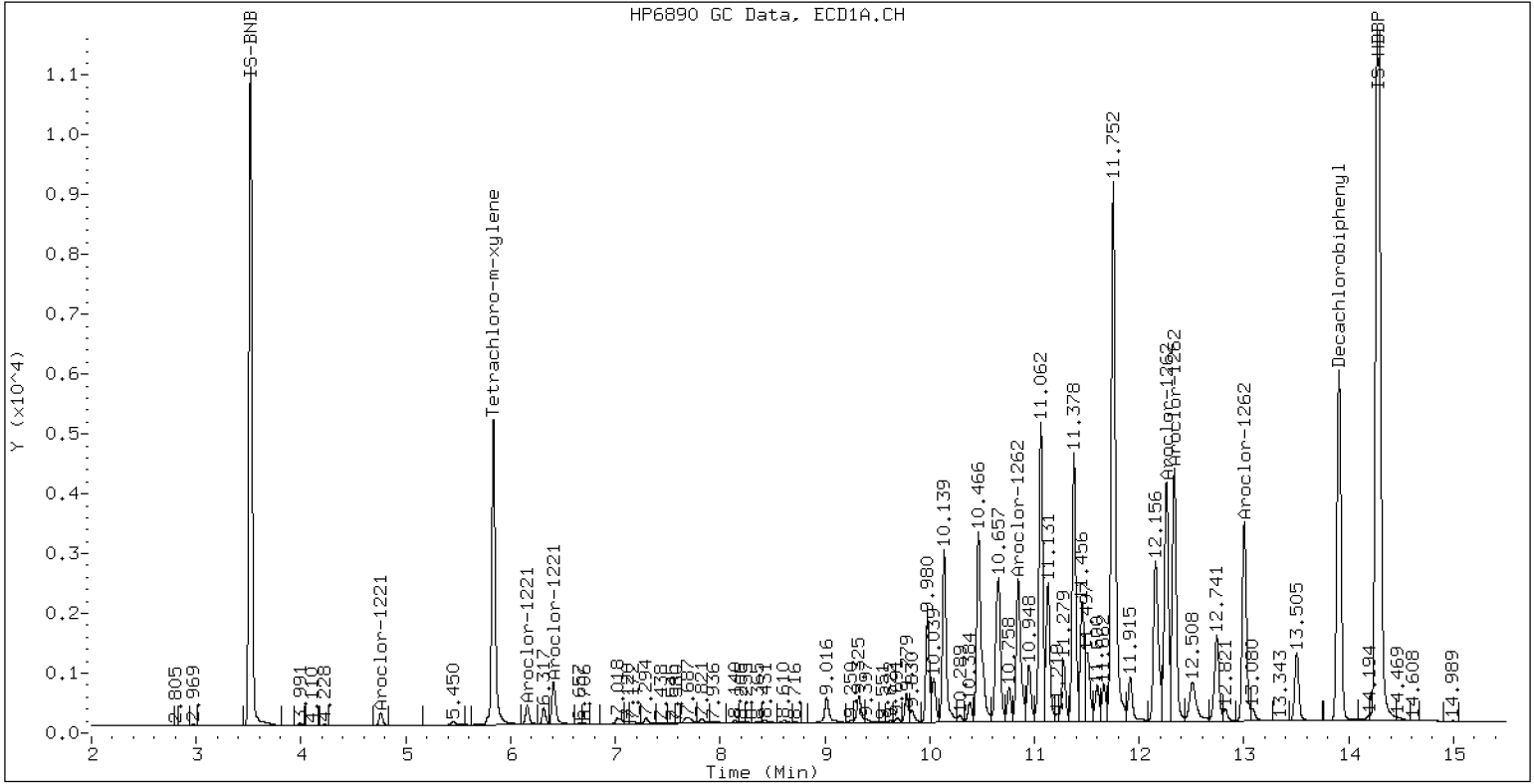
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV5

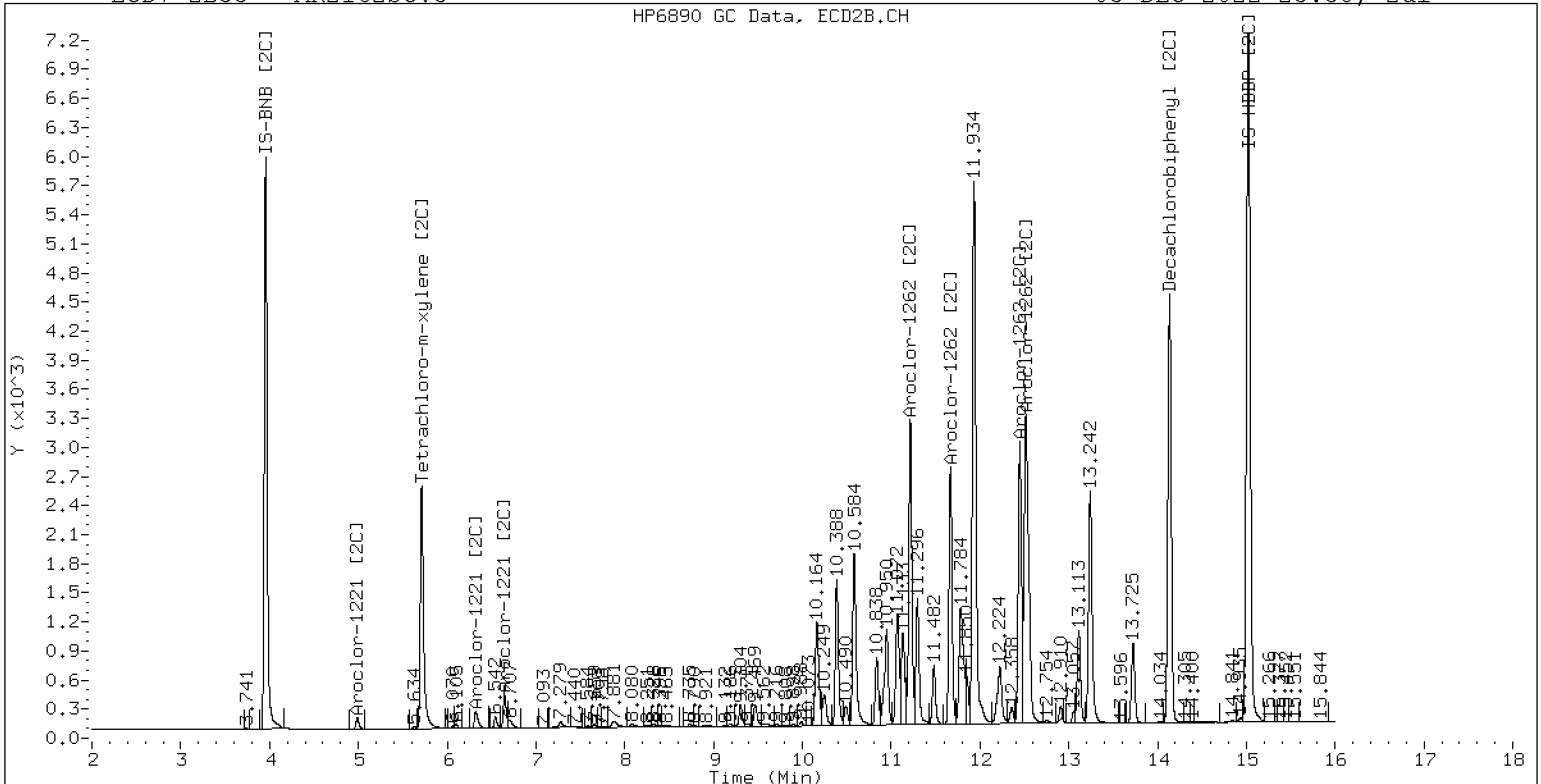
03-DEC-2022 23:38, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV5

03-DEC-2022 23:38, 2ul



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032227ECD7.D
Data file 2: /221203.b/221203.b/12032227ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV6
Client ID:
Injection Date: 03-DEC-2022 23:59
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.834	-0.002	236120	5.711	-0.002	126782	34.5	34.2	0.7	Tetrachloro-m-xylene
13.907	-0.002	474236	14.136	-0.001	339687	56.2	54.9	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	483276	8.0
Hexabromobiphenyl	798898	920878	15.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270175	8.5
Hexabromobiphenyl	362541	435731	20.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.758	-0.003	5334	221.8	1	4.986	-0.004	3031	230.7
Aroclor-1232	2	6.158	-0.002	9882	194.6	2	7.276	-0.001	14982	223.3
Aroclor-1232	3	7.684	0.000	51409	225.4	3	7.875	-0.001	29992	228.7
Aroclor-1232	4	8.607	0.001	21710	224.4	4	8.734	0.000	8467	238.1
Total CollAve (4 peaks):				216.5		Total Col2Ave (4 peaks):				230.2 RPD = 6
Corrected Ave (3 peaks):				213.6		Corrected Ave (3 peaks):				227.6 RPD = 6
Aroclor-1268	1	12.262	-0.000	296463	230.1	1	12.449	-0.000	189354	230.2
Aroclor-1268	2	12.336	0.001	294353	233.5	2	12.517	0.000	196449	232.9
Aroclor-1268	3	12.715	-0.001	238693	231.1	3	12.909	-0.001	66881	213.9
Aroclor-1268	4	13.506	0.001	725881	230.1	4	13.725	-0.001	525890	233.7
Total CollAve (4 peaks):				231.2		Total Col2Ave (4 peaks):				227.7 RPD = 2
Corrected Ave (3 peaks):				230.4		Corrected Ave (3 peaks):				225.7 RPD = 2

Total PCB Area Col1 (5.936 - 13.808) = 2353838 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1423323 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FL00010

Laboratory ID: SKL0048-SCV1

Sequence: SKL0048

Sequence Name: AR1660SCV1

Standard ID: K007655

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1016	250.00	223	-10.7	20.00
Aroclor 1016 [2C]	250.00	216	-13.5	20.00
Aroclor 1260	250.00	285	14.1	20.00
Aroclor 1260 [2C]	250.00	263	5.1	20.00
Decachlorobiphenyl	40.000	39.8	-0.5	20.00
Tetrachlorometaxylene	40.000	36.1	-9.7	20.00
Decachlorobiphenyl [2C]	40.000	38.2	-4.6	20.00
Tetrachlorometaxylene [2C]	40.000	36.1	-9.8	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032222ECD7.D
Data file 2: /221203.b/221203.b/12032222ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV1
Client ID:
Injection Date: 03-DEC-2022 22:13
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.000	247495	5.714	0.000	133904	36.1	36.1	0.2	Tetrachloro-m-xylene
13.909	0.001	325466	14.137	0.000	234467	39.8	38.2	4.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	483506	8.0
Hexabromobiphenyl	798898	892033	11.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270882	8.7
Hexabromobiphenyl	362541	432562	19.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.293	0.001	36100	223.8	1	7.277	0.002	30155	217.7
Aroclor-1016	2	7.681	0.007	113995	218.9	2	7.875	0.004	64468	215.8
Aroclor-1016	3	7.815	0.004	53043	224.8	3	8.074	0.004	27130	211.5
Aroclor-1016	4	8.428	0.004	33958	225.7	4	8.245	0.004	14848	220.1
Total CollAve (4 peaks):				223.3		Total Col2Ave (4 peaks):				216.3 RPD = 3
Corrected Ave (3 peaks):				222.5		Corrected Ave (3 peaks):				215.0 RPD = 3
Aroclor-1260	1	11.063	0.001	93173	286.9	1	11.671	0.002	56796	248.7
Aroclor-1260	2	11.380	0.003	95530	284.5	2	11.935	0.002	153247	267.5
Aroclor-1260	3	11.754	0.004	250548	283.9	3	12.452	0.001	41316	270.8
Aroclor-1260	4	12.159	0.005	120399	267.9	4	12.519	0.003	100704	263.7
Aroclor-1260	5	12.263	0.003	55639	302.5	NS	---			----
Total CollAve (5 peaks):				285.1		Total Col2Ave (4 peaks):				262.7 RPD = 8
Corrected Ave (4 peaks):				280.8		Corrected Ave (3 peaks):				260.0 RPD = 8

Total PCB Area Col1 (5.936 - 13.808) = 2318083 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1275603 Col2 Total PCB = 0.7 ppm*

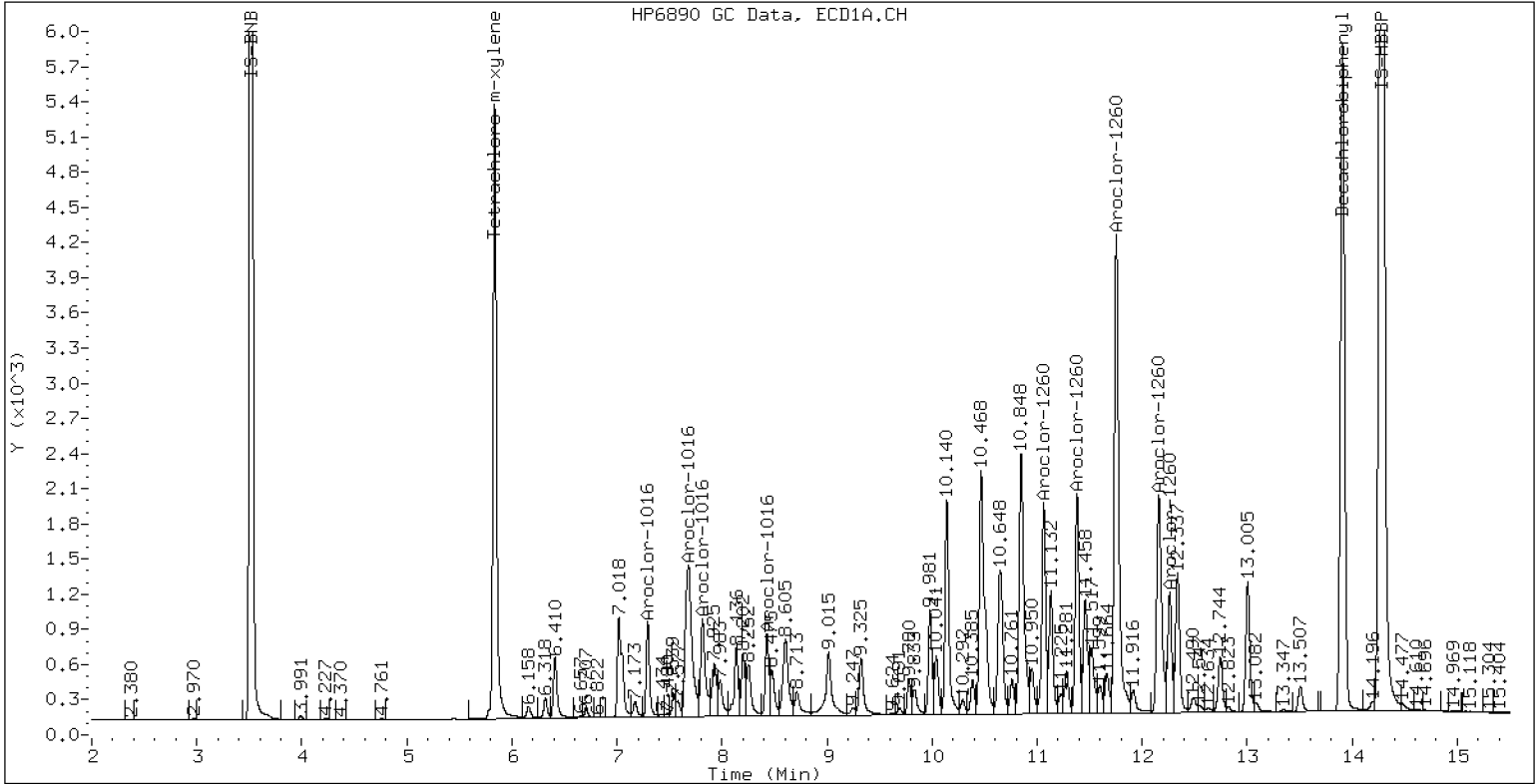
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV1

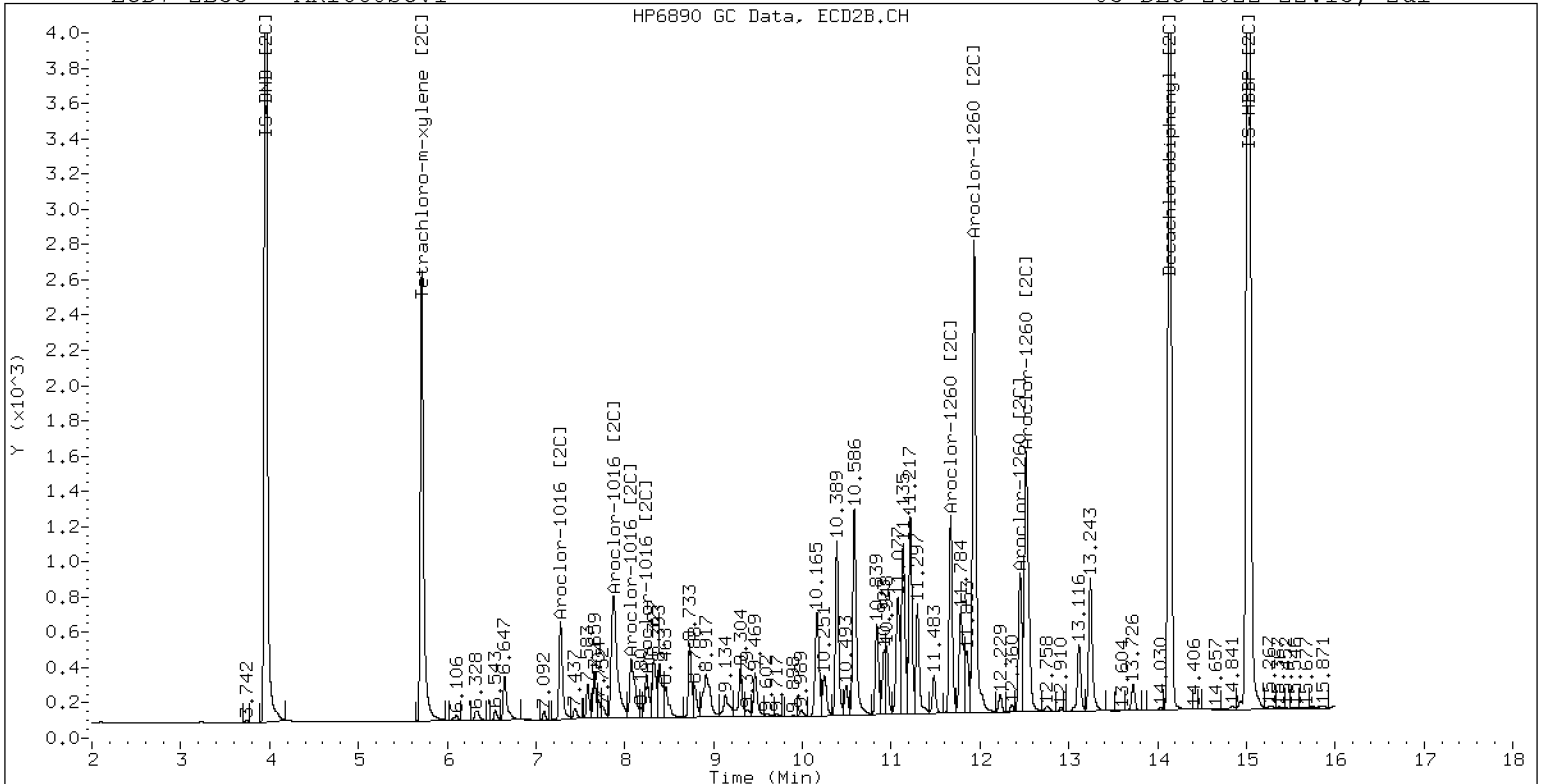
03-DEC-2022 22:13, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660SCV1

03-DEC-2022 22:13, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FL00010

Laboratory ID: SKL0048-SCV2

Sequence: SKL0048

Sequence Name: AR1242SCV2

Standard ID: K007656

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1242	250.00	207	-17.3	20.00
Aroclor 1242 [2C]	250.00	225	-10.0	20.00
Decachlorobiphenyl	40.000	39.1	-2.1	20.00
Tetrachlorometaxylene	40.000	35.6	-11.1	20.00
Decachlorobiphenyl [2C]	40.000	38.0	-5.0	20.00
Tetrachlorometaxylene [2C]	40.000	35.8	-10.5	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032223ECD7.D
Data file 2: /221203.b/221203.b/12032223ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV2
Client ID:
Injection Date: 03-DEC-2022 22:34
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	-0.000	242356	5.713	-0.001	132586	35.6	35.8	0.7	Tetrachloro-m-xylene
13.909	0.001	321690	14.136	-0.001	228130	39.1	38.0	2.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	480791	7.4
Hexabromobiphenyl	798898	896515	12.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270117	8.4
Hexabromobiphenyl	362541	422729	16.6

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 03-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.294	0.000	26316	193.1	1	7.277	-0.001	23973	209.7	
Aroclor-1242	2	7.677	-0.003	89703	207.3	2	7.873	-0.002	50204	206.9	
Aroclor-1242	3	8.427	0.000	26786	215.2	3	9.176	-0.002	19686	251.4	
Aroclor-1242	4	9.025	-0.005	54647	211.4	4	9.599	-0.006	21874	232.4	
Total CollAve (4 peaks):				206.7	Total Col2Ave (4 peaks):				225.1	RPD = 9	
Corrected Ave (3 peaks):				203.9	Corrected Ave (3 peaks):				216.3	RPD = 6	

Total PCB Area Coll (5.936 - 13.808) = 731052 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 398143 Col2 Total PCB = 0.2 ppm*

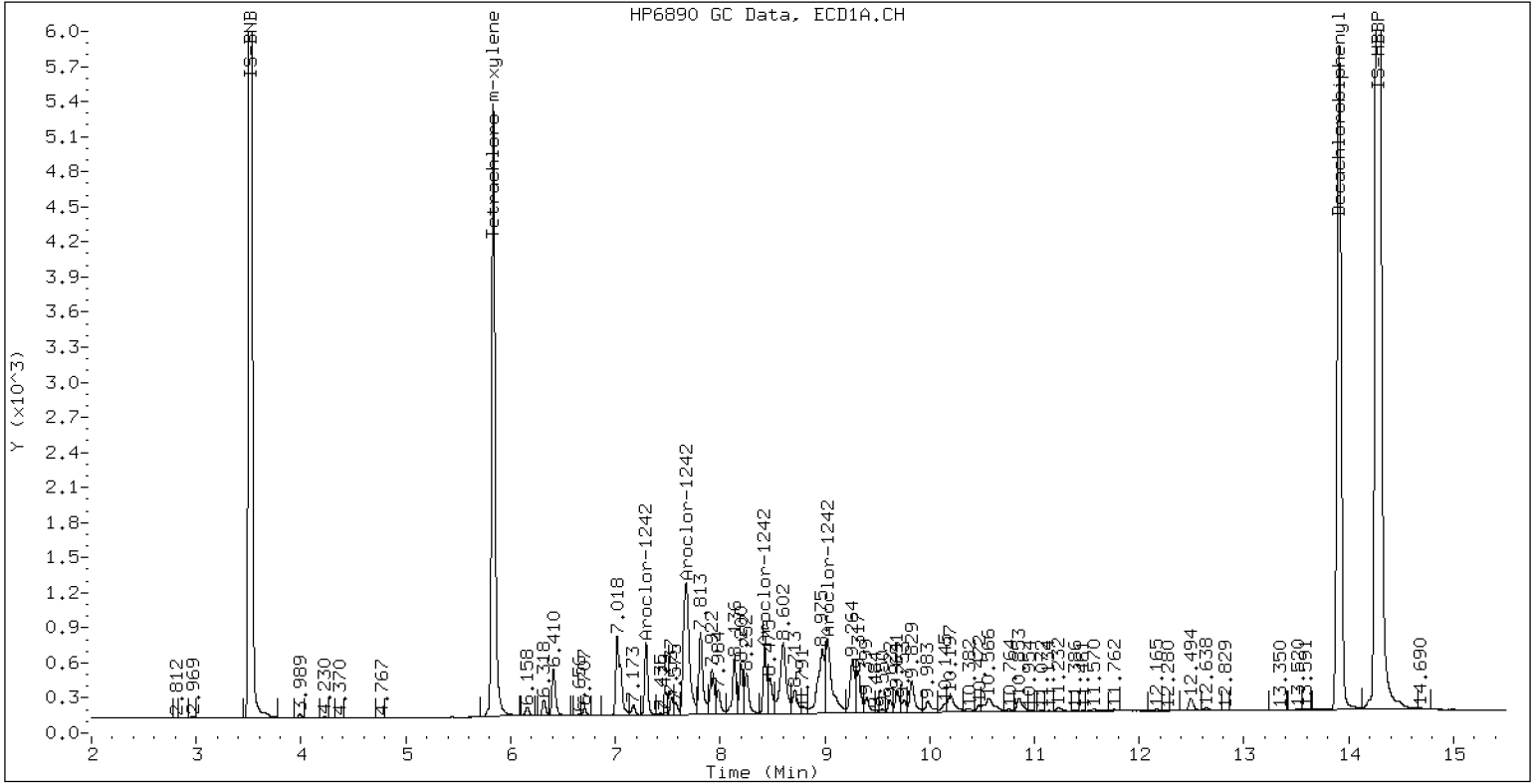
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV2

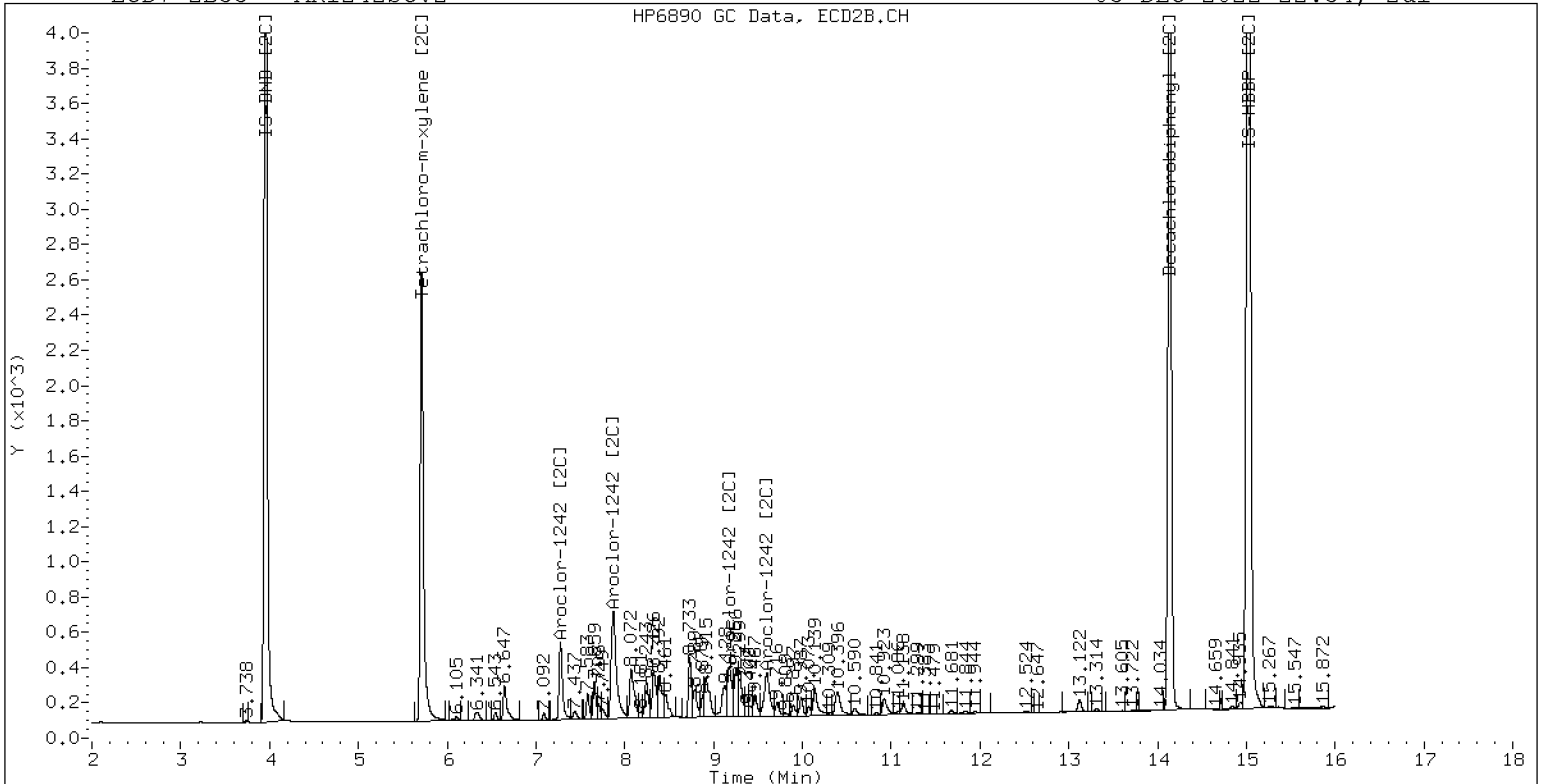
03-DEC-2022 22:34, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242SCV2

03-DEC-2022 22:34, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FL00010

Laboratory ID: SKL0048-SCV3

Sequence: SKL0048

Sequence Name: AR1248SCV3

Standard ID: K007657

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1248	250.00	246	-1.8	20.00
Aroclor 1248 [2C]	250.00	230	-7.9	20.00
Decachlorobiphenyl	40.000	39.3	-1.7	20.00
Tetrachlorometaxylene	40.000	34.7	-13.2	20.00
Decachlorobiphenyl [2C]	40.000	38.1	-4.8	20.00
Tetrachlorometaxylene [2C]	40.000	35.1	-12.3	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032224ECD7.D
Data file 2: /221203.b/221203.b/12032224ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV3
Client ID:
Injection Date: 03-DEC-2022 22:55
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.000	238518	5.713	-0.001	130772	34.7	35.1	1.0	Tetrachloro-m-xylene
13.909	0.001	329816	14.137	0.000	230748	39.3	38.1	3.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	484977	8.3
Hexabromobiphenyl	798898	915518	14.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	272055	9.2
Hexabromobiphenyl	362541	426674	17.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.427	-0.000	49184	235.9	1	8.326	0.000	25647	230.8	
Aroclor-1248	2	8.604	0.002	62884	236.2	2	8.733	0.000	26944	230.5	
Aroclor-1248	3	9.021	-0.002	117065	244.4	3	9.179	0.001	32692	229.9	
Aroclor-1248	4	9.315	0.000	62309	265.6	4	9.604	0.002	38342	229.7	
Total Col1Ave (4 peaks):				245.5	Total Col2Ave (4 peaks):				230.2	RPD = 6	
Corrected Ave (3 peaks):				238.8	Corrected Ave (3 peaks):				230.0	RPD = 4	

Total PCB Area Col1 (5.936 - 13.808) = 991353 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 508870 Col2 Total PCB = 0.3 ppm*

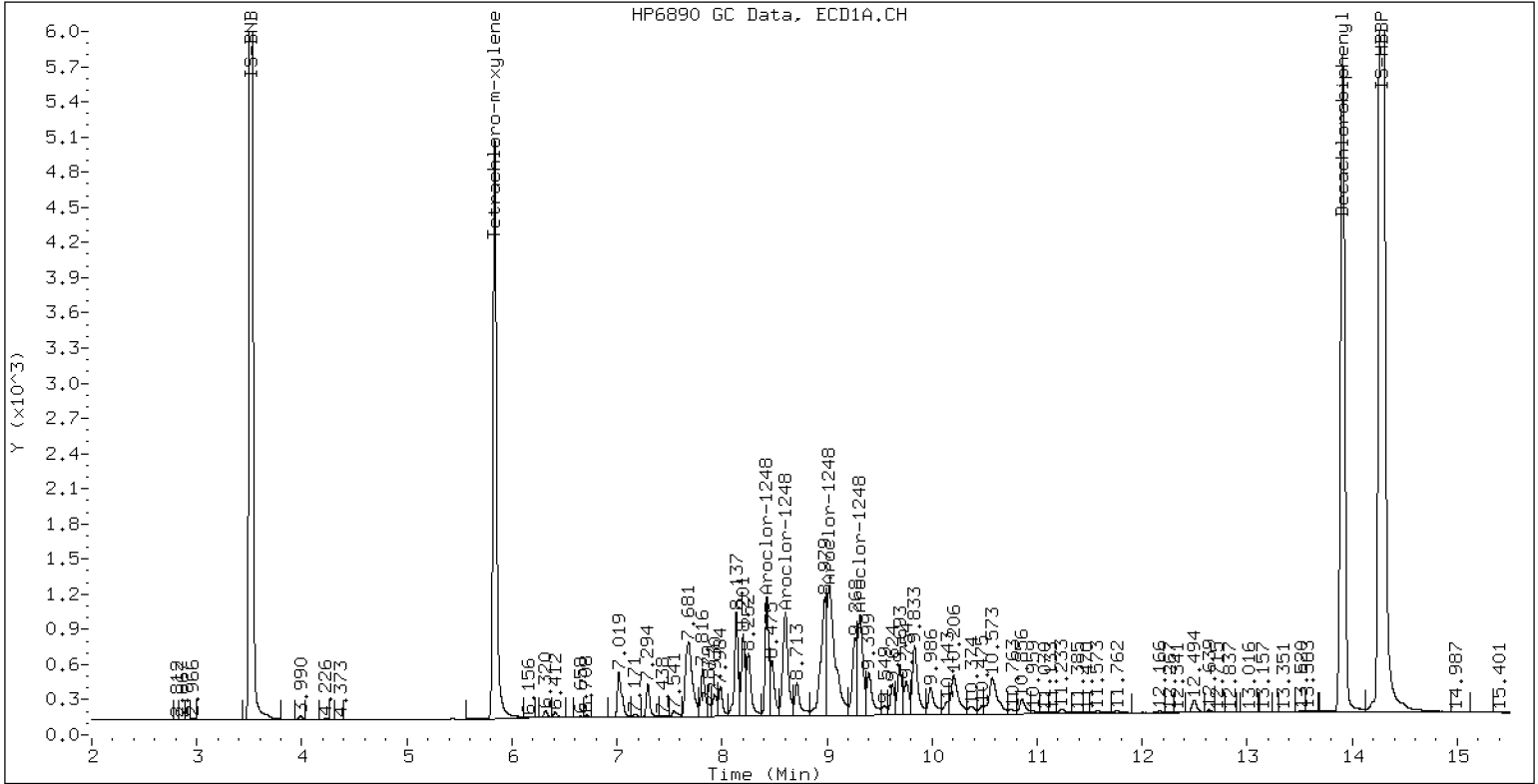
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV3

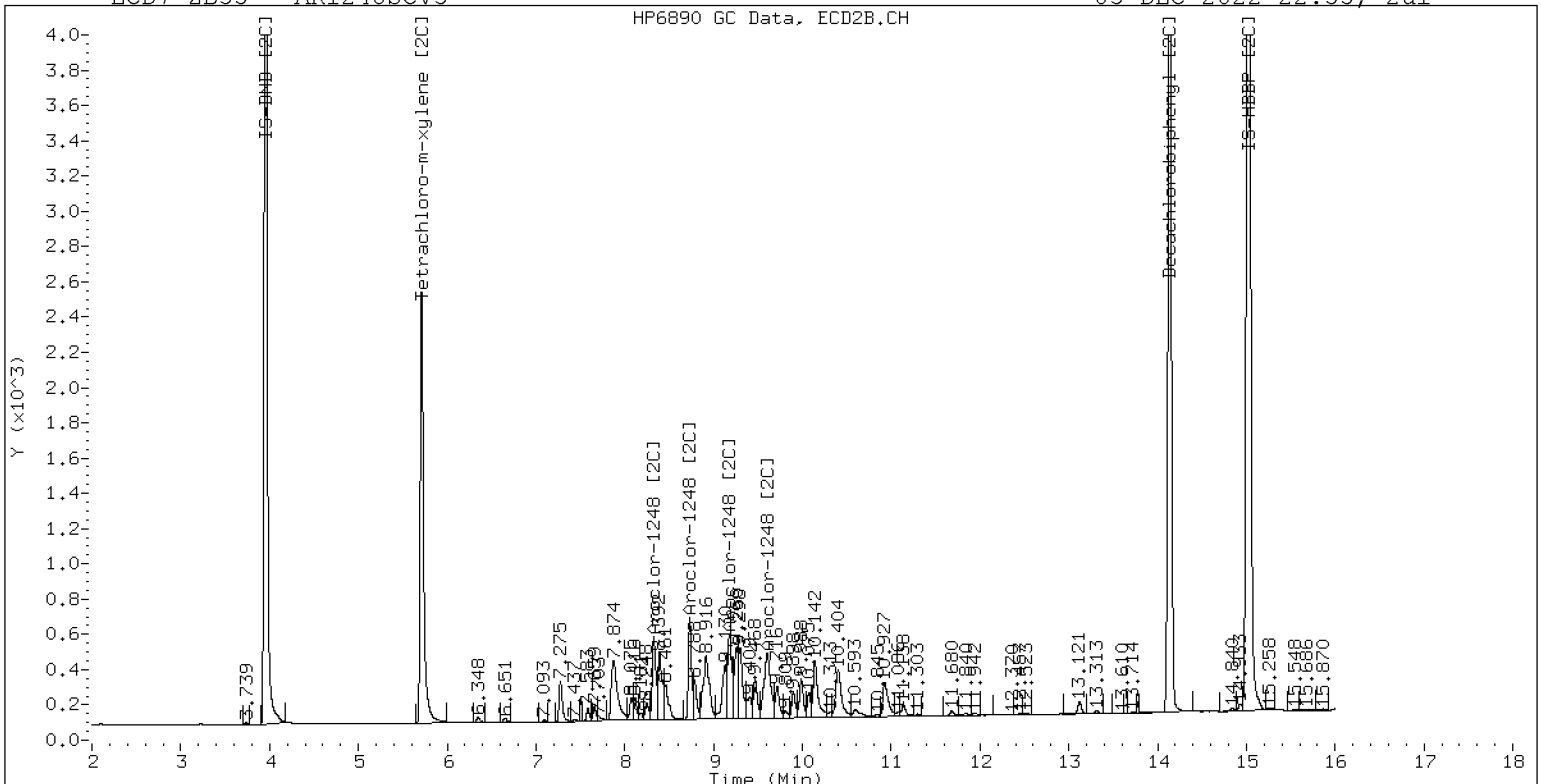
03-DEC-2022 22:55, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248SCV3

03-DEC-2022 22:55, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FL00010

Laboratory ID: SKL0048-SCV4

Sequence: SKL0048

Sequence Name: AR1254SCV4

Standard ID: K007658

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1254	250.00	228	-8.8	20.00
Aroclor 1254 [2C]	250.00	231	-7.7	20.00
Decachlorobiphenyl	40.000	39.5	-1.1	20.00
Tetrachlorometaxylene	40.000	35.5	-11.2	20.00
Decachlorobiphenyl [2C]	40.000	38.1	-4.8	20.00
Tetrachlorometaxylene [2C]	40.000	36.0	-10.0	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032225ECD7.D
Data file 2: /221203.b/221203.b/12032225ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV4
Client ID:
Injection Date: 03-DEC-2022 23:17
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.000	243863	5.713	-0.000	133610	35.5	36.0	1.4	Tetrachloro-m-xylene
13.909	0.001	332566	14.137	-0.000	233115	39.5	38.1	3.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	484642	8.3
Hexabromobiphenyl	798898	917405	14.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270782	8.7
Hexabromobiphenyl	362541	431238	18.9

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 03-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.321	0.003	94448	221.3	1	9.469	0.002	39410	225.7	
Aroclor-1254	2	9.401	0.003	41171	248.1	2	9.989	0.002	31415	223.8	
Aroclor-1254	3	9.692	0.004	60946	226.1	3	10.143	0.004	66244	219.6	
Aroclor-1254	4	9.832	0.004	116490	221.7	4	10.392	0.003	70095	224.3	
Aroclor-1254	5	10.199	0.005	80050	222.3	5	10.588	0.002	39206	260.2	
Total CollAve (5 peaks):				227.9	Total Col2Ave (5 peaks):				230.7	RPD = 1	
Corrected Ave (4 peaks):				222.9	Corrected Ave (4 peaks):				223.4	RPD = 0	

Total PCB Area Col1 (5.936 - 13.808) = 1261470 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 664781 Col2 Total PCB = 0.3 ppm*

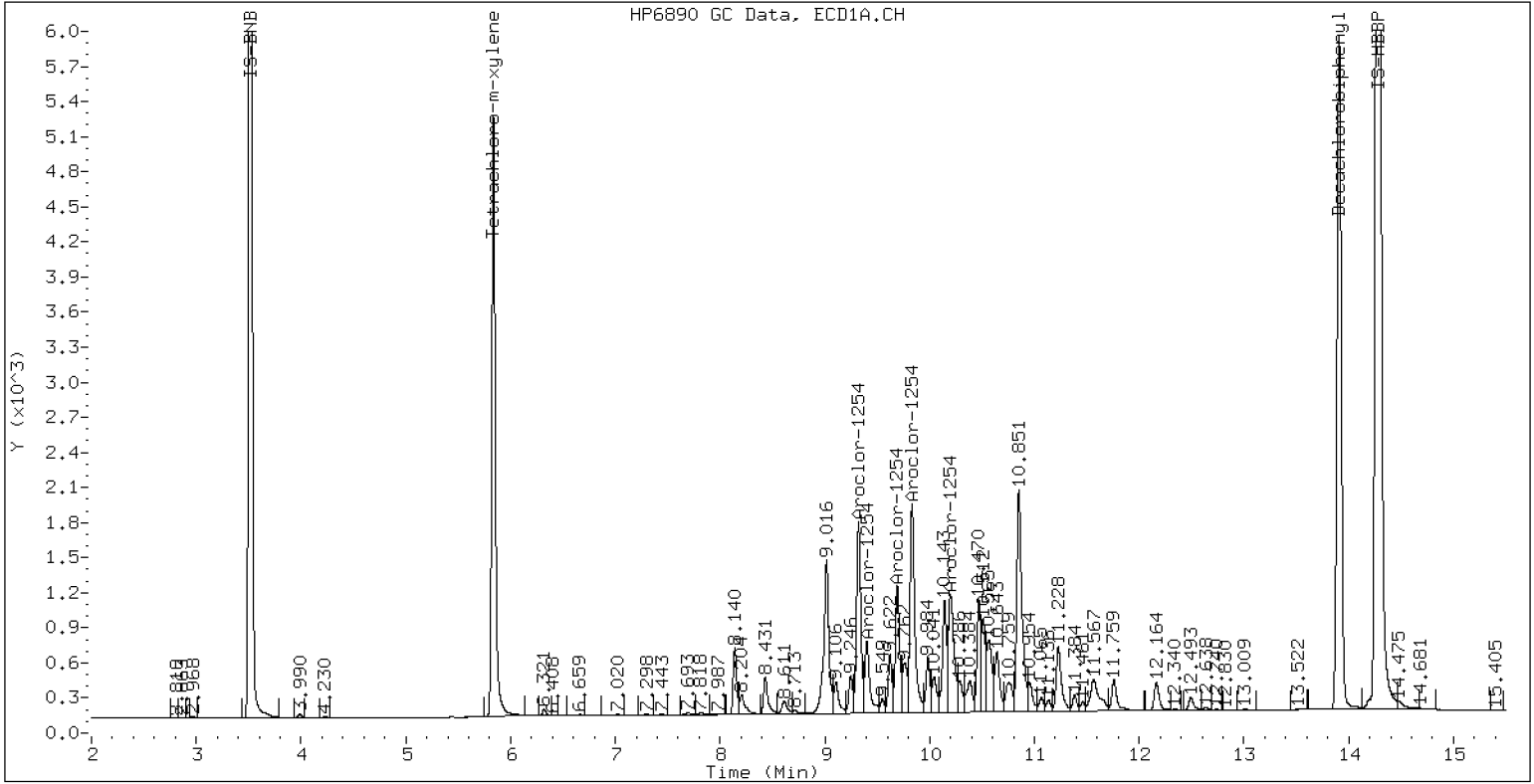
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254SCV4

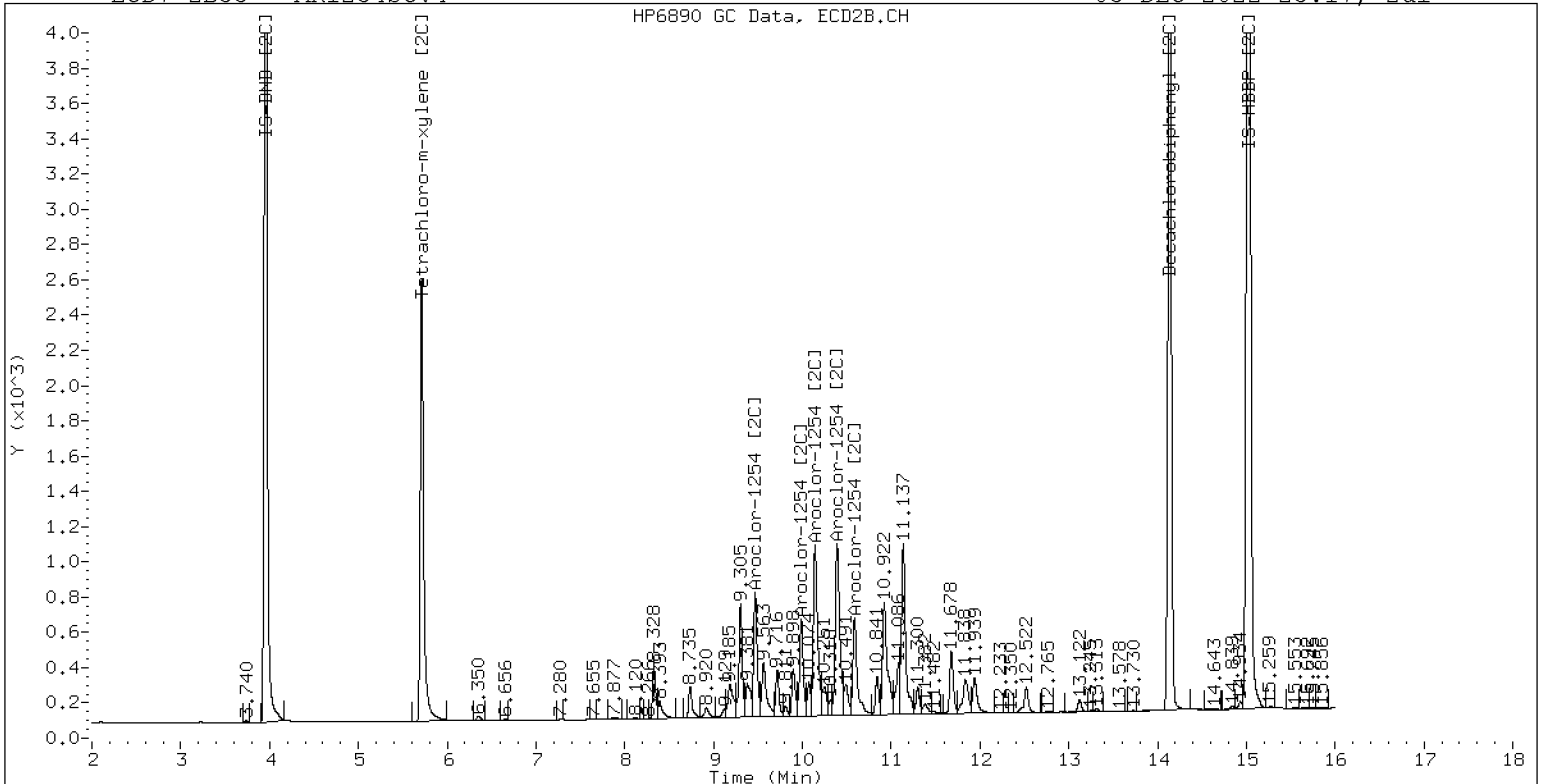
03-DEC-2022 23:17, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254SCV4

03-DEC-2022 23:17, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FL00010

Laboratory ID: SKL0048-SCV5

Sequence: SKL0048

Sequence Name: AR2162SCV5

Standard ID: K007659

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1221	250.00	237	-5.3	20.00
Aroclor 1221 [2C]	250.00	236	-5.7	20.00
Decachlorobiphenyl	40.000	40.0	-0.04	20.00
Tetrachlorometaxylene	40.000	36.1	-9.8	20.00
Decachlorobiphenyl [2C]	40.000	38.4	-3.9	20.00
Tetrachlorometaxylene [2C]	40.000	35.7	-10.8	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032226ECD7.D
Data file 2: /221203.b/221203.b/12032226ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV5
Client ID:
Injection Date: 03-DEC-2022 23:38
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	0.000	246394	5.713	-0.000	131378	36.1	35.7	1.1	Tetrachloro-m-xylene
13.908	-0.001	334929	14.136	-0.001	237241	40.0	38.4	4.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	482097	7.7
Hexabromobiphenyl	798898	913775	14.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	268757	7.9
Hexabromobiphenyl	362541	434790	19.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1221	1	4.761	0.001	9579	240.4	1	4.988	0.001	5527	243.7	
Aroclor-1221	2	6.159	0.001	16402	233.6	2	6.323	0.001	10041	232.3	
Aroclor-1221	3	6.410	0.001	38315	236.6	3	6.646	0.001	16814	231.1	
Total CollAve (3 peaks):				236.8	Total Col2Ave (3 peaks):				235.7	RPD = 0	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Aroclor-1262	1	10.845	-0.003	145305	475.5	1	11.216	-0.001	152840	462.3	
Aroclor-1262	2	12.261	-0.001	222795	469.0	2	11.668	-0.002	131097	457.9	
Aroclor-1262	3	12.336	-0.001	238475	470.0	3	12.449	-0.002	148386	469.8	
Aroclor-1262	4	13.004	-0.001	188009	461.7	4	12.518	-0.001	231081	467.1	
Total CollAve (4 peaks):				469.1	Total Col2Ave (4 peaks):				464.3	RPD = 1	
Corrected Ave (3 peaks):				466.9	Corrected Ave (3 peaks):				462.4	RPD = 1	

Total PCB Area Coll (5.936 - 13.808) = 3654831 Coll Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2063978 Col2 Total PCB = 1.1 ppm*

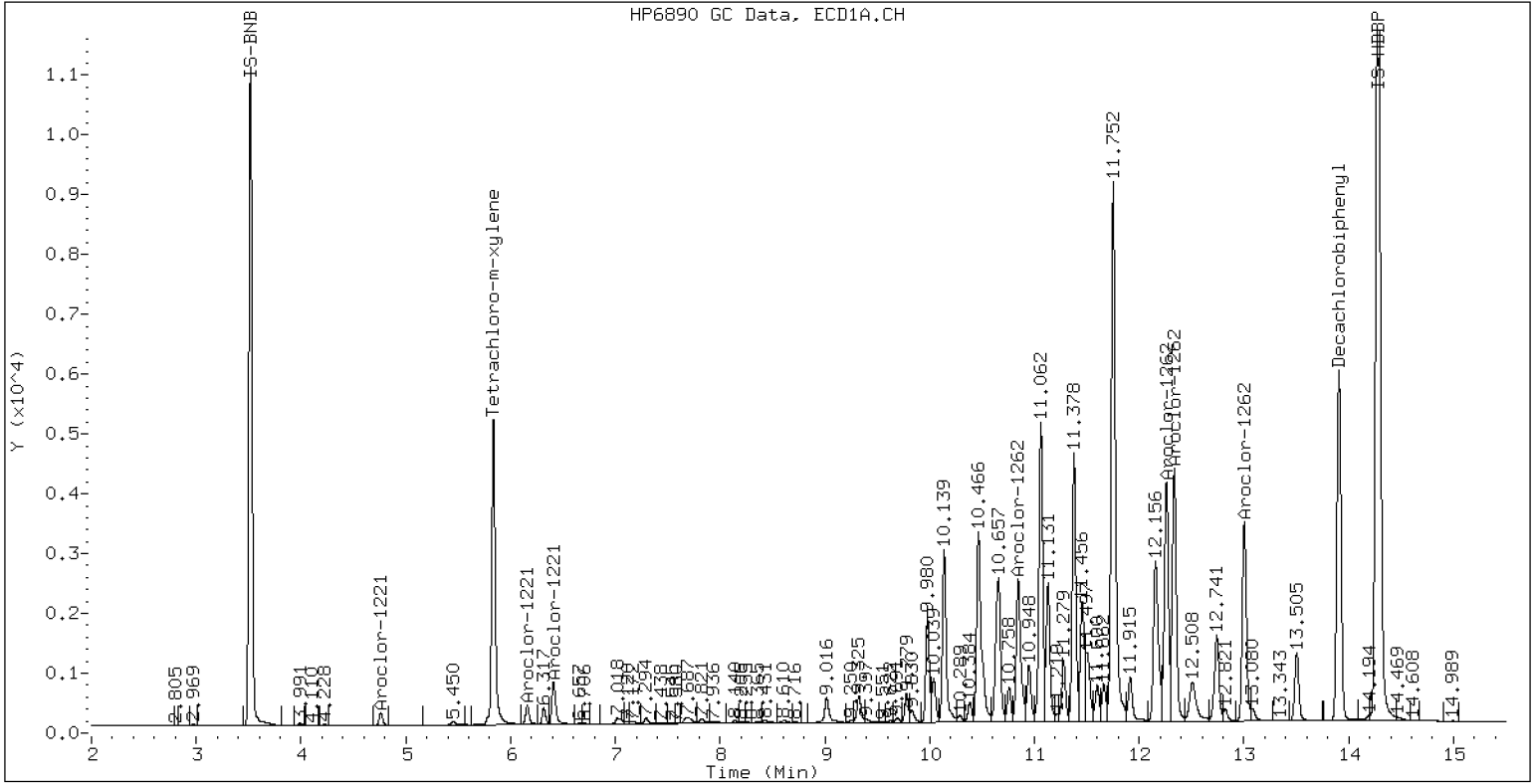
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV5

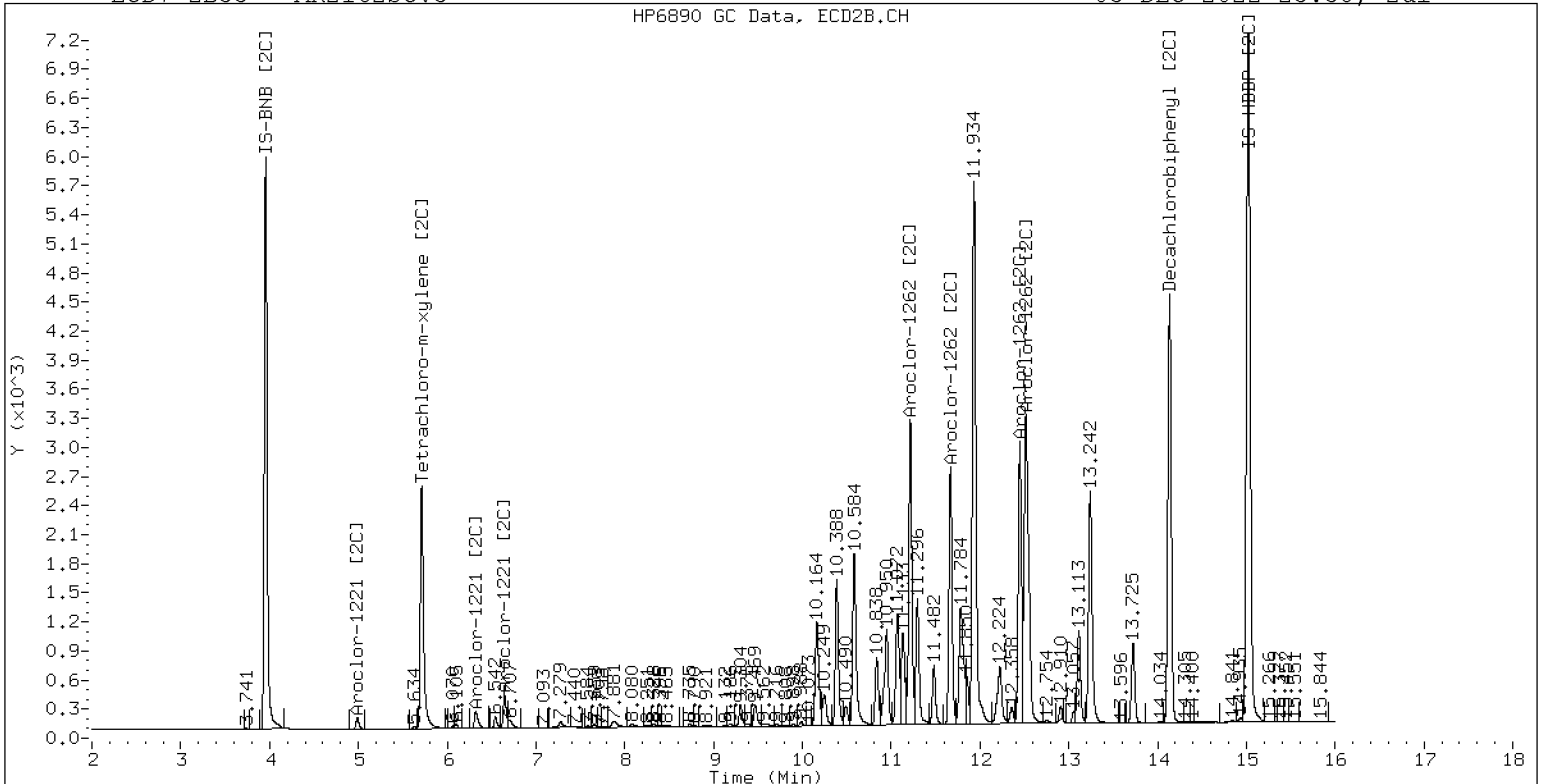
03-DEC-2022 23:38, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV5

03-DEC-2022 23:38, 2ul



ZB-35 Manual Integration: NO



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FL00010

Laboratory ID: SKL0048-SCV6

Sequence: SKL0048

Sequence Name: AR3268SCV6

Standard ID: K007660

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1232	250.00	217	-13.4	20.00
Aroclor 1232 [2C]	250.00	230	-7.9	20.00
Decachlorobiphenyl	40.000	56.2	40.4	20.00
Tetrachlorometaxylene	40.000	34.5	-13.8	20.00
Decachlorobiphenyl [2C]	40.000	54.9	37.3	20.00
Tetrachlorometaxylene [2C]	40.000	34.2	-14.4	20.00

* Indicates values outside of QC limits

[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032227ECD7.D
Data file 2: /221203.b/221203.b/12032227ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV6
Client ID:
Injection Date: 03-DEC-2022 23:59
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.834	-0.002	236120	5.711	-0.002	126782	34.5	34.2	0.7	Tetrachloro-m-xylene
13.907	-0.002	474236	14.136	-0.001	339687	56.2	54.9	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	483276	8.0
Hexabromobiphenyl	798898	920878	15.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270175	8.5
Hexabromobiphenyl	362541	435731	20.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.758	-0.003	5334	221.8	1	4.986	-0.004	3031	230.7
Aroclor-1232	2	6.158	-0.002	9882	194.6	2	7.276	-0.001	14982	223.3
Aroclor-1232	3	7.684	0.000	51409	225.4	3	7.875	-0.001	29992	228.7
Aroclor-1232	4	8.607	0.001	21710	224.4	4	8.734	0.000	8467	238.1
Total CollAve (4 peaks):				216.5		Total Col2Ave (4 peaks):				230.2 RPD = 6
Corrected Ave (3 peaks):				213.6		Corrected Ave (3 peaks):				227.6 RPD = 6
Aroclor-1268	1	12.262	-0.000	296463	230.1	1	12.449	-0.000	189354	230.2
Aroclor-1268	2	12.336	0.001	294353	233.5	2	12.517	0.000	196449	232.9
Aroclor-1268	3	12.715	-0.001	238693	231.1	3	12.909	-0.001	66881	213.9
Aroclor-1268	4	13.506	0.001	725881	230.1	4	13.725	-0.001	525890	233.7
Total CollAve (4 peaks):				231.2		Total Col2Ave (4 peaks):				227.7 RPD = 2
Corrected Ave (3 peaks):				230.4		Corrected Ave (3 peaks):				225.7 RPD = 2

Total PCB Area Col1 (5.936 - 13.808) = 2353838 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1423323 Col2 Total PCB = 0.7 ppm*

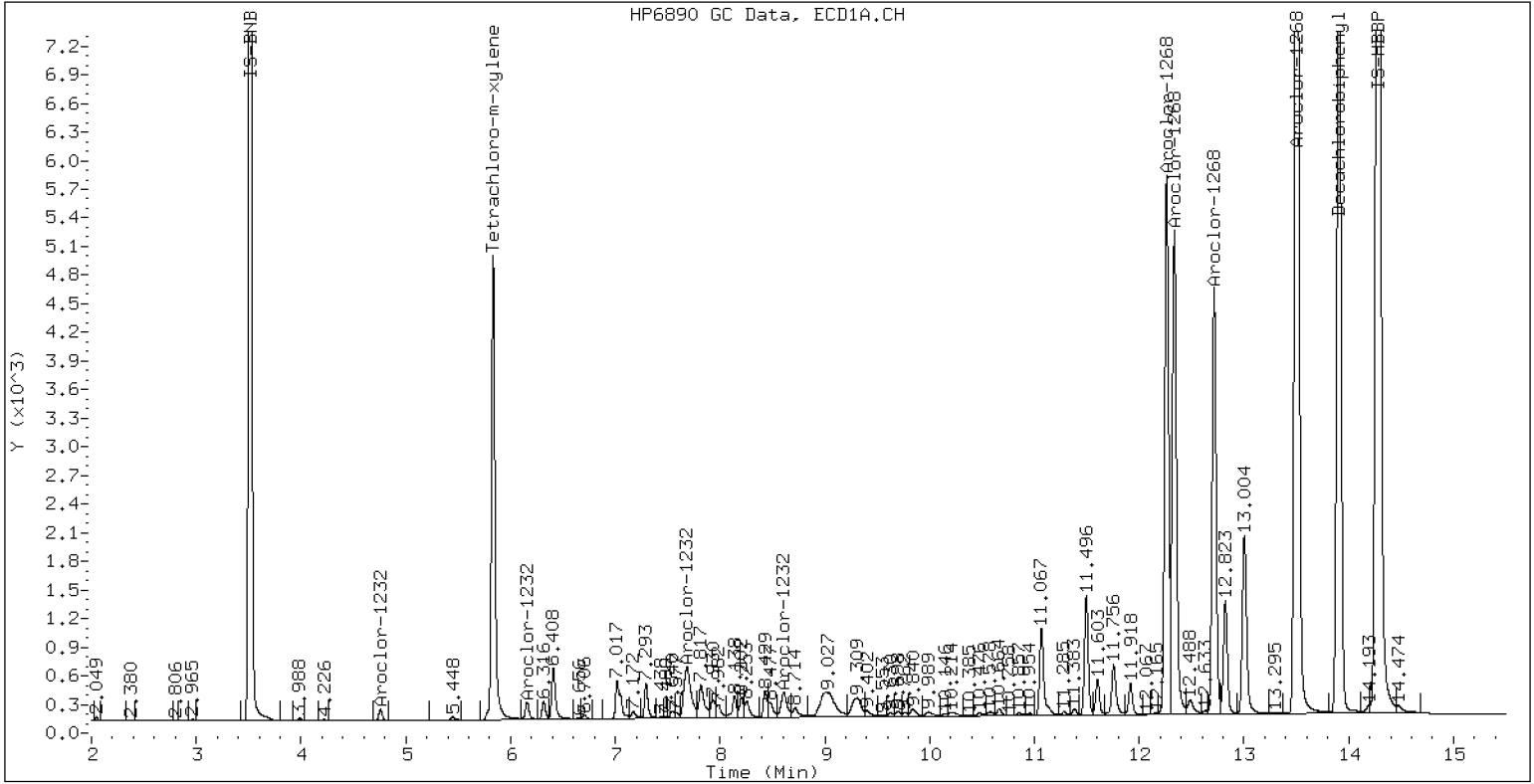
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV6

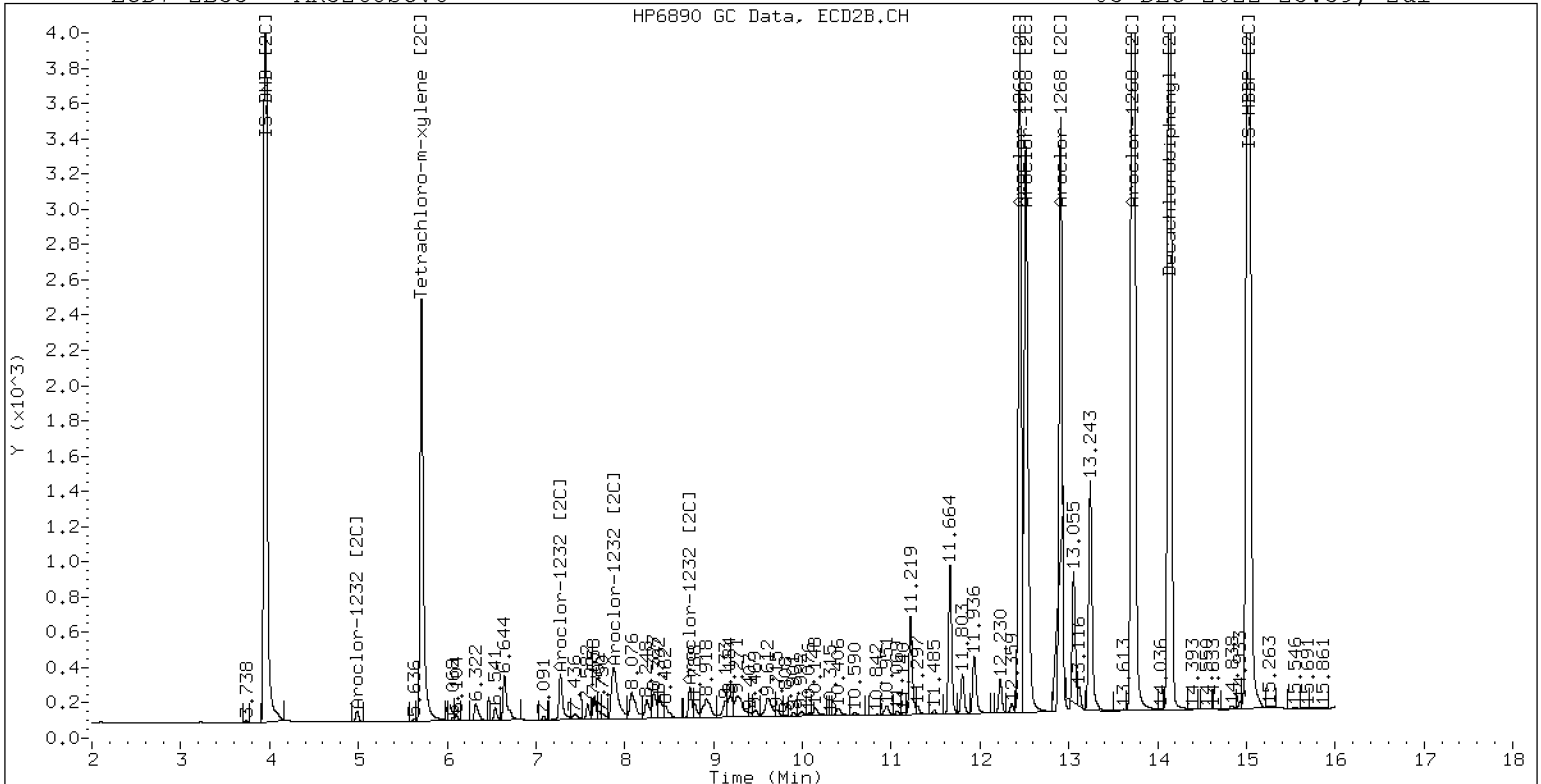
03-DEC-2022 23:59, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV6

03-DEC-2022 23:59, 2ul



ZB-35 Manual Integration: NO



INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12172203ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0280</u>	Injection Date:	<u>12/17/22</u>
Lab Sample ID:	<u>SKL0280-ICV1</u>	Injection Time:	<u>09:59</u>
Sequence Name:	<u>AR1254ICV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	273	0.0576965	0.0640173		9.1	+/-20
Aroclor-1254 (1)	A	250.00	280	0.0704377	0.0789482			
Aroclor-1254 (2)	A	250.00	292	0.0273935	0.0320037			
Aroclor-1254 (3)	A	250.00	191	0.0444885	0.0339349			
Aroclor-1254 (4)	A	250.00	295	0.0867185	0.1023397			
Aroclor-1254 (5)	A	250.00	306	0.0594444	0.0728599			
Aroclor 1254 [2C]	A	250.00	253	0.0638047	0.0652171		1.3	+/-20
Aroclor-1254 (1) [2C]	A	250.00	263	0.0515798	0.0542031			
Aroclor-1254 (2) [2C]	A	250.00	205	0.0414689	0.0340182			
Aroclor-1254 (3) [2C]	A	250.00	243	0.0891370	0.0868021			
Aroclor-1254 (4) [2C]	A	250.00	274	0.0923140	0.1010644			
Aroclor-1254 (5) [2C]	A	250.00	281	0.0445236	0.0499976			
Decachlorobiphenyl	A	40.000	41.8	0.7333327	0.7666939		4.5	+/-20
Tetrachlorometaxylene	A	40.000	37.9	1.1336710	1.0737050		-5.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.8	1.1358180	1.1020210		-3.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.2	1.0966080	1.0193470		-7.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172203ECD7.D
Data file 2: /221217.b/221217.b/12172203ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 17-DEC-2022 09:59
Report Date: 12/20/2022 15:07
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	0.000	226665	5.712	0.002	128134	37.9	37.2	1.9	Tetrachloro-m-xylene
13.908	-0.000	375864	14.135	0.002	244560	41.8	38.8	7.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	422211	-5.7
Hexabromobiphenyl	798898	980480	22.7
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	251404	0.9
Hexabromobiphenyl	362541	443839	22.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.319	-0.002	104165	280.2	1	9.466	0.002	42584	262.7	
Aroclor-1254	2	9.399	-0.003	42226	292.1	2	9.983	0.002	26726	205.1	
Aroclor-1254	3	9.693	-0.001	44774	190.7	3	10.137	0.003	68195	243.5	
Aroclor-1254	4	9.827	-0.004	135028	295.0	4	10.385	0.003	79400	273.7	
Aroclor-1254	5	10.186	-0.003	96132	306.4	5	10.581	0.002	39280	280.7	
Total CollAve (5 peaks):				272.9		Total Col2Ave (5 peaks):				253.1	RPD = 8
Corrected Ave (4 peaks):				264.5		Corrected Ave (4 peaks):				246.2	RPD = 7
CalAmt %D:				9.2		CalAmt %D:				1.3	

Total PCB Area Col1 (5.936 - 13.808) = 1420446 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 727604 Col2 Total PCB = 0.4 ppm*

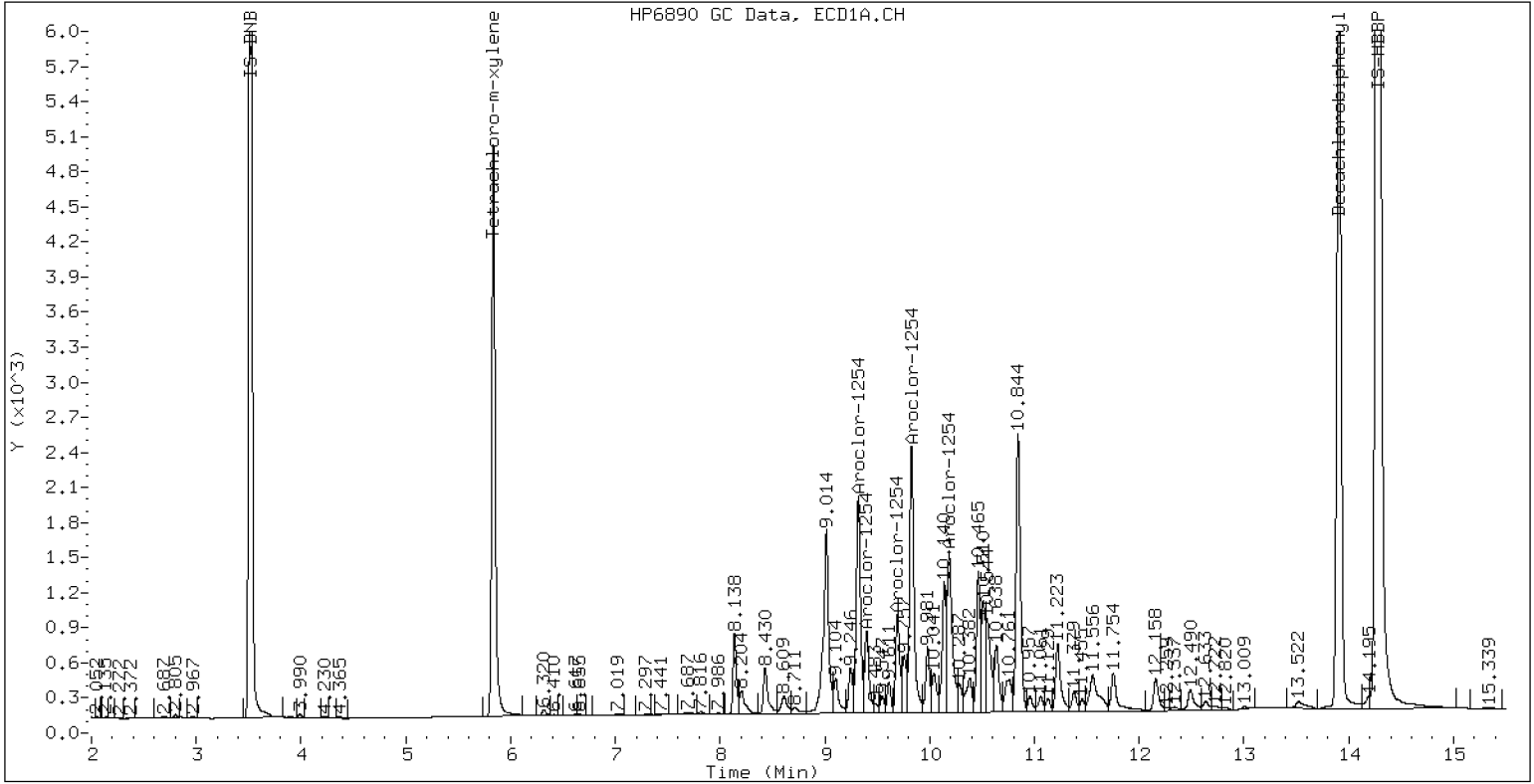
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254ICV1

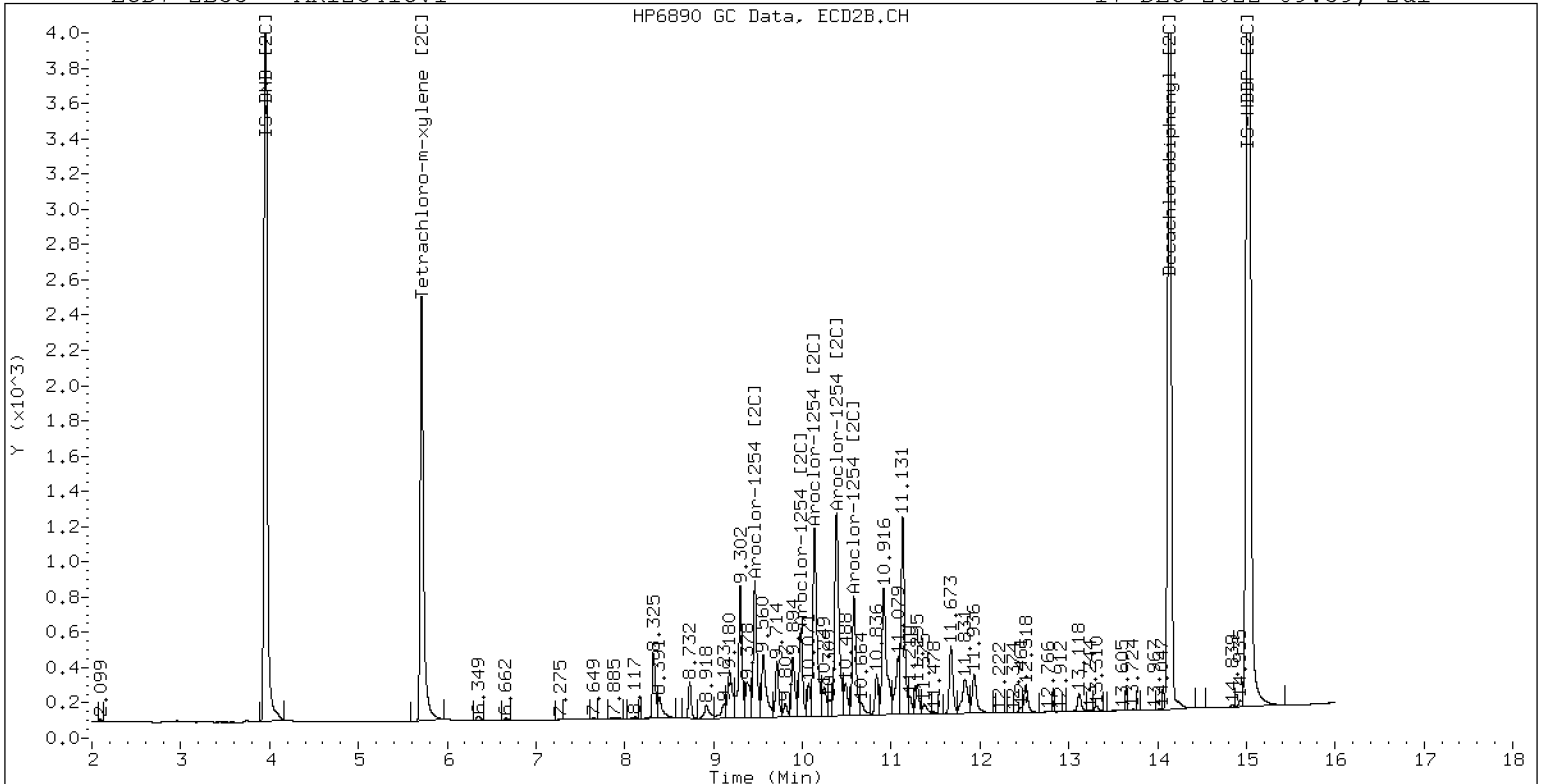
17-DEC-2022 09:59, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254ICV1

17-DEC-2022 09:59, 2ul



ZB-35 Manual Integration: NO



INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12172204ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0280

Injection Date: 12/17/22

Lab Sample ID: SKL0280-ICV2

Injection Time: 10:20

Sequence Name: AR1660ICV2

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1016	A	250.00	285	0.0441939	0.0495552		13.9	+/-20
Aroclor-1016 (1)	A	250.00	276	0.0266860	0.0294632		10.4	
Aroclor-1016 (2)	A	250.00	270	0.0861572	0.0930307		8.0	
Aroclor-1016 (3)	A	250.00	294	0.0390425	0.0459871		17.6	
Aroclor-1016 (4)	A	250.00	299	0.0248899	0.0297395		19.6	
Aroclor 1016 [2C]	A	250.00	245	0.0467310	0.0450736		-2.1	+/-20
Aroclor-1016 (1) [2C]	A	250.00	247	0.0409030	0.0404894		-1.2	
Aroclor-1016 (2) [2C]	A	250.00	235	0.0882154	0.0827982		-6.0	
Aroclor-1016 (3) [2C]	A	250.00	241	0.0378846	0.0365832		-3.6	
Aroclor-1016 (4) [2C]	A	250.00	256	0.0199212	0.0204237		2.4	
Aroclor 1260	A	250.00	252	0.0390342	0.0392048		1.0	+/-20
Aroclor-1260 (1)	A	250.00	247	0.0291201	0.0287555		-1.2	
Aroclor-1260 (2)	A	250.00	255	0.0301181	0.0306758		2.0	
Aroclor-1260 (3)	A	250.00	254	0.0791351	0.0804670		1.6	
Aroclor-1260 (4)	A	250.00	238	0.0403003	0.0384280		-4.8	
Aroclor-1260 (5)	A	250.00	268	0.0164974	0.0176979		7.2	
Aroclor 1260 [2C]	A	250.00	207	0.0617619	0.0510026		-17.1	+/-20
Aroclor-1260 (1) [2C]	A	250.00	201	0.0422283	0.0339109		-19.6	
Aroclor-1260 (2) [2C]	A	250.00	202	0.1059643	0.0858582		-19.2	
Aroclor-1260 (3) [2C]	A	250.00	213	0.0282173	0.0240257		-14.8	
Aroclor-1260 (4) [2C]	A	250.00	213	0.0706376	0.0602156		-14.8	
Decachlorobiphenyl	A	40.000	42.7	0.7333327	0.7832462		6.8	+/-20
Tetrachlorometaxylene	A	40.000	40.7	1.1336710	1.1529790		1.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.2	1.1358180	1.0833480		-4.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.9	1.0966080	1.0661210		-2.8	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172204ECD7.D
Data file 2: /221217.b/221217.b/12172204ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 17-DEC-2022 10:20
Report Date: 12/20/2022 15:07
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.001	204987	5.714	0.004	114849	40.7	38.9	4.5	Tetrachloro-m-xylene
13.907	-0.000	340839	14.135	0.001	216012	42.7	38.2	11.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	355578	-20.6
Hexabromobiphenyl	798898	870324	8.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	215452	-13.5
Hexabromobiphenyl	362541	398786	10.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.294	-0.000	32739	276.0	1	7.277	0.003	27261	247.5	
Aroclor-1016	2	7.681	-0.003	103374	269.9	2	7.876	0.003	55747	234.6	
Aroclor-1016	3	7.816	-0.001	51100	294.5	3	8.076	0.003	24631	241.4	
Aroclor-1016	4	8.428	-0.001	33046	298.7	4	8.246	0.003	13751	256.3	
Total CollAve (4 peaks):				284.8		Total Col2Ave (4 peaks):				245.0	RPD = 15
Corrected Ave (3 peaks):				280.1		Corrected Ave (3 peaks):				241.2	RPD = 15

CalAmt %D: 13.9

CalAmt %D: -2.0

Aroclor-1260	1	11.062	-0.001	78208	246.9	1	11.669	0.002	42260	200.8	
Aroclor-1260	2	11.377	-0.000	83431	254.6	2	11.932	0.002	106997	202.6	
Aroclor-1260	3	11.752	-0.000	218851	254.2	3	12.451	0.002	29941	212.9	
Aroclor-1260	4	12.158	-0.001	104515	238.4	4	12.516	0.003	75041	213.1	
Aroclor-1260	5	12.261	-0.001	48134	268.2	NS	---			----	
Total CollAve (5 peaks):				252.5		Total Col2Ave (4 peaks):				207.3	RPD = 20
Corrected Ave (4 peaks):				248.5		Corrected Ave (3 peaks):				205.4	RPD = 19

CalAmt %D: 1.0

CalAmt %D: -17.1

Total PCB Area Coll (5.936 - 13.808) = 2330657 Coll Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1047864 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12192202ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0282</u>	Injection Date:	<u>12/19/22</u>
Lab Sample ID:	<u>SKL0282-ICV1</u>	Injection Time:	<u>14:56</u>
Sequence Name:	<u>AR1254ICV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	281	0.0576965	0.0655870		12.3	+/-20
Aroclor-1254 (1)	A	250.00	268	0.0704377	0.0755171			
Aroclor-1254 (2)	A	250.00	282	0.0273935	0.0308754			
Aroclor-1254 (3)	A	250.00	235	0.0444885	0.0417781			
Aroclor-1254 (4)	A	250.00	300	0.0867185	0.1039258			
Aroclor-1254 (5)	A	250.00	319	0.0594444	0.0758385			
Aroclor 1254 [2C]	A	250.00	241	0.0638047	0.0630653		-3.5	+/-20
Aroclor-1254 (1) [2C]	A	250.00	252	0.0515798	0.0520625			
Aroclor-1254 (2) [2C]	A	250.00	167	0.0414689	0.0276187			
Aroclor-1254 (3) [2C]	A	250.00	238	0.0891370	0.0848982			
Aroclor-1254 (4) [2C]	A	250.00	277	0.0923140	0.1021126			
Aroclor-1254 (5) [2C]	A	250.00	273	0.0445236	0.0486345			
Decachlorobiphenyl	A	40.000	43.6	0.7333327	0.8000518		9.1	+/-20
Tetrachlorometaxylene	A	40.000	38.2	1.1336710	1.0829490		-4.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.5	1.1358180	1.1489500		1.2	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.1	1.0966080	1.0161750		-7.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192202ECD7.D
Data file 2: /221219.b/221219.b/12192202ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 19-DEC-2022 14:56
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.835	-0.001	234479	5.710	-0.003	131048	38.2	37.1	3.0	Tetrachloro-m-xylene
13.906	-0.002	364190	14.133	-0.004	234079	43.6	40.5	7.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	433038	-3.3
Hexabromobiphenyl	798898	910416	14.0

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	257924	3.5
Hexabromobiphenyl	362541	407466	12.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.315	-0.006	102193	268.0	1	9.463	-0.004	41963	252.3	
Aroclor-1254	2	9.393	-0.008	41782	281.8	2	9.981	-0.005	22261	166.5	
Aroclor-1254	3	9.686	-0.009	56536	234.8	3	10.133	-0.007	68429	238.1	
Aroclor-1254	4	9.821	-0.010	140637	299.6	4	10.381	-0.008	82304	276.5	
Aroclor-1254	5	10.175	-0.014	102628	318.9	5	10.579	-0.007	39200	273.1	
Total CollAve (5 peaks):				280.6		Total Col2Ave (5 peaks):				241.3	RPD = 15
Corrected Ave (4 peaks):				271.0		Corrected Ave (4 peaks):				232.5	RPD = 15

Total PCB Area Coll (5.936 - 13.808) = 1466774 Coll Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 721420 Col2 Total PCB = 0.4 ppm*

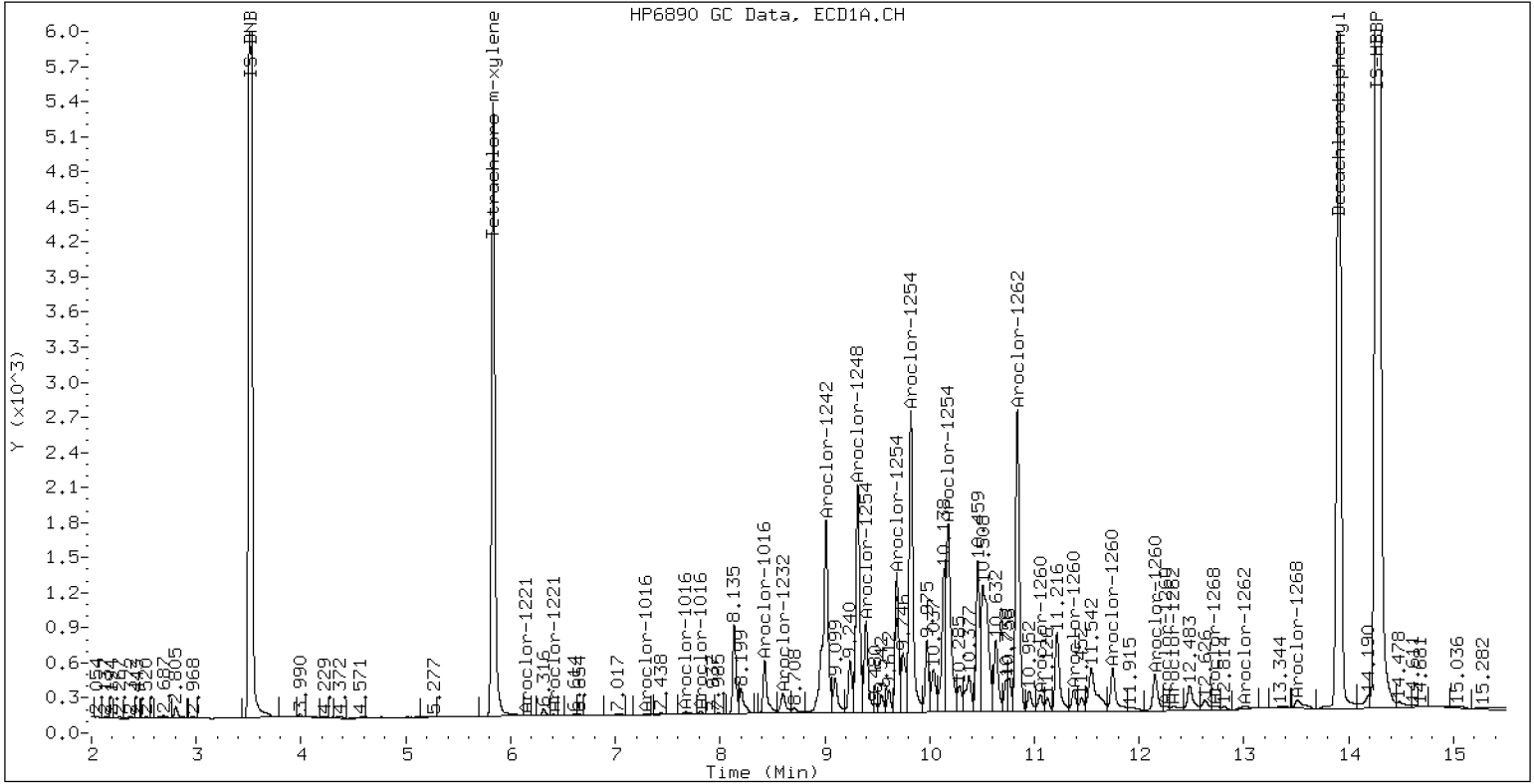
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254ICV1

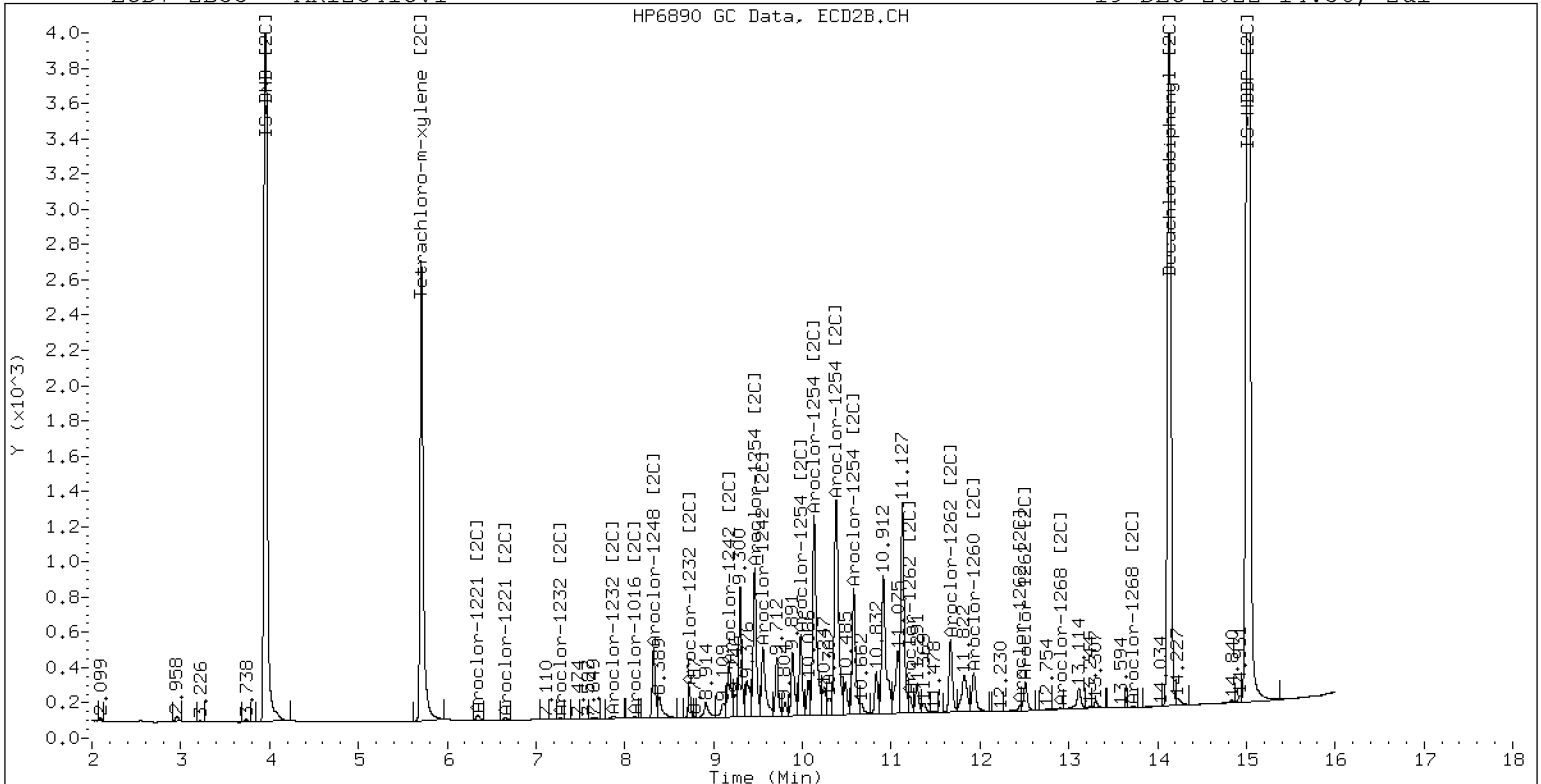
19-DEC-2022 14:56, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254ICV1

19-DEC-2022 14:56, 2u1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192203ECD7.D
Data file 2: /221219.b/221219.b/12192203ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 19-DEC-2022 15:17
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.834	-0.002	221568	5.712	-0.001	124680	41.9	40.5	3.4	Tetrachloro-m-xylene
13.905	-0.003	330149	14.133	-0.004	212656	43.5	39.7	9.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	373409	-16.6
Hexabromobiphenyl	798898	828232	3.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	224837	-9.7
Hexabromobiphenyl	362541	377255	4.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.291	-0.003	35170	282.4	1	7.275	-0.000	28761	250.2	
Aroclor-1016	2	7.675	-0.010	112758	280.4	2	7.872	0.002	55117	222.3	
Aroclor-1016	3	7.812	-0.006	51305	281.5	3	8.072	0.002	25492	239.4	
Aroclor-1016	4	8.424	-0.005	36008	309.9	4	8.242	0.001	14778	264.0	
Total CollAve (4 peaks):				288.6		Total Col2Ave (4 peaks):				244.0	RPD = 17
Corrected Ave (3 peaks):				281.4		Corrected Ave (3 peaks):				237.3	RPD = 17
Aroclor-1260	1	11.056	-0.006	82922	275.1	1	11.666	-0.003	44748	224.7	
Aroclor-1260	2	11.373	-0.004	87009	279.0	2	11.928	-0.005	94148	188.4	
Aroclor-1260	3	11.746	-0.006	227865	278.1	3	12.449	-0.003	32551	244.6	
Aroclor-1260	4	12.150	-0.008	112716	270.2	4	12.512	-0.005	69488	208.6	
Aroclor-1260	5	12.257	-0.004	49444	289.5	NS	---			----	
Total CollAve (5 peaks):				278.4		Total Col2Ave (4 peaks):				216.6	RPD = 25
Corrected Ave (4 peaks):				275.6		Corrected Ave (3 peaks):				207.2	RPD = 28

Total PCB Area Col1 (5.936 - 13.808) = 2370230 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1041393 Col2 Total PCB = 0.6 ppm*

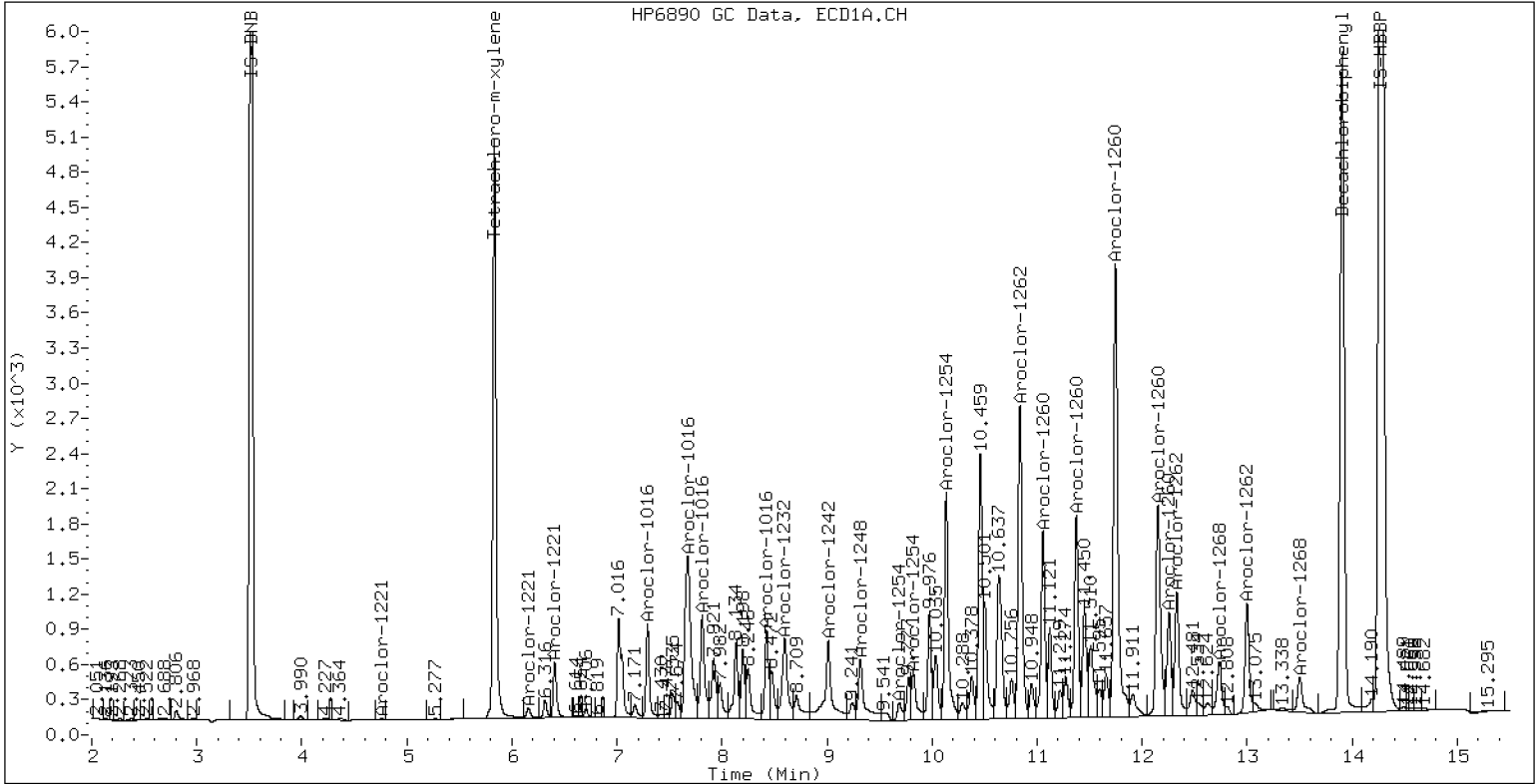
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660ICV2

19-DEC-2022 15:17, 2u1





INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor OEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12222202ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0330

Injection Date: 12/22/22

Lab Sample ID: SKL0330-ICV1

Injection Time: 16:12

Sequence Name: AR1254ICV1

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	258	0.0576965	0.0602167		3.4	+/-20
Aroclor-1254 (1)	A	250.00	247	0.0704377	0.0696755			
Aroclor-1254 (2)	A	250.00	268	0.0273935	0.0293918			
Aroclor-1254 (3)	A	250.00	220	0.0444885	0.0391595			
Aroclor-1254 (4)	A	250.00	277	0.0867185	0.0962386			
Aroclor-1254 (5)	A	250.00	280	0.0594444	0.0666182			
Aroclor 1254 [2C]	A	250.00	235	0.0638047	0.0616376		-6.1	+/-20
Aroclor-1254 (1) [2C]	A	250.00	246	0.0515798	0.0508273			
Aroclor-1254 (2) [2C]	A	250.00	150	0.0414689	0.0249357			
Aroclor-1254 (3) [2C]	A	250.00	232	0.0891370	0.0826443			
Aroclor-1254 (4) [2C]	A	250.00	275	0.0923140	0.1014584			
Aroclor-1254 (5) [2C]	A	250.00	271	0.0445236	0.0483223			
Decachlorobiphenyl	A	40.000	45.6	0.7333327	0.8355907		14.0	+/-20
Tetrachlorometaxylene	A	40.000	35.1	1.1336710	0.9959703		-12.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.0	1.1358180	1.1351310		0.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	35.7	1.0966080	0.9798352		-10.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222202ECD7.D
Data file 2: /221222.b/221222.b/12222202ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 22-DEC-2022 16:12
Report Date: 12/27/2022 16:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	0.001	218860	5.709	-0.005	120725	35.1	35.7	1.7	Tetrachloro-m-xylene
13.906	0.002	292740	14.133	-0.004	203407	45.6	40.0	13.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	439491	-1.8
Hexabromobiphenyl	798898	700678	-12.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	246419	-1.1
Hexabromobiphenyl	362541	358385	-1.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.314	-0.007	95693	247.3	1	9.462	-0.005	39140	246.4	
Aroclor-1254	2	9.394	-0.008	40367	268.2	2	9.980	-0.006	19202	150.3	
Aroclor-1254	3	9.687	-0.008	53782	220.1	3	10.131	-0.008	63641	231.8	
Aroclor-1254	4	9.821	-0.010	132175	277.4	4	10.379	-0.010	78129	274.8	
Aroclor-1254	5	10.176	-0.013	91494	280.2	5	10.578	-0.008	37211	271.3	
Total CollAve (5 peaks):				258.6		Total Col2Ave (5 peaks):				234.9	RPD = 10
Corrected Ave (4 peaks):				253.3		Corrected Ave (4 peaks):				224.9	RPD = 12
CalAmt %D:				3.5		CalAmt %D:				-6.0	

Total PCB Area Col1 (5.933 - 13.804) = 1359306 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 674059 Col2 Total PCB = 0.3 ppm*

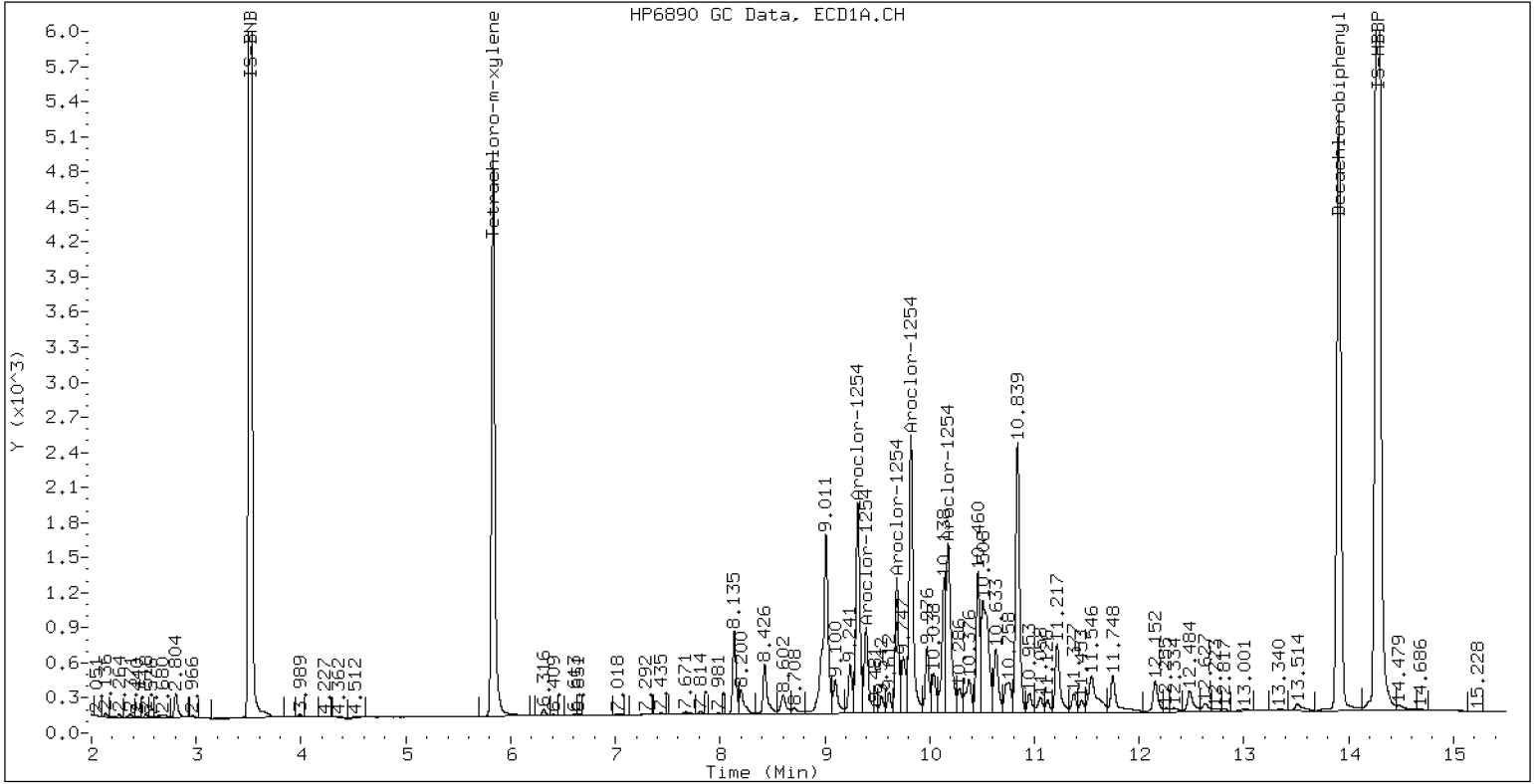
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254ICV1

22-DEC-2022 16:12, 2u1





INITIAL CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12222203ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0330

Injection Date: 12/22/22

Lab Sample ID: SKL0330-ICV2

Injection Time: 16:34

Sequence Name: AR1660ICV2

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1016	A	250.00	273	0.0441939	0.0478115		9.2	+/-20
Aroclor-1016 (1)	A	250.00	267	0.0266860	0.0284984		6.8	
Aroclor-1016 (2)	A	250.00	267	0.0861572	0.0919374		6.8	
Aroclor-1016 (3)	A	250.00	269	0.0390425	0.0419957		7.6	
Aroclor-1016 (4)	A	250.00	289	0.0248899	0.0288144		15.6	
Aroclor 1016 [2C]	A	250.00	245	0.0467310	0.0441543		-2.0	+/-20
Aroclor-1016 (1) [2C]	A	250.00	252	0.0409030	0.0412474		0.8	
Aroclor-1016 (2) [2C]	A	250.00	219	0.0882154	0.0773747		-12.4	
Aroclor-1016 (3) [2C]	A	250.00	242	0.0378846	0.0367478		-3.2	
Aroclor-1016 (4) [2C]	A	250.00	267	0.0199212	0.0212474		6.8	
Aroclor 1260	A	250.00	282	0.0390342	0.0442742		12.8	+/-20
Aroclor-1260 (1)	A	250.00	285	0.0291201	0.0331942		14.0	
Aroclor-1260 (2)	A	250.00	288	0.0301181	0.0347251		15.2	
Aroclor-1260 (3)	A	250.00	287	0.0791351	0.0909168		14.8	
Aroclor-1260 (4)	A	250.00	275	0.0403003	0.0443725		10.0	
Aroclor-1260 (5)	A	250.00	275	0.0164974	0.0181622		10.0	
Aroclor 1260 [2C]	A	250.00	222	0.0617619	0.0509317		-11.3	+/-20
Aroclor-1260 (1) [2C]	A	250.00	248	0.0422283	0.0418207		-0.8	
Aroclor-1260 (2) [2C]	A	250.00	179	0.1059643	0.0759849		-28.4	
Aroclor-1260 (3) [2C]	A	250.00	259	0.0282173	0.0292289		3.6	
Aroclor-1260 (4) [2C]	A	250.00	201	0.0706376	0.0566922		-19.6	
Decachlorobiphenyl	A	40.000	45.0	0.7333327	0.8258038		12.5	+/-20
Tetrachlorometaxylene	A	40.000	40.6	1.1336710	1.1522320		1.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.8	1.1358180	1.1300790		-0.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.8	1.0966080	1.0909550		-0.5	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222203ECD7.D
Data file 2: /221222.b/221222.b/12222203ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 22-DEC-2022 16:34
Report Date: 12/27/2022 16:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	0.001	199486	5.711	-0.003	108310	40.7	39.8	2.1	Tetrachloro-m-xylene
13.907	0.003	274024	14.132	-0.005	182193	45.0	39.8	12.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	346260	-22.6
Hexabromobiphenyl	798898	663654	-16.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	198560	-20.3
Hexabromobiphenyl	362541	322443	-11.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.290	0.001	30837	267.0	1	7.274	-0.002	25594	252.1
Aroclor-1016	2	7.674	-0.001	99482	266.8	2	7.872	0.002	48011	219.3
Aroclor-1016	3	7.813	0.003	45442	268.9	3	8.070	0.000	22802	242.5
Aroclor-1016	4	8.423	0.000	31179	289.4	4	8.242	0.001	13184	266.6
Total CollAve (4 peaks):				273.0		Total Col2Ave (4 peaks):				245.1 RPD = 11
Corrected Ave (3 peaks):				267.6		Corrected Ave (3 peaks):				238.0 RPD = 12

CalAmt %D: 9.2

CalAmt %D: -1.9

Aroclor-1260	1	11.057	0.001	68842	285.0	1	11.665	-0.004	42140	247.6
Aroclor-1260	2	11.374	0.001	72017	288.2	2	11.928	-0.005	76565	179.3
Aroclor-1260	3	11.748	0.001	188554	287.2	3	12.448	-0.004	29452	259.0
Aroclor-1260	4	12.149	0.001	92025	275.3	4	12.510	-0.006	57125	200.6
Aroclor-1260	5	12.257	-0.001	37667	275.2	NS	---			----
Total CollAve (5 peaks):				282.2		Total Col2Ave (4 peaks):				221.6 RPD = 24
Corrected Ave (4 peaks):				280.7		Corrected Ave (3 peaks):				209.2 RPD = 29

CalAmt %D: 12.9

CalAmt %D: -11.4

Total PCB Area Col1 (5.933 - 13.804) = 1886658 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 935725 Col2 Total PCB = 0.5 ppm*

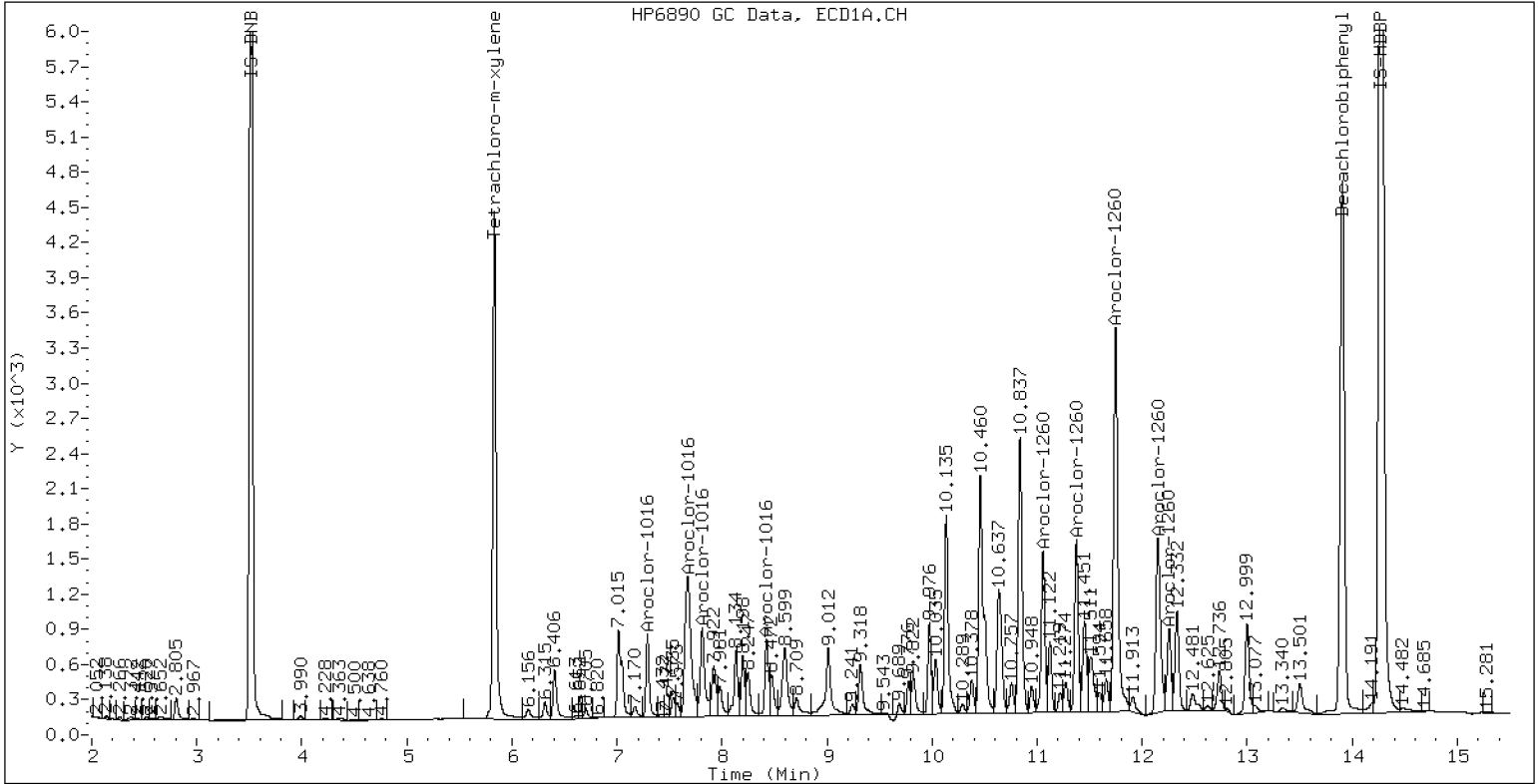
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660ICV2

22-DEC-2022 16:34, 2ul

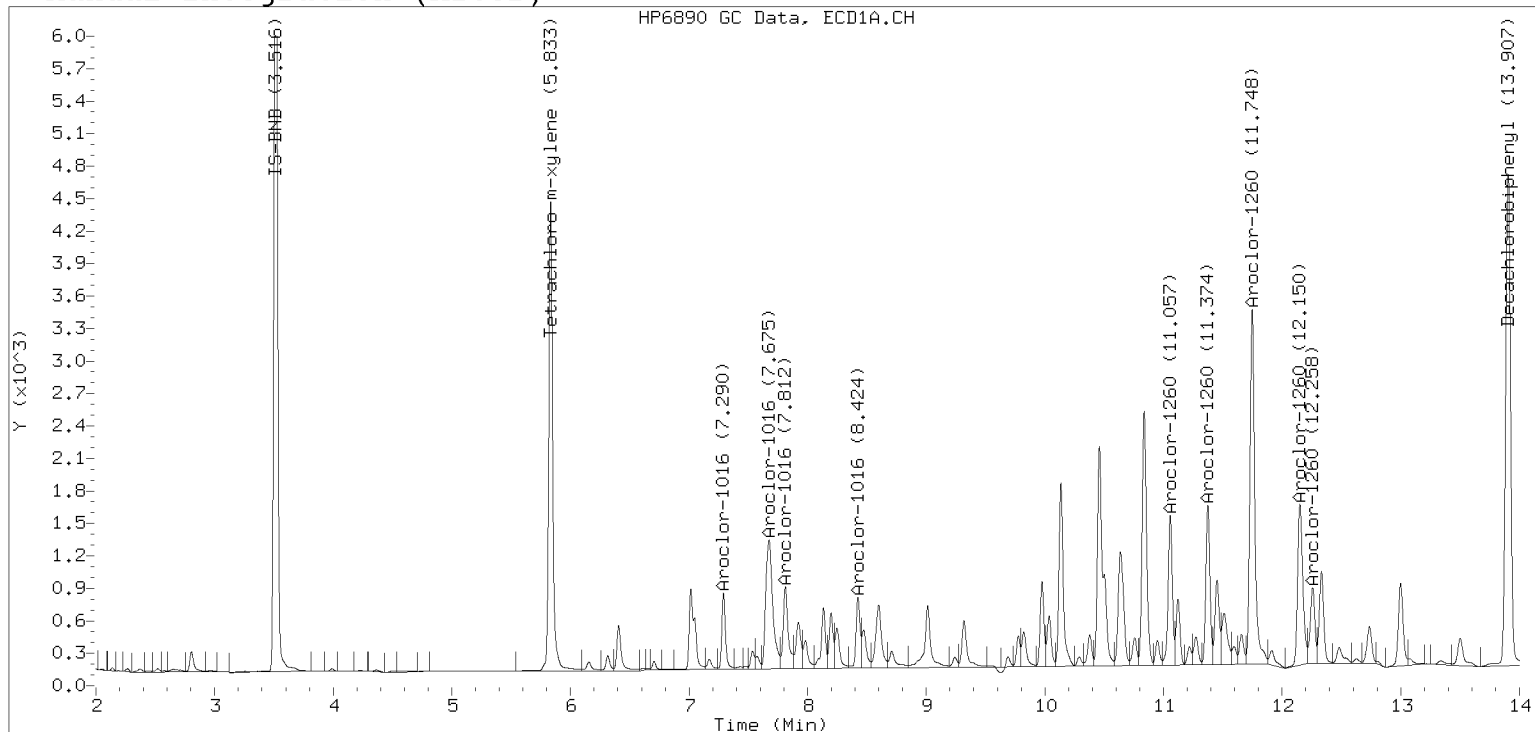


Manual Peak Adjustment, ZB-5

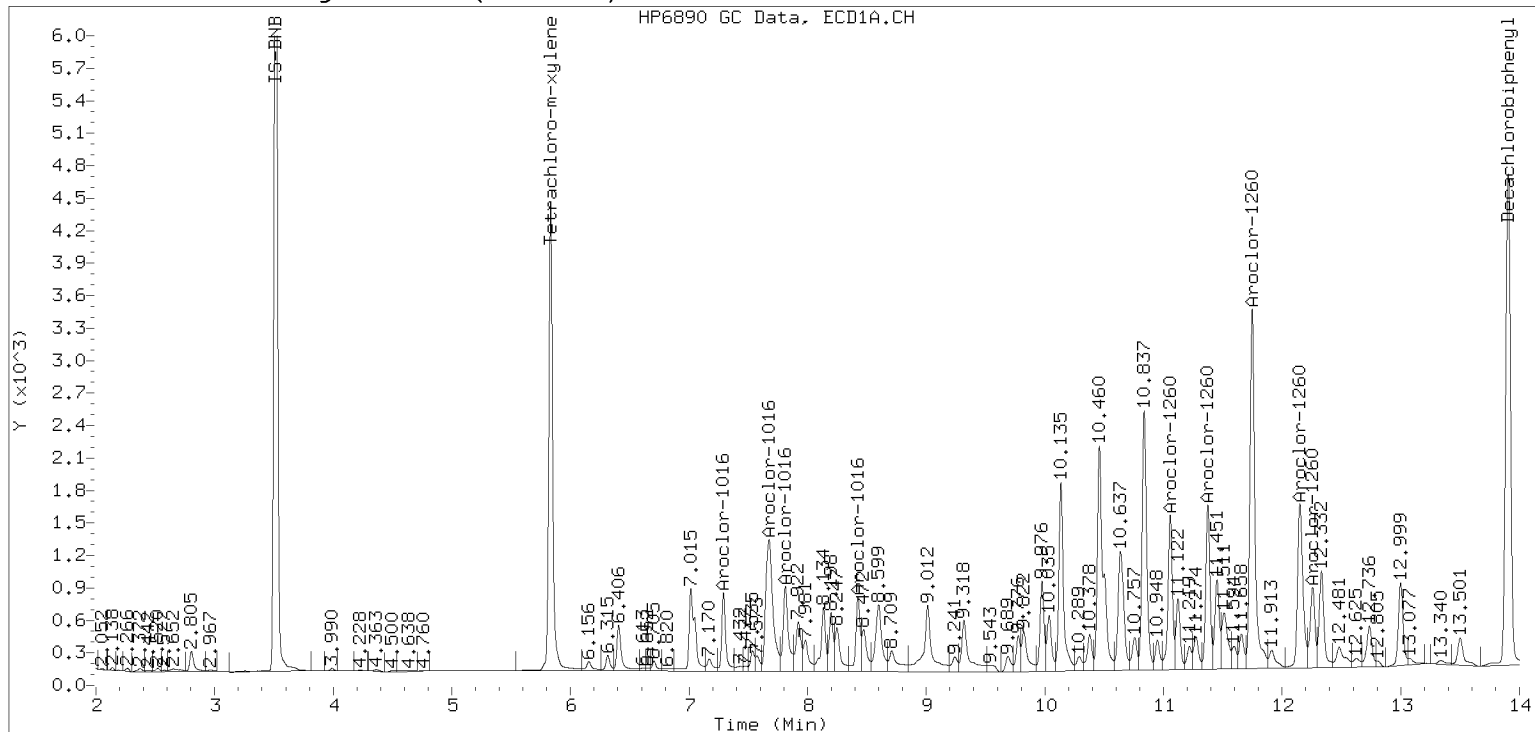
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Injection Date: 22-DEC-2022 16:34

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032222ECD7.D
Data file 2: /221203.b/221203.b/12032222ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660SCV1
Client ID:
Injection Date: 03-DEC-2022 22:13
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.000	247495	5.714	0.000	133904	36.1	36.1	0.2	Tetrachloro-m-xylene
13.909	0.001	325466	14.137	0.000	234467	39.8	38.2	4.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	483506	8.0
Hexabromobiphenyl	798898	892033	11.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270882	8.7
Hexabromobiphenyl	362541	432562	19.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.293	0.001	36100	223.8	1	7.277	0.002	30155	217.7
Aroclor-1016	2	7.681	0.007	113995	218.9	2	7.875	0.004	64468	215.8
Aroclor-1016	3	7.815	0.004	53043	224.8	3	8.074	0.004	27130	211.5
Aroclor-1016	4	8.428	0.004	33958	225.7	4	8.245	0.004	14848	220.1
Total CollAve (4 peaks):				223.3		Total Col2Ave (4 peaks):				216.3 RPD = 3
Corrected Ave (3 peaks):				222.5		Corrected Ave (3 peaks):				215.0 RPD = 3
Aroclor-1260	1	11.063	0.001	93173	286.9	1	11.671	0.002	56796	248.7
Aroclor-1260	2	11.380	0.003	95530	284.5	2	11.935	0.002	153247	267.5
Aroclor-1260	3	11.754	0.004	250548	283.9	3	12.452	0.001	41316	270.8
Aroclor-1260	4	12.159	0.005	120399	267.9	4	12.519	0.003	100704	263.7
Aroclor-1260	5	12.263	0.003	55639	302.5	NS	---			----
Total CollAve (5 peaks):				285.1		Total Col2Ave (4 peaks):				262.7 RPD = 8
Corrected Ave (4 peaks):				280.8		Corrected Ave (3 peaks):				260.0 RPD = 8

Total PCB Area Col1 (5.936 - 13.808) = 2318083 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1275603 Col2 Total PCB = 0.7 ppm*

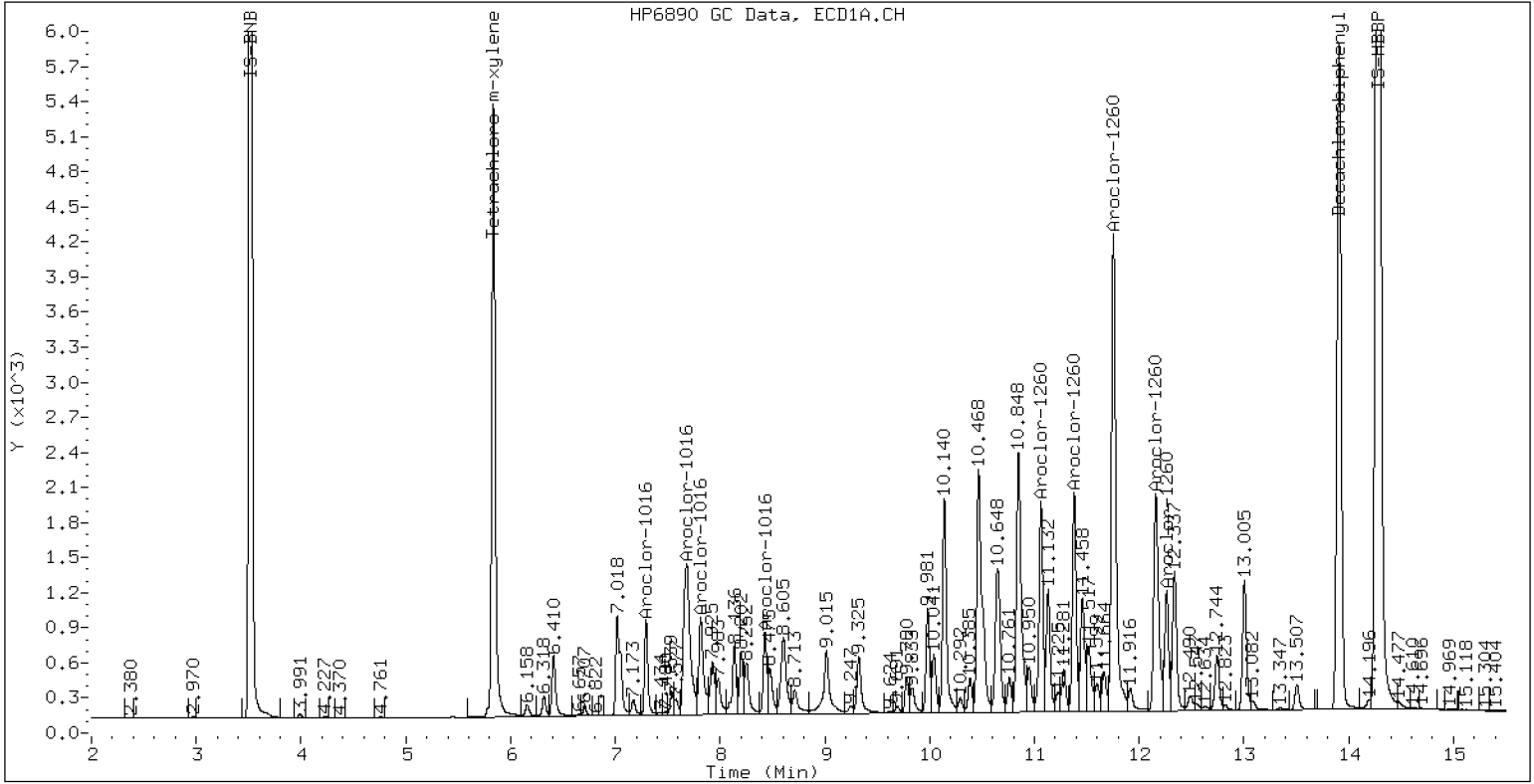
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660SCV1

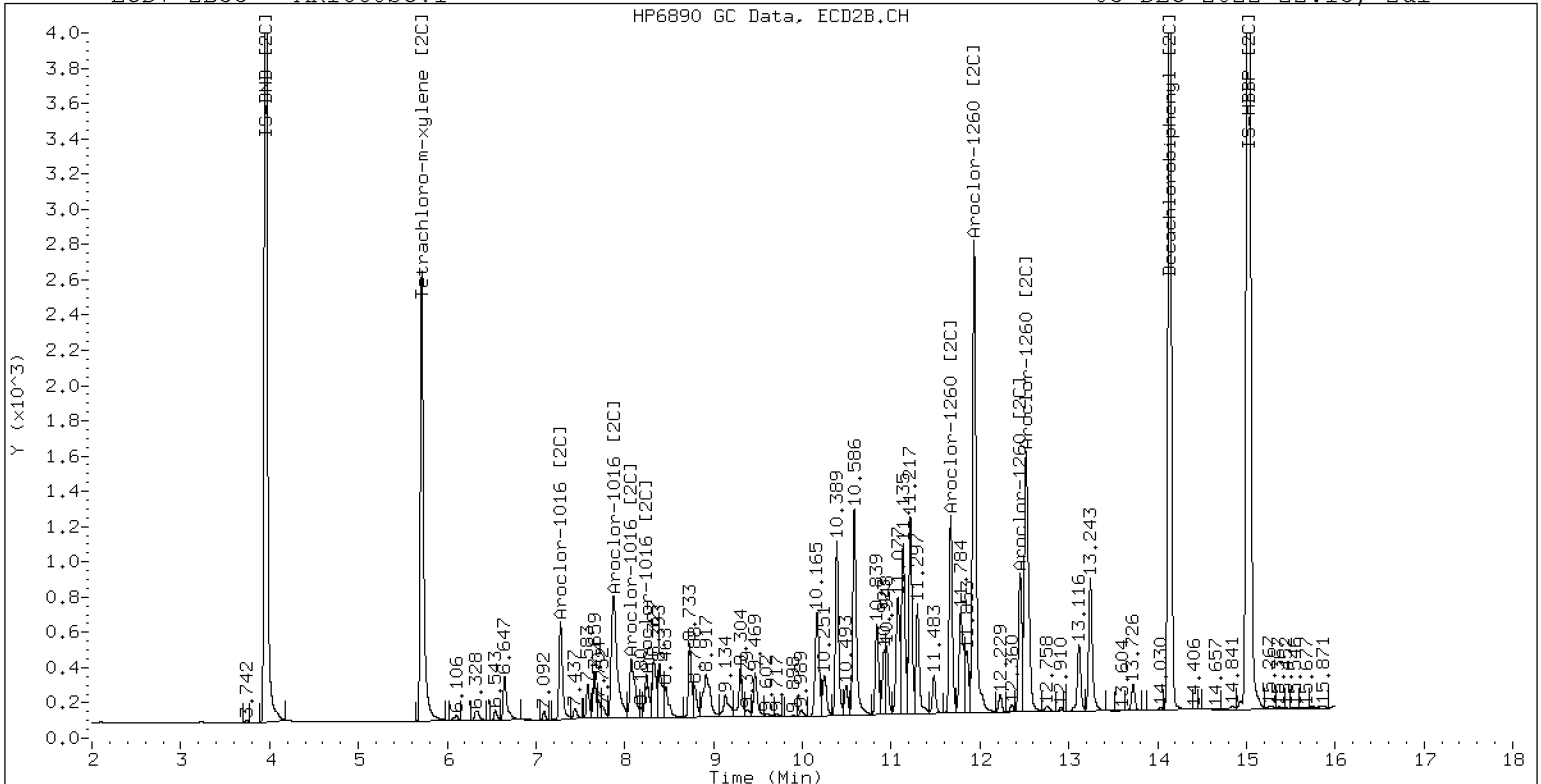
03-DEC-2022 22:13, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660SCV1

03-DEC-2022 22:13, 2ul





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12032223ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0048</u>	Injection Date:	<u>12/03/22</u>
Lab Sample ID:	<u>SKL0048-SCV2</u>	Injection Time:	<u>22:34</u>
Sequence Name:	<u>AR1242SCV2</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	207	0.0396000	0.0328545		-17.3	+/-20
Aroclor 1242 [2C]	A	250.00	225	0.0391981	0.0342776		-10.0	+/-20
Decachlorobiphenyl	A	40.000	39.1	0.7333327	0.7176455		-2.1	+/-20
Tetrachlorometaxylene	A	40.000	35.6	1.1336710	1.0081550		-11.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.0	1.1358180	1.0793200		-5.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	35.8	1.0966080	0.9816931		-10.5	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032223ECD7.D
Data file 2: /221203.b/221203.b/12032223ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242SCV2
Client ID:
Injection Date: 03-DEC-2022 22:34
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	-0.000	242356	5.713	-0.001	132586	35.6	35.8	0.7	Tetrachloro-m-xylene
13.909	0.001	321690	14.136	-0.001	228130	39.1	38.0	2.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	480791	7.4
Hexabromobiphenyl	798898	896515	12.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270117	8.4
Hexabromobiphenyl	362541	422729	16.6

* Standard Areas taken from Initial Cal Level 3

Initial Calibration Date: 03-DEC-2022

<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.294	0.000	26316	193.1	1	7.277	-0.001	23973	209.7
Aroclor-1242	2	7.677	-0.003	89703	207.3	2	7.873	-0.002	50204	206.9
Aroclor-1242	3	8.427	0.000	26786	215.2	3	9.176	-0.002	19686	251.4
Aroclor-1242	4	9.025	-0.005	54647	211.4	4	9.599	-0.006	21874	232.4
Total CollAve (4 peaks):				206.7		Total Col2Ave (4 peaks):				225.1 RPD = 9
Corrected Ave (3 peaks):				203.9		Corrected Ave (3 peaks):				216.3 RPD = 6

Total PCB Area Coll (5.936 - 13.808) = 731052 Coll Total PCB = 0.1 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 398143 Col2 Total PCB = 0.2 ppm*

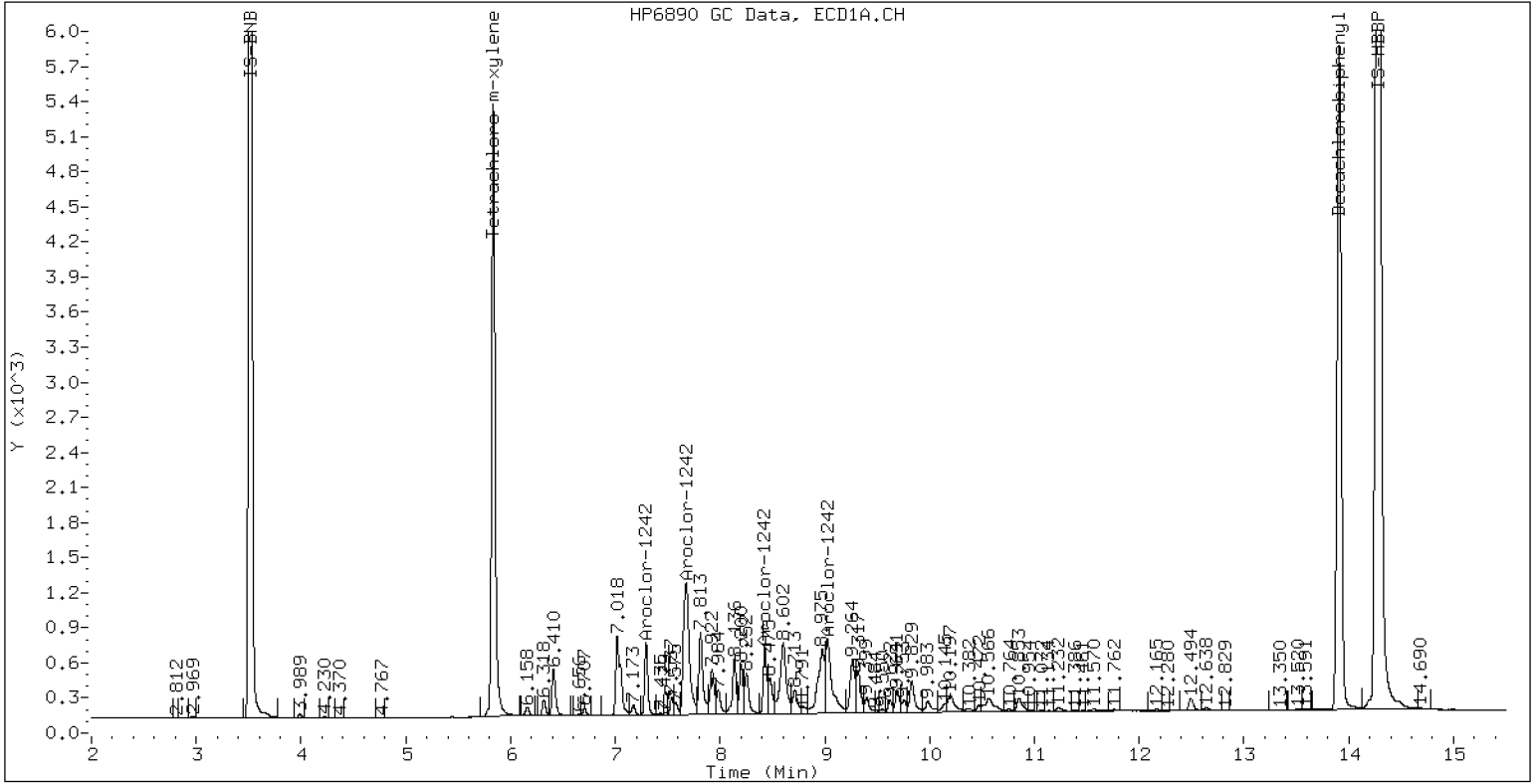
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242SCV2

03-DEC-2022 22:34, 2ul





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12032224ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0048</u>	Injection Date:	<u>12/03/22</u>
Lab Sample ID:	<u>SKL0048-SCV3</u>	Injection Time:	<u>22:55</u>
Sequence Name:	<u>AR1248SCV3</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	246	0.0490062	0.0480752		-1.8	+/-20
Aroclor 1248 [2C]	A	250.00	230	0.0394876	0.0363529		-7.9	+/-20
Decachlorobiphenyl	A	40.000	39.3	0.7333327	0.7205014		-1.7	+/-20
Tetrachlorometaxylene	A	40.000	34.7	1.1336710	0.9836260		-13.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.1	1.1358180	1.0816130		-4.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	35.1	1.0966080	0.9613644		-12.3	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032224ECD7.D
Data file 2: /221203.b/221203.b/12032224ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248SCV3
Client ID:
Injection Date: 03-DEC-2022 22:55
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.000	238518	5.713	-0.001	130772	34.7	35.1	1.0	Tetrachloro-m-xylene
13.909	0.001	329816	14.137	0.000	230748	39.3	38.1	3.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	484977	8.3
Hexabromobiphenyl	798898	915518	14.6

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	272055	9.2
Hexabromobiphenyl	362541	426674	17.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.427	-0.000	49184	235.9	1	8.326	0.000	25647	230.8	
Aroclor-1248	2	8.604	0.002	62884	236.2	2	8.733	0.000	26944	230.5	
Aroclor-1248	3	9.021	-0.002	117065	244.4	3	9.179	0.001	32692	229.9	
Aroclor-1248	4	9.315	0.000	62309	265.6	4	9.604	0.002	38342	229.7	
Total Col1Ave (4 peaks):				245.5	Total Col2Ave (4 peaks):				230.2	RPD = 6	
Corrected Ave (3 peaks):				238.8	Corrected Ave (3 peaks):				230.0	RPD = 4	

Total PCB Area Col1 (5.936 - 13.808) = 991353 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 508870 Col2 Total PCB = 0.3 ppm*

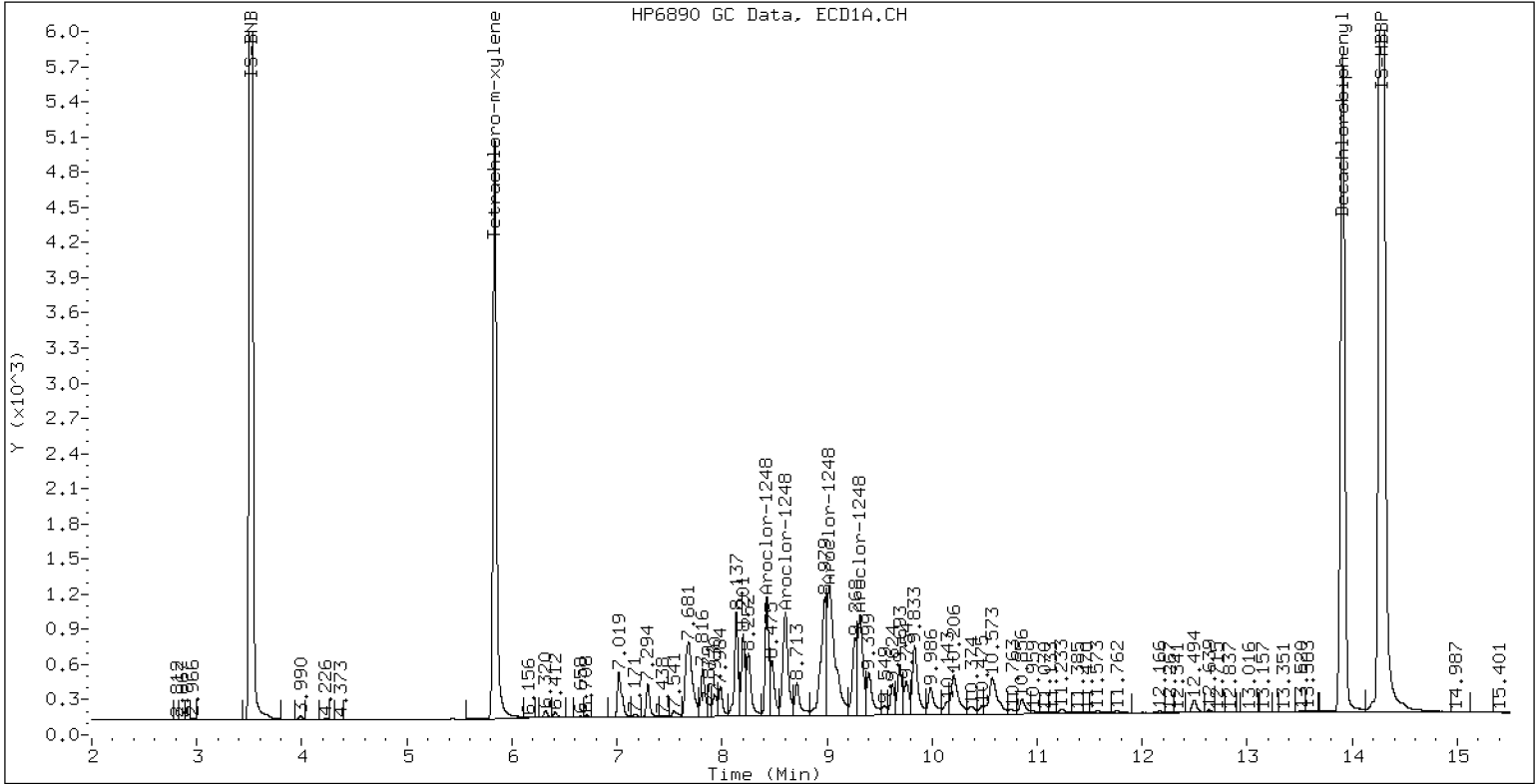
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248SCV3

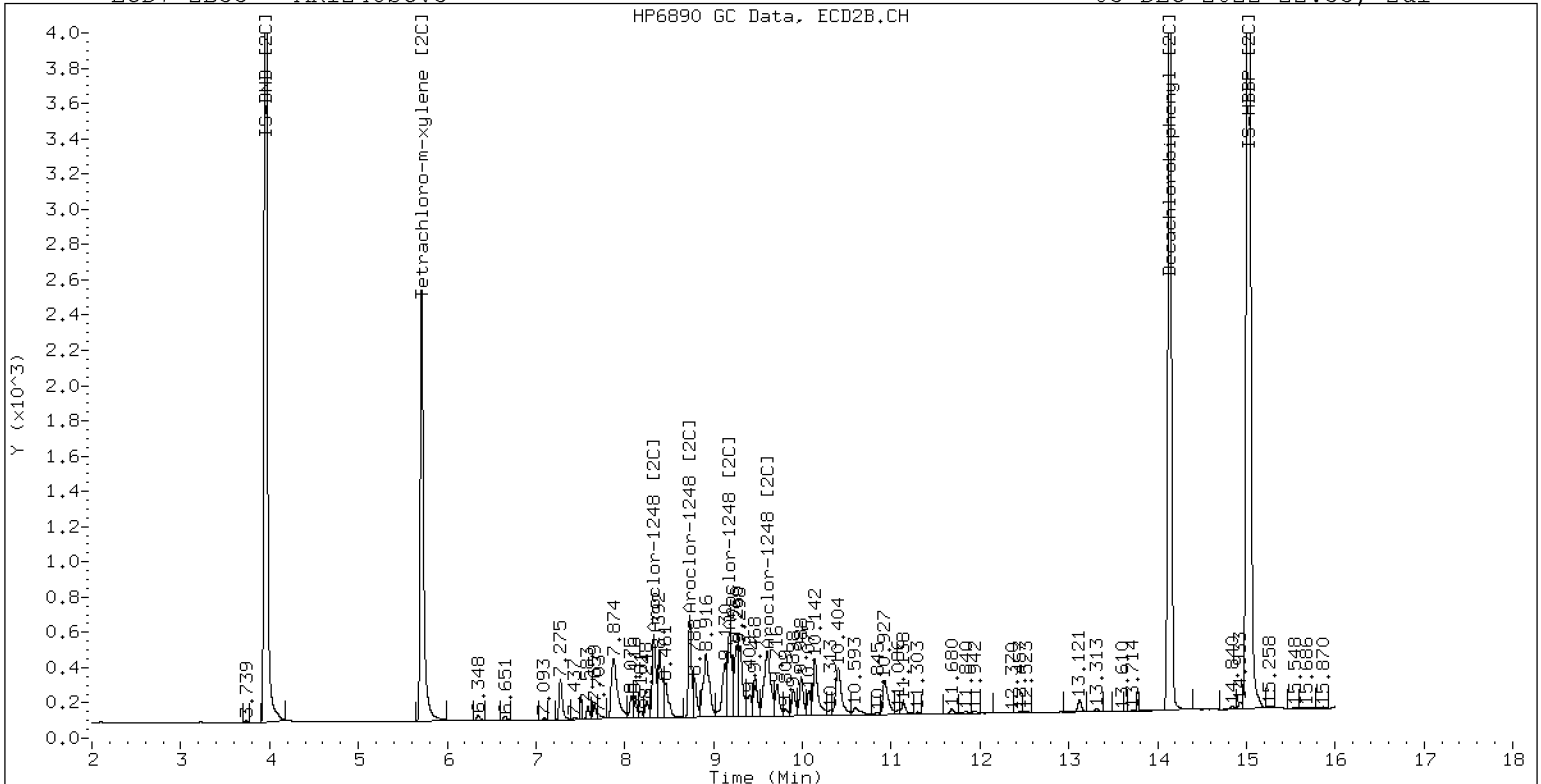
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ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248SCV3

03-DEC-2022 22:55, 2ul



ZB-35 Manual Integration: NO



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12032225ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0048</u>	Injection Date:	<u>12/03/22</u>
Lab Sample ID:	<u>SKL0048-SCV4</u>	Injection Time:	<u>23:17</u>
Sequence Name:	<u>AR1254SCV4</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	228	0.0576965	0.0519120		-8.8	+/-20
Aroclor 1254 [2C]	A	250.00	231	0.0638047	0.0582302		-7.7	+/-20
Decachlorobiphenyl	A	40.000	39.5	0.7333327	0.7250146		-1.1	+/-20
Tetrachlorometaxylene	A	40.000	35.5	1.1336710	1.0063630		-11.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.1	1.1358180	1.0811430		-4.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.0	1.0966080	0.9868455		-10.0	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032225ECD7.D
Data file 2: /221203.b/221203.b/12032225ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254SCV4
Client ID:
Injection Date: 03-DEC-2022 23:17
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.000	243863	5.713	-0.000	133610	35.5	36.0	1.4	Tetrachloro-m-xylene
13.909	0.001	332566	14.137	-0.000	233115	39.5	38.1	3.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	484642	8.3
Hexabromobiphenyl	798898	917405	14.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270782	8.7
Hexabromobiphenyl	362541	431238	18.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.321	0.003	94448	221.3	1	9.469	0.002	39410	225.7	
Aroclor-1254	2	9.401	0.003	41171	248.1	2	9.989	0.002	31415	223.8	
Aroclor-1254	3	9.692	0.004	60946	226.1	3	10.143	0.004	66244	219.6	
Aroclor-1254	4	9.832	0.004	116490	221.7	4	10.392	0.003	70095	224.3	
Aroclor-1254	5	10.199	0.005	80050	222.3	5	10.588	0.002	39206	260.2	
Total CollAve (5 peaks):				227.9		Total Col2Ave (5 peaks):				230.7	RPD = 1
Corrected Ave (4 peaks):				222.9		Corrected Ave (4 peaks):				223.4	RPD = 0

Total PCB Area Coll (5.936 - 13.808) = 1261470 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 664781 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12032226ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0048</u>	Injection Date:	<u>12/03/22</u>
Lab Sample ID:	<u>SKL0048-SCV5</u>	Injection Time:	<u>23:38</u>
Sequence Name:	<u>AR2162SCV5</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1221	A	250.00	237	0.0150468	0.0142259		-5.3	+/-20
Aroclor 1221 [2C]	A	250.00	236	0.0137578	0.0128521		-5.7	+/-20
Decachlorobiphenyl	A	40.000	40.0	0.7333327	0.7330667		-0.04	+/-20
Tetrachlorometaxylene	A	40.000	36.1	1.1336710	1.0221760		-9.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.4	1.1358180	1.0912900		-3.9	+/-20
Tetrachlorometaxylene [2C]	A	40.000	35.7	1.0966080	0.9776713		-10.8	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032226ECD7.D
Data file 2: /221203.b/221203.b/12032226ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR2162.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR2162SCV5
Client ID:
Injection Date: 03-DEC-2022 23:38
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	0.000	246394	5.713	-0.000	131378	36.1	35.7	1.1	Tetrachloro-m-xylene
13.908	-0.001	334929	14.136	-0.001	237241	40.0	38.4	4.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	482097	7.7
Hexabromobiphenyl	798898	913775	14.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	268757	7.9
Hexabromobiphenyl	362541	434790	19.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1221	1	4.761	0.001	9579	240.4	1	4.988	0.001	5527	243.7	
Aroclor-1221	2	6.159	0.001	16402	233.6	2	6.323	0.001	10041	232.3	
Aroclor-1221	3	6.410	0.001	38315	236.6	3	6.646	0.001	16814	231.1	
Total CollAve (3 peaks):				236.8	Total Col2Ave (3 peaks):				235.7	RPD = 0	
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Aroclor-1262	1	10.845	-0.003	145305	475.5	1	11.216	-0.001	152840	462.3	
Aroclor-1262	2	12.261	-0.001	222795	469.0	2	11.668	-0.002	131097	457.9	
Aroclor-1262	3	12.336	-0.001	238475	470.0	3	12.449	-0.002	148386	469.8	
Aroclor-1262	4	13.004	-0.001	188009	461.7	4	12.518	-0.001	231081	467.1	
Total CollAve (4 peaks):				469.1	Total Col2Ave (4 peaks):				464.3	RPD = 1	
Corrected Ave (3 peaks):				466.9	Corrected Ave (3 peaks):				462.4	RPD = 1	

Total PCB Area Coll (5.936 - 13.808) = 3654831 Coll Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 2063978 Col2 Total PCB = 1.1 ppm*

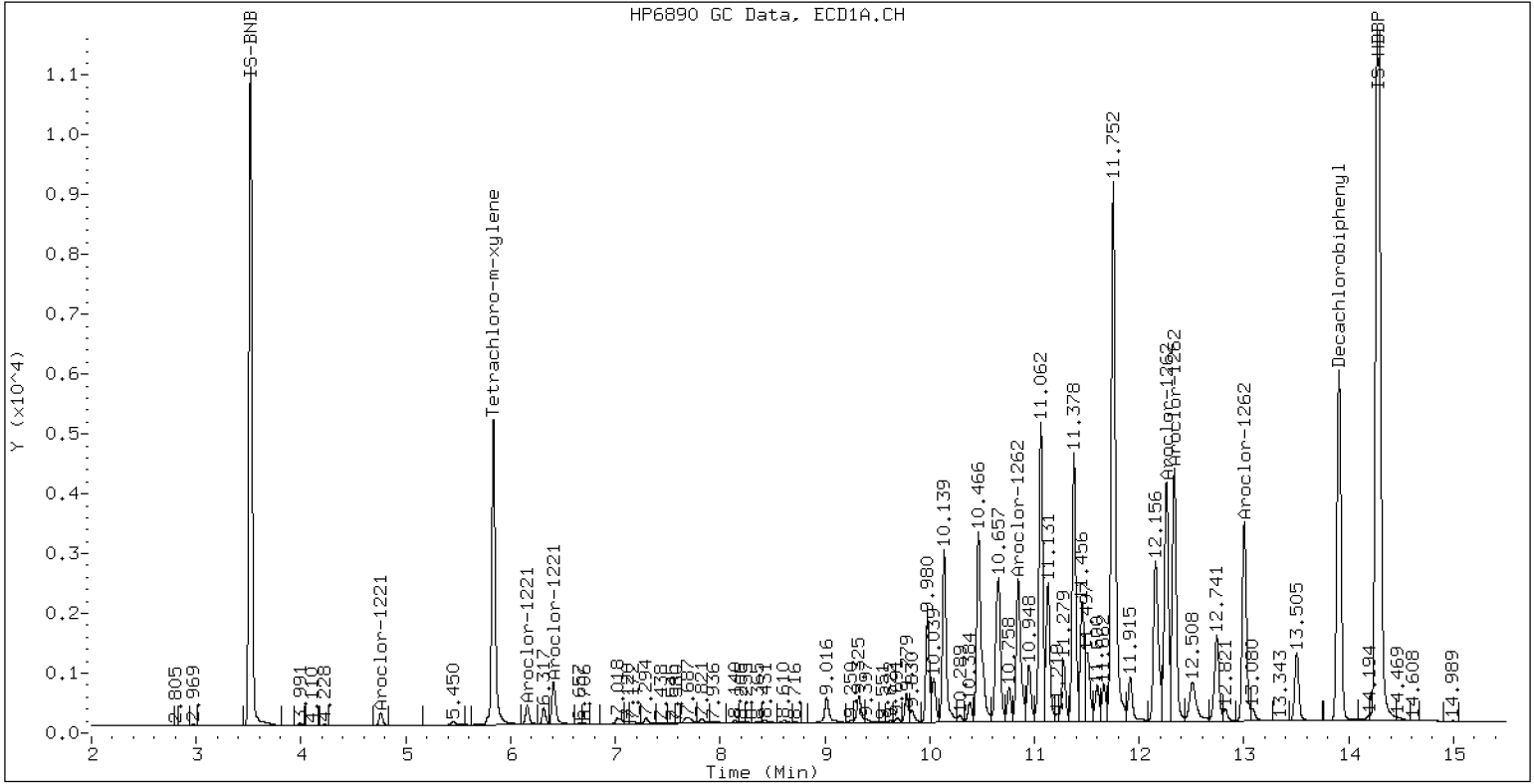
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR2162SCV5

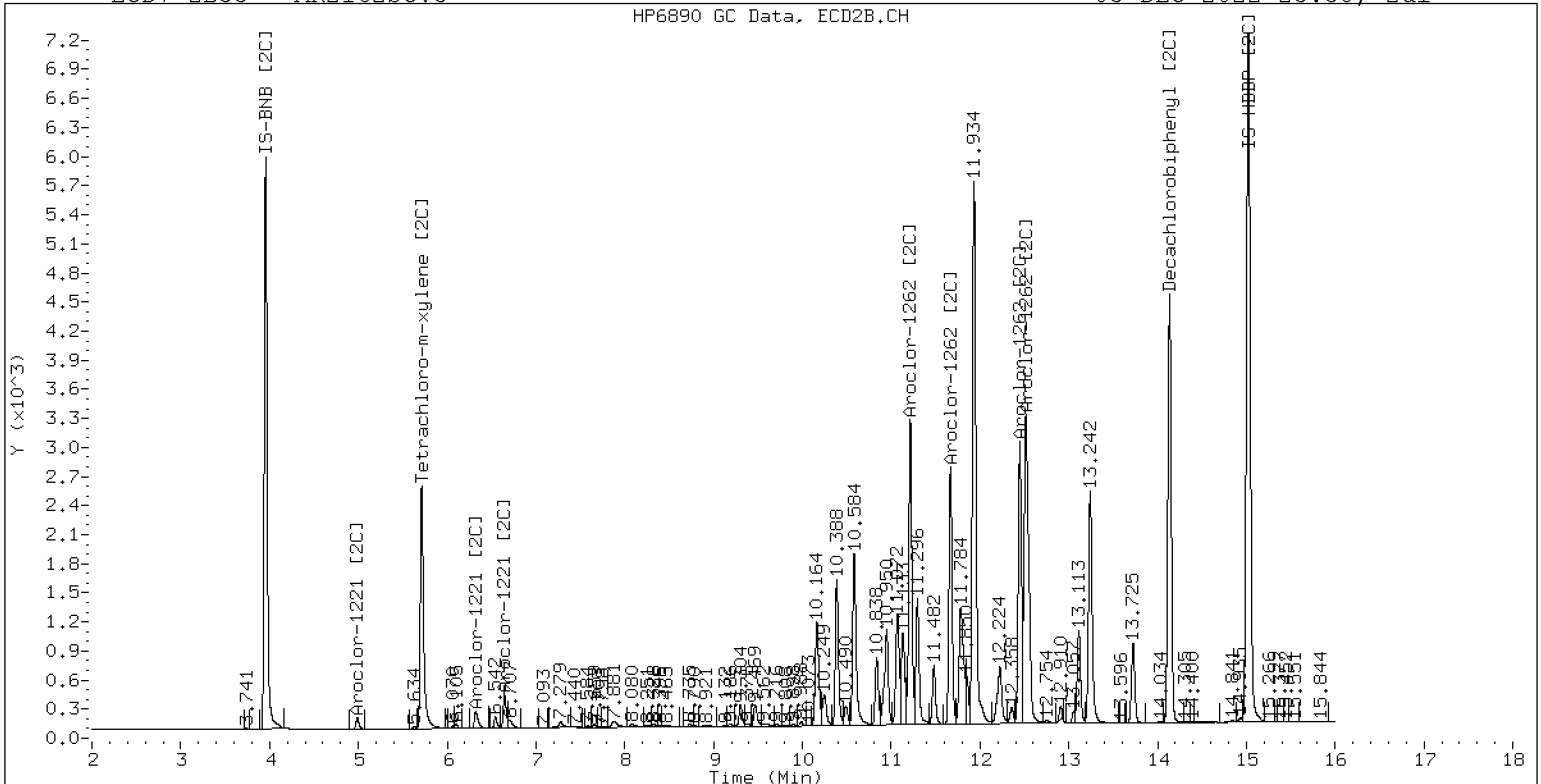
03-DEC-2022 23:38, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR2162SCV5

03-DEC-2022 23:38, 2ul



ZB-35 Manual Integration: NO



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A**

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12032227ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0048</u>	Injection Date:	<u>12/03/22</u>
Lab Sample ID:	<u>SKL0048-SCV6</u>	Injection Time:	<u>23:59</u>
Sequence Name:	<u>AR3268SCV6</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1232	A	250.00	217	0.0165403	0.0146227		-13.4	+/-20
Aroclor 1232 [2C]	A	250.00	230	0.0182815	0.0167216		-7.9	+/-20
Decachlorobiphenyl	A	40.000	56.2	0.7333327	1.0299650		40.4	+/-20
Tetrachlorometaxylene	A	40.000	34.5	1.1336710	0.9771642		-13.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	54.9	1.1358180	1.5591590		37.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	34.2	1.0966080	0.9385176		-14.4	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221203.b/12032227ECD7.D
Data file 2: /221203.b/221203.b/12032227ECD7.D
Method: \\target\share\chem4\ecd7.i\221203.b\PCB.m
Compound Sublist: AR3268.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR3268SCV6
Client ID:
Injection Date: 03-DEC-2022 23:59
Report Date: 12/05/2022 13:28
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.834	-0.002	236120	5.711	-0.002	126782	34.5	34.2	0.7	Tetrachloro-m-xylene
13.907	-0.002	474236	14.136	-0.001	339687	56.2	54.9	2.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	483276	8.0
Hexabromobiphenyl	798898	920878	15.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270175	8.5
Hexabromobiphenyl	362541	435731	20.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1232	1	4.758	-0.003	5334	221.8	1	4.986	-0.004	3031	230.7
Aroclor-1232	2	6.158	-0.002	9882	194.6	2	7.276	-0.001	14982	223.3
Aroclor-1232	3	7.684	0.000	51409	225.4	3	7.875	-0.001	29992	228.7
Aroclor-1232	4	8.607	0.001	21710	224.4	4	8.734	0.000	8467	238.1
Total CollAve (4 peaks):				216.5		Total Col2Ave (4 peaks):				230.2 RPD = 6
Corrected Ave (3 peaks):				213.6		Corrected Ave (3 peaks):				227.6 RPD = 6
Aroclor-1268	1	12.262	-0.000	296463	230.1	1	12.449	-0.000	189354	230.2
Aroclor-1268	2	12.336	0.001	294353	233.5	2	12.517	0.000	196449	232.9
Aroclor-1268	3	12.715	-0.001	238693	231.1	3	12.909	-0.001	66881	213.9
Aroclor-1268	4	13.506	0.001	725881	230.1	4	13.725	-0.001	525890	233.7
Total CollAve (4 peaks):				231.2		Total Col2Ave (4 peaks):				227.7 RPD = 2
Corrected Ave (3 peaks):				230.4		Corrected Ave (3 peaks):				225.7 RPD = 2

Total PCB Area Col1 (5.936 - 13.808) = 2353838 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1423323 Col2 Total PCB = 0.7 ppm*

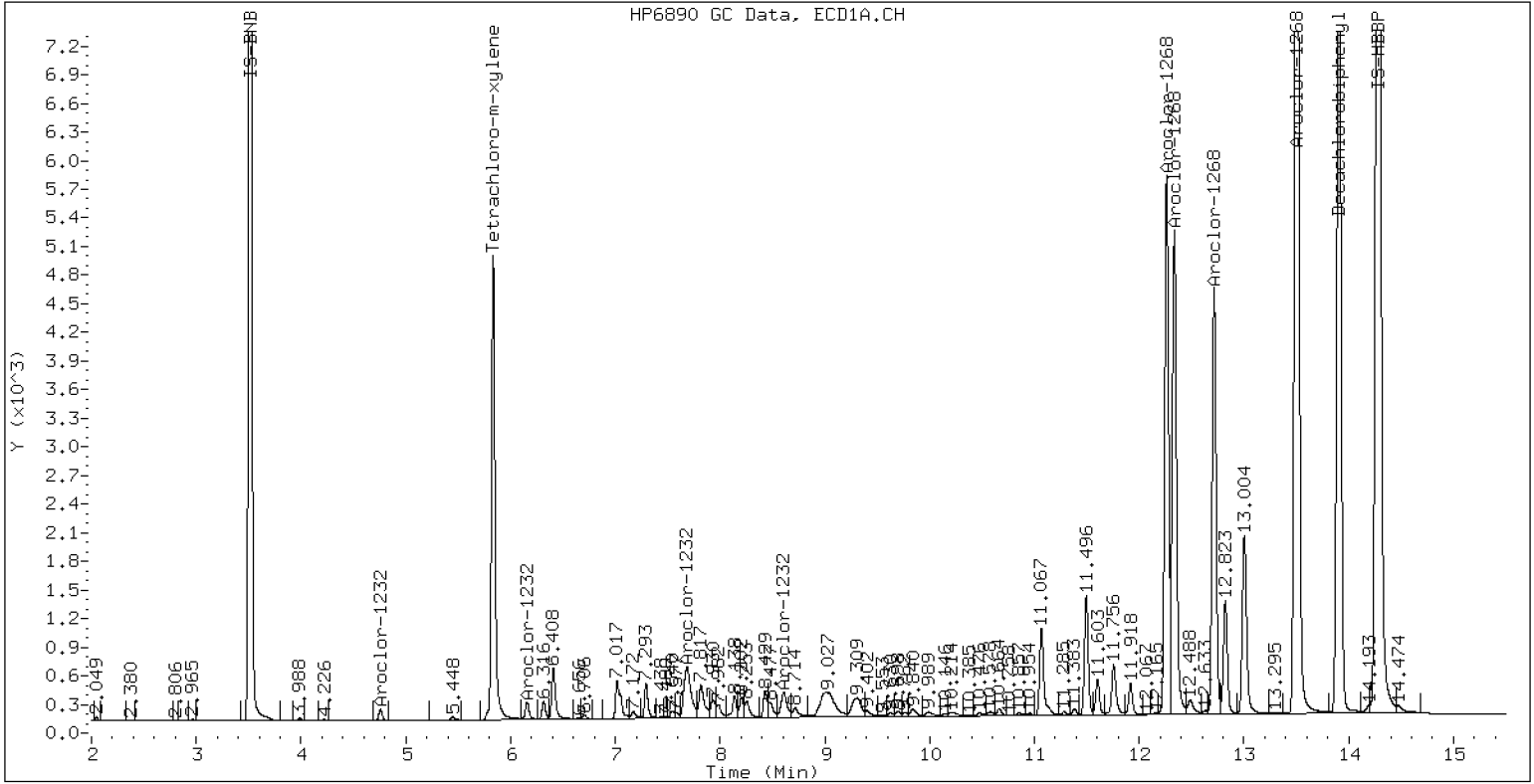
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR3268SCV6

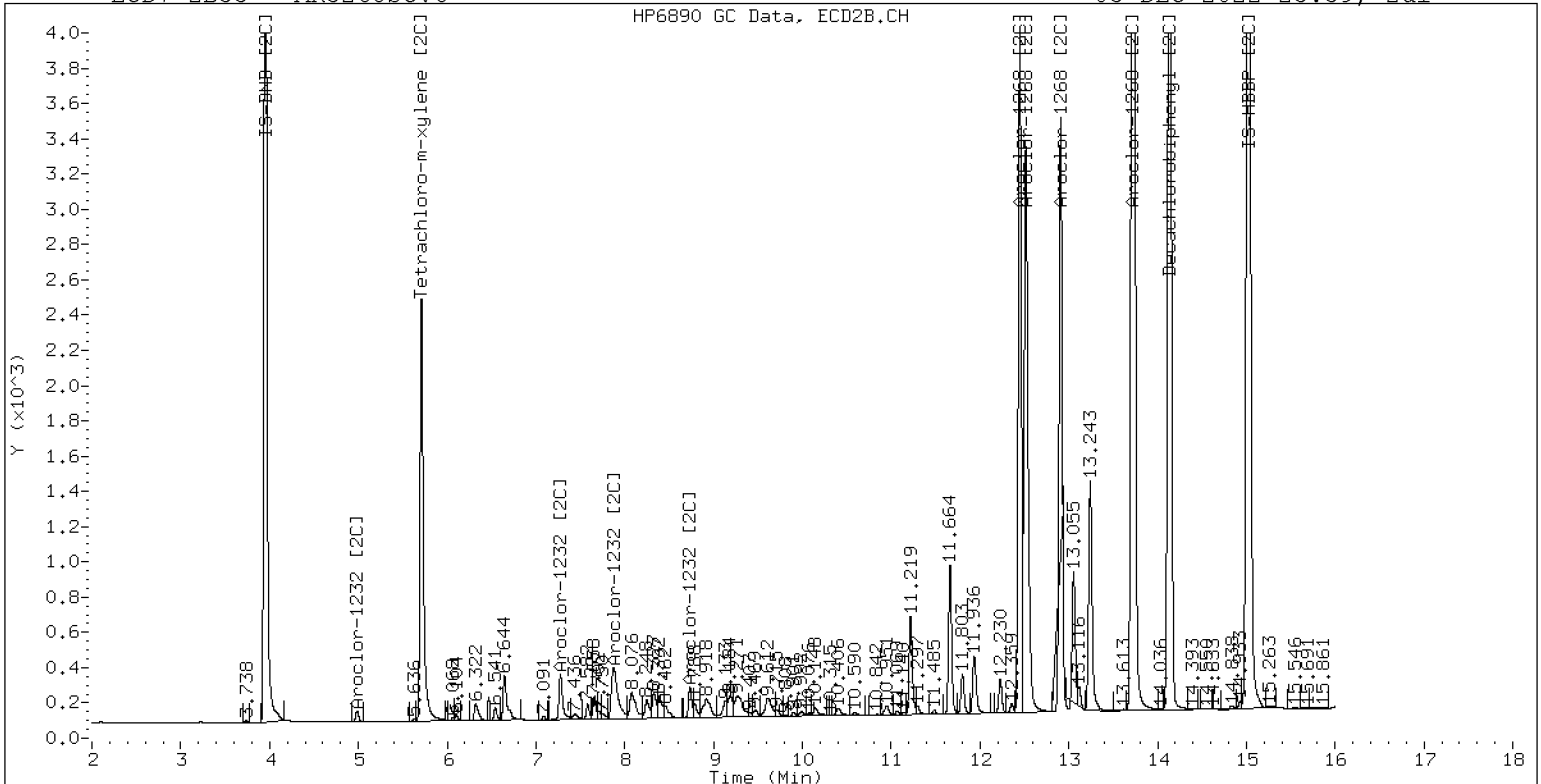
03-DEC-2022 23:59, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR3268SCV6

03-DEC-2022 23:59, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12172215ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0280</u>	Injection Date:	<u>12/17/22</u>
Lab Sample ID:	<u>SKL0280-CCV1</u>	Injection Time:	<u>14:14</u>
Sequence Name:	<u>AR1248CCV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	257	0.0490062	0.0520958		2.8	+/-20
Aroclor-1248 (1)	A	250.00	266		0.0365674			
Aroclor-1248 (2)	A	250.00	289		0.0508317			
Aroclor-1248 (3)	A	250.00	296		0.0935629			
Aroclor-1248 (4)	A	250.00	177		0.0274210			
Aroclor 1248 [2C]	A	250.00	244	0.0394876	0.0386833		-2.5	+/-20
Aroclor-1248 (1) [2C]	A	250.00	252		0.0330109			
Aroclor-1248 (2) [2C]	A	250.00	214		0.0294777			
Aroclor-1248 (3) [2C]	A	250.00	267		0.0446832			
Aroclor-1248 (4) [2C]	A	250.00	242		0.0475613			
Decachlorobiphenyl	A	40.000	42.6	0.7333327	0.7813275		6.5	+/-20
Tetrachlorometaxylene	A	40.000	37.2	1.1336710	1.0557270		-7.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	37.9	1.1358180	1.0753700		-5.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.6	1.0966080	1.0027760		-8.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172215ECD7.D
Data file 2: /221217.b/221217.b/12172215ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 17-DEC-2022 14:14
Report Date: 12/20/2022 15:07
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.001	235784	5.712	0.002	131506	37.2	36.6	1.8	Tetrachloro-m-xylene
13.907	-0.001	328649	14.134	0.001	227493	42.6	37.9	11.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	446676	-0.2
Hexabromobiphenyl	798898	841258	5.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	262284	5.3
Hexabromobiphenyl	362541	423097	16.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.428	0.001	51043	265.8	1	8.326	0.001	27057	252.5
Aroclor-1248	2	8.605	0.001	70954	289.4	2	8.732	0.002	24161	214.4
Aroclor-1248	3	9.022	0.000	130601	296.1	3	9.178	0.003	36624	267.2
Aroclor-1248	4	9.313	0.002	38276	177.1	4	9.602	0.004	38983	242.3
Total CollAve (4 peaks):				257.1	Total Col2Ave (4 peaks):				244.1	RPD = 5
Corrected Ave (3 peaks):				244.1	Corrected Ave (3 peaks):				236.4	RPD = 3
CalAmt %D:				2.8	CalAmt %D:				-2.4	

Total PCB Area Col1 (5.936 - 13.808) = 1147716 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 510632 Col2 Total PCB = 0.3 ppm*

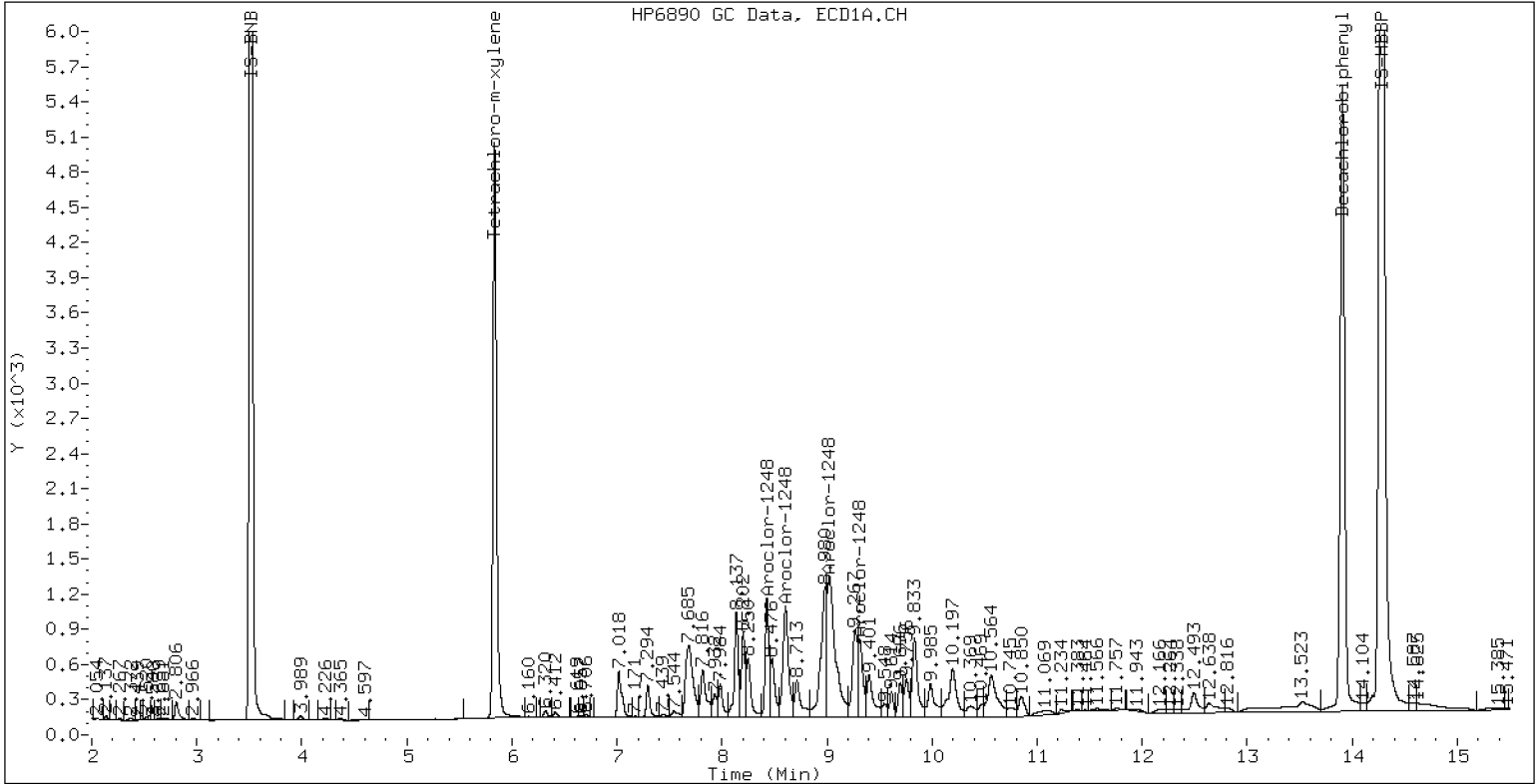
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV1

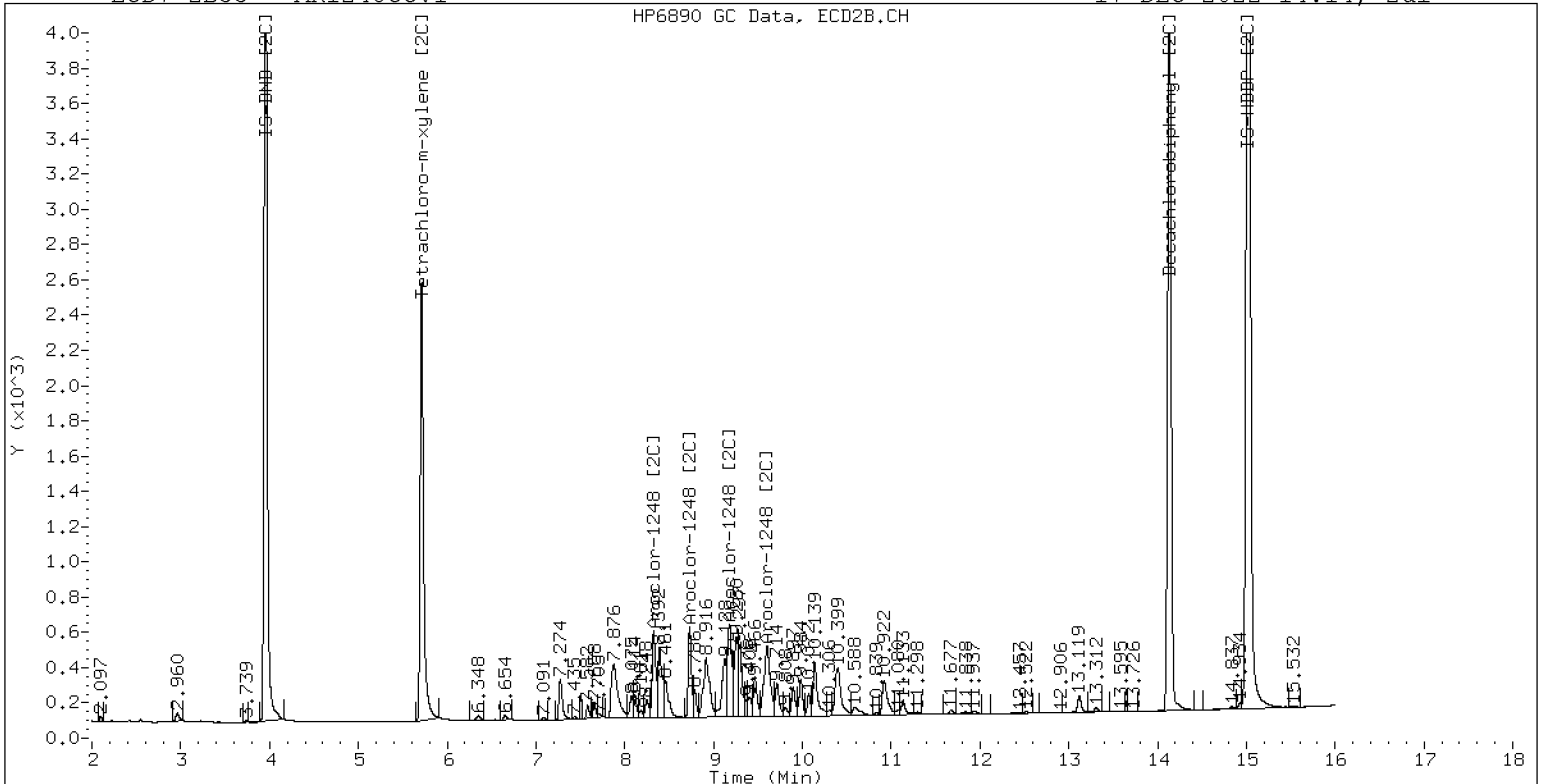
17-DEC-2022 14:14, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV1

17-DEC-2022 14:14, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12172216ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0280

Injection Date: 12/17/22

Lab Sample ID: SKL0280-CCV2

Injection Time: 14:35

Sequence Name: AR1660CCV2

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	293	0.0441939	0.0507098		17.1	+/-20
Aroclor-1016 (1)	A	250.00	297	0.0266860	0.0316907		18.8	
Aroclor-1016 (2)	A	250.00	274	0.0861572	0.0943956		9.6	
Aroclor-1016 (3)	A	250.00	300	0.0390425	0.0469096		20.0	
Aroclor-1016 (4)	A	250.00	300	0.0248899	0.0298432		20.0	
Aroclor 1016 [2C]	A	250.00	241	0.0467310	0.0446358		-3.5	+/-20
Aroclor-1016 (1) [2C]	A	250.00	245	0.0409030	0.0401138		-2.0	
Aroclor-1016 (2) [2C]	A	250.00	235	0.0882154	0.0828552		-6.0	
Aroclor-1016 (3) [2C]	A	250.00	235	0.0378846	0.0356846		-6.0	
Aroclor-1016 (4) [2C]	A	250.00	250	0.0199212	0.0198895		0.0	
Aroclor 1260	A	250.00	264	0.0390342	0.0410662		5.4	+/-20
Aroclor-1260 (1)	A	250.00	263	0.0291201	0.0306415		5.2	
Aroclor-1260 (2)	A	250.00	270	0.0301181	0.0325711		8.0	
Aroclor-1260 (3)	A	250.00	268	0.0791351	0.0849073		7.2	
Aroclor-1260 (4)	A	250.00	242	0.0403003	0.0390577		-3.2	
Aroclor-1260 (5)	A	250.00	275	0.0164974	0.0181533		10.0	
Aroclor 1260 [2C]	A	250.00	212	0.0617619	0.0523790		-15.1	+/-20
Aroclor-1260 (1) [2C]	A	250.00	204	0.0422283	0.0345566		-18.4	
Aroclor-1260 (2) [2C]	A	250.00	209	0.1059643	0.0886550		-16.4	
Aroclor-1260 (3) [2C]	A	250.00	217	0.0282173	0.0245355		-13.2	
Aroclor-1260 (4) [2C]	A	250.00	219	0.0706376	0.0617688		-12.4	
Decachlorobiphenyl	A	40.000	43.3	0.7333327	0.7946229		8.3	+/-20
Tetrachlorometaxylene	A	40.000	41.7	1.1336710	1.1820460		4.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.0	1.1358180	1.0784860		-5.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.3	1.0966080	1.0769520		-1.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172216ECD7.D
Data file 2: /221217.b/221217.b/12172216ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 17-DEC-2022 14:35
Report Date: 12/20/2022 15:07
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.834	-0.002	218867	5.711	0.001	118889	41.7	39.3	6.0	Tetrachloro-m-xylene
13.906	-0.002	315215	14.133	-0.000	203774	43.3	38.0	13.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	370319	-17.3
Hexabromobiphenyl	798898	793370	-0.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	220788	-11.4
Hexabromobiphenyl	362541	377889	4.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.292	-0.002	36674	296.9	1	7.275	0.001	27677	245.2
Aroclor-1016	2	7.682	-0.002	109239	273.9	2	7.876	0.004	57167	234.8
Aroclor-1016	3	7.816	-0.002	54286	300.4	3	8.074	0.002	24621	235.5
Aroclor-1016	4	8.427	-0.002	34536	299.8	4	8.246	0.003	13723	249.6
Total CollAve (4 peaks):				292.7		Total Col2Ave (4 peaks):				241.3 RPD = 19
Corrected Ave (3 peaks):				290.2		Corrected Ave (3 peaks):				238.5 RPD = 20
CalAmt %D:				17.1		CalAmt %D:				-3.5
Aroclor-1260	1	11.061	-0.001	75969	263.1	1	11.668	0.001	40808	204.6
Aroclor-1260	2	11.377	-0.000	80753	270.4	2	11.931	0.001	104693	209.2
Aroclor-1260	3	11.751	-0.001	210509	268.2	3	12.450	0.001	28974	217.4
Aroclor-1260	4	12.157	-0.001	96835	242.3	4	12.515	0.002	72943	218.6
Aroclor-1260	5	12.260	-0.001	45007	275.1	NS	---			----
Total CollAve (5 peaks):				263.8		Total Col2Ave (4 peaks):				212.4 RPD = 22
Corrected Ave (4 peaks):				261.0		Corrected Ave (3 peaks):				210.4 RPD = 21
CalAmt %D:				5.5		CalAmt %D:				-15.0

Total PCB Area Col1 (5.936 - 13.808) = 2300291 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1028628 Col2 Total PCB = 0.7 ppm*

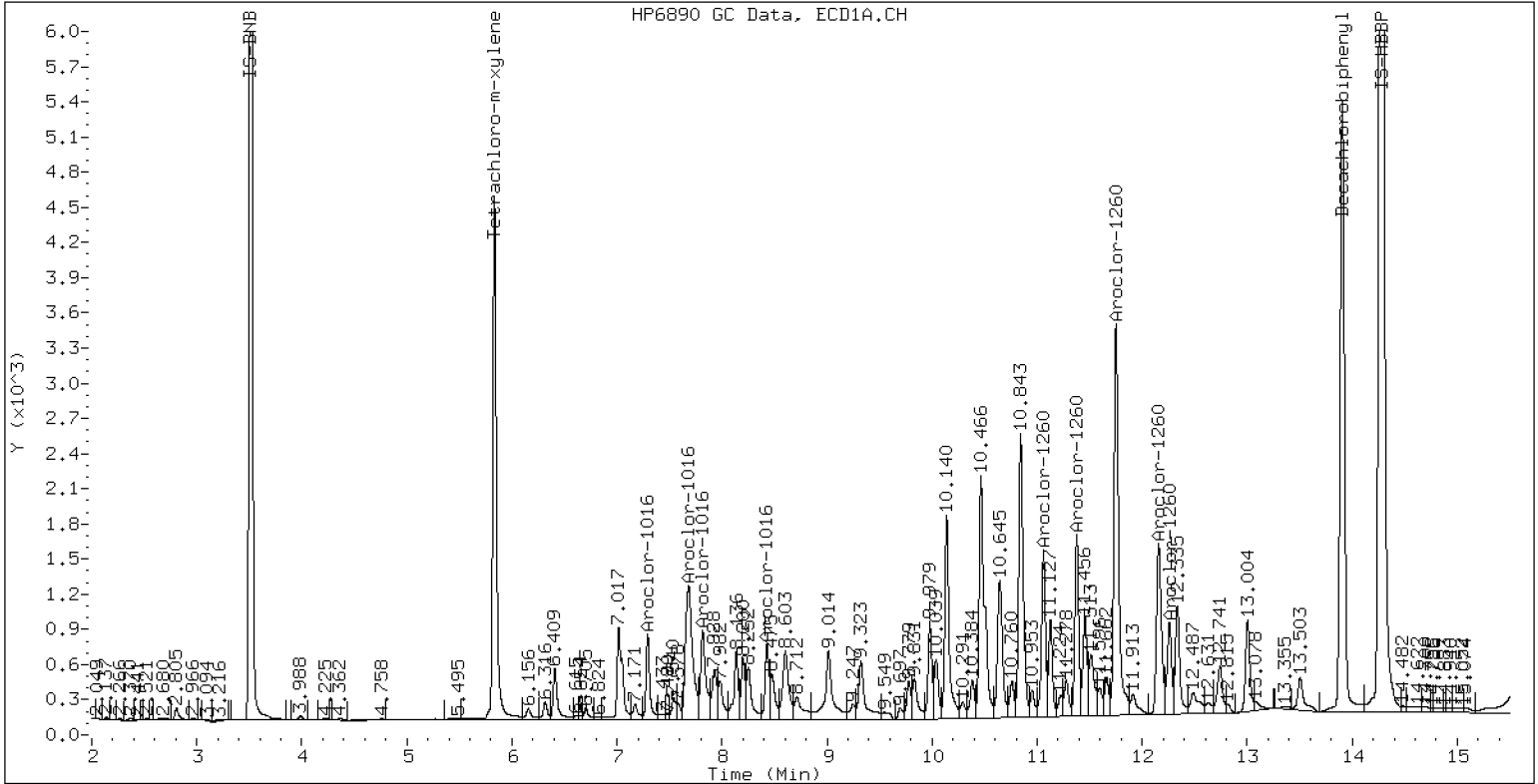
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV2

17-DEC-2022 14:35, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12172227ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0280

Injection Date: 12/17/22

Lab Sample ID: SKL0280-CCV3

Injection Time: 18:29

Sequence Name: AR1242CCV3

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	276	0.0396000	0.0435459		10.4	+/-20
Aroclor-1242 (1)	A	250.00	260		0.0236265			
Aroclor-1242 (2)	A	250.00	266		0.0764970			
Aroclor-1242 (3)	A	250.00	285		0.0235837			
Aroclor-1242 (4)	A	250.00	293		0.0504765			
Aroclor 1242 [2C]	A	250.00	247	0.0391981	0.0375823		-1.2	+/-20
Aroclor-1242 (1) [2C]	A	250.00	247		0.0334222			
Aroclor-1242 (2) [2C]	A	250.00	223		0.0641787			
Aroclor-1242 (3) [2C]	A	250.00	270		0.0250664			
Aroclor-1242 (4) [2C]	A	250.00	248		0.0276618			
Decachlorobiphenyl	A	40.000	42.8	0.7333327	0.7854166		7.0	+/-20
Tetrachlorometaxylene	A	40.000	38.0	1.1336710	1.0771850		-5.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	37.4	1.1358180	1.0613770		-6.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.8	1.0966080	1.0370560		-5.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172227ECD7.D
Data file 2: /221217.b/221217.b/12172227ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 17-DEC-2022 18:29
Report Date: 12/20/2022 15:08
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.001	229581	5.712	0.002	129969	38.0	37.8	0.5	Tetrachloro-m-xylene
13.906	-0.002	285841	14.132	-0.001	200855	42.8	37.4	13.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	426261	-4.8
Hexabromobiphenyl	798898	727871	-8.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	250650	0.6
Hexabromobiphenyl	362541	378480	4.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	7.292	-0.002	31472	260.5	1	7.275	0.001	26179	246.8
Aroclor-1242	2	7.681	-0.004	101899	265.6	2	7.873	0.000	50270	223.2
Aroclor-1242	3	8.427	-0.003	31415	284.6	3	9.178	0.003	19634	270.2
Aroclor-1242	4	9.031	-0.001	67238	293.4	4	9.601	0.003	21667	248.1
Total CollAve (4 peaks):				276.0	Total Col2Ave (4 peaks):				247.1	RPD = 11
Corrected Ave (3 peaks):				270.2	Corrected Ave (3 peaks):				239.4	RPD = 12
CalAmt %D:				10.4	CalAmt %D:				-1.2	

Total PCB Area Col1 (5.936 - 13.808) = 981854 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 392251 Col2 Total PCB = 0.2 ppm*

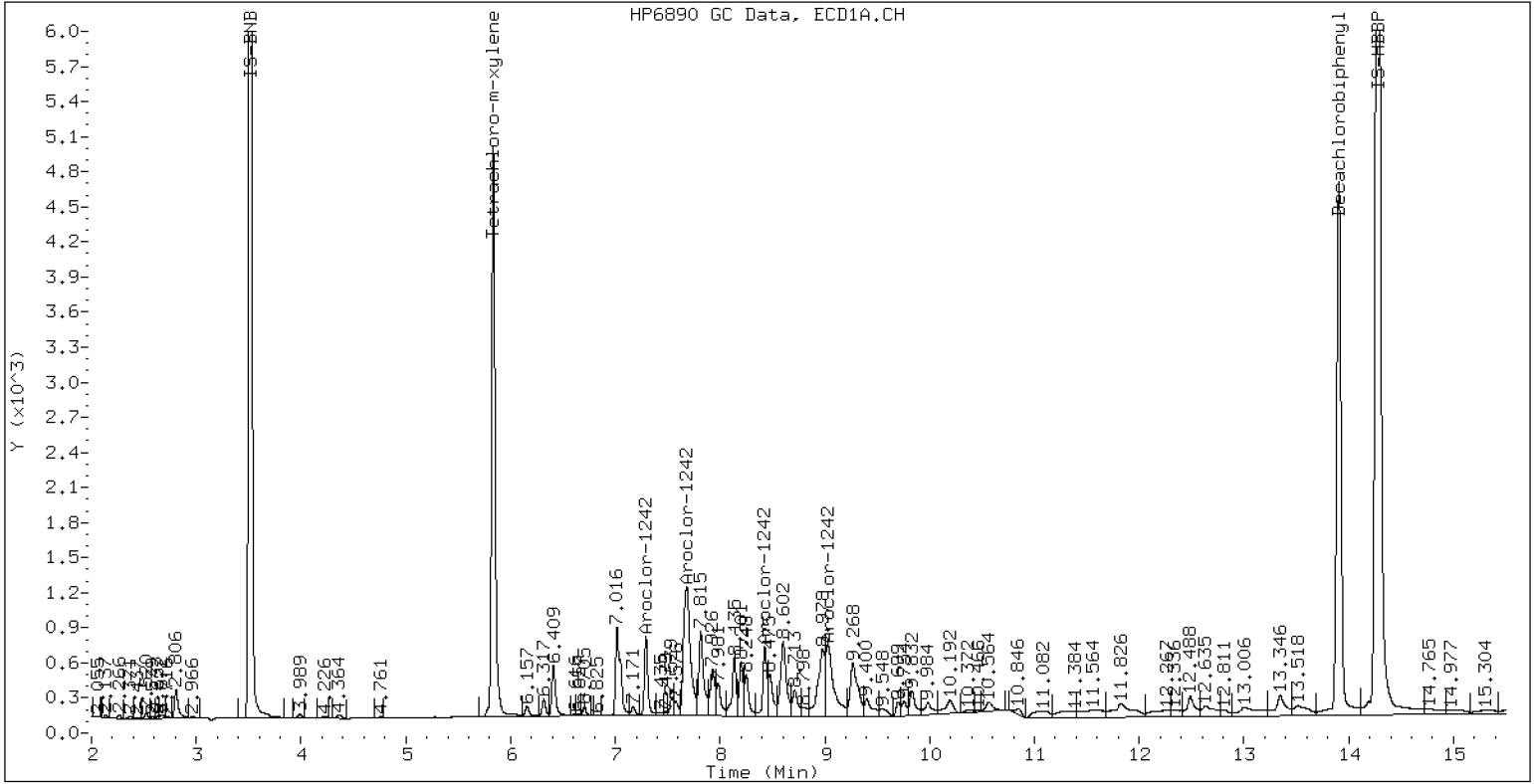
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV3

17-DEC-2022 18:29, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12172228ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0280

Injection Date: 12/17/22

Lab Sample ID: SKL0280-CCV4

Injection Time: 18:50

Sequence Name: AR1660CCV4

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	283	0.0441939	0.0491277		13.3	+/-20
Aroclor-1016 (1)	A	250.00	274	0.0266860	0.0292443		9.6	
Aroclor-1016 (2)	A	250.00	268	0.0861572	0.0922498		7.2	
Aroclor-1016 (3)	A	250.00	286	0.0390425	0.0446718		14.4	
Aroclor-1016 (4)	A	250.00	305	0.0248899	0.0303449		22.0	
Aroclor 1016 [2C]	A	250.00	240	0.0467310	0.0443280		-3.9	+/-20
Aroclor-1016 (1) [2C]	A	250.00	244	0.0409030	0.0399732		-2.4	
Aroclor-1016 (2) [2C]	A	250.00	232	0.0882154	0.0817522		-7.2	
Aroclor-1016 (3) [2C]	A	250.00	234	0.0378846	0.0355467		-6.4	
Aroclor-1016 (4) [2C]	A	250.00	251	0.0199212	0.0200398		0.4	
Aroclor 1260	A	250.00	299	0.0390342	0.0464859		19.5	+/-20
Aroclor-1260 (1)	A	250.00	301	0.0291201	0.0350211		20.4	
Aroclor-1260 (2)	A	250.00	304	0.0301181	0.0366365		21.6	
Aroclor-1260 (3)	A	250.00	302	0.0791351	0.0955913		20.8	
Aroclor-1260 (4)	A	250.00	277	0.0403003	0.0447259		10.8	
Aroclor-1260 (5)	A	250.00	310	0.0164974	0.0204547		24.0	
Aroclor 1260 [2C]	A	250.00	217	0.0617619	0.0530776		-13.2	+/-20
Aroclor-1260 (1) [2C]	A	250.00	212	0.0422283	0.0359094		-15.2	
Aroclor-1260 (2) [2C]	A	250.00	210	0.1059643	0.0888759		-16.0	
Aroclor-1260 (3) [2C]	A	250.00	226	0.0282173	0.0254742		-9.6	
Aroclor-1260 (4) [2C]	A	250.00	220	0.0706376	0.0620508		-12.0	
Decachlorobiphenyl	A	40.000	44.7	0.7333327	0.8203660		11.8	+/-20
Tetrachlorometaxylene	A	40.000	40.9	1.1336710	1.1602140		2.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.2	1.1358180	1.0842320		-4.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.2	1.0966080	1.0756620		-2.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172228ECD7.D
Data file 2: /221217.b/221217.b/12172228ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 17-DEC-2022 18:50
Report Date: 12/20/2022 15:08
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.001	212521	5.712	0.001	116370	40.9	39.2	4.2	Tetrachloro-m-xylene
13.905	-0.003	275451	14.133	-0.001	189282	44.7	38.2	15.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	366348	-18.2
Hexabromobiphenyl	798898	671532	-15.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	216369	-13.1
Hexabromobiphenyl	362541	349154	-3.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.292	-0.003	33480	274.0	1	7.275	0.001	27028	244.3	
Aroclor-1016	2	7.681	-0.004	105611	267.7	2	7.874	0.002	55277	231.7	
Aroclor-1016	3	7.814	-0.003	51142	286.0	3	8.073	0.001	24035	234.6	
Aroclor-1016	4	8.427	-0.003	34740	304.8	4	8.244	0.001	13550	251.5	
Total CollAve (4 peaks):				283.1		Total Col2Ave (4 peaks):				240.5	RPD = 16
Corrected Ave (3 peaks):				275.9		Corrected Ave (3 peaks):				236.9	RPD = 15
CalAmt %D:				13.2		CalAmt %D:				-3.8	
Aroclor-1260	1	11.060	-0.002	73493	300.7	1	11.667	0.000	39181	212.6	
Aroclor-1260	2	11.376	-0.001	76883	304.1	2	11.930	-0.000	96973	209.7	
Aroclor-1260	3	11.750	-0.002	200602	302.0	3	12.449	0.000	27795	225.7	
Aroclor-1260	4	12.154	-0.005	93859	277.5	4	12.514	0.001	67704	219.6	
Aroclor-1260	5	12.259	-0.002	42925	310.0	NS	---			----	
Total CollAve (5 peaks):				298.8		Total Col2Ave (4 peaks):				216.9	RPD = 32
Corrected Ave (4 peaks):				296.1		Corrected Ave (3 peaks):				214.0	RPD = 32
CalAmt %D:				19.5		CalAmt %D:				-13.2	

Total PCB Area Col1 (5.936 - 13.808) = 2188261 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 984749 Col2 Total PCB = 0.6 ppm*

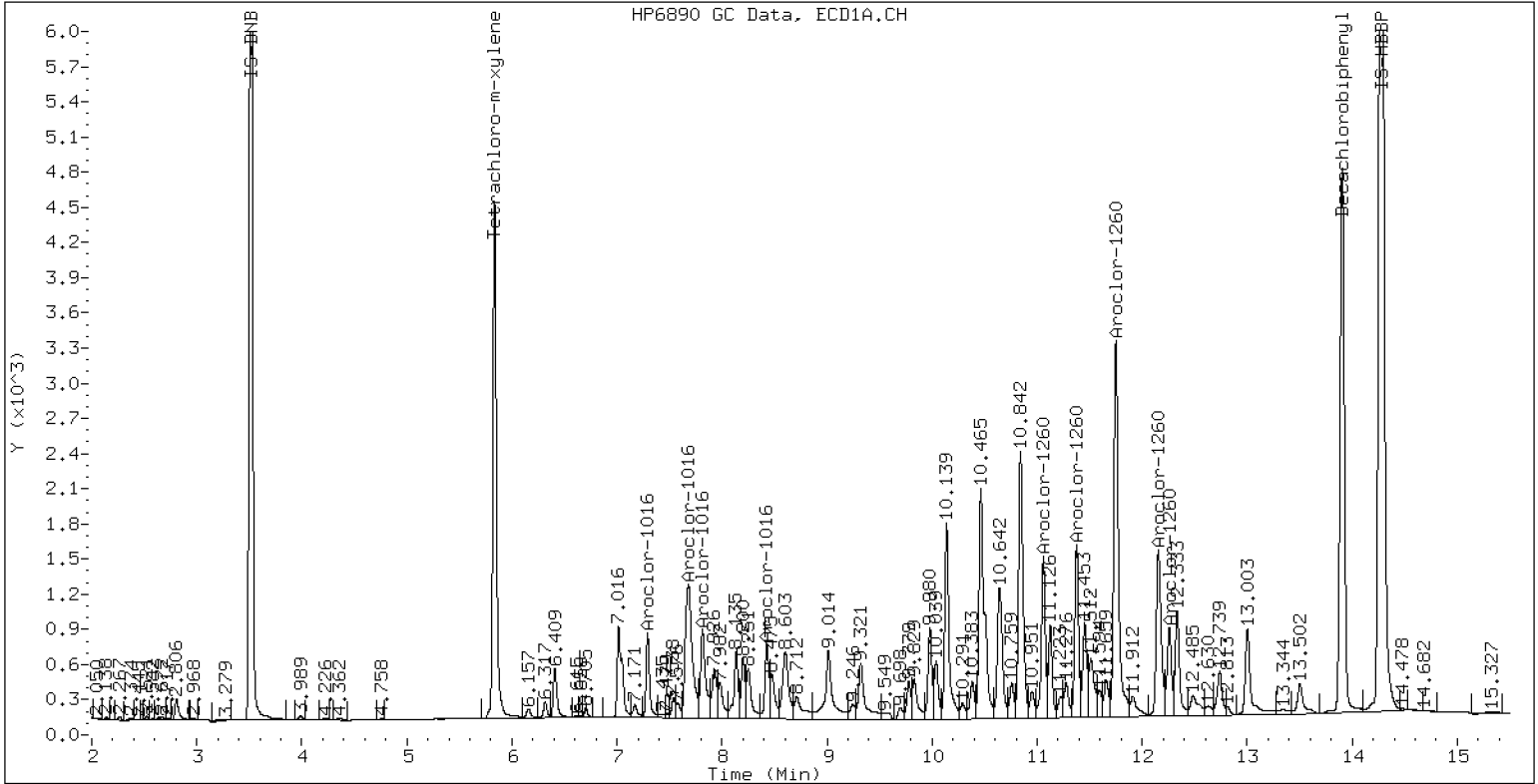
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV4

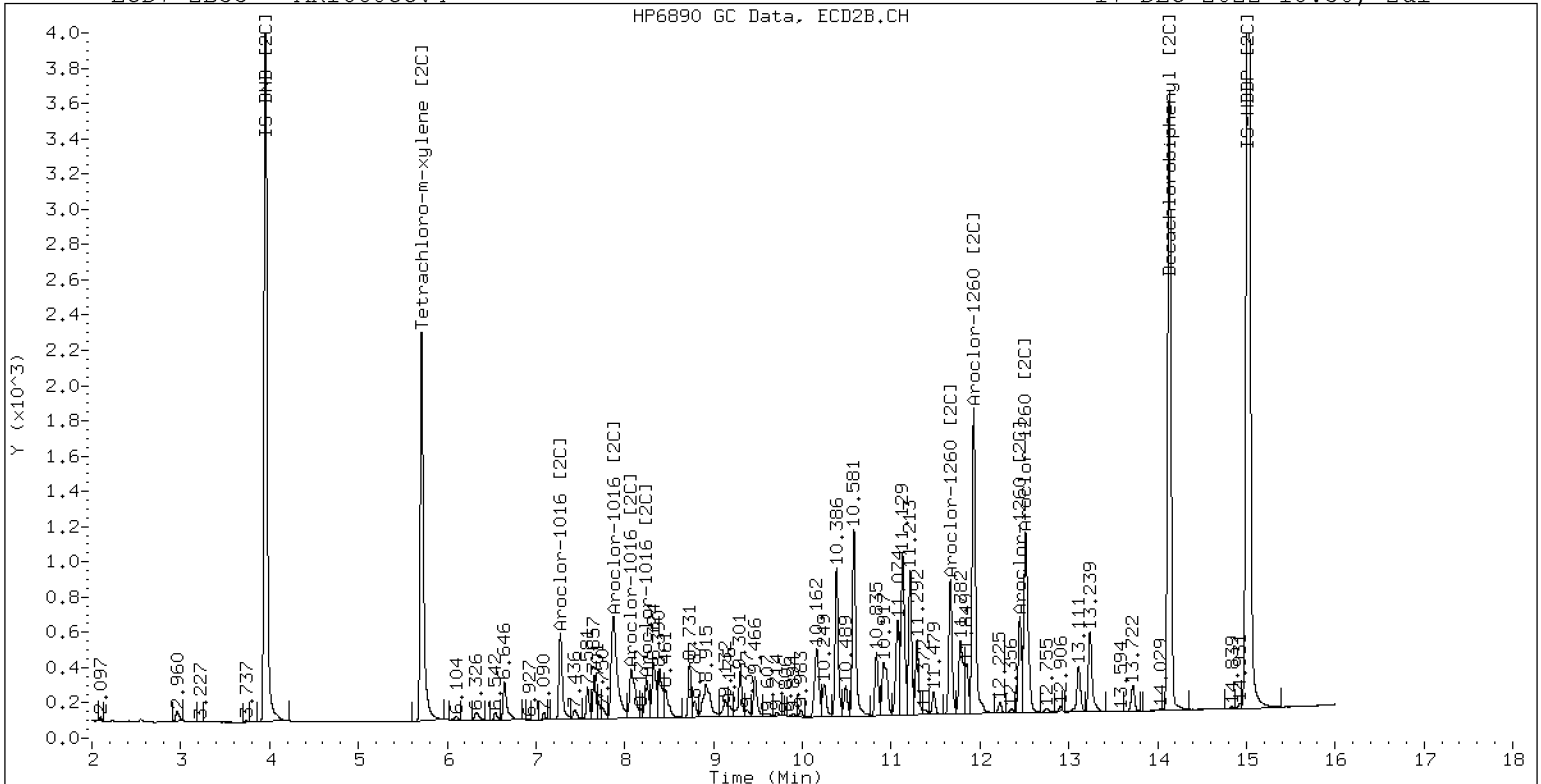
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ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV4

17-DEC-2022 18:50, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12172237ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0280</u>	Injection Date:	<u>12/17/22</u>
Lab Sample ID:	<u>SKL0280-CCV5</u>	Injection Time:	<u>22:01</u>
Sequence Name:	<u>AR1254CCV5</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	259	0.0576965	0.0609948		3.8	+/-20
Aroclor-1254 (1)	A	250.00	268		0.0755710			
Aroclor-1254 (2)	A	250.00	276		0.0302327			
Aroclor-1254 (3)	A	250.00	178		0.0317040			
Aroclor-1254 (4)	A	250.00	280		0.0972457			
Aroclor-1254 (5)	A	250.00	295		0.0702207			
Aroclor 1254 [2C]	A	250.00	245	0.0638047	0.0630650		-2.2	+/-20
Aroclor-1254 (1) [2C]	A	250.00	252		0.0519676			
Aroclor-1254 (2) [2C]	A	250.00	197		0.0326846			
Aroclor-1254 (3) [2C]	A	250.00	238		0.0848118			
Aroclor-1254 (4) [2C]	A	250.00	264		0.0974105			
Aroclor-1254 (5) [2C]	A	250.00	272		0.0484506			
Decachlorobiphenyl	A	40.000	40.9	0.7333327	0.7505966		2.3	+/-20
Tetrachlorometaxylene	A	40.000	36.7	1.1336710	1.0390660		-8.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.1	1.1358180	1.0830860		-4.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.3	1.0966080	0.9957673		-9.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172237ECD7.D
 Data file 2: /221217.b/221217.b/12172237ECD7.D
 Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
 Compound Sublist: AR1254.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR1254CCV5
 Client ID:
 Injection Date: 17-DEC-2022 22:01
 Report Date: 12/20/2022 15:08
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	0.000	223167	5.713	0.002	124803	36.7	36.3	0.9	Tetrachloro-m-xylene
13.907	-0.001	338614	14.134	0.000	229500	40.9	38.1	7.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	429553	-4.0
Hexabromobiphenyl	798898	902253	12.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	250667	0.6
Hexabromobiphenyl	362541	423789	16.9

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.319	-0.002	101443	268.2	1	9.466	0.002	40708	251.9	
Aroclor-1254	2	9.399	-0.003	40583	275.9	2	9.983	0.002	25603	197.0	
Aroclor-1254	3	9.693	-0.001	42558	178.2	3	10.137	0.003	66436	237.9	
Aroclor-1254	4	9.827	-0.003	130538	280.3	4	10.384	0.002	76305	263.8	
Aroclor-1254	5	10.185	-0.004	94261	295.3	5	10.581	0.002	37953	272.0	
Total CollAve (5 peaks):				259.6		Total Col2Ave (5 peaks):				244.5	RPD = 6
Corrected Ave (4 peaks):				250.7		Corrected Ave (4 peaks):				237.6	RPD = 5
CalAmt %D:				3.8		CalAmt %D:				-2.2	

Total PCB Area Col1 (5.936 - 13.808) = 1363315 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 700189 Col2 Total PCB = 0.4 ppm*

