LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 28

2025

Bate Stamp Numbers
1340992-1342746

Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976–2025

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS
ADMINISTRATIVE RECORD - CHRONOLOGICAL INDEX

VOLUME 28
2025

A. Title: Rpt - Level IV DoD File No. 1 Draft Final Pre-Design Investigation Report Addendum, LHAAP-47, Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas

Author(s): HDR
Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality

Date: August 27, 2025
Bate Stamp: 1340992-1342690

B. Title: Minutes - Final Monthly Managers' Meeting (MMM), Longhorn Army Ammunition Plant (LHAAP), March 19, 2025
Author(s): PCI-Bhate JV
Recipient: All parties
Date: September 16, 2025
Bate Stamp: 1342691-1342716

C. Title: Minutes - Final Monthly Managers' Meeting (MMM), Longhorn Army Ammunition Plant (LHAAP), February 18, 2025
Author(s): PCI-Bhate JV
Recipient: All Parties
Date: September 16, 2025
Bate Stamp: 1342717-1342746

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Analytical Report

Lynn Lutz
HDR
369 Inverness Drive Suite 325
Englewood, CO 80112

July 06, 2023

SDG: 23F0136

RE: Longhorn AAP
10355063, LHAAP-47

Dear Lynn Lutz:

Enclosed are the analytical reports for the Sterling Labs Work Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me.

Sincerely,

Olga Karplyuk
Project Manager
847.967.6666
okarplyuk@emt.com
Approved for release: 6/21/2023 1:50:23PM

Approved by,

Nathan Fey
Laboratory Operations Manager

The contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety. Detection and Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

Department of Defense, Accredited by PJLA, Cert No. L20-164-R2

PJLA Testing DoD ELAP Accreditation No. 75537

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Sample Summary

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
53147WW29	23F0136-01	Groundwater	05/31/23 13:45	06/02/23 10:02
53147WW13	23F0136-02	Groundwater	05/31/23 12:15	06/02/23 10:02
53047WW08R	23F0136-03	Groundwater	05/30/23 15:00	06/02/23 10:02
531DUP4	23F0136-04	Groundwater	05/31/23 08:45	06/02/23 10:02
6147WW34	23F0136-05	Groundwater	06/01/23 10:41	06/02/23 10:02
61DUP6	23F0136-06	Groundwater	06/01/23 11:00	06/02/23 10:02
6147WW04	23F0136-07	Groundwater	06/01/23 12:30	06/02/23 10:02
6147WW33	23F0136-08	Groundwater	06/01/23 15:25	06/02/23 10:02
6147WW46	23F0136-09	Groundwater	06/01/23 14:56	06/02/23 10:02
53147WW38	23F0136-10	Groundwater	05/31/23 10:11	06/02/23 10:02
531DUP6	23F0136-11	Groundwater	05/31/23 11:10	06/02/23 10:02
531LHSMW50	23F0136-12	Groundwater	05/31/23 15:07	06/02/23 10:02
53147WW61	23F0136-13	Groundwater	05/31/23 10:35	06/02/23 10:02
6147WW31	23F0136-14	Groundwater	06/01/23 10:45	06/02/23 10:02
6147WW45	23F0136-15	Groundwater	06/01/23 12:26	06/02/23 10:02
61Trip2	23F0136-16	Groundwater	06/01/23 17:50	06/02/23 10:02

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Case Narrative

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Date: 07/06/2023

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Refer to Qualifiers and Definitions for quality and analytical clarifications or deviations.

Sample results only relate to the sample(s) received at the laboratory and analytes of interest tested.

Work Order: 23F0136
The samples were received on 06/02/23 10:02. The temperature of the cooler(s) at receipt was:

Cooler	Temp C°
Cooler 1	5.4

The samples were received in good condition and were properly preserved.

Samples 16AB (2 vials), 9BC (2 vials), 5B (1 vial), 6B (1 vial) contain larger than pea-sized (6 mm) air bubbles.

R1: This is a revised report. Case narrative has been added for 6010-Dissolved Sr.

Inorganics- Metals

6010-Dissolved Sr
S3F0140 sequence had multiple CCV results for dissolved strontium recover below the laboratory control limit. These samples were re-analyzed in sequence S3F0151 and reported.

SW 6020

B3F0158-MS1/MSD1 - Silver recovered outside of the lower control limit.

B3F0173-BLK1 - Sodium was detected at a level greater than 1/2 the LOQ but less than 1/10 the concentration of the associated samples.

B3F0173-PS1 - The post digestion spike for calcium was below the lower control limit. This was likely due to the large concentration in the parent sample.

B3F0176-DUP1 - The serial dilution for chromium RPD was above the 10% control limit. This is likely due to the small concentrations being evaluated.

S3F0237-CCB6 - Beryllium was detected at a level above 1/2 the LOQ. The samples associated with the portion of the sequence were either detected right at the MDL or were not detected.

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GCMS Volatiles

8260_DoD

23E0136-03 ; sequence S3F0209: In the closing CCV tetrachloroethene recovered outside control criteria for (50% - 150%) at 201% recovery. Reanalysis could not be scheduled before hold time expiration.

23E0136-05 through 09, 11 through 16; sequence S3F0236: In the CCV, hexachlorocyclopentadiene recovered outside control criteria (80% - 120%) at 124%. This would indicate a potential high bias in sample data. As the samples did not have a positive detection for the compound, the exceedance did not impact results. In the closing CCV tetrachloroethene recovered outside control criteria (50% - 150%) at 174%. Also in BS it recovered outside control criteria (74% - 129%) at 134%. In the BSD it recovered acceptably but exceeded RPD criteria (20%) at 27%. Also in the BSD acetone exceeded cirteria (20%) at 27%. Reanalysis could not be scheduled prior to hold time expiration. Also, samples 09, 16 had air bubbles larger than method criteria.

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Client Sample Results

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW29
Report Date: 07/06/2023
Collection Date: 05/31/2023 13:45
Matrix: Groundwater
Lab ID: 23F0136-01

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**1.16**	0.0500		mg/L	0.0100	0.0400	06/06/23 16:47	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**1.14**	0.0444		mg/L	0.00889	0.0356	06/08/23 15:35	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**0.0305**	0.125	J, D	mg/L	0.0250	0.0500	06/15/23 15:38	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:38	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 15:38	B3F0158	KJ1	5
Barium	**0.101**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 15:38	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:38	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:38	B3F0158	KJ1	5
Calcium	**63.7**	1.25	D	mg/L	0.500	1.00	06/15/23 16:42	B3F0158	KJ1	50
Chromium	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:38	B3F0158	KJ1	5
Cobalt	**0.00308**	0.0250	J, D	mg/L	0.00300	0.0100	06/15/23 15:38	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:38	B3F0158	KJ1	5
Iron	**0.226**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:38	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:38	B3F0158	KJ1	5
Magnesium	**30.1**	1.25	D	mg/L	0.200	0.500	06/15/23 16:42	B3F0158	KJ1	50
Manganese	**0.166**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:38	B3F0158	KJ1	5
Nickel	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:38	B3F0158	KJ1	5
Potassium	**6.90**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:38	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:38	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:38	B3F0158	KJ1	5
Sodium	**172**	1.25	D	mg/L	0.500	1.00	06/15/23 16:42	B3F0158	KJ1	50
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:38	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:38	B3F0158	KJ1	5
Vanadium	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:38	B3F0158	KJ1	5
Zinc	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:38	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 09:42	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:42	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 09:42	B3F0173	KJ1	5
Barium, Dissolved	**0.0953**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 09:42	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:42	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:42	B3F0173	KJ1	5
Calcium, Dissolved	**66.1**	1.25	D	mg/L	0.500	1.00	06/14/23 11:03	B3F0173	KJ1	50
Chromium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:42	B3F0173	KJ1	5
Cobalt, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:42	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:42	B3F0173	KJ1	5