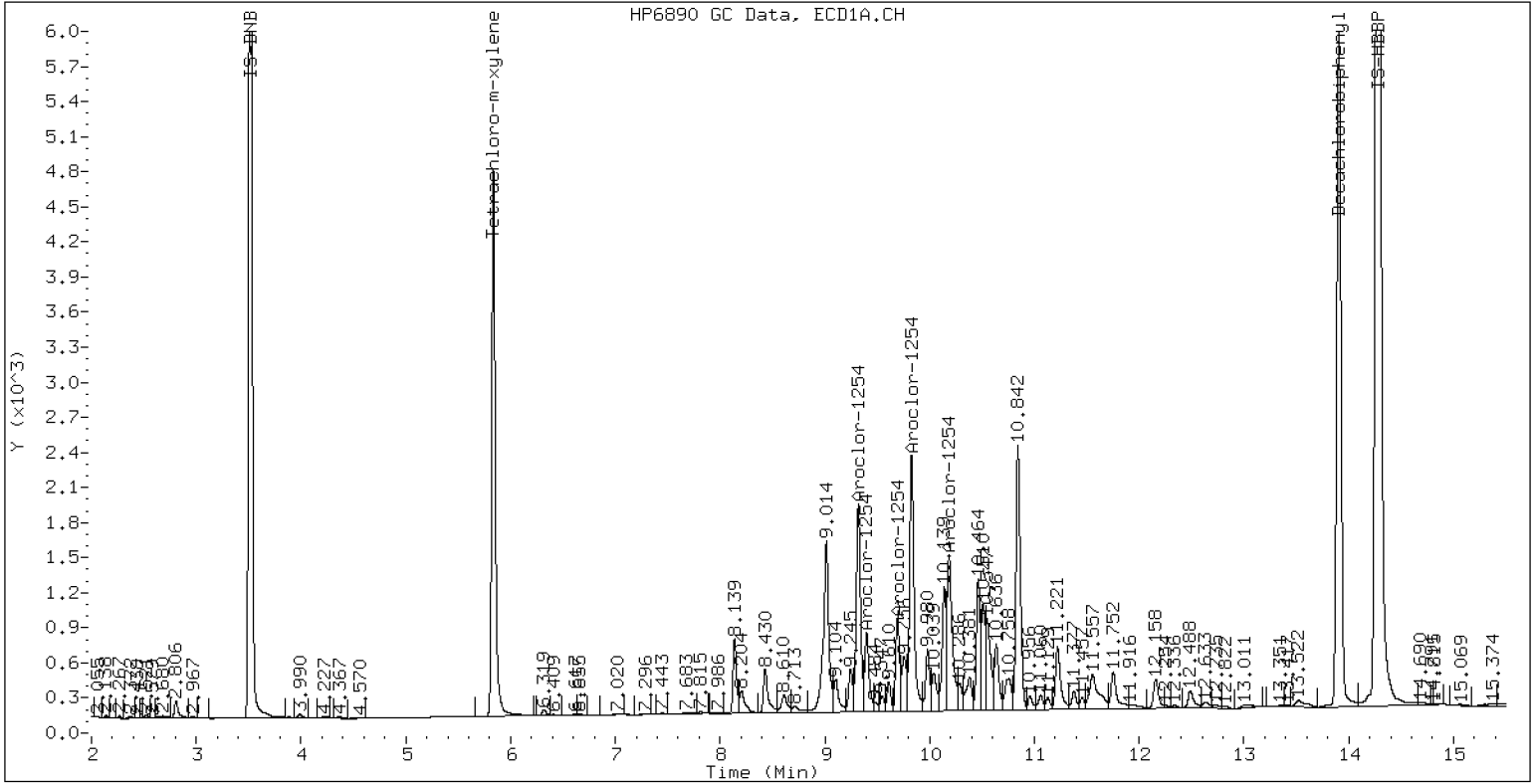
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCV5

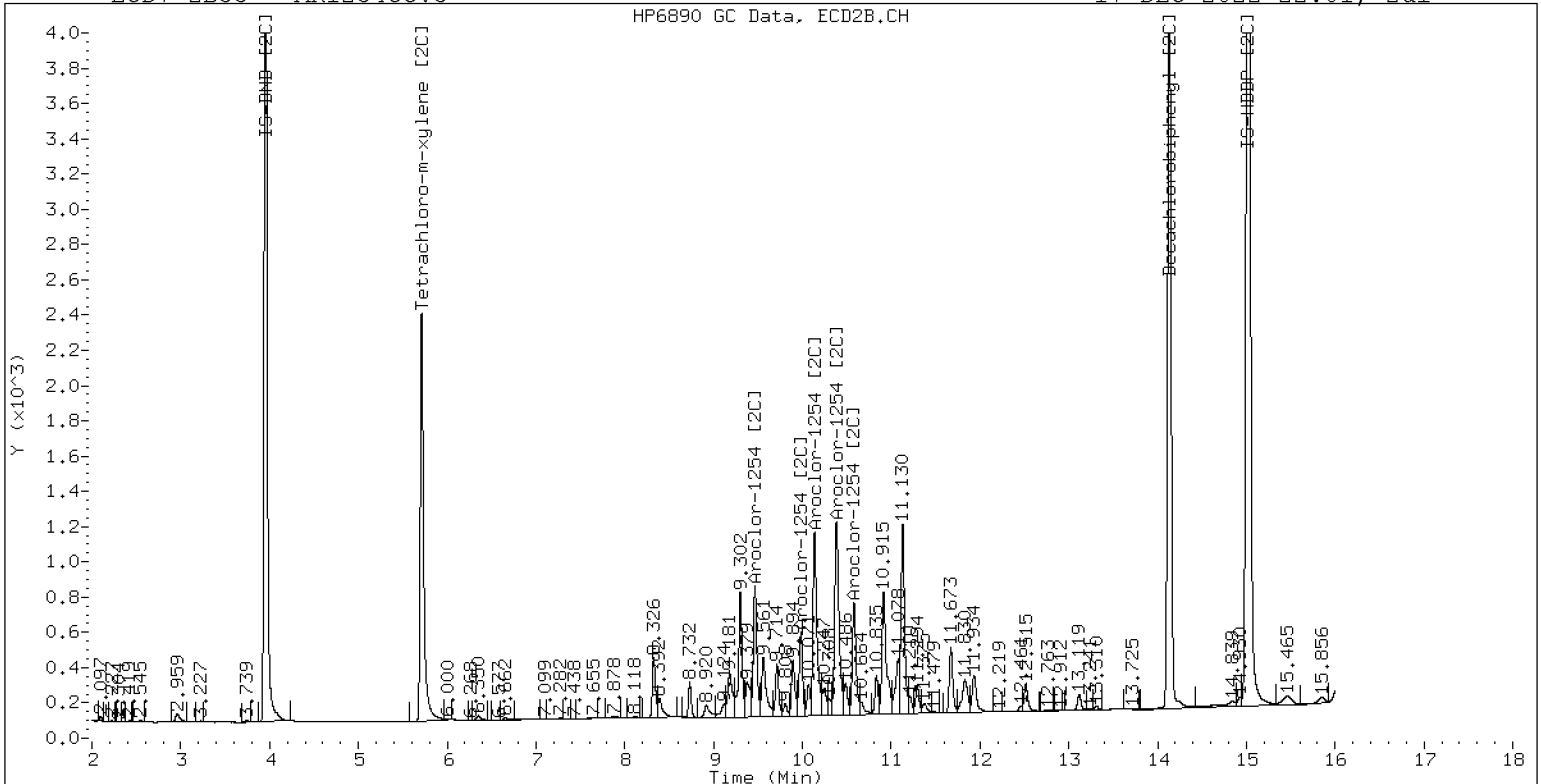
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ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCV5

17-DEC-2022 22:01, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12172238ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0280

Injection Date: 12/17/22

Lab Sample ID: SKL0280-CCV6

Injection Time: 22:22

Sequence Name: AR1660CCV6

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	279	0.0441939	0.0485790		11.5	+/-20
Aroclor-1016 (1)	A	250.00	272	0.0266860	0.0290200		8.8	
Aroclor-1016 (2)	A	250.00	265	0.0861572	0.0914266		6.0	
Aroclor-1016 (3)	A	250.00	286	0.0390425	0.0447486		14.4	
Aroclor-1016 (4)	A	250.00	292	0.0248899	0.0291207		16.8	
Aroclor 1016 [2C]	A	250.00	241	0.0467310	0.0444793		-3.6	+/-20
Aroclor-1016 (1) [2C]	A	250.00	245	0.0409030	0.0401480		-2.0	
Aroclor-1016 (2) [2C]	A	250.00	233	0.0882154	0.0821400		-6.8	
Aroclor-1016 (3) [2C]	A	250.00	235	0.0378846	0.0356529		-6.0	
Aroclor-1016 (4) [2C]	A	250.00	251	0.0199212	0.0199765		0.4	
Aroclor 1260	A	250.00	249	0.0390342	0.0389341		-0.2	+/-20
Aroclor-1260 (1)	A	250.00	250	0.0291201	0.0291165		0.0	
Aroclor-1260 (2)	A	250.00	255	0.0301181	0.0307562		2.0	
Aroclor-1260 (3)	A	250.00	254	0.0791351	0.0804781		1.6	
Aroclor-1260 (4)	A	250.00	232	0.0403003	0.0374380		-7.2	
Aroclor-1260 (5)	A	250.00	256	0.0164974	0.0168816		2.4	
Aroclor 1260 [2C]	A	250.00	205	0.0617619	0.0502257		-17.9	+/-20
Aroclor-1260 (1) [2C]	A	250.00	199	0.0422283	0.0336873		-20.4	
Aroclor-1260 (2) [2C]	A	250.00	197	0.1059643	0.0836544		-21.2	
Aroclor-1260 (3) [2C]	A	250.00	215	0.0282173	0.0242809		-14.0	
Aroclor-1260 (4) [2C]	A	250.00	210	0.0706376	0.0592801		-16.0	
Decachlorobiphenyl	A	40.000	42.5	0.7333327	0.7793703		6.3	+/-20
Tetrachlorometaxylene	A	40.000	40.6	1.1336710	1.1494320		1.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	37.4	1.1358180	1.0622980		-6.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.4	1.0966080	1.0801490		-1.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172238ECD7.D
 Data file 2: /221217.b/221217.b/12172238ECD7.D
 Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR1660CCV6
 Client ID:
 Injection Date: 17-DEC-2022 22:22
 Report Date: 12/20/2022 15:08
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.834	-0.002	213707	5.711	0.001	116958	40.6	39.4	2.9	Tetrachloro-m-xylene
13.905	-0.002	331730	14.134	0.000	203786	42.5	37.4	12.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	371848	-16.9
Hexabromobiphenyl	798898	851277	6.6
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	216559	-13.1
Hexabromobiphenyl	362541	383670	5.8

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.291	-0.003	33722	271.9	1	7.276	0.001	27170	245.4	
Aroclor-1016	2	7.680	-0.004	106240	265.3	2	7.874	0.002	55588	232.8	
Aroclor-1016	3	7.816	-0.002	51999	286.5	3	8.074	0.002	24128	235.3	
Aroclor-1016	4	8.427	-0.003	33839	292.5	4	8.245	0.002	13519	250.7	
Total CollAve (4 peaks):				279.0		Total Col2Ave (4 peaks):				241.0	RPD = 15
Corrected Ave (3 peaks):				274.6		Corrected Ave (3 peaks):				237.8	RPD = 14
CalAmt %D:				11.6		CalAmt %D:				-3.6	
Aroclor-1260	1	11.060	-0.002	77457	250.0	1	11.668	0.001	40390	199.4	
Aroclor-1260	2	11.377	-0.001	81819	255.3	2	11.931	0.001	100299	197.4	
Aroclor-1260	3	11.750	-0.002	214091	254.2	3	12.450	0.001	29112	215.1	
Aroclor-1260	4	12.156	-0.003	99594	232.2	4	12.515	0.002	71075	209.8	
Aroclor-1260	5	12.259	-0.003	44909	255.8	NS	---			----	
Total CollAve (5 peaks):				249.5		Total Col2Ave (4 peaks):				205.4	RPD = 19
Corrected Ave (4 peaks):				247.9		Corrected Ave (3 peaks):				202.2	RPD = 20
CalAmt %D:				-0.2		CalAmt %D:				-17.8	

Total PCB Area Coll (5.936 - 13.808) = 2274699 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1009951 Col2 Total PCB = 0.7 ppm*

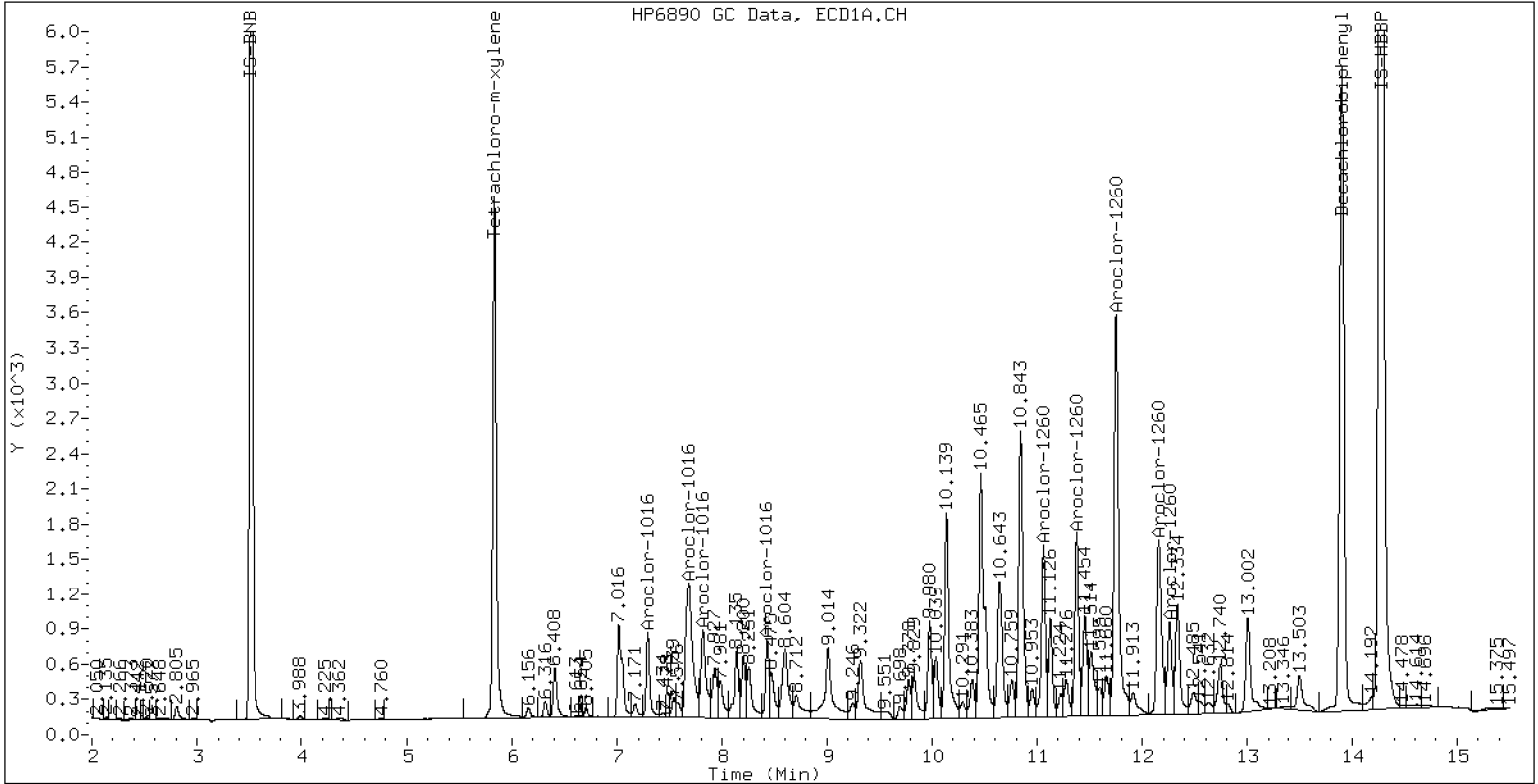
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV6

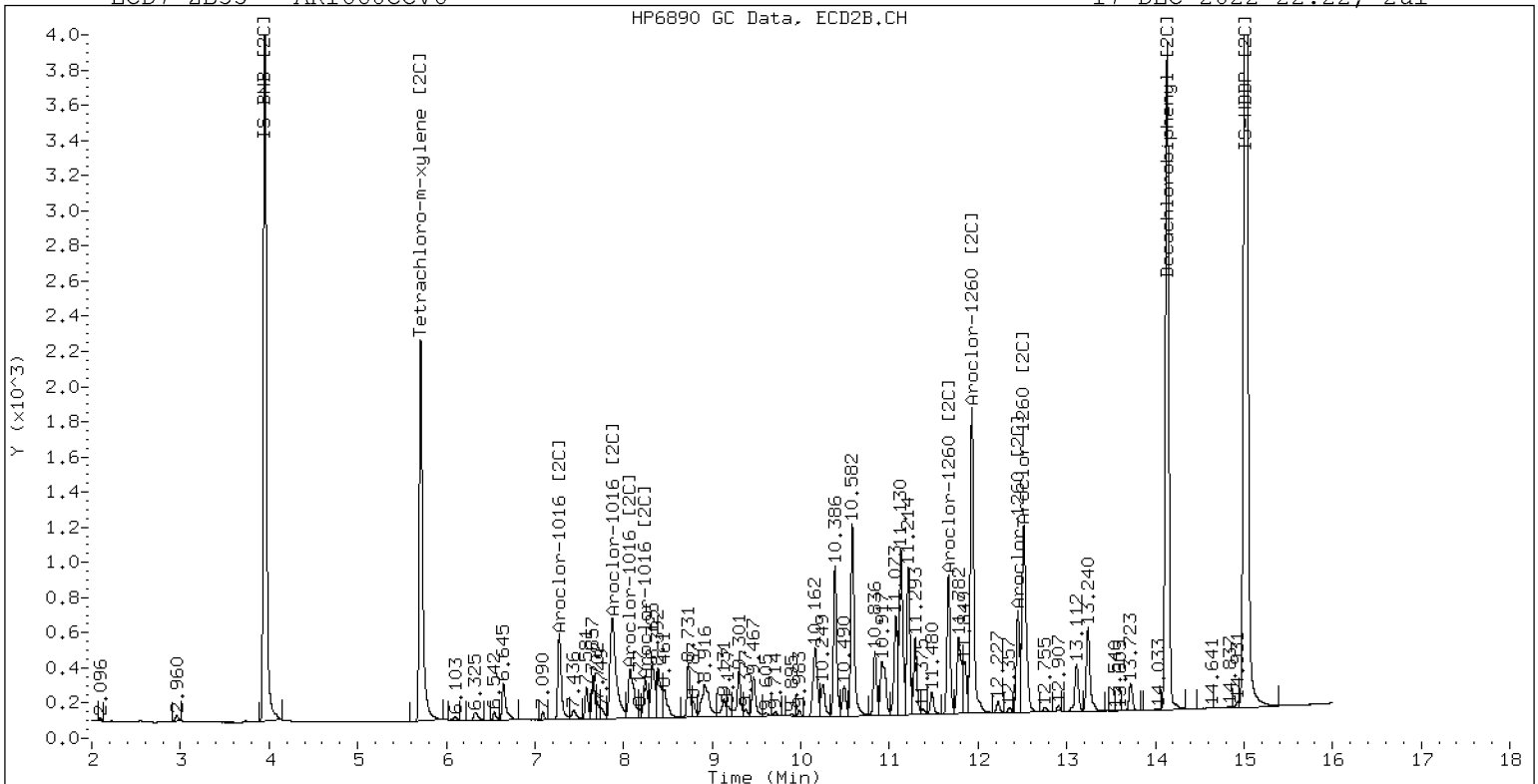
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ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV6

17-DEC-2022 22:22, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12172252ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0280</u>	Injection Date:	<u>12/18/22</u>
Lab Sample ID:	<u>SKL0280-CCV7</u>	Injection Time:	<u>03:20</u>
Sequence Name:	<u>AR1248CCV7</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	241	0.0490062	0.0481549		-3.7	+/-20
Aroclor-1248 (1)	A	250.00	263		0.0361547			
Aroclor-1248 (2)	A	250.00	278		0.0488627			
Aroclor-1248 (3)	A	250.00	263		0.0830110			
Aroclor-1248 (4)	A	250.00	159		0.0245912			
Aroclor 1248 [2C]	A	250.00	235	0.0394876	0.0372155		-5.9	+/-20
Aroclor-1248 (1) [2C]	A	250.00	249		0.0325984			
Aroclor-1248 (2) [2C]	A	250.00	205		0.0281481			
Aroclor-1248 (3) [2C]	A	250.00	254		0.0424289			
Aroclor-1248 (4) [2C]	A	250.00	233		0.0456865			
Decachlorobiphenyl	A	40.000	43.3	0.7333327	0.7940714		8.3	+/-20
Tetrachlorometaxylene	A	40.000	37.3	1.1336710	1.0585410		-6.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.8	1.1358180	1.1303120		-0.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.1	1.0966080	1.0163000		-7.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172252ECD7.D
 Data file 2: /221217.b/221217.b/12172252ECD7.D
 Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
 Compound Sublist: AR1248.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR1248CCV7
 Client ID:
 Injection Date: 18-DEC-2022 03:20
 Report Date: 12/20/2022 15:09
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.001	233658	5.711	0.001	132926	37.3	37.1	0.7	Tetrachloro-m-xylene
13.905	-0.003	225768	14.133	-0.001	183409	43.3	39.8	8.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	441472	-1.4
Hexabromobiphenyl	798898	568634	-28.8

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	261588	5.0
Hexabromobiphenyl	362541	324528	-10.5

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.426	-0.002	49879	262.8	1	8.325	0.000	26648	249.4
Aroclor-1248	2	8.601	-0.003	67411	278.2	2	8.730	0.000	23010	204.7
Aroclor-1248	3	9.020	-0.002	114522	262.7	3	9.175	0.000	34684	253.7
Aroclor-1248	4	9.311	-0.000	33926	158.8	4	9.598	0.000	37347	232.7
Total Col1Ave (4 peaks):				240.6	Total Col2Ave (4 peaks):				235.1	RPD = 2
Corrected Ave (3 peaks):				228.1	Corrected Ave (3 peaks):				228.9	RPD = 0
CalAmt %D:				-3.8	CalAmt %D:				-6.0	

Total PCB Area Col1 (5.936 - 13.808) = 1040946 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 498717 Col2 Total PCB = 0.3 ppm*

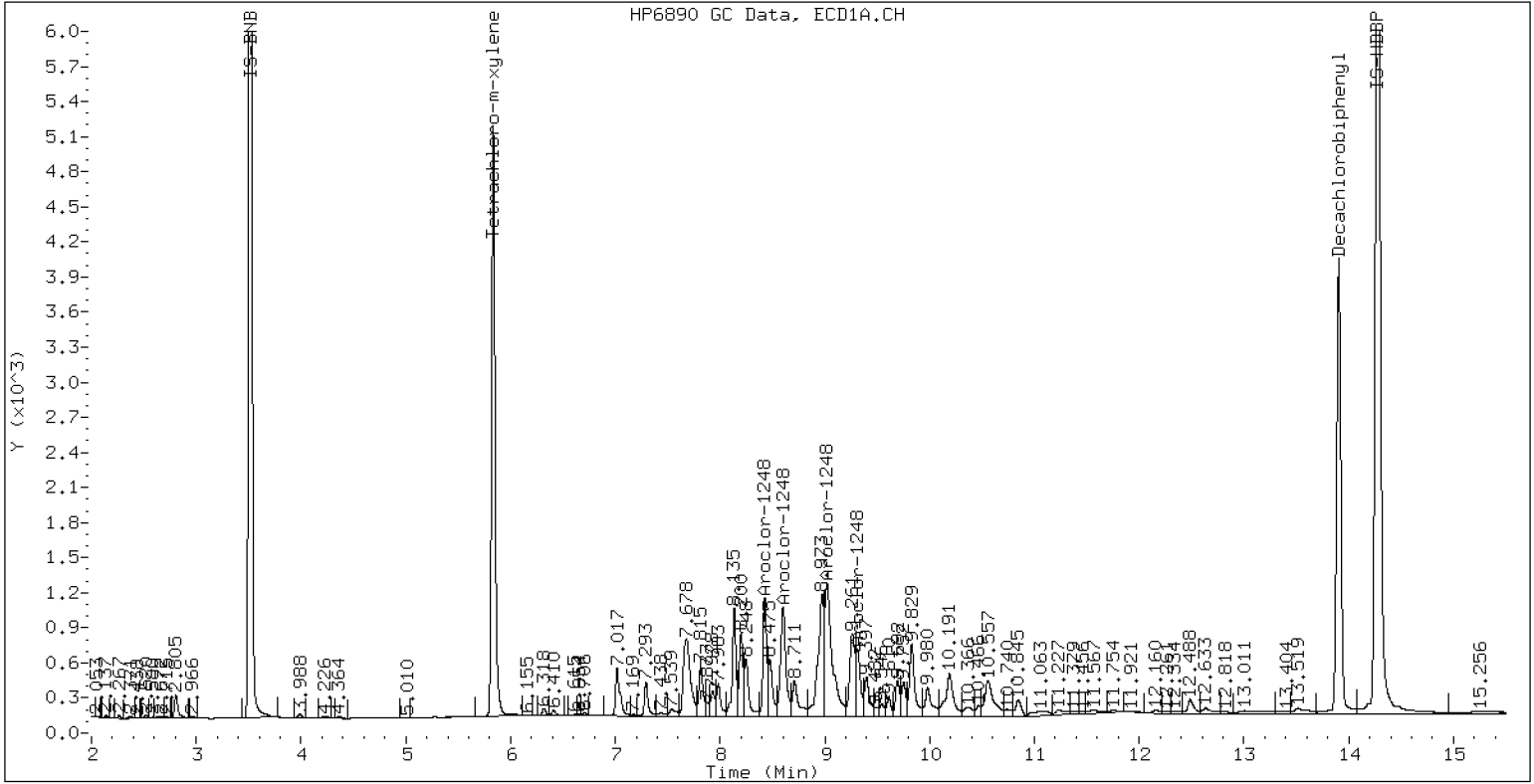
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV7

18-DEC-2022 03:20, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12172253ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0280

Injection Date: 12/18/22

Lab Sample ID: SKL0280-CCV8

Injection Time: 03:41

Sequence Name: AR1660CCV8

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	293	0.0441939	0.0508705		17.2	+/-20
Aroclor-1016 (1)	A	250.00	297	0.0266860	0.0316857		18.8	
Aroclor-1016 (2)	A	250.00	277	0.0861572	0.0956265		10.8	
Aroclor-1016 (3)	A	250.00	294	0.0390425	0.0459226		17.6	
Aroclor-1016 (4)	A	250.00	304	0.0248899	0.0302473		21.6	
Aroclor 1016 [2C]	A	250.00	243	0.0467310	0.0446274		-2.7	+/-20
Aroclor-1016 (1) [2C]	A	250.00	249	0.0409030	0.0407891		-0.4	
Aroclor-1016 (2) [2C]	A	250.00	232	0.0882154	0.0817161		-7.2	
Aroclor-1016 (3) [2C]	A	250.00	234	0.0378846	0.0354306		-6.4	
Aroclor-1016 (4) [2C]	A	250.00	258	0.0199212	0.0205737		3.2	
Aroclor 1260	A	250.00	322	0.0390342	0.0500154		28.6	+/-20 *
Aroclor-1260 (1)	A	250.00	327	0.0291201	0.0380842		30.8	
Aroclor-1260 (2)	A	250.00	329	0.0301181	0.0396188		31.6	
Aroclor-1260 (3)	A	250.00	323	0.0791351	0.1023584		29.2	
Aroclor-1260 (4)	A	250.00	300	0.0403003	0.0483100		20.0	
Aroclor-1260 (5)	A	250.00	329	0.0164974	0.0217057		31.6	
Aroclor 1260 [2C]	A	250.00	237	0.0617619	0.0576139		-5.3	+/-20
Aroclor-1260 (1) [2C]	A	250.00	236	0.0422283	0.0398084		-5.6	
Aroclor-1260 (2) [2C]	A	250.00	227	0.1059643	0.0961333		-9.2	
Aroclor-1260 (3) [2C]	A	250.00	248	0.0282173	0.0279376		-0.8	
Aroclor-1260 (4) [2C]	A	250.00	236	0.0706376	0.0665763		-5.6	
Decachlorobiphenyl	A	40.000	45.0	0.7333327	0.8245397		12.5	+/-20
Tetrachlorometaxylene	A	40.000	42.2	1.1336710	1.1954880		5.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.3	1.1358180	1.1451770		0.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.9	1.0966080	1.0933540		-0.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172253ECD7.D
Data file 2: /221217.b/221217.b/12172253ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV8
Client ID:
Injection Date: 18-DEC-2022 03:41
Report Date: 12/20/2022 15:09
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.001	221011	5.712	0.002	120597	42.2	39.9	5.6	Tetrachloro-m-xylene
13.905	-0.003	247331	14.132	-0.001	181703	45.0	40.3	10.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	369742	-17.4
Hexabromobiphenyl	798898	599925	-24.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	220600	-11.4
Hexabromobiphenyl	362541	317336	-12.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.292	-0.003	36611	296.8	1	7.275	0.000	28119	249.3	
Aroclor-1016	2	7.679	-0.006	110491	277.5	2	7.873	-0.000	56333	231.6	
Aroclor-1016	3	7.813	-0.004	53061	294.1	3	8.073	0.001	24425	233.8	
Aroclor-1016	4	8.426	-0.003	34949	303.8	4	8.244	0.001	14183	258.2	
Total CollAve (4 peaks):				293.0		Total Col2Ave (4 peaks):				243.2	RPD = 19
Corrected Ave (3 peaks):				289.5		Corrected Ave (3 peaks):				238.2	RPD = 19
CalAmt %D:				17.2		CalAmt %D:				-2.7	
Aroclor-1260	1	11.059	-0.003	71399	327.0	1	11.667	-0.000	39477	235.7	
Aroclor-1260	2	11.375	-0.002	74276	328.9	2	11.929	-0.001	95333	226.8	
Aroclor-1260	3	11.749	-0.003	191898	323.4	3	12.449	-0.000	27705	247.5	
Aroclor-1260	4	12.153	-0.005	90570	299.7	4	12.514	0.001	66022	235.6	
Aroclor-1260	5	12.258	-0.003	40693	328.9	NS	---			----	
Total CollAve (5 peaks):				321.6		Total Col2Ave (4 peaks):				236.4	RPD = 31
Corrected Ave (4 peaks):				319.7		Corrected Ave (3 peaks):				232.7	RPD = 32
CalAmt %D:				28.6		CalAmt %D:				-5.4	

Total PCB Area Coll (5.936 - 13.808) = 2169464 Coll Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 996999 Col2 Total PCB = 0.6 ppm*

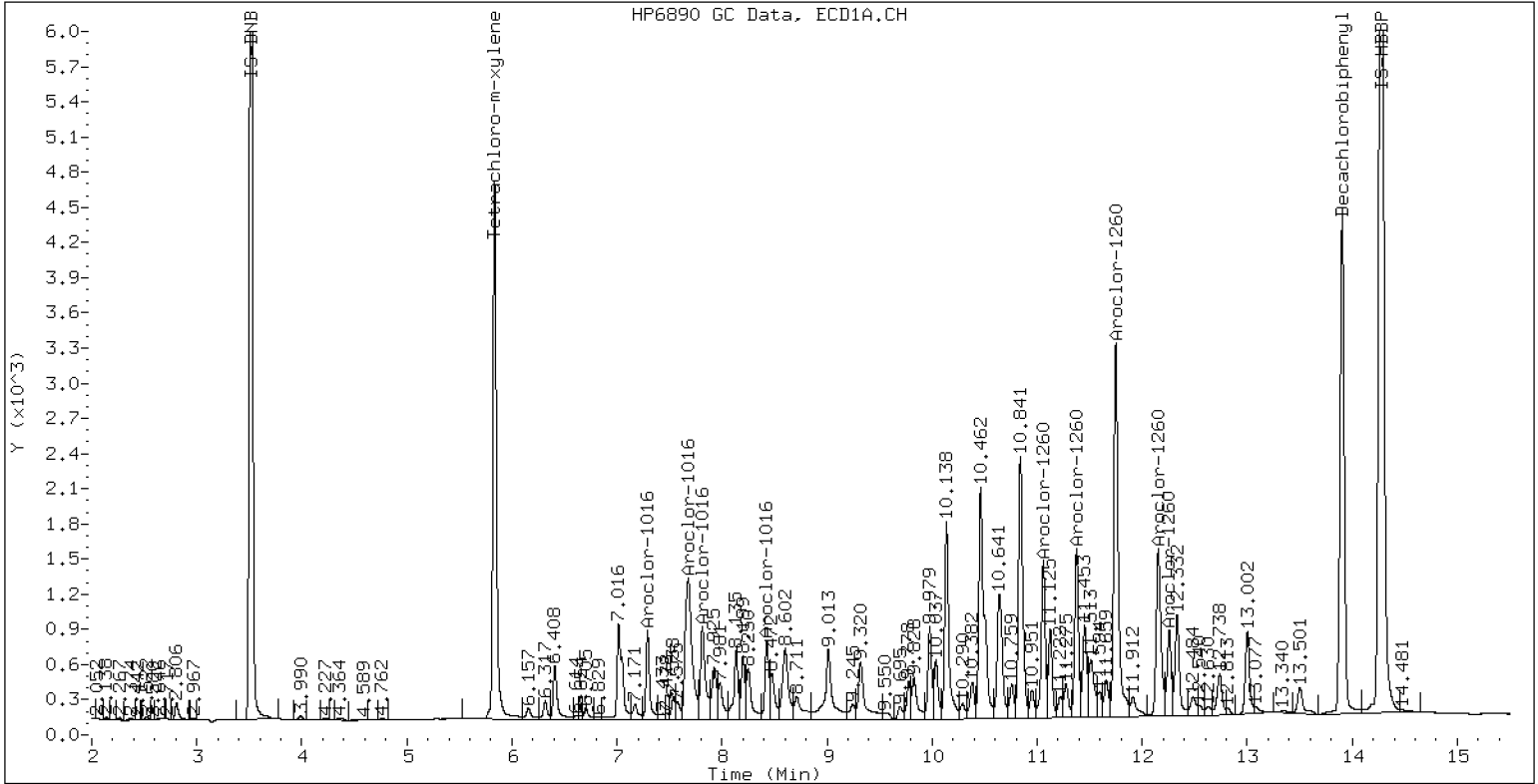
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV8

18-DEC-2022 03:41, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12172264ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0280

Injection Date: 12/18/22

Lab Sample ID: SKL0280-CCV9

Injection Time: 07:35

Sequence Name: AR1242CCV9

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	281	0.0396000	0.0441469		12.2	+/-20
Aroclor-1242 (1)	A	250.00	260		0.0236025			
Aroclor-1242 (2)	A	250.00	270		0.0776419			
Aroclor-1242 (3)	A	250.00	297		0.0245779			
Aroclor-1242 (4)	A	250.00	295		0.0507653			
Aroclor 1242 [2C]	A	250.00	253	0.0391981	0.0380867		1.3	+/-20
Aroclor-1242 (1) [2C]	A	250.00	249		0.0336731			
Aroclor-1242 (2) [2C]	A	250.00	221		0.0634525			
Aroclor-1242 (3) [2C]	A	250.00	282		0.0261181			
Aroclor-1242 (4) [2C]	A	250.00	261		0.0291029			
Decachlorobiphenyl	A	40.000	44.4	0.7333327	0.8140956		11.0	+/-20
Tetrachlorometaxylene	A	40.000	37.6	1.1336710	1.0646340		-6.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.4	1.1358180	1.1482680		1.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.0	1.0966080	1.0157000		-7.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172264ECD7.D
Data file 2: /221217.b/221217.b/12172264ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV9
Client ID:
Injection Date: 18-DEC-2022 07:35
Report Date: 12/20/2022 15:09
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.002	234014	5.712	0.002	132850	37.6	37.0	1.4	Tetrachloro-m-xylene
13.904	-0.003	284734	14.133	-0.000	204491	44.4	40.4	9.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	439614	-1.8
Hexabromobiphenyl	798898	699510	-12.4
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	261593	5.0
Hexabromobiphenyl	362541	356173	-1.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.291	-0.003	32425	260.2	1	7.275	0.000	27527	248.6	
Aroclor-1242	2	7.678	-0.007	106664	269.6	2	7.873	0.000	51871	220.7	
Aroclor-1242	3	8.425	-0.005	33765	296.6	3	9.175	0.000	21351	281.6	
Aroclor-1242	4	9.026	-0.005	69741	295.1	4	9.598	0.000	23791	261.1	
Total Col1Ave (4 peaks):				280.4	Total Col2Ave (4 peaks):				253.0	RPD = 10	
Corrected Ave (3 peaks):				275.0	Corrected Ave (3 peaks):				243.5	RPD = 12	
CalAmt %D:				12.2	CalAmt %D:				1.2		

Total PCB Area Col1 (5.936 - 13.808) = 894196 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 418139 Col2 Total PCB = 0.2 ppm*

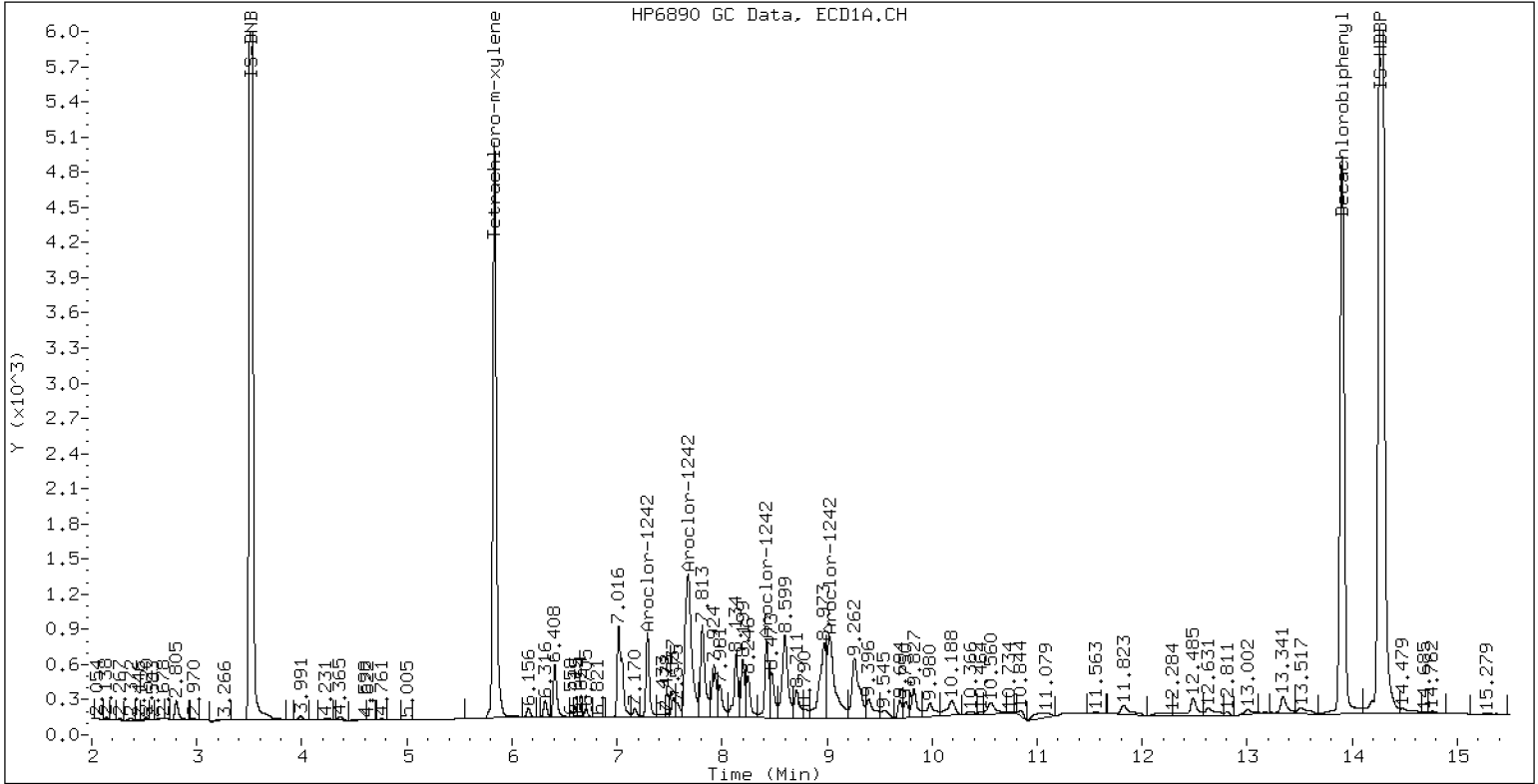
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV9

18-DEC-2022 07:35, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12172265ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0280

Injection Date: 12/18/22

Lab Sample ID: SKL0280-CCVA

Injection Time: 07:56

Sequence Name: AR1660CCVA

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	284	0.0441939	0.0494436		13.7	+/-20
Aroclor-1016 (1)	A	250.00	276	0.0266860	0.0294999		10.4	
Aroclor-1016 (2)	A	250.00	272	0.0861572	0.0935956		8.8	
Aroclor-1016 (3)	A	250.00	282	0.0390425	0.0441255		12.8	
Aroclor-1016 (4)	A	250.00	307	0.0248899	0.0305532		22.8	
Aroclor 1016 [2C]	A	250.00	244	0.0467310	0.0445560		-2.5	+/-20
Aroclor-1016 (1) [2C]	A	250.00	249	0.0409030	0.0407707		-0.4	
Aroclor-1016 (2) [2C]	A	250.00	230	0.0882154	0.0810585		-8.0	
Aroclor-1016 (3) [2C]	A	250.00	235	0.0378846	0.0356022		-6.0	
Aroclor-1016 (4) [2C]	A	250.00	261	0.0199212	0.0207926		4.4	
Aroclor 1260	A	250.00	309	0.0390342	0.0481082		23.8	+/-20 *
Aroclor-1260 (1)	A	250.00	317	0.0291201	0.0369434		26.8	
Aroclor-1260 (2)	A	250.00	316	0.0301181	0.0380768		26.4	
Aroclor-1260 (3)	A	250.00	310	0.0791351	0.0981726		24.0	
Aroclor-1260 (4)	A	250.00	289	0.0403003	0.0465614		15.6	
Aroclor-1260 (5)	A	250.00	315	0.0164974	0.0207871		26.0	
Aroclor 1260 [2C]	A	250.00	239	0.0617619	0.0577912		-4.5	+/-20
Aroclor-1260 (1) [2C]	A	250.00	239	0.0422283	0.0403970		-4.4	
Aroclor-1260 (2) [2C]	A	250.00	225	0.1059643	0.0954271		-10.0	
Aroclor-1260 (3) [2C]	A	250.00	255	0.0282173	0.0287657		2.0	
Aroclor-1260 (4) [2C]	A	250.00	236	0.0706376	0.0665750		-5.6	
Decachlorobiphenyl	A	40.000	46.3	0.7333327	0.8486500		15.8	+/-20
Tetrachlorometaxylene	A	40.000	41.2	1.1336710	1.1669220		3.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.4	1.1358180	1.1461390		1.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.2	1.0966080	1.1029420		0.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172265ECD7.D
Data file 2: /221217.b/221217.b/12172265ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCVA
Client ID:
Injection Date: 18-DEC-2022 07:56
Report Date: 12/20/2022 15:09
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.001	217670	5.712	0.002	123497	41.2	40.2	2.3	Tetrachloro-m-xylene
13.904	-0.003	272782	14.133	-0.001	184608	46.3	40.4	13.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	373067	-16.7
Hexabromobiphenyl	798898	642861	-19.5
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	223941	-10.1
Hexabromobiphenyl	362541	322139	-11.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.291	-0.003	34392	276.4	1	7.275	0.000	28532	249.2	
Aroclor-1016	2	7.679	-0.005	109117	271.6	2	7.872	-0.000	56726	229.7	
Aroclor-1016	3	7.813	-0.004	51443	282.5	3	8.072	0.000	24915	234.9	
Aroclor-1016	4	8.425	-0.004	35620	306.9	4	8.243	-0.000	14551	260.9	
Total CollAve (4 peaks):				284.3		Total Col2Ave (4 peaks):				243.7	RPD = 15
Corrected Ave (3 peaks):				276.8		Corrected Ave (3 peaks):				237.9	RPD = 15
CalAmt %D:				13.7		CalAmt %D:				-2.5	
Aroclor-1260	1	11.058	-0.004	74217	317.2	1	11.667	-0.000	40667	239.2	
Aroclor-1260	2	11.375	-0.003	76494	316.1	2	11.929	-0.001	96065	225.1	
Aroclor-1260	3	11.748	-0.004	197223	310.1	3	12.449	-0.000	28958	254.9	
Aroclor-1260	4	12.152	-0.006	93539	288.8	4	12.512	-0.001	67020	235.6	
Aroclor-1260	5	12.257	-0.004	41760	315.0	NS	---			----	
Total CollAve (5 peaks):				309.4		Total Col2Ave (4 peaks):				238.7	RPD = 26
Corrected Ave (4 peaks):				307.5		Corrected Ave (3 peaks):				233.3	RPD = 27
CalAmt %D:				23.8		CalAmt %D:				-4.5	

Total PCB Area Col1 (5.936 - 13.808) = 2175382 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1015287 Col2 Total PCB = 0.6 ppm*

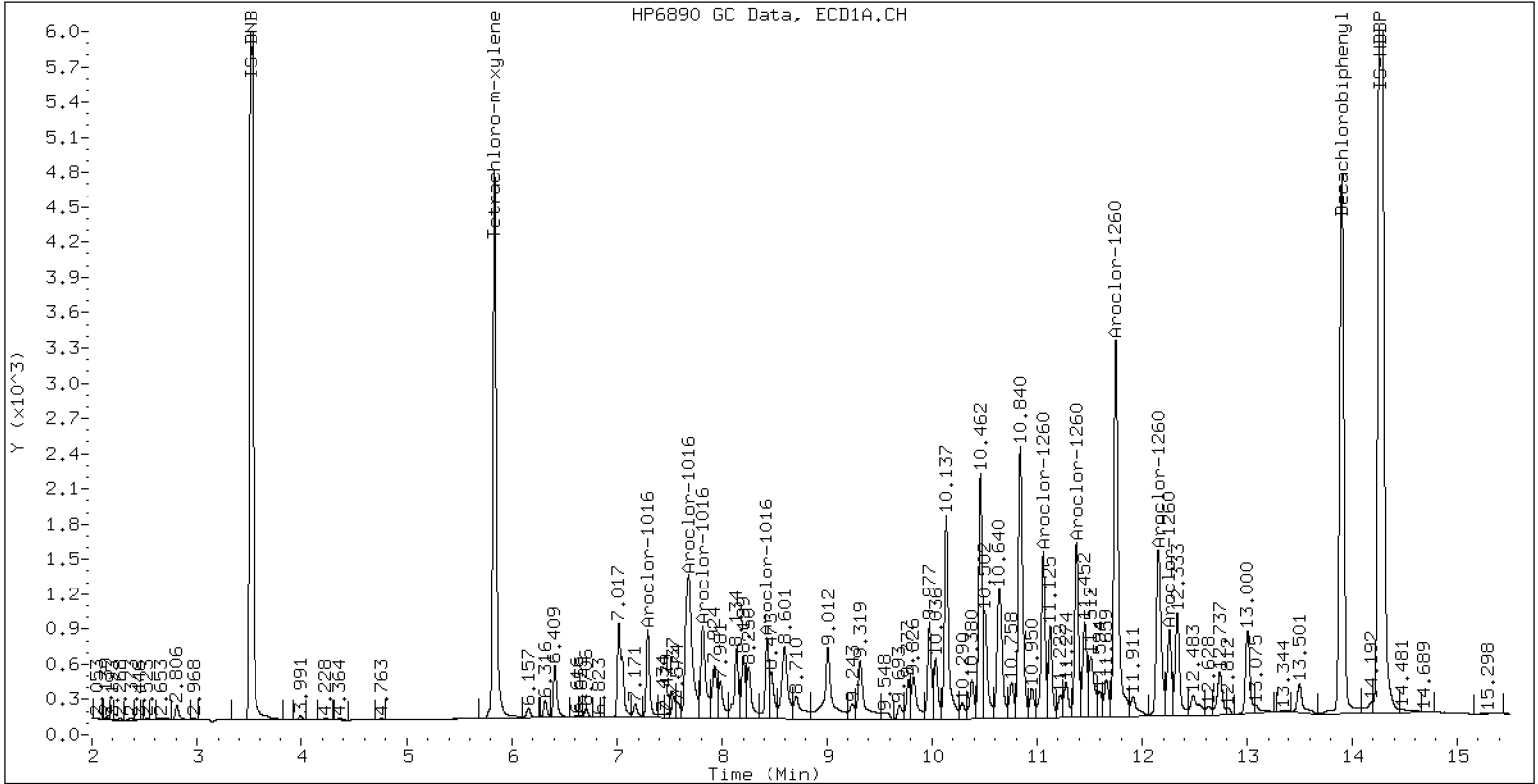
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCVA

18-DEC-2022 07:56, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12172279ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0280</u>	Injection Date:	<u>12/18/22</u>
Lab Sample ID:	<u>SKL0280-CCVB</u>	Injection Time:	<u>12:54</u>
Sequence Name:	<u>AR1254CCVB</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	265	0.0576965	0.0622616		6.1	+/-20
Aroclor-1254 (1)	A	250.00	269		0.0758909			
Aroclor-1254 (2)	A	250.00	280		0.0307114			
Aroclor-1254 (3)	A	250.00	188		0.0333939			
Aroclor-1254 (4)	A	250.00	285		0.0989986			
Aroclor-1254 (5)	A	250.00	304		0.0723133			
Aroclor 1254 [2C]	A	250.00	241	0.0638047	0.0623188		-3.5	+/-20
Aroclor-1254 (1) [2C]	A	250.00	250		0.0515827			
Aroclor-1254 (2) [2C]	A	250.00	191		0.0317388			
Aroclor-1254 (3) [2C]	A	250.00	235		0.0837859			
Aroclor-1254 (4) [2C]	A	250.00	262		0.0967232			
Aroclor-1254 (5) [2C]	A	250.00	268		0.0477633			
Decachlorobiphenyl	A	40.000	40.9	0.7333327	0.7502408		2.3	+/-20
Tetrachlorometaxylene	A	40.000	37.2	1.1336710	1.0536220		-7.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.4	1.1358180	1.1183640		-1.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.3	1.0966080	0.9949294		-9.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172279ECD7.D
Data file 2: /221217.b/221217.b/12172279ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCVB
Client ID:
Injection Date: 18-DEC-2022 12:54
Report Date: 12/20/2022 15:10
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	-0.001	239376	5.712	0.001	131955	37.2	36.3	2.4	Tetrachloro-m-xylene
13.904	-0.003	370350	14.132	-0.002	240875	40.9	39.4	3.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	454387	1.5
Hexabromobiphenyl	798898	987283	23.6

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	265255	6.5
Hexabromobiphenyl	362541	430763	18.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.317	-0.004	107762	269.4	1	9.464	0.000	42758	250.0	
Aroclor-1254	2	9.396	-0.005	43609	280.3	2	9.981	0.000	26309	191.3	
Aroclor-1254	3	9.690	-0.004	47418	187.7	3	10.134	0.000	69452	235.0	
Aroclor-1254	4	9.826	-0.005	140574	285.4	4	10.382	0.000	80176	261.9	
Aroclor-1254	5	10.182	-0.007	102682	304.1	5	10.579	0.000	39592	268.2	
Total CollAve (5 peaks):				265.4		Total Col2Ave (5 peaks):				241.3	RPD = 10
Corrected Ave (4 peaks):				255.7		Corrected Ave (4 peaks):				234.6	RPD = 9
CalAmt %D:				6.1		CalAmt %D:				-3.5	

Total PCB Area Col1 (5.936 - 13.808) = 1491519 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 733927 Col2 Total PCB = 0.4 ppm*

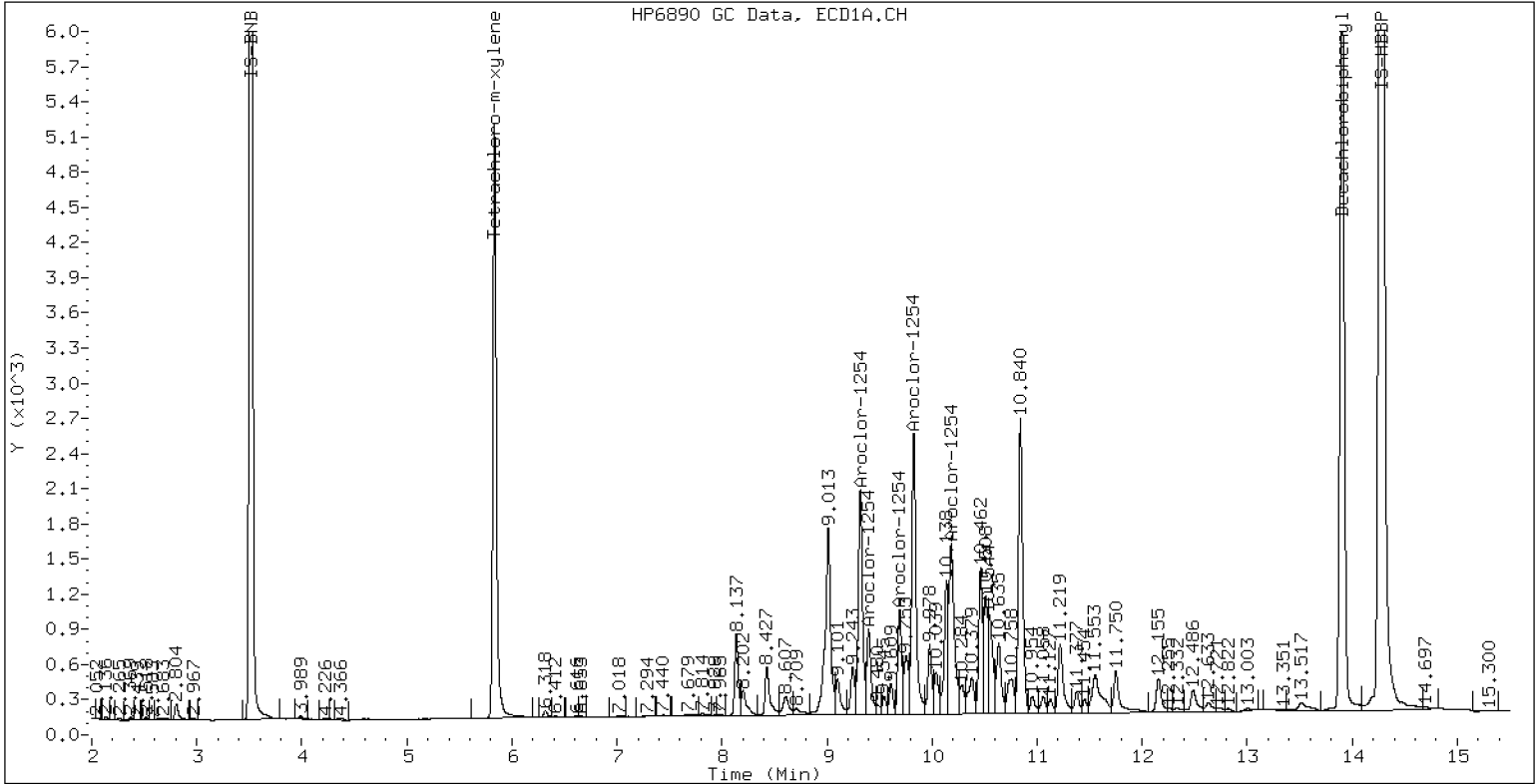
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCVB

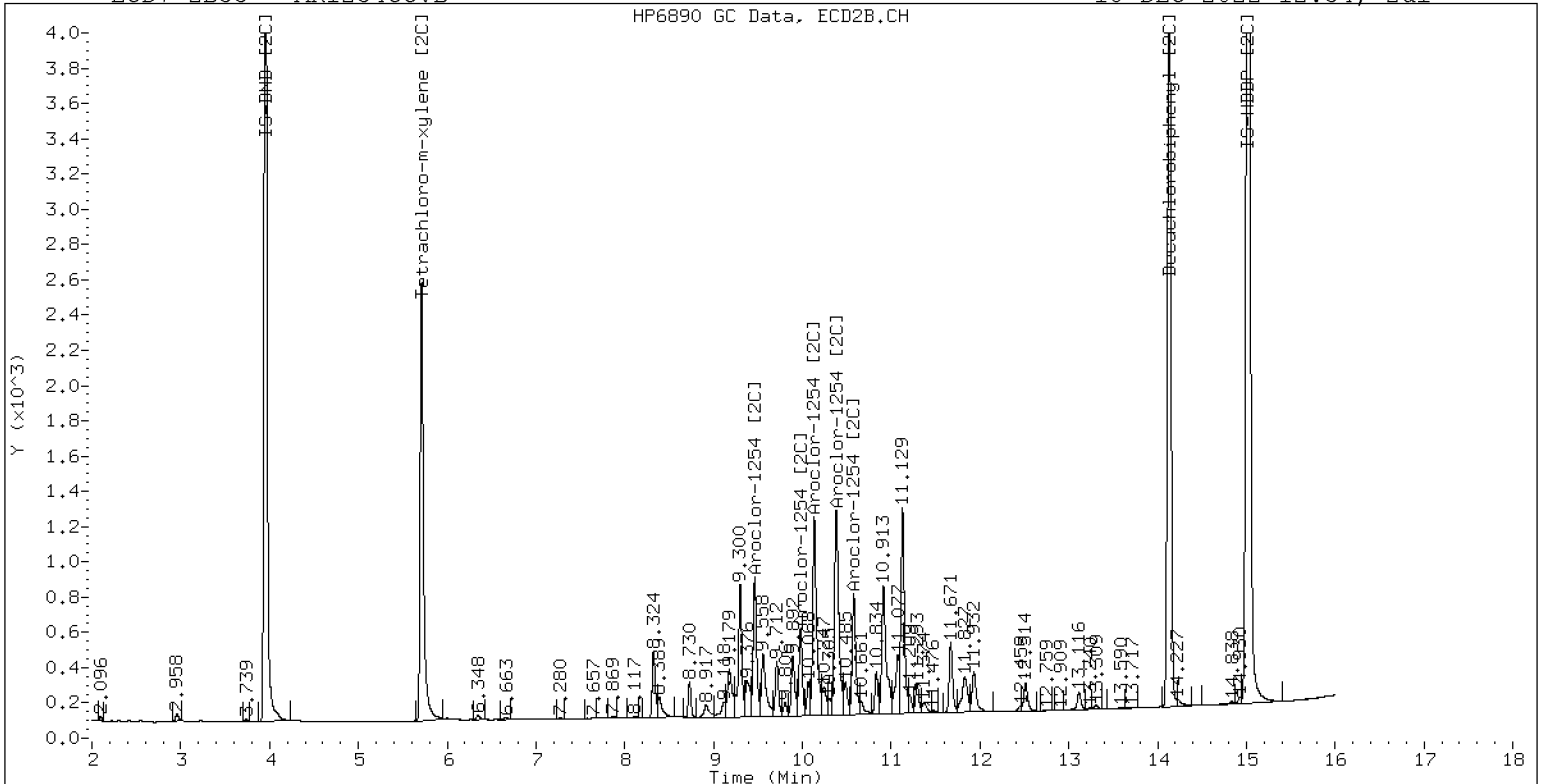
18-DEC-2022 12:54, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCVB

18-DEC-2022 12:54, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12172280ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0280

Injection Date: 12/18/22

Lab Sample ID: SKL0280-CCVC

Injection Time: 13:15

Sequence Name: AR1660CCVC

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	288	0.0441939	0.0498279		15.0	+/-20
Aroclor-1016 (1)	A	250.00	296	0.0266860	0.0315831		18.4	
Aroclor-1016 (2)	A	250.00	271	0.0861572	0.0933001		8.4	
Aroclor-1016 (3)	A	250.00	288	0.0390425	0.0450132		15.2	
Aroclor-1016 (4)	A	250.00	295	0.0248899	0.0294150		18.0	
Aroclor 1016 [2C]	A	250.00	247	0.0467310	0.0453106		-1.1	+/-20
Aroclor-1016 (1) [2C]	A	250.00	250	0.0409030	0.0408820		0.0	
Aroclor-1016 (2) [2C]	A	250.00	235	0.0882154	0.0828502		-6.0	
Aroclor-1016 (3) [2C]	A	250.00	241	0.0378846	0.0365520		-3.6	
Aroclor-1016 (4) [2C]	A	250.00	263	0.0199212	0.0209581		5.2	
Aroclor 1260	A	250.00	259	0.0390342	0.0403131		3.8	+/-20
Aroclor-1260 (1)	A	250.00	254	0.0291201	0.0296059		1.6	
Aroclor-1260 (2)	A	250.00	260	0.0301181	0.0313060		4.0	
Aroclor-1260 (3)	A	250.00	262	0.0791351	0.0828737		4.8	
Aroclor-1260 (4)	A	250.00	246	0.0403003	0.0396524		-1.6	
Aroclor-1260 (5)	A	250.00	275	0.0164974	0.0181274		10.0	
Aroclor 1260 [2C]	A	250.00	213	0.0617619	0.0514896		-15.0	+/-20
Aroclor-1260 (1) [2C]	A	250.00	209	0.0422283	0.0352562		-16.4	
Aroclor-1260 (2) [2C]	A	250.00	199	0.1059643	0.0844559		-20.4	
Aroclor-1260 (3) [2C]	A	250.00	228	0.0282173	0.0257880		-8.8	
Aroclor-1260 (4) [2C]	A	250.00	214	0.0706376	0.0604581		-14.4	
Decachlorobiphenyl	A	40.000	42.6	0.7333327	0.7805072		6.5	+/-20
Tetrachlorometaxylene	A	40.000	41.8	1.1336710	1.1851010		4.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.2	1.1358180	1.1130920		-2.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.1	1.0966080	1.1002740		0.3	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221217.b/12172280ECD7.D
Data file 2: /221217.b/221217.b/12172280ECD7.D
Method: \\target\share\chem4\ecd7.i\221217.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCVC
Client ID:
Injection Date: 18-DEC-2022 13:15
Report Date: 12/20/2022 15:35
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	0.000	241302	5.710	0.000	128517	41.8	40.1	4.1	Tetrachloro-m-xylene
13.905	0.000	359038	14.134	0.000	220263	42.6	39.2	8.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	407226	-9.0
Hexabromobiphenyl	798898	920012	15.2
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	233609	-6.2
Hexabromobiphenyl	362541	395768	9.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.291	0.000	40192	295.9	1	7.274	0.000	29845	249.9	
Aroclor-1016	2	7.678	0.000	118732	270.7	2	7.873	0.000	60483	234.8	
Aroclor-1016	3	7.813	0.000	57283	288.2	3	8.072	0.000	26684	241.2	
Aroclor-1016	4	8.424	0.000	37433	295.5	4	8.243	0.000	15300	263.0	
Total CollAve (4 peaks):				287.6		Total Col2Ave (4 peaks):				247.2	RPD = 15
Corrected Ave (3 peaks):				284.8		Corrected Ave (3 peaks):				242.0	RPD = 16
CalAmt %D:				15.0		CalAmt %D:				-1.1	
Aroclor-1260	1	11.058	0.000	85118	254.2	1	11.667	0.000	43604	208.7	
Aroclor-1260	2	11.375	0.000	90006	259.9	2	11.930	0.000	104453	199.3	
Aroclor-1260	3	11.749	0.000	238265	261.8	3	12.449	0.000	31894	228.5	
Aroclor-1260	4	12.154	0.000	114002	246.0	4	12.513	0.000	74773	214.0	
Aroclor-1260	5	12.259	0.000	52117	274.7	NS	---			----	
Total CollAve (5 peaks):				259.3		Total Col2Ave (4 peaks):				212.6	RPD = 20
Corrected Ave (4 peaks):				255.5		Corrected Ave (3 peaks):				207.3	RPD = 21
CalAmt %D:				3.7		CalAmt %D:				-15.0	

Total PCB Area Col1 (5.933 - 13.805) = 2576947 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.933 - 13.805) = 1094790 Col2 Total PCB = 0.7 ppm*

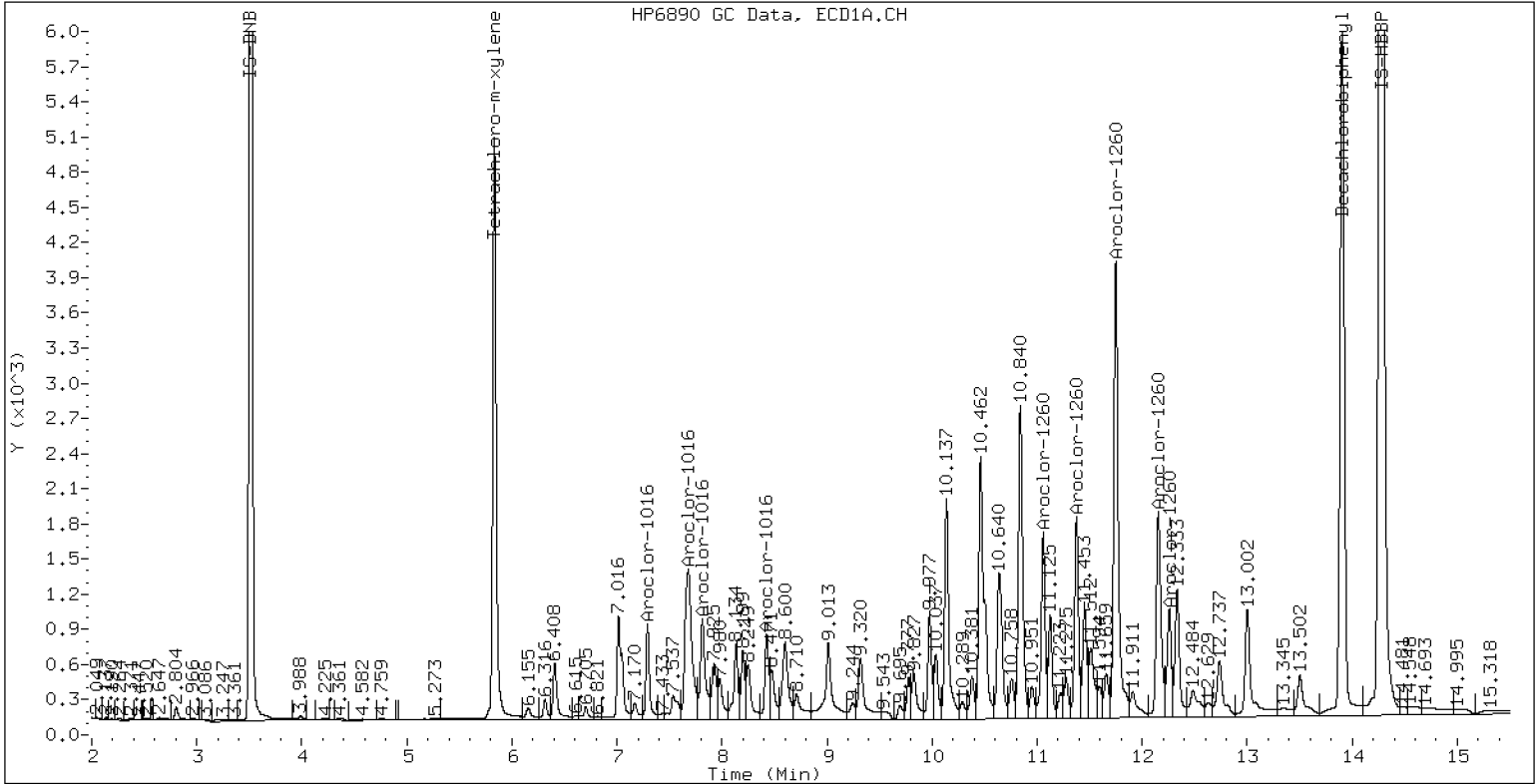
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCVC

18-DEC-2022 13:15, 2ul

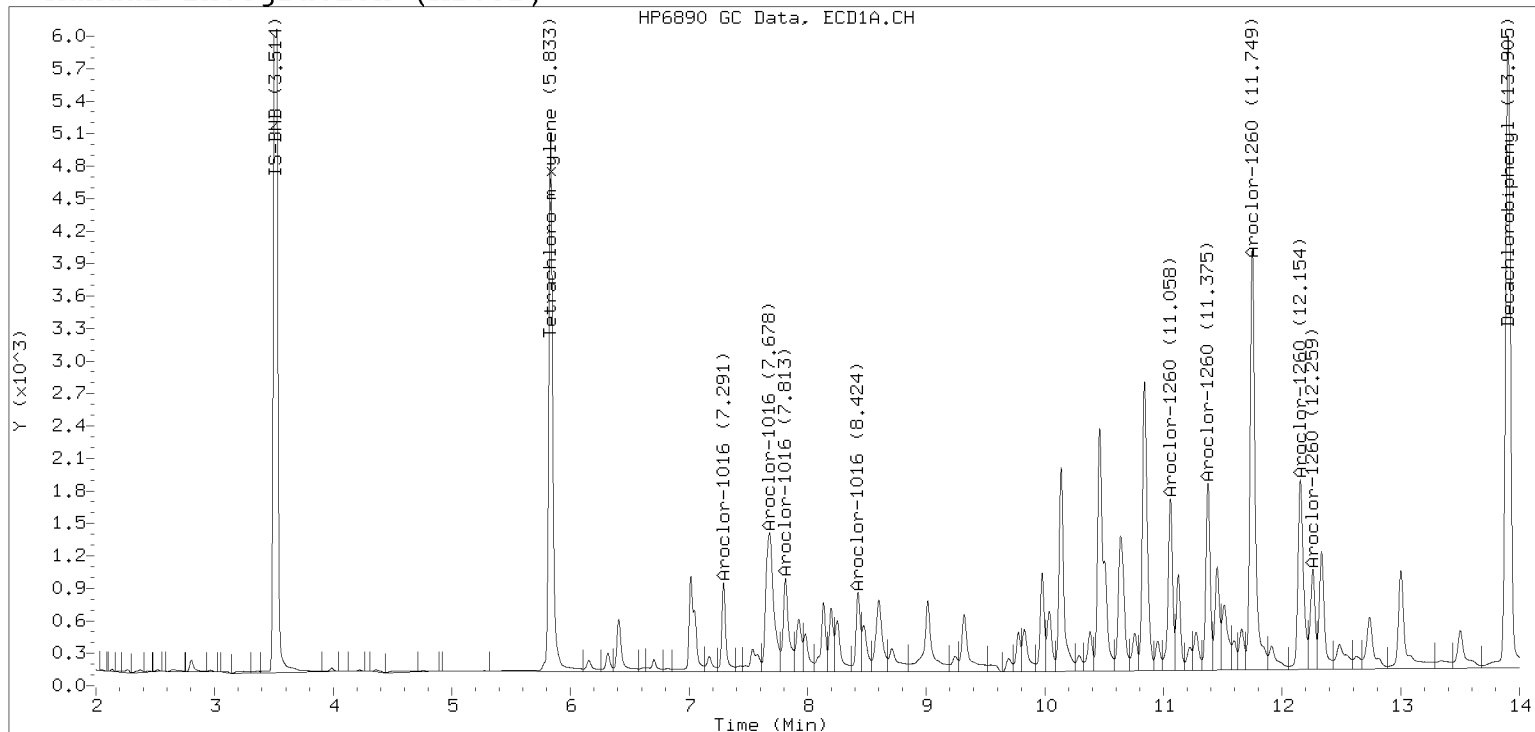


Manual Peak Adjustment, ZB-5

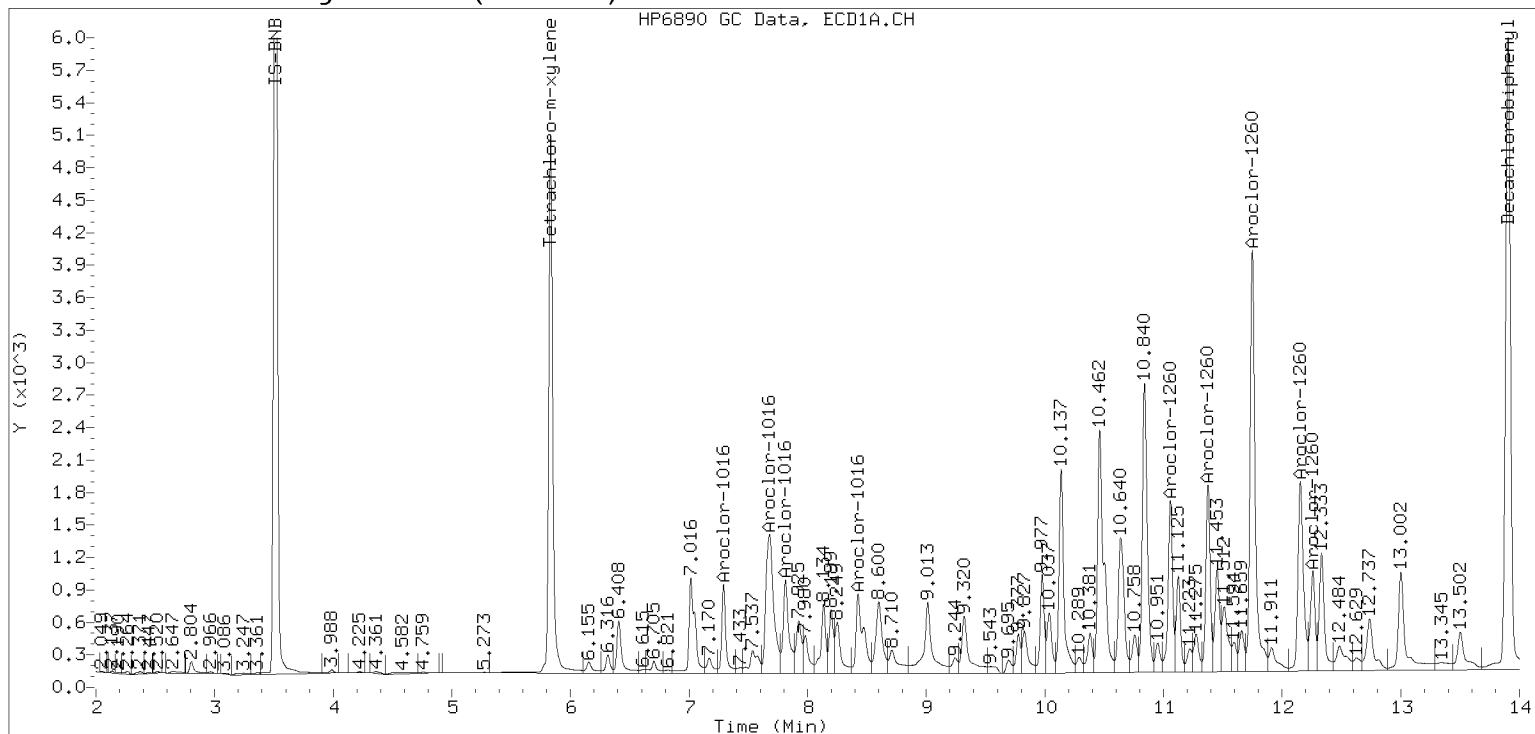
Datafile: ecd7.i/221217.b/12172280ECD7.D

Injection Date: 18-DEC-2022 13:15

Manual Integration (After)



Processed Integration (Before)





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12192213ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0282</u>	Injection Date:	<u>12/19/22</u>
Lab Sample ID:	<u>SKL0282-CCV1</u>	Injection Time:	<u>18:49</u>
Sequence Name:	<u>AR1248CCV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	251	0.0490062	0.0506462		0.6	+/-20
Aroclor-1248 (1)	A	250.00	271		0.0372920			
Aroclor-1248 (2)	A	250.00	289		0.0507339			
Aroclor-1248 (3)	A	250.00	283		0.0892904			
Aroclor-1248 (4)	A	250.00	163		0.0252686			
Aroclor 1248 [2C]	A	250.00	242	0.0394876	0.0384421		-3.0	+/-20
Aroclor-1248 (1) [2C]	A	250.00	257		0.0336510			
Aroclor-1248 (2) [2C]	A	250.00	205		0.0281372			
Aroclor-1248 (3) [2C]	A	250.00	264		0.0442269			
Aroclor-1248 (4) [2C]	A	250.00	243		0.0477533			
Decachlorobiphenyl	A	40.000	42.6	0.7333327	0.7806500		6.5	+/-20
Tetrachlorometaxylene	A	40.000	37.2	1.1336710	1.0555750		-6.9	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.0	1.1358180	1.1067610		-2.6	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.4	1.0966080	1.0244870		-6.6	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192213ECD7.D
Data file 2: /221219.b/221219.b/12192213ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 19-DEC-2022 18:49
Report Date: 12/21/2022 10:22
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	0.000	237070	5.713	-0.001	136099	37.2	37.4	0.3	Tetrachloro-m-xylene
13.906	-0.002	340219	14.134	-0.003	233126	42.6	39.0	8.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	449177	0.3
Hexabromobiphenyl	798898	871630	9.1
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	265692	6.7
Hexabromobiphenyl	362541	421276	16.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	8.427	-0.000	52346	271.0	1	8.325	-0.001	27940	257.4
Aroclor-1248	2	8.602	-0.002	71214	288.8	2	8.731	-0.002	23362	204.6
Aroclor-1248	3	9.021	-0.001	125335	282.5	3	9.177	-0.001	36721	264.4
Aroclor-1248	4	9.310	-0.001	35469	163.2	4	9.599	-0.003	39649	243.2
Total Col1Ave (4 peaks):				251.4	Total Col2Ave (4 peaks):				242.4	RPD = 4
Corrected Ave (3 peaks):				238.9	Corrected Ave (3 peaks):				235.1	RPD = 2

Total PCB Area Col1 (5.936 - 13.808) = 1146792 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 524618 Col2 Total PCB = 0.3 ppm*

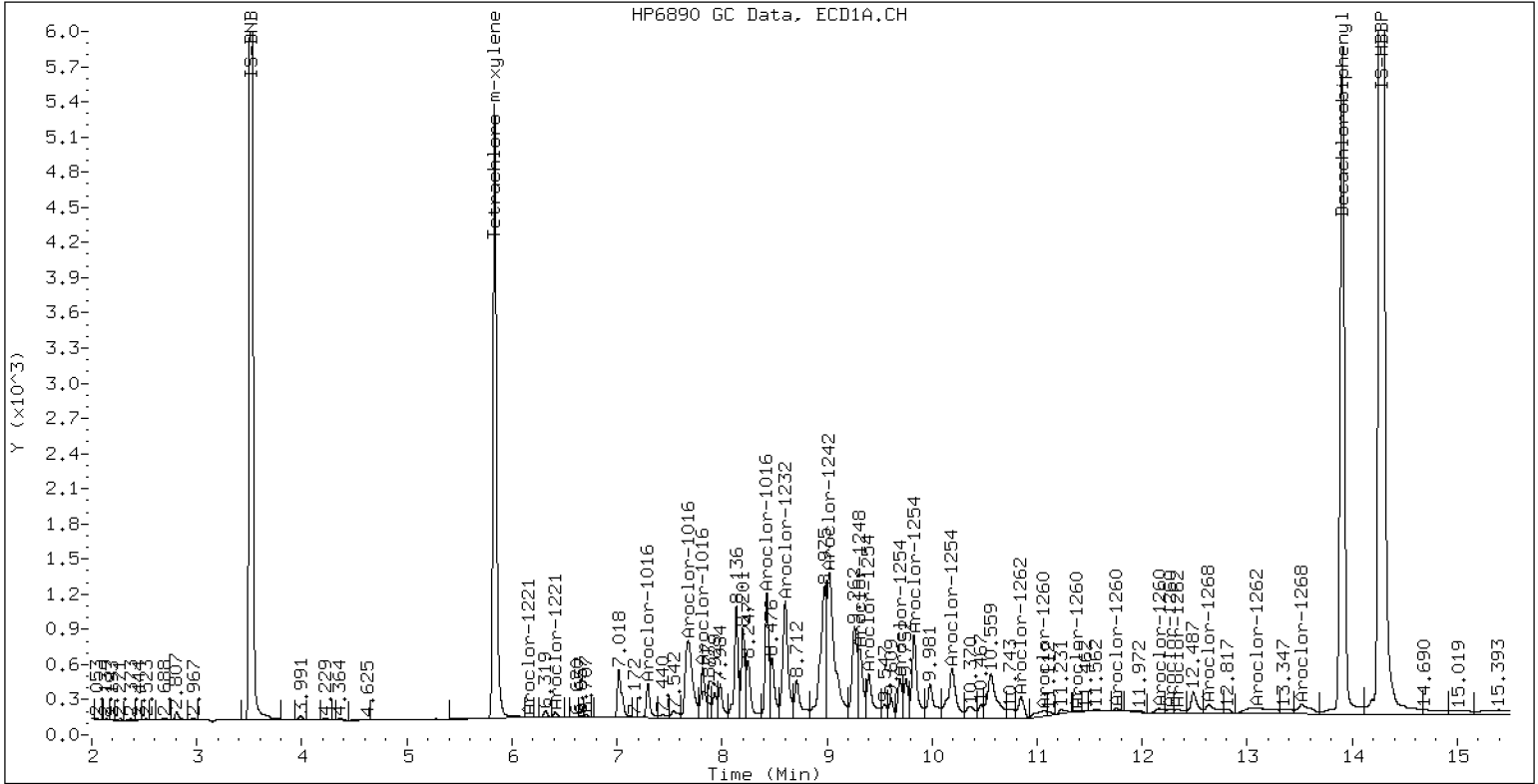
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV1

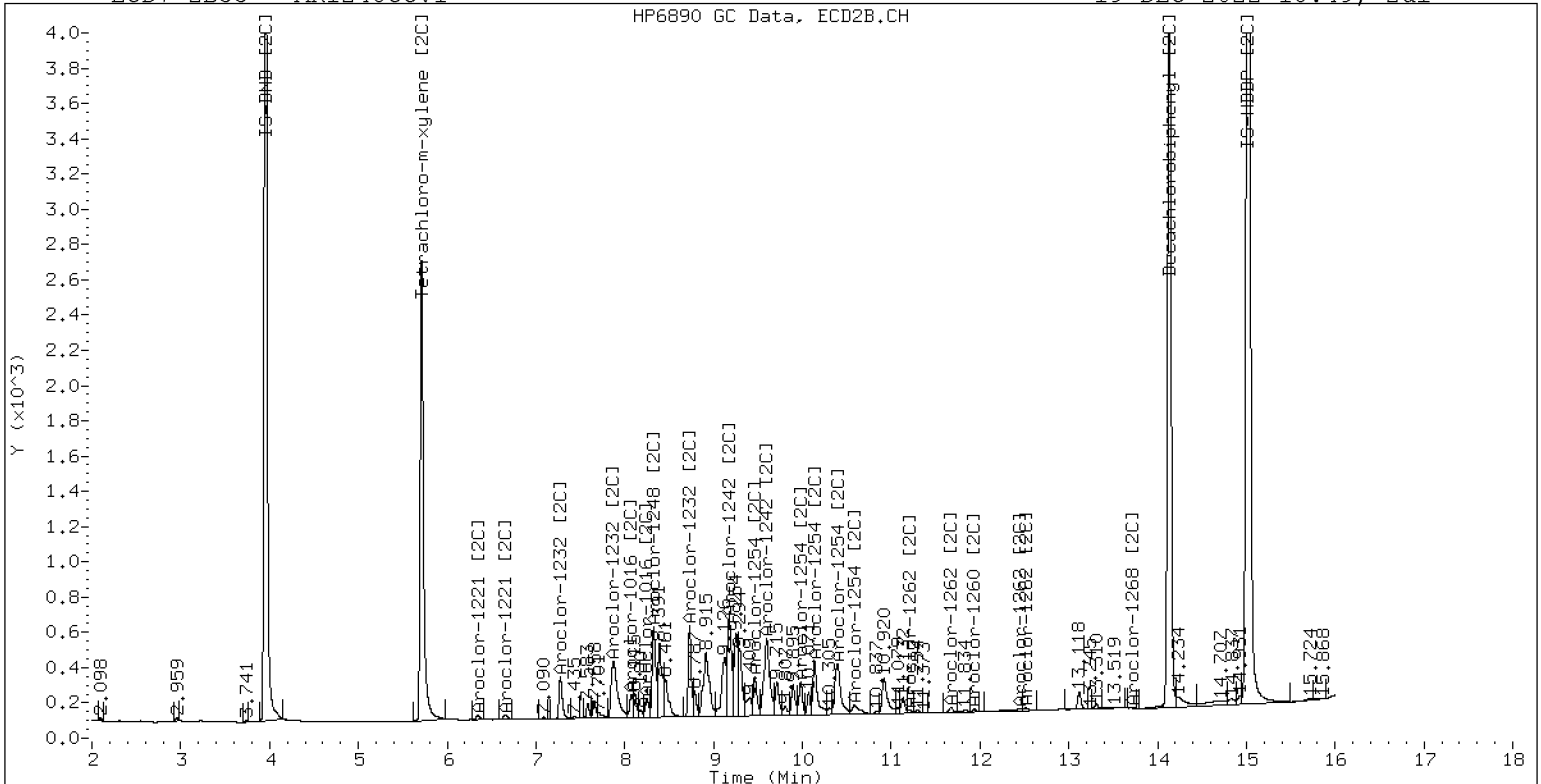
19-DEC-2022 18:49, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV1

19-DEC-2022 18:49, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12192214ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0282

Injection Date: 12/19/22

Lab Sample ID: SKL0282-CCV2

Injection Time: 19:11

Sequence Name: AR1660CCV2

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	278	0.0441939	0.0484966		11.2	+/-20
Aroclor-1016 (1)	A	250.00	269	0.0266860	0.0287319		7.7	
Aroclor-1016 (2)	A	250.00	267	0.0861572	0.0919718		6.7	
Aroclor-1016 (3)	A	250.00	281	0.0390425	0.0438406		12.3	
Aroclor-1016 (4)	A	250.00	296	0.0248899	0.0294422		18.3	
Aroclor 1016 [2C]	A	250.00	242	0.0467310	0.0440964		-3.1	+/-20
Aroclor-1016 (1) [2C]	A	250.00	245	0.0409030	0.0400284		-2.1	
Aroclor-1016 (2) [2C]	A	250.00	226	0.0882154	0.0796127		-9.8	
Aroclor-1016 (3) [2C]	A	250.00	237	0.0378846	0.0358915		-5.3	
Aroclor-1016 (4) [2C]	A	250.00	262	0.0199212	0.0208530		4.7	
Aroclor 1260	A	250.00	274	0.0390342	0.0426708		9.6	+/-20
Aroclor-1260 (1)	A	250.00	271	0.0291201	0.0315616		8.4	
Aroclor-1260 (2)	A	250.00	276	0.0301181	0.0333056		10.6	
Aroclor-1260 (3)	A	250.00	278	0.0791351	0.0878865		11.1	
Aroclor-1260 (4)	A	250.00	259	0.0403003	0.0417663		3.6	
Aroclor-1260 (5)	A	250.00	285	0.0164974	0.0188342		14.2	
Aroclor 1260 [2C]	A	250.00	213	0.0617619	0.0511569		-14.8	+/-20
Aroclor-1260 (1) [2C]	A	250.00	213	0.0422283	0.0359411		-14.9	
Aroclor-1260 (2) [2C]	A	250.00	195	0.1059643	0.0826691		-22.0	
Aroclor-1260 (3) [2C]	A	250.00	232	0.0282173	0.0262228		-7.1	
Aroclor-1260 (4) [2C]	A	250.00	212	0.0706376	0.0597946		-15.4	
Decachlorobiphenyl	A	40.000	43.6	0.7333327	0.7994203		9.0	+/-20
Tetrachlorometaxylene	A	40.000	40.4	1.1336710	1.1457700		1.1	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.1	1.1358180	1.1089110		-2.4	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.5	1.0966080	1.0842650		-1.1	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192214ECD7.D
Data file 2: /221219.b/221219.b/12192214ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 19-DEC-2022 19:11
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.001	222481	5.714	0.000	125430	40.4	39.5	2.2	Tetrachloro-m-xylene
13.905	-0.003	329884	14.134	-0.003	213497	43.6	39.1	11.0	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	388352	-13.2
Hexabromobiphenyl	798898	825308	3.3
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	231364	-7.1
Hexabromobiphenyl	362541	385057	6.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.294	-0.001	34869	269.2	1	7.276	0.001	28941	244.7
Aroclor-1016	2	7.681	-0.004	111617	266.9	2	7.874	0.003	57561	225.6
Aroclor-1016	3	7.815	-0.002	53205	280.7	3	8.074	0.004	25950	236.8
Aroclor-1016	4	8.427	-0.002	35731	295.7	4	8.245	0.004	15077	261.7
Total CollAve (4 peaks):				278.1		Total Col2Ave (4 peaks):				242.2 RPD = 14
Corrected Ave (3 peaks):				272.3		Corrected Ave (3 peaks):				235.7 RPD = 14
Aroclor-1260	1	11.060	-0.002	81400	271.0	1	11.668	-0.001	43248	212.8
Aroclor-1260	2	11.377	-0.001	85898	276.5	2	11.930	-0.003	99476	195.0
Aroclor-1260	3	11.749	-0.003	226667	277.6	3	12.449	-0.002	31554	232.3
Aroclor-1260	4	12.155	-0.004	107719	259.1	4	12.514	-0.003	71951	211.6
Aroclor-1260	5	12.259	-0.002	48575	285.4	NS	---			----
Total CollAve (5 peaks):				273.9		Total Col2Ave (4 peaks):				212.9 RPD = 25
Corrected Ave (4 peaks):				271.0		Corrected Ave (3 peaks):				206.5 RPD = 27

Total PCB Area Col1 (5.936 - 13.808) = 2363639 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1069254 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12192223ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0282

Injection Date: 12/19/22

Lab Sample ID: SKL0282-CCV3

Injection Time: 22:21

Sequence Name: AR1242CCV3

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	260	0.0396000	0.0412759		3.9	+/-20
Aroclor-1242 (1)	A	250.00	259		0.0234949			
Aroclor-1242 (2)	A	250.00	263		0.0756305			
Aroclor-1242 (3)	A	250.00	259		0.0214745			
Aroclor-1242 (4)	A	250.00	259		0.0445037			
Aroclor 1242 [2C]	A	250.00	249	0.0391981	0.0375408		-0.3	+/-20
Aroclor-1242 (1) [2C]	A	250.00	255		0.0344998			
Aroclor-1242 (2) [2C]	A	250.00	216		0.0622399			
Aroclor-1242 (3) [2C]	A	250.00	276		0.0255959			
Aroclor-1242 (4) [2C]	A	250.00	250		0.0278277			
Decachlorobiphenyl	A	40.000	42.3	0.7333327	0.7748450		5.7	+/-20
Tetrachlorometaxylene	A	40.000	38.9	1.1336710	1.1026540		-2.7	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.4	1.1358180	1.0910150		-3.9	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.9	1.0966080	1.0380850		-5.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192223ECD7.D
Data file 2: /221219.b/221219.b/12192223ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 19-DEC-2022 22:21
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.836	0.000	242843	5.713	-0.000	136491	38.9	37.9	2.7	Tetrachloro-m-xylene
13.906	-0.002	367447	14.132	-0.005	234578	42.3	38.4	9.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	440470	-1.6
Hexabromobiphenyl	798898	948440	18.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	262967	5.6
Hexabromobiphenyl	362541	430018	18.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.293	-0.002	32340	259.0	1	7.275	-0.002	28351	254.7	
Aroclor-1242	2	7.680	-0.005	104103	262.6	2	7.875	-0.000	51147	216.5	
Aroclor-1242	3	8.427	-0.003	29559	259.2	3	9.176	-0.002	21034	276.0	
Aroclor-1242	4	9.030	-0.002	61258	258.7	4	9.598	-0.007	22868	249.6	
Total CollAve (4 peaks):				259.9	Total Col2Ave (4 peaks):				249.2	RPD = 4	
Corrected Ave (3 peaks):				259.0	Corrected Ave (3 peaks):				240.3	RPD = 7	

Total PCB Area Coll (5.936 - 13.808) = 867415 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 412830 Col2 Total PCB = 0.2 ppm*

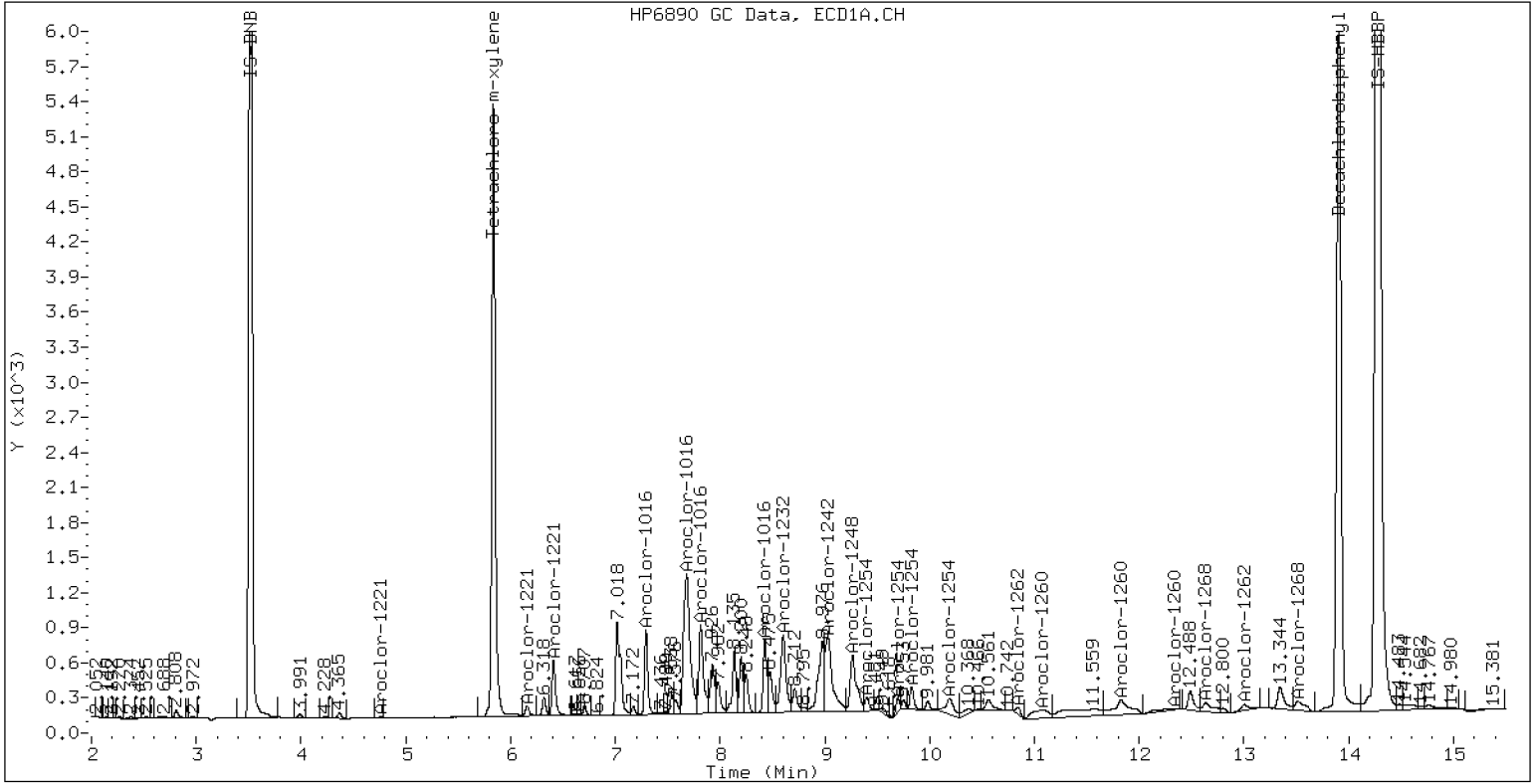
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV3

19-DEC-2022 22:21, 2u1

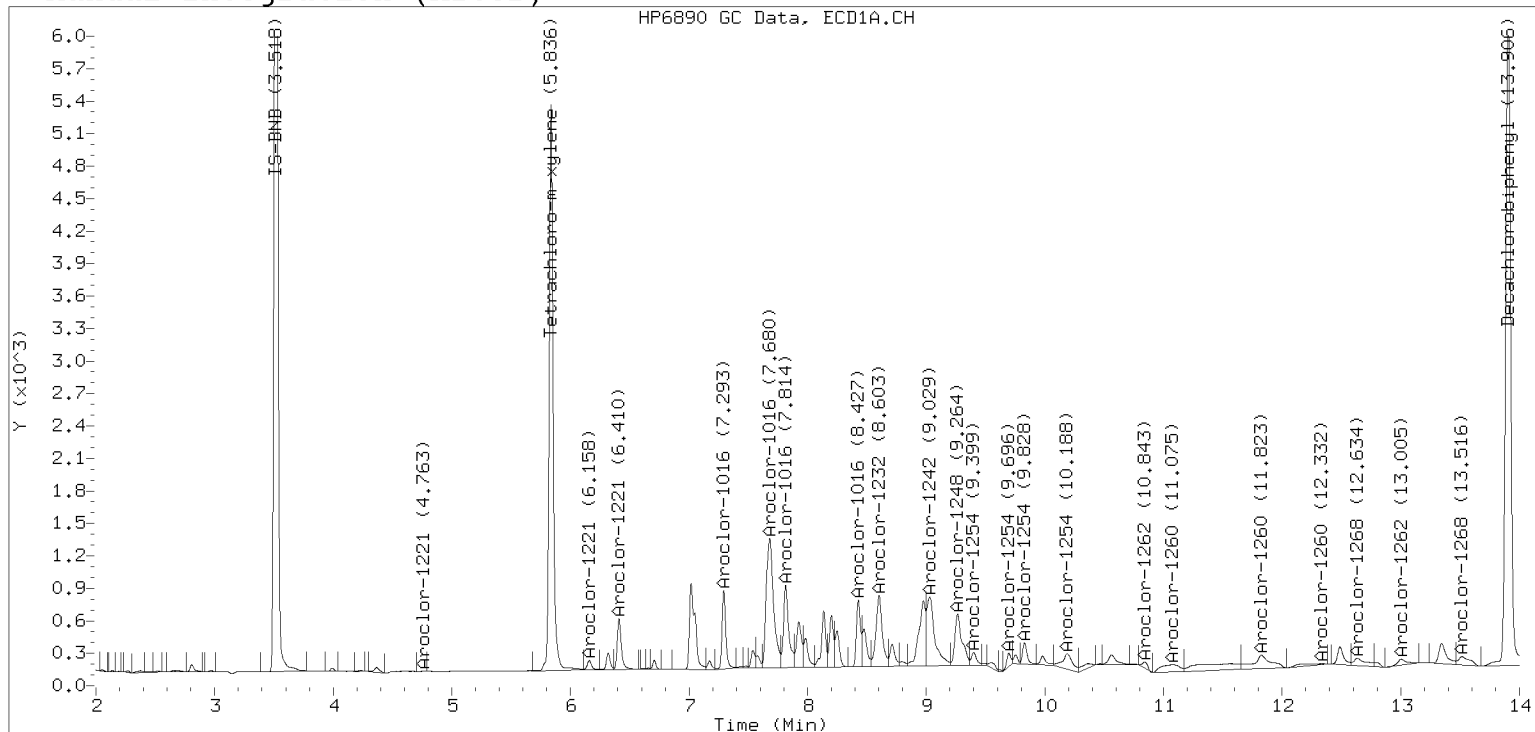


Manual Peak Adjustment, ZB-5

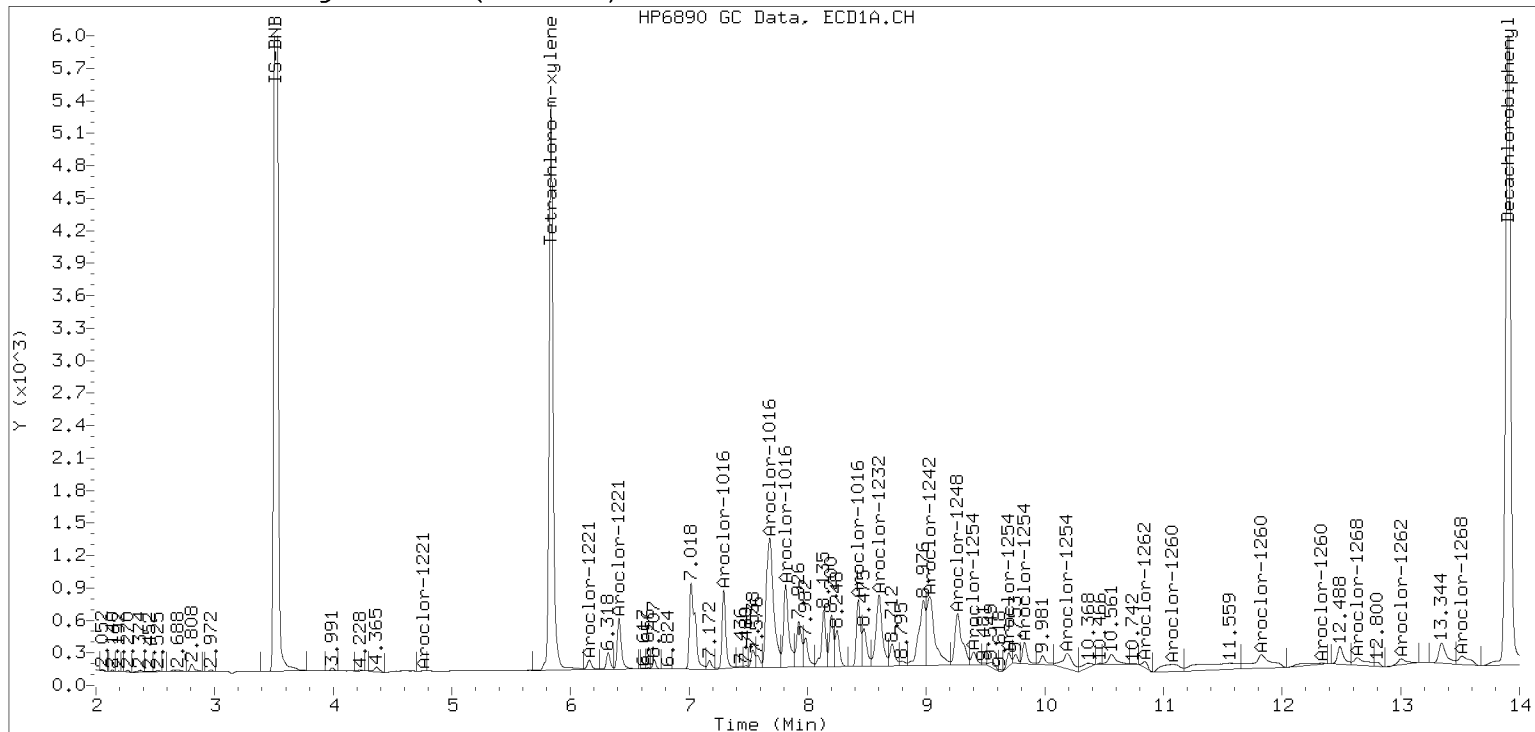
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Injection Date: 19-DEC-2022 22:21

Manual Integration (After)



Processed Integration (Before)





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12192224ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0282

Injection Date: 12/19/22

Lab Sample ID: SKL0282-CCV4

Injection Time: 22:43

Sequence Name: AR1660CCV4

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	278	0.0441939	0.0483972		11.1	+/-20
Aroclor-1016 (1)	A	250.00	270	0.0266860	0.0287806		7.8	
Aroclor-1016 (2)	A	250.00	266	0.0861572	0.0917138		6.4	
Aroclor-1016 (3)	A	250.00	280	0.0390425	0.0437362		12.0	
Aroclor-1016 (4)	A	250.00	295	0.0248899	0.0293583		18.0	
Aroclor 1016 [2C]	A	250.00	243	0.0467310	0.0443355		-3.0	+/-20
Aroclor-1016 (1) [2C]	A	250.00	250	0.0409030	0.0409411		0.09	
Aroclor-1016 (2) [2C]	A	250.00	227	0.0882154	0.0802107		-9.1	
Aroclor-1016 (3) [2C]	A	250.00	236	0.0378846	0.0357036		-5.8	
Aroclor-1016 (4) [2C]	A	250.00	257	0.0199212	0.0204865		2.8	
Aroclor 1260	A	250.00	263	0.0390342	0.0408911		5.2	+/-20
Aroclor-1260 (1)	A	250.00	260	0.0291201	0.0302752		4.0	
Aroclor-1260 (2)	A	250.00	265	0.0301181	0.0318898		5.9	
Aroclor-1260 (3)	A	250.00	265	0.0791351	0.0838839		6.0	
Aroclor-1260 (4)	A	250.00	249	0.0403003	0.0401512		-0.4	
Aroclor-1260 (5)	A	250.00	277	0.0164974	0.0182554		10.7	
Aroclor 1260 [2C]	A	250.00	208	0.0617619	0.0498507		-16.9	+/-20
Aroclor-1260 (1) [2C]	A	250.00	207	0.0422283	0.0350260		-17.1	
Aroclor-1260 (2) [2C]	A	250.00	190	0.1059643	0.0803751		-24.1	
Aroclor-1260 (3) [2C]	A	250.00	228	0.0282173	0.0257495		-8.7	
Aroclor-1260 (4) [2C]	A	250.00	206	0.0706376	0.0582522		-17.5	
Decachlorobiphenyl	A	40.000	44.5	0.7333327	0.8156268		11.2	+/-20
Tetrachlorometaxylene	A	40.000	40.5	1.1336710	1.1472320		1.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.8	1.1358180	1.1014750		-3.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.6	1.0966080	1.0853650		-1.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192224ECD7.D
Data file 2: /221219.b/221219.b/12192224ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 19-DEC-2022 22:43
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.837	0.001	223708	5.714	0.001	125498	40.5	39.6	2.2	Tetrachloro-m-xylene
13.906	-0.002	344962	14.134	-0.003	217072	44.5	38.8	13.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	389996	-12.9
Hexabromobiphenyl	798898	845882	5.9
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	231255	-7.2
Hexabromobiphenyl	362541	394148	8.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.293	-0.001	35076	269.6	1	7.276	0.001	29587	250.2	
Aroclor-1016	2	7.679	-0.006	111775	266.1	2	7.874	0.003	57966	227.3	
Aroclor-1016	3	7.814	-0.003	53303	280.1	3	8.074	0.004	25802	235.6	
Aroclor-1016	4	8.427	-0.002	35780	294.9	4	8.245	0.004	14805	257.1	
Total CollAve (4 peaks):				277.7		Total Col2Ave (4 peaks):				242.6	RPD = 13
Corrected Ave (3 peaks):				271.9		Corrected Ave (3 peaks):				237.7	RPD = 13
Aroclor-1260	1	11.059	-0.003	80029	259.9	1	11.667	-0.002	43142	207.4	
Aroclor-1260	2	11.376	-0.001	84297	264.7	2	11.929	-0.003	98999	189.6	
Aroclor-1260	3	11.749	-0.003	221737	265.0	3	12.450	-0.002	31716	228.1	
Aroclor-1260	4	12.154	-0.004	106135	249.1	4	12.514	-0.003	71750	206.2	
Aroclor-1260	5	12.258	-0.003	48256	276.6	NS	---			----	
Total CollAve (5 peaks):				263.1		Total Col2Ave (4 peaks):				207.8	RPD = 23
Corrected Ave (4 peaks):				259.7		Corrected Ave (3 peaks):				201.1	RPD = 25

Total PCB Area Col1 (5.936 - 13.808) = 2342976 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1060644 Col2 Total PCB = 0.6 ppm*

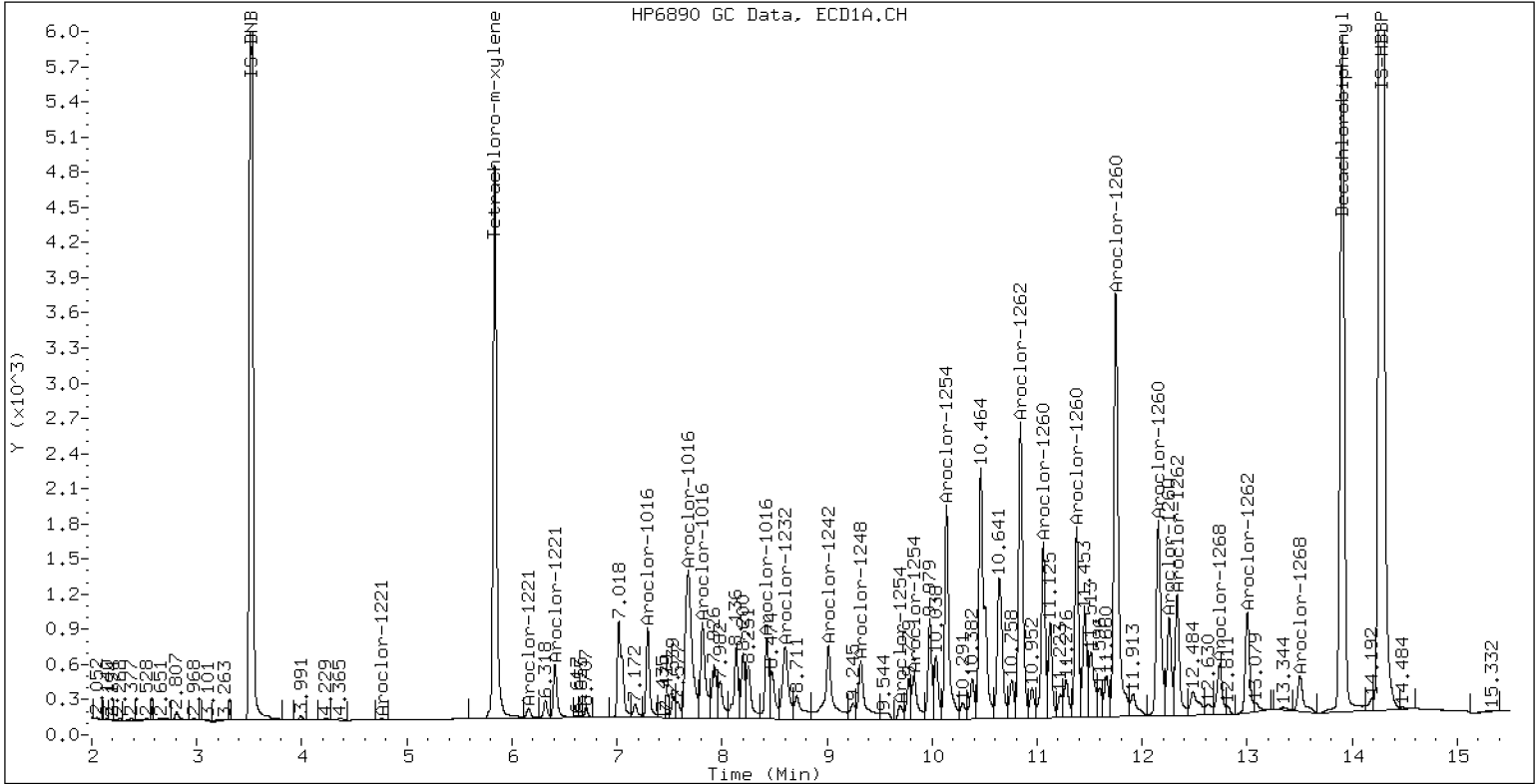
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV4

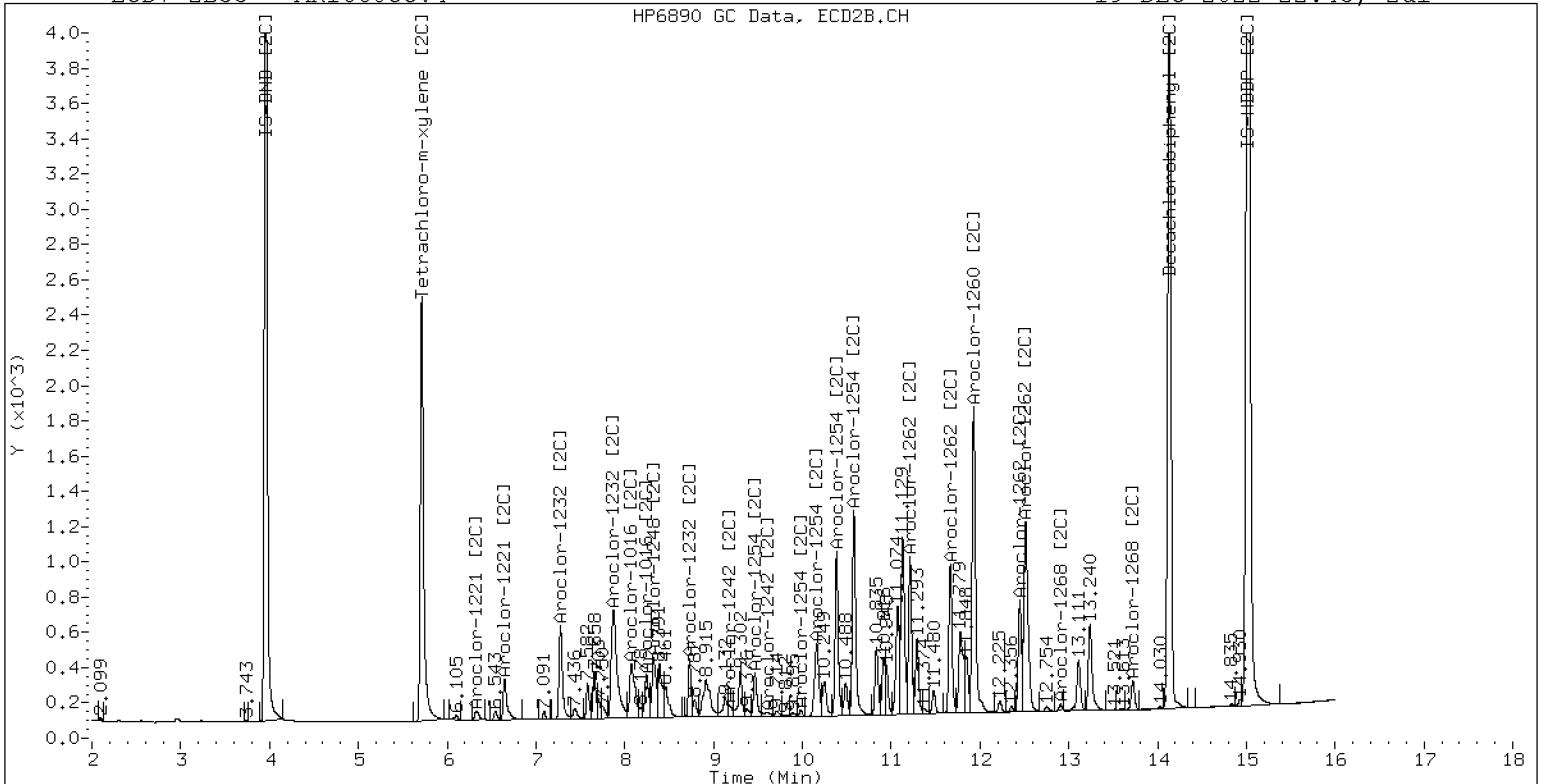
19-DEC-2022 22:43, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV4

19-DEC-2022 22:43, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12192239ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0282

Injection Date: 12/20/22

Lab Sample ID: SKL0282-CCV5

Injection Time: 04:01

Sequence Name: AR1254CCV5

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	234	0.0576965	0.0545197		-6.6	+/-20
Aroclor-1254 (1)	A	250.00	242		0.0680673			
Aroclor-1254 (2)	A	250.00	246		0.0269530			
Aroclor-1254 (3)	A	250.00	181		0.0322904			
Aroclor-1254 (4)	A	250.00	244		0.0847487			
Aroclor-1254 (5)	A	250.00	255		0.0605393			
Aroclor 1254 [2C]	A	250.00	222	0.0638047	0.0576655		-11.0	+/-20
Aroclor-1254 (1) [2C]	A	250.00	236		0.0486642			
Aroclor-1254 (2) [2C]	A	250.00	169		0.0281128			
Aroclor-1254 (3) [2C]	A	250.00	220		0.0784011			
Aroclor-1254 (4) [2C]	A	250.00	243		0.0896370			
Aroclor-1254 (5) [2C]	A	250.00	244		0.0435122			
Decachlorobiphenyl	A	40.000	42.0	0.7333327	0.7708666		5.1	+/-20
Tetrachlorometaxylene	A	40.000	37.8	1.1336710	1.0727240		-5.4	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.9	1.1358180	1.1057600		-2.6	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.4	1.0966080	1.0242900		-6.6	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192239ECD7.D
Data file 2: /221219.b/221219.b/12192239ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCV5
Client ID:
Injection Date: 20-DEC-2022 04:01
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.004	240537	5.708	-0.005	138756	37.8	37.4	1.3	Tetrachloro-m-xylene
13.904	-0.003	244976	14.133	-0.004	201459	42.0	38.9	7.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	448460	0.2
Hexabromobiphenyl	798898	635586	-20.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	270931	8.8
Hexabromobiphenyl	362541	364381	0.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.316	-0.005	95392	241.6	1	9.464	-0.003	41202	235.9	
Aroclor-1254	2	9.395	-0.006	37773	246.0	2	9.981	-0.006	23802	169.5	
Aroclor-1254	3	9.689	-0.006	45253	181.5	3	10.133	-0.007	66379	219.9	
Aroclor-1254	4	9.824	-0.007	118770	244.3	4	10.382	-0.007	75892	242.8	
Aroclor-1254	5	10.179	-0.011	84842	254.6	5	10.579	-0.008	36840	244.3	
Total CollAve (5 peaks):				233.6		Total Col2Ave (5 peaks):				222.5	RPD = 5
Corrected Ave (4 peaks):				228.3		Corrected Ave (4 peaks):				217.0	RPD = 5

Total PCB Area Coll (5.936 - 13.808) = 1213202 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 692775 Col2 Total PCB = 0.4 ppm*

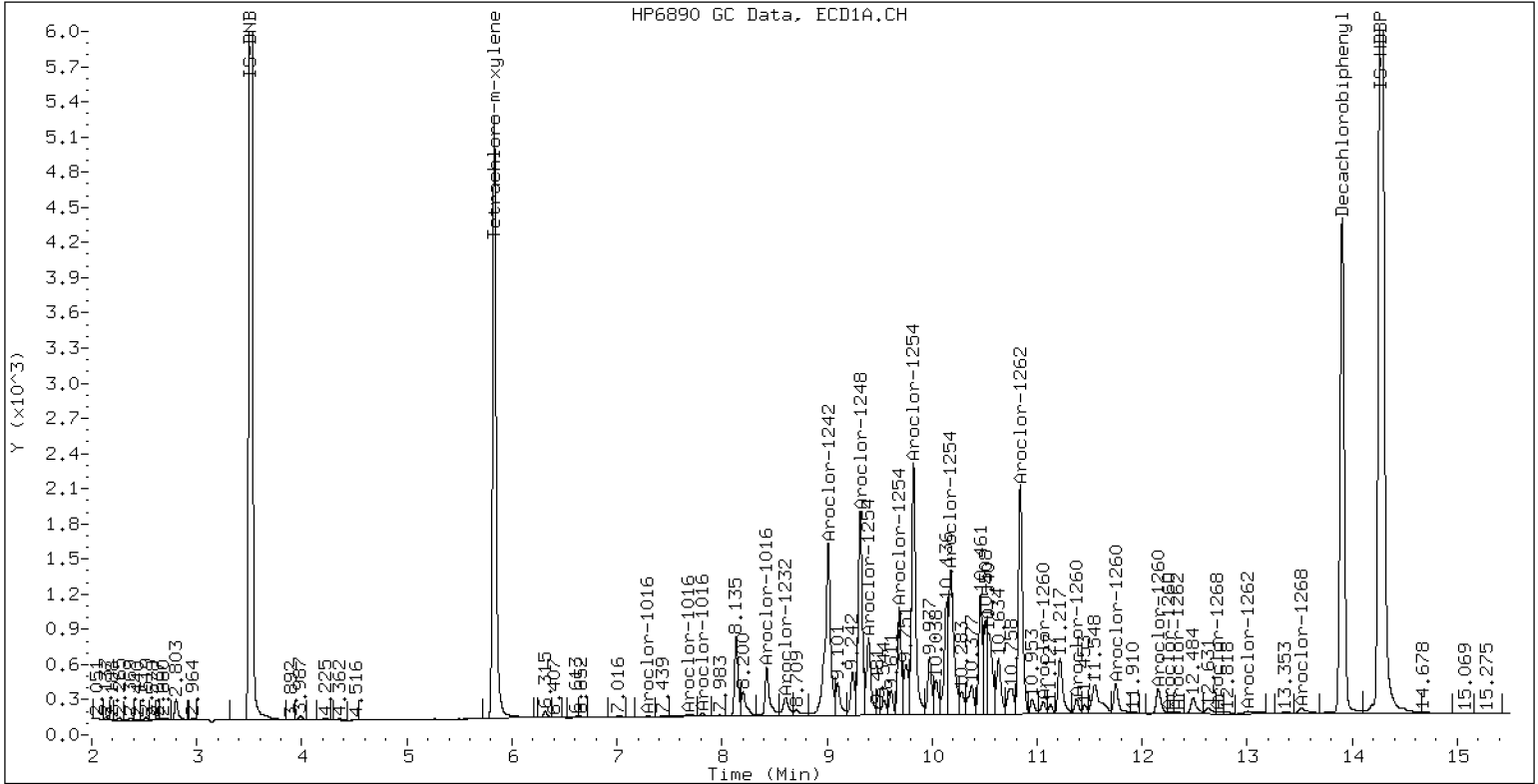
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCV5

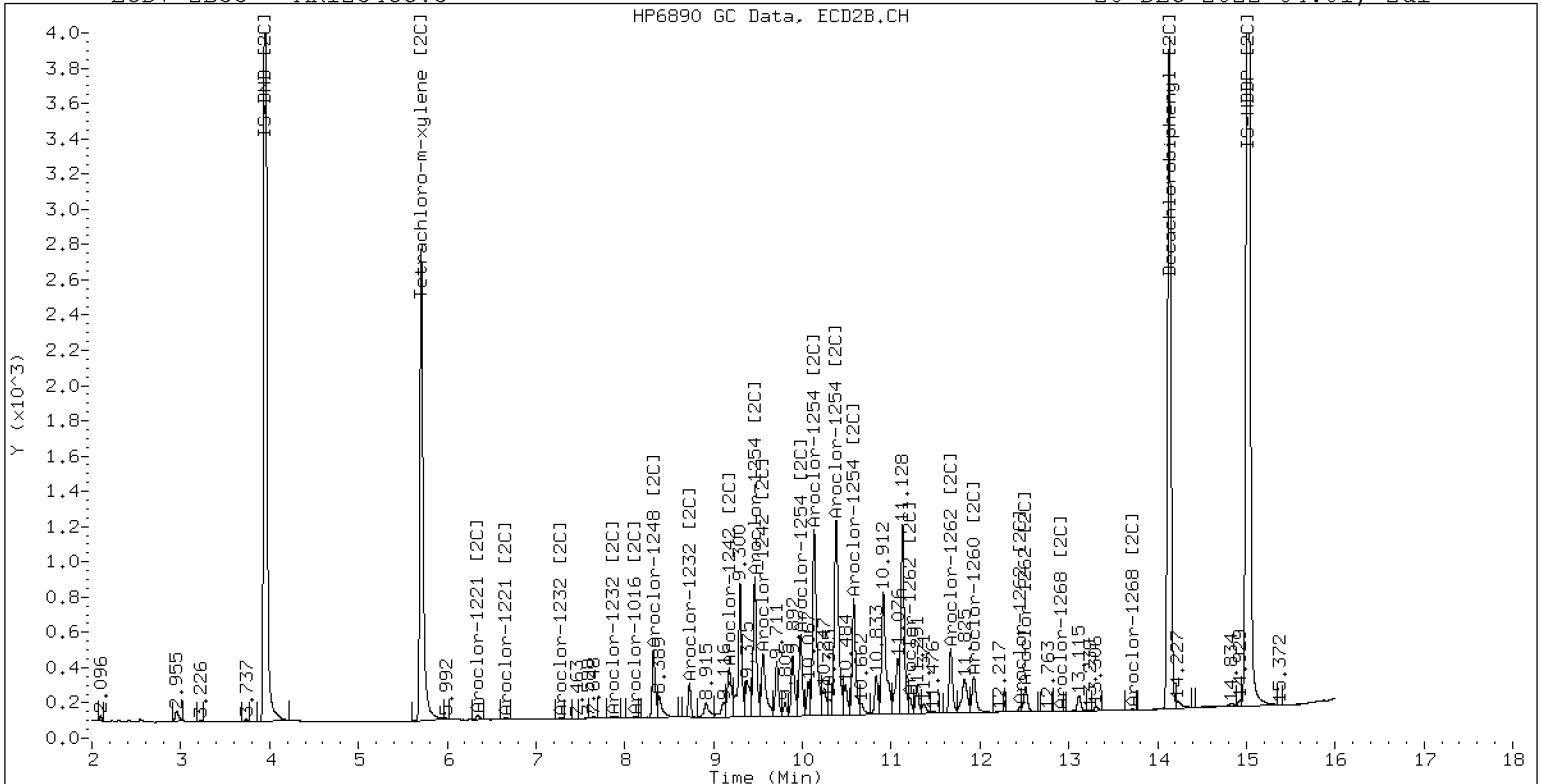
20-DEC-2022 04:01, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCV5

20-DEC-2022 04:01, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12192240ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0282

Injection Date: 12/20/22

Lab Sample ID: SKL0282-CCV6

Injection Time: 04:22

Sequence Name: AR1660CCV6

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	272	0.0441939	0.0476855		8.8	+/-20
Aroclor-1016 (1)	A	250.00	268	0.0266860	0.0286602		7.4	
Aroclor-1016 (2)	A	250.00	266	0.0861572	0.0916857		6.4	
Aroclor-1016 (3)	A	250.00	271	0.0390425	0.0423156		8.4	
Aroclor-1016 (4)	A	250.00	282	0.0248899	0.0280804		12.8	
Aroclor 1016 [2C]	A	250.00	245	0.0467310	0.0445051		-2.2	+/-20
Aroclor-1016 (1) [2C]	A	250.00	246	0.0409030	0.0402742		-1.5	
Aroclor-1016 (2) [2C]	A	250.00	228	0.0882154	0.0805092		-8.7	
Aroclor-1016 (3) [2C]	A	250.00	238	0.0378846	0.0360123		-4.9	
Aroclor-1016 (4) [2C]	A	250.00	266	0.0199212	0.0212246		6.5	
Aroclor 1260	A	250.00	281	0.0390342	0.0442187		12.6	+/-20
Aroclor-1260 (1)	A	250.00	281	0.0291201	0.0327517		12.5	
Aroclor-1260 (2)	A	250.00	285	0.0301181	0.0343352		14.0	
Aroclor-1260 (3)	A	250.00	289	0.0791351	0.0913222		15.4	
Aroclor-1260 (4)	A	250.00	275	0.0403003	0.0443688		10.1	
Aroclor-1260 (5)	A	250.00	278	0.0164974	0.0183158		11.0	
Aroclor 1260 [2C]	A	250.00	224	0.0617619	0.0536037		-10.4	+/-20
Aroclor-1260 (1) [2C]	A	250.00	227	0.0422283	0.0382964		-9.3	
Aroclor-1260 (2) [2C]	A	250.00	204	0.1059643	0.0865041		-18.4	
Aroclor-1260 (3) [2C]	A	250.00	246	0.0282173	0.0278067		-1.5	
Aroclor-1260 (4) [2C]	A	250.00	219	0.0706376	0.0618074		-12.5	
Decachlorobiphenyl	A	40.000	45.3	0.7333327	0.8299039		13.2	+/-20
Tetrachlorometaxylene	A	40.000	40.9	1.1336710	1.1583400		2.2	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.3	1.1358180	1.1152510		-1.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.2	1.0966080	1.0760400		-1.9	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192240ECD7.D
Data file 2: /221219.b/221219.b/12192240ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV6
Client ID:
Injection Date: 20-DEC-2022 04:22
Report Date: 12/21/2022 10:23
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	ZB5 Col Response	RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	-0.003	230457	5.710	-0.004	127288	40.9	39.2	4.0	Tetrachloro-m-xylene
13.905	-0.003	290895	14.132	-0.005	205118	45.3	39.3	14.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	397909	-11.1
Hexabromobiphenyl	798898	701033	-12.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	236586	-5.0
Hexabromobiphenyl	362541	367842	1.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.291	-0.003	35638	268.5	1	7.273	-0.002	29776	246.2
Aroclor-1016	2	7.677	-0.007	114008	266.0	2	7.872	0.001	59523	228.2
Aroclor-1016	3	7.811	-0.006	52618	271.0	3	8.071	0.001	26625	237.6
Aroclor-1016	4	8.424	-0.005	34917	282.0	4	8.242	0.001	15692	266.4
Total CollAve (4 peaks):				271.9		Total Col2Ave (4 peaks):				244.6 RPD = 11
Corrected Ave (3 peaks):				268.5		Corrected Ave (3 peaks):				237.3 RPD = 12
Aroclor-1260	1	11.058	-0.004	71750	281.2	1	11.666	-0.003	44022	226.7
Aroclor-1260	2	11.373	-0.004	75219	285.0	2	11.928	-0.004	99437	204.1
Aroclor-1260	3	11.747	-0.005	200062	288.5	3	12.447	-0.004	31964	246.4
Aroclor-1260	4	12.151	-0.007	97200	275.2	4	12.512	-0.004	71048	218.7
Aroclor-1260	5	12.256	-0.005	40125	277.6	NS	---			----
Total CollAve (5 peaks):				281.5		Total Col2Ave (4 peaks):				224.0 RPD = 23
Corrected Ave (4 peaks):				279.7		Corrected Ave (3 peaks):				216.5 RPD = 25

Total PCB Area Col1 (5.936 - 13.808) = 2066557 Col1 Total PCB = 0.5 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1085262 Col2 Total PCB = 0.6 ppm*

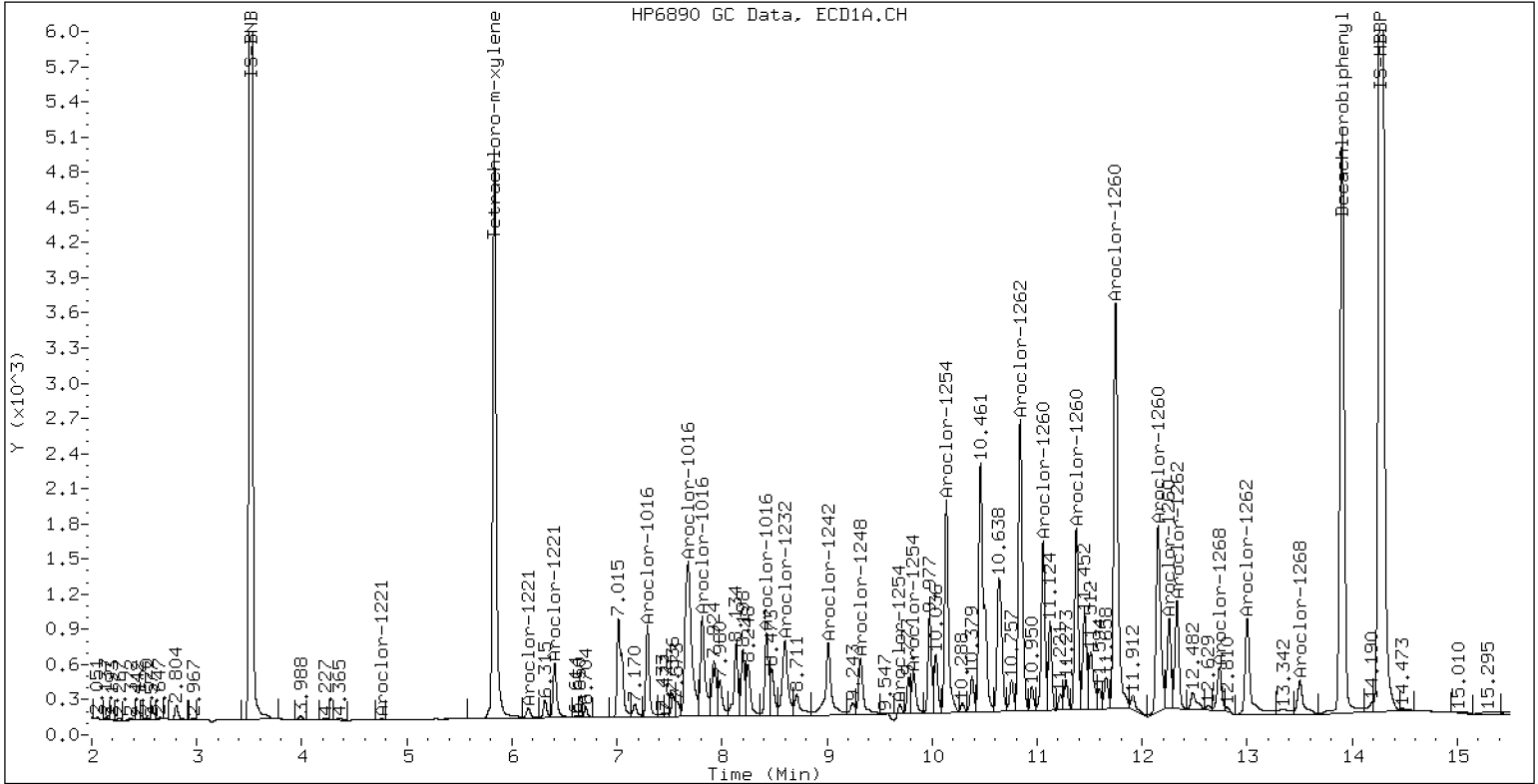
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV6

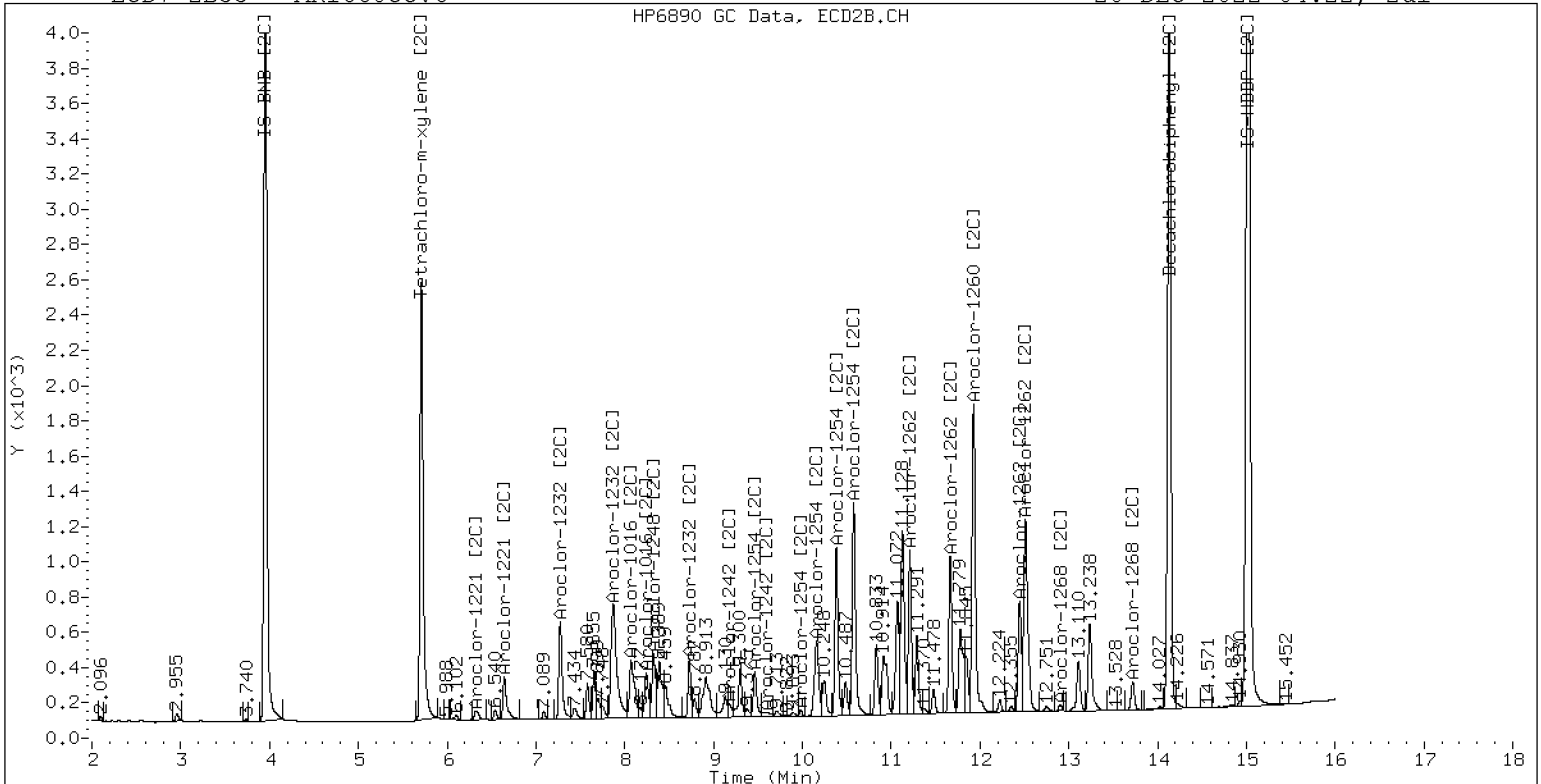
20-DEC-2022 04:22, 2u1



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1660CCV6

20-DEC-2022 04:22, 2u1



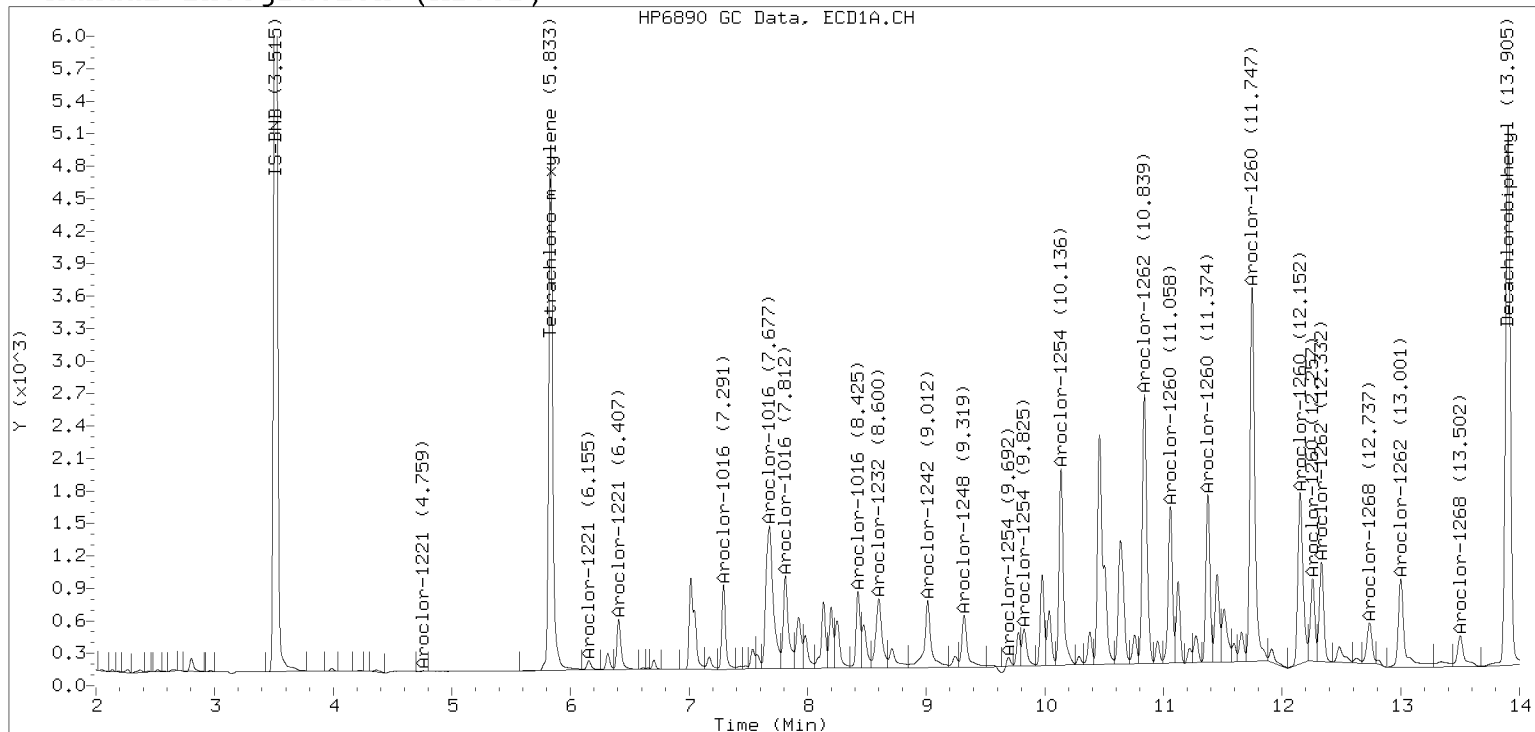
ZB-35 Manual Integration: NO

Manual Peak Adjustment, ZB-5

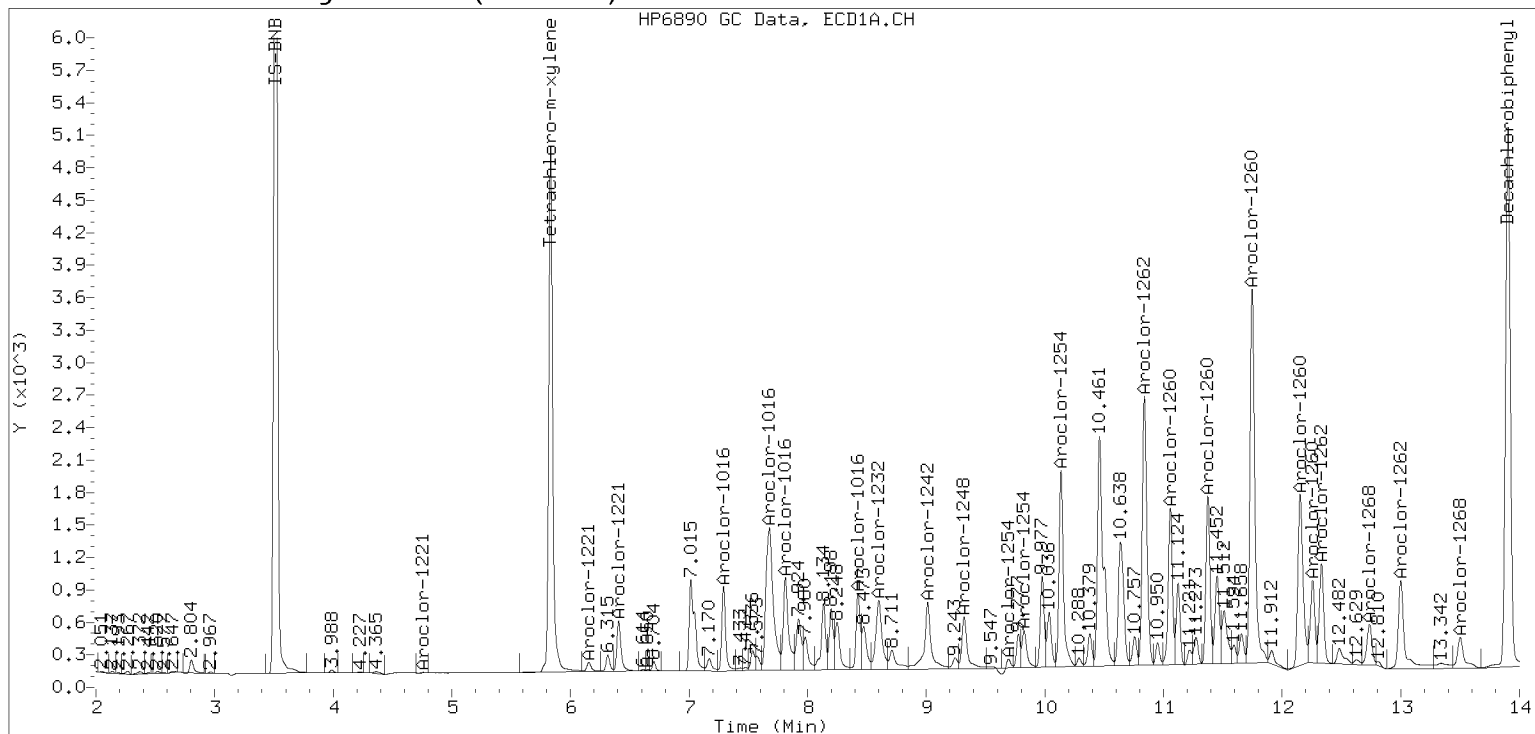
Datafile: ecd7.i/221219.b/12192240ECD7.D

Injection Date: 20-DEC-2022 04:22

Manual Integration (After)



Processed Integration (Before)





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12192249ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0282</u>	Injection Date:	<u>12/20/22</u>
Lab Sample ID:	<u>SKL0282-CCV7</u>	Injection Time:	<u>07:33</u>
Sequence Name:	<u>AR1248CCV7</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	239	0.0490062	0.0477133		-4.5	+/-20
Aroclor-1248 (1)	A	250.00	267		0.0367041			
Aroclor-1248 (2)	A	250.00	278		0.0487671			
Aroclor-1248 (3)	A	250.00	260		0.0820608			
Aroclor-1248 (4)	A	250.00	151		0.0233210			
Aroclor 1248 [2C]	A	250.00	236	0.0394876	0.0375091		-5.6	+/-20
Aroclor-1248 (1) [2C]	A	250.00	248		0.0324072			
Aroclor-1248 (2) [2C]	A	250.00	195		0.0268313			
Aroclor-1248 (3) [2C]	A	250.00	261		0.0435754			
Aroclor-1248 (4) [2C]	A	250.00	241		0.0472227			
Decachlorobiphenyl	A	40.000	42.7	0.7333327	0.7833501		6.8	+/-20
Tetrachlorometaxylene	A	40.000	36.5	1.1336710	1.0340920		-8.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.7	1.1358180	1.0994330		-3.2	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.7	1.0966080	1.0049440		-8.4	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192249ECD7.D
Data file 2: /221219.b/221219.b/12192249ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV7
Client ID:
Injection Date: 20-DEC-2022 07:33
Report Date: 12/21/2022 10:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.834	-0.002	232485	5.711	-0.002	136399	36.5	36.7	0.5	Tetrachloro-m-xylene
13.905	-0.003	224628	14.132	-0.005	192806	42.7	38.7	9.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	449641	0.4
Hexabromobiphenyl	798898	573506	-28.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	271456	9.0
Hexabromobiphenyl	362541	350737	-3.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.424	-0.004	51574	266.8	1	8.323	-0.003	27491	247.9	
Aroclor-1248	2	8.600	-0.005	68524	277.6	2	8.729	-0.003	22761	195.1	
Aroclor-1248	3	9.018	-0.004	115306	259.7	3	9.172	-0.005	36965	260.5	
Aroclor-1248	4	9.310	-0.001	32769	150.6	4	9.595	-0.007	40059	240.5	
Total Col1Ave (4 peaks):				238.7	Total Col2Ave (4 peaks):				236.0	RPD = 1	
Corrected Ave (3 peaks):				225.7	Corrected Ave (3 peaks):				227.9	RPD = 1	

Total PCB Area Col1 (5.936 - 13.808) = 1040551 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 526293 Col2 Total PCB = 0.3 ppm*

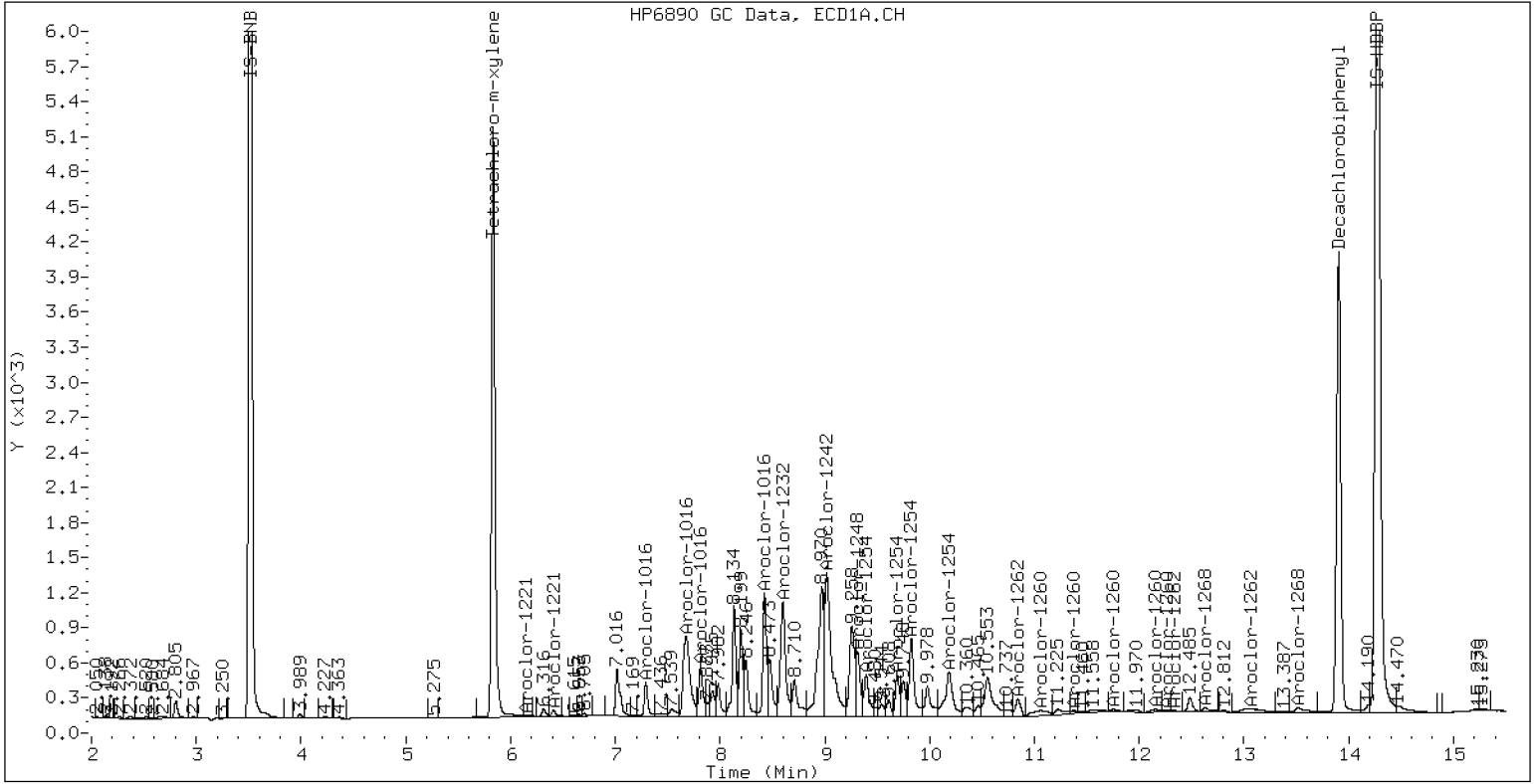
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV7

20-DEC-2022 07:33, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12192250ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0282

Injection Date: 12/20/22

Lab Sample ID: SKL0282-CCV8

Injection Time: 07:54

Sequence Name: AR1660CCV8

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	265	0.0441939	0.0467401		6.2	+/-20
Aroclor-1016 (1)	A	250.00	259	0.0266860	0.0276706		3.7	
Aroclor-1016 (2)	A	250.00	263	0.0861572	0.0905518		5.1	
Aroclor-1016 (3)	A	250.00	265	0.0390425	0.0413623		5.9	
Aroclor-1016 (4)	A	250.00	275	0.0248899	0.0273755		10.0	
Aroclor 1016 [2C]	A	250.00	238	0.0467310	0.0432532		-4.6	+/-20
Aroclor-1016 (1) [2C]	A	250.00	242	0.0409030	0.0396171		-3.1	
Aroclor-1016 (2) [2C]	A	250.00	220	0.0882154	0.0776665		-12.0	
Aroclor-1016 (3) [2C]	A	250.00	231	0.0378846	0.0349727		-7.7	
Aroclor-1016 (4) [2C]	A	250.00	260	0.0199212	0.0207566		4.2	
Aroclor 1260	A	250.00	293	0.0390342	0.0458841		17.2	+/-20
Aroclor-1260 (1)	A	250.00	298	0.0291201	0.0347318		19.3	
Aroclor-1260 (2)	A	250.00	298	0.0301181	0.0359220		19.3	
Aroclor-1260 (3)	A	250.00	296	0.0791351	0.0937932		18.5	
Aroclor-1260 (4)	A	250.00	285	0.0403003	0.0460104		14.2	
Aroclor-1260 (5)	A	250.00	287	0.0164974	0.0189629		14.9	
Aroclor 1260 [2C]	A	250.00	233	0.0617619	0.0555277		-7.0	+/-20
Aroclor-1260 (1) [2C]	A	250.00	239	0.0422283	0.0403705		-4.4	
Aroclor-1260 (2) [2C]	A	250.00	211	0.1059643	0.0895513		-15.5	
Aroclor-1260 (3) [2C]	A	250.00	256	0.0282173	0.0288697		2.3	
Aroclor-1260 (4) [2C]	A	250.00	224	0.0706376	0.0633194		-10.4	
Decachlorobiphenyl	A	40.000	45.3	0.7333327	0.8298834		13.2	+/-20
Tetrachlorometaxylene	A	40.000	40.3	1.1336710	1.1423190		0.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.5	1.1358180	1.1228470		-1.1	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.7	1.0966080	1.0879620		-0.8	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192250ECD7.D
Data file 2: /221219.b/221219.b/12192250ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV8
Client ID:
Injection Date: 20-DEC-2022 07:54
Report Date: 12/21/2022 10:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.833	-0.003	229750	5.710	-0.004	130921	40.3	39.7	1.6	Tetrachloro-m-xylene
13.904	-0.004	264605	14.132	-0.005	194655	45.3	39.5	13.5	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	402252	-10.1
Hexabromobiphenyl	798898	637692	-20.2

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	240672	-3.4
Hexabromobiphenyl	362541	346717	-4.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.290	-0.004	34783	259.2	1	7.274	-0.002	29796	242.1	
Aroclor-1016	2	7.675	-0.010	113827	262.8	2	7.871	0.000	58413	220.1	
Aroclor-1016	3	7.810	-0.008	51994	264.9	3	8.071	0.000	26303	230.8	
Aroclor-1016	4	8.424	-0.006	34412	275.0	4	8.241	-0.000	15611	260.5	
Total Col1Ave (4 peaks):				265.4	Total Col2Ave (4 peaks):				238.4	RPD = 11	
Corrected Ave (3 peaks):				262.3	Corrected Ave (3 peaks):				231.0	RPD = 13	
Aroclor-1260	1	11.055	-0.007	69213	298.2	1	11.665	-0.004	43741	239.0	
Aroclor-1260	2	11.374	-0.004	71585	298.2	2	11.927	-0.006	97028	211.3	
Aroclor-1260	3	11.746	-0.005	186910	296.3	3	12.448	-0.004	31280	255.8	
Aroclor-1260	4	12.152	-0.006	91689	285.4	4	12.512	-0.005	68606	224.1	
Aroclor-1260	5	12.257	-0.004	37789	287.4	NS	---			----	
Total Col1Ave (5 peaks):				293.1	Total Col2Ave (4 peaks):				232.5	RPD = 23	
Corrected Ave (4 peaks):				291.8	Corrected Ave (3 peaks):				224.8	RPD = 26	

Total PCB Area Col1 (5.936 - 13.808) = 1963788 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1058010 Col2 Total PCB = 0.6 ppm*

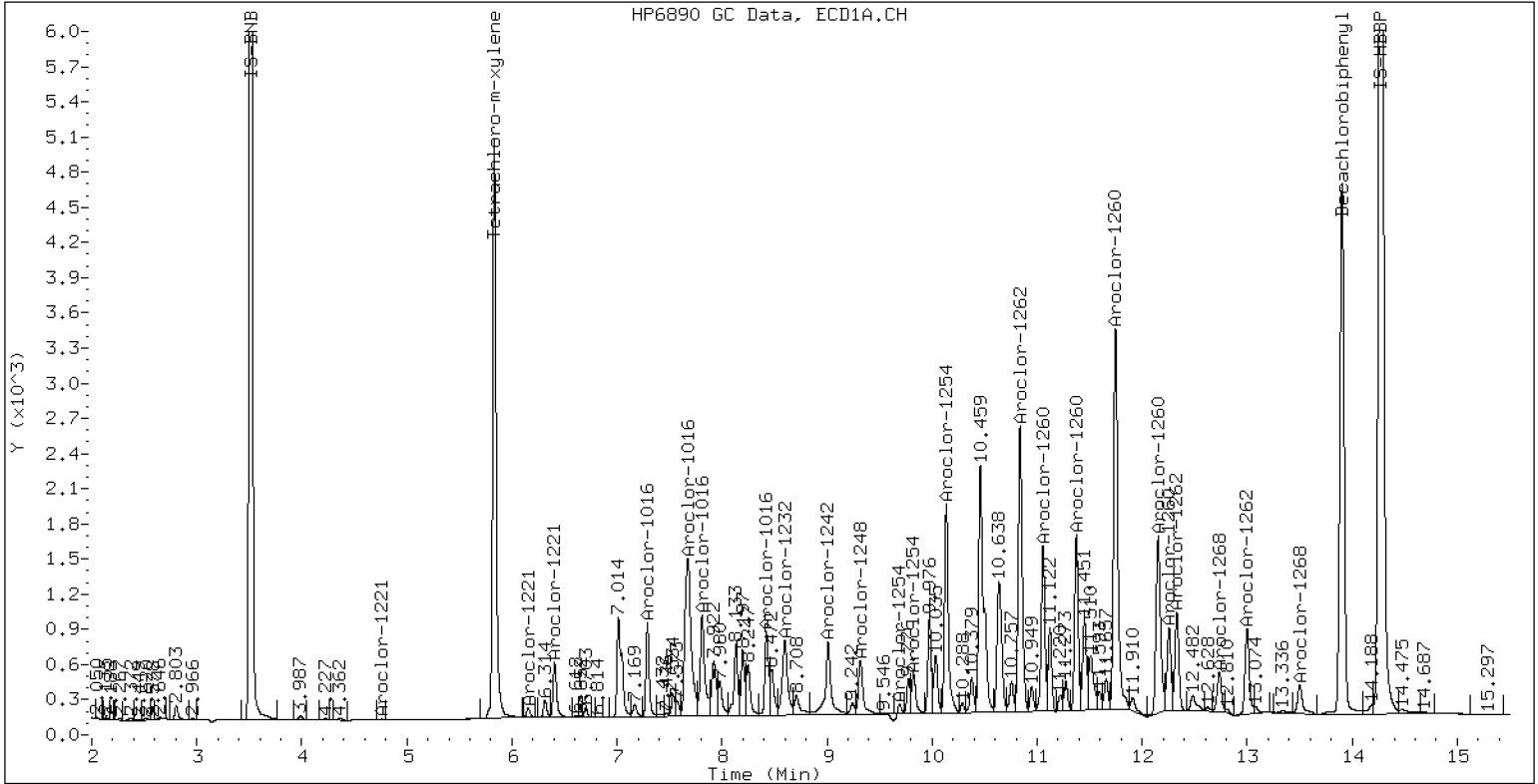
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV8

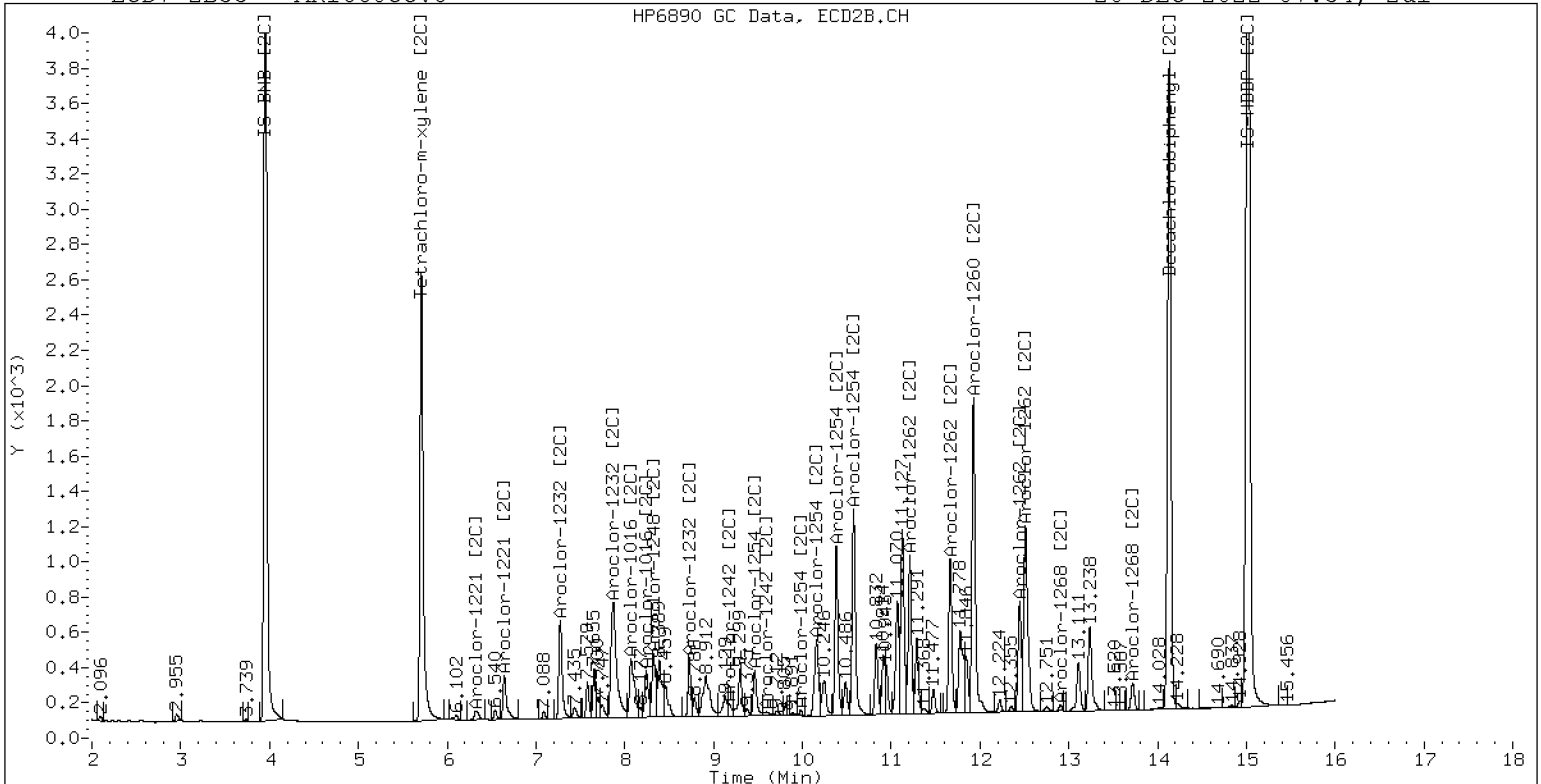
20-DEC-2022 07:54, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1660CCV8

20-DEC-2022 07:54, 2ul



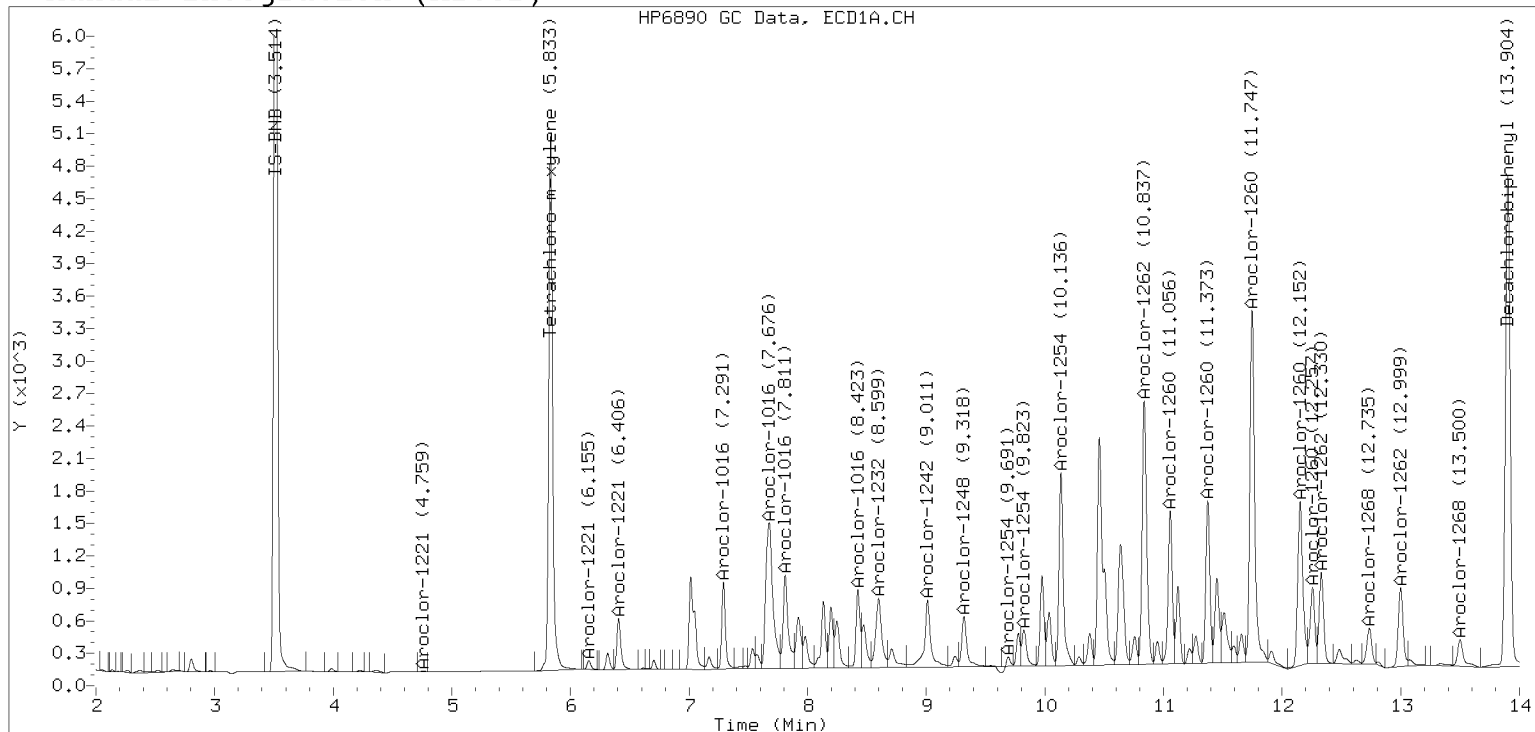
ZB-35 Manual Integration: NO

Manual Peak Adjustment, ZB-5

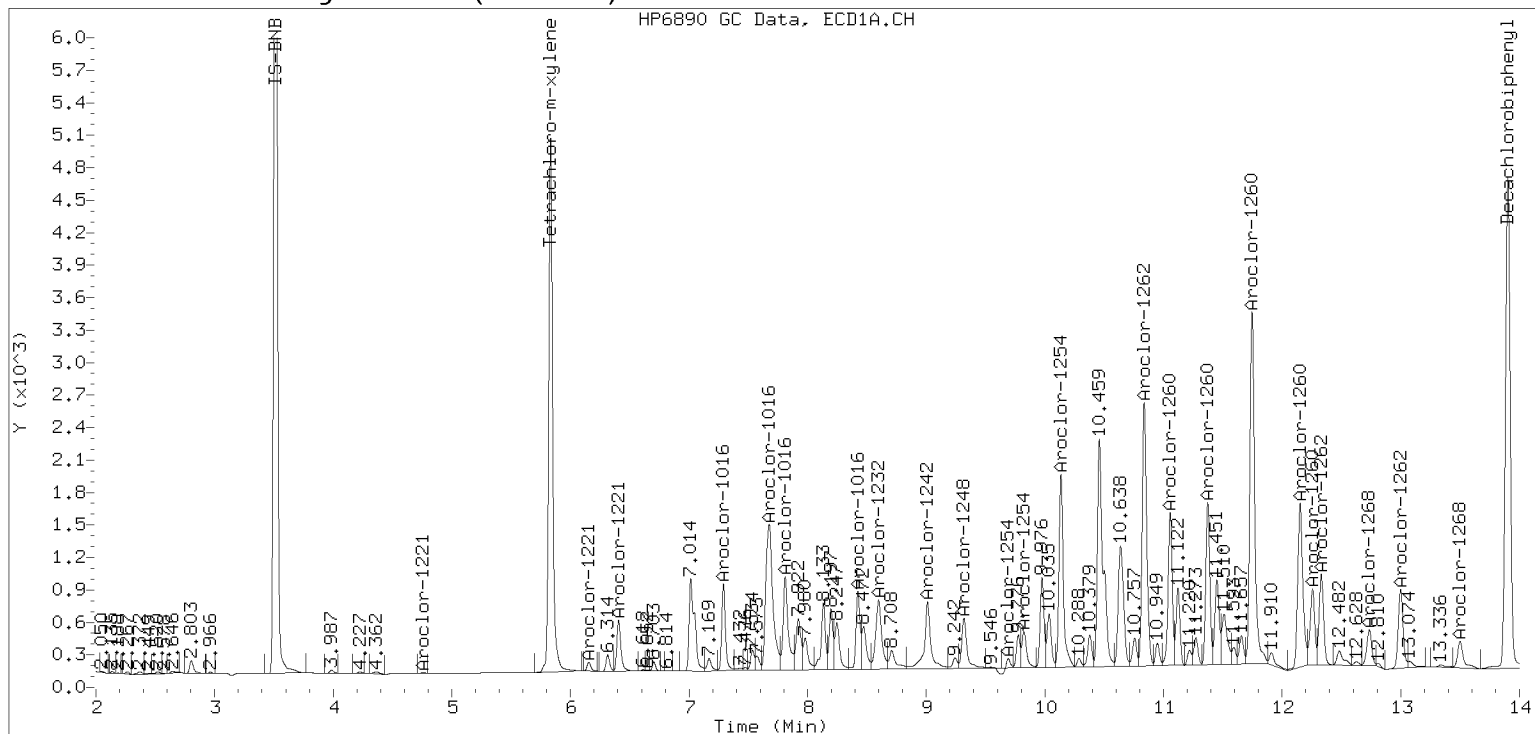
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Injection Date: 20-DEC-2022 07:54

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192260ECD7.D
Data file 2: /221219.b/221219.b/12192260ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV9
Client ID:
Injection Date: 20-DEC-2022 11:27
Report Date: 12/21/2022 10:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	-0.003	257044	5.709	-0.004	147170	39.5	38.6	2.3	Tetrachloro-m-xylene
13.903	-0.004	225319	14.131	-0.006	192265	41.4	38.3	7.7	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	459282	2.6
Hexabromobiphenyl	798898	593526	-25.7

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	278036	11.6
Hexabromobiphenyl	362541	353233	-2.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.290	-0.005	34860	267.8	1	7.274	-0.003	29738	252.7	
Aroclor-1242	2	7.675	-0.010	110951	268.4	2	7.870	-0.004	52019	208.2	
Aroclor-1242	3	8.423	-0.006	32325	271.8	3	9.172	-0.006	20921	259.6	
Aroclor-1242	4	9.022	-0.009	58447	236.7	4	9.593	-0.012	23566	243.3	
Total CollAve (4 peaks):				261.2	Total Col2Ave (4 peaks):				241.0	RPD = 8	
Corrected Ave (3 peaks):				257.6	Corrected Ave (3 peaks):				234.8	RPD = 9	

Total PCB Area Coll (5.936 - 13.808) = 850859 Coll Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 420930 Col2 Total PCB = 0.2 ppm*

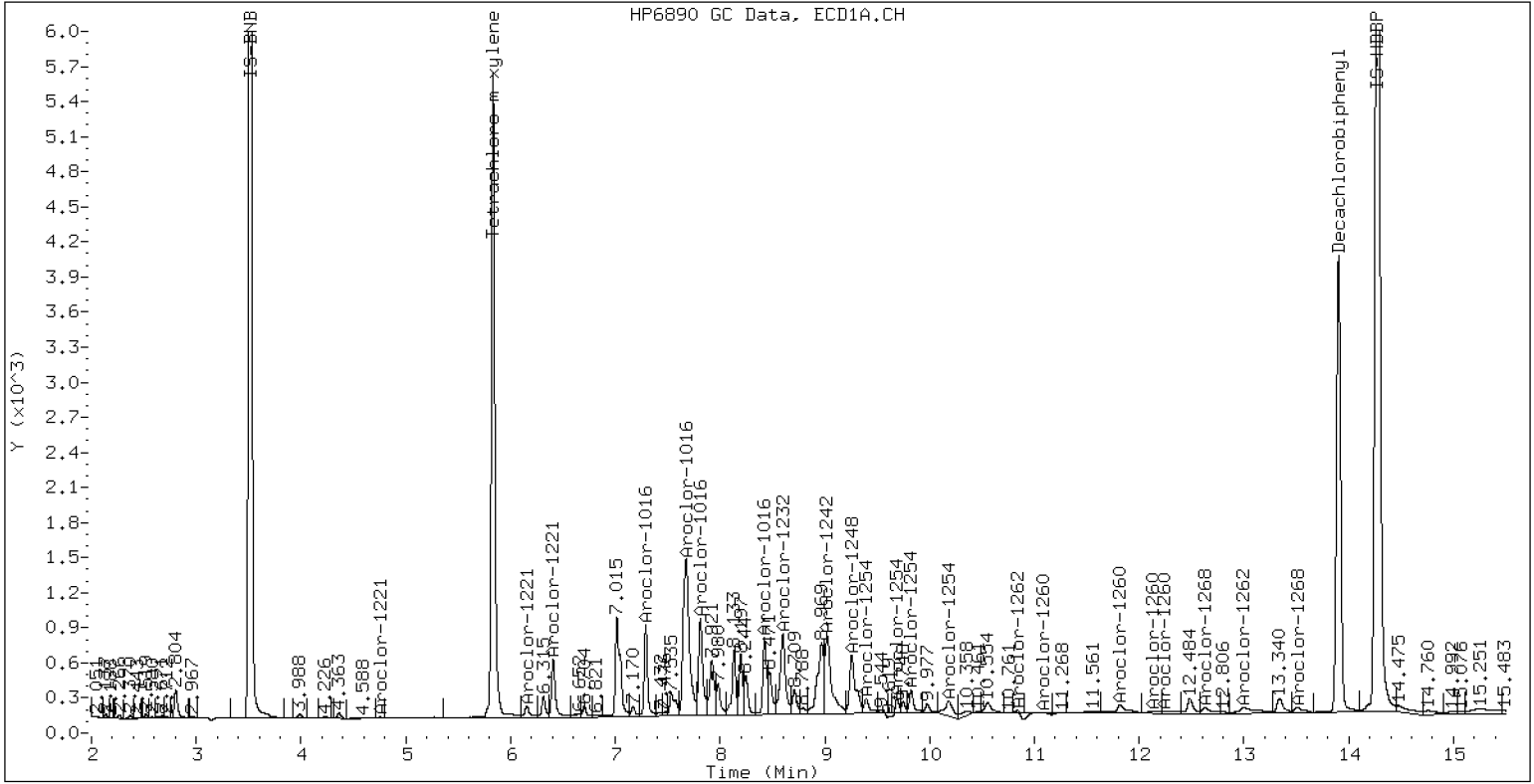
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV9

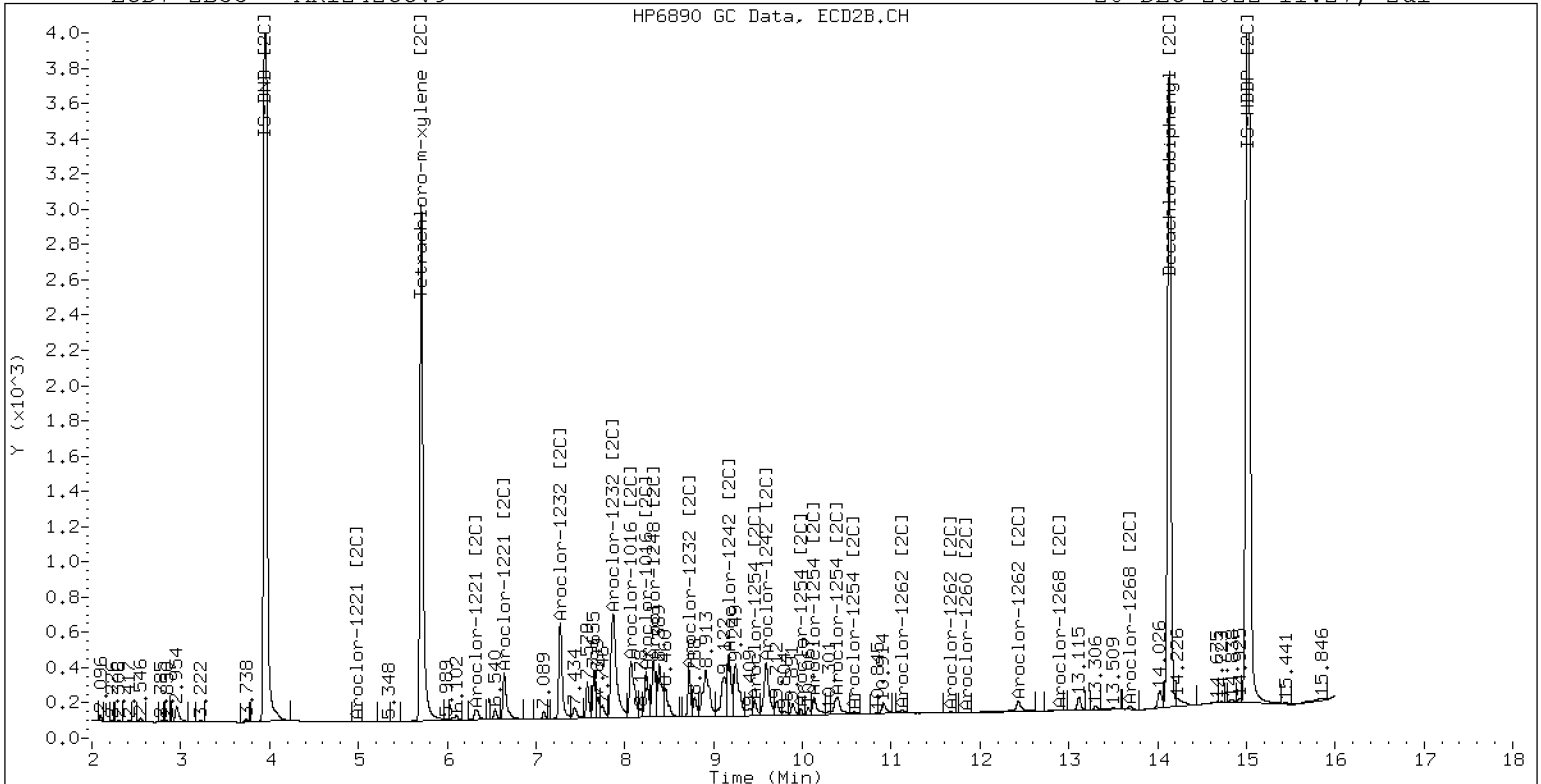
20-DEC-2022 11:27, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1242CCV9

20-DEC-2022 11:27, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12192261ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0282

Injection Date: 12/20/22

Lab Sample ID: SKL0282-CCVA

Injection Time: 11:48

Sequence Name: AR1660CCVA

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	262	0.0441939	0.0462713		5.0	+/-20
Aroclor-1016 (1)	A	250.00	258	0.0266860	0.0275708		3.3	
Aroclor-1016 (2)	A	250.00	261	0.0861572	0.0899495		4.4	
Aroclor-1016 (3)	A	250.00	261	0.0390425	0.0406900		4.2	
Aroclor-1016 (4)	A	250.00	270	0.0248899	0.0268748		8.0	
Aroclor 1016 [2C]	A	250.00	240	0.0467310	0.0436046		-3.8	+/-20
Aroclor-1016 (1) [2C]	A	250.00	246	0.0409030	0.0403110		-1.4	
Aroclor-1016 (2) [2C]	A	250.00	221	0.0882154	0.0779796		-11.6	
Aroclor-1016 (3) [2C]	A	250.00	233	0.0378846	0.0352615		-6.9	
Aroclor-1016 (4) [2C]	A	250.00	262	0.0199212	0.0208661		4.7	
Aroclor 1260	A	250.00	297	0.0390342	0.0464483		18.7	+/-20
Aroclor-1260 (1)	A	250.00	307	0.0291201	0.0357947		22.9	
Aroclor-1260 (2)	A	250.00	304	0.0301181	0.0366388		21.7	
Aroclor-1260 (3)	A	250.00	299	0.0791351	0.0945001		19.4	
Aroclor-1260 (4)	A	250.00	288	0.0403003	0.0464200		15.2	
Aroclor-1260 (5)	A	250.00	286	0.0164974	0.0188880		14.5	
Aroclor 1260 [2C]	A	250.00	234	0.0617619	0.0556534		-6.3	+/-20
Aroclor-1260 (1) [2C]	A	250.00	242	0.0422283	0.0408093		-3.4	
Aroclor-1260 (2) [2C]	A	250.00	210	0.1059643	0.0890432		-16.0	
Aroclor-1260 (3) [2C]	A	250.00	261	0.0282173	0.0295008		4.5	
Aroclor-1260 (4) [2C]	A	250.00	224	0.0706376	0.0632603		-10.4	
Decachlorobiphenyl	A	40.000	45.6	0.7333327	0.8360011		14.0	+/-20
Tetrachlorometaxylene	A	40.000	40.6	1.1336710	1.1509870		1.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.9	1.1358180	1.1322980		-0.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.2	1.0966080	1.0743670		-2.0	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221219.b/12192261ECD7.D
Data file 2: /221219.b/221219.b/12192261ECD7.D
Method: \\target\share\chem4\ecd7.i\221219.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCVA
Client ID:
Injection Date: 20-DEC-2022 11:48
Report Date: 12/21/2022 10:24
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	-0.004	234155	5.710	-0.004	131473	40.6	39.2	3.6	Tetrachloro-m-xylene
13.903	-0.005	267336	14.132	-0.005	198622	45.6	39.9	13.4	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	406877	-9.1
Hexabromobiphenyl	798898	639559	-19.9

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	244745	-1.7
Hexabromobiphenyl	362541	350830	-3.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.289	-0.005	35056	258.3	1	7.273	-0.002	30831	246.4	
Aroclor-1016	2	7.676	-0.008	114370	261.0	2	7.871	0.000	59641	221.0	
Aroclor-1016	3	7.811	-0.007	51737	260.5	3	8.071	0.001	26969	232.7	
Aroclor-1016	4	8.424	-0.006	34171	269.9	4	8.241	0.000	15959	261.9	
Total Col1Ave (4 peaks):				262.4		Total Col2Ave (4 peaks):				240.5	RPD = 9
Corrected Ave (3 peaks):				259.9		Corrected Ave (3 peaks):				233.4	RPD = 11
Aroclor-1260	1	11.056	-0.006	71540	307.3	1	11.666	-0.004	44741	241.6	
Aroclor-1260	2	11.373	-0.005	73227	304.1	2	11.928	-0.005	97622	210.1	
Aroclor-1260	3	11.748	-0.004	188870	298.5	3	12.448	-0.004	32343	261.4	
Aroclor-1260	4	12.151	-0.007	92776	288.0	4	12.511	-0.005	69355	223.9	
Aroclor-1260	5	12.256	-0.005	37750	286.2	NS	---			----	
Total Col1Ave (5 peaks):				296.8		Total Col2Ave (4 peaks):				234.2	RPD = 24
Corrected Ave (4 peaks):				294.2		Corrected Ave (3 peaks):				225.2	RPD = 27

Total PCB Area Col1 (5.936 - 13.808) = 2003437 Col1 Total PCB = 0.4 ppm*

Total PCB Area Col2 (5.936 - 13.808) = 1077903 Col2 Total PCB = 0.6 ppm*

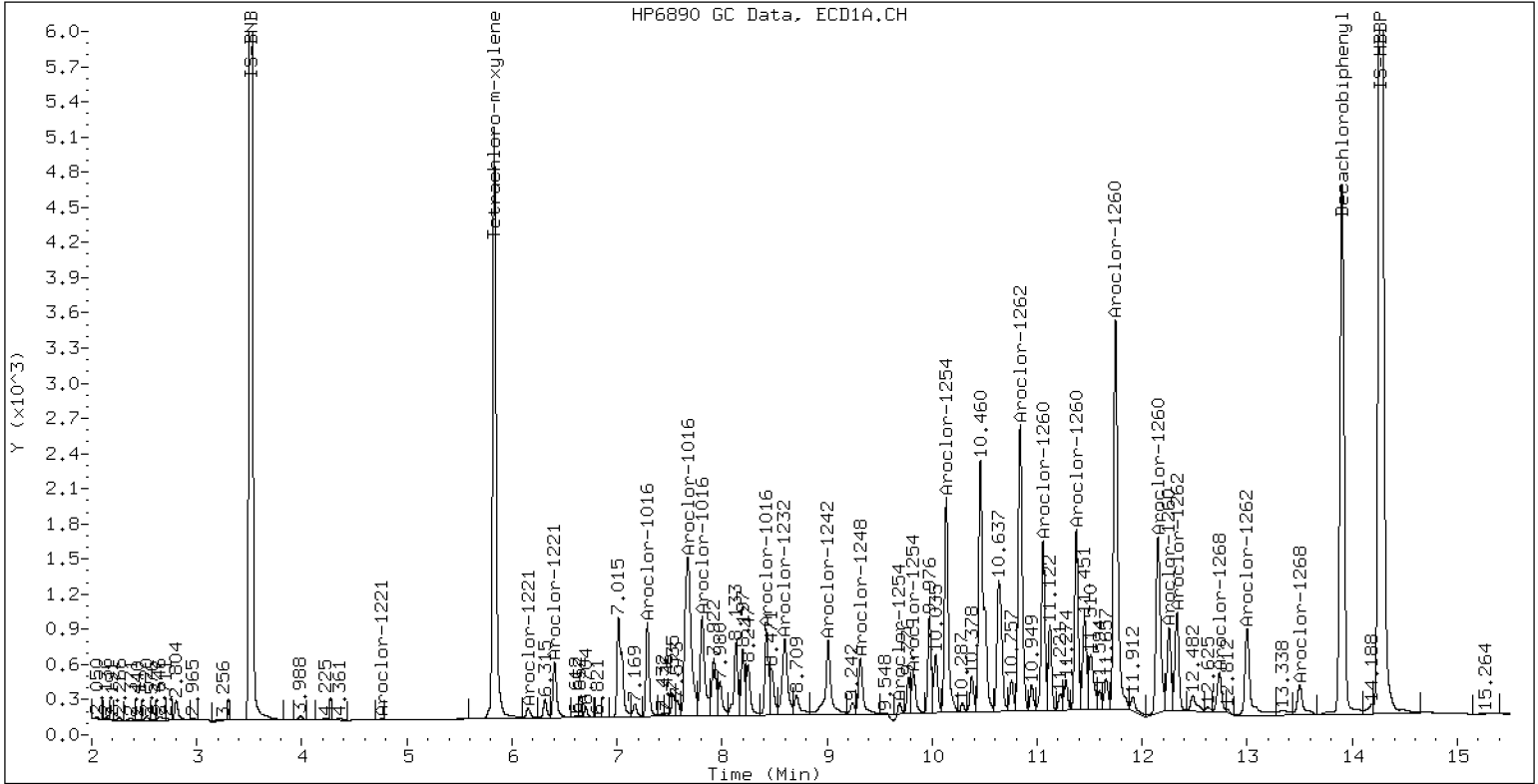
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCVA

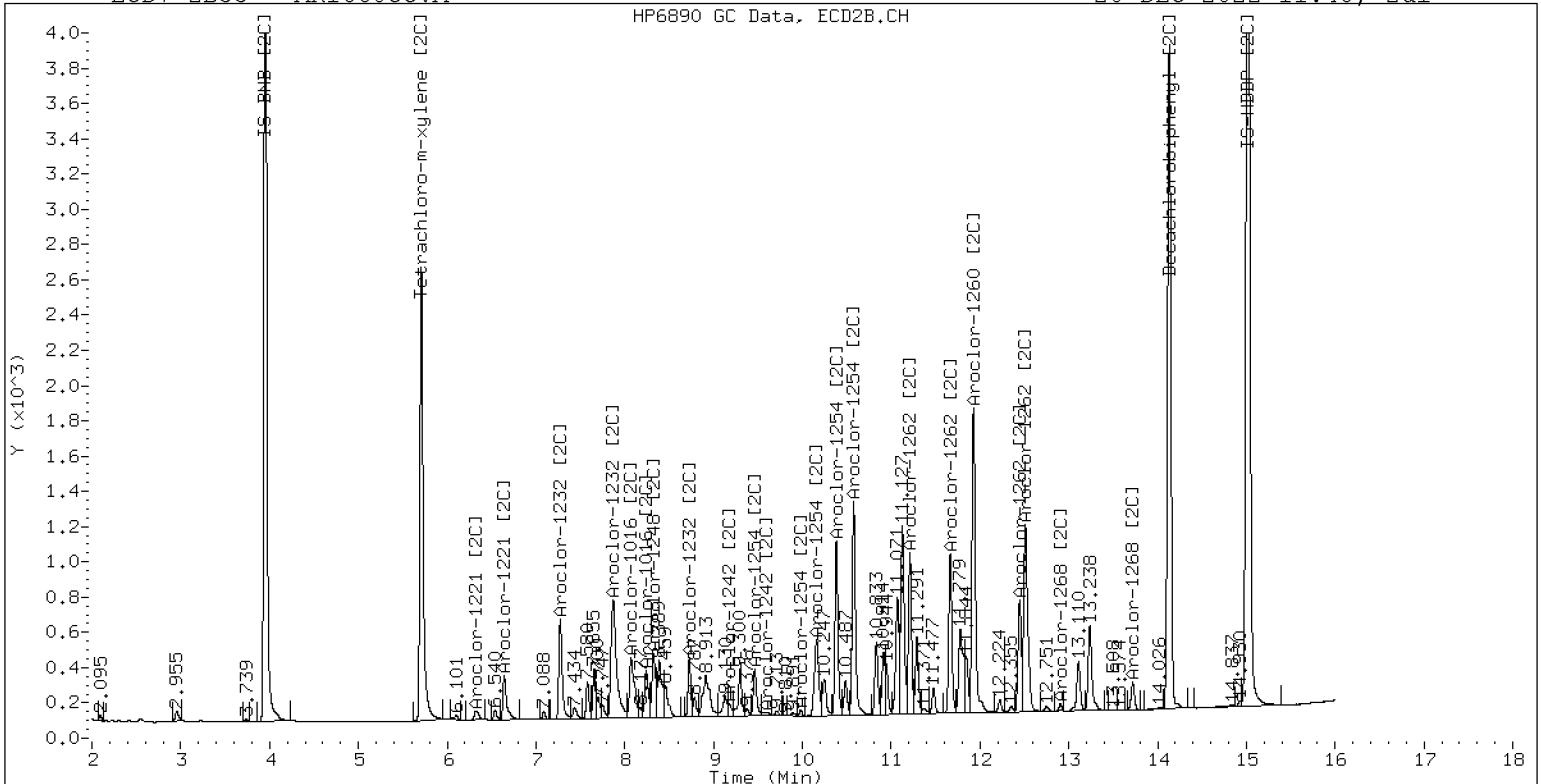
20-DEC-2022 11:48, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1660CCVA

20-DEC-2022 11:48, 2ul



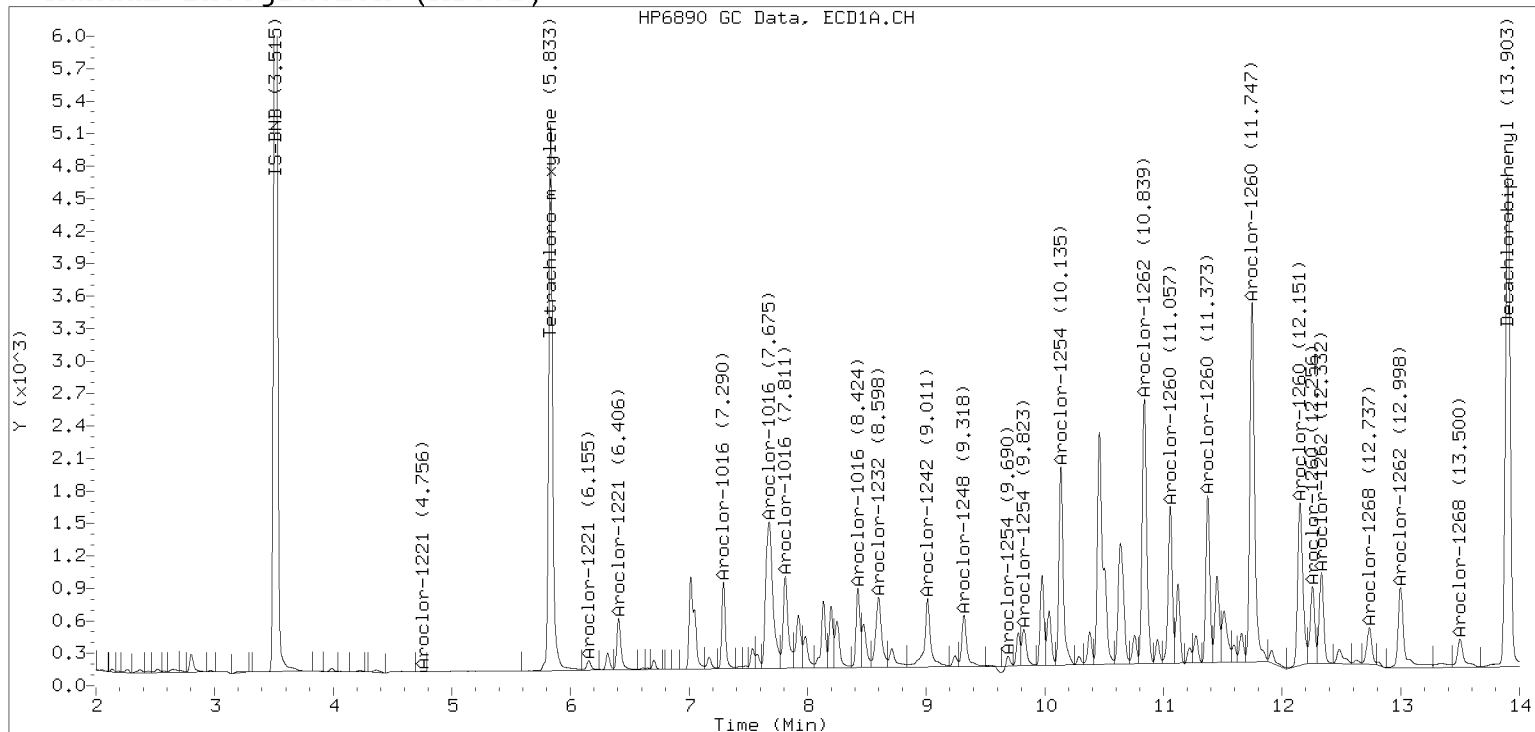
ZB-35 Manual Integration: NO

Manual Peak Adjustment, ZB-5

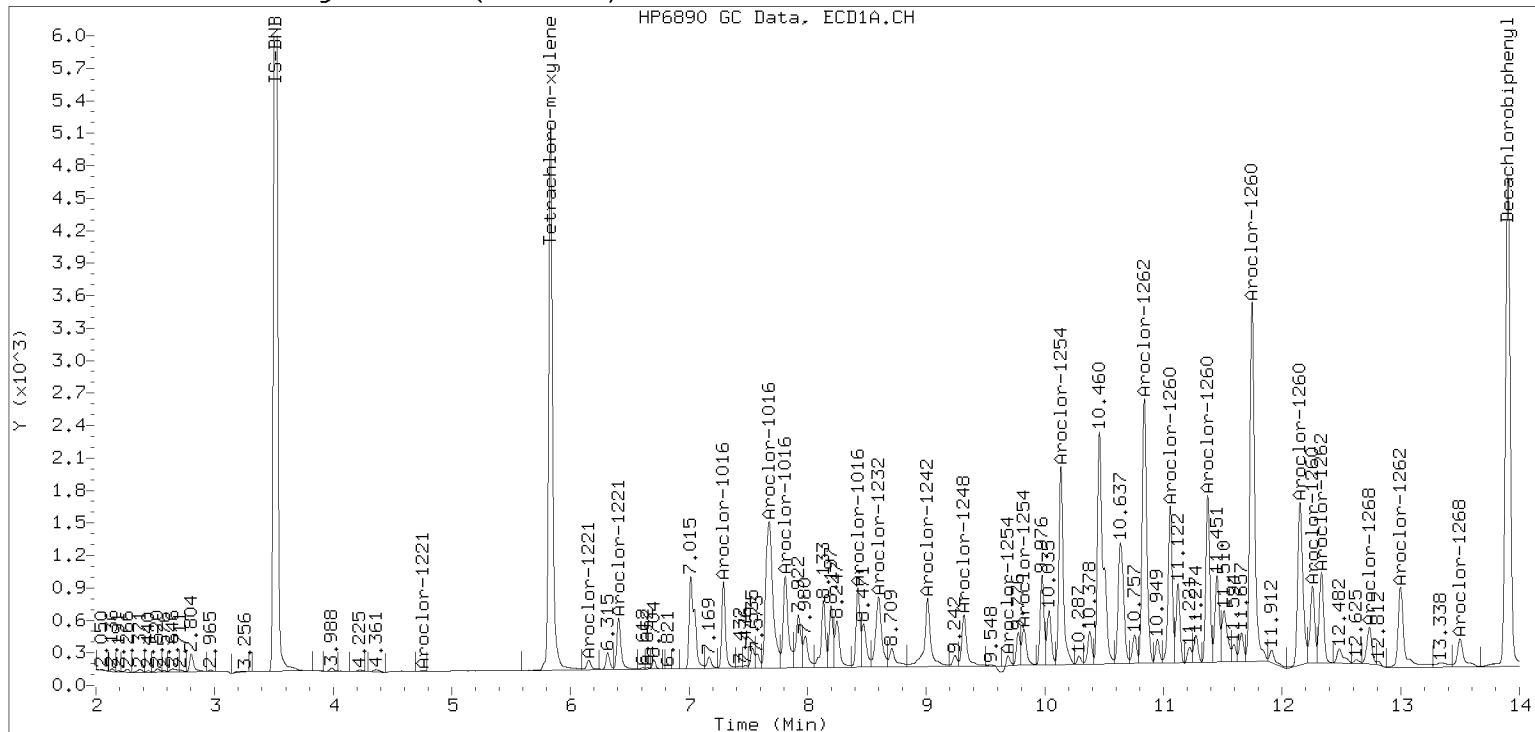
Datafile: ecd7.i/221219.b/12192261ECD7.D

Injection Date: 20-DEC-2022 11:48

Manual Integration (After)



Processed Integration (Before)





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12222214ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0330</u>	Injection Date:	<u>12/22/22</u>
Lab Sample ID:	<u>SKL0330-CCV1</u>	Injection Time:	<u>20:27</u>
Sequence Name:	<u>AR1248CCV1</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	231	0.0490062	0.0445502		-7.7	+/-20
Aroclor-1248 (1)	A	250.00	268		0.0368089			
Aroclor-1248 (2)	A	250.00	281		0.0493099			
Aroclor-1248 (3)	A	250.00	212		0.0670749			
Aroclor-1248 (4)	A	250.00	162		0.0250071			
Aroclor 1248 [2C]	A	250.00	240	0.0394876	0.0383061		-4.1	+/-20
Aroclor-1248 (1) [2C]	A	250.00	250		0.0327526			
Aroclor-1248 (2) [2C]	A	250.00	188		0.0259119			
Aroclor-1248 (3) [2C]	A	250.00	265		0.0443613			
Aroclor-1248 (4) [2C]	A	250.00	256		0.0501985			
Decachlorobiphenyl	A	40.000	41.9	0.7333327	0.7677552		4.8	+/-20
Tetrachlorometaxylene	A	40.000	35.6	1.1336710	1.0104790		-11.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.9	1.1358180	1.1056220		-2.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	36.3	1.0966080	0.9942061		-9.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222214ECD7.D
Data file 2: /221222.b/221222.b/12222214ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: AR1248.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 22-DEC-2022 20:27
Report Date: 12/27/2022 17:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.835	0.003	216682	5.713	-0.001	123805	35.7	36.3	1.7	Tetrachloro-m-xylene
13.904	0.001	301942	14.132	-0.004	216802	41.9	38.9	7.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	428870	-4.2
Hexabromobiphenyl	798898	786558	-1.5

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	249053	-0.0
Hexabromobiphenyl	362541	392181	8.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.424	-0.003	49332	267.5	1	8.324	-0.002	25491	250.5	
Aroclor-1248	2	8.598	-0.006	66086	280.7	2	8.729	-0.004	20167	188.5	
Aroclor-1248	3	9.019	-0.004	89895	212.2	3	9.173	-0.004	34526	265.2	
Aroclor-1248	4	9.311	0.000	33515	161.5	4	9.595	-0.007	39069	255.7	
Total CollAve (4 peaks):				230.5	Total Col2Ave (4 peaks):				240.0	RPD = 4	
Corrected Ave (3 peaks):				213.8	Corrected Ave (3 peaks):				231.6	RPD = 8	
CalAmt %D:				-7.8	CalAmt %D:				-4.0		

Total PCB Area Col1 (5.933 - 13.804) = 1050052 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 482751 Col2 Total PCB = 0.2 ppm*

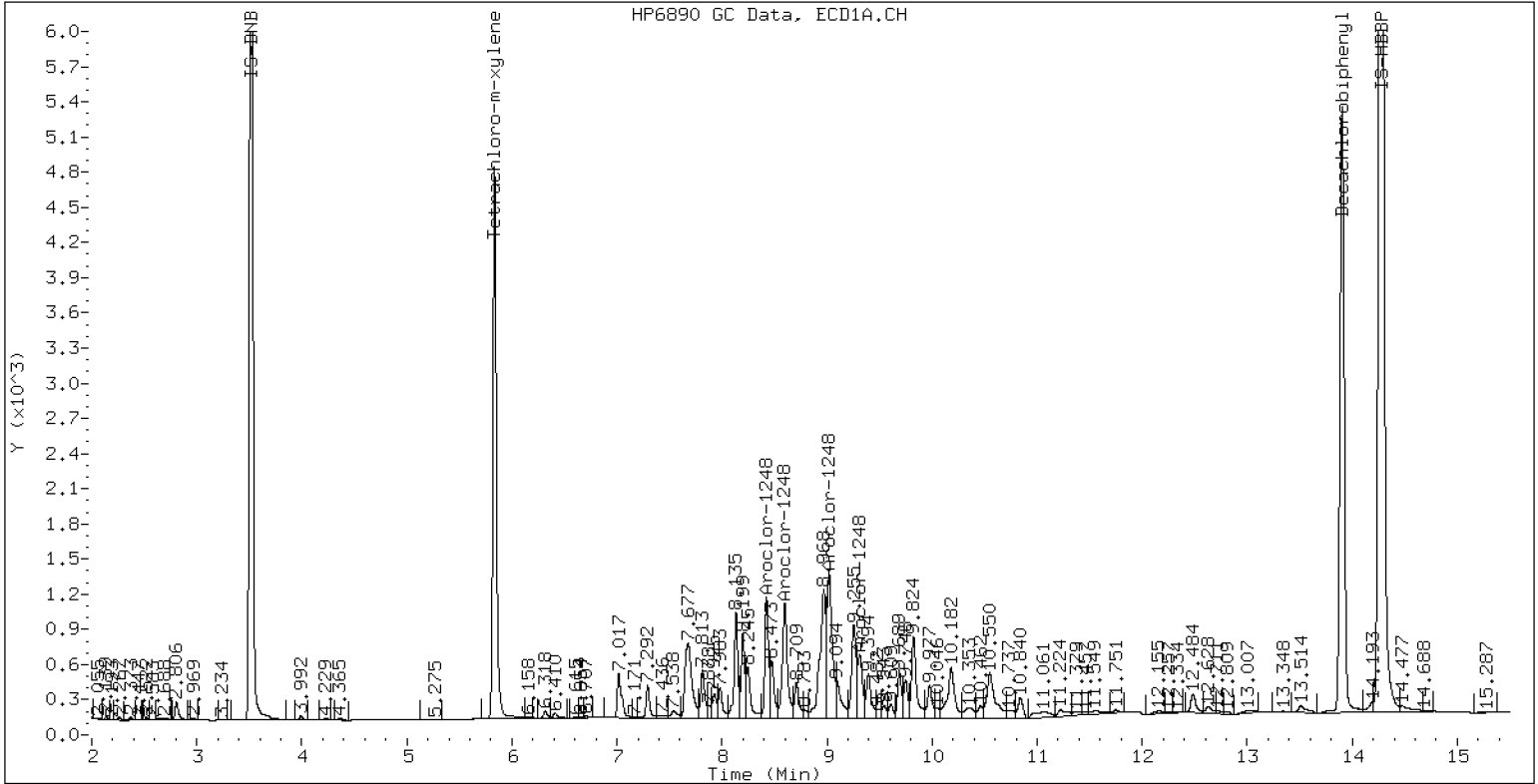
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV1

22-DEC-2022 20:27, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 1222215ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0330

Injection Date: 12/22/22

Lab Sample ID: SKL0330-CCV2

Injection Time: 20:48

Sequence Name: AR1660CCV2

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	282	0.0441939	0.0490552		12.7	+/-20
Aroclor-1016 (1)	A	250.00	288	0.0266860	0.0307500		15.2	
Aroclor-1016 (2)	A	250.00	271	0.0861572	0.0933607		8.4	
Aroclor-1016 (3)	A	250.00	274	0.0390425	0.0428443		9.6	
Aroclor-1016 (4)	A	250.00	294	0.0248899	0.0292660		17.6	
Aroclor 1016 [2C]	A	250.00	243	0.0467310	0.0438582		-2.7	+/-20
Aroclor-1016 (1) [2C]	A	250.00	253	0.0409030	0.0413589		1.2	
Aroclor-1016 (2) [2C]	A	250.00	218	0.0882154	0.0768544		-12.8	
Aroclor-1016 (3) [2C]	A	250.00	240	0.0378846	0.0362962		-4.0	
Aroclor-1016 (4) [2C]	A	250.00	262	0.0199212	0.0209235		4.8	
Aroclor 1260	A	250.00	259	0.0390342	0.0406260		3.6	+/-20
Aroclor-1260 (1)	A	250.00	259	0.0291201	0.0302121		3.6	
Aroclor-1260 (2)	A	250.00	261	0.0301181	0.0314808		4.4	
Aroclor-1260 (3)	A	250.00	264	0.0791351	0.0836602		5.6	
Aroclor-1260 (4)	A	250.00	253	0.0403003	0.0407692		1.2	
Aroclor-1260 (5)	A	250.00	258	0.0164974	0.0170080		3.2	
Aroclor 1260 [2C]	A	250.00	216	0.0617619	0.0499574		-13.6	+/-20
Aroclor-1260 (1) [2C]	A	250.00	237	0.0422283	0.0400008		-5.2	
Aroclor-1260 (2) [2C]	A	250.00	179	0.1059643	0.0760728		-28.4	
Aroclor-1260 (3) [2C]	A	250.00	252	0.0282173	0.0284995		0.8	
Aroclor-1260 (4) [2C]	A	250.00	196	0.0706376	0.0552565		-21.6	
Decachlorobiphenyl	A	40.000	44.5	0.7333327	0.8159665		11.3	+/-20
Tetrachlorometaxylene	A	40.000	41.1	1.1336710	1.1654860		2.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.4	1.1358180	1.1196240		-1.5	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.2	1.0966080	1.0744030		-2.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222215ECD7.D
Data file 2: /221222.b/221222.b/12222215ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 22-DEC-2022 20:48
Report Date: 12/27/2022 17:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	0.000	201305	5.710	-0.003	109912	41.1	39.2	4.8	Tetrachloro-m-xylene
13.903	-0.001	298738	14.131	-0.006	191004	44.5	39.4	12.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	345444	-22.8
Hexabromobiphenyl	798898	732231	-8.3

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	204601	-17.9
Hexabromobiphenyl	362541	341193	-5.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.289	0.000	33195	288.1	1	7.274	-0.001	26444	252.8	
Aroclor-1016	2	7.674	-0.001	100784	270.9	2	7.872	0.002	49139	217.8	
Aroclor-1016	3	7.811	0.001	46251	274.3	3	8.071	0.001	23207	239.5	
Aroclor-1016	4	8.424	0.001	31593	294.0	4	8.242	0.001	13378	262.6	
Total CollAve (4 peaks):				281.8		Total Col2Ave (4 peaks):				243.2	RPD = 15
Corrected Ave (3 peaks):				277.8		Corrected Ave (3 peaks):				236.7	RPD = 16

CalAmt %D: 12.7

CalAmt %D: -2.7

Aroclor-1260	1	11.058	0.002	69132	259.4	1	11.665	-0.004	42650	236.8	
Aroclor-1260	2	11.374	0.000	72035	261.3	2	11.928	-0.005	81111	179.5	
Aroclor-1260	3	11.746	-0.001	191433	264.3	3	12.446	-0.005	30387	252.5	
Aroclor-1260	4	12.149	0.000	93289	252.9	4	12.511	-0.006	58916	195.6	
Aroclor-1260	5	12.256	-0.002	38918	257.7	NS	---			----	
Total CollAve (5 peaks):				259.1		Total Col2Ave (4 peaks):				216.1	RPD = 18
Corrected Ave (4 peaks):				257.8		Corrected Ave (3 peaks):				204.0	RPD = 23

CalAmt %D: 3.7

CalAmt %D: -13.6

Total PCB Area Col1 (5.933 - 13.804) = 1959471 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 956043 Col2 Total PCB = 0.5 ppm*