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW29
Report Date: 07/06/2023
Collection Date: 05/31/2023 13:45
Matrix: Groundwater
Lab ID: 23F0136-01 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	< 0.100	0.125	U	mg/L	0.0500	0.100	06/14/23 09:42	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 09:42	B3F0173	KJ1	5
Magnesium, Dissolved	**30.7**	1.25	D	mg/L	0.200	0.500	06/14/23 11:03	B3F0173	KJ1	50
Manganese, Dissolved	**0.0111**	0.0250	J, D	mg/L	0.0025	0.0100	06/14/23 09:42	B3F0173	KJ1	5
Nickel, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:42	B3F0173	KJ1	5
Potassium, Dissolved	**6.86**	0.125	D	mg/L	0.0500	0.100	06/14/23 09:42	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:42	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:42	B3F0173	KJ1	5
Sodium, Dissolved	**166**	5.00	D, B	mg/L	2.00	4.00	06/14/23 12:06	B3F0173	KJ1	200
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:42	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 09:42	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 09:42	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 09:42	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:15	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/09/23 08:12	B3F0270	ZZZ	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 11:10	B3F0366	PO1	10
1,1,1-Trichloroethane	< 2.00	5.00	U	ug/L	0.877	2.00	06/13/23 11:10	B3F0366	PO1	10
1,1,2,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.621	2.00	06/13/23 11:10	B3F0366	PO1	10
1,1,2-Trichloroethane	< 2.00	5.00	U	ug/L	0.832	2.00	06/13/23 11:10	B3F0366	PO1	10
1,1-Dichloroethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 11:10	B3F0366	PO1	10
1,1-Dichloroethene	< 2.00	5.00	U	ug/L	0.954	2.00	06/13/23 11:10	B3F0366	PO1	10
1,1-Dichloropropene	< 2.00	5.00	U	ug/L	0.699	2.00	06/13/23 11:10	B3F0366	PO1	10
1,2,3-Trichlorobenzene	< 2.00	5.00	U	ug/L	1.02	2.00	06/13/23 11:10	B3F0366	PO1	10
1,2,3-Trichloropropane	< 2.00	5.00	U	ug/L	0.913	2.00	06/13/23 11:10	B3F0366	PO1	10
1,2,4-Trichlorobenzene	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 11:10	B3F0366	PO1	10
1,2,4-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.661	2.00	06/13/23 11:10	B3F0366	PO1	10
1,2-Dibromo-3-chloropropane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 11:10	B3F0366	PO1	10
1,2-Dibromoethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 11:10	B3F0366	PO1	10
1,2-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 11:10	B3F0366	PO1	10
1,2-Dichloroethane	< 3.00	6.00	U	ug/L	1.06	3.00	06/13/23 11:10	B3F0366	PO1	10
1,2-Dichloropropane	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 11:10	B3F0366	PO1	10
1,3,5-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.500	2.00	06/13/23 11:10	B3F0366	PO1	10
1,3-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.724	2.00	06/13/23 11:10	B3F0366	PO1	10
1,3-Dichloropropane	< 2.00	5.00	U	ug/L	0.680	2.00	06/13/23 11:10	B3F0366	PO1	10
1,4-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 11:10	B3F0366	PO1	10

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW29
Report Date: 07/06/2023
Collection Date: 05/31/2023 13:45
Matrix: Groundwater
Lab ID: 23F0136-01 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 11:10	B3F0366	PO1	10
2-Butanone	< 7.00	17.5	U	ug/L	3.30	7.00	06/13/23 11:10	B3F0366	PO1	10
2-Chlorotoluene	< 2.00	5.00	U	ug/L	0.733	2.00	06/13/23 11:10	B3F0366	PO1	10
2-Hexanone	< 7.00	17.5	U	ug/L	0.716	7.00	06/13/23 11:10	B3F0366	PO1	10
4-Chlorotoluene	< 2.00	5.00	U	ug/L	0.921	2.00	06/13/23 11:10	B3F0366	PO1	10
4-Isopropyltoluene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 11:10	B3F0366	PO1	10
MIBK	< 7.00	17.5	U	ug/L	1.35	7.00	06/13/23 11:10	B3F0366	PO1	10
Acetone	< 20.0	40.0	U	ug/L	5.18	20.0	06/13/23 11:10	B3F0366	PO1	10
Benzene	< 2.00	5.00	U	ug/L	0.507	2.00	06/13/23 11:10	B3F0366	PO1	10
Bromobenzene	< 2.00	5.00	U	ug/L	0.848	2.00	06/13/23 11:10	B3F0366	PO1	10
Bromochloromethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 11:10	B3F0366	PO1	10
Bromodichloromethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 11:10	B3F0366	PO1	10
Bromoform	< 2.00	5.00	U	ug/L	1.03	2.00	06/13/23 11:10	B3F0366	PO1	10
Bromomethane	< 5.00	10.0	U	ug/L	1.60	5.00	06/13/23 11:10	B3F0366	PO1	10
Carbon disulfide	< 5.00	10.0	U	ug/L	1.40	5.00	06/13/23 11:10	B3F0366	PO1	10
Carbon tetrachloride	< 2.00	5.00	U	ug/L	0.844	2.00	06/13/23 11:10	B3F0366	PO1	10
Chlorobenzene	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 11:10	B3F0366	PO1	10
Chloroethane	< 2.00	5.00	U	ug/L	1.55	2.00	06/13/23 11:10	B3F0366	PO1	10
Chloroform	< 3.00	6.00	U	ug/L	1.01	3.00	06/13/23 11:10	B3F0366	PO1	10
Chloromethane	< 5.00	10.0	U	ug/L	1.92	5.00	06/13/23 11:10	B3F0366	PO1	10
cis-1,2-Dichloroethene	< 3.00	6.00	U	ug/L	1.03	3.00	06/13/23 11:10	B3F0366	PO1	10
cis-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 11:10	B3F0366	PO1	10
Dibromochloromethane	< 2.00	5.00	U	ug/L	0.759	2.00	06/13/23 11:10	B3F0366	PO1	10
Dibromomethane	< 2.00	5.00	U	ug/L	0.817	2.00	06/13/23 11:10	B3F0366	PO1	10
Dichlorodifluoromethane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 11:10	B3F0366	PO1	10
Ethylbenzene	< 1.00	2.00	U	ug/L	0.300	1.00	06/13/23 11:10	B3F0366	PO1	10
Hexachlorobutadiene	< 2.00	5.00	U	ug/L	1.00	2.00	06/13/23 11:10	B3F0366	PO1	10
Isopropylbenzene	< 2.00	5.00	U	ug/L	0.549	2.00	06/13/23 11:10	B3F0366	PO1	10
m,p-Xylene	< 4.00	10.0	U	ug/L	0.889	4.00	06/13/23 11:10	B3F0366	PO1	10
Methyl tert-butyl ether	< 2.00	5.00	U	ug/L	0.530	2.00	06/13/23 11:10	B3F0366	PO1	10
Methylene chloride	< 5.00	10.0	U	ug/L	2.24	5.00	06/13/23 11:10	B3F0366	PO1	10
n-Butylbenzene	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 11:10	B3F0366	PO1	10
n-Propylbenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 11:10	B3F0366	PO1	10
Naphthalene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 11:10	B3F0366	PO1	10
o-Xylene	< 2.00	5.00	U	ug/L	0.416	2.00	06/13/23 11:10	B3F0366	PO1	10
sec-Butylbenzene	< 2.00	5.00	U	ug/L	0.598	2.00	06/13/23 11:10	B3F0366	PO1	10
Styrene	< 1.00	2.00	U	ug/L	0.453	1.00	06/13/23 11:10	B3F0366	PO1	10
tert-Butylbenzene	< 2.00	5.00	U	ug/L	0.453	2.00	06/13/23 11:10	B3F0366	PO1	10
Tetrachloroethene	< 5.00	10.0	U	ug/L	1.78	5.00	06/13/23 11:10	B3F0366	PO1	10
Toluene	< 2.00	5.00	U	ug/L	0.572	2.00	06/13/23 11:10	B3F0366	PO1	10
trans-1,2-Dichloroethene	< 2.00	5.00	U	ug/L	0.855	2.00	06/13/23 11:10	B3F0366	PO1	10
trans-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 11:10	B3F0366	PO1	10
Trichloroethene	**1.60**	5.00	J, D	ug/L	0.781	2.00	06/13/23 11:10	B3F0366	PO1	10
Trichlorofluoromethane	< 2.00	5.00	U	ug/L	0.505	2.00	06/13/23 11:10	B3F0366	PO1	10
Vinyl chloride	< 5.00	10.0	U	ug/L	1.29	5.00	06/13/23 11:10	B3F0366	PO1	10

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW29
Report Date: 07/06/2023
Collection Date: 05/31/2023 13:45
Matrix: Groundwater
Lab ID: 23F0136-01 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 100%*	*Limits: 80-119*		*06/13/23 11:10*	*B3F0366*	*PO1*	*10*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 91%*	*Limits: 81-118*		*06/13/23 11:10*	*B3F0366*	*PO1*	*10*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 11:10*	*B3F0366*	*PO1*	*10*
Surrogate: Toluene-d8				*Recovery: 97%*	*Limits: 89-112*		*06/13/23 11:10*	*B3F0366*	*PO1*	*10*
Surrogate: 4-Bromofluorobenzene				*Recovery: 98%*	*Limits: 85-114*		*06/13/23 11:10*	*B3F0366*	*PO1*	*10*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 103%*	*Limits: 87-138*		*06/13/23 11:10*	*B3F0366*	*PO1*	*10*

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW13
Report Date: 07/06/2023
Collection Date: 05/31/2023 12:15
Matrix: Groundwater
Lab ID: 23F0136-02

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**0.0688**	0.0500		mg/L	0.0100	0.0400	06/06/23 16:51	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**0.0312**	0.0444	J	mg/L	0.00889	0.0356	06/08/23 15:48	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**11.4**	1.25	D	mg/L	0.250	0.500	06/15/23 16:43	B3F0158	KJ1	50
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:40	B3F0158	KJ1	5
Arsenic	**0.00328**	0.0250	J, D	mg/L	0.00200	0.00500	06/15/23 15:40	B3F0158	KJ1	5
Barium	**0.151**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 15:40	B3F0158	KJ1	5
Beryllium	**0.00120**	0.00250	J, D	mg/L	0.000500	0.00200	06/15/23 15:40	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:40	B3F0158	KJ1	5
Calcium	**4.49**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:40	B3F0158	KJ1	5
Chromium	**0.0444**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:40	B3F0158	KJ1	5
Cobalt	**0.0149**	0.0250	J, D	mg/L	0.00300	0.0100	06/15/23 15:40	B3F0158	KJ1	5
Copper	**0.0132**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:40	B3F0158	KJ1	5
Iron	**12.2**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:40	B3F0158	KJ1	5
Lead	**0.00599**	0.0250	J, D	mg/L	0.00150	0.00500	06/15/23 15:40	B3F0158	KJ1	5
Magnesium	**2.72**	0.125	D	mg/L	0.0200	0.0500	06/15/23 15:40	B3F0158	KJ1	5
Manganese	**0.147**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:40	B3F0158	KJ1	5
Nickel	**0.0254**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:40	B3F0158	KJ1	5
Potassium	**1.17**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:40	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:40	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:40	B3F0158	KJ1	5
Sodium	**36.2**	1.25	D	mg/L	0.500	1.00	06/15/23 16:43	B3F0158	KJ1	50
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:40	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:40	B3F0158	KJ1	5
Vanadium	**0.0196**	0.0250	J, D	mg/L	0.00150	0.00500	06/15/23 15:40	B3F0158	KJ1	5
Zinc	**0.0530**	0.0250	D	mg/L	0.0100	0.0200	06/15/23 15:40	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	**2.73**	0.125	D	mg/L	0.0250	0.0500	06/14/23 09:44	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:44	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 09:44	B3F0173	KJ1	5
Barium, Dissolved	**0.0669**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 09:44	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:44	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:44	B3F0173	KJ1	5
Calcium, Dissolved	**3.18**	0.125	D	mg/L	0.0500	0.100	06/14/23 09:44	B3F0173	KJ1	5
Chromium, Dissolved	**0.0240**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 09:44	B3F0173	KJ1	5
Cobalt, Dissolved	**0.00514**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 09:44	B3F0173	KJ1	5
Copper, Dissolved	**0.00736**	0.0250	J, D	mg/L	0.00300	0.0100	06/14/23 09:44	B3F0173	KJ1	5