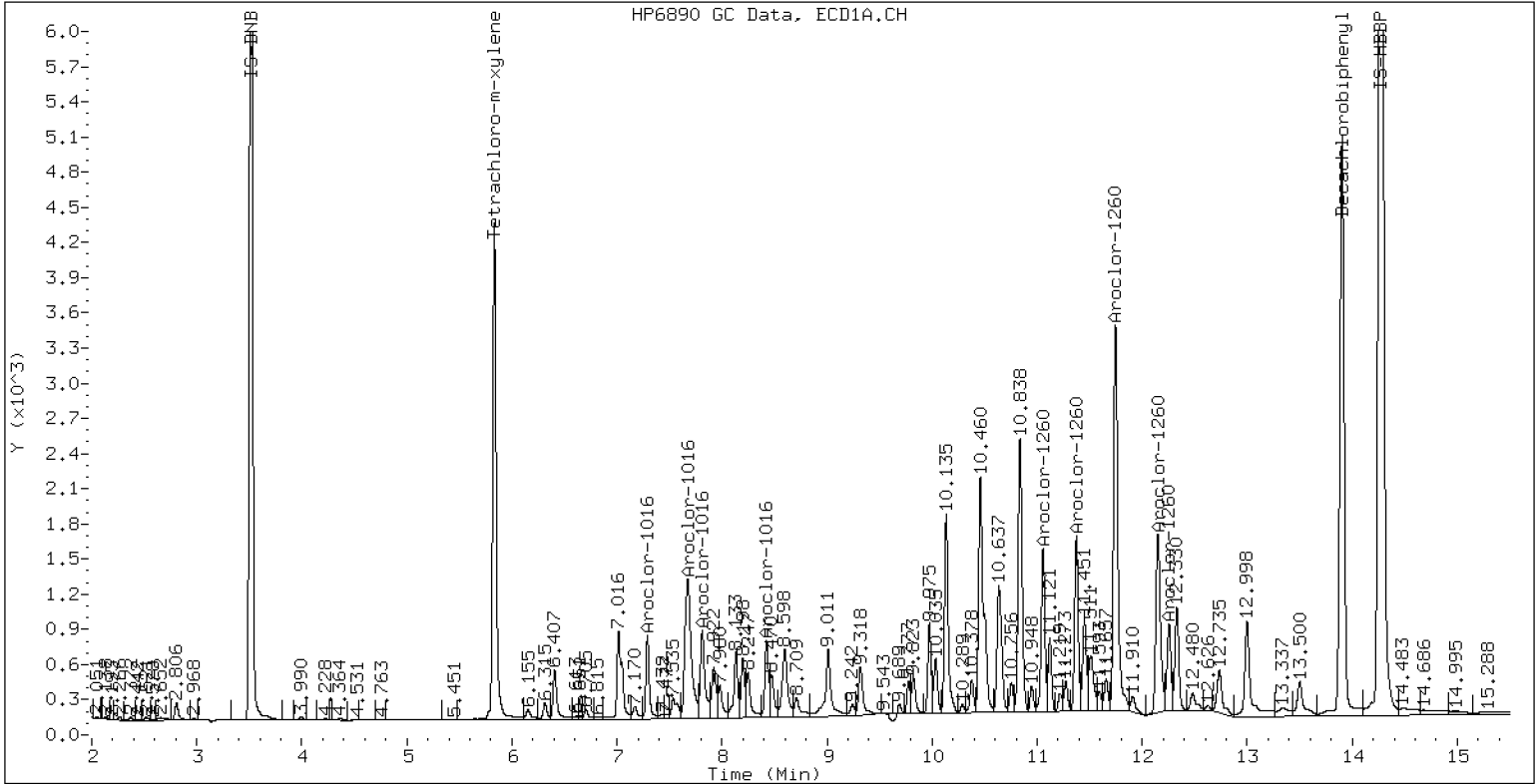
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV2

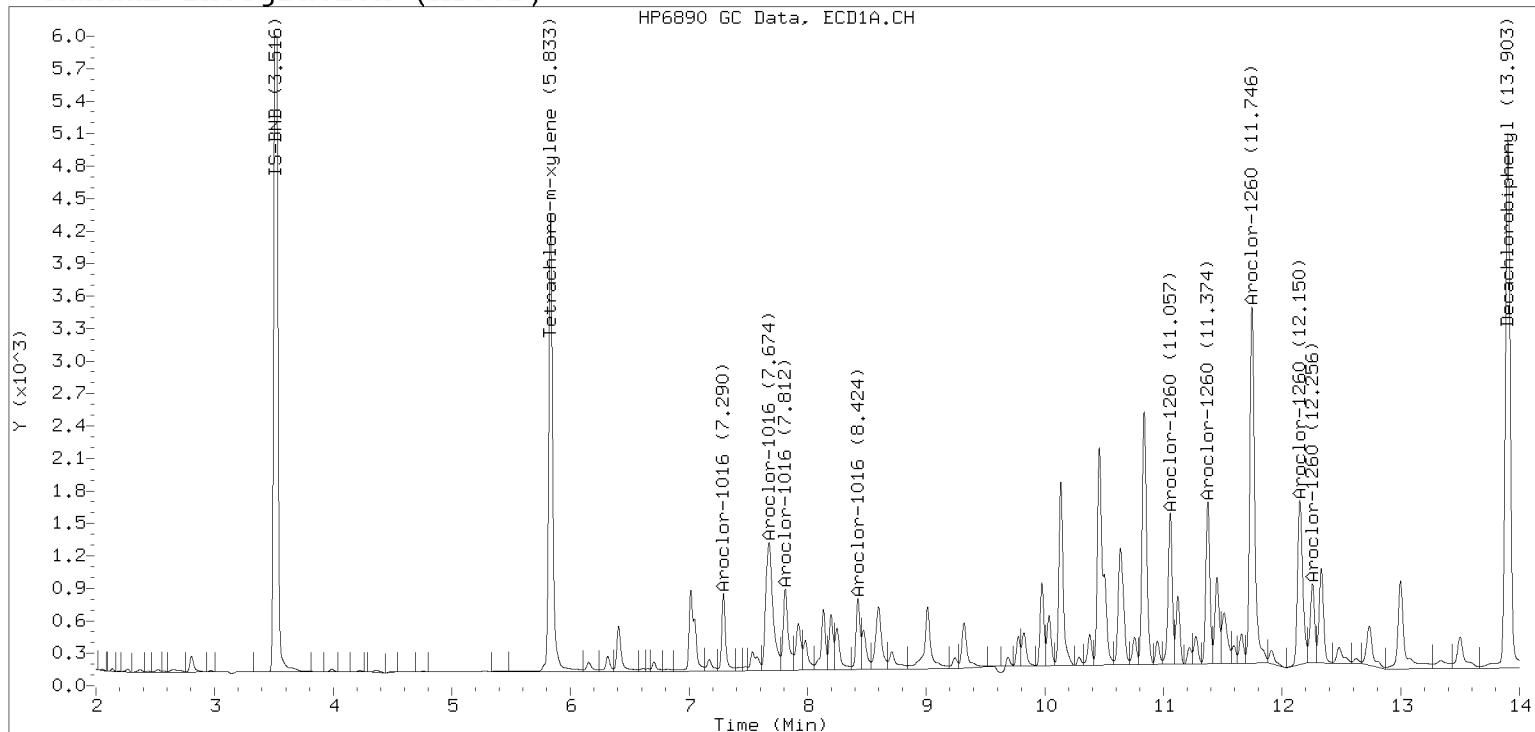
22-DEC-2022 20:48, 2ul



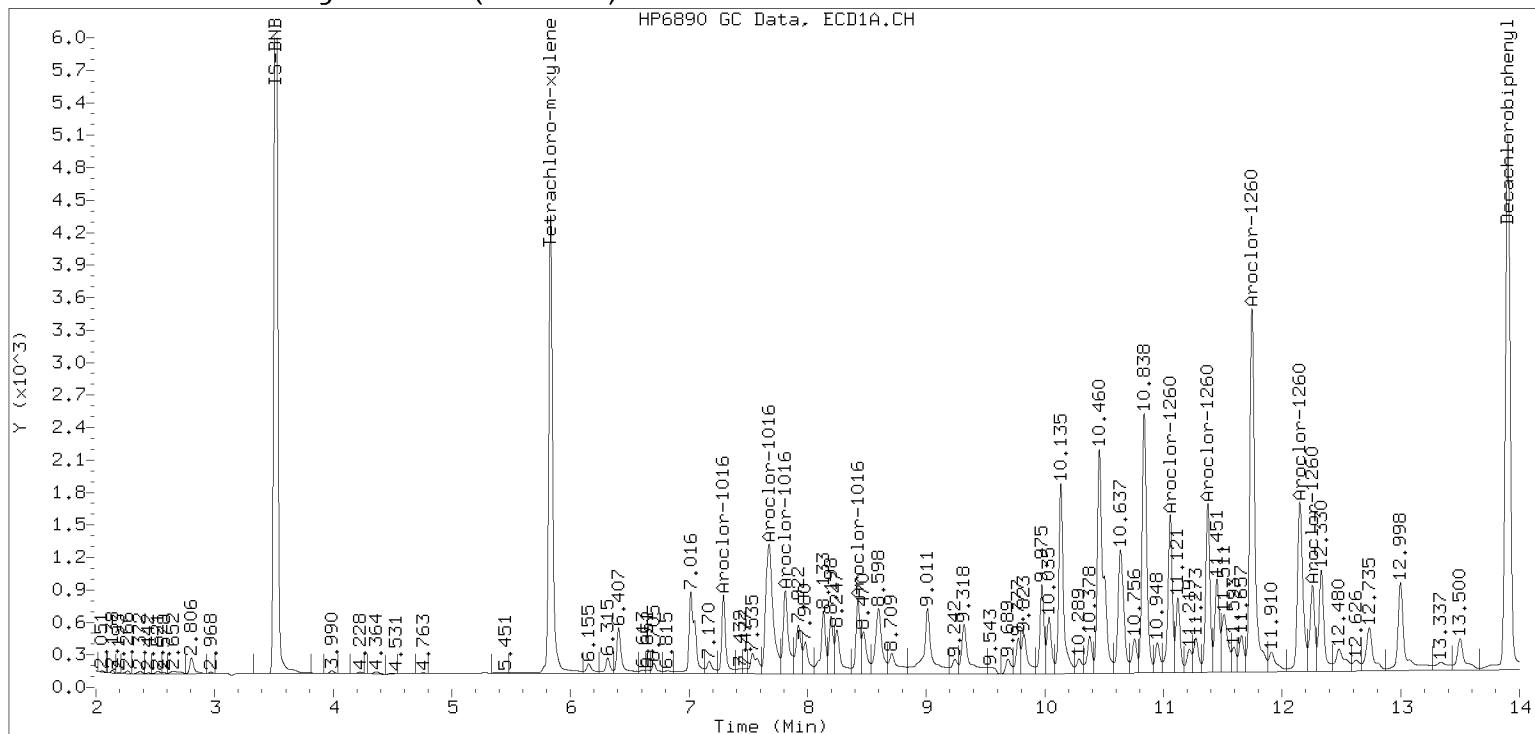
Manual Peak Adjustment, ZB-5

Datafile: ecd7.i/221222.b/12222215ECD7.D Injection Date: 22-DEC-2022 20:48

Manual Integration (After)



Processed Integration (Before)





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12222226ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0330</u>	Injection Date:	<u>12/23/22</u>
Lab Sample ID:	<u>SKL0330-CCV3</u>	Injection Time:	<u>00:41</u>
Sequence Name:	<u>AR1242CCV3</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	261	0.0396000	0.0414173		4.3	+/-20
Aroclor-1242 (1)	A	250.00	250		0.0226694			
Aroclor-1242 (2)	A	250.00	257		0.0739069			
Aroclor-1242 (3)	A	250.00	259		0.0214279			
Aroclor-1242 (4)	A	250.00	277		0.0476651			
Aroclor 1242 [2C]	A	250.00	252	0.0391981	0.0372603		0.8	+/-20
Aroclor-1242 (1) [2C]	A	250.00	250		0.0339209			
Aroclor-1242 (2) [2C]	A	250.00	204		0.0586144			
Aroclor-1242 (3) [2C]	A	250.00	280		0.0259865			
Aroclor-1242 (4) [2C]	A	250.00	274		0.0305192			
Decachlorobiphenyl	A	40.000	42.1	0.7333327	0.7710997		5.3	+/-20
Tetrachlorometaxylene	A	40.000	37.4	1.1336710	1.0600470		-6.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.0	1.1358180	1.0798220		-5.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.0	1.0966080	1.0134780		-7.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222226ECD7.D
Data file 2: /221222.b/221222.b/12222226ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: AR1242.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 23-DEC-2022 00:41
Report Date: 12/27/2022 17:47
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.000	221580	5.709	-0.004	124033	37.4	37.0	1.2	Tetrachloro-m-xylene
13.904	-0.000	328064	14.132	-0.005	216048	42.1	38.0	10.1	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	418057	-6.6
Hexabromobiphenyl	798898	850899	6.5
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	244767	-1.7
Hexabromobiphenyl	362541	400155	10.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.290	-0.005	29616	249.9	1	7.273	-0.004	25946	250.5	
Aroclor-1242	2	7.676	-0.009	96554	256.6	2	7.870	-0.004	44834	203.9	
Aroclor-1242	3	8.422	-0.007	27994	258.6	3	9.171	-0.007	19877	280.2	
Aroclor-1242	4	9.022	-0.009	62271	277.0	4	9.591	-0.014	23344	273.8	
Total CollAve (4 peaks):				260.6		Total Col2Ave (4 peaks):				252.1	RPD = 3
Corrected Ave (3 peaks):				255.1		Corrected Ave (3 peaks):				242.7	RPD = 5
CalAmt %D:				4.2		CalAmt %D:				0.8	

Total PCB Area Col1 (5.933 - 13.804) = 919125 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 386027 Col2 Total PCB = 0.2 ppm*

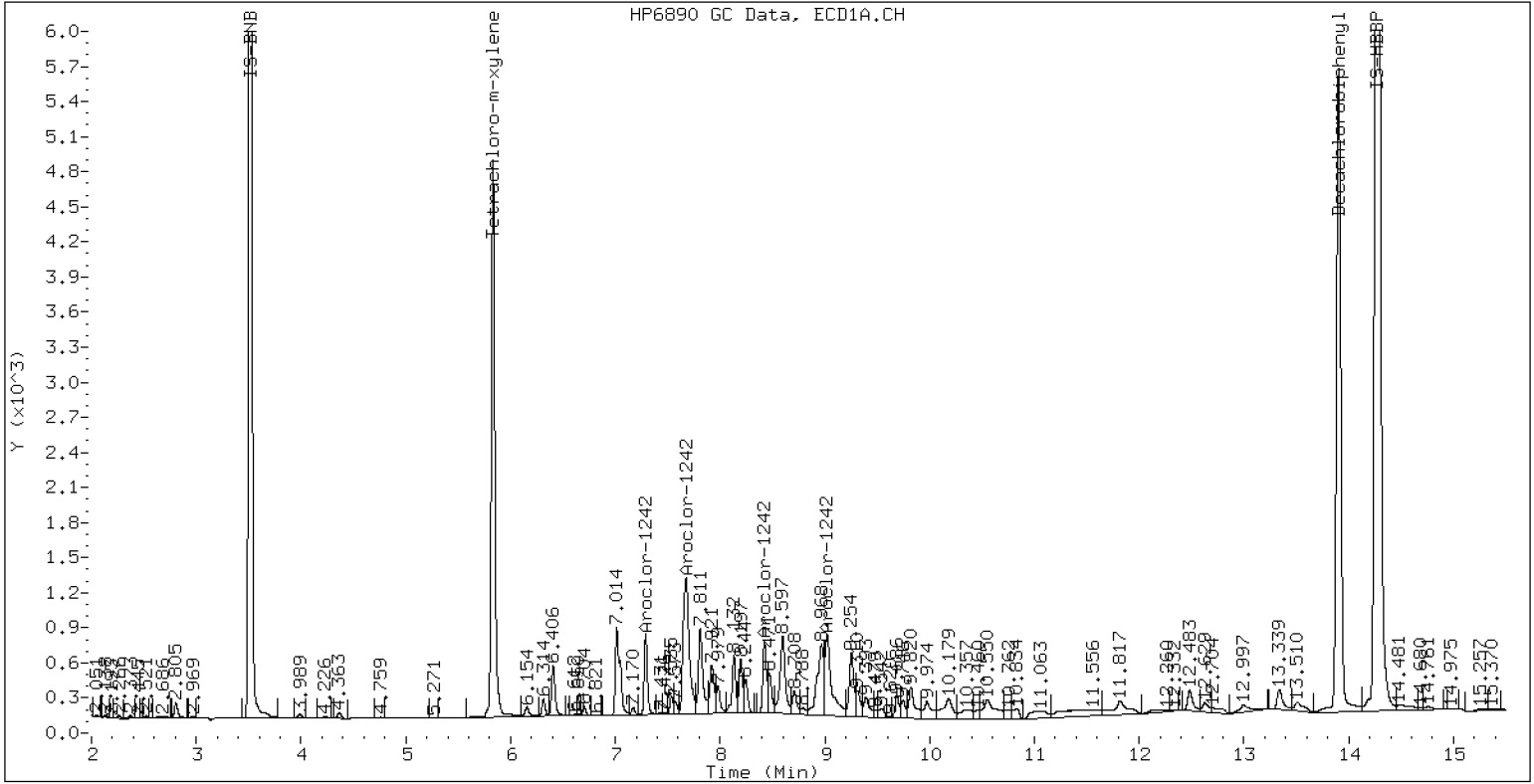
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV3

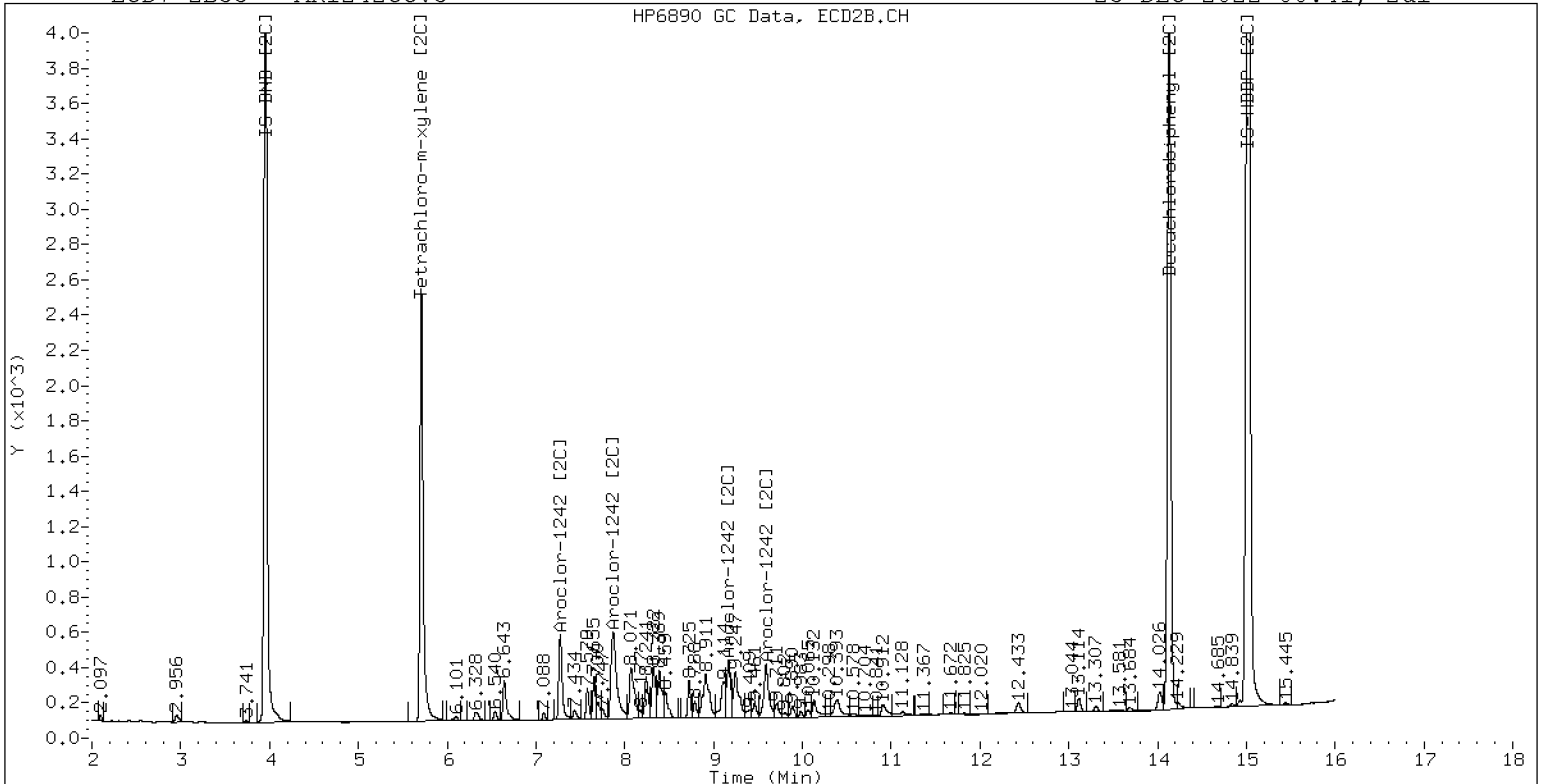
23-DEC-2022 00:41, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242CCV3

23-DEC-2022 00:41, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 1222227ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0330

Injection Date: 12/23/22

Lab Sample ID: SKL0330-CCV4

Injection Time: 01:02

Sequence Name: AR1660CCV4

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	266	0.0441939	0.0466218		6.3	+/-20
Aroclor-1016 (1)	A	250.00	258	0.0266860	0.0275035		3.2	
Aroclor-1016 (2)	A	250.00	261	0.0861572	0.0899509		4.4	
Aroclor-1016 (3)	A	250.00	264	0.0390425	0.0411533		5.6	
Aroclor-1016 (4)	A	250.00	280	0.0248899	0.0278795		12.0	
Aroclor 1016 [2C]	A	250.00	241	0.0467310	0.0433922		-3.6	+/-20
Aroclor-1016 (1) [2C]	A	250.00	248	0.0409030	0.0405015		-0.8	
Aroclor-1016 (2) [2C]	A	250.00	216	0.0882154	0.0761180		-13.6	
Aroclor-1016 (3) [2C]	A	250.00	238	0.0378846	0.0360653		-4.8	
Aroclor-1016 (4) [2C]	A	250.00	262	0.0199212	0.0208838		4.8	
Aroclor 1260	A	250.00	267	0.0390342	0.0418158		6.8	+/-20
Aroclor-1260 (1)	A	250.00	265	0.0291201	0.0308343		6.0	
Aroclor-1260 (2)	A	250.00	267	0.0301181	0.0322025		6.8	
Aroclor-1260 (3)	A	250.00	271	0.0791351	0.0857645		8.4	
Aroclor-1260 (4)	A	250.00	264	0.0403003	0.0426034		5.6	
Aroclor-1260 (5)	A	250.00	268	0.0164974	0.0176744		7.2	
Aroclor 1260 [2C]	A	250.00	209	0.0617619	0.0482412		-16.5	+/-20
Aroclor-1260 (1) [2C]	A	250.00	229	0.0422283	0.0386520		-8.4	
Aroclor-1260 (2) [2C]	A	250.00	173	0.1059643	0.0733755		-30.8	
Aroclor-1260 (3) [2C]	A	250.00	245	0.0282173	0.0277051		-2.0	
Aroclor-1260 (4) [2C]	A	250.00	188	0.0706376	0.0532322		-24.8	
Decachlorobiphenyl	A	40.000	46.2	0.7333327	0.8478482		15.5	+/-20
Tetrachlorometaxylene	A	40.000	39.9	1.1336710	1.1319770		-0.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.9	1.1358180	1.1041350		-2.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	39.5	1.0966080	1.0819690		-1.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222227ECD7.D
 Data file 2: /221222.b/221222.b/12222227ECD7.D
 Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR1660CCV4
 Client ID:
 Injection Date: 23-DEC-2022 01:02
 Report Date: 12/27/2022 17:47
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	0.000	200849	5.710	-0.003	111841	39.9	39.5	1.2	Tetrachloro-m-xylene
13.904	0.000	313012	14.131	-0.006	199208	46.2	38.9	17.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	354864	-20.7
Hexabromobiphenyl	798898	738368	-7.6

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	206736	-17.0
Hexabromobiphenyl	362541	360840	-0.5

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.289	0.000	30500	257.7	1	7.273	-0.002	26166	247.5	
Aroclor-1016	2	7.675	0.000	99751	261.0	2	7.870	-0.000	49176	215.7	
Aroclor-1016	3	7.810	0.000	45637	263.5	3	8.071	0.001	23300	238.0	
Aroclor-1016	4	8.423	0.000	30917	280.0	4	8.241	-0.000	13492	262.1	
Total CollAve (4 peaks):				265.6		Total Col2Ave (4 peaks):				240.8	RPD = 10
Corrected Ave (3 peaks):				260.7		Corrected Ave (3 peaks):				233.8	RPD = 11
CalAmt %D:				6.2		CalAmt %D:				-3.7	
Aroclor-1260	1	11.056	0.000	71147	264.7	1	11.664	-0.005	43585	228.8	
Aroclor-1260	2	11.373	0.000	74304	267.3	2	11.927	-0.005	82740	173.1	
Aroclor-1260	3	11.747	0.000	197893	270.9	3	12.446	-0.005	31241	245.5	
Aroclor-1260	4	12.148	0.000	98303	264.3	4	12.511	-0.006	60026	188.4	
Aroclor-1260	5	12.258	0.000	40782	267.8	NS	---			----	
Total CollAve (5 peaks):				267.0		Total Col2Ave (4 peaks):				209.0	RPD = 24
Corrected Ave (4 peaks):				266.0		Corrected Ave (3 peaks):				196.8	RPD = 30
CalAmt %D:				6.8		CalAmt %D:				-16.4	

Total PCB Area Col1 (5.933 - 13.804) = 1936111 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 965236 Col2 Total PCB = 0.5 ppm*

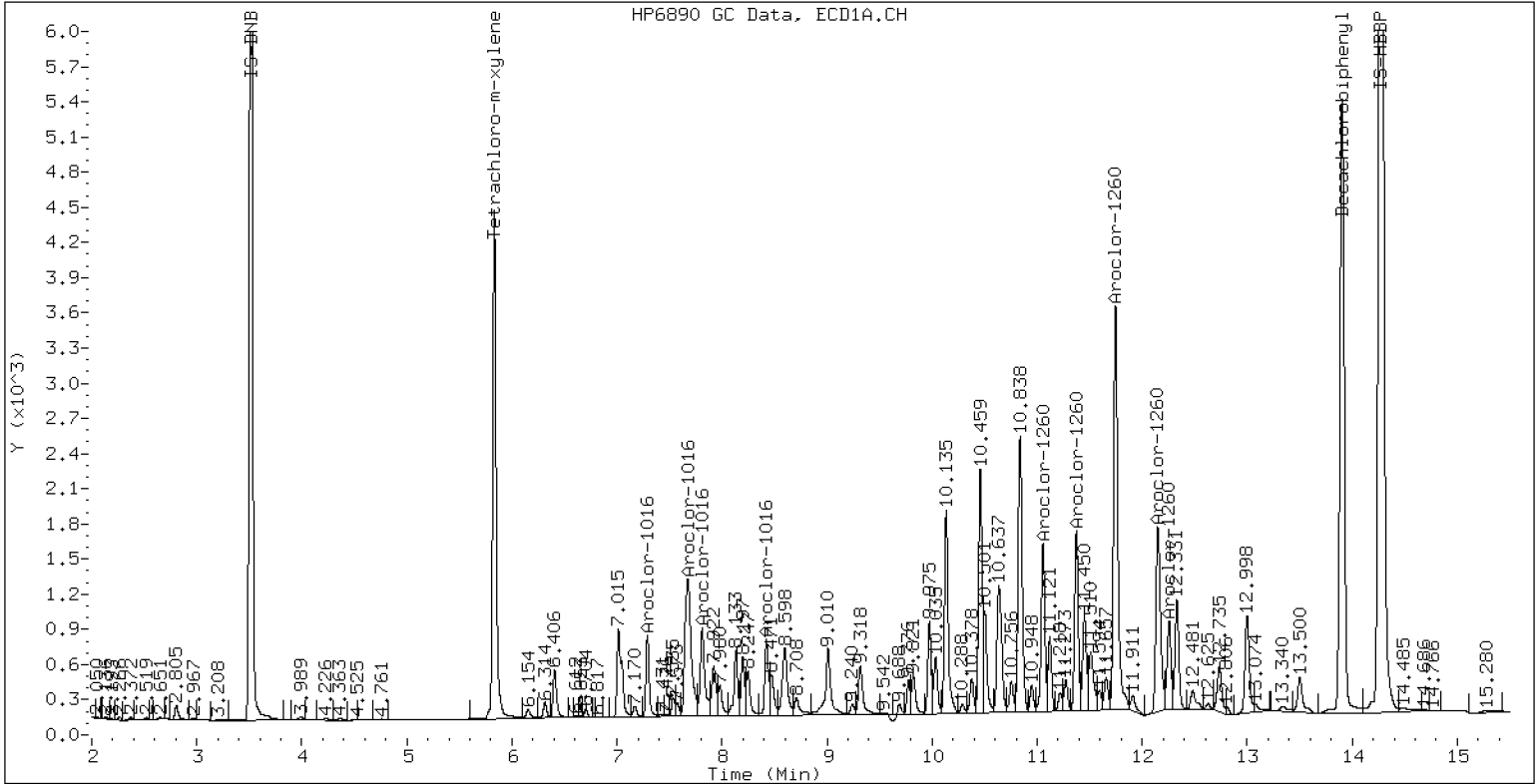
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV4

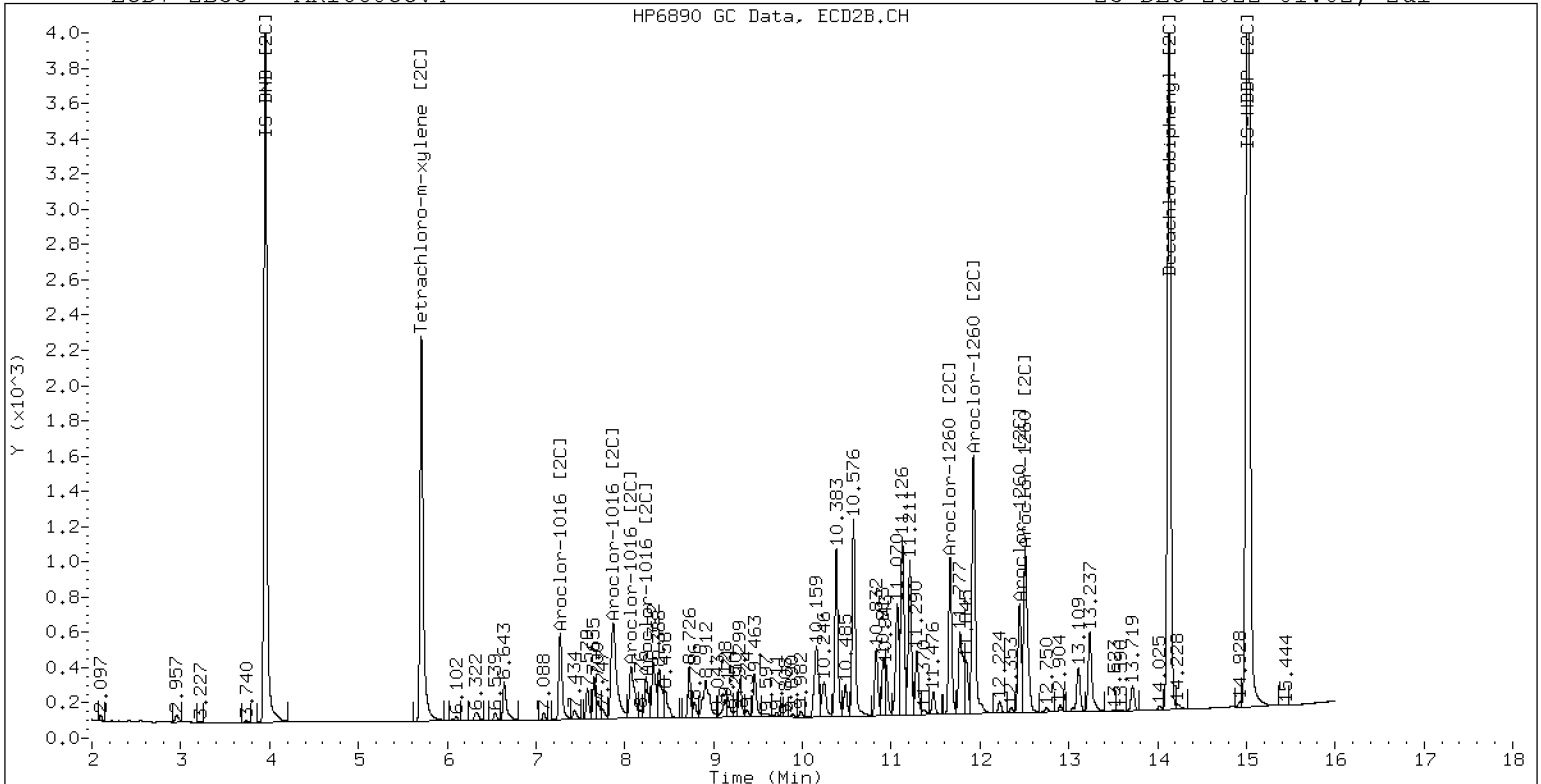
23-DEC-2022 01:02, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1660CCV4

23-DEC-2022 01:02, 2ul



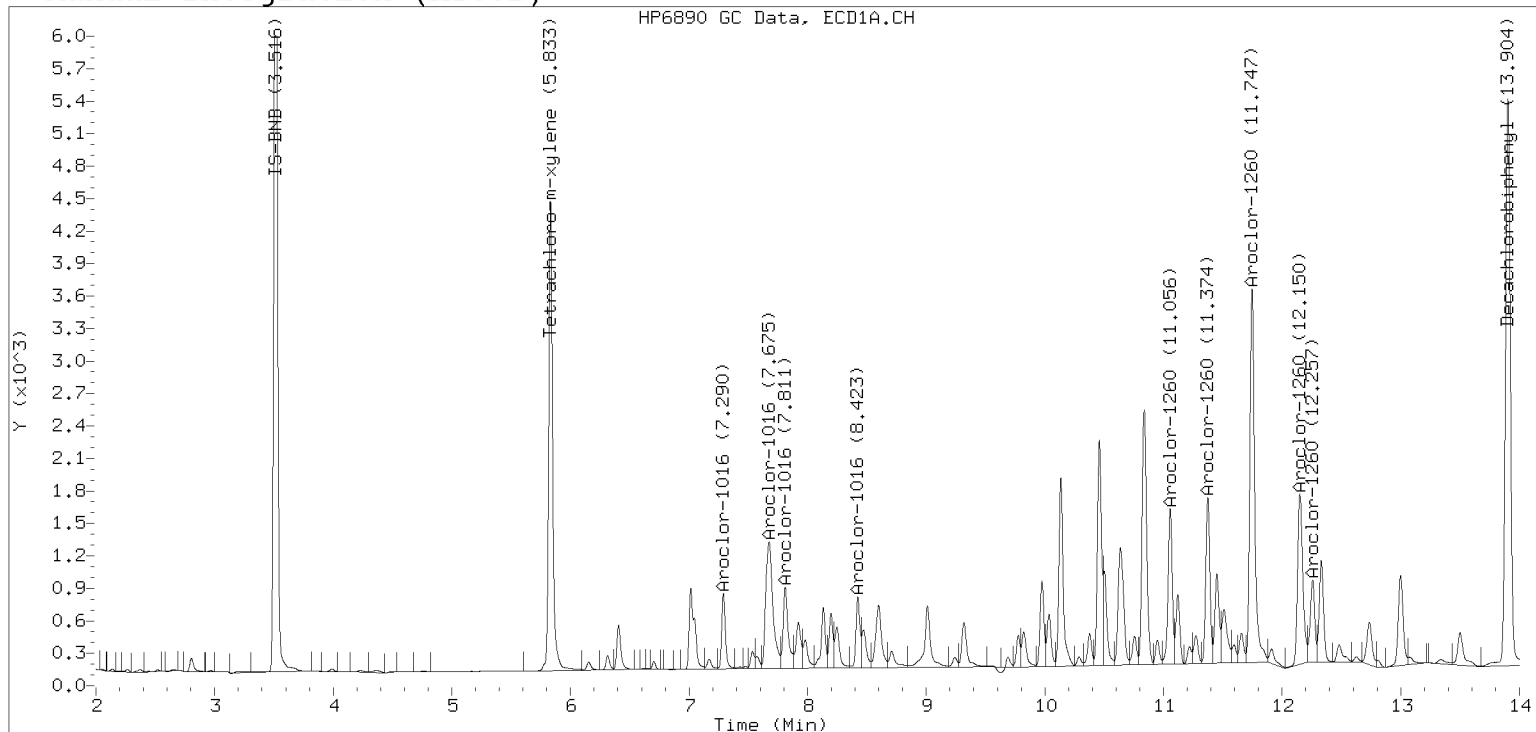
ZB-35 Manual Integration: NO

Manual Peak Adjustment, ZB-5

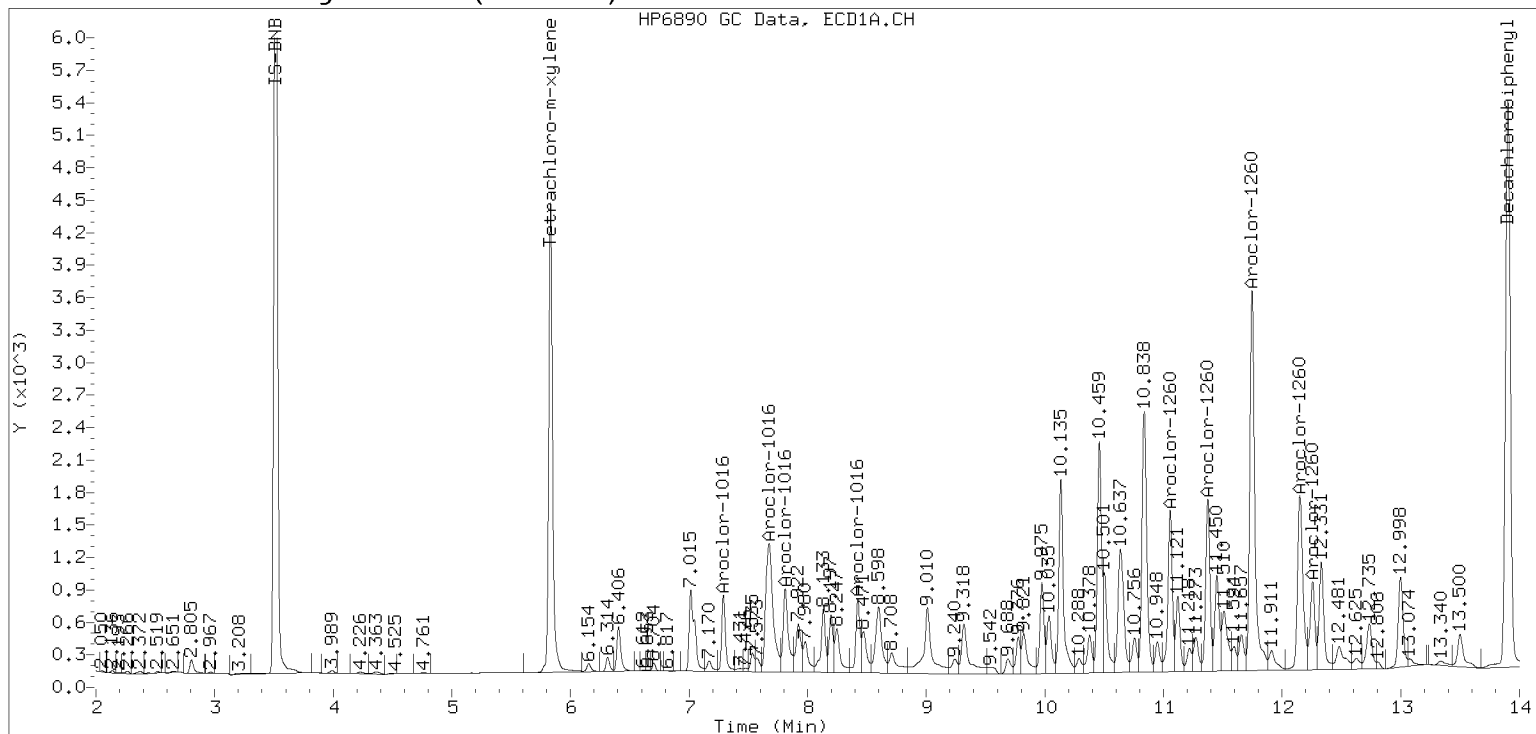
Datafile: ecd7.i/221222.b/12222227ECD7.D

Injection Date: 23-DEC-2022 01:02

Manual Integration (After)



Processed Integration (Before)





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12222243ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0330</u>	Injection Date:	<u>12/23/22</u>
Lab Sample ID:	<u>SKL0330-CCV5</u>	Injection Time:	<u>06:41</u>
Sequence Name:	<u>AR1254CCV5</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	269	0.0576965	0.0630031		7.7	+/-20
Aroclor-1254 (1)	A	250.00	250		0.0704782			
Aroclor-1254 (2)	A	250.00	269		0.0294945			
Aroclor-1254 (3)	A	250.00	223		0.0396991			
Aroclor-1254 (4)	A	250.00	289		0.1003905			
Aroclor-1254 (5)	A	250.00	315		0.0749531			
Aroclor 1254 [2C]	A	250.00	239	0.0638047	0.0625715		-4.5	+/-20
Aroclor-1254 (1) [2C]	A	250.00	247		0.0510132			
Aroclor-1254 (2) [2C]	A	250.00	155		0.0257565			
Aroclor-1254 (3) [2C]	A	250.00	230		0.0821138			
Aroclor-1254 (4) [2C]	A	250.00	281		0.1039174			
Aroclor-1254 (5) [2C]	A	250.00	281		0.0500564			
Decachlorobiphenyl	A	40.000	43.6	0.7333327	0.7985081		9.0	+/-20
Tetrachlorometaxylene	A	40.000	37.5	1.1336710	1.0635750		-6.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.7	1.1358180	1.0987390		-3.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	37.5	1.0966080	1.0292530		-6.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222243ECD7.D
Data file 2: /221222.b/221222.b/12222243ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: AR1254.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1254CCV5
Client ID:
Injection Date: 23-DEC-2022 06:41
Report Date: 12/27/2022 13:41
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.834	-0.002	222009	5.711	-0.003	123233	37.5	37.5	0.0	Tetrachloro-m-xylene
13.904	-0.003	349388	14.131	-0.005	224519	43.6	38.7	11.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	417477	-6.7
Hexabromobiphenyl	798898	875102	9.5
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	239461	-3.9
Hexabromobiphenyl	362541	408685	12.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1254	1	9.315	-0.006	91947	250.1	1	9.463	-0.004	38174	247.3	
Aroclor-1254	2	9.393	-0.009	38479	269.2	2	9.980	-0.006	19274	155.3	
Aroclor-1254	3	9.685	-0.009	51792	223.1	3	10.131	-0.008	61447	230.3	
Aroclor-1254	4	9.820	-0.011	130971	289.4	4	10.379	-0.010	77763	281.4	
Aroclor-1254	5	10.173	-0.016	97785	315.2	5	10.578	-0.009	37458	281.1	
Total CollAve (5 peaks):				269.4	Total Col2Ave (5 peaks):				239.1	RPD = 12	
Corrected Ave (4 peaks):				258.0	Corrected Ave (4 peaks):				228.5	RPD = 12	
CalAmt %D:				7.8	CalAmt %D:				-4.4		

Total PCB Area Col1 (5.936 - 13.808) = 1367612 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 673077 Col2 Total PCB = 0.3 ppm*

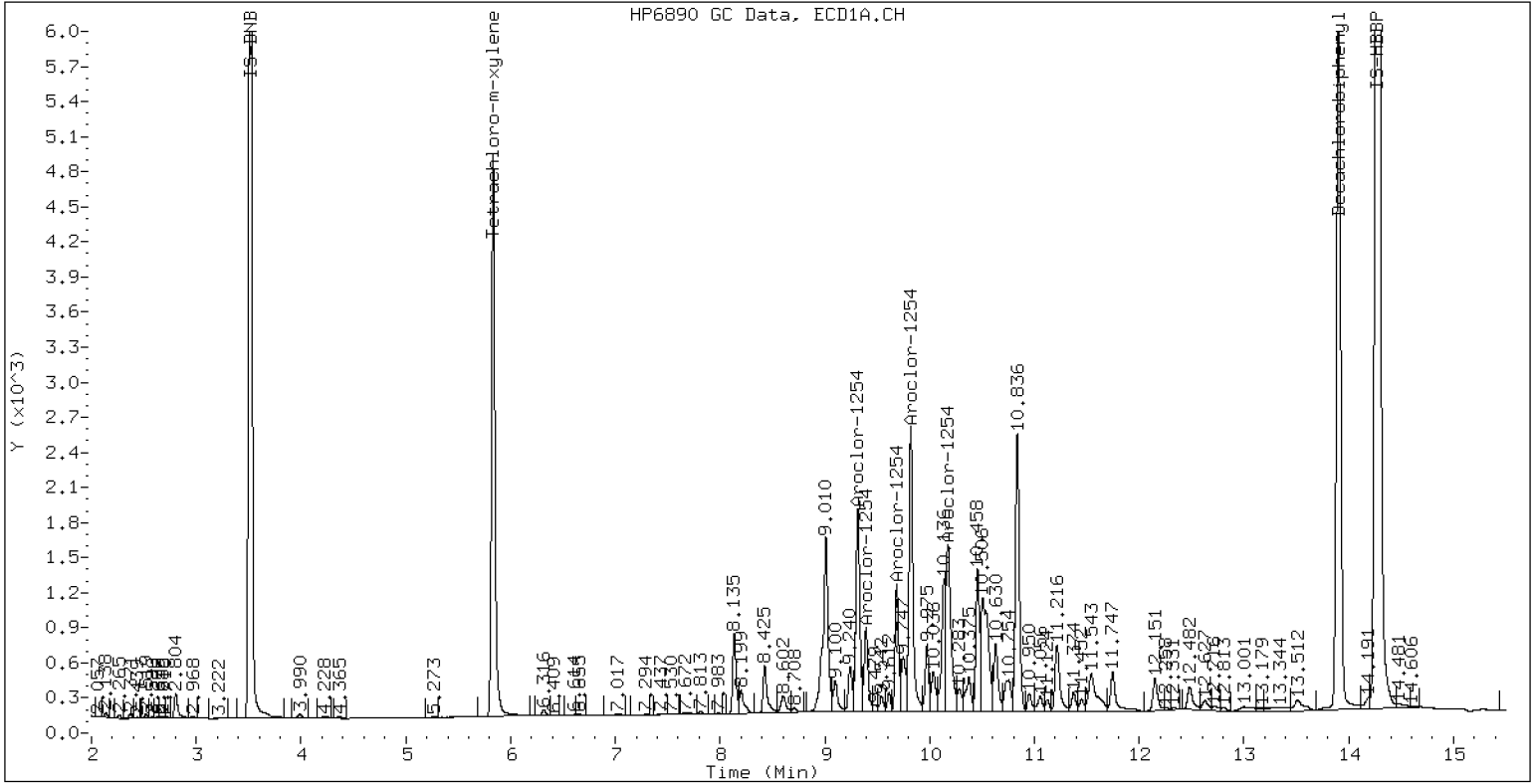
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1254CCV5

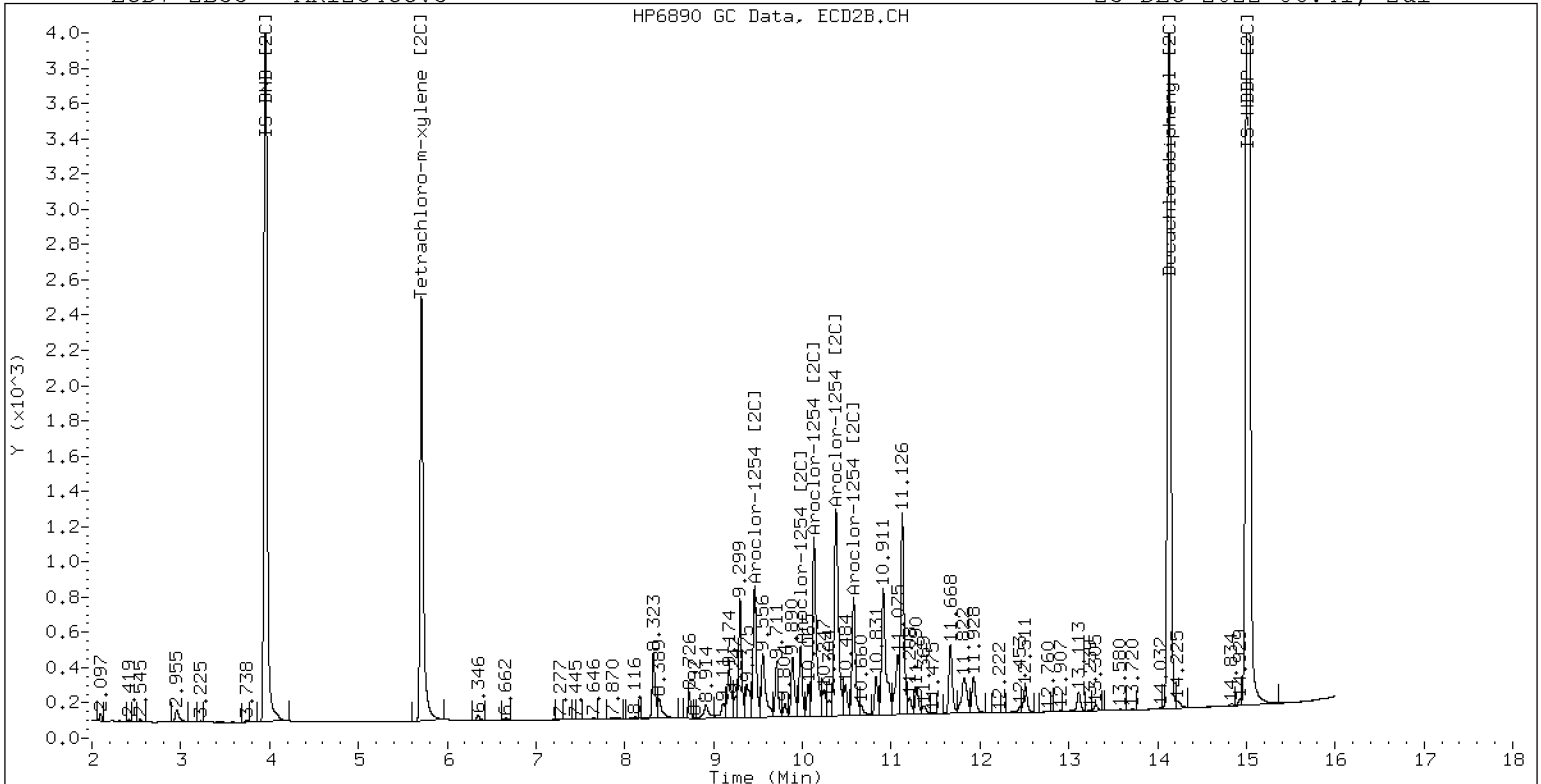
23-DEC-2022 06:41, 2u1



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1254CCV5

23-DEC-2022 06:41, 2u1



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 1222244ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0330

Injection Date: 12/23/22

Lab Sample ID: SKL0330-CCV6

Injection Time: 07:03

Sequence Name: AR1660CCV6

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	293	0.0441939	0.0509603		17.2	+/-20
Aroclor-1016 (1)	A	250.00	283	0.0266860	0.0301973		13.2	
Aroclor-1016 (2)	A	250.00	281	0.0861572	0.0967508		12.4	
Aroclor-1016 (3)	A	250.00	288	0.0390425	0.0450488		15.2	
Aroclor-1016 (4)	A	250.00	320	0.0248899	0.0318444		28.0	
Aroclor 1016 [2C]	A	250.00	253	0.0467310	0.0454038		1.0	+/-20
Aroclor-1016 (1) [2C]	A	250.00	259	0.0409030	0.0424518		3.6	
Aroclor-1016 (2) [2C]	A	250.00	225	0.0882154	0.0793448		-10.0	
Aroclor-1016 (3) [2C]	A	250.00	250	0.0378846	0.0378603		0.0	
Aroclor-1016 (4) [2C]	A	250.00	276	0.0199212	0.0219584		10.4	
Aroclor 1260	A	250.00	272	0.0390342	0.0423083		9.0	+/-20
Aroclor-1260 (1)	A	250.00	276	0.0291201	0.0321944		10.4	
Aroclor-1260 (2)	A	250.00	275	0.0301181	0.0331732		10.0	
Aroclor-1260 (3)	A	250.00	271	0.0791351	0.0856778		8.4	
Aroclor-1260 (4)	A	250.00	261	0.0403003	0.0420526		4.4	
Aroclor-1260 (5)	A	250.00	279	0.0164974	0.0184436		11.6	
Aroclor 1260 [2C]	A	250.00	207	0.0617619	0.0472300		-17.4	+/-20
Aroclor-1260 (1) [2C]	A	250.00	228	0.0422283	0.0384736		-8.8	
Aroclor-1260 (2) [2C]	A	250.00	164	0.1059643	0.0696656		-34.4	
Aroclor-1260 (3) [2C]	A	250.00	247	0.0282173	0.0278401		-1.2	
Aroclor-1260 (4) [2C]	A	250.00	187	0.0706376	0.0529407		-25.2	
Decachlorobiphenyl	A	40.000	44.4	0.7333327	0.8146358		11.0	+/-20
Tetrachlorometaxylene	A	40.000	41.3	1.1336710	1.1716590		3.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	38.7	1.1358180	1.0980710		-3.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.6	1.0966080	1.1136520		1.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222244ECD7.D
Data file 2: /221222.b/221222.b/12222244ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCV6
Client ID:
Injection Date: 23-DEC-2022 07:03
Report Date: 12/27/2022 13:42
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.834	-0.002	206001	5.710	-0.003	113475	41.3	40.6	1.8	Tetrachloro-m-xylene
13.903	-0.004	330279	14.131	-0.006	204266	44.4	38.7	13.9	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	351640	-21.4
Hexabromobiphenyl	798898	810863	1.5
Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	203789	-18.2
Hexabromobiphenyl	362541	372045	2.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.290	-0.004	33183	282.9	1	7.274	-0.002	27035	259.5
Aroclor-1016	2	7.676	-0.009	106317	280.7	2	7.872	0.001	50530	224.9
Aroclor-1016	3	7.812	-0.006	49503	288.5	3	8.071	0.000	24111	249.8
Aroclor-1016	4	8.424	-0.006	34993	319.9	4	8.241	-0.000	13984	275.6
Total CollAve (4 peaks):				293.0		Total Col2Ave (4 peaks):				252.4 RPD = 15
Corrected Ave (3 peaks):				284.0		Corrected Ave (3 peaks):				244.7 RPD = 15
CalAmt %D:				17.2		CalAmt %D:				1.0
Aroclor-1260	1	11.056	-0.006	81579	276.4	1	11.664	-0.005	44731	227.8
Aroclor-1260	2	11.373	-0.004	84059	275.4	2	11.927	-0.006	80996	164.4
Aroclor-1260	3	11.745	-0.006	217103	270.7	3	12.445	-0.006	32368	246.7
Aroclor-1260	4	12.149	-0.009	106559	260.9	4	12.510	-0.007	61551	187.4
Aroclor-1260	5	12.256	-0.005	46735	279.5	NS	---			----
Total CollAve (5 peaks):				272.6		Total Col2Ave (4 peaks):				206.5 RPD = 28
Corrected Ave (4 peaks):				270.8		Corrected Ave (3 peaks):				193.2 RPD = 33
CalAmt %D:				9.0		CalAmt %D:				-17.4

Total PCB Area Coll (5.936 - 13.808) = 2294378 Coll Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 994352 Col2 Total PCB = 0.5 ppm*

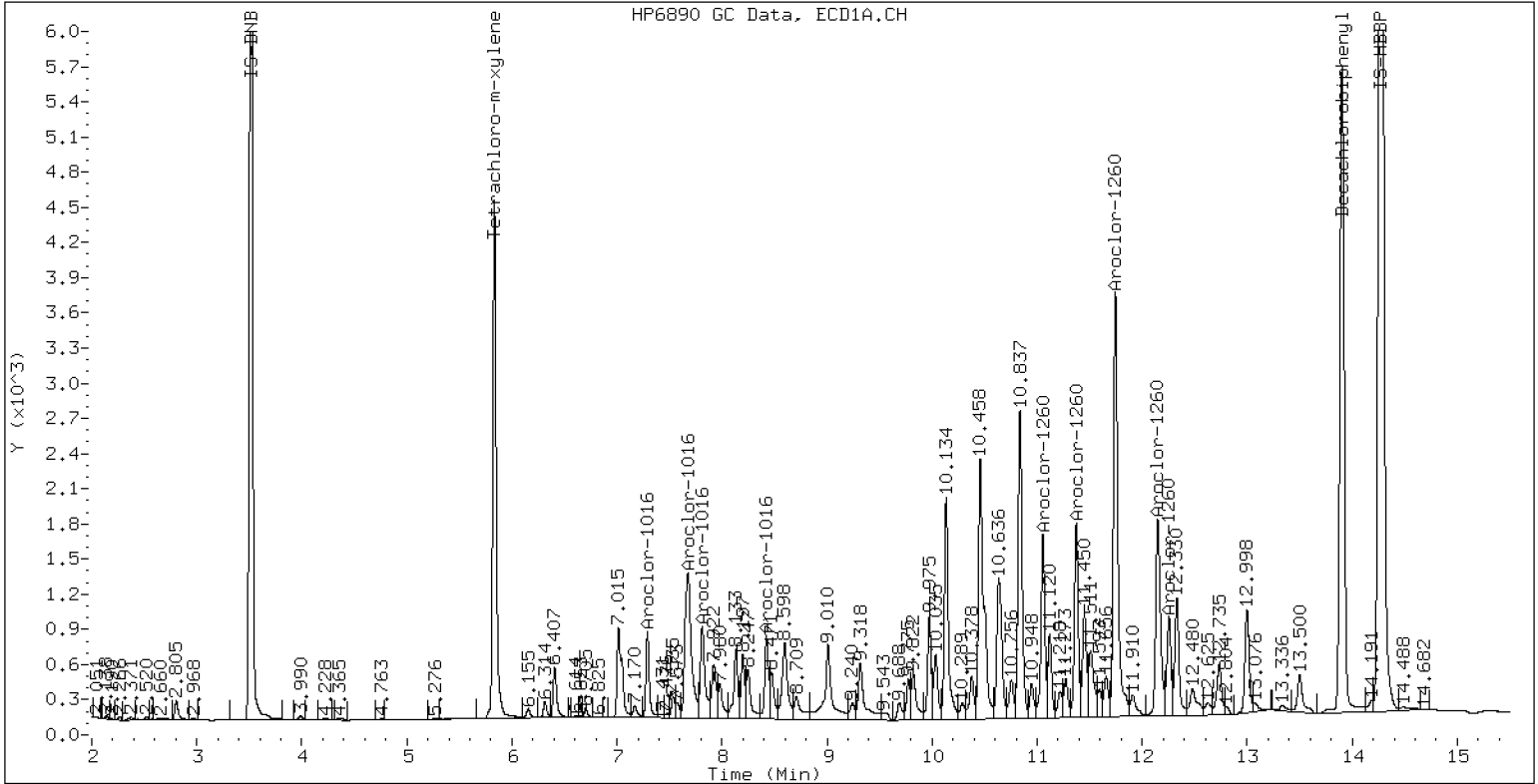
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV6

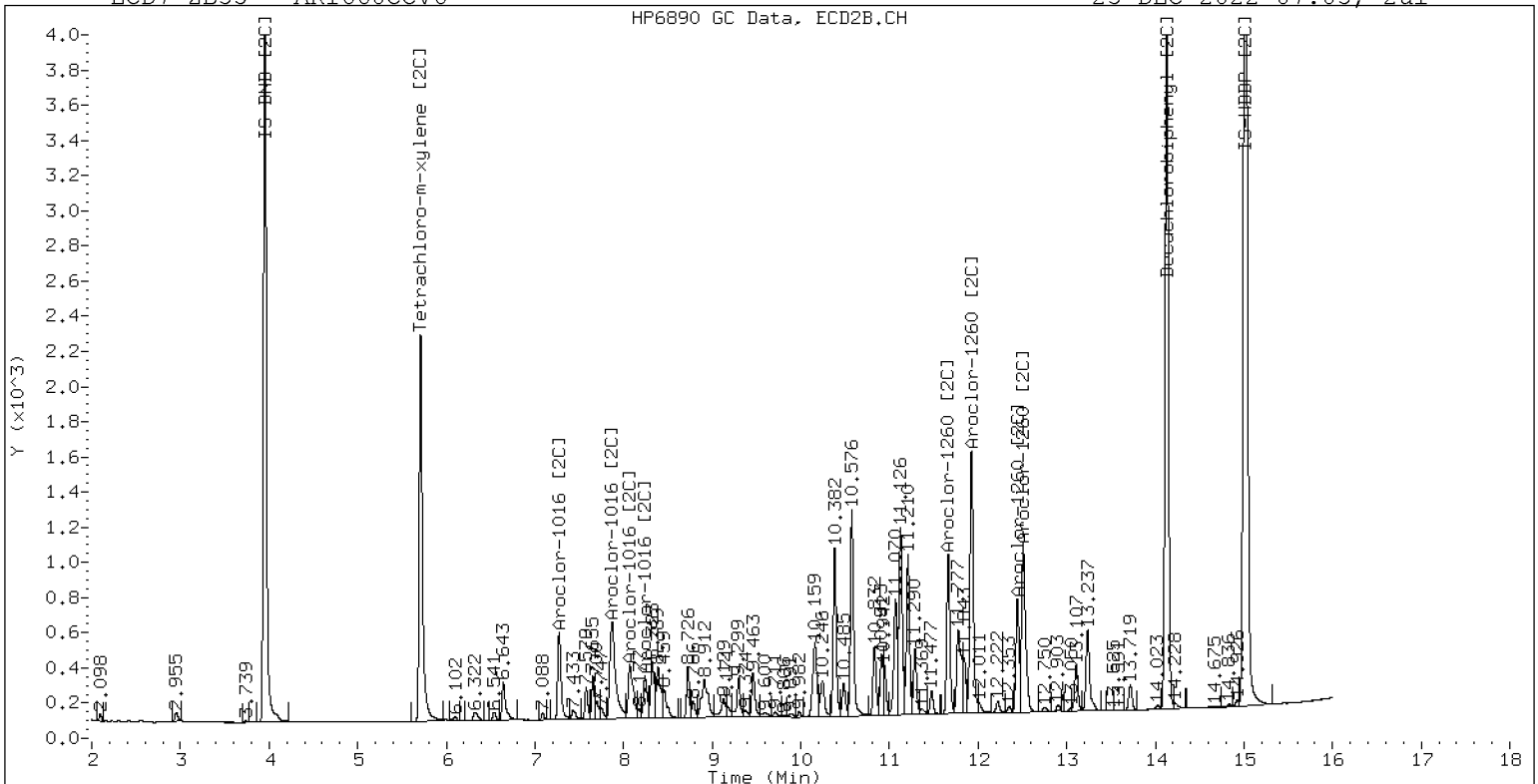
23-DEC-2022 07:03, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV6

23-DEC-2022 07:03, 2ul





CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Instrument ID:	<u>ECD7</u>	Calibration:	<u>FL00010</u>
Lab File ID:	<u>12222258ECD7.D</u>	Calibration Date:	<u>12/03/2022</u>
Sequence:	<u>SKL0330</u>	Injection Date:	<u>12/23/22</u>
Lab Sample ID:	<u>SKL0330-CCV7</u>	Injection Time:	<u>12:00</u>
Sequence Name:	<u>AR1248CCV7</u>		

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	243	0.0490062	0.0470120		-2.9	+/-20
Aroclor-1248 (1)	A	250.00	286		0.0393413			
Aroclor-1248 (2)	A	250.00	297		0.0522476			
Aroclor-1248 (3)	A	250.00	225		0.0711474			
Aroclor-1248 (4)	A	250.00	163		0.0253119			
Aroclor 1248 [2C]	A	250.00	251	0.0394876	0.0401157		0.5	+/-20
Aroclor-1248 (1) [2C]	A	250.00	262		0.0341945			
Aroclor-1248 (2) [2C]	A	250.00	197		0.0270820			
Aroclor-1248 (3) [2C]	A	250.00	279		0.0467063			
Aroclor-1248 (4) [2C]	A	250.00	267		0.0524801			
Decachlorobiphenyl	A	40.000	42.4	0.7333327	0.7780728		6.0	+/-20
Tetrachlorometaxylene	A	40.000	37.5	1.1336710	1.0633570		-6.3	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.3	1.1358180	1.1438640		0.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.0	1.0966080	1.0430870		-5.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222258ECD7.D
 Data file 2: /221222.b/221222.b/12222258ECD7.D
 Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
 Compound Sublist: AR1248.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR1248CCV7
 Client ID:
 Injection Date: 23-DEC-2022 12:00
 Report Date: 12/27/2022 13:42
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

ZB5 Col		ZB35 Col			ZB5	ZB35	RPD	Compound/Flag	
RT	Shift	Response	RT	Shift	Response	on col			on col
5.833	-0.003	232091	5.710	-0.003	130535	37.5	38.0	1.4	Tetrachloro-m-xylene
13.904	-0.004	320289	14.131	-0.005	225594	42.4	40.3	5.2	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	436525	-2.5
Hexabromobiphenyl	798898	823288	3.1

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	250286	0.5
Hexabromobiphenyl	362541	394442	8.8

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1248	1	8.423	-0.004	53667	285.9	1	8.323	-0.003	26745	261.6	
Aroclor-1248	2	8.598	-0.006	71273	297.4	2	8.728	-0.005	21182	197.0	
Aroclor-1248	3	9.018	-0.005	97055	225.1	3	9.172	-0.005	36531	279.3	
Aroclor-1248	4	9.311	-0.001	34529	163.5	4	9.593	-0.009	41047	267.3	
Total CollAve (4 peaks):				243.0	Total Col2Ave (4 peaks):				251.3	RPD = 3	
Corrected Ave (3 peaks):				224.9	Corrected Ave (3 peaks):				241.9	RPD = 7	
CalAmt %D:				-2.8	CalAmt %D:				0.5		

Total PCB Area Col1 (5.936 - 13.808) = 1139976 Col1 Total PCB = 0.3 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 510852 Col2 Total PCB = 0.2 ppm*

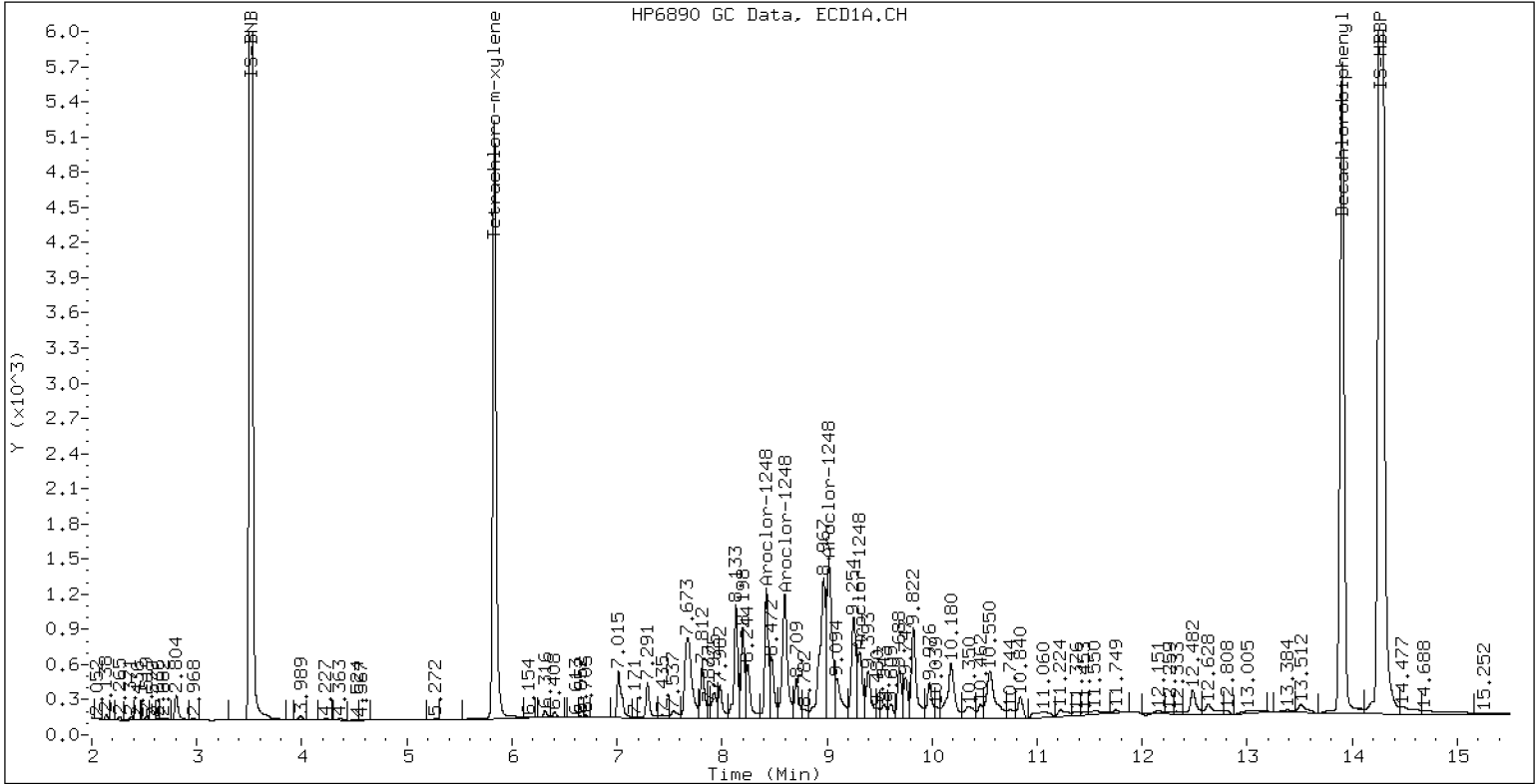
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1248CCV7

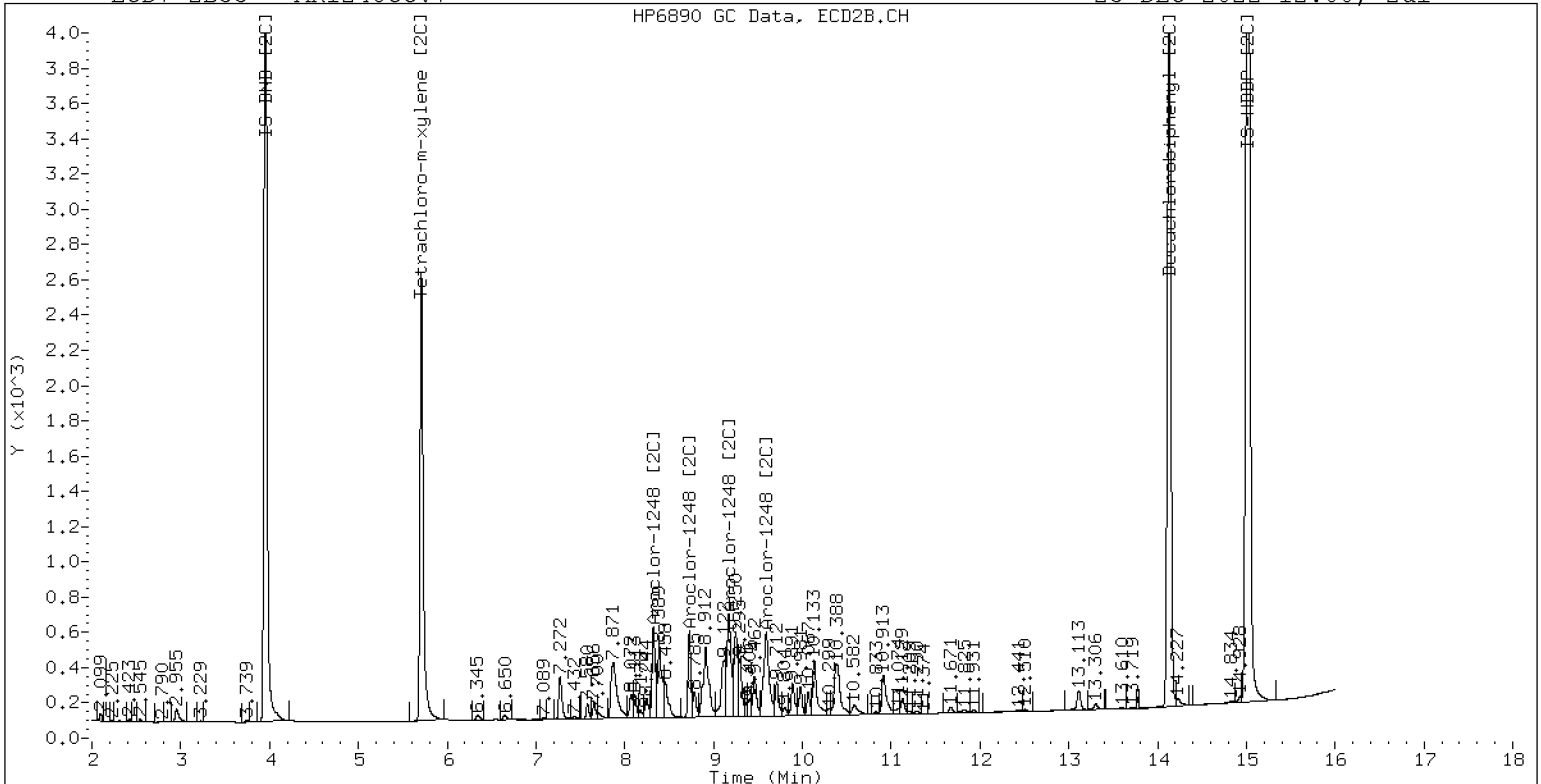
23-DEC-2022 12:00, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1248CCV7

23-DEC-2022 12:00, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12222259ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0330

Injection Date: 12/23/22

Lab Sample ID: SKL0330-CCV8

Injection Time: 12:21

Sequence Name: AR1660CCV8

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	280	0.0441939	0.0488455		12.1	+/-20
Aroclor-1016 (1)	A	250.00	280	0.0266860	0.0299478		12.0	
Aroclor-1016 (2)	A	250.00	270	0.0861572	0.0930670		8.0	
Aroclor-1016 (3)	A	250.00	274	0.0390425	0.0428138		9.6	
Aroclor-1016 (4)	A	250.00	297	0.0248899	0.0295532		18.8	
Aroclor 1016 [2C]	A	250.00	244	0.0467310	0.0438405		-2.3	+/-20
Aroclor-1016 (1) [2C]	A	250.00	252	0.0409030	0.0411529		0.8	
Aroclor-1016 (2) [2C]	A	250.00	216	0.0882154	0.0763323		-13.6	
Aroclor-1016 (3) [2C]	A	250.00	241	0.0378846	0.0365283		-3.6	
Aroclor-1016 (4) [2C]	A	250.00	268	0.0199212	0.0213482		7.2	
Aroclor 1260	A	250.00	272	0.0390342	0.0425407		8.6	+/-20
Aroclor-1260 (1)	A	250.00	273	0.0291201	0.0318547		9.2	
Aroclor-1260 (2)	A	250.00	274	0.0301181	0.0329581		9.6	
Aroclor-1260 (3)	A	250.00	274	0.0791351	0.0868147		9.6	
Aroclor-1260 (4)	A	250.00	268	0.0403003	0.0432935		7.2	
Aroclor-1260 (5)	A	250.00	269	0.0164974	0.0177826		7.6	
Aroclor 1260 [2C]	A	250.00	222	0.0617619	0.0509771		-11.4	+/-20
Aroclor-1260 (1) [2C]	A	250.00	243	0.0422283	0.0410605		-2.8	
Aroclor-1260 (2) [2C]	A	250.00	182	0.1059643	0.0772297		-27.2	
Aroclor-1260 (3) [2C]	A	250.00	263	0.0282173	0.0296528		5.2	
Aroclor-1260 (4) [2C]	A	250.00	198	0.0706376	0.0559656		-20.8	
Decachlorobiphenyl	A	40.000	45.2	0.7333327	0.8285054		13.0	+/-20
Tetrachlorometaxylene	A	40.000	40.8	1.1336710	1.1554660		2.0	+/-20
Decachlorobiphenyl [2C]	A	40.000	39.9	1.1358180	1.1340330		-0.3	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.2	1.0966080	1.1022940		0.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222259ECD7.D
 Data file 2: /221222.b/221222.b/12222259ECD7.D
 Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
 Compound Sublist: AR1660.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR1660CCV8
 Client ID:
 Injection Date: 23-DEC-2022 12:21
 Report Date: 12/27/2022 13:42
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	-0.004	207550	5.709	-0.004	115974	40.8	40.2	1.4	Tetrachloro-m-xylene
13.903	-0.005	298665	14.131	-0.006	197307	45.2	39.9	12.3	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Column 1			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	359249	-19.7
Hexabromobiphenyl	798898	720973	-9.8

Column 2			
Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	210423	-15.5
Hexabromobiphenyl	362541	347974	-4.0

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col					ZB35 Col						
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	7.289	-0.005	33621	280.6	1	7.272	-0.003	27061	251.5	
Aroclor-1016	2	7.675	-0.010	107179	277.0	2	7.870	-0.000	50194	216.3	
Aroclor-1016	3	7.811	-0.007	50313	287.0	3	8.070	0.000	24020	241.0	
Aroclor-1016	4	8.423	-0.007	35988	322.0	4	8.241	-0.000	14038	267.9	
Total CollAve (4 peaks):				291.6		Total Col2Ave (4 peaks):				244.2	RPD = 18
Corrected Ave (3 peaks):				281.5		Corrected Ave (3 peaks):				236.3	RPD = 17
CalAmt %D:				16.7		CalAmt %D:				-2.3	
Aroclor-1260	1	11.056	-0.006	78150	297.8	1	11.664	-0.005	44650	243.1	
Aroclor-1260	2	11.373	-0.005	80048	294.9	2	11.927	-0.006	83981	182.2	
Aroclor-1260	3	11.746	-0.006	207424	290.8	3	12.446	-0.006	32245	262.7	
Aroclor-1260	4	12.149	-0.009	104449	287.6	4	12.510	-0.007	60858	198.1	
Aroclor-1260	5	12.257	-0.005	45866	308.5	NS	---			----	
Total CollAve (5 peaks):				295.9		Total Col2Ave (4 peaks):				221.5	RPD = 29
Corrected Ave (4 peaks):				292.8		Corrected Ave (3 peaks):				207.8	RPD = 34
CalAmt %D:				18.4		CalAmt %D:				-11.4	

Total PCB Area Coll (5.936 - 13.808) = 2268805 Coll Total PCB = 0.7 ppm*

Total PCB Area Col2 (5.813 - 14.037) = 997020 Col2 Total PCB = 0.5 ppm*

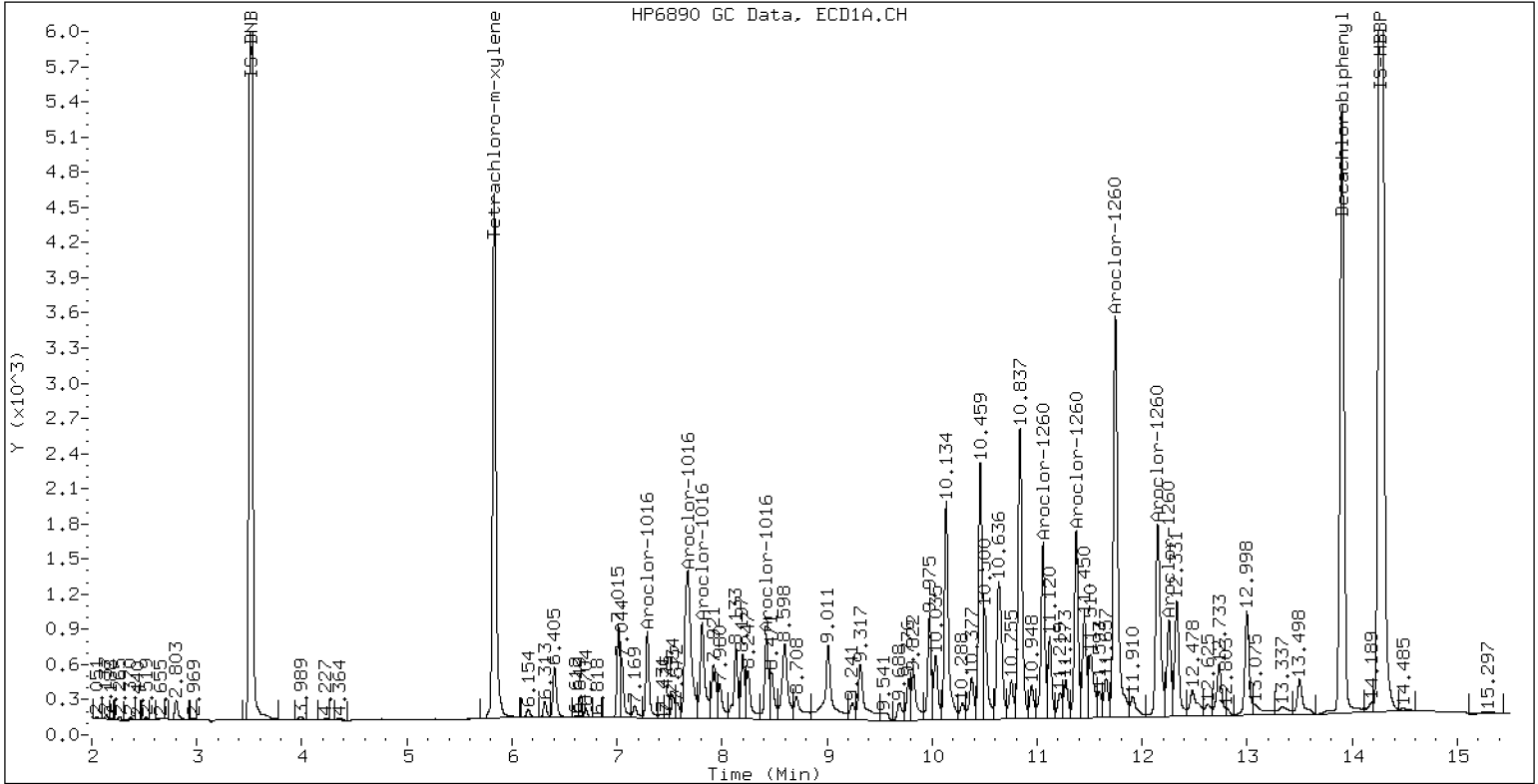
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCV8

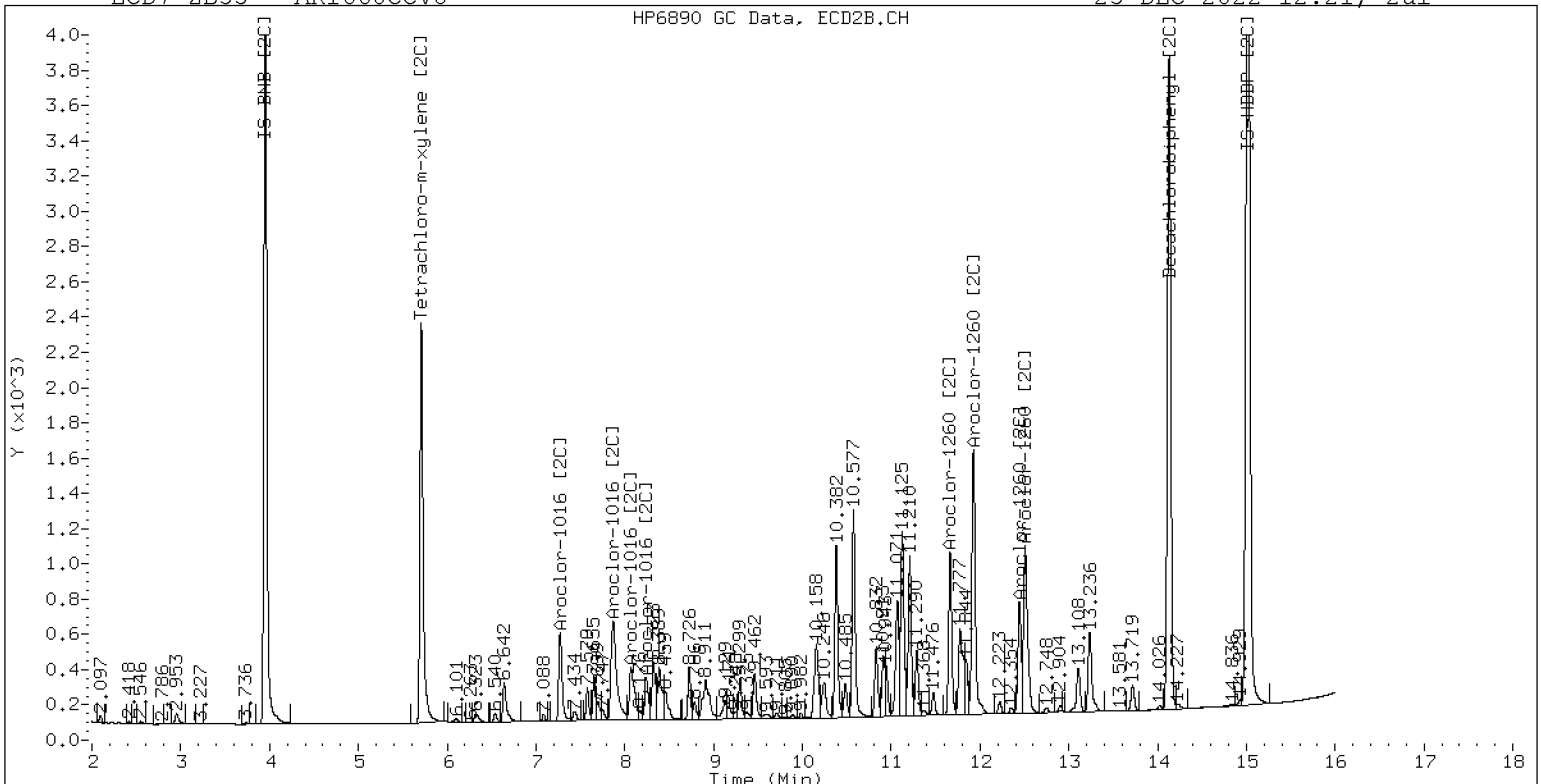
23-DEC-2022 12:21, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1660CCV8

23-DEC-2022 12:21, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12222265ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0330

Injection Date: 12/23/22

Lab Sample ID: SKL0330-CCV9

Injection Time: 14:28

Sequence Name: AR1242CCV9

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	268	0.0396000	0.0426132		7.3	+/-20
Aroclor-1242 (1)	A	250.00	255		0.0231493			
Aroclor-1242 (2)	A	250.00	264		0.0759639			
Aroclor-1242 (3)	A	250.00	269		0.0223013			
Aroclor-1242 (4)	A	250.00	285		0.0490384			
Aroclor 1242 [2C]	A	250.00	258	0.0391981	0.0379624		3.3	+/-20
Aroclor-1242 (1) [2C]	A	250.00	257		0.0348192			
Aroclor-1242 (2) [2C]	A	250.00	204		0.0586845			
Aroclor-1242 (3) [2C]	A	250.00	289		0.0267776			
Aroclor-1242 (4) [2C]	A	250.00	283		0.0315683			
Decachlorobiphenyl	A	40.000	44.1	0.7333327	0.8082316		10.3	+/-20
Tetrachlorometaxylene	A	40.000	38.2	1.1336710	1.0824910		-4.5	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.0	1.1358180	1.1367710		0.0	+/-20
Tetrachlorometaxylene [2C]	A	40.000	38.7	1.0966080	1.0608240		-3.3	+/-20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222265ECD7.D
 Data file 2: /221222.b/221222.b/12222265ECD7.D
 Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
 Compound Sublist: AR1242.sub
 Instrument, Inj. Vol.: ecd7.i, 2ul
 Quant Method: Internal Std

ARI ID: AR1242CCV9
 Client ID:
 Injection Date: 23-DEC-2022 14:28
 Report Date: 12/28/2022 12:13
 Matrix: NONE
 Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.833	-0.000	236305	5.710	0.000	134809	38.2	38.7	1.3	Tetrachloro-m-xylene
13.904	-0.000	382258	14.130	0.000	233777	44.1	40.0	9.6	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	436595	-2.5
Hexabromobiphenyl	798898	945912	18.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	254159	2.0
Hexabromobiphenyl	362541	411300	13.4

* Standard Areas taken from Initial Cal Level 3
 Initial Calibration Date: 03-DEC-2022
 <- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col					
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1242	1	7.290	-0.005	31584	255.2	1	7.273	-0.004	27655	257.1	
Aroclor-1242	2	7.675	-0.010	103642	263.8	2	7.871	-0.003	46610	204.1	
Aroclor-1242	3	8.423	-0.007	30427	269.1	3	9.170	-0.008	21268	288.7	
Aroclor-1242	4	9.023	-0.008	66906	285.0	4	9.591	-0.014	25073	283.2	
Total CollAve (4 peaks):				268.3	Total Col2Ave (4 peaks):				258.3	RPD = 4	
Corrected Ave (3 peaks):				262.7	Corrected Ave (3 peaks):				248.1	RPD = 6	
CalAmt %D:				7.3	CalAmt %D:				3.3		

Total PCB Area Col1 (5.933 - 13.804) = 1006888 Col1 Total PCB = 0.2 ppm*

Total PCB Area Col2 (5.810 - 14.030) = 406750 Col2 Total PCB = 0.2 ppm*

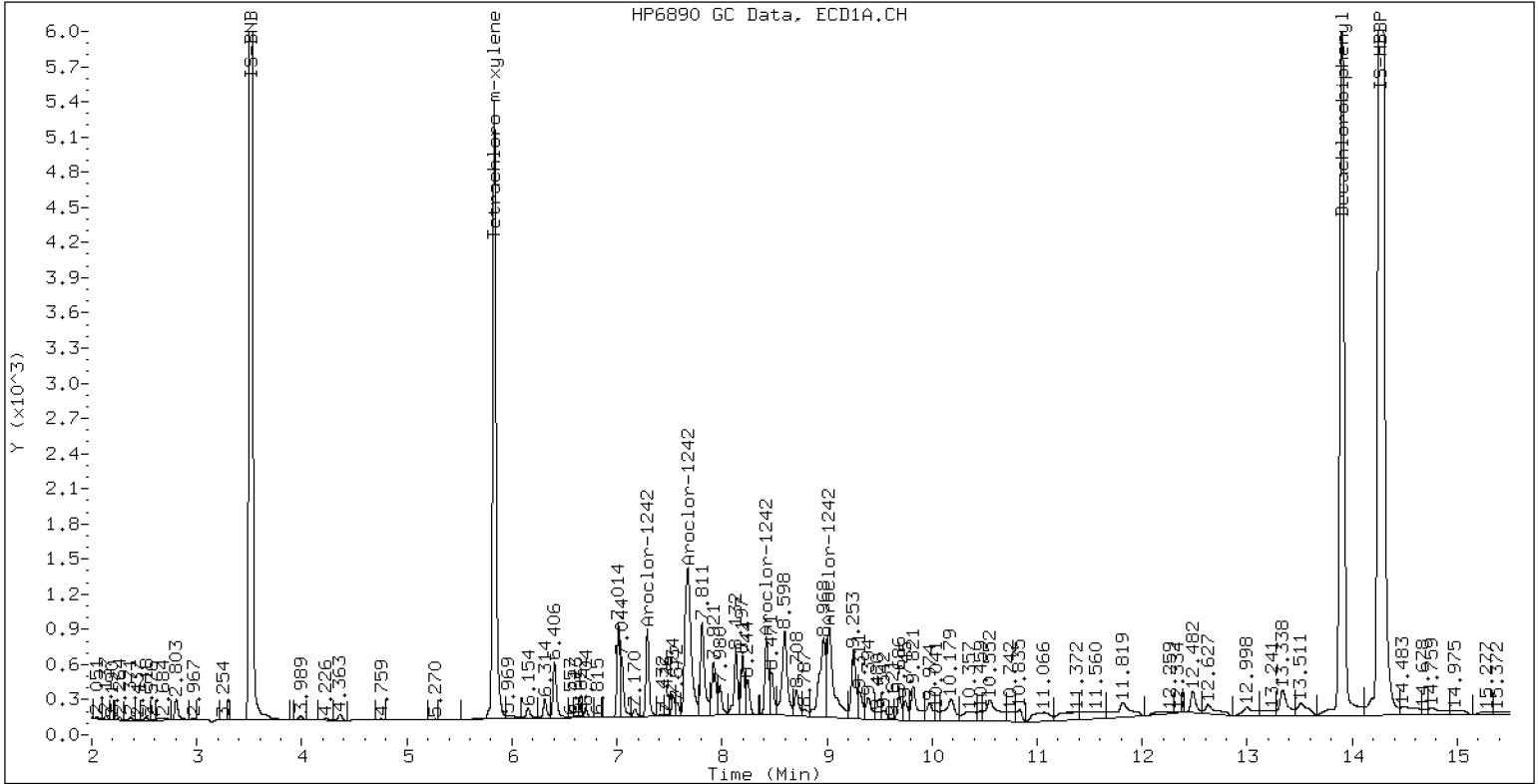
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1242CCV9

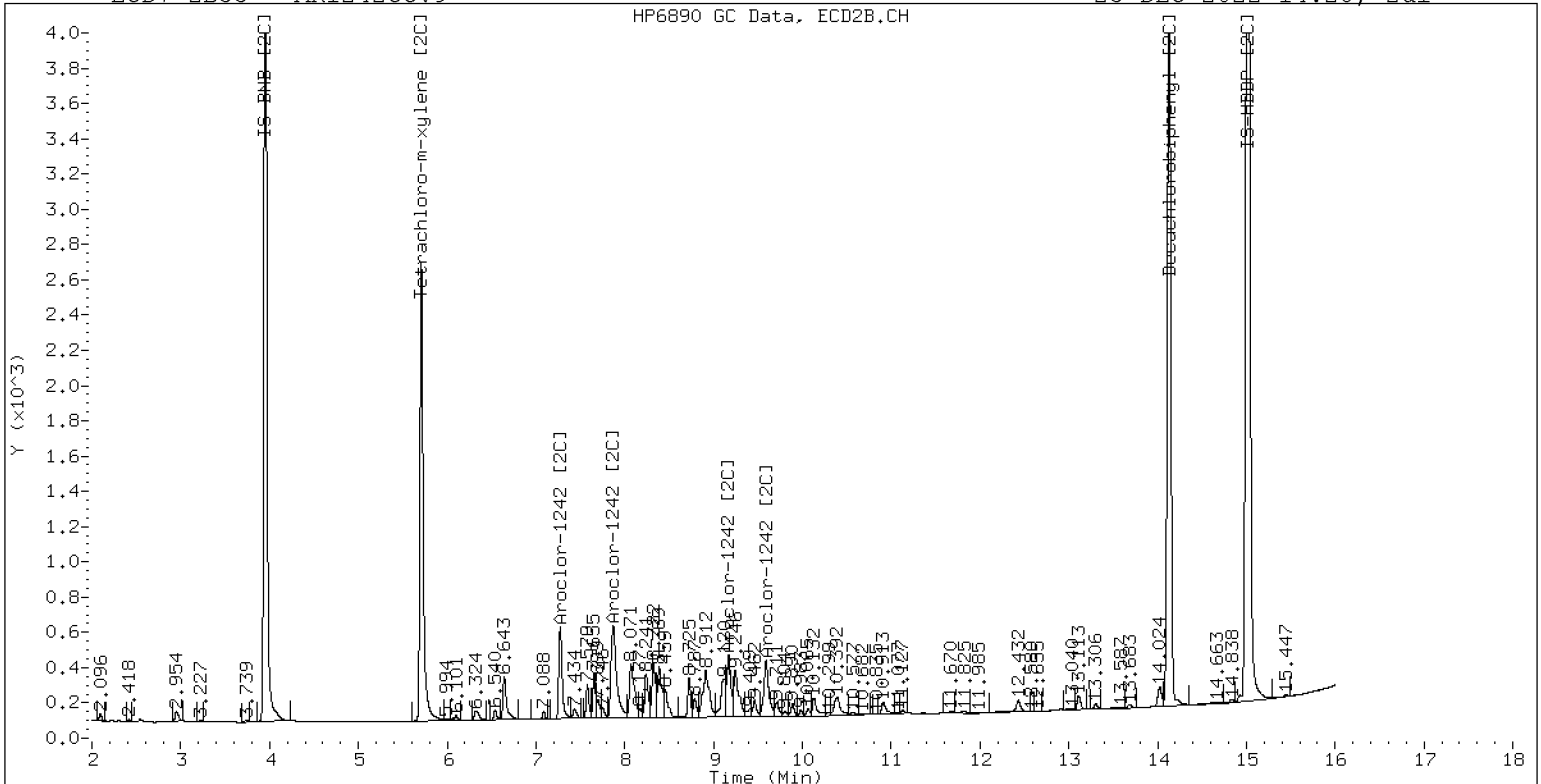
23-DEC-2022 14:28, 2ul



ZB-5 Manual Integration: NO

ECD7-ZB35 AR1242CCV9

23-DEC-2022 14:28, 2ul



ZB-35 Manual Integration: NO



CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: ECD7

Calibration: FL00010

Lab File ID: 12222266ECD7.D

Calibration Date: 12/03/2022

Sequence: SKL0330

Injection Date: 12/23/22

Lab Sample ID: SKL0330-CCVA

Injection Time: 14:49

Sequence Name: AR1660CCVA

COMPOUND	TYPE	CONC. (ug/L)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	272	0.0441939	0.0476456		8.8	+/-20
Aroclor-1016 (1)	A	250.00	273	0.0266860	0.0291093		9.2	
Aroclor-1016 (2)	A	250.00	266	0.0861572	0.0915408		6.4	
Aroclor-1016 (3)	A	250.00	269	0.0390425	0.0420076		7.6	
Aroclor-1016 (4)	A	250.00	280	0.0248899	0.0279248		12.0	
Aroclor 1016 [2C]	A	250.00	249	0.0467310	0.0447904		-0.4	+/-20
Aroclor-1016 (1) [2C]	A	250.00	259	0.0409030	0.0424111		3.6	
Aroclor-1016 (2) [2C]	A	250.00	220	0.0882154	0.0777926		-12.0	
Aroclor-1016 (3) [2C]	A	250.00	246	0.0378846	0.0373563		-1.6	
Aroclor-1016 (4) [2C]	A	250.00	271	0.0199212	0.0216017		8.4	
Aroclor 1260	A	250.00	267	0.0390342	0.0418714		6.7	+/-20
Aroclor-1260 (1)	A	250.00	266	0.0291201	0.0310297		6.4	
Aroclor-1260 (2)	A	250.00	270	0.0301181	0.0325474		8.0	
Aroclor-1260 (3)	A	250.00	272	0.0791351	0.0860672		8.8	
Aroclor-1260 (4)	A	250.00	263	0.0403003	0.0423427		5.2	
Aroclor-1260 (5)	A	250.00	263	0.0164974	0.0173700		5.2	
Aroclor 1260 [2C]	A	250.00	214	0.0617619	0.0492804		-14.3	+/-20
Aroclor-1260 (1) [2C]	A	250.00	237	0.0422283	0.0400067		-5.2	
Aroclor-1260 (2) [2C]	A	250.00	176	0.1059643	0.0744548		-29.6	
Aroclor-1260 (3) [2C]	A	250.00	253	0.0282173	0.0286042		1.2	
Aroclor-1260 (4) [2C]	A	250.00	191	0.0706376	0.0540557		-23.6	
Decachlorobiphenyl	A	40.000	48.1	0.7333327	0.8825153		20.3	+/-20
Tetrachlorometaxylene	A	40.000	41.5	1.1336710	1.1757650		3.8	+/-20
Decachlorobiphenyl [2C]	A	40.000	40.3	1.1358180	1.1436100		0.8	+/-20
Tetrachlorometaxylene [2C]	A	40.000	40.9	1.0966080	1.1216670		2.3	+/-20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB Quantitation Report

Data file 1: /221222.b/12222266ECD7.D
Data file 2: /221222.b/221222.b/12222266ECD7.D
Method: \\target\share\chem4\ecd7.i\221222.b\PCB.m
Compound Sublist: AR1660.sub
Instrument, Inj. Vol.: ecd7.i, 2ul
Quant Method: Internal Std

ARI ID: AR1660CCVA
Client ID:
Injection Date: 23-DEC-2022 14:49
Report Date: 12/29/2022 09:46
Matrix: NONE
Dilution Factor: 1.0

SURROGATES

RT	ZB5 Col Shift	Response	RT	ZB35 Col Shift	Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
5.832	0.000	213131	5.709	-0.000	118231	41.5	40.9	1.4	Tetrachloro-m-xylene
13.903	0.000	333529	14.130	-0.000	204585	48.1	40.3	17.8	Decachlorobiphenyl

* Indicates RPD > 40%

INTERNAL STANDARD SUMMARY

Standard Cpnd	Column 1		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	447645	362540	-19.0
Hexabromobiphenyl	798898	755860	-5.4

Standard Cpnd	Column 2		
	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	249094	210813	-15.4
Hexabromobiphenyl	362541	357788	-1.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 03-DEC-2022
<- Indicates standard response outside Limits (-50 to +100%)

ZB5 Col						ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	7.290	0.000	32979	272.7	1	7.273	-0.002	27940	259.2
Aroclor-1016	2	7.676	0.000	103710	265.6	2	7.871	0.001	51249	220.5
Aroclor-1016	3	7.812	0.000	47592	269.0	3	8.071	0.000	24610	246.5
Aroclor-1016	4	8.423	0.000	31637	280.5	4	8.241	-0.000	14231	271.1
Total CollAve (4 peaks):				271.9		Total Col2Ave (4 peaks):				249.3 RPD = 9
Corrected Ave (3 peaks):				269.1		Corrected Ave (3 peaks):				242.1 RPD = 11
CalAmt %D:				8.8		CalAmt %D:				-0.3
Aroclor-1260	1	11.056	0.000	73294	266.4	1	11.665	-0.004	44731	236.8
Aroclor-1260	2	11.374	0.000	76879	270.2	2	11.927	-0.006	83247	175.7
Aroclor-1260	3	11.745	0.000	203296	271.9	3	12.445	-0.006	31982	253.4
Aroclor-1260	4	12.149	0.000	100016	262.7	4	12.510	-0.006	60439	191.3
Aroclor-1260	5	12.257	0.000	41029	263.2	NS	---			----
Total CollAve (5 peaks):				266.9		Total Col2Ave (4 peaks):				214.3 RPD = 22
Corrected Ave (4 peaks):				265.6		Corrected Ave (3 peaks):				201.3 RPD = 28
CalAmt %D:				6.7		CalAmt %D:				-14.3

Total PCB Area Col1 (5.932 - 13.803) = 1990195 Col1 Total PCB = 0.6 ppm*

Total PCB Area Col2 (5.810 - 14.030) = 996234 Col2 Total PCB = 0.5 ppm*

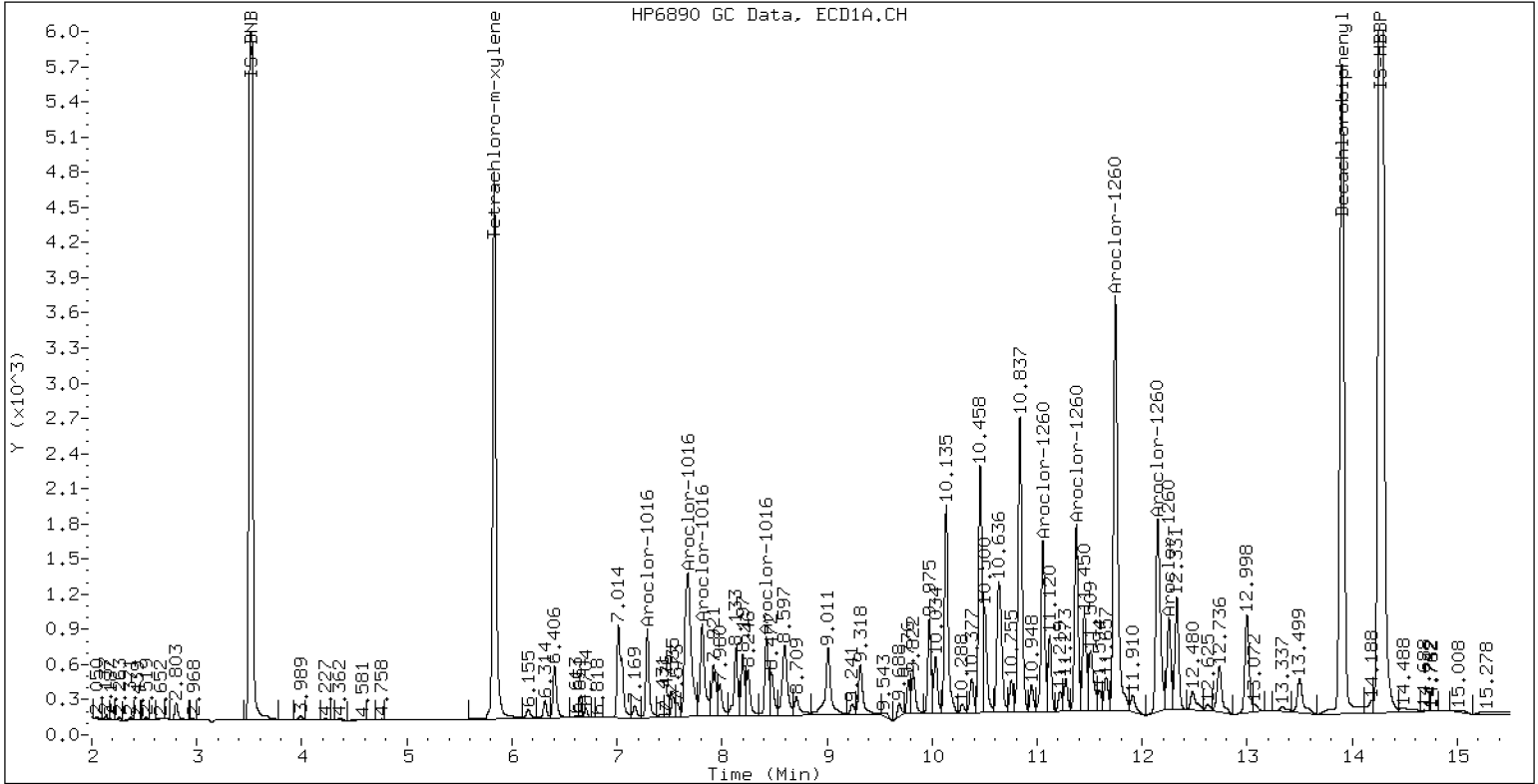
* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

PCB Dual Column Chromatograms

ECD7-ZB5 AR1660CCVA

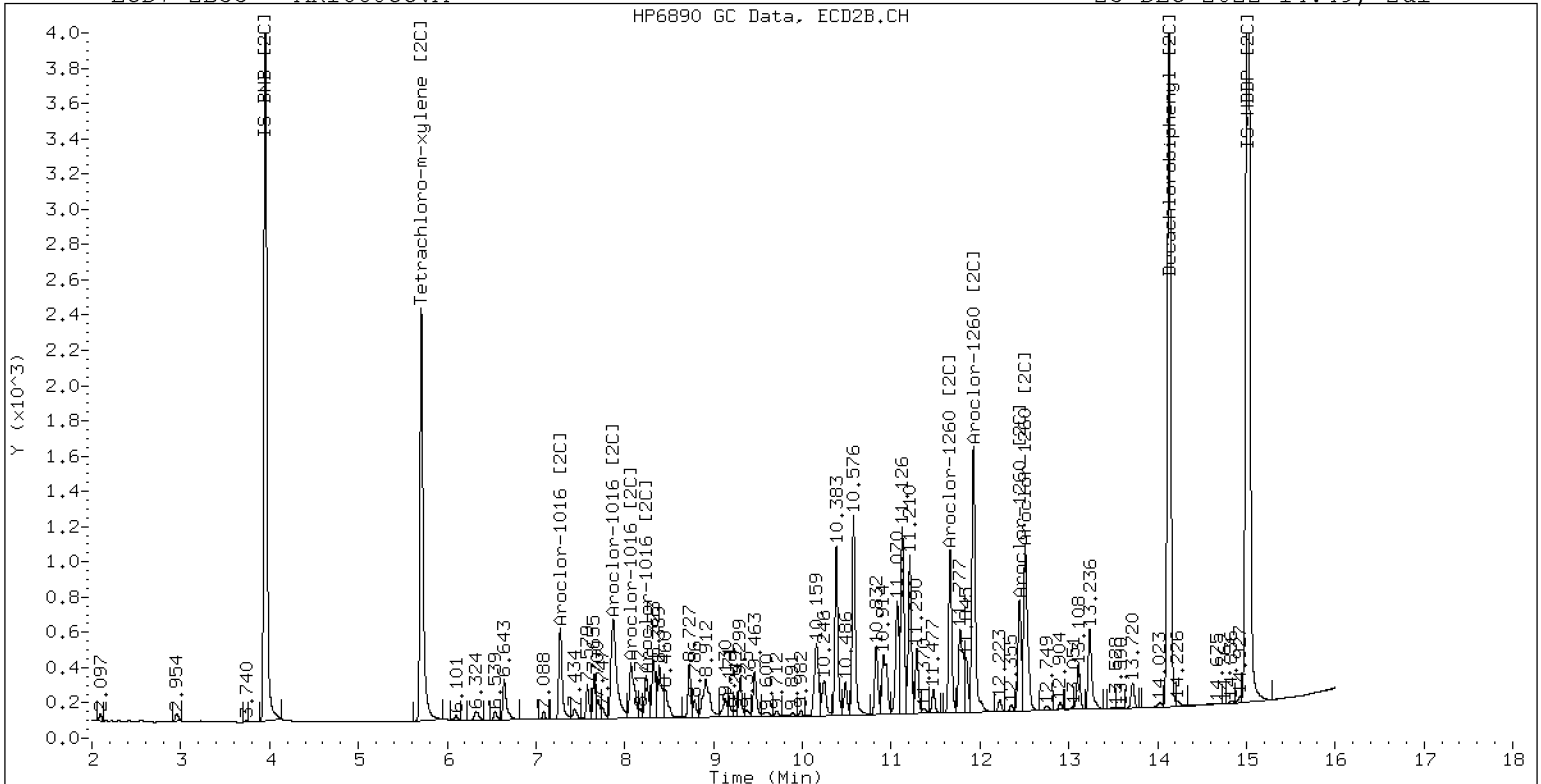
23-DEC-2022 14:49, 2ul



ZB-5 Manual Integration: YES

ECD7-ZB35 AR1660CCVA

23-DEC-2022 14:49, 2ul

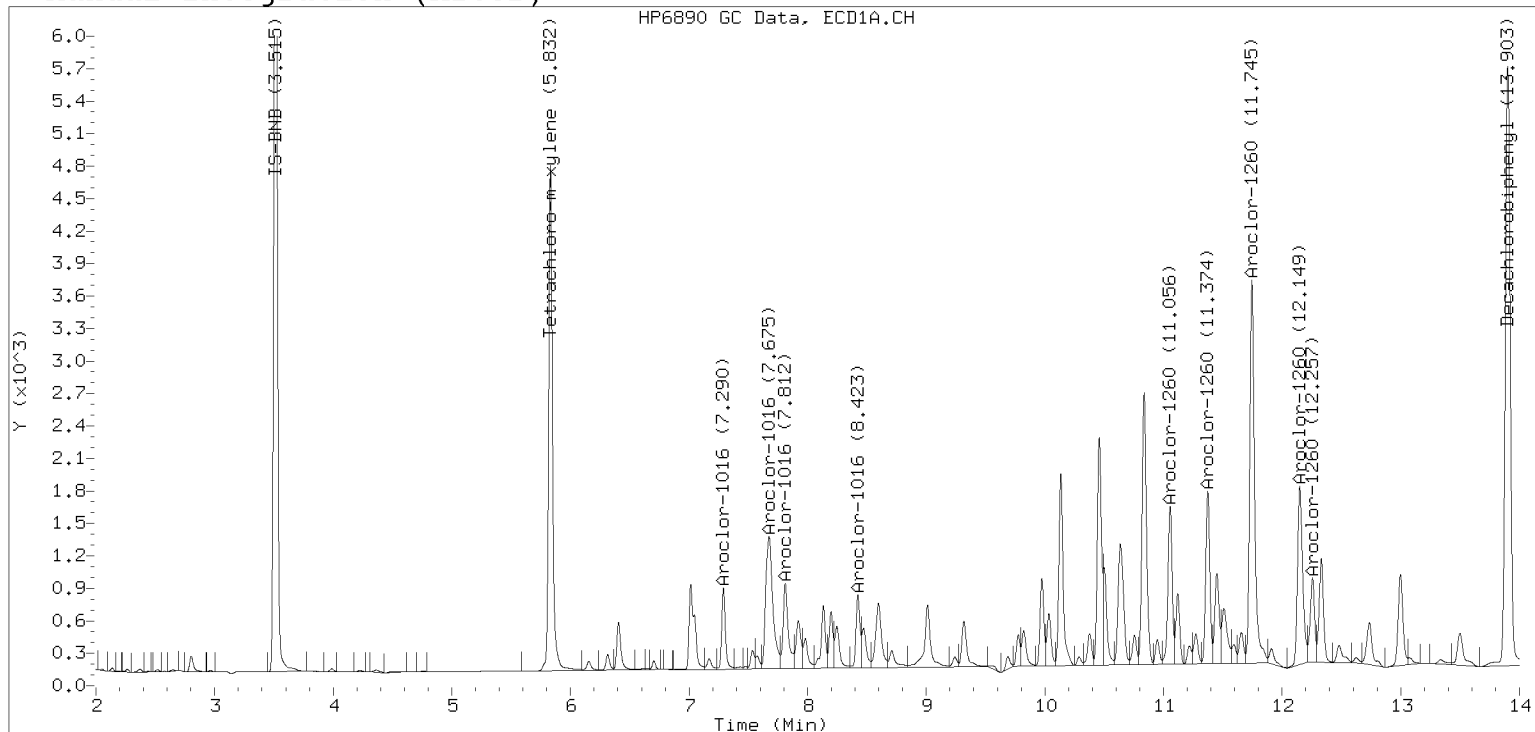


Manual Peak Adjustment, ZB-5

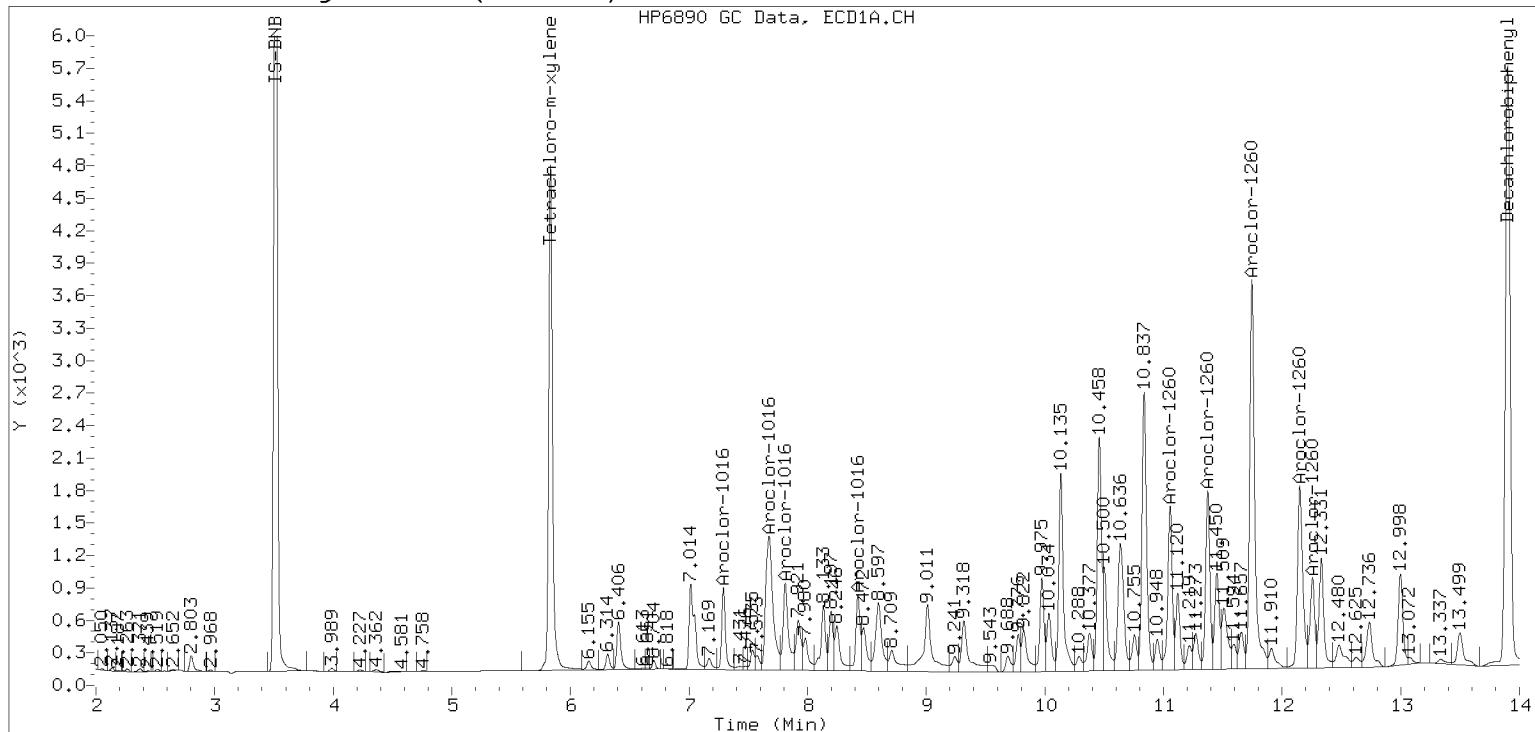
Datafile: ecd7.i/221222.b/12222266ECD7.D

Injection Date: 23-DEC-2022 14:49

Manual Integration (After)



Processed Integration (Before)





Dual Column
ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor OEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0048

Instrument: ECD7

Calibration: FL00010

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Cal Standard	SKL0048-CAL1	12032211ECD7.D	12032211ECD7.D	NA	12/03/22 18:19
Cal Standard	SKL0048-CAL2	12032212ECD7.D	12032212ECD7.D	NA	12/03/22 18:40
Cal Standard	SKL0048-CAL3	12032213ECD7.D	12032213ECD7.D	NA	12/03/22 19:01
Cal Standard	SKL0048-CAL4	12032214ECD7.D	12032214ECD7.D	NA	12/03/22 19:23
Cal Standard	SKL0048-CAL5	12032215ECD7.D	12032215ECD7.D	NA	12/03/22 19:44
Cal Standard	SKL0048-CAL6	12032216ECD7.D	12032216ECD7.D	NA	12/03/22 20:05
Cal Standard	SKL0048-CAL7	12032217ECD7.D	12032217ECD7.D	NA	12/03/22 20:26
Cal Standard	SKL0048-CAL8	12032218ECD7.D	12032218ECD7.D	NA	12/03/22 20:48
Cal Standard	SKL0048-CAL9	12032219ECD7.D	12032219ECD7.D	NA	12/03/22 21:09
Cal Standard	SKL0048-CALA	12032220ECD7.D	12032220ECD7.D	NA	12/03/22 21:30
Cal Standard	SKL0048-CALB	12032221ECD7.D	12032221ECD7.D	NA	12/03/22 21:52
Secondary Cal Check	SKL0048-SCV1	12032222ECD7.D	12032222ECD7.D	NA	12/03/22 22:13
Secondary Cal Check	SKL0048-SCV2	12032223ECD7.D	12032223ECD7.D	NA	12/03/22 22:34
Secondary Cal Check	SKL0048-SCV3	12032224ECD7.D	12032224ECD7.D	NA	12/03/22 22:55
Secondary Cal Check	SKL0048-SCV4	12032225ECD7.D	12032225ECD7.D	NA	12/03/22 23:17
Secondary Cal Check	SKL0048-SCV5	12032226ECD7.D	12032226ECD7.D	NA	12/03/22 23:38
Secondary Cal Check	SKL0048-SCV6	12032227ECD7.D	12032227ECD7.D	NA	12/03/22 23:59



ANALYSIS SEQUENCE

SKL0048

Instrument: ECD7
Calibration ID: FL00010

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0048-CAL1	0.25PPM AR1660	QC		1	K006954	K006953		
SKL0048-CAL2	0.02PPM AR1660	QC		2	K010070	K006953		
SKL0048-CAL3	0.05PPM AR1660	QC		3	K010069	K006953		
SKL0048-CAL4	1PPM AR1660	QC		4	K006741	K006953		
SKL0048-CAL5	0.1PPM AR1660	QC		5	K010068	K006953		
SKL0048-CAL6	0.5PPM AR1660	QC		6	K010067	K006953		
SKL0048-CAL7	0.25PPM AR1242	QC		7	K006955	K006953		
SKL0048-CAL8	0.25PPM AR1248	QC		8	K006956	K006953		
SKL0048-CAL9	0.25PPM AR1254	QC		9	K006957	K006953		
SKL0048-CALA	0.25PPM AR2162	QC		10	K010071	K006953		
SKL0048-CALB	0.25PPM AR3268	QC		11	K010072	K006953		
SKL0048-SCV1	AR1660SCV1	QC		12	K007655	K006953		
SKL0048-SCV2	AR1242SCV2	QC		13	K007656	K006953		
SKL0048-SCV3	AR1248SCV3	QC		14	K007657	K006953		
SKL0048-SCV4	AR1254SCV4	QC		15	K007658	K006953		
SKL0048-SCV5	AR2162SCV5	QC		16	K007659	K006953		
SKL0048-SCV6	AR3268SCV6	QC		17	K007660	K006953		

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221203.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	03-DEC-2022	17:58	12032210ECD7.D	1	IB	
2	03-DEC-2022	18:19	12032211ECD7.D	1	0.25PPAR1660	
3	03-DEC-2022	18:40	12032212ECD7.D	1	0.02PPAR1660	
4	03-DEC-2022	19:01	12032213ECD7.D	1	0.05PPAR1660	
5	03-DEC-2022	19:23	12032214ECD7.D	1	1PPMAR1660	
6	03-DEC-2022	19:44	12032215ECD7.D	1	0.1PPMAR1660	
7	03-DEC-2022	20:05	12032216ECD7.D	1	0.5PPMAR1660	
8	03-DEC-2022	20:26	12032217ECD7.D	1	AR1242	
9	03-DEC-2022	20:48	12032218ECD7.D	1	AR1248	
10	03-DEC-2022	21:09	12032219ECD7.D	1	AR1254	
11	03-DEC-2022	21:30	12032220ECD7.D	1	AR2162	
12	03-DEC-2022	21:52	12032221ECD7.D	1	AR3268	
13	03-DEC-2022	22:13	12032222ECD7.D	1	AR1660SCV1	
14	03-DEC-2022	22:34	12032223ECD7.D	1	AR1242SCV2	
15	03-DEC-2022	22:55	12032224ECD7.D	1	AR1248SCV3	
16	03-DEC-2022	23:17	12032225ECD7.D	1	AR1254SCV4	
17	03-DEC-2022	23:38	12032226ECD7.D	1	AR2162SCV5	
18	03-DEC-2022	23:59	12032227ECD7.D	1	AR3268SCV6	
19	04-DEC-2022	00:20	12032228ECD7.D	1	0.1 PPM DDTS	
20	04-DEC-2022	00:42	12032229ECD7.D	1	DDT BD	
21	04-DEC-2022	01:03	12032230ECD7.D	1	AR1254ICV1	
22	04-DEC-2022	01:24	12032231ECD7.D	1	AR1660ICV2	
23	04-DEC-2022	01:46	12032232ECD7.D	1	BKK0834-BLK1	
24	04-DEC-2022	02:07	12032233ECD7.D	1	BKK0834-BS1	
25	04-DEC-2022	02:28	12032234ECD7.D	1	BKK0834-BSD1	
26	04-DEC-2022	02:49	12032235ECD7.D	1	22K0523-01	
27	04-DEC-2022	03:11	12032236ECD7.D	1	22K0525-01	
28	04-DEC-2022	03:32	12032237ECD7.D	1	BKK0374-BLK1	
29	04-DEC-2022	03:53	12032238ECD7.D	1	BKK0374-BS1	
30	04-DEC-2022	04:15	12032239ECD7.D	1	BKK0374-BSD1	
31	04-DEC-2022	04:36	12032240ECD7.D	1	22K0161-01	
32	04-DEC-2022	04:57	12032241ECD7.D	1	AR1248CCV1	
33	04-DEC-2022	05:18	12032242ECD7.D	1	AR1660CCV2	
34	04-DEC-2022	05:40	12032243ECD7.D	1	BKL0017-BLK1	
35	04-DEC-2022	06:01	12032244ECD7.D	1	BKL0017-BS1	
36	04-DEC-2022	06:22	12032245ECD7.D	1	BKL0017-BSD1	
37	04-DEC-2022	06:44	12032246ECD7.D	1	22J0139-01	
38	04-DEC-2022	07:05	12032247ECD7.D	1	BKK0383-BLK1	
39	04-DEC-2022	07:26	12032248ECD7.D	1	BKK0383-BS1	
40	04-DEC-2022	07:47	12032249ECD7.D	1	BKK0383-BSD	
41	04-DEC-2022	08:09	12032250ECD7.D	1	22K0075-01	
42	04-DEC-2022	08:30	12032251ECD7.D	1	BKK00803-BLK1	
43	04-DEC-2022	08:51	12032252ECD7.D	1	BKK00803-BS1	
44	04-DEC-2022	09:13	12032253ECD7.D	1	BKK00803-BSD1	
45	04-DEC-2022	09:34	12032254ECD7.D	1	22K0511-01	
46	04-DEC-2022	09:55	12032255ECD7.D	1	AR1242CCV3	
47	04-DEC-2022	10:17	12032256ECD7.D	1	AR1660CCV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221203.b

Instrument: ecd7.i Date: 03-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
1758	12032210ECD7.D	IB	1	NO MANUAL INTEGRATION
1819	12032211ECD7.D	0.25PPAR1660	1	NO MANUAL INTEGRATION
1840	12032212ECD7.D	0.02PPAR1660	1	NO MANUAL INTEGRATION
1901	12032213ECD7.D	0.05PPAR1660	1	NO MANUAL INTEGRATION
1923	12032214ECD7.D	1PPMAR1660	1	NO MANUAL INTEGRATION
1944	12032215ECD7.D	0.1PPMAR1660	1	NO MANUAL INTEGRATION
2005	12032216ECD7.D	0.5PPMAR1660	1	NO MANUAL INTEGRATION
2026	12032217ECD7.D	AR1242	1	Aroclor-1242,
2048	12032218ECD7.D	AR1248	1	NO MANUAL INTEGRATION
2109	12032219ECD7.D	AR1254	1	NO MANUAL INTEGRATION
2130	12032220ECD7.D	AR2162	1	NO MANUAL INTEGRATION
2152	12032221ECD7.D	AR3268	1	NO MANUAL INTEGRATION
2213	12032222ECD7.D	AR1660SCV1	1	NO MANUAL INTEGRATION
2234	12032223ECD7.D	AR1242SCV2	1	NO MANUAL INTEGRATION
2255	12032224ECD7.D	AR1248SCV3	1	NO MANUAL INTEGRATION
2317	12032225ECD7.D	AR1254SCV4	1	NO MANUAL INTEGRATION
2338	12032226ECD7.D	AR2162SCV5	1	NO MANUAL INTEGRATION

Instrument: ecd7.i Date: 03-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
2359	12032227ECD7.D	AR3268SCV6	1	NO MANUAL INTEGRATION



Dual Column
ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor OEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0280

Instrument: ECD7

Calibration: FL00010

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SKL0280-ICV1	12172203ECD7.D	12172203ECD7.D	NA	12/17/22 09:59
Initial Cal Check	SKL0280-ICV2	12172204ECD7.D	12172204ECD7.D	NA	12/17/22 10:20
Calibration Check	SKL0280-CCV1	12172215ECD7.D	12172215ECD7.D	NA	12/17/22 14:14
Calibration Check	SKL0280-CCV2	12172216ECD7.D	12172216ECD7.D	NA	12/17/22 14:35
Calibration Check	SKL0280-CCV3	12172227ECD7.D	12172227ECD7.D	NA	12/17/22 18:29
Calibration Check	SKL0280-CCV4	12172228ECD7.D	12172228ECD7.D	NA	12/17/22 18:50
Calibration Check	SKL0280-CCV5	12172237ECD7.D	12172237ECD7.D	NA	12/17/22 22:01
Calibration Check	SKL0280-CCV6	12172238ECD7.D	12172238ECD7.D	NA	12/17/22 22:22
Blank	BKL0158-BLK1	12172239ECD7.D	12172239ECD7.D	Solid	12/17/22 22:44
LCS	BKL0158-BS1	12172240ECD7.D	12172240ECD7.D	Solid	12/17/22 23:05
LCS Dup	BKL0158-BSD1	12172241ECD7.D	12172241ECD7.D	Solid	12/17/22 23:26
Reference	BKL0158-SRM1	12172242ECD7.D	12172242ECD7.D	Solid	12/17/22 23:47
LDW22-SC782C	BKL0158-MS1	12172243ECD7.D	12172243ECD7.D	Solid	12/18/22 00:09
LDW22-IT798	22L0105-20	12172248ECD7.D	12172248ECD7.D	Solid	12/18/22 01:55
LDW22-SC782B	22L0105-21	12172249ECD7.D	12172249ECD7.D	Solid	12/18/22 02:16
LDW22-SC782C	22L0105-22	12172250ECD7.D	12172250ECD7.D	Solid	12/18/22 02:37
Calibration Check	SKL0280-CCV7	12172252ECD7.D	12172252ECD7.D	NA	12/18/22 03:20
Calibration Check	SKL0280-CCV8	12172253ECD7.D	12172253ECD7.D	NA	12/18/22 03:41
Calibration Check	SKL0280-CCV9	12172264ECD7.D	12172264ECD7.D	NA	12/18/22 07:35
Calibration Check	SKL0280-CCVA	12172265ECD7.D	12172265ECD7.D	NA	12/18/22 07:56
Calibration Check	SKL0280-CCVB	12172279ECD7.D	12172279ECD7.D	NA	12/18/22 12:54
Calibration Check	SKL0280-CCVC	12172280ECD7.D	12172280ECD7.D	NA	12/18/22 13:15



ANALYSIS SEQUENCE

SKL0280

Instrument: ECD7
Calibration ID: FL00010

Printed: 12/20/2022 3:47:50PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SKL0280-ICV1	QC		1		K006957	K006953		
SKL0280-ICV2	QC		2		K006954	K006953		
BKL0190-BLK1	QC		3			K006953		
BKL0190-BS1	QC		4			K006953		
BKL0190-BSD1	QC		5			K006953		
BKL0190-SRM1	QC		6			K006953		
BKL0190-MS1	QC		7			K006953		
BKL0190-MSD1	QC		8			K006953		
22L0104-01	8082A PCB Solid 4	B 02	9			K006953	Anchor QEA, LLC	
22L0104-02	8082A PCB Solid 4	B 02	10			K006953	Anchor QEA, LLC	Finsh extract and hold
22L0136-01	8082A PCB Solid 4	A 01	11			K006953	Anchor QEA, LLC	
22L0136-02	8082A PCB Solid 4	A 01	12			K006953	Anchor QEA, LLC	
SKL0280-CCV1	QC		13		K006956	K006953		
SKL0280-CCV2	QC		14		K006954	K006953		
22L0136-03	8082A PCB Solid 4	A 01	15			K006953	Anchor QEA, LLC	
22L0136-04	8082A PCB Solid 4	A 01	16			K006953	Anchor QEA, LLC	
22L0136-05	8082A PCB Solid 4	A 01	17			K006953	Anchor QEA, LLC	
22L0136-06	8082A PCB Solid 4	A 01	18			K006953	Anchor QEA, LLC	
22L0136-07	8082A PCB Solid 4	A 01	19			K006953	Anchor QEA, LLC	
22L0136-08	8082A PCB Solid 4	A 01	20			K006953	Anchor QEA, LLC	
22L0136-09	8082A PCB Solid 4	A 01	21			K006953	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SKL0280

Instrument: ECD7
Calibration ID: FL00010

Printed: 12/20/2022 3:47:50PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
22L0136-10	8082A PCB Solid 4	A 01	22			K006953	Anchor QEA, LLC	
22L0136-11	8082A PCB Solid 4	A 01	23			K006953	Anchor QEA, LLC	
22L0136-12	8082A PCB Solid 4	A 01	24			K006953	Anchor QEA, LLC	
SKL0280-CCV3	QC		25		K006955	K006953		
SKL0280-CCV4	QC		26		K006954	K006953		
BKL0224-BLK1	QC		27			K006953		
BKL0224-BS1	QC		28			K006953		
BKL0224-BSD1	QC		29			K006953		
22L0174-01	8082A PCB Water 0.01	A 01	30			K006953	The Boeing Company [BDS Stormwaters]	
22L0174-02	8082A PCB Water 0.01	A 01	31			K006953	The Boeing Company [BDS Stormwaters]	
22L0192-01	8082A PCB Water 0.01	A 01	32			K006953	The Boeing Company [North Boeing Field]	
22L0207-01	8082A PCB Water 0.01	A 01	33			K006953	DH Environmental Inc	
SKL0280-CCV5	QC		34		K006957	K006953		
SKL0280-CCV6	QC		35		K006954	K006953		
BKL0158-BLK1	QC		36			K006953		
BKL0158-BS1	QC		37			K006953		
BKL0158-BSD1	QC		38			K006953		
BKL0158-SRM1	QC		39			K006953		
BKL0158-MS1	QC		40			K006953		
BKL0158-MSD1	QC		41			K006953		
SKL0280-CCV7	QC		42		K006956	K006953		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SKL0280

Instrument: ECD7
Calibration ID: FL00010

Printed: 12/20/2022 3:47:50PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SKL0280-CCV8	QC		43		K006954	K006953		
SKL0280-CCV9	QC		44		K006955	K006953		
SKL0280-CCVA	QC		45		K006954	K006953		
BKK0730-BLK1	QC		46			K006953		
BKK0730-BS1	QC		47			K006953		
BKK0730-BSD1	QC		48			K006953		
BKK0730-MS1	QC		49			K006953		
BKK0730-MSD1	QC		50			K006953		
22K0471-01	8082A PCB Water 0.01	B 01	51			K006953	Aspect Consulting, LLC.	
22K0471-03	8082A PCB Water 0.01	AB 01	52			K006953	Aspect Consulting, LLC.	
22K0471-05	8082A PCB Water 0.01	B 01	53			K006953	Aspect Consulting, LLC.	
22K0471-07	8082A PCB Water 0.01	B 01	54			K006953	Aspect Consulting, LLC.	
22K0471-09	8082A PCB Water 0.01	B 01	55			K006953	Aspect Consulting, LLC.	
22K0471-11	8082A PCB Water 0.01	B 01	56			K006953	Aspect Consulting, LLC.	
22K0471-13	8082A PCB Water 0.01	B 01	57			K006953	Aspect Consulting, LLC.	
22K0471-15	8082A PCB Water 0.01	B 01	58			K006953	Aspect Consulting, LLC.	
SKL0280-CCVB	QC		59		K006957	K006953		
SKL0280-CCVC	QC		60		K006954	K006953		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	17-DEC-2022	09:16	12172201.D	1	DDTS	
2	17-DEC-2022	09:38	12172202.D	1	BD	
3	17-DEC-2022	09:59	12172203.D	1	AR1254ICV1	
4	17-DEC-2022	10:20	12172204.D	1	AR1660ICV2	
5	17-DEC-2022	10:41	12172205.D	1	BKL0190-BLK1	
6	17-DEC-2022	11:03	12172206.D	1	BKL0190-BS1	
7	17-DEC-2022	11:24	12172207.D	1	BKL0190-BSD1	
8	17-DEC-2022	11:45	12172208.D	1	BKL0190-SRM1	
9	17-DEC-2022	12:07	12172209.D	1	BKL0190-MS1	
10	17-DEC-2022	12:28	12172210.D	1	BKL0190-MSD1	
11	17-DEC-2022	12:49	12172211.D	1	22L0104-01	
12	17-DEC-2022	13:10	12172212.D	1	22L0104-02	
13	17-DEC-2022	13:31	12172213.D	1	22L0136-01	
14	17-DEC-2022	13:53	12172214.D	1	22L0136-02	
15	17-DEC-2022	14:14	12172215.D	1	AR1248CCV1	
16	17-DEC-2022	14:35	12172216.D	1	AR1660CCV2	
17	17-DEC-2022	14:56	12172217.D	1	22L0136-03	
18	17-DEC-2022	15:18	12172218.D	1	22L0136-04	
19	17-DEC-2022	15:39	12172219.D	1	22L0136-05	
20	17-DEC-2022	16:00	12172220.D	1	22L0136-06	
21	17-DEC-2022	16:21	12172221.D	1	22L0136-07	
22	17-DEC-2022	16:42	12172222.D	1	22L0136-08	
23	17-DEC-2022	17:04	12172223.D	1	22L0136-09	
24	17-DEC-2022	17:25	12172224.D	1	22L0136-10	
25	17-DEC-2022	17:46	12172225.D	1	22L0136-11	
26	17-DEC-2022	18:07	12172226.D	1	22L0136-12	
27	17-DEC-2022	18:29	12172227.D	1	AR1242CCV3	
28	17-DEC-2022	18:50	12172228.D	1	AR1660CCV4	
29	17-DEC-2022	19:11	12172229.D	1	BKL0224-BLK1	
30	17-DEC-2022	19:32	12172230.D	1	BKL0224-BS1	
31	17-DEC-2022	19:54	12172231.D	1	BKL0224-BSD1	
32	17-DEC-2022	20:15	12172232.D	1	22L0174-01	
33	17-DEC-2022	20:36	12172233.D	1	22L0174-02	
34	17-DEC-2022	20:57	12172234.D	1	22L0192-01	
35	17-DEC-2022	21:19	12172235.D	1	22L0207-01	
36	17-DEC-2022	21:40	12172236.D	1	22L0268-01	
37	17-DEC-2022	22:01	12172237.D	1	AR1254CCV5	
38	17-DEC-2022	22:22	12172238.D	1	AR1660CCV6	
39	17-DEC-2022	22:44	12172239.D	1	BKL0156-BLK1	
40	17-DEC-2022	23:05	12172240.D	1	BKL0156-BS1	
41	17-DEC-2022	23:26	12172241.D	1	BKL0156-BSD1	
42	17-DEC-2022	23:47	12172242.D	1	BKL0156-SRM1	
43	18-DEC-2022	00:09	12172243.D	1	BKL0156-MS1	
44	18-DEC-2022	00:30	12172244.D	1	BKL0156-MSD1	
45	18-DEC-2022	00:51	12172245.D	1	22L0105-17	
46	18-DEC-2022	01:12	12172246.D	1	22L0105-18	
47	18-DEC-2022	01:34	12172247.D	1	22L0105-19	
48	18-DEC-2022	01:55	12172248.D	1	22L0105-20	
49	18-DEC-2022	02:16	12172249.D	1	22L0105-21	
50	18-DEC-2022	02:37	12172250.D	1	22L0105-22	

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	18-DEC-2022	02:58	12172251.D	1	22L0105-23	
52	18-DEC-2022	03:20	12172252.D	1	AR1248CCV7	
53	18-DEC-2022	03:41	12172253.D	1	AR1660CCV8	
54	18-DEC-2022	04:02	12172254.D	1	22L0105-24	
55	18-DEC-2022	04:24	12172255.D	1	22L0105-25	
56	18-DEC-2022	04:45	12172256.D	1	22L0105-26	
57	18-DEC-2022	05:06	12172257.D	1	22L0105-27	
58	18-DEC-2022	05:27	12172258.D	1	22L0105-28	
59	18-DEC-2022	05:49	12172259.D	1	22L0105-29	
60	18-DEC-2022	06:10	12172260.D	1	22L0105-30	
61	18-DEC-2022	06:31	12172261.D	1	22L0105-31	
62	18-DEC-2022	06:52	12172262.D	1	22L0105-32	
63	18-DEC-2022	07:14	12172263.D	1	22L0105-33	
64	18-DEC-2022	07:35	12172264.D	1	AR1242CCV9	
65	18-DEC-2022	07:56	12172265.D	1	AR1660CCVA	
66	18-DEC-2022	08:17	12172266.D	1	BKK0730-BLK1	
67	18-DEC-2022	08:39	12172267.D	1	BKK0730-BS1	
68	18-DEC-2022	09:00	12172268.D	1	BKK0730-BSD1	
69	18-DEC-2022	09:21	12172269.D	1	BKK0730-MS1	
70	18-DEC-2022	09:43	12172270.D	1	BKK0730-MSD1	
71	18-DEC-2022	10:04	12172271.D	1	22K0471-01	
72	18-DEC-2022	10:25	12172272.D	1	22K0471-03	
73	18-DEC-2022	10:46	12172273.D	1	22K0471-05	
74	18-DEC-2022	11:08	12172274.D	1	22K0471-07	
75	18-DEC-2022	11:29	12172275.D	1	22K0471-09	
76	18-DEC-2022	11:50	12172276.D	1	22K0471-11	
77	18-DEC-2022	12:11	12172277.D	1	22K0471-13	
78	18-DEC-2022	12:33	12172278.D	1	22K0471-15	
79	18-DEC-2022	12:54	12172279.D	1	AR1254CCVB	
80	18-DEC-2022	13:15	12172280.D	1	AR1660CCVC	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b

ARI Job No.: DDTS Method: PCB.m Instrument: ecd7.i Date: 17-DEC-2022

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0916	12172201ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0938	12172202ECD7.D	BD		1	NO MANUAL INTEGRATION
0959	12172203ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1020	12172204ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1041	12172205ECD7.D	BKL0190-BLK1		1	NO MANUAL INTEGRATION
1103	12172206ECD7.D	BKL0190-BS1		1	NO MANUAL INTEGRATION
1124	12172207ECD7.D	BKL0190-BSD1		1	NO MANUAL INTEGRATION
1145	12172208ECD7.D	BKL0190-SRM1		1	NO MANUAL INTEGRATION
1207	12172209ECD7.D	BKL0190-MS1		1	NO MANUAL INTEGRATION
1228	12172210ECD7.D	BKL0190-MSD1		1	NO MANUAL INTEGRATION
1249	12172211ECD7.D	22L0104-01		1	Aroclor-1248, Aroclor-1254, Aroclor-1260, IS-BNB, IS-HBBP, Tetrachloro-m-xylene, Decachlorobiphenyl,
1310	12172212ECD7.D	22L0104-02		1	NO MANUAL INTEGRATION
1331	12172213ECD7.D	22L0136-01		1	NO MANUAL INTEGRATION
1353	12172214ECD7.D	22L0136-02		1	NO MANUAL INTEGRATION
1414	12172215ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1435	12172216ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1456	12172217ECD7.D	22L0136-03		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1518	12172218ECD7.D	22L0136-04		1	IS-BNB, Tetrachloro-m-xylene,
1539	12172219ECD7.D	22L0136-05		1	NO MANUAL INTEGRATION
1600	12172220ECD7.D	22L0136-06		1	Aroclor-1254,
1621	12172221ECD7.D	22L0136-07		1	NO MANUAL INTEGRATION
1642	12172222ECD7.D	22L0136-08		1	NO MANUAL INTEGRATION
1704	12172223ECD7.D	22L0136-09		1	Aroclor-1248, Tetrachloro-m-xylene,
1725	12172224ECD7.D	22L0136-10		1	Aroclor-1248, Aroclor-1254, Aroclor-1260, IS-BNB, Tetrachloro-m-xylene,
1746	12172225ECD7.D	22L0136-11		1	NO MANUAL INTEGRATION
1807	12172226ECD7.D	22L0136-12		1	NO MANUAL INTEGRATION
1829	12172227ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION
1850	12172228ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1911	12172229ECD7.D	BKL0224-BLK1		1	NO MANUAL INTEGRATION
1932	12172230ECD7.D	BKL0224-BS1		1	NO MANUAL INTEGRATION
1954	12172231ECD7.D	BKL0224-BSD1		1	NO MANUAL INTEGRATION
2015	12172232ECD7.D	22L0174-01		1	NO MANUAL INTEGRATION
2036	12172233ECD7.D	22L0174-02		1	NO MANUAL INTEGRATION
2057	12172234ECD7.D	22L0192-01		1	NO MANUAL INTEGRATION
2119	12172235ECD7.D	22L0207-01		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2140	12172236ECD7.D	22L0268-01		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-BNB, IS-HBBP, Tetrachloro-m-xylene, Decachlorobiphenyl,
2201	12172237ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
2222	12172238ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
2244	12172239ECD7.D	BKL0156-BLK1		1	NO MANUAL INTEGRATION
2305	12172240ECD7.D	BKL0156-BS1		1	NO MANUAL INTEGRATION
2326	12172241ECD7.D	BKL0156-BSD1		1	NO MANUAL INTEGRATION
2347	12172242ECD7.D	BKL0156-SRM1		1	NO MANUAL INTEGRATION
0009	12172243ECD7.D	BKL0156-MS1		1	NO MANUAL INTEGRATION
0030	12172244ECD7.D	BKL0156-MSD1		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Tetrachloro-m-xylene,
0051	12172245ECD7.D	22L0105-17		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Tetrachloro-m-xylene,
0112	12172246ECD7.D	22L0105-18		1	NO MANUAL INTEGRATION
0134	12172247ECD7.D	22L0105-19		1	NO MANUAL INTEGRATION
0155	12172248ECD7.D	22L0105-20		1	NO MANUAL INTEGRATION
0216	12172249ECD7.D	22L0105-21		1	NO MANUAL INTEGRATION
0237	12172250ECD7.D	22L0105-22		1	NO MANUAL INTEGRATION
0258	12172251ECD7.D	22L0105-23		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Tetrachloro-m-xylene,
0320	12172252ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION
0341	12172253ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0402	12172254ECD7.D	22L0105-24		1	NO MANUAL INTEGRATION
0424	12172255ECD7.D	22L0105-25		1	NO MANUAL INTEGRATION
0445	12172256ECD7.D	22L0105-26		1	NO MANUAL INTEGRATION
0506	12172257ECD7.D	22L0105-27		1	NO MANUAL INTEGRATION
0527	12172258ECD7.D	22L0105-28		1	NO MANUAL INTEGRATION
0549	12172259ECD7.D	22L0105-29		1	NO MANUAL INTEGRATION
0610	12172260ECD7.D	22L0105-30		1	NO MANUAL INTEGRATION
0631	12172261ECD7.D	22L0105-31		1	NO MANUAL INTEGRATION
0652	12172262ECD7.D	22L0105-32		1	NO MANUAL INTEGRATION
0714	12172263ECD7.D	22L0105-33		1	NO MANUAL INTEGRATION
0735	12172264ECD7.D	AR1242CCV9		1	NO MANUAL INTEGRATION
0756	12172265ECD7.D	AR1660CCVA		1	NO MANUAL INTEGRATION
0817	12172266ECD7.D	BKK0730-BLK1		1	NO MANUAL INTEGRATION
0839	12172267ECD7.D	BKK0730-BS1		1	NO MANUAL INTEGRATION
0900	12172268ECD7.D	BKK0730-BSD1		1	NO MANUAL INTEGRATION
0921	12172269ECD7.D	BKK0730-MS1		1	NO MANUAL INTEGRATION
0943	12172270ECD7.D	BKK0730-MSD1		1	NO MANUAL INTEGRATION
1004	12172271ECD7.D	22K0471-01		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1025	12172272ECD7.D	22K0471-03		1	NO MANUAL INTEGRATION
1046	12172273ECD7.D	22K0471-05		1	NO MANUAL INTEGRATION
1108	12172274ECD7.D	22K0471-07		1	NO MANUAL INTEGRATION
1129	12172275ECD7.D	22K0471-09		1	NO MANUAL INTEGRATION
1150	12172276ECD7.D	22K0471-11		1	NO MANUAL INTEGRATION
1211	12172277ECD7.D	22K0471-13		1	NO MANUAL INTEGRATION
1233	12172278ECD7.D	22K0471-15		1	NO MANUAL INTEGRATION
1254	12172279ECD7.D	AR1254CCVB		1	NO MANUAL INTEGRATION
1315	12172280ECD7.D	AR1660CCVC		1	Aroclor-1016,
0916	12172201ECD7.D	DDTS		1	NO MANUAL INTEGRATION
0938	12172202ECD7.D	BD		1	NO MANUAL INTEGRATION
0959	12172203ECD7.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1020	12172204ECD7.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1041	12172205ECD7.D	BKL0190-BLK1		1	NO MANUAL INTEGRATION
1103	12172206ECD7.D	BKL0190-BS1		1	NO MANUAL INTEGRATION
1124	12172207ECD7.D	BKL0190-BSD1		1	NO MANUAL INTEGRATION
1145	12172208ECD7.D	BKL0190-SRM1		1	NO MANUAL INTEGRATION
1207	12172209ECD7.D	BKL0190-MS1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b\221217.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1228	12172210ECD7.D	BKL0190-MSD1		1	NO MANUAL INTEGRATION
1249	12172211ECD7.D	22L0104-01		1	Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Tetrachloro-m-xylene [2C],
1310	12172212ECD7.D	22L0104-02		1	NO MANUAL INTEGRATION
1331	12172213ECD7.D	22L0136-01		1	NO MANUAL INTEGRATION
1353	12172214ECD7.D	22L0136-02		1	NO MANUAL INTEGRATION
1414	12172215ECD7.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1435	12172216ECD7.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1456	12172217ECD7.D	22L0136-03		1	NO MANUAL INTEGRATION
1518	12172218ECD7.D	22L0136-04		1	Aroclor-1254 [2C], IS-BNB [2C], Tetrachloro-m-xylene [2C],
1539	12172219ECD7.D	22L0136-05		1	NO MANUAL INTEGRATION
1600	12172220ECD7.D	22L0136-06		1	Aroclor-1260 [2C],
1621	12172221ECD7.D	22L0136-07		1	NO MANUAL INTEGRATION
1642	12172222ECD7.D	22L0136-08		1	NO MANUAL INTEGRATION
1704	12172223ECD7.D	22L0136-09		1	NO MANUAL INTEGRATION
1725	12172224ECD7.D	22L0136-10		1	NO MANUAL INTEGRATION
1746	12172225ECD7.D	22L0136-11		1	NO MANUAL INTEGRATION
1807	12172226ECD7.D	22L0136-12		1	NO MANUAL INTEGRATION
1829	12172227ECD7.D	AR1242CCV3		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b\221217.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1850	12172228ECD7.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1911	12172229ECD7.D	BKL0224-BLK1		1	NO MANUAL INTEGRATION
1932	12172230ECD7.D	BKL0224-BS1		1	NO MANUAL INTEGRATION
1954	12172231ECD7.D	BKL0224-BSD1		1	NO MANUAL INTEGRATION
2015	12172232ECD7.D	22L0174-01		1	NO MANUAL INTEGRATION
2036	12172233ECD7.D	22L0174-02		1	NO MANUAL INTEGRATION
2057	12172234ECD7.D	22L0192-01		1	NO MANUAL INTEGRATION
2119	12172235ECD7.D	22L0207-01		1	NO MANUAL INTEGRATION
2140	12172236ECD7.D	22L0268-01		1	NO MANUAL INTEGRATION
2201	12172237ECD7.D	AR1254CCV5		1	NO MANUAL INTEGRATION
2222	12172238ECD7.D	AR1660CCV6		1	NO MANUAL INTEGRATION
2244	12172239ECD7.D	BKL0156-BLK1		1	NO MANUAL INTEGRATION
2305	12172240ECD7.D	BKL0156-BS1		1	NO MANUAL INTEGRATION
2326	12172241ECD7.D	BKL0156-BSD1		1	NO MANUAL INTEGRATION
2347	12172242ECD7.D	BKL0156-SRM1		1	NO MANUAL INTEGRATION
0009	12172243ECD7.D	BKL0156-MS1		1	NO MANUAL INTEGRATION
0030	12172244ECD7.D	BKL0156-MSD1		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
0051	12172245ECD7.D	22L0105-17		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b\221217.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0112	12172246ECD7.D	22L0105-18		1	NO MANUAL INTEGRATION
0134	12172247ECD7.D	22L0105-19		1	NO MANUAL INTEGRATION
0155	12172248ECD7.D	22L0105-20		1	NO MANUAL INTEGRATION
0216	12172249ECD7.D	22L0105-21		1	NO MANUAL INTEGRATION
0237	12172250ECD7.D	22L0105-22		1	Aroclor-1260 [2C],
0258	12172251ECD7.D	22L0105-23		1	NO MANUAL INTEGRATION
0320	12172252ECD7.D	AR1248CCV7		1	NO MANUAL INTEGRATION
0341	12172253ECD7.D	AR1660CCV8		1	NO MANUAL INTEGRATION
0402	12172254ECD7.D	22L0105-24		1	NO MANUAL INTEGRATION
0424	12172255ECD7.D	22L0105-25		1	NO MANUAL INTEGRATION
0445	12172256ECD7.D	22L0105-26		1	NO MANUAL INTEGRATION
0506	12172257ECD7.D	22L0105-27		1	NO MANUAL INTEGRATION
0527	12172258ECD7.D	22L0105-28		1	NO MANUAL INTEGRATION
0549	12172259ECD7.D	22L0105-29		1	NO MANUAL INTEGRATION
0610	12172260ECD7.D	22L0105-30		1	NO MANUAL INTEGRATION
0631	12172261ECD7.D	22L0105-31		1	NO MANUAL INTEGRATION
0652	12172262ECD7.D	22L0105-32		1	NO MANUAL INTEGRATION
0714	12172263ECD7.D	22L0105-33		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221217.b\221217.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0735	12172264ECD7.D	AR1242CCV9		1	NO MANUAL INTEGRATION
0756	12172265ECD7.D	AR1660CCVA		1	NO MANUAL INTEGRATION
0817	12172266ECD7.D	BKK0730-BLK1		1	NO MANUAL INTEGRATION
0839	12172267ECD7.D	BKK0730-BS1		1	NO MANUAL INTEGRATION
0900	12172268ECD7.D	BKK0730-BSD1		1	NO MANUAL INTEGRATION
0921	12172269ECD7.D	BKK0730-MS1		1	NO MANUAL INTEGRATION
0943	12172270ECD7.D	BKK0730-MSD1		1	NO MANUAL INTEGRATION
1004	12172271ECD7.D	22K0471-01		1	NO MANUAL INTEGRATION
1025	12172272ECD7.D	22K0471-03		1	NO MANUAL INTEGRATION
1046	12172273ECD7.D	22K0471-05		1	NO MANUAL INTEGRATION
1108	12172274ECD7.D	22K0471-07		1	NO MANUAL INTEGRATION
1129	12172275ECD7.D	22K0471-09		1	NO MANUAL INTEGRATION
1150	12172276ECD7.D	22K0471-11		1	NO MANUAL INTEGRATION
1211	12172277ECD7.D	22K0471-13		1	NO MANUAL INTEGRATION
1233	12172278ECD7.D	22K0471-15		1	NO MANUAL INTEGRATION
1254	12172279ECD7.D	AR1254CCVB		1	NO MANUAL INTEGRATION
1315	12172280ECD7.D	AR1660CCVC		1	NO MANUAL INTEGRATION

Security Status Report

Date: 20-Dec-2022 15:37

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ANALYSIS SEQUENCE

SKL0280

Instrument: ECD7
Calibration ID: FL00010

Printed: 12/30/2022 9:33:40AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SKL0280-ICV1	QC		1		K006957	K006953		
SKL0280-ICV2	QC		2		K006954	K006953		
BKL0190-BLK1	QC		3			K006953		
BKL0190-BS1	QC		4			K006953		
BKL0190-BSD1	QC		5			K006953		
BKL0190-SRM1	QC		6			K006953		
BKL0190-MS1	QC		7			K006953		
BKL0190-MSD1	QC		8			K006953		
22L0104-01	8082A PCB Solid 4	B 02	9			K006953	Anchor QEA, LLC	
22L0104-02	8082A PCB Solid 4	B 02	10			K006953	Anchor QEA, LLC	Finsh extract and hold
22L0136-01	8082A PCB Solid 4	A 01	11			K006953	Anchor QEA, LLC	
22L0136-02	8082A PCB Solid 4	A 01	12			K006953	Anchor QEA, LLC	
SKL0280-CCV1	QC		13		K006956	K006953		
SKL0280-CCV2	QC		14		K006954	K006953		
22L0136-03	8082A PCB Solid 4	A 01	15			K006953	Anchor QEA, LLC	
22L0136-04	8082A PCB Solid 4	A 01	16			K006953	Anchor QEA, LLC	
22L0136-05	8082A PCB Solid 4	A 01	17			K006953	Anchor QEA, LLC	
22L0136-06	8082A PCB Solid 4	A 01	18			K006953	Anchor QEA, LLC	
22L0136-07	8082A PCB Solid 4	A 01	19			K006953	Anchor QEA, LLC	
22L0136-08	8082A PCB Solid 4	A 01	20			K006953	Anchor QEA, LLC	
22L0136-09	8082A PCB Solid 4	A 01	21			K006953	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SKL0280

Instrument: ECD7
Calibration ID: FL00010

Printed: 12/30/2022 9:33:40AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
22L0136-10	8082A PCB Solid 4	A 01	22			K006953	Anchor QEA, LLC	
22L0136-12	8082A PCB Solid 4	A 01	23			K006953	Anchor QEA, LLC	
SKL0280-CCV3	QC		24		K006955	K006953		
SKL0280-CCV4	QC		25		K006954	K006953		
BKL0224-BLK1	QC		26			K006953		
BKL0224-BS1	QC		27			K006953		
BKL0224-BSD1	QC		28			K006953		
22L0174-01	8082A PCB Water 0.01	A 01	29			K006953	The Boeing Company [BDS Stormwaters]	
22L0174-02	8082A PCB Water 0.01	A 01	30			K006953	The Boeing Company [BDS Stormwaters]	
22L0192-01	8082A PCB Water 0.01	A 01	31			K006953	The Boeing Company [North Boeing Field]	
22L0207-01	8082A PCB Water 0.01	A 01	32			K006953	DH Environmental Inc	
SKL0280-CCV5	QC		33		K006957	K006953		
SKL0280-CCV6	QC		34		K006954	K006953		
BKL0158-BLK1	QC		35			K006953		
BKL0158-BS1	QC		36			K006953		
BKL0158-BSD1	QC		37			K006953		
BKL0158-SRM1	QC		38			K006953		
BKL0158-MS1	QC		39			K006953		
22L0105-20	8082A PCB Solid 4	A 01	40			K006953	Anchor QEA, LLC	
22L0105-21	8082A PCB Solid 4	A 01	41			K006953	Anchor QEA, LLC	
22L0105-22	8082A PCB Solid 4	A 01	42			K006953	Anchor QEA, LLC	

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____



ANALYSIS SEQUENCE

SKL0280

Instrument: ECD7
Calibration ID: FL00010

Printed: 12/30/2022 9:33:40AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SKL0280-CCV7	QC		43		K006956	K006953		
SKL0280-CCV8	QC		44		K006954	K006953		
SKL0280-CCV9	QC		45		K006955	K006953		
SKL0280-CCVA	QC		46		K006954	K006953		
BKK0730-BLK1	QC		47			K006953		
BKK0730-BS1	QC		48			K006953		
BKK0730-BSD1	QC		49			K006953		
BKK0730-MS1	QC		50			K006953		
BKK0730-MSD1	QC		51			K006953		
22K0471-01	8082A PCB Water 0.01	B 01	52			K006953	Aspect Consulting, LLC.	
22K0471-03	8082A PCB Water 0.01	AB 01	53			K006953	Aspect Consulting, LLC.	
22K0471-05	8082A PCB Water 0.01	B 01	54			K006953	Aspect Consulting, LLC.	
22K0471-07	8082A PCB Water 0.01	B 01	55			K006953	Aspect Consulting, LLC.	
22K0471-09	8082A PCB Water 0.01	B 01	56			K006953	Aspect Consulting, LLC.	
22K0471-11	8082A PCB Water 0.01	B 01	57			K006953	Aspect Consulting, LLC.	
22K0471-13	8082A PCB Water 0.01	B 01	58			K006953	Aspect Consulting, LLC.	
22K0471-15	8082A PCB Water 0.01	B 01	59			K006953	Aspect Consulting, LLC.	
SKL0280-CCVB	QC		60		K006957	K006953		
SKL0280-CCVC	QC		61		K006954	K006953		

Samples Loaded By _____ Date _____

Data Processed By _____ Date _____

Security Status Report

Date: 30-Dec-2022 09:31

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Dual Column
ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor OEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0282

Instrument: ECD7

Calibration: FL00010

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SKL0282-ICV1	12192202ECD7.D	12192202ECD7.D	NA	12/19/22 14:56
Initial Cal Check	SKL0282-ICV2	12192203ECD7.D	12192203ECD7.D	NA	12/19/22 15:17
LDW22-SC782C	BKL0158-MSD1	12192205ECD7.D	12192205ECD7.D	Solid	12/19/22 16:00
LDW22-SC775L	22L0105-17	12192206ECD7.D	12192206ECD7.D	Solid	12/19/22 16:21
LDW22-SC775M	22L0105-18	12192207ECD7.D	12192207ECD7.D	Solid	12/19/22 16:42
LDW22-IT796	22L0105-19	12192208ECD7.D	12192208ECD7.D	Solid	12/19/22 17:03
LDW22-SC782D	22L0105-23	12192209ECD7.D	12192209ECD7.D	Solid	12/19/22 17:24
LDW22-SC782E	22L0105-24	12192210ECD7.D	12192210ECD7.D	Solid	12/19/22 17:46
LDW22-SC782F	22L0105-25	12192211ECD7.D	12192211ECD7.D	Solid	12/19/22 18:07
LDW22-SC782G	22L0105-26	12192212ECD7.D	12192212ECD7.D	Solid	12/19/22 18:28
Calibration Check	SKL0282-CCV1	12192213ECD7.D	12192213ECD7.D	NA	12/19/22 18:49
Calibration Check	SKL0282-CCV2	12192214ECD7.D	12192214ECD7.D	NA	12/19/22 19:11
LDW22-SC782H	22L0105-27	12192215ECD7.D	12192215ECD7.D	Solid	12/19/22 19:32
LDW22-SC782I	22L0105-28	12192216ECD7.D	12192216ECD7.D	Solid	12/19/22 19:53
LDW22-SC782J	22L0105-29	12192217ECD7.D	12192217ECD7.D	Solid	12/19/22 20:14
LDW22-SC782K	22L0105-30	12192218ECD7.D	12192218ECD7.D	Solid	12/19/22 20:35
LDW22-SC782L	22L0105-31	12192219ECD7.D	12192219ECD7.D	Solid	12/19/22 20:57
LDW22-SC782M	22L0105-32	12192220ECD7.D	12192220ECD7.D	Solid	12/19/22 21:18
LDW22-SC782N	22L0105-33	12192221ECD7.D	12192221ECD7.D	Solid	12/19/22 21:39
Calibration Check	SKL0282-CCV3	12192223ECD7.D	12192223ECD7.D	NA	12/19/22 22:21
Calibration Check	SKL0282-CCV4	12192224ECD7.D	12192224ECD7.D	NA	12/19/22 22:43
Blank	BKL0157-BLK1	12192225ECD7.D	12192225ECD7.D	Solid	12/19/22 23:04
LCS	BKL0157-BS1	12192226ECD7.D	12192226ECD7.D	Solid	12/19/22 23:25
LCS Dup	BKL0157-BSD1	12192227ECD7.D	12192227ECD7.D	Solid	12/19/22 23:46
LDW22-SC775A	BKL0157-MS1	12192228ECD7.D	12192228ECD7.D	Solid	12/20/22 00:07
LDW22-SC775A	BKL0157-MSD1	12192229ECD7.D	12192229ECD7.D	Solid	12/20/22 00:29
Reference	BKL0157-SRM1	12192230ECD7.D	12192230ECD7.D	Solid	12/20/22 00:50
LDW22-SC772	22L0105-01	12192231ECD7.D	12192231ECD7.D	Solid	12/20/22 01:11
LDW22-SC771	22L0105-02	12192232ECD7.D	12192232ECD7.D	Solid	12/20/22 01:32



Dual Column
ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0282

Instrument: ECD7

Calibration: FL00010

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
LDW22-SC756	22L0105-03	12192233ECD7.D	12192233ECD7.D	Solid	12/20/22 01:53
LDW22-SC780	22L0105-04	12192234ECD7.D	12192234ECD7.D	Solid	12/20/22 02:15
LDW22-IT792	22L0105-05	12192235ECD7.D	12192235ECD7.D	Solid	12/20/22 02:36
LDW22-SC775A	22L0105-06	12192236ECD7.D	12192236ECD7.D	Solid	12/20/22 02:57
LDW22-SC775B	22L0105-07	12192237ECD7.D	12192237ECD7.D	Solid	12/20/22 03:18
LDW22-SC775C	22L0105-08	12192238ECD7.D	12192238ECD7.D	Solid	12/20/22 03:39
Calibration Check	SKL0282-CCV5	12192239ECD7.D	12192239ECD7.D	NA	12/20/22 04:01
Calibration Check	SKL0282-CCV6	12192240ECD7.D	12192240ECD7.D	NA	12/20/22 04:22
LDW22-SC775D	22L0105-09	12192241ECD7.D	12192241ECD7.D	Solid	12/20/22 04:43
LDW22-SC775E	22L0105-10	12192242ECD7.D	12192242ECD7.D	Solid	12/20/22 05:04
LDW22-SC775F	22L0105-11	12192243ECD7.D	12192243ECD7.D	Solid	12/20/22 05:25
LDW22-SC775G	22L0105-12	12192244ECD7.D	12192244ECD7.D	Solid	12/20/22 05:47
LDW22-SC775H	22L0105-13	12192245ECD7.D	12192245ECD7.D	Solid	12/20/22 06:08
LDW22-SC775I	22L0105-14	12192246ECD7.D	12192246ECD7.D	Solid	12/20/22 06:29
LDW22-SC775J	22L0105-15	12192247ECD7.D	12192247ECD7.D	Solid	12/20/22 06:50
LDW22-SC775K	22L0105-16	12192248ECD7.D	12192248ECD7.D	Solid	12/20/22 07:12
Calibration Check	SKL0282-CCV7	12192249ECD7.D	12192249ECD7.D	NA	12/20/22 07:33
Calibration Check	SKL0282-CCV8	12192250ECD7.D	12192250ECD7.D	NA	12/20/22 07:54
Calibration Check	SKL0282-CCV9	12192260ECD7.D	12192260ECD7.D	NA	12/20/22 11:27
Calibration Check	SKL0282-CCVA	12192261ECD7.D	12192261ECD7.D	NA	12/20/22 11:48



ANALYSIS SEQUENCE

SKL0282

Instrument: ECD7
Calibration ID: FL00010

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0282-ICV1	AR1254ICV1	QC		1	K006957	K006953		
SKL0282-ICV2	AR1660ICV2	QC		2	K006954	K006953		
BKL0158-MSD1	Matrix Spike Dup	QC		3		K006953		
22L0105-17	LDW22-SC775L	8082A PCB Solid 4	A 01	4		K006953		
22L0105-18	LDW22-SC775M	8082A PCB Solid 4	A 01	5		K006953		
22L0105-19	LDW22-IT796	8082A PCB Solid 4	A 01	6		K006953		
22L0105-23	LDW22-SC782D	8082A PCB Solid 4	A 01	7		K006953		
22L0105-24	LDW22-SC782E	8082A PCB Solid 4	A 01	8		K006953		
22L0105-25	LDW22-SC782F	8082A PCB Solid 4	A 01	9		K006953		
22L0105-26	LDW22-SC782G	8082A PCB Solid 4	A 01	10		K006953		
SKL0282-CCV1	AR1248CCV1	QC		11	K006956	K006953		
SKL0282-CCV2	AR1660CCV2	QC		12	K006954	K006953		
22L0105-27	LDW22-SC782H	8082A PCB Solid 4	A 01	13		K006953		
22L0105-28	LDW22-SC782I	8082A PCB Solid 4	A 01	14		K006953		
22L0105-29	LDW22-SC782J	8082A PCB Solid 4	A 01	15		K006953		
22L0105-30	LDW22-SC782K	8082A PCB Solid 4	A 01	16		K006953		
22L0105-31	LDW22-SC782L	8082A PCB Solid 4	A 01	17		K006953		
22L0105-32	LDW22-SC782M	8082A PCB Solid 4	A 01	18		K006953		
22L0105-33	LDW22-SC782N	8082A PCB Solid 4	A 01	19		K006953		
22L0268-01	2-83 Pressure Wash Tank#1	8082A PCB Water 0.01	B 01	20		K006953		
SKL0282-CCV3	AR1242CCV3	QC		21	K006955	K006953		
SKL0282-CCV4	AR1660CCV4	QC		22	K006954	K006953		



ANALYSIS SEQUENCE

SKL0282

Instrument: ECD7
Calibration ID: FL00010

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
BKL0157-BLK1	Blank	QC		23		K006953		
BKL0157-BS1	LCS	QC		24		K006953		
BKL0157-BSD1	LCS Dup	QC		25		K006953		
BKL0157-SRM1	Reference	QC		26		K006953		
BKL0157-MS1	Matrix Spike	QC		27		K006953		
BKL0157-MSD1	Matrix Spike Dup	QC		28		K006953		
22L0105-01	LDW22-SC772	8082A PCB Solid 4	A 01	29		K006953		
22L0105-02	LDW22-SC771	8082A PCB Solid 4	A 01	30		K006953		
22L0105-03	LDW22-SC756	8082A PCB Solid 4	A 01	31		K006953		
22L0105-04	LDW22-SC780	8082A PCB Solid 4	A 01	32		K006953		
22L0105-05	LDW22-IT792	8082A PCB Solid 4	A 01	33		K006953		
22L0105-06	LDW22-SC775A	8082A PCB Solid 4	A 01	34		K006953		
22L0105-07	LDW22-SC775B	8082A PCB Solid 4	A 01	35		K006953		
22L0105-08	LDW22-SC775C	8082A PCB Solid 4	A 01	36		K006953		
SKL0282-CCV5	AR1254CCV5	QC		37	K006957	K006953		
SKL0282-CCV6	AR1660CCV6	QC		38	K006954	K006953		
22L0105-09	LDW22-SC775D	8082A PCB Solid 4	A 01	39		K006738		
22L0105-10	LDW22-SC775E	8082A PCB Solid 4	A 01	40		K006738		
22L0105-11	LDW22-SC775F	8082A PCB Solid 4	A 01	41		K006738		
22L0105-12	LDW22-SC775G	8082A PCB Solid 4	A 01	42		K006738		
22L0105-13	LDW22-SC775H	8082A PCB Solid 4	A 01	43		K006738		
22L0105-14	LDW22-SC775I	8082A PCB Solid 4	A 01	44		K006738		



ANALYSIS SEQUENCE

SKL0282

Instrument: ECD7
Calibration ID: FL00010

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
22L0105-15	LDW22-SC775J	8082A PCB Solid 4	A 01	45		K006738		
22L0105-16	LDW22-SC775K	8082A PCB Solid 4	A 01	46		K006738		
SKL0282-CCV7	AR1248CCV7	QC		47	K006956	K006953		
SKL0282-CCV8	AR1660CCV8	QC		48	K006954	K006953		
BKL0226-BLK1	Blank	QC		49		K006953		
BKL0226-BS1	LCS	QC		50		K006953		
BKL0226-BSD1	LCS Dup	QC		51		K006953		
BKL0226-SRM1	Reference	QC		52		K006953		
BKL0226-MS1	Matrix Spike	QC		53		K006953		
BKL0226-MSD1	Matrix Spike Dup	QC		54		K006953		
22L0137-21	LDW22-SC785D	8082A PCB Solid 4	B 01	55		K006953		
22L0137-22	LDW22-SC785E	8082A PCB Solid 4	B 01	56		K006953		
22L0137-23	LDW22-SC785F	8082A PCB Solid 4	B 01	57		K006953		
SKL0282-CCV9	AR1242CCV9	QC		58	K006955	K006953		
SKL0282-CCVA	AR1660CCVA	QC		59	K006954	K006953		

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221219.b

Inject	Date/Time	Filename	DF	LabID	ClientID
1	19-DEC-2022 14:35	12192201ECD7.D		1	
2	19-DEC-2022 14:56	12192202ECD7.D		1	AR1254ICV1
3	19-DEC-2022 15:17	12192203ECD7.D		1	AR1660ICV2
4	19-DEC-2022 15:39	12192204ECD7.D		1	22L0136-11
5	19-DEC-2022 16:00	12192205ECD7.D		1	BKL0156-MSD1
6	19-DEC-2022 16:21	12192206ECD7.D	10		22L0105-17RE1
7	19-DEC-2022 16:42	12192207ECD7.D	10		22L0105-18RE1
8	19-DEC-2022 17:03	12192208ECD7.D	5		22L0105-19RE1
9	19-DEC-2022 17:24	12192209ECD7.D	1		22L0105-23
10	19-DEC-2022 17:46	12192210ECD7.D	5		22L0105-24RE1
11	19-DEC-2022 18:07	12192211ECD7.D	10		22L0105-25RE1
12	19-DEC-2022 18:28	12192212ECD7.D	5		22L0105-26RE1
13	19-DEC-2022 18:49	12192213ECD7.D	1		AR1248CCV1
14	19-DEC-2022 19:11	12192214ECD7.D	1		AR1660CCV2
15	19-DEC-2022 19:32	12192215ECD7.D	5		22L0105-27RE1
16	19-DEC-2022 19:53	12192216ECD7.D	5		22L0105-28RE1
17	19-DEC-2022 20:14	12192217ECD7.D	10		22L0105-29RE1
18	19-DEC-2022 20:35	12192218ECD7.D	10		22L0105-30RE1
19	19-DEC-2022 20:57	12192219ECD7.D	5		22L0105-31RE1
20	19-DEC-2022 21:18	12192220ECD7.D	1		22L0105-32
21	19-DEC-2022 21:39	12192221ECD7.D	1		22L0105-33
22	19-DEC-2022 22:00	12192222ECD7.D	5		22L0268-01RE1
23	19-DEC-2022 22:21	12192223ECD7.D	1		AR1242CCV3
24	19-DEC-2022 22:43	12192224ECD7.D	1		AR1660CCV4
25	19-DEC-2022 23:04	12192225ECD7.D	1		BKL0157-BLK1
26	19-DEC-2022 23:25	12192226ECD7.D	1		BKL0157-BS1
27	19-DEC-2022 23:46	12192227ECD7.D	1		BKL0157-BSD1
28	20-DEC-2022 00:07	12192228ECD7.D	1		BKL0157-MS1
29	20-DEC-2022 00:29	12192229ECD7.D	1		BKL0157-MSD1
30	20-DEC-2022 00:50	12192230ECD7.D	1		BKL0157-SRM1
31	20-DEC-2022 01:11	12192231ECD7.D	1		22L0105-01
32	20-DEC-2022 01:32	12192232ECD7.D	1		22L0105-02
33	20-DEC-2022 01:53	12192233ECD7.D	1		22L0105-03
34	20-DEC-2022 02:15	12192234ECD7.D	1		22L0105-04
35	20-DEC-2022 02:36	12192235ECD7.D	1		22L0105-05
36	20-DEC-2022 02:57	12192236ECD7.D	1		22L0105-06
37	20-DEC-2022 03:18	12192237ECD7.D	1		22L0105-07
38	20-DEC-2022 03:39	12192238ECD7.D	1		22L0105-08
39	20-DEC-2022 04:01	12192239ECD7.D	1		AR1254CCV5
40	20-DEC-2022 04:22	12192240ECD7.D	1		AR1660CCV6
41	20-DEC-2022 04:43	12192241ECD7.D	1		22L0105-09
42	20-DEC-2022 05:04	12192242ECD7.D	1		22L0105-10
43	20-DEC-2022 05:25	12192243ECD7.D	1		22L0105-11
44	20-DEC-2022 05:47	12192244ECD7.D	1		22L0105-12
45	20-DEC-2022 06:08	12192245ECD7.D	1		22L0105-13

46	20-DEC-2022	06:29	12192246ECD7.D	1	22L0105-14
47	20-DEC-2022	06:50	12192247ECD7.D	1	22L0105-15
48	20-DEC-2022	07:12	12192248ECD7.D	1	22L0105-16
49	20-DEC-2022	07:33	12192249ECD7.D	1	AR1248CCV7
50	20-DEC-2022	07:54	12192250ECD7.D	1	AR1660CCV8

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	20-DEC-2022	08:15	12192251ECD7.D	1	BKL0226-BLK1	
52	20-DEC-2022	08:37	12192252ECD7.D	1	BKL0226-BS1	
53	20-DEC-2022	08:58	12192253ECD7.D	1	BKL0226-BSD1	
54	20-DEC-2022	09:19	12192254ECD7.D	1	BKL0226-MS1	
55	20-DEC-2022	09:40	12192255ECD7.D	1	BKL0226-MSD1	
56	20-DEC-2022	10:02	12192256ECD7.D	1	BKL0226-SRM1	
57	20-DEC-2022	10:23	12192257ECD7.D	1	22L0137-21	
58	20-DEC-2022	10:44	12192258ECD7.D	1	22L0137-22	
59	20-DEC-2022	11:05	12192259ECD7.D	1	22L0137-23	
60	20-DEC-2022	11:27	12192260ECD7.D	1	AR1242CCV9	
61	20-DEC-2022	11:48	12192261ECD7.D	1	AR1660CCVA	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221219.b

Instrument: ecd7.i Date: 19-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
1456	12192202ECD7.D	AR1254ICV1	1	NO MANUAL INTEGRATION
1517	12192203ECD7.D	AR1660ICV2	1	NO MANUAL INTEGRATION
1539	12192204ECD7.D	22L0136-11	1	NO MANUAL INTEGRATION
1600	12192205ECD7.D	BKL0156-MSD1	1	NO MANUAL INTEGRATION
1621	12192206ECD7.D	22L0105-17RE1	10	NO MANUAL INTEGRATION
1642	12192207ECD7.D	22L0105-18RE1	10	NO MANUAL INTEGRATION
1703	12192208ECD7.D	22L0105-19RE1	5	NO MANUAL INTEGRATION
1724	12192209ECD7.D	22L0105-23	1	NO MANUAL INTEGRATION
1746	12192210ECD7.D	22L0105-24RE1	5	NO MANUAL INTEGRATION
1807	12192211ECD7.D	22L0105-25RE1	10	NO MANUAL INTEGRATION
1828	12192212ECD7.D	22L0105-26RE1	5	NO MANUAL INTEGRATION
1849	12192213ECD7.D	AR1248CCV1	1	NO MANUAL INTEGRATION
1911	12192214ECD7.D	AR1660CCV2	1	NO MANUAL INTEGRATION
1932	12192215ECD7.D	22L0105-27RE1	5	NO MANUAL INTEGRATION
1953	12192216ECD7.D	22L0105-28RE1	5	NO MANUAL INTEGRATION
2014	12192217ECD7.D	22L0105-29RE1	10	NO MANUAL INTEGRATION
2035	12192218ECD7.D	22L0105-30RE1	10	NO MANUAL INTEGRATION

Instrument: ecd7.i Date: 19-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
2057	12192219ECD7.D	22L0105-31RE1	5	NO MANUAL INTEGRATION
2118	12192220ECD7.D	22L0105-32	1	NO MANUAL INTEGRATION
2139	12192221ECD7.D	22L0105-33	1	NO MANUAL INTEGRATION
2200	12192222ECD7.D	22L0268-01RE1	5	NO MANUAL INTEGRATION
2221	12192223ECD7.D	AR1242CCV3	1	Aroclor-1242,
2243	12192224ECD7.D	AR1660CCV4	1	NO MANUAL INTEGRATION
2304	12192225ECD7.D	BKL0157-BLK1	1	NO MANUAL INTEGRATION
2325	12192226ECD7.D	BKL0157-BS1	1	NO MANUAL INTEGRATION
2346	12192227ECD7.D	BKL0157-BSD1	1	NO MANUAL INTEGRATION
0007	12192228ECD7.D	BKL0157-MS1	1	NO MANUAL INTEGRATION
0029	12192229ECD7.D	BKL0157-MSD1	1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254,
0050	12192230ECD7.D	BKL0157-SRM1	1	NO MANUAL INTEGRATION
0111	12192231ECD7.D	22L0105-01	1	NO MANUAL INTEGRATION
0132	12192232ECD7.D	22L0105-02	1	NO MANUAL INTEGRATION
0153	12192233ECD7.D	22L0105-03	1	NO MANUAL INTEGRATION
0215	12192234ECD7.D	22L0105-04	1	NO MANUAL INTEGRATION
0236	12192235ECD7.D	22L0105-05	1	NO MANUAL INTEGRATION
0257	12192236ECD7.D	22L0105-06	1	Aroclor-1248, Aroclor-1254,

Instrument: ecd7.i Date: 20-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
0318	12192237ECD7.D	22L0105-07	1	NO MANUAL INTEGRATION
0339	12192238ECD7.D	22L0105-08	1	NO MANUAL INTEGRATION
0401	12192239ECD7.D	AR1254CCV5	1	NO MANUAL INTEGRATION
0422	12192240ECD7.D	AR1660CCV6	1	Aroclor-1016, Aroclor-1260,
0443	12192241ECD7.D	22L0105-09	1	NO MANUAL INTEGRATION
0504	12192242ECD7.D	22L0105-10	1	NO MANUAL INTEGRATION
0525	12192243ECD7.D	22L0105-11	1	NO MANUAL INTEGRATION
0547	12192244ECD7.D	22L0105-12	1	NO MANUAL INTEGRATION
0608	12192245ECD7.D	22L0105-13	1	NO MANUAL INTEGRATION
0629	12192246ECD7.D	22L0105-14	1	NO MANUAL INTEGRATION
0650	12192247ECD7.D	22L0105-15	1	NO MANUAL INTEGRATION
0712	12192248ECD7.D	22L0105-16	1	NO MANUAL INTEGRATION
0733	12192249ECD7.D	AR1248CCV7	1	NO MANUAL INTEGRATION
0754	12192250ECD7.D	AR1660CCV8	1	Aroclor-1016, Aroclor-1260,
0815	12192251ECD7.D	BKL0226-BLK1	1	NO MANUAL INTEGRATION
0837	12192252ECD7.D	BKL0226-BS1	1	NO MANUAL INTEGRATION
0858	12192253ECD7.D	BKL0226-BS1	1	NO MANUAL INTEGRATION
0919	12192254ECD7.D	BKL0226-MS1	1	NO MANUAL INTEGRATION

Instrument: ecd7.i Date: 20-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
0940	12192255ECD7.D	BKL0226-MSD1	1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1262, Tetrachloro-m-xylene,
1002	12192256ECD7.D	BKL0226-SRM1	1	NO MANUAL INTEGRATION
1023	12192257ECD7.D	22L0137-21	1	NO MANUAL INTEGRATION
1044	12192258ECD7.D	22L0137-22	1	NO MANUAL INTEGRATION
1105	12192259ECD7.D	22L0137-23	1	NO MANUAL INTEGRATION
1127	12192260ECD7.D	AR1242CCV9	1	Aroclor-1242, IS-HBBP, Decachlorobiphenyl,
1148	12192261ECD7.D	AR1660CCVA	1	Aroclor-1016, Aroclor-1260, IS-HBBP,



Dual Column
ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0330

Instrument: ECD7

Calibration: FL00010

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SKL0330-ICV1	12222202ECD7.D	12222202ECD7.D	NA	12/22/22 16:12
Initial Cal Check	SKL0330-ICV2	12222203ECD7.D	12222203ECD7.D	NA	12/22/22 16:34
LDW22-SC775J	22L0105-15RE1	12222204ECD7.D	12222204ECD7.D	Solid	12/22/22 16:55
LDW22-SC775K	22L0105-16RE1	12222205ECD7.D	12222205ECD7.D	Solid	12/22/22 17:16
Calibration Check	SKL0330-CCV1	12222214ECD7.D	12222214ECD7.D	NA	12/22/22 20:27
Calibration Check	SKL0330-CCV2	12222215ECD7.D	12222215ECD7.D	NA	12/22/22 20:48
Calibration Check	SKL0330-CCV3	12222226ECD7.D	12222226ECD7.D	NA	12/23/22 00:41
Calibration Check	SKL0330-CCV4	12222227ECD7.D	12222227ECD7.D	NA	12/23/22 01:02
Calibration Check	SKL0330-CCV5	12222243ECD7.D	12222243ECD7.D	NA	12/23/22 06:41
Calibration Check	SKL0330-CCV6	12222244ECD7.D	12222244ECD7.D	NA	12/23/22 07:03
Calibration Check	SKL0330-CCV7	12222258ECD7.D	12222258ECD7.D	NA	12/23/22 12:00
Calibration Check	SKL0330-CCV8	12222259ECD7.D	12222259ECD7.D	NA	12/23/22 12:21
Calibration Check	SKL0330-CCV9	12222265ECD7.D	12222265ECD7.D	NA	12/23/22 14:28
Calibration Check	SKL0330-CCVA	12222266ECD7.D	12222266ECD7.D	NA	12/23/22 14:49



ANALYSIS SEQUENCE

SKL0330

Instrument: ECD7
Calibration ID: FL00010

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
SKL0330-ICV1	AR1254ICV1	QC		1	K006957	K006953		
SKL0330-ICV2	AR1660ICV2	QC		2	K006954	K006953		
22L0105-15RE1	LDW22-SC775J	8082A PCB Solid 4	A 01	3		K006953		Added 12/22/2022 by JGR
22L0105-16RE1	LDW22-SC775K	8082A PCB Solid 4	A 01	4		K006953		Added 12/22/2022 by JGR
22L0137-25RE1	LDW22-SC785H	8082A PCB Solid 4	B 01	5		K006953		Added 12/27/2022 by PK
22L0137-26RE1	LDW22-SC785I	8082A PCB Solid 4	B 01	6		K006953		Added 12/27/2022 by PK
22L0137-27RE1	LDW22-SC785J	8082A PCB Solid 4	B 01	7		K006953		Added 12/27/2022 by PK
22L0137-29RE1	LDW22-SC785L	8082A PCB Solid 4	B 01	8		K006953		Added 12/27/2022 by PK
22L0137-30RE1	LDW22-SC785M	8082A PCB Solid 4	B 01	9		K006953		Added 12/27/2022 by PK
22L0137-34	LDW22-SC776B	8082A PCB Solid 4	B 01	10		K006953		
22L0137-35RE1	LDW22-SC776C	8082A PCB Solid 4	B 01	11		K006953		Added 12/27/2022 by PK
22L0137-36RE1	LDW22-SC776D	8082A PCB Solid 4	B 01	12		K006953		Added 12/27/2022 by PK
SKL0330-CCV1	AR1248CCV1	QC		13	K006956	K006953		
SKL0330-CCV2	AR1660CCV2	QC		14	K006954	K006953		
22L0137-38RE1	LDW22-SC776E-FD	8082A PCB Solid 4	B 01	15		K006953		Added 12/27/2022 by PK
22L0137-39RE1	LDW22-SC776F	8082A PCB Solid 4	B 01	16		K006953		Added 12/27/2022 by PK
22L0137-65RE1	LDW22-SC769G	8082A PCB Solid 4	B 01	17		K006953		Added 12/27/2022 by PK
22L0137-68RE1	LDW22-SC769J	8082A PCB Solid 4	B 01	18		K006953		Added 12/27/2022 by PK
22L0137-69RE1	LDW22-SC769K	8082A PCB Solid 4	B 01	19		K006953		Added 12/27/2022 by PK
22L0137-41RE1	LDW22-SC776H	8082A PCB Solid 4	B 01	20		K006953		Added 12/27/2022 by PK
22L0137-45RE1	LDW22-SC776L	8082A PCB Solid 4	B 01	21		K006953		Added 12/27/2022 by PK
22L0137-54RE1	LDW22-SC770H	8082A PCB Solid 4	B 01	22		K006953		Added 12/27/2022 by PK



ANALYSIS SEQUENCE

SKL0330

Instrument: ECD7
Calibration ID: FL00010

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
22L0137-55RE1	LDW22-SC770I	8082A PCB Solid 4	B 01	23		K006953		Added 12/27/2022 by PK
22L0137-56RE1	LDW22-SC770J	8082A PCB Solid 4	B 01	24		K006953		Added 12/27/2022 by PK
SKL0330-CCV3	AR1242CCV3	QC		25	K006955	K006953		
SKL0330-CCV4	AR1660CCV4	QC		26	K006954	K006953		
22L0137-57RE1	LDW22-SC770K	8082A PCB Solid 4	B 01	27		K006953		Added 12/27/2022 by PK
22L0137-05	LDW22-SC784B	8082A PCB Solid 4	B 01	28		K006953		
22L0137-06	LDW22-SC784B-FD	8082A PCB Solid 4	B 01	29		K006953		
22L0137-07	LDW22-SC784C	8082A PCB Solid 4	B 01	30		K006953		
22L0137-08	LDW22-SC784D	8082A PCB Solid 4	B 01	31		K006953		
22L0137-14	LDW22-SC784J	8082A PCB Solid 4	B 01	32		K006953		
22L0137-15	LDW22-SC784K	8082A PCB Solid 4	B 01	33		K006953		
22L0137-16	LDW22-SC784L	8082A PCB Solid 4	B 01	34		K006953		
BKL0284-BLK1	Blank	QC		35		K006953		
BKL0284-BS1	LCS	QC		36		K006953		
BKL0284-BSD1	LCS Dup	QC		37		K006953		
BKL0284-SRM1	Reference	QC		38		K006953		
22L0155-02	LDW22-SC768B	8082A PCB Solid 4	B 02	39		K006953		
22L0155-03	LDW22-SC768C	8082A PCB Solid 4	B 02	40		K006953		
SKL0330-CCV5	AR1254CCV5	QC		41	K006957	K006953		
SKL0330-CCV6	AR1660CCV6	QC		42	K006954	K006953		
22L0155-04	LDW22-SC768D	8082A PCB Solid 4	B 02	43		K006953		
22L0155-05	LDW22-SC768E	8082A PCB Solid 4	B 02	44		K006953		



ANALYSIS SEQUENCE

SKL0330

Instrument: ECD7
Calibration ID: FL00010

Element Column ID:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Analyzed	Comments
22L0155-06	LDW22-SC768F	8082A PCB Solid 4	B 02	45		K006953		
22L0155-07	LDW22-SC768F-FD	8082A PCB Solid 4	B 02	46		K006953		
22L0155-08	LDW22-SC768G	8082A PCB Solid 4	B 02	47		K006953		
22L0155-09	LDW22-SC768H	8082A PCB Solid 4	B 02	48		K006953		
22L0155-11	LDW22-SC768J	8082A PCB Solid 4	B 02	49		K006953		
BKL0550-BLK1	Blank	QC		50		K006953		
BKL0550-BS1	LCS	QC		51		K006953		
BKL0550-BSD1	LCS Dup	QC		52		K006953		
22L0474-01	DIS 22-06C	2A PCB (20 ug/kg) or (MTCA 0.1 ug/kg)	A 01	53		K006953		
22L0488-01	2-01-6, Discharge; NBF Tnk-PE	2A PCB (20 ug/kg) or (MTCA 0.1 ug/kg)	A 01	54		K006953		
SKL0330-CCV7	AR1248CCV7	QC		55	K006956	K006953		
SKL0330-CCV8	AR1660CCV8	QC		56	K006954	K006953		
22L0155-14	LDW22-SC764E	8082A PCB Solid 4	B 01	57		K006953		
22L0155-15	LDW22-SC764F	8082A PCB Solid 4	B 01	58		K006953		
22L0155-16	LDW22-SC764G	8082A PCB Solid 4	B 01	59		K006953		
SKL0330-CCV9	AR1242CCV9	QC		60	K006955	K006953		
SKL0330-CCVA	AR1660CCVA	QC		61	K006954	K006953		

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221222.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	22-DEC-2022	15:51	12222201ECD7.D	1	DDTS	
2	22-DEC-2022	16:12	12222202ECD7.D	1	AR1254ICV1	
3	22-DEC-2022	16:34	12222203ECD7.D	1	AR1660ICV2	
4	22-DEC-2022	16:55	12222204ECD7.D	5	22L0105-15RE1	
5	22-DEC-2022	17:16	12222205ECD7.D	5	22L0105-16RE1	
6	22-DEC-2022	17:37	12222206ECD7.D	5	22L0137-25RE1	
7	22-DEC-2022	17:58	12222207ECD7.D	5	22L0137-26RE1	
8	22-DEC-2022	18:19	12222208ECD7.D	5	22L0137-27RE1	
9	22-DEC-2022	18:41	12222209ECD7.D	5	22L0137-29RE1	
10	22-DEC-2022	19:02	12222210ECD7.D	5	22L0137-30RE1	
11	22-DEC-2022	19:23	12222211ECD7.D	1	22L0137-34	
12	22-DEC-2022	19:44	12222212ECD7.D	5	22L0137-35RE1	
13	22-DEC-2022	20:05	12222213ECD7.D	5	22L0137-36RE1	
14	22-DEC-2022	20:27	12222214ECD7.D	1	AR1248CCV1	
15	22-DEC-2022	20:48	12222215ECD7.D	1	AR1660CCV2	
16	22-DEC-2022	21:09	12222216ECD7.D	5	22L0137-38RE1	
17	22-DEC-2022	21:30	12222217ECD7.D	5	22L0137-39RE1	
18	22-DEC-2022	21:51	12222218ECD7.D	5	22L0137-65RE1	
19	22-DEC-2022	22:12	12222219ECD7.D	5	22L0137-68RE1	
20	22-DEC-2022	22:34	12222220ECD7.D	5	22L0137-69RE1	
21	22-DEC-2022	22:55	12222221ECD7.D	5	22L0137-41RE1	
22	22-DEC-2022	23:16	12222222ECD7.D	5	22L0137-45RE1	
23	22-DEC-2022	23:37	12222223ECD7.D	5	22L0137-54RE1	
24	22-DEC-2022	23:59	12222224ECD7.D	5	22L0137-55RE1	
25	23-DEC-2022	00:20	12222225ECD7.D	5	22L0137-56RE1	
26	23-DEC-2022	00:41	12222226ECD7.D	1	AR1242CCV3	
27	23-DEC-2022	01:02	12222227ECD7.D	1	AR1660CCV4	
28	23-DEC-2022	01:23	12222228ECD7.D	5	22L0137-57RE1	
29	23-DEC-2022	01:44	12222229ECD7.D	1	22K0137-05	
30	23-DEC-2022	02:06	12222230ECD7.D	1	22K0137-06	
31	23-DEC-2022	02:27	12222231ECD7.D	1	22K0137-07	
32	23-DEC-2022	02:48	12222232ECD7.D	1	22K0137-08	
33	23-DEC-2022	03:09	12222233ECD7.D	1	22K0137-14	
34	23-DEC-2022	03:30	12222234ECD7.D	1	22K0137-15	
35	23-DEC-2022	03:52	12222235ECD7.D	1	22K0137-16	
36	23-DEC-2022	04:13	12222236ECD7.D	1	BKL0284-BLK1	
37	23-DEC-2022	04:34	12222237ECD7.D	1	BKL0284-BS1	
38	23-DEC-2022	04:55	12222238ECD7.D	1	BKL0284-BSD1	
39	23-DEC-2022	05:16	12222239ECD7.D	1	BKL0284-SRM1	
40	23-DEC-2022	05:38	12222240ECD7.D	1	22L0155-01	
41	23-DEC-2022	05:59	12222241ECD7.D	1	22L0155-02	
42	23-DEC-2022	06:20	12222242ECD7.D	1	22L0155-03	
43	23-DEC-2022	06:41	12222243ECD7.D	1	AR1254CCV5	
44	23-DEC-2022	07:03	12222244ECD7.D	1	AR1660CCV6	
45	23-DEC-2022	07:24	12222245ECD7.D	1	22L0155-04	

46	23-DEC-2022	07:45	12222246ECD7.D	1	22L0155-05
47	23-DEC-2022	08:06	12222247ECD7.D	1	22L0155-06
48	23-DEC-2022	08:27	12222248ECD7.D	1	22L0155-07
49	23-DEC-2022	08:49	12222249ECD7.D	1	22L0155-08
50	23-DEC-2022	09:10	12222250ECD7.D	1	22L0155-09

Inject	Date/Time	Filename	DF	LabID	ClientID
51	23-DEC-2022 09:31	12222251ECD7.D	1	22L0155-10	
52	23-DEC-2022 09:52	12222252ECD7.D	1	22L0155-11	
53	23-DEC-2022 10:14	12222253ECD7.D	1	BKL0550-BLK1	
54	23-DEC-2022 10:35	12222254ECD7.D	1	BKL0550-BS1	
55	23-DEC-2022 10:56	12222255ECD7.D	1	BKL0550-BSD1	
56	23-DEC-2022 11:17	12222256ECD7.D	1	22L0474-01	
57	23-DEC-2022 11:38	12222257ECD7.D	1	22L0488-01	
58	23-DEC-2022 12:00	12222258ECD7.D	1	AR1248CCV7	
59	23-DEC-2022 12:21	12222259ECD7.D	1	AR1660CCV8	
60	23-DEC-2022 12:42	12222260ECD7.D	1	22L0155-12	
61	23-DEC-2022 13:03	12222261ECD7.D	1	22L0155-13	
62	23-DEC-2022 13:25	12222262ECD7.D	1	22L0155-14	
63	23-DEC-2022 13:46	12222263ECD7.D	1	22L0155-15	
64	23-DEC-2022 14:07	12222264ECD7.D	1	22L0155-16	
65	23-DEC-2022 14:28	12222265ECD7.D	1	AR1248CCV9	
66	23-DEC-2022 14:49	12222266ECD7.D	1	AR1660CCVA	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd7.i\221222.b

Instrument: ecd7.i Date: 22-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
1612	12222202ECD7.D	AR1254ICV1	1	NO MANUAL INTEGRATION
1634	12222203ECD7.D	AR1660ICV2	1	Aroclor-1016, Aroclor-1260,
1655	12222204ECD7.D	22L0105-15RE1	5	Aroclor-1254,
1716	12222205ECD7.D	22L0105-16RE1	5	Aroclor-1254,
1737	12222206ECD7.D	22L0137-25RE1	5	Aroclor-1254,
1758	12222207ECD7.D	22L0137-26RE1	5	Aroclor-1254,
1819	12222208ECD7.D	22L0137-27RE1	5	Aroclor-1254, Aroclor-1260,
1841	12222209ECD7.D	22L0137-29RE1	5	Aroclor-1254,
1902	12222210ECD7.D	22L0137-30RE1	5	Aroclor-1254,
1923	12222211ECD7.D	22L0137-34	1	Aroclor-1248, Aroclor-1254, Aroclor-1260, IS-BNB, Tetrachloro-m-xylene,
1944	12222212ECD7.D	22L0137-35RE1	5	Aroclor-1254,
2005	12222213ECD7.D	22L0137-36RE1	5	Aroclor-1254,
2027	12222214ECD7.D	AR1248CCV1	1	NO MANUAL INTEGRATION
2048	12222215ECD7.D	AR1660CCV2	1	Aroclor-1016, Aroclor-1260,
2109	12222216ECD7.D	22L0137-38RE1	5	NO MANUAL INTEGRATION
2130	12222217ECD7.D	22L0137-39RE1	5	NO MANUAL INTEGRATION
2151	12222218ECD7.D	22L0137-65RE1	5	NO MANUAL INTEGRATION

Instrument: ecd7.i Date: 22-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
2212	12222219ECD7.D	22L0137-68RE1	5	NO MANUAL INTEGRATION
2234	12222220ECD7.D	22L0137-69RE1	5	NO MANUAL INTEGRATION
2255	12222221ECD7.D	22L0137-41RE1	5	NO MANUAL INTEGRATION
2316	12222222ECD7.D	22L0137-45RE1	5	NO MANUAL INTEGRATION
2337	12222223ECD7.D	22L0137-54RE1	5	NO MANUAL INTEGRATION
2359	12222224ECD7.D	22L0137-55RE1	5	NO MANUAL INTEGRATION
0020	12222225ECD7.D	22L0137-56RE1	5	NO MANUAL INTEGRATION
0041	12222226ECD7.D	AR1242CCV3	1	NO MANUAL INTEGRATION
0102	12222227ECD7.D	AR1660CCV4	1	Aroclor-1016, Aroclor-1260,
0123	12222228ECD7.D	22L0137-57RE1	5	NO MANUAL INTEGRATION
0144	12222229ECD7.D	22K0137-05	1	NO MANUAL INTEGRATION
0206	12222230ECD7.D	22K0137-06	1	NO MANUAL INTEGRATION
0227	12222231ECD7.D	22K0137-07	1	NO MANUAL INTEGRATION
0248	12222232ECD7.D	22K0137-08	1	NO MANUAL INTEGRATION
0309	12222233ECD7.D	22K0137-14	1	NO MANUAL INTEGRATION
0330	12222234ECD7.D	22K0137-15	1	NO MANUAL INTEGRATION
0352	12222235ECD7.D	22K0137-16	1	NO MANUAL INTEGRATION
0413	12222236ECD7.D	BKL0284-BLK1	1	NO MANUAL INTEGRATION

Instrument: ecd7.i Date: 23-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
0434	12222237ECD7.D	BKL0284-BS1	1	NO MANUAL INTEGRATION
0455	12222238ECD7.D	BKL0284-BSD1	1	NO MANUAL INTEGRATION
0516	12222239ECD7.D	BKL0284-SRM1	1	Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268,
0538	12222240ECD7.D	22L0155-01	1	NO MANUAL INTEGRATION
0559	12222241ECD7.D	22L0155-02	1	NO MANUAL INTEGRATION
0620	12222242ECD7.D	22L0155-03	1	NO MANUAL INTEGRATION
0641	12222243ECD7.D	AR1254CCV5	1	NO MANUAL INTEGRATION
0703	12222244ECD7.D	AR1660CCV6	1	Aroclor-1016, Aroclor-1260,
0724	12222245ECD7.D	22L0155-04	1	NO MANUAL INTEGRATION
0745	12222246ECD7.D	22L0155-05	1	NO MANUAL INTEGRATION
0806	12222247ECD7.D	22L0155-06	1	NO MANUAL INTEGRATION
0827	12222248ECD7.D	22L0155-07	1	NO MANUAL INTEGRATION
0849	12222249ECD7.D	22L0155-08	1	NO MANUAL INTEGRATION
0910	12222250ECD7.D	22L0155-09	1	Aroclor-1254,
0931	12222251ECD7.D	22L0155-10	1	NO MANUAL INTEGRATION
0952	12222252ECD7.D	22L0155-11	1	Aroclor-1260, Tetrachloro-m-xylene,
1014	12222253ECD7.D	BKL0550-BLK1	1	NO MANUAL INTEGRATION
1035	12222254ECD7.D	BKL0550-BS1	1	NO MANUAL INTEGRATION

Instrument: ecd7.i Date: 23-DEC-2022

Time	Filename	LabID	DF	Manually Integrated Compounds
1056	12222255ECD7.D	BKL0550-BSD1	1	NO MANUAL INTEGRATION
1117	12222256ECD7.D	22L0474-01	1	NO MANUAL INTEGRATION
1138	12222257ECD7.D	22L0488-01	1	Aroclor-1260, Decachlorobiphenyl,
1200	12222258ECD7.D	AR1248CCV7	1	NO MANUAL INTEGRATION
1221	12222259ECD7.D	AR1660CCV8	1	Aroclor-1016, Aroclor-1260,
1242	12222260ECD7.D	22L0155-12	1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Tetrachloro-m-xylene,
1303	12222261ECD7.D	22L0155-13	1	NO MANUAL INTEGRATION
1325	12222262ECD7.D	22L0155-14	1	Aroclor-1248, Aroclor-1254, Aroclor-1260,
1346	12222263ECD7.D	22L0155-15	1	NO MANUAL INTEGRATION
1407	12222264ECD7.D	22L0155-16	1	NO MANUAL INTEGRATION
1428	12222265ECD7.D	AR1242CCV9	1	NO MANUAL INTEGRATION
1449	12222266ECD7.D	AR1660CCVA	1	Aroclor-1016, Aroclor-1260,