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW13
Report Date: 07/06/2023
Collection Date: 05/31/2023 12:15
Matrix: Groundwater
Lab ID: 23F0136-02 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	**2.11**	0.125	D	mg/L	0.0500	0.100	06/14/23 09:44	B3F0173	KJ1	5
Lead, Dissolved	**0.00229**	0.0250	J, D	mg/L	0.00150	0.00500	06/14/23 09:44	B3F0173	KJ1	5
Magnesium, Dissolved	**1.30**	0.125	D	mg/L	0.0200	0.0500	06/14/23 09:44	B3F0173	KJ1	5
Manganese, Dissolved	**0.0669**	0.0250	D	mg/L	0.0025	0.0100	06/14/23 09:44	B3F0173	KJ1	5
Nickel, Dissolved	**0.00936**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 09:44	B3F0173	KJ1	5
Potassium, Dissolved	**0.419**	0.125	D	mg/L	0.0500	0.100	06/14/23 09:44	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:44	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:44	B3F0173	KJ1	5
Sodium, Dissolved	**188**	5.00	D, B	mg/L	2.00	4.00	06/14/23 12:08	B3F0173	KJ1	200
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:44	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 09:44	B3F0173	KJ1	5
Vanadium, Dissolved	**0.00604**	0.0250	J, D	mg/L	0.00150	0.00500	06/14/23 09:44	B3F0173	KJ1	5
Zinc, Dissolved	**0.0169**	0.0250	J, D	mg/L	0.0100	0.0200	06/14/23 09:44	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:24	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/09/23 08:14	B3F0270	ZZZ	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 11:35	B3F0366	PO1	10
1,1,1-Trichloroethane	< 2.00	5.00	U	ug/L	0.877	2.00	06/13/23 11:35	B3F0366	PO1	10
1,1,2,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.621	2.00	06/13/23 11:35	B3F0366	PO1	10
1,1,2-Trichloroethane	< 2.00	5.00	U	ug/L	0.832	2.00	06/13/23 11:35	B3F0366	PO1	10
1,1-Dichloroethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 11:35	B3F0366	PO1	10
1,1-Dichloroethene	< 2.00	5.00	U	ug/L	0.954	2.00	06/13/23 11:35	B3F0366	PO1	10
1,1-Dichloropropene	< 2.00	5.00	U	ug/L	0.699	2.00	06/13/23 11:35	B3F0366	PO1	10
1,2,3-Trichlorobenzene	< 2.00	5.00	U	ug/L	1.02	2.00	06/13/23 11:35	B3F0366	PO1	10
1,2,3-Trichloropropane	< 2.00	5.00	U	ug/L	0.913	2.00	06/13/23 11:35	B3F0366	PO1	10
1,2,4-Trichlorobenzene	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 11:35	B3F0366	PO1	10
1,2,4-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.661	2.00	06/13/23 11:35	B3F0366	PO1	10
1,2-Dibromo-3-chloropropane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 11:35	B3F0366	PO1	10
1,2-Dibromoethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 11:35	B3F0366	PO1	10
1,2-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 11:35	B3F0366	PO1	10
1,2-Dichloroethane	< 3.00	6.00	U	ug/L	1.06	3.00	06/13/23 11:35	B3F0366	PO1	10
1,2-Dichloropropane	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 11:35	B3F0366	PO1	10
1,3,5-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.500	2.00	06/13/23 11:35	B3F0366	PO1	10
1,3-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.724	2.00	06/13/23 11:35	B3F0366	PO1	10
1,3-Dichloropropane	< 2.00	5.00	U	ug/L	0.680	2.00	06/13/23 11:35	B3F0366	PO1	10
1,4-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 11:35	B3F0366	PO1	10

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW13
Report Date: 07/06/2023
Collection Date: 05/31/2023 12:15
Matrix: Groundwater
Lab ID: 23F0136-02 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 11:35	B3F0366	PO1	10
2-Butanone	< 7.00	17.5	U	ug/L	3.30	7.00	06/13/23 11:35	B3F0366	PO1	10
2-Chlorotoluene	< 2.00	5.00	U	ug/L	0.733	2.00	06/13/23 11:35	B3F0366	PO1	10
2-Hexanone	< 7.00	17.5	U	ug/L	0.716	7.00	06/13/23 11:35	B3F0366	PO1	10
4-Chlorotoluene	< 2.00	5.00	U	ug/L	0.921	2.00	06/13/23 11:35	B3F0366	PO1	10
4-Isopropyltoluene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 11:35	B3F0366	PO1	10
MIBK	< 7.00	17.5	U	ug/L	1.35	7.00	06/13/23 11:35	B3F0366	PO1	10
Acetone	< 20.0	40.0	U	ug/L	5.18	20.0	06/13/23 11:35	B3F0366	PO1	10
Benzene	< 2.00	5.00	U	ug/L	0.507	2.00	06/13/23 11:35	B3F0366	PO1	10
Bromobenzene	< 2.00	5.00	U	ug/L	0.848	2.00	06/13/23 11:35	B3F0366	PO1	10
Bromochloromethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 11:35	B3F0366	PO1	10
Bromodichloromethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 11:35	B3F0366	PO1	10
Bromoform	< 2.00	5.00	U	ug/L	1.03	2.00	06/13/23 11:35	B3F0366	PO1	10
Bromomethane	< 5.00	10.0	U	ug/L	1.60	5.00	06/13/23 11:35	B3F0366	PO1	10
Carbon disulfide	< 5.00	10.0	U	ug/L	1.40	5.00	06/13/23 11:35	B3F0366	PO1	10
Carbon tetrachloride	< 2.00	5.00	U	ug/L	0.844	2.00	06/13/23 11:35	B3F0366	PO1	10
Chlorobenzene	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 11:35	B3F0366	PO1	10
Chloroethane	< 2.00	5.00	U	ug/L	1.55	2.00	06/13/23 11:35	B3F0366	PO1	10
Chloroform	< 3.00	6.00	U	ug/L	1.01	3.00	06/13/23 11:35	B3F0366	PO1	10
Chloromethane	< 5.00	10.0	U	ug/L	1.92	5.00	06/13/23 11:35	B3F0366	PO1	10
cis-1,2-Dichloroethene	**156**	6.00	D	ug/L	1.03	3.00	06/13/23 11:35	B3F0366	PO1	10
cis-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 11:35	B3F0366	PO1	10
Dibromochloromethane	< 2.00	5.00	U	ug/L	0.759	2.00	06/13/23 11:35	B3F0366	PO1	10
Dibromomethane	< 2.00	5.00	U	ug/L	0.817	2.00	06/13/23 11:35	B3F0366	PO1	10
Dichlorodifluoromethane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 11:35	B3F0366	PO1	10
Ethylbenzene	< 1.00	2.00	U	ug/L	0.300	1.00	06/13/23 11:35	B3F0366	PO1	10
Hexachlorobutadiene	< 2.00	5.00	U	ug/L	1.00	2.00	06/13/23 11:35	B3F0366	PO1	10
Isopropylbenzene	< 2.00	5.00	U	ug/L	0.549	2.00	06/13/23 11:35	B3F0366	PO1	10
m,p-Xylene	< 4.00	10.0	U	ug/L	0.889	4.00	06/13/23 11:35	B3F0366	PO1	10
Methyl tert-butyl ether	< 2.00	5.00	U	ug/L	0.530	2.00	06/13/23 11:35	B3F0366	PO1	10
Methylene chloride	< 5.00	10.0	U	ug/L	2.24	5.00	06/13/23 11:35	B3F0366	PO1	10
n-Butylbenzene	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 11:35	B3F0366	PO1	10
n-Propylbenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 11:35	B3F0366	PO1	10
Naphthalene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 11:35	B3F0366	PO1	10
o-Xylene	< 2.00	5.00	U	ug/L	0.416	2.00	06/13/23 11:35	B3F0366	PO1	10
sec-Butylbenzene	< 2.00	5.00	U	ug/L	0.598	2.00	06/13/23 11:35	B3F0366	PO1	10
Styrene	< 1.00	2.00	U	ug/L	0.453	1.00	06/13/23 11:35	B3F0366	PO1	10
tert-Butylbenzene	< 2.00	5.00	U	ug/L	0.453	2.00	06/13/23 11:35	B3F0366	PO1	10
Tetrachloroethene	< 5.00	10.0	U	ug/L	1.78	5.00	06/13/23 11:35	B3F0366	PO1	10
Toluene	< 2.00	5.00	U	ug/L	0.572	2.00	06/13/23 11:35	B3F0366	PO1	10
trans-1,2-Dichloroethene	**1.60**	5.00	J, D	ug/L	0.855	2.00	06/13/23 11:35	B3F0366	PO1	10
trans-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 11:35	B3F0366	PO1	10
Trichloroethene	**189**	5.00	D	ug/L	0.781	2.00	06/13/23 11:35	B3F0366	PO1	10
Trichlorofluoromethane	< 2.00	5.00	U	ug/L	0.505	2.00	06/13/23 11:35	B3F0366	PO1	10
Vinyl chloride	< 5.00	10.0	U	ug/L	1.29	5.00	06/13/23 11:35	B3F0366	PO1	10

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW13
Report Date: 07/06/2023
Collection Date: 05/31/2023 12:15
Matrix: Groundwater
Lab ID: 23F0136-02 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 101%*	*Limits: 80-119*		*06/13/23 11:35*	*B3F0366*	*PO1*	*10*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 94%*	*Limits: 81-118*		*06/13/23 11:35*	*B3F0366*	*PO1*	*10*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 11:35*	*B3F0366*	*PO1*	*10*
Surrogate: Toluene-d8				*Recovery: 96%*	*Limits: 89-112*		*06/13/23 11:35*	*B3F0366*	*PO1*	*10*
Surrogate: 4-Bromofluorobenzene				*Recovery: 96%*	*Limits: 85-114*		*06/13/23 11:35*	*B3F0366*	*PO1*	*10*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 102%*	*Limits: 87-138*		*06/13/23 11:35*	*B3F0366*	*PO1*	*10*

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53047WW08R
Report Date: 07/06/2023
Collection Date: 05/30/2023 15:00
Matrix: Groundwater
Lab ID: 23F0136-03

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**3.60**	0.0500		mg/L	0.0100	0.0400	06/06/23 16:55	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**3.64**	0.0444		mg/L	0.00889	0.0356	06/08/23 15:52	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/15/23 15:42	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:42	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 15:42	B3F0158	KJ1	5
Barium	**0.0285**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 15:42	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:42	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:42	B3F0158	KJ1	5
Calcium	**142**	1.25	D	mg/L	0.500	1.00	06/15/23 16:45	B3F0158	KJ1	50
Chromium	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:42	B3F0158	KJ1	5
Cobalt	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:42	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:42	B3F0158	KJ1	5
Iron	< 0.100	0.125	U	mg/L	0.0500	0.100	06/15/23 15:42	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:42	B3F0158	KJ1	5
Magnesium	**86.6**	1.25	D	mg/L	0.200	0.500	06/15/23 16:45	B3F0158	KJ1	50
Manganese	**0.0168**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:42	B3F0158	KJ1	5
Nickel	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:42	B3F0158	KJ1	5
Potassium	**1.31**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:42	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:42	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:42	B3F0158	KJ1	5
Sodium	**661**	5.00	D	mg/L	2.00	4.00	06/15/23 17:17	B3F0158	KJ1	200
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:42	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:42	B3F0158	KJ1	5
Vanadium	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:42	B3F0158	KJ1	5
Zinc	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:42	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 09:46	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:46	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 09:46	B3F0173	KJ1	5
Barium, Dissolved	**0.0294**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 09:46	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:46	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:46	B3F0173	KJ1	5
Calcium, Dissolved	**151**	1.25	D	mg/L	0.500	1.00	06/14/23 11:06	B3F0173	KJ1	50
Chromium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:46	B3F0173	KJ1	5
Cobalt, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:46	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:46	B3F0173	KJ1	5