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0048
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0048-SCV1 (Solid) Lab File ID: 12032222ECD7.D Analyzed: 12/03/22 22:13								
Decachlorobiphenyl	40.000	99.5	80 - 120	13.909	13.90667	0.0023	N/A	
Tetrachlorometaxylene	40.000	90.3	80 - 120	5.836	5.835333	0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	95.4	80 - 120	14.137	14.13533	0.0017	N/A	
Tetrachlorometaxylene [2C]	40.000	90.2	80 - 120	5.713	5.712333	0.0007	N/A	
SKL0048-SCV2 (Solid) Lab File ID: 12032223ECD7.D Analyzed: 12/03/22 22:34								
Decachlorobiphenyl	40.000	97.9	80 - 120	13.909	13.90667	0.0023	N/A	
Tetrachlorometaxylene	40.000	88.9	80 - 120	5.835	5.835333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	95.0	80 - 120	14.136	14.13533	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	89.5	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0048-SCV3 (Solid) Lab File ID: 12032224ECD7.D Analyzed: 12/03/22 22:55								
Decachlorobiphenyl	40.000	98.3	80 - 120	13.909	13.90667	0.0023	N/A	
Tetrachlorometaxylene	40.000	86.8	80 - 120	5.836	5.835333	0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	95.2	80 - 120	14.136	14.13533	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	87.7	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0048-SCV4 (Solid) Lab File ID: 12032225ECD7.D Analyzed: 12/03/22 23:17								
Decachlorobiphenyl	40.000	98.9	80 - 120	13.909	13.90667	0.0023	N/A	
Tetrachlorometaxylene	40.000	88.8	80 - 120	5.836	5.835333	0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	95.2	80 - 120	14.136	14.13533	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	90.0	80 - 120	5.713	5.712333	0.0007	N/A	
SKL0048-SCV5 (Solid) Lab File ID: 12032226ECD7.D Analyzed: 12/03/22 23:38								
Decachlorobiphenyl	40.000	100	80 - 120	13.907	13.90667	0.0003	N/A	
Tetrachlorometaxylene	40.000	90.2	80 - 120	5.836	5.835333	0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	96.1	80 - 120	14.136	14.13533	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	89.2	80 - 120	5.713	5.712333	0.0007	N/A	
SKL0048-SCV6 (Solid) Lab File ID: 12032227ECD7.D Analyzed: 12/03/22 23:59								
Decachlorobiphenyl	40.000	140	80 - 120	13.906	13.90667	-0.0007	N/A	
Tetrachlorometaxylene	40.000	86.2	80 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	137	80 - 120	14.136	14.13533	0.0007	N/A	
Tetrachlorometaxylene [2C]	40.000	85.6	80 - 120	5.711	5.712333	-0.0013	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SKL0280
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0280-ICV1 (Solid) Lab File ID: 12172203ECD7.D Analyzed: 12/17/22 09:59								
Decachlorobiphenyl	40.000	105	80 - 120	13.907	13.90667	0.0003	N/A	
Tetrachlorometaxylene	40.000	94.8	80 - 120	5.836	5.835333	0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	97.0	80 - 120	14.135	14.13533	-0.0003	N/A	
Tetrachlorometaxylene [2C]	40.000	93.0	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0280-ICV2 (Solid) Lab File ID: 12172204ECD7.D Analyzed: 12/17/22 10:20								
Decachlorobiphenyl	40.000	107	80 - 120	13.907	13.90667	0.0003	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.837	5.835333	0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	95.5	80 - 120	14.134	14.13533	-0.0013	N/A	
Tetrachlorometaxylene [2C]	40.000	97.3	80 - 120	5.714	5.712333	0.0017	N/A	
SKL0280-CCV1 (Solid) Lab File ID: 12172215ECD7.D Analyzed: 12/17/22 14:14								
Decachlorobiphenyl	40.000	107	80 - 120	13.907	13.90667	0.0003	N/A	
Tetrachlorometaxylene	40.000	93.0	80 - 120	5.835	5.835333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	94.8	80 - 120	14.134	14.13533	-0.0013	N/A	
Tetrachlorometaxylene [2C]	40.000	91.5	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0280-CCV2 (Solid) Lab File ID: 12172216ECD7.D Analyzed: 12/17/22 14:35								
Decachlorobiphenyl	40.000	108	80 - 120	13.906	13.90667	-0.0007	N/A	
Tetrachlorometaxylene	40.000	104	80 - 120	5.834	5.835333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	95.0	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	98.3	80 - 120	5.711	5.712333	-0.0013	N/A	
SKL0280-CCV3 (Solid) Lab File ID: 12172227ECD7.D Analyzed: 12/17/22 18:29								
Decachlorobiphenyl	40.000	107	80 - 120	13.906	13.90667	-0.0007	N/A	
Tetrachlorometaxylene	40.000	95.0	80 - 120	5.835	5.835333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	93.5	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	94.5	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0280-CCV4 (Solid) Lab File ID: 12172228ECD7.D Analyzed: 12/17/22 18:50								
Decachlorobiphenyl	40.000	112	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.835	5.835333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	95.5	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	98.0	80 - 120	5.711	5.712333	-0.0013	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0280
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0280-CCV5 (Solid) Lab File ID: 12172237ECD7.D Analyzed: 12/17/22 22:01								
Decachlorobiphenyl	40.000	102	80 - 120	13.906	13.90667	-0.0007	N/A	
Tetrachlorometaxylene	40.000	91.8	80 - 120	5.836	5.835333	0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	95.3	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	90.8	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0280-CCV6 (Solid) Lab File ID: 12172238ECD7.D Analyzed: 12/17/22 22:22								
Decachlorobiphenyl	40.000	106	80 - 120	13.905	13.90667	-0.0017	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.834	5.835333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	93.5	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	98.5	80 - 120	5.711	5.712333	-0.0013	N/A	
BKL0158-BLK1 (Solid) Lab File ID: 12172239ECD7.D Analyzed: 12/17/22 22:44								
Decachlorobiphenyl	8.0000	82.9	40 - 126	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	8.0000	64.1	44 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	8.0000	75.4	40 - 126	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	8.0000	60.4	44 - 120	5.71	5.712333	-0.0023	N/A	
BKL0158-BS1 (Solid) Lab File ID: 12172240ECD7.D Analyzed: 12/17/22 23:05								
Decachlorobiphenyl	8.0000	99.7	40 - 126	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	8.0000	82.6	44 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	8.0000	94.9	40 - 126	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	8.0000	77.1	44 - 120	5.709	5.712333	-0.0033	N/A	
BKL0158-BSD1 (Solid) Lab File ID: 12172241ECD7.D Analyzed: 12/17/22 23:26								
Decachlorobiphenyl	8.0000	97.9	40 - 126	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	8.0000	88.0	44 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	8.0000	95.3	40 - 126	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	8.0000	81.0	44 - 120	5.71	5.712333	-0.0023	N/A	
BKL0158-SRM1 (Solid) Lab File ID: 12172242ECD7.D Analyzed: 12/17/22 23:47								
Decachlorobiphenyl	40.000	99.4	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	40.000	79.4	44 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	40.000	88.1	40 - 126	14.128	14.13533	-0.0073	N/A	
Tetrachlorometaxylene [2C]	40.000	80.0	44 - 120	5.709	5.712333	-0.0033	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0280
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BKL0158-MS1 (Solid) Lab File ID: 12172243ECD7.D Analyzed: 12/18/22 00:09								
Decachlorobiphenyl	8.0002	96.9	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	8.0002	69.5	44 - 120	5.829	5.835333	-0.0063	N/A	
Decachlorobiphenyl [2C]	8.0002	84.4	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	8.0002	75.6	44 - 120	5.706	5.712333	-0.0063	N/A	
22L0105-20 (Solid) Lab File ID: 12172248ECD7.D Analyzed: 12/18/22 01:55								
Decachlorobiphenyl	7.9876	100	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9876	84.5	44 - 120	5.83	5.835333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9876	92.7	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9876	83.2	44 - 120	5.707	5.712333	-0.0053	N/A	
22L0105-21 (Solid) Lab File ID: 12172249ECD7.D Analyzed: 12/18/22 02:16								
Decachlorobiphenyl	7.9977	95.6	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9977	66.7	44 - 120	5.827	5.835333	-0.0083	N/A	
Decachlorobiphenyl [2C]	7.9977	86.9	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	7.9977	74.9	44 - 120	5.705	5.712333	-0.0073	N/A	
22L0105-22 (Solid) Lab File ID: 12172250ECD7.D Analyzed: 12/18/22 02:37								
Decachlorobiphenyl	8.0002	100	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	8.0002	70.2	44 - 120	5.829	5.835333	-0.0063	N/A	
Decachlorobiphenyl [2C]	8.0002	90.1	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	8.0002	77.9	44 - 120	5.705	5.712333	-0.0073	N/A	
SKL0280-CCV7 (Solid) Lab File ID: 12172252ECD7.D Analyzed: 12/18/22 03:20								
Decachlorobiphenyl	40.000	108	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	93.3	80 - 120	5.834	5.835333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	99.5	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	92.8	80 - 120	5.711	5.712333	-0.0013	N/A	
SKL0280-CCV8 (Solid) Lab File ID: 12172253ECD7.D Analyzed: 12/18/22 03:41								
Decachlorobiphenyl	40.000	113	80 - 120	13.905	13.90667	-0.0017	N/A	
Tetrachlorometaxylene	40.000	106	80 - 120	5.835	5.835333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	99.8	80 - 120	5.712	5.712333	-0.0003	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0280
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0280-CCV9 (Solid) Lab File ID: 12172264ECD7.D Analyzed: 12/18/22 07:35								
Decachlorobiphenyl	40.000	111	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	94.0	80 - 120	5.834	5.835333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	92.5	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0280-CCVA (Solid) Lab File ID: 12172265ECD7.D Analyzed: 12/18/22 07:56								
Decachlorobiphenyl	40.000	116	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	103	80 - 120	5.835	5.835333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	101	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0280-CCVB (Solid) Lab File ID: 12172279ECD7.D Analyzed: 12/18/22 12:54								
Decachlorobiphenyl	40.000	102	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	93.0	80 - 120	5.834	5.835333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	98.5	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	90.8	80 - 120	5.711	5.712333	-0.0013	N/A	
SKL0280-CCVC (Solid) Lab File ID: 12172280ECD7.D Analyzed: 12/18/22 13:15								
Decachlorobiphenyl	40.000	107	80 - 120	13.905	13.90667	-0.0017	N/A	
Tetrachlorometaxylene	40.000	105	80 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	98.0	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	100	80 - 120	5.71	5.712333	-0.0023	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SKL0282
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0282-ICV1 (Solid) Lab File ID: 12192202ECD7.D Analyzed: 12/19/22 14:56								
Decachlorobiphenyl	40.000	109	80 - 120	13.906	13.90667	-0.0007	N/A	
Tetrachlorometaxylene	40.000	95.5	80 - 120	5.834	5.835333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	92.7	80 - 120	5.71	5.712333	-0.0023	N/A	
SKL0282-ICV2 (Solid) Lab File ID: 12192203ECD7.D Analyzed: 12/19/22 15:17								
Decachlorobiphenyl	40.000	109	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	105	80 - 120	5.834	5.835333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	99.3	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	101	80 - 120	5.712	5.712333	-0.0003	N/A	
BKL0158-MSD1 (Solid) Lab File ID: 12192205ECD7.D Analyzed: 12/19/22 16:00								
Decachlorobiphenyl	8.0002	100	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	8.0002	67.0	44 - 120	5.83	5.835333	-0.0053	N/A	
Decachlorobiphenyl [2C]	8.0002	87.0	40 - 126	14.128	14.13533	-0.0073	N/A	
Tetrachlorometaxylene [2C]	8.0002	72.4	44 - 120	5.708	5.712333	-0.0043	N/A	
22L0105-17 (Solid) Lab File ID: 12192206ECD7.D Analyzed: 12/19/22 16:21								
Decachlorobiphenyl	7.9862	123	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	7.9862	83.1	44 - 120	5.83	5.835333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9862	87.4	40 - 126	14.129	14.13533	-0.0063	N/A	
Tetrachlorometaxylene [2C]	7.9862	81.4	44 - 120	5.708	5.712333	-0.0043	N/A	
22L0105-18 (Solid) Lab File ID: 12192207ECD7.D Analyzed: 12/19/22 16:42								
Decachlorobiphenyl	7.9996	104	40 - 126	13.899	13.90667	-0.0077	N/A	
Tetrachlorometaxylene	7.9996	77.0	44 - 120	5.831	5.835333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9996	85.6	40 - 126	14.129	14.13533	-0.0063	N/A	
Tetrachlorometaxylene [2C]	7.9996	80.5	44 - 120	5.71	5.712333	-0.0023	N/A	
22L0105-19 (Solid) Lab File ID: 12192208ECD7.D Analyzed: 12/19/22 17:03								
Decachlorobiphenyl	7.9953	109	40 - 126	13.897	13.90667	-0.0097	N/A	
Tetrachlorometaxylene	7.9953	86.2	44 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	7.9953	90.5	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9953	85.6	44 - 120	5.711	5.712333	-0.0013	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0282
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
22L0105-23 (Solid) Lab File ID: 12192209ECD7.D Analyzed: 12/19/22 17:24								
Decachlorobiphenyl	7.9719	107	40 - 126	13.897	13.90667	-0.0097	N/A	
Tetrachlorometaxylene	7.9719	71.2	44 - 120	5.829	5.835333	-0.0063	N/A	
Decachlorobiphenyl [2C]	7.9719	94.9	40 - 126	14.128	14.13533	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9719	78.3	44 - 120	5.706	5.712333	-0.0063	N/A	
22L0105-24 (Solid) Lab File ID: 12192210ECD7.D Analyzed: 12/19/22 17:46								
Decachlorobiphenyl	7.9941	110	40 - 126	13.897	13.90667	-0.0097	N/A	
Tetrachlorometaxylene	7.9941	78.7	44 - 120	5.831	5.835333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9941	89.9	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9941	80.4	44 - 120	5.709	5.712333	-0.0033	N/A	
22L0105-25 (Solid) Lab File ID: 12192211ECD7.D Analyzed: 12/19/22 18:07								
Decachlorobiphenyl	7.9982	114	40 - 126	13.899	13.90667	-0.0077	N/A	
Tetrachlorometaxylene	7.9982	79.2	44 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	7.9982	94.4	40 - 126	14.128	14.13533	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9982	87.1	44 - 120	5.709	5.712333	-0.0033	N/A	
22L0105-26 (Solid) Lab File ID: 12192212ECD7.D Analyzed: 12/19/22 18:28								
Decachlorobiphenyl	7.9812	107	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	7.9812	63.6	44 - 120	5.83	5.835333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9812	89.5	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9812	103	44 - 120	5.707	5.712333	-0.0053	N/A	
SKL0282-CCV1 (Solid) Lab File ID: 12192213ECD7.D Analyzed: 12/19/22 18:49								
Decachlorobiphenyl	40.000	106	80 - 120	13.906	13.90667	-0.0007	N/A	
Tetrachlorometaxylene	40.000	93.1	80 - 120	5.836	5.835333	0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	97.4	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	93.4	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0282-CCV2 (Solid) Lab File ID: 12192214ECD7.D Analyzed: 12/19/22 19:11								
Decachlorobiphenyl	40.000	109	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	101	80 - 120	5.837	5.835333	0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	97.6	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	98.9	80 - 120	5.713	5.712333	0.0007	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0282
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
22L0105-27 (Solid)		Lab File ID: 12192215ECD7.D			Analyzed: 12/19/22 19:32			
Decachlorobiphenyl	7.9957	104	40 - 126	13.897	13.90667	-0.0097	N/A	
Tetrachlorometaxylene	7.9957	68.1	44 - 120	5.831	5.835333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9957	82.2	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9957	79.0	44 - 120	5.708	5.712333	-0.0043	N/A	
22L0105-28 (Solid)		Lab File ID: 12192216ECD7.D			Analyzed: 12/19/22 19:53			
Decachlorobiphenyl	7.9929	112	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	7.9929	72.5	44 - 120	5.829	5.835333	-0.0063	N/A	
Decachlorobiphenyl [2C]	7.9929	93.9	40 - 126	14.128	14.13533	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9929	104	44 - 120	5.707	5.712333	-0.0053	N/A	
22L0105-29 (Solid)		Lab File ID: 12192217ECD7.D			Analyzed: 12/19/22 20:14			
Decachlorobiphenyl	7.9960	112	40 - 126	13.897	13.90667	-0.0097	N/A	
Tetrachlorometaxylene	7.9960	73.4	44 - 120	5.83	5.835333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9960	88.3	40 - 126	14.128	14.13533	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9960	76.2	44 - 120	5.708	5.712333	-0.0043	N/A	
22L0105-30 (Solid)		Lab File ID: 12192218ECD7.D			Analyzed: 12/19/22 20:35			
Decachlorobiphenyl	7.9785	121	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	7.9785	83.6	44 - 120	5.831	5.835333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9785	102	40 - 126	14.129	14.13533	-0.0063	N/A	
Tetrachlorometaxylene [2C]	7.9785	88.2	44 - 120	5.709	5.712333	-0.0033	N/A	
22L0105-31 (Solid)		Lab File ID: 12192219ECD7.D			Analyzed: 12/19/22 20:57			
Decachlorobiphenyl	7.9652	106	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	7.9652	72.8	44 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	7.9652	83.3	40 - 126	14.128	14.13533	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9652	77.5	44 - 120	5.709	5.712333	-0.0033	N/A	
22L0105-32 (Solid)		Lab File ID: 12192220ECD7.D			Analyzed: 12/19/22 21:18			
Decachlorobiphenyl	7.9866	106	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	7.9866	71.0	44 - 120	5.829	5.835333	-0.0063	N/A	
Decachlorobiphenyl [2C]	7.9866	93.0	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9866	76.7	44 - 120	5.706	5.712333	-0.0063	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0282
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
22L0105-33 (Solid) Lab File ID: 12192221ECD7.D Analyzed: 12/19/22 21:39								
Decachlorobiphenyl	8.0002	103	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	8.0002	73.8	44 - 120	5.83	5.835333	-0.0053	N/A	
Decachlorobiphenyl [2C]	8.0002	87.8	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	8.0002	80.0	44 - 120	5.707	5.712333	-0.0053	N/A	
SKL0282-CCV3 (Solid) Lab File ID: 12192223ECD7.D Analyzed: 12/19/22 22:21								
Decachlorobiphenyl	40.000	106	80 - 120	13.905	13.90667	-0.0017	N/A	
Tetrachlorometaxylene	40.000	97.3	80 - 120	5.836	5.835333	0.0007	N/A	
Decachlorobiphenyl [2C]	40.000	96.1	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	94.7	80 - 120	5.713	5.712333	0.0007	N/A	
SKL0282-CCV4 (Solid) Lab File ID: 12192224ECD7.D Analyzed: 12/19/22 22:43								
Decachlorobiphenyl	40.000	111	80 - 120	13.905	13.90667	-0.0017	N/A	
Tetrachlorometaxylene	40.000	101	80 - 120	5.837	5.835333	0.0017	N/A	
Decachlorobiphenyl [2C]	40.000	97.0	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	99.0	80 - 120	5.714	5.712333	0.0017	N/A	
BKL0157-BLK1 (Solid) Lab File ID: 12192225ECD7.D Analyzed: 12/19/22 23:04								
Decachlorobiphenyl	8.0000	112	40 - 126	13.902	13.90667	-0.0047	N/A	
Tetrachlorometaxylene	8.0000	91.4	44 - 120	5.835	5.835333	-0.0003	N/A	
Decachlorobiphenyl [2C]	8.0000	105	40 - 126	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	8.0000	89.1	44 - 120	5.711	5.712333	-0.0013	N/A	
BKL0157-BS1 (Solid) Lab File ID: 12192226ECD7.D Analyzed: 12/19/22 23:25								
Decachlorobiphenyl	8.0000	97.0	40 - 126	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	8.0000	82.9	44 - 120	5.836	5.835333	0.0007	N/A	
Decachlorobiphenyl [2C]	8.0000	95.4	40 - 126	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	8.0000	79.8	44 - 120	5.713	5.712333	0.0007	N/A	
BKL0157-BSD1 (Solid) Lab File ID: 12192227ECD7.D Analyzed: 12/19/22 23:46								
Decachlorobiphenyl	8.0000	102	40 - 126	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	8.0000	86.3	44 - 120	5.834	5.835333	-0.0013	N/A	
Decachlorobiphenyl [2C]	8.0000	100	40 - 126	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	8.0000	82.5	44 - 120	5.712	5.712333	-0.0003	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0282
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BKL0157-MS1 (Solid) Lab File ID: 12192228ECD7.D Analyzed: 12/20/22 00:07								
Decachlorobiphenyl	7.9999	103	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9999	75.4	44 - 120	5.83	5.835333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9999	90.0	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9999	83.7	44 - 120	5.707	5.712333	-0.0053	N/A	
BKL0157-MSD1 (Solid) Lab File ID: 12192229ECD7.D Analyzed: 12/20/22 00:29								
Decachlorobiphenyl	7.9999	104	40 - 126	13.897	13.90667	-0.0097	N/A	
Tetrachlorometaxylene	7.9999	76.2	44 - 120	5.831	5.835333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9999	91.5	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9999	83.5	44 - 120	5.708	5.712333	-0.0043	N/A	
BKL0157-SRM1 (Solid) Lab File ID: 12192230ECD7.D Analyzed: 12/20/22 00:50								
Decachlorobiphenyl	40.000	100	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	40.000	80.0	44 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	40.000	90.7	40 - 126	14.129	14.13533	-0.0063	N/A	
Tetrachlorometaxylene [2C]	40.000	79.8	44 - 120	5.709	5.712333	-0.0033	N/A	
22L0105-01 (Solid) Lab File ID: 12192231ECD7.D Analyzed: 12/20/22 01:11								
Decachlorobiphenyl	7.9804	88.3	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9804	62.1	44 - 120	5.831	5.835333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9804	77.4	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	7.9804	68.7	44 - 120	5.708	5.712333	-0.0043	N/A	
22L0105-02 (Solid) Lab File ID: 12192232ECD7.D Analyzed: 12/20/22 01:32								
Decachlorobiphenyl	7.9996	101	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9996	70.6	44 - 120	5.829	5.835333	-0.0063	N/A	
Decachlorobiphenyl [2C]	7.9996	90.4	40 - 126	14.128	14.13533	-0.0073	N/A	
Tetrachlorometaxylene [2C]	7.9996	79.5	44 - 120	5.707	5.712333	-0.0053	N/A	
22L0105-03 (Solid) Lab File ID: 12192233ECD7.D Analyzed: 12/20/22 01:53								
Decachlorobiphenyl	7.9874	99.2	40 - 126	13.897	13.90667	-0.0097	N/A	
Tetrachlorometaxylene	7.9874	69.6	44 - 120	5.831	5.835333	-0.0043	N/A	
Decachlorobiphenyl [2C]	7.9874	91.2	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	7.9874	77.4	44 - 120	5.708	5.712333	-0.0043	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0282
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
22L0105-04 (Solid)		Lab File ID: 12192234ECD7.D			Analyzed: 12/20/22 02:15			
Decachlorobiphenyl	7.9987	102	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9987	63.8	44 - 120	5.83	5.835333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9987	94.9	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	7.9987	73.3	44 - 120	5.707	5.712333	-0.0053	N/A	
22L0105-05 (Solid)		Lab File ID: 12192235ECD7.D			Analyzed: 12/20/22 02:36			
Decachlorobiphenyl	7.9889	97.6	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	7.9889	74.8	44 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	7.9889	90.8	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9889	78.9	44 - 120	5.71	5.712333	-0.0023	N/A	
22L0105-06 (Solid)		Lab File ID: 12192236ECD7.D			Analyzed: 12/20/22 02:57			
Decachlorobiphenyl	7.9925	101	40 - 126	13.897	13.90667	-0.0097	N/A	
Tetrachlorometaxylene	7.9925	77.6	44 - 120	5.83	5.835333	-0.0053	N/A	
Decachlorobiphenyl [2C]	7.9925	90.4	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9925	85.6	44 - 120	5.707	5.712333	-0.0053	N/A	
22L0105-07 (Solid)		Lab File ID: 12192237ECD7.D			Analyzed: 12/20/22 03:18			
Decachlorobiphenyl	7.9913	119	40 - 126	13.895	13.90667	-0.0117	N/A	
Tetrachlorometaxylene	7.9913	85.9	44 - 120	5.828	5.835333	-0.0073	N/A	
Decachlorobiphenyl [2C]	7.9913	106	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	7.9913	96.6	44 - 120	5.705	5.712333	-0.0073	N/A	
22L0105-08 (Solid)		Lab File ID: 12192238ECD7.D			Analyzed: 12/20/22 03:39			
Decachlorobiphenyl	7.9869	96.6	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9869	70.8	44 - 120	5.829	5.835333	-0.0063	N/A	
Decachlorobiphenyl [2C]	7.9869	87.3	40 - 126	14.125	14.13533	-0.0103	N/A	
Tetrachlorometaxylene [2C]	7.9869	79.4	44 - 120	5.706	5.712333	-0.0063	N/A	
SKL0282-CCV5 (Solid)		Lab File ID: 12192239ECD7.D			Analyzed: 12/20/22 04:01			
Decachlorobiphenyl	40.000	105	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	94.6	80 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	40.000	97.4	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	93.4	80 - 120	5.708	5.712333	-0.0043	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0282
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0282-CCV6 (Solid)		Lab File ID: 12192240ECD7.D			Analyzed: 12/20/22 04:22			
Decachlorobiphenyl	40.000	113	80 - 120	13.905	13.90667	-0.0017	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	98.2	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	98.1	80 - 120	5.709	5.712333	-0.0033	N/A	
22L0105-09 (Solid)		Lab File ID: 12192241ECD7.D			Analyzed: 12/20/22 04:43			
Decachlorobiphenyl	8.0044	96.0	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	8.0044	66.2	44 - 120	5.827	5.835333	-0.0083	N/A	
Decachlorobiphenyl [2C]	8.0044	86.8	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	8.0044	73.7	44 - 120	5.704	5.712333	-0.0083	N/A	
22L0105-10 (Solid)		Lab File ID: 12192242ECD7.D			Analyzed: 12/20/22 05:04			
Decachlorobiphenyl	7.9983	98.3	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9983	60.8	44 - 120	5.827	5.835333	-0.0083	N/A	
Decachlorobiphenyl [2C]	7.9983	88.3	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	7.9983	72.3	44 - 120	5.704	5.712333	-0.0083	N/A	
22L0105-11 (Solid)		Lab File ID: 12192243ECD7.D			Analyzed: 12/20/22 05:25			
Decachlorobiphenyl	7.9964	100	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9964	58.7	44 - 120	5.826	5.835333	-0.0093	N/A	
Decachlorobiphenyl [2C]	7.9964	90.2	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	7.9964	69.3	44 - 120	5.703	5.712333	-0.0093	N/A	
22L0105-12 (Solid)		Lab File ID: 12192244ECD7.D			Analyzed: 12/20/22 05:47			
Decachlorobiphenyl	7.9933	100	40 - 126	13.895	13.90667	-0.0117	N/A	
Tetrachlorometaxylene	7.9933	57.5	44 - 120	5.828	5.835333	-0.0073	N/A	
Decachlorobiphenyl [2C]	7.9933	92.1	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	7.9933	68.1	44 - 120	5.705	5.712333	-0.0073	N/A	
22L0105-13 (Solid)		Lab File ID: 12192245ECD7.D			Analyzed: 12/20/22 06:08			
Decachlorobiphenyl	7.9924	98.6	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9924	68.3	44 - 120	5.826	5.835333	-0.0093	N/A	
Decachlorobiphenyl [2C]	7.9924	90.1	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9924	77.4	44 - 120	5.703	5.712333	-0.0093	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0282
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
22L0105-14 (Solid) Lab File ID: 12192246ECD7.D Analyzed: 12/20/22 06:29								
Decachlorobiphenyl	7.9917	96.9	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9917	66.0	44 - 120	5.827	5.835333	-0.0083	N/A	
Decachlorobiphenyl [2C]	7.9917	87.3	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9917	72.5	44 - 120	5.704	5.712333	-0.0083	N/A	
22L0105-15 (Solid) Lab File ID: 12192247ECD7.D Analyzed: 12/20/22 06:50								
Decachlorobiphenyl	7.9827	100	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9827	58.6	44 - 120	5.827	5.835333	-0.0083	N/A	
Decachlorobiphenyl [2C]	7.9827	94.8	40 - 126	14.125	14.13533	-0.0103	N/A	
Tetrachlorometaxylene [2C]	7.9827	67.4	44 - 120	5.704	5.712333	-0.0083	N/A	
22L0105-16 (Solid) Lab File ID: 12192248ECD7.D Analyzed: 12/20/22 07:12								
Decachlorobiphenyl	7.9795	103	40 - 126	13.896	13.90667	-0.0107	N/A	
Tetrachlorometaxylene	7.9795	64.9	44 - 120	5.825	5.835333	-0.0103	N/A	
Decachlorobiphenyl [2C]	7.9795	94.9	40 - 126	14.125	14.13533	-0.0103	N/A	
Tetrachlorometaxylene [2C]	7.9795	70.9	44 - 120	5.703	5.712333	-0.0093	N/A	
SKL0282-CCV7 (Solid) Lab File ID: 12192249ECD7.D Analyzed: 12/20/22 07:33								
Decachlorobiphenyl	40.000	107	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	91.2	80 - 120	5.834	5.835333	-0.0013	N/A	
Decachlorobiphenyl [2C]	40.000	96.8	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	91.6	80 - 120	5.711	5.712333	-0.0013	N/A	
SKL0282-CCV8 (Solid) Lab File ID: 12192250ECD7.D Analyzed: 12/20/22 07:54								
Decachlorobiphenyl	40.000	113	80 - 120	13.903	13.90667	-0.0037	N/A	
Tetrachlorometaxylene	40.000	101	80 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	40.000	98.9	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	99.2	80 - 120	5.709	5.712333	-0.0033	N/A	
SKL0282-CCV9 (Solid) Lab File ID: 12192260ECD7.D Analyzed: 12/20/22 11:27								
Decachlorobiphenyl	40.000	104	80 - 120	13.903	13.90667	-0.0037	N/A	
Tetrachlorometaxylene	40.000	98.7	80 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	40.000	95.8	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	96.5	80 - 120	5.709	5.712333	-0.0033	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SKL0330
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0330-ICV1 (Solid) Lab File ID: 12222202ECD7.D Analyzed: 12/22/22 16:12								
Decachlorobiphenyl	40.000	114	80 - 120	13.905	13.90667	-0.0017	N/A	
Tetrachlorometaxylene	40.000	87.8	80 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	100	80 - 120	14.133	14.13533	-0.0023	N/A	
Tetrachlorometaxylene [2C]	40.000	89.3	80 - 120	5.708	5.712333	-0.0043	N/A	
SKL0330-ICV2 (Solid) Lab File ID: 12222203ECD7.D Analyzed: 12/22/22 16:34								
Decachlorobiphenyl	40.000	113	80 - 120	13.906	13.90667	-0.0007	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	99.5	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	99.5	80 - 120	5.71	5.712333	-0.0023	N/A	
22L0105-15RE1 (Solid) Lab File ID: 12222204ECD7.D Analyzed: 12/22/22 16:55								
Decachlorobiphenyl	7.9827	112	40 - 126	13.898	13.90667	-0.0087	N/A	
Tetrachlorometaxylene	7.9827	69.1	44 - 120	5.829	5.835333	-0.0063	N/A	
Decachlorobiphenyl [2C]	7.9827	89.0	40 - 126	14.126	14.13533	-0.0093	N/A	
Tetrachlorometaxylene [2C]	7.9827	72.6	44 - 120	5.706	5.712333	-0.0063	N/A	
22L0105-16RE1 (Solid) Lab File ID: 12222205ECD7.D Analyzed: 12/22/22 17:16								
Decachlorobiphenyl	7.9795	105	40 - 126	13.897	13.90667	-0.0097	N/A	
Tetrachlorometaxylene	7.9795	74.2	44 - 120	5.828	5.835333	-0.0073	N/A	
Decachlorobiphenyl [2C]	7.9795	88.2	40 - 126	14.127	14.13533	-0.0083	N/A	
Tetrachlorometaxylene [2C]	7.9795	76.9	44 - 120	5.706	5.712333	-0.0063	N/A	
SKL0330-CCV1 (Solid) Lab File ID: 12222214ECD7.D Analyzed: 12/22/22 20:27								
Decachlorobiphenyl	40.000	105	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	89.0	80 - 120	5.835	5.835333	-0.0003	N/A	
Decachlorobiphenyl [2C]	40.000	97.3	80 - 120	14.132	14.13533	-0.0033	N/A	
Tetrachlorometaxylene [2C]	40.000	90.8	80 - 120	5.712	5.712333	-0.0003	N/A	
SKL0330-CCV2 (Solid) Lab File ID: 12222215ECD7.D Analyzed: 12/22/22 20:48								
Decachlorobiphenyl	40.000	111	80 - 120	13.903	13.90667	-0.0037	N/A	
Tetrachlorometaxylene	40.000	103	80 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	98.5	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	98.0	80 - 120	5.71	5.712333	-0.0023	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0330
Calibration: FL00010

SDG/WO: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration Date: 12/03/2022

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SKL0330-CCV3 (Solid)		Lab File ID: 12222226ECD7.D			Analyzed: 12/23/22 00:41			
Decachlorobiphenyl	40.000	105	80 - 120	13.903	13.90667	-0.0037	N/A	
Tetrachlorometaxylene	40.000	93.5	80 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	40.000	95.0	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	92.5	80 - 120	5.709	5.712333	-0.0033	N/A	
SKL0330-CCV4 (Solid)		Lab File ID: 12222227ECD7.D			Analyzed: 12/23/22 01:02			
Decachlorobiphenyl	40.000	116	80 - 120	13.903	13.90667	-0.0037	N/A	
Tetrachlorometaxylene	40.000	99.8	80 - 120	5.832	5.835333	-0.0033	N/A	
Decachlorobiphenyl [2C]	40.000	97.3	80 - 120	14.13	14.13533	-0.0053	N/A	
Tetrachlorometaxylene [2C]	40.000	98.8	80 - 120	5.71	5.712333	-0.0023	N/A	
SKL0330-CCV5 (Solid)		Lab File ID: 12222243ECD7.D			Analyzed: 12/23/22 06:41			
Decachlorobiphenyl	40.000	109	80 - 120	13.904	13.90667	-0.0027	N/A	
Tetrachlorometaxylene	40.000	93.8	80 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	96.8	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	93.8	80 - 120	5.71	5.712333	-0.0023	N/A	
SKL0330-CCV6 (Solid)		Lab File ID: 12222244ECD7.D			Analyzed: 12/23/22 07:03			
Decachlorobiphenyl	40.000	111	80 - 120	13.903	13.90667	-0.0037	N/A	
Tetrachlorometaxylene	40.000	103	80 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	96.8	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	102	80 - 120	5.71	5.712333	-0.0023	N/A	
SKL0330-CCV7 (Solid)		Lab File ID: 12222258ECD7.D			Analyzed: 12/23/22 12:00			
Decachlorobiphenyl	40.000	106	80 - 120	13.903	13.90667	-0.0037	N/A	
Tetrachlorometaxylene	40.000	93.8	80 - 120	5.833	5.835333	-0.0023	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	95.0	80 - 120	5.71	5.712333	-0.0023	N/A	
SKL0330-CCV8 (Solid)		Lab File ID: 12222259ECD7.D			Analyzed: 12/23/22 12:21			
Decachlorobiphenyl	40.000	113	80 - 120	13.902	13.90667	-0.0047	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	5.831	5.835333	-0.0043	N/A	
Decachlorobiphenyl [2C]	40.000	99.8	80 - 120	14.131	14.13533	-0.0043	N/A	
Tetrachlorometaxylene [2C]	40.000	101	80 - 120	5.709	5.712333	-0.0033	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0048

Instrument: ECD7

Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SKL0048-SCV1)		(Solid)	Lab File ID: 12032222ECD7.D			Analyzed: 12/03/22 22:13			
1-Bromo-2-Nitrobenzene	483506	3.518	457669	3.516	106	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	892033	14.281	837264	14.278	107	50 - 200	0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	270882	3.956	254712	3.955	106	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	432562	15.023	387892	15.021	112	50 - 200	0.002	+/-0.50	
Secondary Cal Check (SKL0048-SCV2)		(Solid)	Lab File ID: 12032223ECD7.D			Analyzed: 12/03/22 22:34			
1-Bromo-2-Nitrobenzene	480791	3.515	457669	3.516	105	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	896515	14.281	837264	14.278	107	50 - 200	0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	270117	3.955	254712	3.955	106	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	422729	15.023	387892	15.021	109	50 - 200	0.002	+/-0.50	
Secondary Cal Check (SKL0048-SCV3)		(Solid)	Lab File ID: 12032224ECD7.D			Analyzed: 12/03/22 22:55			
1-Bromo-2-Nitrobenzene	484977	3.515	457669	3.516	106	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	915518	14.281	837264	14.278	109	50 - 200	0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	272055	3.955	254712	3.955	107	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	426674	15.023	387892	15.021	110	50 - 200	0.002	+/-0.50	
Secondary Cal Check (SKL0048-SCV4)		(Solid)	Lab File ID: 12032225ECD7.D			Analyzed: 12/03/22 23:17			
1-Bromo-2-Nitrobenzene	484642	3.516	457669	3.516	106	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	917405	14.28	837264	14.278	110	50 - 200	0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	270782	3.955	254712	3.955	106	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	431238	15.024	387892	15.021	111	50 - 200	0.003	+/-0.50	
Secondary Cal Check (SKL0048-SCV5)		(Solid)	Lab File ID: 12032226ECD7.D			Analyzed: 12/03/22 23:38			
1-Bromo-2-Nitrobenzene	482097	3.517	457669	3.516	105	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	913775	14.28	837264	14.278	109	50 - 200	0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	268757	3.956	254712	3.955	106	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	434790	15.024	387892	15.021	112	50 - 200	0.003	+/-0.50	
Secondary Cal Check (SKL0048-SCV6)		(Solid)	Lab File ID: 12032227ECD7.D			Analyzed: 12/03/22 23:59			
1-Bromo-2-Nitrobenzene	483276	3.514	457669	3.516	106	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	920878	14.281	837264	14.278	110	50 - 200	0.003	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	270175	3.953	254712	3.955	106	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	435731	15.023	387892	15.021	112	50 - 200	0.002	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0280

SDG: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SKL0280-ICV1)		(Solid)	Lab File ID: 12172203ECD7.D			Analyzed: 12/17/22 09:59			
1-Bromo-2-Nitrobenzene	422211	3.516	355578	3.517	119	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	980480	14.28	870324	14.28	113	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	251404	3.954	215452	3.956	117	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	443839	15.022	398786	15.022	111	50 - 200	0.000	+/-0.50	
Initial Cal Check (SKL0280-ICV2)		(Solid)	Lab File ID: 12172204ECD7.D			Analyzed: 12/17/22 10:20			
1-Bromo-2-Nitrobenzene	355578	3.517	355578	3.517	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	870324	14.28	870324	14.28	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	215452	3.956	215452	3.956	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	398786	15.022	398786	15.022	100	50 - 200	0.000	+/-0.50	
Blank (BKL0158-BLK1)		(Solid)	Lab File ID: 12172239ECD7.D			Analyzed: 12/17/22 22:44			
1-Bromo-2-Nitrobenzene	529169	3.516	355578	3.517	149	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	1174199	14.276	870324	14.28	135	50 - 200	-0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	302662	3.954	215452	3.956	140	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	512689	15.017	398786	15.022	129	50 - 200	-0.005	+/-0.50	
LCS (BKL0158-BS1)		(Solid)	Lab File ID: 12172240ECD7.D			Analyzed: 12/17/22 23:05			
1-Bromo-2-Nitrobenzene	533130	3.515	355578	3.517	150	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	1166169	14.274	870324	14.28	134	50 - 200	-0.006	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	305473	3.953	215452	3.956	142	50 - 200	-0.003	+/-0.50	
Hexabromobiphenyl [2C]	518051	15.018	398786	15.022	130	50 - 200	-0.004	+/-0.50	
LCS Dup (BKL0158-BS1)		(Solid)	Lab File ID: 12172241ECD7.D			Analyzed: 12/17/22 23:26			
1-Bromo-2-Nitrobenzene	536133	3.516	355578	3.517	151	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	1197465	14.276	870324	14.28	138	50 - 200	-0.004	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	310709	3.954	215452	3.956	144	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	529048	15.018	398786	15.022	133	50 - 200	-0.004	+/-0.50	
Reference (BKL0158-SRM1)		(Solid)	Lab File ID: 12172242ECD7.D			Analyzed: 12/17/22 23:47			
1-Bromo-2-Nitrobenzene	546077	3.516	355578	3.517	154	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	844558	14.264	870324	14.28	97	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	308357	3.954	215452	3.956	143	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	456529	15.011	398786	15.022	114	50 - 200	-0.011	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor OEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0280

Instrument: ECD7

Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (BKL0158-MS1)		(Solid)	Lab File ID: 12172243ECD7.D			Analyzed: 12/18/22 00:09			
1-Bromo-2-Nitrobenzene	489754	3.517	355578	3.517	138	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	462071	14.259	870324	14.28	53	50 - 200	-0.021	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	273902	3.955	215452	3.956	127	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	318196	15.01	398786	15.022	80	50 - 200	-0.012	+/-0.50	
LDW22-IT798 (22L0105-20)		(Solid)	Lab File ID: 12172248ECD7.D			Analyzed: 12/18/22 01:55			
1-Bromo-2-Nitrobenzene	469425	3.515	355578	3.517	132	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	501494	14.262	870324	14.28	58	50 - 200	-0.018	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	290286	3.953	215452	3.956	135	50 - 200	-0.003	+/-0.50	
Hexabromobiphenyl [2C]	324879	15.011	398786	15.022	81	50 - 200	-0.011	+/-0.50	
LDW22-SC782B (22L0105-21)		(Solid)	Lab File ID: 12172249ECD7.D			Analyzed: 12/18/22 02:16			
1-Bromo-2-Nitrobenzene	481003	3.515	355578	3.517	135	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	417641	14.26	870324	14.28	48	50 - 200	-0.020	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	267895	3.952	215452	3.956	124	50 - 200	-0.004	+/-0.50	
Hexabromobiphenyl [2C]	288422	15.01	398786	15.022	72	50 - 200	-0.012	+/-0.50	
LDW22-SC782C (22L0105-22)		(Solid)	Lab File ID: 12172250ECD7.D			Analyzed: 12/18/22 02:37			
1-Bromo-2-Nitrobenzene	462276	3.515	355578	3.517	130	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	419105	14.259	870324	14.28	48	50 - 200	-0.021	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	263874	3.953	215452	3.956	122	50 - 200	-0.003	+/-0.50	
Hexabromobiphenyl [2C]	290236	15.009	398786	15.022	73	50 - 200	-0.013	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor QEA, LLC
Sequence: SKL0282

SDG: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SKL0282-ICV1)		(Solid)	Lab File ID: 12192202ECD7.D			Analyzed: 12/19/22 14:56			
1-Bromo-2-Nitrobenzene	433038	3.517	373409	3.516	116	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	910416	14.276	828232	14.276	110	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	257924	3.953	224837	3.954	115	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	407466	15.019	377255	15.02	108	50 - 200	-0.001	+/-0.50	
Initial Cal Check (SKL0282-ICV2)		(Solid)	Lab File ID: 12192203ECD7.D			Analyzed: 12/19/22 15:17			
1-Bromo-2-Nitrobenzene	373409	3.516	373409	3.516	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	828232	14.276	828232	14.276	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	224837	3.954	224837	3.954	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	377255	15.02	377255	15.02	100	50 - 200	0.000	+/-0.50	
Matrix Spike Dup (BKL0158-MSD1)		(Solid)	Lab File ID: 12192205ECD7.D			Analyzed: 12/19/22 16:00			
1-Bromo-2-Nitrobenzene	442629	3.518	373409	3.516	119	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	393210	14.261	828232	14.276	47	50 - 200	-0.015	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	261005	3.956	224837	3.954	116	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	277618	15.011	377255	15.02	74	50 - 200	-0.009	+/-0.50	
LDW22-SC775L (22L0105-17)		(Solid)	Lab File ID: 12192206ECD7.D			Analyzed: 12/19/22 16:21			
1-Bromo-2-Nitrobenzene	445147	3.516	373409	3.516	119	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	600050	14.265	828232	14.276	72	50 - 200	-0.011	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	269317	3.954	224837	3.954	120	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	376720	15.014	377255	15.02	100	50 - 200	-0.006	+/-0.50	
LDW22-SC775M (22L0105-18)		(Solid)	Lab File ID: 12192207ECD7.D			Analyzed: 12/19/22 16:42			
1-Bromo-2-Nitrobenzene	448530	3.517	373409	3.516	120	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	657595	14.266	828232	14.276	79	50 - 200	-0.010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	270012	3.956	224837	3.954	120	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	398528	15.014	377255	15.02	106	50 - 200	-0.006	+/-0.50	
LDW22-IT796 (22L0105-19)		(Solid)	Lab File ID: 12192208ECD7.D			Analyzed: 12/19/22 17:03			
1-Bromo-2-Nitrobenzene	492441	3.518	373409	3.516	132	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	598320	14.263	828232	14.276	72	50 - 200	-0.013	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	293076	3.956	224837	3.954	130	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	374748	15.013	377255	15.02	99	50 - 200	-0.007	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SKL0282

SDG: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW22-SC782D (22L0105-23)		(Solid)	Lab File ID: 12192209ECD7.D			Analyzed: 12/19/22 17:24			
1-Bromo-2-Nitrobenzene	427979	3.516	373409	3.516	115	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	385962	14.26	828232	14.276	47	50 - 200	-0.016	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	254559	3.954	224837	3.954	113	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	279644	15.011	377255	15.02	74	50 - 200	-0.009	+/-0.50	
LDW22-SC782E (22L0105-24)		(Solid)	Lab File ID: 12192210ECD7.D			Analyzed: 12/19/22 17:46			
1-Bromo-2-Nitrobenzene	475992	3.518	373409	3.516	127	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	538155	14.262	828232	14.276	65	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	288236	3.955	224837	3.954	128	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	355459	15.012	377255	15.02	94	50 - 200	-0.008	+/-0.50	
LDW22-SC782F (22L0105-25)		(Solid)	Lab File ID: 12192211ECD7.D			Analyzed: 12/19/22 18:07			
1-Bromo-2-Nitrobenzene	472041	3.517	373409	3.516	126	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	621214	14.264	828232	14.276	75	50 - 200	-0.012	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	282247	3.955	224837	3.954	126	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	384903	15.014	377255	15.02	102	50 - 200	-0.006	+/-0.50	
LDW22-SC782G (22L0105-26)		(Solid)	Lab File ID: 12192212ECD7.D			Analyzed: 12/19/22 18:28			
1-Bromo-2-Nitrobenzene	511490	3.518	373409	3.516	137	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	579398	14.262	828232	14.276	70	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	291518	3.955	224837	3.954	130	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	373267	15.012	377255	15.02	99	50 - 200	-0.008	+/-0.50	
LDW22-SC782H (22L0105-27)		(Solid)	Lab File ID: 12192215ECD7.D			Analyzed: 12/19/22 19:32			
1-Bromo-2-Nitrobenzene	520904	3.518	373409	3.516	139	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	612136	14.263	828232	14.276	74	50 - 200	-0.013	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	297384	3.955	224837	3.954	132	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	389221	15.012	377255	15.02	103	50 - 200	-0.008	+/-0.50	
LDW22-SC782I (22L0105-28)		(Solid)	Lab File ID: 12192216ECD7.D			Analyzed: 12/19/22 19:53			
1-Bromo-2-Nitrobenzene	521090	3.517	373409	3.516	140	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	588170	14.263	828232	14.276	71	50 - 200	-0.013	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	288264	3.954	224837	3.954	128	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	373115	15.012	377255	15.02	99	50 - 200	-0.008	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SKL0282

SDG: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW22-SC782J (22L0105-29)		(Solid)	Lab File ID: 12192217ECD7.D			Analyzed: 12/19/22 20:14			
1-Bromo-2-Nitrobenzene	487247	3.517	373409	3.516	130	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	623206	14.263	828232	14.276	75	50 - 200	-0.013	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	282652	3.954	224837	3.954	126	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	388360	15.012	377255	15.02	103	50 - 200	-0.008	+/-0.50	
LDW22-SC782K (22L0105-30)		(Solid)	Lab File ID: 12192218ECD7.D			Analyzed: 12/19/22 20:35			
1-Bromo-2-Nitrobenzene	480797	3.518	373409	3.516	129	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	639297	14.264	828232	14.276	77	50 - 200	-0.012	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	278224	3.955	224837	3.954	124	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	391796	15.012	377255	15.02	104	50 - 200	-0.008	+/-0.50	
LDW22-SC782L (22L0105-31)		(Solid)	Lab File ID: 12192219ECD7.D			Analyzed: 12/19/22 20:57			
1-Bromo-2-Nitrobenzene	481425	3.518	373409	3.516	129	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	643912	14.262	828232	14.276	78	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	277165	3.956	224837	3.954	123	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	396150	15.011	377255	15.02	105	50 - 200	-0.009	+/-0.50	
LDW22-SC782M (22L0105-32)		(Solid)	Lab File ID: 12192220ECD7.D			Analyzed: 12/19/22 21:18			
1-Bromo-2-Nitrobenzene	426403	3.516	373409	3.516	114	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	461478	14.262	828232	14.276	56	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	254956	3.954	224837	3.954	113	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	308773	15.01	377255	15.02	82	50 - 200	-0.010	+/-0.50	
LDW22-SC782N (22L0105-33)		(Solid)	Lab File ID: 12192221ECD7.D			Analyzed: 12/19/22 21:39			
1-Bromo-2-Nitrobenzene	446864	3.516	373409	3.516	120	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	488965	14.263	828232	14.276	59	50 - 200	-0.013	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	262966	3.954	224837	3.954	117	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	330709	15.011	377255	15.02	88	50 - 200	-0.009	+/-0.50	
Blank (BKL0157-BLK1)		(Solid)	Lab File ID: 12192225ECD7.D			Analyzed: 12/19/22 23:04			
1-Bromo-2-Nitrobenzene	532866	3.517	373409	3.516	143	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	1103605	14.277	828232	14.276	133	50 - 200	0.001	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	311199	3.955	224837	3.954	138	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	507553	15.018	377255	15.02	135	50 - 200	-0.002	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor OEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0282

Instrument: ECD7

Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LCS (BKL0157-BS1)		(Solid)	Lab File ID: 12192226ECD7.D			Analyzed: 12/19/22 23:25			
1-Bromo-2-Nitrobenzene	548786	3.52	373409	3.516	147	50 - 200	0.004	+/-0.50	
Hexabromobiphenyl	1188185	14.276	828232	14.276	143	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	319212	3.957	224837	3.954	142	50 - 200	0.003	+/-0.50	
Hexabromobiphenyl [2C]	528534	15.018	377255	15.02	140	50 - 200	-0.002	+/-0.50	
LCS Dup (BKL0157-BSD1)		(Solid)	Lab File ID: 12192227ECD7.D			Analyzed: 12/19/22 23:46			
1-Bromo-2-Nitrobenzene	562914	3.517	373409	3.516	151	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	1196518	14.276	828232	14.276	144	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	323095	3.955	224837	3.954	144	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	540647	15.019	377255	15.02	143	50 - 200	-0.001	+/-0.50	
Matrix Spike (BKL0157-MS1)		(Solid)	Lab File ID: 12192228ECD7.D			Analyzed: 12/20/22 00:07			
1-Bromo-2-Nitrobenzene	517175	3.517	373409	3.516	139	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	542234	14.261	828232	14.276	65	50 - 200	-0.015	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	290598	3.954	224837	3.954	129	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	361735	15.01	377255	15.02	96	50 - 200	-0.010	+/-0.50	
Matrix Spike Dup (BKL0157-MSD1)		(Solid)	Lab File ID: 12192229ECD7.D			Analyzed: 12/20/22 00:29			
1-Bromo-2-Nitrobenzene	507666	3.518	373409	3.516	136	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	504554	14.26	828232	14.276	61	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	287161	3.956	224837	3.954	128	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	340430	15.011	377255	15.02	90	50 - 200	-0.009	+/-0.50	
Reference (BKL0157-SRM1)		(Solid)	Lab File ID: 12192230ECD7.D			Analyzed: 12/20/22 00:50			
1-Bromo-2-Nitrobenzene	531248	3.518	373409	3.516	142	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	715569	14.266	828232	14.276	86	50 - 200	-0.010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	306509	3.955	224837	3.954	136	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl [2C]	419182	15.013	377255	15.02	111	50 - 200	-0.007	+/-0.50	
LDW22-SC772 (22L0105-01)		(Solid)	Lab File ID: 12192231ECD7.D			Analyzed: 12/20/22 01:11			
1-Bromo-2-Nitrobenzene	524957	3.519	373409	3.516	141	50 - 200	0.003	+/-0.50	
Hexabromobiphenyl	512816	14.262	828232	14.276	62	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	298865	3.957	224837	3.954	133	50 - 200	0.003	+/-0.50	
Hexabromobiphenyl [2C]	353552	15.01	377255	15.02	94	50 - 200	-0.010	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor OEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0282

Instrument: ECD7

Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW22-SC771 (22L0105-02)		(Solid)	Lab File ID: 12192232ECD7.D			Analyzed: 12/20/22 01:32			
1-Bromo-2-Nitrobenzene	502091	3.516	373409	3.516	134	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	464113	14.26	828232	14.276	56	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	288818	3.954	224837	3.954	128	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	327605	15.009	377255	15.02	87	50 - 200	-0.011	+/-0.50	
LDW22-SC756 (22L0105-03)		(Solid)	Lab File ID: 12192233ECD7.D			Analyzed: 12/20/22 01:53			
1-Bromo-2-Nitrobenzene	488730	3.519	373409	3.516	131	50 - 200	0.003	+/-0.50	
Hexabromobiphenyl	446149	14.259	828232	14.276	54	50 - 200	-0.017	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	280951	3.956	224837	3.954	125	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	315462	15.009	377255	15.02	84	50 - 200	-0.011	+/-0.50	
LDW22-SC780 (22L0105-04)		(Solid)	Lab File ID: 12192234ECD7.D			Analyzed: 12/20/22 02:15			
1-Bromo-2-Nitrobenzene	518524	3.518	373409	3.516	139	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	431386	14.259	828232	14.276	52	50 - 200	-0.017	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	295953	3.956	224837	3.954	132	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	312650	15.01	377255	15.02	83	50 - 200	-0.010	+/-0.50	
LDW22-IT792 (22L0105-05)		(Solid)	Lab File ID: 12192235ECD7.D			Analyzed: 12/20/22 02:36			
1-Bromo-2-Nitrobenzene	508790	3.519	373409	3.516	136	50 - 200	0.003	+/-0.50	
Hexabromobiphenyl	568076	14.262	828232	14.276	69	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	303858	3.956	224837	3.954	135	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl [2C]	350867	15.01	377255	15.02	93	50 - 200	-0.010	+/-0.50	
LDW22-SC775A (22L0105-06)		(Solid)	Lab File ID: 12192236ECD7.D			Analyzed: 12/20/22 02:57			
1-Bromo-2-Nitrobenzene	516698	3.517	373409	3.516	138	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	508767	14.262	828232	14.276	61	50 - 200	-0.014	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	297045	3.954	224837	3.954	132	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	344291	15.011	377255	15.02	91	50 - 200	-0.009	+/-0.50	
LDW22-SC775B (22L0105-07)		(Solid)	Lab File ID: 12192237ECD7.D			Analyzed: 12/20/22 03:18			
1-Bromo-2-Nitrobenzene	401714	3.515	373409	3.516	108	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	385428	14.259	828232	14.276	47	50 - 200	-0.017	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	232086	3.952	224837	3.954	103	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	271628	15.009	377255	15.02	72	50 - 200	-0.011	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC
Client: Anchor OEA, LLC
Sequence: SKL0282

SDG: 22L0105
Project: AOC4 UR Phase 3
Instrument: ECD7
Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW22-SC775C (22L0105-08)		(Solid)	Lab File ID: 12192238ECD7.D			Analyzed: 12/20/22 03:39			
1-Bromo-2-Nitrobenzene	481986	3.516	373409	3.516	129	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	447077	14.259	828232	14.276	54	50 - 200	-0.017	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	279234	3.954	224837	3.954	124	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	320460	15.008	377255	15.02	85	50 - 200	-0.012	+/-0.50	
LDW22-SC775D (22L0105-09)		(Solid)	Lab File ID: 12192241ECD7.D			Analyzed: 12/20/22 04:43			
1-Bromo-2-Nitrobenzene	496954	3.515	373409	3.516	133	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	449120	14.26	828232	14.276	54	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	289734	3.952	224837	3.954	129	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	320446	15.009	377255	15.02	85	50 - 200	-0.011	+/-0.50	
LDW22-SC775E (22L0105-10)		(Solid)	Lab File ID: 12192242ECD7.D			Analyzed: 12/20/22 05:04			
1-Bromo-2-Nitrobenzene	485971	3.516	373409	3.516	130	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	413838	14.26	828232	14.276	50	50 - 200	-0.016	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	272086	3.952	224837	3.954	121	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	299762	15.008	377255	15.02	79	50 - 200	-0.012	+/-0.50	
LDW22-SC775F (22L0105-11)		(Solid)	Lab File ID: 12192243ECD7.D			Analyzed: 12/20/22 05:25			
1-Bromo-2-Nitrobenzene	458648	3.515	373409	3.516	123	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	393248	14.26	828232	14.276	47	50 - 200	-0.016	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	258394	3.952	224837	3.954	115	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	291296	15.009	377255	15.02	77	50 - 200	-0.011	+/-0.50	
LDW22-SC775G (22L0105-12)		(Solid)	Lab File ID: 12192244ECD7.D			Analyzed: 12/20/22 05:47			
1-Bromo-2-Nitrobenzene	482440	3.516	373409	3.516	129	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	391492	14.259	828232	14.276	47	50 - 200	-0.017	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	267748	3.954	224837	3.954	119	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	296302	15.008	377255	15.02	79	50 - 200	-0.012	+/-0.50	
LDW22-SC775H (22L0105-13)		(Solid)	Lab File ID: 12192245ECD7.D			Analyzed: 12/20/22 06:08			
1-Bromo-2-Nitrobenzene	451120	3.514	373409	3.516	121	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	422331	14.26	828232	14.276	51	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	268460	3.951	224837	3.954	119	50 - 200	-0.003	+/-0.50	
Hexabromobiphenyl [2C]	303441	15.01	377255	15.02	80	50 - 200	-0.010	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor OEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0282

Instrument: ECD7

Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW22-SC775I (22L0105-14)		(Solid)	Lab File ID: 12192246ECD7.D			Analyzed: 12/20/22 06:29			
1-Bromo-2-Nitrobenzene	460781	3.515	373409	3.516	123	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl	434105	14.26	828232	14.276	52	50 - 200	-0.016	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	278123	3.952	224837	3.954	124	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	307430	15.009	377255	15.02	81	50 - 200	-0.011	+/-0.50	
LDW22-SC775J (22L0105-15)		(Solid)	Lab File ID: 12192247ECD7.D			Analyzed: 12/20/22 06:50			
1-Bromo-2-Nitrobenzene	467715	3.516	373409	3.516	125	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	405750	14.26	828232	14.276	49	50 - 200	-0.016	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	265786	3.953	224837	3.954	118	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	309924	15.008	377255	15.02	82	50 - 200	-0.012	+/-0.50	
LDW22-SC775K (22L0105-16)		(Solid)	Lab File ID: 12192248ECD7.D			Analyzed: 12/20/22 07:12			
1-Bromo-2-Nitrobenzene	426843	3.514	373409	3.516	114	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl	387506	14.258	828232	14.276	47	50 - 200	-0.018	+/-0.50	*
1-Bromo-2-Nitrobenzene [2C]	255120	3.952	224837	3.954	113	50 - 200	-0.002	+/-0.50	
Hexabromobiphenyl [2C]	288616	15.008	377255	15.02	77	50 - 200	-0.012	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0330

Instrument: ECD7

Calibration: FL00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SKL0330-ICV1)		(Solid)	Lab File ID: 12222202ECD7.D			Analyzed: 12/22/22 16:12			
1-Bromo-2-Nitrobenzene	439491	3.515	346260	3.515	127	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	700678	14.277	663654	14.275	106	50 - 200	0.002	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	246419	3.952	198560	3.953	124	50 - 200	-0.001	+/-0.50	
Hexabromobiphenyl [2C]	358385	15.019	322443	15.018	111	50 - 200	0.001	+/-0.50	
Initial Cal Check (SKL0330-ICV2)		(Solid)	Lab File ID: 12222203ECD7.D			Analyzed: 12/22/22 16:34			
1-Bromo-2-Nitrobenzene	346260	3.515	346260	3.515	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl	663654	14.275	663654	14.275	100	50 - 200	0.000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	198560	3.953	198560	3.953	100	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	322443	15.018	322443	15.018	100	50 - 200	0.000	+/-0.50	
LDW22-SC775J (22L0105-15RE1)		(Solid)	Lab File ID: 12222204ECD7.D			Analyzed: 12/22/22 16:55			
1-Bromo-2-Nitrobenzene	473319	3.517	346260	3.515	137	50 - 200	0.002	+/-0.50	
Hexabromobiphenyl	604916	14.263	663654	14.275	91	50 - 200	-0.012	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	265152	3.953	198560	3.953	134	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	359749	15.011	322443	15.018	112	50 - 200	-0.007	+/-0.50	
LDW22-SC775K (22L0105-16RE1)		(Solid)	Lab File ID: 12222205ECD7.D			Analyzed: 12/22/22 17:16			
1-Bromo-2-Nitrobenzene	481403	3.516	346260	3.515	139	50 - 200	0.001	+/-0.50	
Hexabromobiphenyl	616525	14.262	663654	14.275	93	50 - 200	-0.013	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	275817	3.953	198560	3.953	139	50 - 200	0.000	+/-0.50	
Hexabromobiphenyl [2C]	373355	15.011	322443	15.018	116	50 - 200	-0.007	+/-0.50	



DUAL COLUMN CONFIRMATION SUMMARY

Laboratory: Analytical Resources, LLC SDG: 22L0105
 Client: Anchor OEA, LLC Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-20 File ID: 12172248ECD7.D
 Sampled: 12/05/22 11:43 Prepared: 12/08/22 11:45 Analyzed: 12/18/22 01:55
 Solids: 68.04 Preparation: EPA 3546 (Microwave) Instrument: ECD7
 Batch: BKL0158 Sequence: SKL0280
 GC Column(1): ZB5 GC Column(2): ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1254	* 1	9.304	9.318	0.014	116252.8	68.3	13.4
	2	9.455	9.466	0.011	70812	59.7	
Aroclor 1260	1	11.044	11.0625	0.0185	18971.4	15.1	18.6
	* 2	11.66	11.66983	0.00983	20083.5	18.2	

* Column used for quantitation



DUAL COLUMN CONFIRMATION SUMMARY

Laboratory: Analytical Resources, LLC SDG: 22L0105
 Client: Anchor OEA, LLC Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-01 File ID: 12192231ECD7.D
 Sampled: 12/05/22 08:15 Prepared: 12/07/22 13:40 Analyzed: 12/20/22 01:11
 Solids: 42.52 Preparation: EPA 3546 (Microwave) Instrument: ECD7
 Batch: BKL0157 Sequence: SKL0282
 GC Column(1): ZB5 GC Column(2): ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.413	8.427	0.014	26008.5	12.2	25.7
	2	8.316	8.326	0.01	14314.25	15.8	
Aroclor 1254	* 1	9.301	9.318	0.017	45718.8	18.7	26.
	2	9.454	9.466	0.012	34338.4	24.3	
Aroclor 1260	* 1	11.046	11.0625	0.0165	33104.8	27.0	3.8
	2	11.657	11.66983	0.0128	31032	26.0	

* Column used for quantitation



DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>		
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>		
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>22L0105-32</u>	File ID:	<u>12192220ECD7.D</u>
Sampled:	<u>12/05/22 11:22</u>	Prepared:	<u>12/08/22 11:45</u>	Analyzed:	<u>12/19/22 21:18</u>
Solids:	<u>70.94</u>	Preparation:	<u>EPA 3546 (Microwave)</u>	Instrument:	<u>ECD7</u>
Batch:	<u>BKL0158</u>	Sequence:	<u>SKL0282</u>		
GC Column(1):	<u>ZB5</u>	GC Column(2):	<u>ZB35</u>		

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.414	8.427	0.013	12439.5	6.3	10.
	2	8.316	8.326	0.01	3370	5.7	
Aroclor 1254	* 1	9.301	9.318	0.017	23169.8	13.5	.7
	2	9.454	9.466	0.012	16053	13.4	
Aroclor 1260	* 1	11.046	11.0625	0.0165	19224.8	16.4	19.4
	2	11.658	11.66983	0.0118	17515	13.5	

* Column used for quantitation



DUAL COLUMN CONFIRMATION SUMMARY

Laboratory: Analytical Resources, LLC SDG: 22L0105
 Client: Anchor OEA, LLC Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-15RE1 File ID: 12222204ECD7.D
 Sampled: 12/05/22 09:37 Prepared: 12/07/22 13:40 Analyzed: 12/22/22 16:55
 Solids: 60.43 Preparation: EPA 3546 (Microwave) Instrument: ECD7
 Batch: BKL0157 Sequence: SKL0330
 GC Column(1): ZB5 GC Column(2): ZB35

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.414	8.427	0.013	109121.8	322	6.3
	2	8.316	8.326	0.01	40842.5	343	
Aroclor 1254	* 1	9.302	9.318	0.016	109953.8	301	8.3
	2	9.454	9.466	0.012	78218.2	327	
Aroclor 1260	* 1	11.047	11.0625	0.0155	46517.4	164	4.4
	2	11.658	11.66983	0.0118	45519.75	157	

* Column used for quantitation



DUAL COLUMN CONFIRMATION SUMMARY

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>		
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>		
Matrix:	<u>Sediment</u>	Laboratory ID:	<u>22L0105-16RE1</u>	File ID:	<u>12222205ECD7.D</u>
Sampled:	<u>12/05/22 09:37</u>	Prepared:	<u>12/07/22 13:40</u>	Analyzed:	<u>12/22/22 17:16</u>
Solids:	<u>60.60</u>	Preparation:	<u>EPA 3546 (Microwave)</u>	Instrument:	<u>ECD7</u>
Batch:	<u>BKL0157</u>	Sequence:	<u>SKL0330</u>		
GC Column(1):	<u>ZB5</u>	GC Column(2):	<u>ZB35</u>		

COMPOUND	COL	RT	EXP RT	RT DIFF	AREA	CONC	RPD
Aroclor 1248	* 1	8.413	8.427	0.014	115282.5	364	3.4
	2	8.317	8.326	0.009	43745	352	
Aroclor 1254	* 1	9.301	9.318	0.017	95607	258	8.9
	2	9.454	9.466	0.012	68945	282	
Aroclor 1260	* 1	11.047	11.0625	0.0155	35070.2	121	6.8
	2	11.658	11.66983	0.0118	30549	113	

* Column used for quantitation



HOLDING TIME SUMMARY

Analysis: EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW22-SC772 22L0105-01	12/05/22 08:15	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 01:11	12	40	
LDW22-SC771 22L0105-02	12/05/22 08:33	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 01:32	12	40	
LDW22-SC756 22L0105-03	12/05/22 09:33	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 01:53	13	40	
LDW22-SC780 22L0105-04	12/05/22 10:23	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 02:15	13	40	
LDW22-IT792 22L0105-05	12/05/22 11:00	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 02:36	13	40	
LDW22-SC775A 22L0105-06	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 02:57	13	40	
LDW22-SC775B 22L0105-07	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 03:18	13	40	
LDW22-SC775C 22L0105-08	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 03:39	13	40	
LDW22-SC775D 22L0105-09	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 04:43	13	40	
LDW22-SC775E 22L0105-10	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 05:04	13	40	
LDW22-SC775F 22L0105-11	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 05:25	13	40	
LDW22-SC775G 22L0105-12	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 05:47	13	40	
LDW22-SC775H 22L0105-13	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 06:08	13	40	
LDW22-SC775I 22L0105-14	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 06:29	13	40	
LDW22-SC775J 22L0105-15	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 06:50	13	40	
LDW22-SC775J 22L0105-15RE1	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/22/22 16:55	15	40	
LDW22-SC775K 22L0105-16	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 07:12	13	40	
LDW22-SC775K 22L0105-16RE1	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/22/22 17:16	15	40	
LDW22-SC775L 22L0105-17	12/05/22 09:37	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 16:21	11	40	
LDW22-SC775M 22L0105-18	12/05/22 09:37	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 16:42	11	40	
LDW22-IT796 22L0105-19	12/05/22 11:25	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 17:03	11	40	
LDW22-IT798 22L0105-20	12/05/22 11:43	12/05/22 17:00	12/08/22 11:45	3	365	12/18/22 01:55	10	40	



HOLDING TIME SUMMARY

Analysis: EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor OEA, LLC

Project: AOC4 UR Phase 3

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW22-SC782B 22L0105-21	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/18/22 02:16	10	40	
LDW22-SC782C 22L0105-22	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/18/22 02:37	10	40	
LDW22-SC782D 22L0105-23	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 17:24	11	40	
LDW22-SC782E 22L0105-24	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 17:46	11	40	
LDW22-SC782F 22L0105-25	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 18:07	11	40	
LDW22-SC782G 22L0105-26	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 18:28	11	40	
LDW22-SC782H 22L0105-27	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 19:32	11	40	
LDW22-SC782I 22L0105-28	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 19:53	11	40	
LDW22-SC782J 22L0105-29	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 20:14	11	40	
LDW22-SC782K 22L0105-30	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 20:35	11	40	
LDW22-SC782L 22L0105-31	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 20:57	11	40	
LDW22-SC782M 22L0105-32	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 21:18	11	40	
LDW22-SC782N 22L0105-33	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 21:39	11	40	
Matrix Spike BKL0157-MS1	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 00:07	12	40	
Matrix Spike Dup BKL0157-MSD1	12/05/22 09:37	12/05/22 17:00	12/07/22 13:40	2	365	12/20/22 00:29	12	40	
Matrix Spike BKL0158-MS1	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/18/22 00:09	10	40	
Matrix Spike Dup BKL0158-MSD1	12/05/22 11:22	12/05/22 17:00	12/08/22 11:45	3	365	12/19/22 16:00	11	40	

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 8082A

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Instrument: ECD7

Analyte	MDL	RL	Units
Aroclor 1016	1.6	4.0	ug/kg
Aroclor 1016 [2C]	1.6	4.0	ug/kg
Aroclor 1221	1.6	4.0	ug/kg
Aroclor 1221 [2C]	1.6	4.0	ug/kg
Aroclor 1232	1.6	4.0	ug/kg
Aroclor 1232 [2C]	1.6	4.0	ug/kg
Aroclor 1242	1.6	4.0	ug/kg
Aroclor 1242 [2C]	1.6	4.0	ug/kg
Aroclor 1248	1.6	4.0	ug/kg
Aroclor 1248 [2C]	1.6	4.0	ug/kg
Aroclor 1254	1.6	4.0	ug/kg
Aroclor 1254 [2C]	1.6	4.0	ug/kg
Aroclor 1260	0.6	4.0	ug/kg
Aroclor 1260 [2C]	0.6	4.0	ug/kg

CERTIFICATE OF ANALYSIS

Catalog No: S-279N
Description: Tetrachloro-m-xylene
Lot: 0052481B-1
Solvent: N/A
Hazards: Refer to SDS for complete safety information

Date Certified: Jul 28, 2005
Expiration: Jul 28, 2015
Sample Size: 100 mg
Components: 1
Storage Condition: Ambient (>5 °C)



Signal Word: Warning

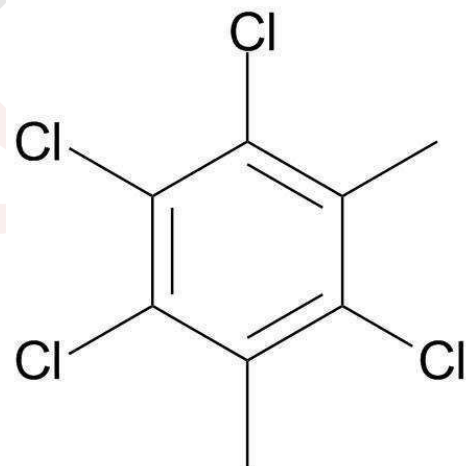
Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration	Certified Analyte Concentration ¹
Tetrachloro-meta-xylene	877-09-8	96.0	N/A	N/A

Identification:

Molecular formula: C₈H₆Cl₄
Molecular weight: 243.94



C000147

tetrachlorometaxylene

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

¹ The Uncertainty calculated for this product is $\pm 2.4\%$. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

Metrological traceability is established through in-house validated methods.

Purity, if stated, is equal to 100% minus found impurity components. Impurity components have not been identified.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By:

Larry Decker, Organic QC Manager



AccuStandard

125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N

EXPIRATION: Jul 28, 2015

DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl

LOT #: 990521LB-AC

SOLVENT: N/A

This product is guaranteed accurate to $\pm 0.5\%$ of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration ¹	Certified Analyte Concentration ²
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

2;

C000148

decachlorobiphenyl

Expires 1/15/2020

Prepared By Joshua Rains 1/15/2014

** I 1768 A*

Certified by:

R. Cooper

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
 2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is $\pm 0.5\%$ which is the Combined Uncertainty $U_c(y)$. It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is $U_c(y) * K$ where K is the coverage factor at the 95% confidence level ($K=2$).
 3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

** Recertified ~ 4-6-09*



Analytical Standard Record
Standard ID: C000148

Printed: 4/23/2015 11:54:44AM

Description:	decachlorobiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	9905211b-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By

Date

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101468

Lot Number: CL14017

Description: Aroclor 1221

Certification Date: August 20, 2019

Storage: 4 °C

Expiration Date: August 31, 2027

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1221	11104-28-2	1000	± 0.553%

I 10155



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Chemical Testing Laboratory
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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101469

Lot Number: CL14914

Description: Aroclor 1232

Certification Date: January 31, 2020

Storage: 4 °C

Expiration Date: January 31, 2028

Provided As: 1 mL in 2 mL Ampoule in Isooctane



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1232	11141-16-5	1000	± 0.738%

I 010156



Reference Material Producer
Certificate No. 2427.02



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Chemical Testing Laboratory
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2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101470

Lot Number: CL14018

Description: Aroclor 1242

Certification Date: August 20, 2019

Storage: 4 °C

Expiration Date: August 31, 2027

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1242	53469-21-9	1000	± 0.553%

I 010157



Reference Material Producer
Certificate No. 2427.02



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3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101471

Lot Number: CL15384

Description: Aroclor 1248

Certification Date: June 19, 2020

Storage: 4 °C

Expiration Date: June 30, 2028

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1248	12672-29-6	1000	± 0.520%

I 010158



Reference Material Producer
Certificate No. 2427.02



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Chemical Testing Laboratory
Certificate No. 2427.03

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2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101472

Lot Number: CL13055

Description: Aroclor 1254

Certification Date: November 29, 2018

Storage: 4 °C

Expiration Date: November 30, 2026

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1254	11097-69-1	1000	± 0.247%

I 010159



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC-MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



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2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit: kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
- ³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101474

Lot Number: CL11330

Description: Aroclor 1262

Certification Date: May 15, 2015

Storage: 4 °C

Expiration Date: April 30, 2023

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Revision Date: April 2, 2018

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1262	37324-23-5	1000	± 0.516%

I 10160



Reference Material Producer
Certificate No. 2427.02



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1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
- ³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101475

Lot Number: CL11331

Description: Aroclor 1268

Certification Date: May 15, 2015

Storage: 4 °C

Expiration Date: April 30, 2023

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Revision Date: April 2, 2018

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1268	11100-14-4	1000	± 0.516%

I 010161



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
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2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
- ³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101462

Lot Number: CL16516

Description: Aroclor 1260

Certification Date: March 4, 2021

Storage: 4 °C

Expiration Date: February 28, 2029

Provided As: 1 mL in 2 mL Ampoule in Hexane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1260	11096-82-5	1000	± 0.553%

J006465



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Recipient Copy

CHAIN-OF-CUSTODY RECORD

COC No. 15130

Order Number: CB014550

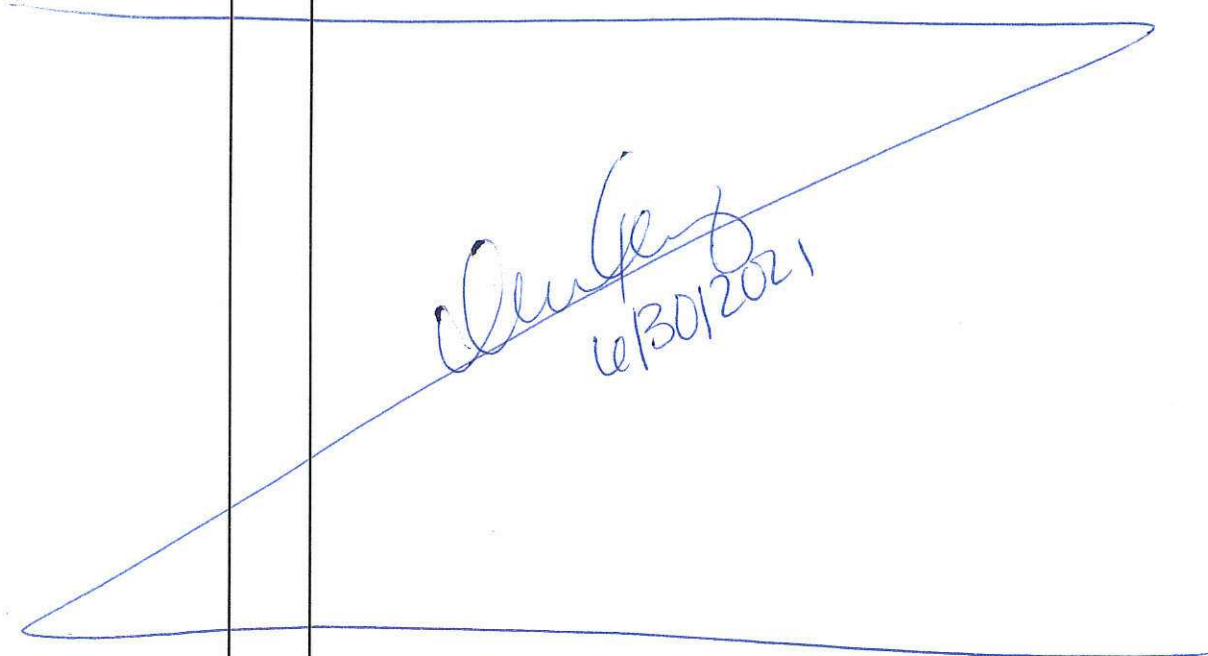
Date Shipped: 6/30/2021

AirBill No(s):

From: QATS LABORATORY
 2700 CHANDLER AVENUE, BLDG. C
 LAS VEGAS, NV 89120
 PHONE: 1-702-895-8712
 FAX: 1-702-795-8210

To: SUE DUNNIHOO
 ANALYTICAL RESOURCES INC.
 4611 S. 134TH PLACE SUITE 100
 TUKWILA WA 98168
 250-695-6207

460843969796

Sample ID	Qty	Description/Remarks	→ Catalogue Number
PSRM0134 - J006840	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0135 - J006841	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0136 - J006842	1	PUGET SOUND SEDIMENT RM	PS-SRM
PSRM0137 - J006843	1	PUGET SOUND SEDIMENT RM	PS-SRM
			
DUWAMISH AOC4			

Please use the enclosed Sample Preparation Instructions. If catalogue number(s) are listed at the top of the Sample Preparation Instructions use the Sample Preparation Instructions with catalogue number(s) matching the catalogue number(s) of each of the samples listed above.

Relinquished by: (Signature) 	Date/Time 1400 10/30/2021	Received by:  (Signature)	Date/Time 07/01/2021 1042
Custody Seal(s): Present/Absent	Remarks:		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101467

Lot Number: CL16555

Description: Aroclor 1016

Certification Date: June 22, 2021

Storage: 4 °C

Expiration Date: February 28, 2029

Provided As: 1 mL in 2 mL Ampoule in Isooctane

J012591

AROCLOR 1016

Expires 2/28/2029

Prepared By Joshua Rains 11/26/2021



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1016	12674-11-2	1000	± 0.310%

Certificate of Analysis

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. Quality Standards: Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



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Chemical Testing Laboratory
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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101462

Lot Number: CL16516

Description: Aroclor 1260

Certification Date: March 4, 2021

Storage: 4 °C

Expiration Date: February 28, 2029

Provided As: 1 mL in 2 mL Ampoule in Hexane

J012592

AROCLOR 1260

Expires 2/28/2029

Prepared By Joshua Rains 11/26/2021



Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1260	11096-82-5	1000	± 0.553%

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3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.

³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



Certificate of Analysis

Aroclor 1016 Solution

Product Number: PP-282

Page: 1 of 1

Lot Number: CR-0761

Lot Issue Date: 28-Feb-2017

Expiration Date: 31-Mar-2025

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1016	012674-11-2	NT01016	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

*K1254
Recd JP
02/05/17*

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 9001
Registered
TUV USA, Inc.

John Russo
President

Monica Bourgeois
Director of QA/RA



Certificate of Analysis

Product Name: Aroclor 1260 Standard

Product Number: PP-362-1

Lot Issue Date: 20-Jan-2021

Lot Number: 0006582048

Expiration Date: 28-Feb-2025

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1260	011096-82-5	NT01023	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

K 1255

Storage Conditions: Store at Room Temperature (15° to 30°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois

QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis ISO Guide 34

Aroclor 1242 Solution

Product Number: PP-312

Page: 1 of 1

Lot Number: CS-6293

Lot Issue Date: 04-Jan-2019

Expiration Date: 31-Jan-2023

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1242	053469-21-9	NT01020	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1256

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO Guide 34 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO17025 Cert No.
AT-1937

ISO 17034



Agilent

Trusted Answers

Reference Material Certificate

Product Name: Aroclor 1248 Standard **Lot Number:** 0006626997
Product Number: PP-342-1 **Lot Issue Date:** 17-Aug-2021
Storage Conditions: Store at Room Temperature (15° to 30°C). **Expiration Date:** 30-Sep-2025

Component Name	CERTIFIED VALUES			CAS#	Analyte Lot
	Concentration	Expanded Uncertainty			
Aroclor 1248	100.3	± 0.5 µg/mL		012672-29-6	NT01582

Matrix: isooctane (2,2,4-trimethylpentane)

K1257

Description:

This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:

This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.



Certificate of Analysis

Aroclor 1254 Solution

Product Number: PP-352

Page: 1 of 1

Lot Number: CS-2321

Lot Issue Date: 04-May-2018

Expiration Date: 31-May-2026

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1254	011097-69-1	RM00922	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

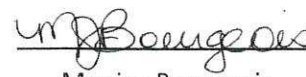
K-1250

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 9001
Registered
TUV USA, Inc.


John Russo
President


Monica Bourgeois
Director of QA/RA



Certificate of Analysis

Product Name: Aroclor 1221 Standard
Product Number: PP-292-1 **Lot Issue Date:** 28-Apr-2020
Lot Number: 0006535333 **Expiration Date:** 31-May-2024

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1221	011104-28-2	RM04278	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1259

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937



Certificate of Analysis ISO 17034

Aroclor 1262 Standard

Product Number: PP-372-1

Page: 1 of 1

Lot Number: 0006499800

Lot Issue Date: 04-Nov-2019

Expiration Date: 30-Nov-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent Technologies ISO 9001 registered quality system. A review of the gravimetric preparation data by our ISO 17025 accredited laboratory serves to verify the concentration of each analyte. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1262	037324-23-5	RM14263	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1260

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO 17025 Cert No.
AT-1937



Certificate of Analysis ISO 17034

Aroclor 1232 Standard

Product Number: PP-302-1

Page: 1 of 1

Lot Number: CF-2197A

Lot Issue Date: 05-Jul-2016

Expiration Date: 31-Aug-2023

This ISO 17034 Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1232	011141-16-5	NT01717	100.4 ± 0.5 µg/mL

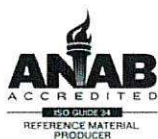
Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

K1261

Agilent uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.


Monica Bourgeois
QMS Representative



ISO 17034 Cert No.
AR-1936

Produced in accordance with TUV USA Inc 56 100 18560026
registered ISO 9001 Quality Management System



ISO17025 Cert No.
AT-1937



Certificate of Analysis

Product Name: Aroclor 1268 Standard

Product Number: PP-382-1

Lot Issue Date: 09-Feb-2021

Lot Number: 0006587800

Expiration Date: 31-Mar-2029

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
Aroclor 1268	011100-14-4	RM00937	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage Conditions: Store at Room Temperature (15° to 30°C).

K1262

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:


Monica Bourgeois
QMS Representative



ISO 17034 Cert
No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/
CSD-QA-015.1



ISO 17025 Cert
No. AT-1937

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101467

Lot Number: CL12975

Description: Aroclor 1016

Certification Date: November 19, 2018

Storage: 4 °C

Expiration Date: October 31, 2026

Provided As: 1 mL in 2 mL Ampoule in Isooctane

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1016	12674-11-2	1000	± 0.553%

125829



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC-MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis



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Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO Guide 34³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.
4. **Instruction:** Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.
12. **Period of Validity:** The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

¹ ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.

² ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.

³ ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.

⁴ ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.

⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

IL111053_US

Certificate of Analysis

Produced by Phenova

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101462

Lot Number: CL18021

Description: Aroclor 1260

Certification Date: February 14, 2022

Storage: 4 °C

Expiration Date: February 28, 2030

Provided As: 1 mL in 2 mL Ampoule in Hexane

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aroclor 1260	11096-82-5	1000	± 0.553%

K005830



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis



Page 2 of 2

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$u_{CRM} = k\sqrt{u_M^2 + u_H^2 + u_{LTS}^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC772

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-01 C SDG: 22L0105
 Sampled: 12/05/22 08:15 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-444
 % Solids: 39.85 Preparation: Plumb 1981 Analyzed: 12/13/22 16:06
 Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.1934 g Wet / 0.1934 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	3.41	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC771

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-02 C SDG: 22L0105
 Sampled: 12/05/22 08:33 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-474
 % Solids: 46.56 Preparation: Plumb 1981 Analyzed: 12/13/22 18:37
 Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.153 g Wet / 0.153 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.96	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC756

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-03 C SDG: 22L0105
 Sampled: 12/05/22 09:33 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-479
 % Solids: 59.06 Preparation: Plumb 1981 Analyzed: 12/13/22 19:08
 Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.158 g Wet / 0.158 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.78	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC780

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-04 C SDG: 22L0105

Sampled: 12/05/22 10:23 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-488

% Solids: 67.04 Preparation: Plumb 1981 Analyzed: 12/13/22 19:39

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.5026 g Wet / 0.5026 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.08	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-IT792

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-05 C SDG: 22L0105
 Sampled: 12/05/22 11:00 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-492
 % Solids: 72.72 Preparation: Plumb 1981 Analyzed: 12/13/22 20:09
 Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.5161 g Wet / 0.5161 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.85	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775A

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-06 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-499

% Solids: 55.04 Preparation: Plumb 1981 Analyzed: 12/13/22 20:39

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.21 g Wet / 0.21 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.57	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775B

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-07 C SDG: 22L0105
 Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-505
 % Solids: 53.87 Preparation: Plumb 1981 Analyzed: 12/13/22 21:10
 Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.1705 g Wet / 0.1705 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.88	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775C

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-08 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-509

% Solids: 53.72 Preparation: Plumb 1981 Analyzed: 12/13/22 21:40

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.1683 g Wet / 0.1683 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.60	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775D

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-09 C SDG: 22L0105
 Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-517
 % Solids: 54.24 Preparation: Plumb 1981 Analyzed: 12/13/22 22:11
 Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.2935 g Wet / 0.2935 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.54	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775E

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-10 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-523

% Solids: 58.76 Preparation: Plumb 1981 Analyzed: 12/13/22 22:41

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.2259 g Wet / 0.2259 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.14	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775F

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-11 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-545

% Solids: 57.52 Preparation: Plumb 1981 Analyzed: 12/14/22 00:12

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.2267 g Wet / 0.2267 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.89	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775G

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-12 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-551

% Solids: 57.25 Preparation: Plumb 1981 Analyzed: 12/14/22 00:43

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.2046 g Wet / 0.2046 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.95	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775H

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-13 C SDG: 22L0105
 Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-558
 % Solids: 58.50 Preparation: Plumb 1981 Analyzed: 12/14/22 01:13
 Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.5379 g Wet / 0.5379 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.58	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775I

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-14 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-565

% Solids: 57.14 Preparation: Plumb 1981 Analyzed: 12/14/22 01:44

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.2308 g Wet / 0.2308 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.02	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775J

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-15 C SDG: 22L0105
 Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-570
 % Solids: 60.49 Preparation: Plumb 1981 Analyzed: 12/14/22 02:14
 Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.2173 g Wet / 0.2173 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.90	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775K

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-16 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-579

% Solids: 61.36 Preparation: Plumb 1981 Analyzed: 12/14/22 02:44

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.2248 g Wet / 0.2248 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.41	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775L

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-17 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-584

% Solids: 56.64 Preparation: Plumb 1981 Analyzed: 12/14/22 03:15

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.178 g Wet / 0.178 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	3.82	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC775M

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-18 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-591

% Solids: 60.46 Preparation: Plumb 1981 Analyzed: 12/14/22 03:45

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.1937 g Wet / 0.1937 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.63	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-IT796

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-19 C SDG: 22L0105
 Sampled: 12/05/22 11:25 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-598
 % Solids: 61.17 Preparation: Plumb 1981 Analyzed: 12/14/22 04:16
 Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.1723 g Wet / 0.1723 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.89	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-IT798

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-20 C SDG: 22L0105

Sampled: 12/05/22 11:43 Prepared: 12/12/22 09:00 File ID: CubeData_12272022@1337-604

% Solids: 67.18 Preparation: Plumb 1981 Analyzed: 12/14/22 04:46

Batch: BKL0266 Sequence: SKL0152 Initial/Final: 0.5059 g Wet / 0.5059 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.07	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782B

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-21 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-052

% Solids: 52.57 Preparation: Plumb 1981 Analyzed: 12/14/22 08:18

Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.1036 g Wet / 0.1036 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.75	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782C

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-22 C SDG: 22L0105
 Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-135
 % Solids: 55.98 Preparation: Plumb 1981 Analyzed: 12/14/22 12:20
 Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.2629 g Wet / 0.2629 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.72	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782D

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-23 C SDG: 22L0105
 Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-142
 % Solids: 55.30 Preparation: Plumb 1981 Analyzed: 12/14/22 12:51
 Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.1937 g Wet / 0.1937 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.96	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782E

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-24 C SDG: 22L0105
 Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-148
 % Solids: 53.03 Preparation: Plumb 1981 Analyzed: 12/14/22 13:21
 Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.1446 g Wet / 0.1446 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.36	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782F

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-25 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-155

% Solids: 61.06 Preparation: Plumb 1981 Analyzed: 12/14/22 13:51

Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.1601 g Wet / 0.1601 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.27	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782G

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-26 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-161

% Solids: 61.70 Preparation: Plumb 1981 Analyzed: 12/14/22 14:22

Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.1916 g Wet / 0.1916 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.98	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782H

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-27 C SDG: 22L0105
 Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-169
 % Solids: 62.61 Preparation: Plumb 1981 Analyzed: 12/14/22 14:52
 Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.2215 g Wet / 0.2215 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.99	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782I

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-28 C SDG: 22L0105
 Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-175
 % Solids: 66.26 Preparation: Plumb 1981 Analyzed: 12/14/22 15:22
 Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.2287 g Wet / 0.2287 g
 Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.83	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782J

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-29 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-184

% Solids: 62.13 Preparation: Plumb 1981 Analyzed: 12/14/22 15:53

Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.2553 g Wet / 0.2553 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.04	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782K

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-30 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-189

% Solids: 61.44 Preparation: Plumb 1981 Analyzed: 12/14/22 16:23

Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.234 g Wet / 0.234 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.05	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782L

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-31 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-196

% Solids: 67.77 Preparation: Plumb 1981 Analyzed: 12/14/22 16:54

Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.5347 g Wet / 0.5347 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.80	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782M

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-32 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-216

% Solids: 70.81 Preparation: Plumb 1981 Analyzed: 12/14/22 18:25

Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.5234 g Wet / 0.5234 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.30	1	0.02	0.02	



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 9060A m

LDW22-SC782N

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-33 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/12/22 10:30 File ID: CubeData_12272022@1337-221

% Solids: 70.26 Preparation: Plumb 1981 Analyzed: 12/14/22 18:56

Batch: BKL0268 Sequence: SKL0152 Initial/Final: 0.301 g Wet / 0.301 g

Instrument: TOC Cube Calibration: FD00070

CAS NO.	Analyte	Concentration (% dry)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.91	1	0.02	0.02	



PREPARATION BATCH SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC SDG: 22L0105
Client: Anchor QEA, LLC Project: AOC4 UR Phase 3
Batch: BKL0268 Batch Matrix: Solid Preparation: Plumb 1981

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-SC782B	22L0105-21	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782C	22L0105-22	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782D	22L0105-23	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782E	22L0105-24	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782F	22L0105-25	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782G	22L0105-26	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782H	22L0105-27	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782I	22L0105-28	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782J	22L0105-29	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782K	22L0105-30	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782L	22L0105-31	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782M	22L0105-32	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782N	22L0105-33	eData_12272022@1337-	12/12/22 10:30	
Blank	BKL0268-BLK1	eData_12272022@1337-	12/12/22 10:30	
LCS	BKL0268-BS1	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782B	BKL0268-DUP1	eData_12272022@1337-	12/12/22 10:30	
MRL Check	BKL0268-MRL1	eData_12272022@1337-	12/12/22 10:30	
LDW22-SC782B	BKL0268-MS1	eData_12272022@1337-	12/12/22 10:30	
Reference	BKL0268-SRM1	eData_12272022@1337-	12/12/22 10:30	



Form I
METHOD BLANK DATA SHEET
EPA 9060A m
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Batch: BKL0266

Laboratory ID: BKL0266-BLK1

Prepared: 12/12/22 09:00

Matrix: Solid

Preparation: Plumb 1981

Analyzed: 12/13/22 14:35

Sequence: SKL0152

Calibration: FD00070

Instrument: TOC Cube

CAS NO.	Analyte	Concentration (% wet)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.02	0.02	U



Form I
METHOD BLANK DATA SHEET
EPA 9060A m
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Batch: BKL0268

Laboratory ID: BKL0268-BLK1

Prepared: 12/12/22 10:30

Matrix: Solid

Preparation: Plumb 1981

Analyzed: 12/14/22 06:48

Sequence: SKL0152

Calibration: FD00070

Instrument: TOC Cube

CAS NO.	Analyte	Concentration (% wet)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.02	0.02	U



LCS / LCS DUPLICATE RECOVERY
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>12/13/22 15:05</u>
Batch:	<u>BKL0266</u>	Laboratory ID:	<u>BKL0266-BS1</u>
Preparation:	<u>Plumb 1981</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>0.021 g / 0.021 g</u>		

COMPOUND	SPIKE ADDED (% wet)	LCS CONCENTRATION (% wet)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	44.4	43.0		96.7	80 - 120

* Indicates values outside of QC limits



LCS / LCS DUPLICATE RECOVERY
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>12/14/22 07:18</u>
Batch:	<u>BKL0268</u>	Laboratory ID:	<u>BKL0268-BS1</u>
Preparation:	<u>Plumb 1981</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>0.0196 g / 0.0196 g</u>		

COMPOUND	SPIKE ADDED (% wet)	LCS CONCENTRATION (% wet)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	44.4	44.0		99.1	80 - 120

* Indicates values outside of QC limits



DUPLICATES
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0266-DUP1

Batch: BKL0266

Lab Source ID: 22L0105-01

Preparation: Plumb 1981

Initial/Final: 0.1986 g / 0.1986 g

Source Sample Name: LDW22-SC772

% Solids: 39.85

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Organic Carbon	20	3.41	2.85	17.9	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



DUPLICATES

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0268-DUP1

Batch: BKL0268

Lab Source ID: 22L0105-21

Preparation: Plumb 1981

Initial/Final: 0.1127 g / 0.1127 g

Source Sample Name: LDW22-SC782B

% Solids: 52.57

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Organic Carbon	20	1.75	1.72	2.19	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



MS / MS DUPLICATE RECOVERY
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>12/13/22 18:07</u>
Batch:	<u>BKL0266</u>	Laboratory ID:	<u>BKL0266-MS1</u>
Preparation:	<u>Plumb 1981</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>0.1851 g / 0.1851 g</u>	Source Sample:	<u>LDW22-SC772</u>

COMPOUND	SPIKE ADDED (% dry)	SAMPLE CONCENTRATION (% dry)	Q	MS CONCENTRATION (% dry)	Q	MS % REC. #	QC LIMITS REC.
Total Organic Carbon	6.03	3.41		9.34		98.5	75 - 125

* Values outside of QC limits



MS / MS DUPLICATE RECOVERY
EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>12/14/22 09:19</u>
Batch:	<u>BKL0268</u>	Laboratory ID:	<u>BKL0268-MS1</u>
Preparation:	<u>Plumb 1981</u>	Sequence Name:	<u>Matrix Spike</u>
Initial/Final:	<u>0.1031 g / 0.1031 g</u>	Source Sample:	<u>LDW22-SC782B</u>

COMPOUND	SPIKE ADDED (% dry)	SAMPLE CONCENTRATION (% dry)	Q	MS CONCENTRATION (% dry)	Q	MS % REC. #	QC LIMITS REC.
Total Organic Carbon	7.95	1.75		9.86		102	75 - 125

* Values outside of QC limits



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKD0371

Instrument: TOC Cube

Calibration: FD00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SKD0371-CAL1	CubeData_04272022@1136-001	NA	04/26/22 12:30
Cal Standard	SKD0371-CAL2	CubeData_04272022@1136-002	NA	04/26/22 13:00
Cal Standard	SKD0371-CAL3	CubeData_04272022@1136-003	NA	04/26/22 13:30
Cal Standard	SKD0371-CAL4	CubeData_04272022@1136-004	NA	04/26/22 14:00
Cal Standard	SKD0371-CAL5	CubeData_04272022@1136-005	NA	04/26/22 14:30
Cal Standard	SKD0371-CAL6	CubeData_04272022@1136-006	NA	04/26/22 15:00
Cal Standard	SKD0371-CAL7	CubeData_04272022@1136-007	NA	04/26/22 15:30
Cal Standard	SKD0371-CAL8	CubeData_04272022@1136-008	NA	04/26/22 16:00
Cal Standard	SKD0371-CAL9	CubeData_04272022@1136-009	NA	04/26/22 16:30
Cal Standard	SKD0371-CALA	CubeData_04272022@1136-010	NA	04/26/22 17:00
Cal Standard	SKD0371-CALB	CubeData_04272022@1136-011	NA	04/26/22 17:30
Cal Standard	SKD0371-CALC	CubeData_04272022@1136-012	NA	04/26/22 18:00
Cal Standard	SKD0371-CALD	CubeData_04272022@1136-013	NA	04/26/22 18:30
Cal Standard	SKD0371-CALE	CubeData_04272022@1136-014	NA	04/26/22 19:00
Cal Standard	SKD0371-CALF	CubeData_04272022@1136-015	NA	04/26/22 19:31
Cal Standard	SKD0371-CALG	CubeData_04272022@1136-016	NA	04/26/22 20:01
Cal Standard	SKD0371-CALH	CubeData_04272022@1136-017	NA	04/26/22 20:31
Cal Standard	SKD0371-CALI	CubeData_04272022@1136-018	NA	04/26/22 21:01
Cal Standard	SKD0371-CALJ	CubeData_04272022@1136-019	NA	04/26/22 21:31
Cal Standard	SKD0371-CALK	CubeData_04272022@1136-020	NA	04/26/22 22:01
Initial Cal Check	SKD0371-ICV1	CubeData_04272022@1136-027	NA	04/27/22 02:03
Initial Cal Blank	SKD0371-ICB1	CubeData_04272022@1136-028	NA	04/27/22 02:33
Cal Standard	SKD0371-CALL	CubeData_04272022@1136-021	NA	04/27/22 11:08
Cal Standard	SKD0371-CALM	CubeData_04272022@1136-022	NA	04/27/22 11:08
Cal Standard	SKD0371-CALN	CubeData_04272022@1136-023	NA	04/27/22 11:09
Cal Standard	SKD0371-CALO	CubeData_04272022@1136-024	NA	04/27/22 11:09



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory:	<u>Analytical Resources, LLC</u>	SDG:	<u>22L0105</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>AOC4 UR Phase 3</u>
Sequence:	<u>SKL0152</u>	Instrument:	<u>TOC Cube</u>
		Calibration:	<u>FD00070</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SKL0152-ICV1	CubeData_12272022@1337-039	NA	12/12/22 10:45
Initial Cal Blank	SKL0152-ICB1	CubeData_12272022@1337-051	NA	12/12/22 11:15
Calibration Check	SKL0152-CCV1	CubeData_12272022@1337-156	NA	12/12/22 16:48
Calibration Blank	SKL0152-CCB1	CubeData_12272022@1337-162	NA	12/12/22 17:19
Calibration Check	SKL0152-CCV2	CubeData_12272022@1337-234	NA	12/12/22 22:53
Calibration Blank	SKL0152-CCB2	CubeData_12272022@1337-240	NA	12/12/22 23:23
Calibration Check	SKL0152-CCV3	CubeData_12272022@1337-313	NA	12/13/22 04:57
Calibration Blank	SKL0152-CCB3	CubeData_12272022@1337-318	NA	12/13/22 05:28
Calibration Check	SKL0152-CCV4	CubeData_12272022@1337-384	NA	12/13/22 11:03
Calibration Blank	SKL0152-CCB4	CubeData_12272022@1337-388	NA	12/13/22 11:33
MRL Check	BKL0266-MRL1	CubeData_12272022@1337-418	Solid	12/13/22 14:05
Blank	BKL0266-BLK1	CubeData_12272022@1337-425	Solid	12/13/22 14:35
LCS	BKL0266-BS1	CubeData_12272022@1337-429	Solid	12/13/22 15:05
Reference	BKL0266-SRM1	CubeData_12272022@1337-437	Solid	12/13/22 15:36
LDW22-SC772	22L0105-01	CubeData_12272022@1337-444	Solid	12/13/22 16:06
LDW22-SC772	BKL0266-DUP1	CubeData_12272022@1337-450	Solid	12/13/22 16:36
Calibration Check	SKL0152-CCV5	CubeData_12272022@1337-457	NA	12/13/22 17:07
Calibration Blank	SKL0152-CCB5	CubeData_12272022@1337-461	NA	12/13/22 17:37
LDW22-SC772	BKL0266-MS1	CubeData_12272022@1337-468	Solid	12/13/22 18:07
LDW22-SC771	22L0105-02	CubeData_12272022@1337-474	Solid	12/13/22 18:37
LDW22-SC756	22L0105-03	CubeData_12272022@1337-479	Solid	12/13/22 19:08
LDW22-SC780	22L0105-04	CubeData_12272022@1337-488	Solid	12/13/22 19:39
LDW22-IT792	22L0105-05	CubeData_12272022@1337-492	Solid	12/13/22 20:09
LDW22-SC775A	22L0105-06	CubeData_12272022@1337-499	Solid	12/13/22 20:39
LDW22-SC775B	22L0105-07	CubeData_12272022@1337-505	Solid	12/13/22 21:10
LDW22-SC775C	22L0105-08	CubeData_12272022@1337-509	Solid	12/13/22 21:40
LDW22-SC775D	22L0105-09	CubeData_12272022@1337-517	Solid	12/13/22 22:11
LDW22-SC775E	22L0105-10	CubeData_12272022@1337-523	Solid	12/13/22 22:41
Calibration Check	SKL0152-CCV6	CubeData_12272022@1337-530	NA	12/13/22 23:11



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sequence: SKL0152

Instrument: TOC Cube

Calibration: FD00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SKL0152-CCB6	CubeData_12272022@1337-539	NA	12/13/22 23:42
LDW22-SC775F	22L0105-11	CubeData_12272022@1337-545	Solid	12/14/22 00:12
LDW22-SC775G	22L0105-12	CubeData_12272022@1337-551	Solid	12/14/22 00:43
LDW22-SC775H	22L0105-13	CubeData_12272022@1337-558	Solid	12/14/22 01:13
LDW22-SC775I	22L0105-14	CubeData_12272022@1337-565	Solid	12/14/22 01:44
LDW22-SC775J	22L0105-15	CubeData_12272022@1337-570	Solid	12/14/22 02:14
LDW22-SC775K	22L0105-16	CubeData_12272022@1337-579	Solid	12/14/22 02:44
LDW22-SC775L	22L0105-17	CubeData_12272022@1337-584	Solid	12/14/22 03:15
LDW22-SC775M	22L0105-18	CubeData_12272022@1337-591	Solid	12/14/22 03:45
LDW22-IT796	22L0105-19	CubeData_12272022@1337-598	Solid	12/14/22 04:16
LDW22-IT798	22L0105-20	CubeData_12272022@1337-604	Solid	12/14/22 04:46
Calibration Check	SKL0152-CCV7	CubeData_12272022@1337-610	NA	12/14/22 05:17
Calibration Blank	SKL0152-CCB7	CubeData_12272022@1337-616	NA	12/14/22 05:47
MRL Check	BKL0268-MRL1	CubeData_12272022@1337-007	Solid	12/14/22 06:17
Blank	BKL0268-BLK1	CubeData_12272022@1337-018	Solid	12/14/22 06:48
LCS	BKL0268-BS1	CubeData_12272022@1337-030	Solid	12/14/22 07:18
Reference	BKL0268-SRM1	CubeData_12272022@1337-040	Solid	12/14/22 07:48
LDW22-SC782B	22L0105-21	CubeData_12272022@1337-052	Solid	12/14/22 08:18
LDW22-SC782B	BKL0268-DUP1	CubeData_12272022@1337-063	Solid	12/14/22 08:49
LDW22-SC782B	BKL0268-MS1	CubeData_12272022@1337-075	Solid	12/14/22 09:19
Calibration Check	SKL0152-CCV8	CubeData_12272022@1337-113	NA	12/14/22 11:20
Calibration Blank	SKL0152-CCB8	CubeData_12272022@1337-126	NA	12/14/22 11:50
LDW22-SC782C	22L0105-22	CubeData_12272022@1337-135	Solid	12/14/22 12:20
LDW22-SC782D	22L0105-23	CubeData_12272022@1337-142	Solid	12/14/22 12:51
LDW22-SC782E	22L0105-24	CubeData_12272022@1337-148	Solid	12/14/22 13:21
LDW22-SC782F	22L0105-25	CubeData_12272022@1337-155	Solid	12/14/22 13:51
LDW22-SC782G	22L0105-26	CubeData_12272022@1337-161	Solid	12/14/22 14:22
LDW22-SC782H	22L0105-27	CubeData_12272022@1337-169	Solid	12/14/22 14:52
LDW22-SC782I	22L0105-28	CubeData_12272022@1337-175	Solid	12/14/22 15:22



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

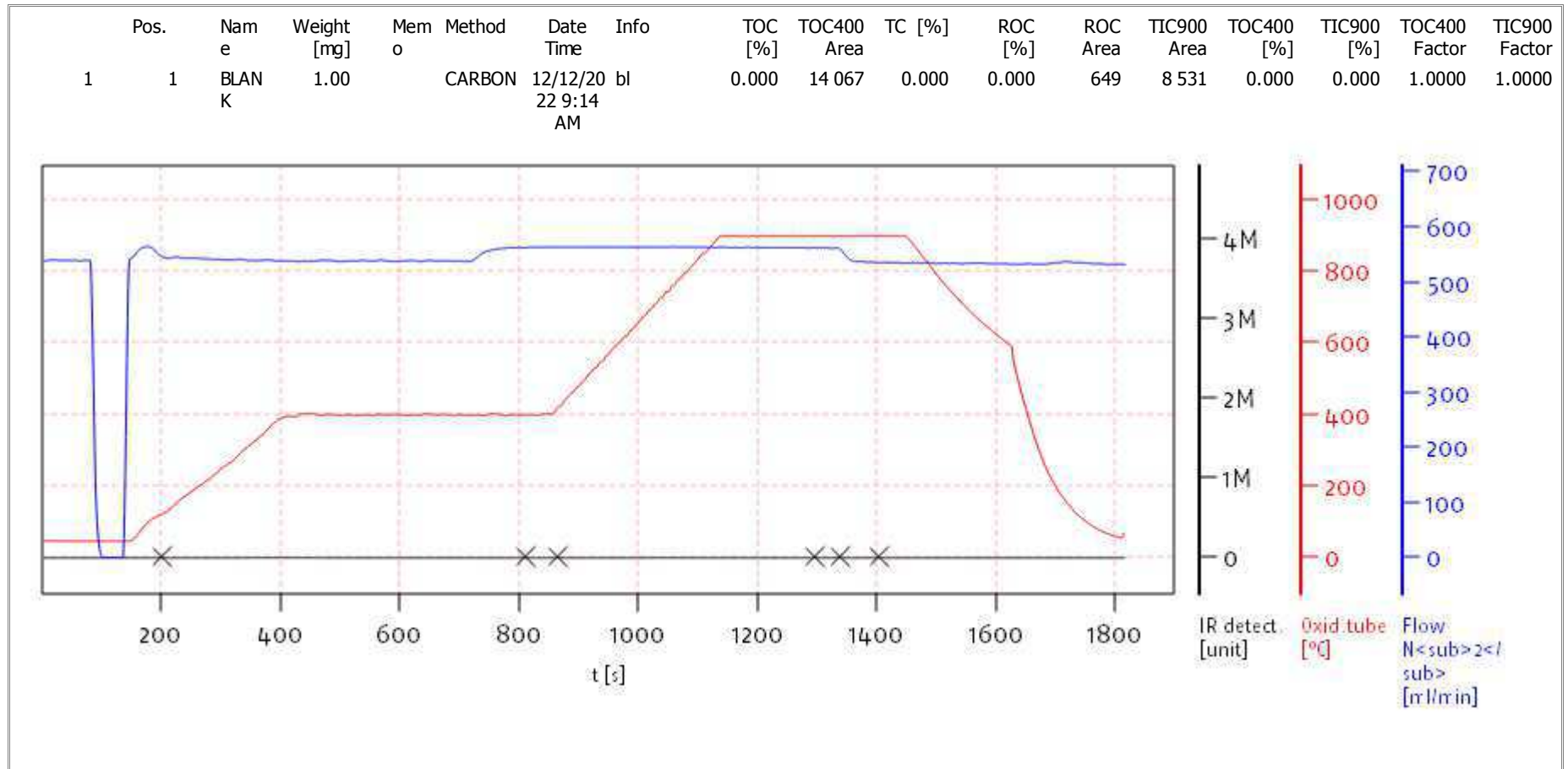
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Instrument: TOC Cube

Calibration: FD00070

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
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LDW22-SC782K	22L0105-30	CubeData_12272022@1337-189	Solid	12/14/22 16:23
LDW22-SC782L	22L0105-31	CubeData_12272022@1337-196	Solid	12/14/22 16:54
Calibration Check	SKL0152-CCV9	CubeData_12272022@1337-201	NA	12/14/22 17:24
Calibration Blank	SKL0152-CCB9	CubeData_12272022@1337-208	NA	12/14/22 17:55
LDW22-SC782M	22L0105-32	CubeData_12272022@1337-216	Solid	12/14/22 18:25
LDW22-SC782N	22L0105-33	CubeData_12272022@1337-221	Solid	12/14/22 18:56
Calibration Check	SKL0152-CCVA	CubeData_12272022@1337-280	NA	12/14/22 23:30
Calibration Blank	SKL0152-CCBA	CubeData_12272022@1337-286	NA	12/15/22 00:01
Calibration Check	SKL0152-CCVB	CubeData_12272022@1337-358	NA	12/15/22 05:35
Calibration Blank	SKL0152-CCBB	CubeData_12272022@1337-365	NA	12/15/22 06:06
Calibration Check	SKL0152-CCVC	CubeData_12272022@1337-424	NA	12/15/22 11:40
Calibration Blank	SKL0152-CCBC	CubeData_12272022@1337-430	NA	12/15/22 12:10
Calibration Check	SKL0152-CCVD	CubeData_12272022@1337-498	NA	12/15/22 17:44
Calibration Blank	SKL0152-CCBD	CubeData_12272022@1337-504	NA	12/15/22 18:15
Calibration Check	SKL0152-CCVE	CubeData_12272022@1337-578	NA	12/15/22 23:50
Calibration Blank	SKL0152-CCBE	CubeData_12272022@1337-585	NA	12/16/22 00:20
Calibration Check	SKL0152-CCVF	CubeData_12272022@1337-062	NA	12/16/22 05:54
Calibration Blank	SKL0152-CCBF	CubeData_12272022@1337-073	NA	12/16/22 06:24
Calibration Check	SKL0152-CCVG	CubeData_12272022@1337-125	NA	12/16/22 08:56
Calibration Blank	SKL0152-CCBG	CubeData_12272022@1337-136	NA	12/16/22 09:26

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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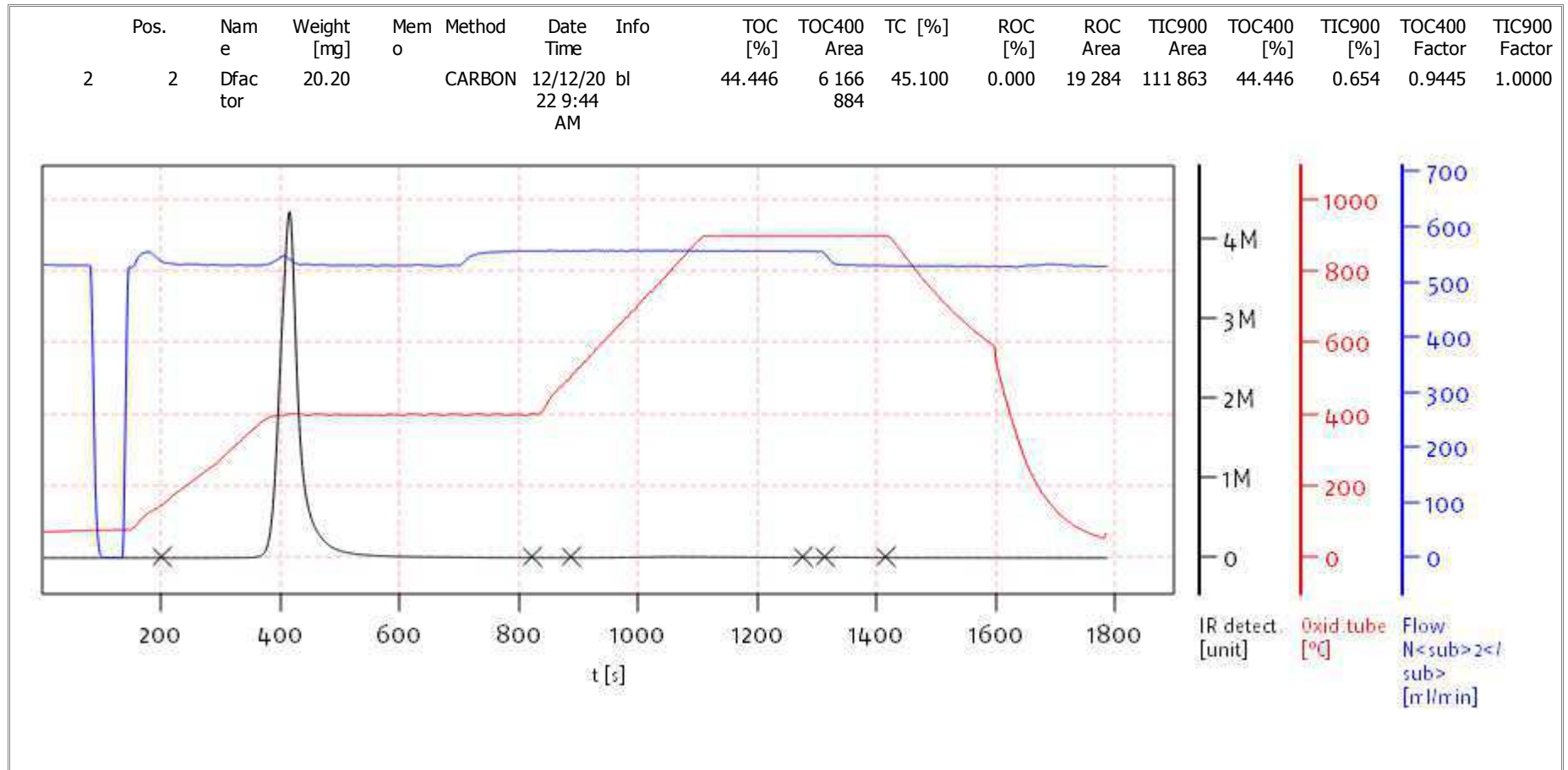
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solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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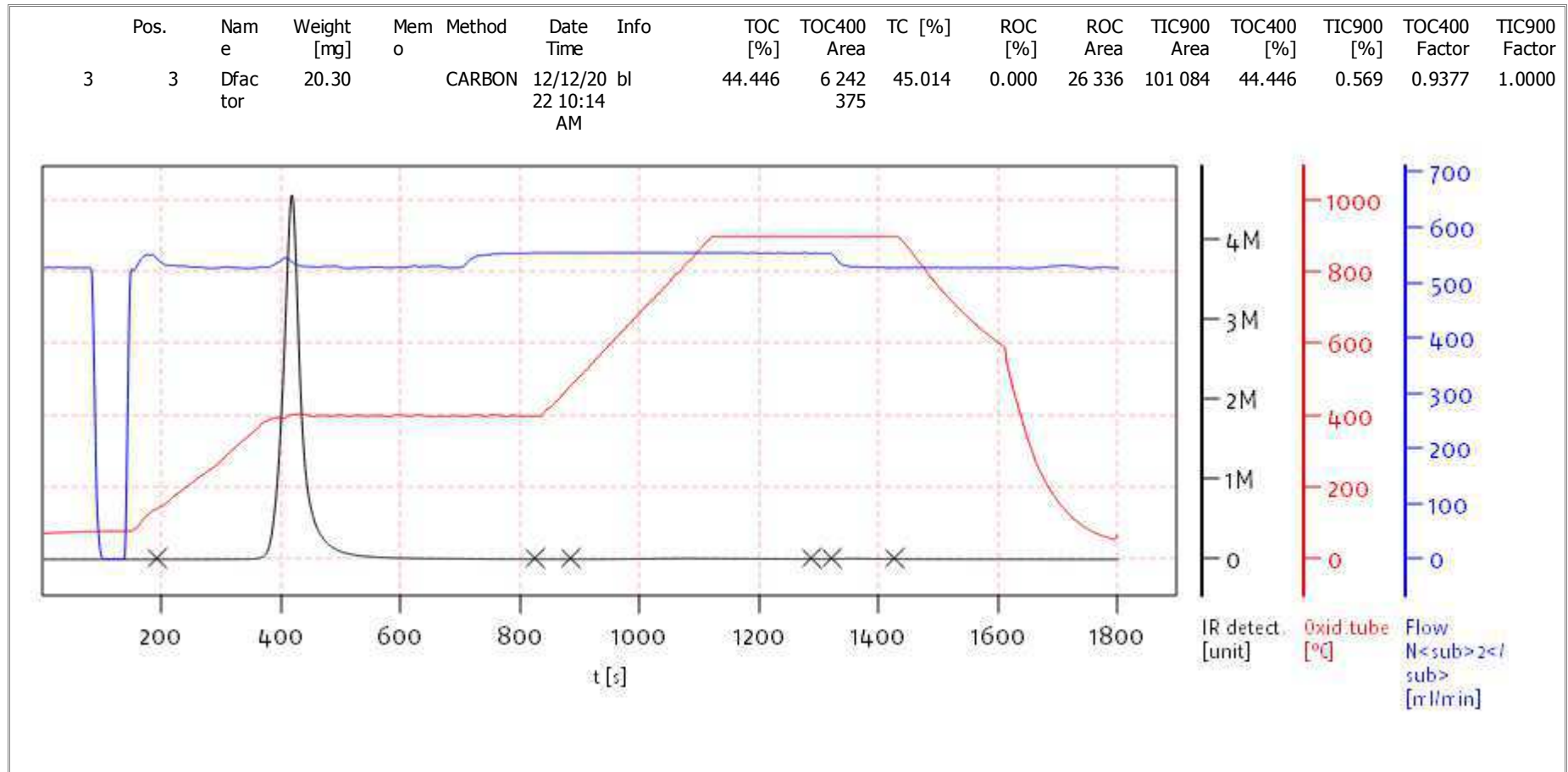
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 Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



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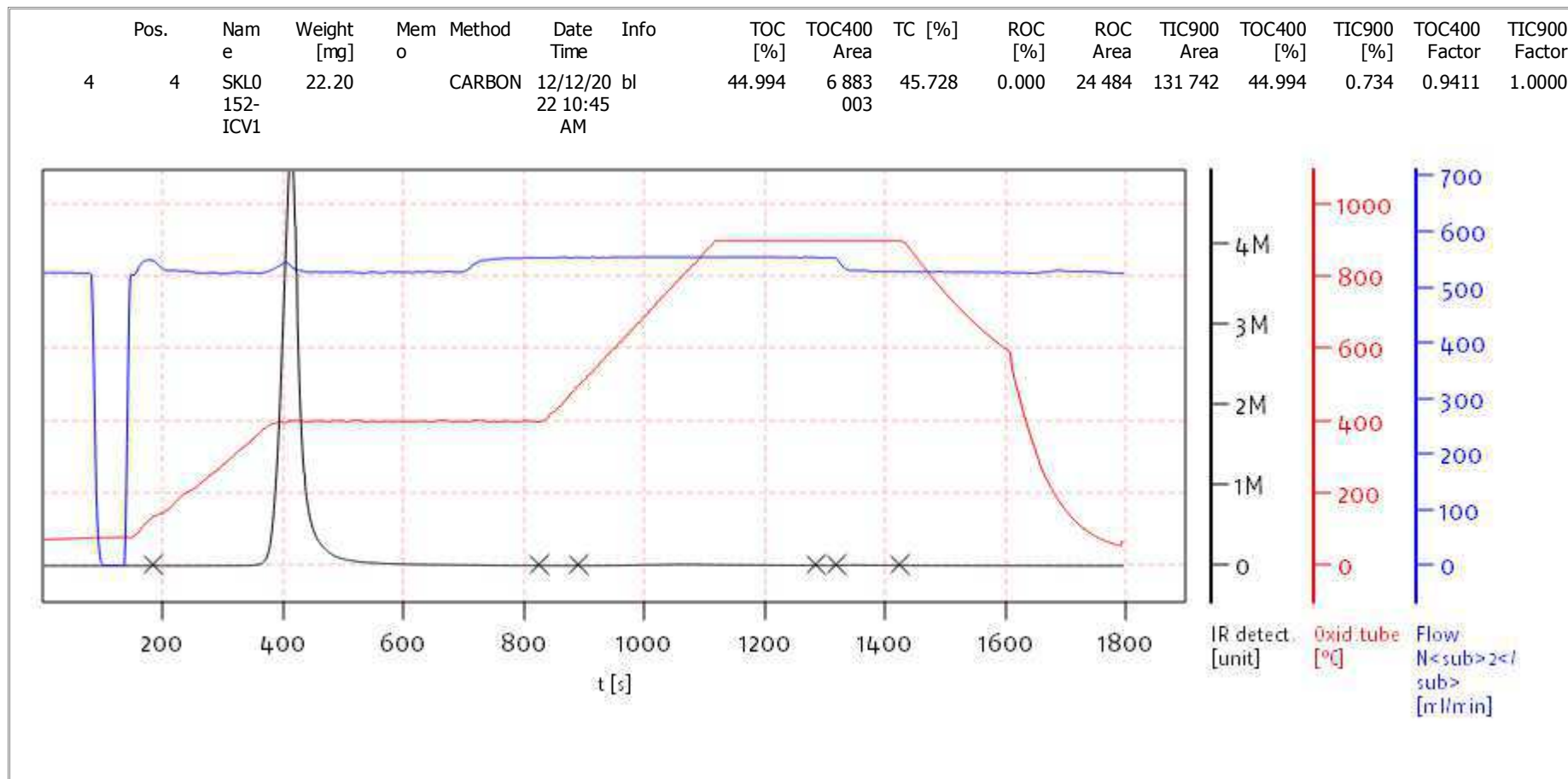
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 Analyst: DOE



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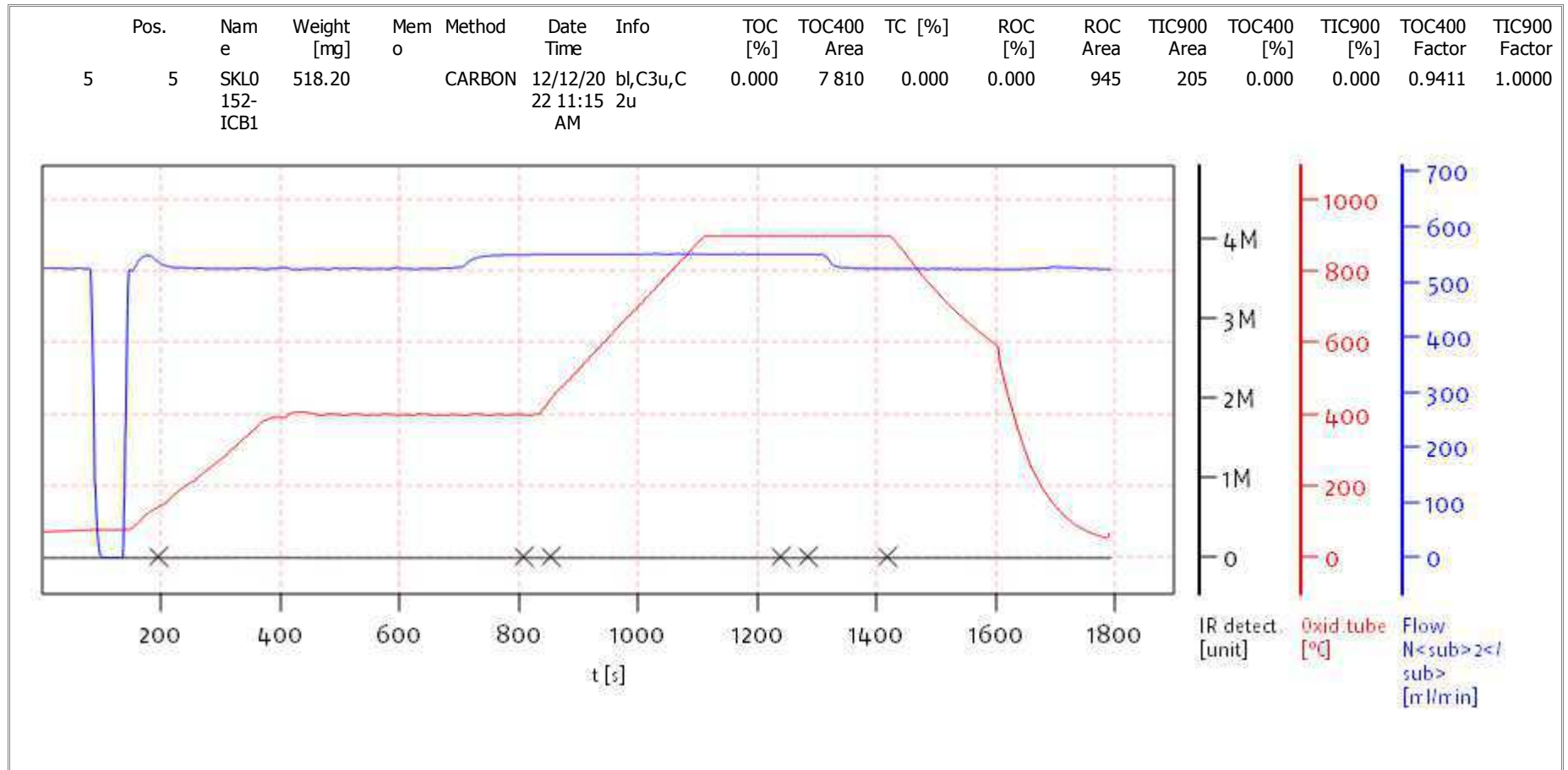
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 Balance: BAL3
 Analyst: DOE



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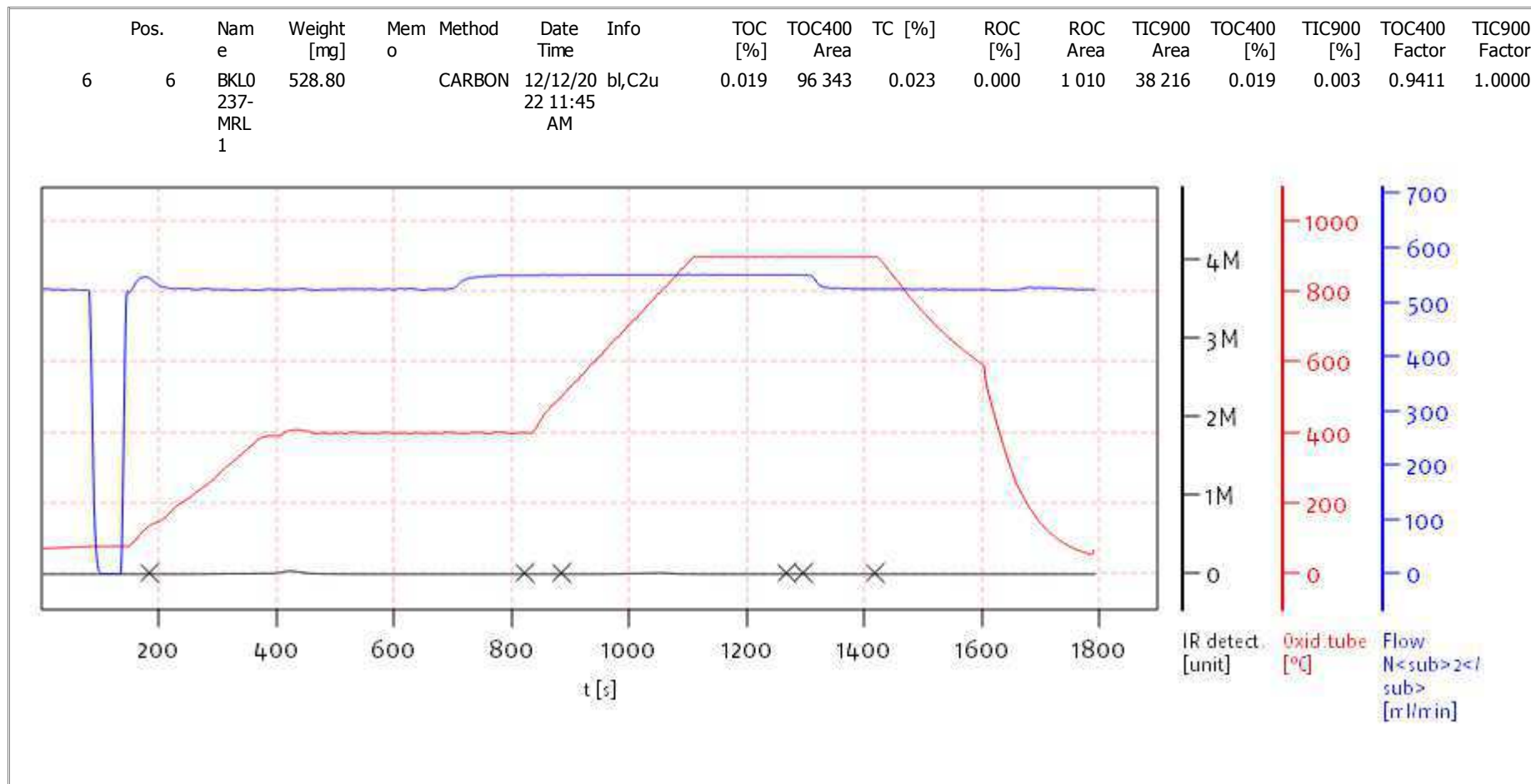
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 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

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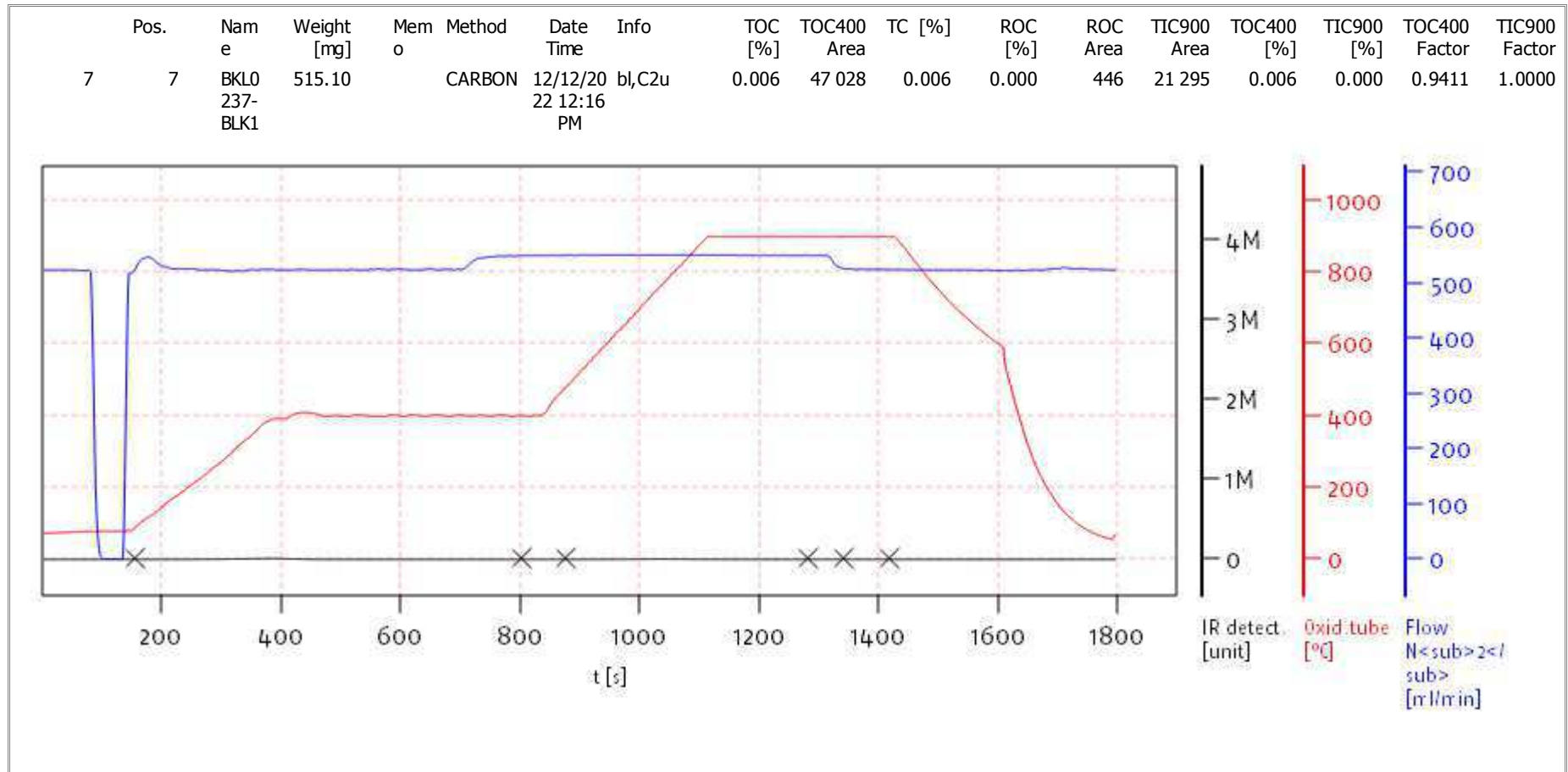
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 Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

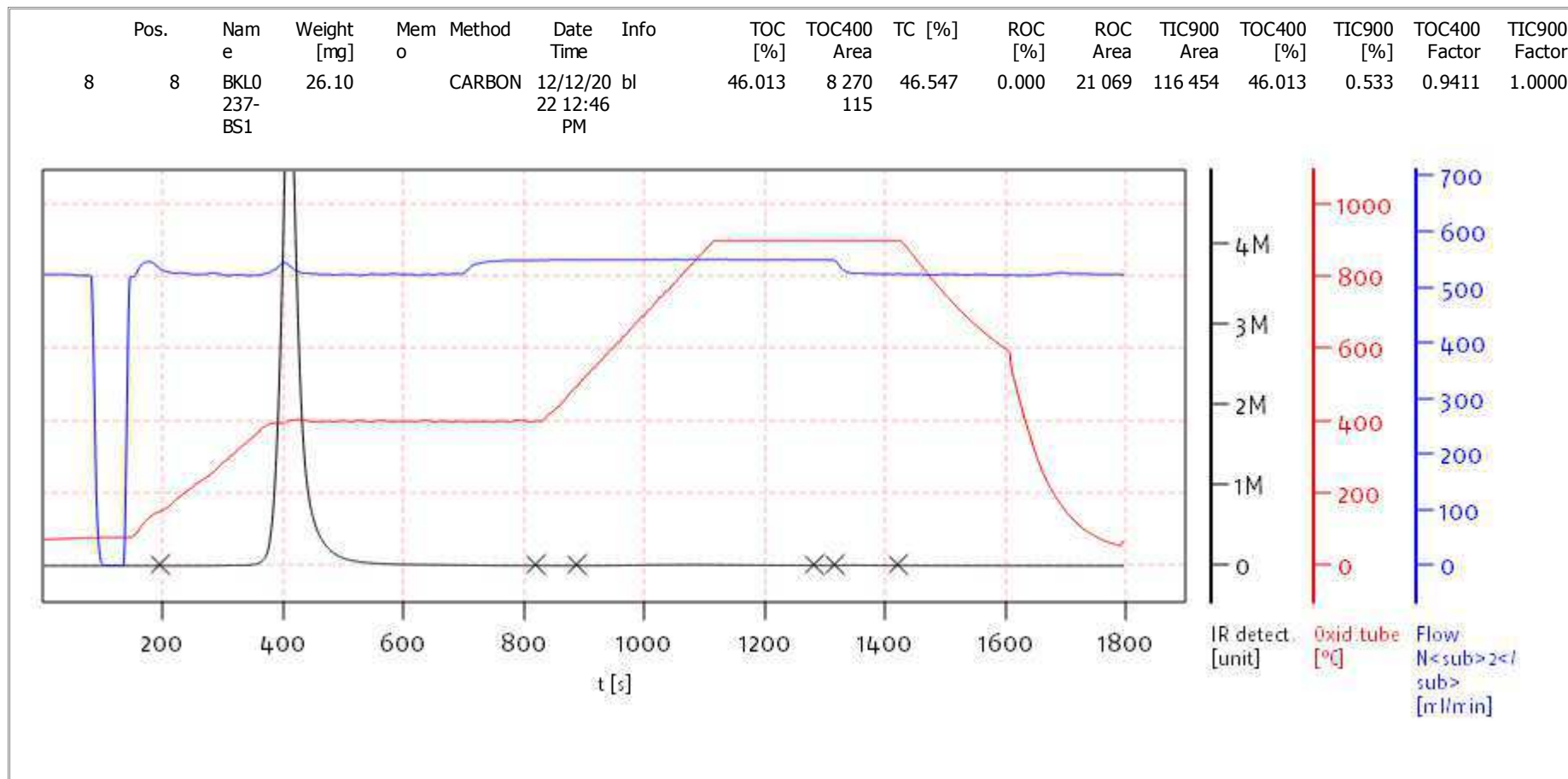
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Soli TOC Cube, Carbon
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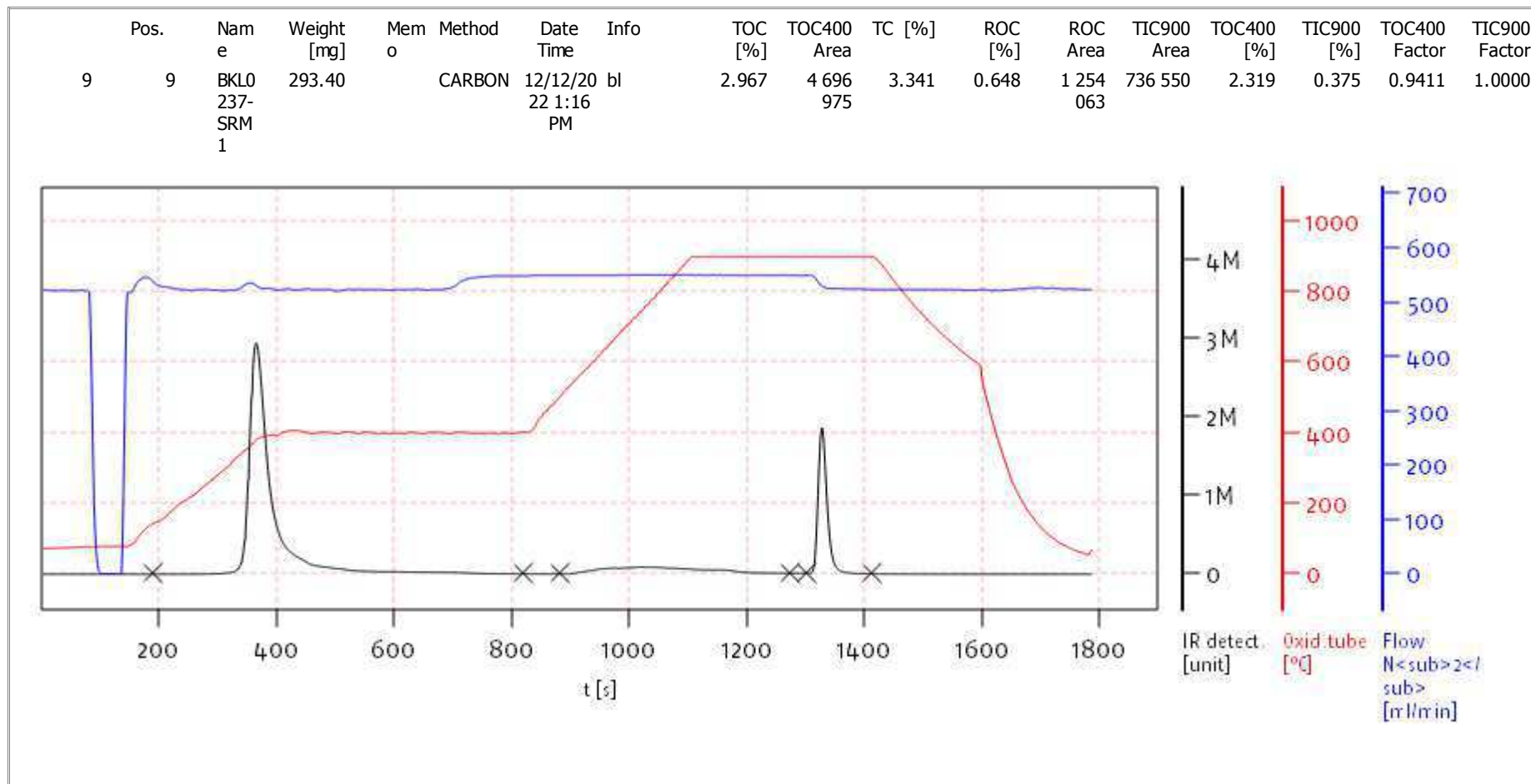
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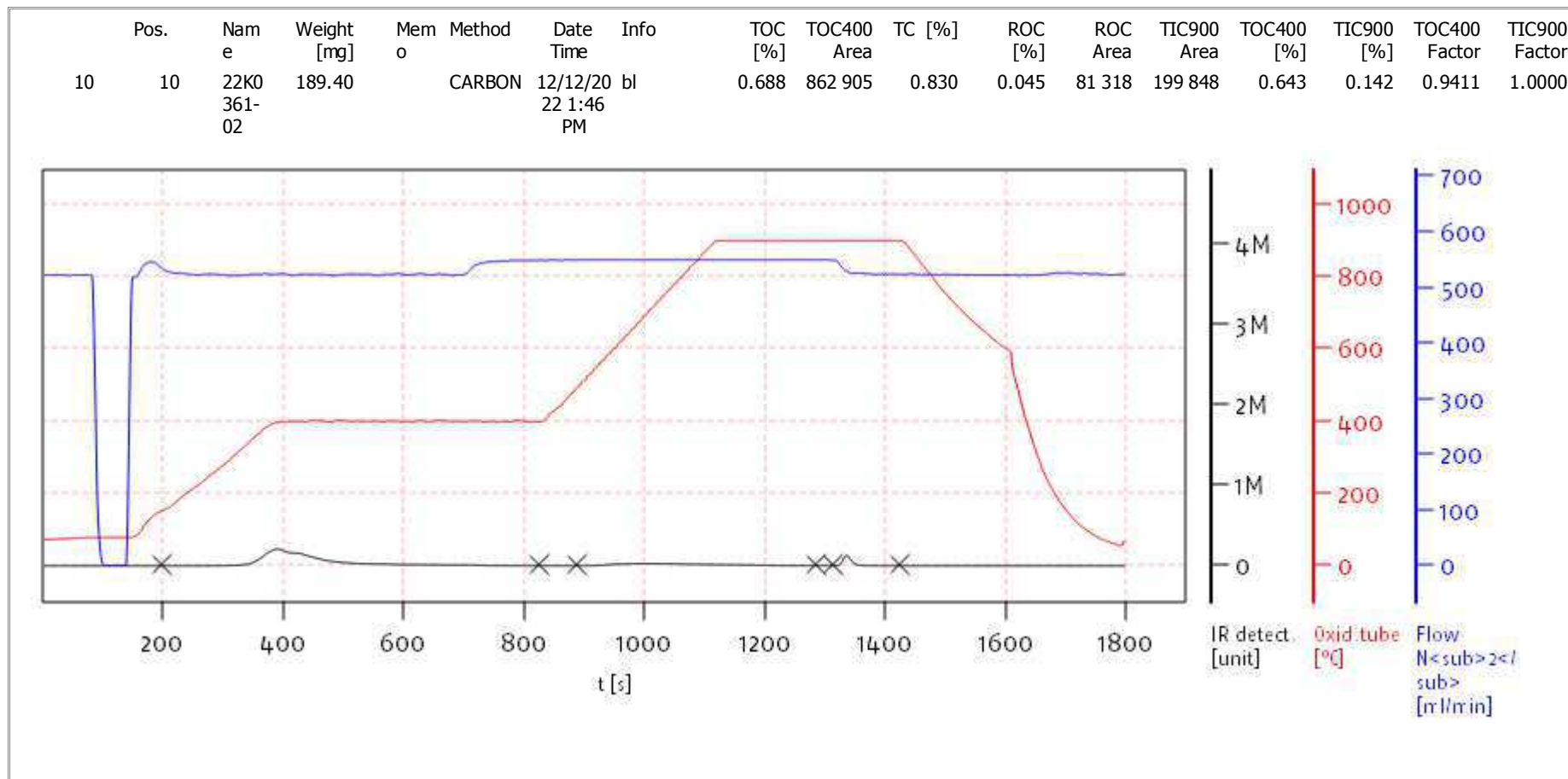
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 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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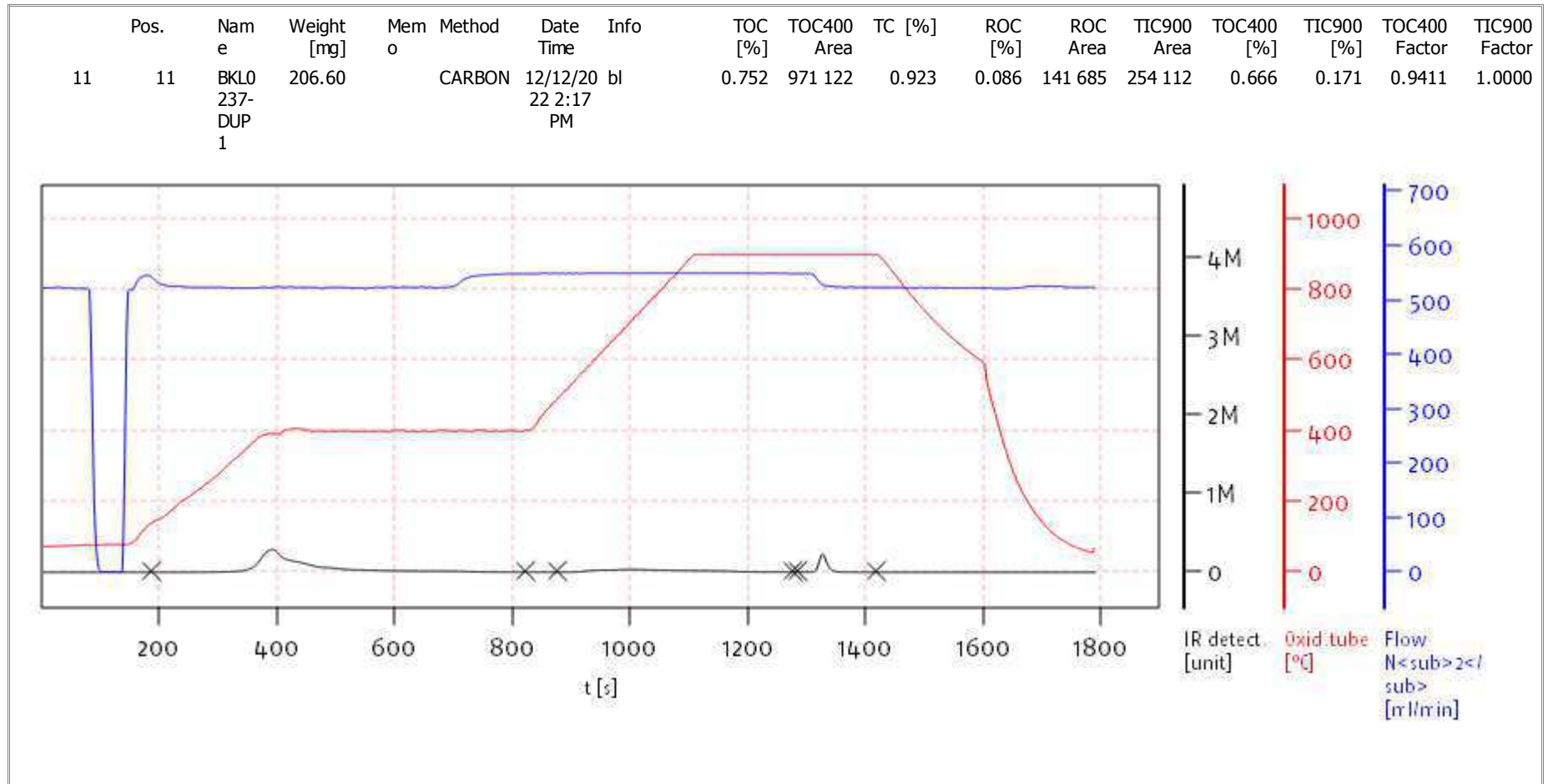
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Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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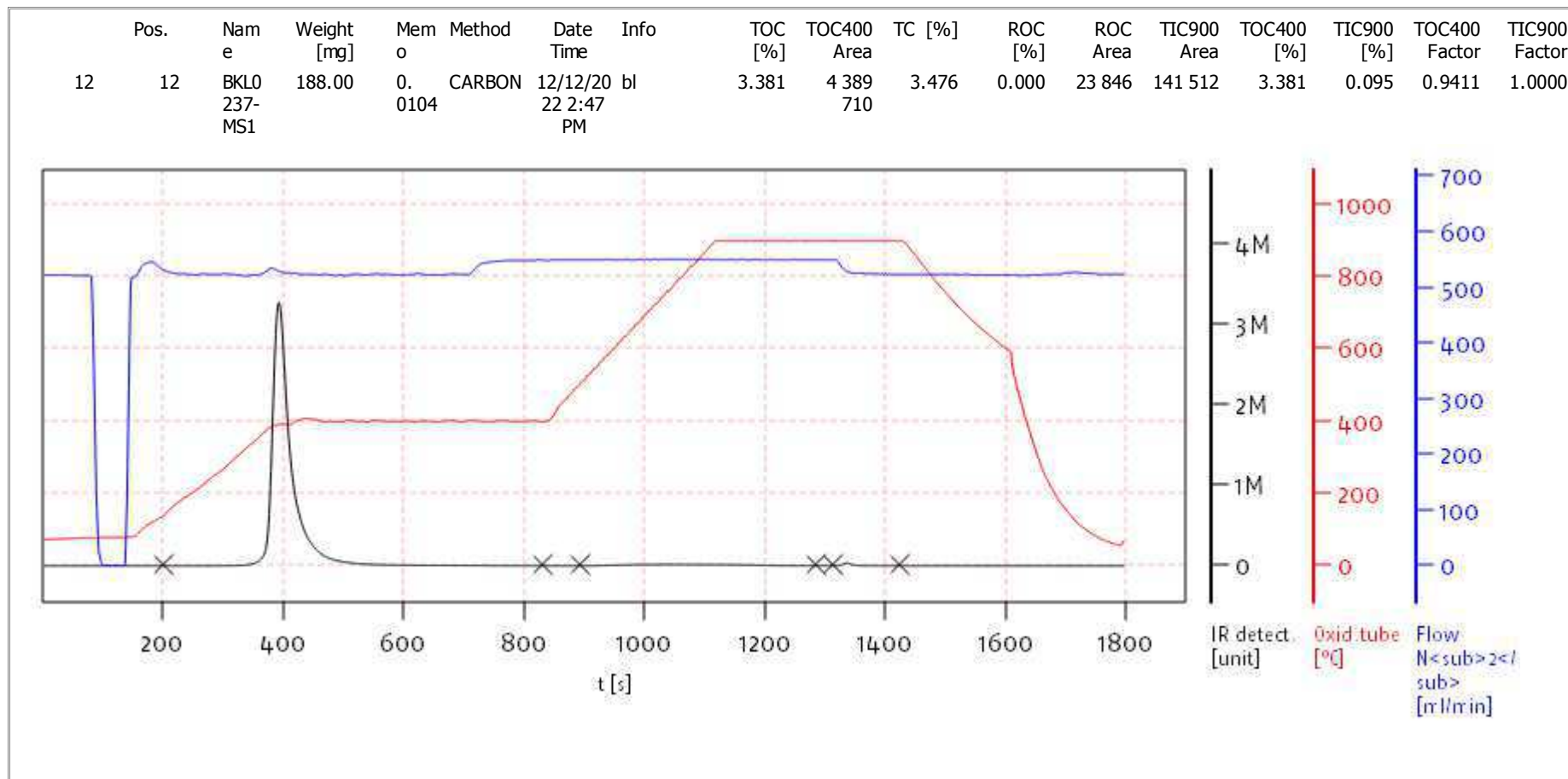
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 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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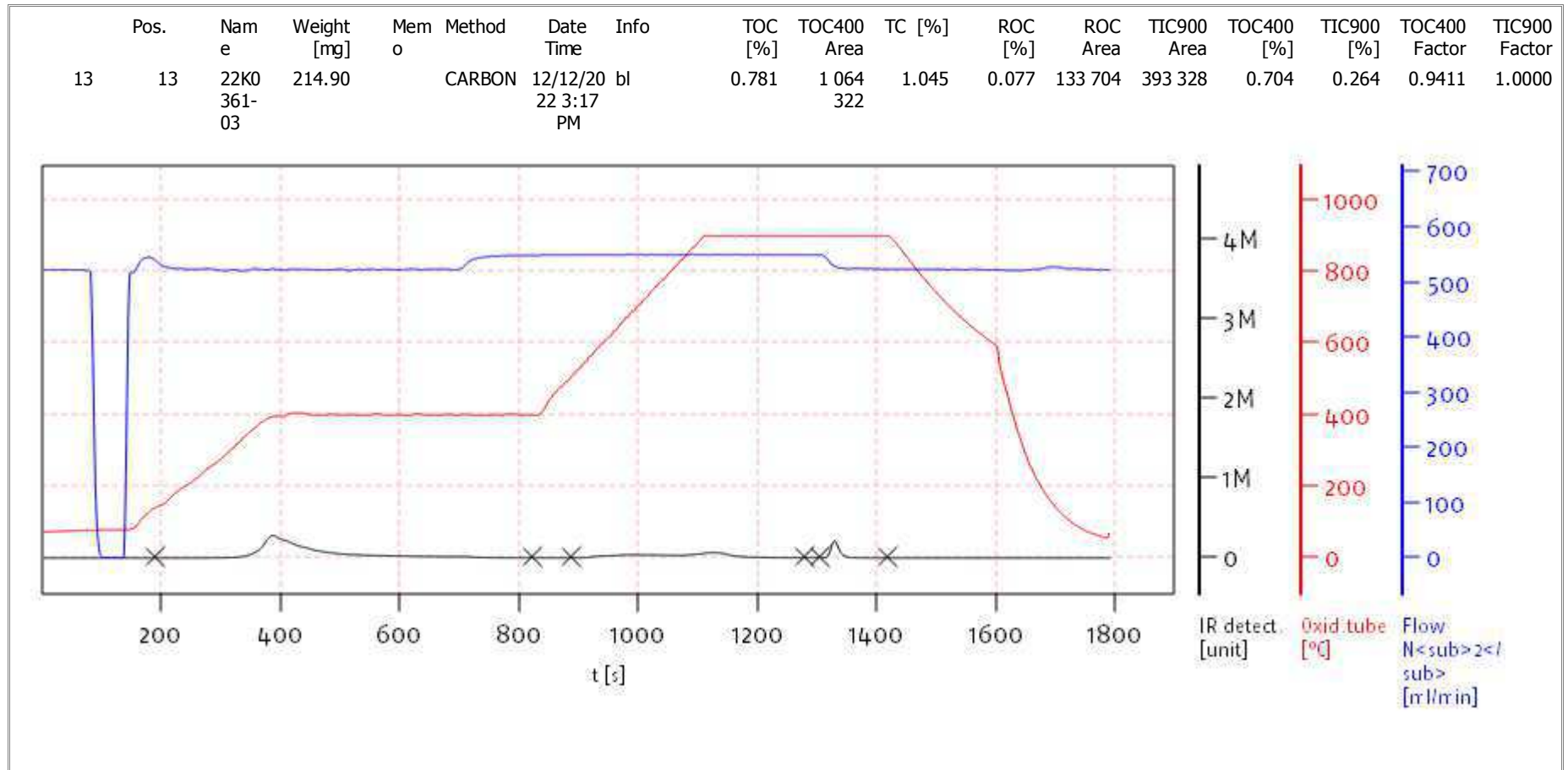
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Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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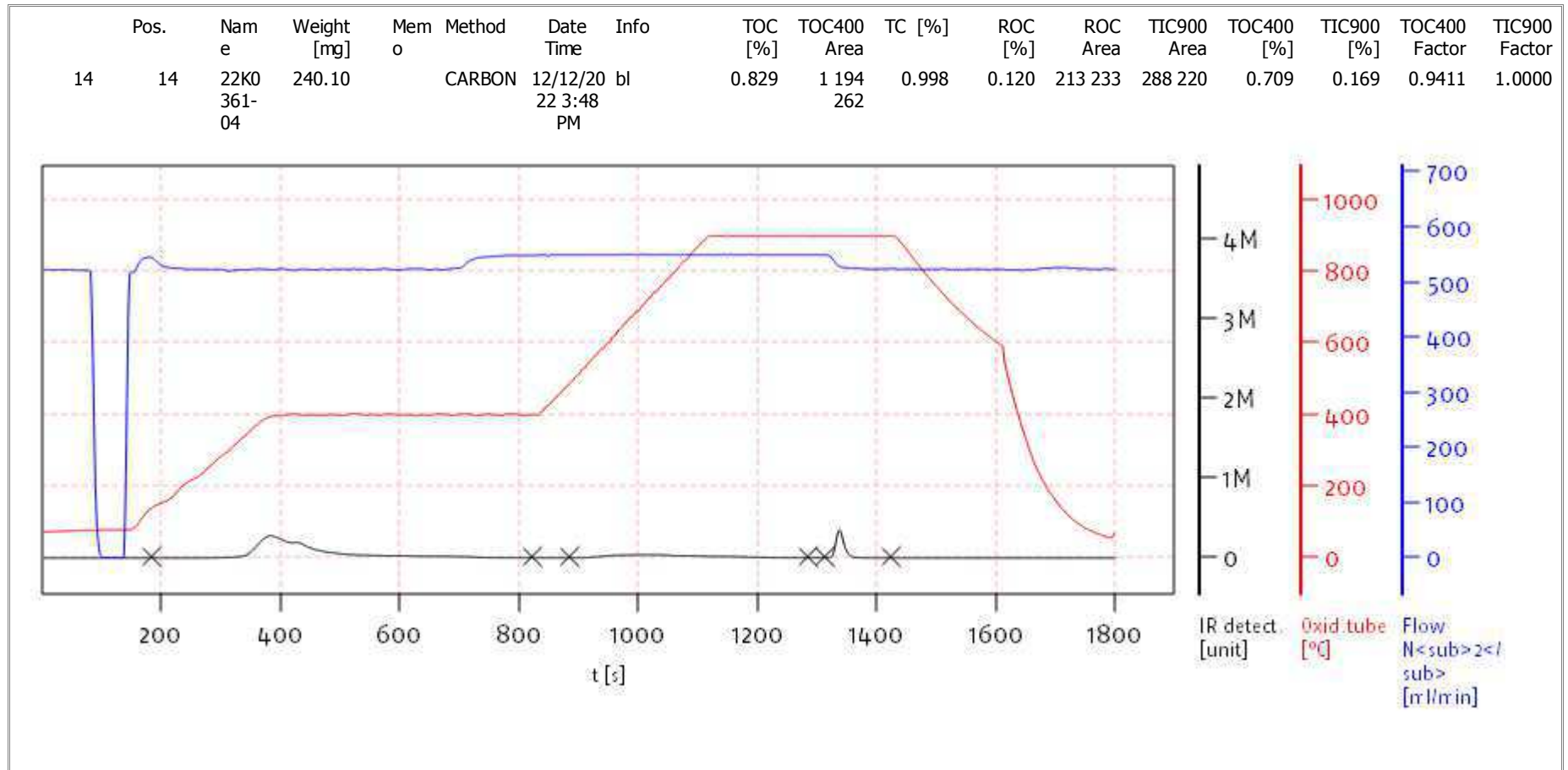
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solITOC V2.0.2 (31015f9) 2018-11-19
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 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

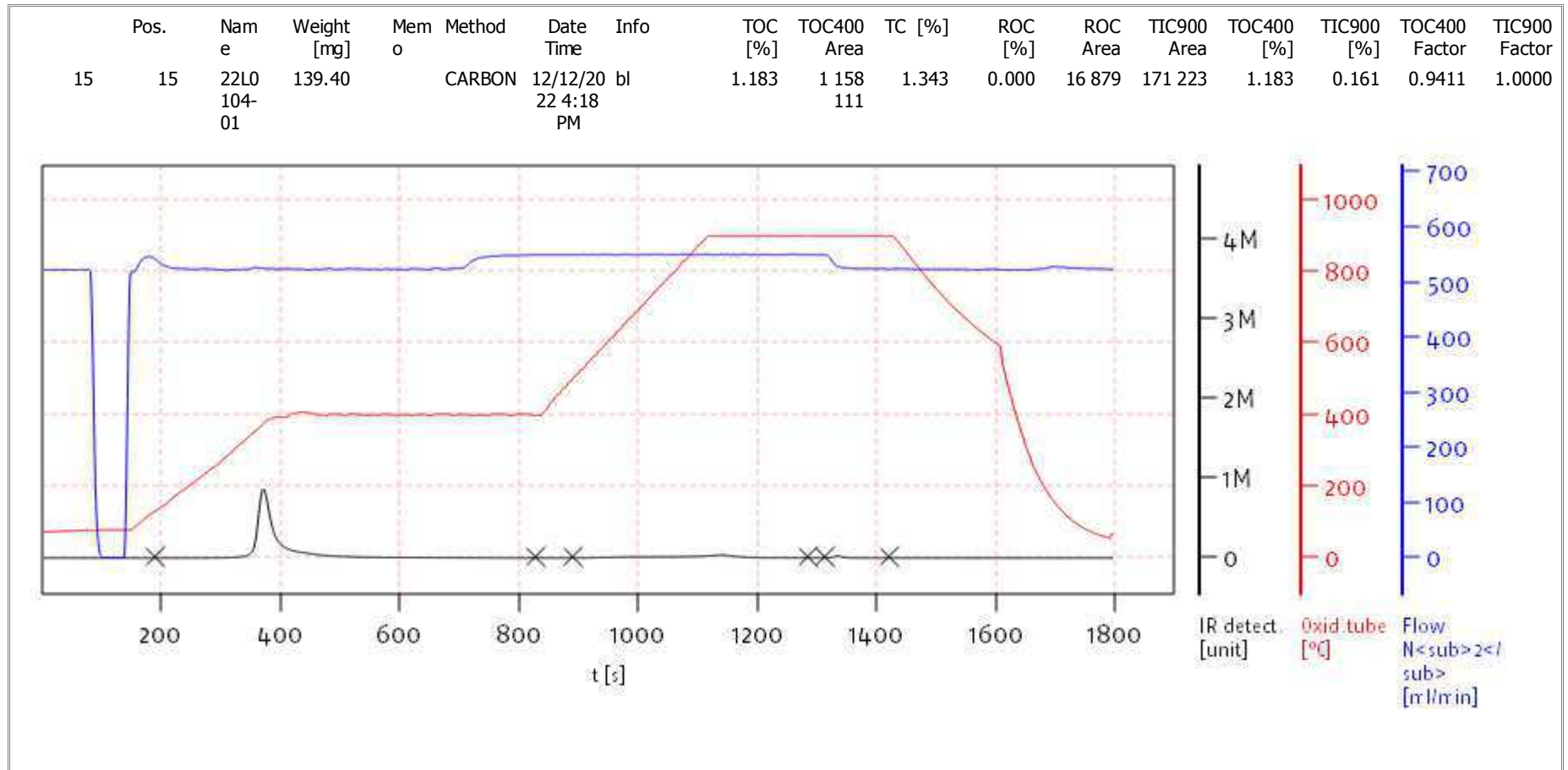
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 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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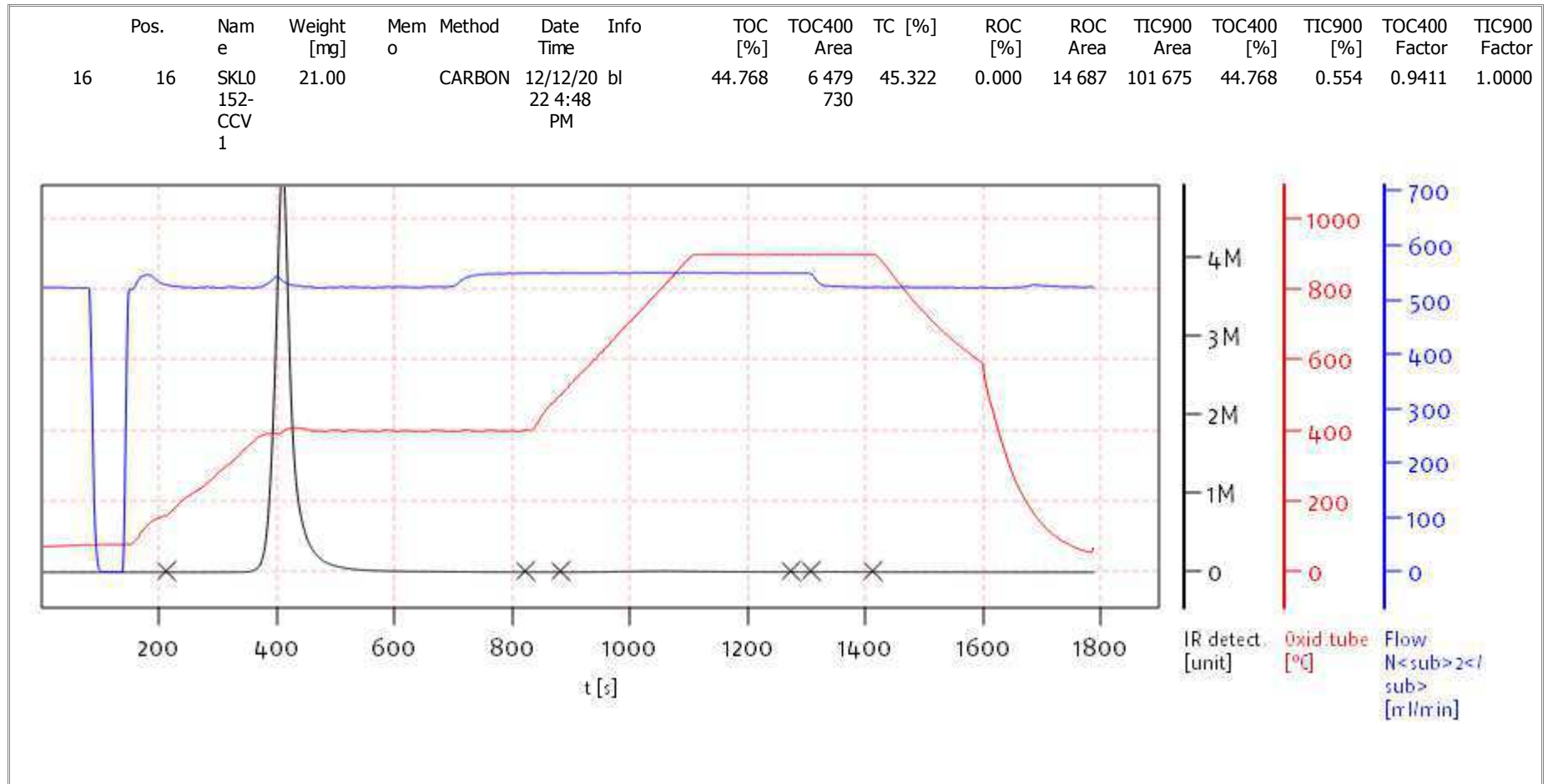
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 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

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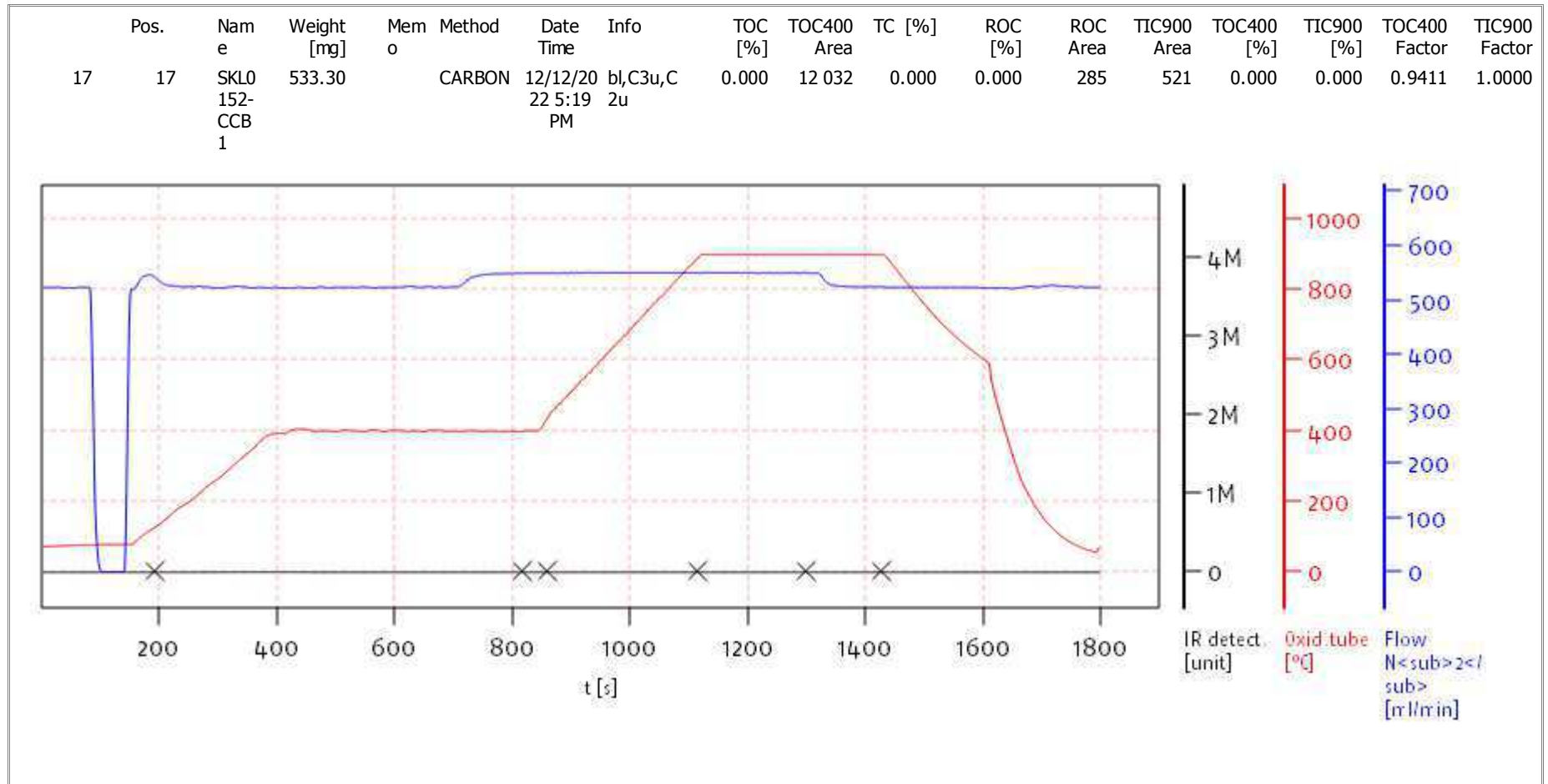
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 Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



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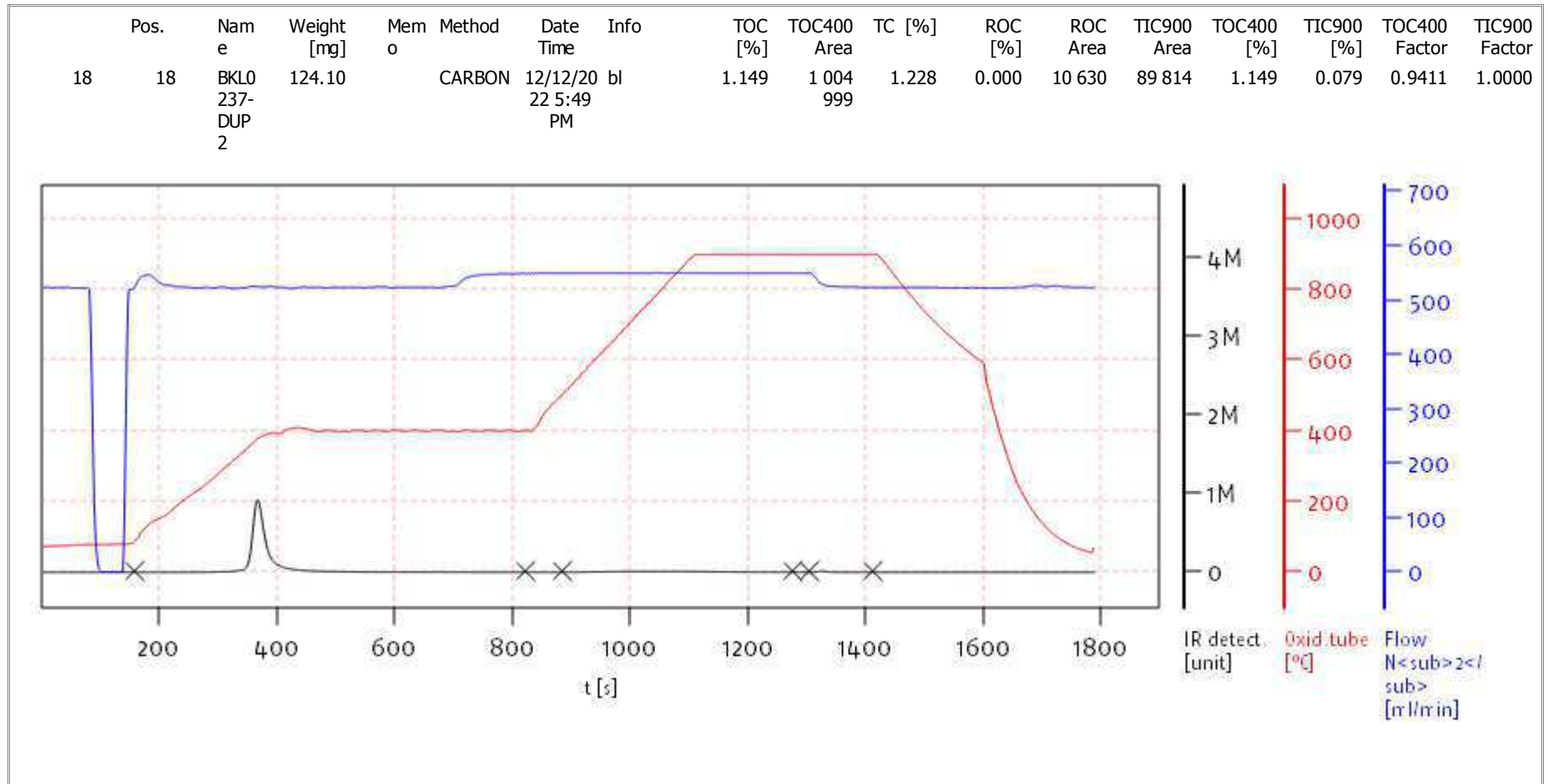
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Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

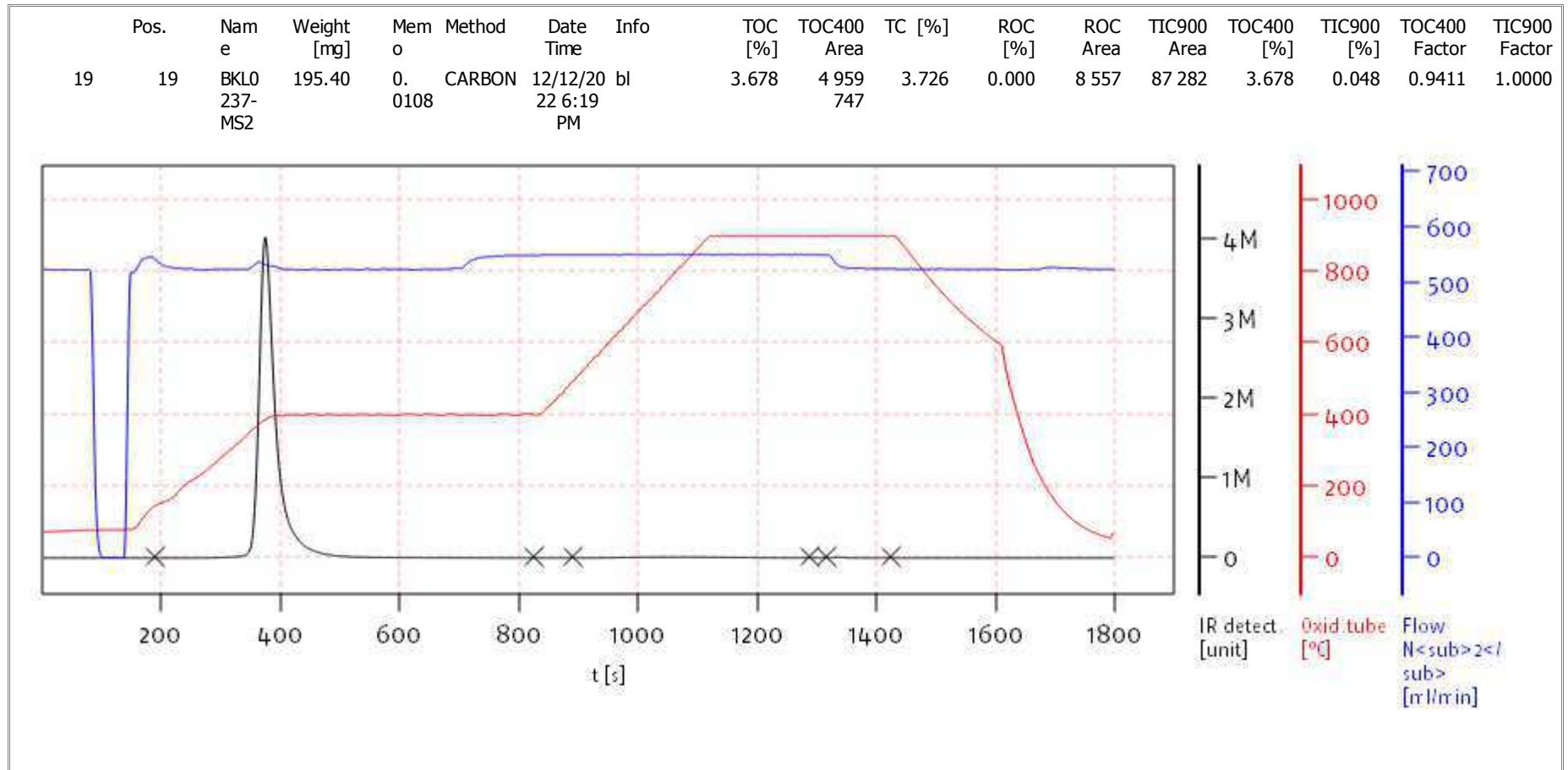
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 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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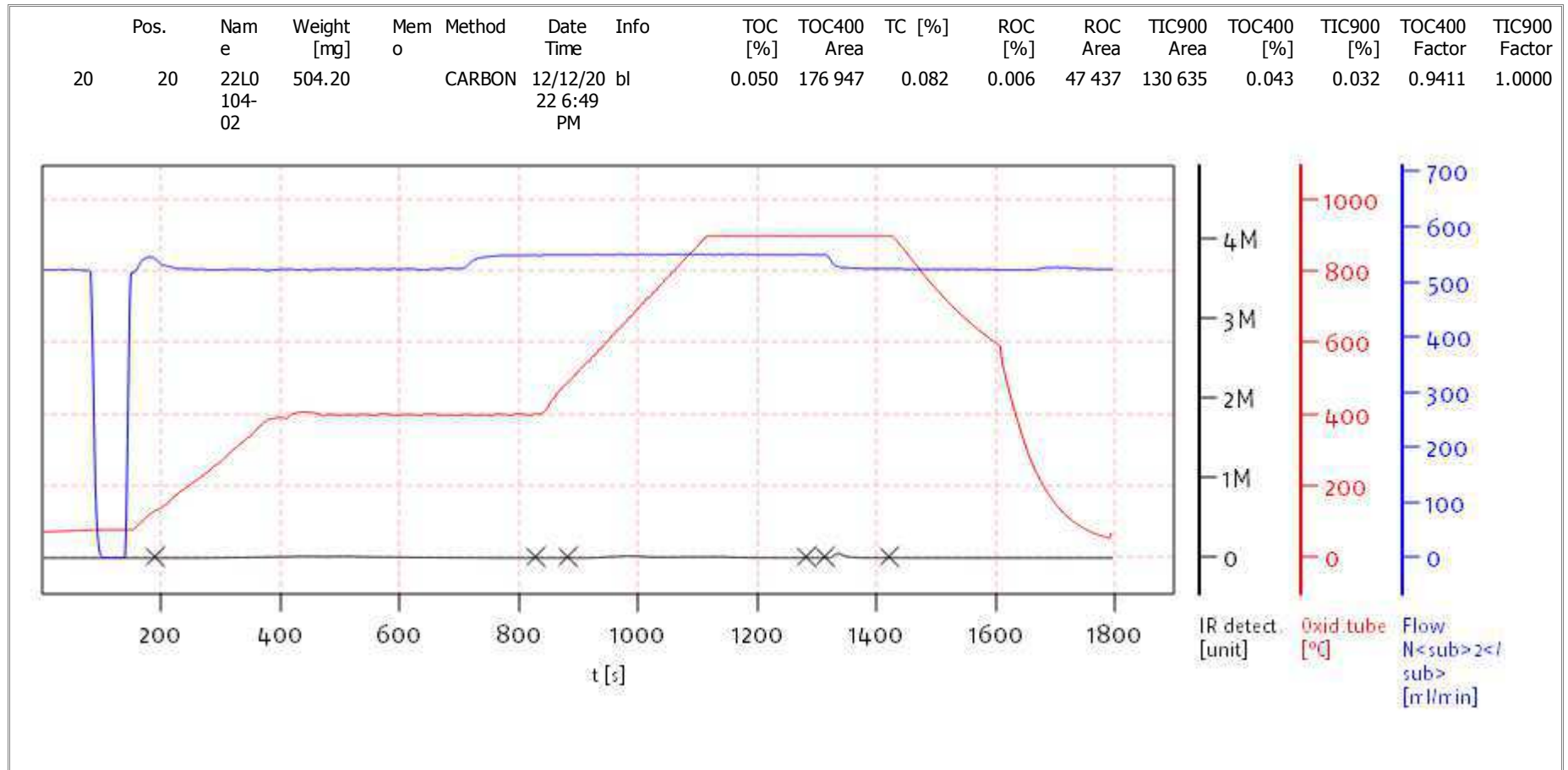
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solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

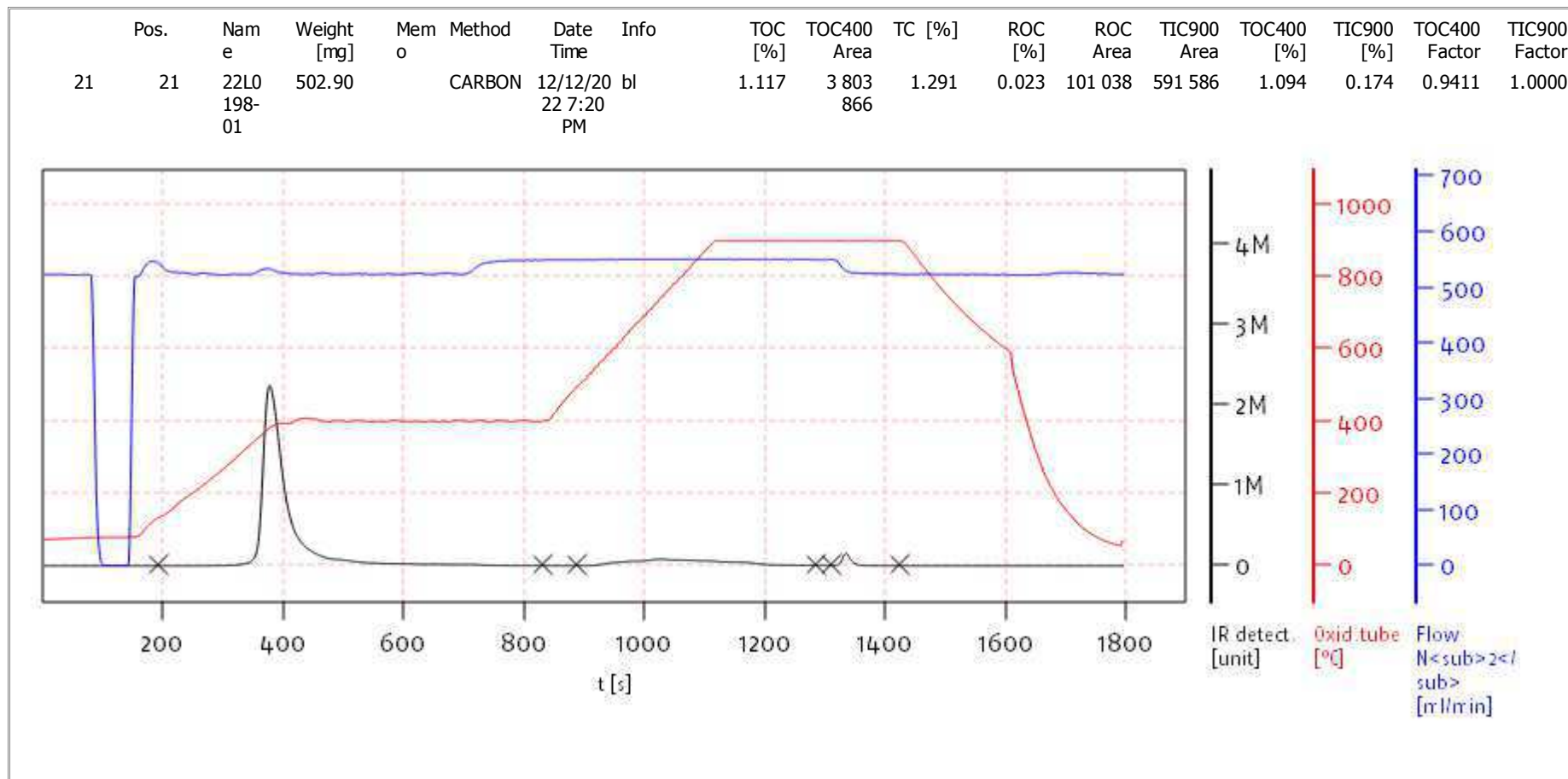
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solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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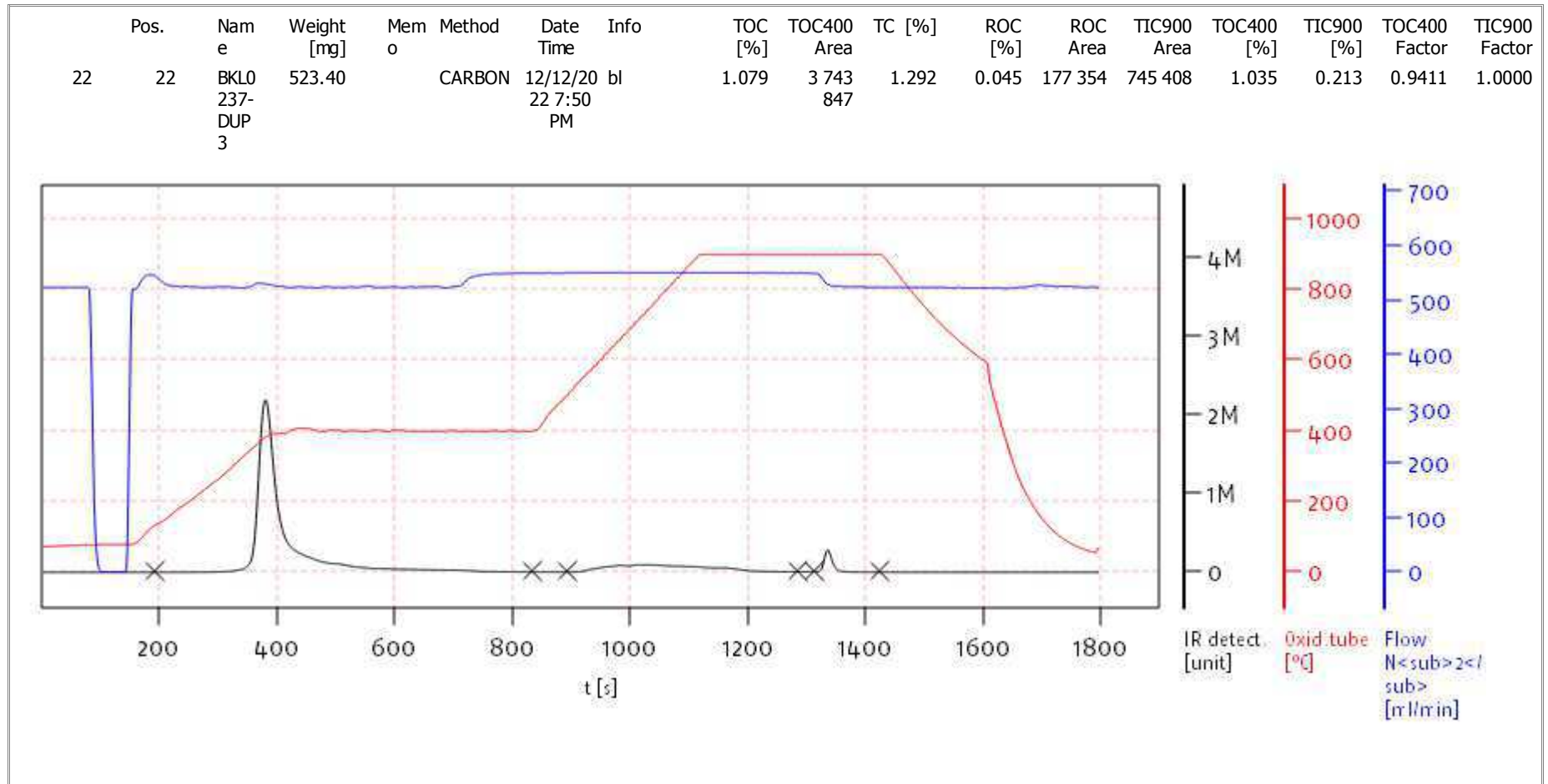
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solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

Access: solITOC superuser

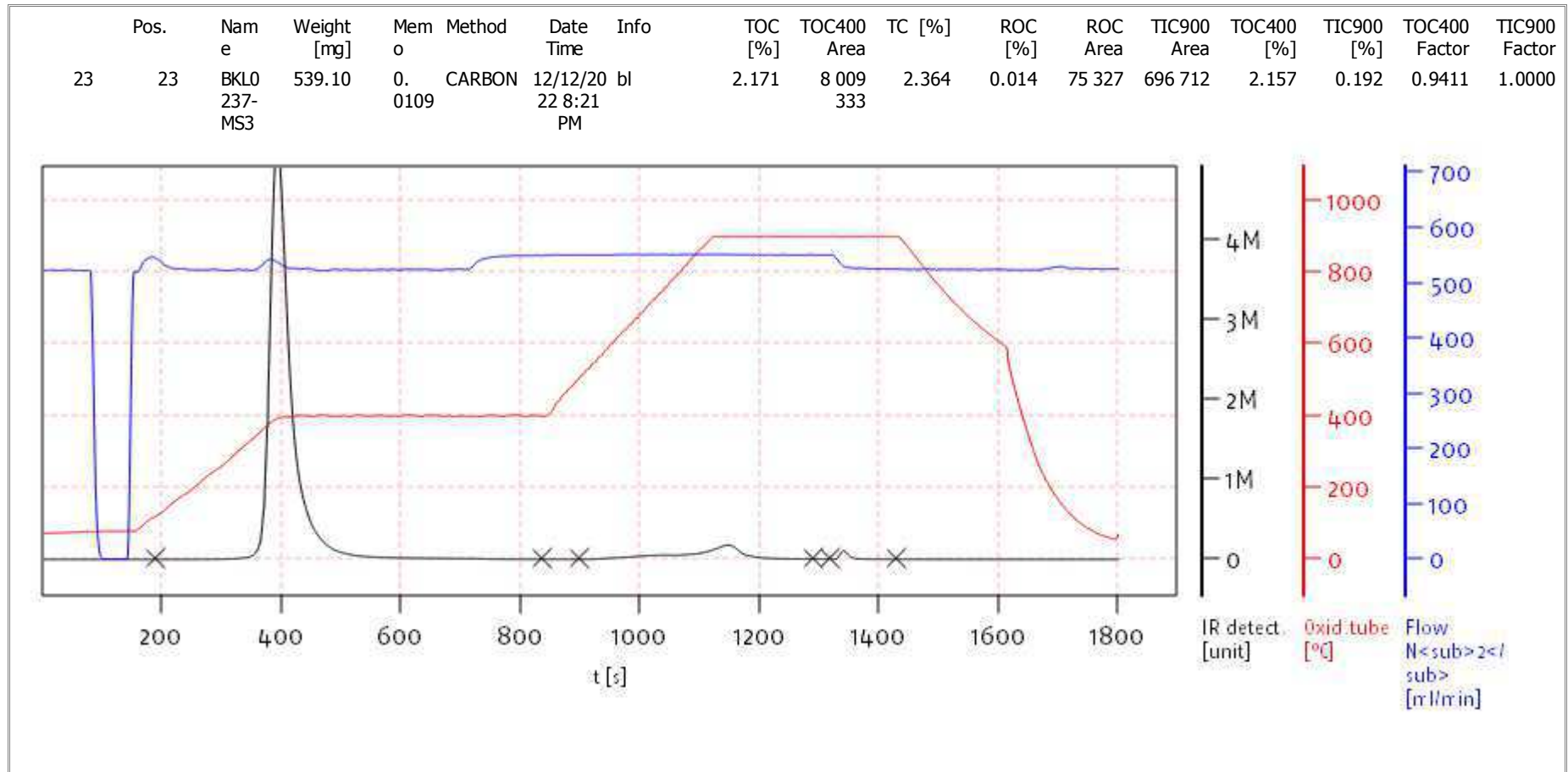
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solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

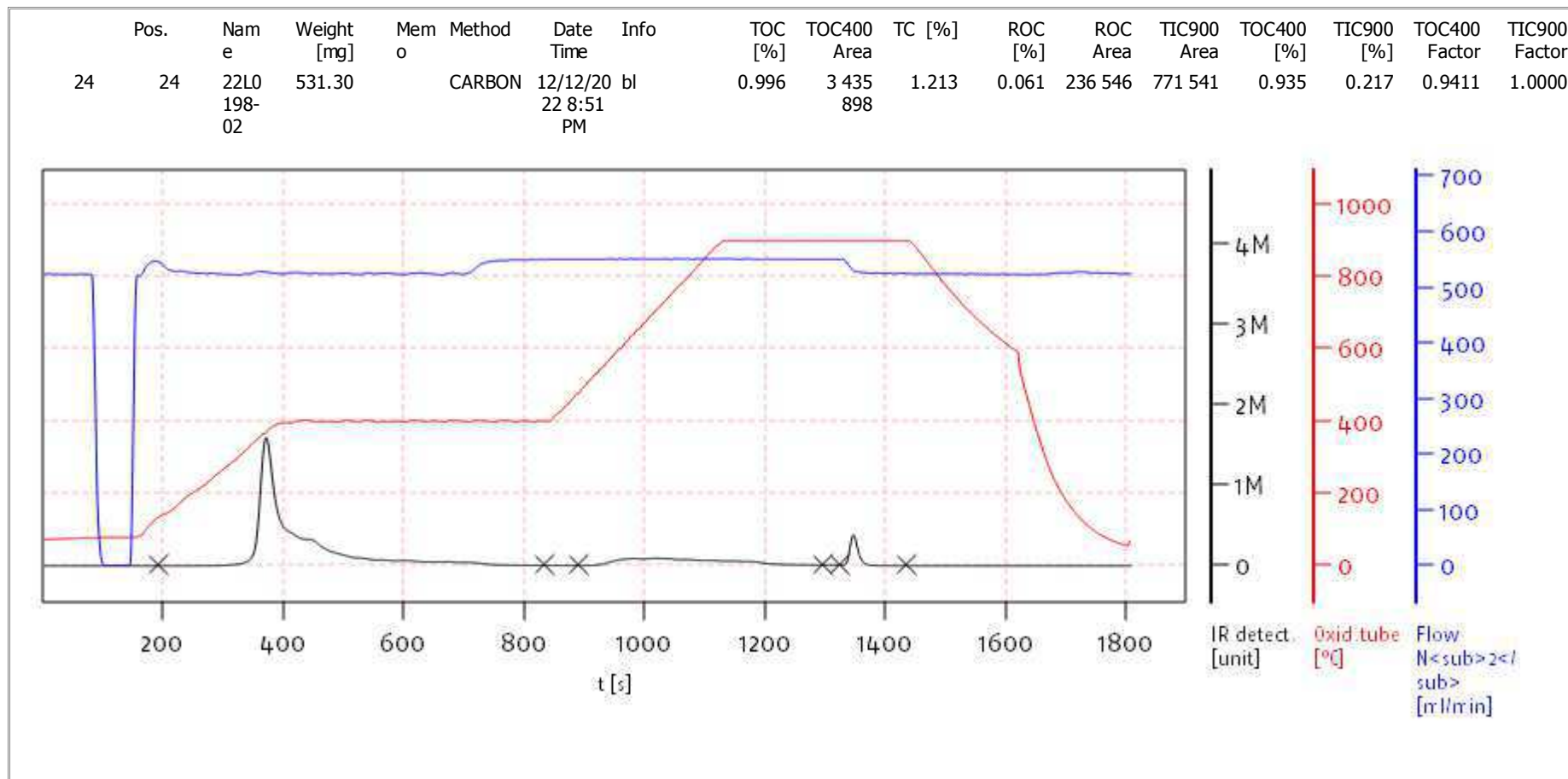
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solITOC V2.0.2 (31015f9) 2018-11-19
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 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