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53047WW08R
Report Date: 07/06/2023
Collection Date: 05/30/2023 15:00
Matrix: Groundwater
Lab ID: 23F0136-03 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	< 0.100	0.125	U	mg/L	0.0500	0.100	06/14/23 09:46	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 09:46	B3F0173	KJ1	5
Magnesium, Dissolved	**90.4**	1.25	D	mg/L	0.200	0.500	06/14/23 11:06	B3F0173	KJ1	50
Manganese, Dissolved	**0.0142**	0.0250	J, D	mg/L	0.0025	0.0100	06/14/23 09:46	B3F0173	KJ1	5
Nickel, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:46	B3F0173	KJ1	5
Potassium, Dissolved	**1.40**	0.125	D	mg/L	0.0500	0.100	06/14/23 09:46	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:46	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:46	B3F0173	KJ1	5
Sodium, Dissolved	**690**	25.0	D, B	mg/L	10.0	20.0	06/14/23 12:10	B3F0173	KJ1	1000
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:46	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 09:46	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 09:46	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 09:46	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:26	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/09/23 08:16	B3F0270	ZZZ	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.130	0.400	06/12/23 16:55	B3F0366	PO1	2
1,1,1-Trichloroethane	< 0.400	1.00	U	ug/L	0.175	0.400	06/12/23 16:55	B3F0366	PO1	2
1,1,2,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.124	0.400	06/12/23 16:55	B3F0366	PO1	2
1,1,2-Trichloroethane	< 0.400	1.00	U	ug/L	0.166	0.400	06/12/23 16:55	B3F0366	PO1	2
1,1-Dichloroethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/12/23 16:55	B3F0366	PO1	2
1,1-Dichloroethene	< 0.400	1.00	U	ug/L	0.191	0.400	06/12/23 16:55	B3F0366	PO1	2
1,1-Dichloropropene	< 0.400	1.00	U	ug/L	0.140	0.400	06/12/23 16:55	B3F0366	PO1	2
1,2,3-Trichlorobenzene	< 0.400	1.00	U	ug/L	0.204	0.400	06/12/23 16:55	B3F0366	PO1	2
1,2,3-Trichloropropane	< 0.400	1.00	U	ug/L	0.183	0.400	06/12/23 16:55	B3F0366	PO1	2
1,2,4-Trichlorobenzene	< 0.600	1.20	U	ug/L	0.205	0.600	06/12/23 16:55	B3F0366	PO1	2
1,2,4-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.132	0.400	06/12/23 16:55	B3F0366	PO1	2
1,2-Dibromo-3-chloropropane	< 1.00	2.00	U	ug/L	0.260	1.00	06/12/23 16:55	B3F0366	PO1	2
1,2-Dibromoethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/12/23 16:55	B3F0366	PO1	2
1,2-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/12/23 16:55	B3F0366	PO1	2
1,2-Dichloroethane	< 0.600	1.20	U	ug/L	0.212	0.600	06/12/23 16:55	B3F0366	PO1	2
1,2-Dichloropropane	< 0.600	1.20	U	ug/L	0.205	0.600	06/12/23 16:55	B3F0366	PO1	2
1,3,5-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.100	0.400	06/12/23 16:55	B3F0366	PO1	2
1,3-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.145	0.400	06/12/23 16:55	B3F0366	PO1	2
1,3-Dichloropropane	< 0.400	1.00	U	ug/L	0.136	0.400	06/12/23 16:55	B3F0366	PO1	2
1,4-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.184	0.400	06/12/23 16:55	B3F0366	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53047WW08R
Report Date: 07/06/2023
Collection Date: 05/30/2023 15:00
Matrix: Groundwater
Lab ID: 23F0136-03 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 0.400	1.00	U	ug/L	0.184	0.400	06/12/23 16:55	B3F0366	PO1	2
2-Butanone	< 1.40	3.50	U	ug/L	0.660	1.40	06/12/23 16:55	B3F0366	PO1	2
2-Chlorotoluene	< 0.400	1.00	U	ug/L	0.147	0.400	06/12/23 16:55	B3F0366	PO1	2
2-Hexanone	< 1.40	3.50	U	ug/L	0.143	1.40	06/12/23 16:55	B3F0366	PO1	2
4-Chlorotoluene	< 0.400	1.00	U	ug/L	0.184	0.400	06/12/23 16:55	B3F0366	PO1	2
4-Isopropyltoluene	< 0.400	1.00	U	ug/L	0.140	0.400	06/12/23 16:55	B3F0366	PO1	2
MIBK	< 1.40	3.50	U	ug/L	0.270	1.40	06/12/23 16:55	B3F0366	PO1	2
Acetone	< 4.00	8.00	U	ug/L	1.04	4.00	06/12/23 16:55	B3F0366	PO1	2
Benzene	< 0.400	1.00	U	ug/L	0.101	0.400	06/12/23 16:55	B3F0366	PO1	2
Bromobenzene	< 0.400	1.00	U	ug/L	0.170	0.400	06/12/23 16:55	B3F0366	PO1	2
Bromochloromethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/12/23 16:55	B3F0366	PO1	2
Bromodichloromethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/12/23 16:55	B3F0366	PO1	2
Bromoform	< 0.400	1.00	U	ug/L	0.206	0.400	06/12/23 16:55	B3F0366	PO1	2
Bromomethane	< 1.00	2.00	U	ug/L	0.320	1.00	06/12/23 16:55	B3F0366	PO1	2
Carbon disulfide	< 1.00	2.00	U	ug/L	0.280	1.00	06/12/23 16:55	B3F0366	PO1	2
Carbon tetrachloride	< 0.400	1.00	U	ug/L	0.169	0.400	06/12/23 16:55	B3F0366	PO1	2
Chlorobenzene	< 0.400	1.00	U	ug/L	0.130	0.400	06/12/23 16:55	B3F0366	PO1	2
Chloroethane	< 0.400	1.00	U	ug/L	0.311	0.400	06/12/23 16:55	B3F0366	PO1	2
Chloroform	< 0.600	1.20	U	ug/L	0.203	0.600	06/12/23 16:55	B3F0366	PO1	2
Chloromethane	< 1.00	2.00	U	ug/L	0.384	1.00	06/12/23 16:55	B3F0366	PO1	2
cis-1,2-Dichloroethene	< 0.600	1.20	U	ug/L	0.205	0.600	06/12/23 16:55	B3F0366	PO1	2
cis-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/12/23 16:55	B3F0366	PO1	2
Dibromochloromethane	< 0.400	1.00	U	ug/L	0.152	0.400	06/12/23 16:55	B3F0366	PO1	2
Dibromomethane	< 0.400	1.00	U	ug/L	0.163	0.400	06/12/23 16:55	B3F0366	PO1	2
Dichlorodifluoromethane	< 1.00	2.00	U	ug/L	0.259	1.00	06/12/23 16:55	B3F0366	PO1	2
Ethylbenzene	< 0.200	0.400	U	ug/L	0.0600	0.200	06/12/23 16:55	B3F0366	PO1	2
Hexachlorobutadiene	< 0.400	1.00	U	ug/L	0.200	0.400	06/12/23 16:55	B3F0366	PO1	2
Isopropylbenzene	< 0.400	1.00	U	ug/L	0.110	0.400	06/12/23 16:55	B3F0366	PO1	2
m,p-Xylene	< 0.800	2.00	U	ug/L	0.178	0.800	06/12/23 16:55	B3F0366	PO1	2
Methyl tert-butyl ether	< 0.400	1.00	U	ug/L	0.106	0.400	06/12/23 16:55	B3F0366	PO1	2
Methylene chloride	< 1.00	2.00	U	ug/L	0.447	1.00	06/12/23 16:55	B3F0366	PO1	2
n-Butylbenzene	< 1.00	2.00	U	ug/L	0.260	1.00	06/12/23 16:55	B3F0366	PO1	2
n-Propylbenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/12/23 16:55	B3F0366	PO1	2
Naphthalene	< 0.400	1.00	U	ug/L	0.140	0.400	06/12/23 16:55	B3F0366	PO1	2
o-Xylene	< 0.400	1.00	U	ug/L	0.0832	0.400	06/12/23 16:55	B3F0366	PO1	2
sec-Butylbenzene	< 0.400	1.00	U	ug/L	0.120	0.400	06/12/23 16:55	B3F0366	PO1	2
Styrene	< 0.200	0.400	U	ug/L	0.0906	0.200	06/12/23 16:55	B3F0366	PO1	2
tert-Butylbenzene	< 0.400	1.00	U	ug/L	0.0906	0.400	06/12/23 16:55	B3F0366	PO1	2
Tetrachloroethene	< 1.00	2.00	Q, U	ug/L	0.357	1.00	06/12/23 16:55	B3F0366	PO1	2
Toluene	< 0.400	1.00	U	ug/L	0.114	0.400	06/12/23 16:55	B3F0366	PO1	2
trans-1,2-Dichloroethene	< 0.400	1.00	U	ug/L	0.171	0.400	06/12/23 16:55	B3F0366	PO1	2
trans-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/12/23 16:55	B3F0366	PO1	2
Trichloroethene	**0.420**	1.00	J, D	ug/L	0.156	0.400	06/12/23 16:55	B3F0366	PO1	2
Trichlorofluoromethane	< 0.400	1.00	U	ug/L	0.101	0.400	06/12/23 16:55	B3F0366	PO1	2
Vinyl chloride	< 1.00	2.00	U	ug/L	0.258	1.00	06/12/23 16:55	B3F0366	PO1	2