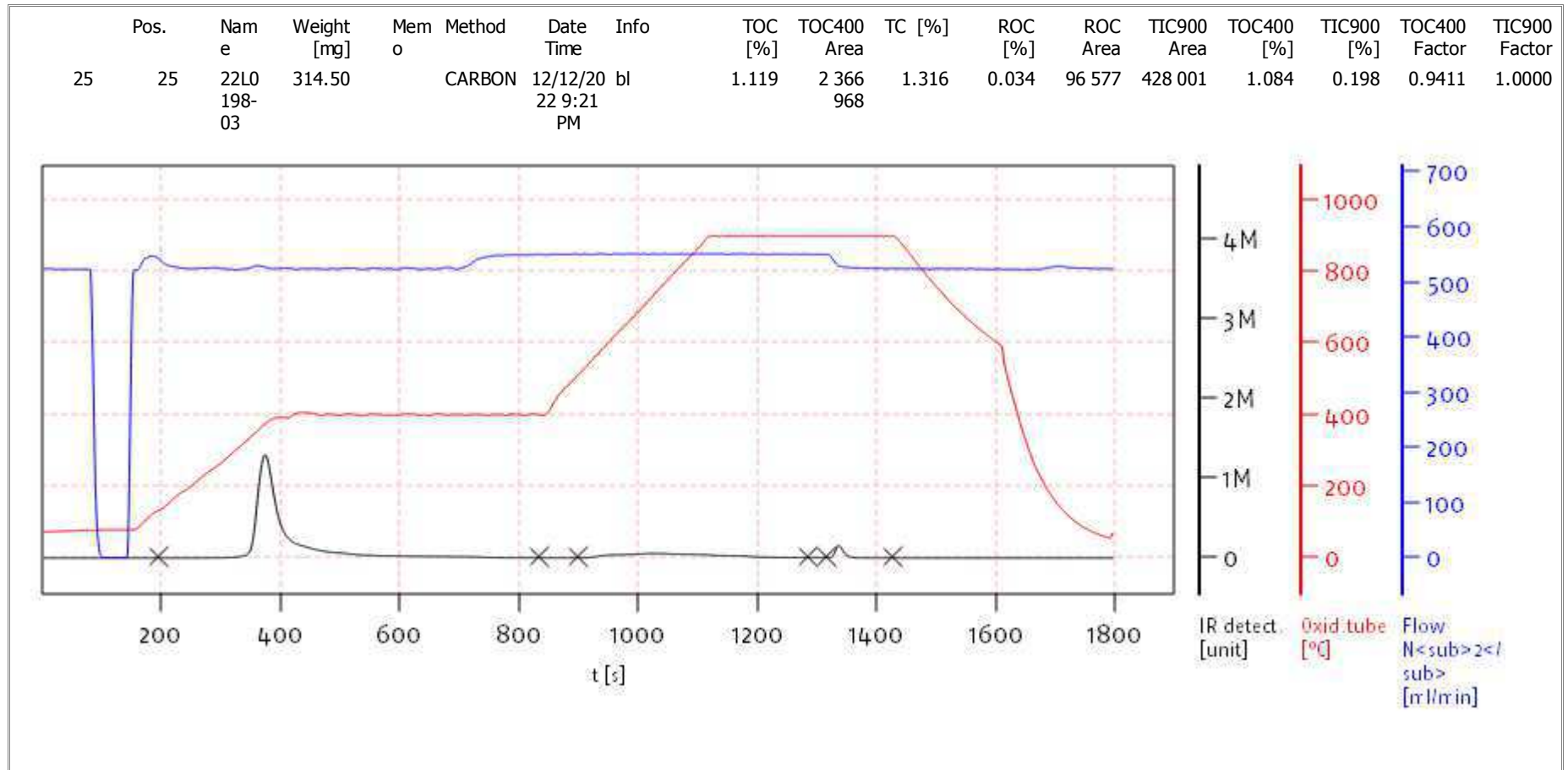
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 Serial No: 0300.181017
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 Balance: BAL3
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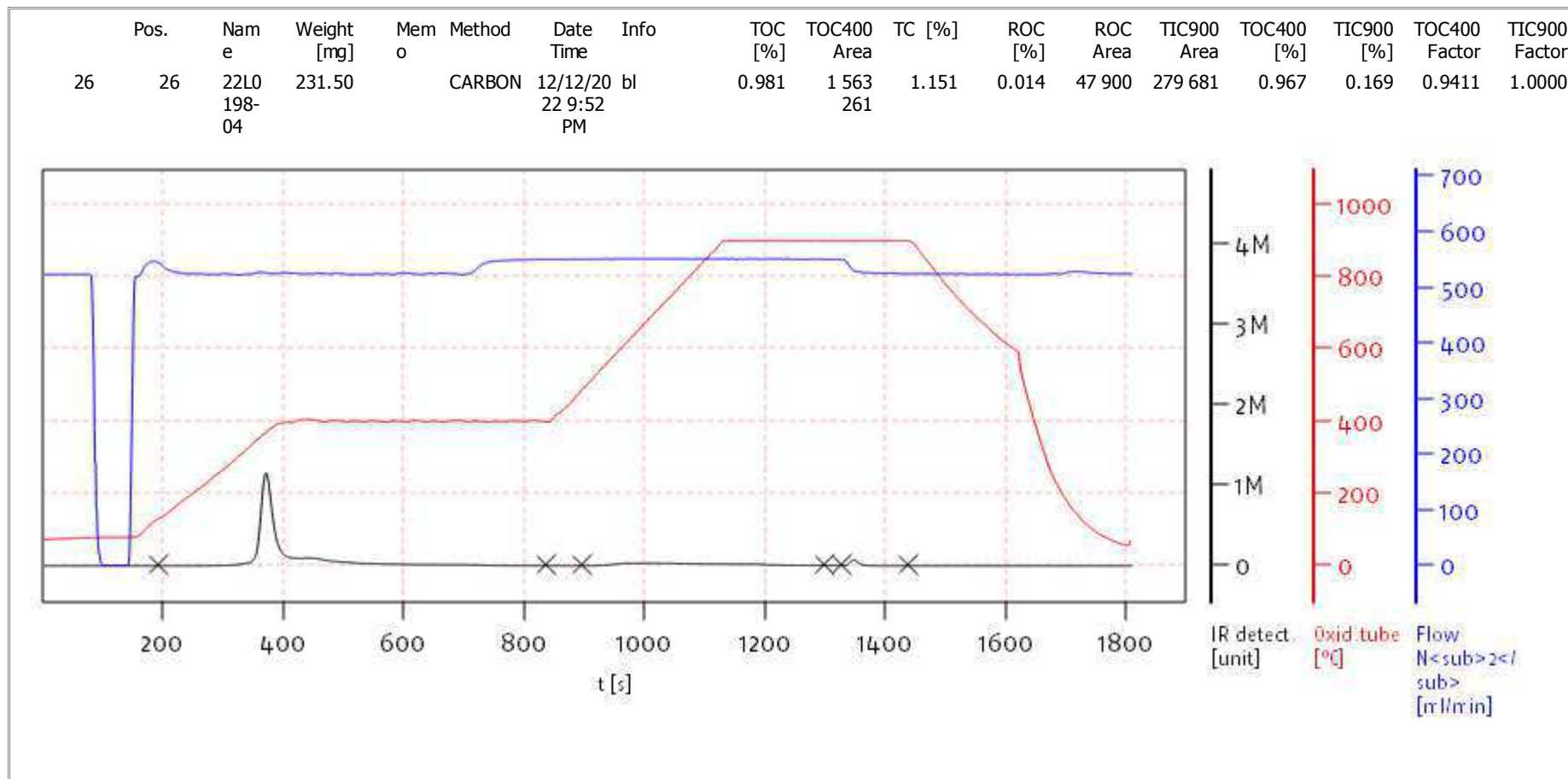
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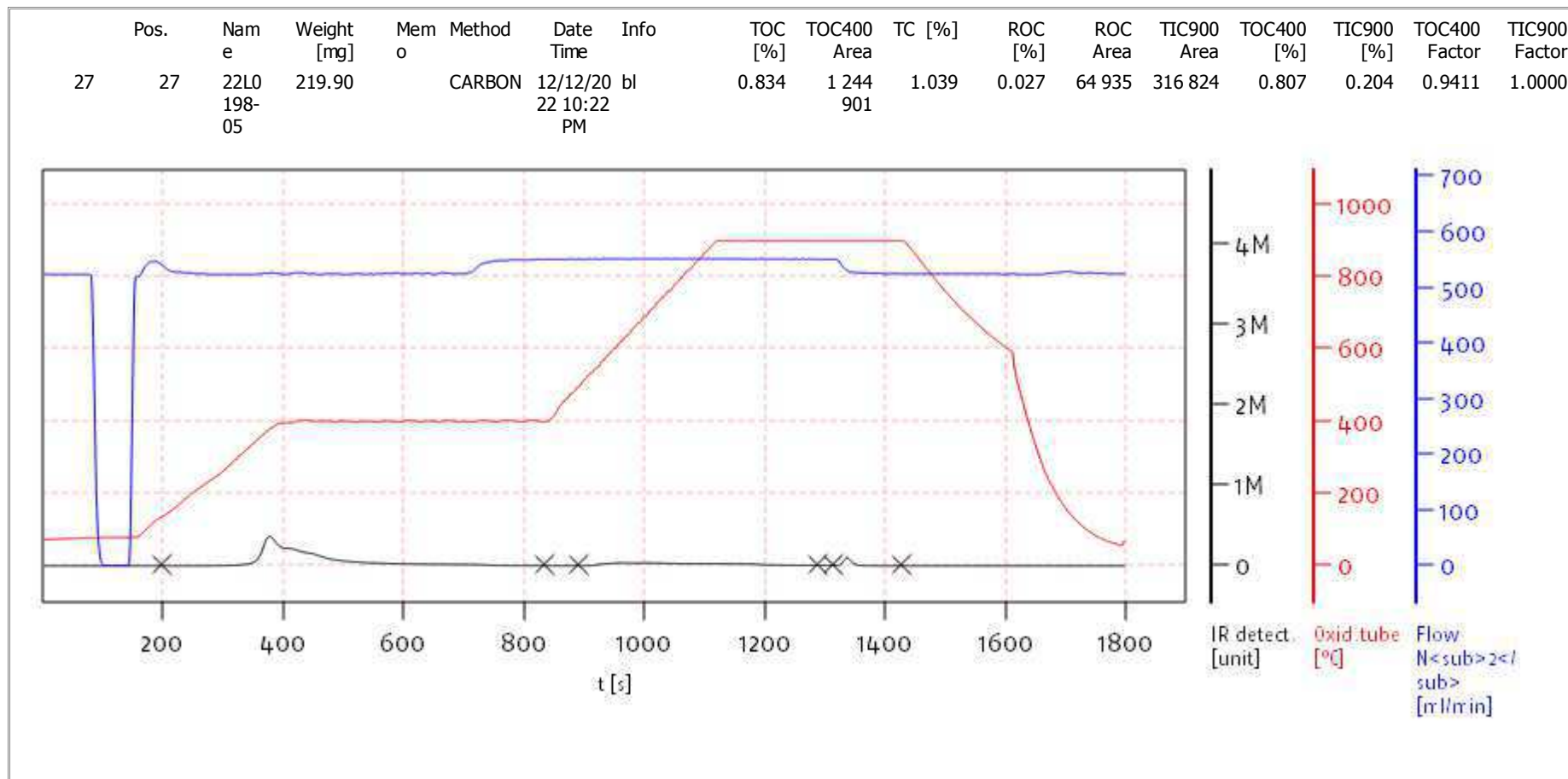
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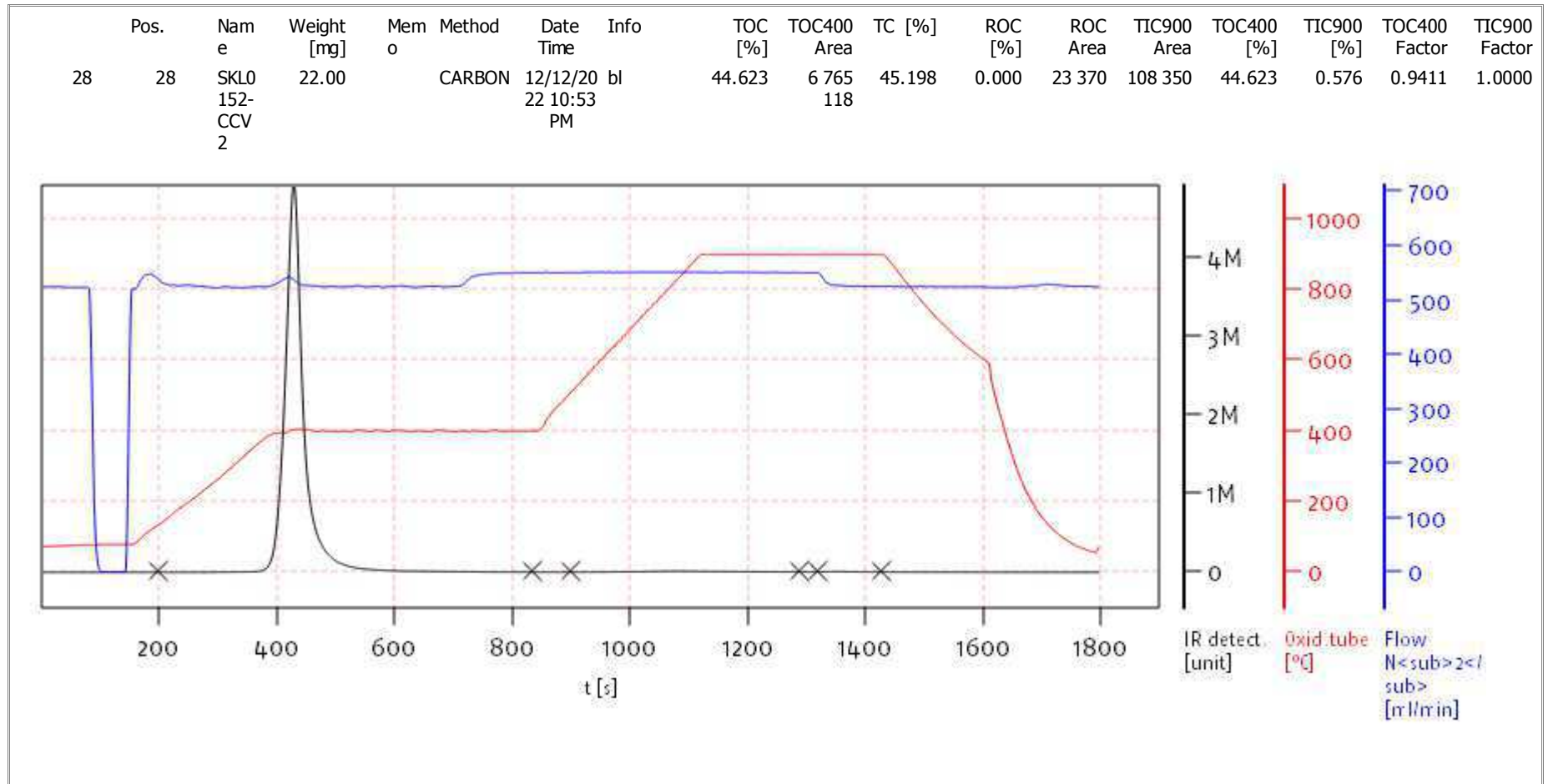
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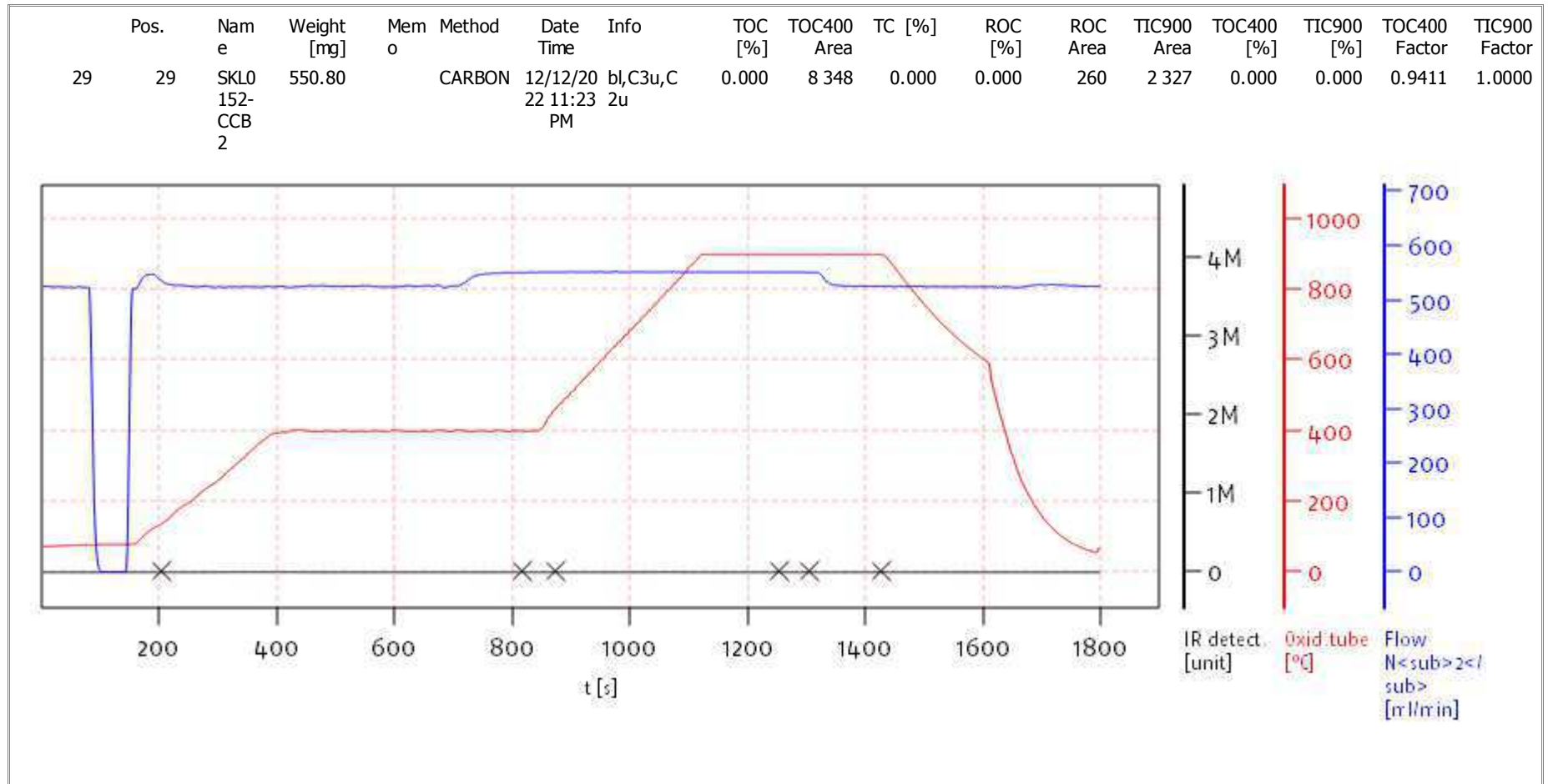
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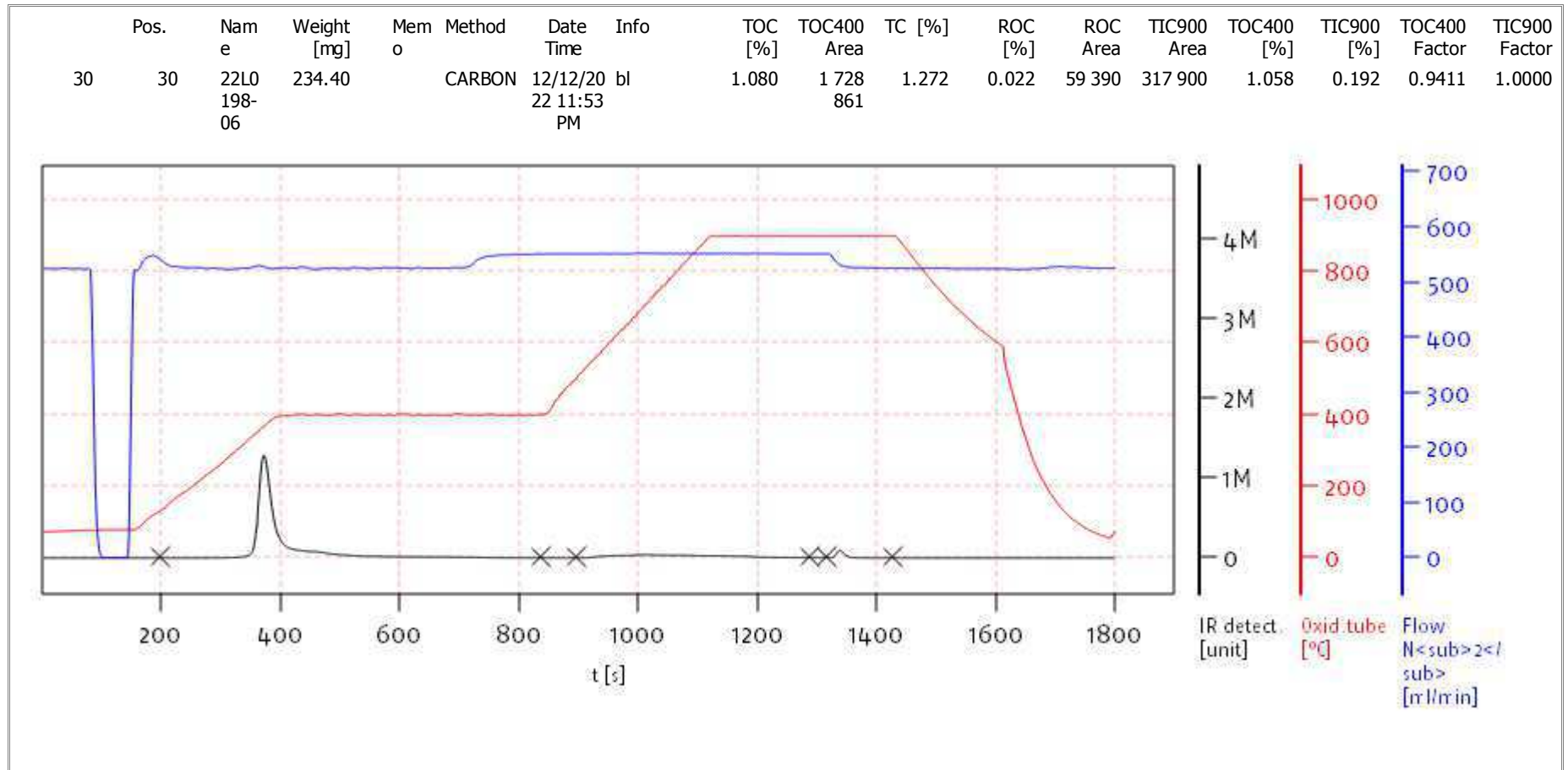
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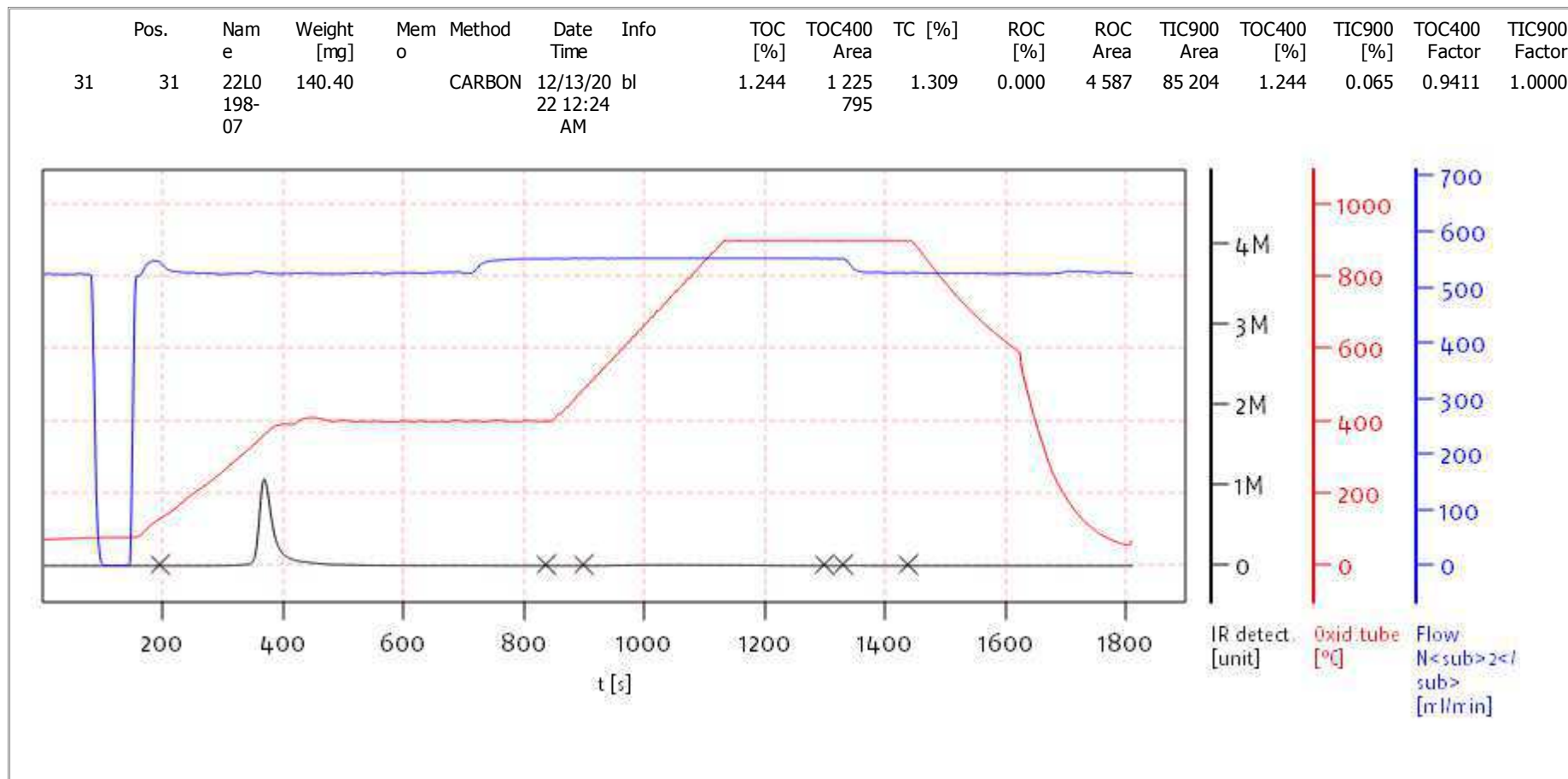
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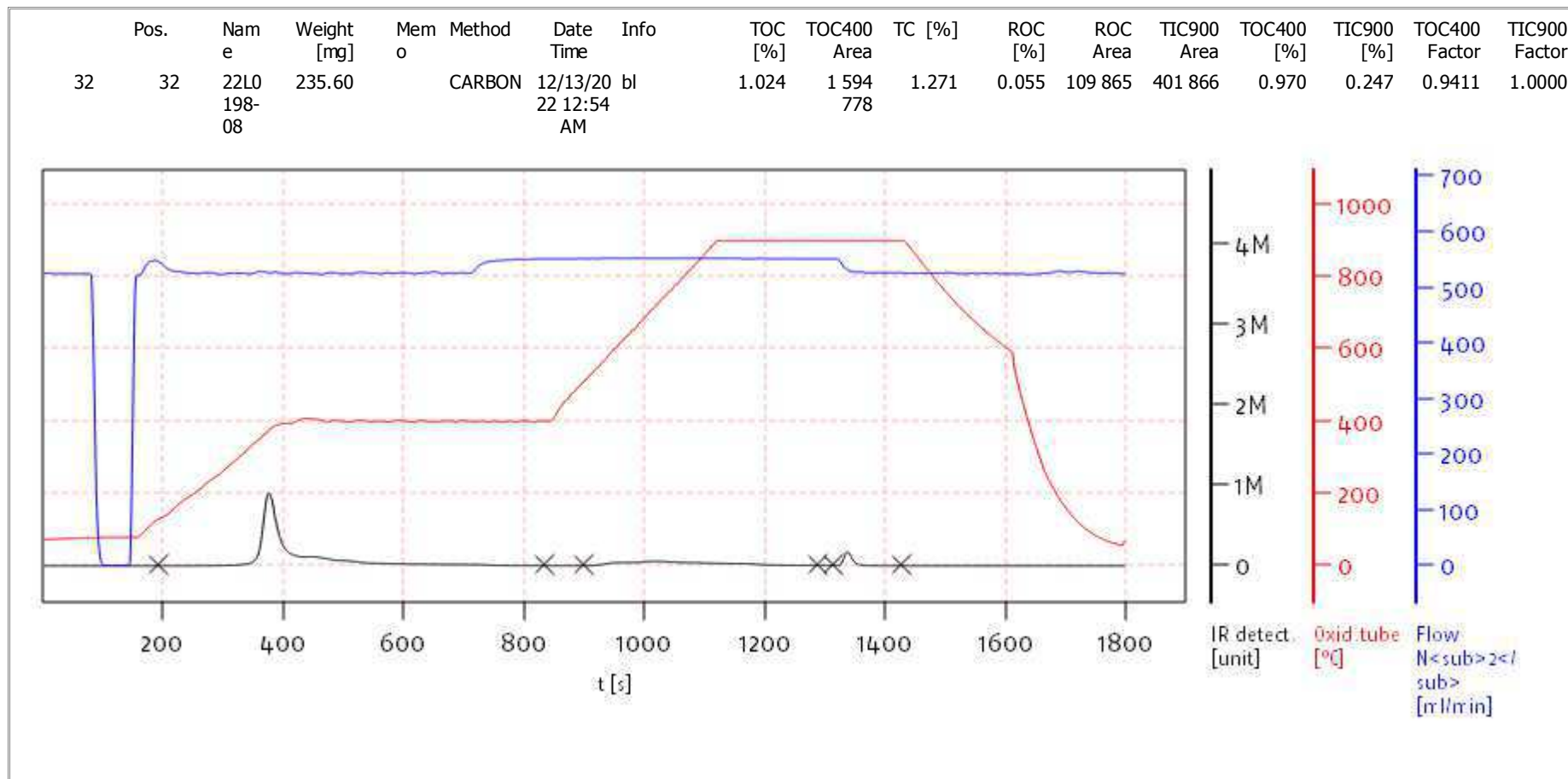
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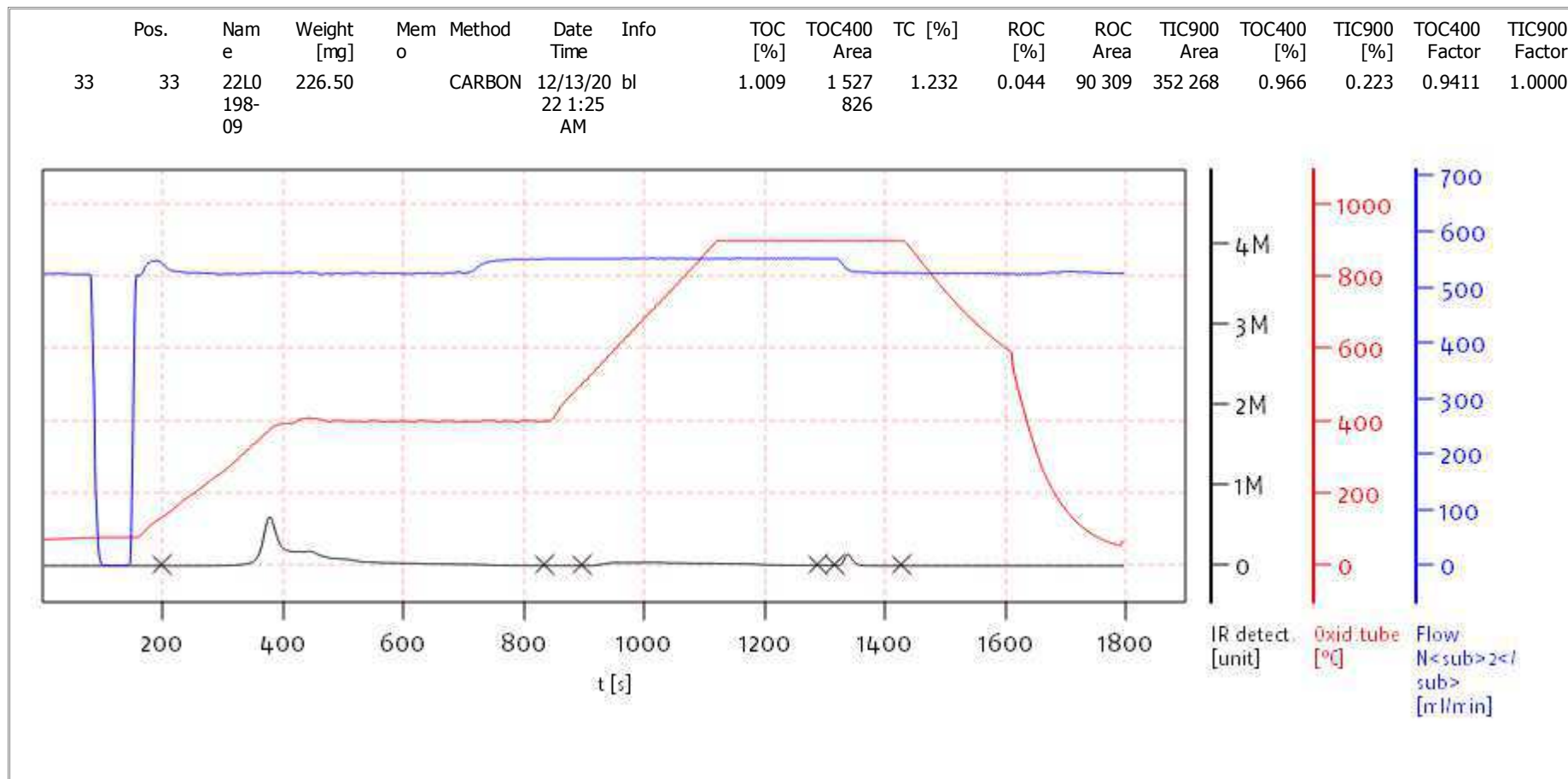
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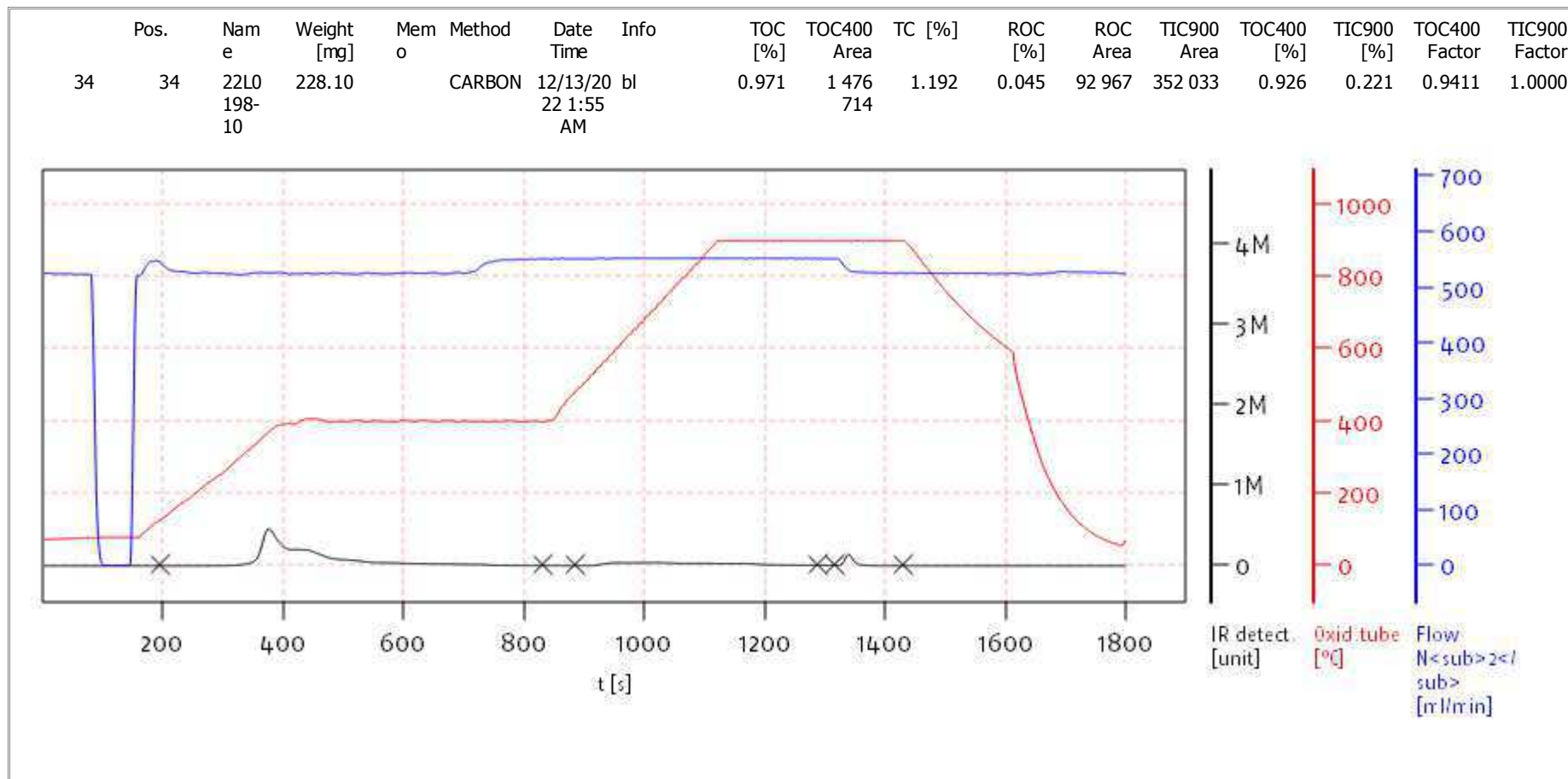
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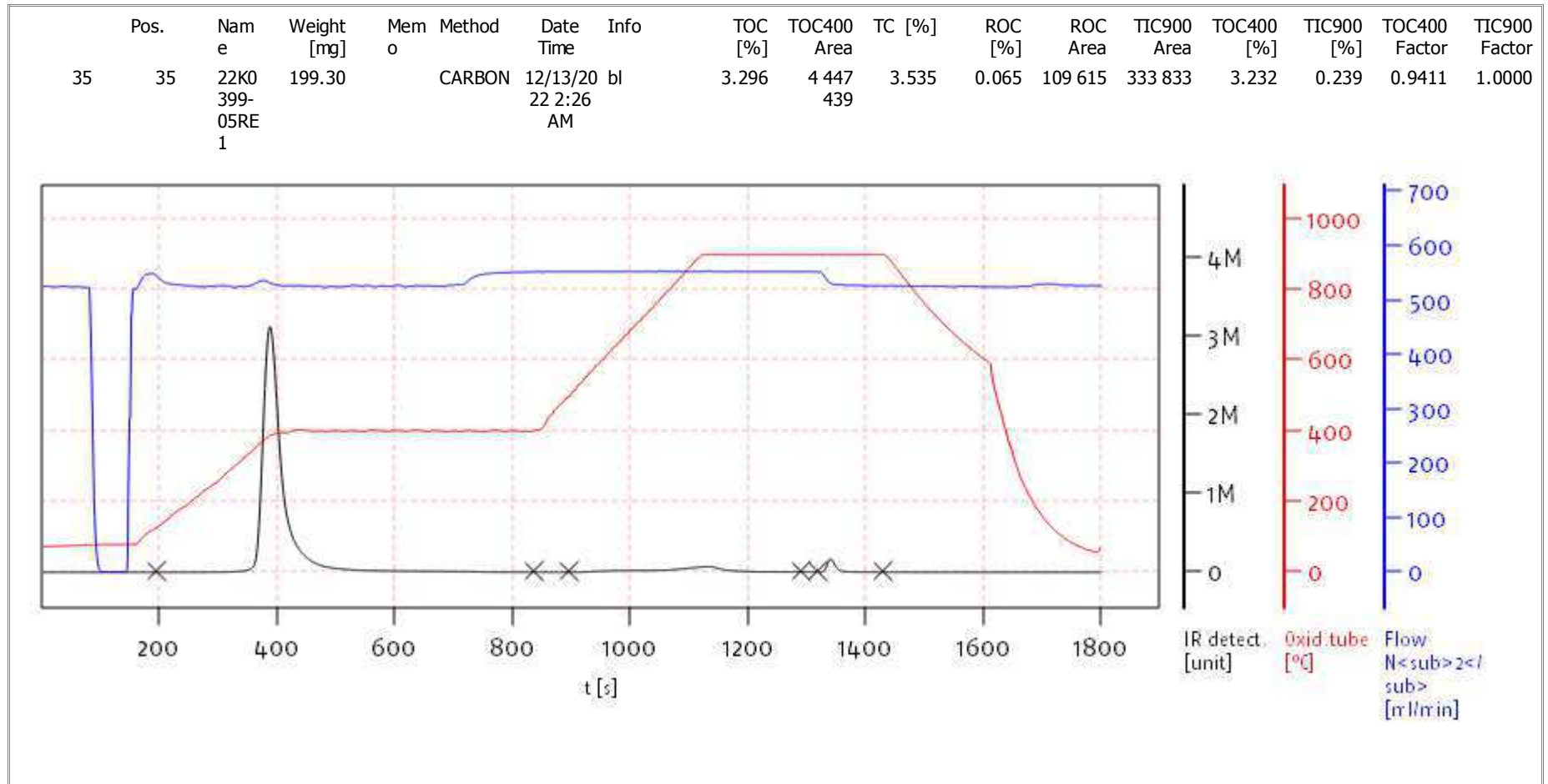
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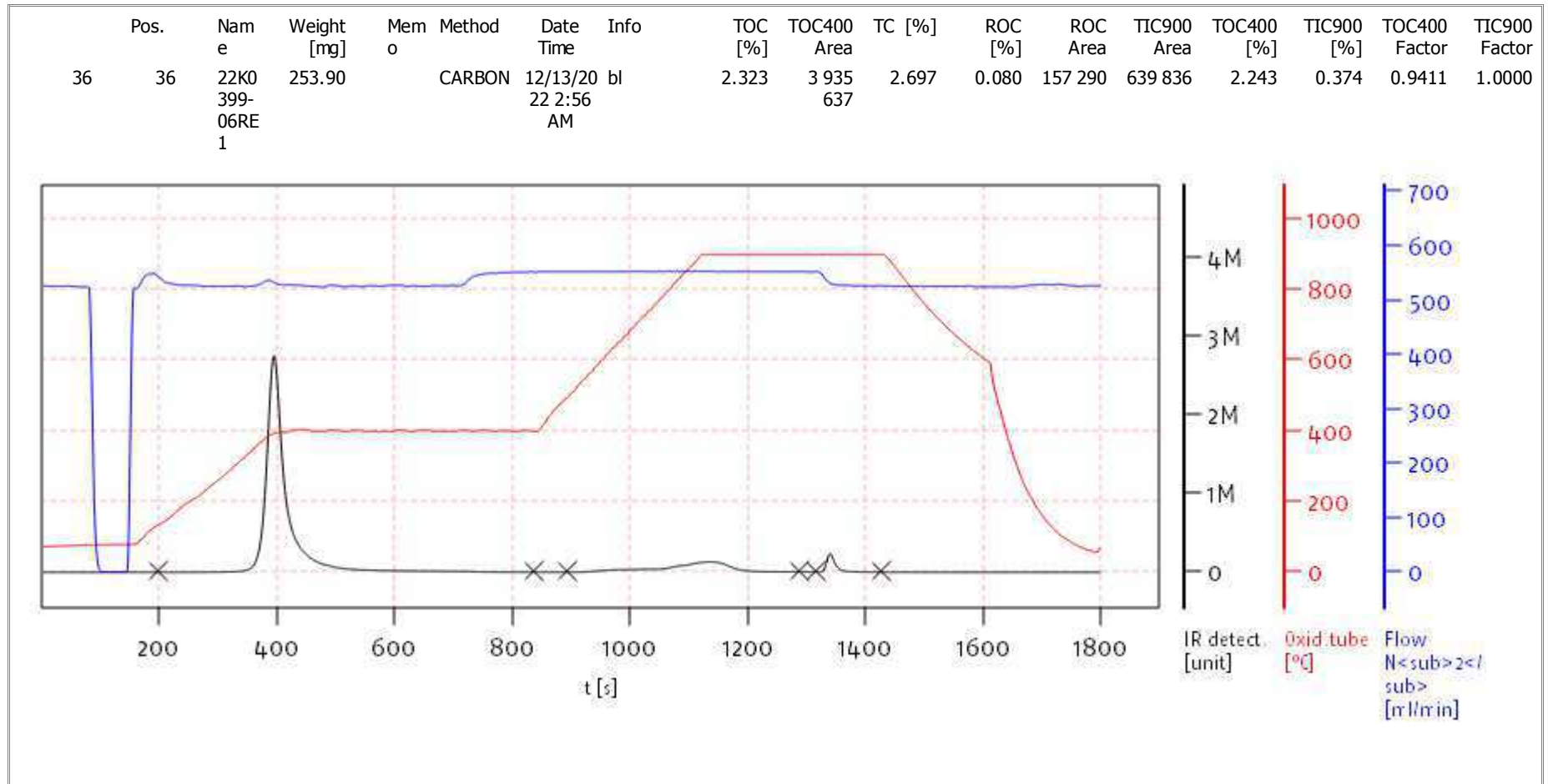
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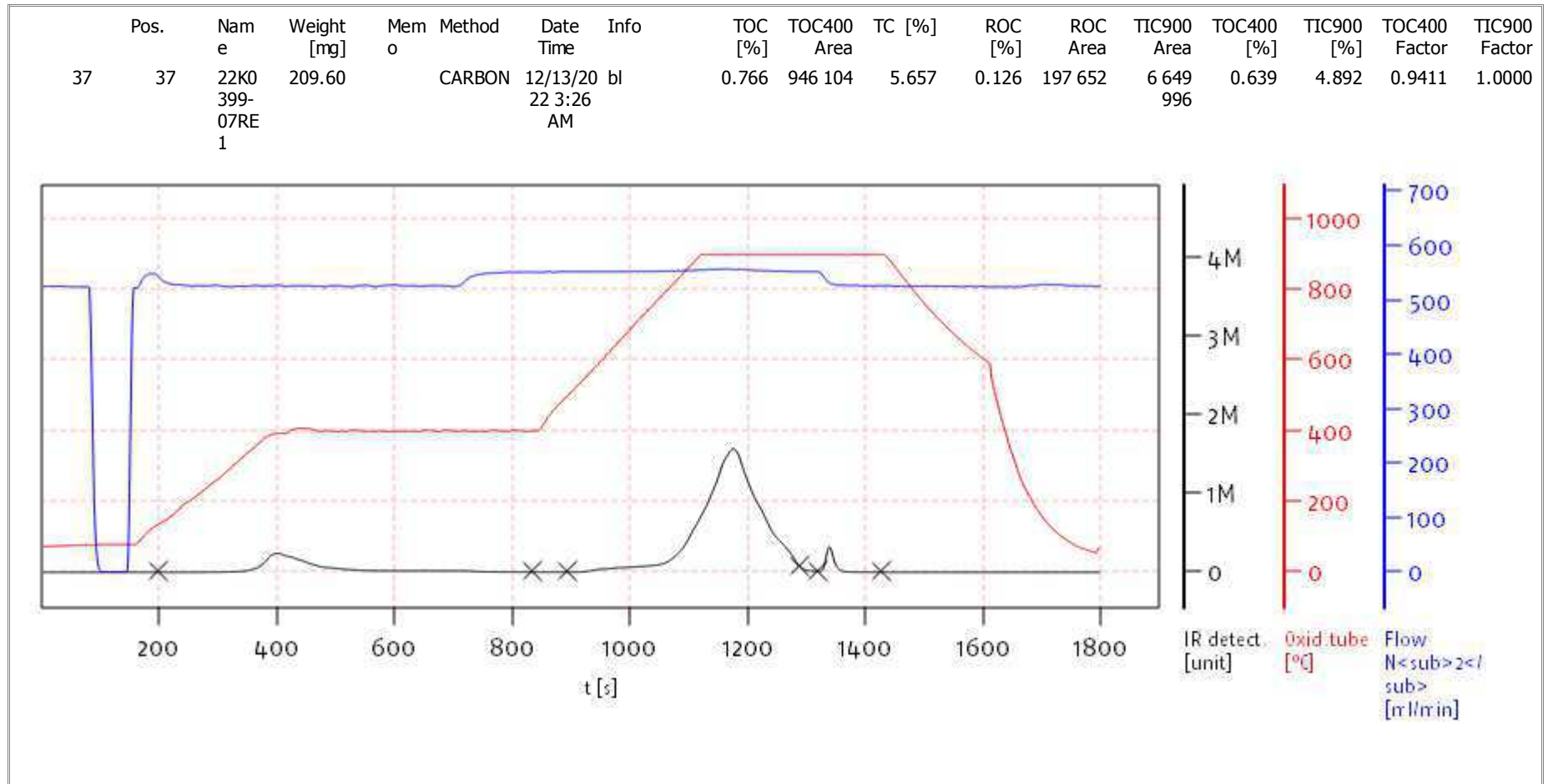
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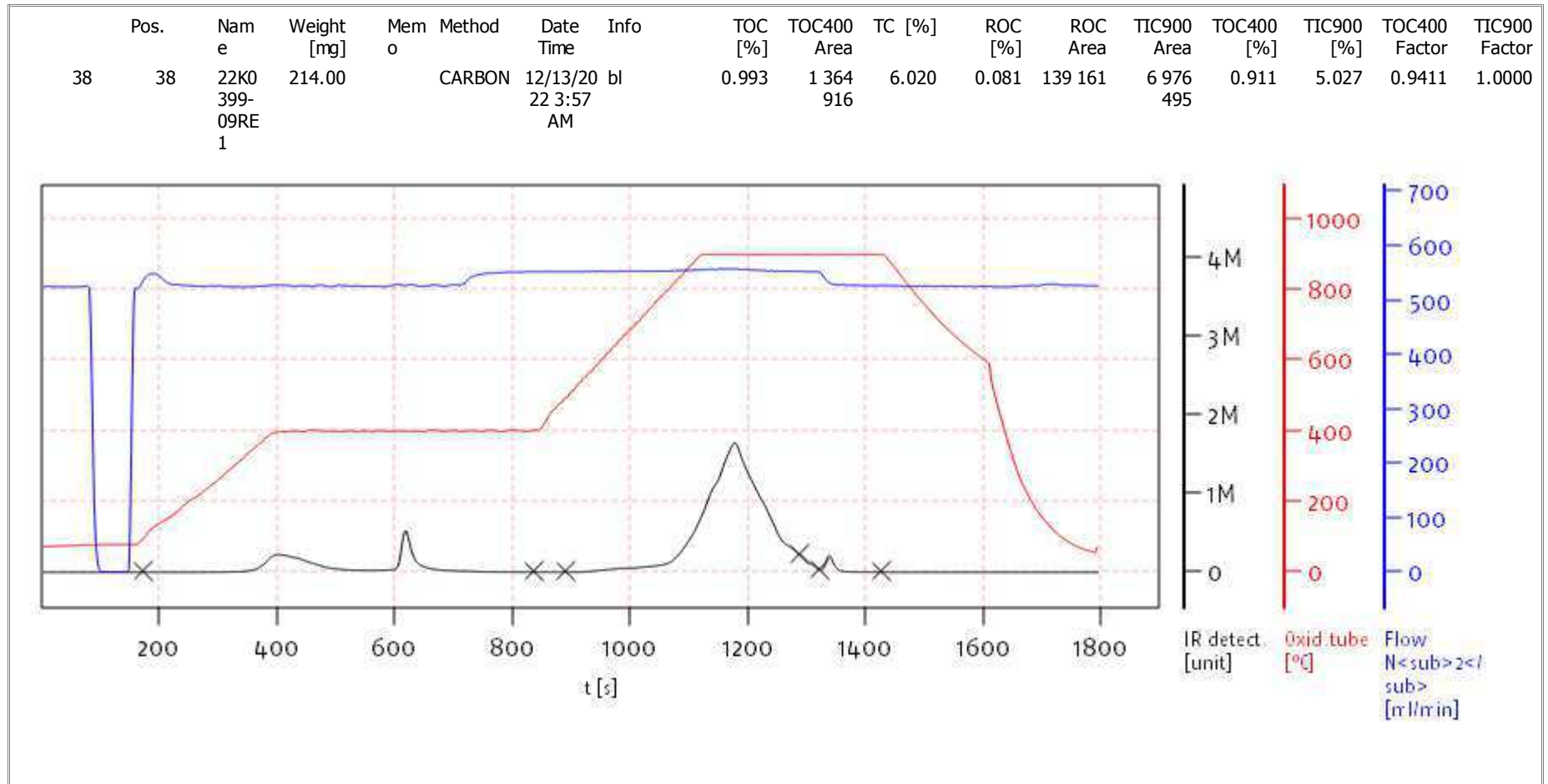
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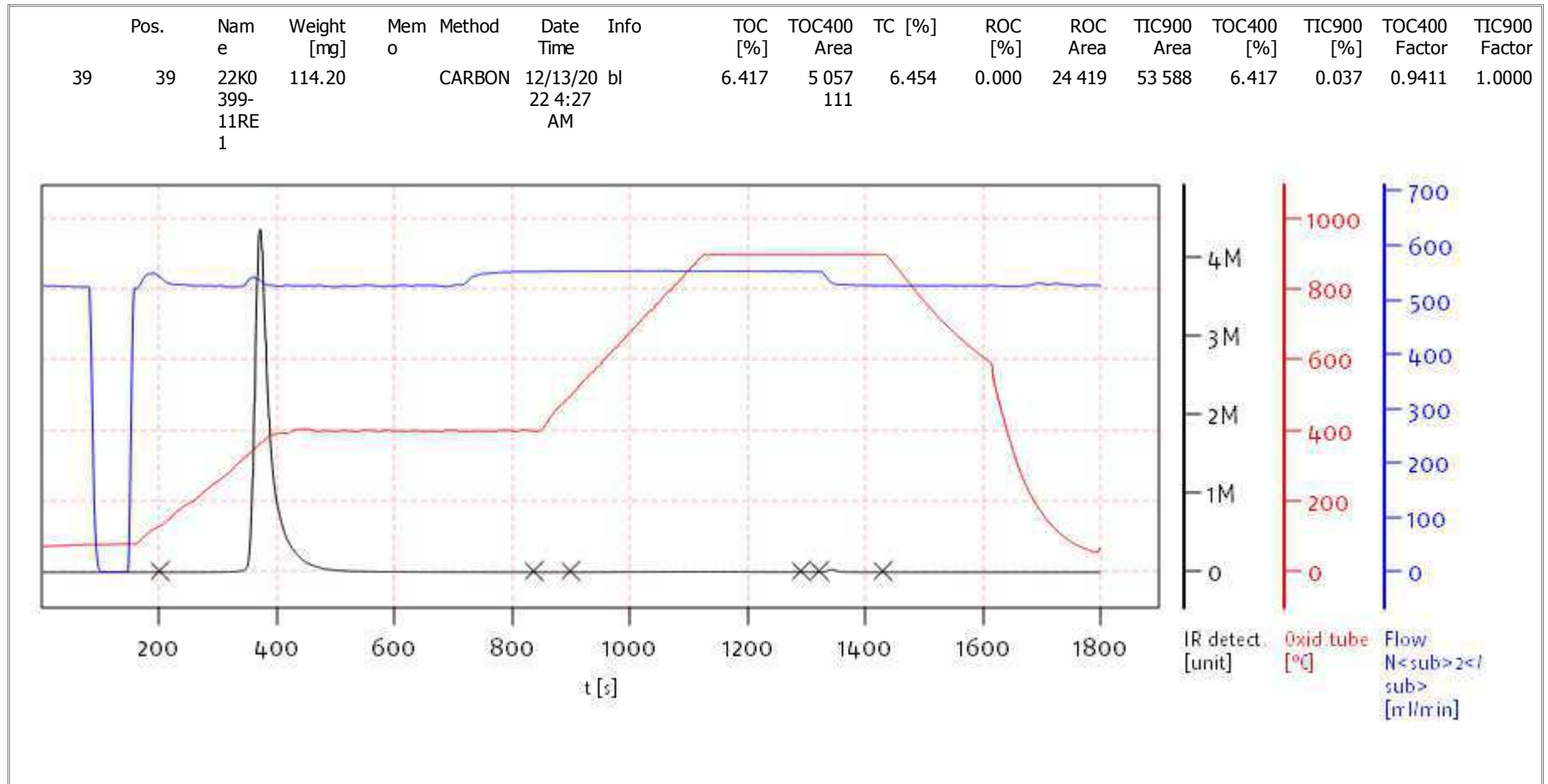
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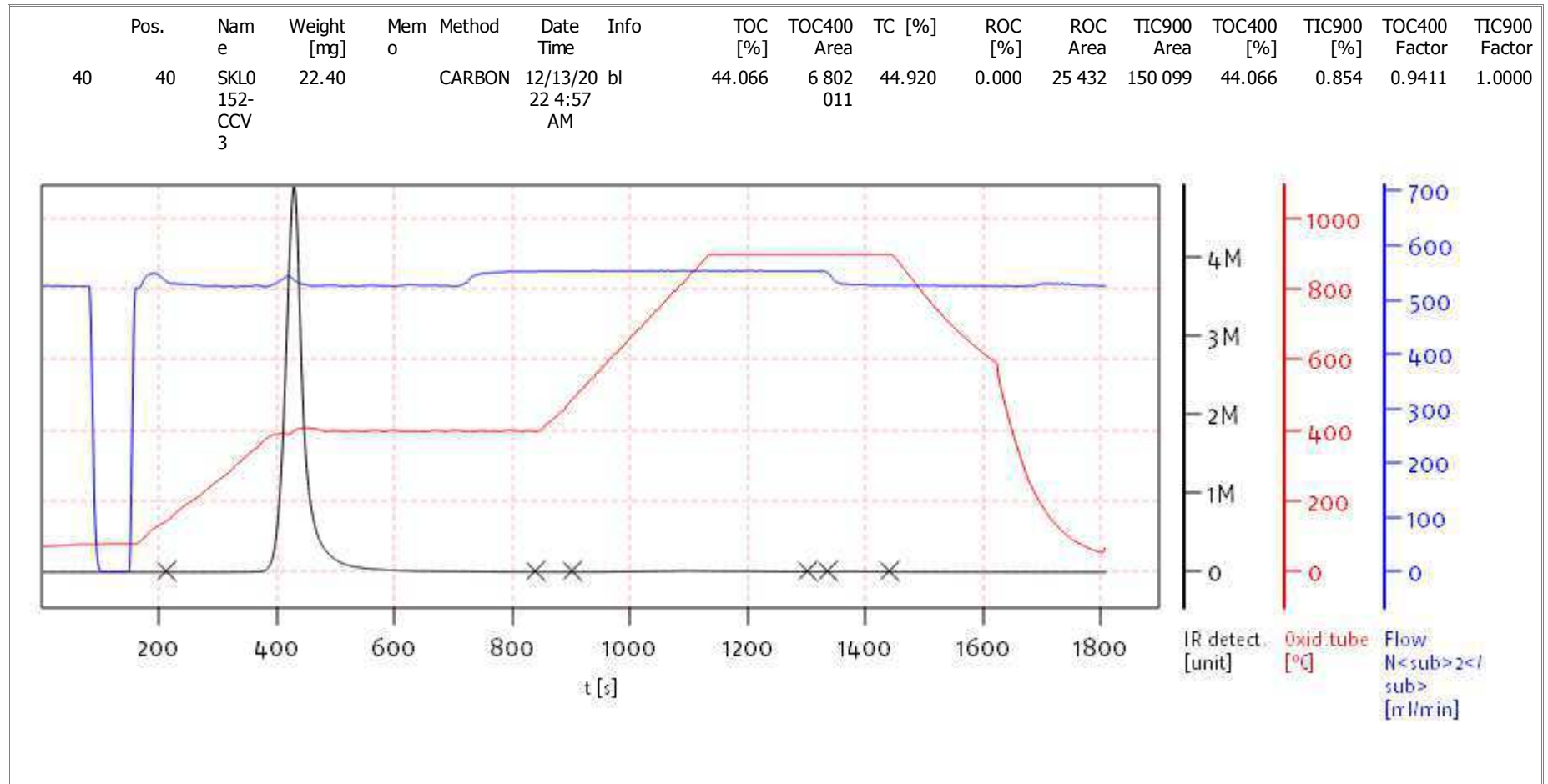
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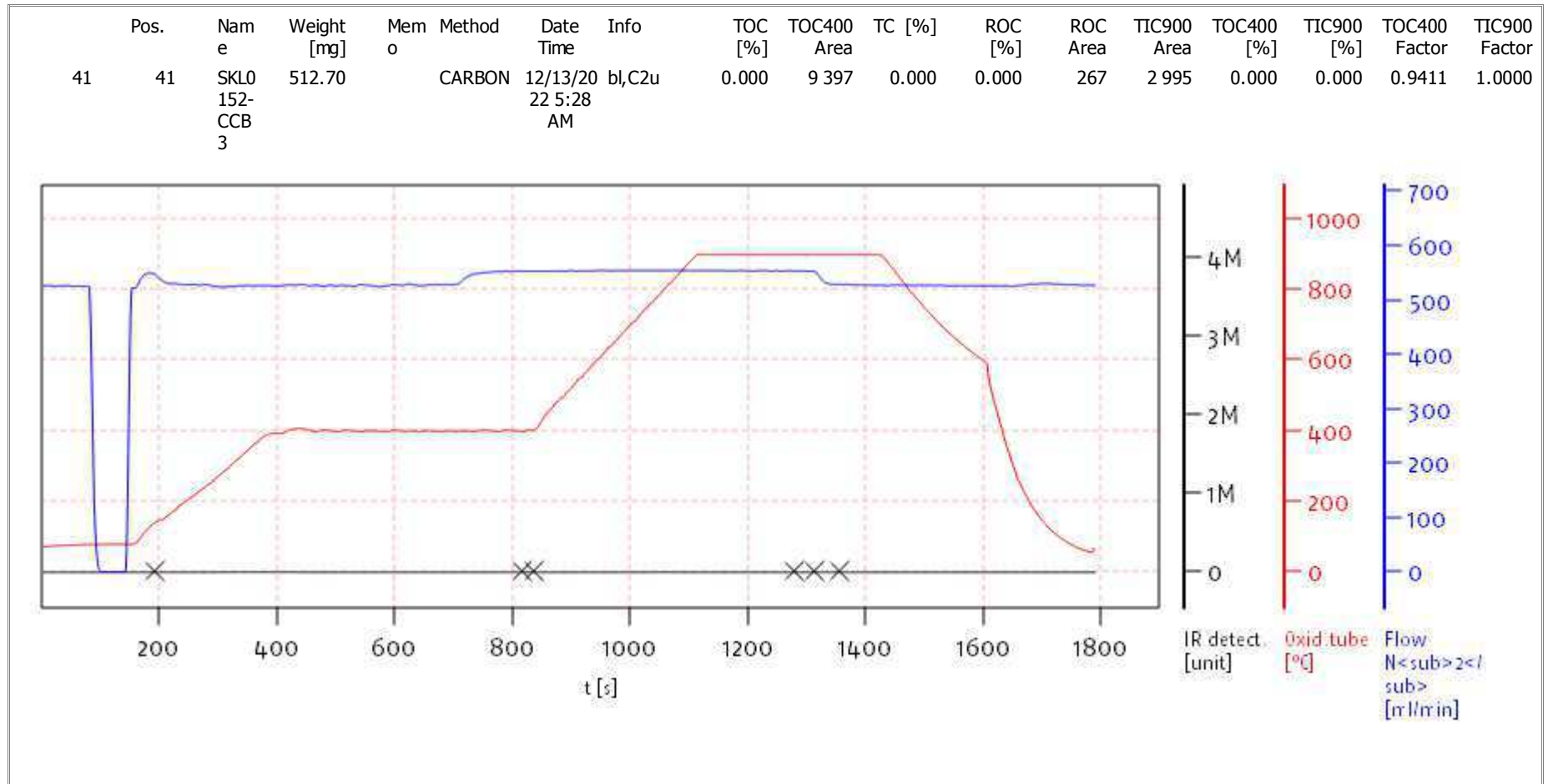
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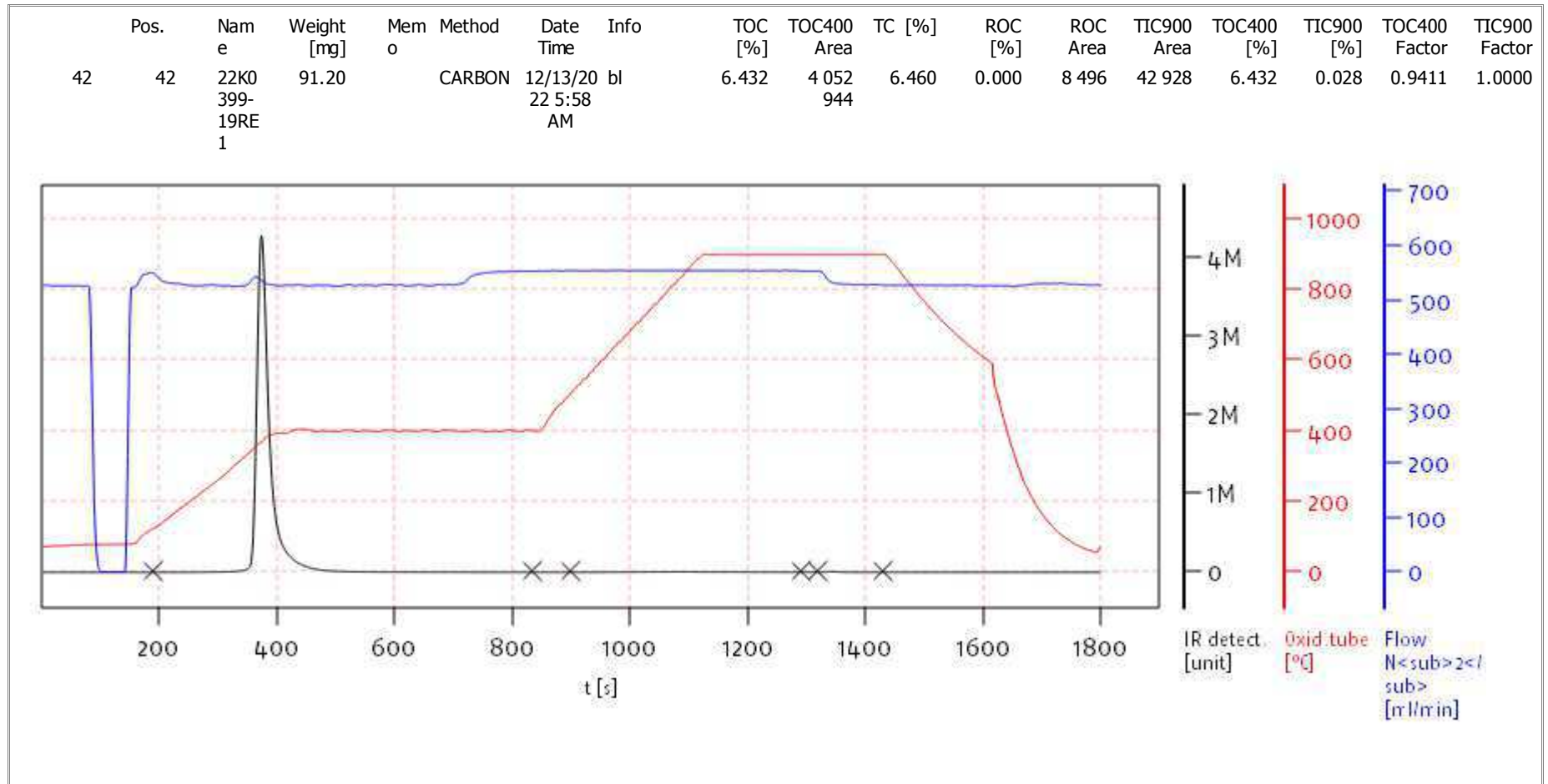
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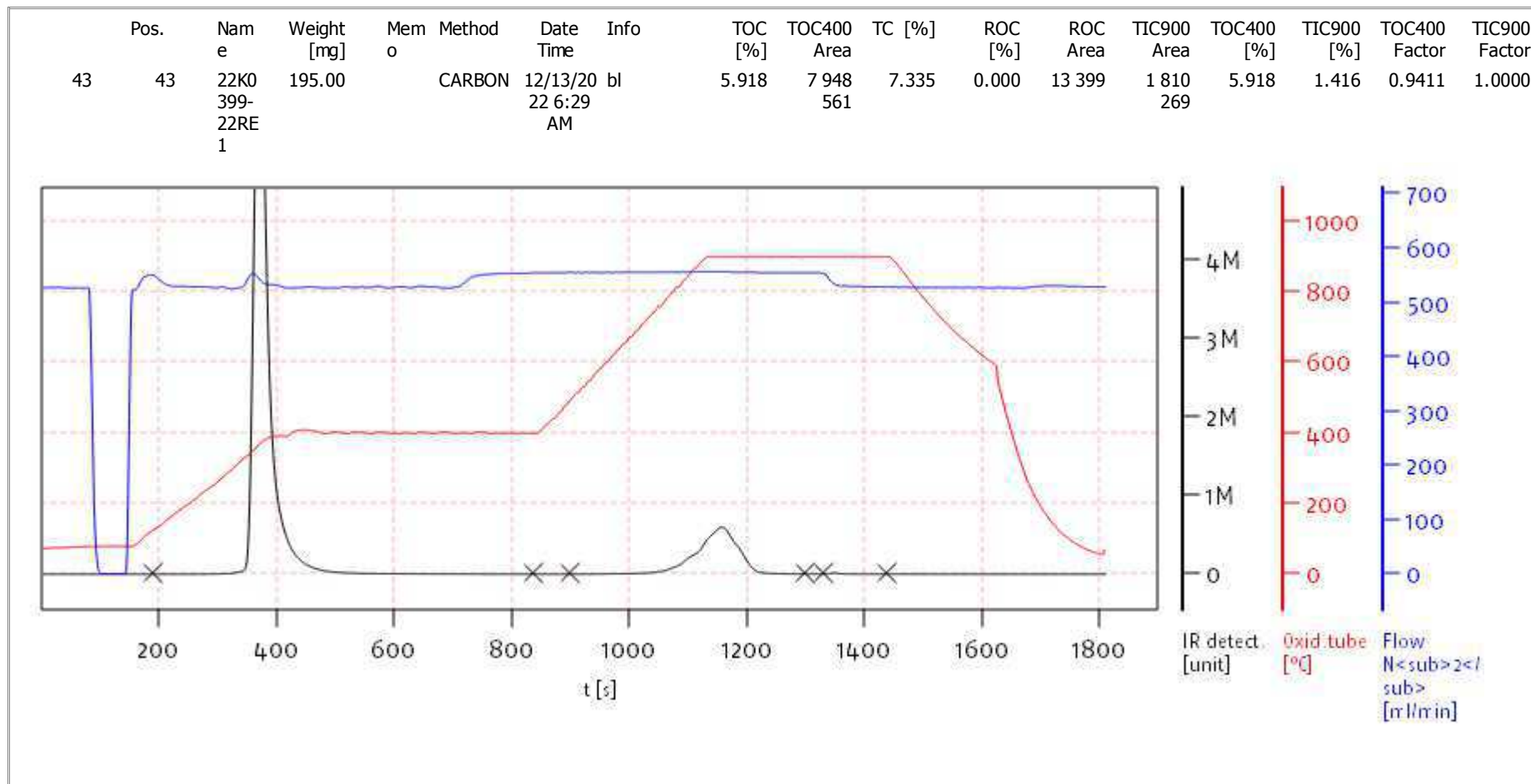
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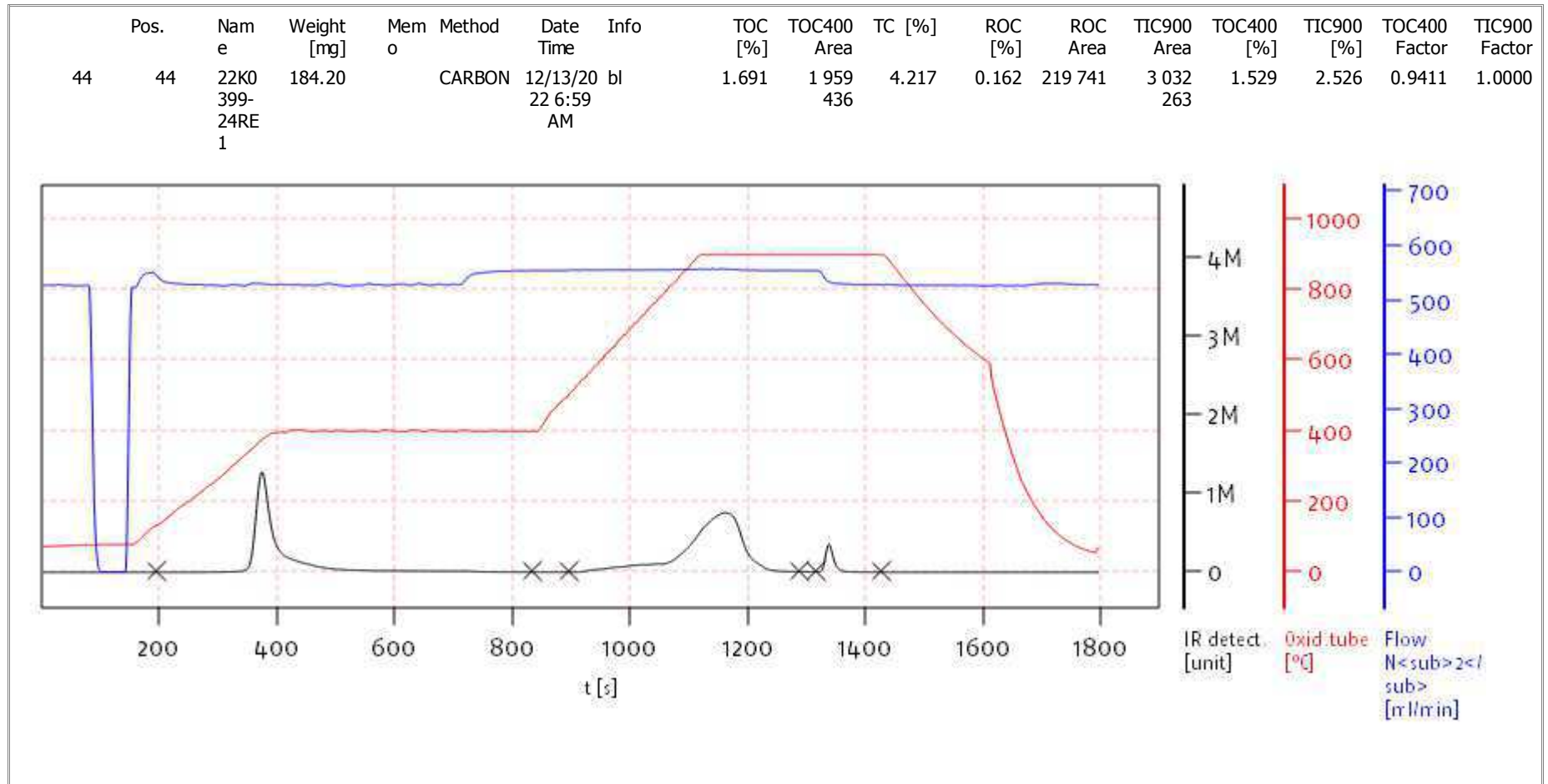
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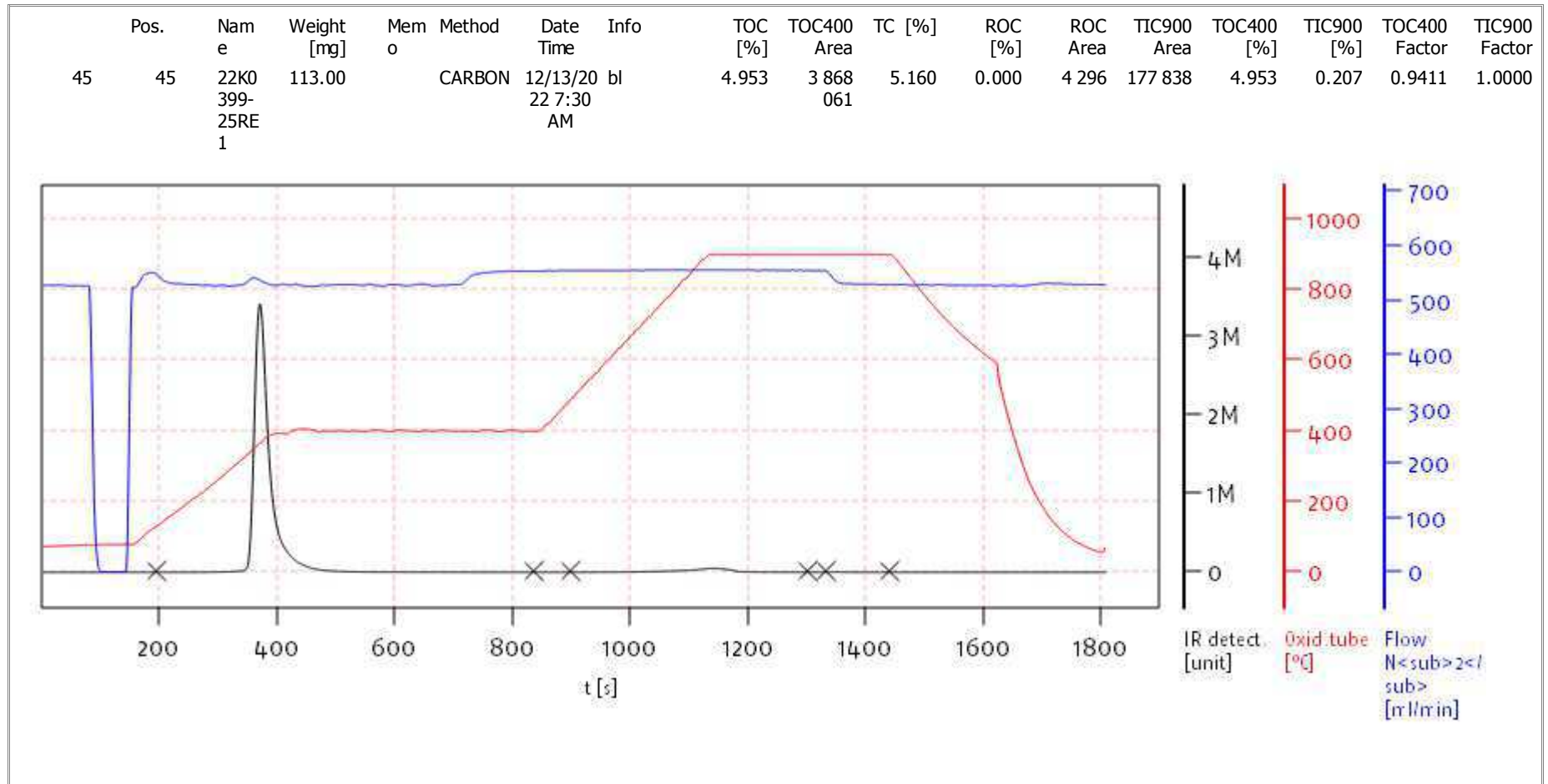
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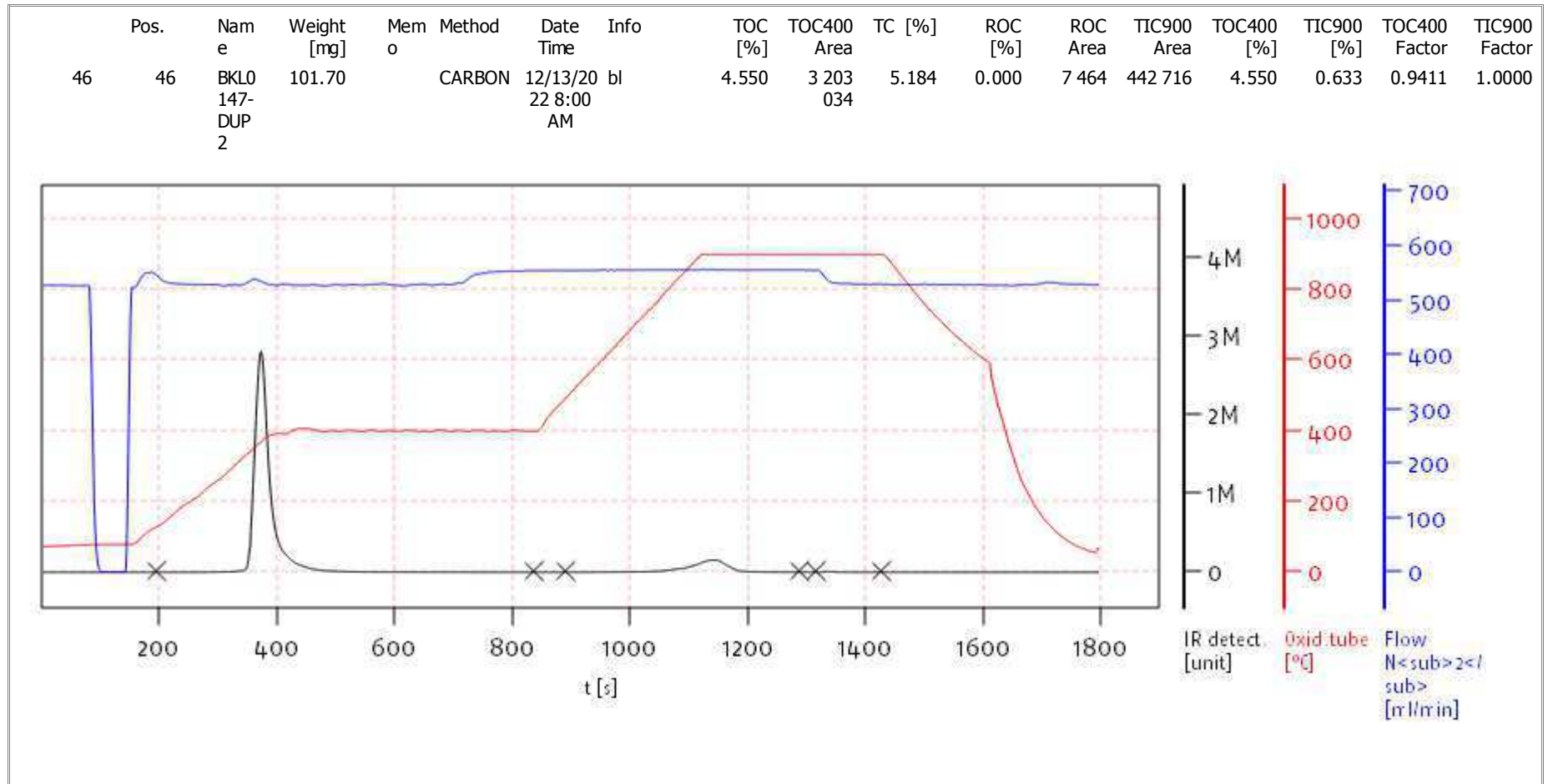
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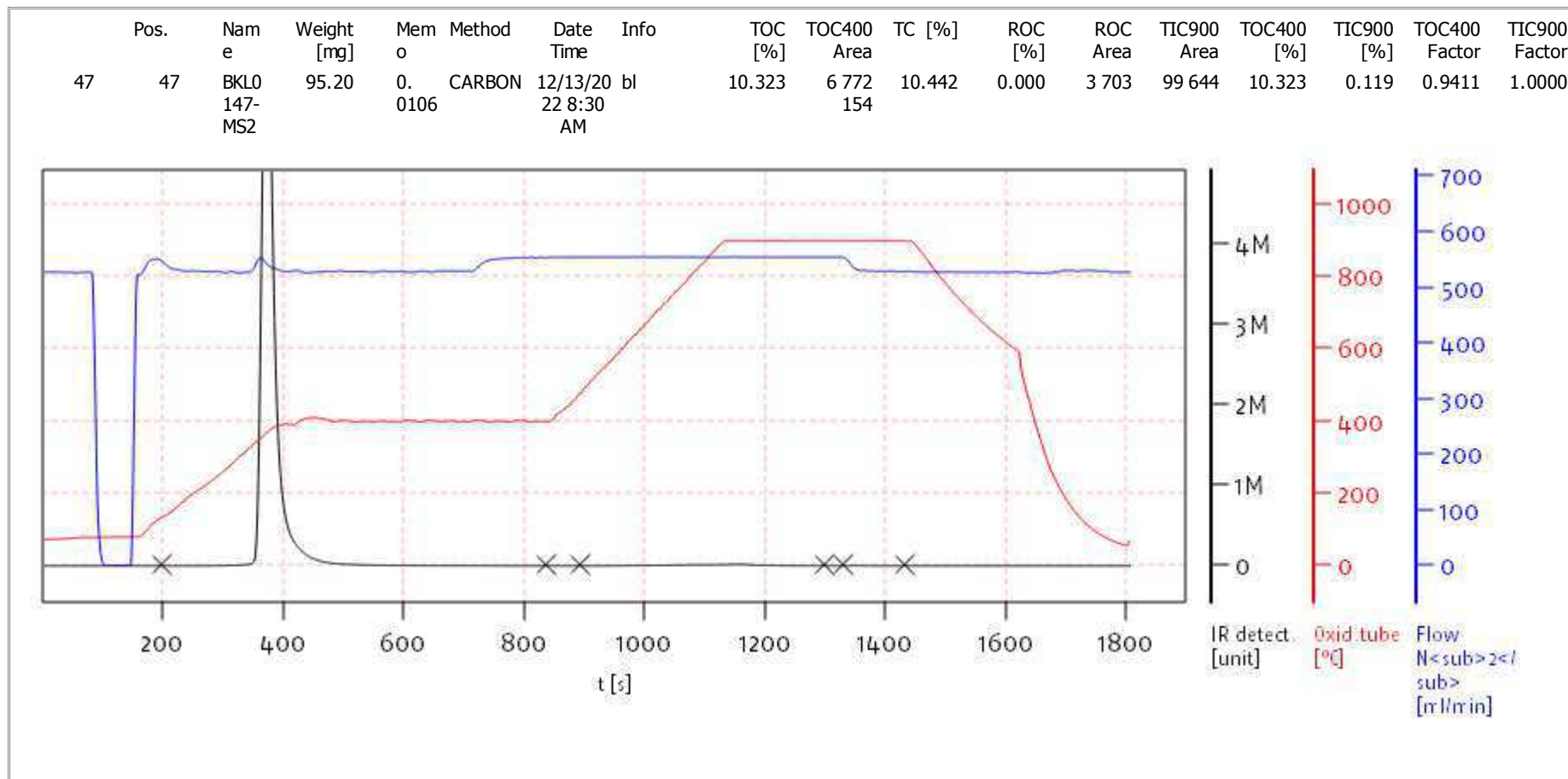
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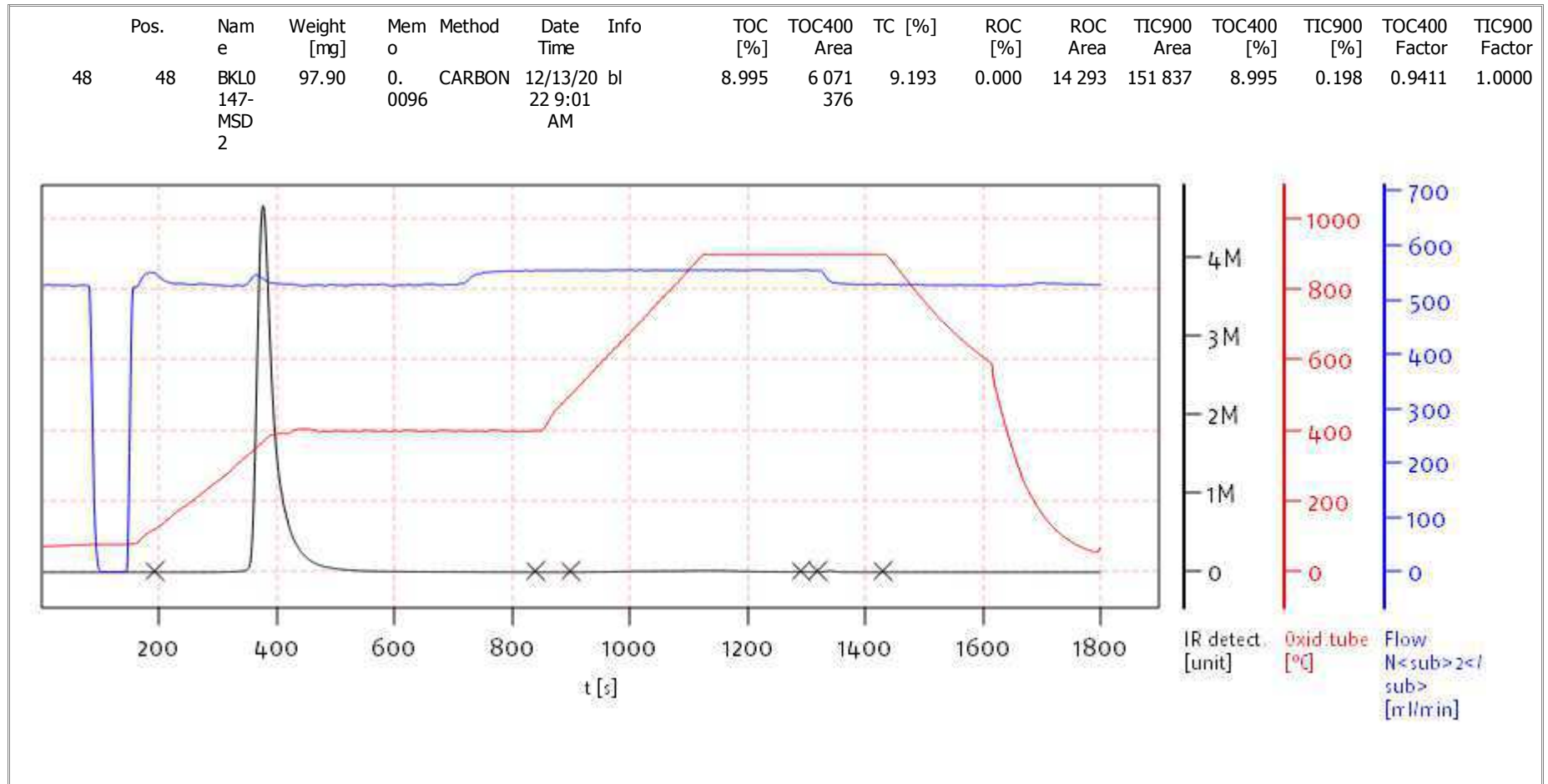
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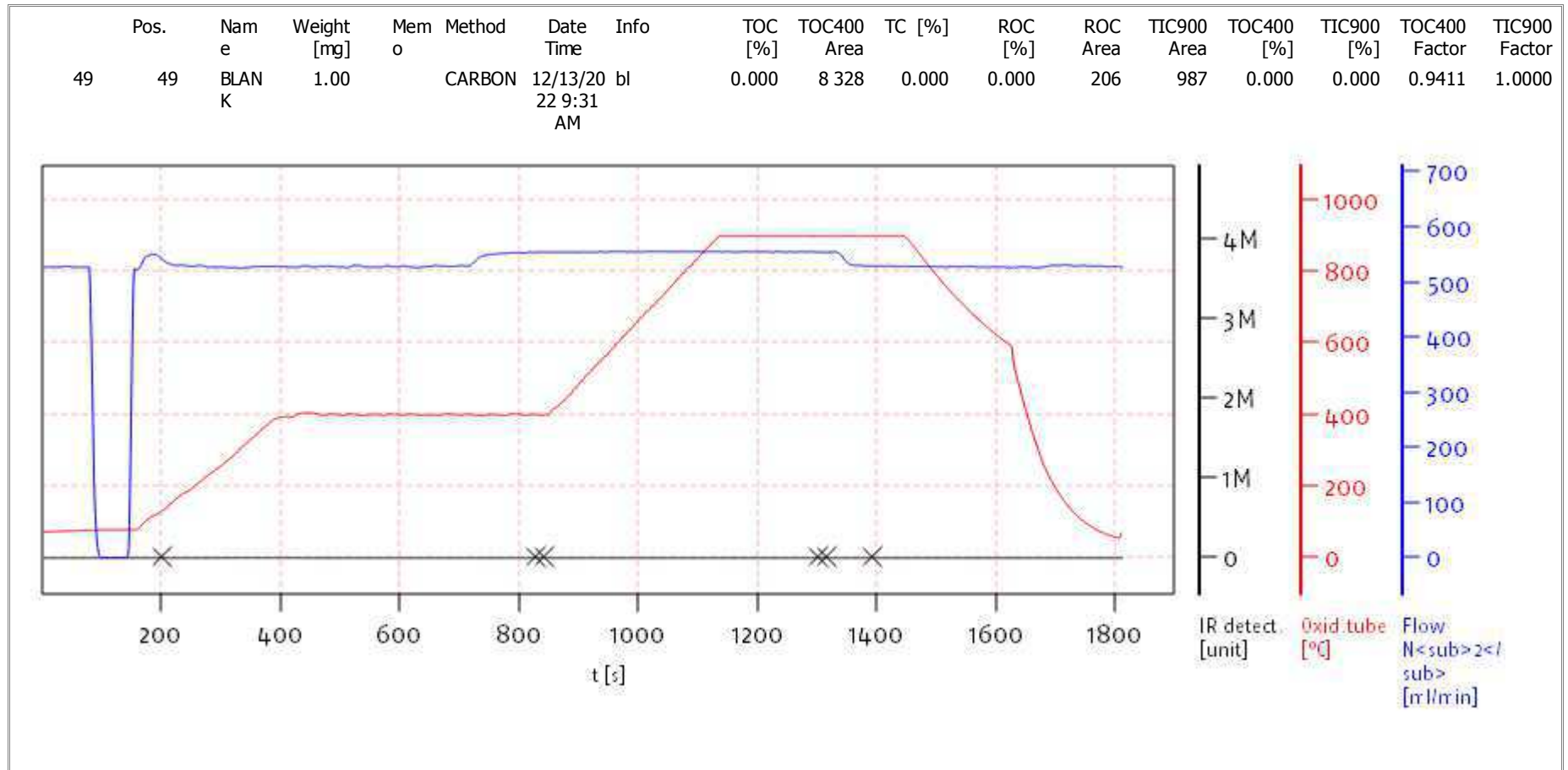
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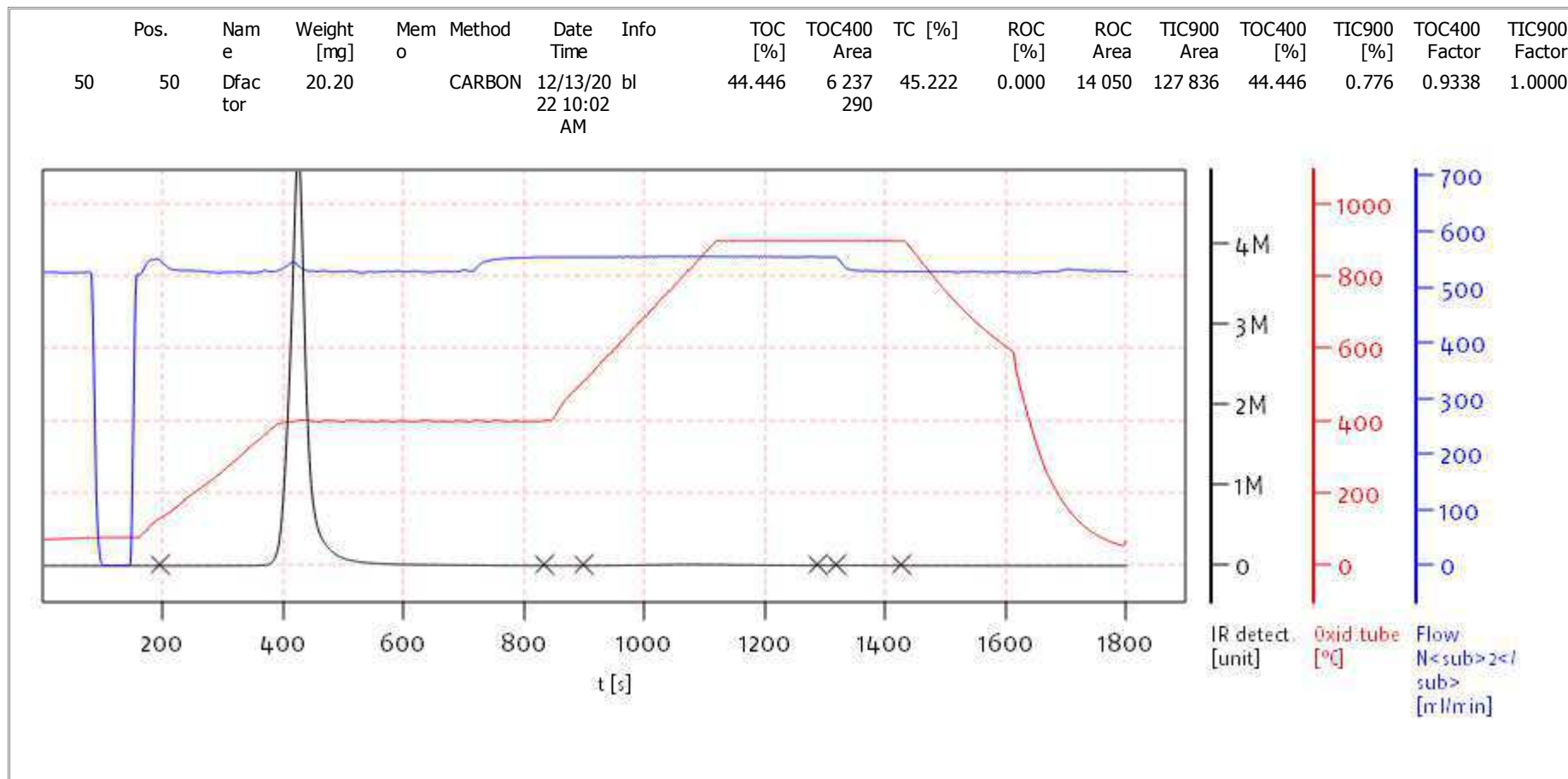
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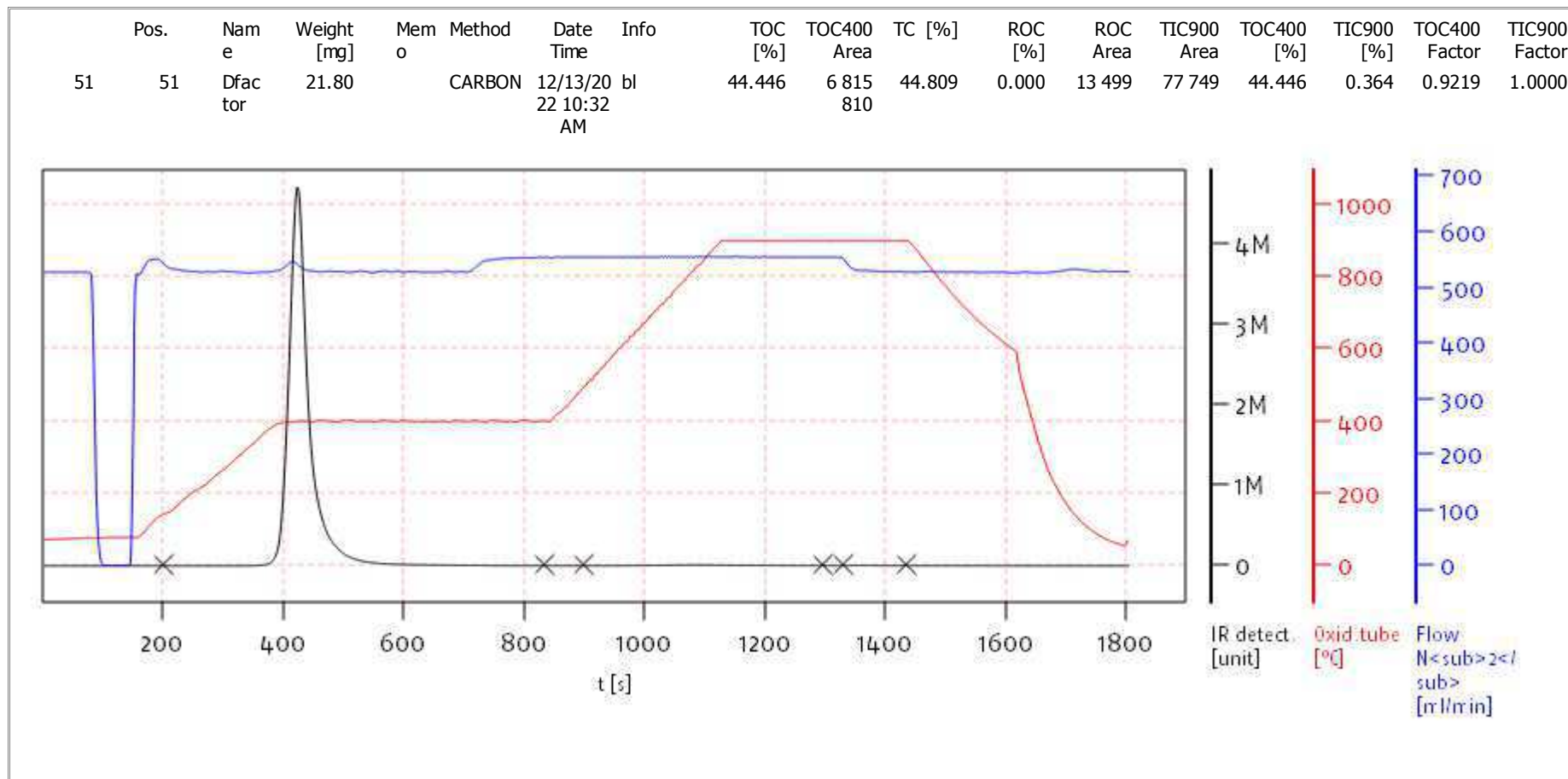
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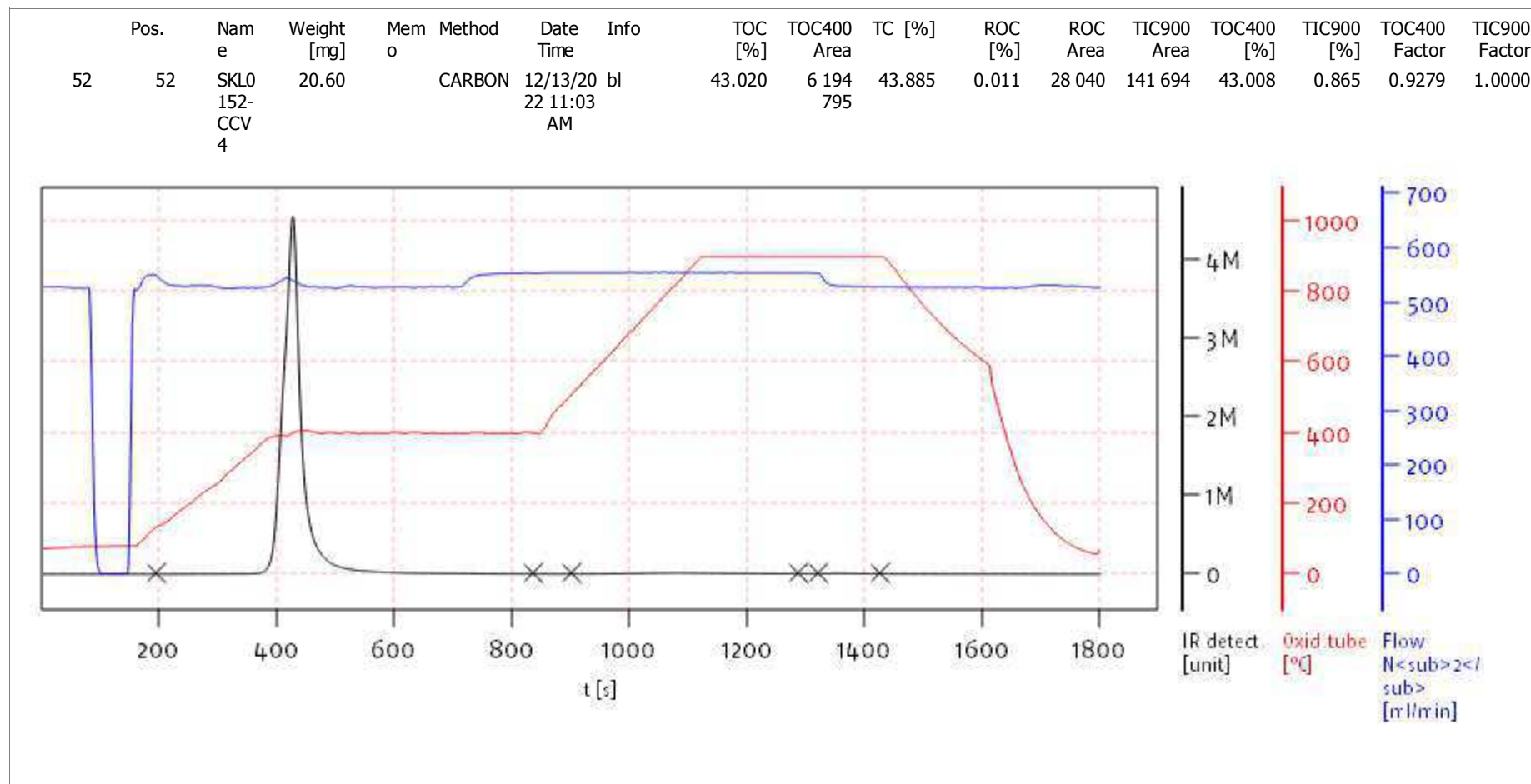
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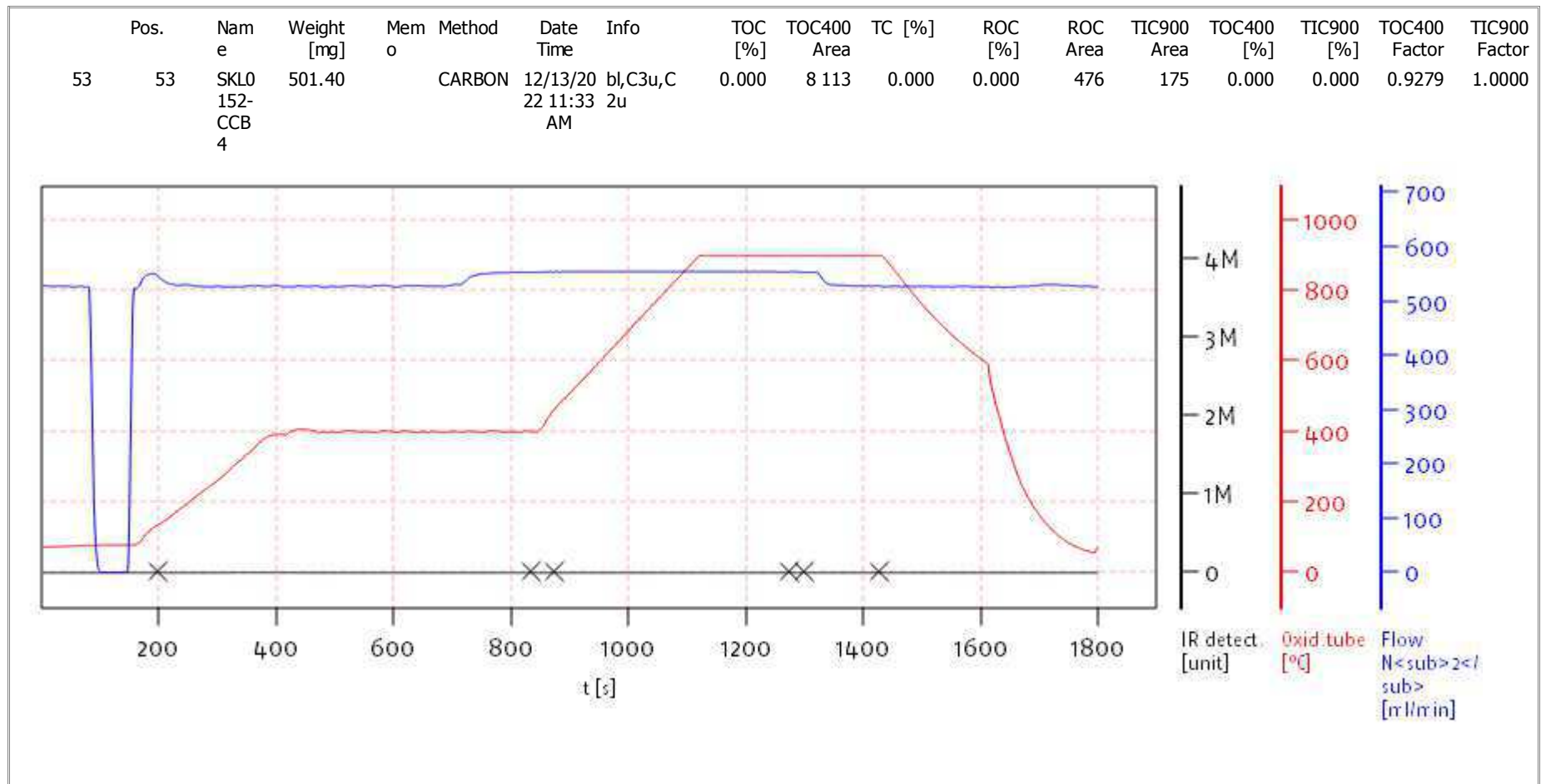
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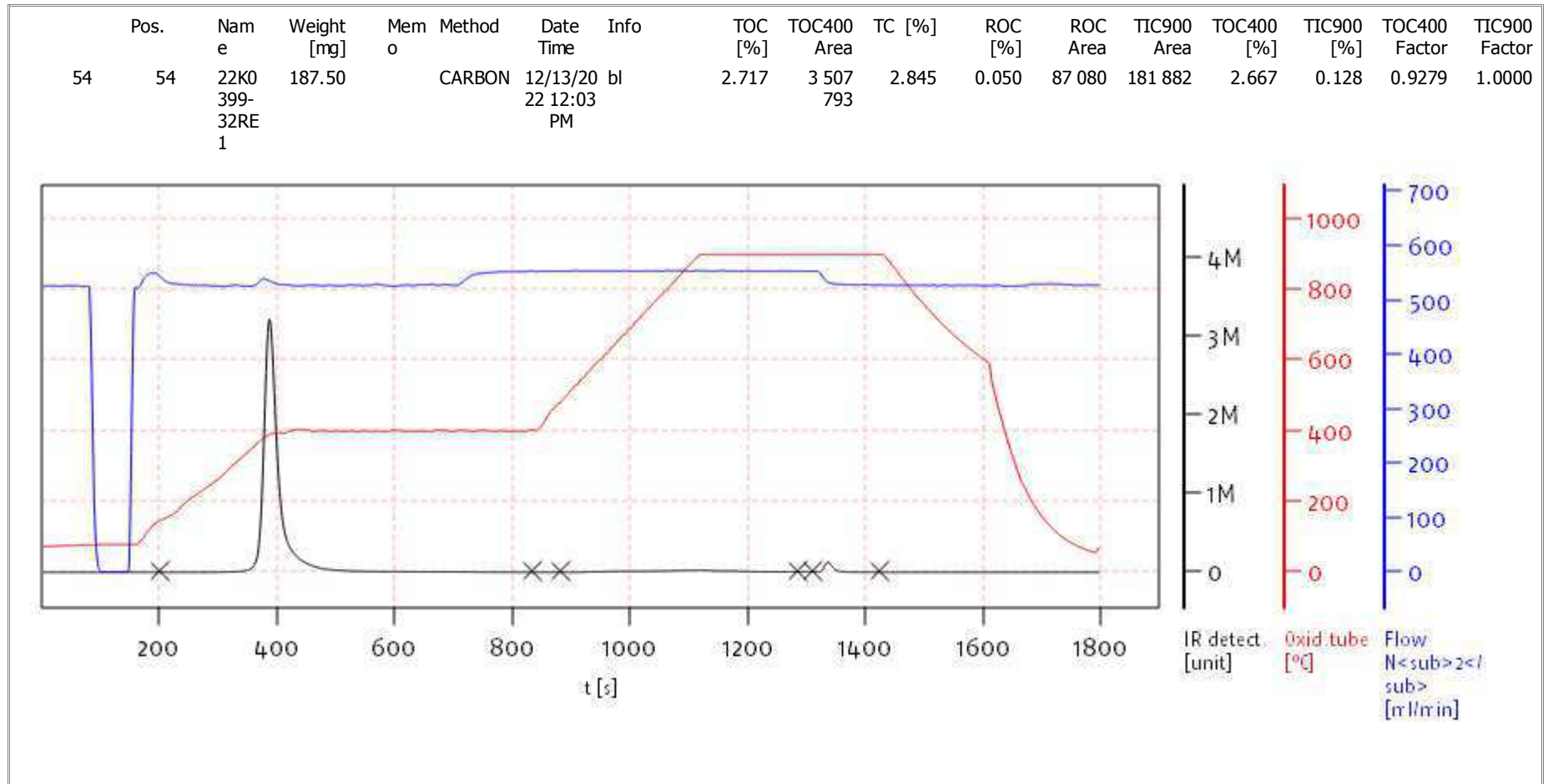
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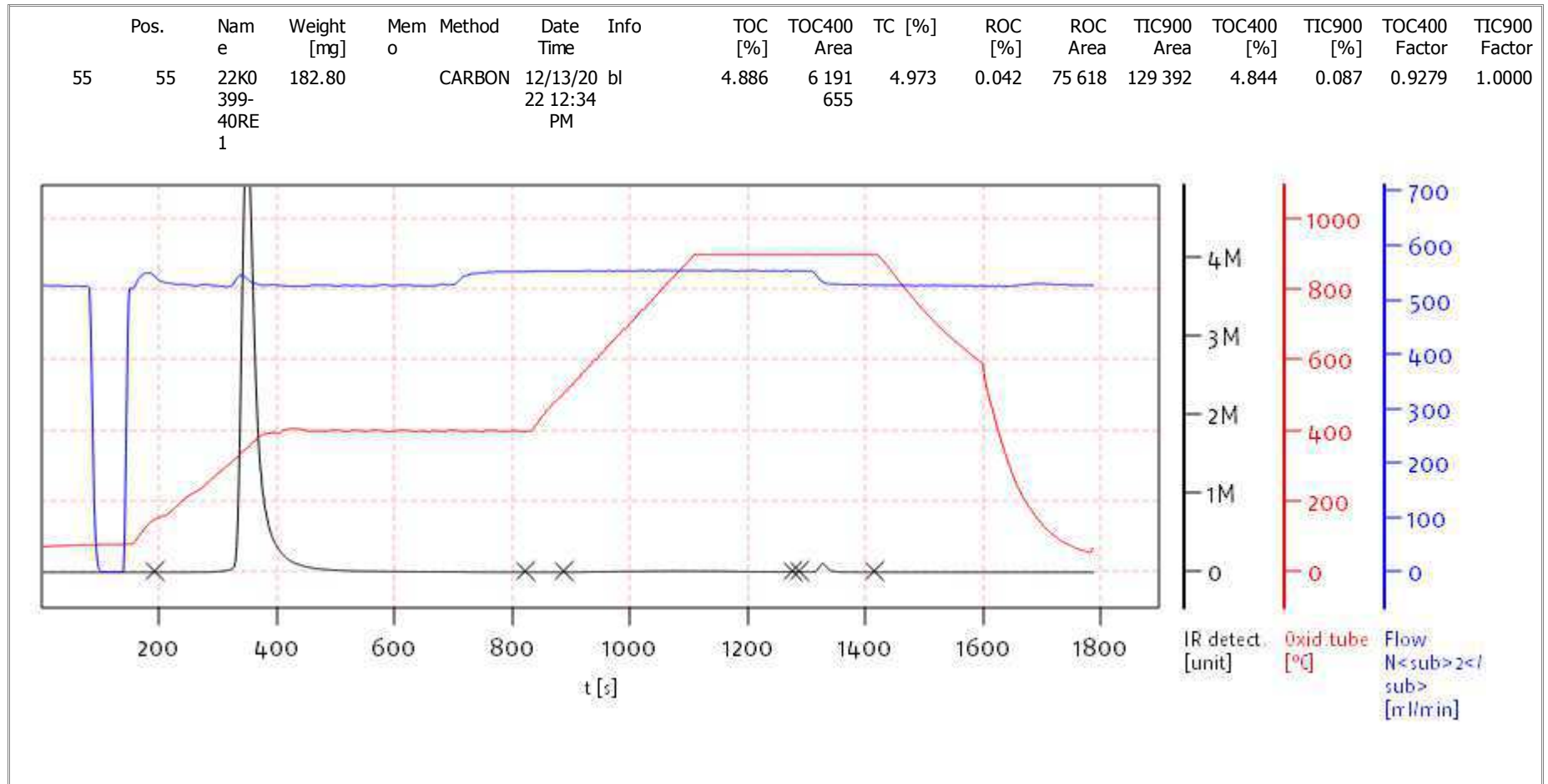
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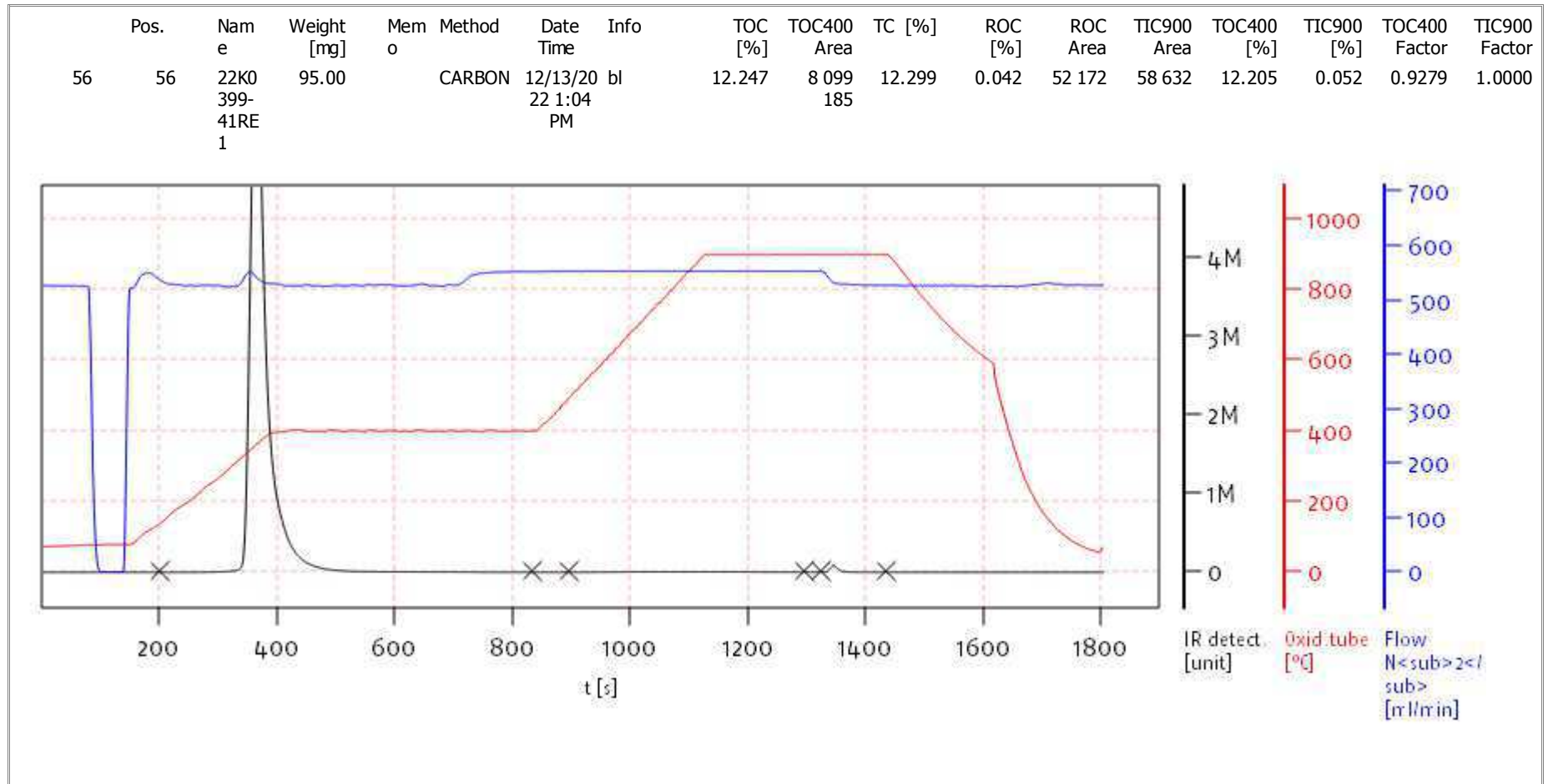
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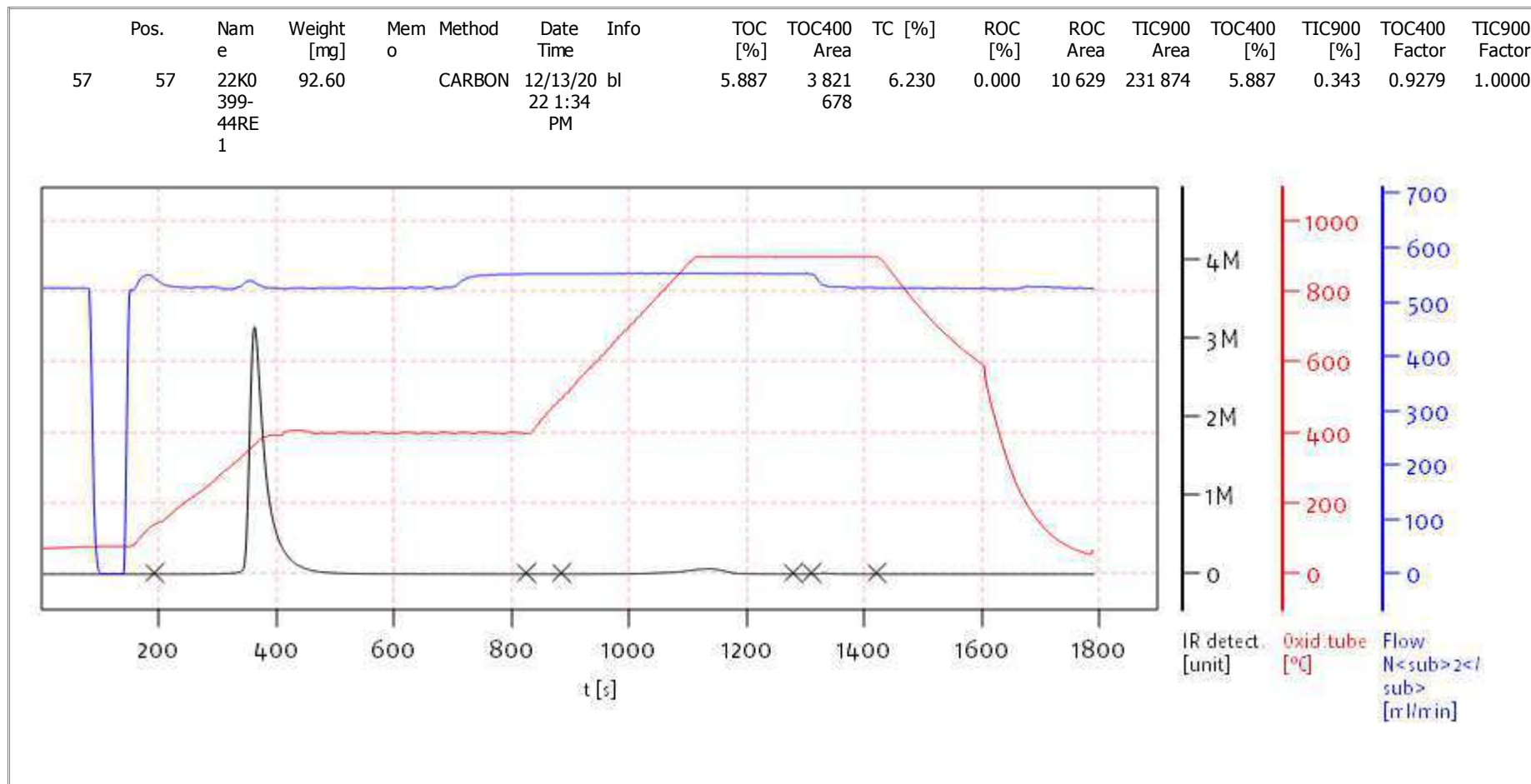
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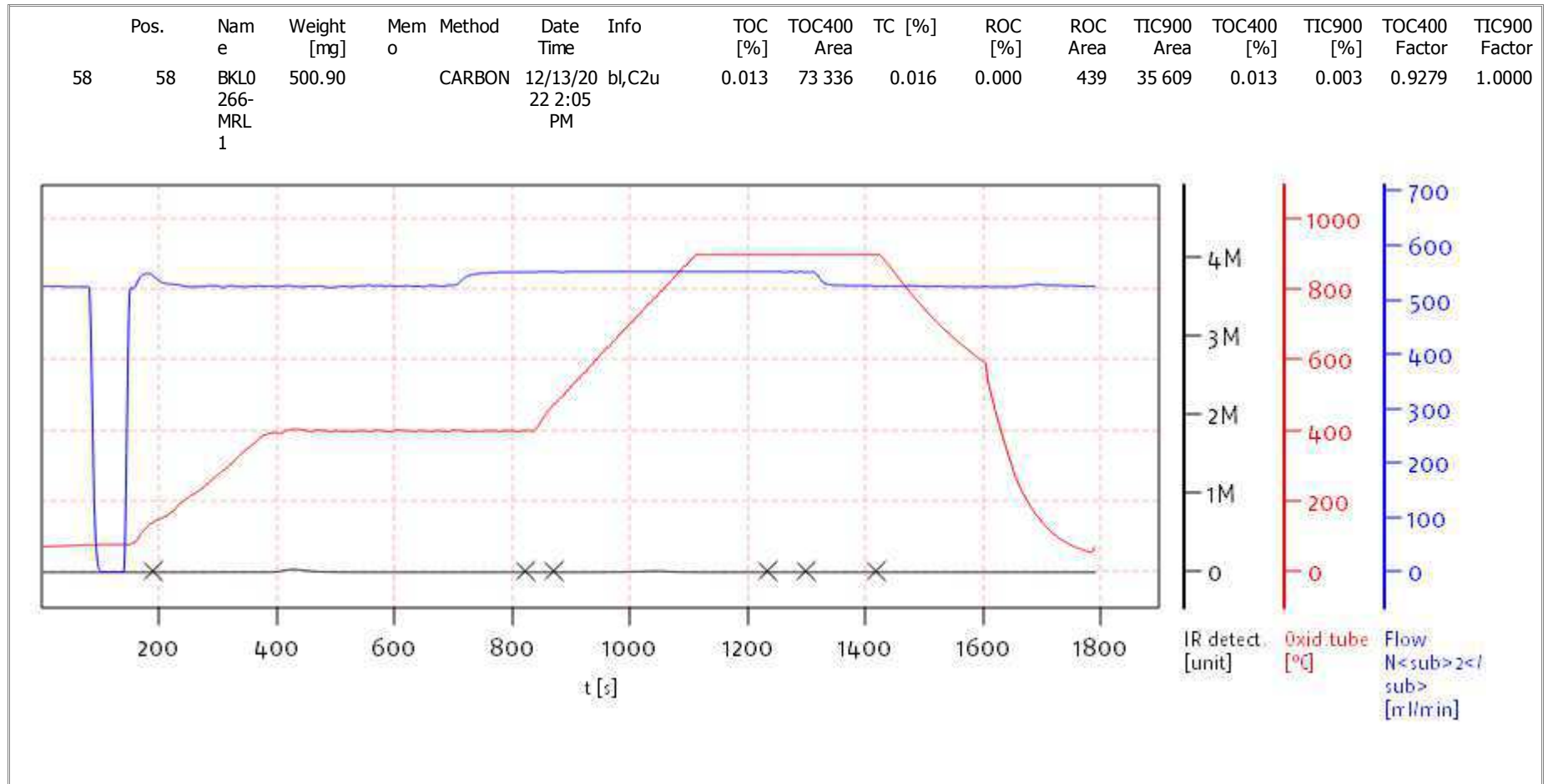
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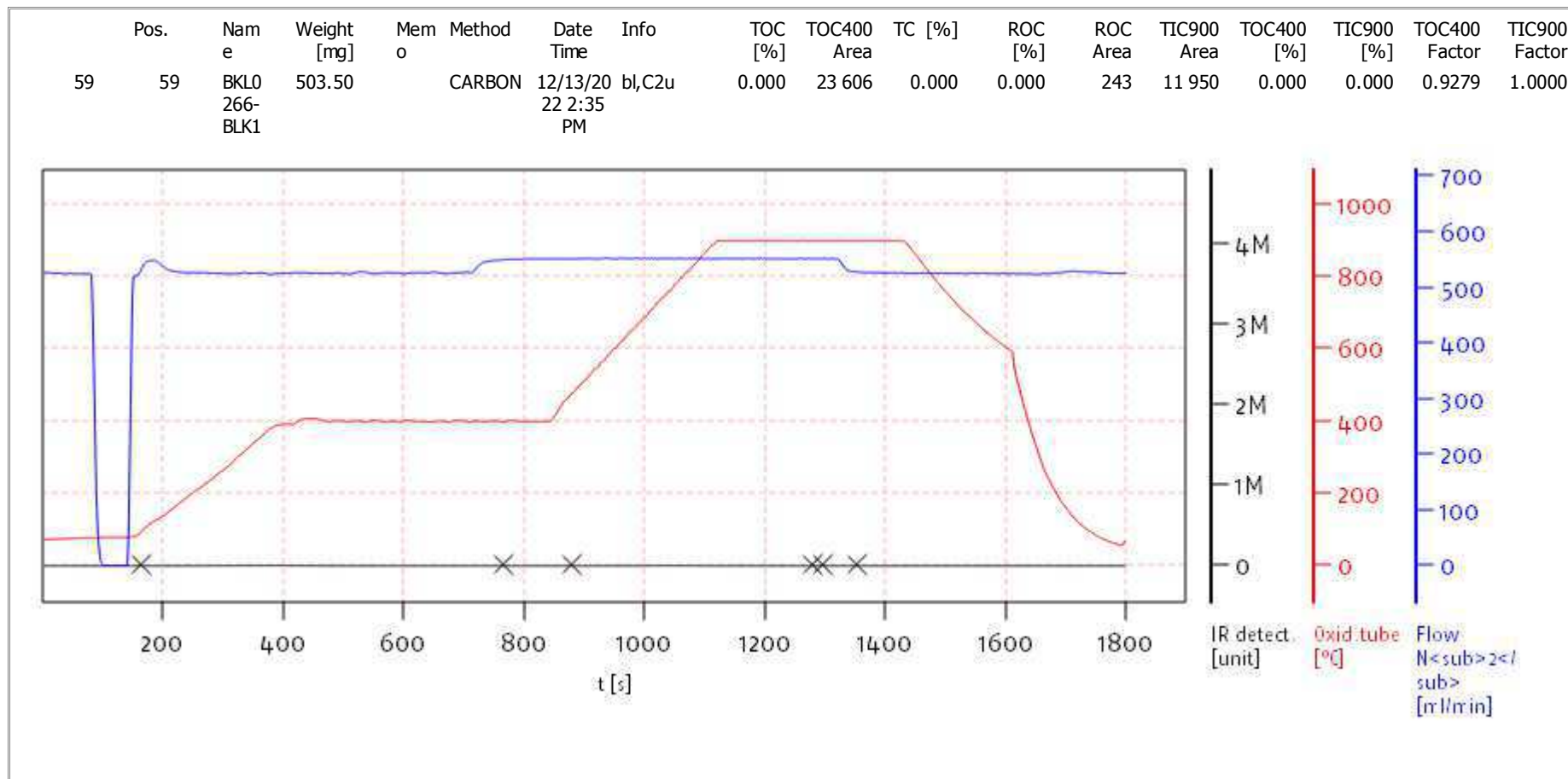
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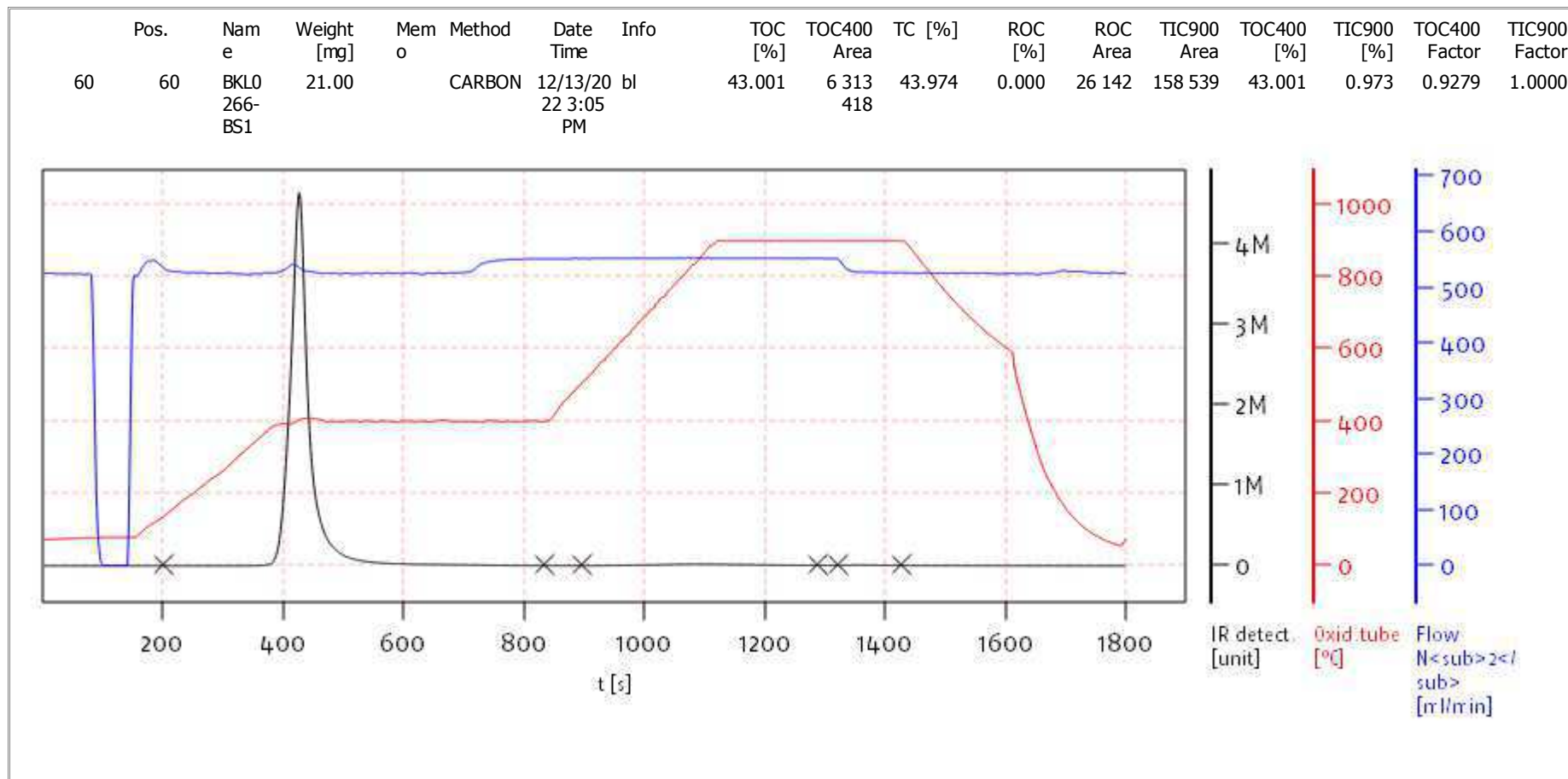
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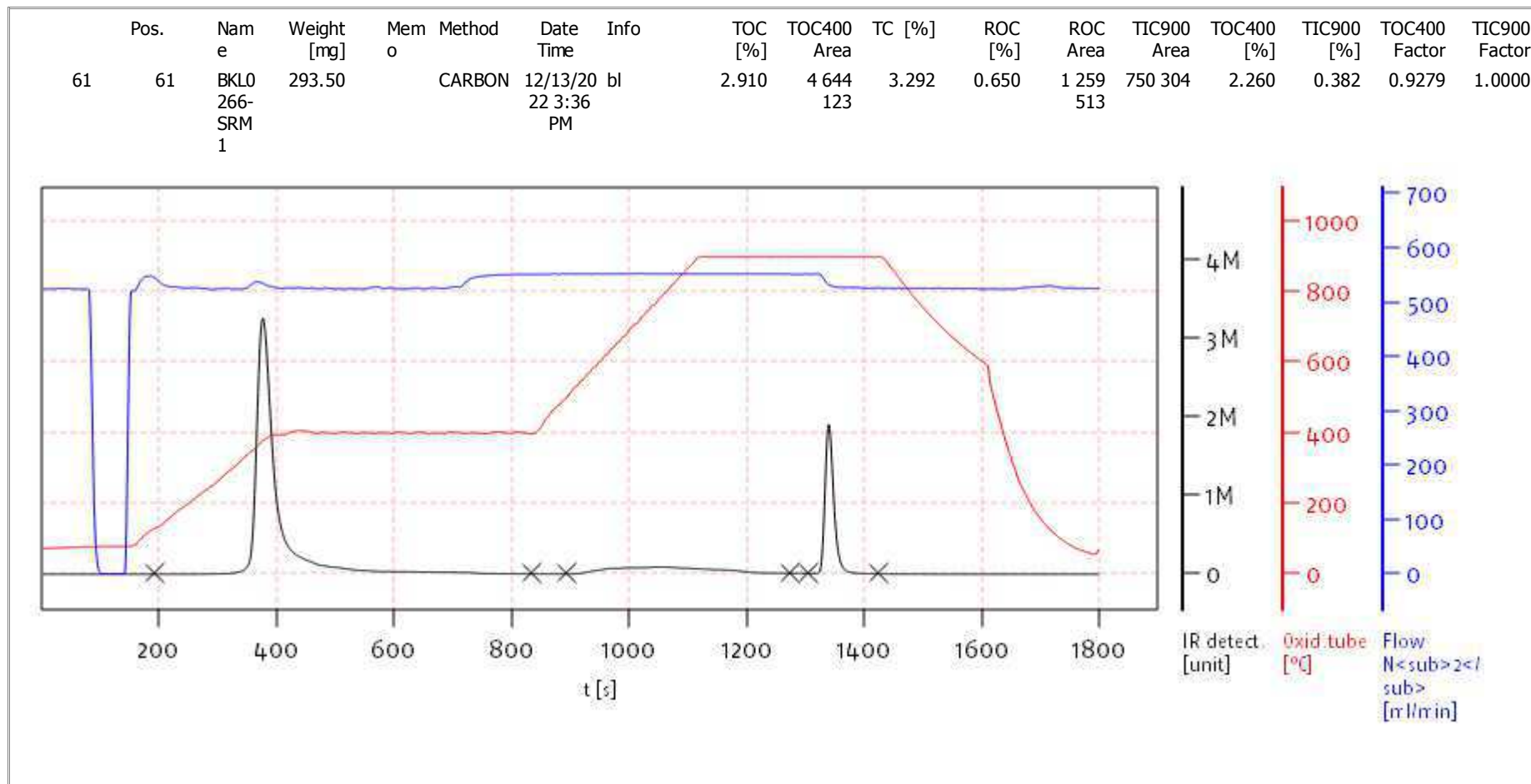
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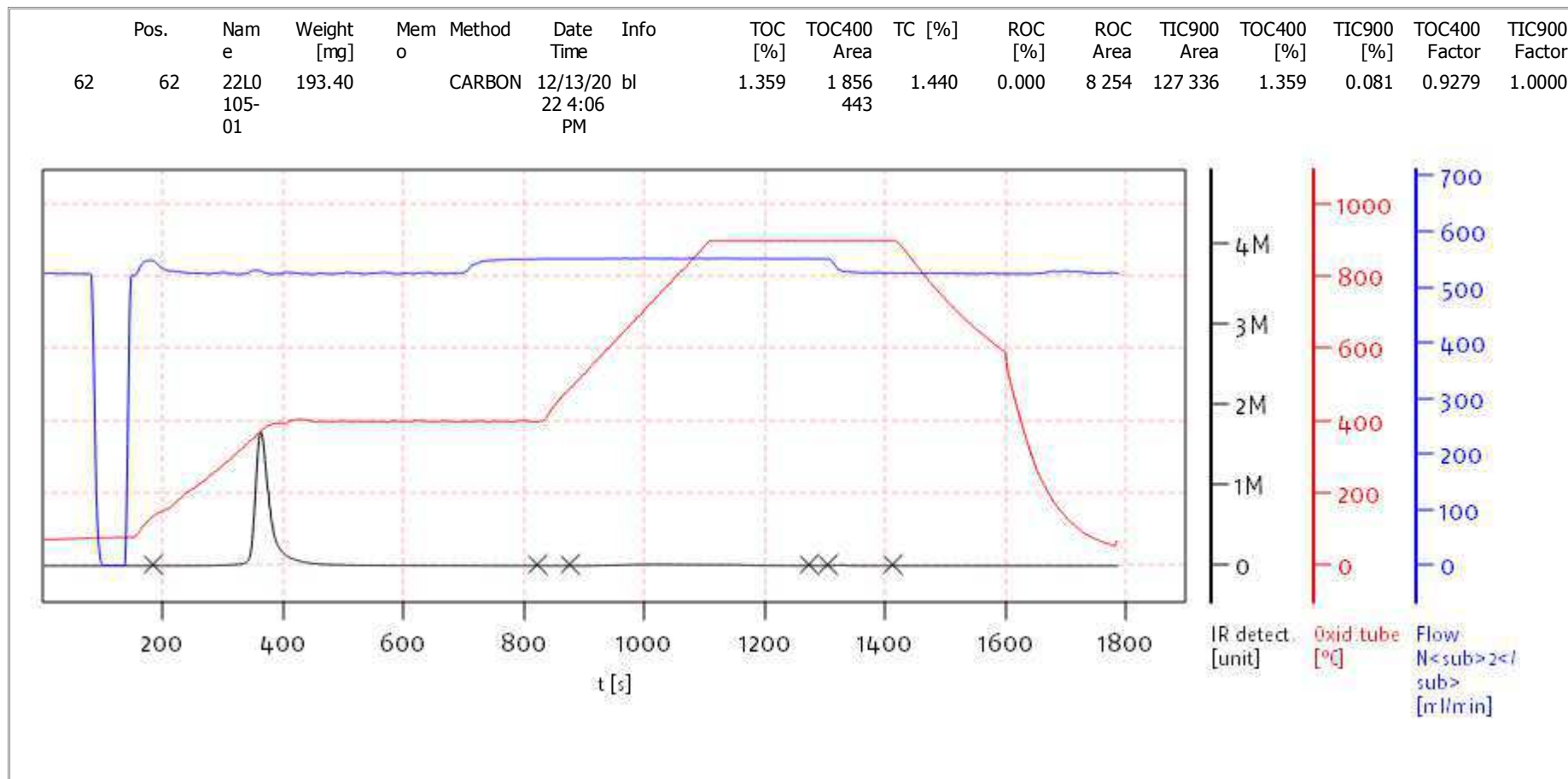
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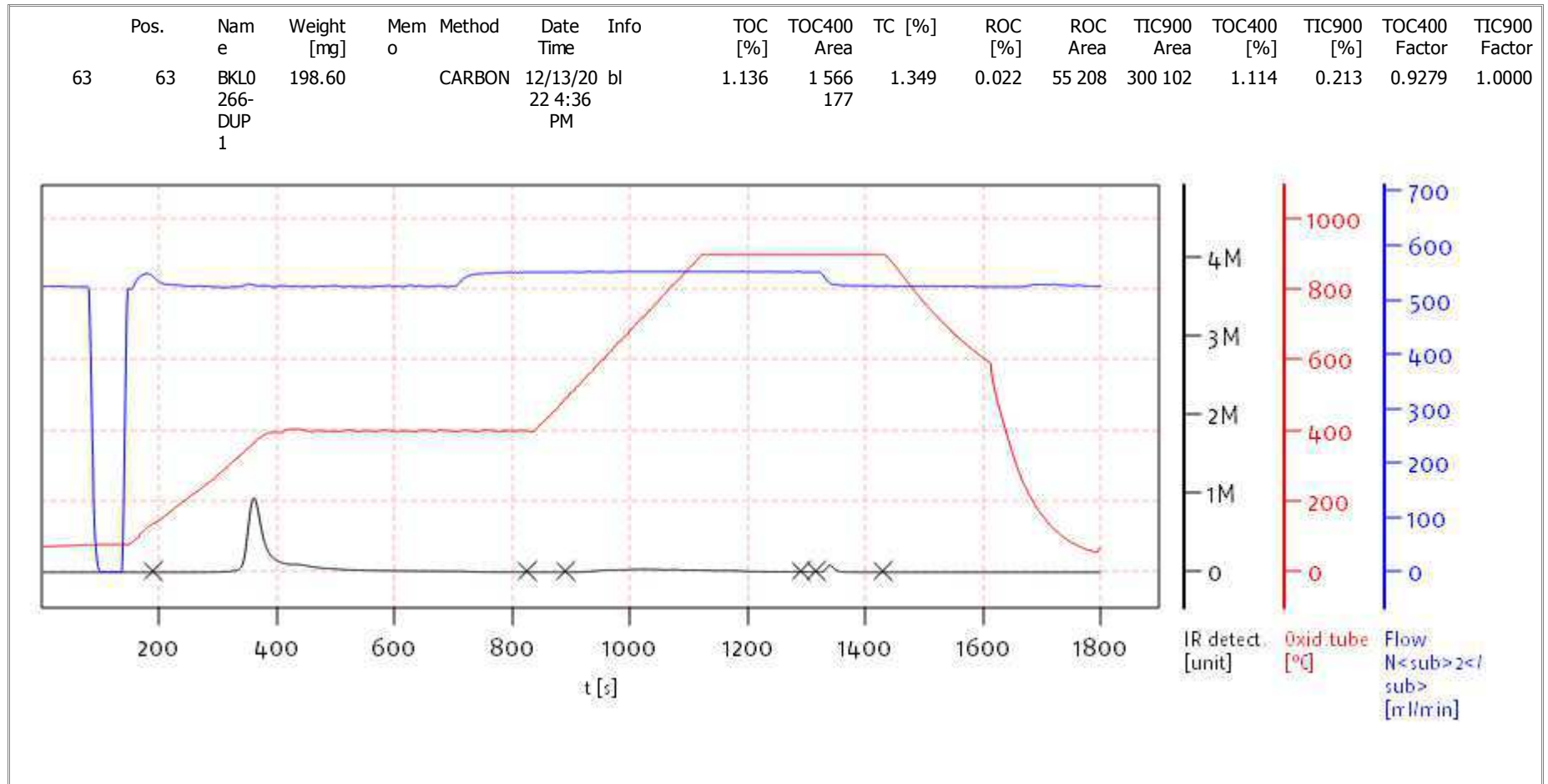
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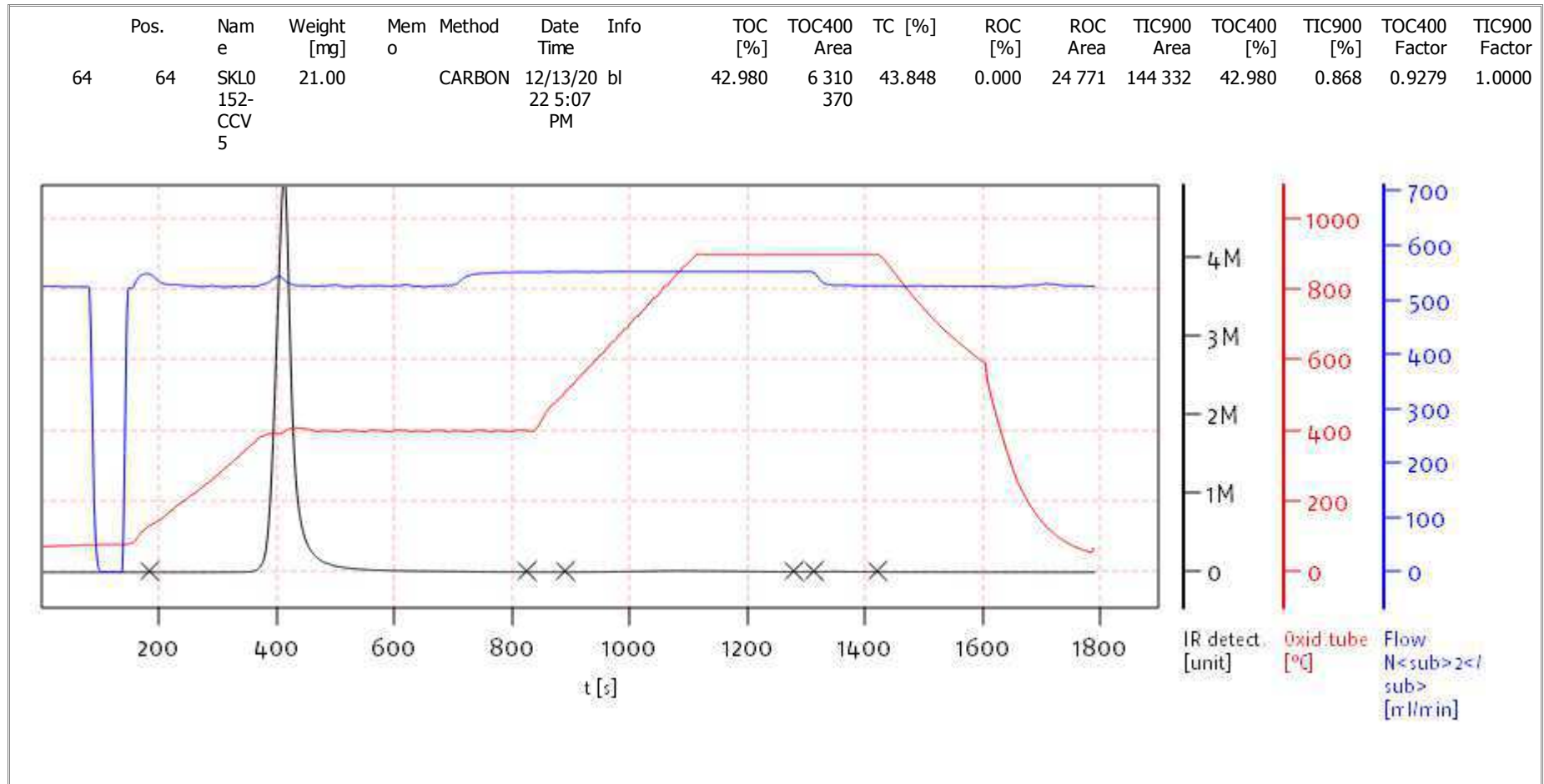
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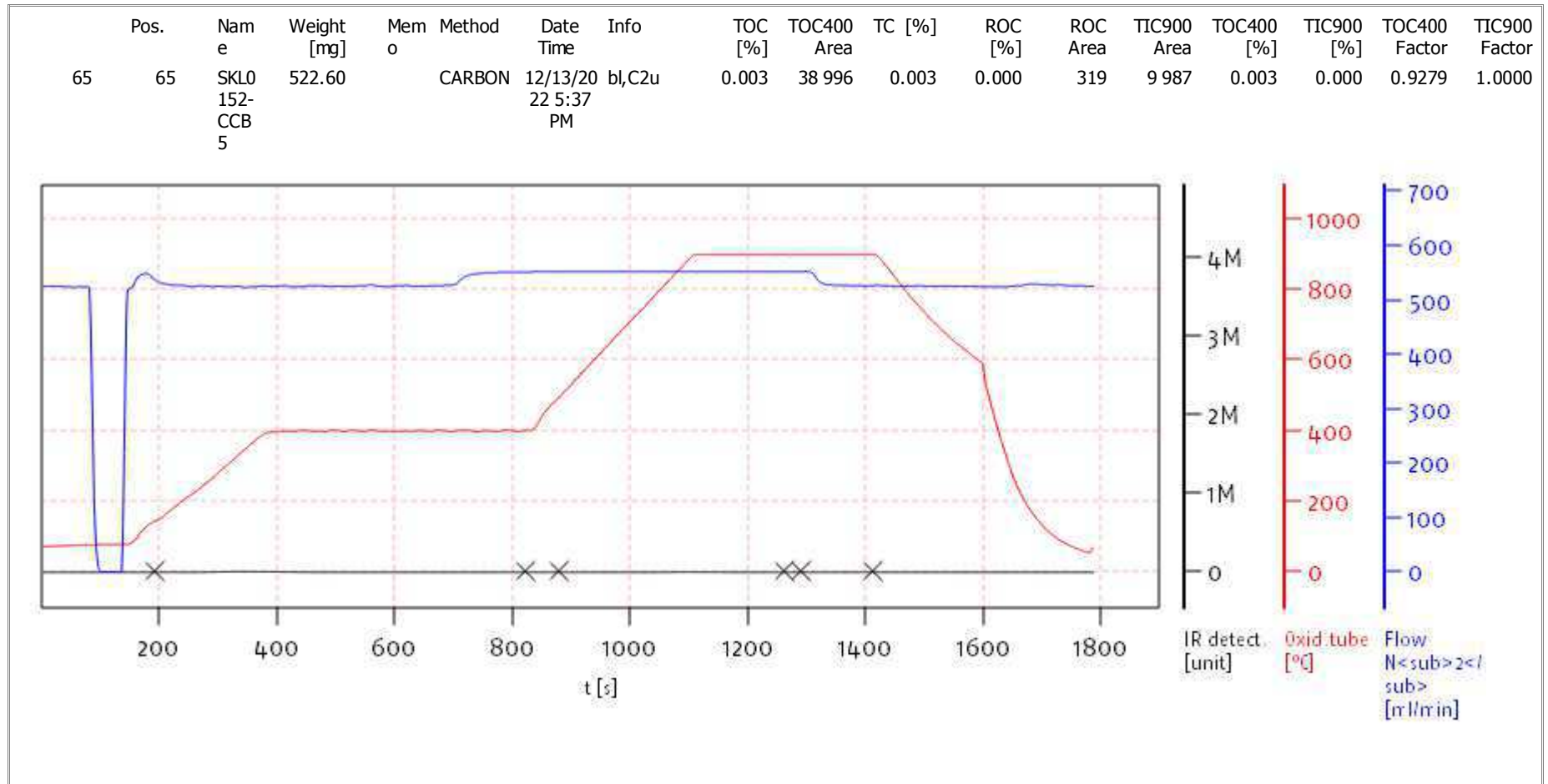
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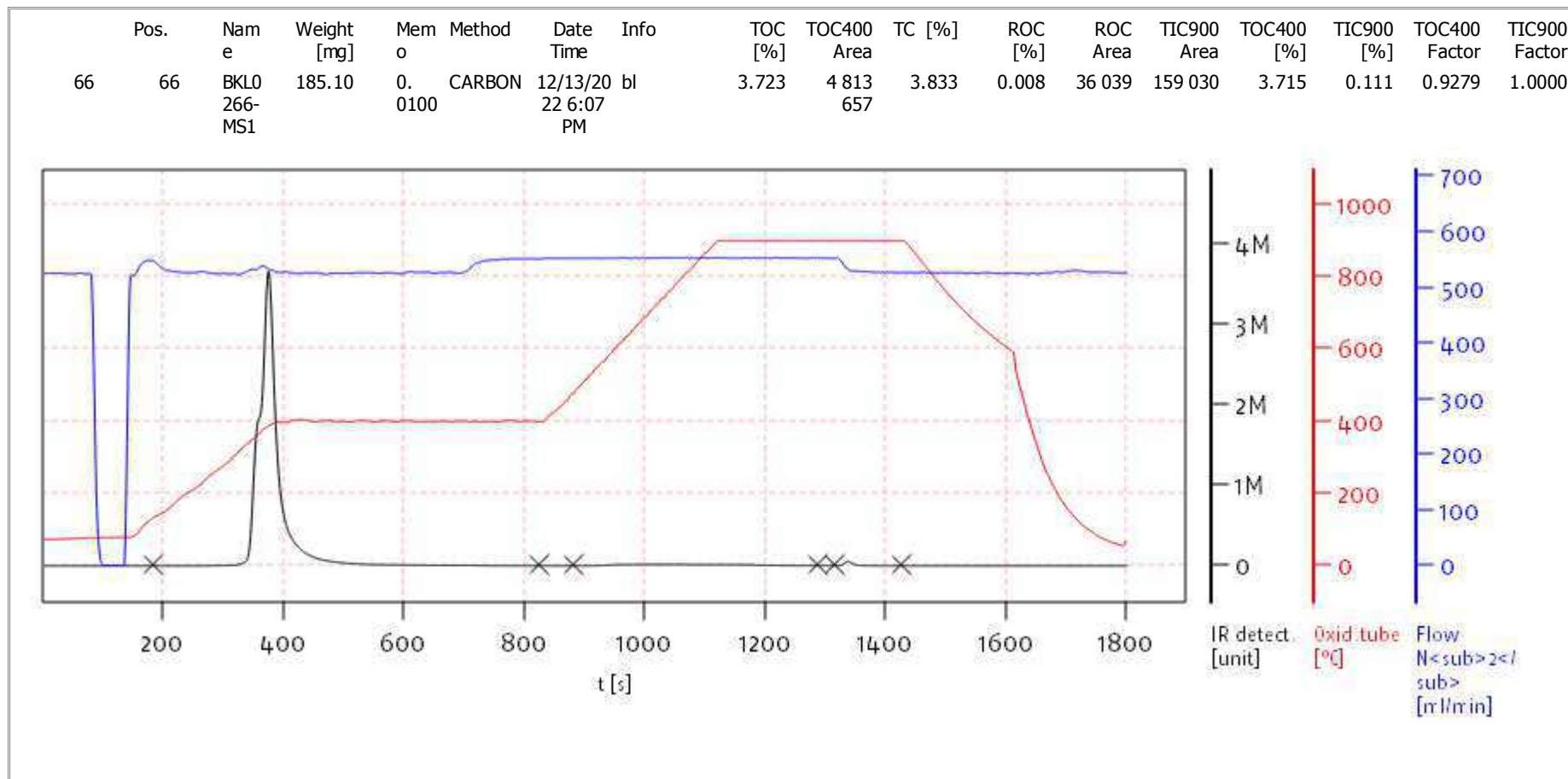
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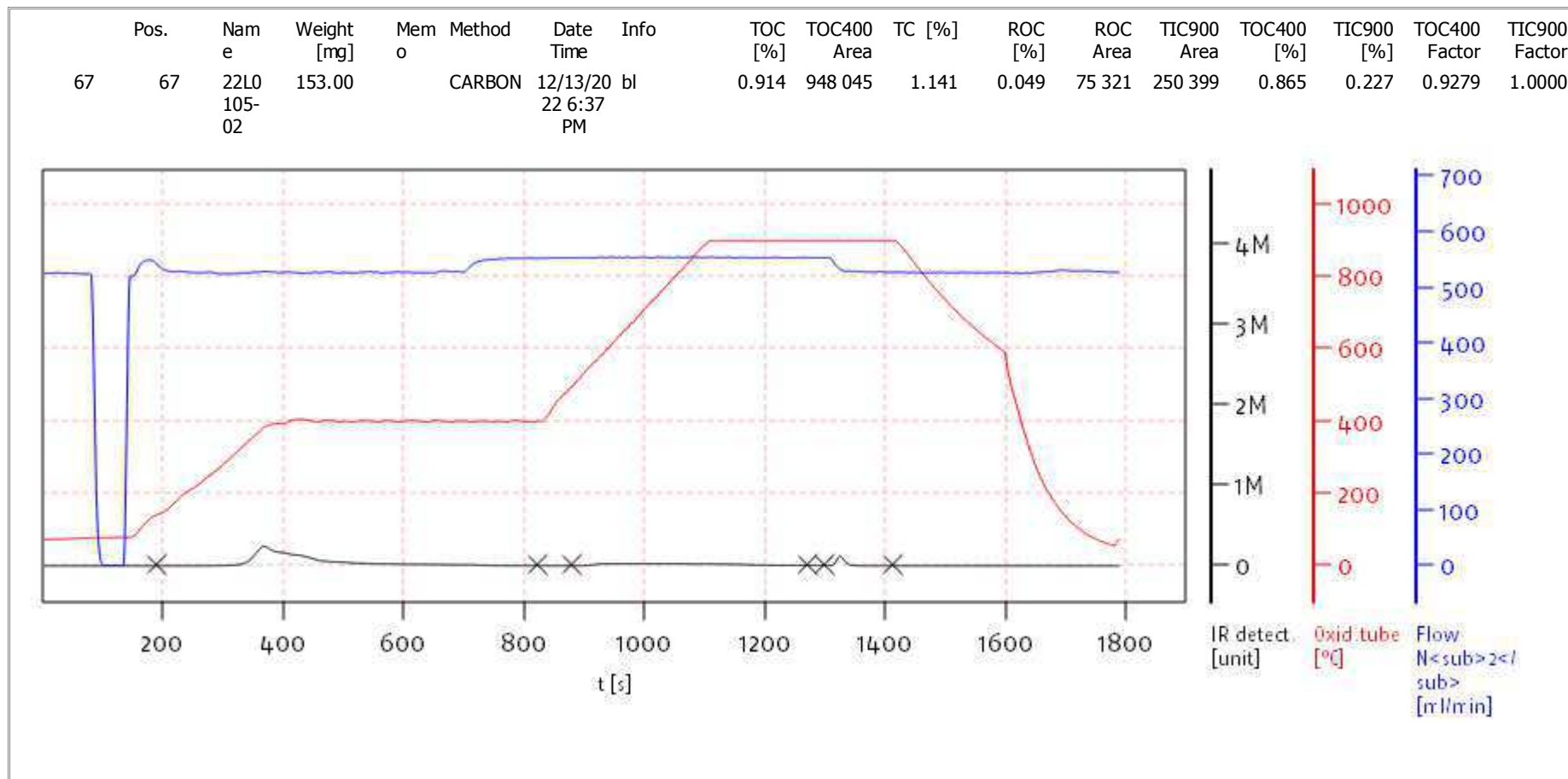
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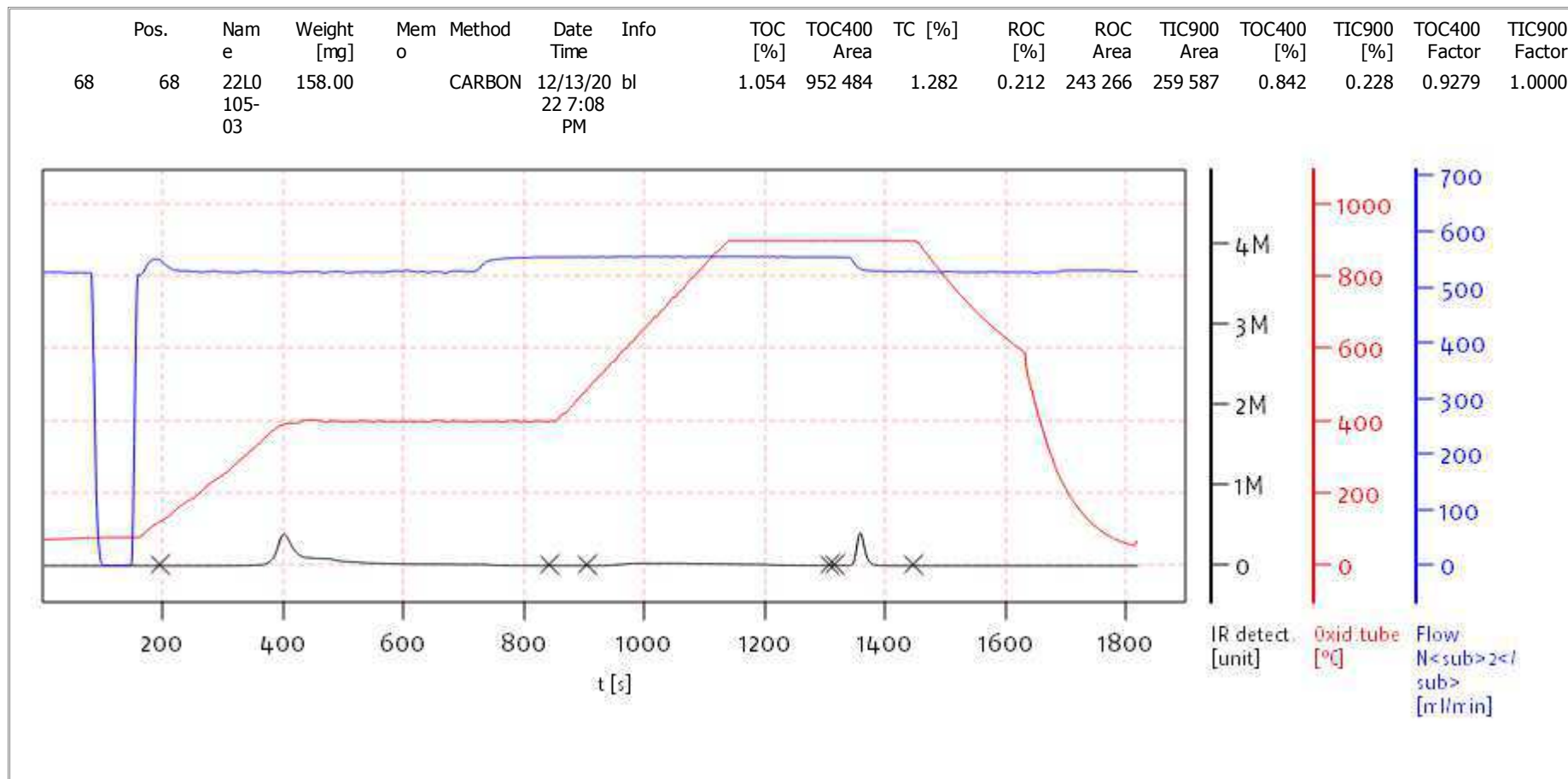
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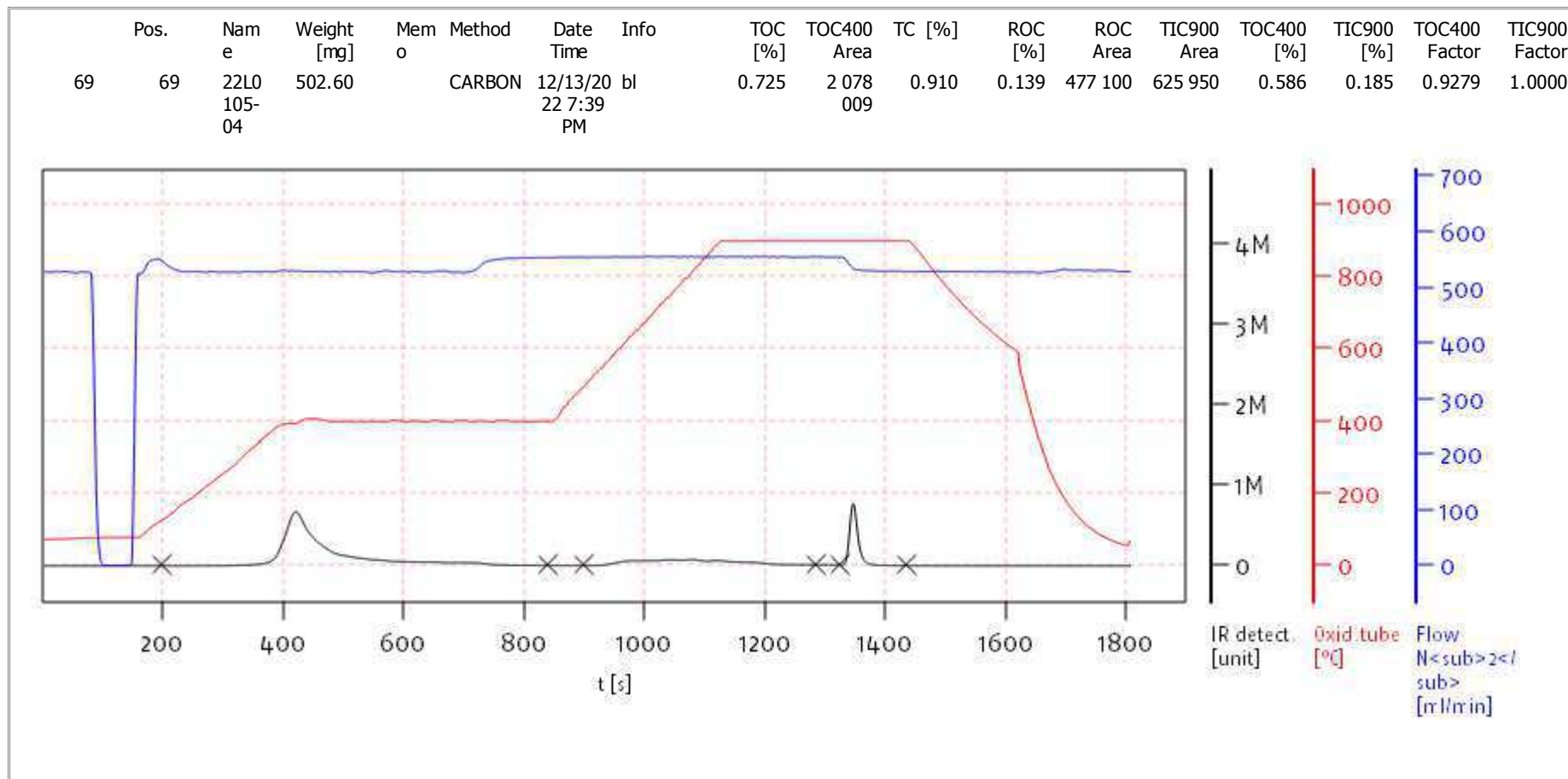
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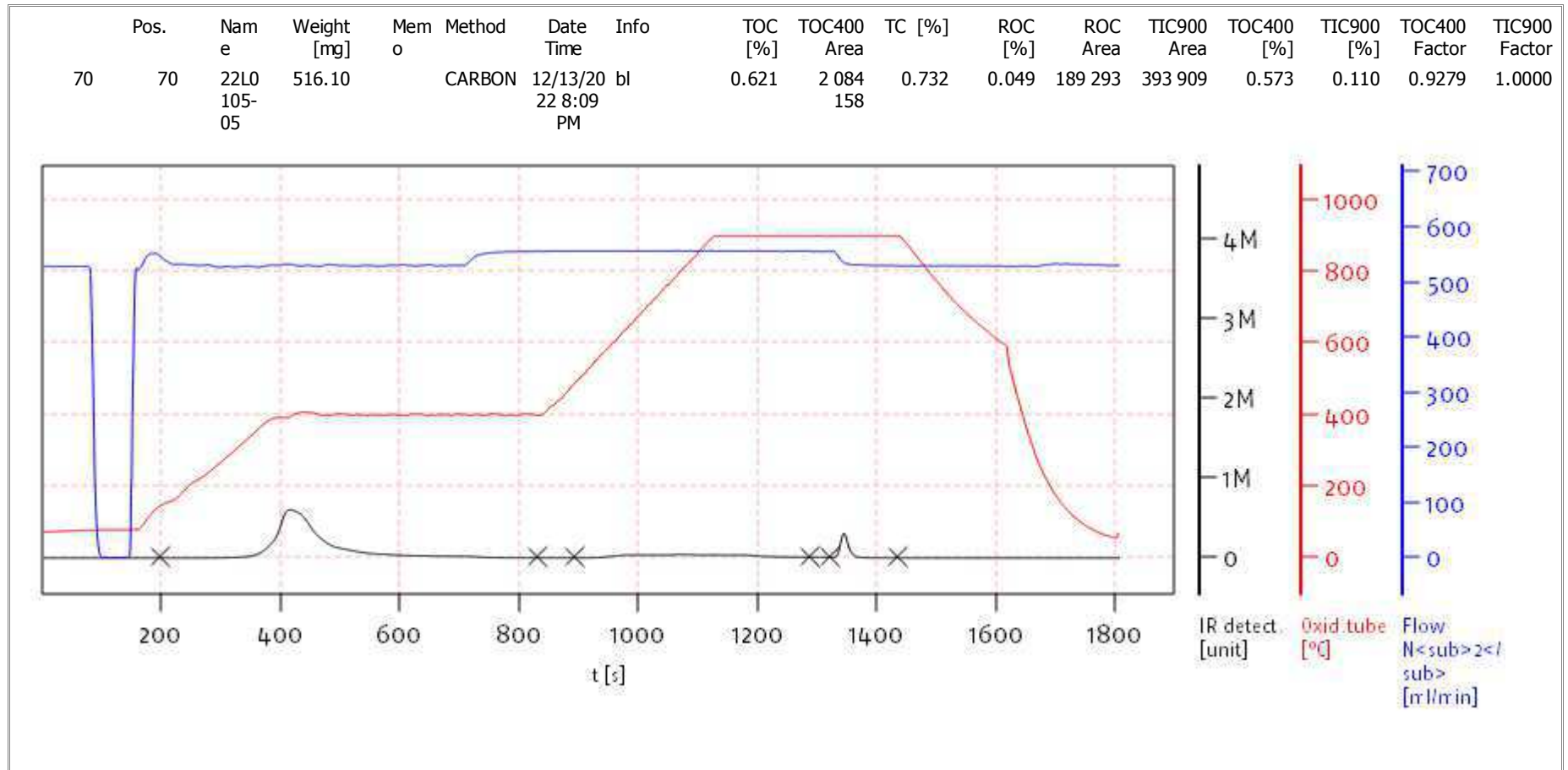
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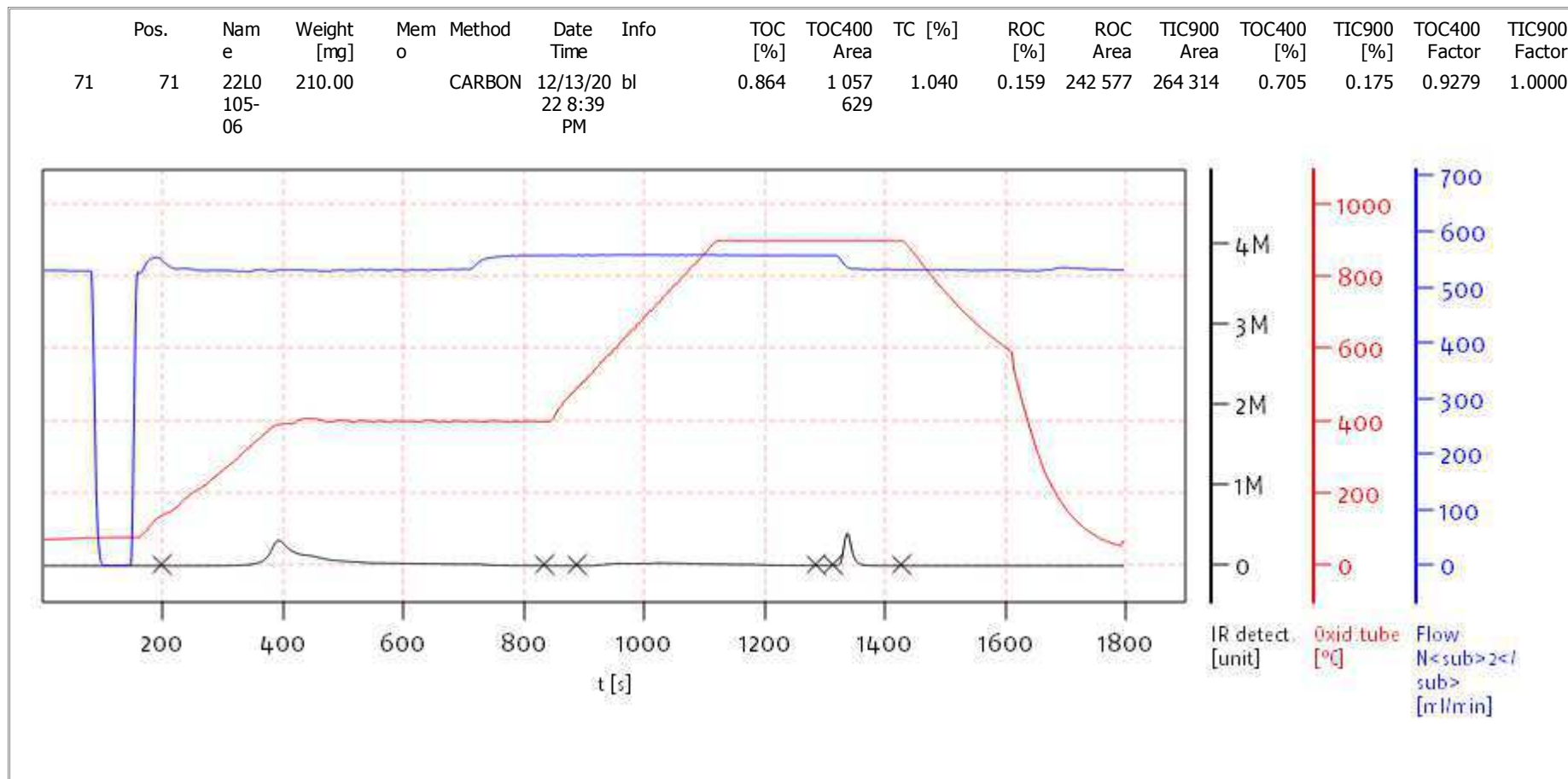
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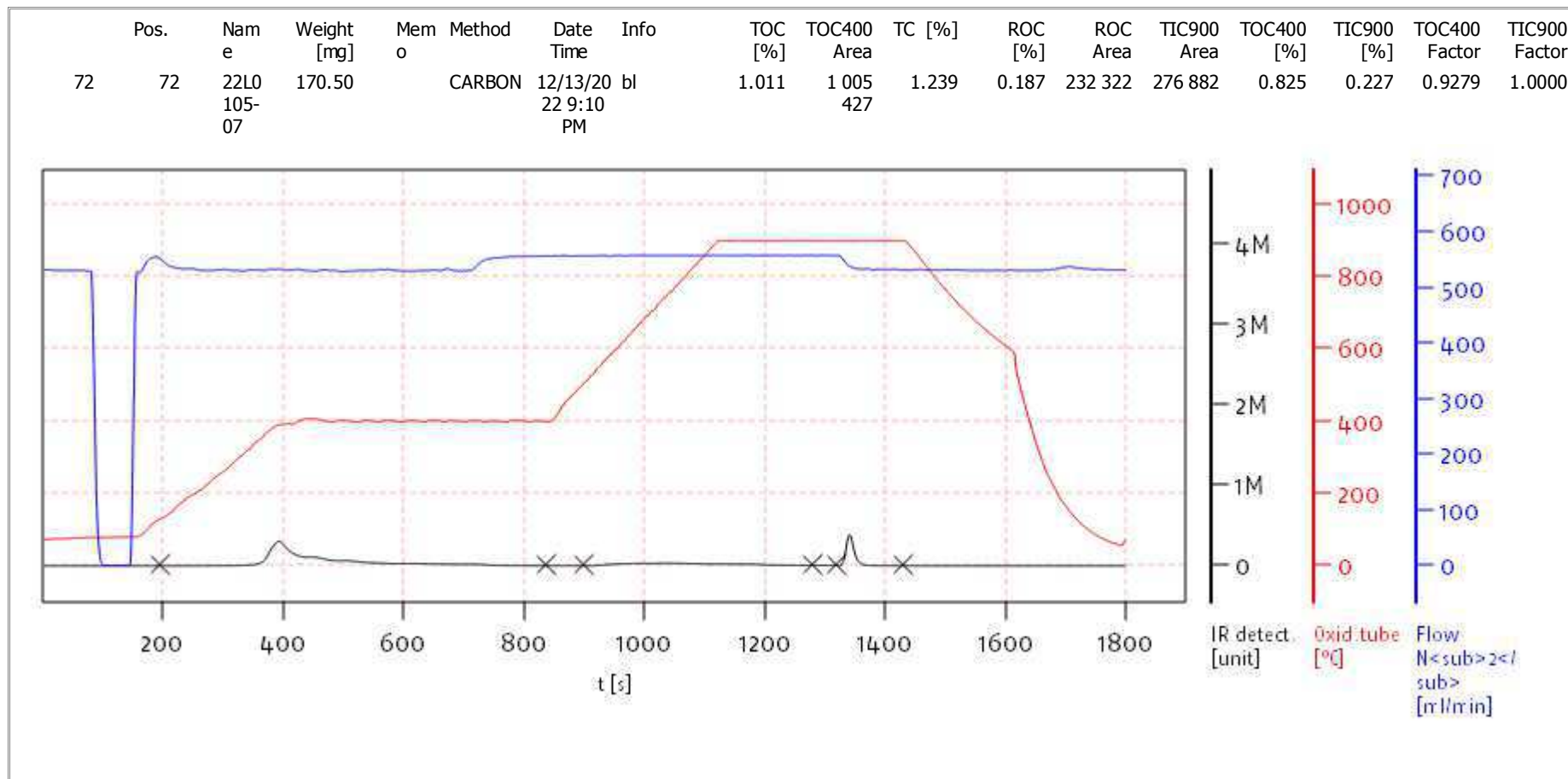
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Date: Fri Dec 16 09:43:23 2022



solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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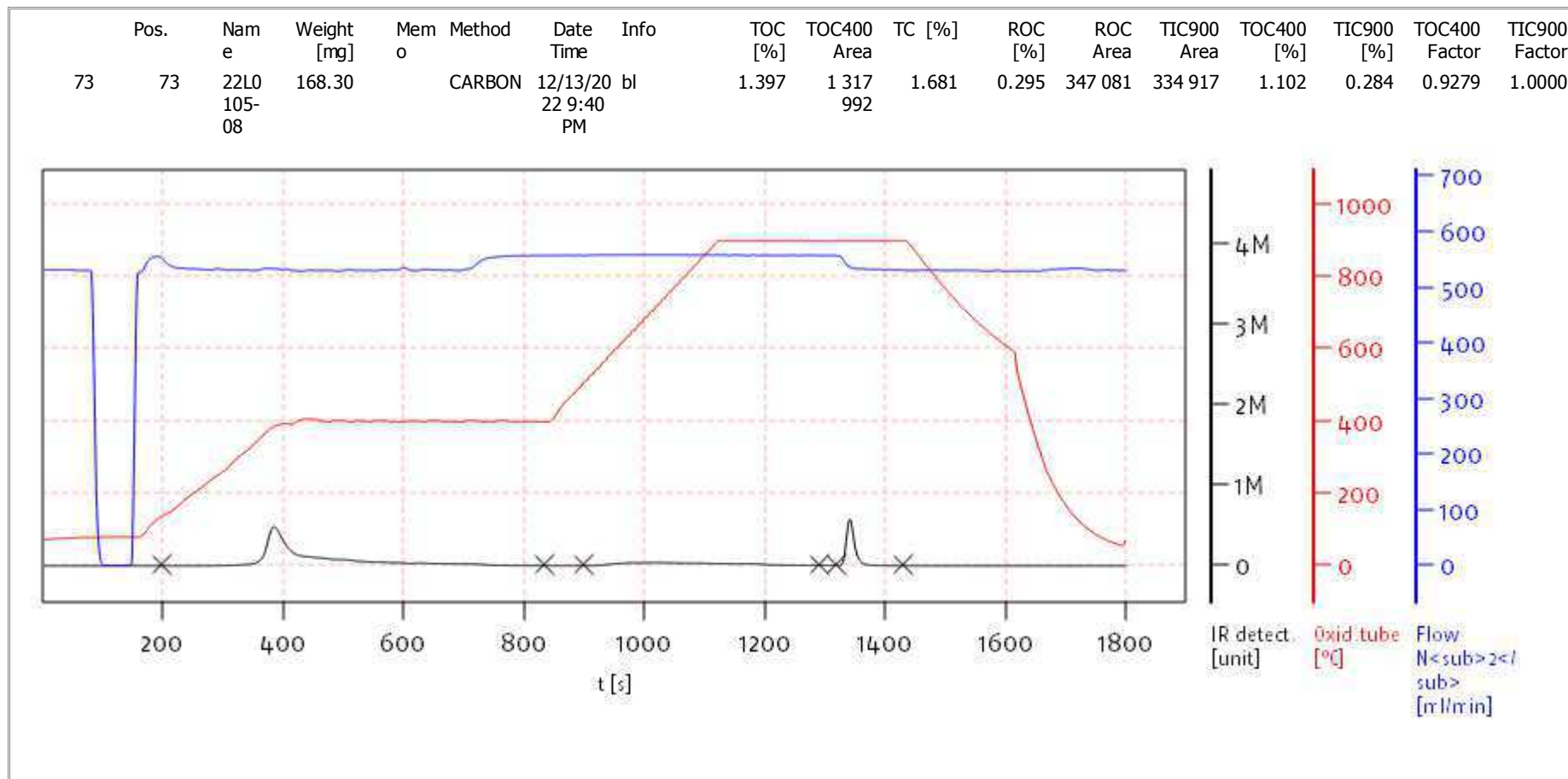
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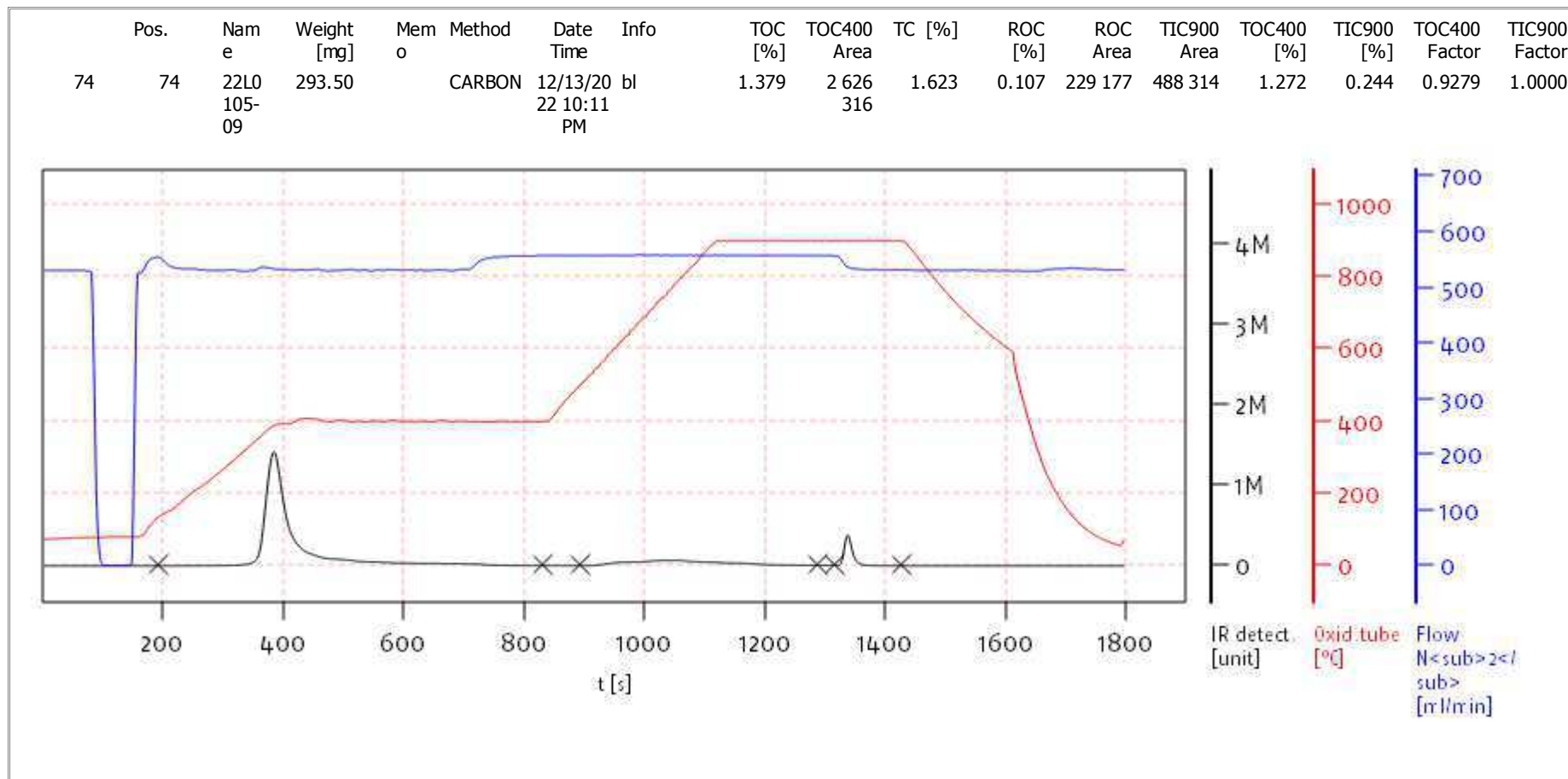
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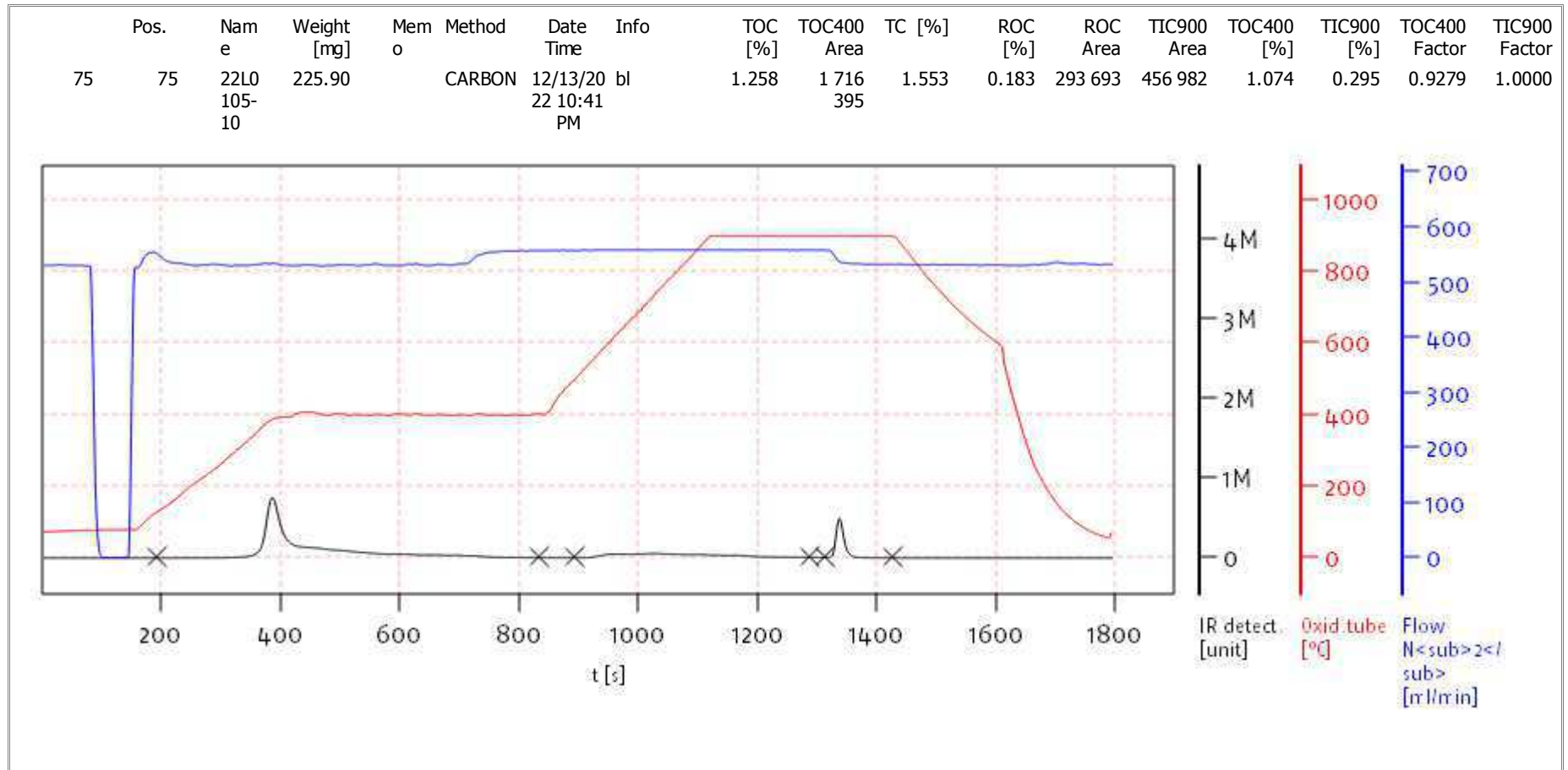
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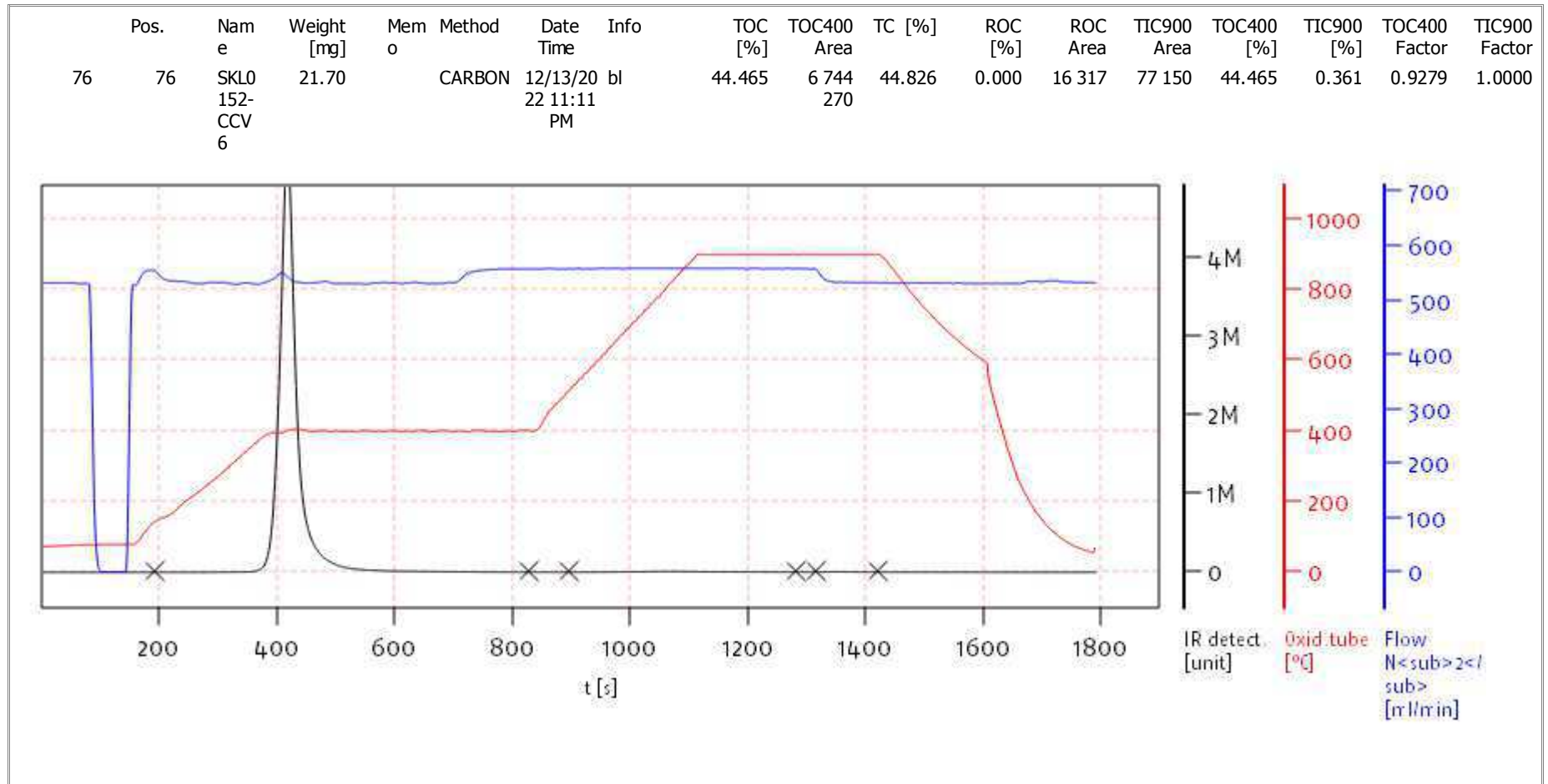
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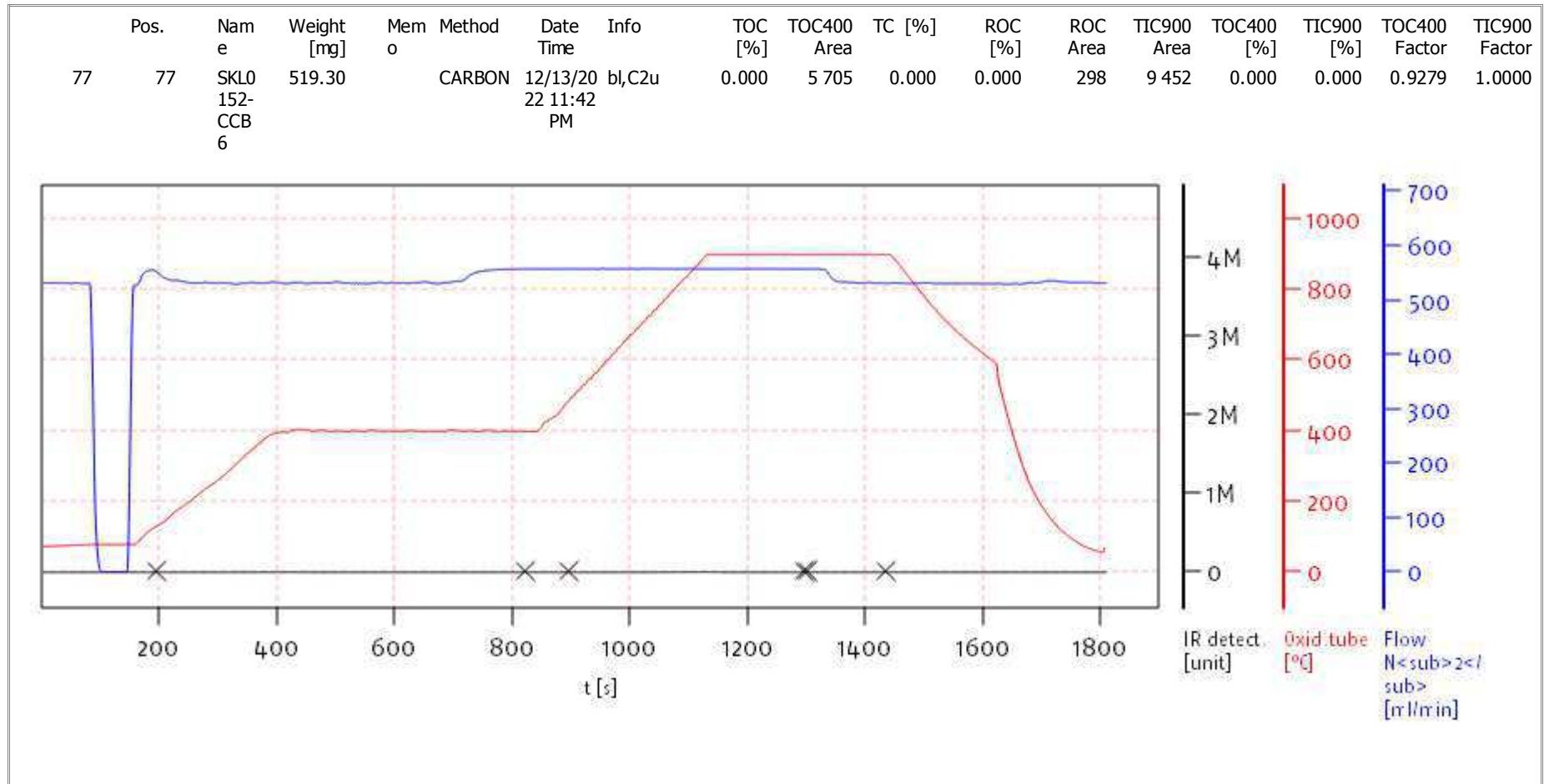
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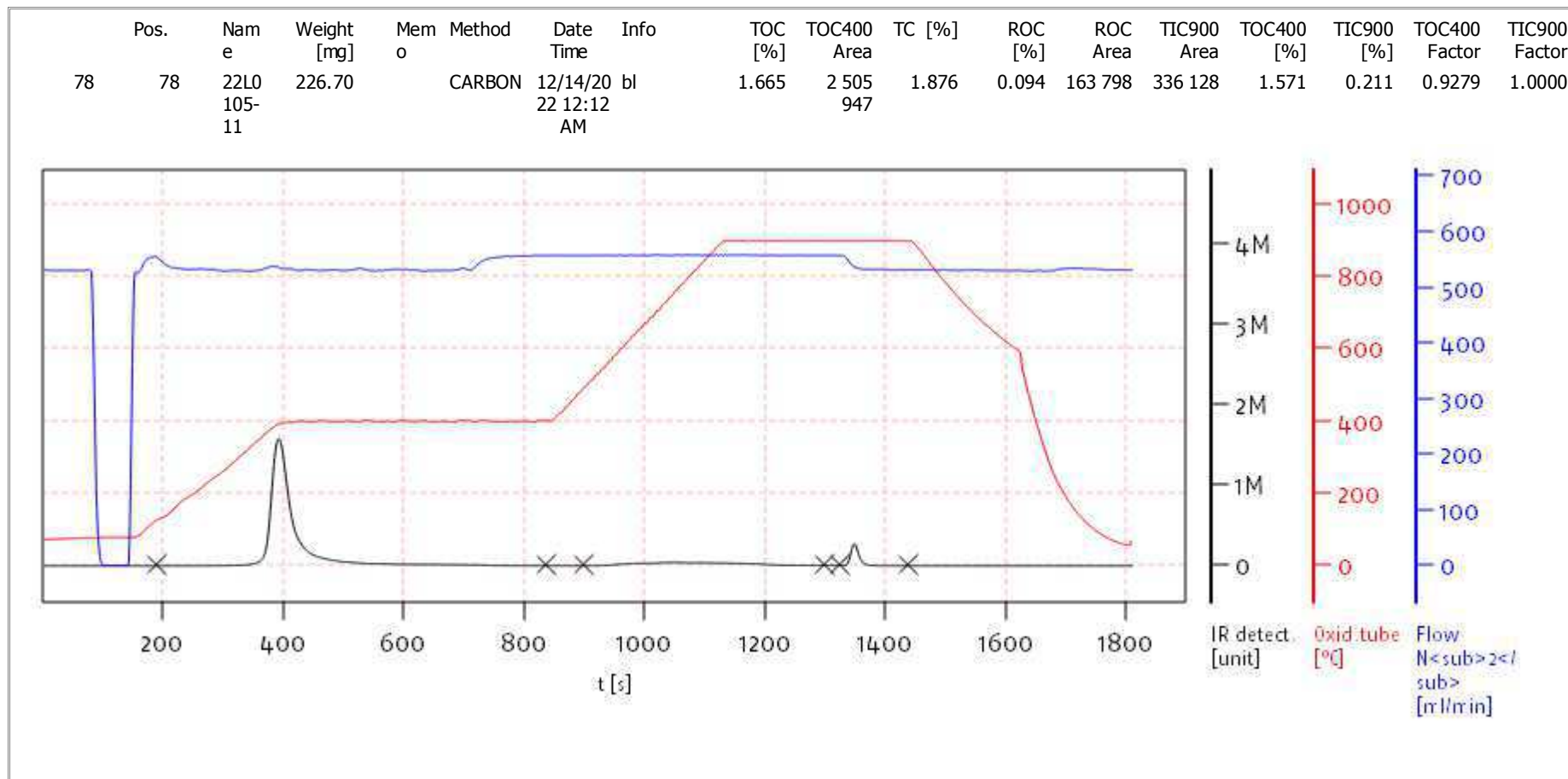
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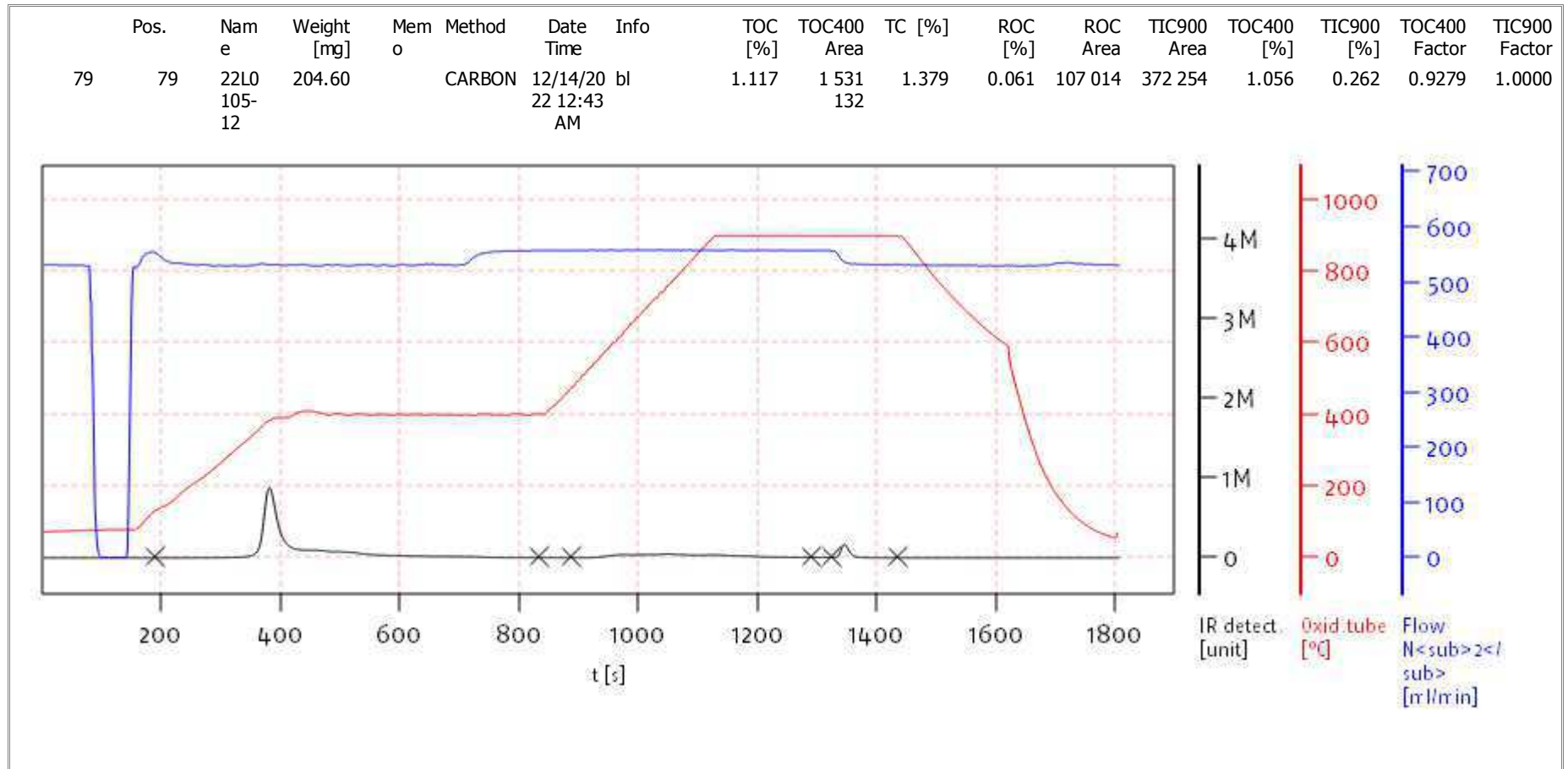
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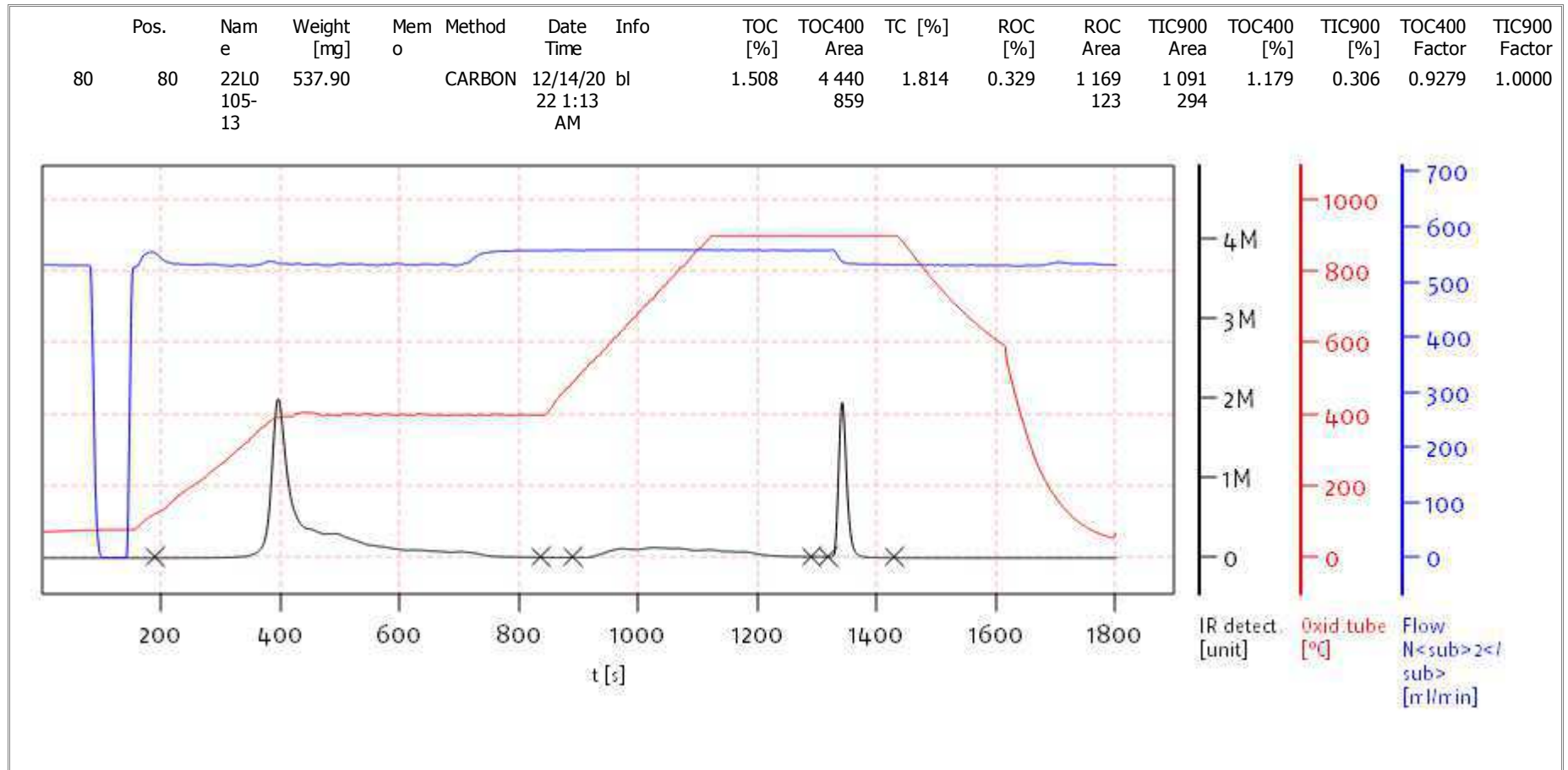
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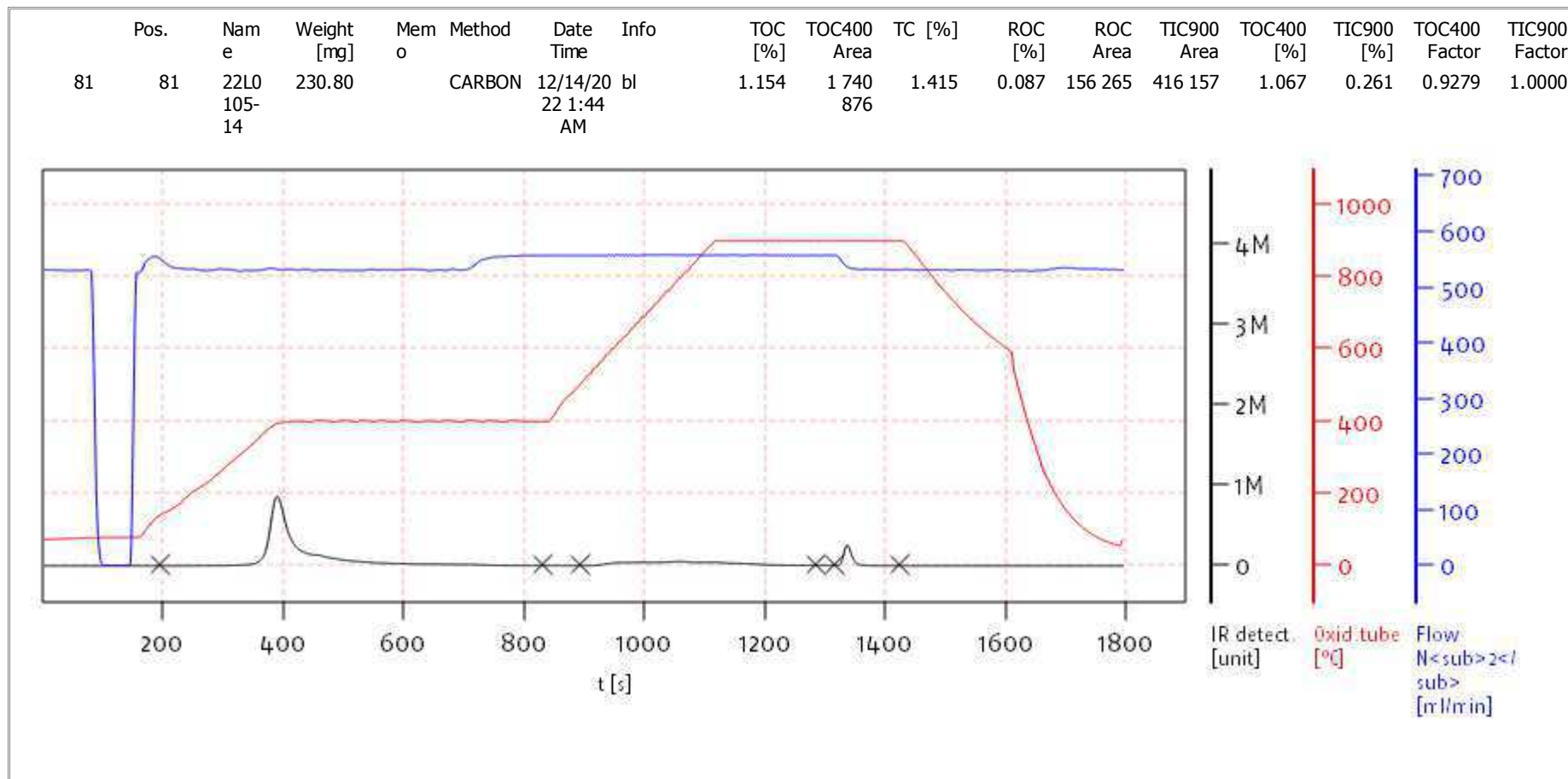
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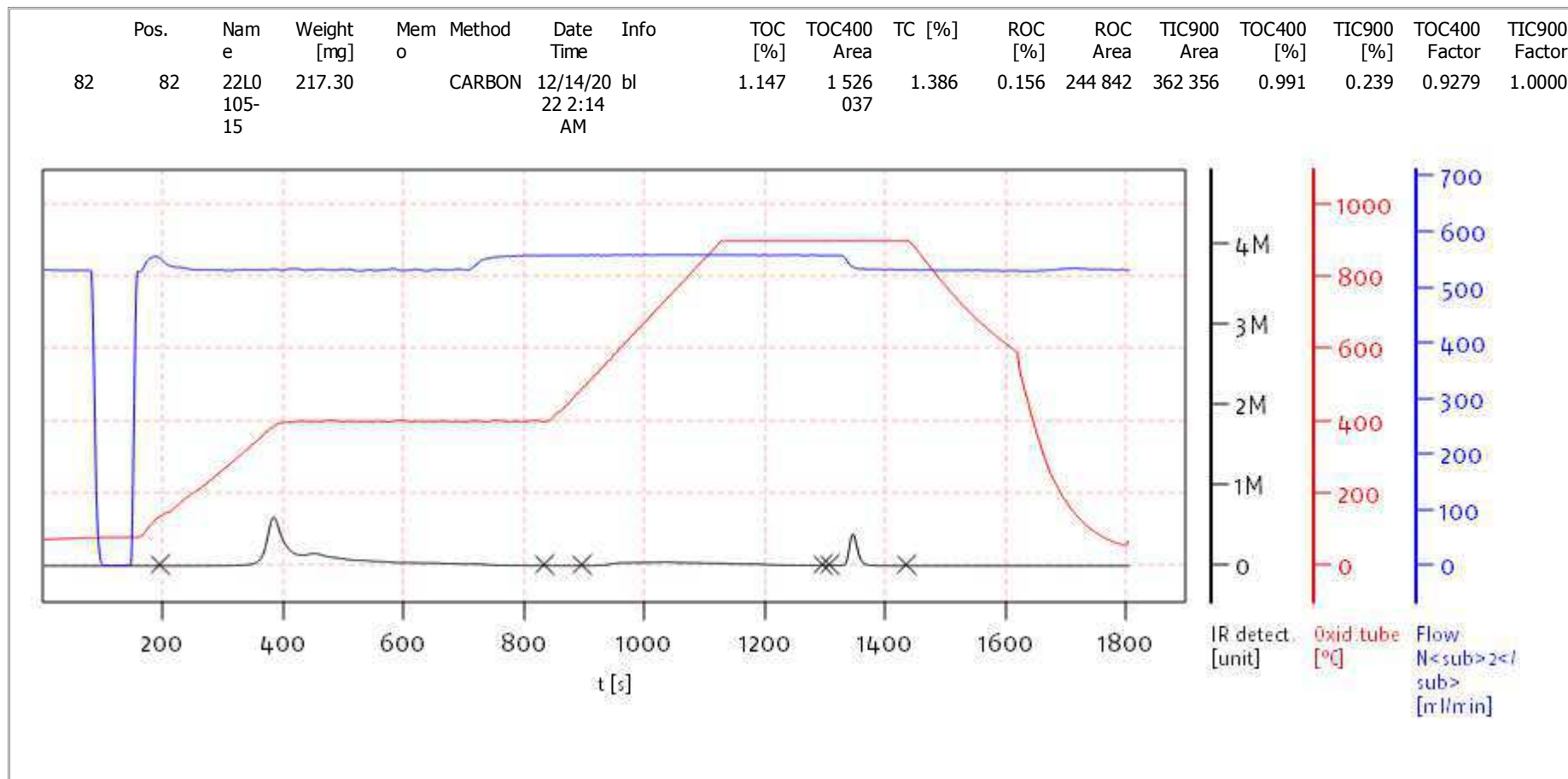
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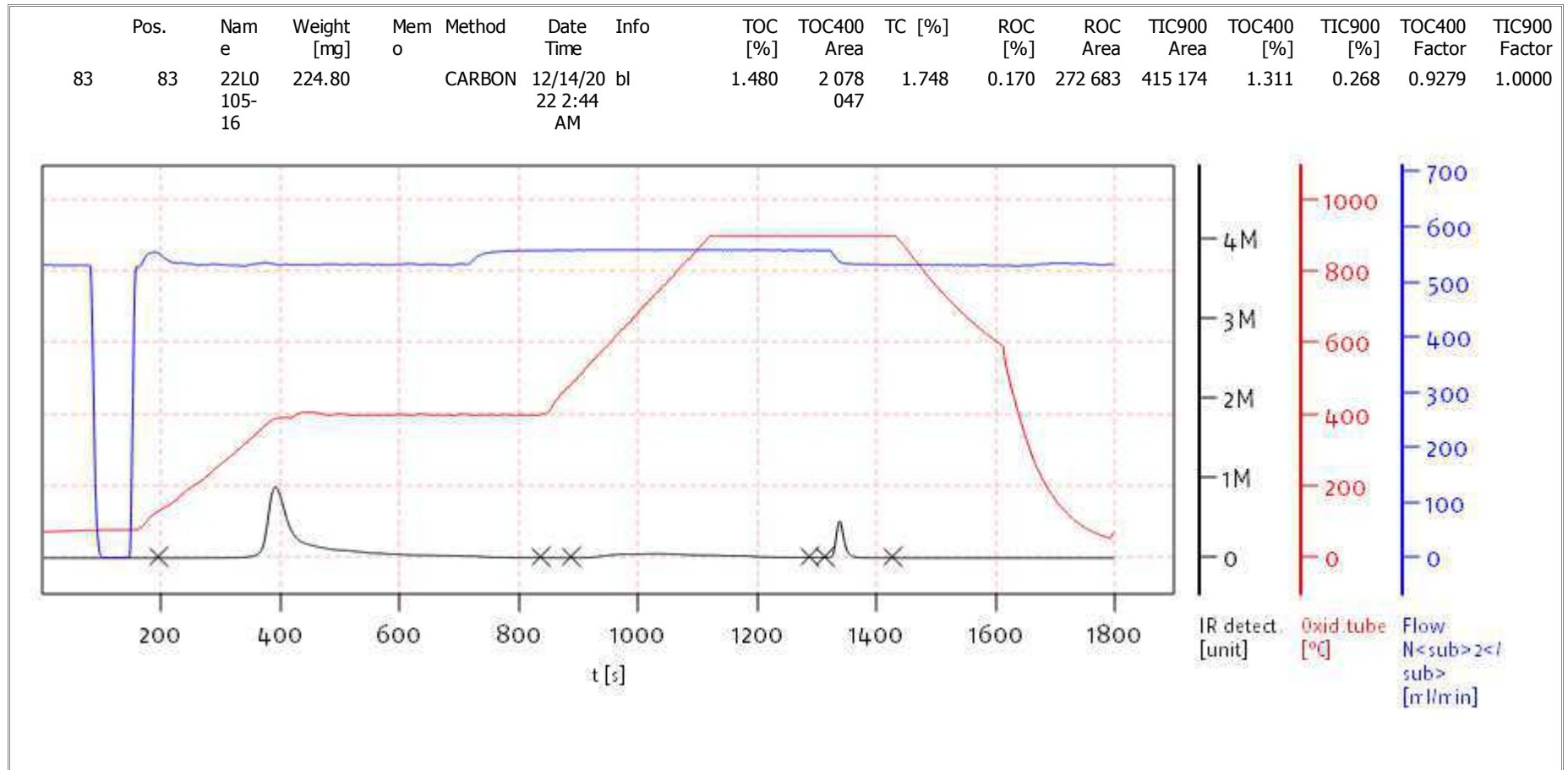
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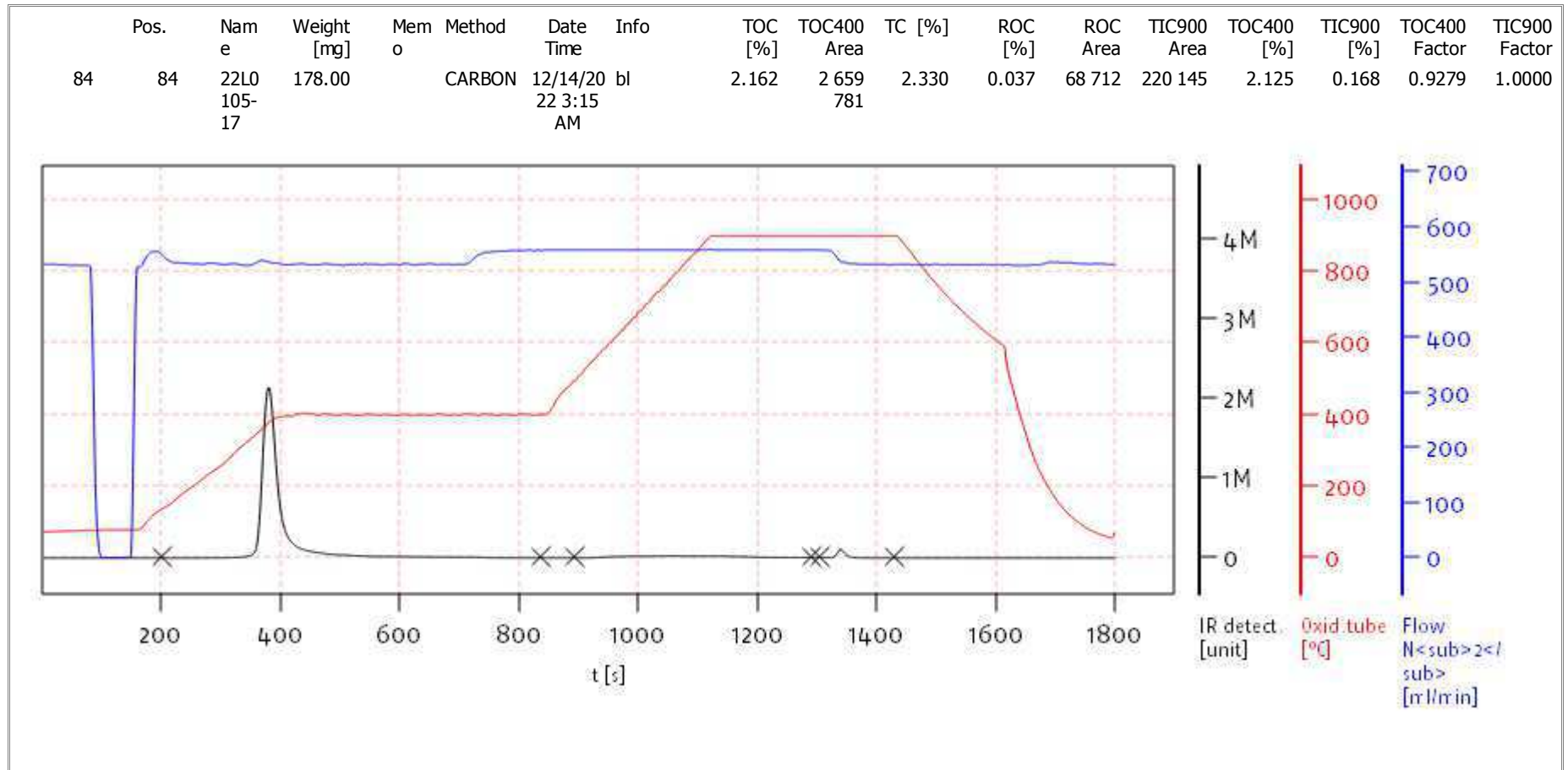
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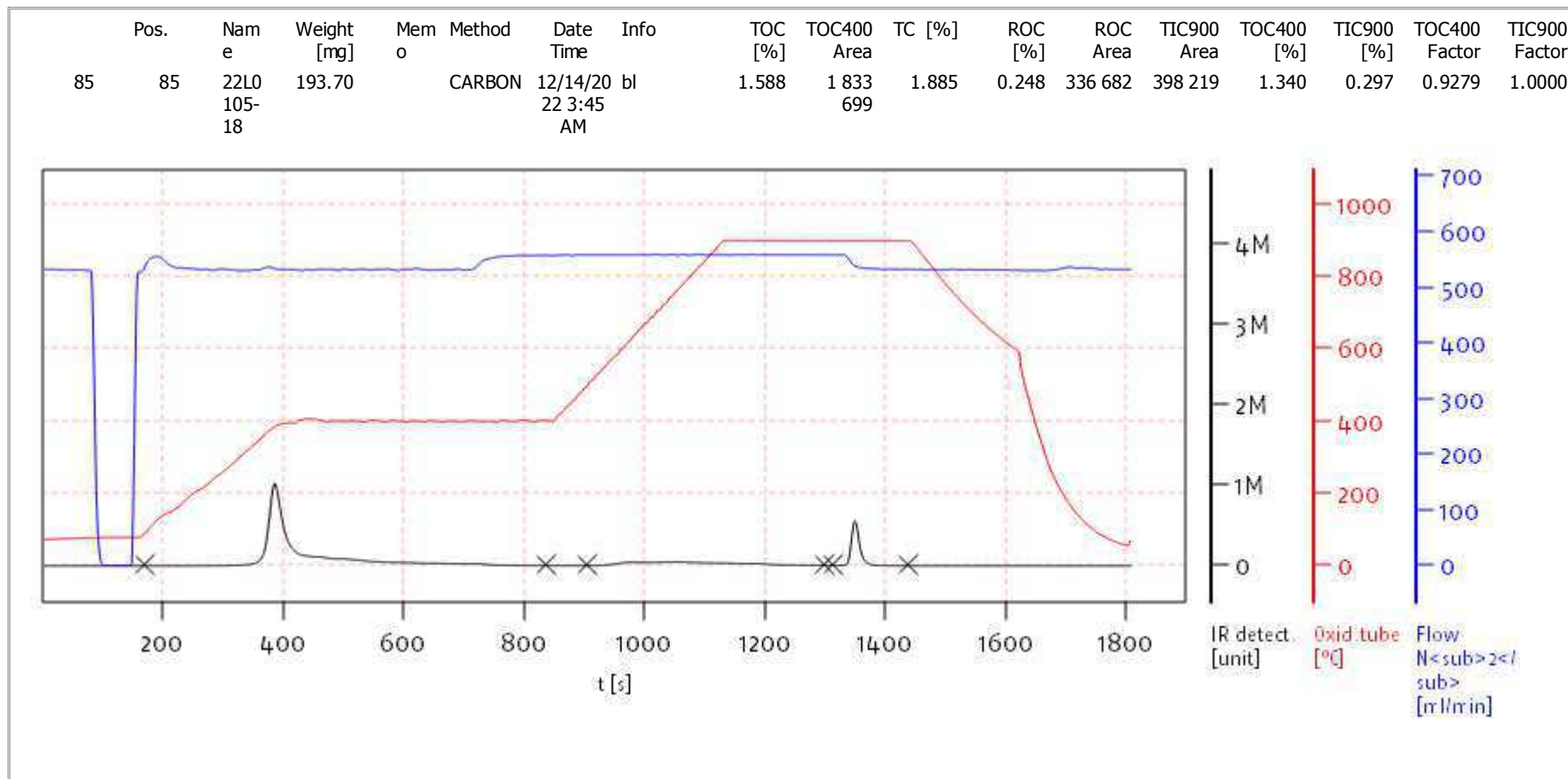
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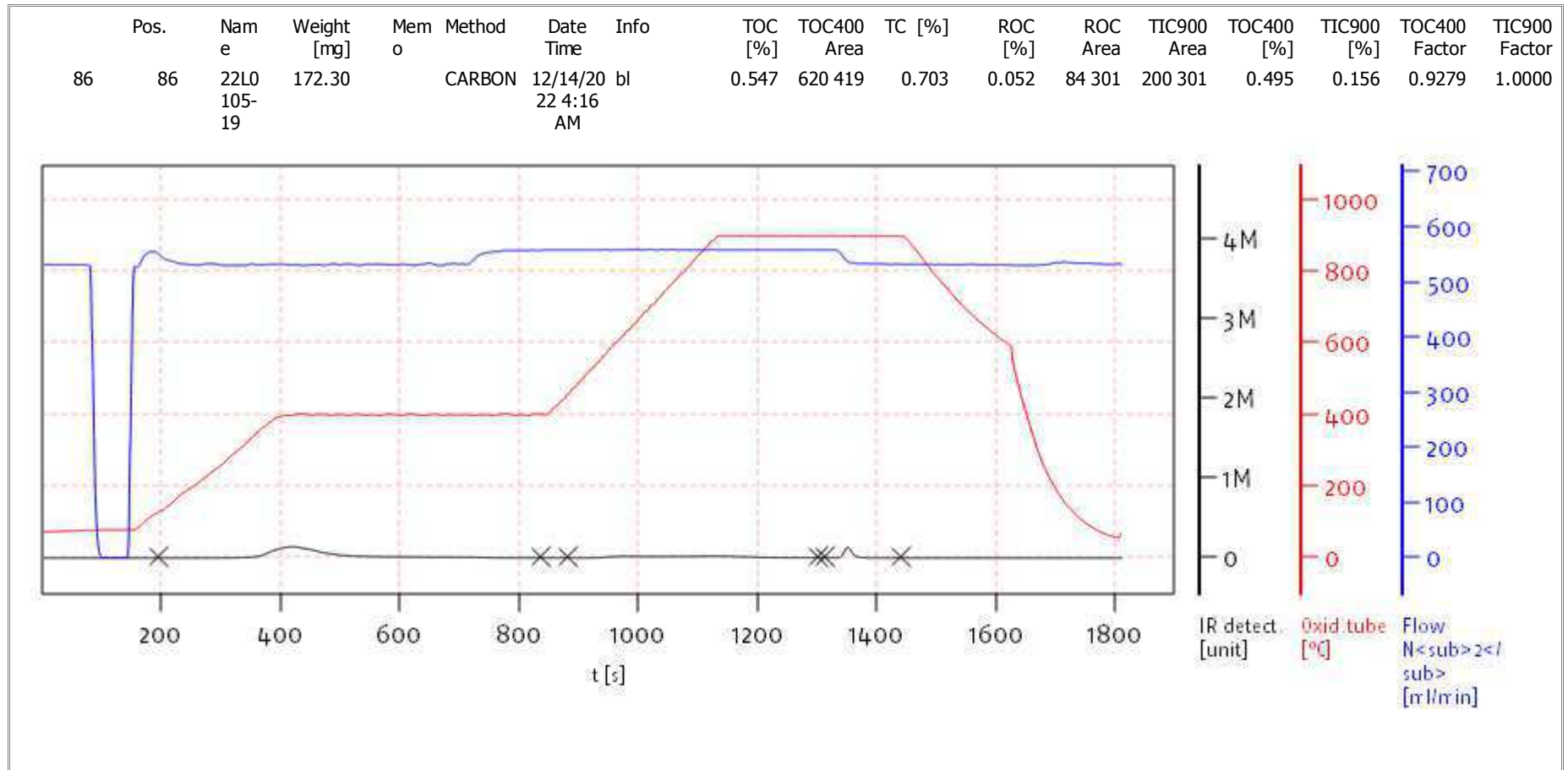
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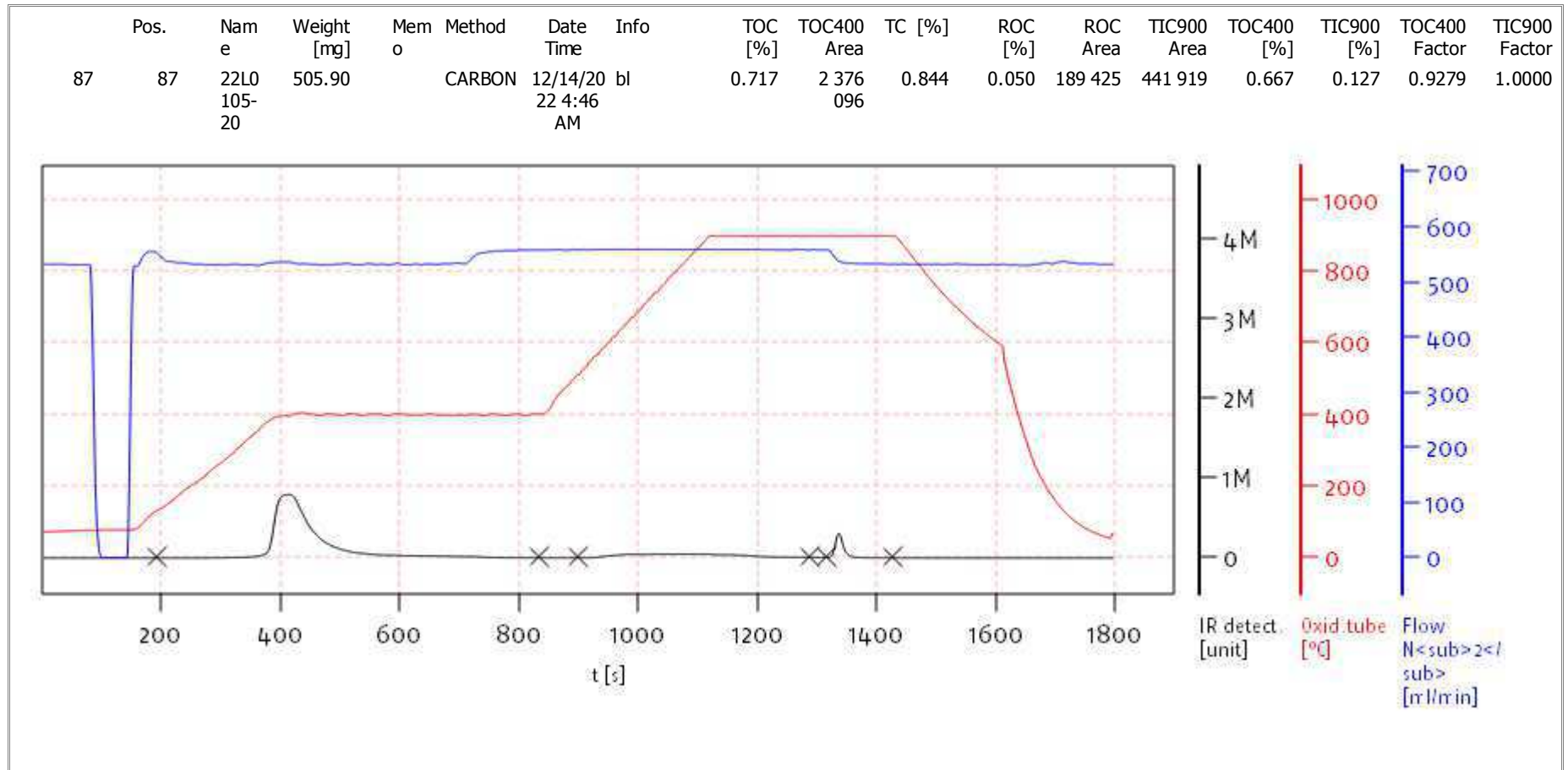
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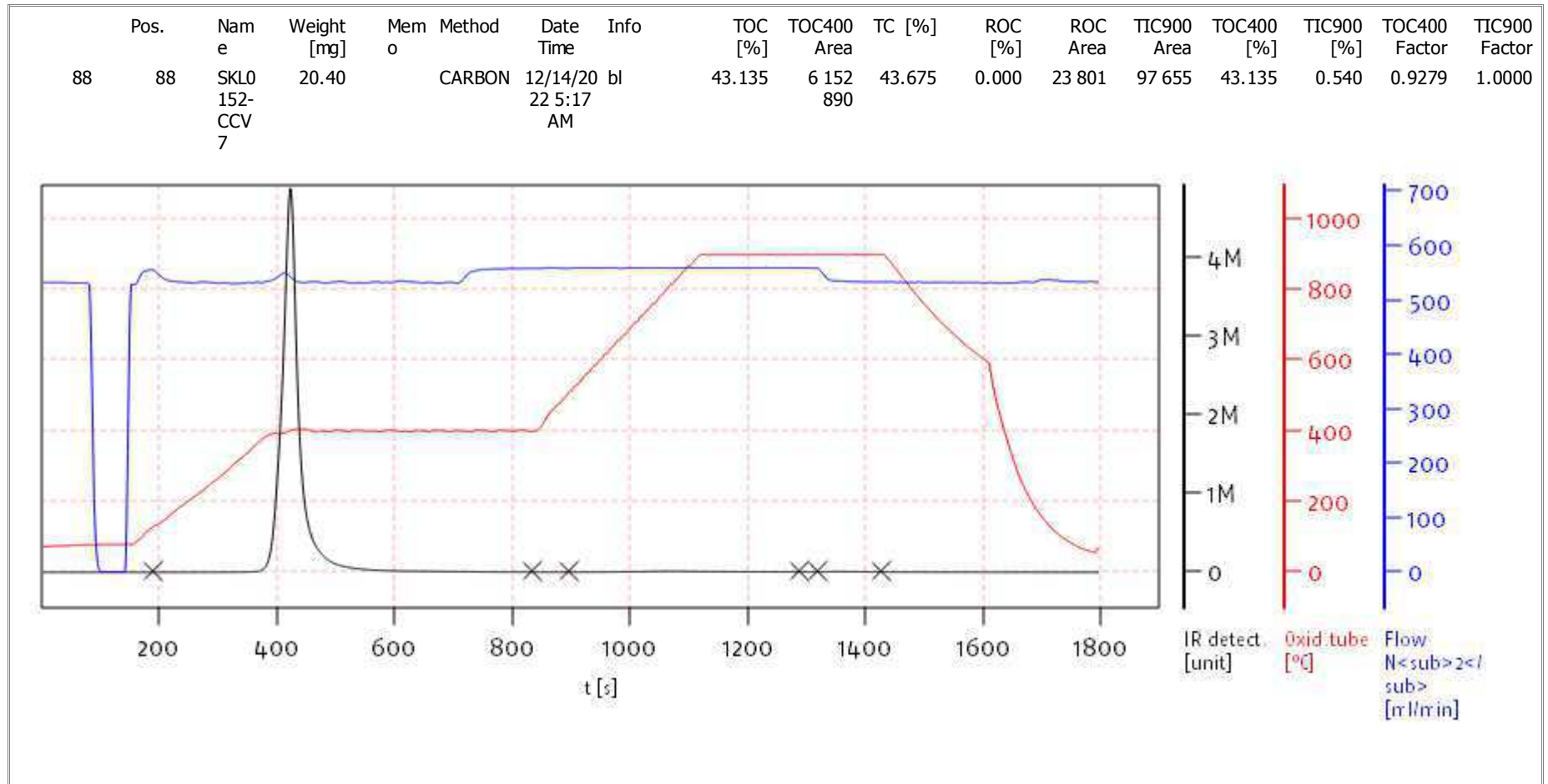
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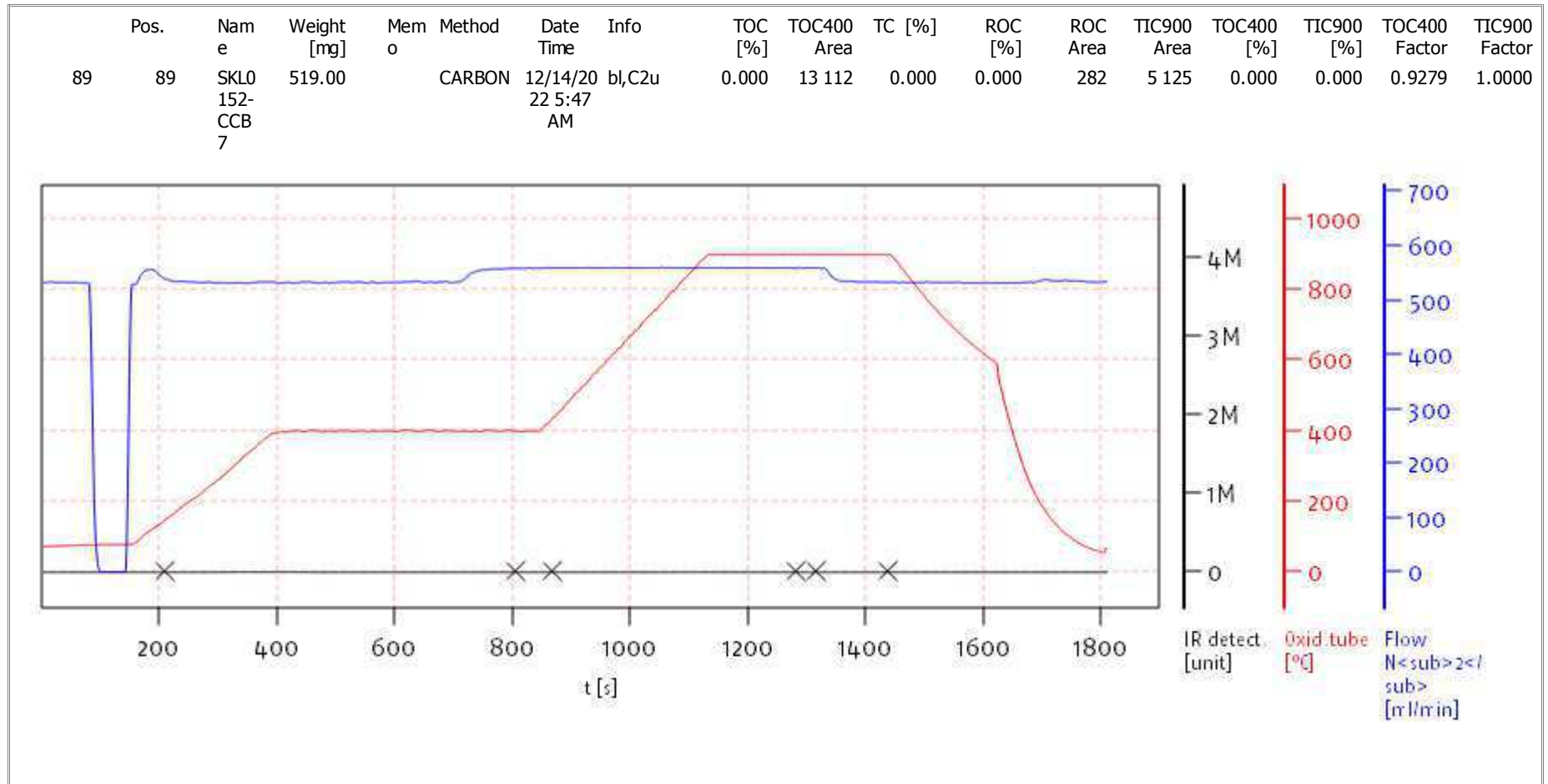
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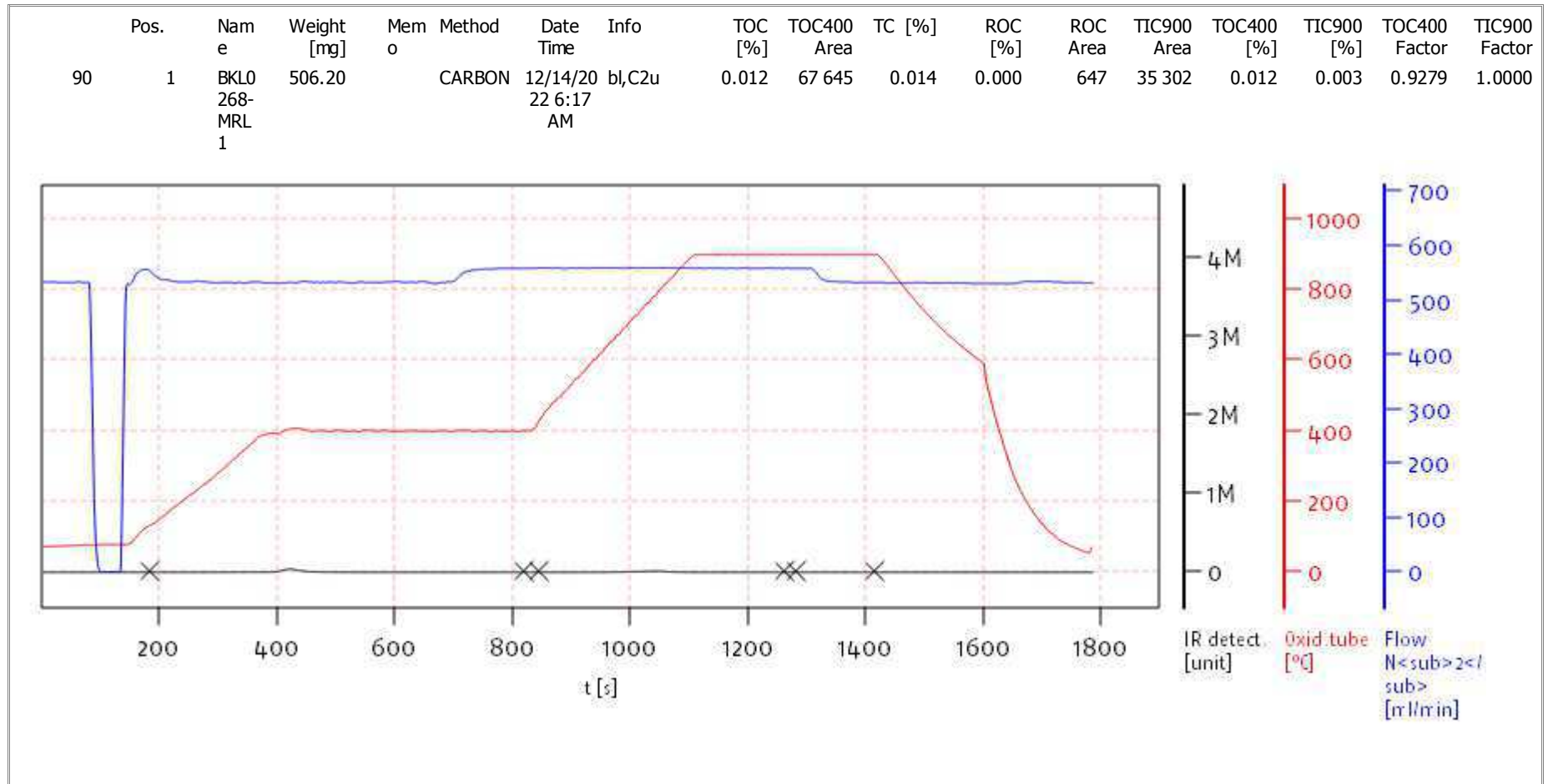
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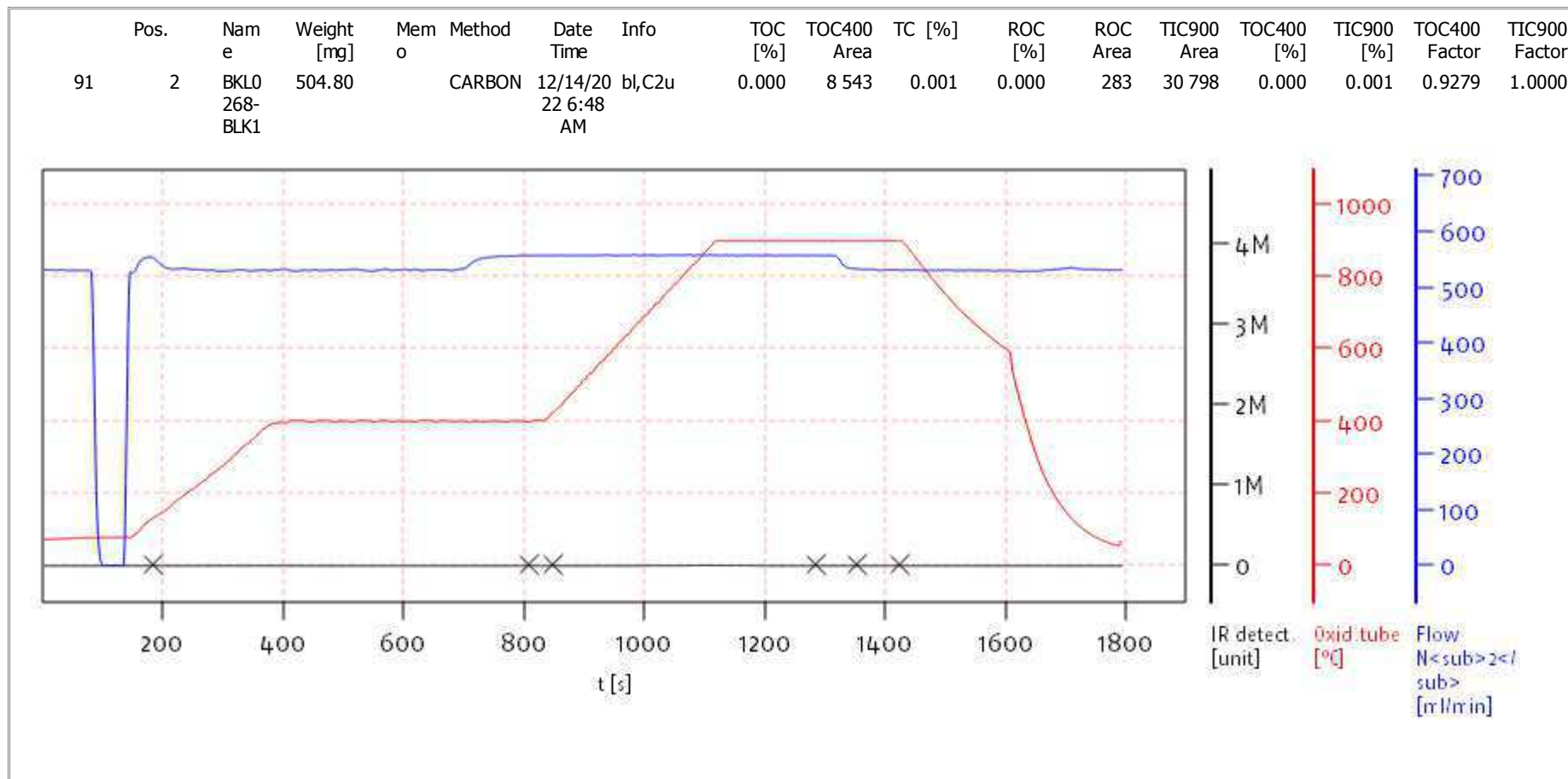
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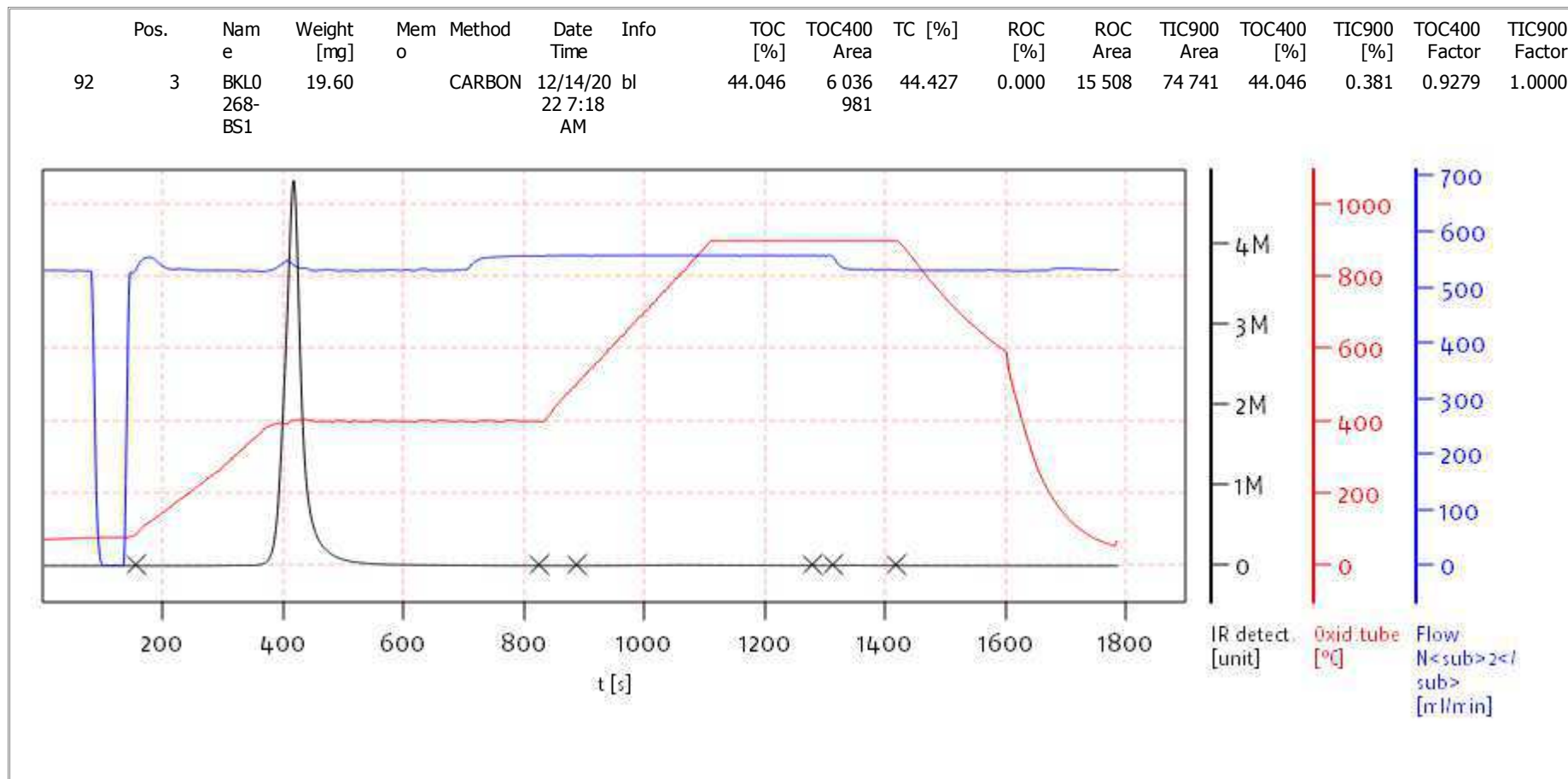
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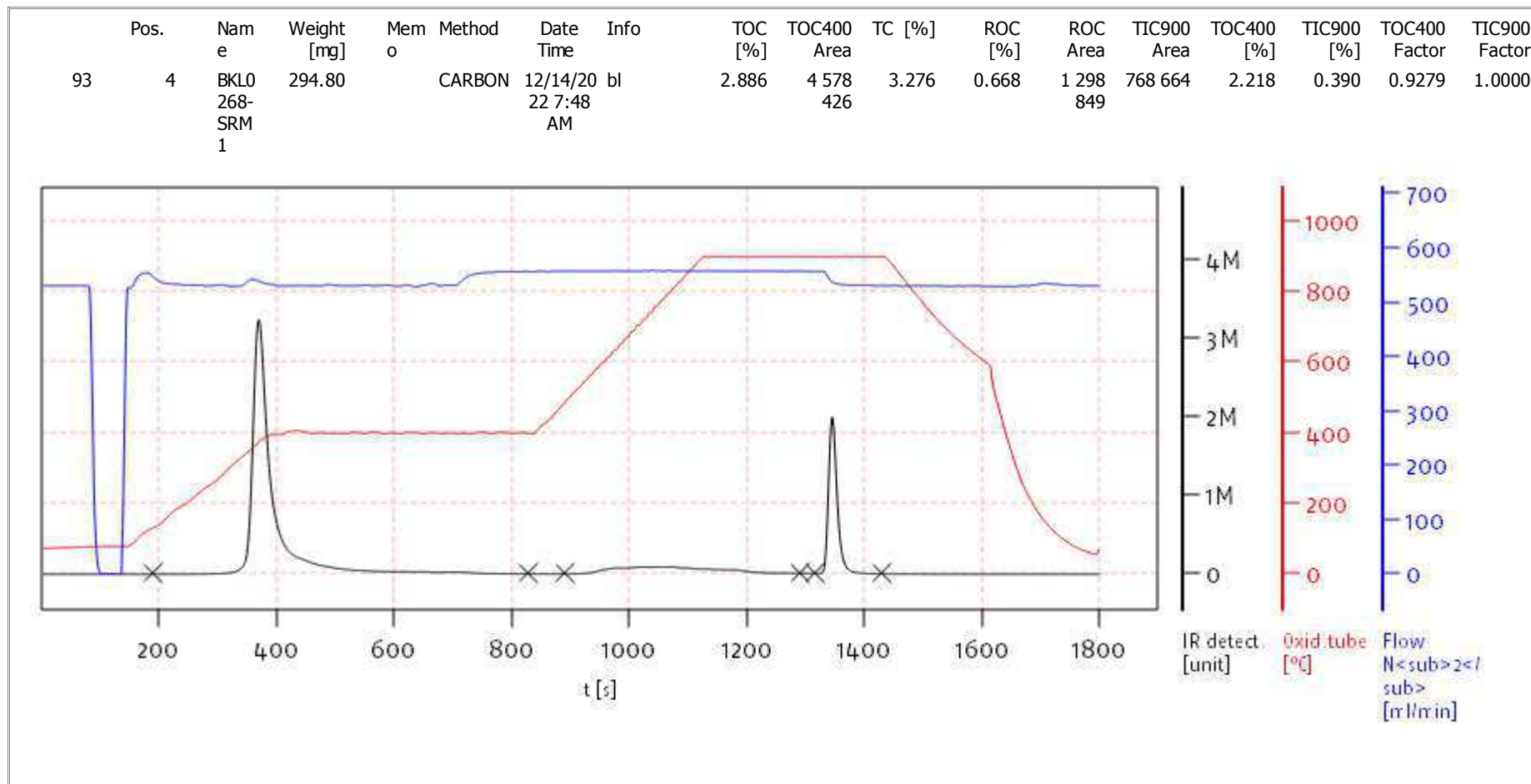
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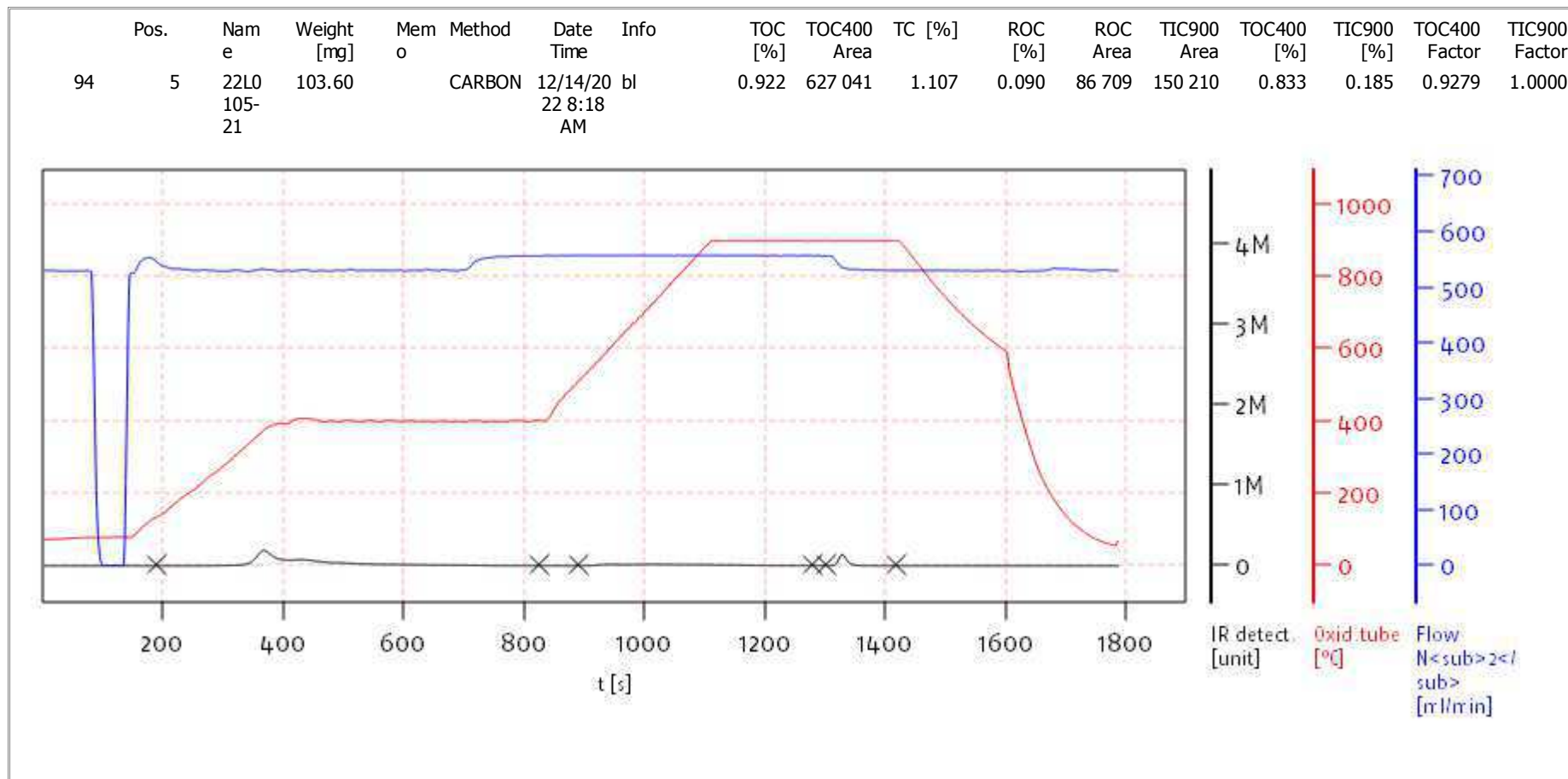
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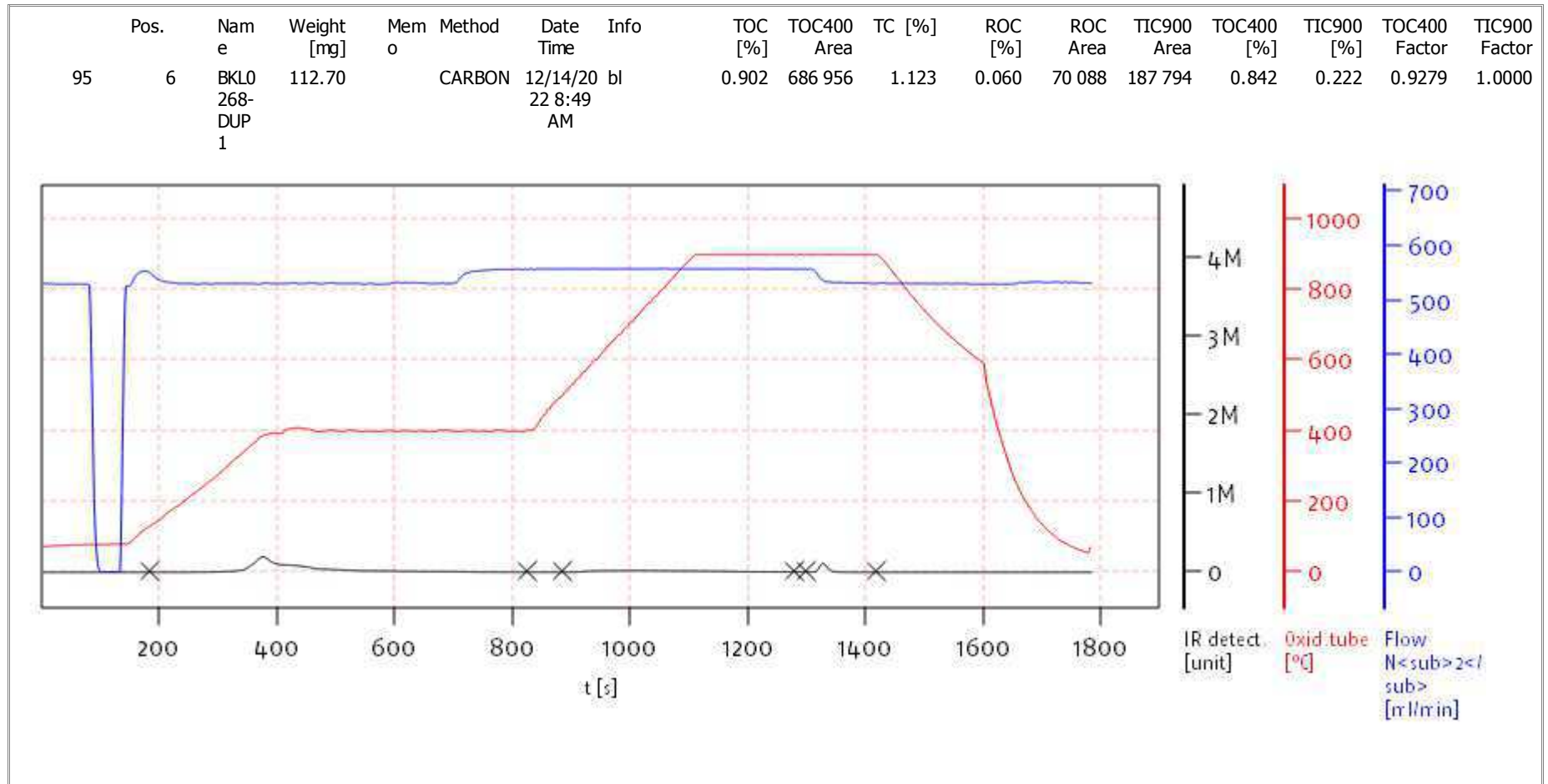
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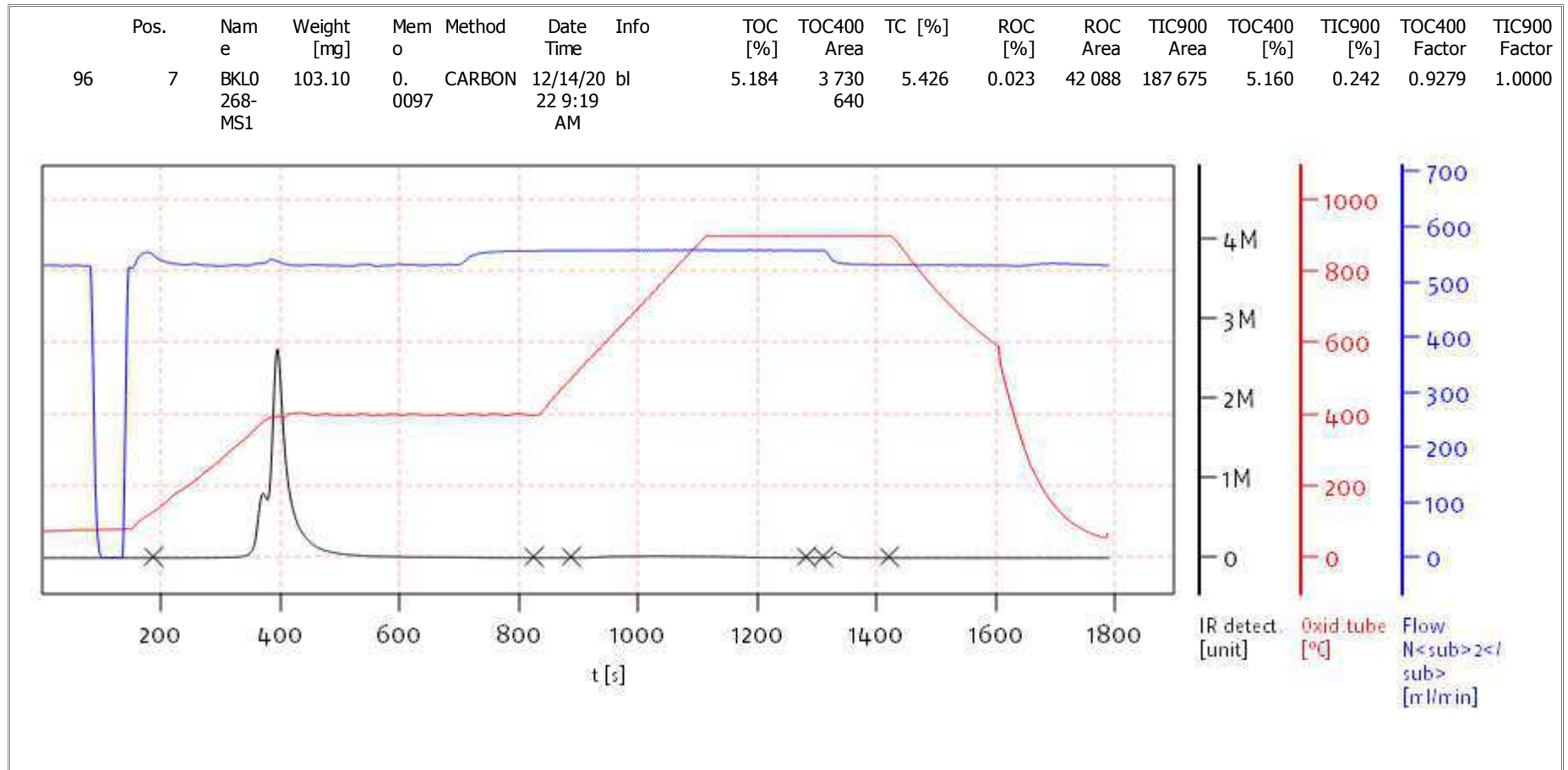
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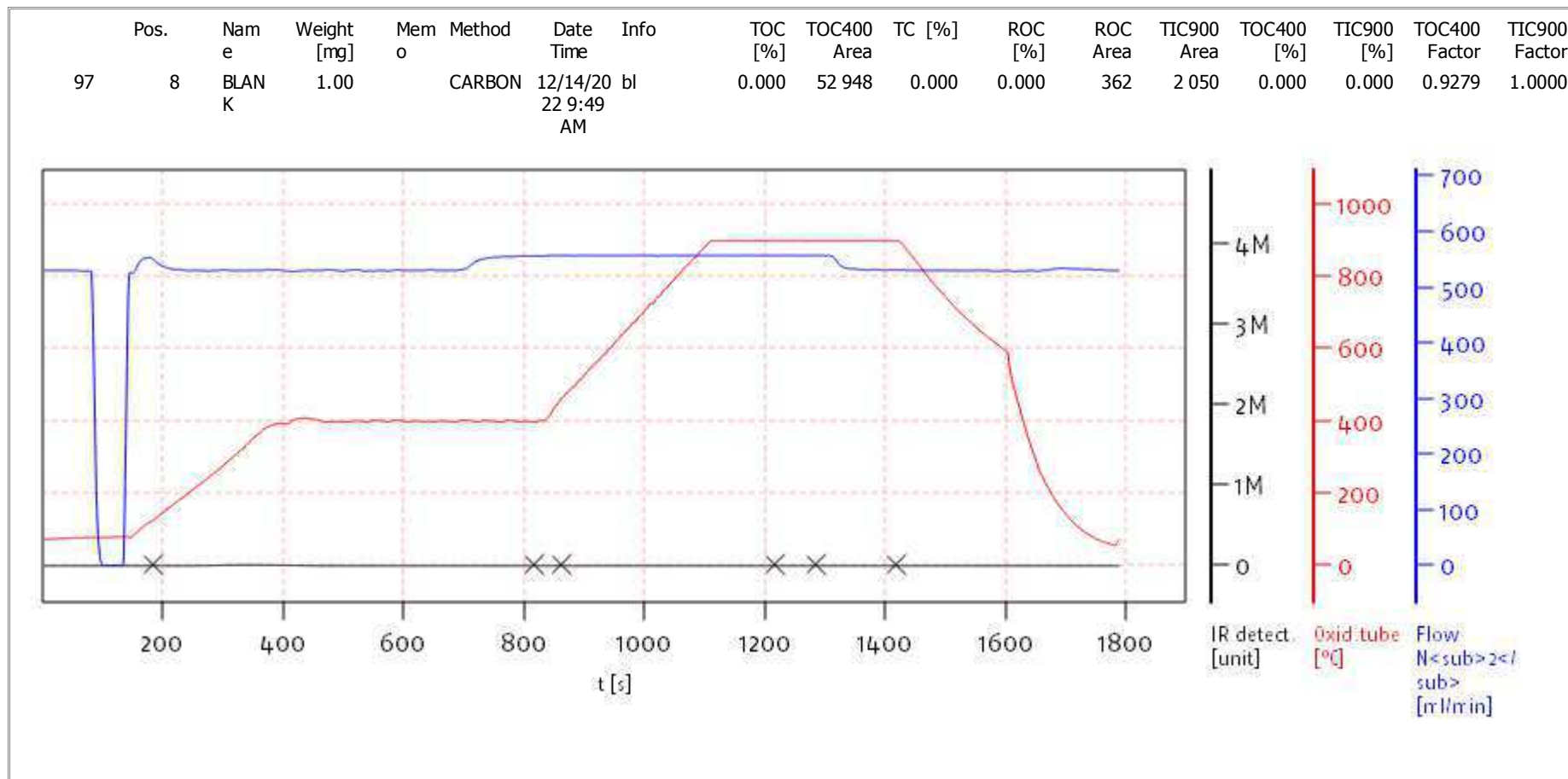
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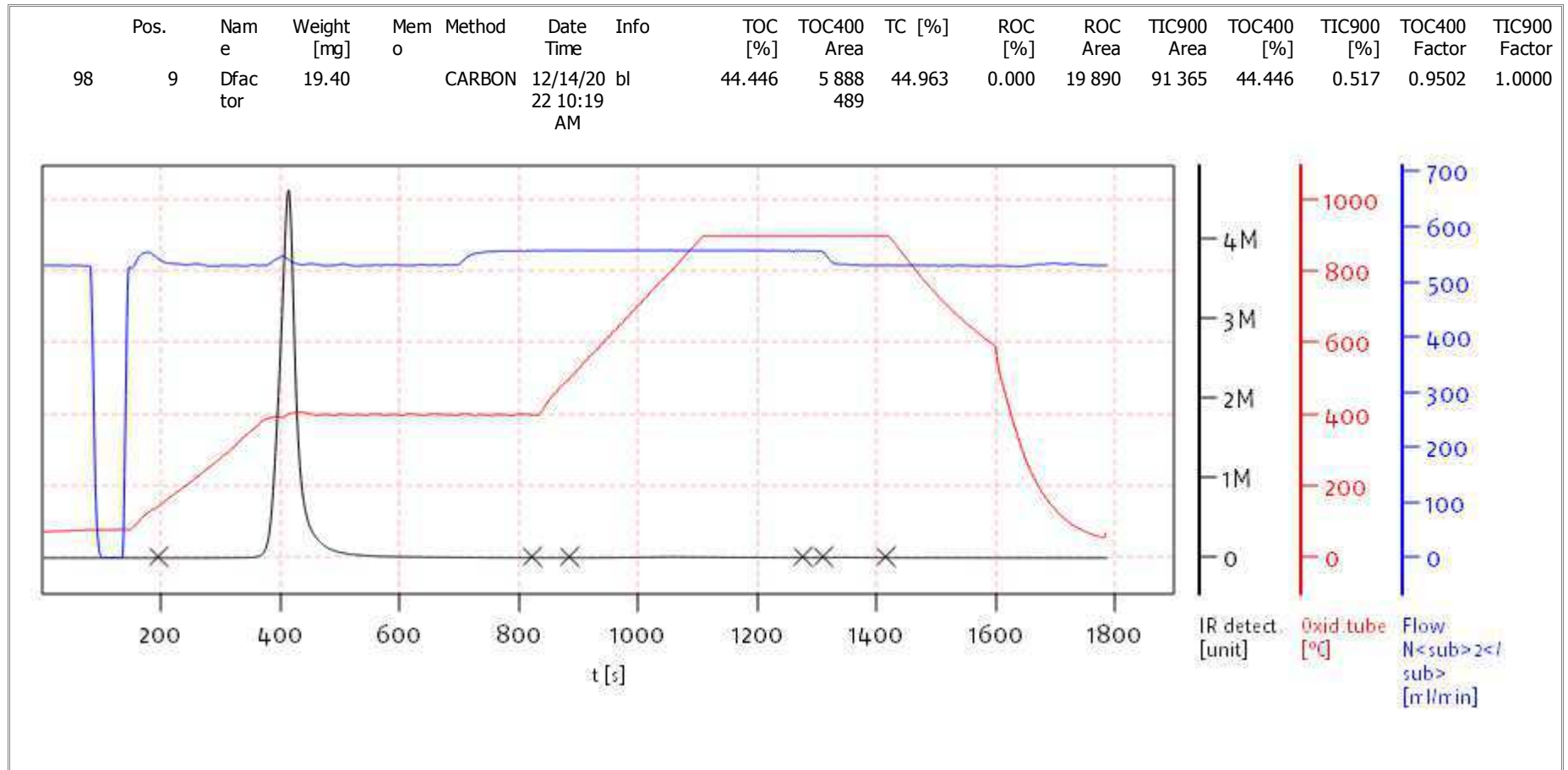
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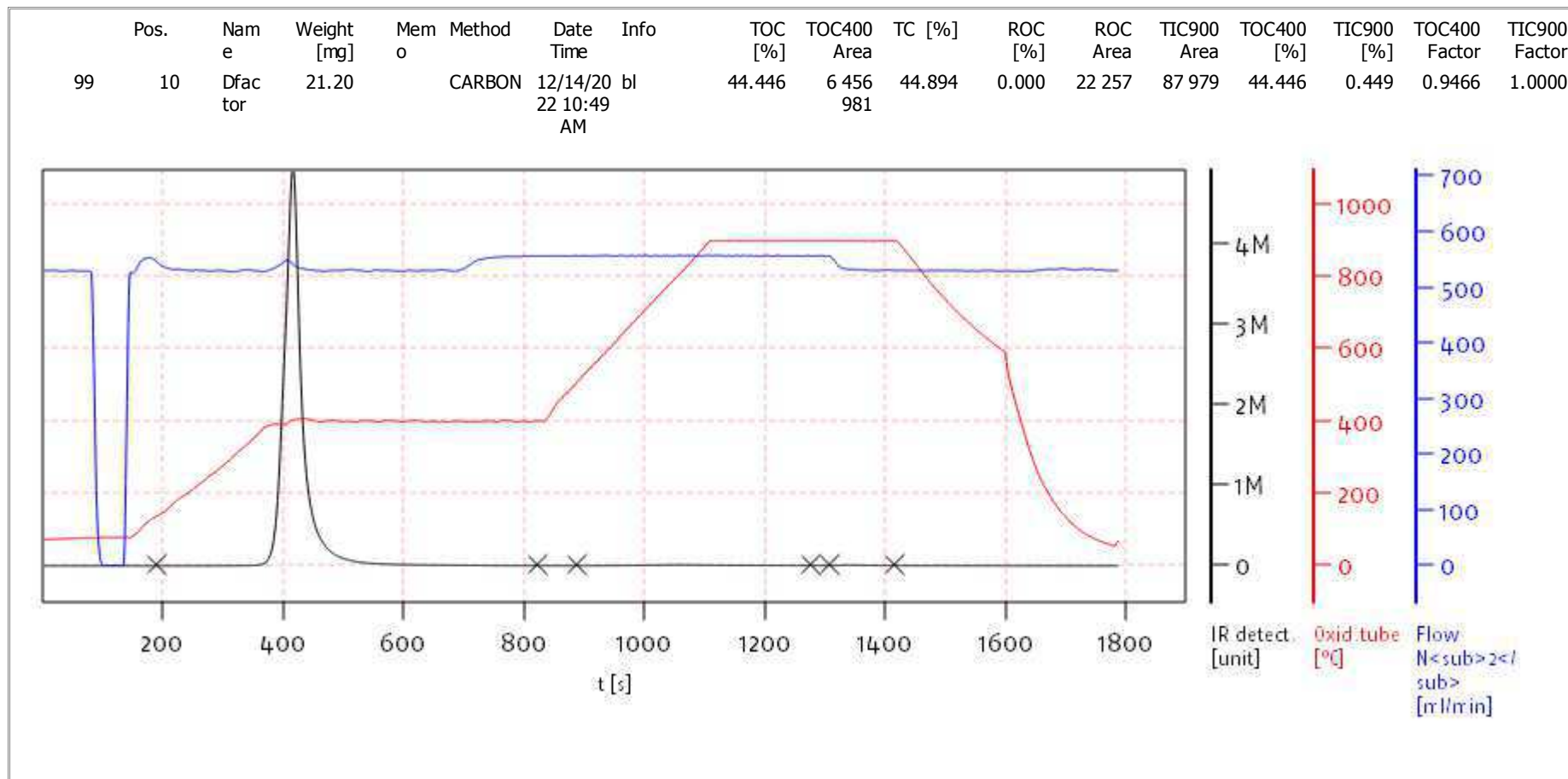
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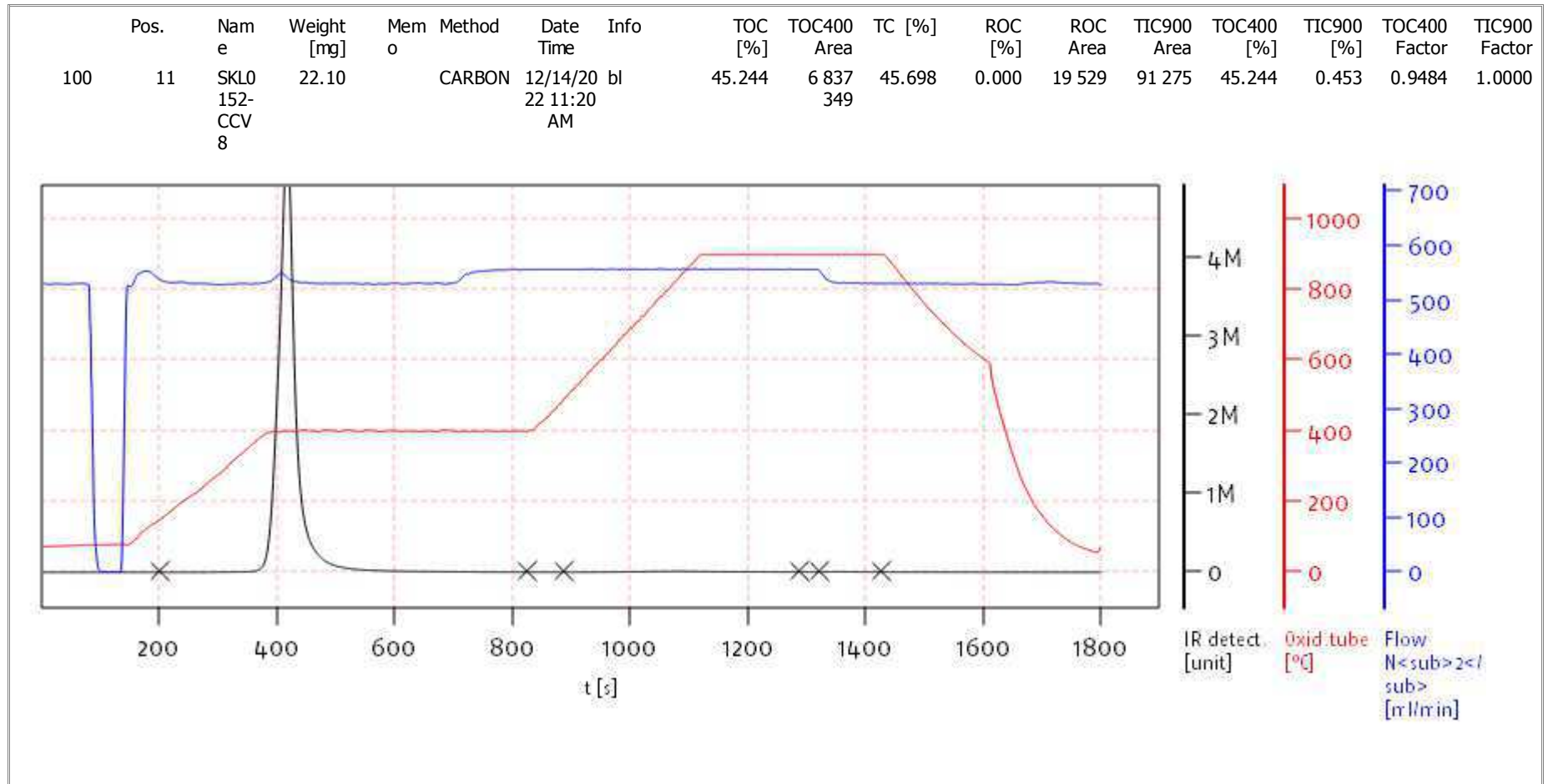
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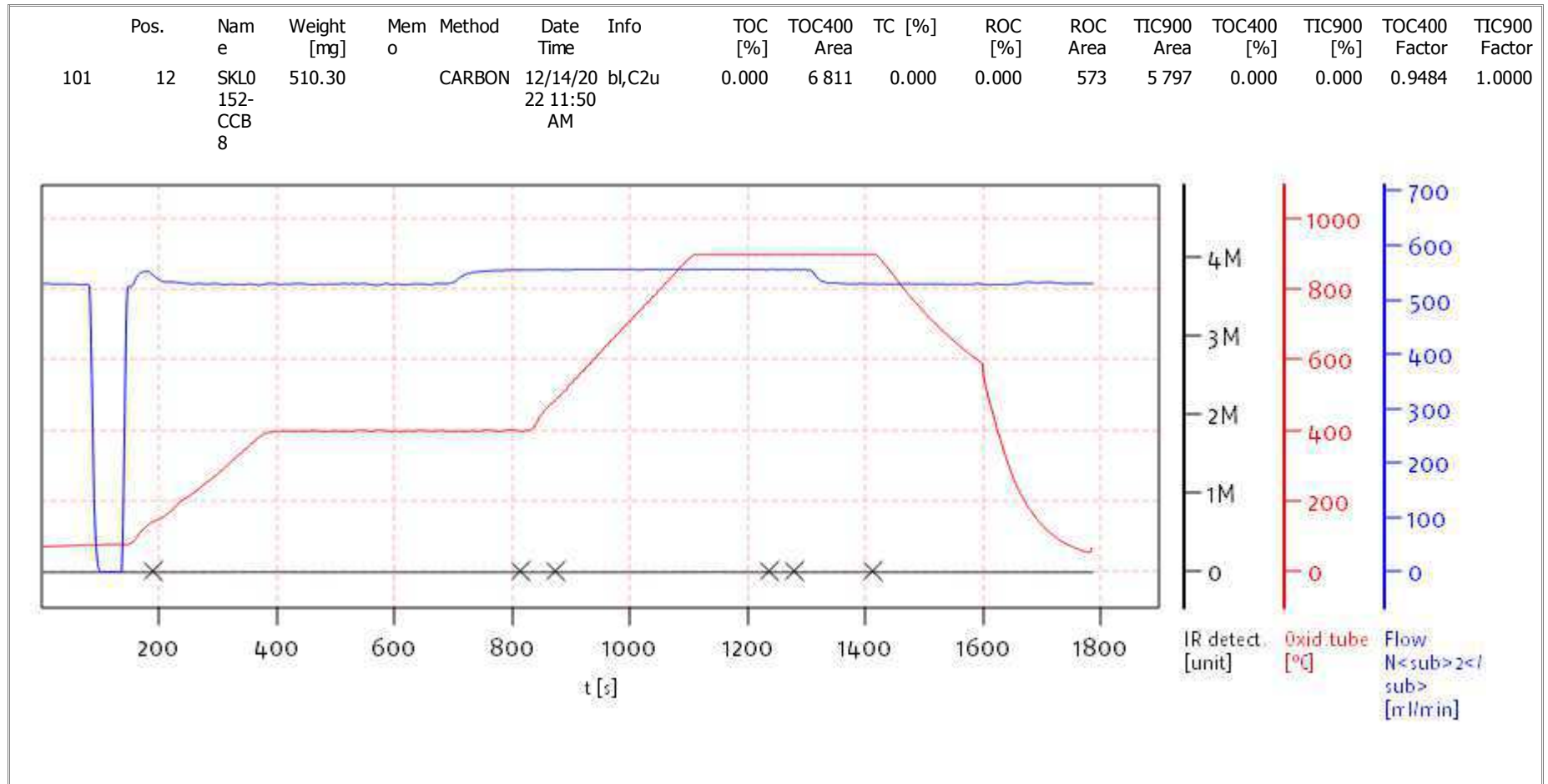
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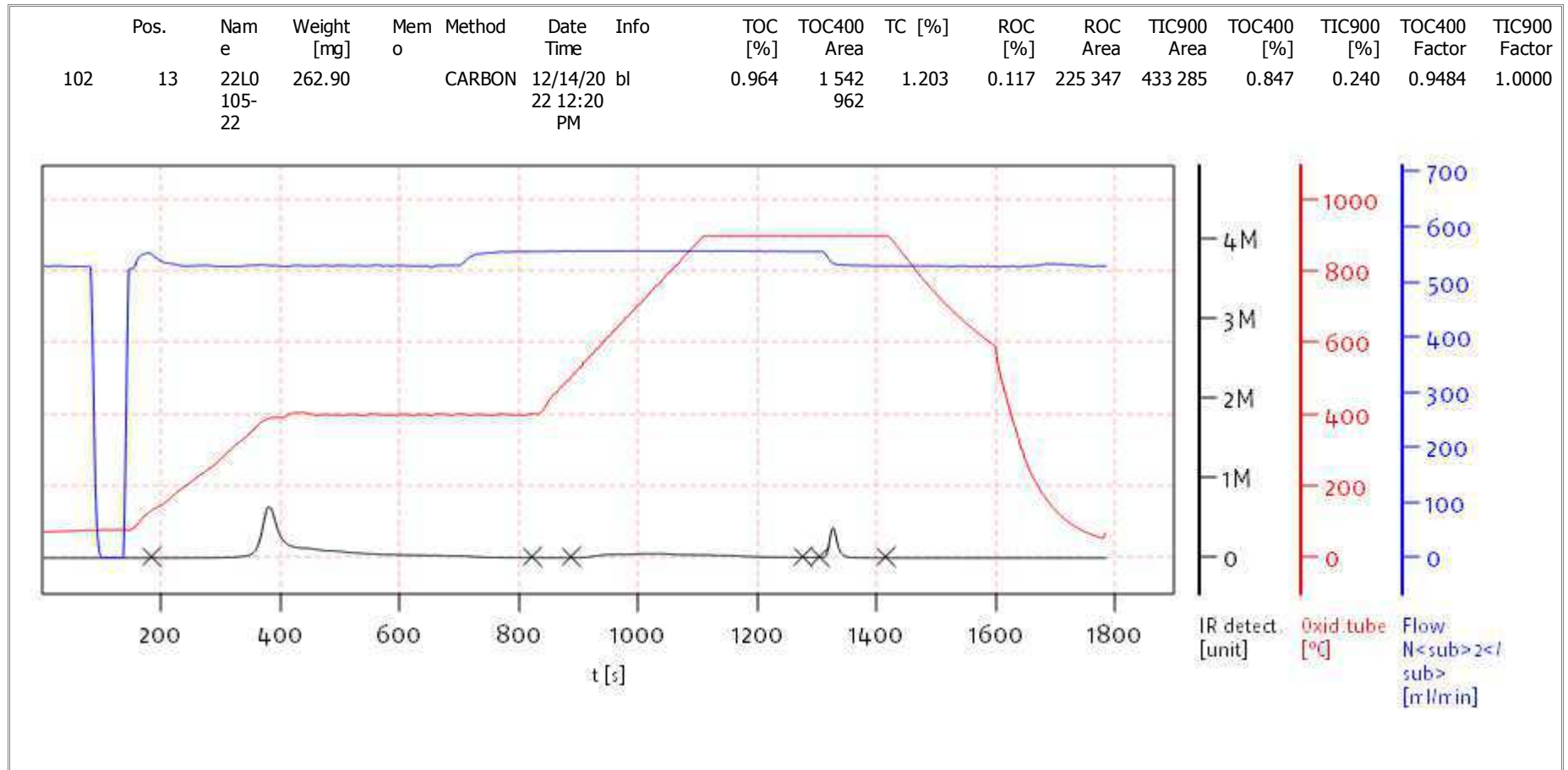
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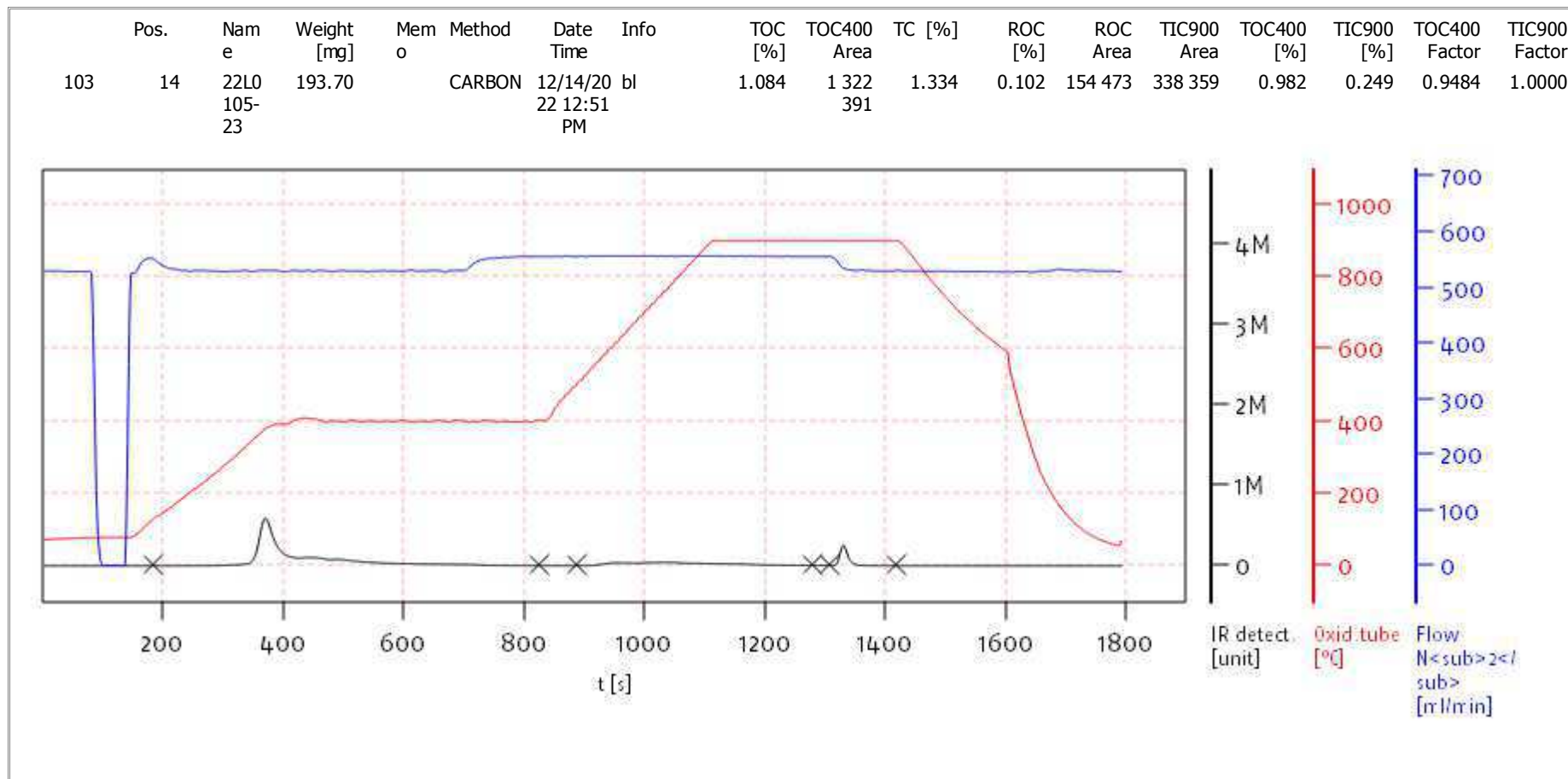
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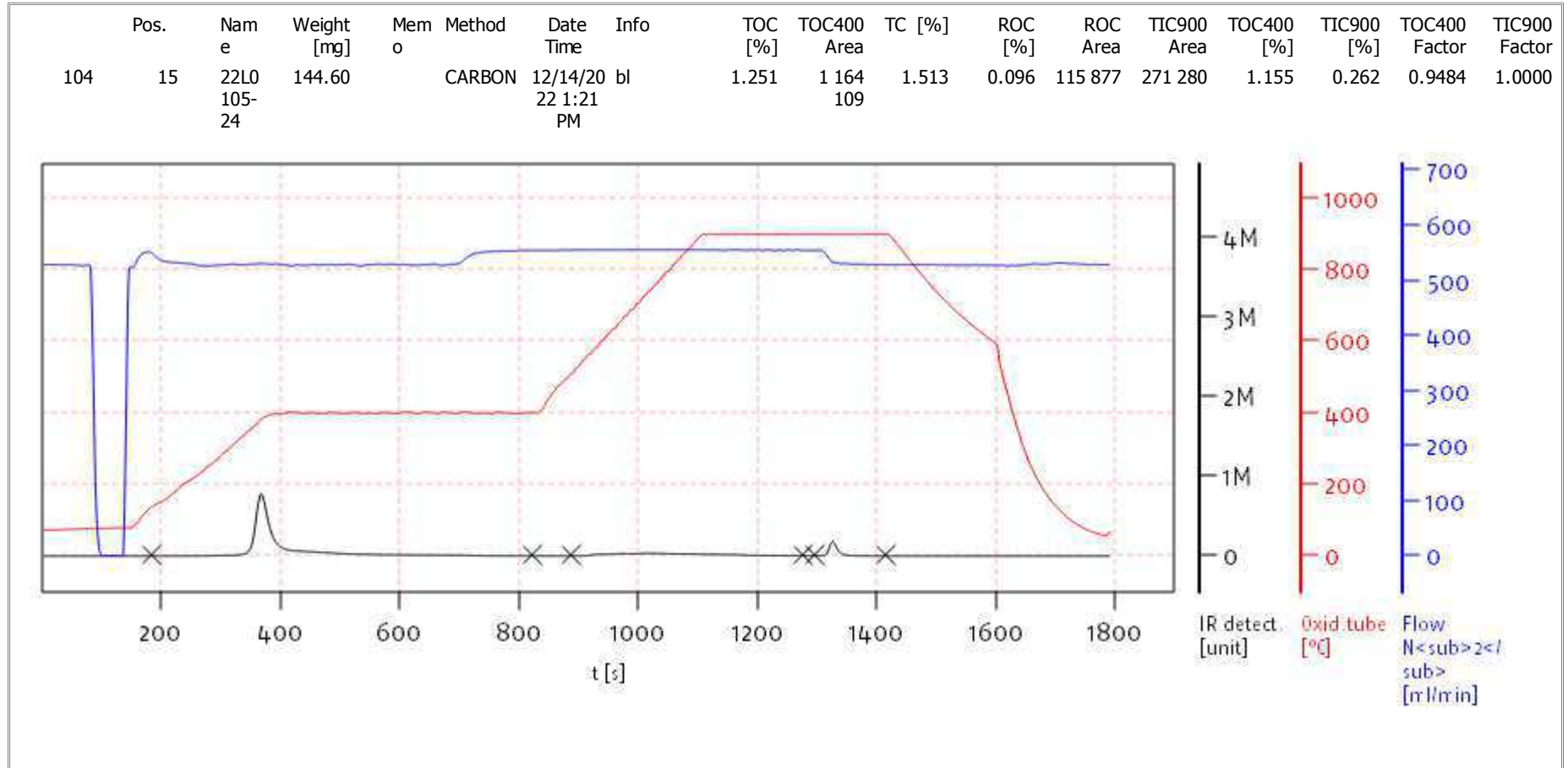
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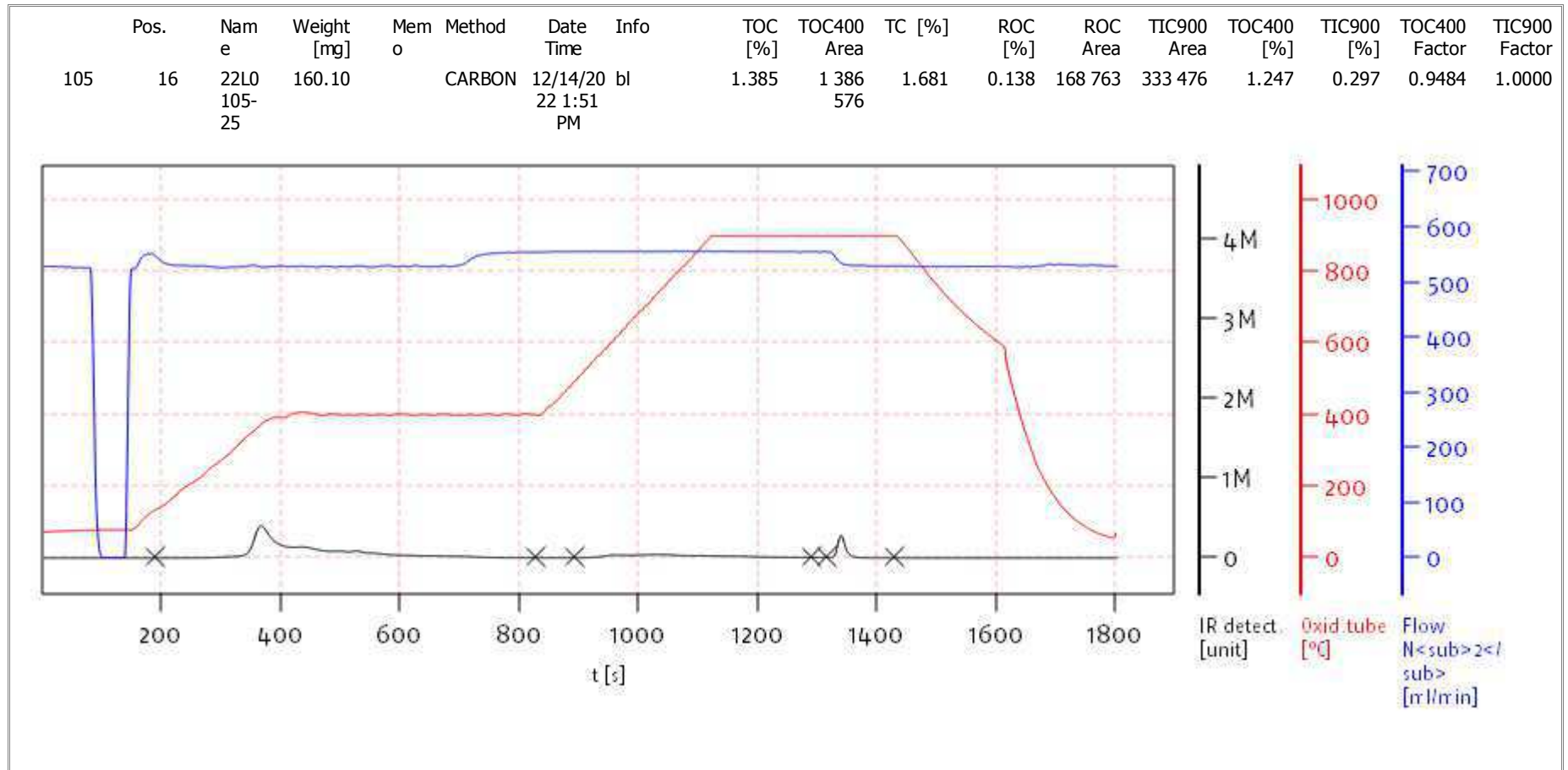
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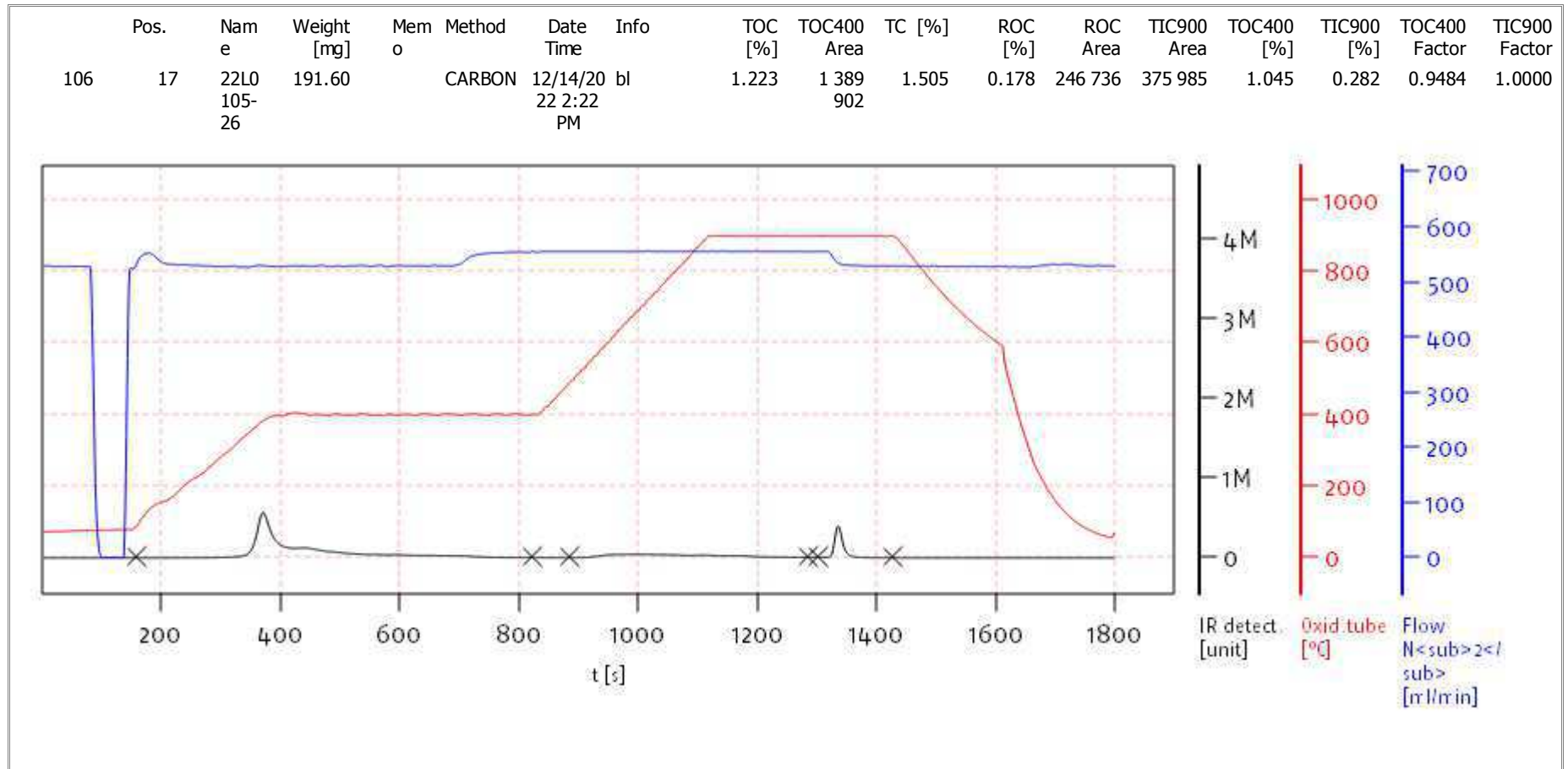
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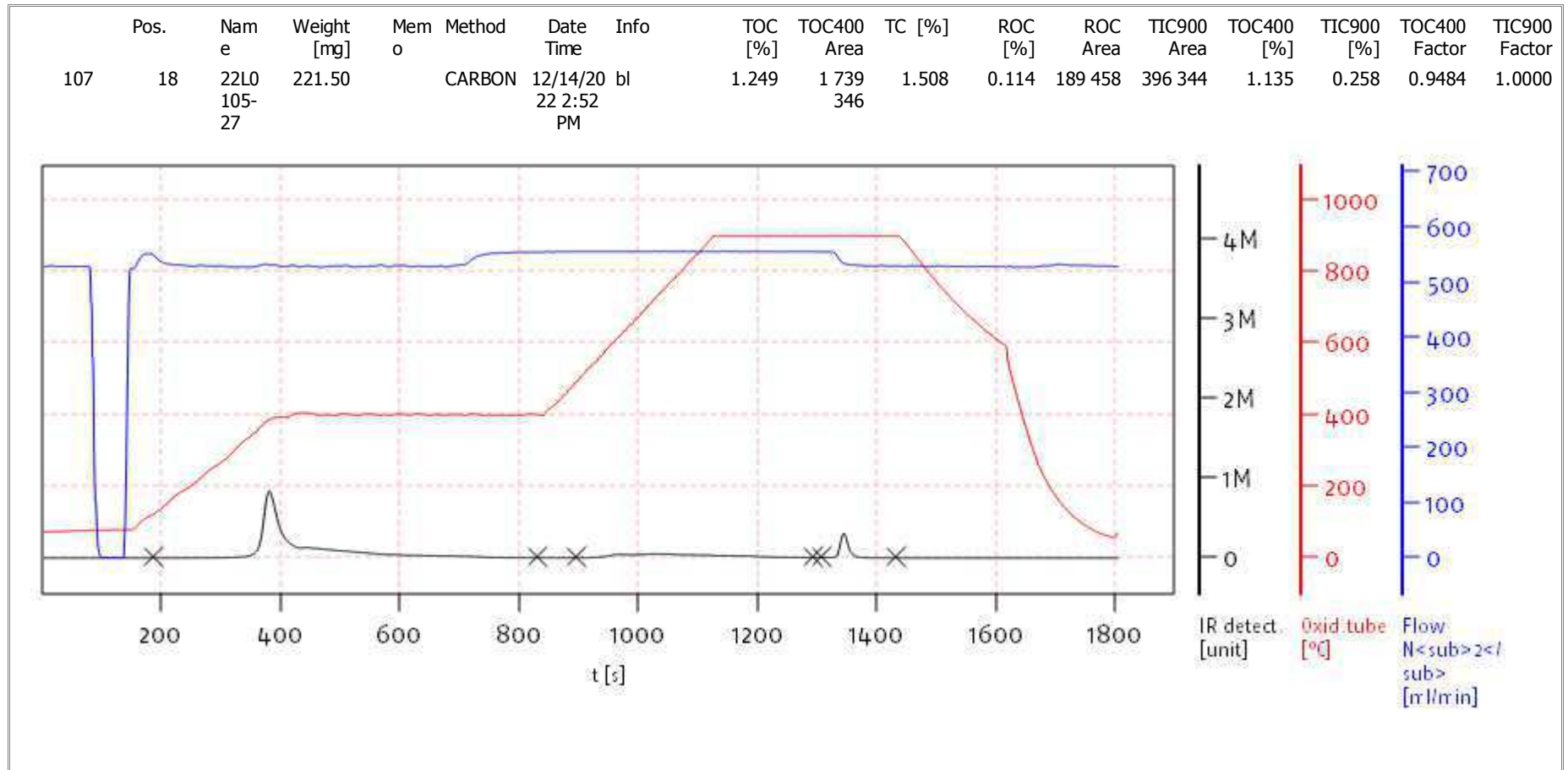
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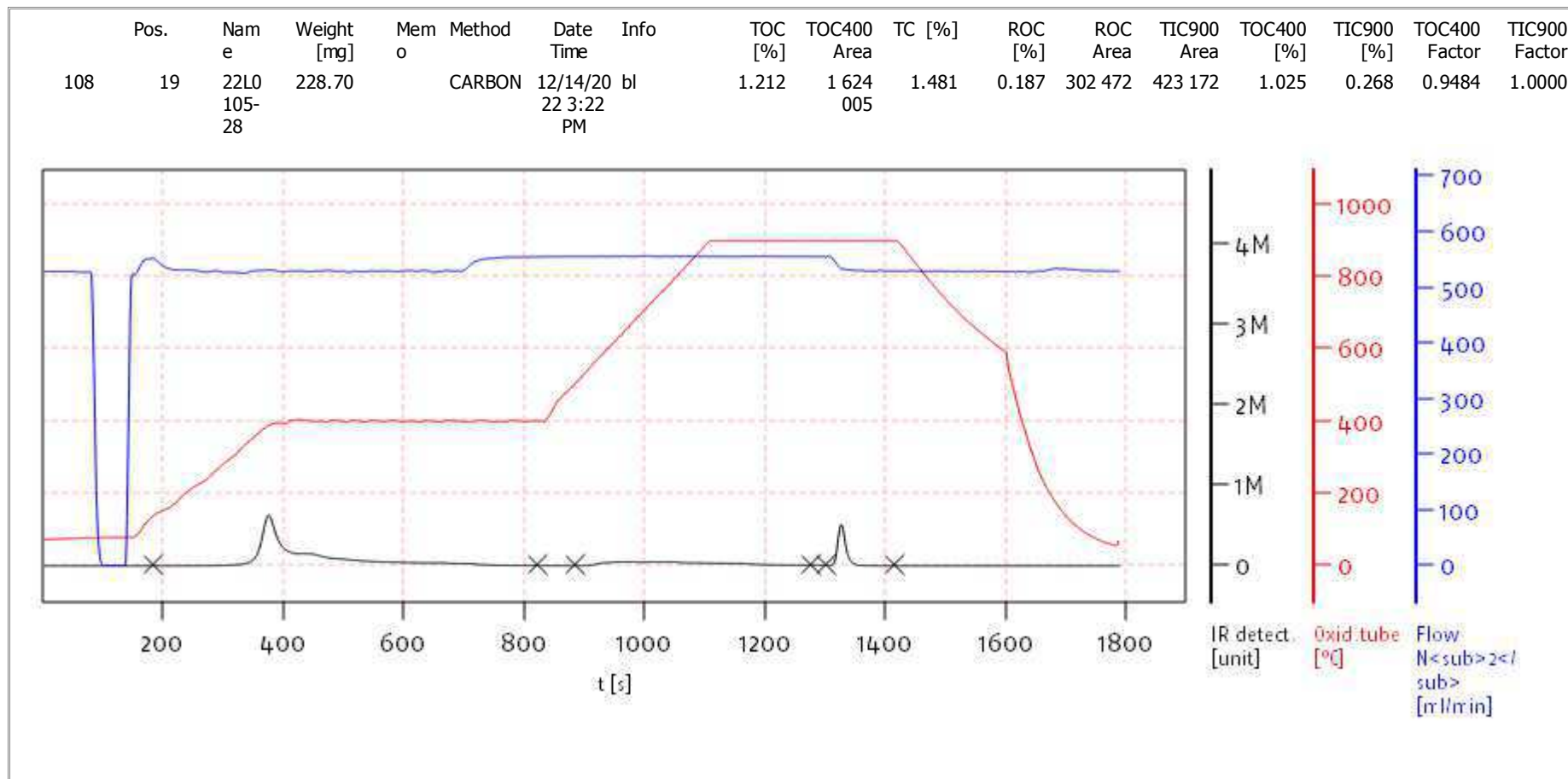
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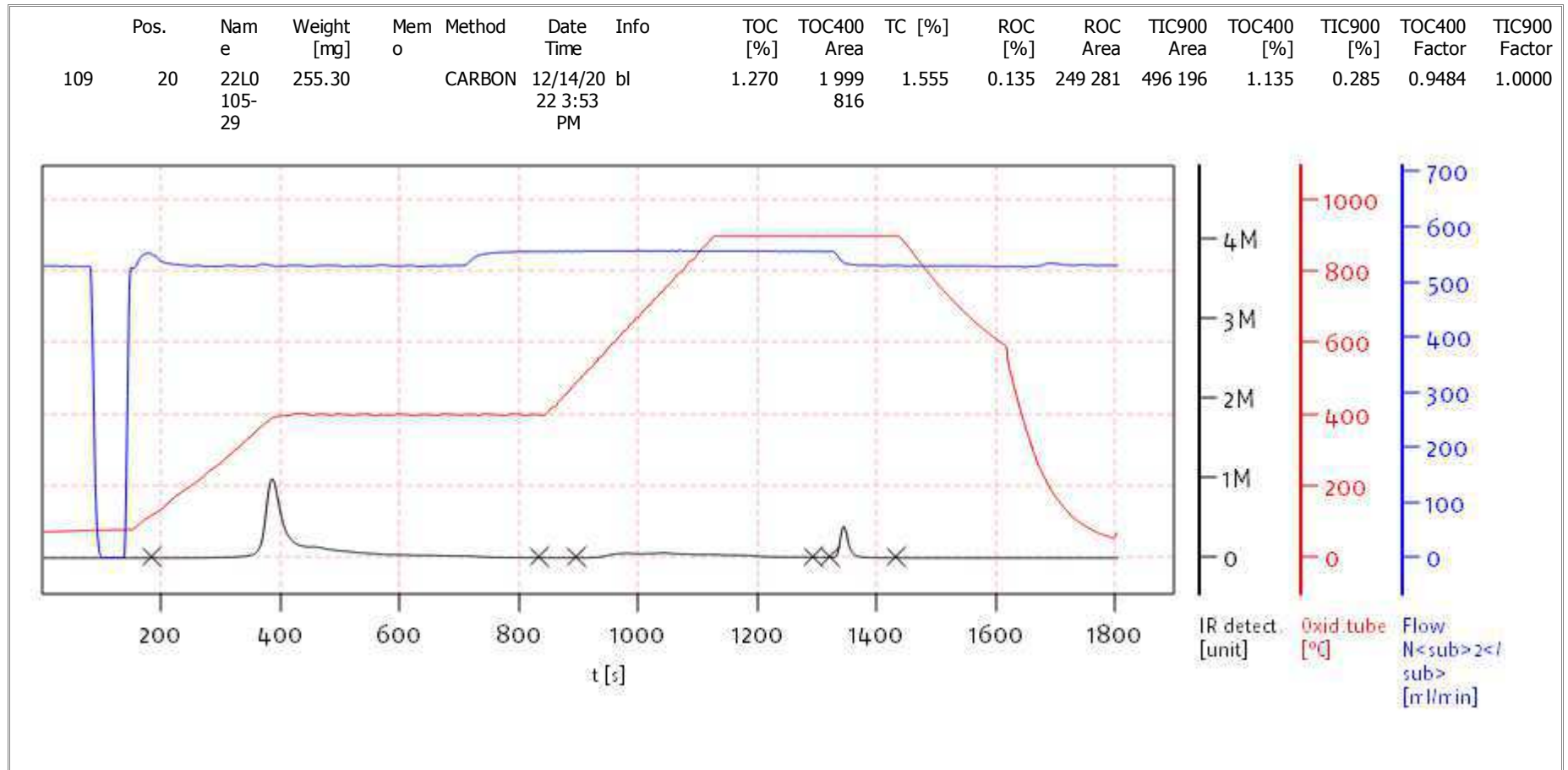
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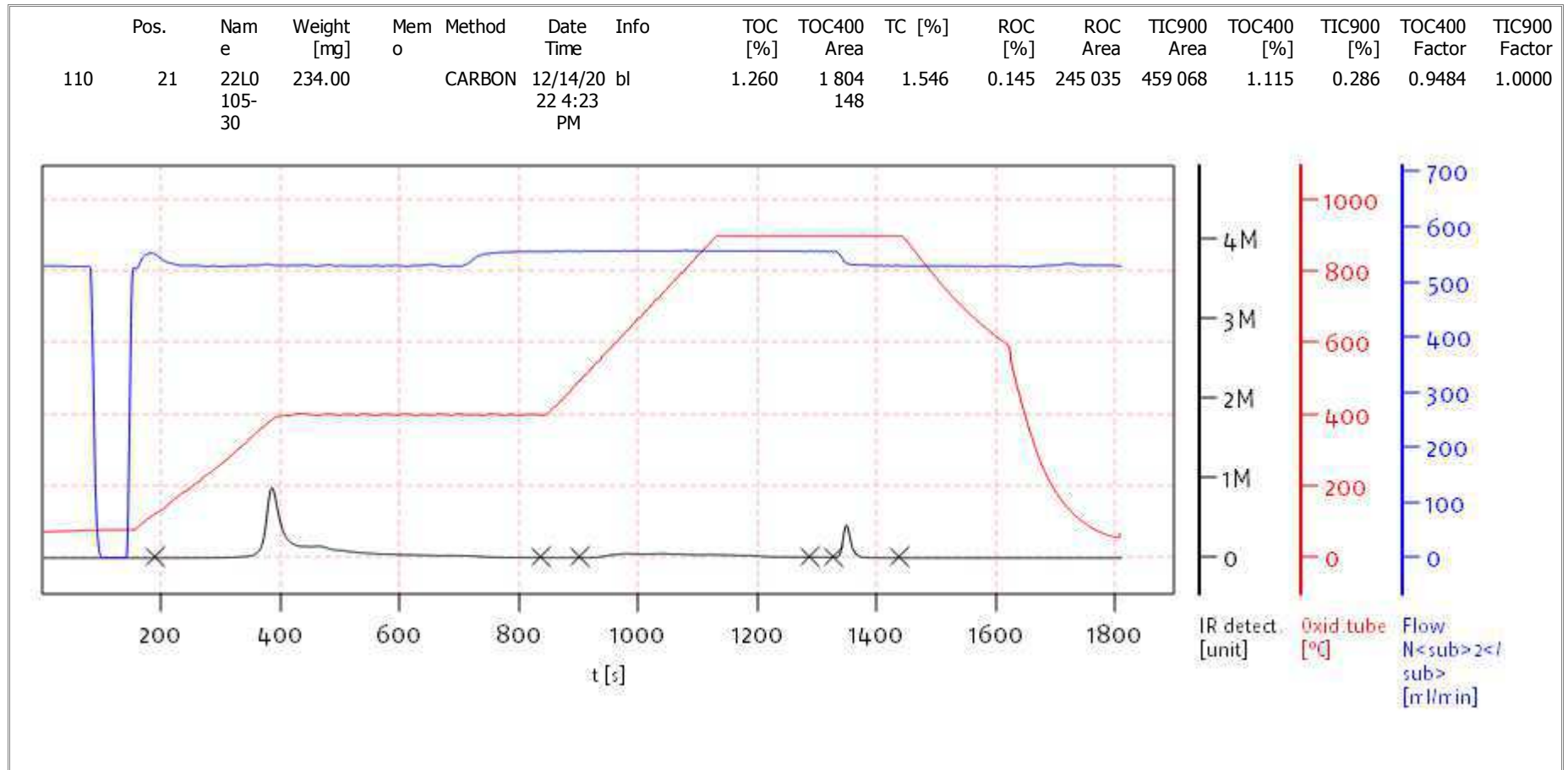
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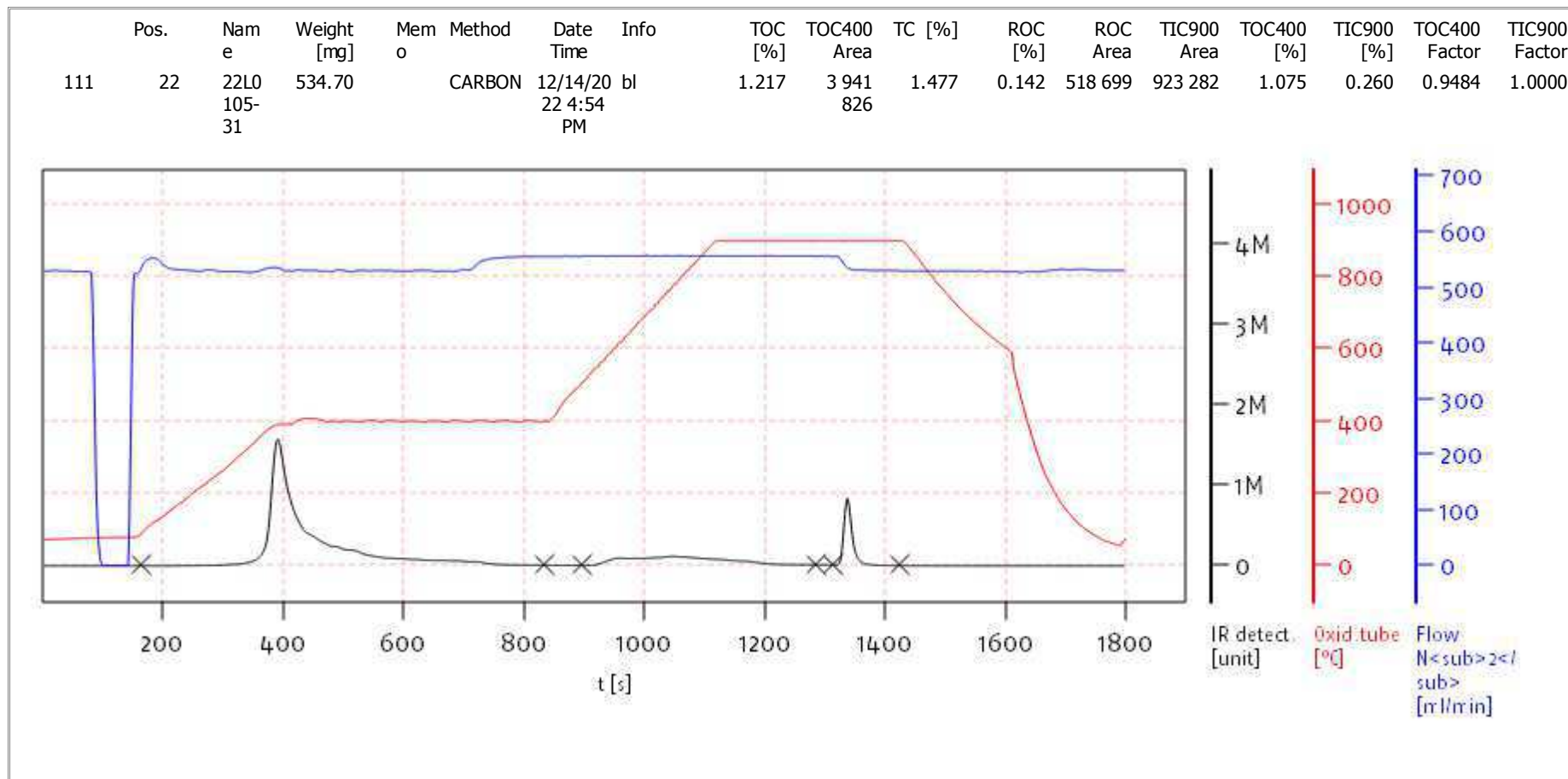
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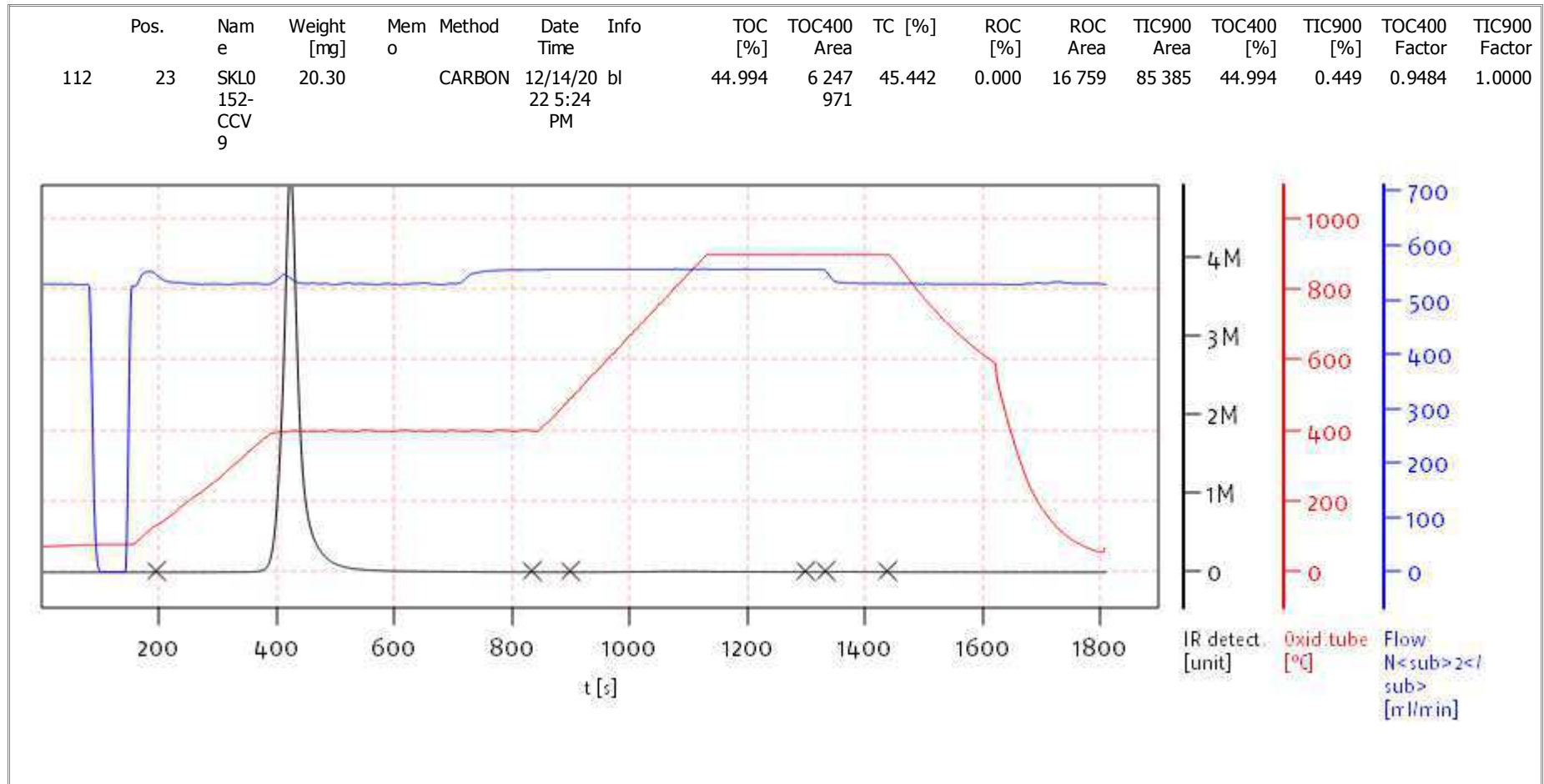
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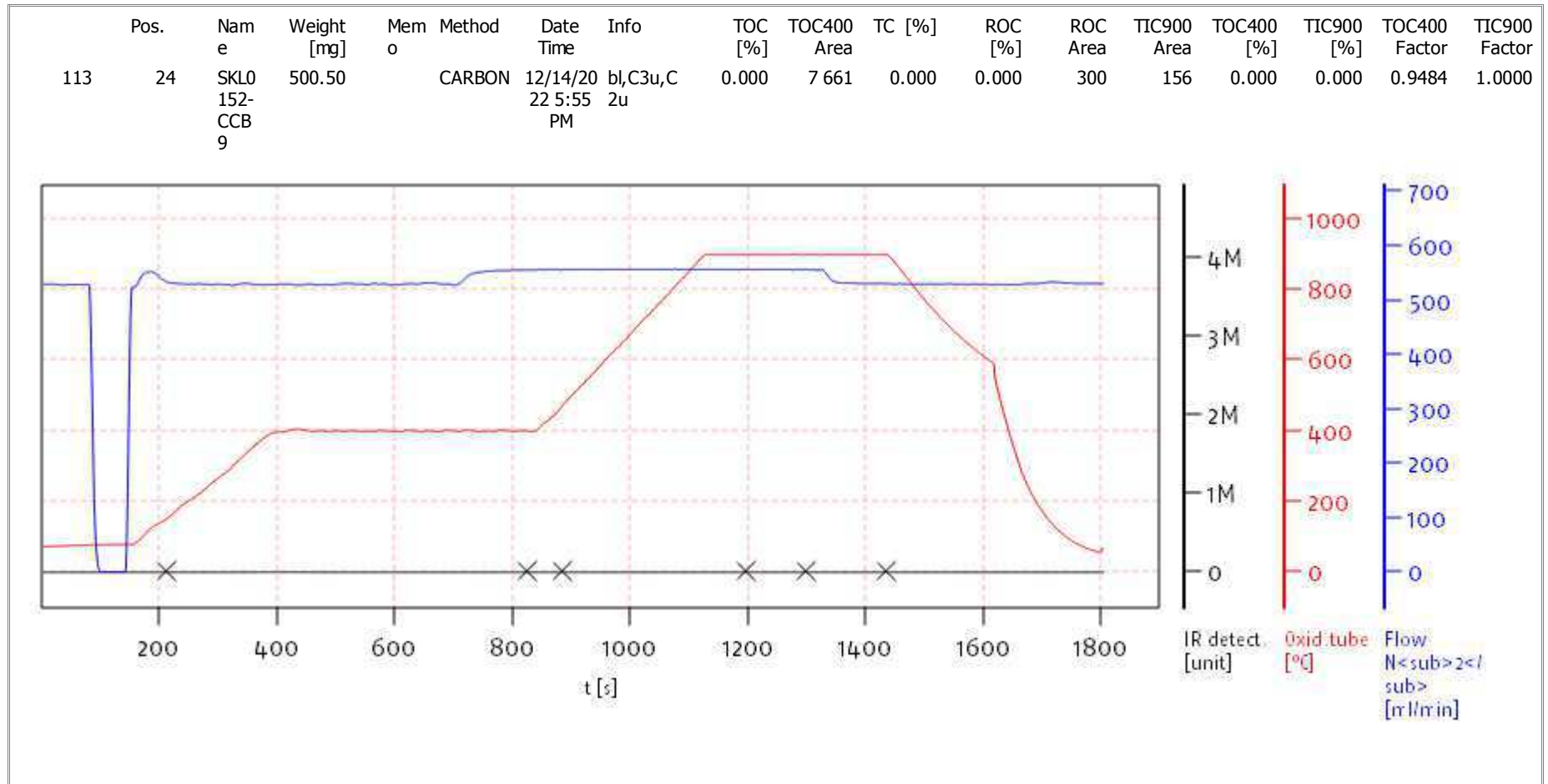
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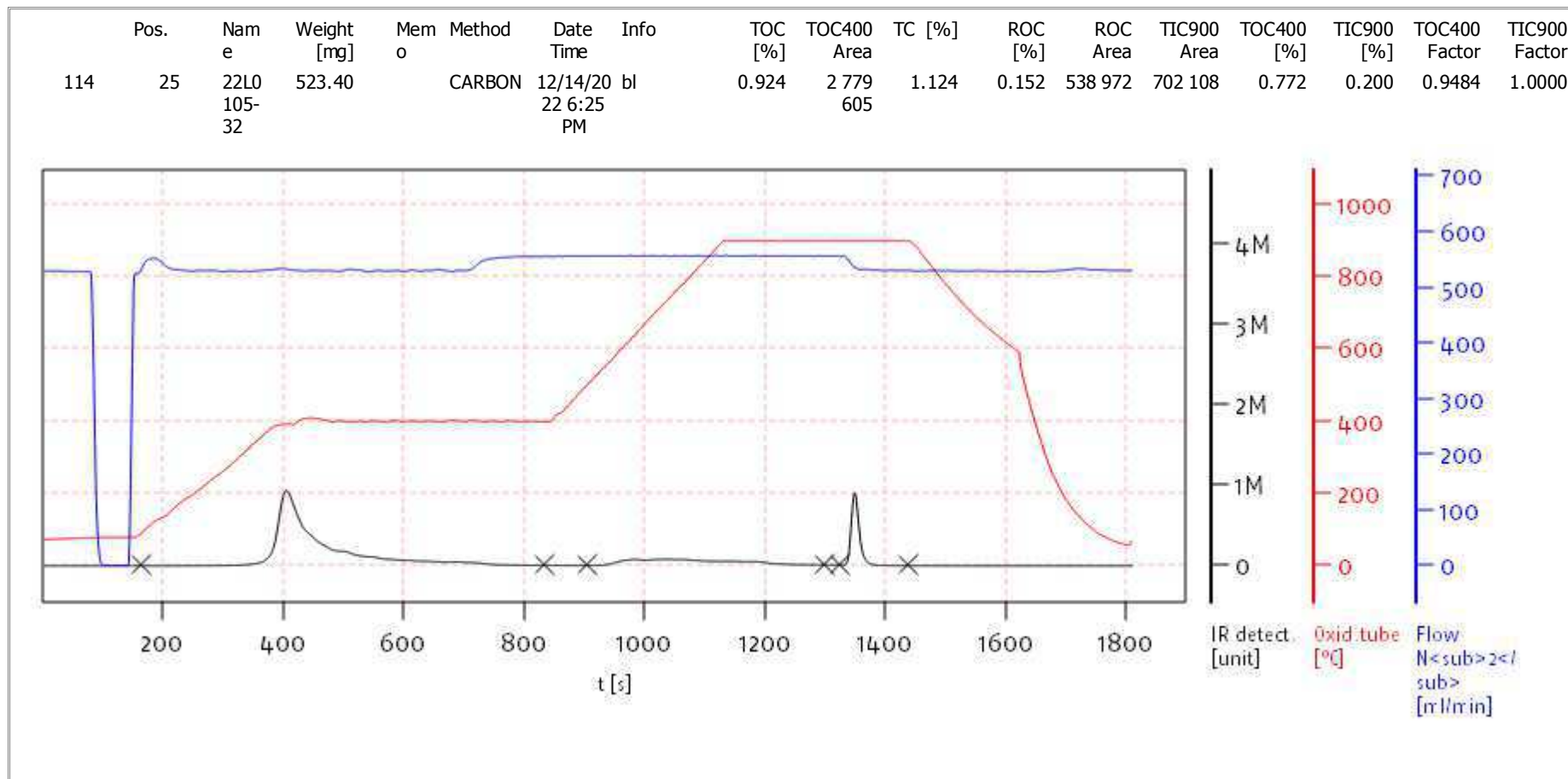
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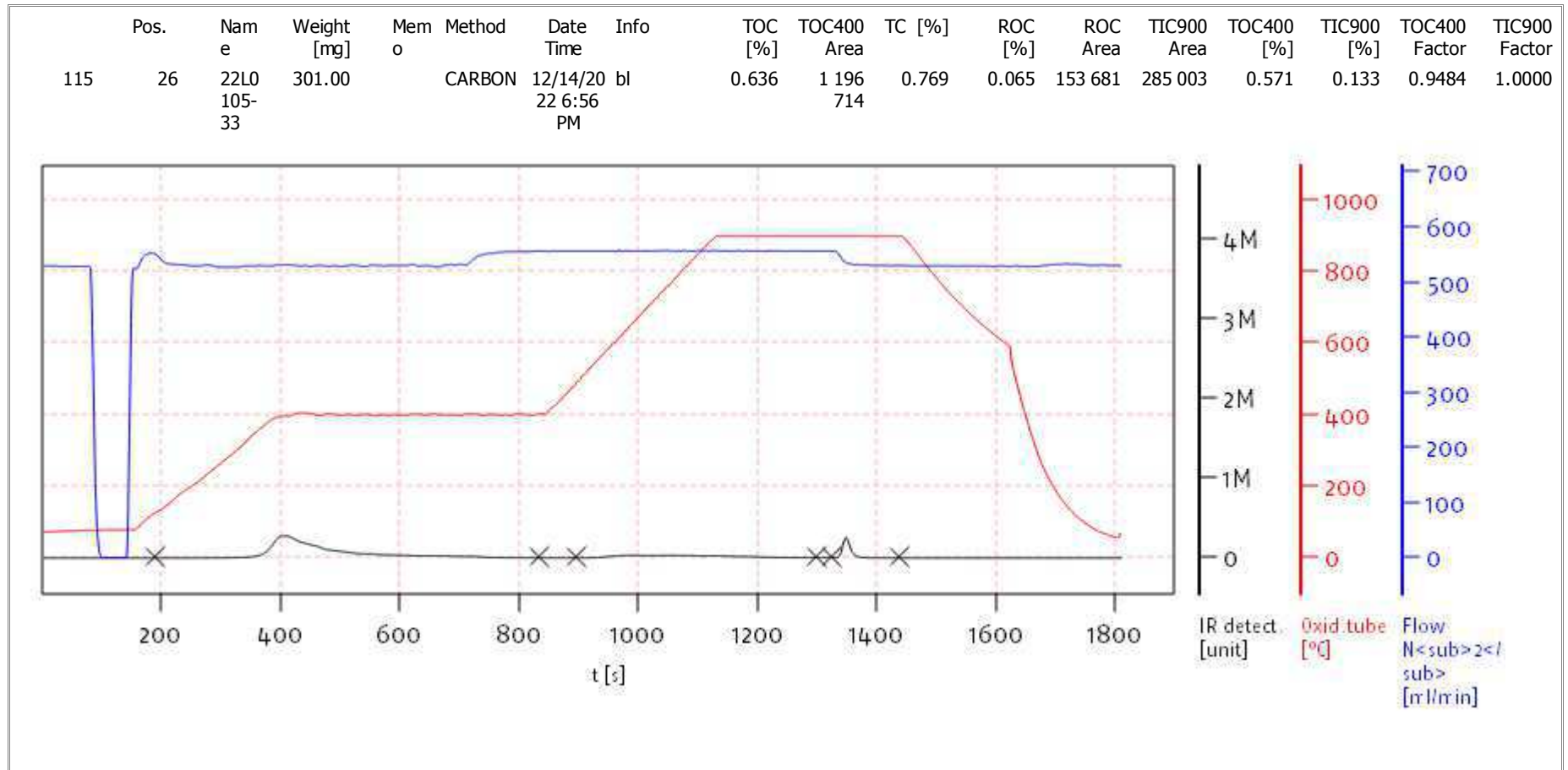
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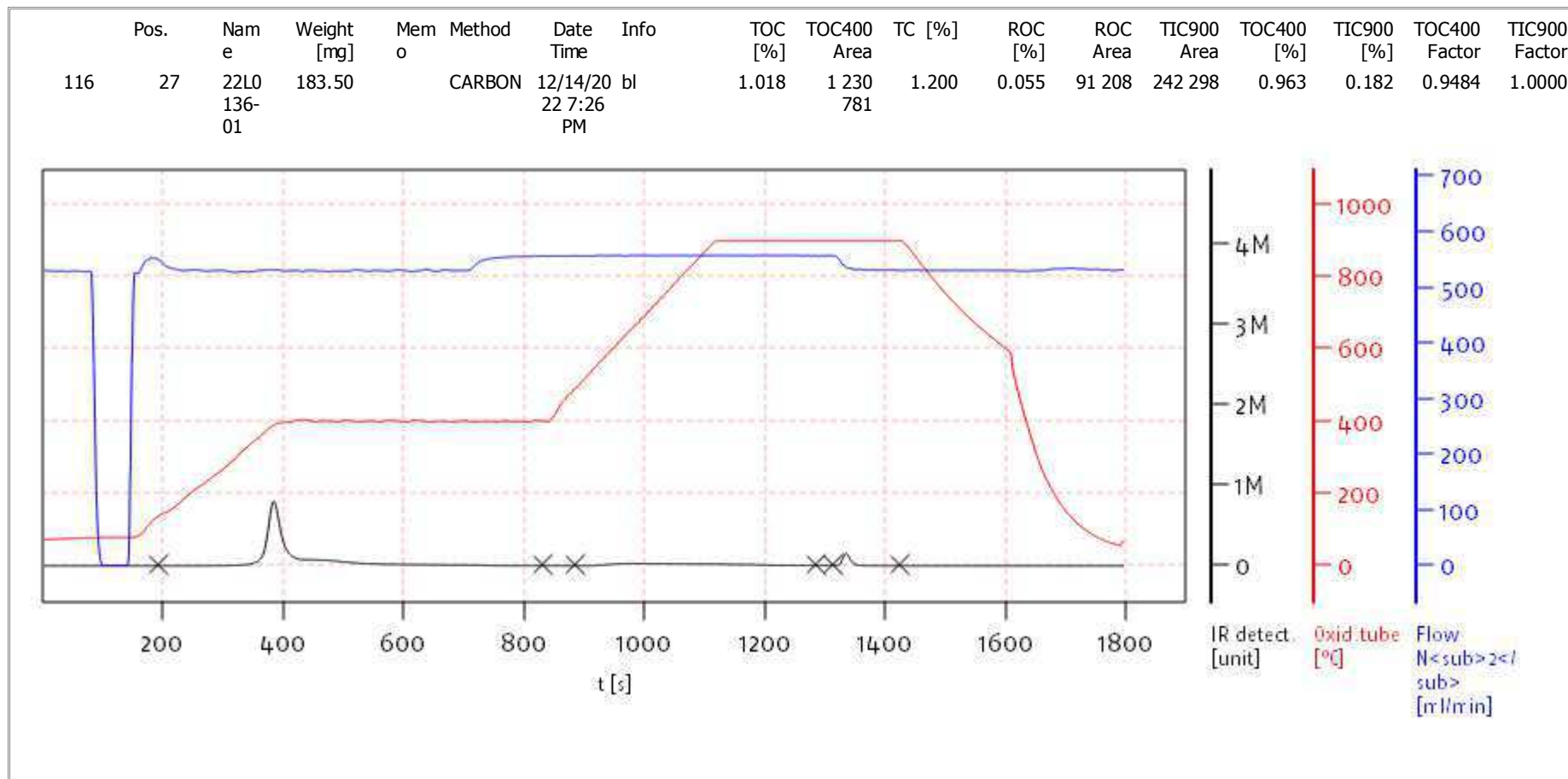
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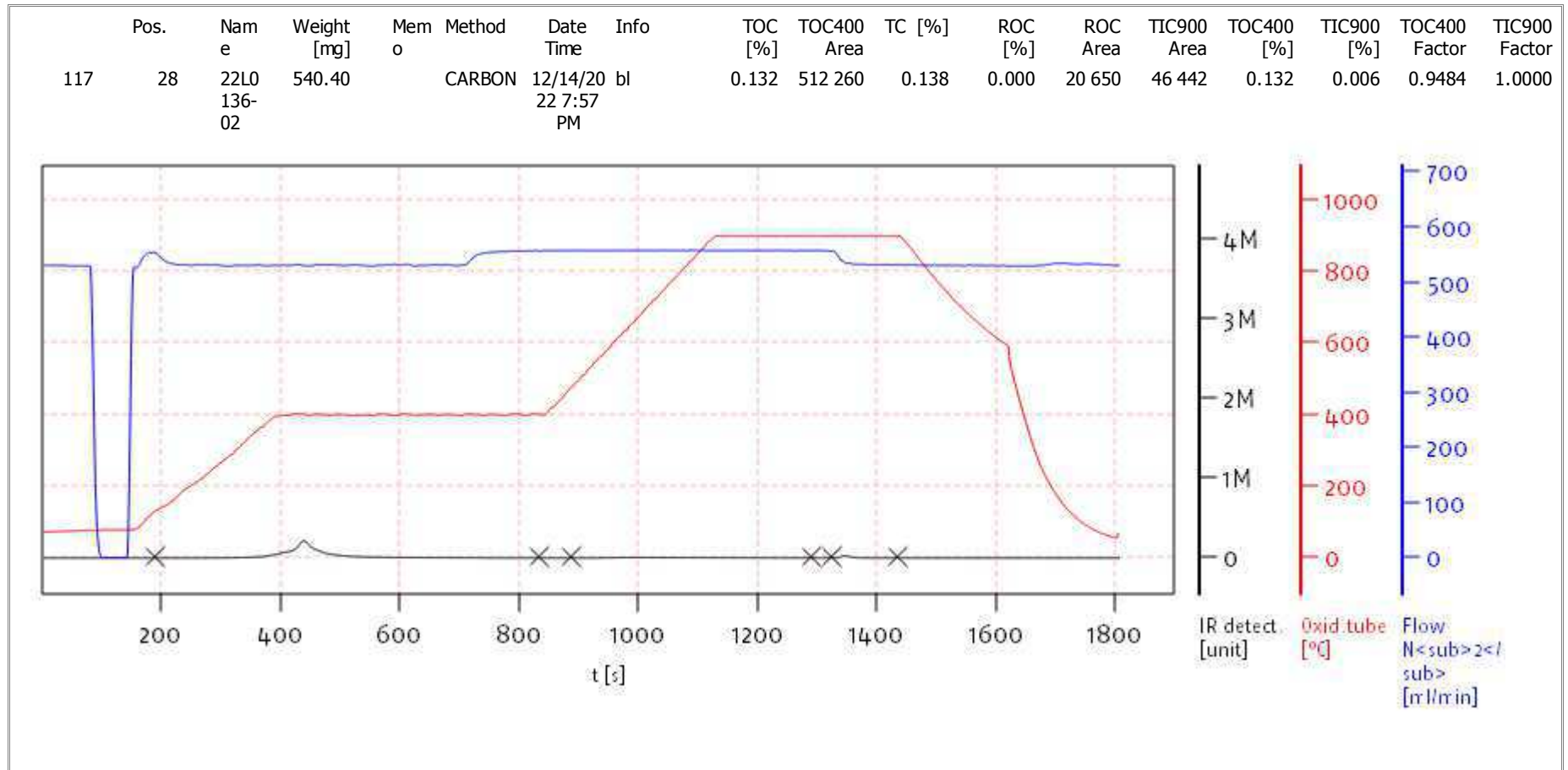
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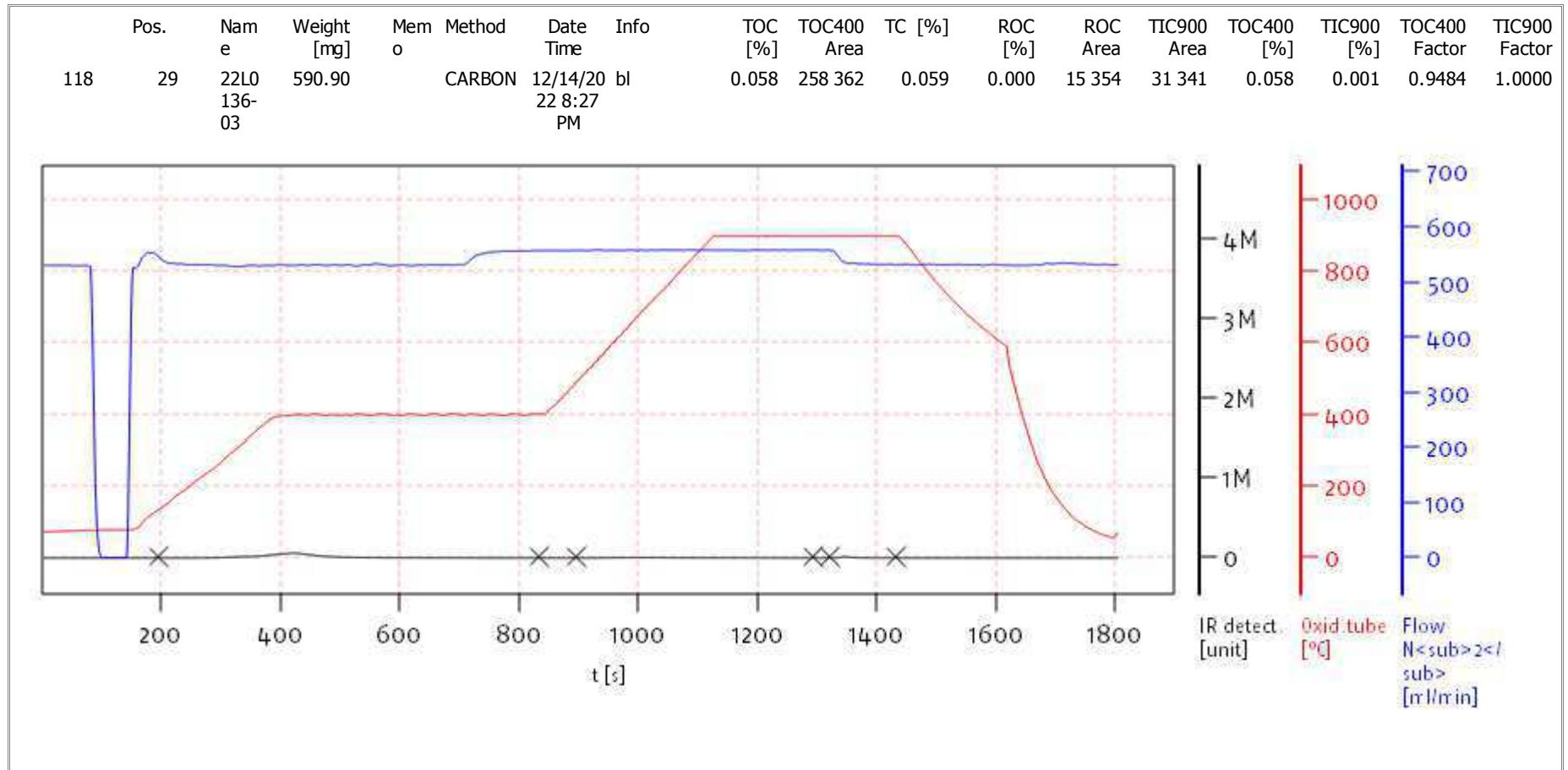
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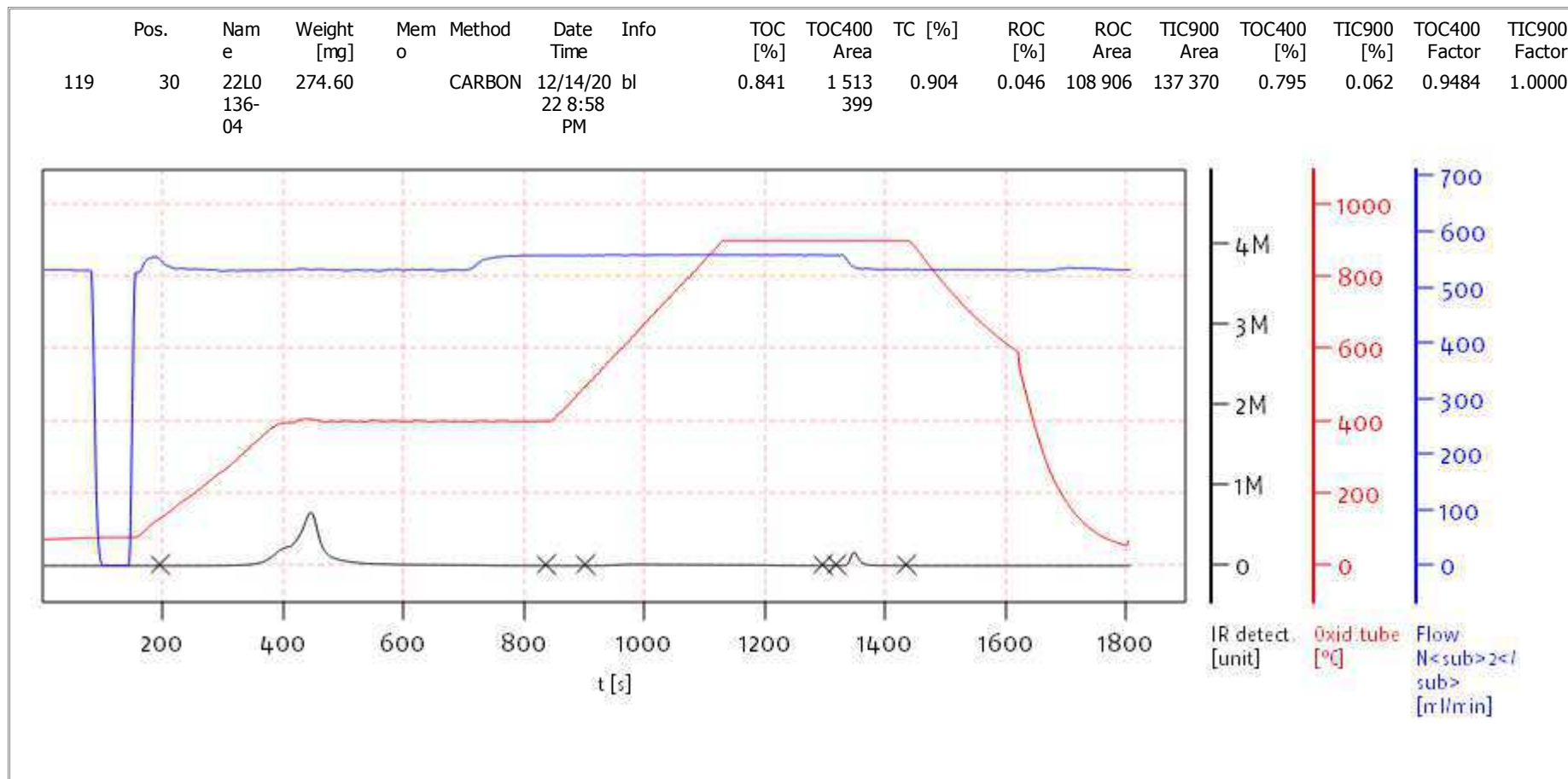
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 Serial No: 0300.181017
 Mode CCC

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 Balance: BAL3
 Analyst: DOE



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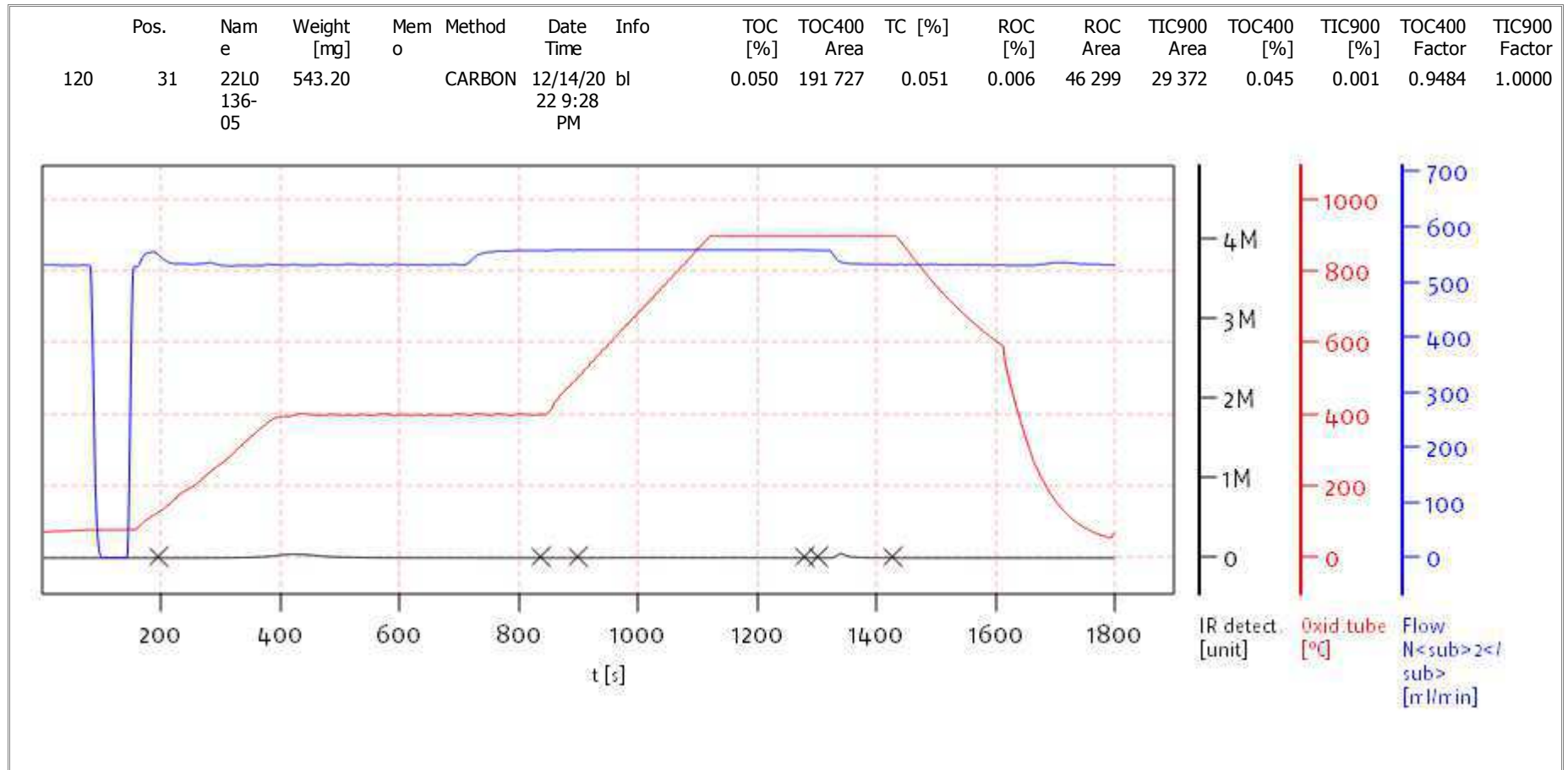
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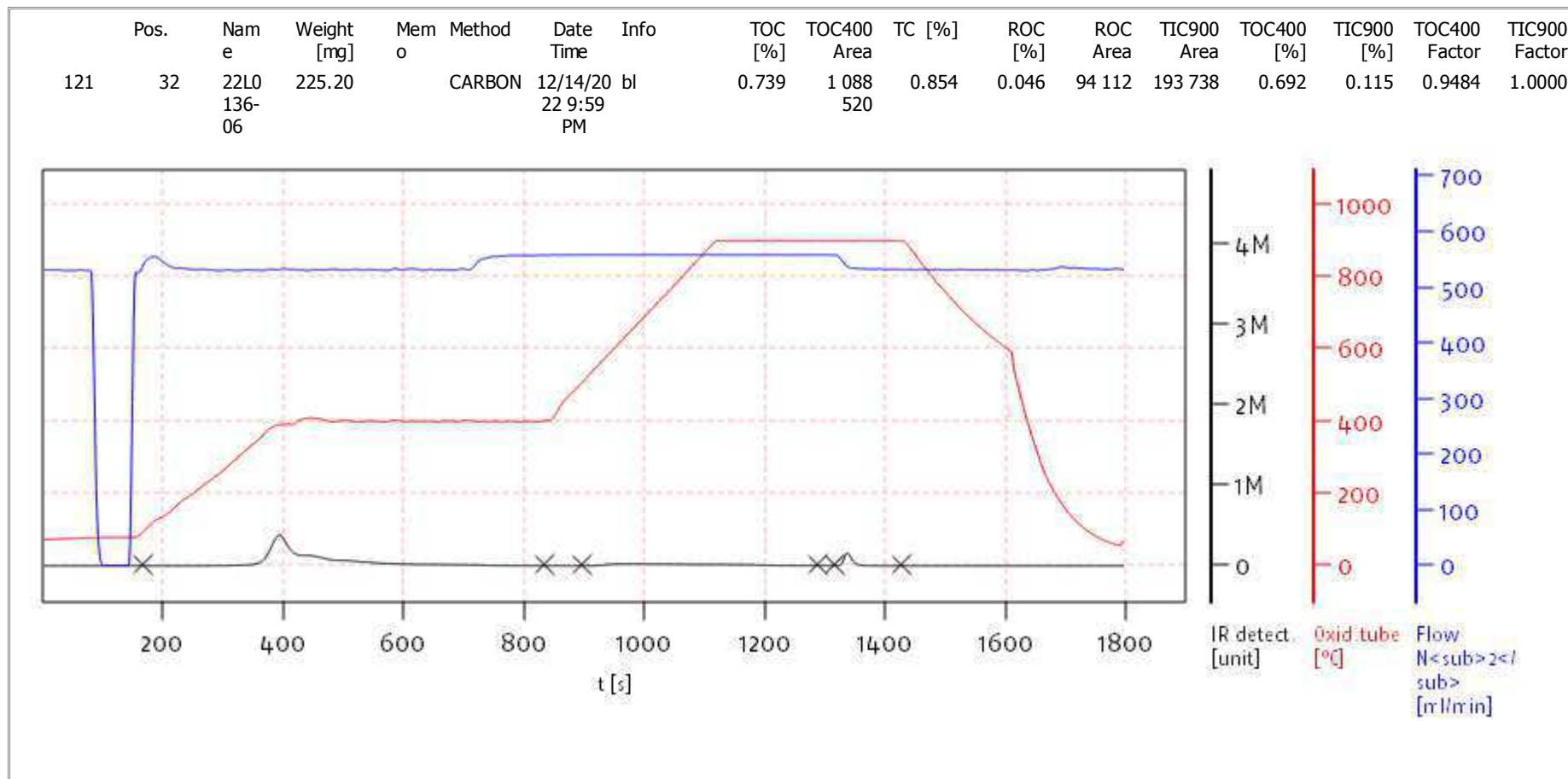
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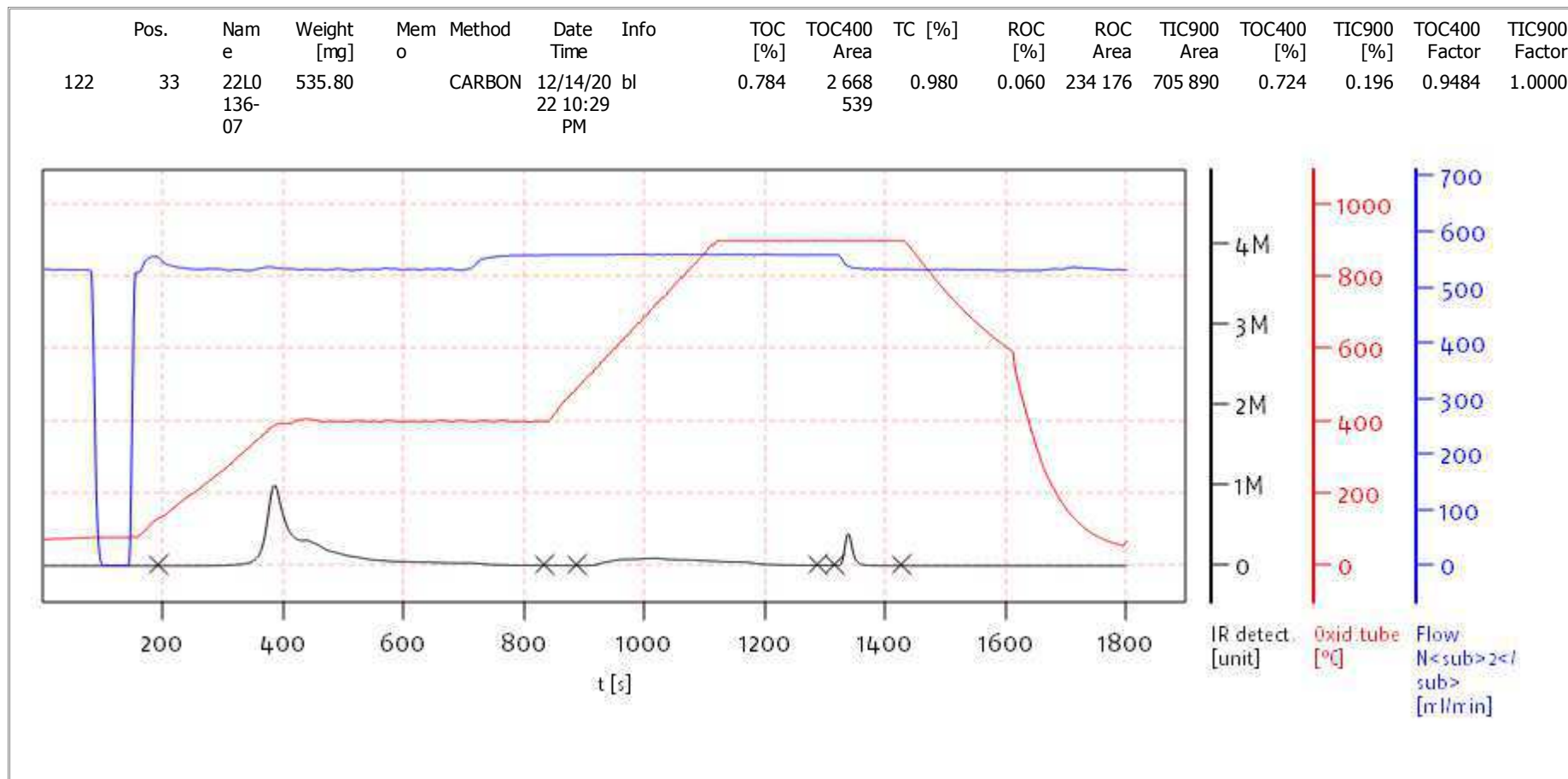
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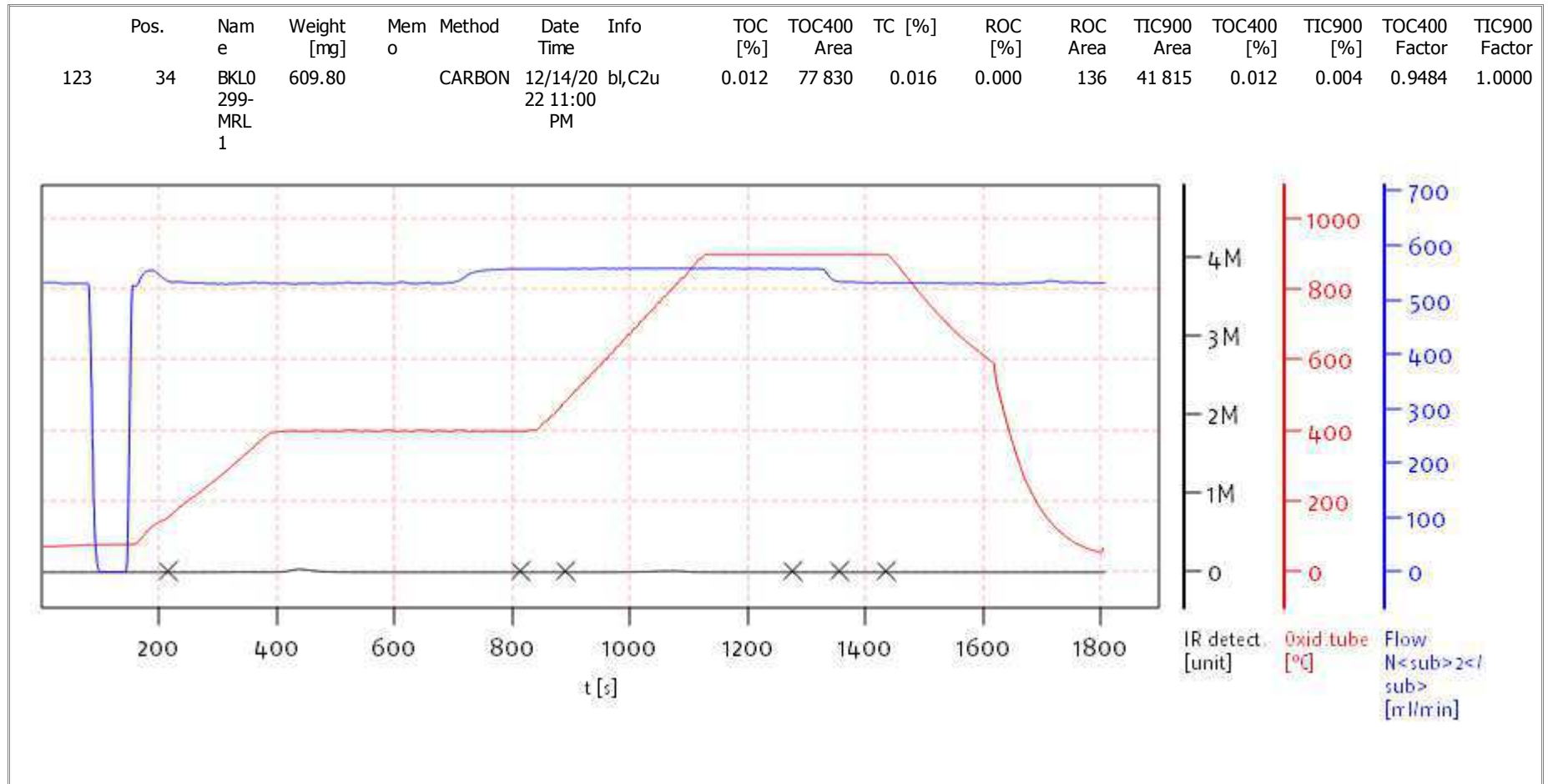
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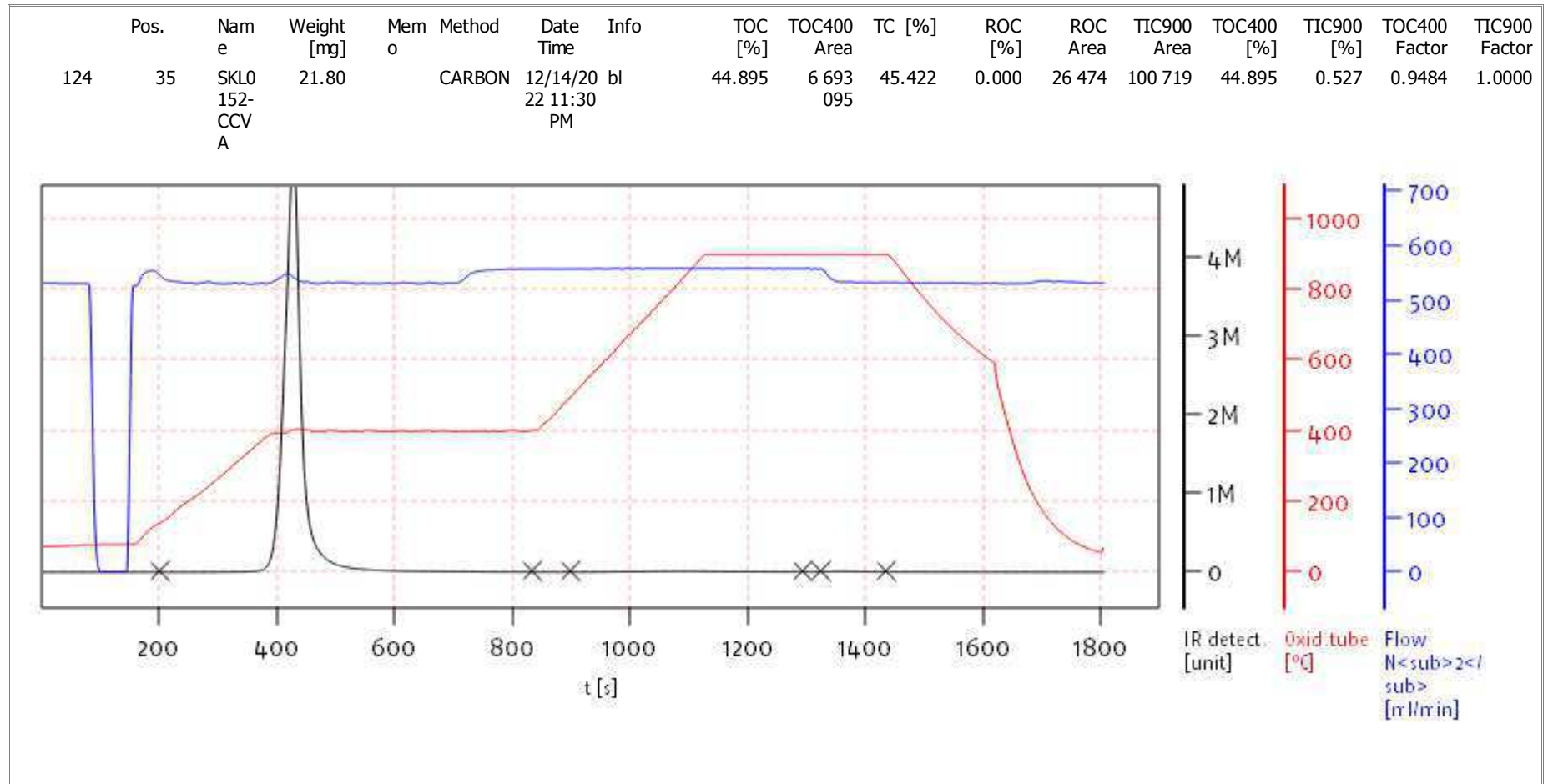
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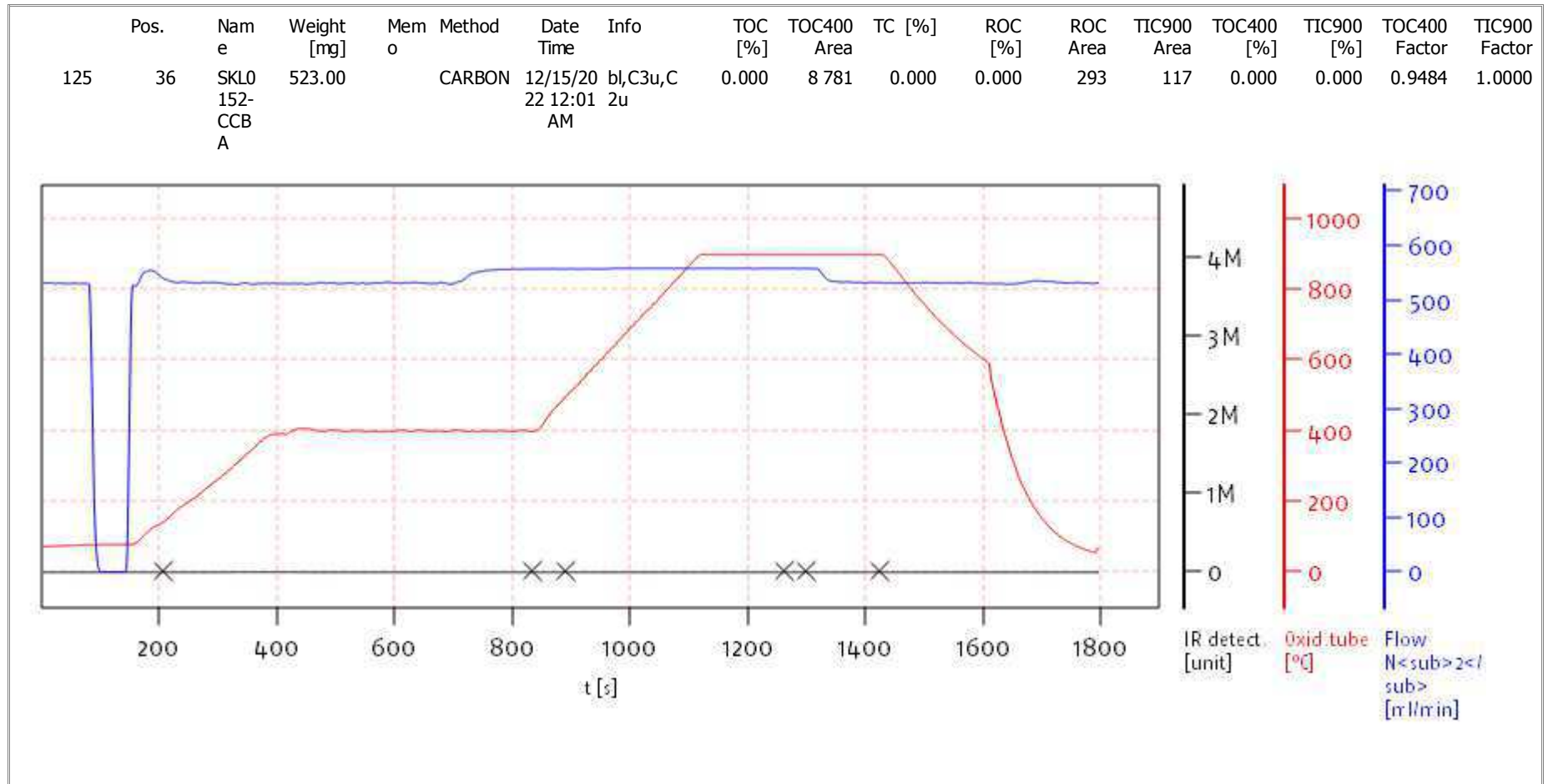
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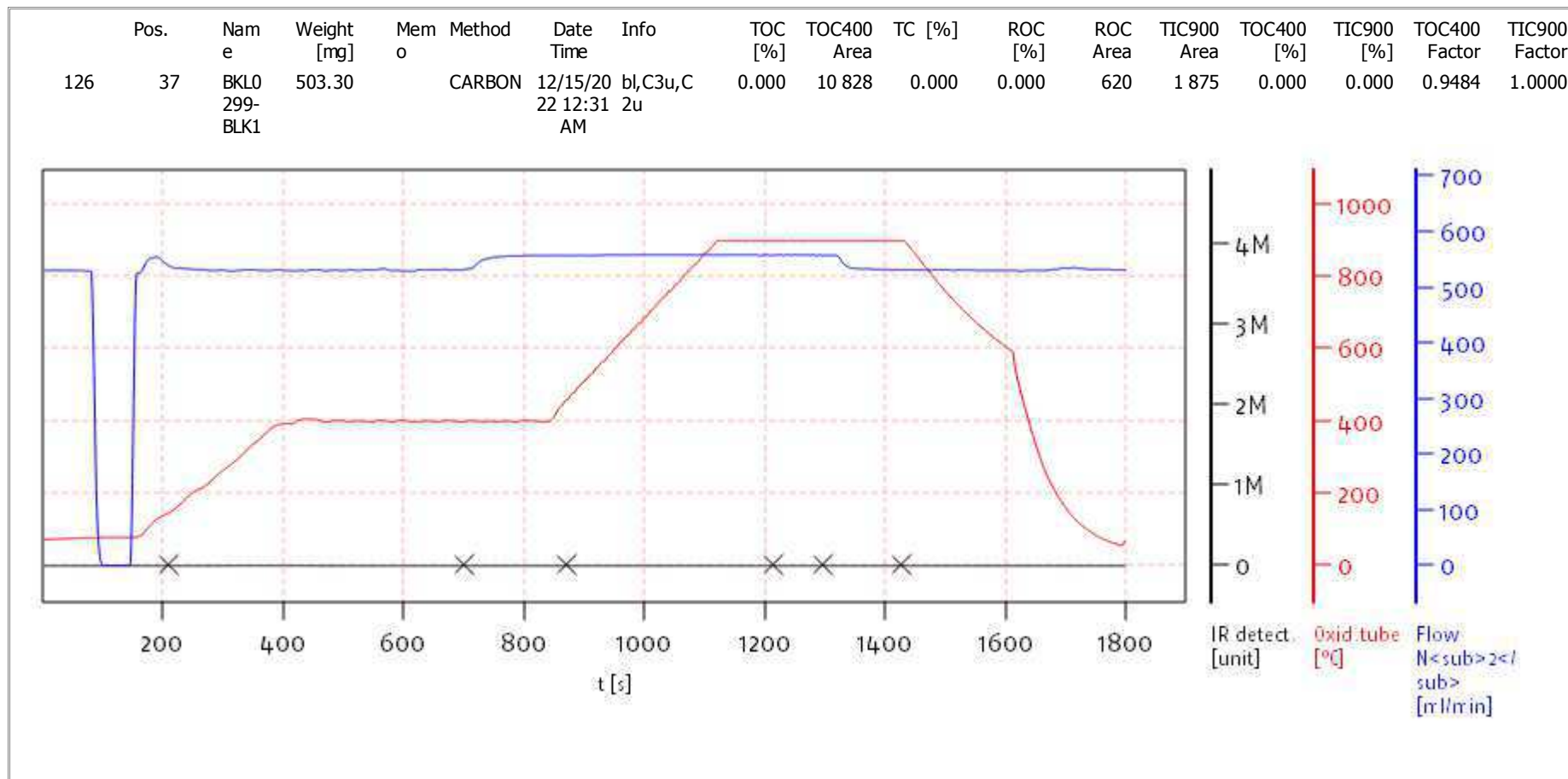
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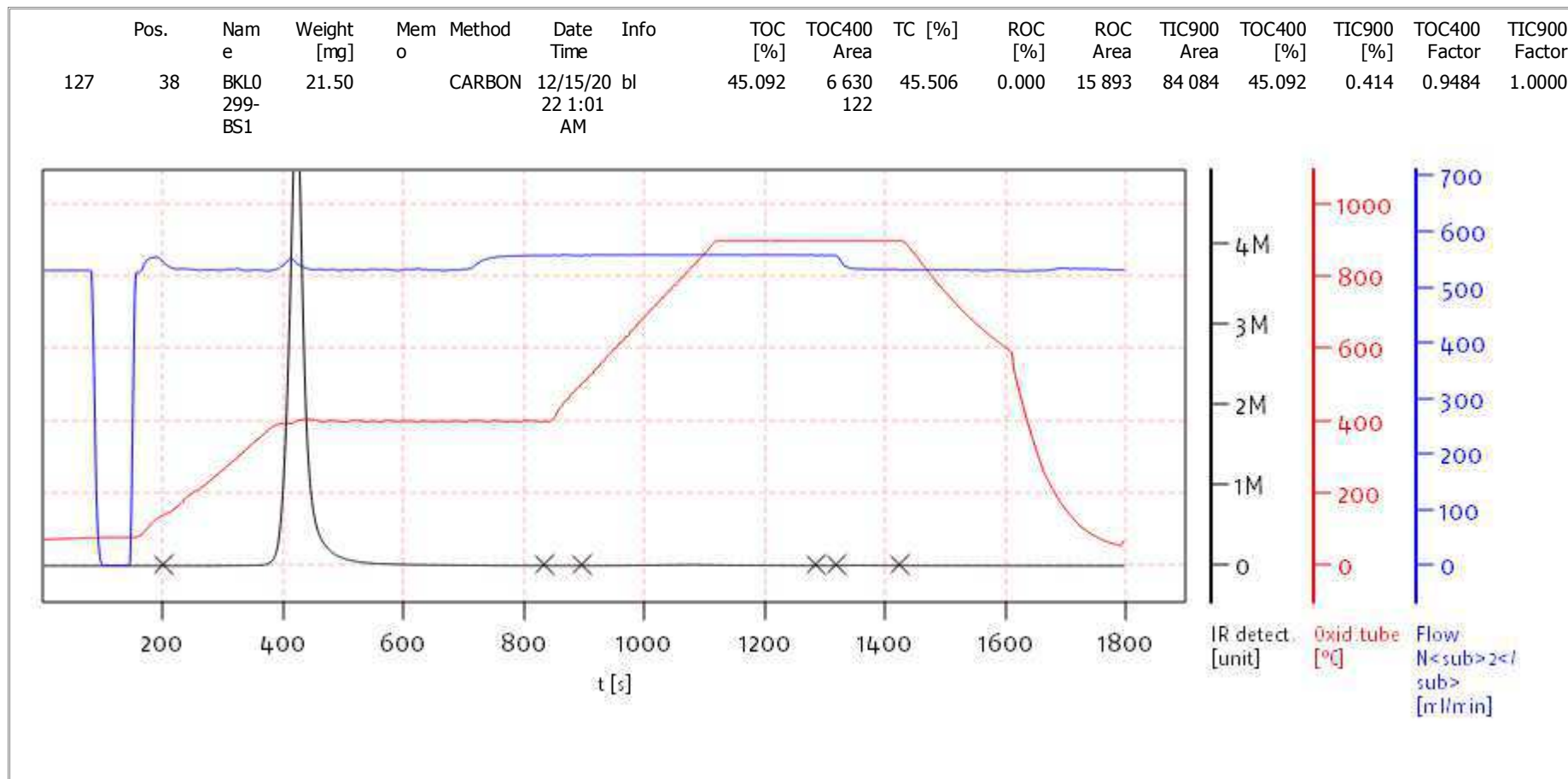
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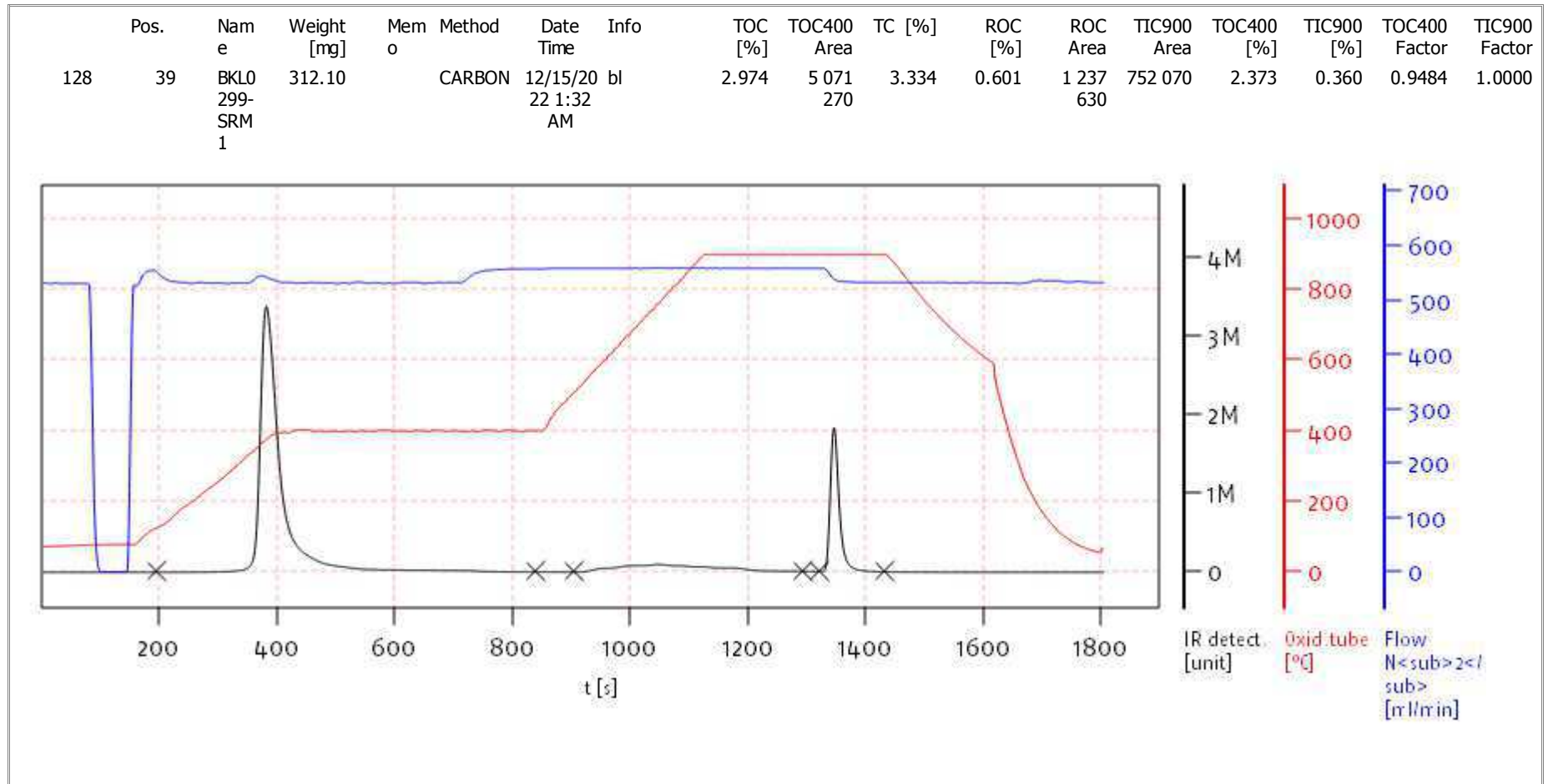
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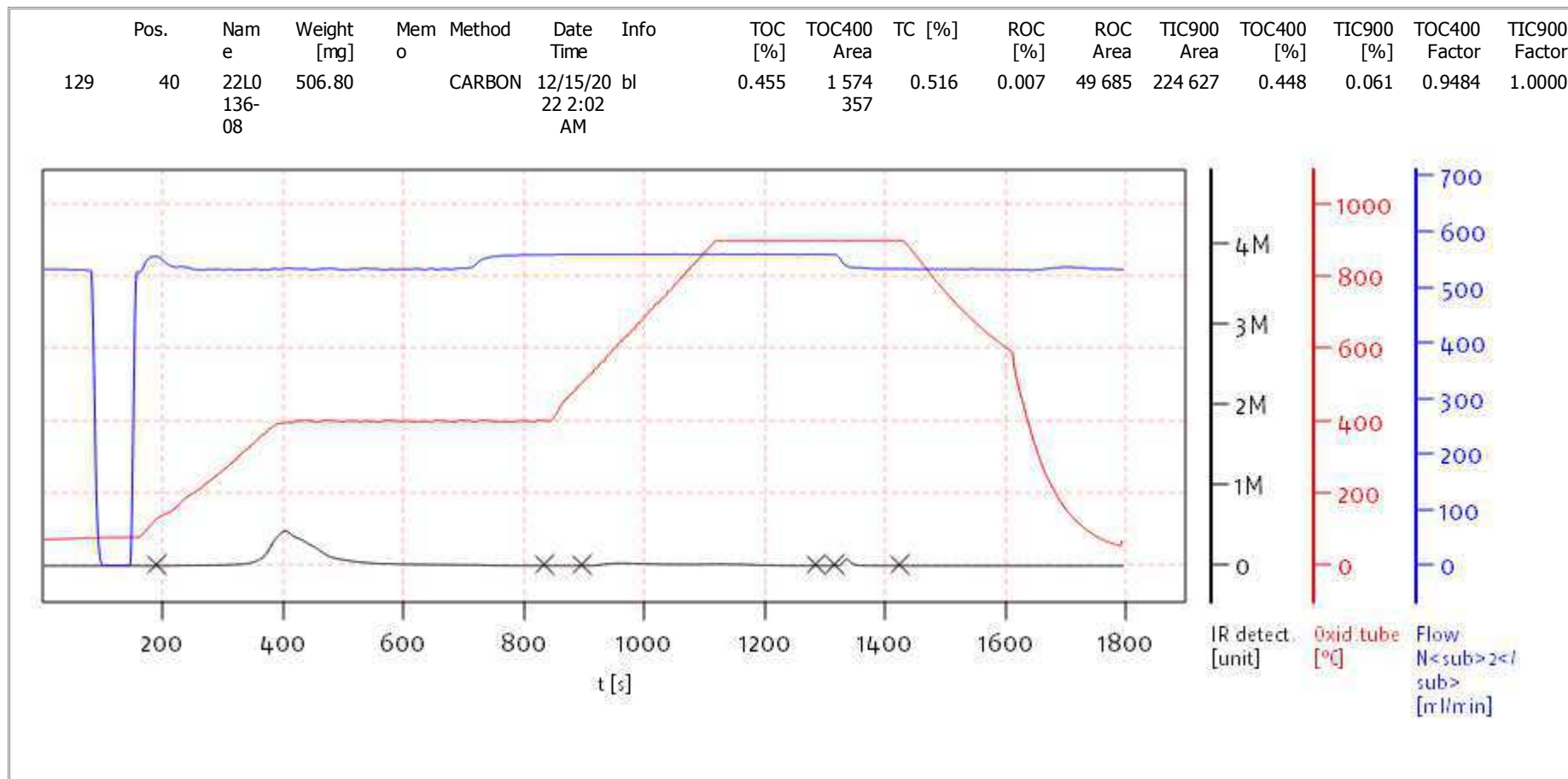
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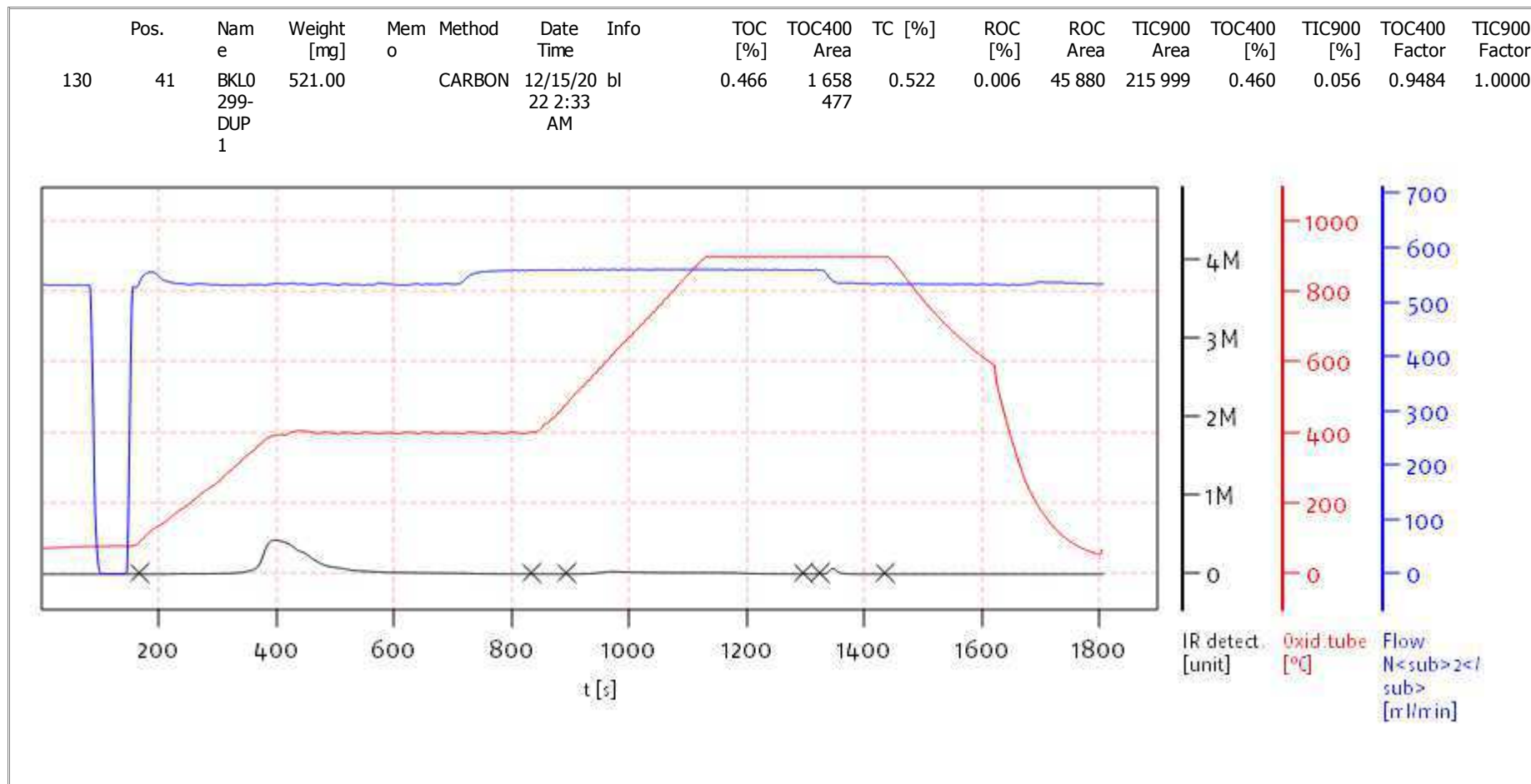
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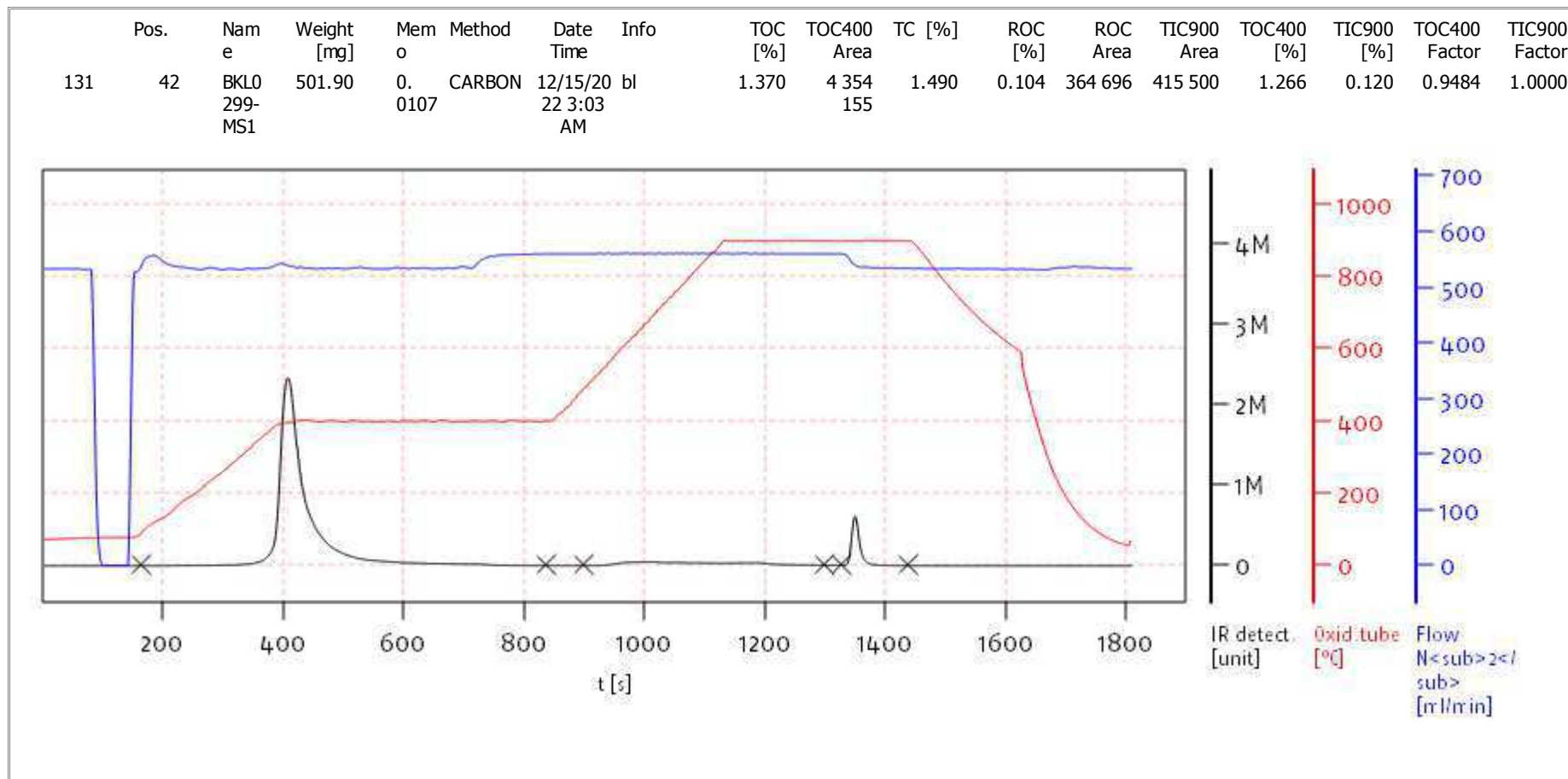
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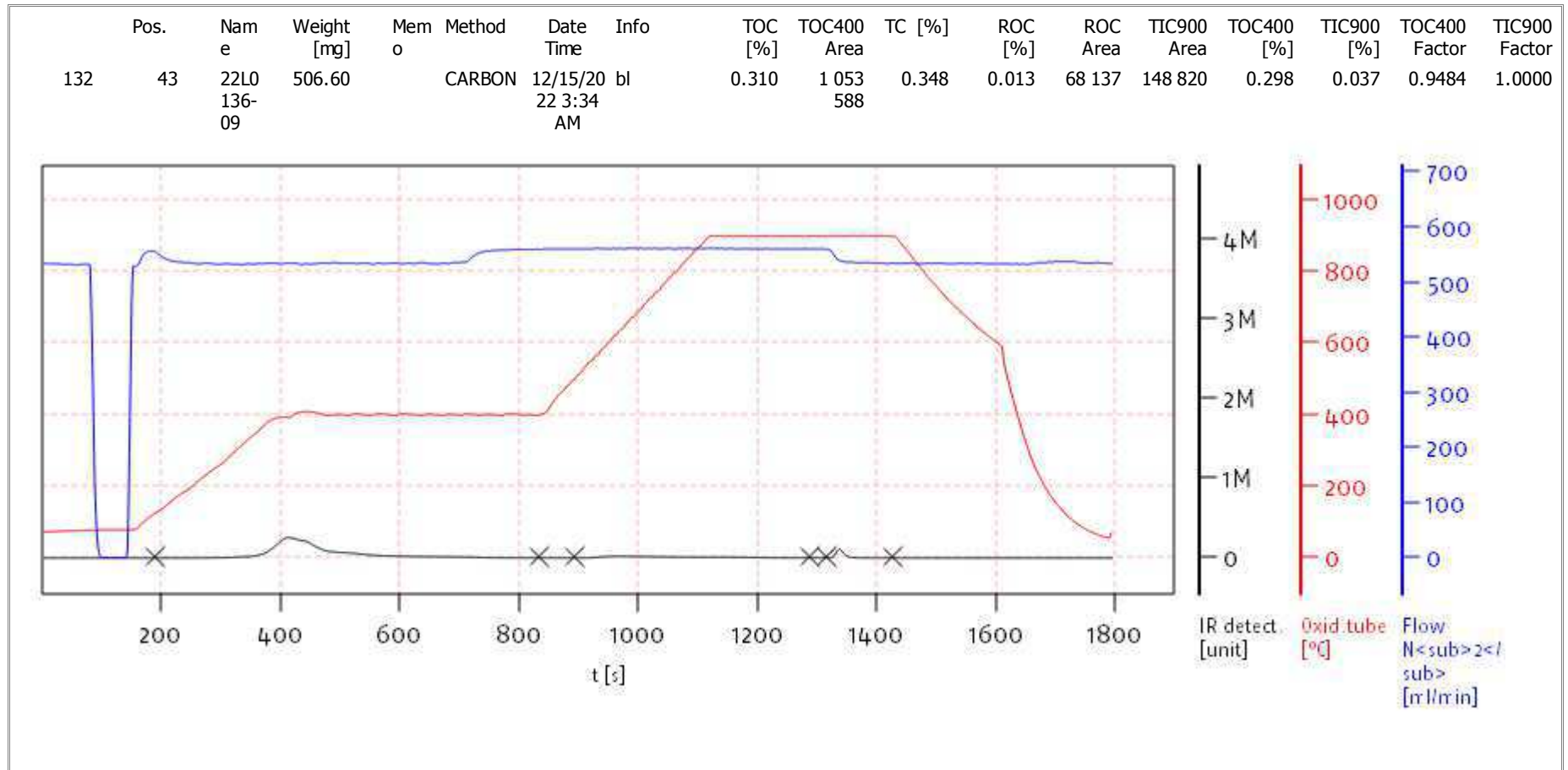
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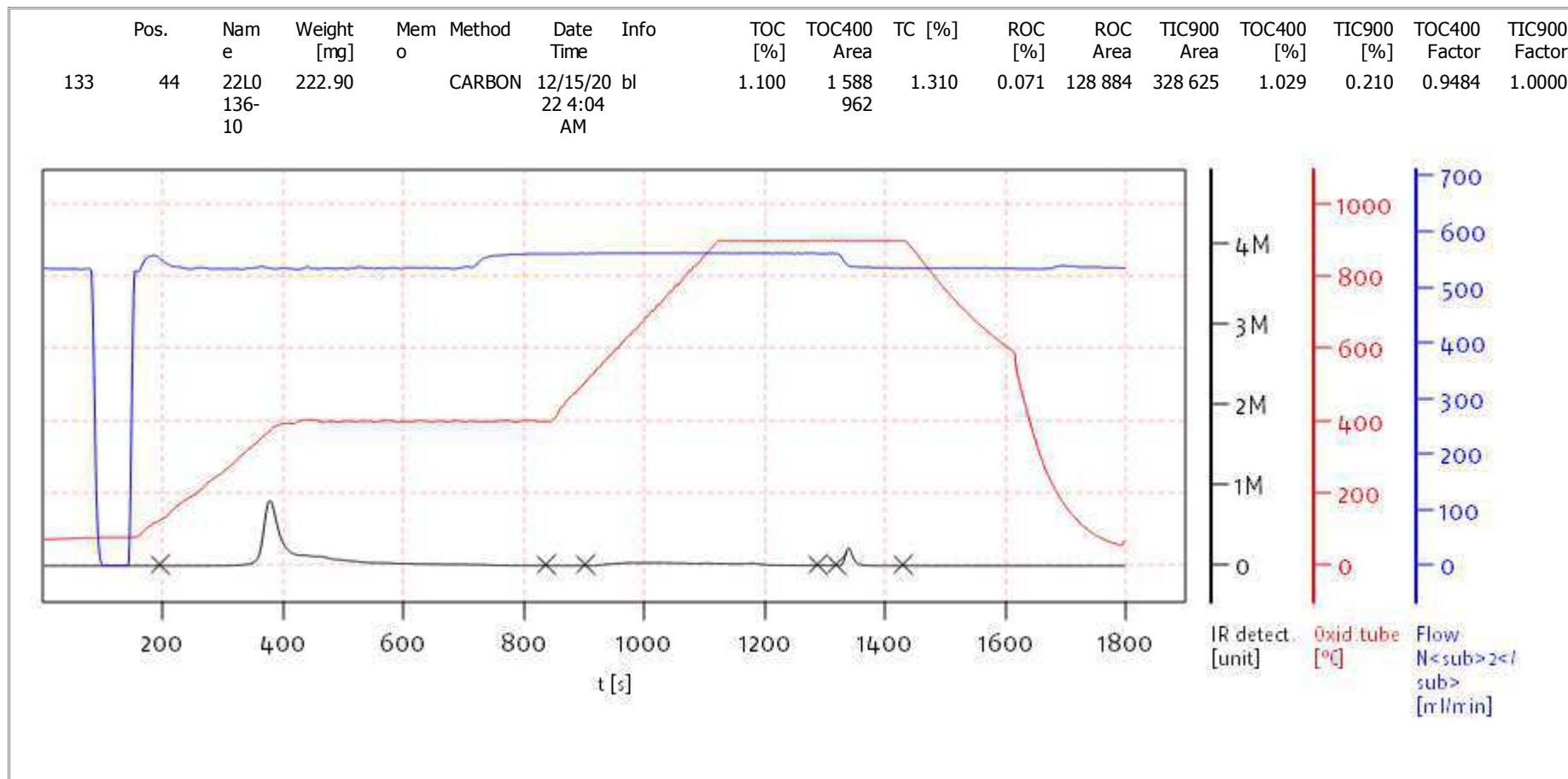
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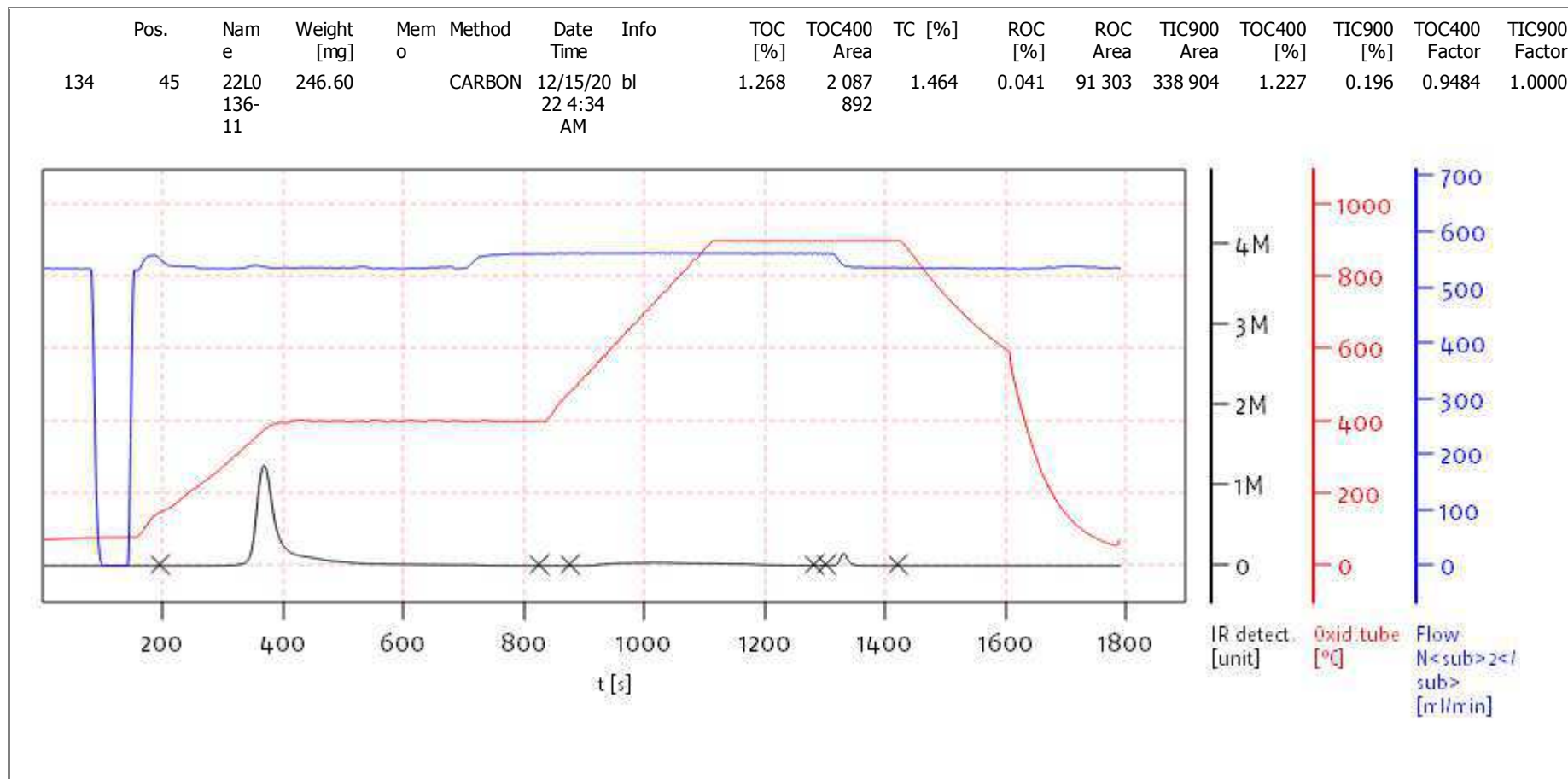
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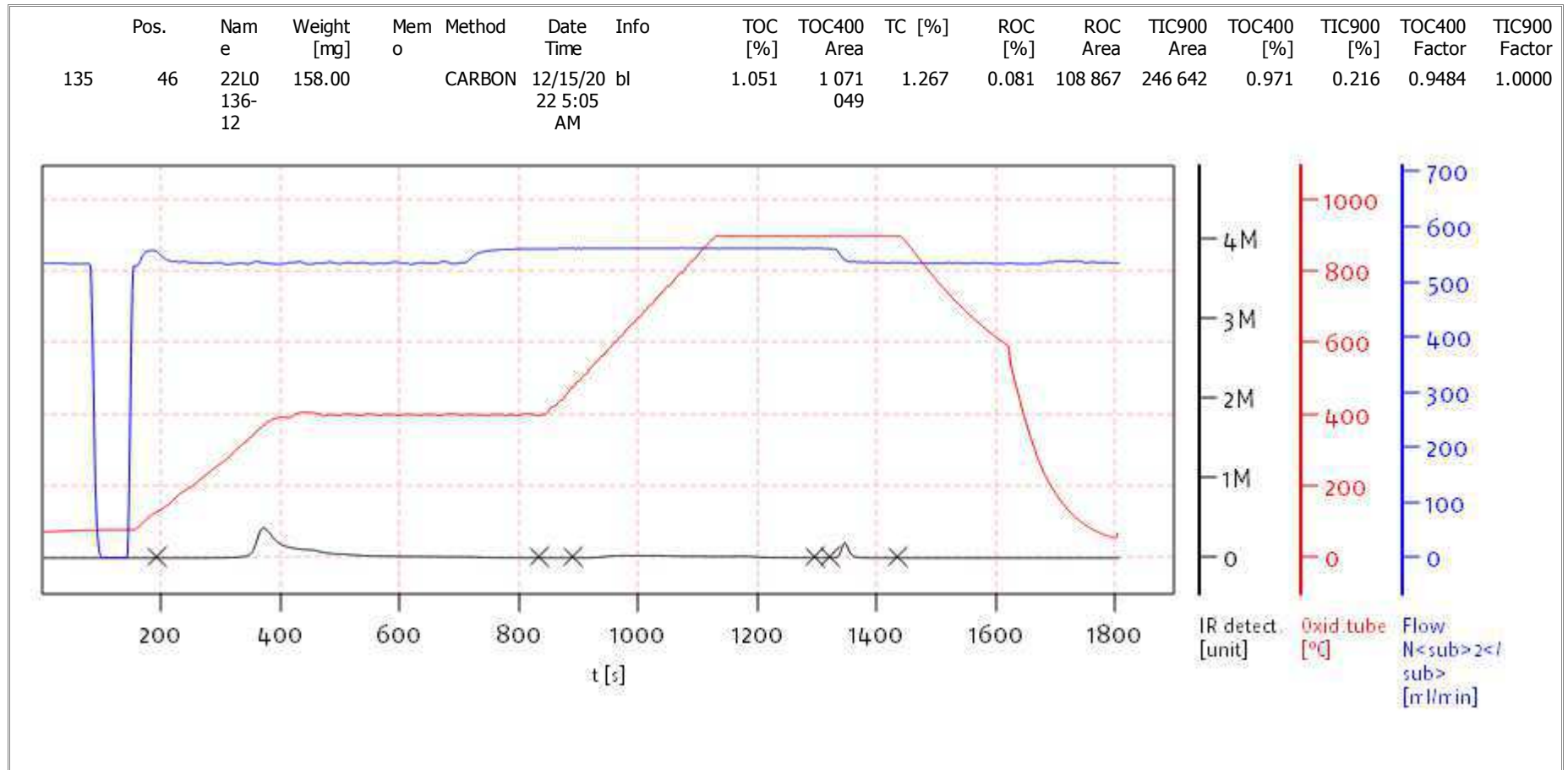
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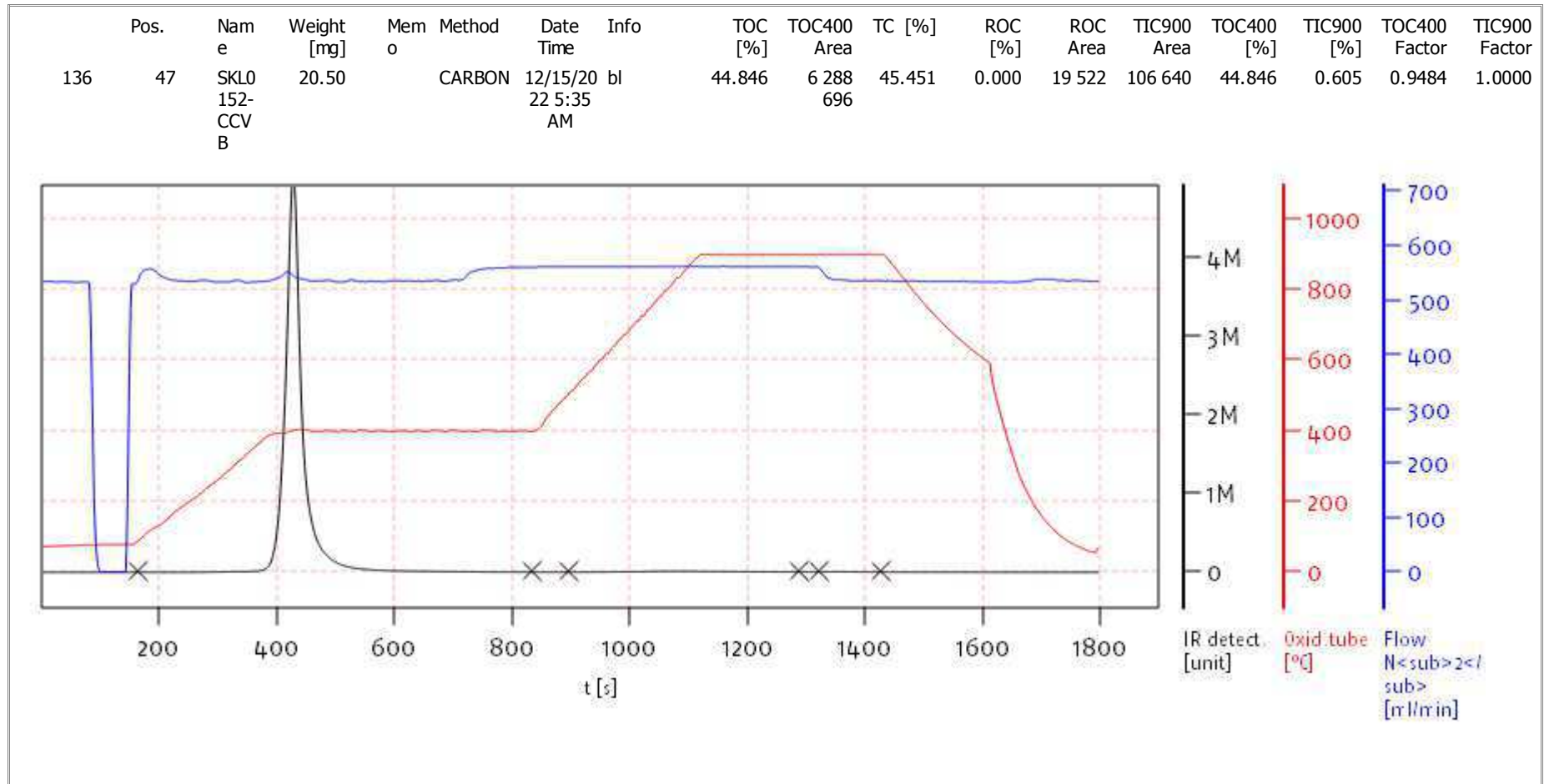
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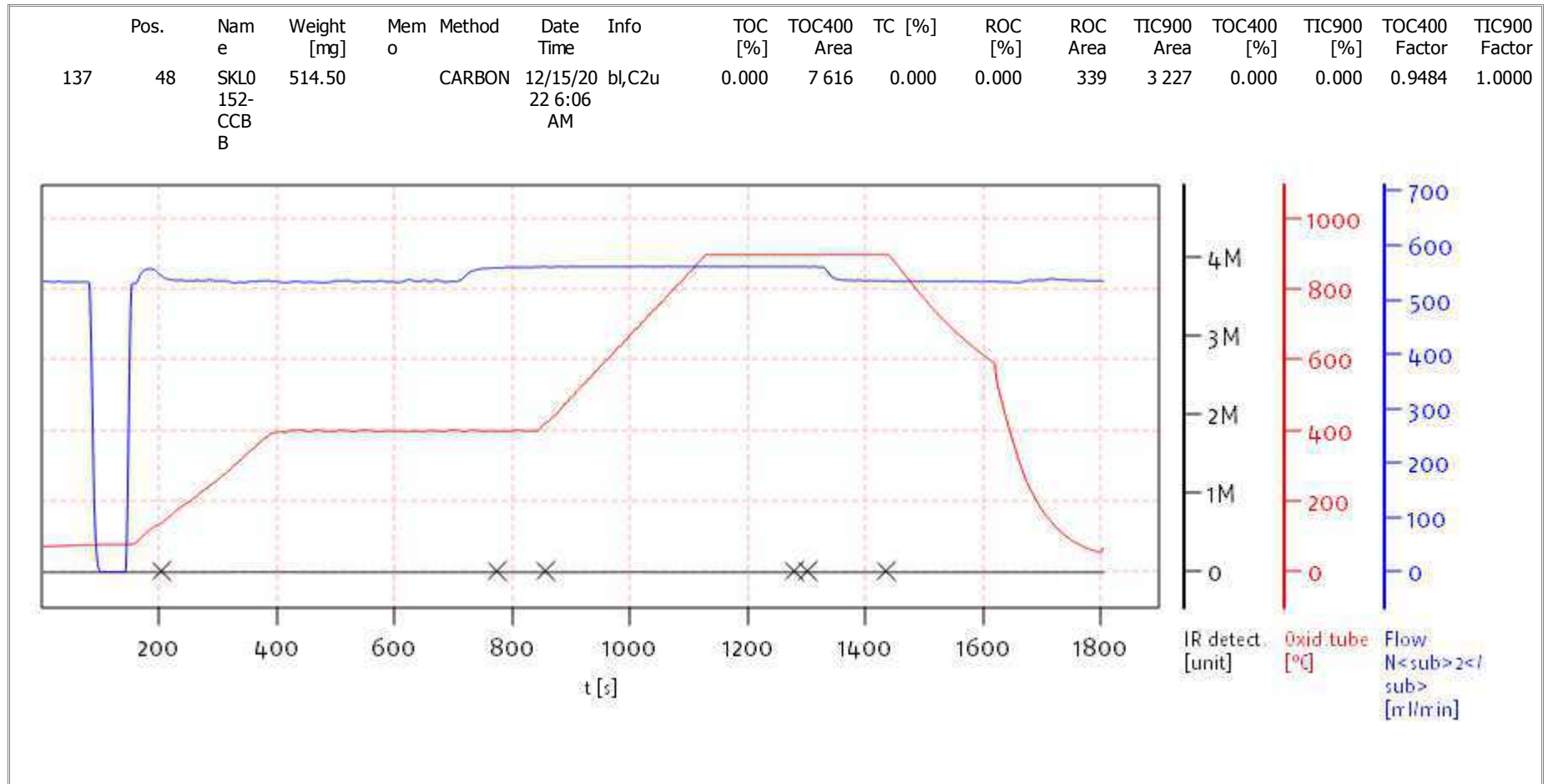
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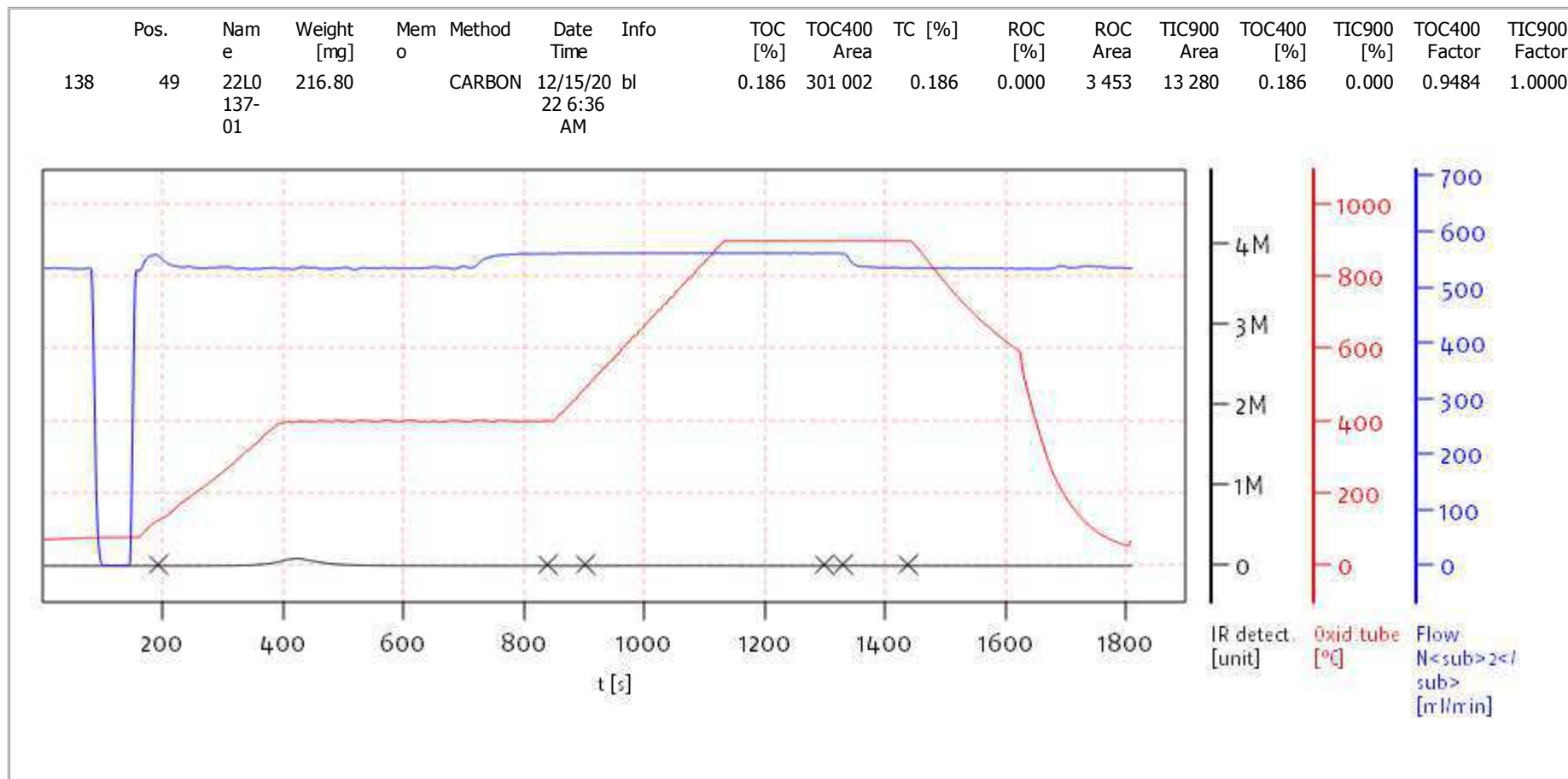
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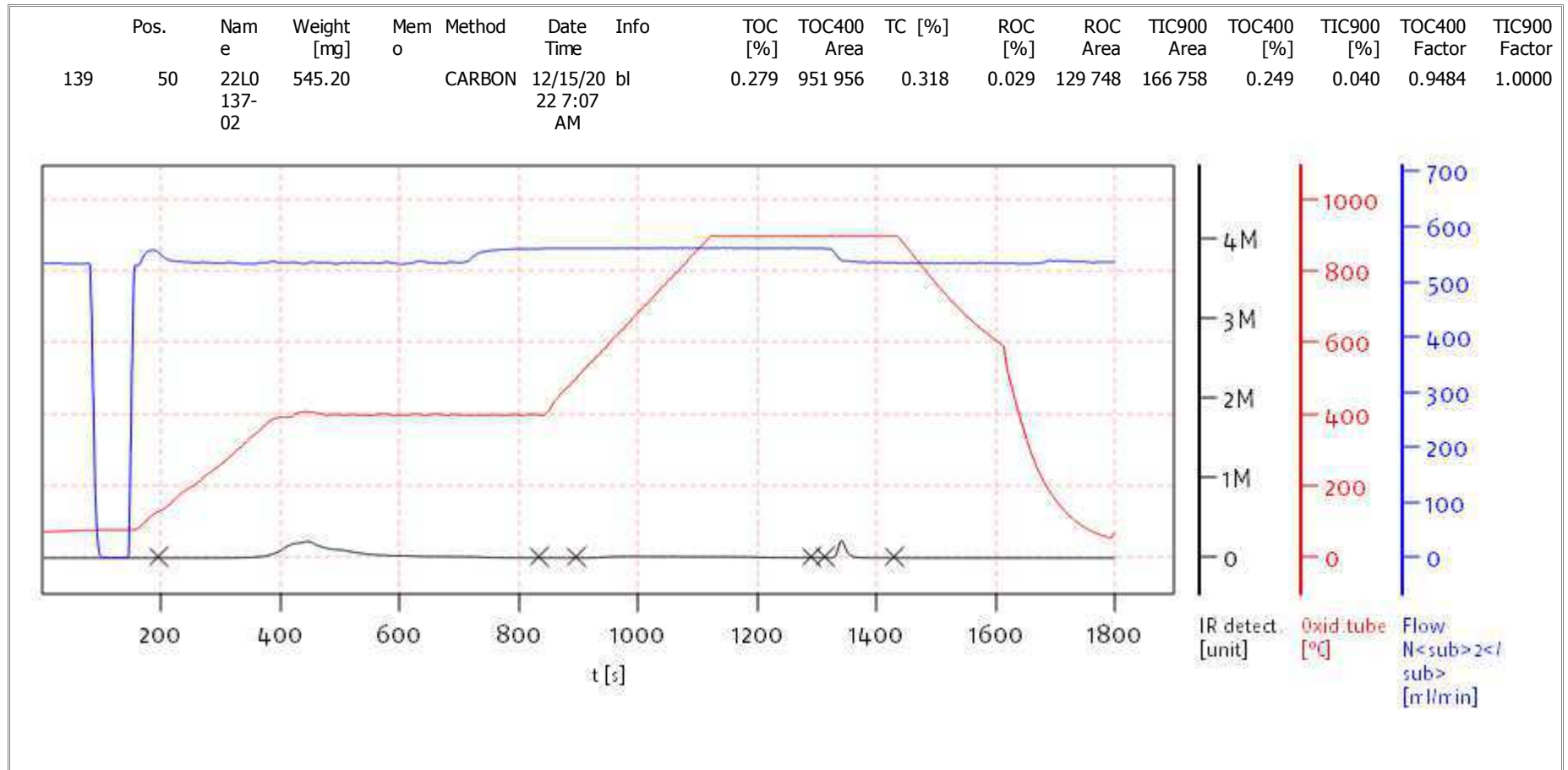
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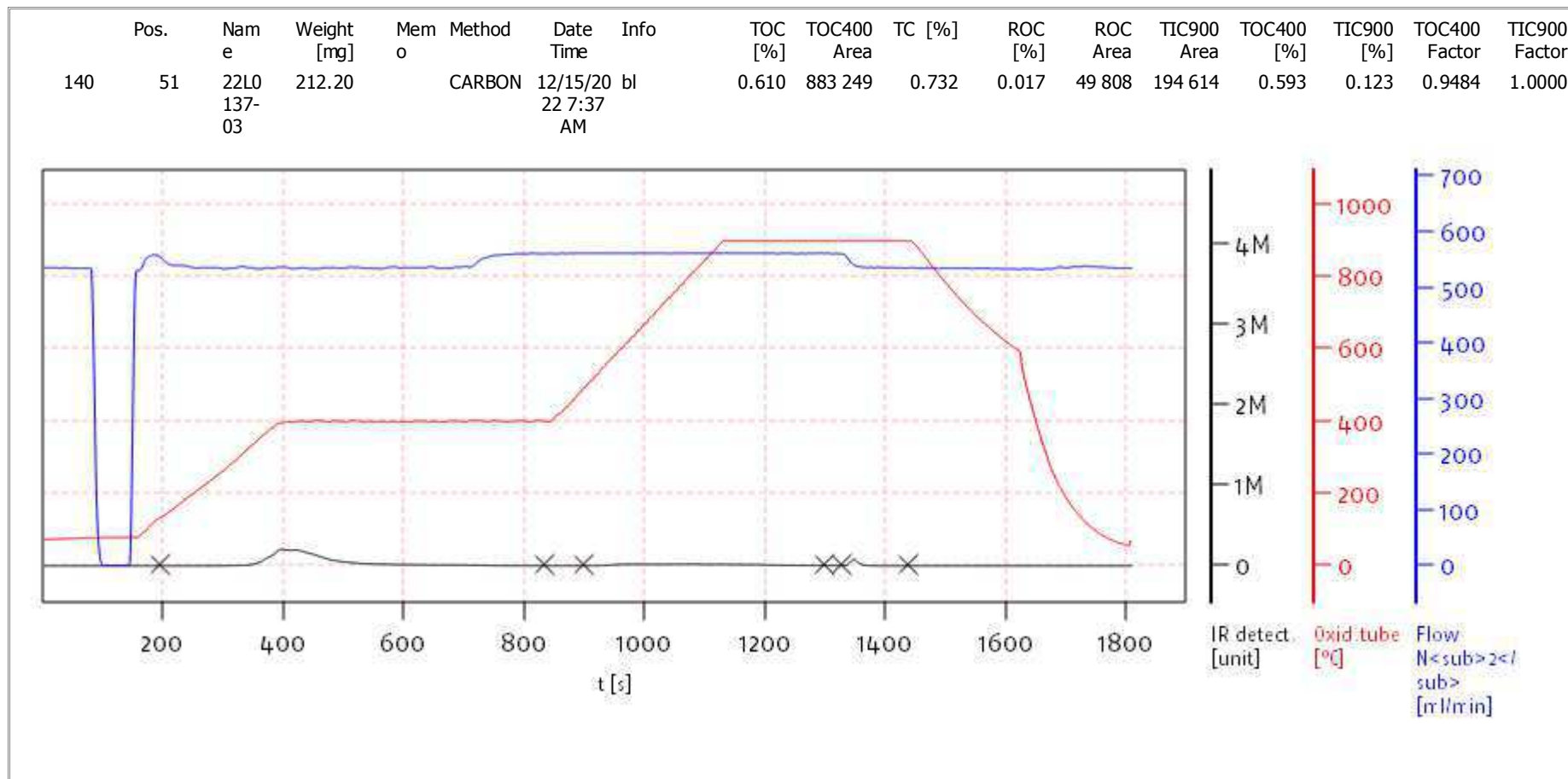
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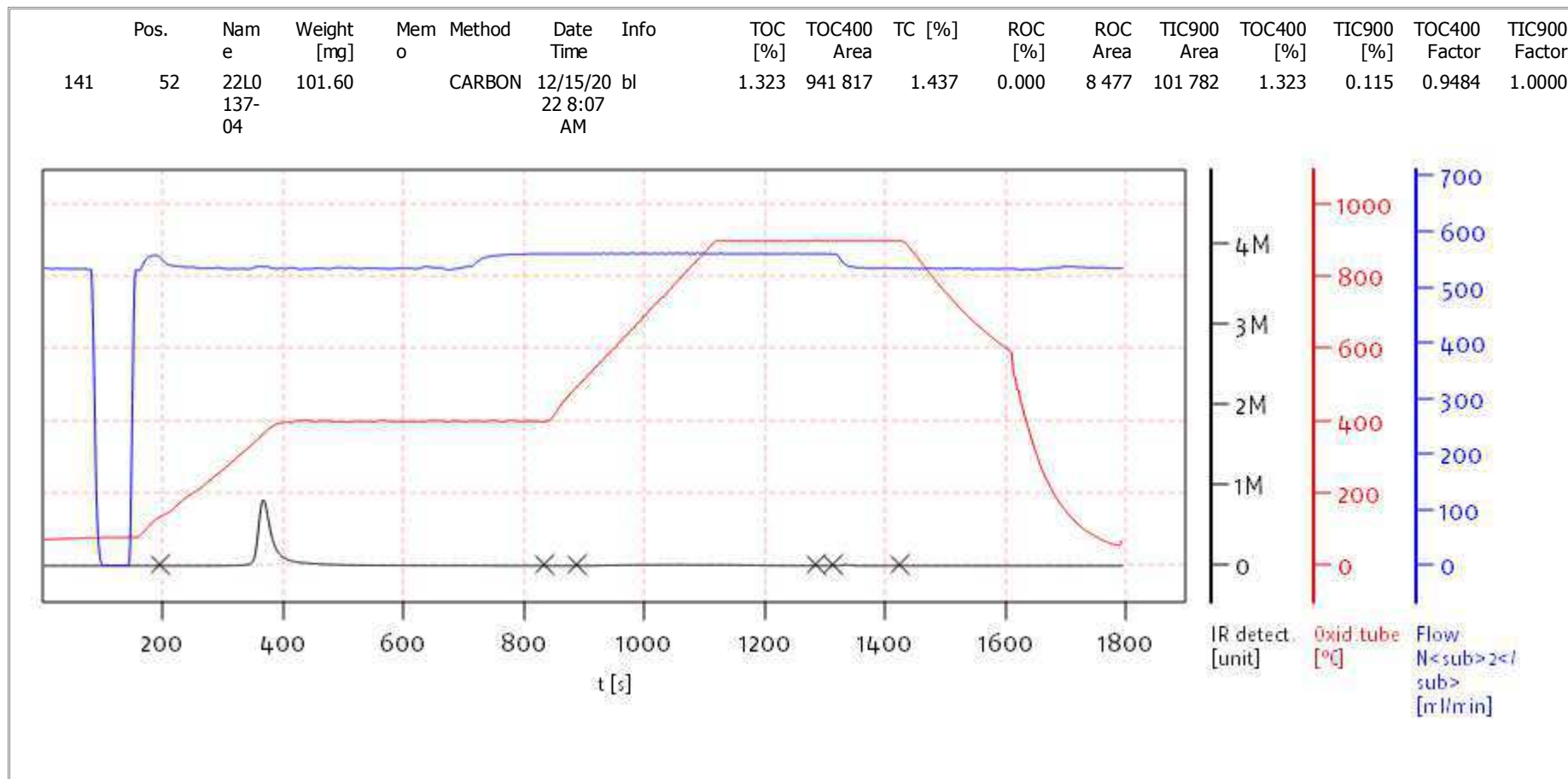
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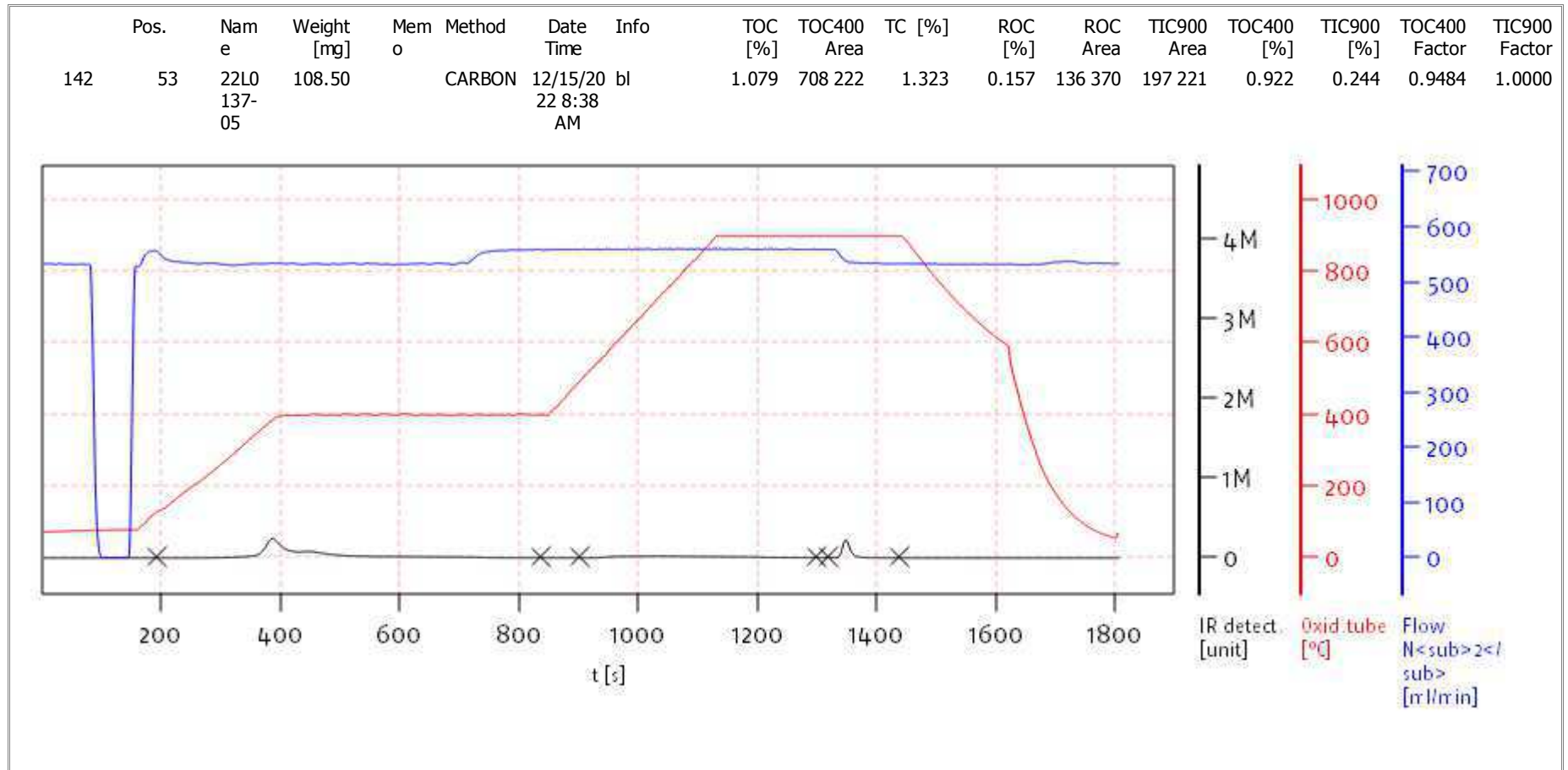
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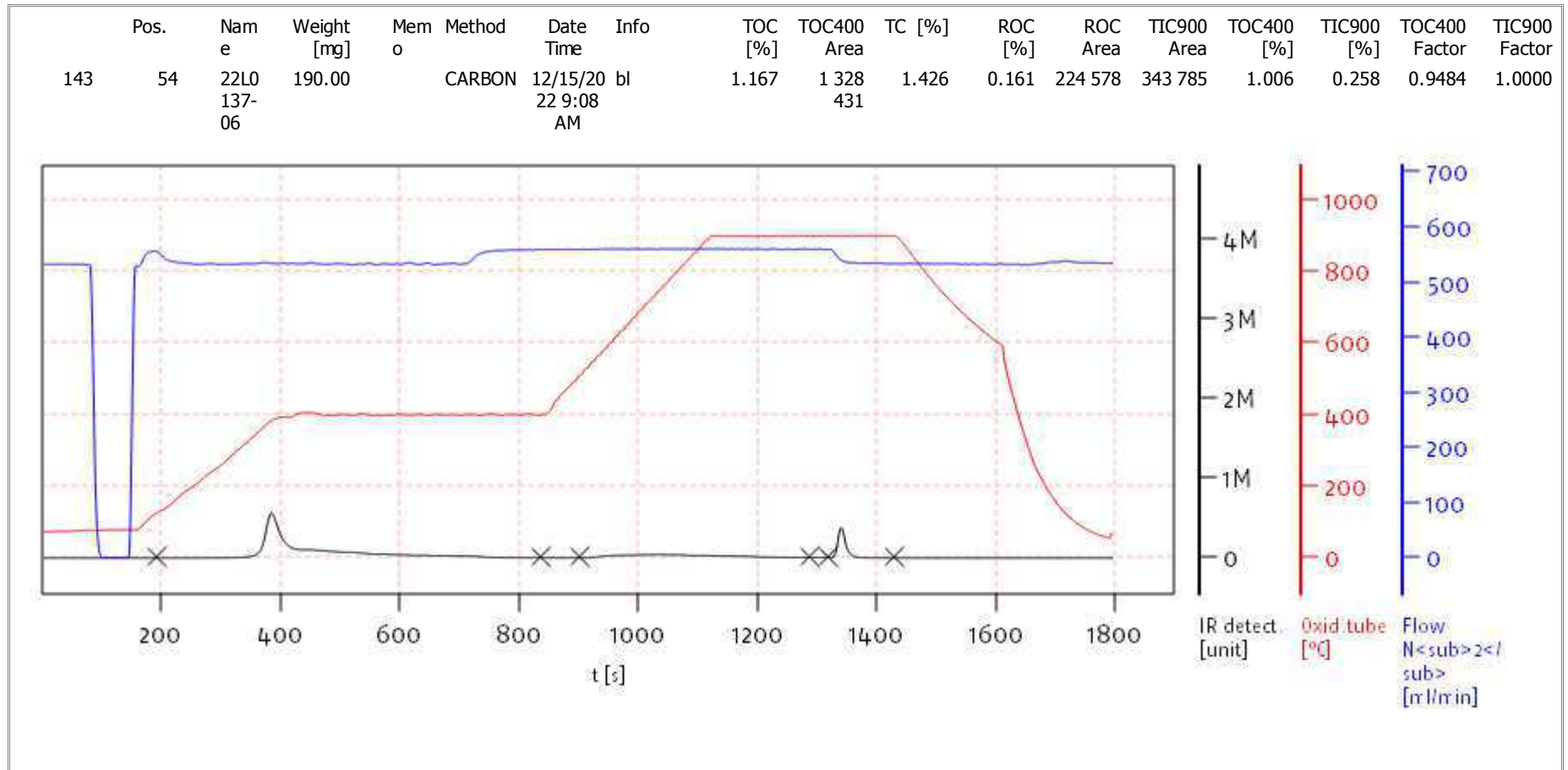
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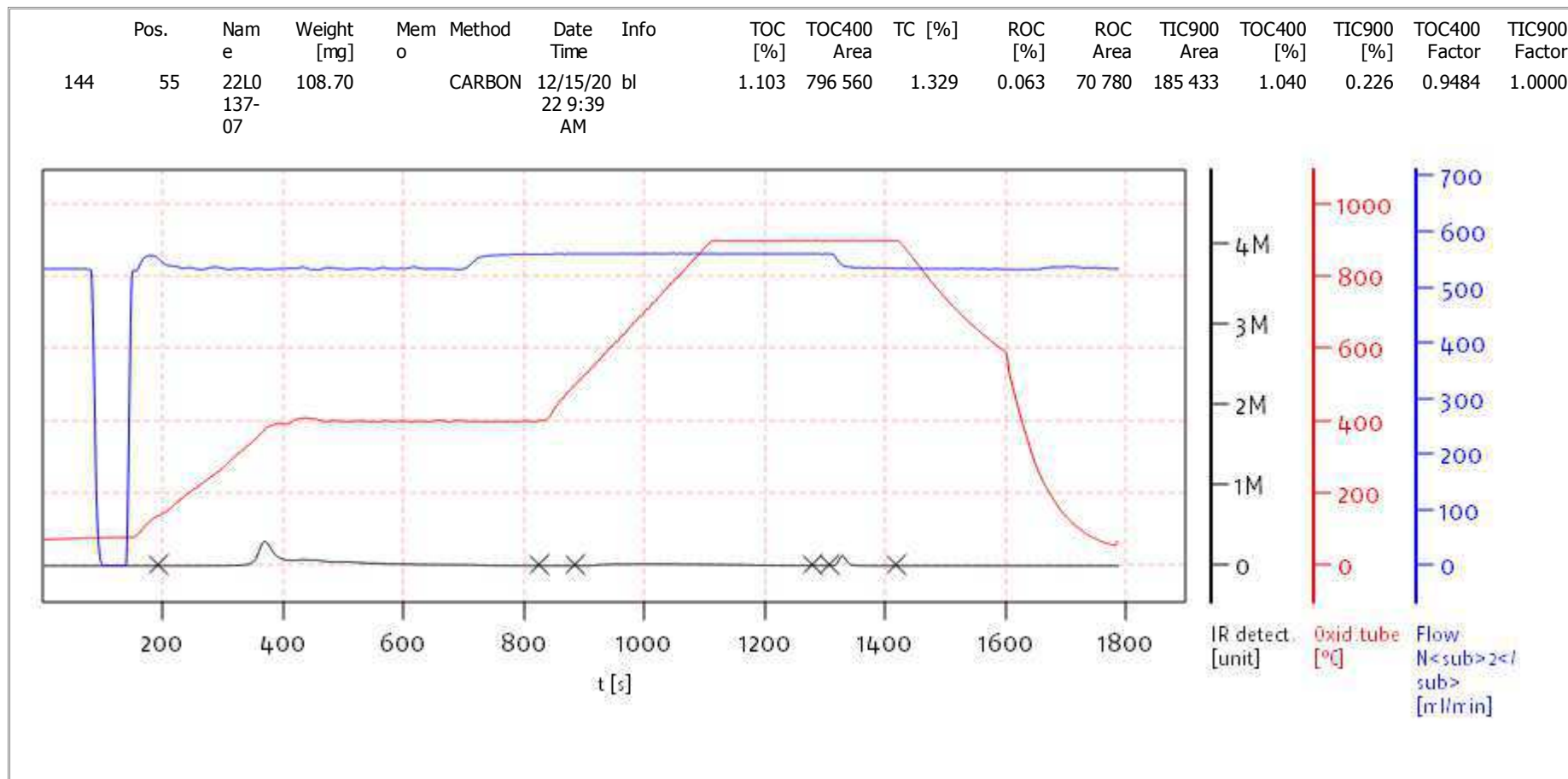
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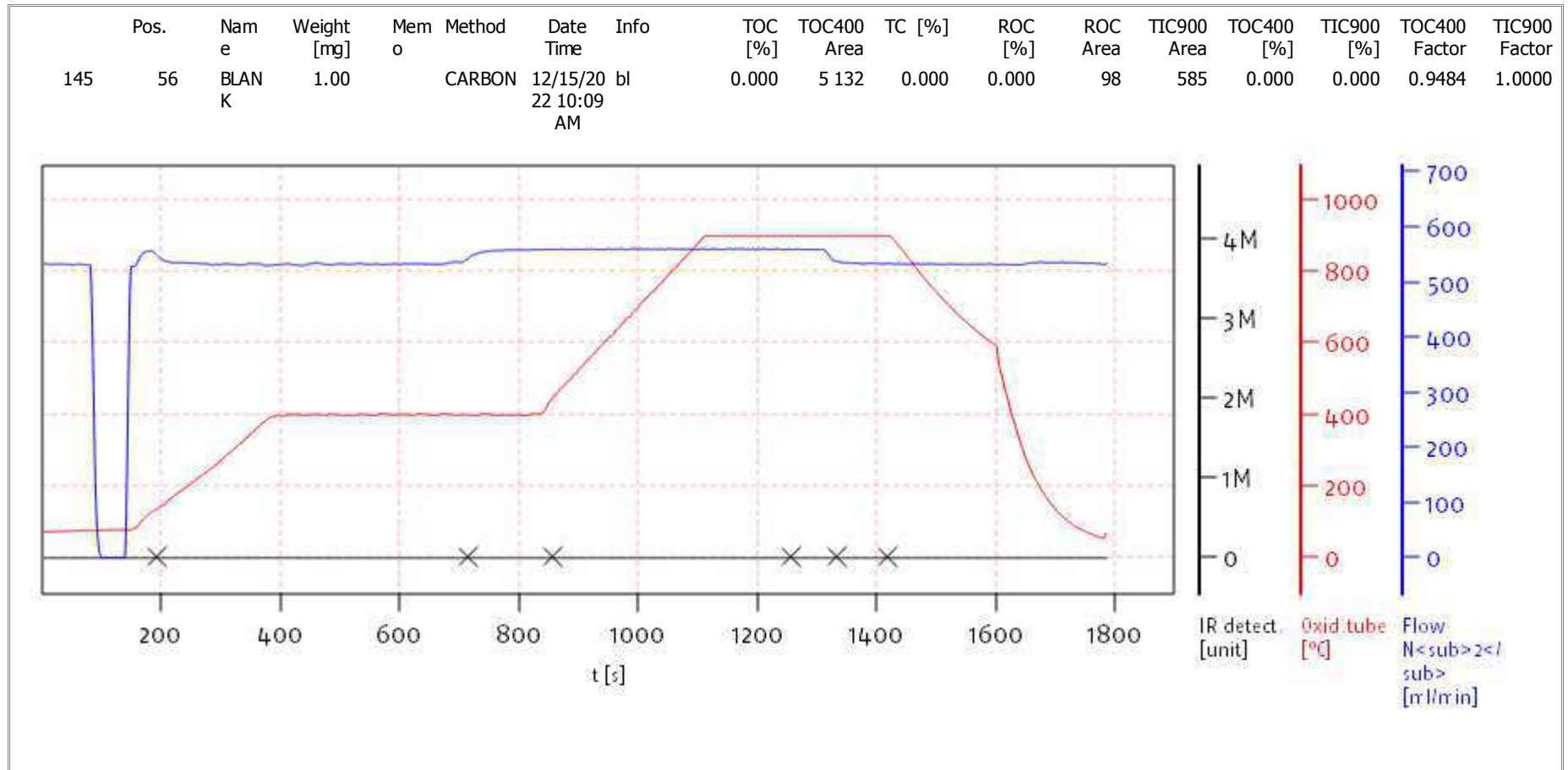
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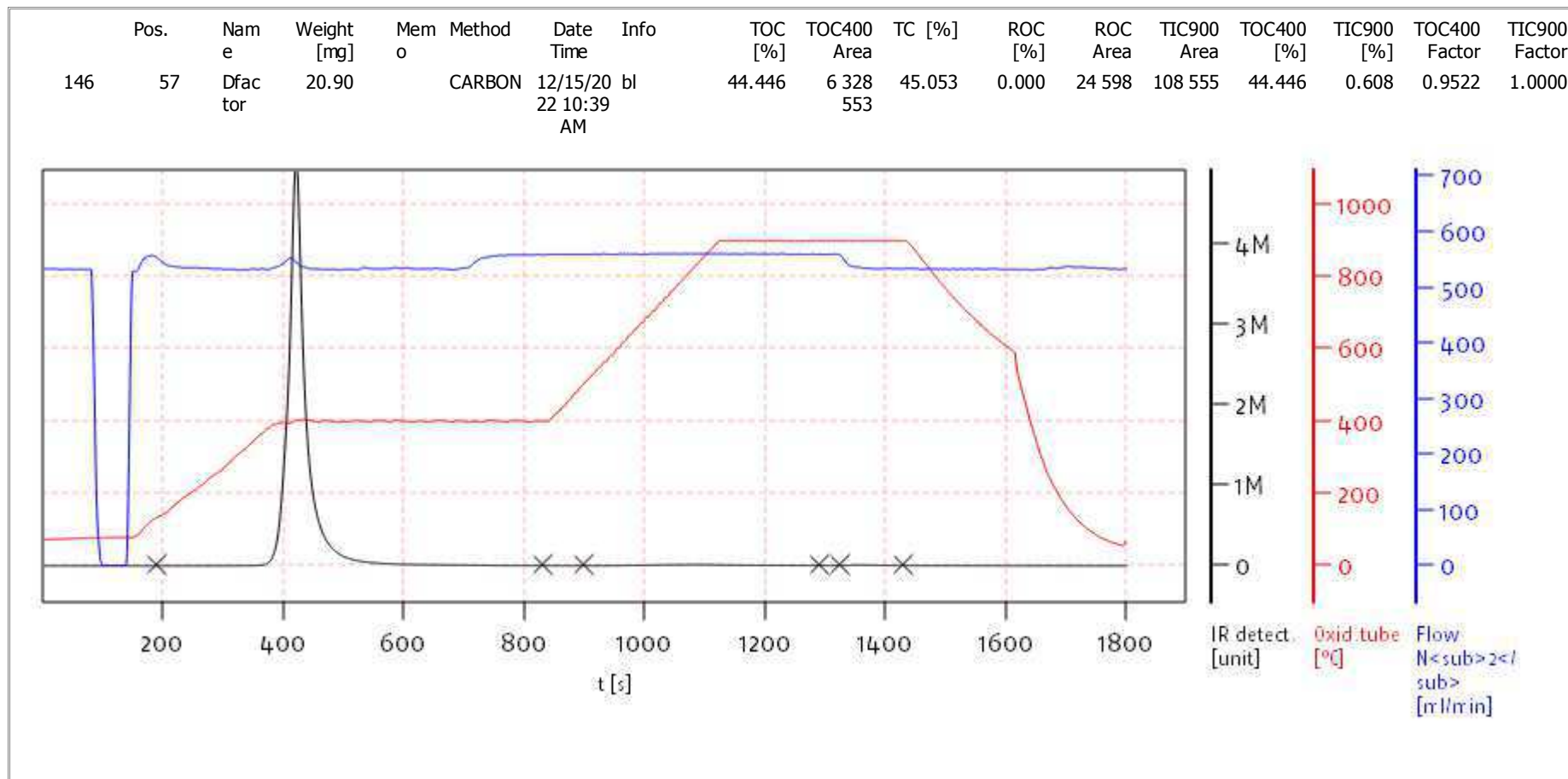
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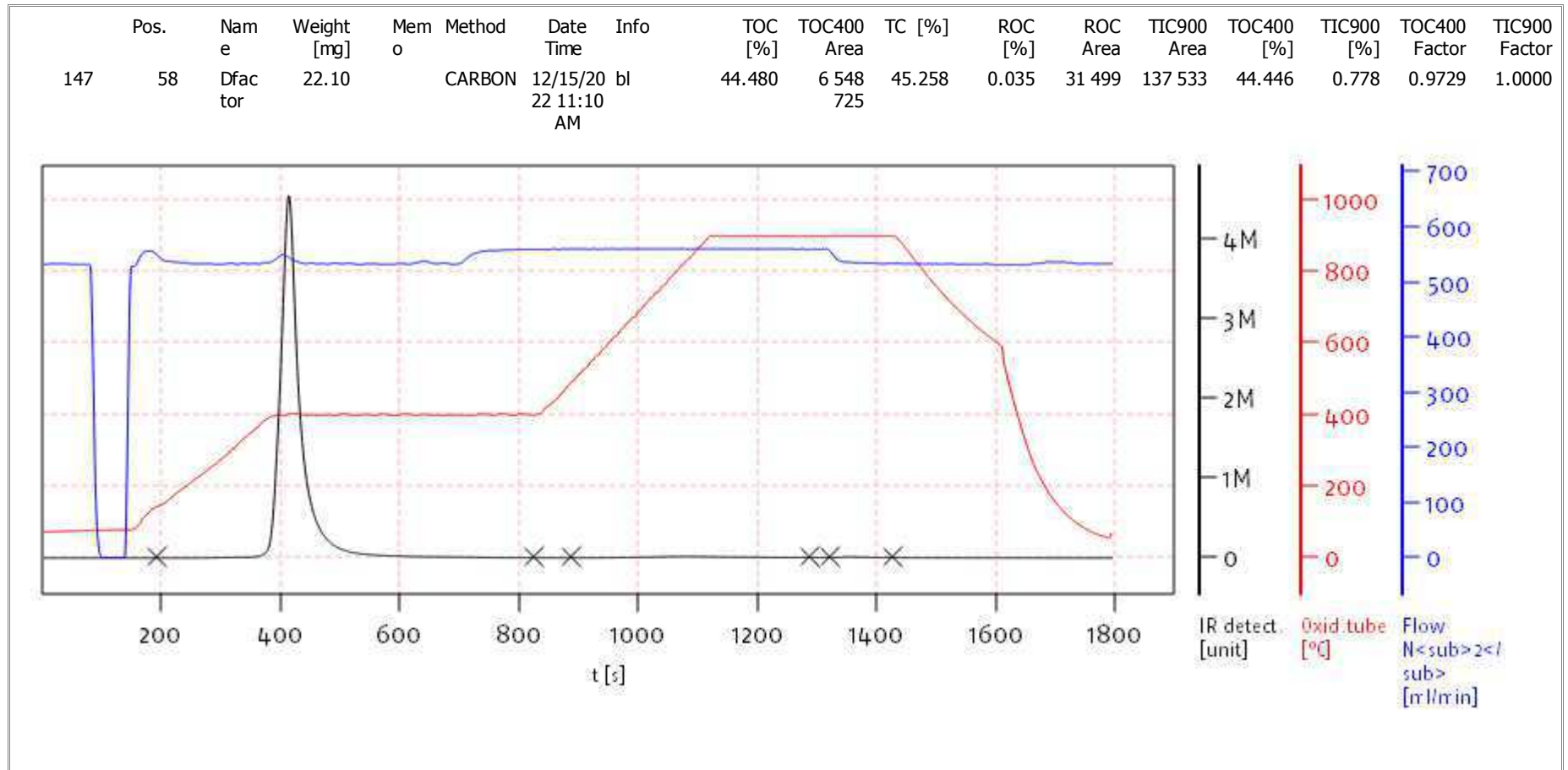
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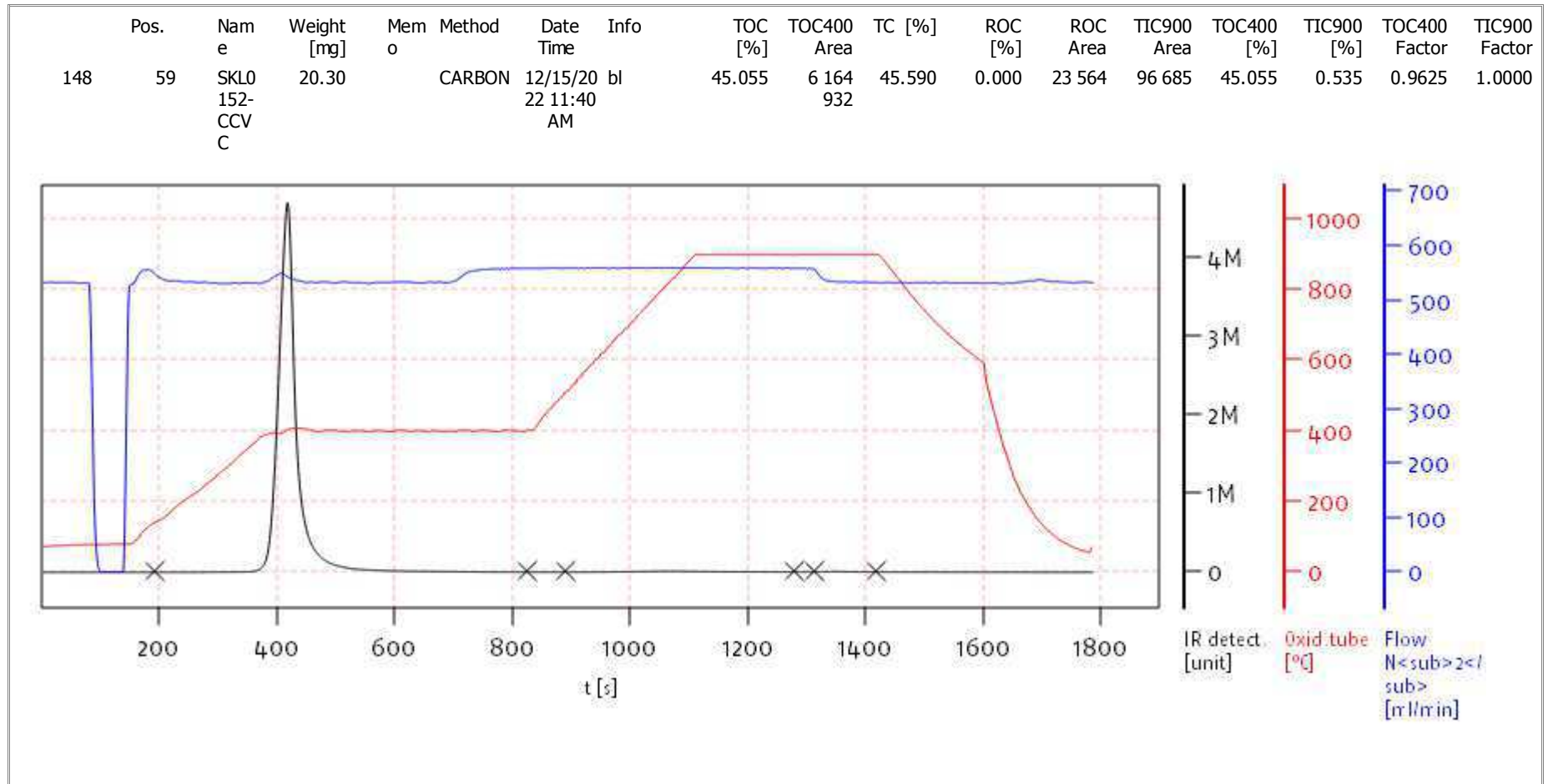
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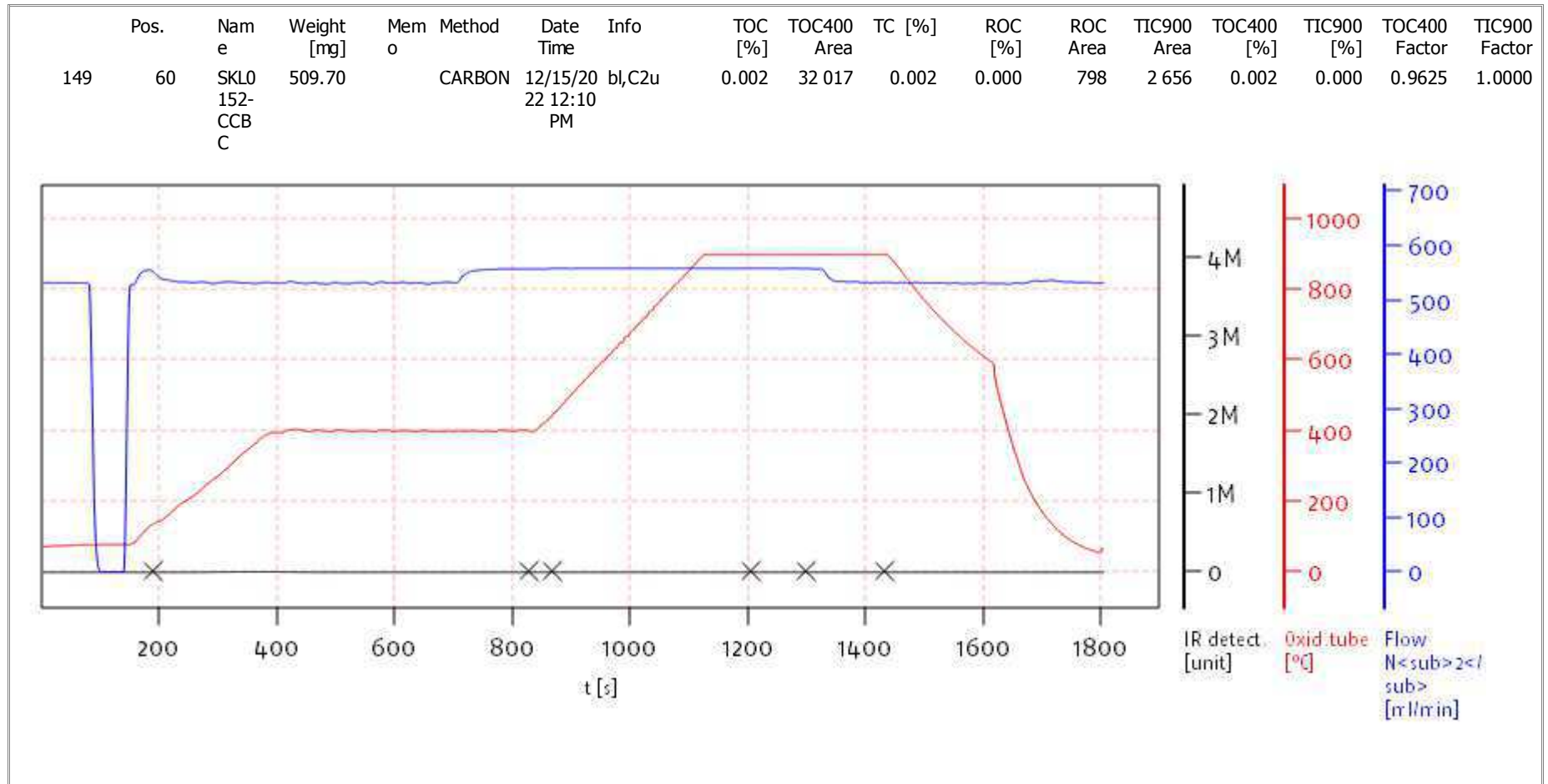
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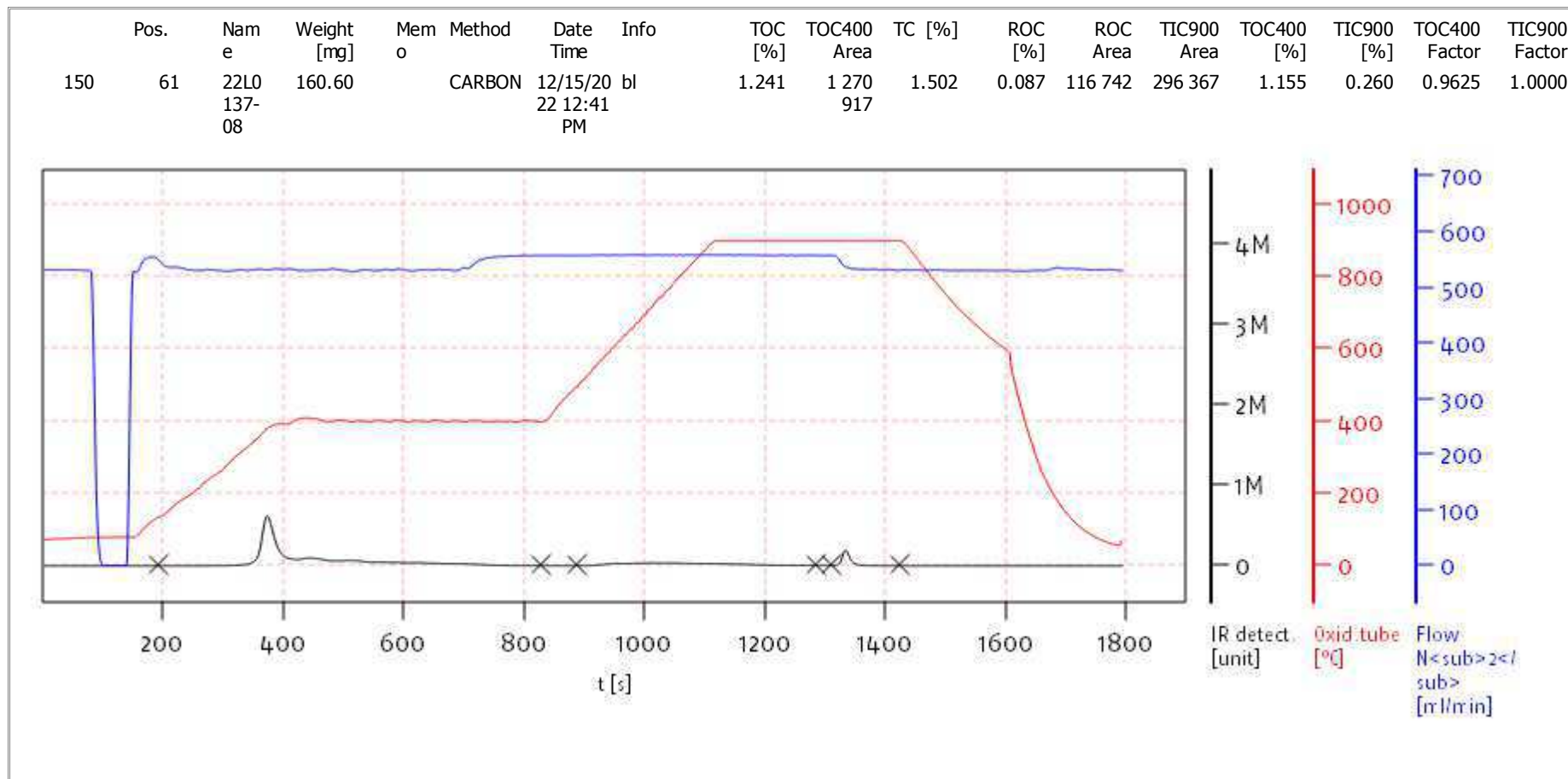
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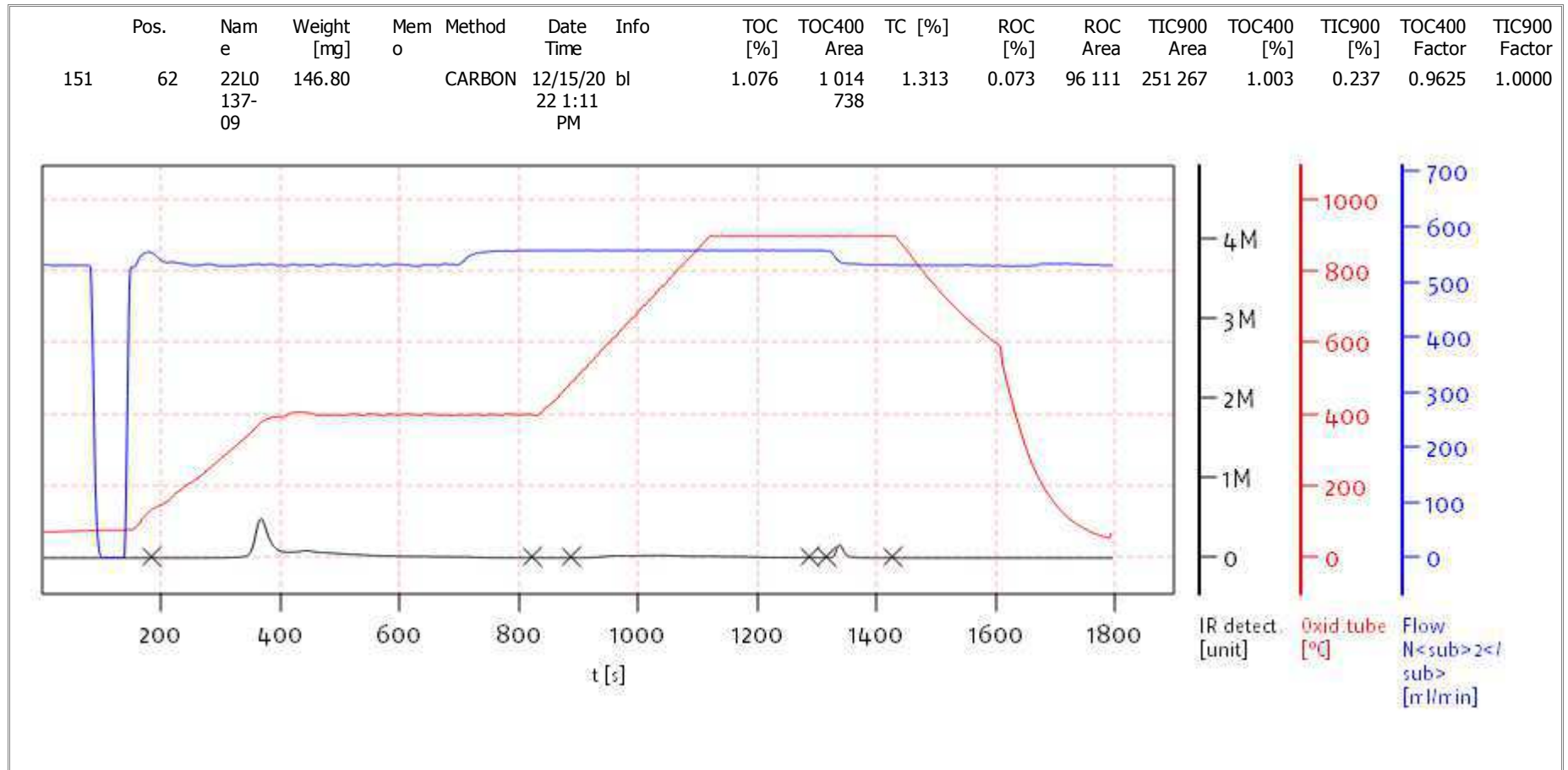
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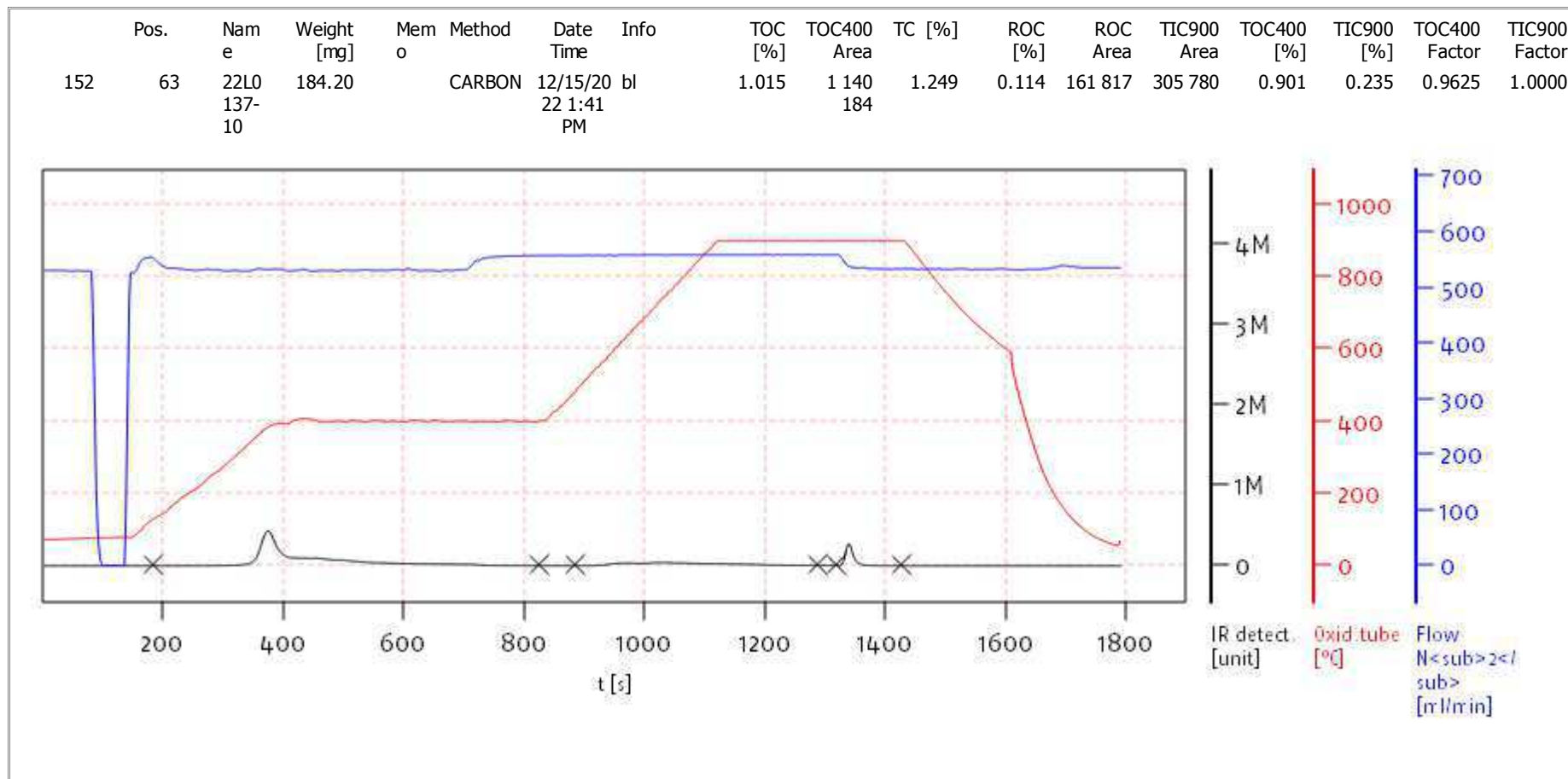
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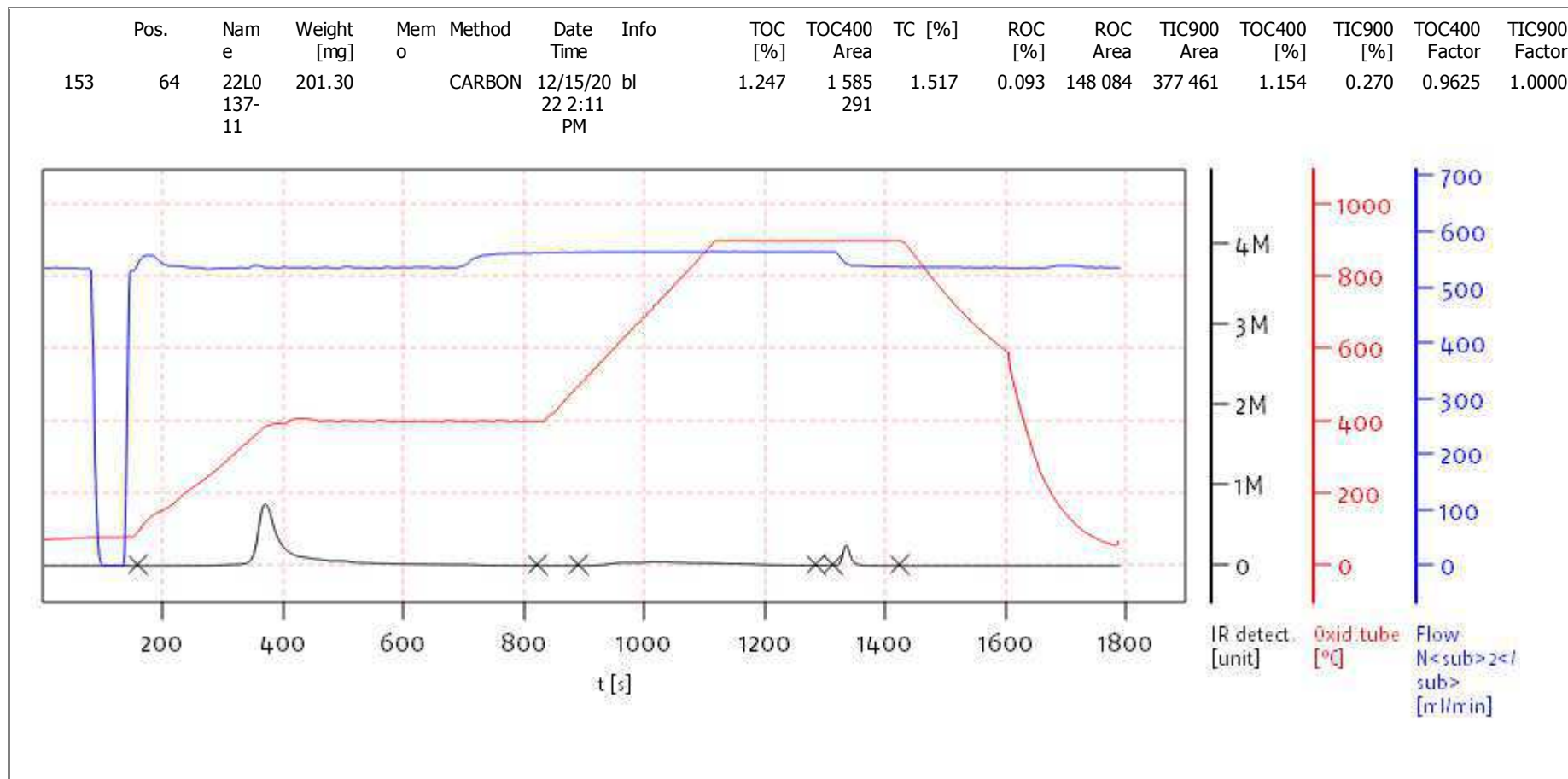
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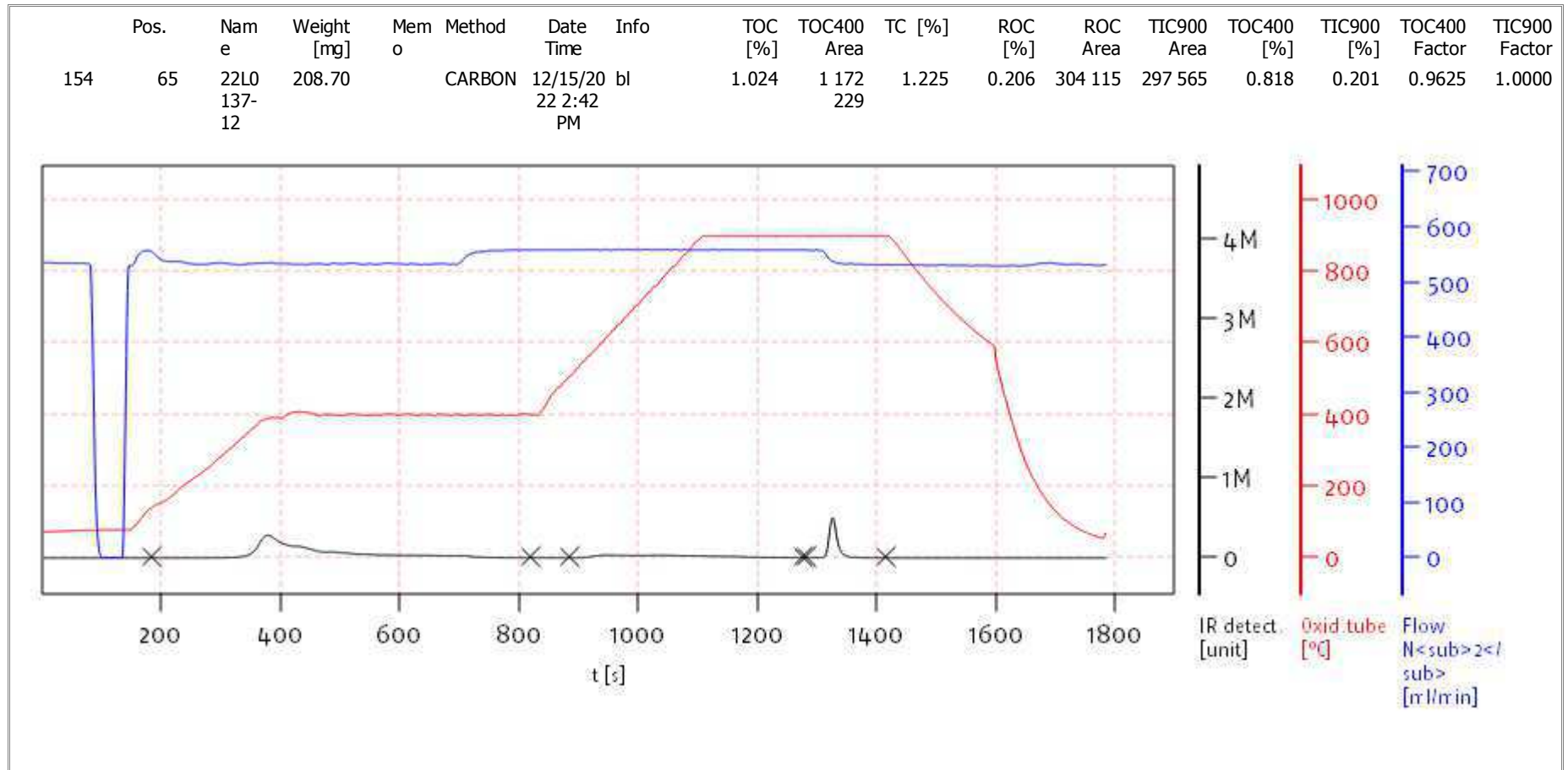
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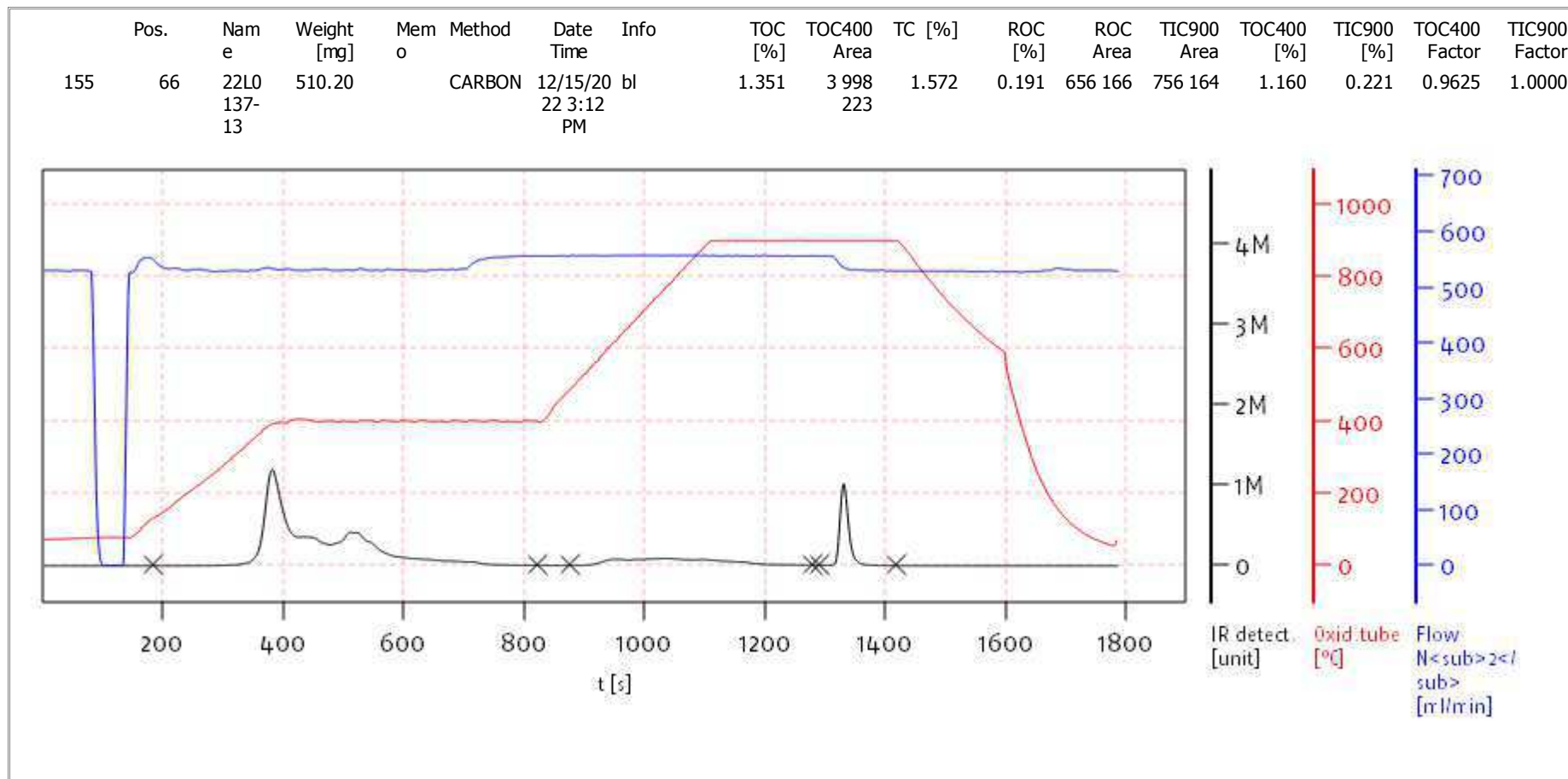
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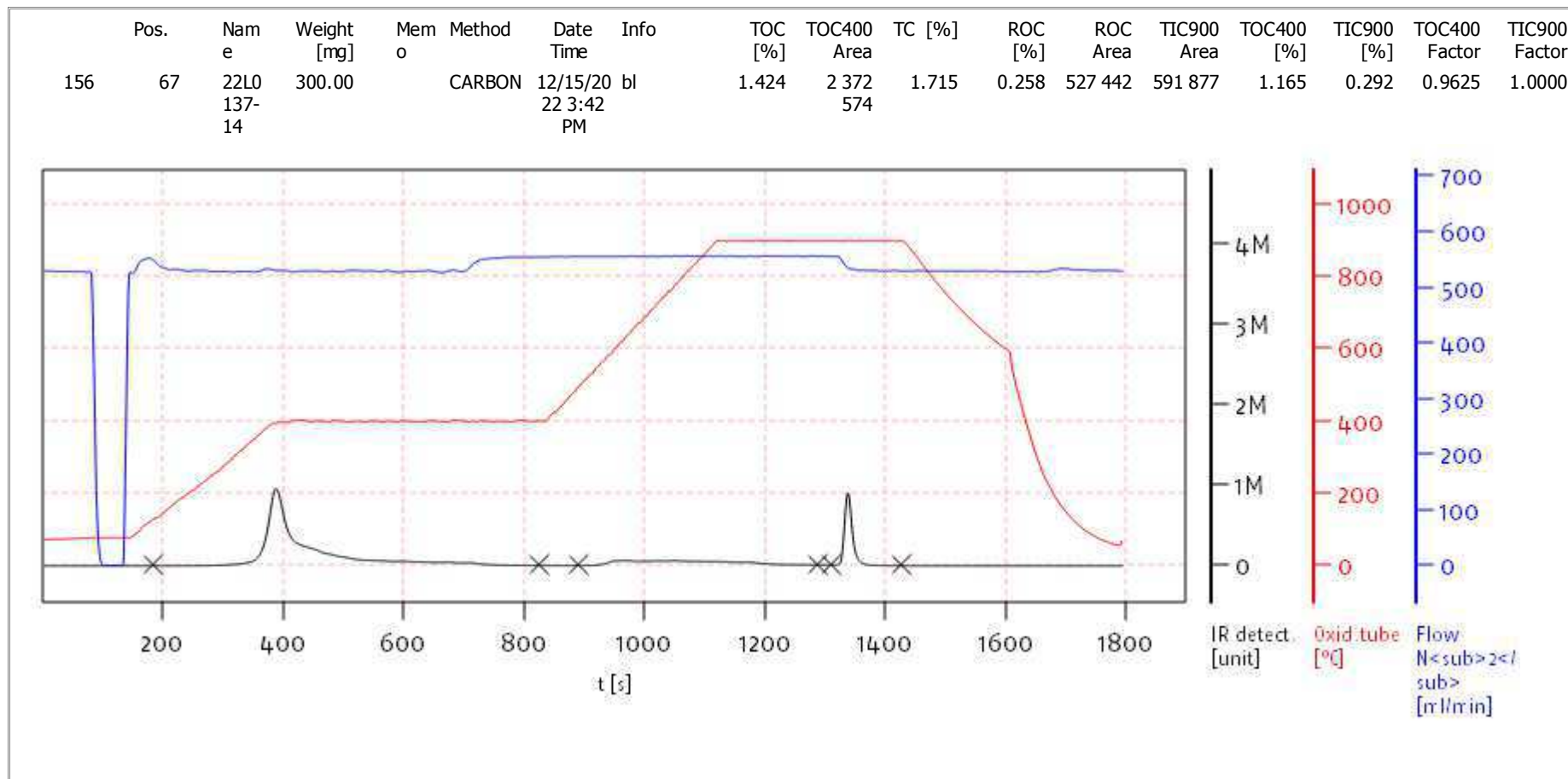
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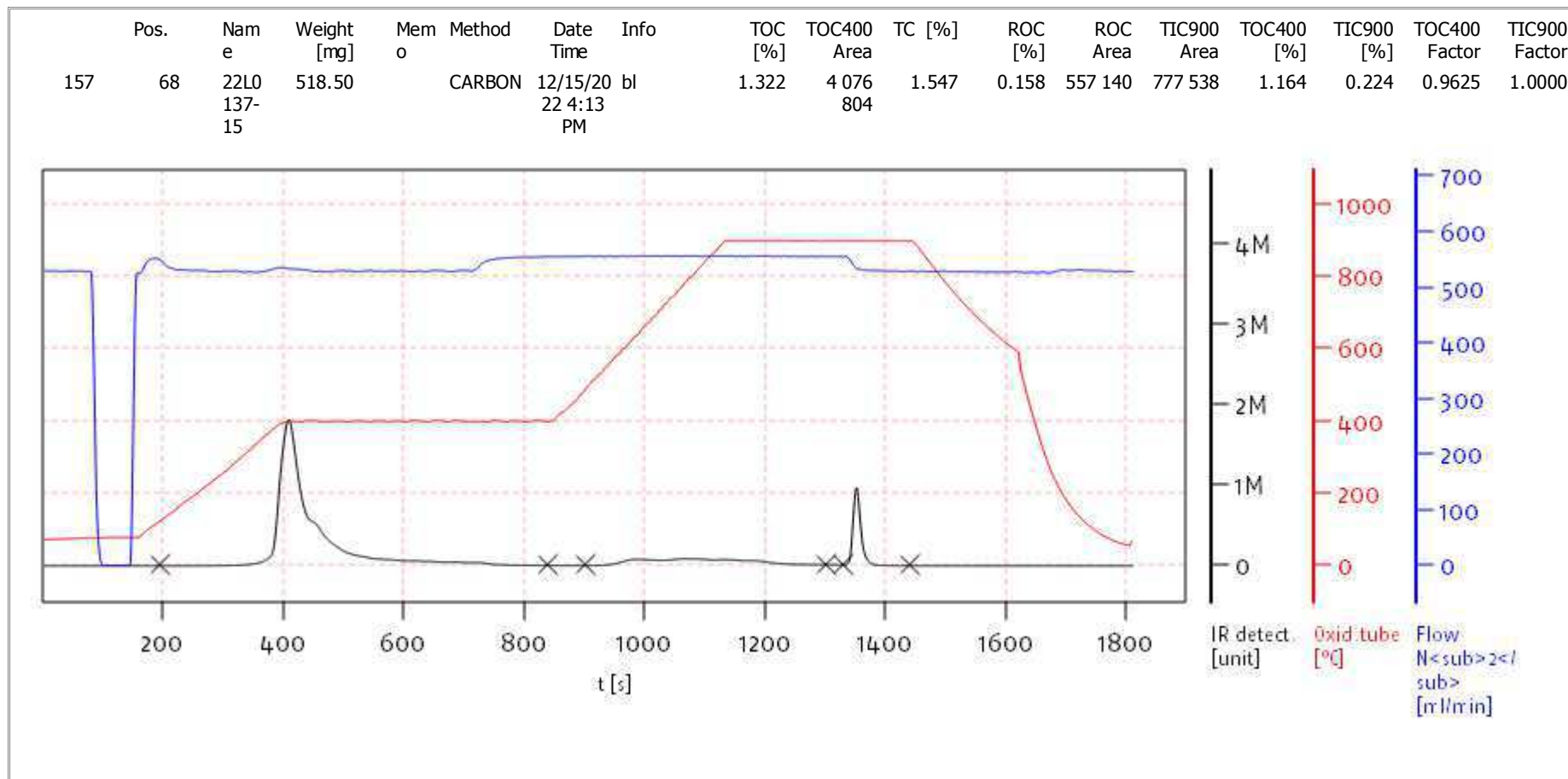
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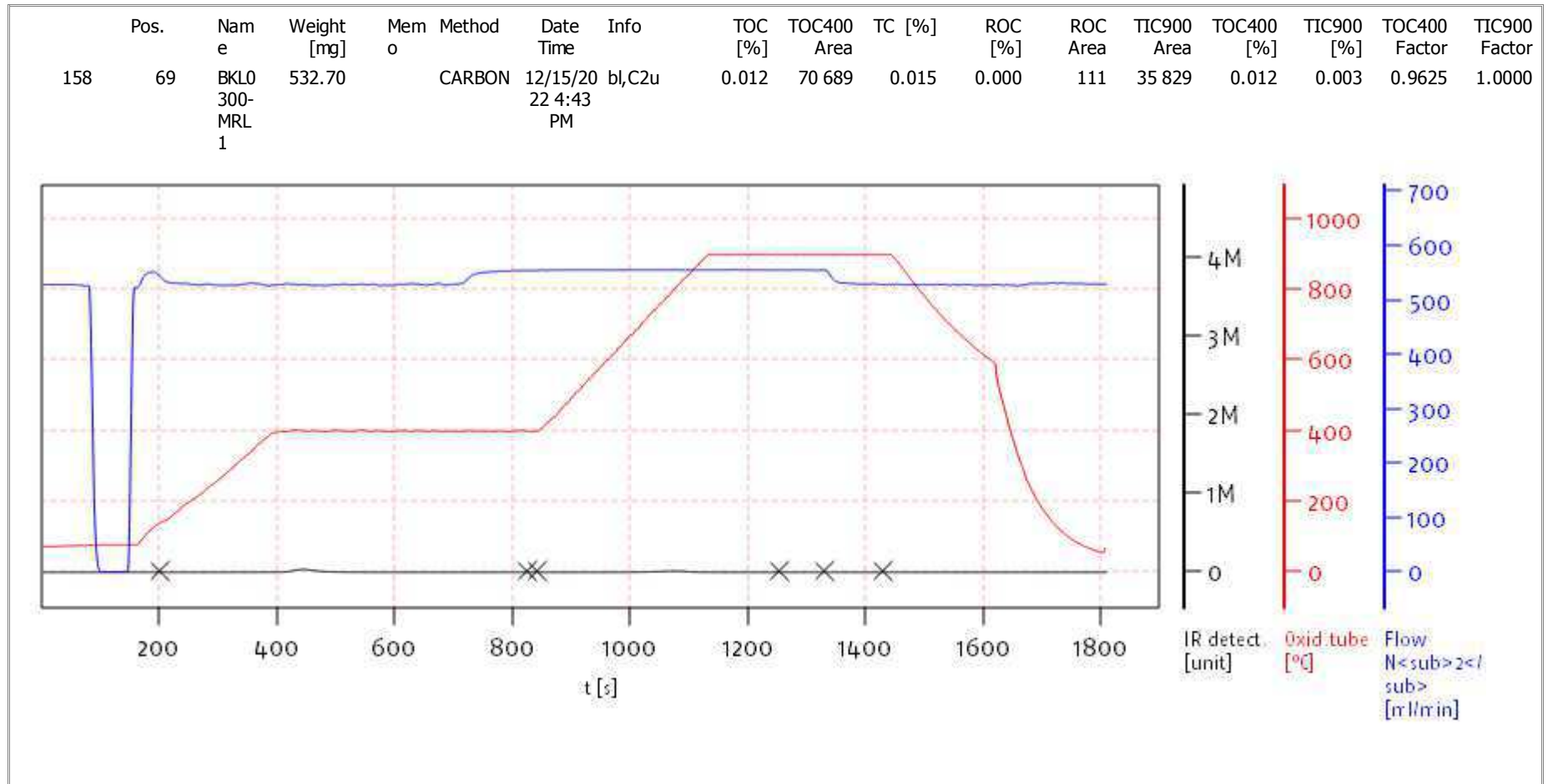
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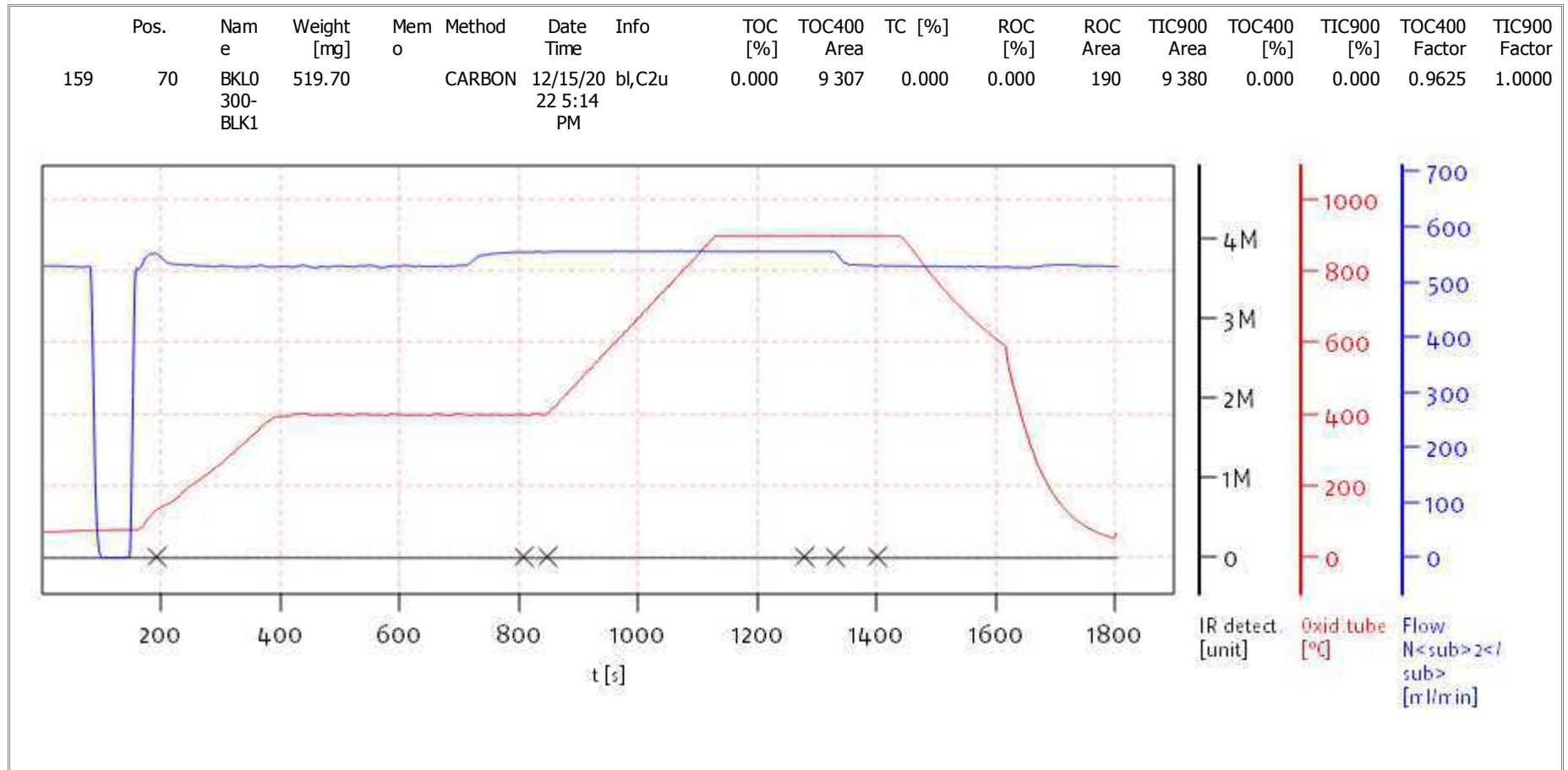
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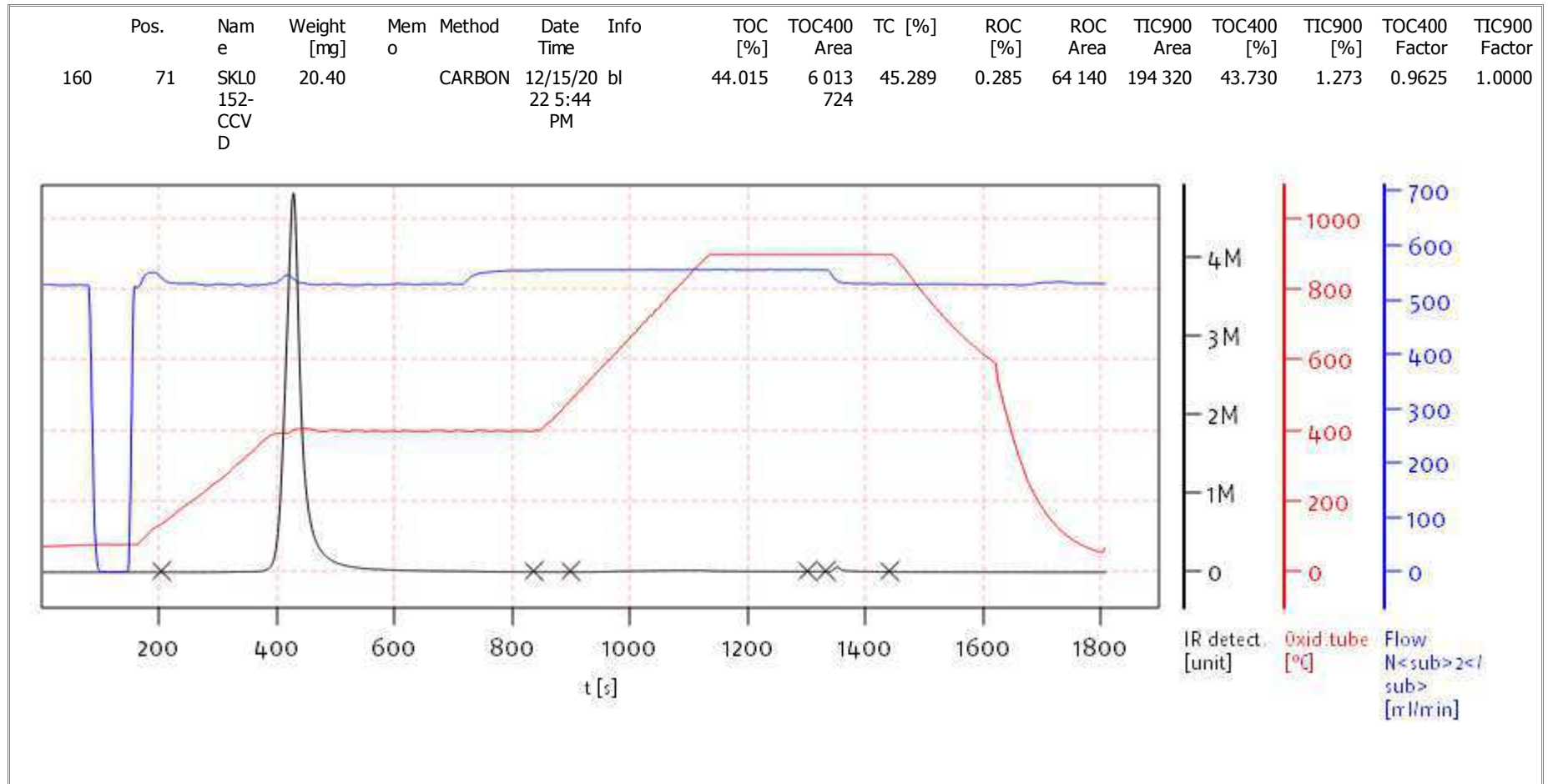
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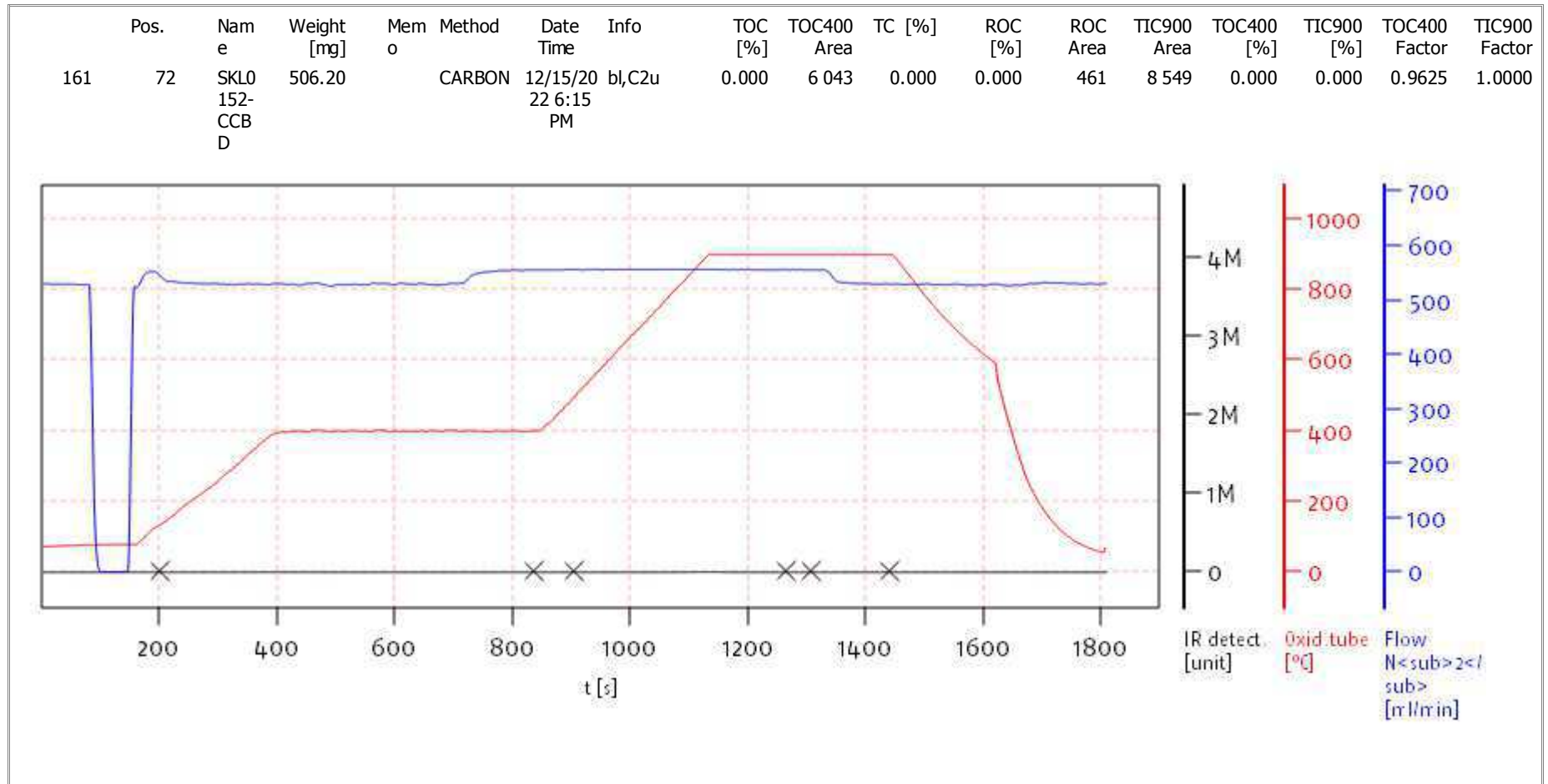
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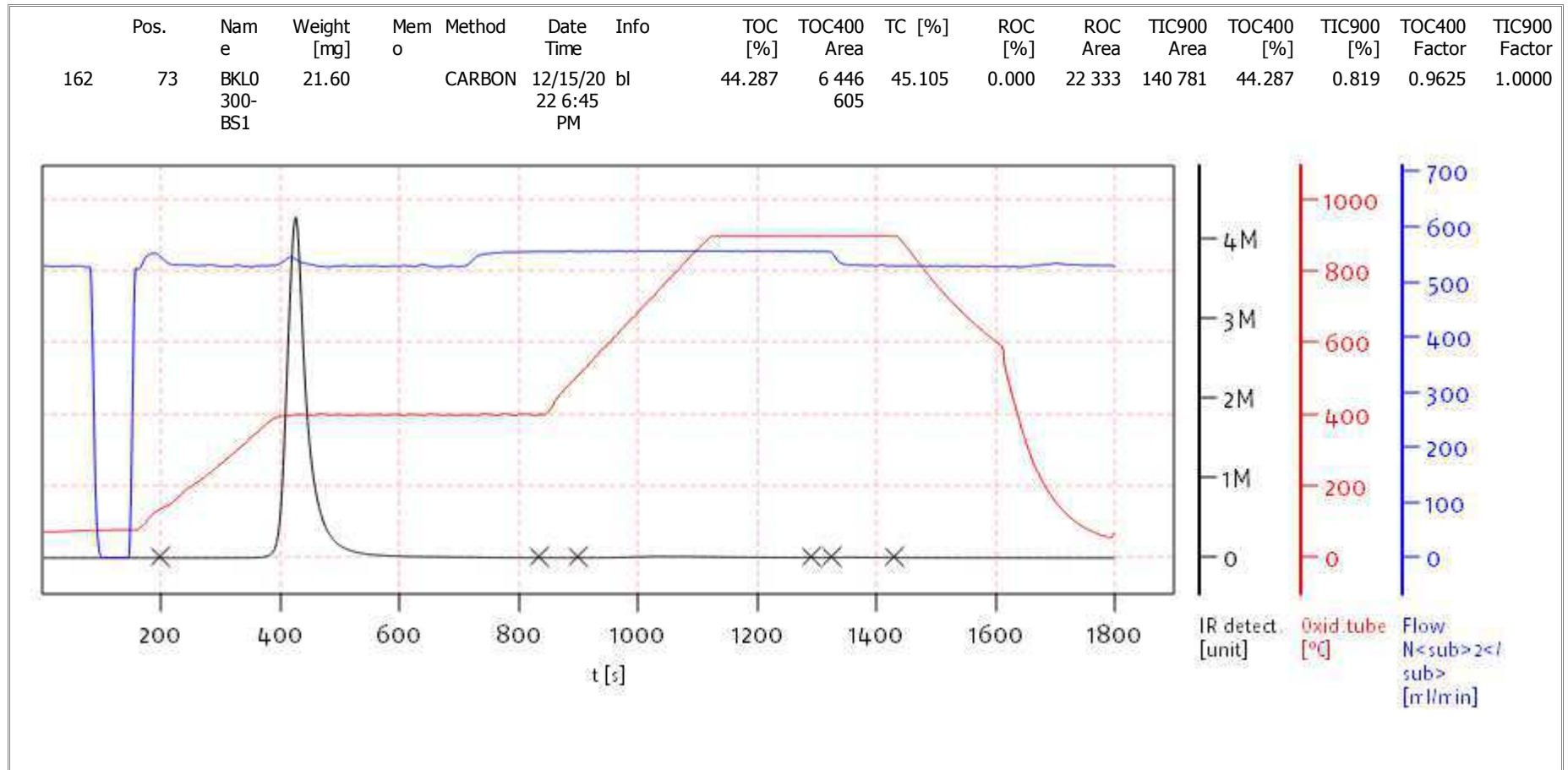
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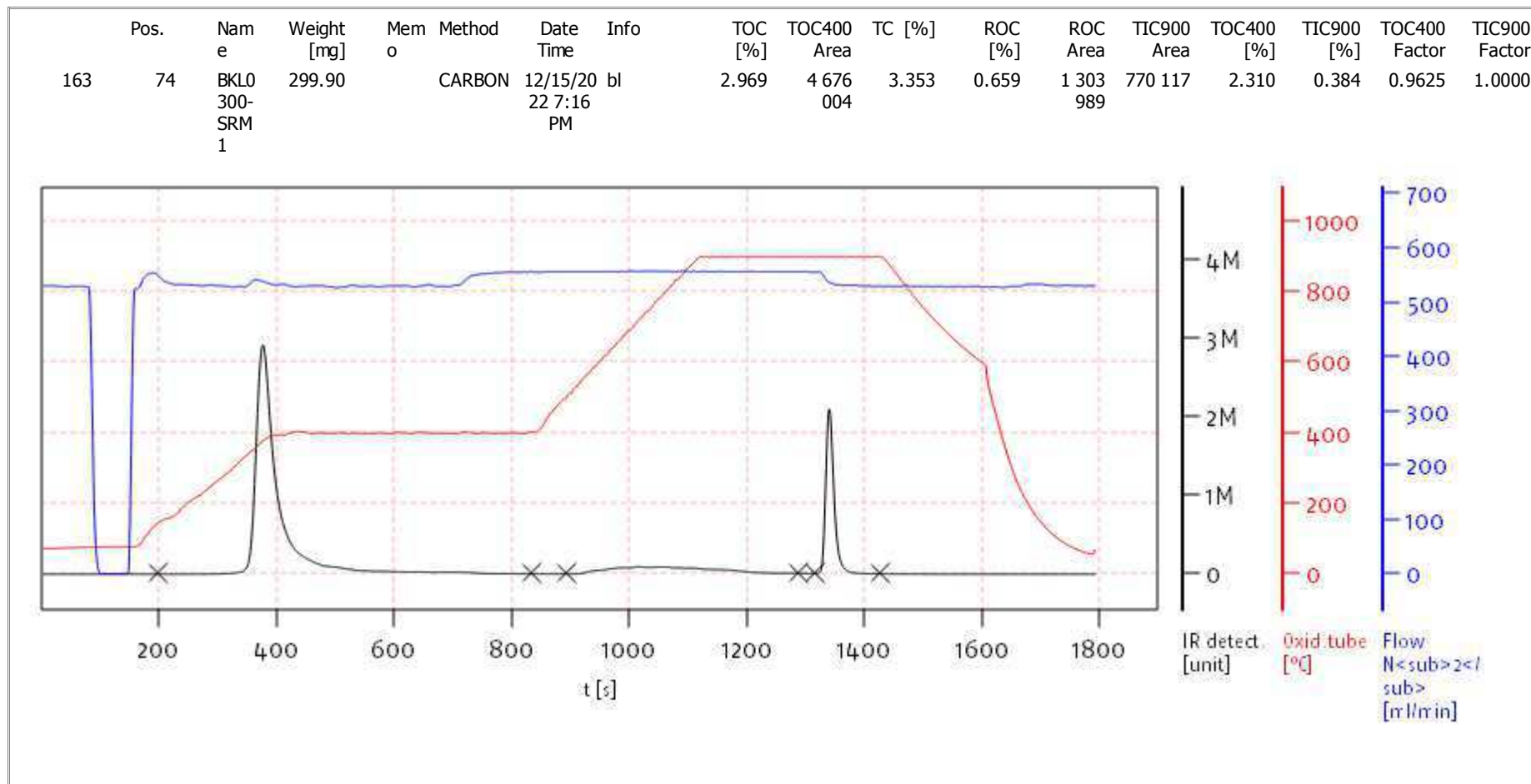
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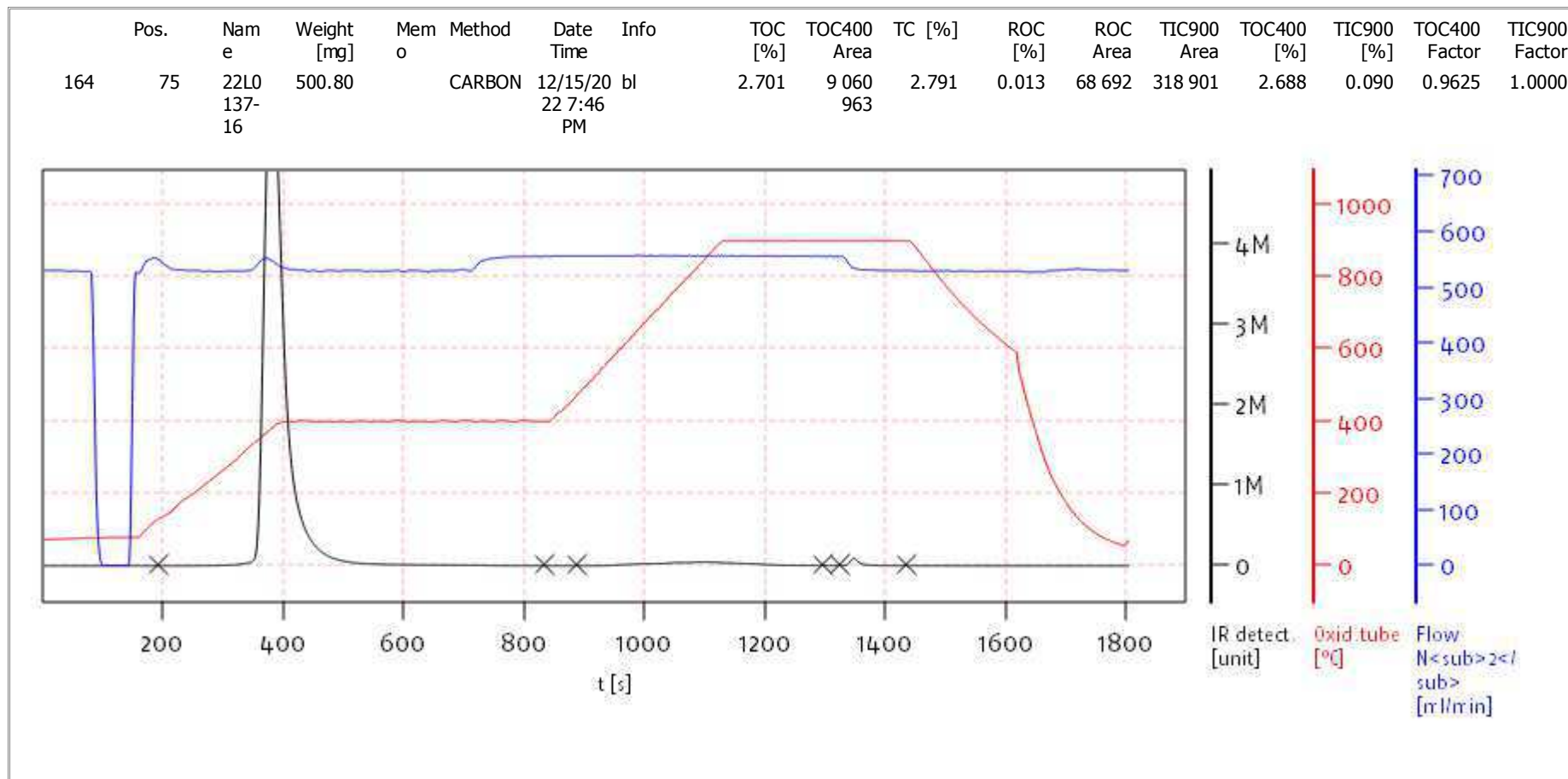
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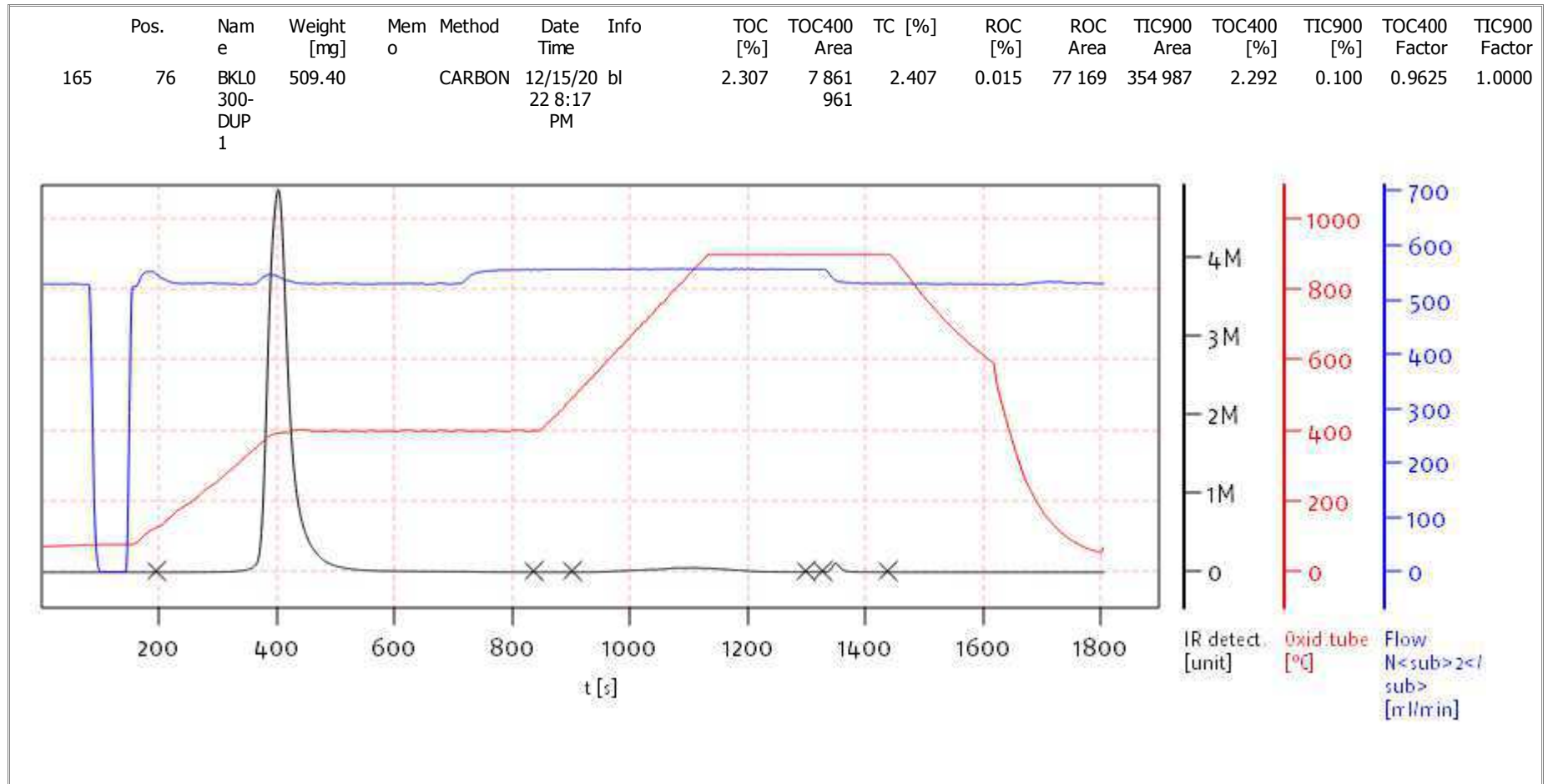
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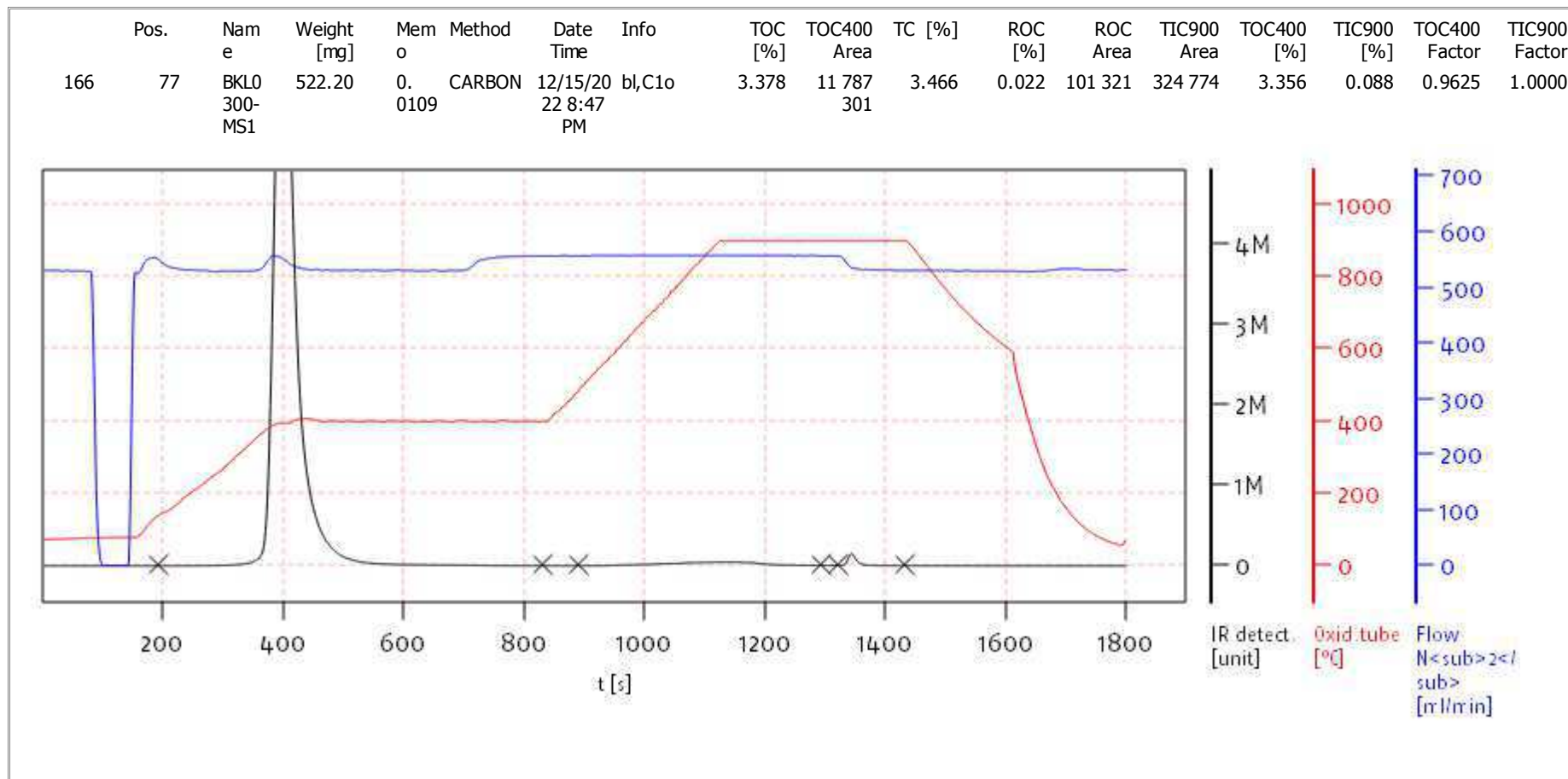
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solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



Name:

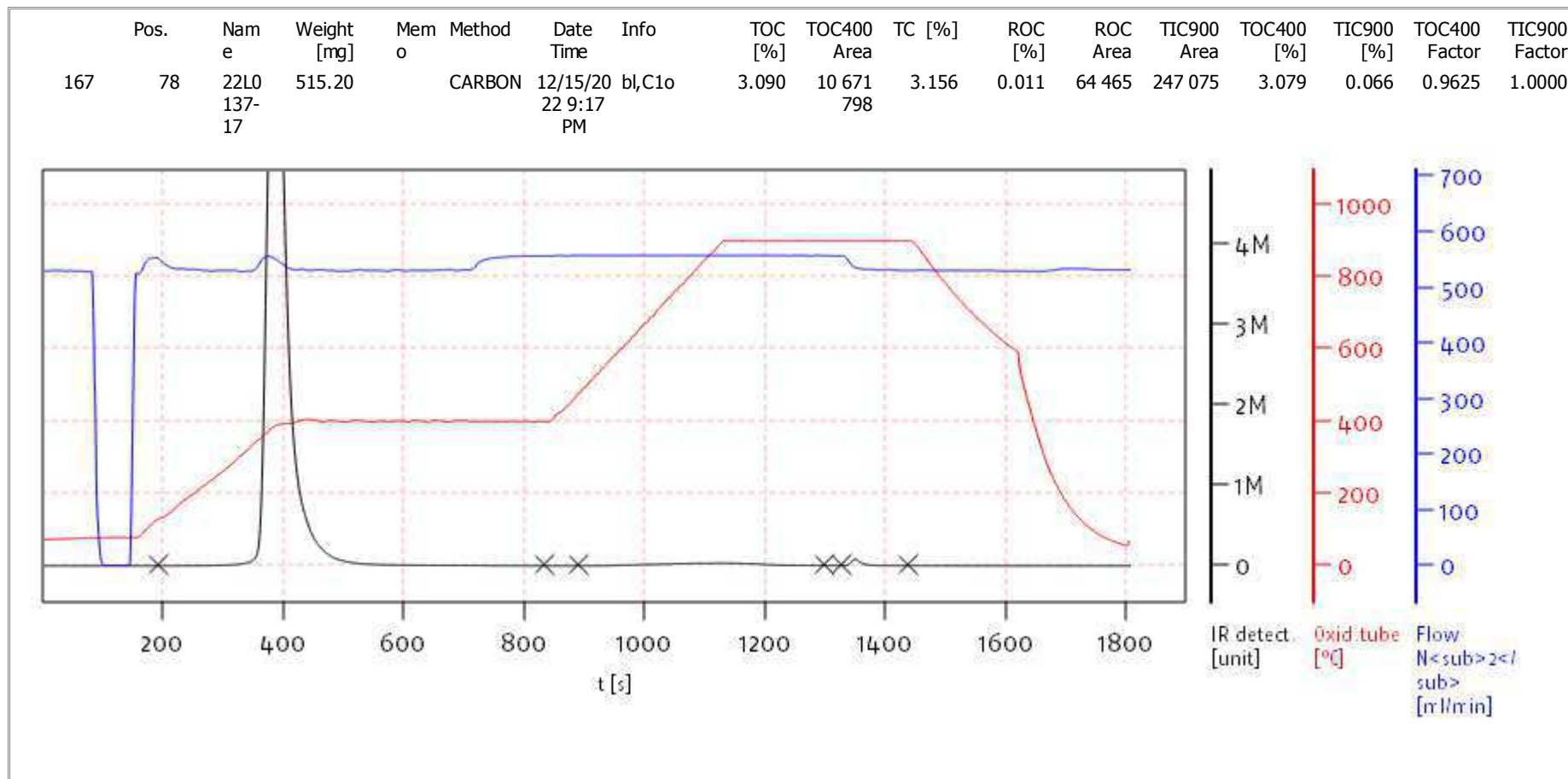
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Date: Fri Dec 16 09:43:23 2022



solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
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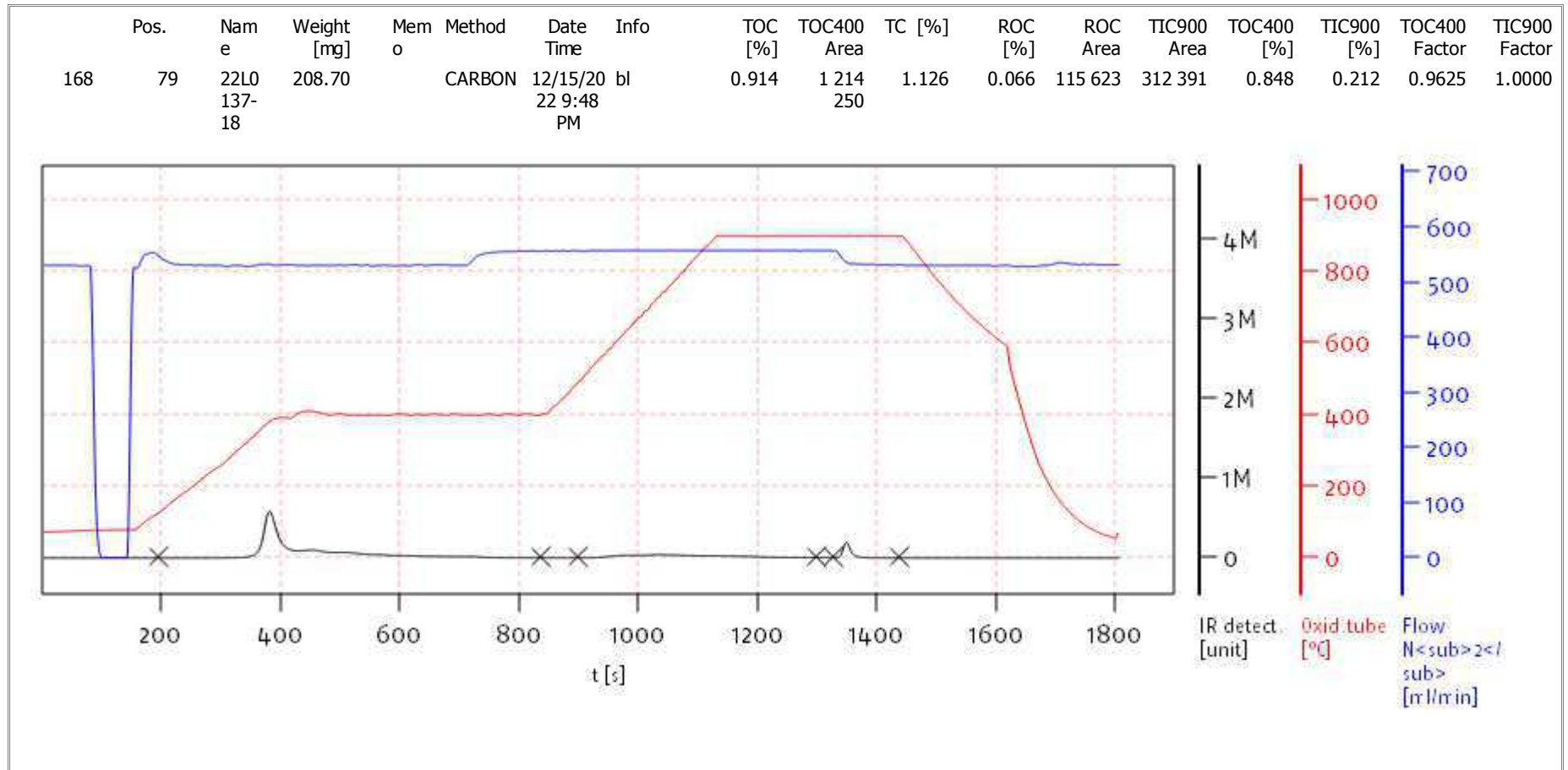
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solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
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Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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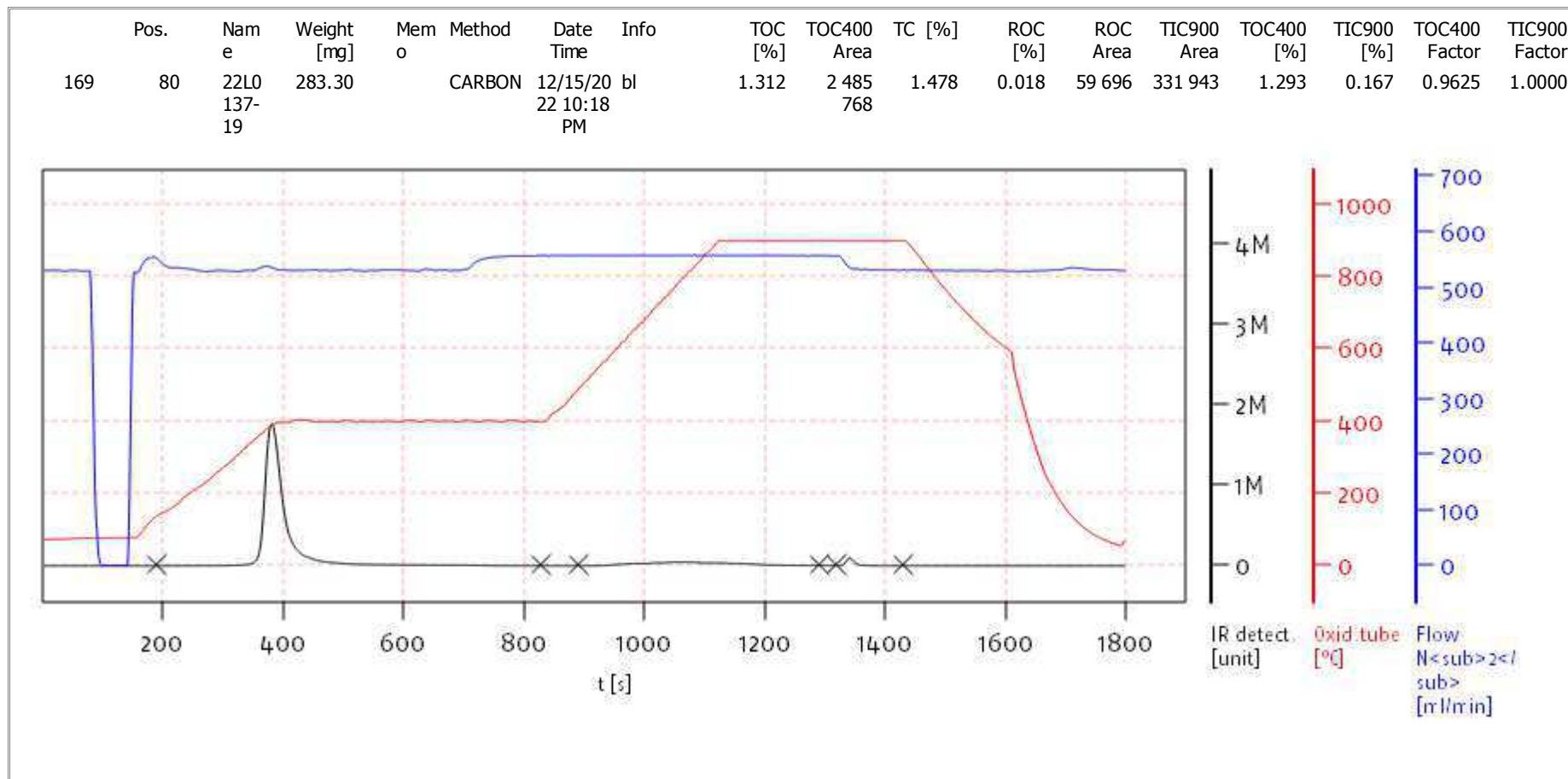
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Soli TOC Cube, Carbon
 Balance: BAL3
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Name:

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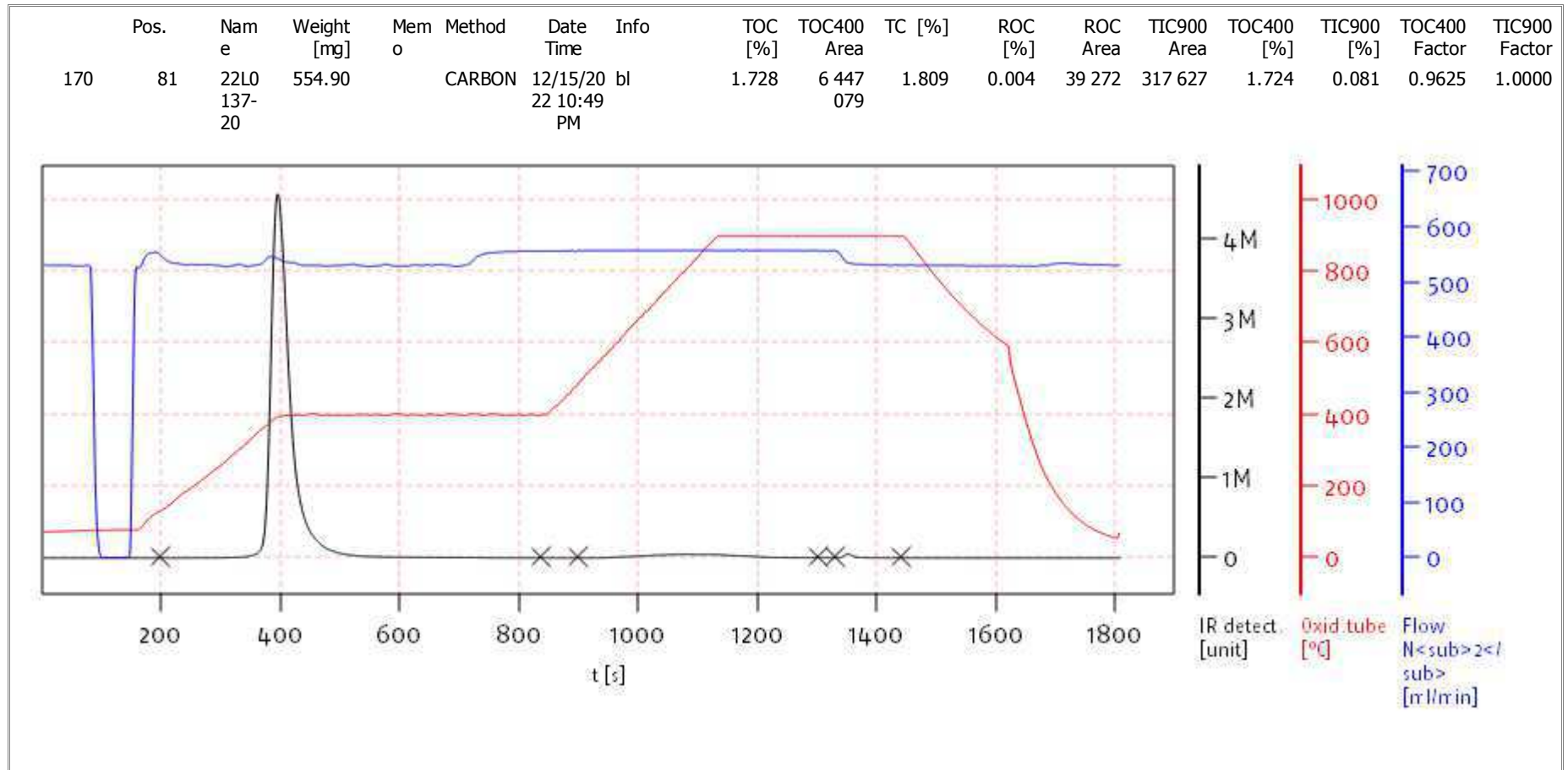
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 Serial No: 0300.181017
 Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



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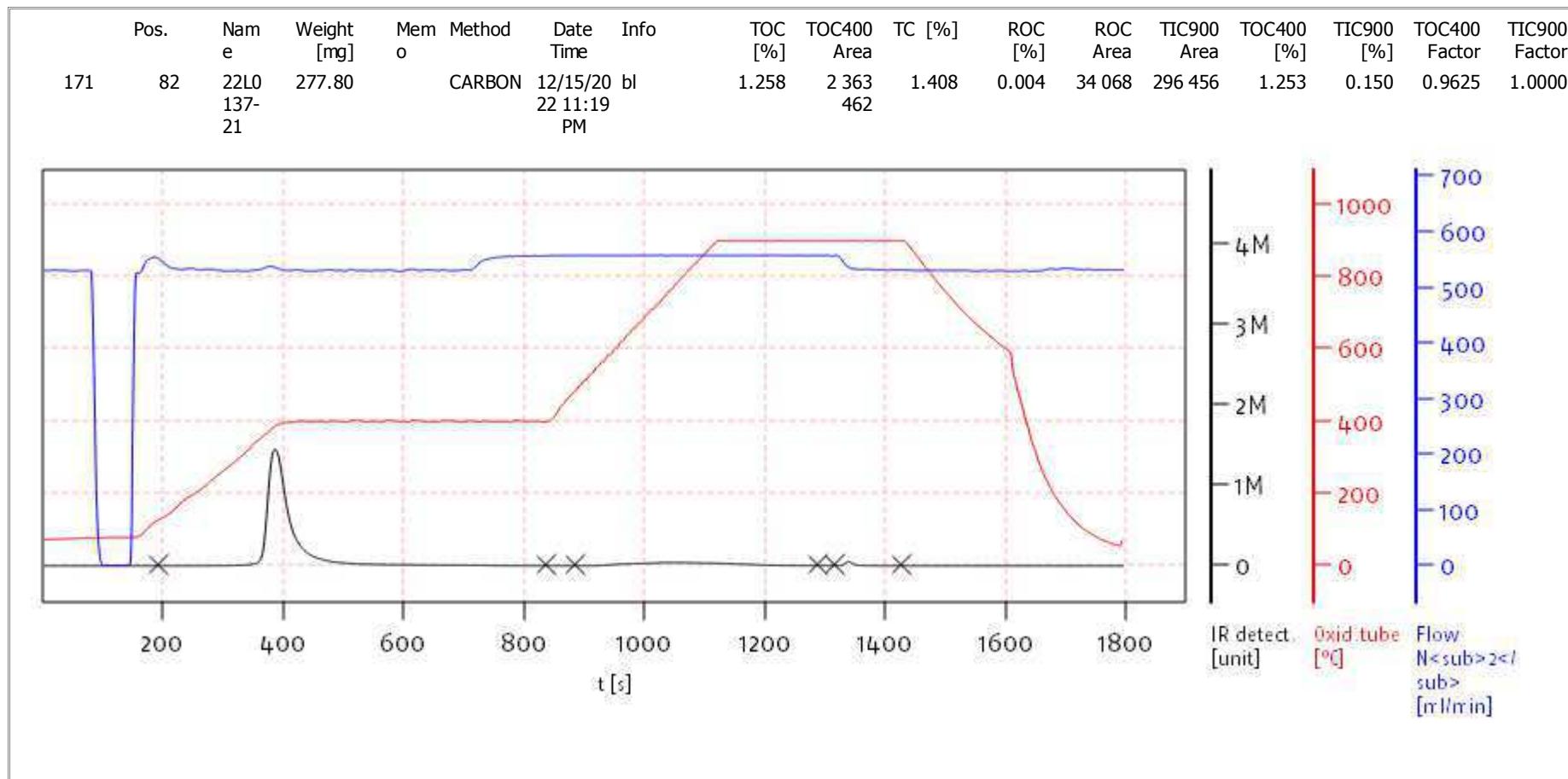
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Soli TOC Cube, Carbon
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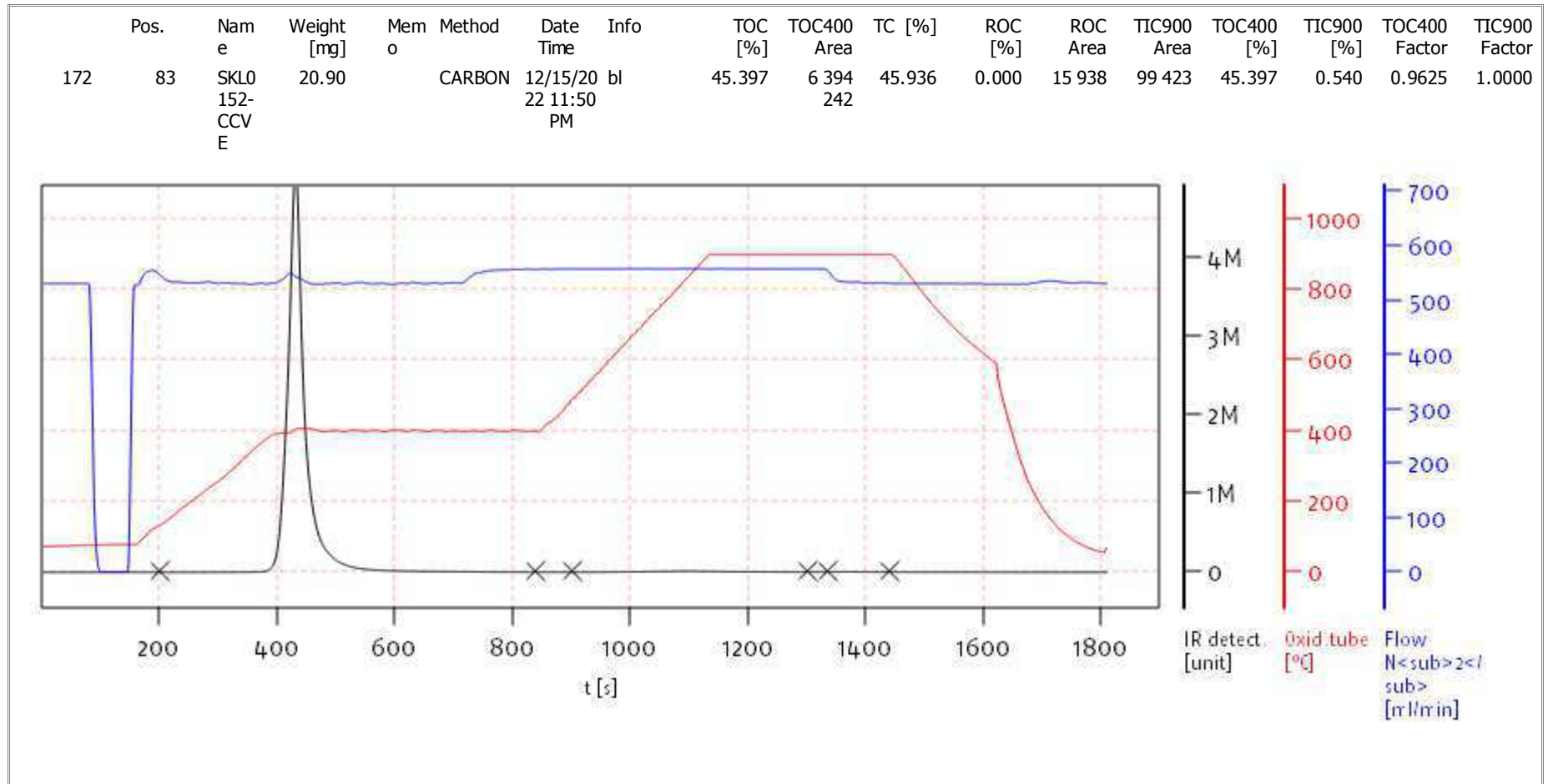
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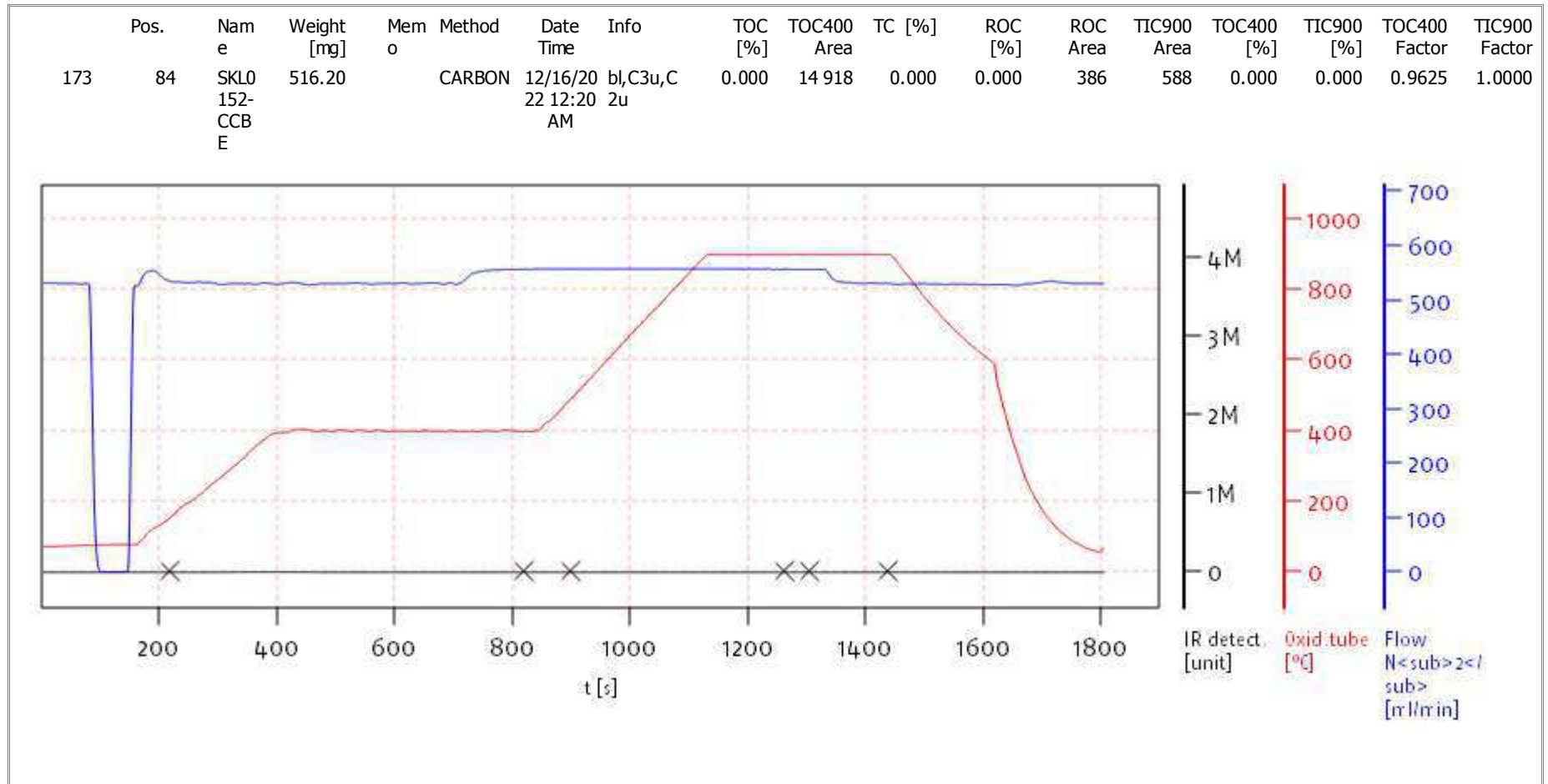
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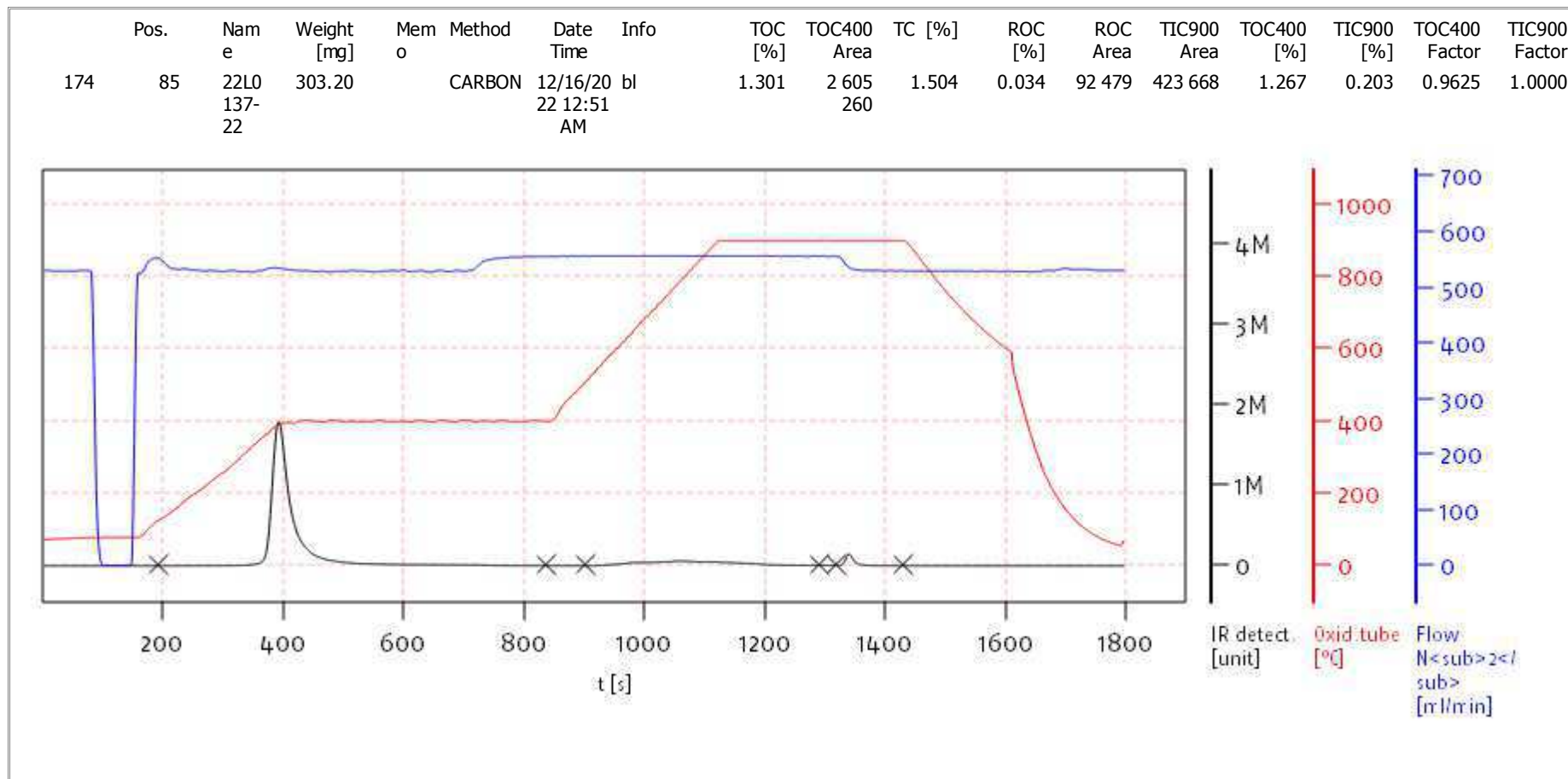
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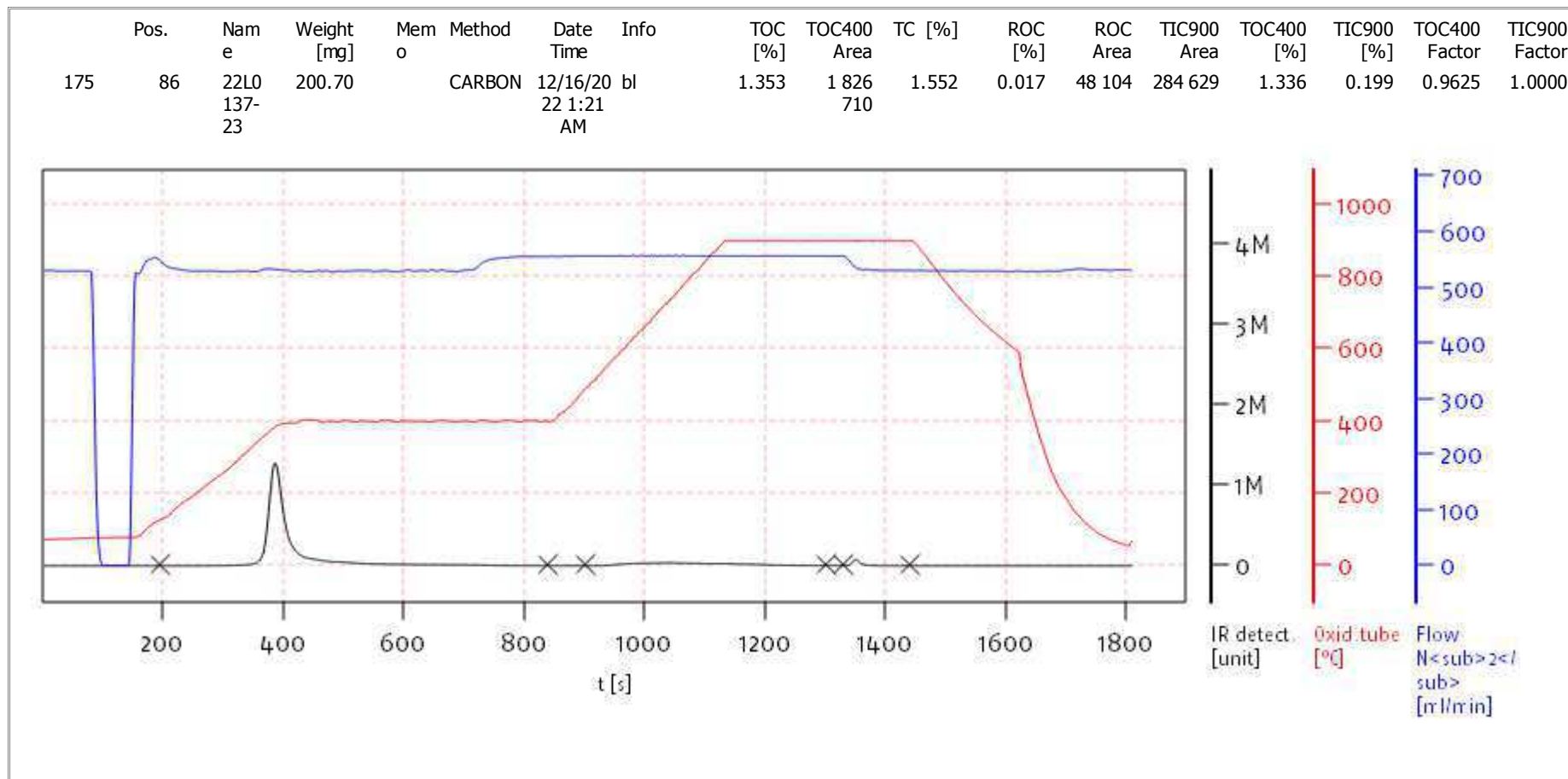
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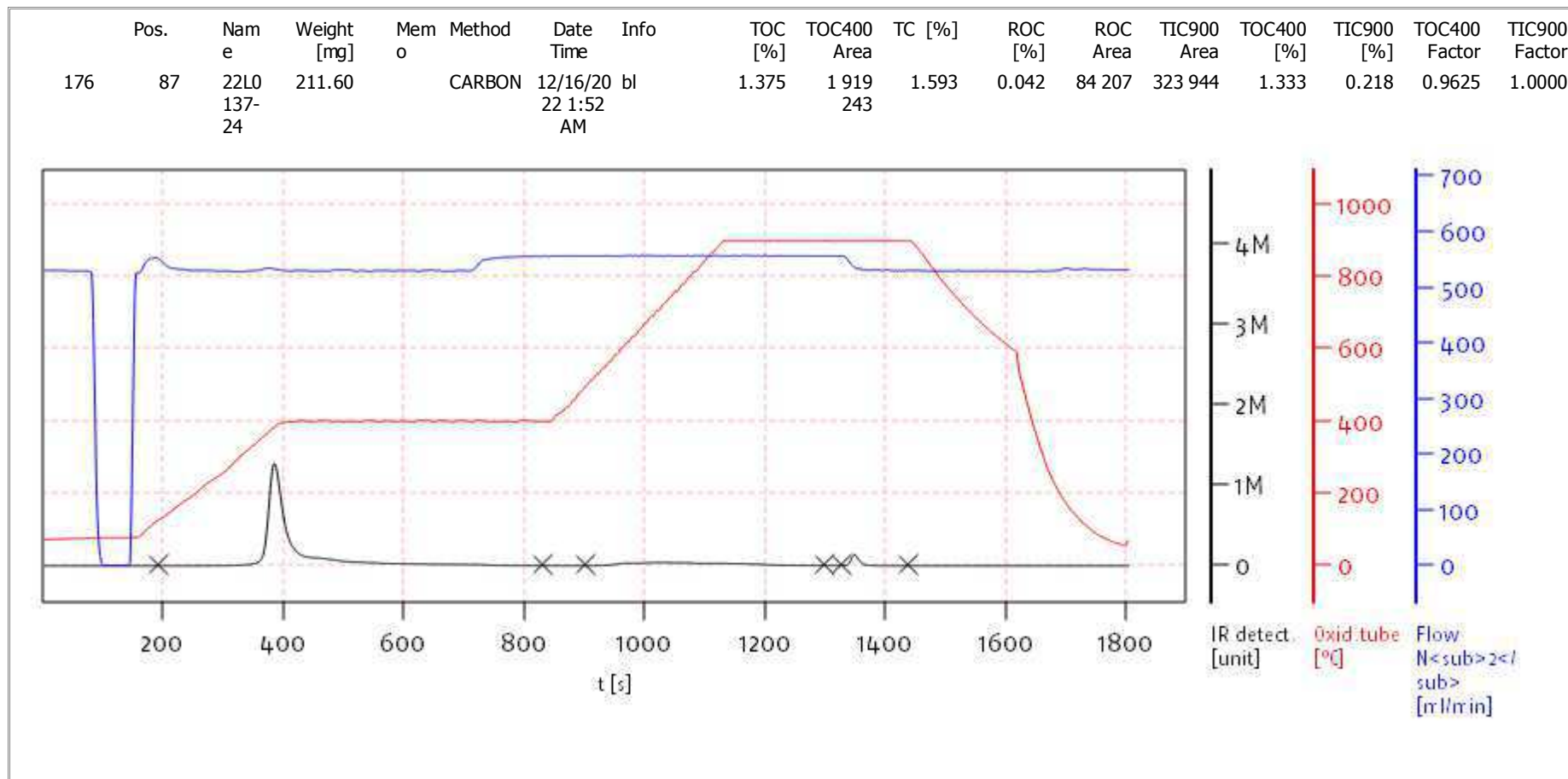
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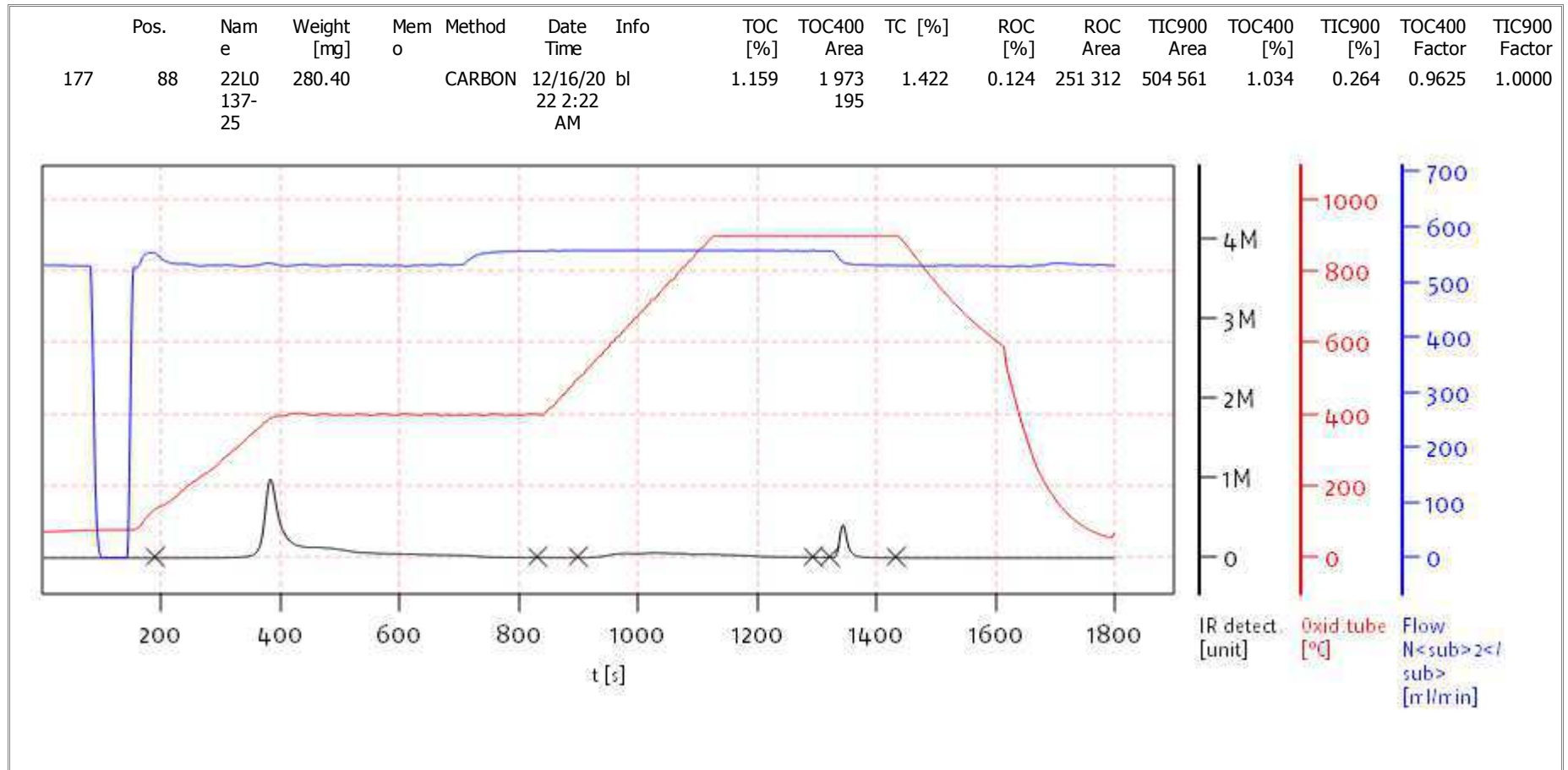
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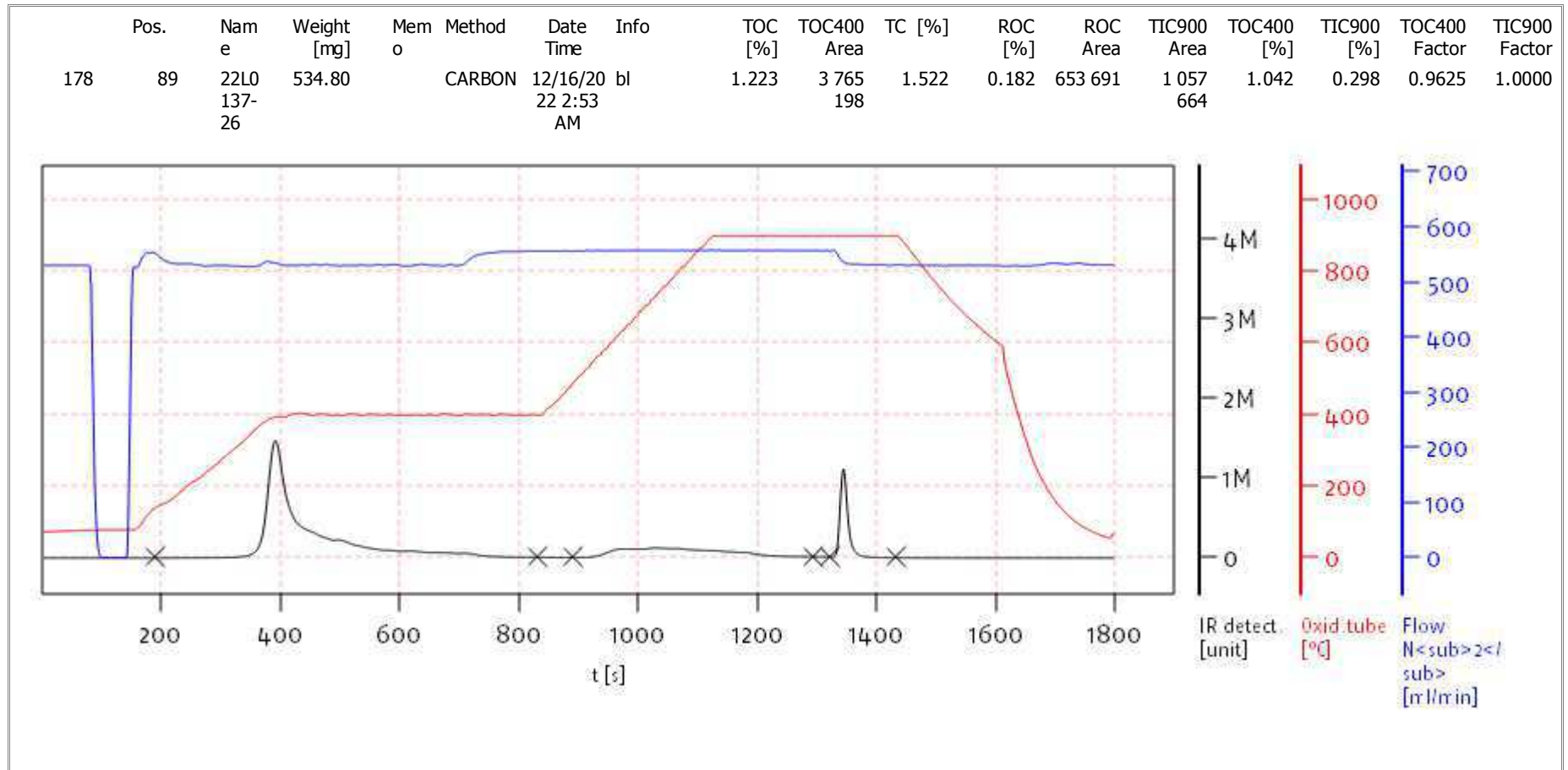
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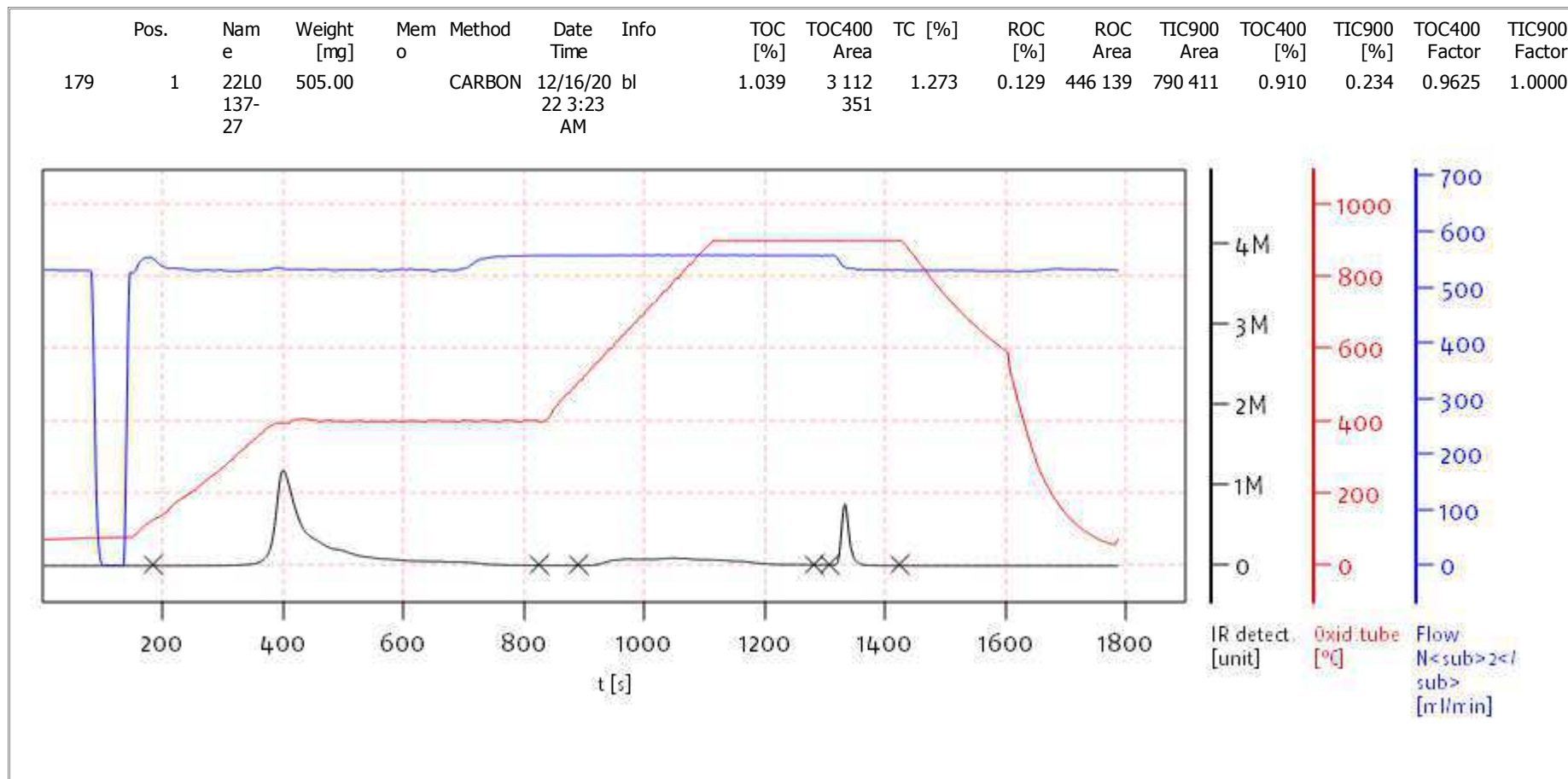
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 Mode CCC

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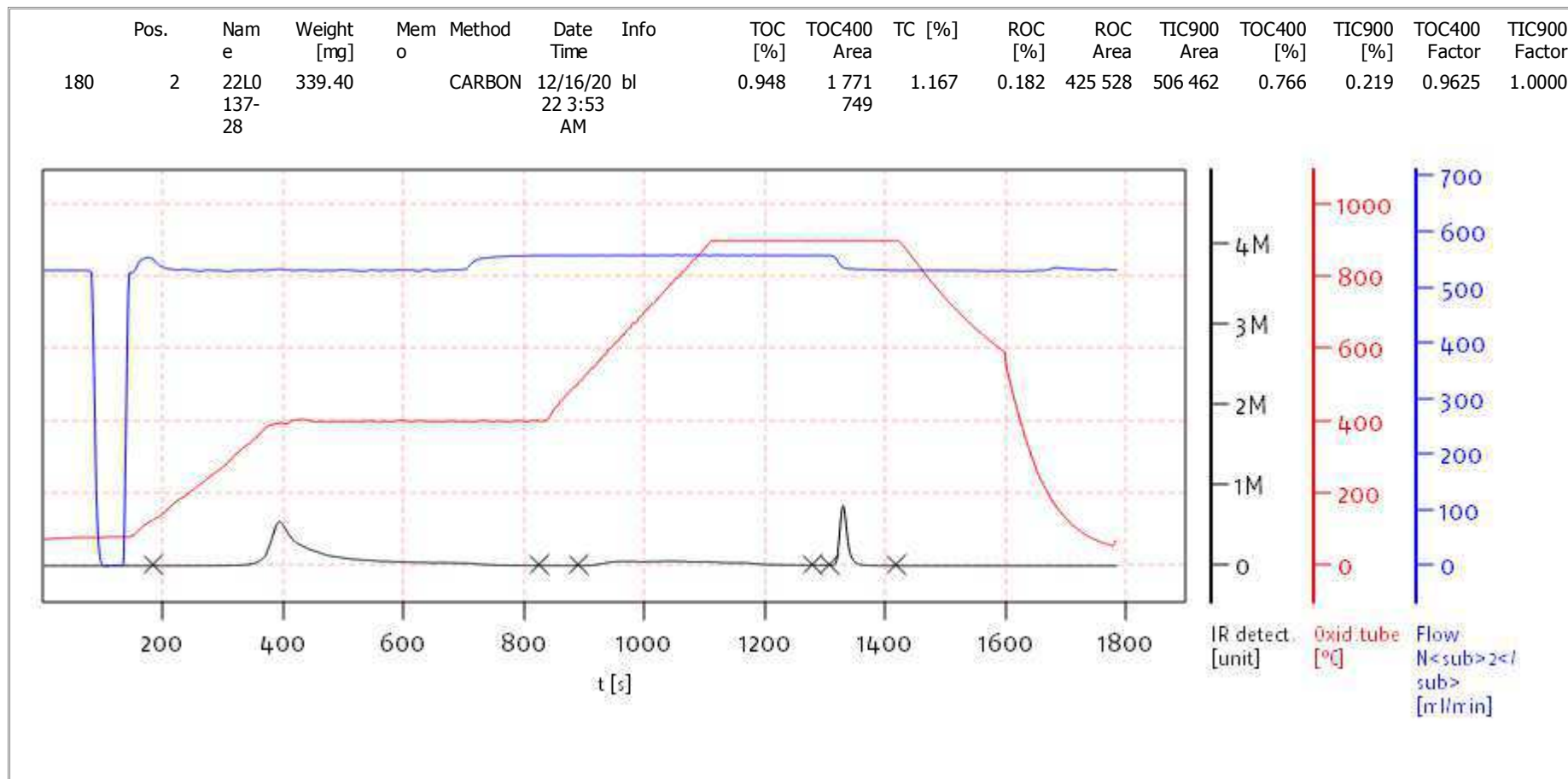
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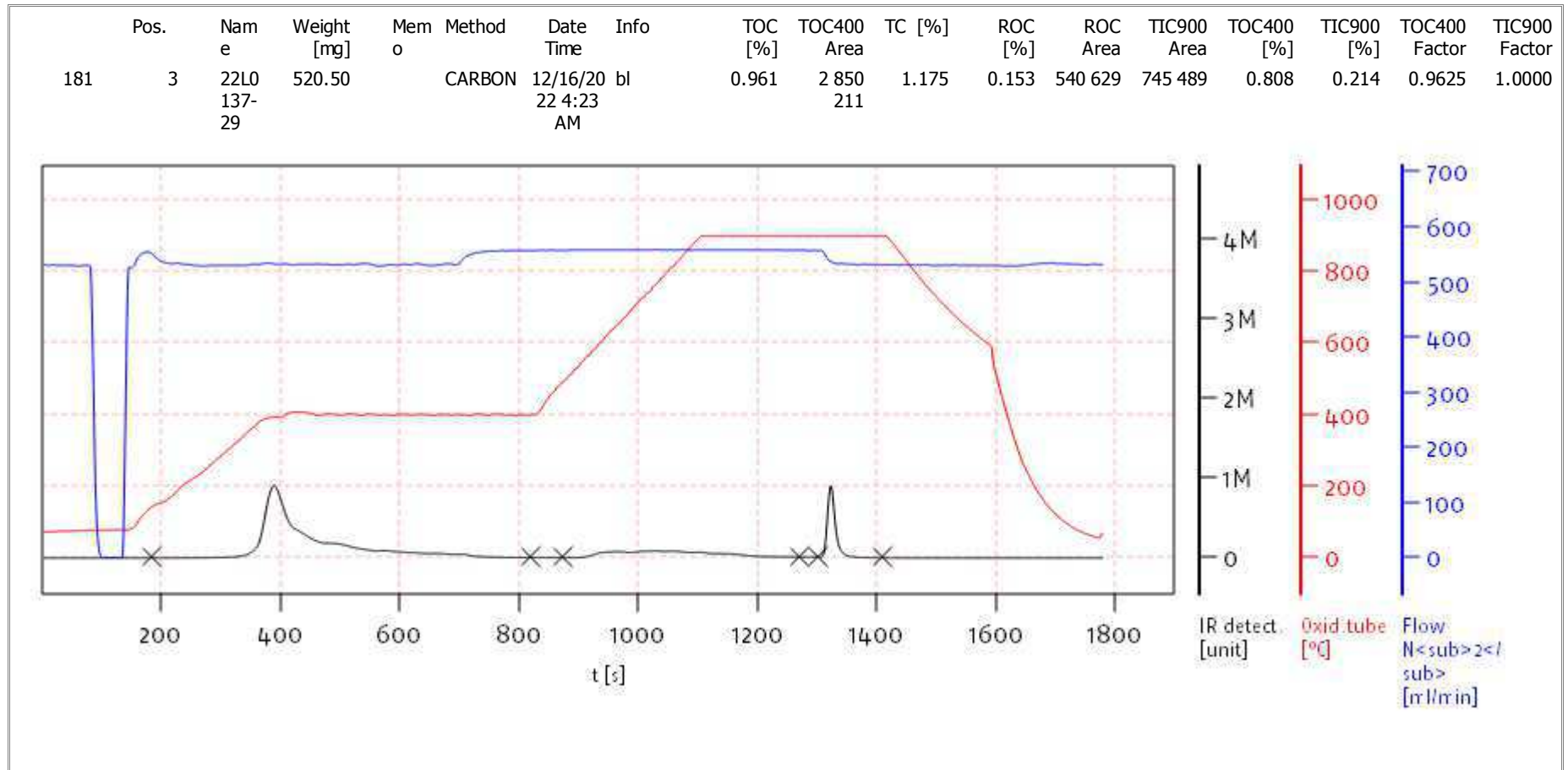
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Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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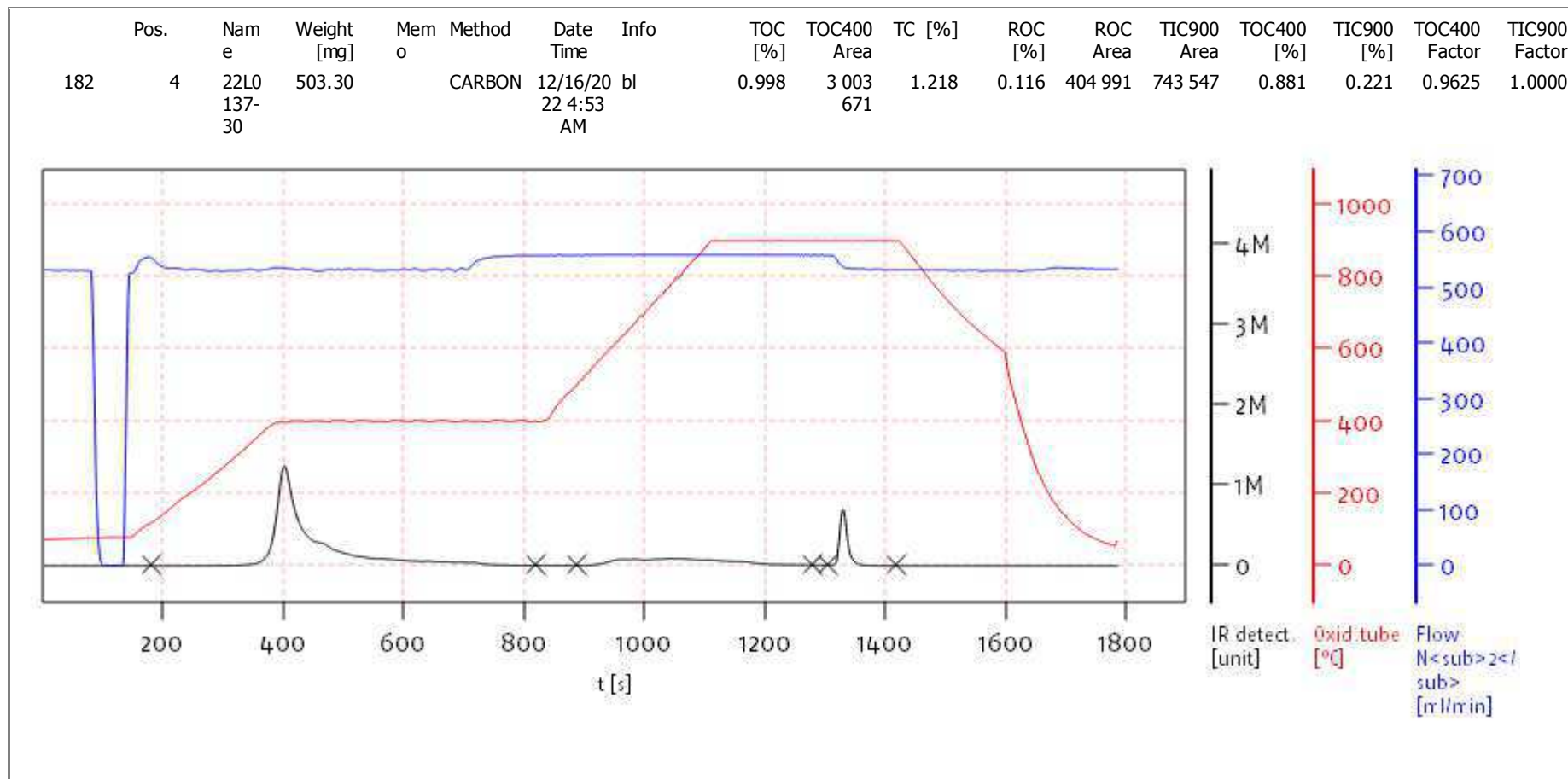
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 Mode CCC

Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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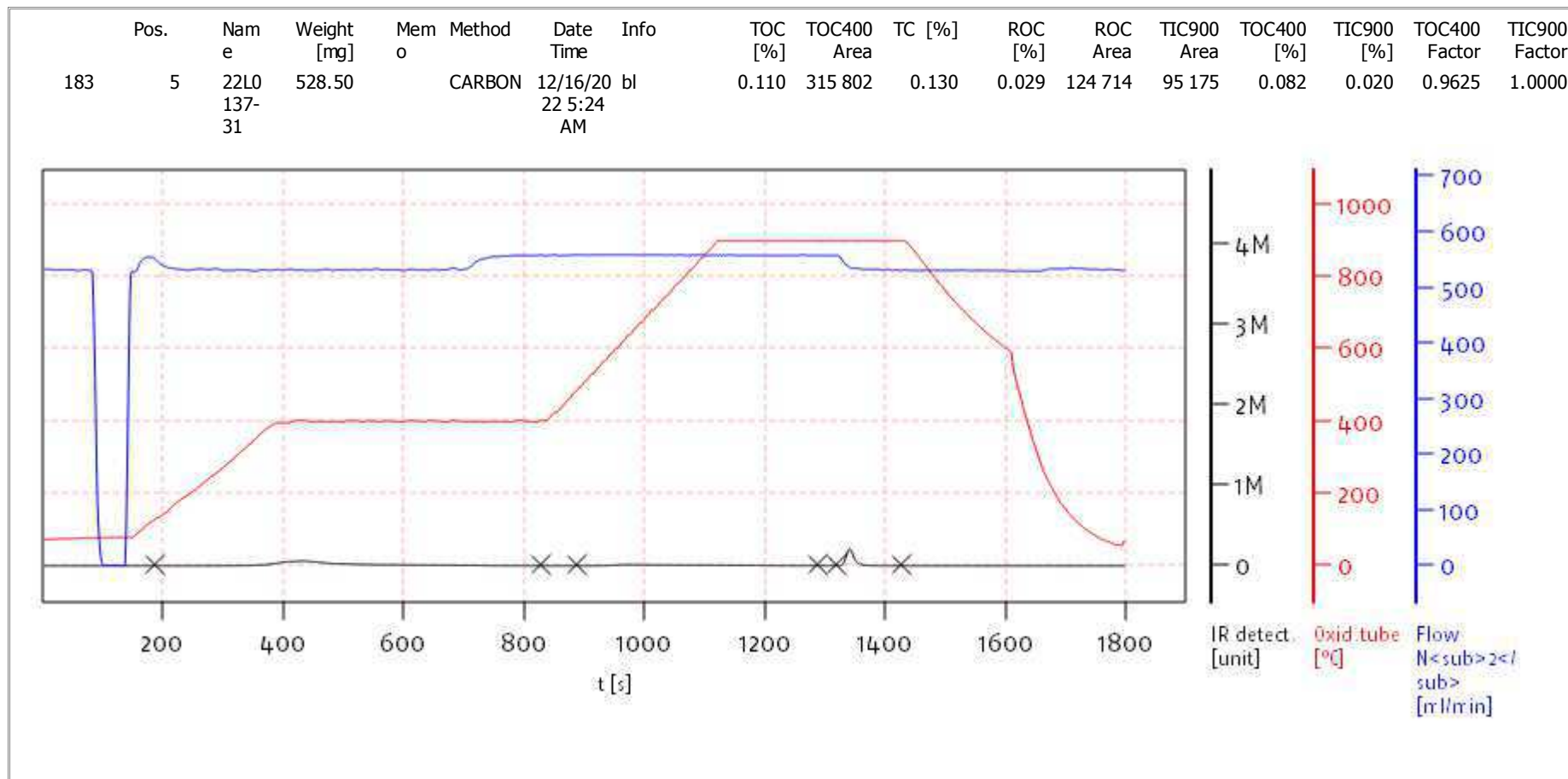
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solITOC V2.0.2 (31015f9) 2018-11-19
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Soli TOC Cube, Carbon
 Balance: BAL3
 Analyst: DOE



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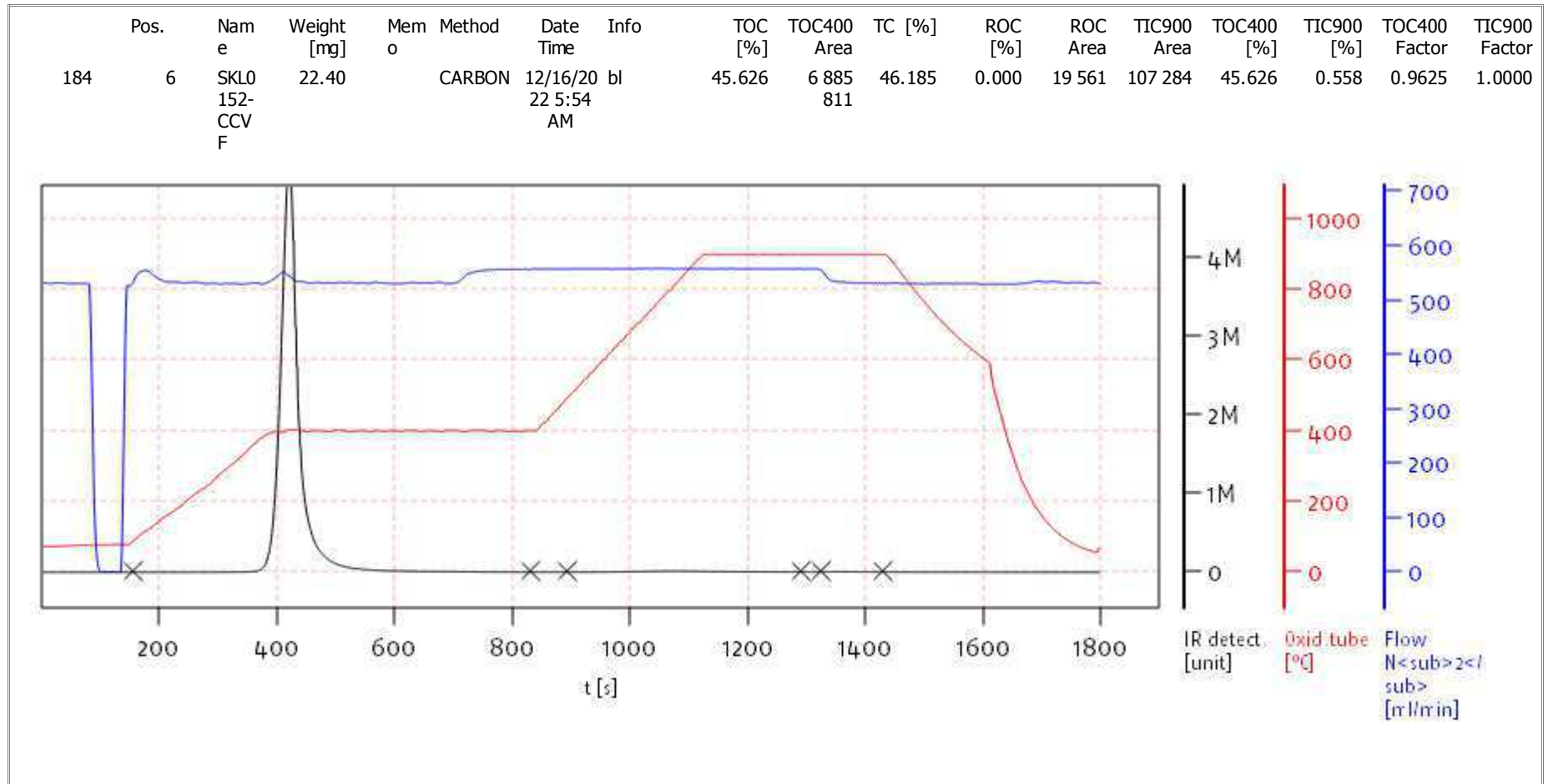
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Soli TOC Cube, Carbon
 Balance: BAL3
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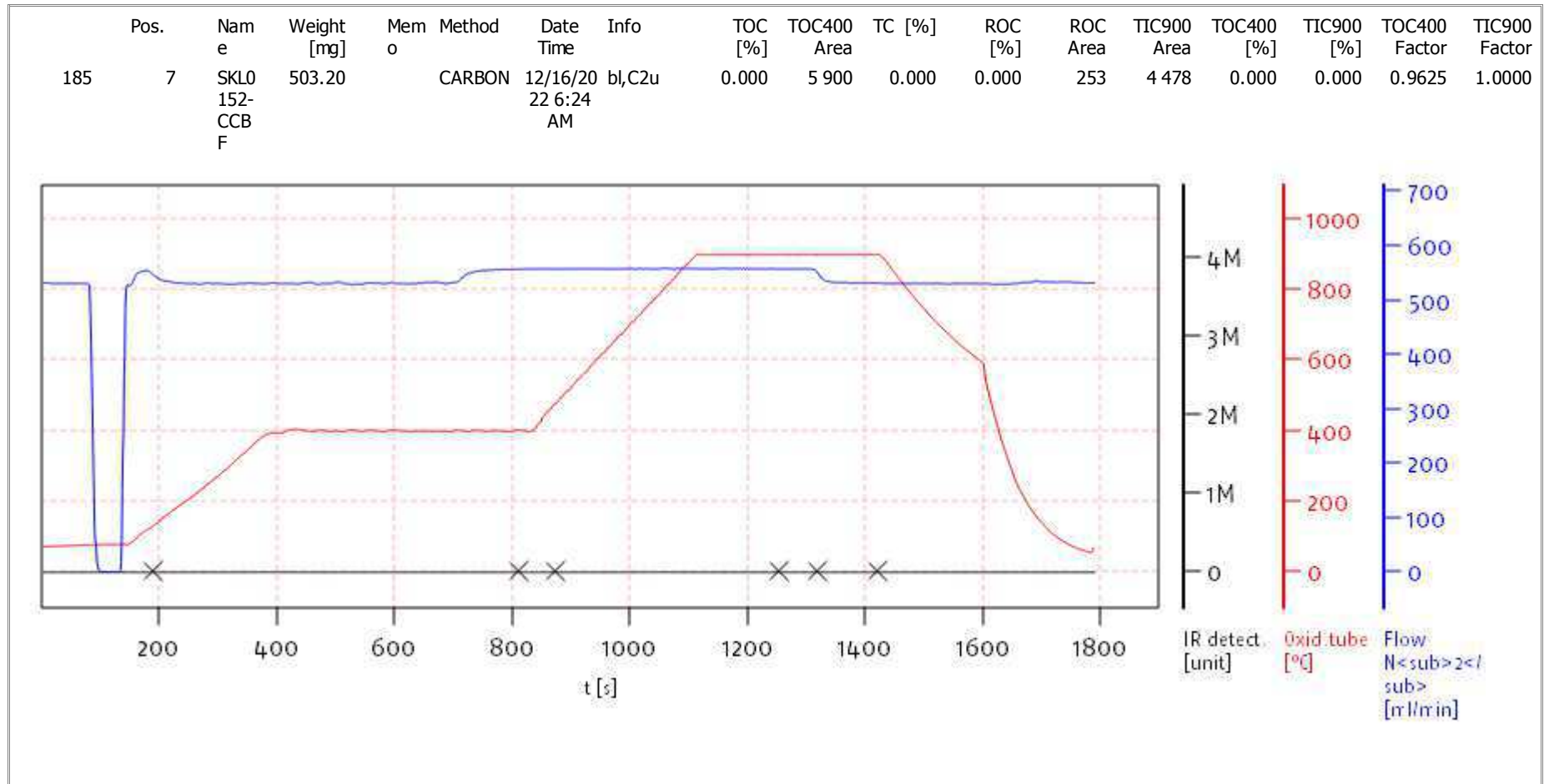
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Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



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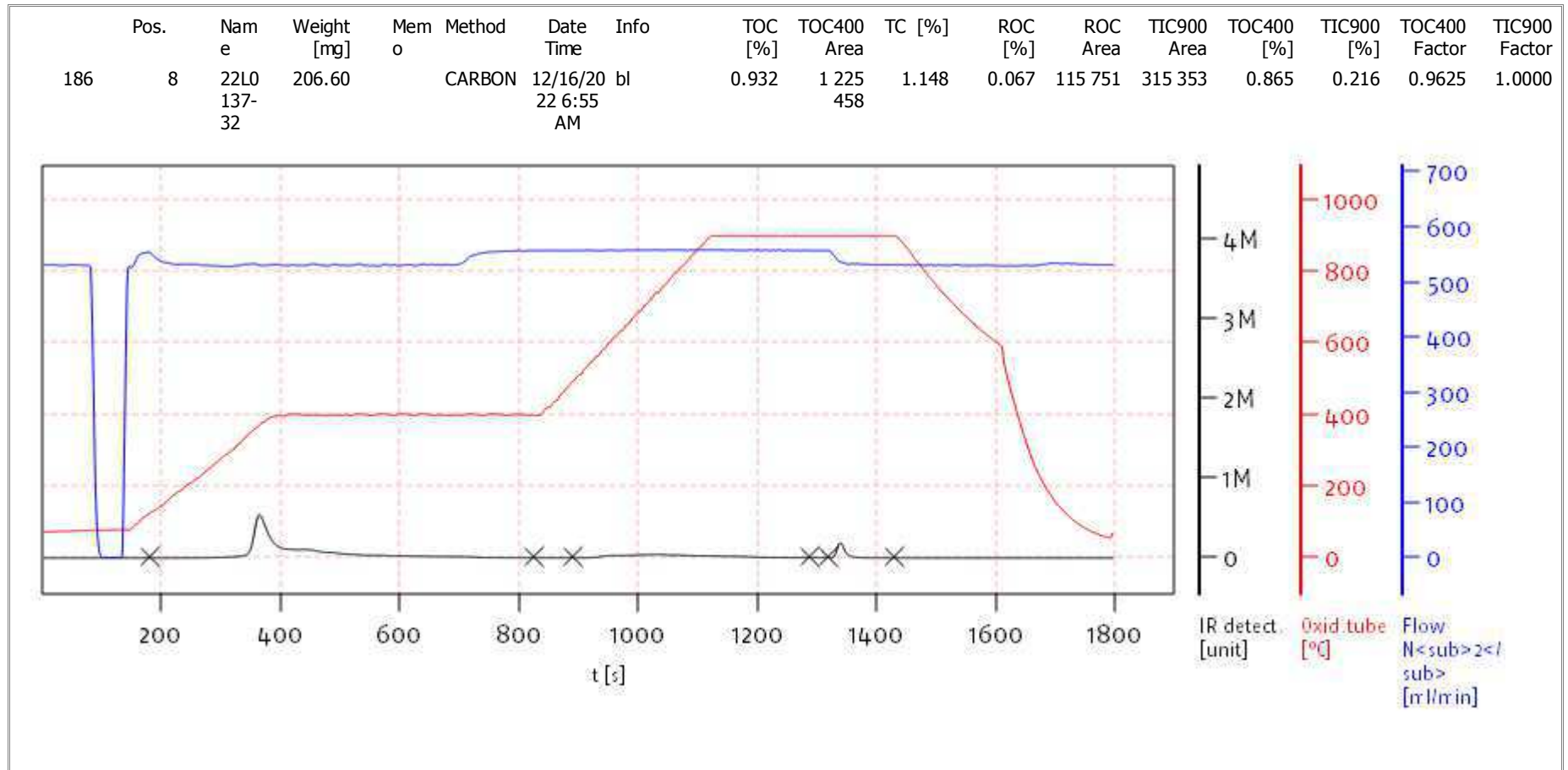
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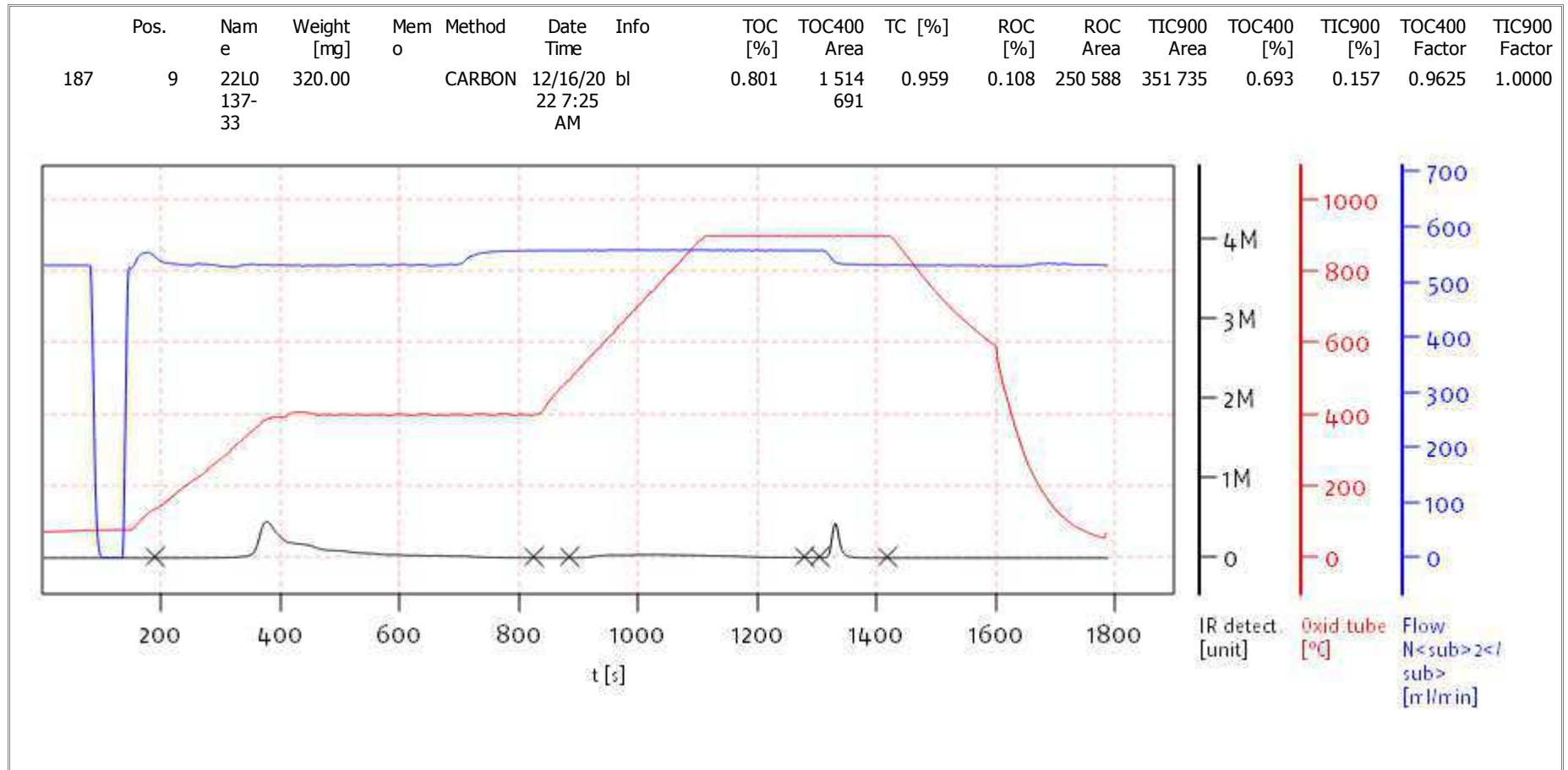
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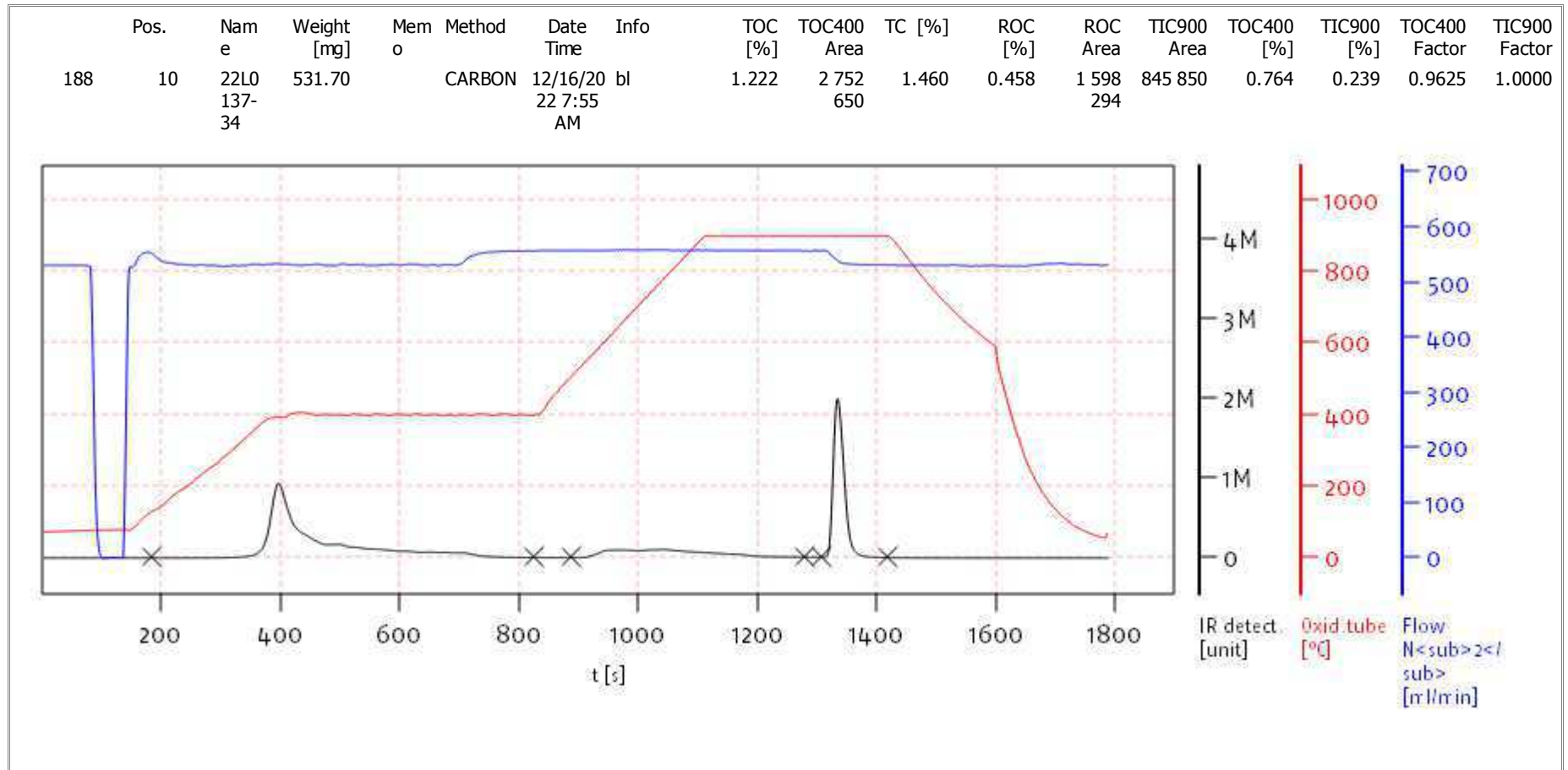
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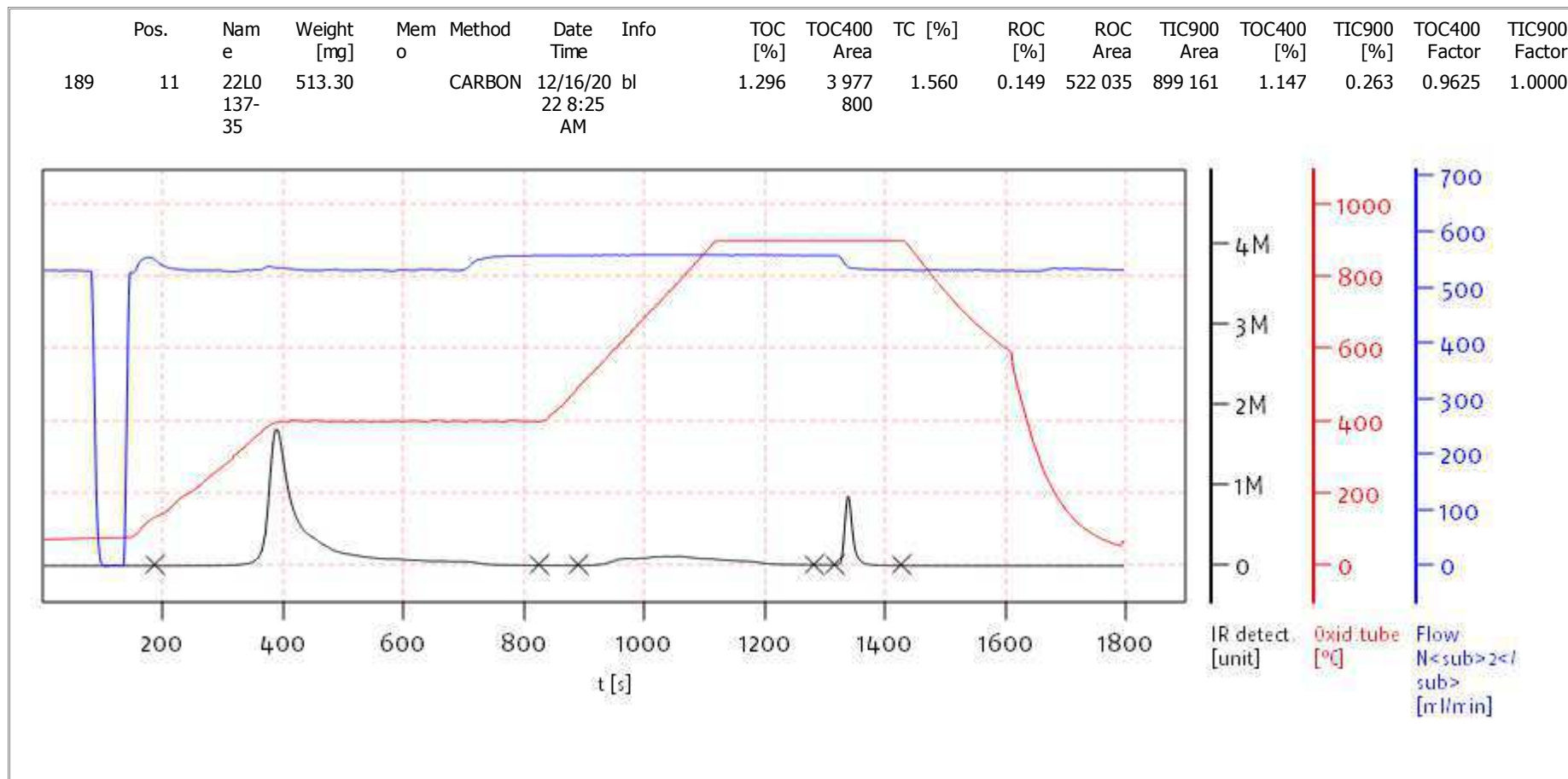
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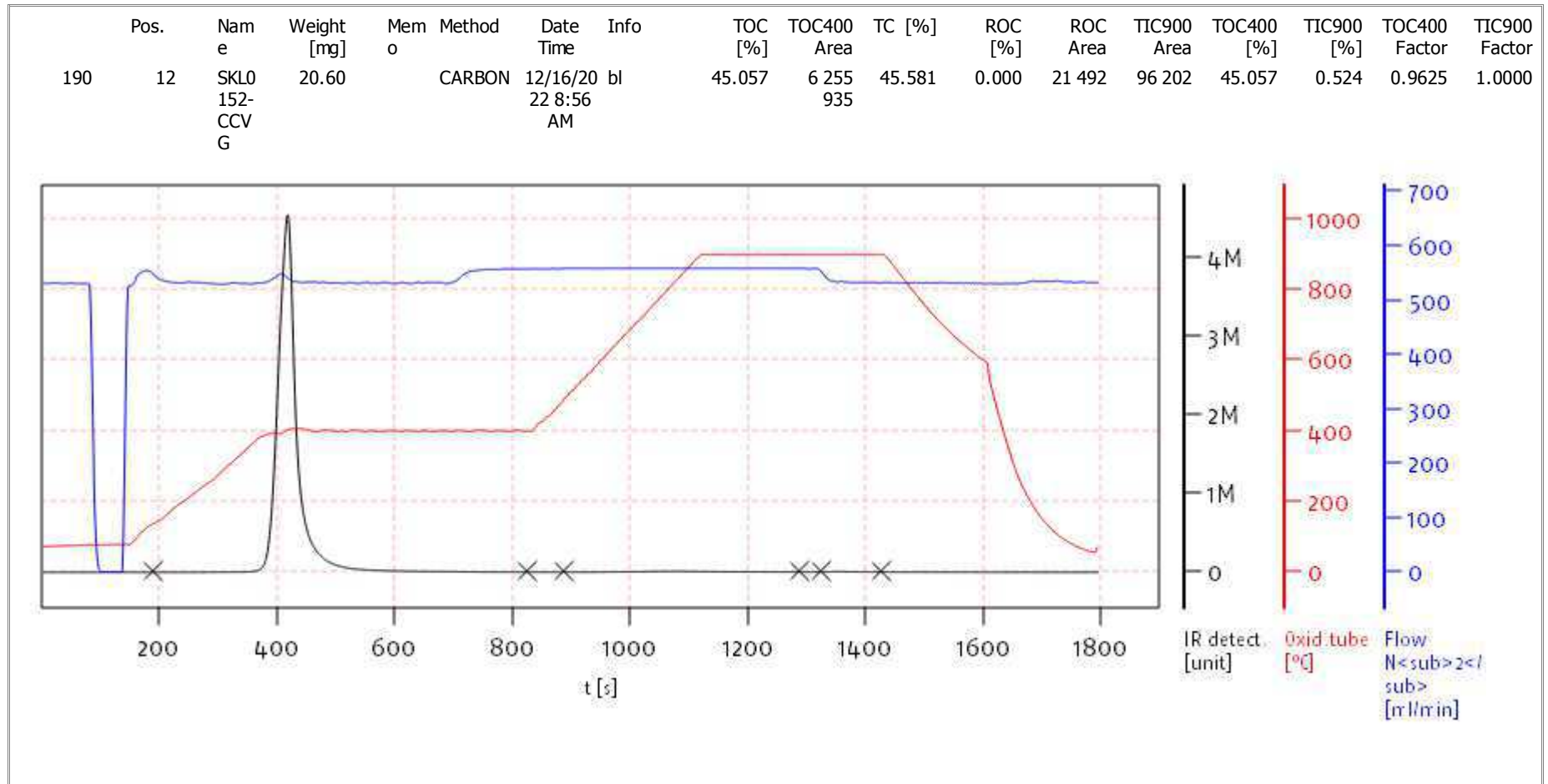
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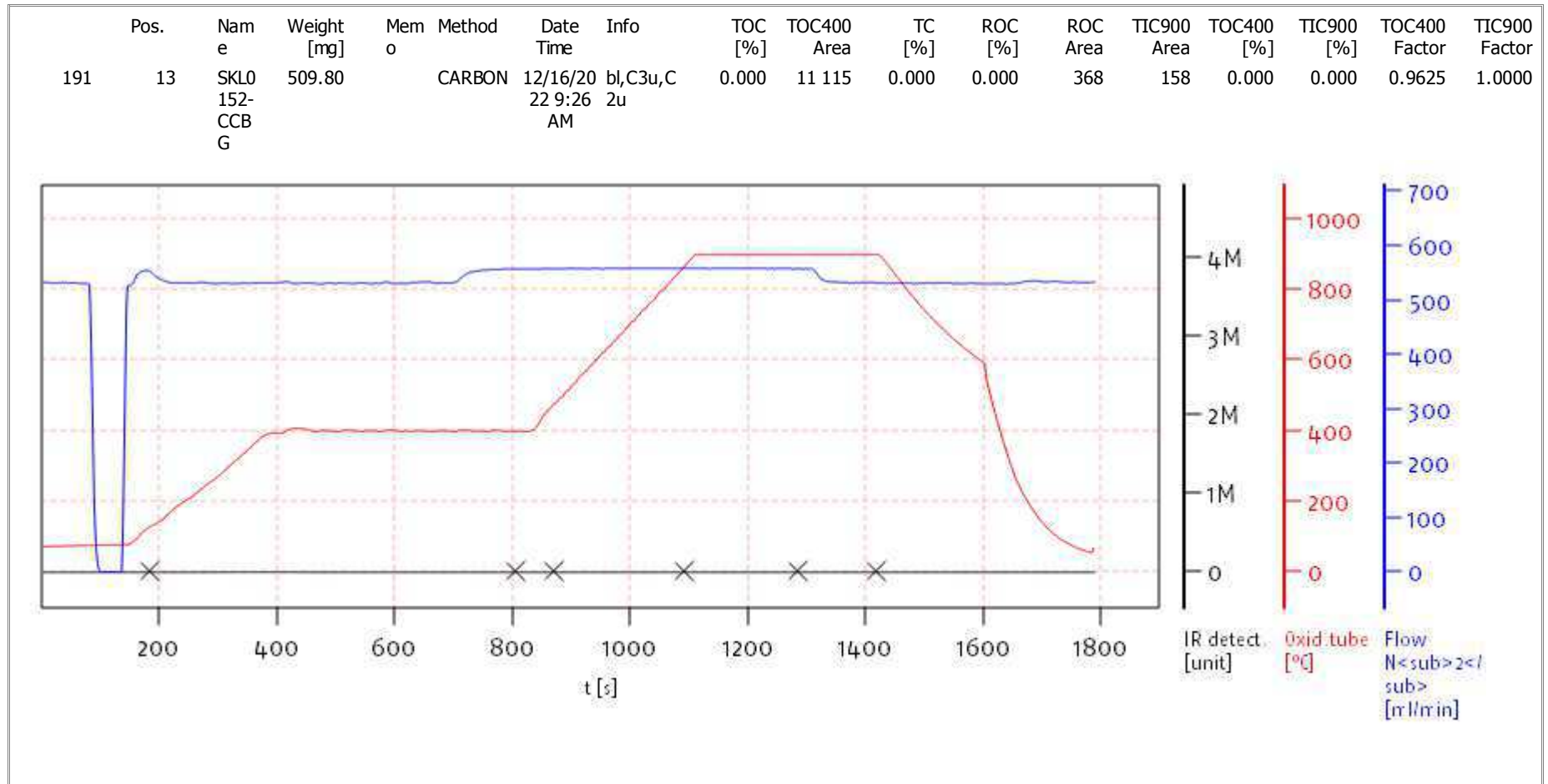
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Soli TOC Cube, Carbon
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Name:

Access: solITOC superuser

Date: Fri Dec 16 09:43:23 2022



solITOC V2.0.2 (31015f9) 2018-11-19
 Serial No: 0300.181017
 Mode CCC



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FD00070

Instrument: TOC Cube

Calibration Date: 04/26/2022 11:29

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085
Total Carbon	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085
Total Inorganic Carbon	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085
% Soot	0.0080973	1449743	0.014695	1300238	0.021293	1292913	0.02939	1293535	0.044385	2094063	0.05878	1400085



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FD00070

Instrument: TOC Cube

Calibration Date: 04/26/2022 11:29

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135
Total Carbon	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135
Total Inorganic Carbon	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135
% Soot	0.074075	1370638	0.08937	1351930	0.12056	2158544	0.14995	1559046	0.24	1346463	0.288	1430135



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FD00070

Instrument: TOC Cube

Calibration Date: 04/26/2022 11:29

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882
Total Carbon	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882
Total Inorganic Carbon	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882
% Soot	0.414	1337053	0.606	1385937	0.894	1382774	1.188	1379790	1.5	1375927	1.818	1372882



INITIAL CALIBRATION DATA

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Calibration: FD00070

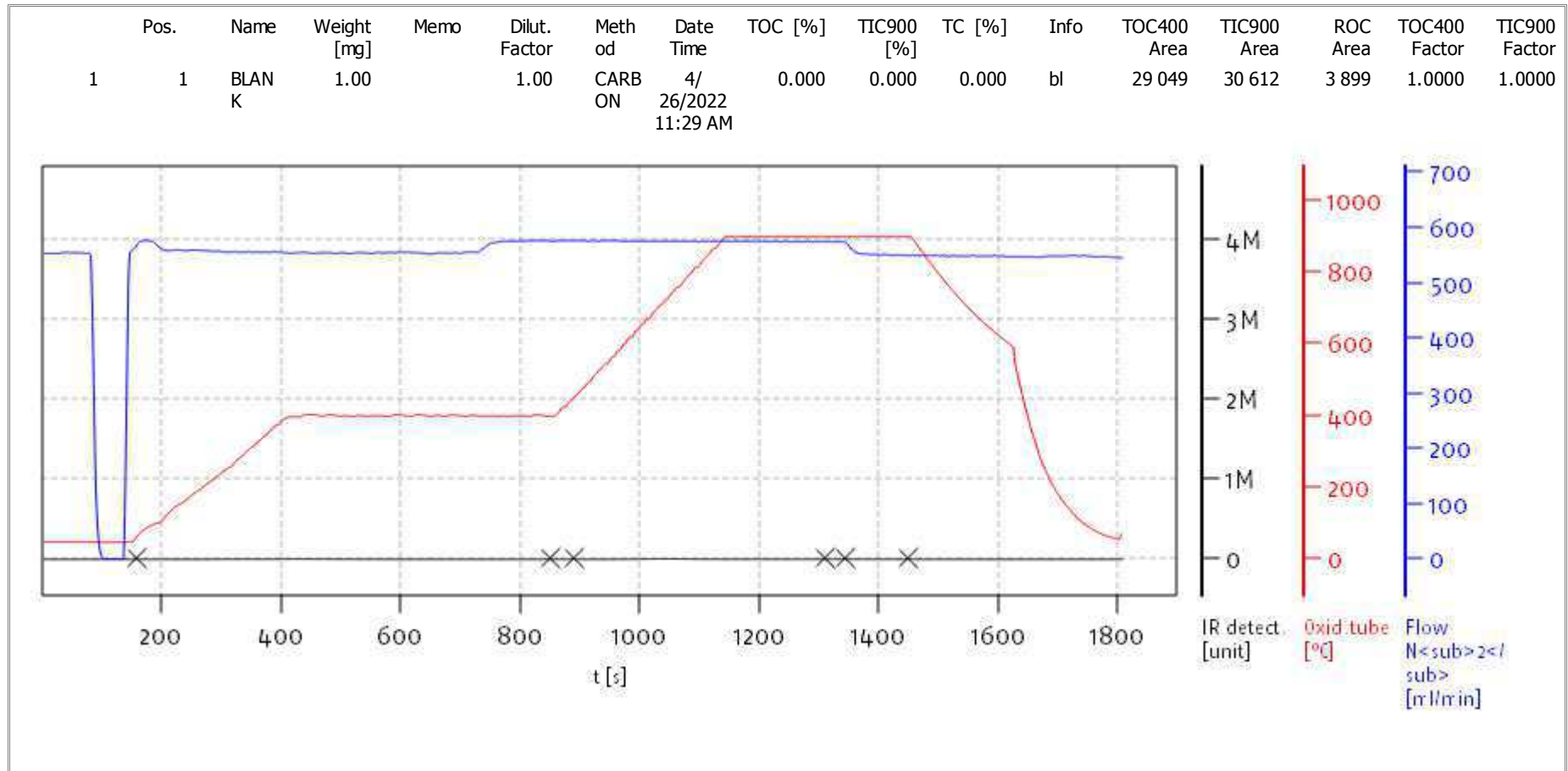
Instrument: TOC Cube

Calibration Date: 04/26/2022 11:29

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF	Conc	RF
Total Organic Carbon	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408
Total Carbon	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408
Total Inorganic Carbon	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408
% Soot	2.49	1398606	2.982	1376871	4.188	1256057	4.818	1279542	5.406	1283358	7.2	1301408



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

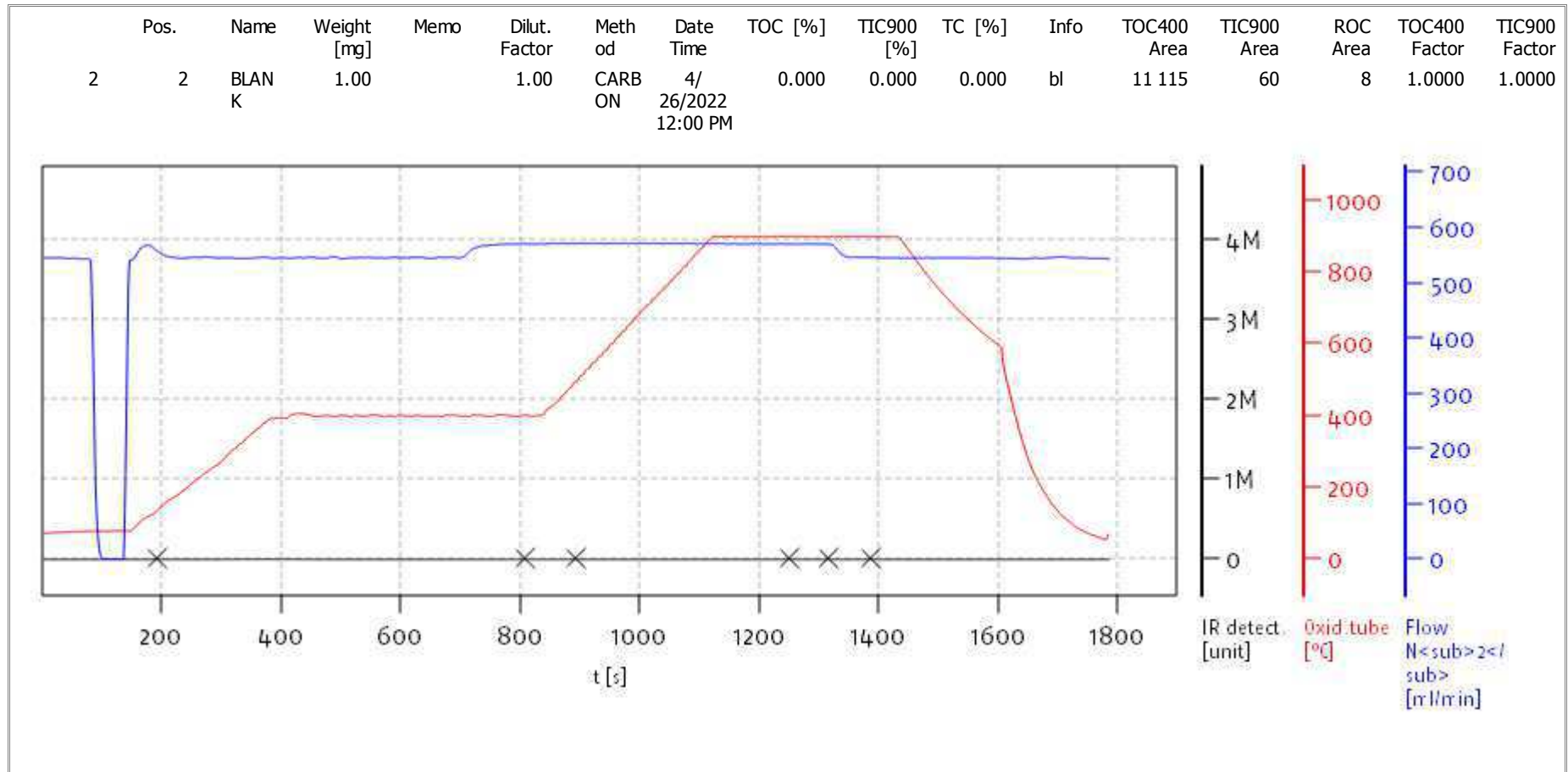
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solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