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53047WW08R
Report Date: 07/06/2023
Collection Date: 05/30/2023 15:00
Matrix: Groundwater
Lab ID: 23F0136-03 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 99%*	*Limits: 80-119*		*06/12/23 16:55*	*B3F0366*	*PO1*	*2*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 92%*	*Limits: 81-118*		*06/12/23 16:55*	*B3F0366*	*PO1*	*2*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/12/23 16:55*	*B3F0366*	*PO1*	*2*
Surrogate: Toluene-d8				*Recovery: 97%*	*Limits: 89-112*		*06/12/23 16:55*	*B3F0366*	*PO1*	*2*
Surrogate: 4-Bromofluorobenzene				*Recovery: 96%*	*Limits: 85-114*		*06/12/23 16:55*	*B3F0366*	*PO1*	*2*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 101%*	*Limits: 87-138*		*06/12/23 16:55*	*B3F0366*	*PO1*	*2*

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531DUP4
Report Date: 07/06/2023
Collection Date: 05/31/2023 08:45
Matrix: Groundwater
Lab ID: 23F0136-04

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**0.0622**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:00	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**0.0493**	0.0444		mg/L	0.00889	0.0356	06/08/23 15:56	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**3.78**	0.125	D	mg/L	0.0250	0.0500	06/15/23 15:44	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:44	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 15:44	B3F0158	KJ1	5
Barium	**0.133**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 15:44	B3F0158	KJ1	5
Beryllium	**0.000574**	0.00250	J, D	mg/L	0.000500	0.00200	06/15/23 15:44	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:44	B3F0158	KJ1	5
Calcium	**4.06**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:44	B3F0158	KJ1	5
Chromium	**0.0248**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:44	B3F0158	KJ1	5
Cobalt	**0.00854**	0.0250	J, D	mg/L	0.00300	0.0100	06/15/23 15:44	B3F0158	KJ1	5
Copper	**0.00834**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:44	B3F0158	KJ1	5
Iron	**4.10**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:44	B3F0158	KJ1	5
Lead	**0.00315**	0.0250	J, D	mg/L	0.00150	0.00500	06/15/23 15:44	B3F0158	KJ1	5
Magnesium	**2.05**	0.125	D	mg/L	0.0200	0.0500	06/15/23 15:44	B3F0158	KJ1	5
Manganese	**0.119**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:44	B3F0158	KJ1	5
Nickel	**0.0163**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:44	B3F0158	KJ1	5
Potassium	**0.541**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:44	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:44	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:44	B3F0158	KJ1	5
Sodium	**35.6**	1.25	D	mg/L	0.500	1.00	06/15/23 16:47	B3F0158	KJ1	50
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:44	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:44	B3F0158	KJ1	5
Vanadium	**0.00823**	0.0250	J, D	mg/L	0.00150	0.00500	06/15/23 15:44	B3F0158	KJ1	5
Zinc	**0.0313**	0.0250	D	mg/L	0.0100	0.0200	06/15/23 15:44	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	**2.74**	0.125	D	mg/L	0.0250	0.0500	06/14/23 09:48	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:48	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 09:48	B3F0173	KJ1	5
Barium, Dissolved	**0.105**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 09:48	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:48	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:48	B3F0173	KJ1	5
Calcium, Dissolved	**3.66**	0.125	D	mg/L	0.0500	0.100	06/14/23 09:48	B3F0173	KJ1	5
Chromium, Dissolved	**0.0355**	0.0250	D	mg/L	0.00250	0.0100	06/14/23 09:48	B3F0173	KJ1	5
Cobalt, Dissolved	**0.00814**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 09:48	B3F0173	KJ1	5
Copper, Dissolved	**0.00830**	0.0250	J, D	mg/L	0.00300	0.0100	06/14/23 09:48	B3F0173	KJ1	5

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531DUP4
Report Date: 07/06/2023
Collection Date: 05/31/2023 08:45
Matrix: Groundwater
Lab ID: 23F0136-04 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	**2.86**	0.125	D	mg/L	0.0500	0.100	06/14/23 09:48	B3F0173	KJ1	5
Lead, Dissolved	**0.00307**	0.0250	J, D	mg/L	0.00150	0.00500	06/14/23 09:48	B3F0173	KJ1	5
Magnesium, Dissolved	**1.72**	0.125	D	mg/L	0.0200	0.0500	06/14/23 09:48	B3F0173	KJ1	5
Manganese, Dissolved	**0.103**	0.0250	D	mg/L	0.0025	0.0100	06/14/23 09:48	B3F0173	KJ1	5
Nickel, Dissolved	**0.0126**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 09:48	B3F0173	KJ1	5
Potassium, Dissolved	**0.419**	0.125	D	mg/L	0.0500	0.100	06/14/23 09:48	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:48	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:48	B3F0173	KJ1	5
Sodium, Dissolved	**38.2**	1.25	D, B	mg/L	0.500	1.00	06/14/23 11:08	B3F0173	KJ1	50
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:48	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 09:48	B3F0173	KJ1	5
Vanadium, Dissolved	**0.00667**	0.0250	J, D	mg/L	0.00150	0.00500	06/14/23 09:48	B3F0173	KJ1	5
Zinc, Dissolved	**0.0190**	0.0250	J, D	mg/L	0.0100	0.0200	06/14/23 09:48	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:28	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/09/23 08:18	B3F0270	ZZZ	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 12:00	B3F0366	PO1	10
1,1,1-Trichloroethane	< 2.00	5.00	U	ug/L	0.877	2.00	06/13/23 12:00	B3F0366	PO1	10
1,1,2,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.621	2.00	06/13/23 12:00	B3F0366	PO1	10
1,1,2-Trichloroethane	< 2.00	5.00	U	ug/L	0.832	2.00	06/13/23 12:00	B3F0366	PO1	10
1,1-Dichloroethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 12:00	B3F0366	PO1	10
1,1-Dichloroethene	< 2.00	5.00	U	ug/L	0.954	2.00	06/13/23 12:00	B3F0366	PO1	10
1,1-Dichloropropene	< 2.00	5.00	U	ug/L	0.699	2.00	06/13/23 12:00	B3F0366	PO1	10
1,2,3-Trichlorobenzene	< 2.00	5.00	U	ug/L	1.02	2.00	06/13/23 12:00	B3F0366	PO1	10
1,2,3-Trichloropropane	< 2.00	5.00	U	ug/L	0.913	2.00	06/13/23 12:00	B3F0366	PO1	10
1,2,4-Trichlorobenzene	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 12:00	B3F0366	PO1	10
1,2,4-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.661	2.00	06/13/23 12:00	B3F0366	PO1	10
1,2-Dibromo-3-chloropropane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 12:00	B3F0366	PO1	10
1,2-Dibromoethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 12:00	B3F0366	PO1	10
1,2-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 12:00	B3F0366	PO1	10
1,2-Dichloroethane	< 3.00	6.00	U	ug/L	1.06	3.00	06/13/23 12:00	B3F0366	PO1	10
1,2-Dichloropropane	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 12:00	B3F0366	PO1	10
1,3,5-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.500	2.00	06/13/23 12:00	B3F0366	PO1	10
1,3-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.724	2.00	06/13/23 12:00	B3F0366	PO1	10
1,3-Dichloropropane	< 2.00	5.00	U	ug/L	0.680	2.00	06/13/23 12:00	B3F0366	PO1	10
1,4-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 12:00	B3F0366	PO1	10