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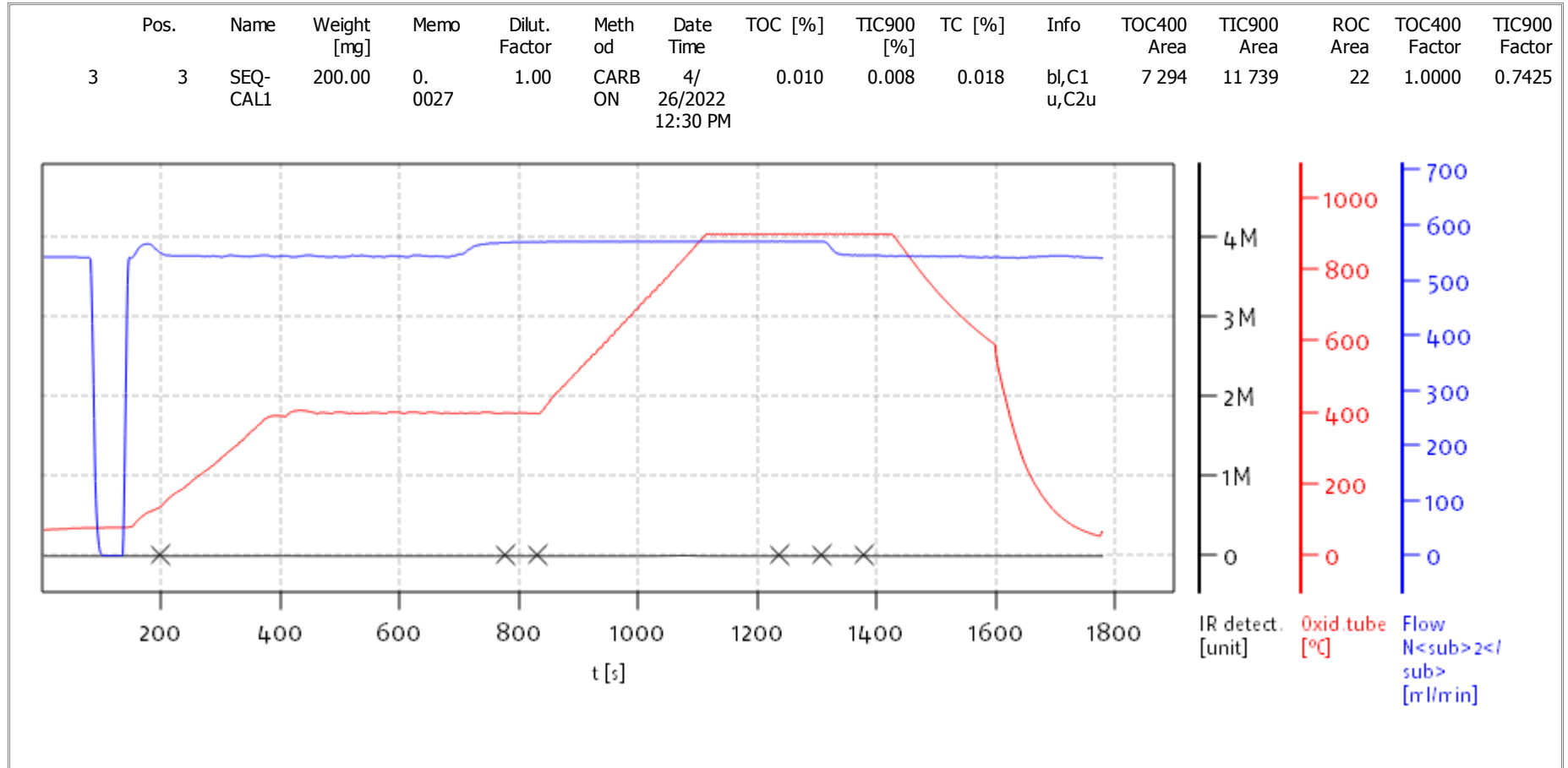
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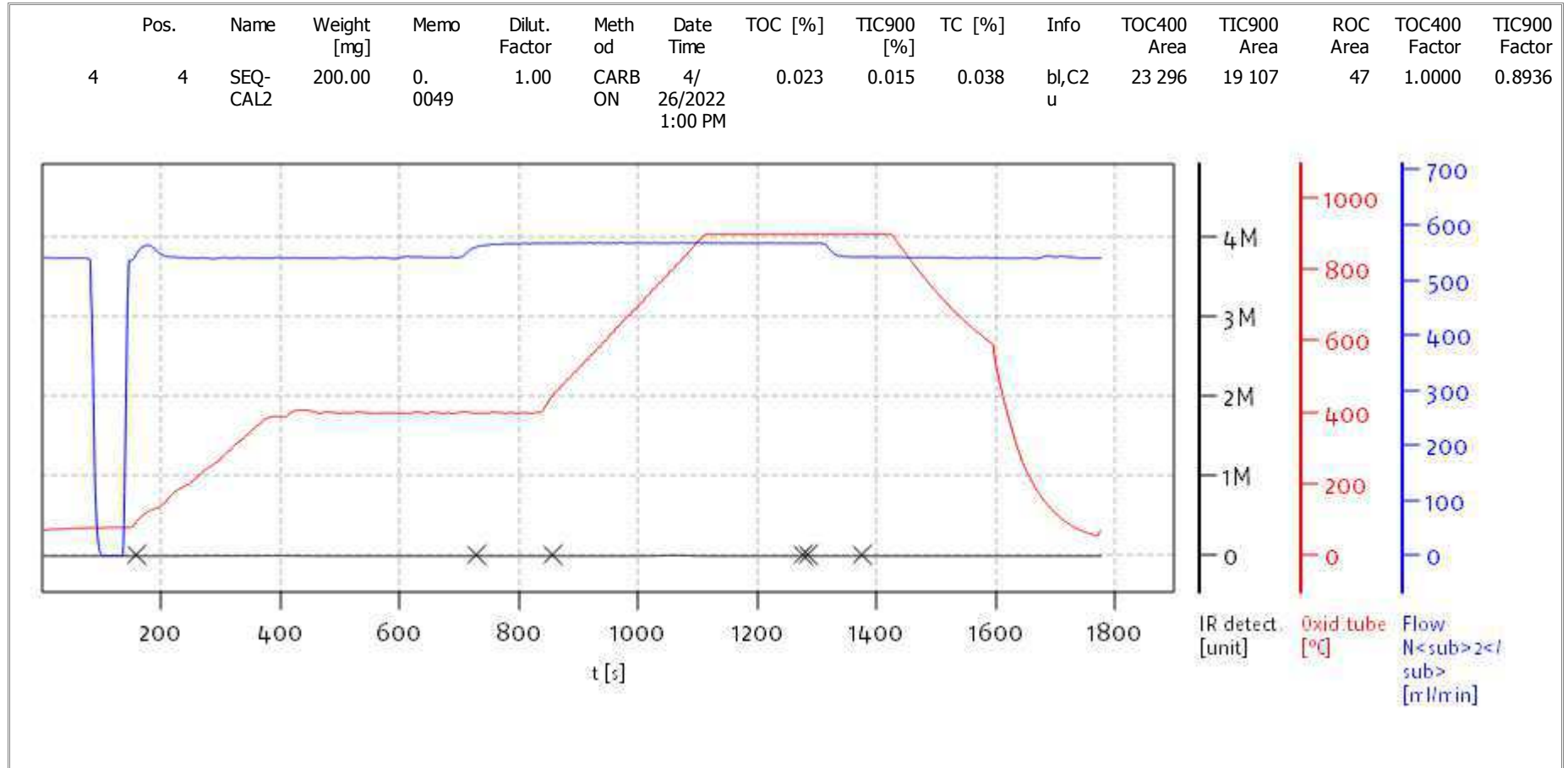
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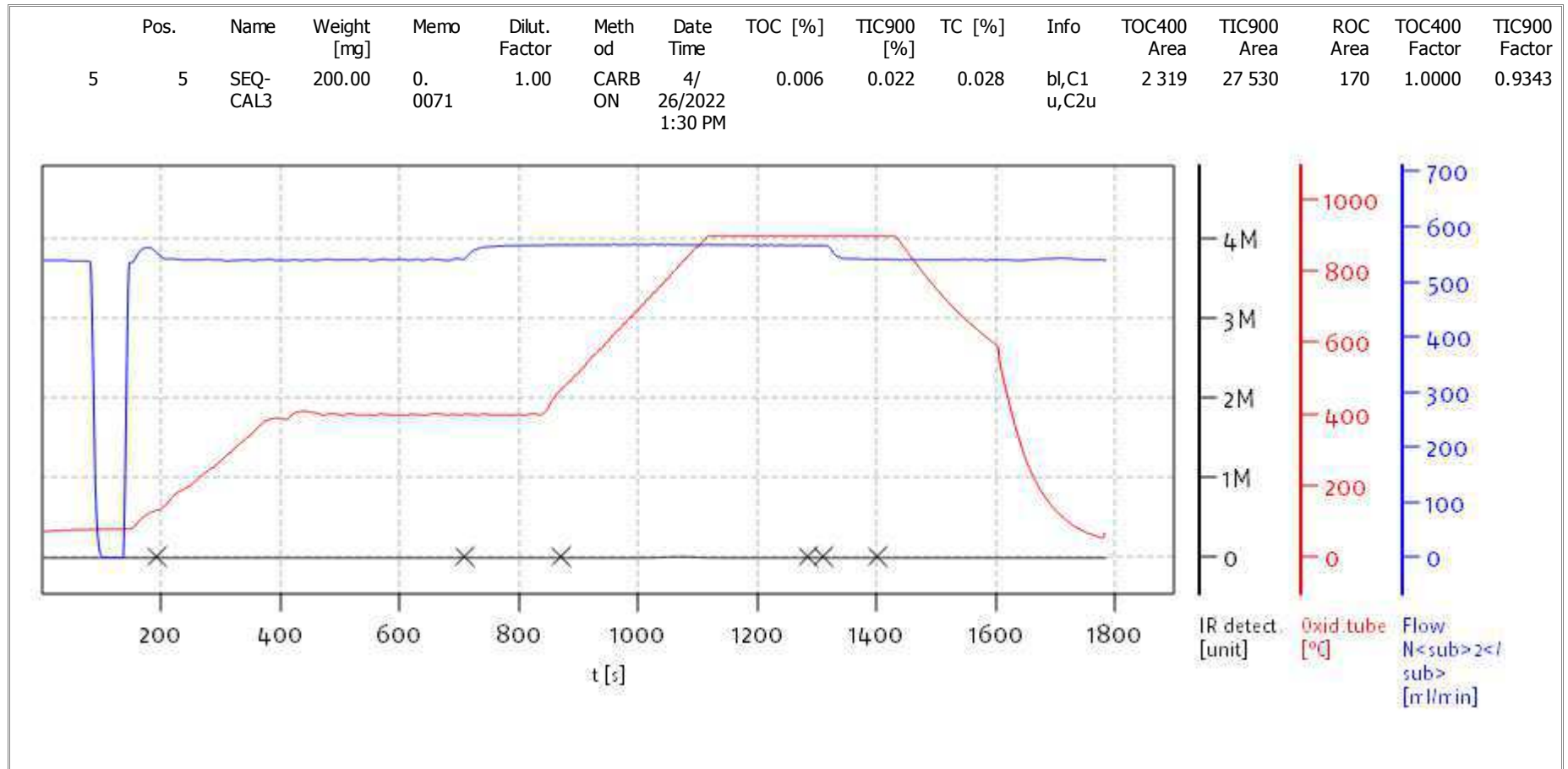
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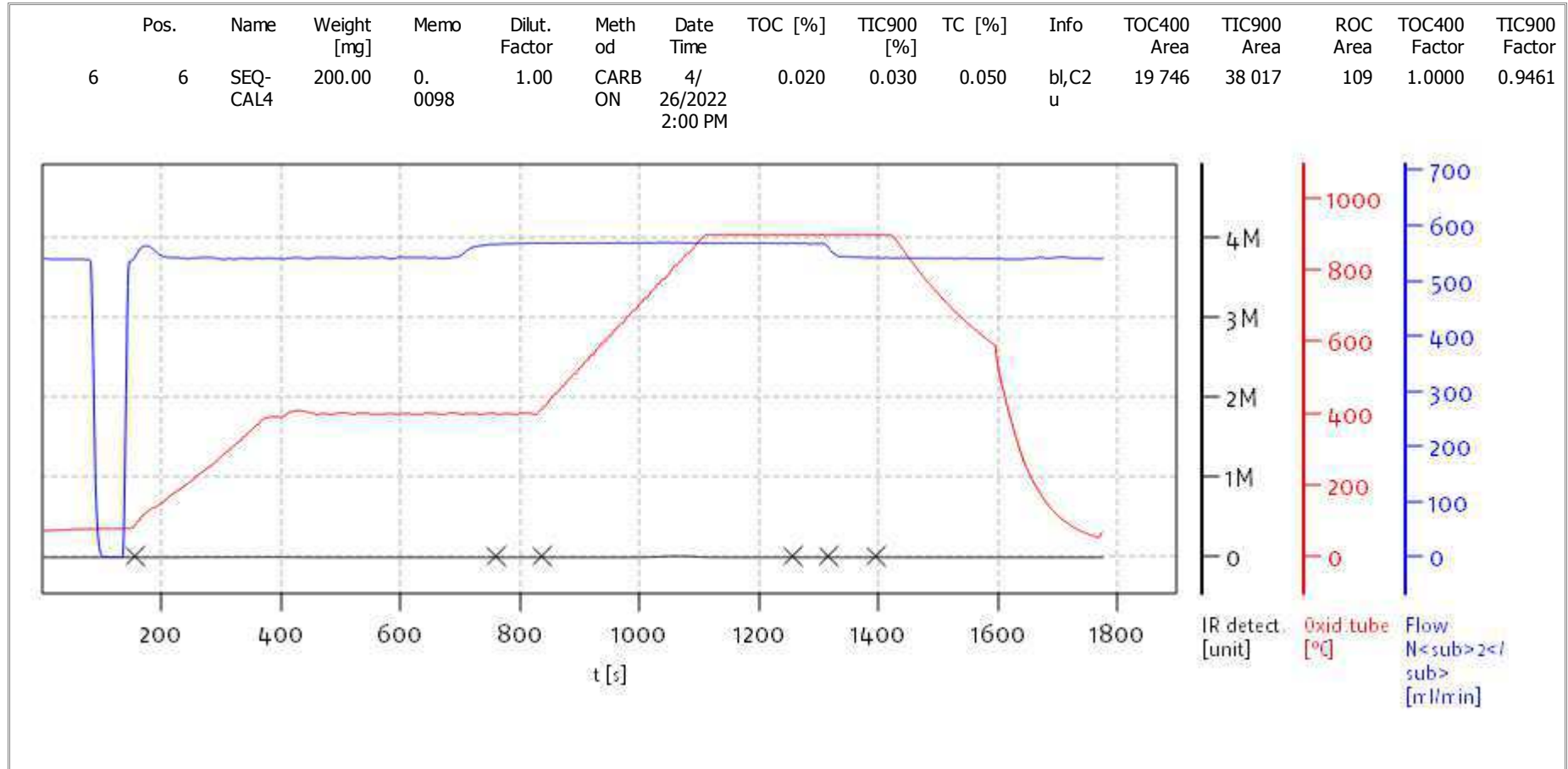
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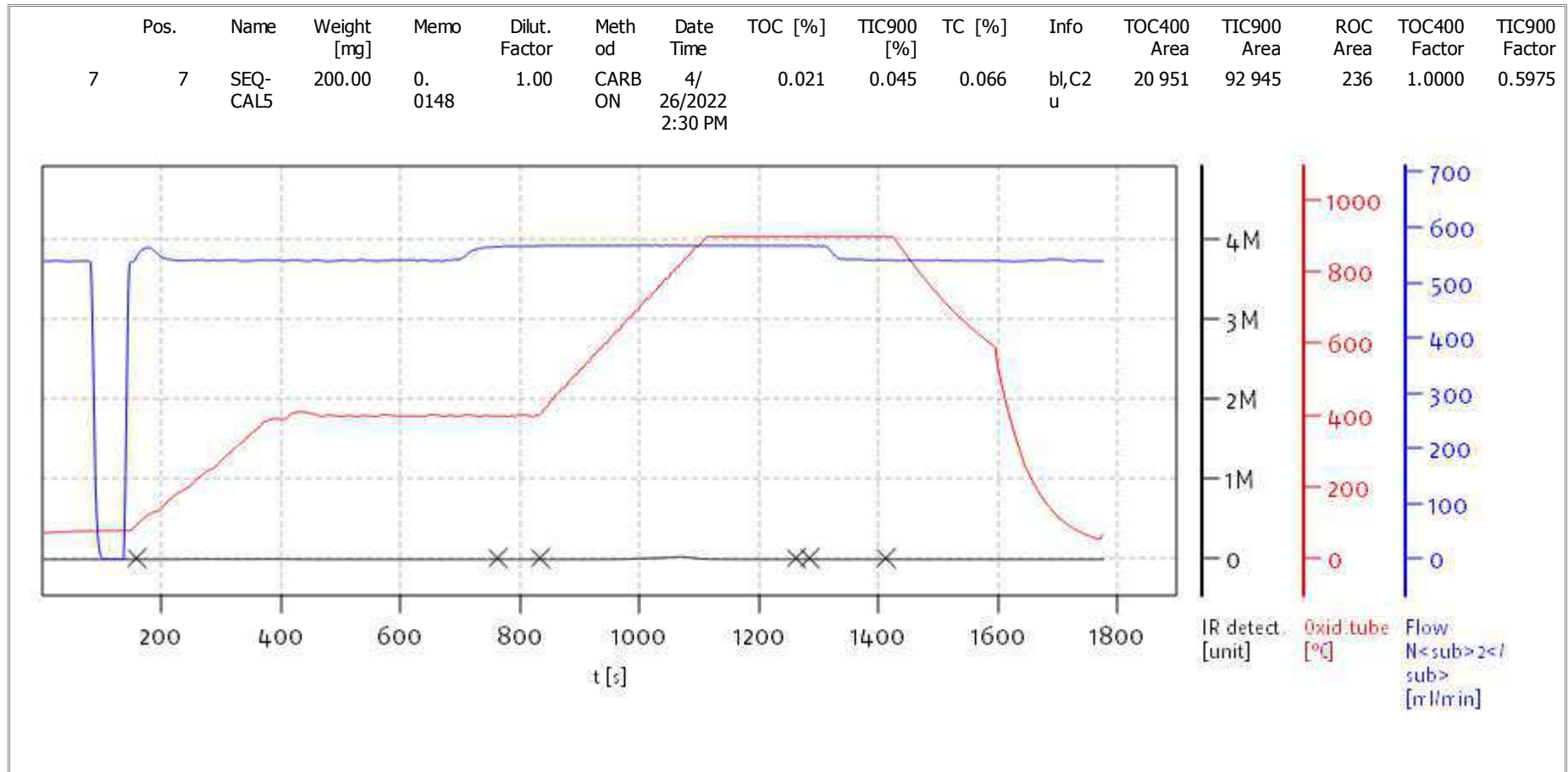
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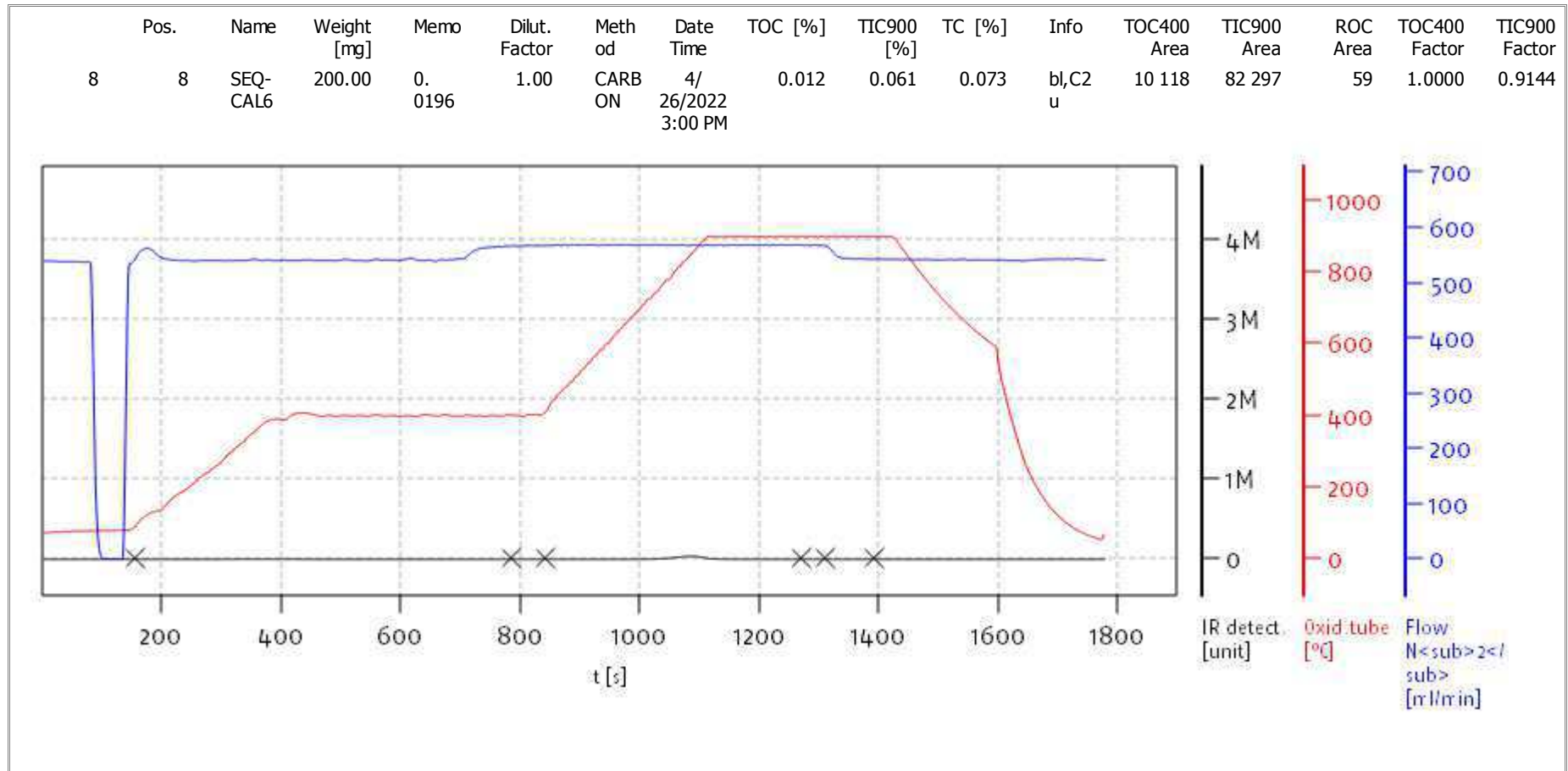
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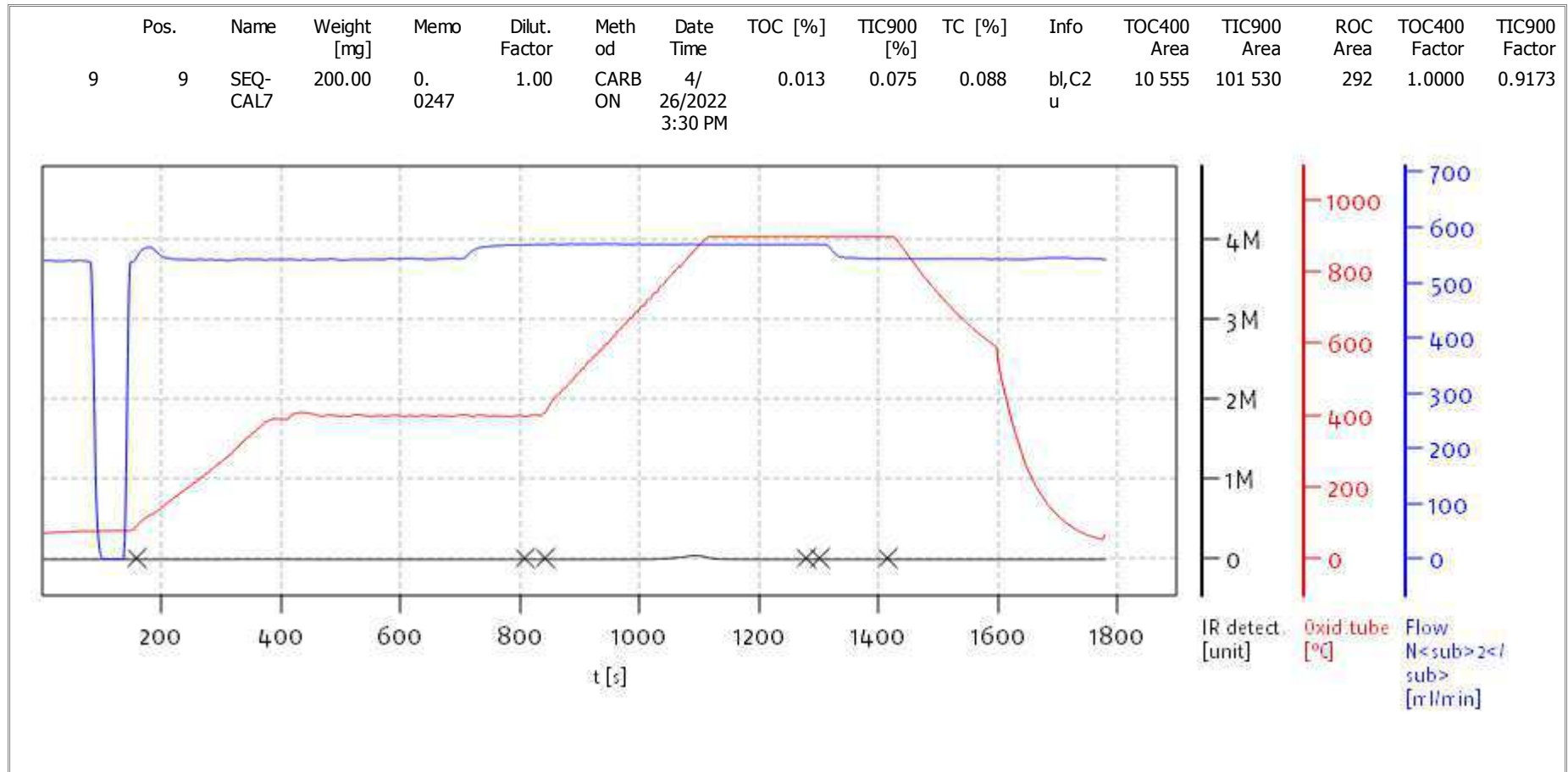
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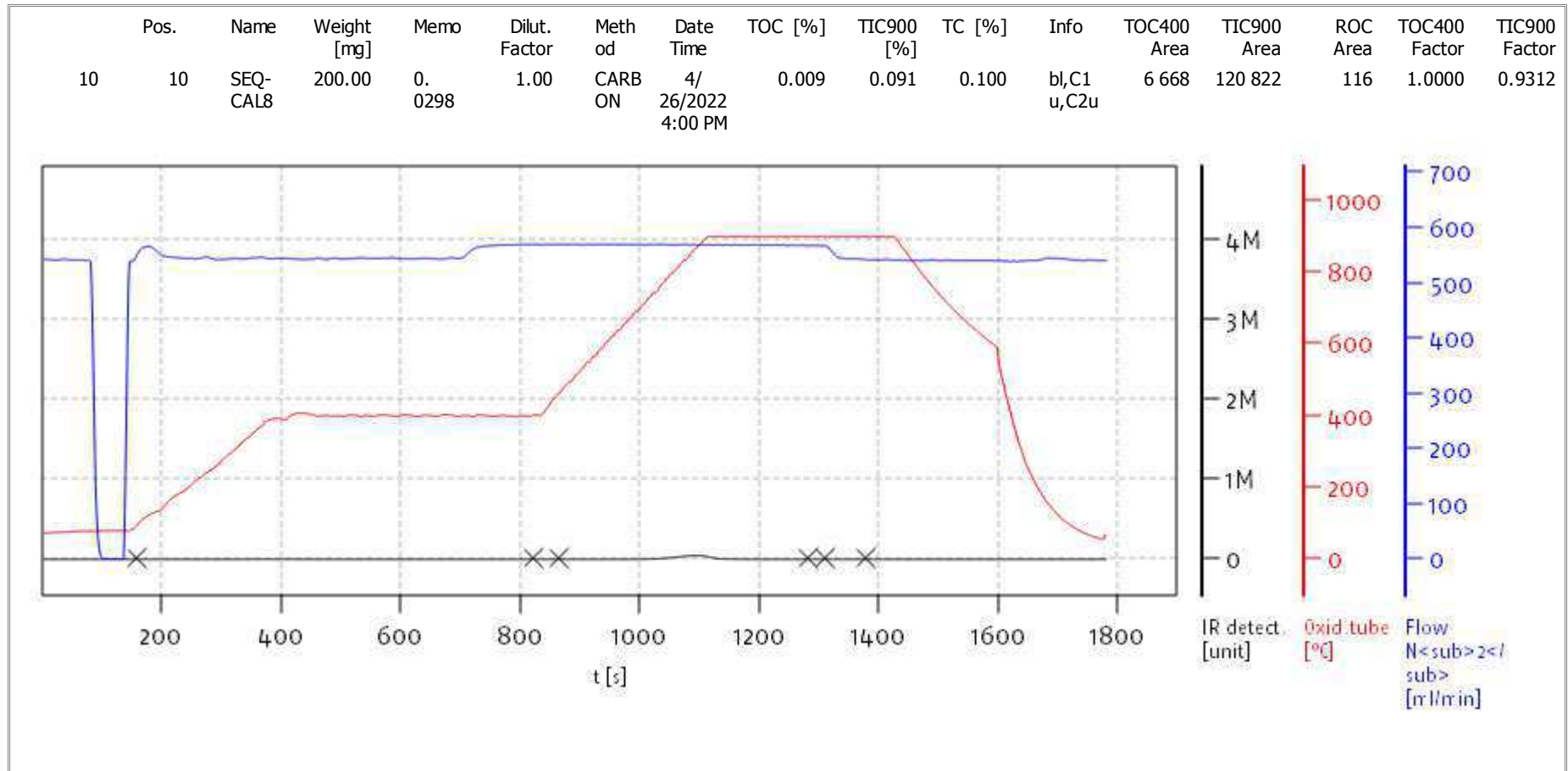
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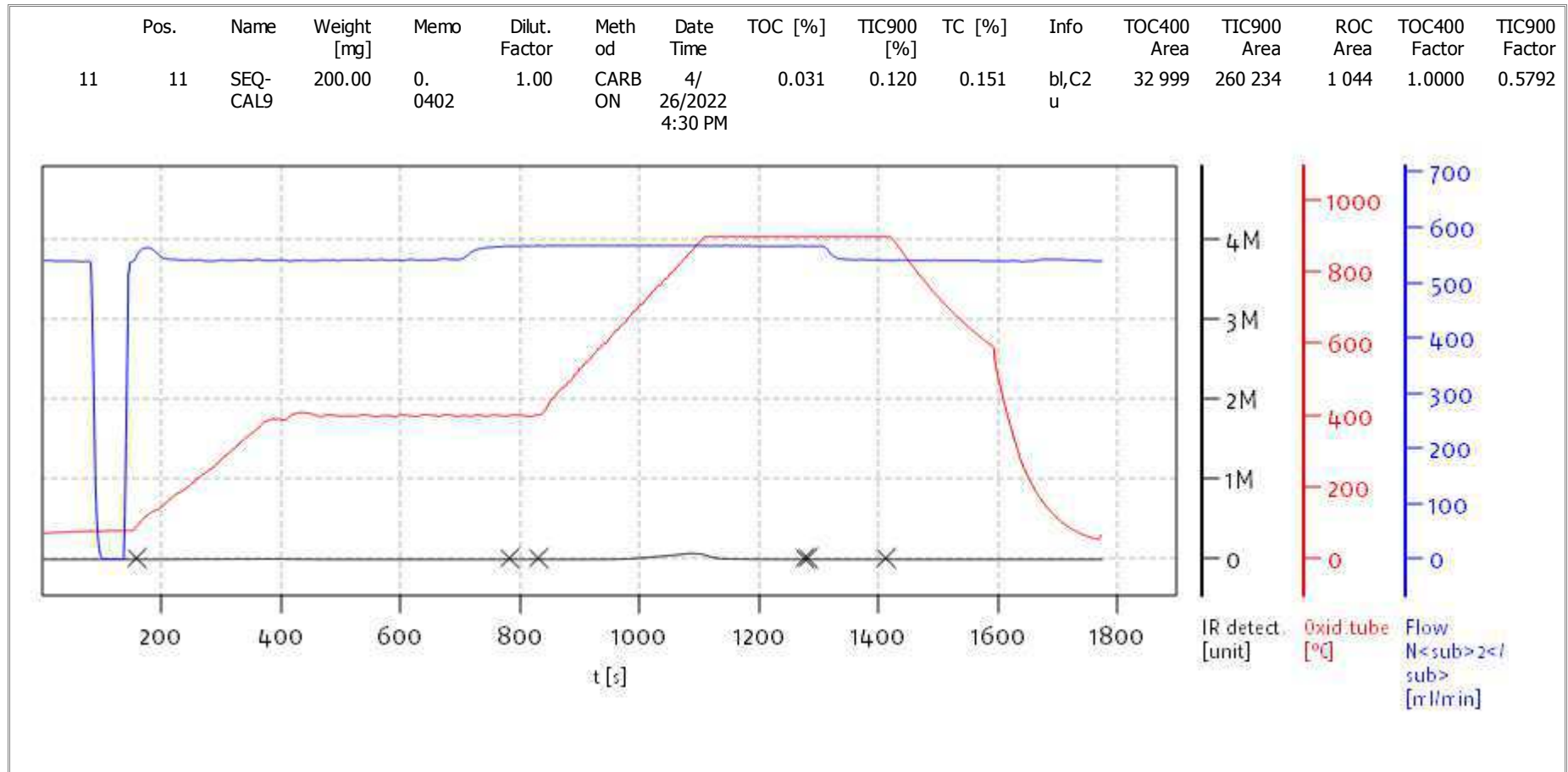
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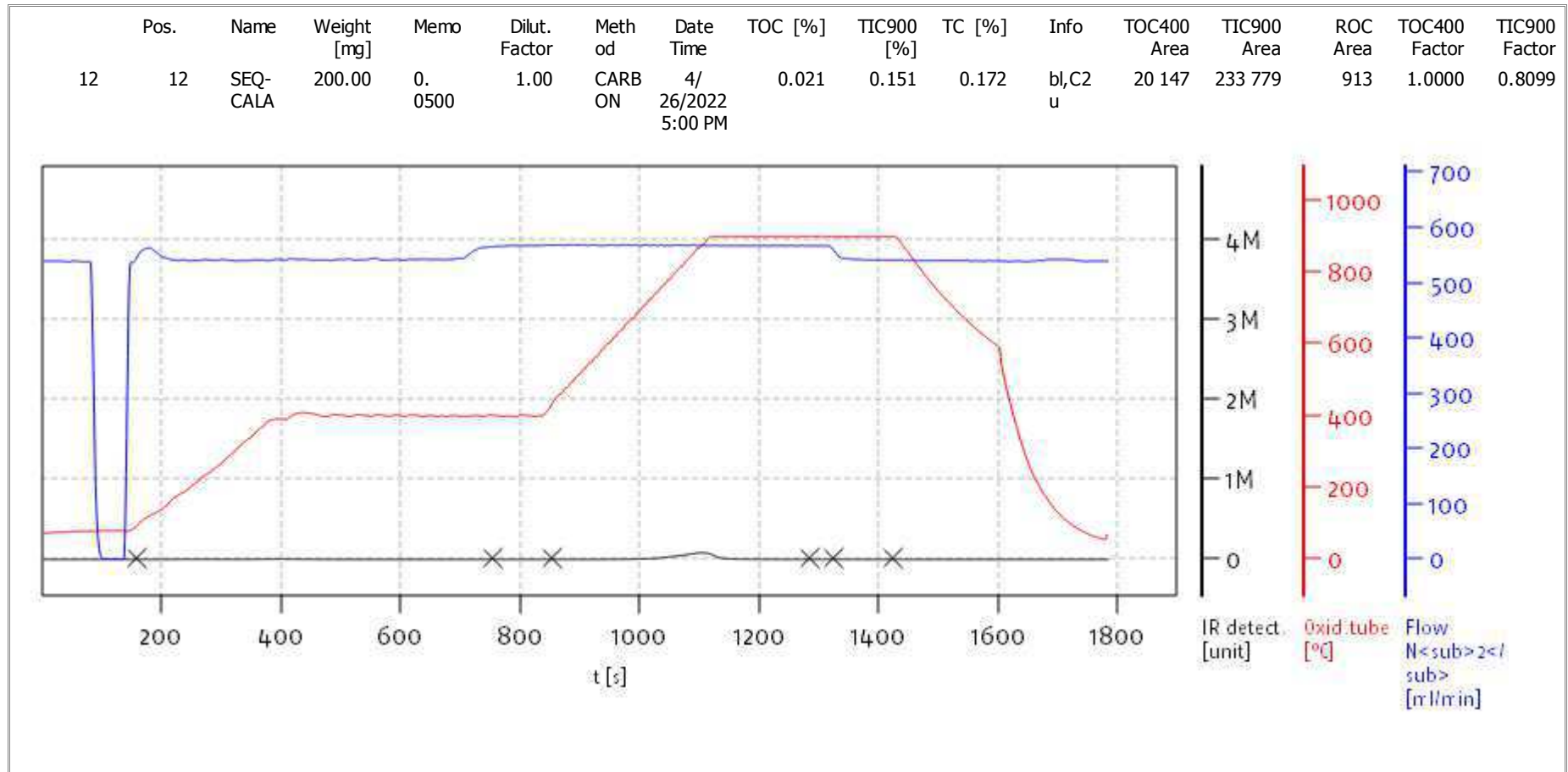
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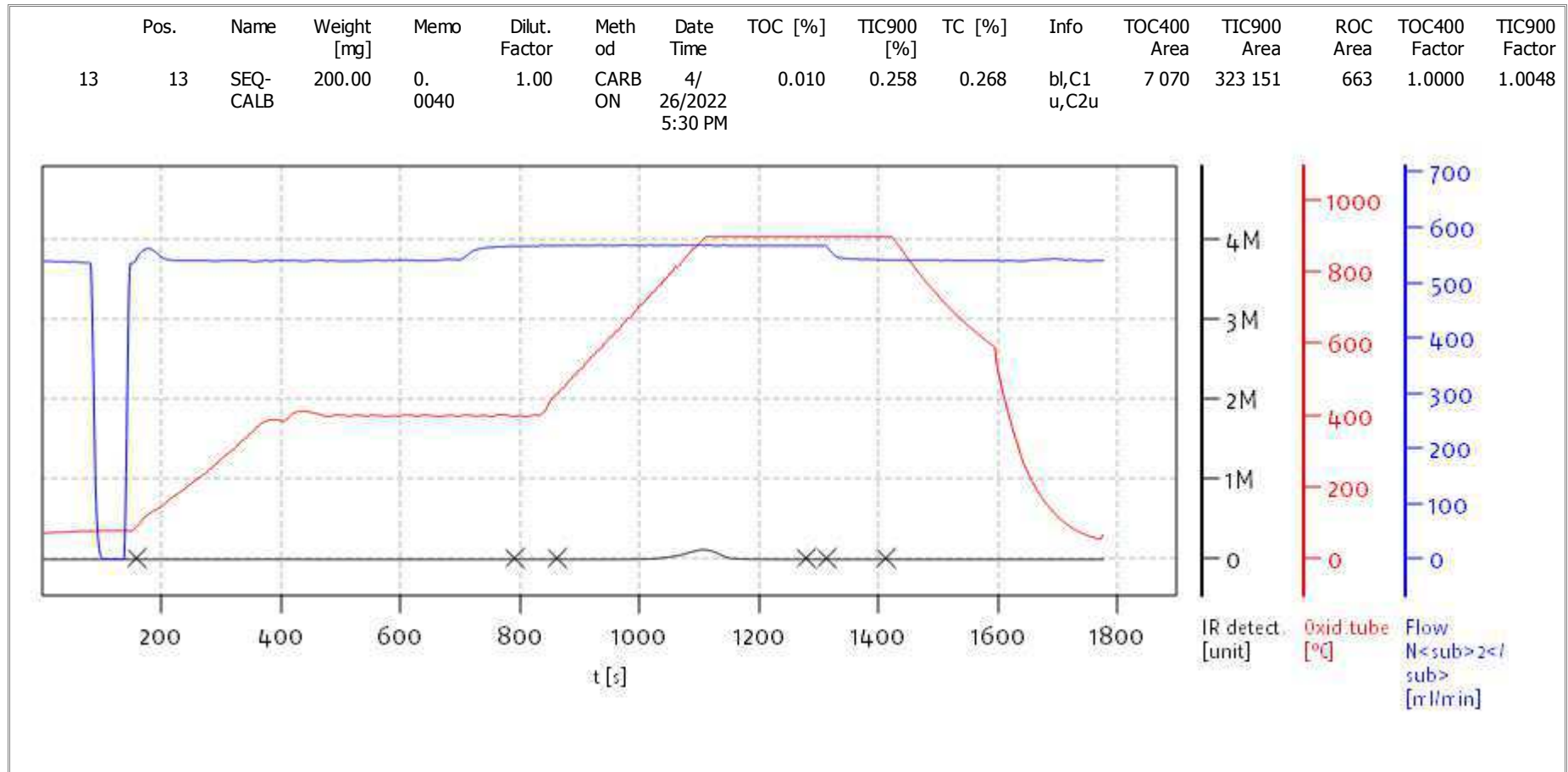
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Name:

Access: solITOC superuser

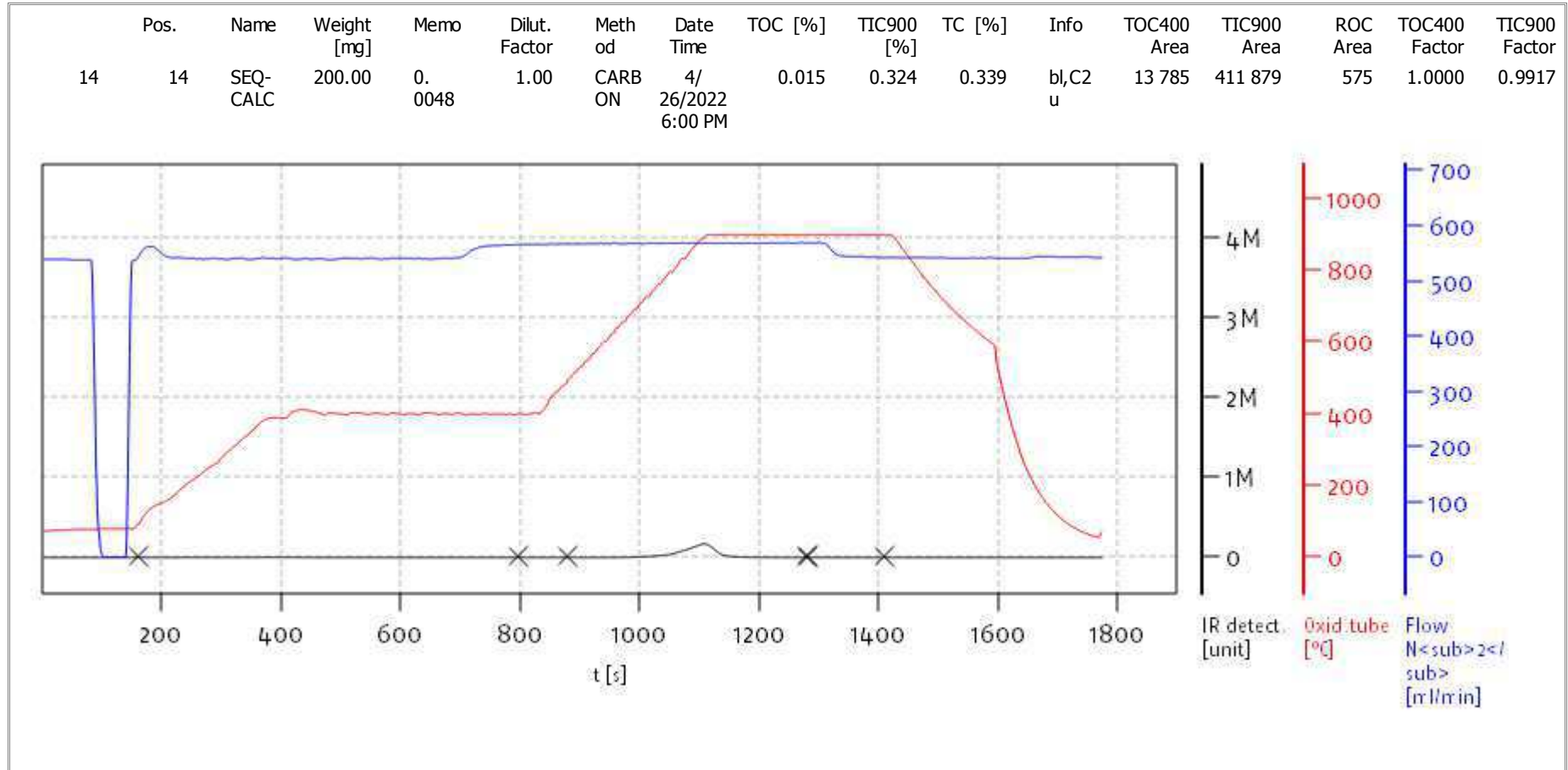
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

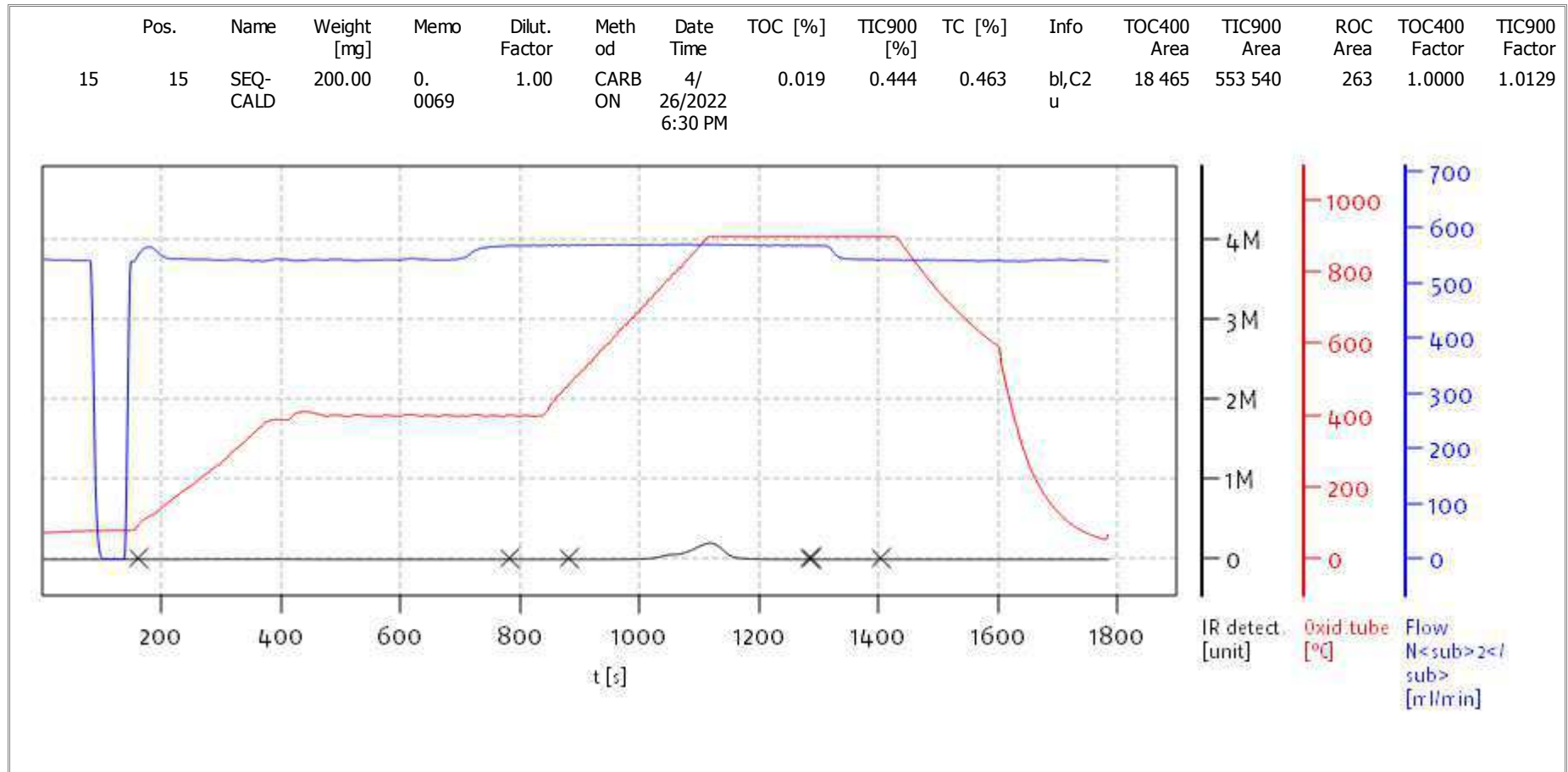
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

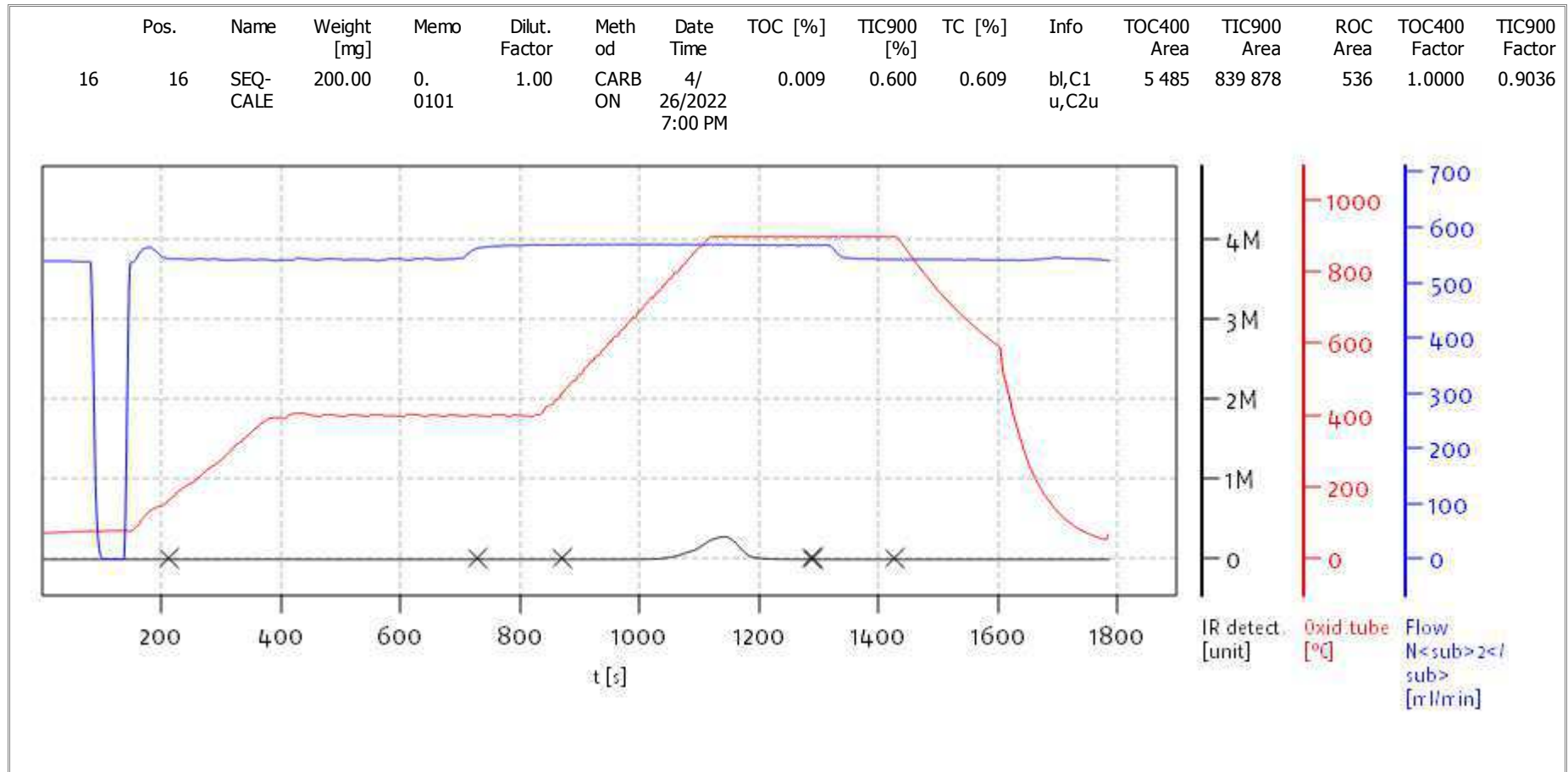
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

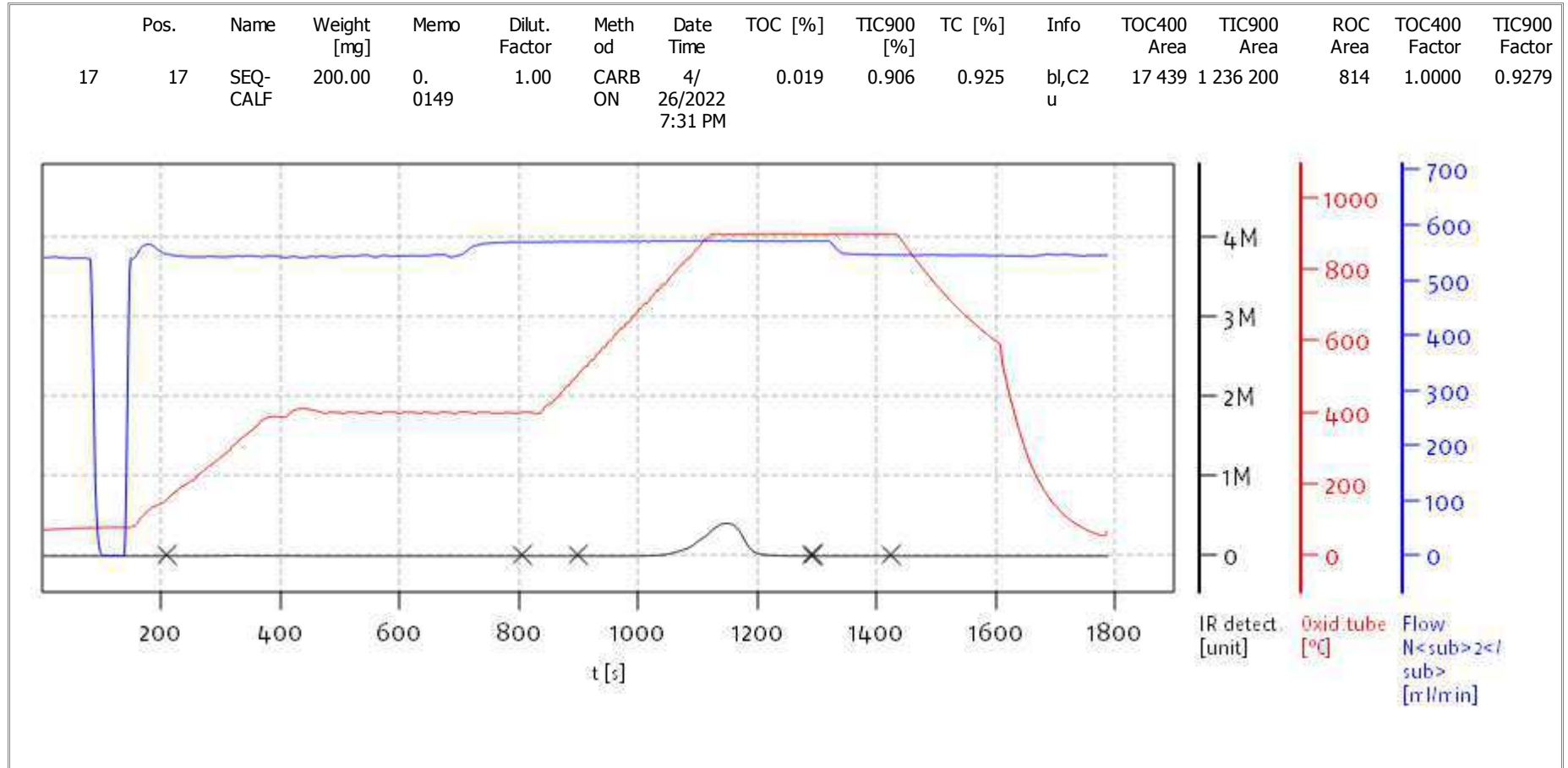
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

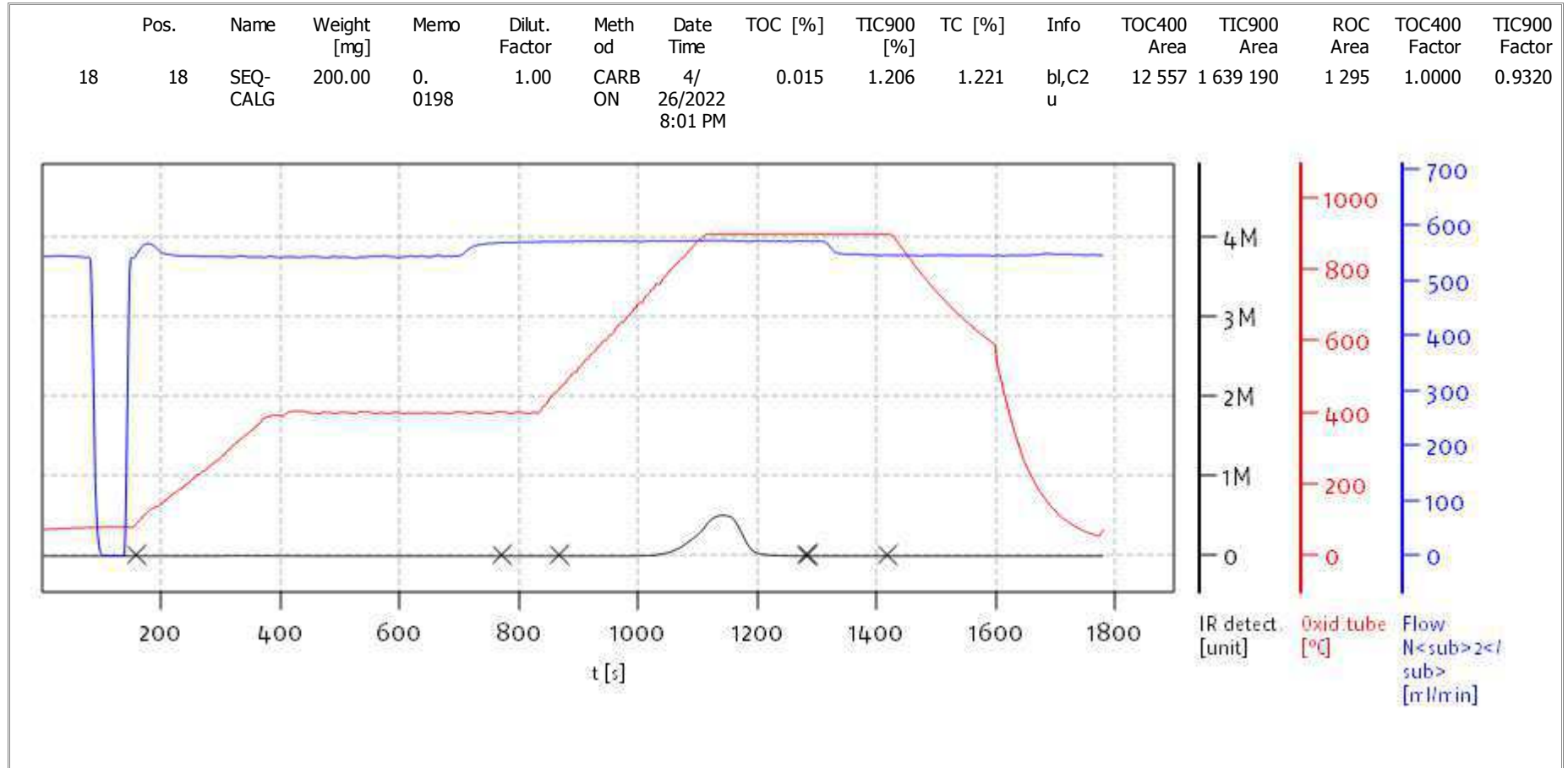
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

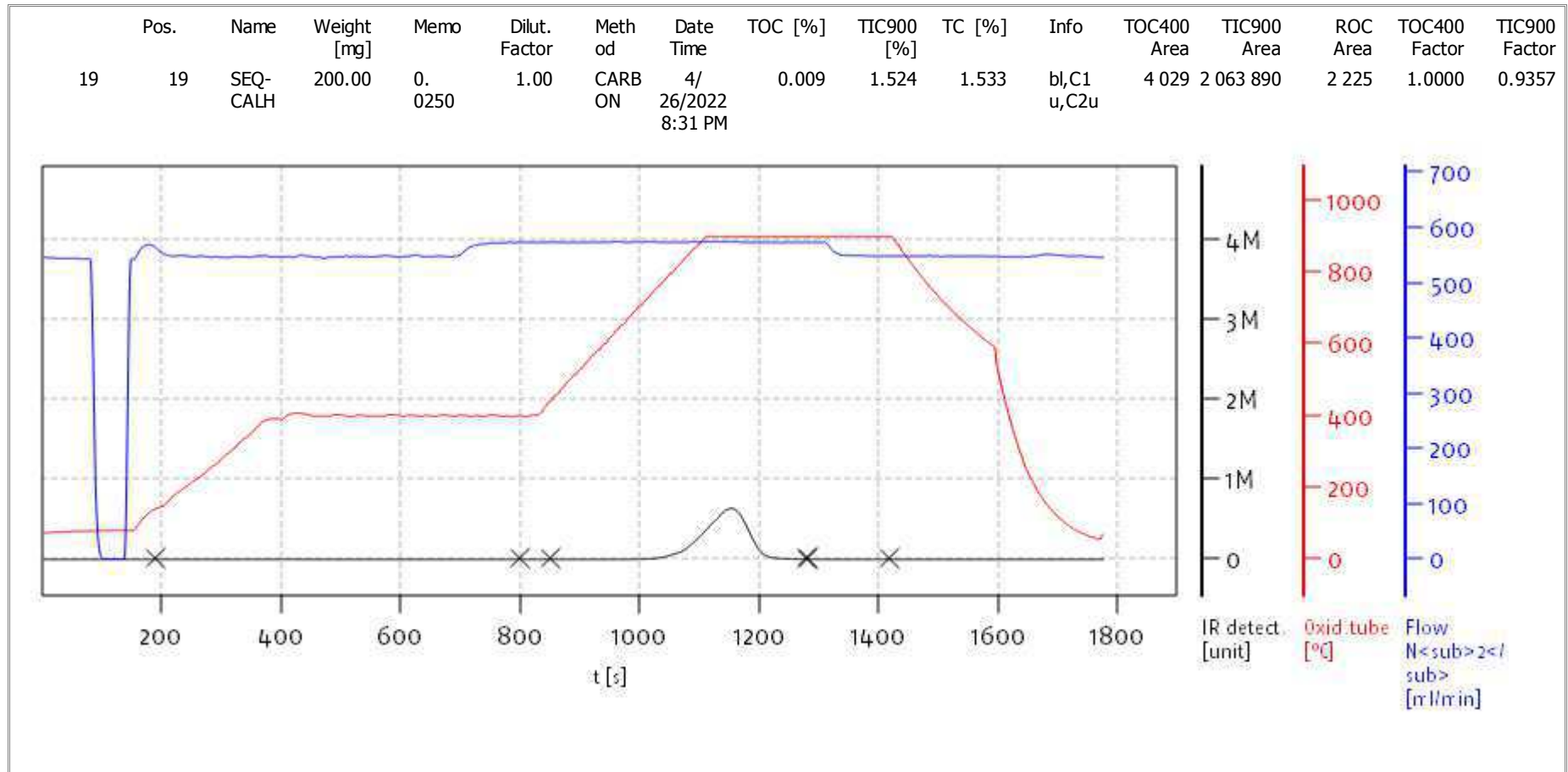
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

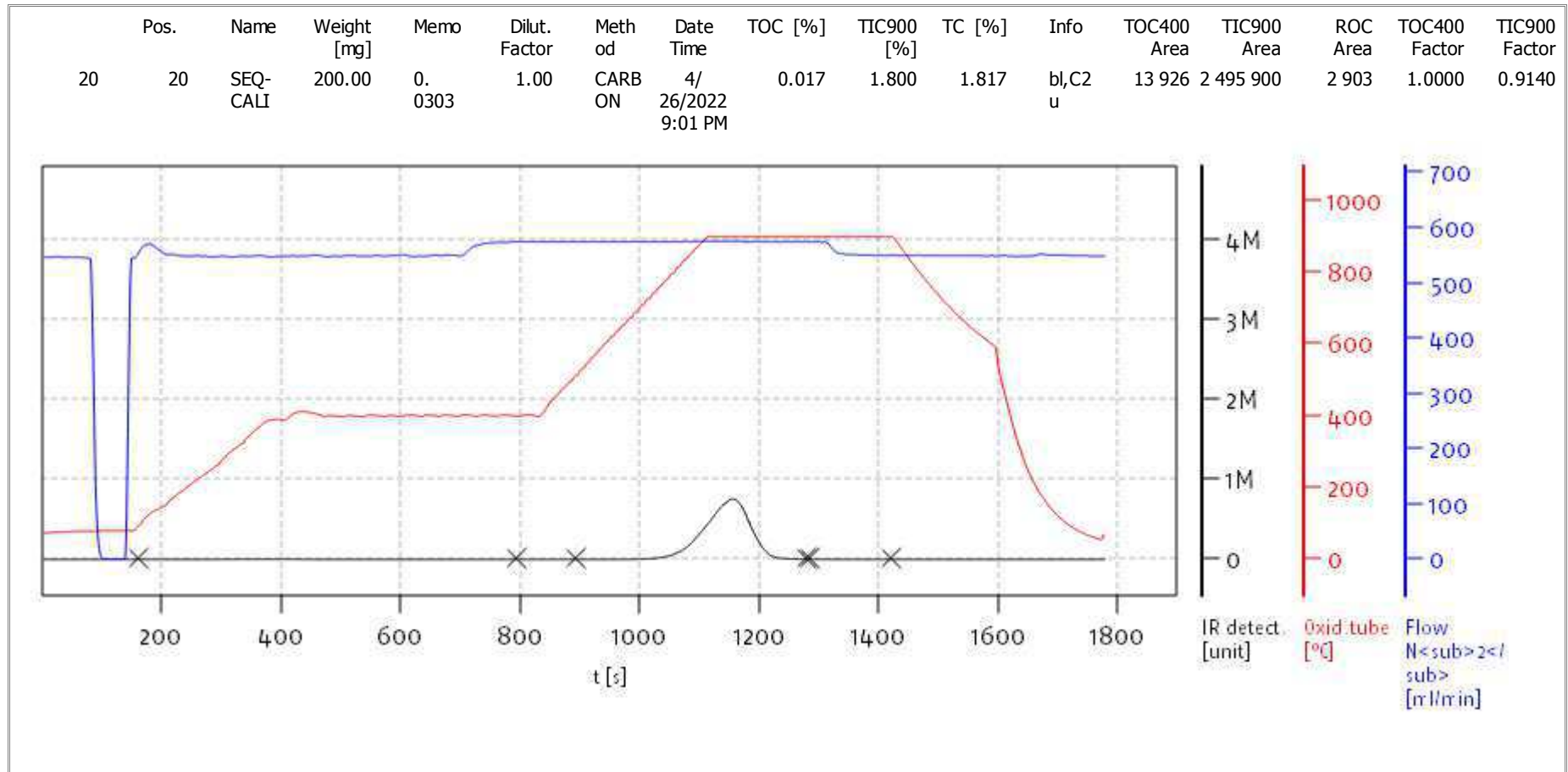
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

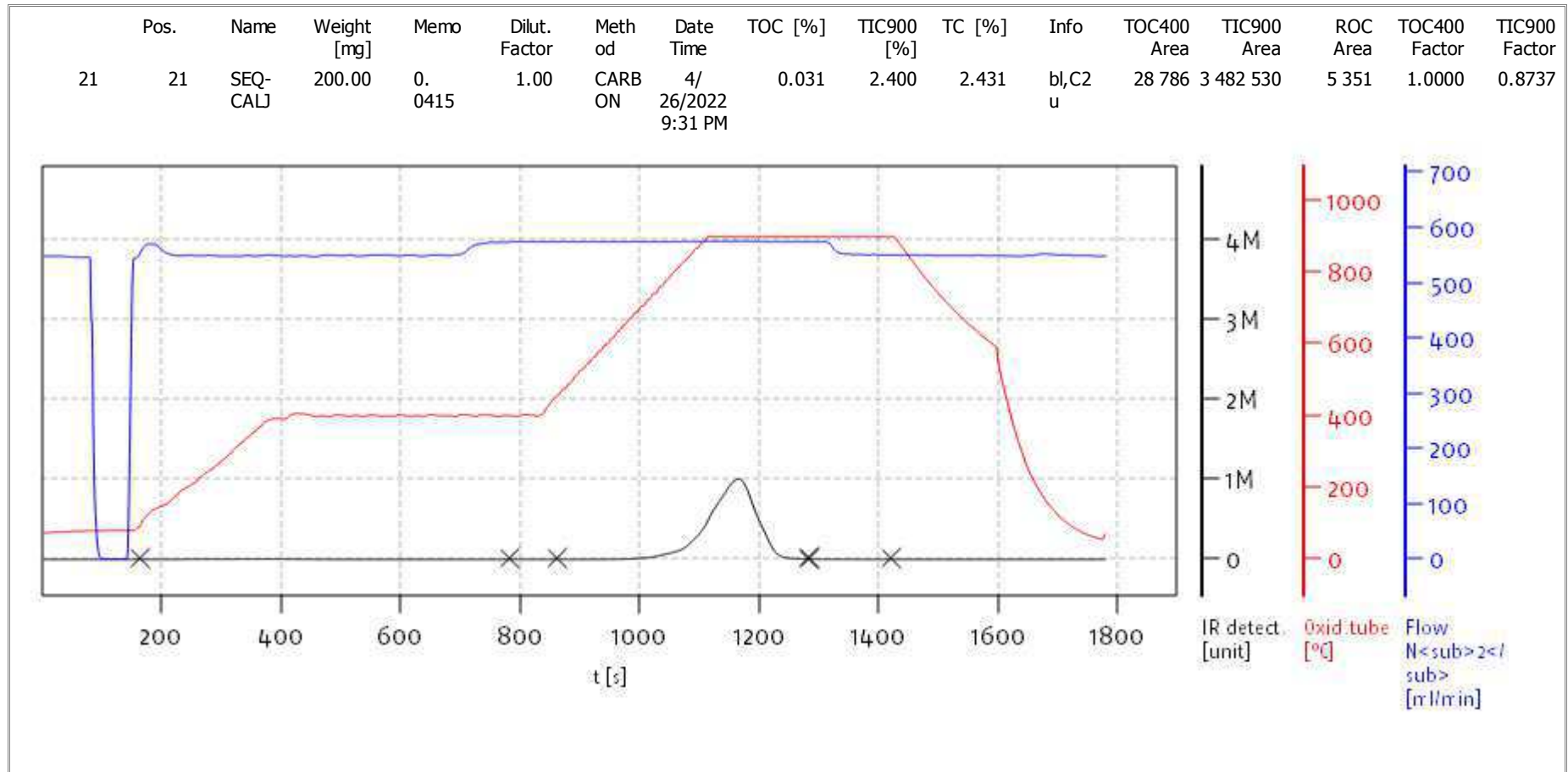
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

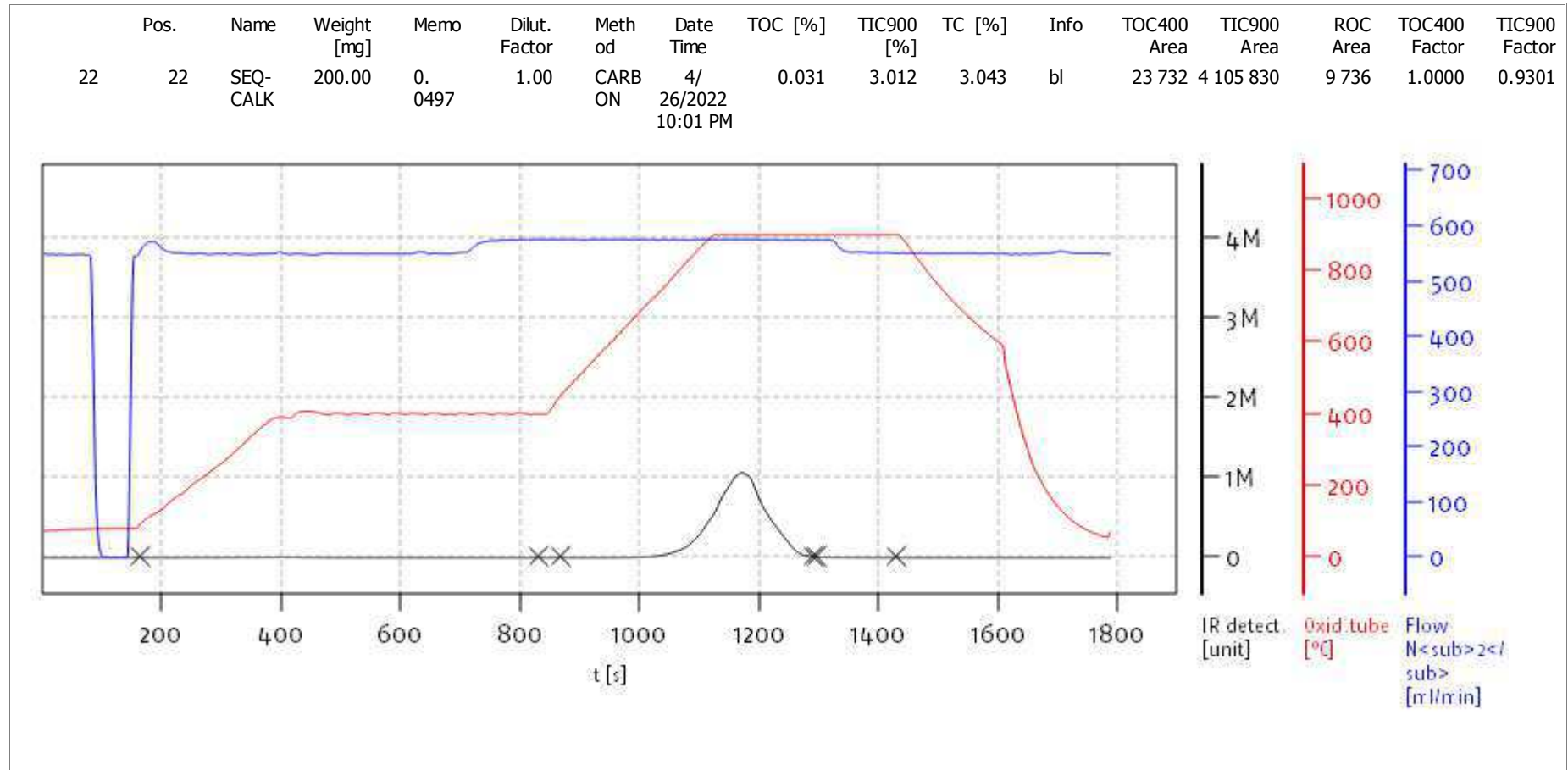
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

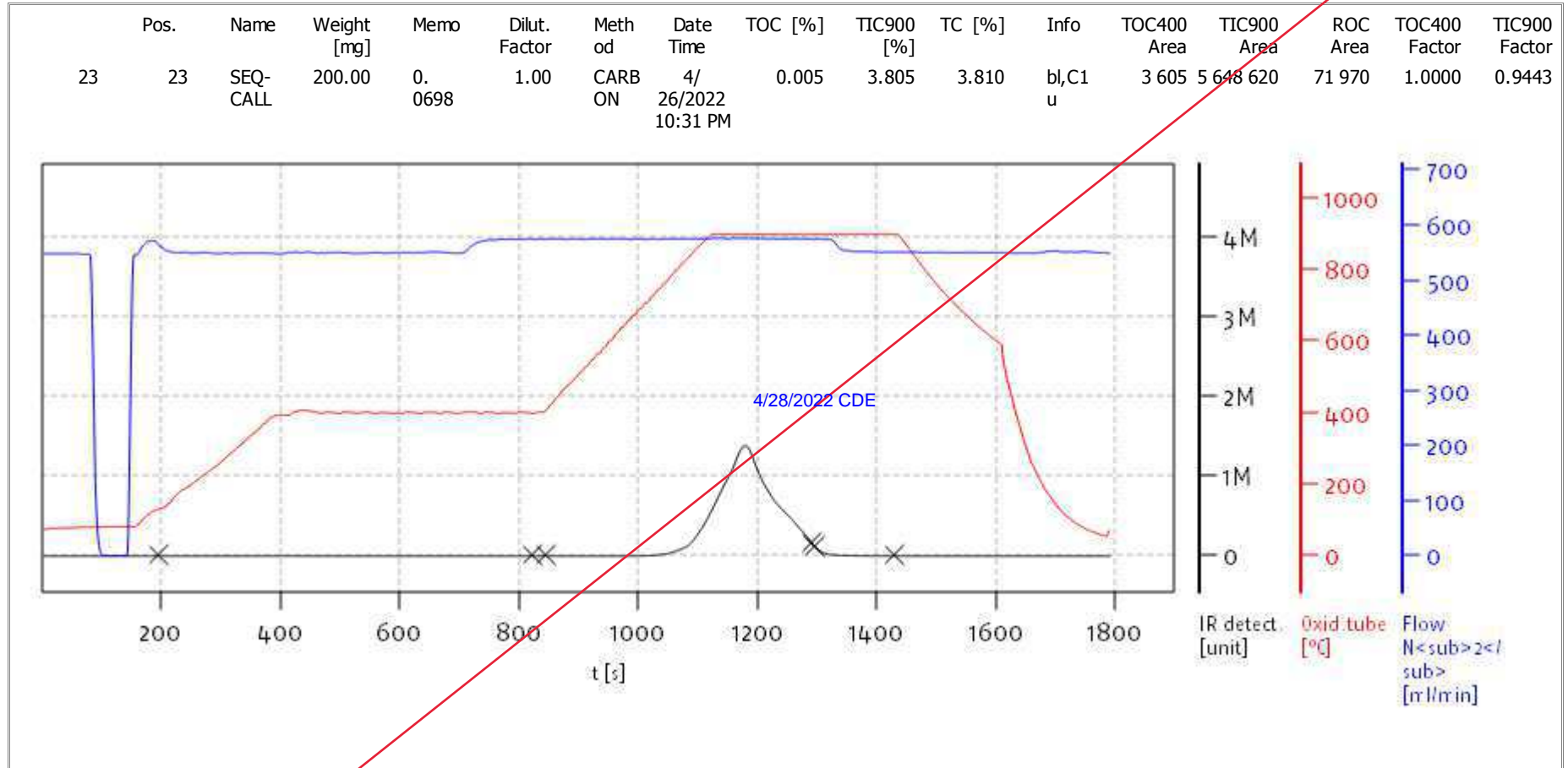
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

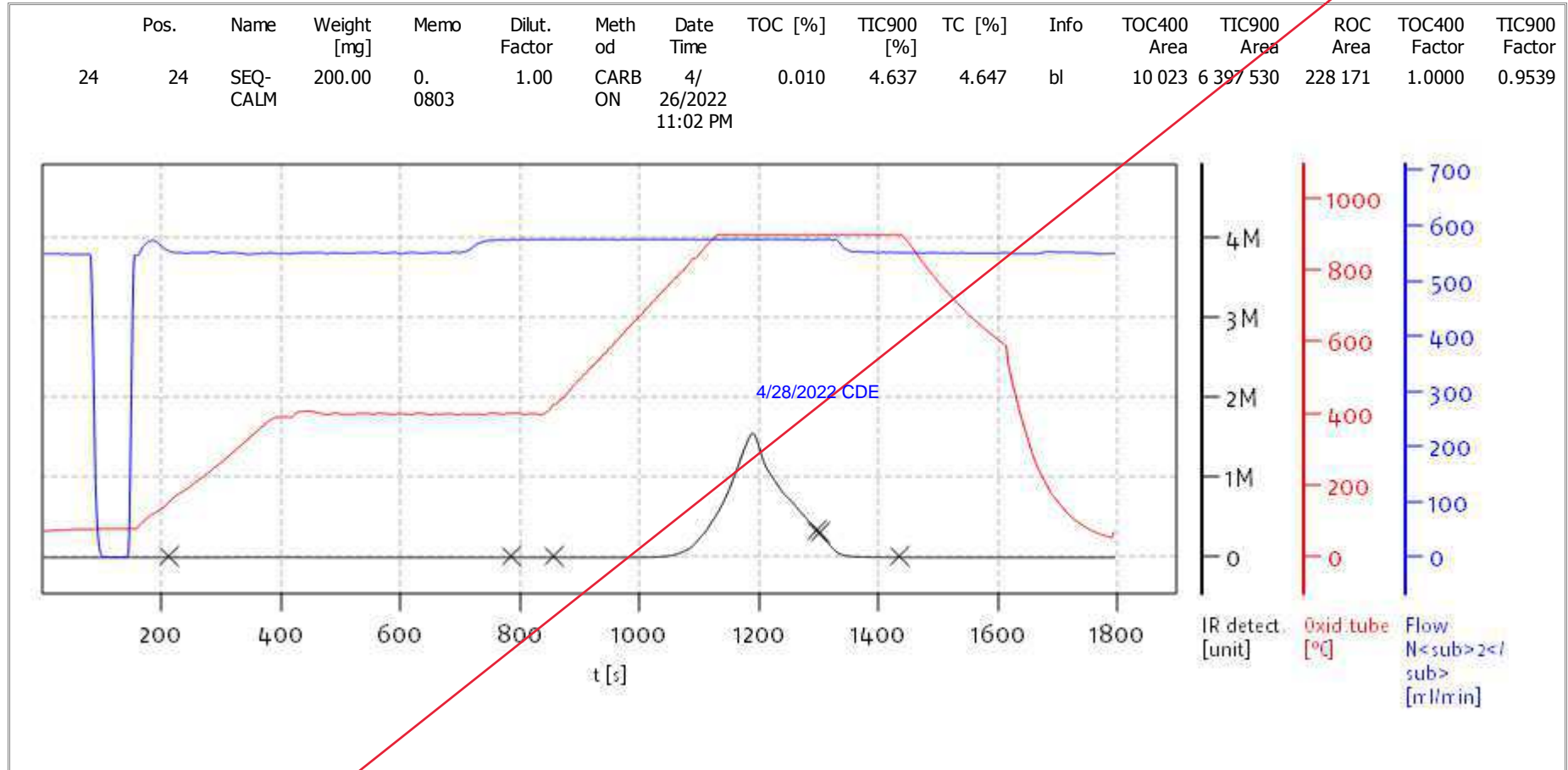
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

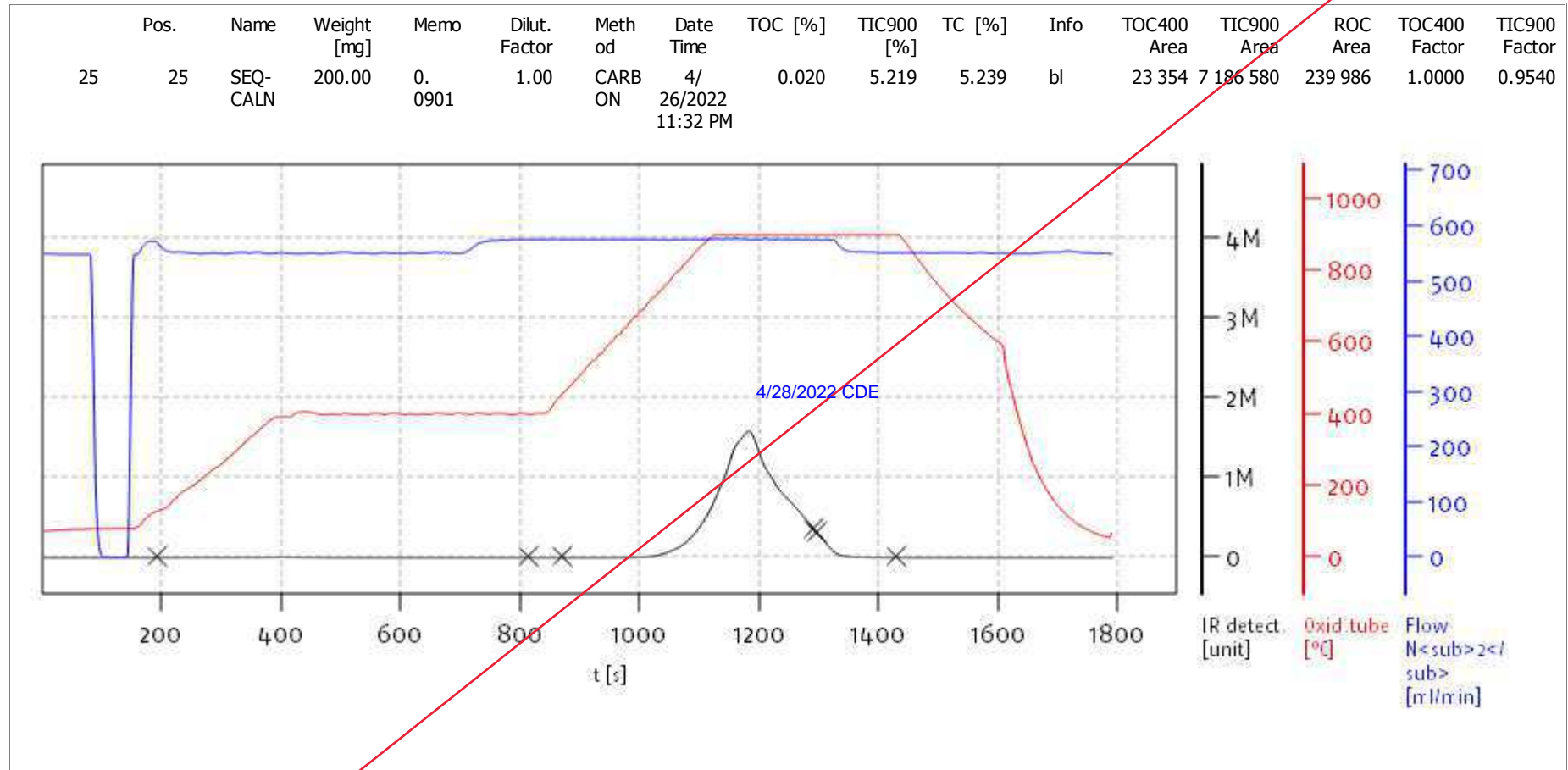
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

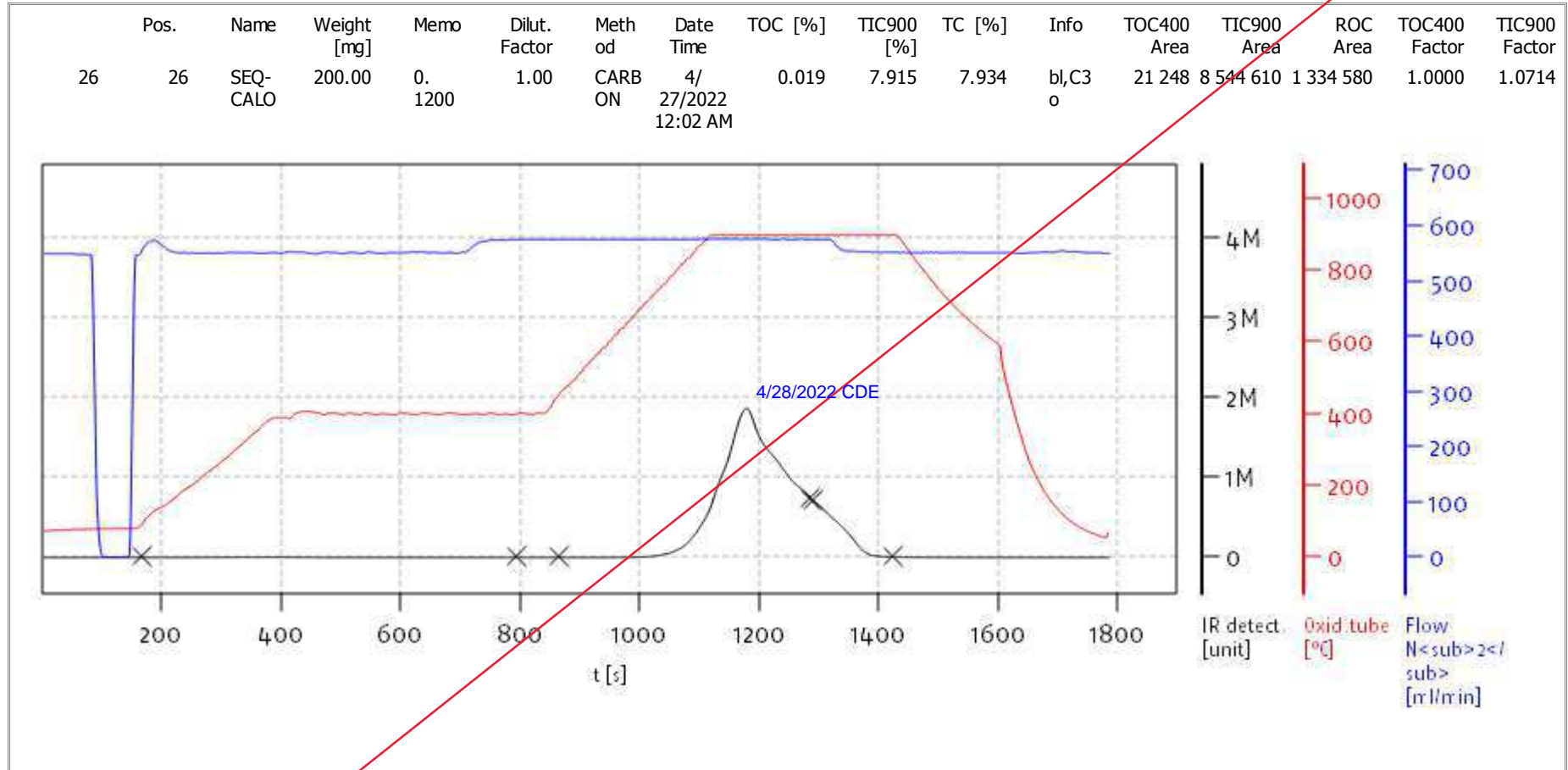
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

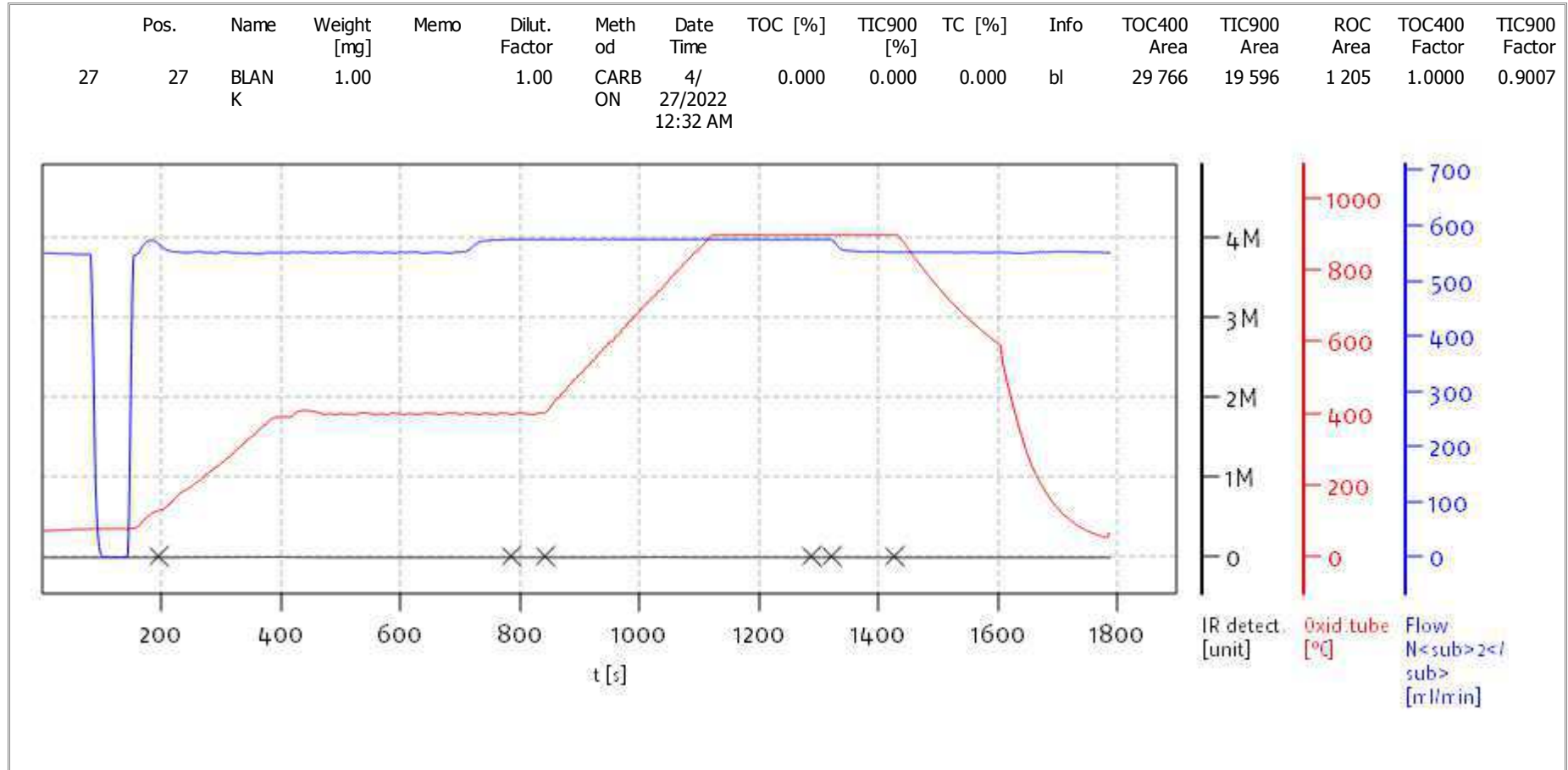
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

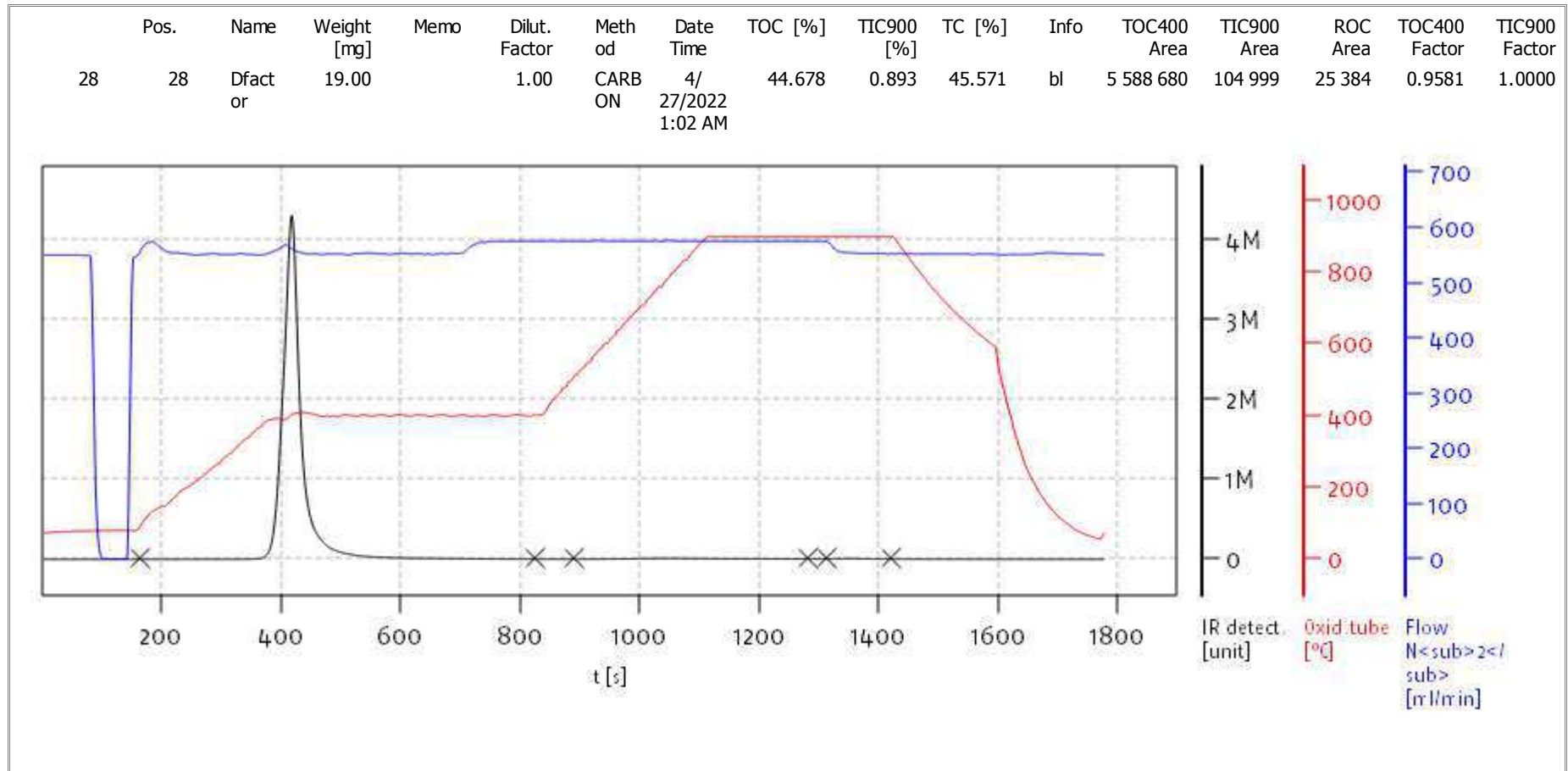
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

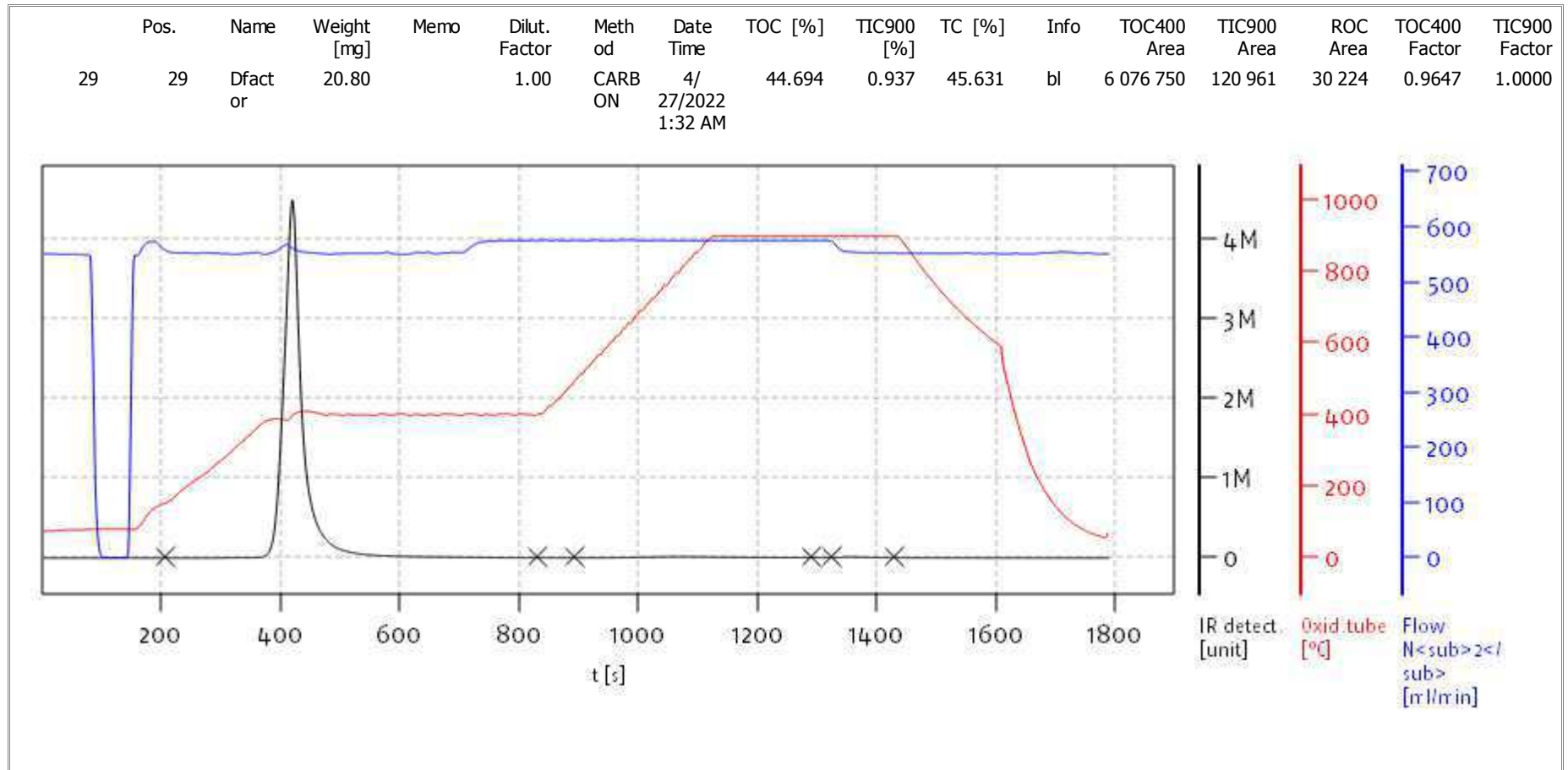
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

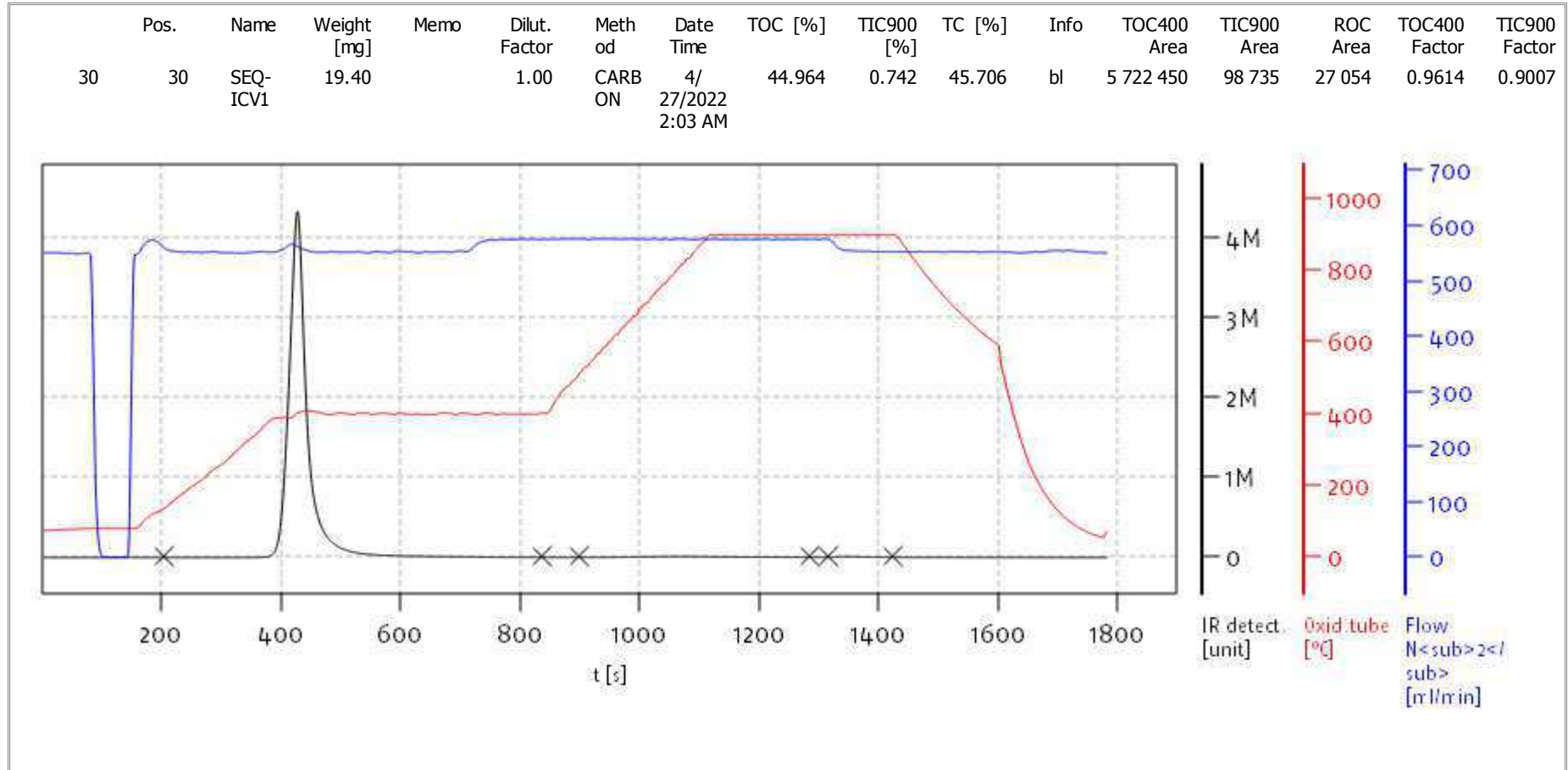
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

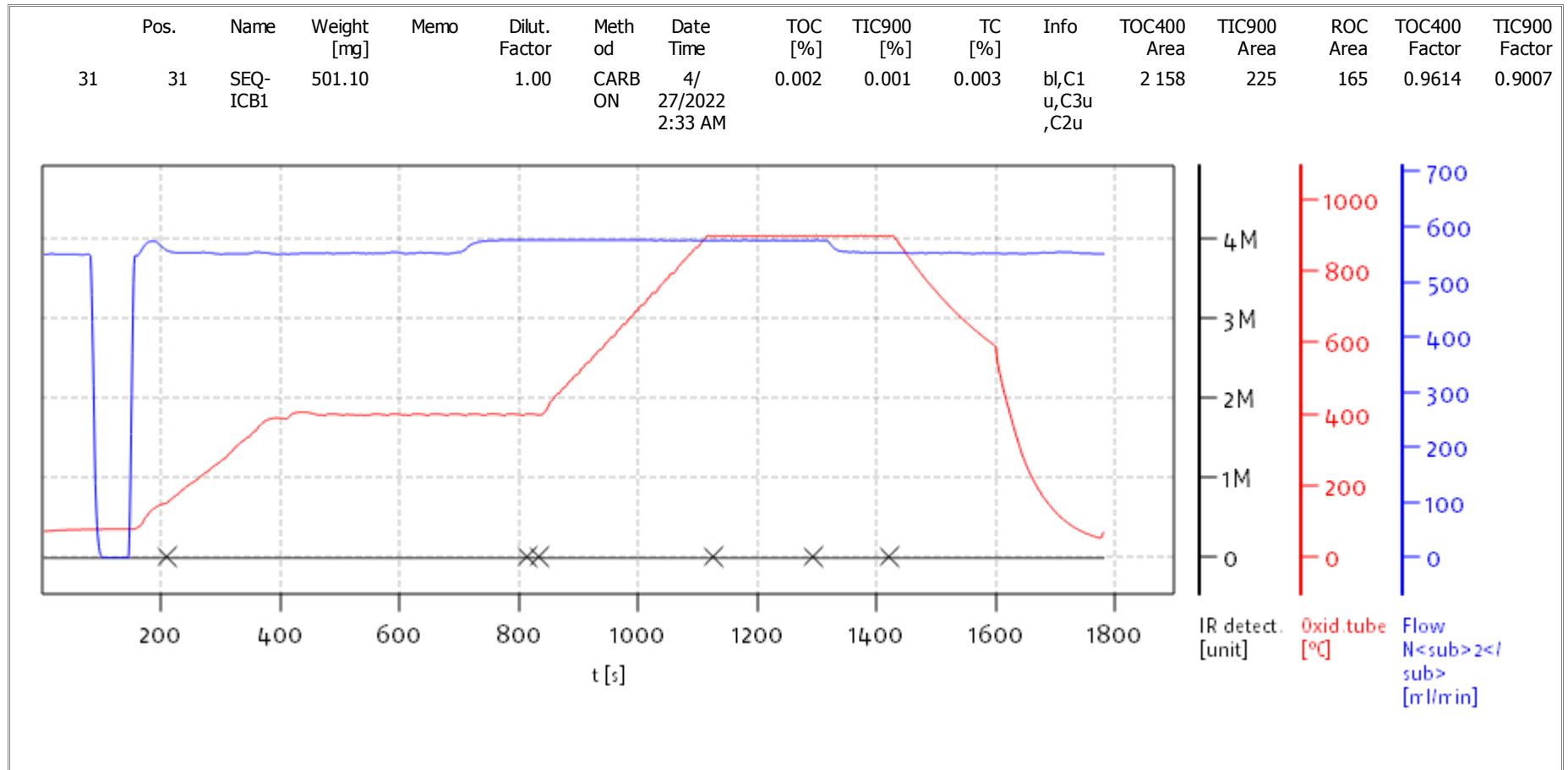
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

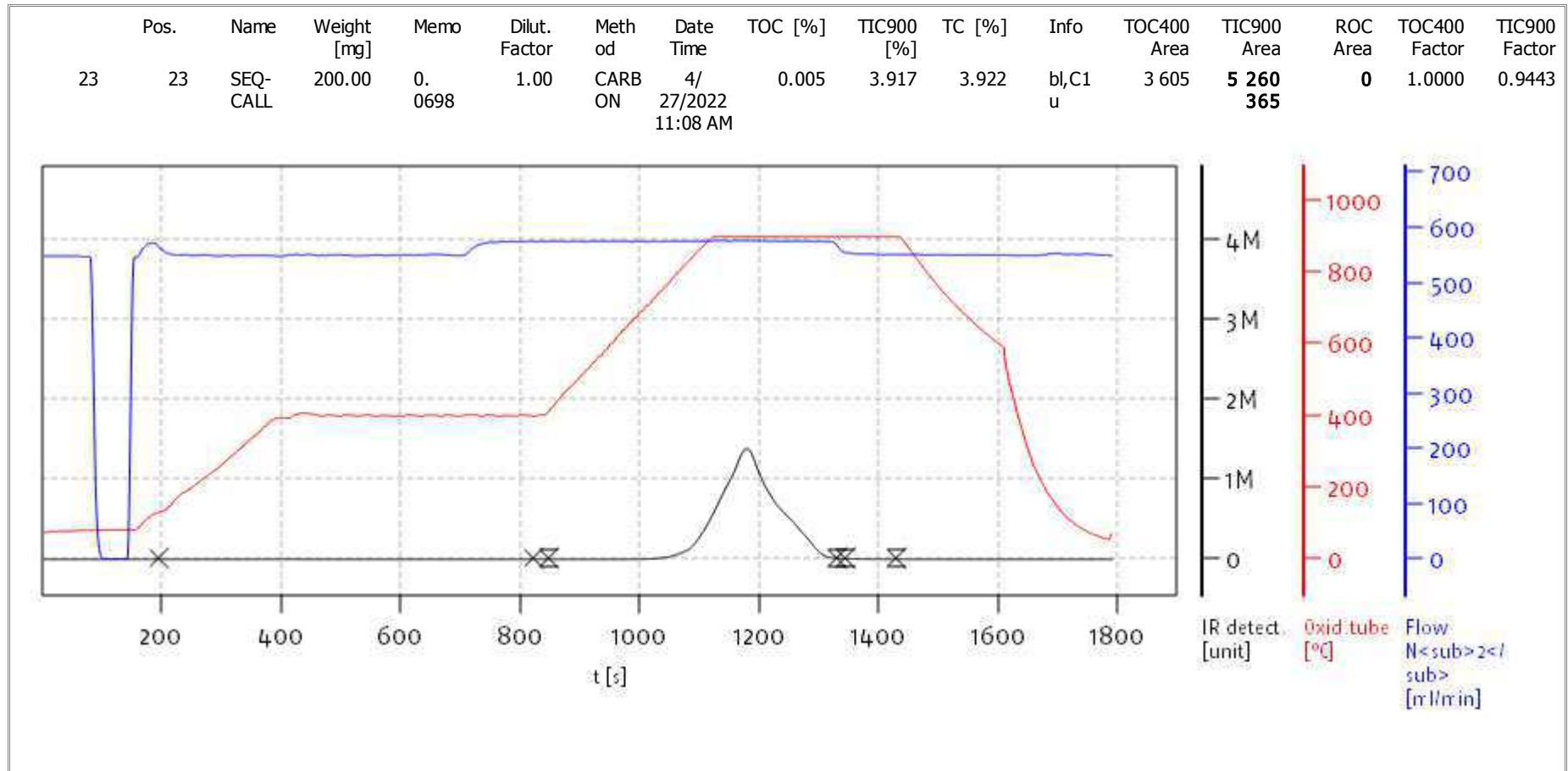
Date: Wed Apr 27 11:07:12 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

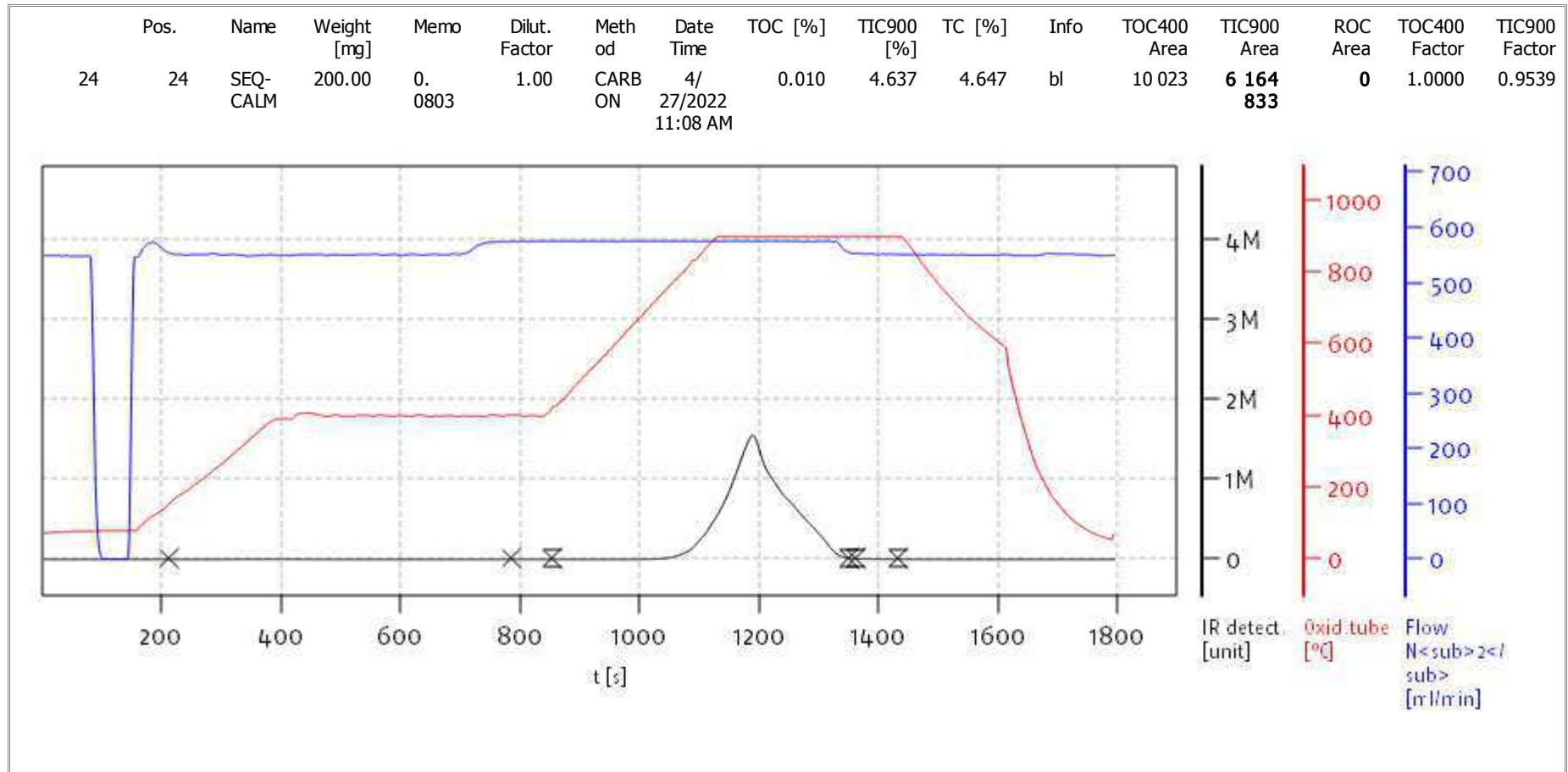
Date: Wed Apr 27 11:10:16 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

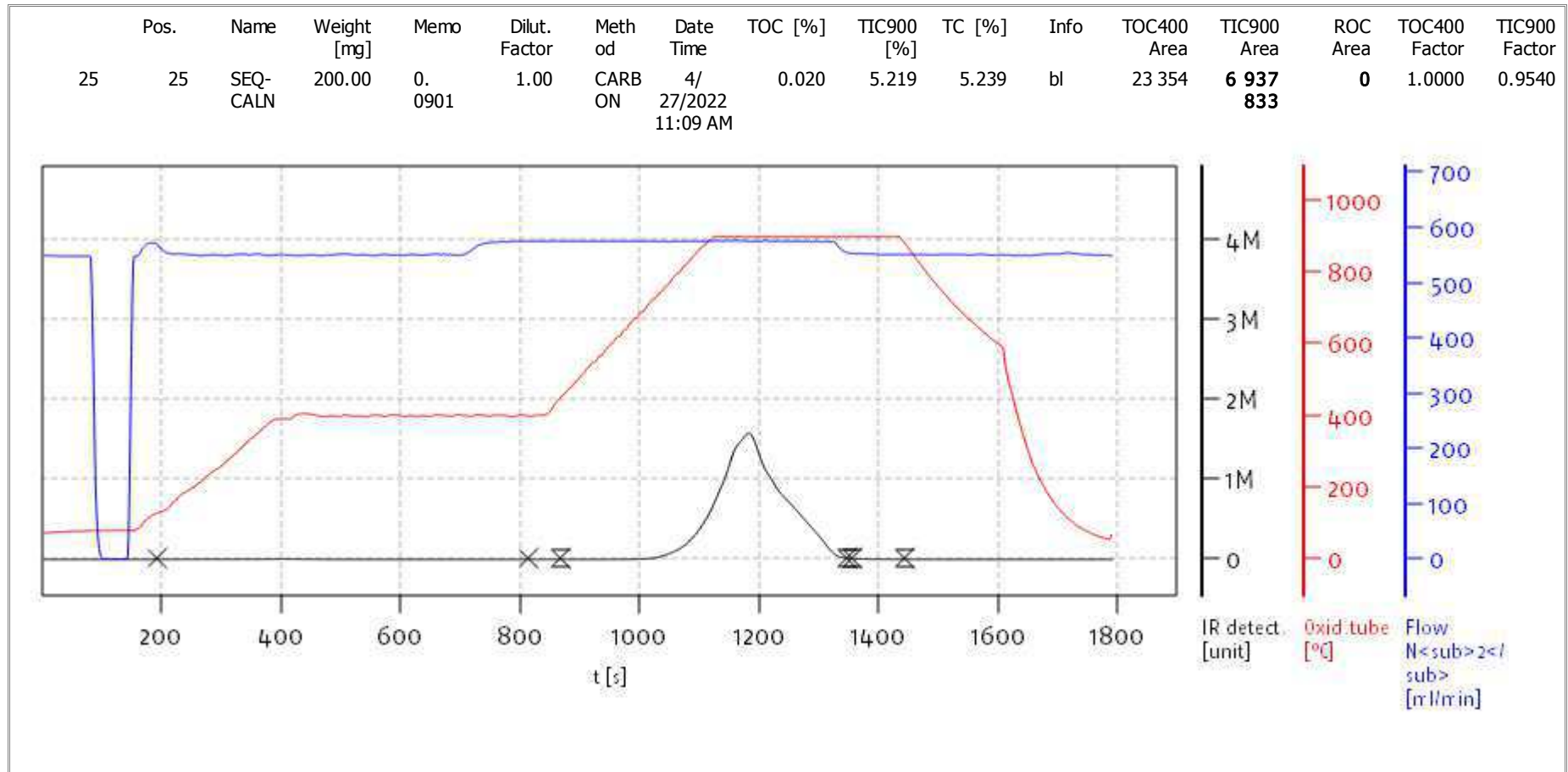
Date: Wed Apr 27 11:10:16 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

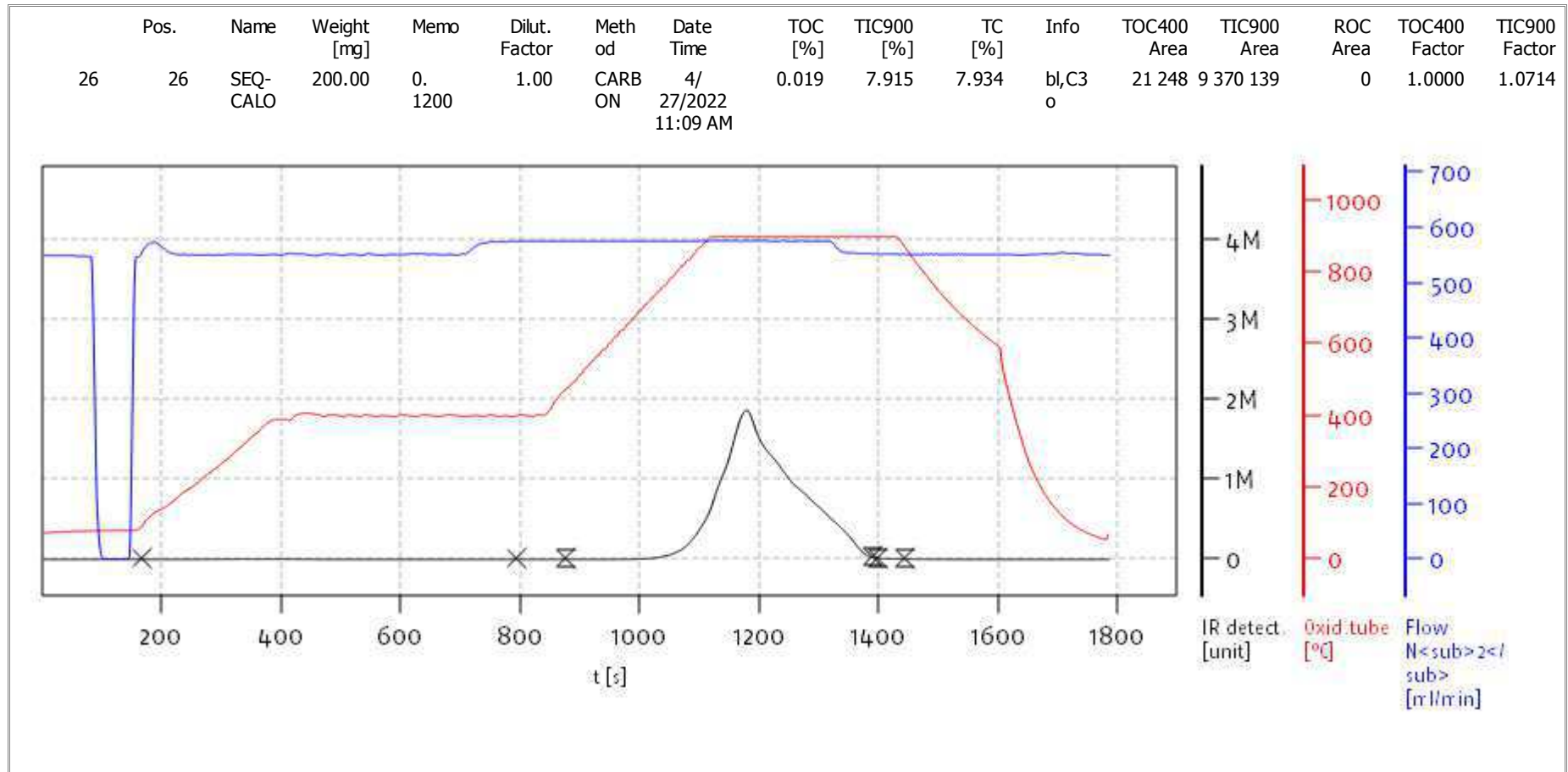
Date: Wed Apr 27 11:10:16 2022



solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC



Soli TOC Cube, Carbon
Balance: BAL3
Analyst: DOE



Name:

Access: solITOC superuser

Date: Wed Apr 27 11:10:16 2022

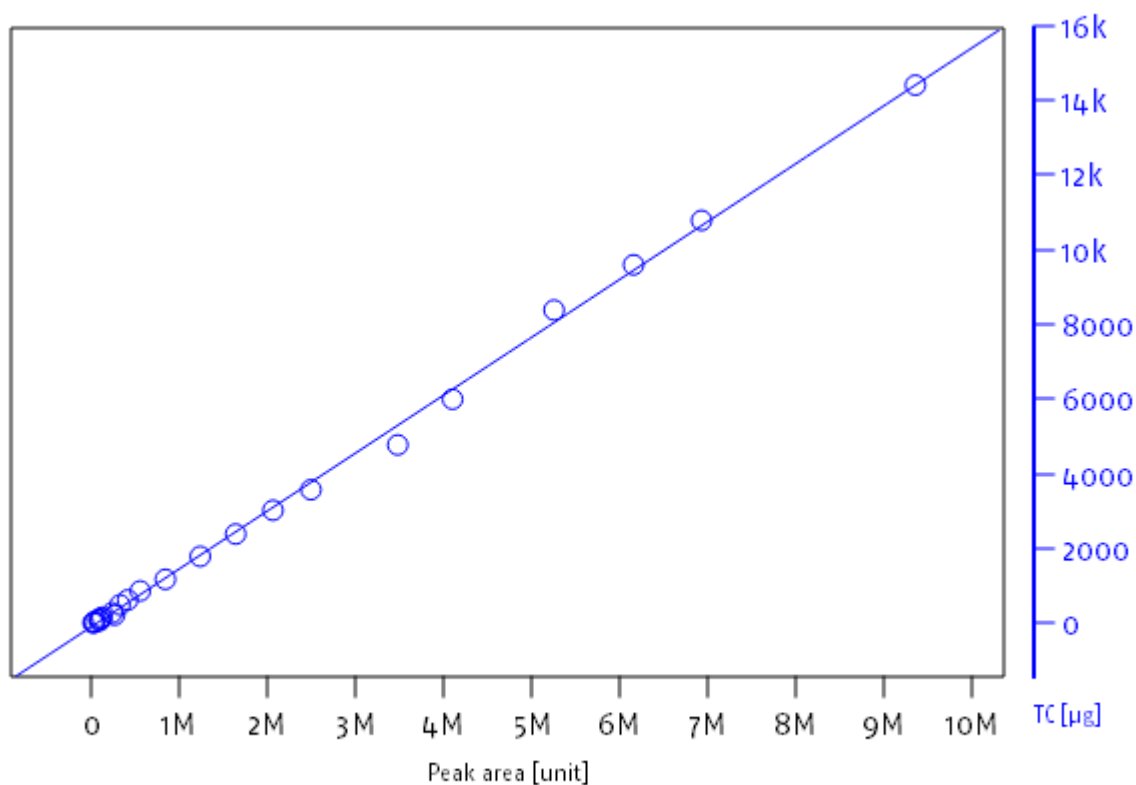


solITOC V2.0.2 (31015f9) 2018-11-19
Serial No: 0300.181017
Mode CCC

Calibration parameters TC, Whole range

a	-4.107546e-02
b	+1.548032e-06
c	+0.000000e+00
d	+0.000000e+00
e	+0.000000e+00
r	0.998372
r_old	0.998372
Proc.-SD	166.070255 µg

Calibration graph TC, Whole range



Name:

Access: solITOC superuser

Date: Wed Apr 27 11:19:56 2022



solITOC V2.0.2 (31015f9) 2018-11-19

Serial No: 0300.181017

Mode CCC



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: TOC Cube

Calibration: FD00070

Sequence: SKD0371

Date Analyzed: 04/27/22 02:33

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SKD0371-ICB1	Total Organic Carbon	0.00	0.02	0.02	%	



INSTRUMENT BLANKS
EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: TOC Cube

Calibration: FD00070

Sequence: SKL0152

Date Analyzed: 12/12/22 11:15

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SKL0152-ICB1	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCB1	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCB2	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCB3	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCB4	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCB5	Total Organic Carbon	0.003	0.02	0.02	%	
SKL0152-CCB6	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCB7	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCB8	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCB9	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCBA	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCBB	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCBC	Total Organic Carbon	0.002	0.02	0.02	%	
SKL0152-CCBD	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCBE	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCBF	Total Organic Carbon	0.00	0.02	0.02	%	
SKL0152-CCBG	Total Organic Carbon	0.00	0.02	0.02	%	



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 9060A m**

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: TOC Cube

Calibration: FD00070

Control Limit: +/- 10.00%

Sequence: SKD0371

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SKD0371-ICV1	Total Organic Carbon	44.446	43.7	98.3	%	EPA 9060A m
	Total Carbon	44.446	44.1	99.2	%	EPA 9060A m
	Total Inorganic Carbon	0.0000	0.40		%	EPA 9060A m
	% Soot	0.0000	0.004		%	EPA 9060A m

* Values outside of QC limits



**INITIAL AND CONTINUING
CALIBRATION CHECK
EPA 9060A m**

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Instrument ID: TOC Cube

Calibration: FD00070

Control Limit: +/- 10.00%

Sequence: SKL0152

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SKL0152-ICV1	Total Organic Carbon	44.446	45.0	101	%	EPA 9060A m
SKL0152-CCV1	Total Organic Carbon	44.446	44.8	101	%	EPA 9060A m
SKL0152-CCV2	Total Organic Carbon	44.446	44.6	100	%	EPA 9060A m
SKL0152-CCV3	Total Organic Carbon	44.446	44.1	99.1	%	EPA 9060A m
SKL0152-CCV4	Total Organic Carbon	44.446	43.0	96.8	%	EPA 9060A m
SKL0152-CCV5	Total Organic Carbon	44.446	43.0	96.7	%	EPA 9060A m
SKL0152-CCV6	Total Organic Carbon	44.446	44.5	100	%	EPA 9060A m
SKL0152-CCV7	Total Organic Carbon	44.446	43.1	97.1	%	EPA 9060A m
SKL0152-CCV8	Total Organic Carbon	44.446	45.2	102	%	EPA 9060A m
SKL0152-CCV9	Total Organic Carbon	44.446	45.0	101	%	EPA 9060A m
SKL0152-CCVA	Total Organic Carbon	44.446	44.9	101	%	EPA 9060A m
SKL0152-CCVB	Total Organic Carbon	44.446	44.8	101	%	EPA 9060A m
SKL0152-CCVC	Total Organic Carbon	44.446	45.1	101	%	EPA 9060A m
SKL0152-CCVD	Total Organic Carbon	44.446	44.0	99.0	%	EPA 9060A m
SKL0152-CCVE	Total Organic Carbon	44.446	45.4	102	%	EPA 9060A m
SKL0152-CCVF	Total Organic Carbon	44.446	45.6	103	%	EPA 9060A m
SKL0152-CCVG	Total Organic Carbon	44.446	45.1	101	%	EPA 9060A m

* Values outside of QC limits



STANDARD REFERENCE MATERIAL RECOVERY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0266-SRM1

Batch: BKL0266

Initial/Final: 0.2935 g / 0.2935 g

Preparation: Plumb 1981

Analyzed: 12/13/2022 15:36

Standard ID: K003456

Expires: 12/12/2079

Standard Lot#: NA

Description: 1941B - Organics in Marine Sediment (Conv

ANALYTE	TRUE (% wet)	FOUND (% wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Total Organic Carbon	2.9900	2.91	0.02	0.02		97.3	80 - 120

* Values outside of QC limits



STANDARD REFERENCE MATERIAL RECOVERY

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0268-SRM1

Batch: BKL0268

Initial/Final: 0.2948 g / 0.2948 g

Preparation: Plumb 1981

Analyzed: 12/14/2022 7:48

Standard ID: K003456

Expires: 12/12/2079

Standard Lot#: NA

Description: 1941B - Organics in Marine Sediment (Conv

ANALYTE	TRUE (% wet)	FOUND (% wet)	MDL	MRL	Q	SRM % REC.	QC LIMITS REC.
Total Organic Carbon	2.9900	2.89	0.02	0.02		96.5	80 - 120

* Values outside of QC limits



HOLDING TIME SUMMARY

Analysis: EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW22-SC772 22L0105-01	12/05/22 08:15	12/05/22 17:00	12/12/22 09:00	7	14	12/13/22 16:06			
LDW22-SC771 22L0105-02	12/05/22 08:33	12/05/22 17:00	12/12/22 09:00	7	14	12/13/22 18:37			
LDW22-SC756 22L0105-03	12/05/22 09:33	12/05/22 17:00	12/12/22 09:00	6	14	12/13/22 19:08			
LDW22-SC780 22L0105-04	12/05/22 10:23	12/05/22 17:00	12/12/22 09:00	6	14	12/13/22 19:39			
LDW22-IT792 22L0105-05	12/05/22 11:00	12/05/22 17:00	12/12/22 09:00	6	14	12/13/22 20:09			
LDW22-SC775A 22L0105-06	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/13/22 20:39			
LDW22-SC775B 22L0105-07	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/13/22 21:10			
LDW22-SC775C 22L0105-08	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/13/22 21:40			
LDW22-SC775D 22L0105-09	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/13/22 22:11			
LDW22-SC775E 22L0105-10	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/13/22 22:41			
LDW22-SC775F 22L0105-11	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 00:12			
LDW22-SC775G 22L0105-12	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 00:43			
LDW22-SC775H 22L0105-13	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 01:13			
LDW22-SC775I 22L0105-14	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 01:44			
LDW22-SC775J 22L0105-15	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 02:14			
LDW22-SC775K 22L0105-16	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 02:44			
LDW22-SC775L 22L0105-17	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 03:15			
LDW22-SC775M 22L0105-18	12/05/22 09:37	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 03:45			
LDW22-IT796 22L0105-19	12/05/22 11:25	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 04:16			
LDW22-IT798 22L0105-20	12/05/22 11:43	12/05/22 17:00	12/12/22 09:00	6	14	12/14/22 04:46			
LDW22-SC782B 22L0105-21	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 08:18			
LDW22-SC782C 22L0105-22	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 12:20			



HOLDING TIME SUMMARY

Analysis: EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW22-SC782D 22L0105-23	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 12:51			
LDW22-SC782E 22L0105-24	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 13:21			
LDW22-SC782F 22L0105-25	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 13:51			
LDW22-SC782G 22L0105-26	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 14:22			
LDW22-SC782H 22L0105-27	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 14:52			
LDW22-SC782I 22L0105-28	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 15:22			
LDW22-SC782J 22L0105-29	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 15:53			
LDW22-SC782K 22L0105-30	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 16:23			
LDW22-SC782L 22L0105-31	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 16:54			
LDW22-SC782M 22L0105-32	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 18:25			
LDW22-SC782N 22L0105-33	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 18:56			
Duplicate BKL0266-DUP1	12/05/22 08:15	12/05/22 17:00	12/12/22 09:00	7	14	12/13/22 16:36			
Matrix Spike BKL0266-MS1	12/05/22 08:15	12/05/22 17:00	12/12/22 09:00	7	14	12/13/22 18:07			
Duplicate BKL0268-DUP1	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 08:49			
Matrix Spike BKL0268-MS1	12/05/22 11:22	12/05/22 17:00	12/12/22 10:30	6	14	12/14/22 09:19			

* Indicates hold time exceedance.



**METHOD DETECTION
AND REPORTING LIMITS**

EPA 9060A m

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Instrument: TOC Cube

Analyte	MDL	RL	Units
Total Organic Carbon	0.02	0.02	%



National Institute of Standards & Technology

Certificate of Analysis

Standard Reference Material[®] 1941b

Organics in Marine Sediment

This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. Information values are also provided for total organic carbon (TOC), total carbon, hydrogen, and nitrogen. All of the constituents for which certified, reference, and information values are provided in SRM 1941b were naturally present in the sediment before processing. A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Certified Mass Fraction Values: Certified mass fraction values for PAHs, PCB congeners, and chlorinated pesticides are provided in Table 1 through Table 3. The certified values for the PAHs, PCB congeners, and chlorinated pesticides are based on the agreement of results obtained at NIST from two or more chemically independent analytical techniques along with results from an interlaboratory comparison study [1]. A NIST certified value is a value for which NIST has the highest confidence in its accuracy in that all known or suspected sources of bias have been investigated or taken into account [1].

Reference Mass Fraction Values: Reference mass fraction values for additional PAHs (some in combination), additional PCB congeners, and additional chlorinated pesticides are provided in Table 4 through Table 7. Reference values for alkylated PAH groups are provided in Table 8 and for selected hopanes and steranes in Table 9. A reference value for total organic carbon is provided in Table 10. Reference values are noncertified values that are the best estimate of the true value; however, the values do not meet the NIST criteria for certification and are provided with associated uncertainties that may reflect only measurement precision, may not include all sources of uncertainty, or may reflect a lack of sufficient statistical agreement among multiple analytical methods [1].

Information Mass Fraction Values: Information mass fraction values are provided in Table 11 for carbon, hydrogen, and nitrogen. An information value is considered to be a value that will be of use to the SRM user, but insufficient information is available to assess the uncertainty associated with the value [1]. Information values cannot be used to establish metrological traceability.

Expiration of Certification: The certification of SRM 1941b is valid, within the measurement uncertainty specified, until **01 October 2020**, provided the SRM is handled and stored in accordance with the instructions given in this certificate (see "Instructions for Handling, Storage, and Use"). This certification is nullified if the SRM is damaged, contaminated, or otherwise modified.

Maintenance of SRM Certification: NIST will monitor this SRM over the period of its certification. If substantive technical changes occur that affect the certification before the expiration of this certificate, NIST will notify the purchaser. Registration (see attached sheet or register online) will facilitate notification.

Coordination of the technical measurements leading to the certification of this material was under the leadership of M.M. Schantz and S.A. Wise of the NIST Chemical Sciences Division.

Analytical measurements for the certification of SRM 1941b were performed at NIST by J.R. Kucklick, B.J. Porter, D.L. Poster, M.M. Schantz, P. Schubert, S. Tutschku, and L.L. Yu of the NIST Chemical Sciences Division.

Carlos A. Gonzalez, Chief
Chemical Sciences Division

Measurements for TOC were provided by a commercial laboratory and T.L. Wade of the Geochemical and Environmental Research Group, Texas A&M University (College Station, TX). The carbon, hydrogen, and nitrogen data were provided by a commercial laboratory. Results for the PAHs, PCBs, and chlorinated pesticides from 38 laboratories (see Appendix A) that participated in an interlaboratory comparison exercise coordinated by NIST were used. Results for the alkylated PAH groups, hopanes, and steranes from 33 laboratories (see Appendix B) that participated in another interlaboratory comparison exercise coordinated by NIST were also used.

Collection and preparation of SRM 1941b were performed by M.P. Cronise and C.N. Fales of the NIST Office of Reference Materials and B.J. Porter and M.M. Schantz of the NIST Chemical Sciences Division. The sediment material was collected with the assistance of G.G. Lauenstein, J. Collier, and J. Lewis (National Oceanic and Atmospheric Administration, Silver Spring, MD).

Consultation on the statistical design of the experimental work and evaluation of the data were provided by S.D. Leigh and J.H. Yen of the NIST Statistical Engineering Division.

Support aspects involved in the issuance of this SRM were coordinated through the NIST Office of Reference Materials.

INSTRUCTIONS FOR HANDLING, STORAGE, AND USE

Handling: This material is naturally occurring marine sediment from an urban area and may contain constituents of unknown toxicities; therefore, caution and care should be exercised during its handling and use.

Storage: SRM 1941b must be stored in its original bottle at temperatures less than 30 °C and away from direct sunlight.

Use: Prior to removal of subsamples for analysis, the contents of the bottle should be mixed. The mass fractions of constituents in SRM 1941b are reported on a dry-mass basis. The SRM, as received, contains a mass fraction of approximately 2.4 % moisture (see "Conversion to Dry-Mass Basis"). The sediment sample should be dried to a constant mass before weighing for analysis; or a separate subsample of the sediment should be removed from the bottle at the time of analysis and dried to determine the mass fraction on a dry-mass basis. If the constituents of interest are volatile, then the moisture must be determined with a separate subsample.

PREPARATION AND ANALYSIS⁽¹⁾

Sample Collection and Preparation: The sediment used to prepare this SRM was collected from the Chesapeake Bay at the mouth of the Baltimore (MD) Harbor near the Francis Scott Key Bridge (39°12.3'N and 76°31.4'W). This location is very near the site where SRM 1941 and SRM 1941a were collected. The sediment was collected using a Kynar-coated modified Van Veen-type grab sampler. A total of approximately 3300 kg of wet sediment was collected from the site. The sediment was freeze-dried, sieved at 150 µm (100 % passing), homogenized in a cone blender, radiation sterilized (⁶⁰Co), and then packaged in screw-capped amber glass bottles each containing approximately 50 g.

Conversion to Dry-Mass Basis: The results for the constituents in SRM 1941b are reported on a dry-mass basis; however, the material "as received" contains residual moisture. The amount of moisture in SRM 1941b was determined by measuring the mass loss after freeze-drying subsamples of 1.1 g to 1.3 g for four days at 1 Pa with a -10 °C shelf temperature and a -50 °C condenser temperature. The moisture content in SRM 1941b at the time of the certification analyses was 2.39 % ± 0.08 % (95 % confidence level). Analytical results for the organic constituents were determined on an as-received basis and then converted to a dry-mass basis by dividing by the conversion factor of 0.9761 (gram dry mass per gram as-received mass).

Polycyclic Aromatic Hydrocarbons: The general approach used for the value assignment of the PAHs in SRM 1941b was similar to that reported in detail elsewhere [2]. The approach consisted of combining results from analyses using various combinations of different extraction techniques and solvents, clean-up/isolation procedures, and chromatographic separation and detection techniques: Soxhlet extraction and pressurized-fluid extraction (PFE) using dichloromethane (DCM) or a hexane/acetone mixture, cleanup of the extracts using solid-phase extraction (SPE) or normal-phase liquid chromatography (LC), followed by analysis using the following techniques: (1) reversed-phase liquid chromatography with fluorescence detection (LC-FL) analysis of the total PAH fraction, (2) reversed-phase

⁽¹⁾ Certain commercial equipment, instruments or materials are identified in this certificate to adequately specify the experimental procedure. Such identification does not imply recommendation or endorsement by the National Institute of Standards and Technology.

LC-FL analysis of isomeric PAH fractions isolated by normal-phase LC (i.e., multidimensional LC), (3) gas chromatography/mass spectrometry (GC/MS) analysis of the PAH fraction on three stationary phases of different selectivity, i.e., a 5 % (all column compositions are given as mole fractions in %) phenyl-substituted methylpolysiloxane phase, a 50 % phenyl-substituted methylpolysiloxane phase, and a relatively non-polar proprietary phase.

Three sets of GC/MS results, designated as GC/MS (I), GC/MS (II), and GC/MS (III), were obtained using three columns with different selectivities for the separation of PAHs. For GC/MS (I) analyses, duplicate subsamples of approximately 1 g from ten bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added to the extract to remove elemental sulfur. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 2 % DCM in hexane (all solvent concentrations are given as volume fractions in %). The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5 MS, J&W Scientific, Folsom, CA). The GC/MS (II) analyses were performed using 5 g subsamples from six bottles of SRM 1941b. These samples were extracted using PFE with DCM. The high molecular mass compounds were removed from the extracts using size exclusion chromatography (SEC) with a preparative-scale divinylbenzene-polystyrene column (10 μm particle size with 10 nm diameter pores), and the sulfur was removed from the extracts by adding copper powder. The concentrated extract was passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The analysis was by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17 MS, J&W Scientific). For the GC/MS (III), 9 g subsamples from six bottles of SRM 1941b were Soxhlet-extracted for 18 h with 250 mL of a mixture of 50 % hexane/50 % acetone. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific).

Two sets of LC-FL results, designated as LC-FL (total) and LC-FL (isomer), were used in the certification process. For the LC-FL (total), subsamples of approximately 1 g from six bottles of SRM 1941b were extracted using PFE with a mixture of 50 % hexane/50 % acetone. The extracts were concentrated and then processed through an aminopropylsilane SPE cartridge using 2 % DCM in hexane to obtain the total PAH fraction. For the LC-FL (isomer), a 5 g subsample from the six bottles was extracted using PFE with DCM and processed through an aminopropylsilane SPE cartridge using 10 % DCM in hexane; the PAH fraction was then fractionated further on a semi-preparative aminopropylsilane column (μBondapak NH₂, 9 mm i.d. × 30 cm, Waters Associates, Milford, MA) to isolate isomeric PAH fractions as described previously [3–6]. The total PAH fraction and the isomeric PAH fractions were analyzed using a 5 μm particle-size polymeric octadecylsilane (C₁₈) column (4.6 mm i.d. × 25 cm, Hypersil-PAH, Keystone Scientific, Inc., Bellefonte, PA) with wavelength-programmed fluorescence detection [4,5].

For the GC/MS and LC-FL measurements described above, selected perdeuterated PAHs were added to the sediment prior to solvent extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [7]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PAHs in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

Homogeneity Assessment for PAHs: The homogeneity of SRM 1941b was assessed by analyzing duplicate samples of approximately 1 g from ten bottles selected by stratified random sampling. Samples were extracted, processed, and analyzed as described above for GC/MS (I). No statistically significant differences among bottles were observed for the PAHs at this sample size.

PAH Isomers of Molecular Mass 300 and 302: For the determination of the molecular mass 300 and 302 isomers, three subsamples of approximately 5 g each were extracted using PFE with DCM. The extracts were then concentrated with a solvent change to hexane and passed through an aminopropyl SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS using a 0.25 mm i.d. × 60 m fused silica capillary column with a 50 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-17MS, J&W Scientific). Perdeuterated dibenzo[*a,i*]pyrene was added to the sediment prior to extraction for use as an internal standard [8].

PCBs and Chlorinated Pesticides: The general approach used for the determination of PCBs and chlorinated pesticides in SRM 1941b consisted of combining results from analyses using various combinations of different extraction techniques and solvents, cleanup/isolation procedures, and chromatographic separation and detection techniques. Techniques and solvents included Soxhlet extraction and PFE using DCM, 1,1,1-trichloroethane, and 1,2-dichloroethane.

clean-up/isolation using SPE or LC, followed by analysis using GC/MS and gas chromatography with electron capture detection (GC-ECD) on two columns with different selectivity for the separation of PCBs and chlorinated pesticides. The analytical methods are described in detail elsewhere [2].

Six sets of results were obtained and designated as GC-ECD (I) A and B, GC/MS (I) A and B, GC/MS (II), and Interlaboratory Comparison Exercise. For the GC-ECD (I) analyses, approximately 10 g subsamples from six bottles of SRM 1941b were extracted using PFE with DCM. Copper powder was added to the extract to remove elemental sulfur, and SEC, as described above, was used to remove the high molecular mass compounds. The concentrated extract was then fractionated on a semi-preparative aminopropylsilane column to isolate two fractions containing: (1) the PCBs and lower-polarity pesticides and (2) the more polar pesticides. GC-ECD analyses of the two fractions were performed on two columns of different selectivities for PCB separations: 0.25 mm × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5, J&W Scientific), and a 0.25 mm × 60 m fused silica capillary column with a non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific). The results from the 5 % phenyl phase are designated as GC-ECD (IA) and the results from the proprietary phase are designated as GC-ECD (IB). For the GC-ECD analyses, two PCB congeners that are not significantly present in the sediment extract (PCB 103 and PCB 198 [9,10]) and endosulfan I-*d*₄, 4,4'-DDE-*d*₈, 4,4'-DD-*d*₈, and 4,4'-DDT-*d*₈ were added to the sediment prior to extraction for use as internal standards for quantification purposes.

Two sets of results were obtained by GC/MS. For GC/MS (I), approximately 9 g subsamples from six bottles were Soxhlet- extracted with a mixture of 50 % hexane/50 % acetone for approximately 18 h. Copper powder was added to the extract to remove elemental sulfur, and the concentrated extract was passed through a silica SPE cartridge and eluted with 10 % DCM in hexane. The processed extract was then analyzed by GC/MS with two ionization modes, electron impact (EI) and negative ion chemical ionization (NICI). The GC/MS EI method, GC/MS (IA), used a 0.25 mm i.d. × 60 m fused silica capillary column with a relatively non-polar proprietary phase (0.25 μm film thickness; DB-XLB, J&W Scientific). The GC/MS NICI method, GC/MS (IB), used a 0.25 mm i.d. × 60 m fused silica capillary column with a 5 % phenyl-substituted methylpolysiloxane phase (0.25 μm film thickness; DB-5MS, J&W Scientific). The GC/MS (II) results were obtained in the same manner as the GC/MS (IA) analyses except that three subsamples were Soxhlet-extracted with DCM for approximately 18 h. For the GC/MS analyses, selected carbon-13 labeled PCB congeners and chlorinated pesticides were added to the sediment prior to extraction for use as internal standards for quantification purposes.

In addition to the analyses performed at NIST, SRM 1941b was used in an interlaboratory comparison exercise in 1999 as part of the NIST Intercomparison Exercise Program for Organic Contaminants in the Marine Environment [7]. Results from 38 laboratories that participated in this exercise were used as the sixth data set in the determination of the certified values for PCB congeners and chlorinated pesticides in SRM 1941b. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest.

The reference value for PCB 77 was determined from a separate fraction. The samples were extracted and processed as for GC-ECD (I) above. The first (PCB and lower-polarity pesticide) fraction from the semi-preparative aminopropylsilane column was further fractionated using a Cosmosil PYE (pyrenylethyl group bonded) column (5 μm particle size, 4.6 mm i.d. × 25 cm; Phenomenex, Torrance, CA) [11]. Three fractions were collected: the first fraction contained the pesticides and multi-*ortho* PCBs, the second fraction contained the polychlorinated naphthalenes, non-*ortho* PCB congeners, and some mono-*ortho* PCB congeners, and the third fraction removed the residual planar compounds from the column. The second fraction was analyzed by GC/MS NICI using the same column as GC/MS (IB) above. Carbon-13 labeled PCB 77 was used as an internal standard for quantification purposes.

Alkylated PAH Groups, Hopanes, and Steranes: SRM 1941b was used in an interlaboratory comparison exercise in 2011 [12]. Results from 33 laboratories that participated in this exercise were used in the determination of the reference values for alkylated PAH groups, hopanes, and steranes in SRM 1941b. Note that not all laboratories returned data for each analyte. The laboratories participating in this exercise used the analytical procedures routinely used in their laboratories to measure the analytes of interest. For the alkylated PAHs, the majority of the laboratories (>90 %) used the parent PAH for determination of the response factor for the corresponding alkylated group.

Total Organic Carbon (TOC): Two laboratories provided results for TOC using similar procedures. Briefly, subsamples of approximately 200 mg were reacted with 6 mol/L hydrochloric acid and rinsed with deionized water prior to combustion in a gas fusion furnace. The carbon monoxide and carbon dioxide produced were measured and compared to a blank for calculation of the percent TOC. Each laboratory analyzed subsamples from three bottles of SRM 1941b. One of the laboratories also analyzed three subsamples from three bottles of SRM 1941b for carbon, hydrogen, and nitrogen.

Table 1. Certified Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions ^(a) ($\mu\text{g}/\text{kg}$)	
Naphthalene ^(b,c,d,e,f,g)	848	$\pm 95^{(h)}$
Fluorene ^(b,c,d,e,f,g)	85	$\pm 15^{(h)}$
Phenanthrene ^(b,c,d,e,f,g)	406	$\pm 44^{(h)}$
Anthracene ^(b,c,d,e,f,g)	184	$\pm 18^{(h)}$
3-Methylphenanthrene ^(b,c,d)	105	$\pm 13^{(h)}$
2-Methylphenanthrene ^(b,c,d)	128	$\pm 14^{(h)}$
1-Methylphenanthrene ^(b,c,d,g)	73.2	$\pm 5.9^{(h)}$
Fluoranthene ^(b,c,d,e,f,g)	651	$\pm 50^{(h)}$
Pyrene ^(b,c,d,e,f,g)	581	$\pm 39^{(h)}$
Benz[<i>a</i>]anthracene ^(b,c,d,e,f,g)	335	$\pm 25^{(h)}$
Chrysene ^(d,f)	291	$\pm 31^{(h)}$
Triphenylene ^(d,f)	108	$\pm 5^{(i)}$
Benzo[<i>b</i>]fluoranthene ^(c,e)	453	$\pm 21^{(h)}$
Benzo[<i>k</i>]fluoranthene ^(b,c,d,e)	225	$\pm 18^{(h)}$
Benzo[<i>e</i>]pyrene ^(b,c,d,g)	325	$\pm 25^{(h)}$
Benzo[<i>a</i>]pyrene ^(b,c,d,f,g)	358	$\pm 17^{(h)}$
Perylene ^(b,c,d,f,g)	397	$\pm 45^{(h)}$
Benzo[<i>ghi</i>]perylene ^(b,c,d,f,g)	307	$\pm 45^{(h)}$
Indeno[1,2,3- <i>cd</i>]pyrene ^(b,c,d,f,g)	341	$\pm 57^{(h)}$
Dibenz[<i>a,j</i>]anthracene ^(b,c,d,f)	48.9	$\pm 4.6^{(h)}$
Dibenz[<i>a,c</i>]anthracene ^(c,f)	36.7	$\pm 5.2^{(h)}$
Dibenz[<i>a,h</i>]anthracene ^(c,f)	53	$\pm 10^{(h)}$
Benzo[<i>b</i>]chrysene ^(b,c,d,f)	53	$\pm 12^{(h)}$
Picene ^(b,c,d)	46.6	$\pm 4.7^{(h)}$

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(c) GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(d) GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(e) LC-FL (total) of total PAH fraction after PFE with DCM.

^(f) LC-FL (isomer) of isomeric PAH fractions after PFE with DCM.

^(g) 1999 Interlaboratory Comparison Study [7] with 21 to 29 laboratories submitting data for each PAH.

^(h) Certified values are weighted means of the results from two to six analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

⁽ⁱ⁾ The certified value is an unweighted mean of the results from two analytical methods. The uncertainty listed with the value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the value is metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 2. Certified Mass Fraction Values for PCB Congeners^(a) in SRM 1941b

PCB Congeners			Mass Fractions ^(b) ($\mu\text{g}/\text{kg}$)	
PCB	8	(2,4'-Dichlorobiphenyl) ^(c,d,e,f,g)	1.65	\pm 0.19 ^(h)
PCB	18	(2,2',5-Trichlorobiphenyl) ^(c,d,e,f,g)	2.39	\pm 0.29 ^(h)
PCB	28	(2,4,4'-Trichlorobiphenyl) ^(c,d,e,f,g)	4.52	\pm 0.57 ^(h)
PCB	31	(2,4',5-Trichlorobiphenyl) ^(c,e,f)	3.18	\pm 0.41 ^(h)
PCB	44	(2,2'3,5'-Tetrachlorobiphenyl) ^(c,d,e,f,g)	3.85	\pm 0.20 ⁽ⁱ⁾
PCB	49	(2,2'4,5'-Tetrachlorobiphenyl) ^(c,d,e,f)	4.34	\pm 0.28 ⁽ⁱ⁾
PCB	52	(2,2',5,5'-Tetrachlorobiphenyl) ^(c,d,e,f,g)	5.24	\pm 0.28 ⁽ⁱ⁾
PCB	66	(2,3',4,4'-Tetrachlorobiphenyl) ^(c,e,f,g,j)	4.96	\pm 0.53 ⁽ⁱ⁾
PCB	87	(2,2',3,4,5'-Pentachlorobiphenyl) ^(c,d,f,j)	1.14	\pm 0.16 ^(h)
PCB	95	(2,2',3,5',6-Pentachlorobiphenyl) ^(c,e,f,g)	3.93	\pm 0.62 ⁽ⁱ⁾
PCB	99	(2,2',4,4',5-Pentachlorobiphenyl) ^(c,d,e,f,g)	2.90	\pm 0.36 ⁽ⁱ⁾
PCB	101	(2,2',4,5,5'-Pentachlorobiphenyl) ^(c,e,f,g,j)	5.11	\pm 0.34 ⁽ⁱ⁾
PCB	105	(2,3,3',4,4'-Pentachlorobiphenyl) ^(c,d,e,f,g,j)	1.43	\pm 0.10 ⁽ⁱ⁾
PCB	110	(2,3,3',4',6-Pentachlorobiphenyl) ^(c,e,f,j)	4.62	\pm 0.36 ⁽ⁱ⁾
PCB	118	(2,3',4,4',5-Pentachlorobiphenyl) ^(c,d,e,f,g,j)	4.23	\pm 0.19 ⁽ⁱ⁾
PCB	128	(2,2',3,3',4,4'-Hexachlorobiphenyl) ^(c,d,e,f,g,j)	0.696	\pm 0.044 ⁽ⁱ⁾
PCB	138	(2,2',3,4,4',5'-Hexachlorobiphenyl) ^(c,e,f,j)	3.60	\pm 0.28 ⁽ⁱ⁾
PCB	149	(2,2',3,4',5',6-Hexachlorobiphenyl) ^(c,d,e,j)	4.35	\pm 0.26 ^(h)
PCB	153	(2,2',4,4',5,5'-Hexachlorobiphenyl) ^(c,d,e,f,g,j)	5.47	\pm 0.32 ⁽ⁱ⁾
PCB	156	(2,3,3',4,4',5-Hexachlorobiphenyl) ^(c,d,e,f,j)	0.507	\pm 0.090 ^(h)
PCB	170	(2,2',3,3',4,4',5-Heptachlorobiphenyl) ^(c,d,e,f,g,j)	1.35	\pm 0.09 ⁽ⁱ⁾
PCB	180	(2,2',3,4,4',5,5'-Heptachlorobiphenyl) ^(c,d,e,f,g,j)	3.24	\pm 0.51 ⁽ⁱ⁾
PCB	183	(2,2',3,4,4',5',6-Heptachlorobiphenyl) ^(c,d,e,j)	0.979	\pm 0.087 ^(h)
PCB	187	(2,2',3,4',5,5',6-Heptachlorobiphenyl) ^(c,d,e,f,g,j)	2.17	\pm 0.22 ⁽ⁱ⁾
PCB	194	(2,2',3,3',4,4',5,5'-Octachlorobiphenyl) ^(c,d,e,j)	1.04	\pm 0.06 ^(h)
PCB	195	(2,2',3,3',4,4',5,6-Octachlorobiphenyl) ^(c,e,g,j)	0.645	\pm 0.060 ⁽ⁱ⁾
PCB	201	(2,2',3,3',4,5',6,6'-Octachlorobiphenyl) ^(c,e,j)	0.777	\pm 0.034 ^(h)
PCB	206	(2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl) ^(c,e,f,g,j)	2.42	\pm 0.19 ⁽ⁱ⁾
PCB	209	Decachlorobiphenyl ^(c,d,e,f,g,j)	4.86	\pm 0.45 ⁽ⁱ⁾

^(a) PCB congeners are numbered according to the scheme proposed by Ballschmiter and Zell [9] and later revised by Schulte and Malisch [10] to conform to IUPAC rules, except PCB 201. Under the Ballschmiter and Zell numbering system, the IUPAC PCB 201 is listed as PCB 200.

^(b) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(c) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(d) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(e) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(f) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(g) 1999 Interlaboratory Comparison Study [7] with 13 to 31 laboratories submitting data for each PCB congener.

^(h) Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

⁽ⁱ⁾ Certified values are weighted means of the results from three to six analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(j) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

Table 3. Certified Mass Fraction Values for Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions ^(a) ($\mu\text{g}/\text{kg}$)
Hexachlorobenzene ^(b,c,d,e)	5.83 \pm 0.38 ^(f)
<i>cis</i> -Chlordane ^(b,c,d,e,g)	0.85 \pm 0.11 ^(h)
<i>trans</i> -Chlordane ^(b,c,e)	0.566 \pm 0.093 ^(f)
<i>cis</i> -Nonachlor ^(b,e,g)	0.378 \pm 0.053 ^(h)
<i>trans</i> -Nonachlor ^(b,c,d,e,g)	0.438 \pm 0.073 ^(f)
4,4'-DDE ^(b,d,e,g)	3.22 \pm 0.28 ^(h)
4,4'-DDD ^(b,d,e,g)	4.66 \pm 0.46 ^(h)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(c) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(d) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(e) 1999 Interlaboratory Comparison Study [7] with 13 to 31 laboratories submitting data for each pesticide.

^(f) Certified values are unweighted means of the results from three to five analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the constituent listed and the values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(g) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(h) Certified values are weighted means of the results from three to five analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the chlorinated pesticides listed and the values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 4. Reference Mass Fraction Values for PAHs in SRM 1941b

PAHs	Mass Fractions ^(a)		
	(μg/kg)		
1-Methylnaphthalene ^(b,c,d,e)	127	±	14 ^(f)
2-Methylnaphthalene ^(b,c,d,e)	276	±	53 ^(f)
2,6-Dimethylnaphthalene ^(b,c,d,e)	75.9	±	4.5 ^(f)
2,3,5-Trimethylnaphthalene ^(b,c,d,e)	25.5	±	5.1 ^(f)
Biphenyl ^(b,c,d,e)	74.0	±	8.0 ^(f)
Acenaphthylene ^(b,c,d,e)	53.3	±	6.4 ^(f)
Acenaphthene ^(b,c,d,e)	38.4	±	5.2 ^(f)
9-Methylphenanthrene ^(c)	63.5	±	2.5 ^(g)
4-Methylphenanthrene and 9-Methylphenanthrene ^(b,d)	80.1	±	4.8 ^(f)
2-Methylanthracene ^(c,d)	36	±	15 ^(f)
8-Methylfluoranthene ^(b)	49.5	±	2.7 ^(g)
7-Methylfluoranthene ^(b)	45.4	±	1.5 ^(g)
1-Methylfluoranthene ^(b)	42.4	±	2.1 ^(g)
3-Methylfluoranthene ^(b)	28.8	±	1.3 ^(g)
2-Methylpyrene ^(b)	78.7	±	4.0 ^(g)
4-Methylpyrene ^(b)	66.4	±	2.6 ^(g)
1-Methylpyrene ^(b)	52.5	±	2.3 ^(g)
Acephenanthrene ^(d)	30.5	±	1.9 ^(g)
Benzo[<i>c</i>]phenanthrene ^(b,c,d)	58	±	15 ^(f)
Benzo[<i>a</i>]fluoranthene ^(b,c,d)	73	±	18 ^(f)
Benzo[<i>j</i>]fluoranthene ^(c)	217	±	5 ^(g)
Indeno[1,2,3- <i>cd</i>]fluoranthene ^(d)	9.63	±	0.34 ^(g)
Pentaphene ^(d)	25.3	±	1.0 ^(g)

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) GC/MS (I) on 5 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(c) GC/MS (II) on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM.

^(d) GC/MS (III) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(e) 1999 Interlaboratory Comparison Study [7] with 14 to 26 laboratories submitting data for each PAH.

^(f) Reference values are weighted means of the results from two to four analytical methods [13]. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of PAHs listed as determined by the methods indicated. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(g) Reference values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution for the associated degrees of freedom (19 for footnote b and 5 for footnotes c and d) and 95 % confidence level for each analyte. The measurand is the total mass fraction of the PAHs listed as determined by the method indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

Table 5. Reference Mass Fraction Values for PAHs of Molecular Mass 300 and 302 in SRM 1941b

PAHs of Molecular Mass 300 and 302	Mass Fractions ^(a,b,c) ($\mu\text{g}/\text{kg}$)
Coronene	72.6 \pm 4.7
Dibenzo[<i>b,e</i>]fluoranthene	10.3 \pm 0.3
Naphtho[1,2- <i>b</i>]fluoranthene	91.0 \pm 3.1
Naphtho[1,2- <i>k</i>]fluoranthene and Naphtho[2,3- <i>j</i>]fluoranthene	79.8 \pm 2.5
Naphtho[2,3- <i>b</i>]fluoranthene	23.5 \pm 0.3
Dibenzo[<i>b,k</i>]fluoranthene	95.6 \pm 3.1
Dibenzo[<i>a,k</i>]fluoranthene	26.6 \pm 0.4
Dibenzo[<i>j,l</i>]fluoranthene	63.8 \pm 1.8
Dibenzo[<i>a,l</i>]pyrene	11.1 \pm 1.0
Naphtho[2,3- <i>k</i>]fluoranthene	10.7 \pm 0.6
Naphtho[1,2- <i>a</i>]pyrene	16.7 \pm 1.4
Naphtho[2,3- <i>e</i>]pyrene	33.2 \pm 2.3
Dibenzo[<i>a,e</i>]pyrene	76.1 \pm 3.6
Naphtho[2,1- <i>a</i>]pyrene	59.2 \pm 1.8
Dibenzo[<i>e,i</i>]pyrene	35.0 \pm 2.4
Naphtho[2,3- <i>a</i>]pyrene	16.5 \pm 0.6
Benzo[<i>b</i>]perylene	38.2 \pm 1.2
Dibenzo[<i>a,i</i>]pyrene	25.5 \pm 1.0
Dibenzo[<i>a,h</i>]pyrene	6.94 \pm 0.29

^(a) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) Reference values are the means of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = ku_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution for two degrees of freedom and 95 % confidence level for each analyte. The measurand is the total mass fraction of the constituent listed as determined by the method indicated. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(c) GC/MS on 50 % phenyl-substituted methylpolysiloxane phase after PFE with DCM [8].

Table 6. Reference Mass Fraction Values for PCB Congeners^(a) in SRM 1941b

PCB Congeners			Mass Fractions ^(b,c) ($\mu\text{g}/\text{kg}$)		
PCB	45	(2,2',3,6-Tetrachlorobiphenyl) ^(d,e)	0.73	\pm	0.12
PCB	56	(2,3,3',4'-Tetrachlorobiphenyl) ^(d,f,g)	1.21	\pm	0.11
PCB	63	(2,3,4',5-Tetrachlorobiphenyl) ^(e,f,g)	0.213	\pm	0.040
PCB	70	(2,3',4',5-Tetrachlorobiphenyl) ^(e,f,g)	4.99	\pm	0.29
PCB	74	(2,4,4',5-Tetrachlorobiphenyl) ^(e,f,g)	2.04	\pm	0.15
PCB	77	(3,3',4,4'-Tetrachlorobiphenyl) ^(h)	0.31	\pm	0.03
PCB	107	(2,3,3',4',5-Pentachlorobiphenyl) ^(d,e,f,g)	0.628	\pm	0.028
PCB	132	(2,2',3,3',4,6'-Hexachlorobiphenyl) ^(d,f,g)	1.28	\pm	0.27
PCB	146	(2,2',3,4',5,5'-Hexachlorobiphenyl) ^(e,f,g)	1.22	\pm	0.12
PCB	158	(2,3,3',4,4',6-Hexachlorobiphenyl) ^(d,e,f,g)	0.65	\pm	0.15
PCB	163	(2,3,3',4',5,6-Hexachlorobiphenyl) ^(e,f,g)	1.28	\pm	0.06
PCB	174	(2,2',3,3',4,5,6'-Heptachlorobiphenyl) ^(d,e,f,g)	1.51	\pm	0.39
PCB	193	(2,3,3',4',5,5',6-Heptachlorobiphenyl) ^(d,e,f,g)	0.292	\pm	0.075

^(a) PCB congeners are numbered according to the scheme proposed by Ballschmiter and Zell [9] and later revised by Schulte and Malisch [10] to conform with IUPAC rules, except PCB 107. Under the Ballschmiter and Zell numbering system, the IUPAC PCB 107 is listed as PCB 108.

^(b) Mass fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(c) For these PCB congeners except PCB 77, the reference values are unweighted means of the results from two to four analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled within-method variance following the ISO/JCGM Guide [14,15]. For PCB 77, the reference value is the mean of results obtained by NIST using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the analyte mean, and the coverage factor, k , is determined from the Student's t -distribution corresponding to two degrees of freedom and 95 % confidence level for PCB 77. The measurand is the total mass fraction of the PCB Congeners listed as determined by the method or methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as microgram per kilogram on a dry-mass basis.

^(d) GC-ECD (IA) on 5 % phenyl-substituted methylpolysiloxane phase after PFE extraction with DCM.

^(e) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(f) GC/MS (IA) on a relatively non-polar proprietary phase after Soxhlet extraction with 50 % hexane/50 % acetone mixture.

^(g) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(h) GC/MS NICI on a 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC-ECD (I) fractionated using a PYE column.

Table 7. Reference Mass Fraction Values for Selected Chlorinated Pesticides in SRM 1941b

Chlorinated Pesticides	Mass Fractions ^(a,b) ($\mu\text{g}/\text{kg}$)
2,4'-DDE ^(c,d)	0.38 \pm 0.12
4,4'-DDT ^(e,f)	1.12 \pm 0.42

^(a) Mass Fractions reported on dry-mass basis; material as received contains approximately 2.4 % moisture.

^(b) The reference values are unweighted means of the results from two analytical methods. The uncertainty listed with each value is an expanded uncertainty about the mean, with coverage factor 2, calculated by combining a between-method variance [16] with a pooled, within-method variance following the ISO/JCGM Guide [14,15]. The measurand is the total mass fraction of the chlorinated pesticides listed as determined by the methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.

^(c) GC/MS (IB) on 5 % phenyl-substituted methylpolysiloxane phase; same extracts analyzed as in GC/MS (IA).

^(d) GC-ECD (IB) on a relatively non-polar proprietary phase; same extracts analyzed as in GC-ECD (IA).

^(e) GC/MS (II) on a relatively non-polar proprietary phase after Soxhlet extraction with DCM.

^(f) 1999 Interlaboratory Comparison Study [7] with 10 laboratories submitting data for 4,4'-DDT.

Table 8. Reference Mass Fraction Values for Alkylated PAH Groups in SRM 1941b

Alkylated PAH Group	Mass Fraction ^(a,b) ($\mu\text{g}/\text{kg}$)
C2-decalins	18 \pm 5
C4-decalins	41 \pm 4
C2-naphthalenes	187 \pm 53
C3-naphthalenes	158 \pm 42
C1-benzothiophenes	25 \pm 14
C2-benzothiophenes	20 \pm 11
C3-benzothiophenes	22 \pm 13
C4-benzothiophenes	18 \pm 5
C1-fluorenes	57 \pm 18
C2-fluorenes	122 \pm 43
C3-fluorenes	128 \pm 31
C1-phenanthrenes/anthracenes	313 \pm 99
C2-phenanthrenes/anthracenes	247 \pm 62
C3-phenanthrenes/anthracenes	165 \pm 46
C4-phenanthrenes/anthracenes	87 \pm 36
C1-dibenzothiophenes	54 \pm 13
C2-dibenzothiophenes	91 \pm 18
C3-dibenzothiophenes	84 \pm 15
C4-dibenzothiophenes	57 \pm 13
C1-fluoranthenes/pyrenes	252 \pm 48
C2-fluoranthenes/pyrenes	205 \pm 38
C3-fluoranthenes/pyrenes	102 \pm 22
C4-fluoranthenes/pyrenes	121 \pm 59
C1-benzanthracenes/chrysenes/triphenylenes	208 \pm 43
C2-benzanthracenes/chrysenes/triphenylenes	120 \pm 24
C3-benzanthracenes/chrysenes/triphenylenes	73 \pm 31
C4-benzanthracenes/chrysenes/triphenylenes	41 \pm 11

^(a) The reference mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the alkylated PAH groups listed as determined by the interlaboratory study methods. The values listed are metrologically traceable to the SI unit of mass fraction, expressed as micrograms per kilogram on a dry-mass basis.

^(b) Data from the interlaboratory study [12].

Table 9. Reference Mass Fraction Values for Hopanes and Steranes in SRM 1941b

Hopane or Sterane	Mass Fraction ^(a,b) (µg/kg)
17α(H)-22,29,30-Trisnorhopane	54 ± 18
17α(H)-21β(H)-30-Norhopane	137 ± 21
17α(H)-21β(H)-30-Hopane	215 ± 44
17α(H)-21β(H)-22R-Homohopane	44 ± 10
17α(H)-21β(H)-22S-Homohopane	48 ± 13
5α(H)-14α(H),17α(H)-Cholestane 20R	41 ± 11
5α(H)-14β(H),17β(H)-Cholestane 20R	27 ± 6
5α(H)-14β(H),17β(H)-24-Methylcholestane 20R	21 ± 8
5α(H)-14α(H),17α(H)-24-Ethylcholestane 20R	19 ± 5
5α(H)-14β(H),17β(H)-24-Ethylcholestane 20R	41 ± 9

- ^(a) The reference mass fraction value reported on a dry-mass basis is the median of results using one analytical technique. The expanded uncertainty, U , is calculated as $U = k u_c$, where u_c is one standard deviation of the median, and the coverage factor, $k = 2$. The measurand is the total mass fraction of the constituent listed as determined by the methods used during the interlaboratory study. The values are metrologically traceable to the SI unit of mass, expressed as micrograms per kilogram on a dry-mass basis.
- ^(b) Data from the interlaboratory study [12].

Table 10. Reference Mass Fraction Value for Total Organic Carbon in SRM 1941b

Total Organic Carbon (TOC)	2.99 % ± 0.24 % ^(a,b)
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- ^(a) Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.
- ^(b) The reference value for total organic carbon is a weighted mean value from routine measurements made by two laboratories [21]. The uncertainty listed is an expanded uncertainty about the mean, with coverage factor 2 (approximately 95 % confidence), calculated by combining a between-method variance incorporating inter-method bias with a pooled within-method variance. The reporting follows the ISO/JCGM Guides [2]. The measurand is the total mass fraction of TOC listed as determined by the methods indicated. The values listed are metrologically traceable to the SI unit of mass, expressed as a percent on a dry-mass basis.

Table 11. Information Mass Fraction Values for Carbon, Hydrogen, and Nitrogen in SRM 1941b

Elements	Mass Fractions ^(a) (%)
Carbon	3.3
Hydrogen	1.2
Nitrogen	<0.5

- ^(a) Mass fraction is reported on a dry-mass basis; material as received contains approximately 2.4 % moisture.

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Certificate Revision History: 16 January 2015 (Corrected IUPAC name for PCB-56 and PCB-107; editorial changes); 10 June 2014 (Units corrected from mg/kg to µg/kg in Tables 8 and 9; editorial changes); 10 April 2012 (Reference value added for alkylated PAH groups, hopanes, and steranes; extension of certification period; editorial changes); 16 August 2004 (Reference values for the butyl tins removed; editorial changes); 15 July 2002 (Original certificate date).

Users of this SRM should ensure that the Certificate of Analysis in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail srminfo@nist.gov; or via the Internet at <http://www.nist.gov/srm>.

APPENDIX A

The laboratories listed below performed measurements that contributed to the certification of PAHs, PCBs, and chlorinated pesticides in SRM 1941b Organics in Marine Sediment.

Arthur D. Little, Inc; Cambridge, MA
Axys Analytical Services; Sidney, BC, Canada
B & B Laboratories; College Station, TX
Battelle Ocean Sciences; Duxbury, MA
Bedford Institute of Oceanography; Dartmouth, NS, Canada
California Department of Fish and Game; Rancho Cordova, CA
Central Contra Costa Sanitary District; Martinez, CA
Chesapeake Biological Laboratory; Solomons, MD
Centro de Investigaciones Energeticas Medioambientales y Tecnologicas; Madrid, Spain
City of Los Angeles Environmental Monitoring Division; Playa del Rey, CA
City of San Jose Environmental Services Department; San Jose, CA
Columbia Analytical Services; Kelso, WA
East Bay Municipal Utility District; Oakland, CA
Florida Department of Environmental Protection; Tallahassee, FL
Manchester Environmental Laboratory; Port Orchard, WA
Murray State University; Murray, KY
Massachusetts Water Resources Authority Central Lab; Winthrop, MA
National Research Council of Canada; Ottawa, Ontario, Canada
National Oceanic and Atmospheric Association (NOAA), National Marine Fisheries Service (NMFS), Auke Bay Laboratory; Juneau, AK
NOAA, National Ocean Service/Center for Coastal Environmental Health and Biomolecular Research; Charleston, SC
NOAA, NMFS, Sandy Hook Marine Laboratory; Highlands, NJ
NOAA, NMFS, Northwest Fisheries Science Center; Seattle, WA
Orange County Sanitation District; Fountain Valley, CA
Philip Analytical Services; Burlington, Ontario, Canada
Serv de Hidrografia Naval; Buenos Aires, Argentina
Skidaway Institute of Technology; Savannah, GA
Southwest Laboratory of Oklahoma; Broken Arrow, OK
Severn Trent Knoxville Laboratory; Knoxville, TN
Texas A&M University, Geochemical and Environmental Research Group; College Station, TX
Texas Parks and Wildlife Department; San Marcos, TX
University of California at Los Angeles, Institute of Geophysics and Planetary Physics; Los Angeles, CA
University of Connecticut, Environmental Research Institute; Storrs, CT
University of Rhode Island, Graduate School of Oceanography; Narragansett, RI
US Department of Agriculture, Environmental Chemistry Laboratory; Beltsville, MD
US Environmental Protection Agency, Atlantic Ecology Division; Narragansett, RI
US Geological Survey, National Water Quality Laboratory; Denver, CO
Woods Hole Group Environmental Lab; Raynham, MA
Wright State University; Dayton, OH

APPENDIX B

The laboratories listed below performed measurements that contributed to the certification of alkylated PAH groups, hopanes, and steranes in SRM 1941b Organics in Marine Sediment.

Alpha Analytical, Inc.; Mansfield, MA
Analytical Resources, Inc.; Tukwila, WA
Axy's Analytical Services; Sydney, BC, Canada
Battelle Analytical & Environmental Chemistry Laboratory; Duxbury, MA
Center for Laboratory Sciences; Pasco, WA
Columbia Analytical Services; Jacksonville, FL
Columbia Analytical Services; Rochester, NY
Columbia Analytical Services, Kelso, WA
Florida Department of Environmental Protection; Tallahassee, FL
Florida International University; North Miami, FL
Michigan Department of Natural Resources and Environment; Lansing, MI
Mississippi State Chemical Laboratory; Mississippi State, MS
NIST; Charleston, SC
NIST; Gaithersburg, MD
NOAA/NCCOS/NOS; Charleston, SC
NOAA/NMFS/Alaska Fisheries Science Center; Juneau, AK
NY State Department of Health; Albany, NY
Pace Analytical Services, Inc. Minneapolis; Minneapolis, MN
RJ Lee Group, Inc; Monroeville, PA
TDI/B&B Laboratories, Inc.; College Station, TX
TestAmerica Laboratories; Mobile, AL
TestAmerica Laboratories; West Sacramento, CA
TestAmerica Laboratories; University Park, IL
TestAmerica Laboratories; Schriever, LA
TestAmerica Laboratories; Edison, NJ
TestAmerica Laboratories; Knoxville, TN
TestAmerica Laboratories; Pittsburgh, PA
TestAmerica Laboratories; South Burlington, VT
TestAmerica Laboratories; Tacoma, WA
US Army Engineer Research and Development Center; Vicksburg, MS
USGS Columbia Environmental Research Center; Columbia, MO
University of Iowa, State Hygienic Laboratory; Iowa City, IO
Washington State Public Health Laboratories; Shoreline, WA



Date of Issue:
31 March 2014

SAFETY DATA SHEET

1. SUBSTANCE AND SOURCE IDENTIFICATION

Product Identifier

SRM Number: 1941b
SRM Name: Organics in Marine Sediment
Other Means of Identification: Not applicable.

Recommended Use of This Material and Restrictions of Use

This Standard Reference Material (SRM) is marine sediment collected at the mouth of the Baltimore (MD) Harbor. SRM 1941b is intended for use in evaluating analytical methods for the determination of selected polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and chlorinated pesticides in marine sediment and similar matrices. All of the constituents for which certified, reference, and information values are provided in SRM 1941b were naturally present in the sediment before processing. A unit of SRM 1941b consists of a bottle containing 50 g of radiation-sterilized, freeze-dried sediment.

Company Information

National Institute of Standards and Technology
Standard Reference Materials Program
100 Bureau Drive, Stop 2300
Gaithersburg, Maryland 20899-2300

Telephone: 301-975-2200
FAX: 301-948-3730
E-mail: SRMMSDS@nist.gov
Website: <http://www.nist.gov/srm>

Emergency Telephone ChemTrec:
1-800-424-9300 (North America)
+1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Classification

Physical Hazard: Not classified.
Health Hazard: Not classified.

Label Elements

Symbol
No Symbol/Pictogram

Signal Word
Not applicable.

Hazard Statement(s): Not applicable.

Precautionary Statement(s): Not applicable.

Hazards Not Otherwise Classified: Not applicable.

Ingredients(s) with Unknown Acute Toxicity: Not applicable.

3. COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

Substance: Marine sediment

Other Designations: Sediment.

This material is naturally occurring marine sediment from an urban area. The material contains trace amounts of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyl (PCB) congeners, and should be handled with care. Components are listed in compliance with OSHA's 29 CFR 1910.1200; for the actual values see the Certificate of Analysis.

Hazardous Component(s)	CAS Number	EC Number (EINECS)	Nominal Mass Concentration
Marine Sediment	Not available	Not available	22L0105 CLPLIKE (Rev0) - Page 1050 of 1105 100

4. FIRST AID MEASURES

Description of First Aid Measures:

Inhalation: If adverse effects occur, remove to uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.

Skin Contact: Wash skin with soap and water.

Eye Contact: Flush eyes with water for at least 15 minutes. If necessary, seek medical attention.

Ingestion: If adverse effects occur after ingestion, seek medical treatment.

Most Important Symptoms/Effects, Acute and Delayed: May cause irritation.

Indication of any immediate medical attention and special treatment needed, if necessary: If any of the above symptoms are present, seek medical attention if needed.

5. FIRE FIGHTING MEASURES

Fire and Explosion Hazards: Negligible fire hazard. Avoid generating dust. See Section 9, "Physical and Chemical Properties" for flammability properties.

Extinguishing Media:

Suitable: Use extinguishing media appropriate for surrounding fire.

Unsuitable: None listed.

Specific Hazards Arising from the Chemical: None listed.

Special Protective Equipment and Precautions for Fire-Fighters: Avoid inhalation of material or combustion byproducts. Wear full protective clothing and NIOSH approved self-contained breathing apparatus (SCBA).

NFPA Ratings (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health = 1

Fire = 0

Reactivity = 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Any accumulated material on surfaces should be removed and properly disposed of. Use suitable protective equipment; see Section 8, "Exposure Controls and Personal Protection".

Methods and Materials for Containment and Clean up: Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

7. HANDLING AND STORAGE

Safe Handling Precautions: Minimize dust generation and accumulation on surfaces. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. See Section 8, "Exposure Controls and Personal Protection".

Storage: Store and handling in accordance with all current regulations and standards.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits: No occupational exposure limits have been established for marine sediment. This material is a particulate matter and adequate inhalation/respiratory protection should be used to minimize exposure. The exposure limits for Particulates Not Otherwise Regulated (PNOR) are applicable.

OSHA (PEL): 15 mg/m³ (TWA, total particulates not otherwise regulated)

OSHA (PEL) 5 mg/m³ (TWA, respirable particulates not otherwise regulated)

NIOSH (REL): 10 mg/m³ (TWA, total particulates not otherwise regulated, 8 h)

NIOSH (REL): 5 mg/m³ (TWA, respirable particulates not otherwise regulated)

Engineering Controls: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Personal Protection: In accordance with OSHA 29 CFR 1910.132, subpart I, wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.

Respiratory Protection: If workplace conditions warrant a respirator, a respiratory protection program that meets OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for applicable certified respirators.

Eye/Face Protection: Wear splash resistant safety goggles with a face shield. An eye wash station should be readily available near areas of use.

Skin and Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Chemical-resistant gloves should be worn at all times when handling chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

Descriptive Properties:

Appearance (physical state, color, etc.):	amorphous powder
Molecular Formula:	not applicable
Molar Mass (g/mol):	not applicable
Odor:	not available
Odor threshold:	not available
pH:	not available
Evaporation rate:	not applicable
Melting point/freezing point (°C):	not available
Specific Gravity (water=1)	not available
Vapor Pressure (mmHg):	not applicable
Vapor Density (air = 1):	not applicable
Viscosity (cP):	not applicable
Solubility(ies):	not available
Partition coefficient (n-octanol/water):	not available
Particle Size:	<150 µm

Thermal Stability Properties:

Autoignition Temperature (°C):	not available
Thermal Decomposition (°C):	not available
Initial boiling point and boiling range (°C):	not available
Explosive Limits, LEL (Volume %):	not available
Explosive Limits, UEL (Volume %):	not available
Flash Point (°C):	not available
Flammability (solid, gas):	not available

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressure.

Stability: X Stable Unstable

Possible Hazardous Reactions: None listed.

Conditions to Avoid: Avoid generating dust.

Incompatible Materials: None listed.

Fire/Explosion Information: See Section 5, "Fire Fighting Measures".

Hazardous Decomposition: Thermal decomposition will produce oxides of carbon.

Hazardous Polymerization: Will Occur X Will Not Occur

11. TOXICOLOGICAL INFORMATION

Route of Exposure: Inhalation Skin Ingestion

Symptoms Related to the Physical, Chemical and Toxicological Characteristics: Generated dust may cause irritation if inhaled.

Potential Health Effects (Acute, Chronic and Delayed):

Inhalation: Generated dust may cause irritation.

Skin Contact: May cause mechanical irritation.

Eye Contact: May cause mechanical irritation.

Ingestion: No data available.

Numerical Measures of Toxicity:

Acute Toxicity: Not classified; no data available.

Skin Corrosion/Irritation: Not classified; no data available.

Serious Eye damage/ Eye irritation: Not classified; no data available.

Respiratory Sensitization: Not classified; no data available.

Skin Sensitization: Not classified; no data available.

Germ Cell Mutagenicity: Not classified; no data available.

Carcinogenicity: Not classified.

Listed as a Carcinogen/Potential Carcinogen Yes No
Marine sediment is not listed by NTP, IARC or OSHA as a carcinogen.

Reproductive Toxicity: Not classified; no data available.

Specific Target Organ Toxicity, Single Exposure: Not classified; no data available.

Specific Target Organ Toxicity, Repeated Exposure: Not classified; no data available.

Aspiration Hazard: Not classified; no data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Data: No data available.

Persistence and Degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse effects: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose of waste in accordance with all applicable federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

U.S. DOT and IATA: Not regulated by DOT or IATA.

15. REGULATORY INFORMATION

U.S. Regulations:

CERCLA Sections 102a/103 (40 CFR 302.4): Not regulated.

SARA Title III Section 302 (40 CFR 355.30): Not regulated.

SARA Title III Section 304 (40 CFR 355.40): Not regulated.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21):

ACUTE HEALTH: No.
CHRONIC HEALTH: No.
FIRE: No.
REACTIVE: No.
PRESSURE: No.

State Regulations:

California Proposition 65: Not listed.

U.S. TSCA Inventory: Not listed.

TSCA 12(b), Export Notification: Not listed.

Canadian Regulations:

WHMIS Information: Not provided for this material.

16. OTHER INFORMATION

Issue Date: 31 March 2014

Sources: 29 CFR Occupational Health and Safety Office (OSHA) 1910.1000, *Limits for Air Contaminants*, Table Z-1; available at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9992 (accessed Mar 2014).

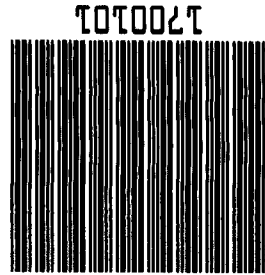
Center for Disease Control (CDC) NIOSH Pocket Guide to Chemical Hazards, *Particulates not otherwise regulated*; available at <http://www.cdc.gov/niosh/npg/npgd0480.html> (accessed Mar 2014).

Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists	NRC	Nuclear Regulatory Commission
ALI	Annual Limit on Intake	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
CFR	Code of Federal Regulations	RCRA	Resource Conservation and Recovery Act
DOT	Department of Transportation	REL	Recommended Exposure Limit
EC50	Effective Concentration, 50 %	RM	Reference Material
EINECS	European Inventory of Existing Commercial Chemical Substances	RQ	Reportable Quantity
EPCRA	Emergency Planning and Community Right-to-Know Act	RTECS	Registry of Toxic Effects of Chemical Substances
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act
IATA	International Air Transportation Agency	SCBA	Self-Contained Breathing Apparatus
IDLH	Immediately Dangerous to Life and Health	SRM	Standard Reference Material
LC50	Lethal Concentration, 50 %	STEL	Short Term Exposure Limit
LD50	Lethal Dose, 50 %	TLV	Threshold Limit Value
LEL	Lower Explosive Limit	TPQ	Threshold Planning Quantity
MSDS	Material Safety Data Sheet	TSCA	Toxic Substances Control Act
NFPA	National Fire Protection Association	TWA	Time Weighted Average
NIOSH	National Institute for Occupational Safety and Health	UEL	Upper Explosive Limit
NIST	National Institute of Standards and Technology	WHMIS	Workplace Hazardous Materials Information System

Disclaimer: Physical and chemical data contained in this SDS are provided only for use in assessing the hazardous nature of the material. The SDS was prepared carefully, using current references; however, NIST does not certify the data in the SDS. The certified values for this material are given in the NIST Certificate of Analysis.

Users of this SRM should ensure that the SDS in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail srmmsds@nist.gov; or via the Internet at <http://www.nist.gov/srm>.



Picked by
9/21/16 04:04 PM

Weight	
# of pieces	
Packed by	
Picked by	

Order	UOM	Ship	UOM	B/O	UOM	Item	Description
1	EACH	1	EACH	0	EACH	1941B	Organics in Marine Sediment
						Total qty:	1 / EACH
NOT FOR HUMAN CONSUMPTION, LABORATORY USE ONLY.							

Order discrepancies (other than back ordered items) must be reported to our Customer Relations Department at 301-975-6776 within 5 days of receipt of shipment or this order will be considered complete. NIST SRMs/RMs are generally not returnable - with the exception of defective goods or shipments made in error by NIST. To return a SRM/RM, please call for instructions and a Return SRM/RM Authorization Number before shipment. Returns WILL NOT BE ACCEPTED without prior authorization.

Ship via	UPS Ground	Description	
Salesmen	MCMIDM2	Instructions	
Contact	DAVE MITCHELL	Prof	
		Truck#	
		Blanket	
		Ship from	

DAVE MITCHELL
ANALYTICAL RESOURCES INC
4611 S 134TH PLACE
TUKWILA, WA 98168-3240
1 (206) 695-6205

DAVE MITCHELL
ANALYTICAL RESOURCES INC
4611 S 134TH PLACE
TUKWILA, WA 98168-3240
1 (206) 695-6205

Bill to: 68455
Ship to: 68456



MP Biomedicals, LLC

29525 Fountain Parkway
Solon, Ohio 44139

Telephone: 440/337-1200
Toll Free: 800/854-0530

Fax: 440/337-1180
web: www.mpbio.com

Certificate of Analysis

Product Description: Microcrystalline Cellulose Powder_
Catalog Number: 191499_
Lot: Q9483_

Formula: (C₆H₁₀O₅)_n

CAS #: 9004-34-6

Physical Description: White Powder

Formula Weight: N/A

Storage: 15 - 30°C

Test	Specification	Result
Identity Test	Passes	Passes
Purity	97.0 - 102.0%	97.0 - 102.0%
Moisture	<5.0%	3.4%
Particle Size/Mesh	Wt %	
+60 mesh	<8%	<1%
+200 mesh	>45%	55%
pH	5 - 7	6.73
Residue on Ignition	<0.05%	<0.05%
Water Soluble Substances	<12.0 mg/5 g	4.5 mg/5 g
Heavy Metals	<10 ppm	<10 ppm

H001822

Microcrystalline Cellulose Powder (TOC)

Expires 11/30/2022

Prepared By Casey English 2/22/2019

Identification A & B: Passes

Bulk Density: 0.29 g/ml

Bulk Density (graduated cylinder): 0.31 g/ml

Conductivity: 18 µS/cm

Starch: Negative

Ether Soluble Substances: 0.01%

Total Aerobic microbial Count: 100 cfu/g

Total Mold and Yeast Count: 20 cfu/g

Staphylococcus aureus: Absent/1 g


Pseudomonas aeruginosa: Absent/1 g

E. coli: Absent/1 g

Salmonella: Absent/10 g

Particle size:

- 450 mesh: 77%
- d10: 37 um
- d50: 139 um
- d90: 271 um
TUP: <9/600 cm²
Degree of brightness: >88%
Powder flow-angle of repose: <42°
Recommended Retest Date: 11/30/2022



07/26/2018 - John Huang, PhD
MP Biomedicals, LLC.
Quality Control Manager

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<http://www.mpbio.com>

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Technical Service: 1-800-279-5490 (440-337-1200) Customer Service: 1-800-854-0530 (440-337-1200)



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Certificate of Analysis

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Catalog Number: 191499_
Lot: Q9483_

Formula: (C₆H₁₀O₅)_n
CAS #: 9004-34-6
Physical Description: White Powder

Formula Weight: N/A
Storage: 15 - 30°C


Test	Specification	Result
Identity Test	Passes	Passes
Purity	97.0 - 102.0%	97.0 - 102.0%
Moisture	<5.0%	3.4%
Particle Size/Mesh	Wt %	
+60 mesh	<8%	<1%
+200 mesh	>45%	55%
pH	5 - 7	6.73
Residue on Ignition	<0.05%	<0.05%
Water Soluble Substances	<12.0 mg/5 g	4.5 mg/5 g
Heavy Metals	<10 ppm	<10 ppm

H001822

Microcrystalline Cellulose Powder (TOC)
Expires 11/30/2022
Prepared By Casey English 2/22/2019

Identification A & B: Passes
Bulk Density: 0.29 g/ml
Bulk Density (graduated cylinder): 0.31 g/ml
Conductivity: 18 µS/cm
Starch: Negative
Ether Soluble Substances: 0.01%
Total Aerobic microbial Count: 100 cfu/g
Total Mold and Yeast Count: 20 cfu/g
Staphylococcus aureus: Absent/1 g
Pseudomonas aeruginosa: Absent/1 g
E. coli: Absent/1 g
Salmonella: Absent/10 g
Particle size:

- 450 mesh: 77%
- d10: 37 um
- d50: 139 um
- d90: 271 um
TUP: <9/600 cm²
Degree of brightness: >88%
Powder flow-angle of repose: <42°
Recommended Retest Date: 11/30/2022



07/26/2018 - John Huang, PhD
MP Biomedicals, LLC.
Quality Control Manager

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Storage: 15 - 30°C

Test	Specification	Result
Identity Test	Passes	Passes
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Moisture	<5.0%	3.4%
Particle Size/Mesh	Wt %	
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+200 mesh	>45%	55%
pH	5 - 7	6.73
Residue on Ignition	<0.05%	<0.05%
Water Soluble Substances	<12.0 mg/5 g	4.5 mg/5 g
Heavy Metals	<10 ppm	<10 ppm

H001822

Microcrystalline Cellulose Powder (TOC)

Expires 11/30/2022

Prepared By Casey English 2/22/2019

Identification A & B: Passes

Bulk Density: 0.29 g/ml

Bulk Density (graduated cylinder): 0.31 g/ml

Conductivity: 18 µS/cm

Starch: Negative

Ether Soluble Substances: 0.01%

Total Aerobic microbial Count: 100 cfu/g

Total Mold and Yeast Count: 20 cfu/g

Staphylococcus aureus: Absent/1 g


Pseudomonas aeruginosa: Absent/1 g

E. coli: Absent/1 g

Salmonella: Absent/10 g

Particle size:

- 450 mesh: 77%
- d10: 37 um
- d50: 139 um
- d90: 271 um
TUP: <9/600 cm²
Degree of brightness: >88%
Powder flow-angle of repose: <42°
Recommended Retest Date: 11/30/2022



07/26/2018 - John Huang, PhD
MP Biomedicals, LLC.
Quality Control Manager

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Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC772

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-01 C SDG: 22L0105
 Sampled: 12/05/22 08:15 Prepared: 12/06/22 14:09 File ID:
 % Solids: 39.85 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12
 Batch: BKL0134 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	39.85	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
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LDW22-SC771

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-02 C SDG: 22L0105
 Sampled: 12/05/22 08:33 Prepared: 12/06/22 14:09 File ID:
 % Solids: 46.56 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12
 Batch: BKL0134 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	46.56	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC756

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-03 C SDG: 22L0105
 Sampled: 12/05/22 09:33 Prepared: 12/06/22 14:09 File ID:
 % Solids: 59.06 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12
 Batch: BKL0134 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	59.06	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC780

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-04 C SDG: 22L0105
 Sampled: 12/05/22 10:23 Prepared: 12/06/22 14:09 File ID:
 % Solids: 67.04 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12
 Batch: BKL0134 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	67.04	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-IT792

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-05 C SDG: 22L0105

Sampled: 12/05/22 11:00 Prepared: 12/06/22 14:09 File ID:

% Solids: 72.72 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	72.72	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775A

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-06 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 55.04 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	55.04	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775B

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-07 C SDG: 22L0105
 Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:
 % Solids: 53.87 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12
 Batch: BKL0134 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	53.87	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775C

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-08 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 53.72 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	53.72	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775D

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-09 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 54.24 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	54.24	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775E

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-10 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 58.76 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	58.76	1	0.04	0.04	



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INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775F

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-11 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 57.52 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	57.52	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775G

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-12 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 57.25 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	57.25	1	0.04	0.04	



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INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775H

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-13 C SDG: 22L0105
 Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:
 % Solids: 58.50 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12
 Batch: BKL0134 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	58.50	1	0.04	0.04	



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INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775I

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-14 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 57.14 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	57.14	1	0.04	0.04	



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INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775J

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-15 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 60.49 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	60.49	1	0.04	0.04	



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INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775K

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-16 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 61.36 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	61.36	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775L

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-17 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 56.64 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	56.64	1	0.04	0.04	



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INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC775M

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-18 C SDG: 22L0105

Sampled: 12/05/22 09:37 Prepared: 12/06/22 14:09 File ID:

% Solids: 60.46 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:12

Batch: BKL0134 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	60.46	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-IT796

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-19 C SDG: 22L0105
 Sampled: 12/05/22 11:25 Prepared: 12/06/22 14:10 File ID:
 % Solids: 61.17 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13
 Batch: BKL0135 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	61.17	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-IT798

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-20 C SDG: 22L0105

Sampled: 12/05/22 11:43 Prepared: 12/06/22 14:10 File ID:

% Solids: 67.18 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	67.18	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782B

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-21 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 52.57 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	52.57	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782C

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-22 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 55.98 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	55.98	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782D

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-23 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 55.30 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	55.30	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782E

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-24 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 53.03 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	53.03	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782F

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-25 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 61.06 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	61.06	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782G

Laboratory: Analytical Resources, LLC
 Client: Anchor QEA, LLC
 Project: AOC4 UR Phase 3
 Matrix: Sediment Laboratory ID: 22L0105-26 C SDG: 22L0105
 Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:
 % Solids: 61.70 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13
 Batch: BKL0135 Sequence:
 Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	61.70	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782H

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-27 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 62.61 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	62.61	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782I

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-28 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 66.26 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	66.26	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782J

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-29 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 62.13 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	62.13	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782K

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-30 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 61.44 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	61.44	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782L

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-31 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 67.77 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	67.77	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782M

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-32 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 70.81 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	70.81	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

LDW22-SC782N

Laboratory: Analytical Resources, LLC

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Sediment Laboratory ID: 22L0105-33 C SDG: 22L0105

Sampled: 12/05/22 11:22 Prepared: 12/06/22 14:10 File ID:

% Solids: 70.26 Preparation: No Prep Wet Chem Analyzed: 12/06/22 14:13

Batch: BKL0135 Sequence:

Instrument: BAL2 Calibration: 5 g Wet / 5 g

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	70.26	1	0.04	0.04	

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET for Solid samples													Batch: BKL0134								
Method: PSEP 1986, SM2540, EPA 160.1													Date: 12/6/2022 14:12								
(dry at 104 (12-24 hr) then combust at 550 (30 min))													Analyst: UW								
Instrumentation			Drying Ovens: 1			Analytical Balance: BAL2			Muffle Furnace: 2												
Batch drying time			TS (%) calculated as:			Oven Temps, °C			TVS (mg/kg dry wt) calculated as:												
record times as mm/dd/yy hh:mm			Final dry wt (g) = (Dry Wt - Tare Wt)			Start Temp 84			Final ash wt (g) = (min ash wt - tare wt)												
date/time in oven: 12/6/2022 15:00			TS = (Final Dry Wt)/(grams Sample-Tare)			Dry Cycle 1 89			TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000												
date/time out: 12/7/2022 8:35						Dry Cycle 2			if ash wt > dry wt, "Chk for Err"												
elapsed hrs = 17.6 OK						Dry Cycle 3			if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000												
Balance Calibration Check																					
Record weights to 4 places													CV-02			CV-02			CV-02		
Cal Weight ID: CV-02			CV-02			CV-02			CV-02			CV-02									
Date & Time: 12/6/22 14:00			12/6/22 14:20			12/7/22 9:20															
Cal Wt (g): 10.0000			9.9999			10.0000															
Cal OK!			Cal OK!			Cal OK!															
Sample ID	Dish #	Tare Wt. (g)	Dish & Sample (g)	Dry Wt 104C (grams)			dry Wt (g)	TS (%)	Notes	ASH WT 550C (grams)			Ash Wt (g)	TVS		Notes					
				1	2	3				1	2	3		(mg/kg)	(%)						
BKL0134-BLK1	1	0.8310	0.0000	0.8304			-0.0006	0.07%													
22L0104-01	2	0.8167	5.6444	3.1367			2.3200	48.06%													
BKL0134-DUP1	3	0.7796	5.0824	2.7858			2.0062	46.63%	RPD=3												
BKL0134-DUP2	4	0.7961	4.8796	2.6700			1.8739	45.89%	RSD=2.4												
22L0104-02	5	0.8133	6.6920	6.2537			5.4404	92.54%													
22L0105-01	6	0.8253	6.8159	3.2126			2.3873	39.85%													
22L0105-02	7	0.8088	7.4235	3.8887			3.0799	46.56%													
22L0105-03	8	0.8100	9.9675	6.2183			5.4083	59.06%													
22L0105-04	9	0.8267	9.6429	6.7372			5.9105	67.04%													
22L0105-05	10	0.8188	7.5336	5.7020			4.8832	72.72%													
22L0105-06	11	0.8221	7.6478	4.5793			3.7572	55.04%													
22L0105-07	12	0.8318	6.9452	4.1249			3.2931	53.87%													
22L0105-08	13	0.8149	6.8098	4.0355			3.2206	53.72%													
22L0105-09	14	0.7663	7.7060	4.5304			3.7641	54.24%													
22L0105-10	15	0.7992	8.1863	5.1401			4.3409	58.76%													
22L0105-11	16	0.8141	7.2814	4.5342			3.7201	57.52%													
22L0105-12	17	0.8127	7.3365	4.5475			3.7348	57.25%													
22L0105-13	18	0.8374	7.1220	4.5137			3.6763	58.50%													
22L0105-14	19	0.8411	7.1755	4.4608			3.6197	57.14%													
22L0105-15	20	0.8279	7.8547	5.0786			4.2507	60.49%													
22L0105-16	21	0.8319	7.7179	5.0574			4.2255	61.36%													
22L0105-17	22	0.7974	7.6302	4.6672			3.8698	56.64%													
22L0105-18	23	0.7786	7.2293	4.6785			3.8999	60.46%													



PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, LLC SDG: 22L0105
Client: Anchor QEA, LLC Project: AOC4 UR Phase 3
Batch: BKL0135 Batch Matrix: Solid Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW22-IT796	22L0105-19		12/06/22 14:10	
LDW22-IT798	22L0105-20		12/06/22 14:10	
LDW22-SC782B	22L0105-21		12/06/22 14:10	
LDW22-SC782C	22L0105-22		12/06/22 14:10	
LDW22-SC782D	22L0105-23		12/06/22 14:10	
LDW22-SC782E	22L0105-24		12/06/22 14:10	
LDW22-SC782F	22L0105-25		12/06/22 14:10	
LDW22-SC782G	22L0105-26		12/06/22 14:10	
LDW22-SC782H	22L0105-27		12/06/22 14:10	
LDW22-SC782I	22L0105-28		12/06/22 14:10	
LDW22-SC782J	22L0105-29		12/06/22 14:10	
LDW22-SC782K	22L0105-30		12/06/22 14:10	
LDW22-SC782L	22L0105-31		12/06/22 14:10	
LDW22-SC782M	22L0105-32		12/06/22 14:10	
LDW22-SC782N	22L0105-33		12/06/22 14:10	
Blank	BKL0135-BLK1		12/06/22 14:10	
LDW22-IT796	BKL0135-DUP1		12/06/22 14:10	
LDW22-IT796	BKL0135-DUP2		12/06/22 14:10	

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET for Solid samples													Batch:		BKL0135			
Method: PSEP 1986, SM2540, EPA 160.1													Date:		12/6/2022 14:13			
(dry at 104 (12-24 hr) then combust at 550 (30 min))													Analyst:		UW			
Instrumentation			Drying Ovens:			1			Analytical Balance:			BAL2						
			Muffle Furnace:			2												
Batch drying time				Oven Temps, °C				TVS (mg/kg dry wt) calculated as:										
record times as mm/dd/yy hh:mm				Start Temp				Final ash wt (g) = (min ash wt - tare wt)										
date/time in oven: 12/6/2022 15:00				Dry Cycle 1				TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000										
date/time out: 12/7/2022 8:35				Dry Cycle 2				if ash wt > dry wt, "Chk for Err"										
elapsed hrs = 17.6 OK				Dry Cycle 3				if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000										
Balance Calibration Check																		
Record weights to 4 places													CV-02		CV-02		CV-02	
Cal Weight ID:			CV-02		CV-02		CV-02		CV-02		CV-02		CV-02					
Date & Time:			12/6/22 14:00		12/6/22 14:40		12/7/22 9:30											
Cal Wt (g):			10.0000		9.9999		9.9999		10.0000									
			Cal OK!		Cal OK!		Cal OK!											
Sample ID	Dish #	Tare Wt. (g)	Dish & Sample (g)	Dry Wt 104C (grams)			dry Wt (g)	TS (%)	Notes	ASH WT 550C (grams)			Ash Wt (g)	TVS		Notes		
				1	2	3				1	2	3		(mg/kg)	(%)			
BKL0135-BLK1	24	0.7825	0.0000	0.7824			-0.0001	0.01%										
22L0105-19	25	0.7777	6.6244	4.3539			3.5762	61.17%										
BKL0135-DUP1	26	0.7979	8.0128	5.2275			4.4296	61.40%	RPD=0.4									
BKL0135-DUP2	27	0.7940	7.8376	5.6210			4.8270	68.53%	RSD=6.6									
22L0105-20	28	0.7937	7.9852	5.6247			4.8310	67.18%										
22L0105-21	29	0.8125	6.8366	3.9796			3.1671	52.57%										
22L0105-22	30	0.8537	6.0000	3.7346			2.8809	55.98%										
22L0105-23	31	0.7994	6.4839	3.9429			3.1435	55.30%										
22L0105-24	32	0.7993	7.5306	4.3691			3.5698	53.03%										
22L0105-25	33	0.7945	5.0182	3.3737			2.5792	61.06%										
22L0105-26	34	0.7995	7.1919	4.7435			3.9440	61.70%										
22L0105-27	35	0.8199	7.5906	5.0588			4.2389	62.61%										
22L0105-28	36	0.7821	6.2484	4.4042			3.6221	66.26%										
22L0105-29	37	0.8235	8.1997	5.4066			4.5831	62.13%										
22L0105-30	38	0.7788	5.9227	3.9392			3.1604	61.44%										
22L0105-31	39	0.7989	7.0203	5.0154			4.2165	67.77%										
22L0105-32	40	0.8149	7.0342	5.2186			4.4037	70.81%										
22L0105-33	41	0.8196	7.8712	5.7744			4.9548	70.26%										



Form I
METHOD BLANK DATA SHEET
SM 2540 G-97
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Batch: BKL0134

Laboratory ID: BKL0134-BLK1

Prepared: 12/06/22 14:09

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 12/06/22 14:12

Sequence:

Calibration:

Instrument: BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	0.07	1	0.04	0.04	



Form I
METHOD BLANK DATA SHEET
SM 2540 G-97
TotalAnalytes

Blank

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Batch: BKL0135

Laboratory ID: BKL0135-BLK1

Prepared: 12/06/22 14:10

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 12/06/22 14:13

Sequence:

Calibration:

Instrument: BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	ND	1	0.04	0.04	U



DUPLICATES
SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0135-DUP1

Batch: BKL0135

Lab Source ID: 22L0105-19

Preparation: No Prep Wet Chem

Initial/Final: 5 g / 5 g

Source Sample Name: LDW22-IT796

% Solids: 61.17

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Solids	20	61.17	61.40	0.374	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



DUPLICATES
SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Laboratory ID: BKL0135-DUP2

Batch: BKL0135

Lab Source ID: 22L0105-19

Preparation: No Prep Wet Chem

Initial/Final: 5 g / 5 g

Source Sample Name: LDW22-IT796

% Solids: 61.17

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Solids	20	61.17	68.53	11.4	

*: Values outside of QC limits

L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW22-SC772 22L0105-01	12/05/22 08:15	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC771 22L0105-02	12/05/22 08:33	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC756 22L0105-03	12/05/22 09:33	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC780 22L0105-04	12/05/22 10:23	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-IT792 22L0105-05	12/05/22 11:00	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775A 22L0105-06	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775B 22L0105-07	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775C 22L0105-08	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775D 22L0105-09	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775E 22L0105-10	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775F 22L0105-11	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775G 22L0105-12	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775H 22L0105-13	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775I 22L0105-14	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775J 22L0105-15	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775K 22L0105-16	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775L 22L0105-17	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-SC775M 22L0105-18	12/05/22 09:37	12/05/22 17:00	12/06/22 14:09	1	28	12/06/22 14:12	1	28	
LDW22-IT796 22L0105-19	12/05/22 11:25	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-IT798 22L0105-20	12/05/22 11:43	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782B 22L0105-21	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782C 22L0105-22	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	



HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW22-SC782D 22L0105-23	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782E 22L0105-24	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782F 22L0105-25	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782G 22L0105-26	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782H 22L0105-27	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782I 22L0105-28	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782J 22L0105-29	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782K 22L0105-30	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782L 22L0105-31	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782M 22L0105-32	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
LDW22-SC782N 22L0105-33	12/05/22 11:22	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
Duplicate BKL0135-DUP1	12/05/22 11:25	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	
Duplicate BKL0135-DUP2	12/05/22 11:25	12/05/22 17:00	12/06/22 14:10	1	28	12/06/22 14:13	1	28	

* Indicates hold time exceedance.



Analytical Resources, LLC
Analytical Chemists and Consultants

**METHOD DETECTION
AND REPORTING LIMITS**

SM 2540 G-97

Laboratory: Analytical Resources, LLC

SDG: 22L0105

Client: Anchor QEA, LLC

Project: AOC4 UR Phase 3

Matrix: Solid

Instrument:

Analyte	MDL	RL	Units
Total Solids	0.04	0.04	%