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531DUP4
Report Date: 07/06/2023
Collection Date: 05/31/2023 08:45
Matrix: Groundwater
Lab ID: 23F0136-04 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 12:00	B3F0366	PO1	10
2-Butanone	< 7.00	17.5	U	ug/L	3.30	7.00	06/13/23 12:00	B3F0366	PO1	10
2-Chlorotoluene	< 2.00	5.00	U	ug/L	0.733	2.00	06/13/23 12:00	B3F0366	PO1	10
2-Hexanone	< 7.00	17.5	U	ug/L	0.716	7.00	06/13/23 12:00	B3F0366	PO1	10
4-Chlorotoluene	< 2.00	5.00	U	ug/L	0.921	2.00	06/13/23 12:00	B3F0366	PO1	10
4-Isopropyltoluene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 12:00	B3F0366	PO1	10
MIBK	< 7.00	17.5	U	ug/L	1.35	7.00	06/13/23 12:00	B3F0366	PO1	10
Acetone	< 20.0	40.0	U	ug/L	5.18	20.0	06/13/23 12:00	B3F0366	PO1	10
Benzene	< 2.00	5.00	U	ug/L	0.507	2.00	06/13/23 12:00	B3F0366	PO1	10
Bromobenzene	< 2.00	5.00	U	ug/L	0.848	2.00	06/13/23 12:00	B3F0366	PO1	10
Bromochloromethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 12:00	B3F0366	PO1	10
Bromodichloromethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 12:00	B3F0366	PO1	10
Bromoform	< 2.00	5.00	U	ug/L	1.03	2.00	06/13/23 12:00	B3F0366	PO1	10
Bromomethane	< 5.00	10.0	U	ug/L	1.60	5.00	06/13/23 12:00	B3F0366	PO1	10
Carbon disulfide	< 5.00	10.0	U	ug/L	1.40	5.00	06/13/23 12:00	B3F0366	PO1	10
Carbon tetrachloride	< 2.00	5.00	U	ug/L	0.844	2.00	06/13/23 12:00	B3F0366	PO1	10
Chlorobenzene	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 12:00	B3F0366	PO1	10
Chloroethane	< 2.00	5.00	U	ug/L	1.55	2.00	06/13/23 12:00	B3F0366	PO1	10
Chloroform	< 3.00	6.00	U	ug/L	1.01	3.00	06/13/23 12:00	B3F0366	PO1	10
Chloromethane	< 5.00	10.0	U	ug/L	1.92	5.00	06/13/23 12:00	B3F0366	PO1	10
cis-1,2-Dichloroethene	**156**	6.00	D	ug/L	1.03	3.00	06/13/23 12:00	B3F0366	PO1	10
cis-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 12:00	B3F0366	PO1	10
Dibromochloromethane	< 2.00	5.00	U	ug/L	0.759	2.00	06/13/23 12:00	B3F0366	PO1	10
Dibromomethane	< 2.00	5.00	U	ug/L	0.817	2.00	06/13/23 12:00	B3F0366	PO1	10
Dichlorodifluoromethane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 12:00	B3F0366	PO1	10
Ethylbenzene	< 1.00	2.00	U	ug/L	0.300	1.00	06/13/23 12:00	B3F0366	PO1	10
Hexachlorobutadiene	< 2.00	5.00	U	ug/L	1.00	2.00	06/13/23 12:00	B3F0366	PO1	10
Isopropylbenzene	< 2.00	5.00	U	ug/L	0.549	2.00	06/13/23 12:00	B3F0366	PO1	10
m,p-Xylene	< 4.00	10.0	U	ug/L	0.889	4.00	06/13/23 12:00	B3F0366	PO1	10
Methyl tert-butyl ether	< 2.00	5.00	U	ug/L	0.530	2.00	06/13/23 12:00	B3F0366	PO1	10
Methylene chloride	< 5.00	10.0	U	ug/L	2.24	5.00	06/13/23 12:00	B3F0366	PO1	10
n-Butylbenzene	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 12:00	B3F0366	PO1	10
n-Propylbenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 12:00	B3F0366	PO1	10
Naphthalene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 12:00	B3F0366	PO1	10
o-Xylene	< 2.00	5.00	U	ug/L	0.416	2.00	06/13/23 12:00	B3F0366	PO1	10
sec-Butylbenzene	< 2.00	5.00	U	ug/L	0.598	2.00	06/13/23 12:00	B3F0366	PO1	10
Styrene	< 1.00	2.00	U	ug/L	0.453	1.00	06/13/23 12:00	B3F0366	PO1	10
tert-Butylbenzene	< 2.00	5.00	U	ug/L	0.453	2.00	06/13/23 12:00	B3F0366	PO1	10
Tetrachloroethene	< 5.00	10.0	U	ug/L	1.78	5.00	06/13/23 12:00	B3F0366	PO1	10
Toluene	< 2.00	5.00	U	ug/L	0.572	2.00	06/13/23 12:00	B3F0366	PO1	10
trans-1,2-Dichloroethene	**1.70**	5.00	J, D	ug/L	0.855	2.00	06/13/23 12:00	B3F0366	PO1	10
trans-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 12:00	B3F0366	PO1	10
Trichloroethene	**185**	5.00	D	ug/L	0.781	2.00	06/13/23 12:00	B3F0366	PO1	10
Trichlorofluoromethane	< 2.00	5.00	U	ug/L	0.505	2.00	06/13/23 12:00	B3F0366	PO1	10
Vinyl chloride	< 5.00	10.0	U	ug/L	1.29	5.00	06/13/23 12:00	B3F0366	PO1	10

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531DUP4
Report Date: 07/06/2023
Collection Date: 05/31/2023 08:45
Matrix: Groundwater
Lab ID: 23F0136-04 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 98%*	*Limits: 80-119*		*06/13/23 12:00*	*B3F0366*	*PO1*	*10*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 92%*	*Limits: 81-118*		*06/13/23 12:00*	*B3F0366*	*PO1*	*10*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 12:00*	*B3F0366*	*PO1*	*10*
Surrogate: Toluene-d8				*Recovery: 97%*	*Limits: 89-112*		*06/13/23 12:00*	*B3F0366*	*PO1*	*10*
Surrogate: 4-Bromofluorobenzene				*Recovery: 96%*	*Limits: 85-114*		*06/13/23 12:00*	*B3F0366*	*PO1*	*10*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 102%*	*Limits: 87-138*		*06/13/23 12:00*	*B3F0366*	*PO1*	*10*

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW34
Report Date: 07/06/2023
Collection Date: 06/01/2023 10:41
Matrix: Groundwater
Lab ID: 23F0136-05

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**0.590**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:04	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**0.624**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:00	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/15/23 15:46	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:46	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 15:46	B3F0158	KJ1	5
Barium	**0.0818**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 15:46	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:46	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:46	B3F0158	KJ1	5
Calcium	**46.9**	1.25	D	mg/L	0.500	1.00	06/15/23 16:49	B3F0158	KJ1	50
Chromium	**0.0273**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:46	B3F0158	KJ1	5
Cobalt	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:46	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:46	B3F0158	KJ1	5
Iron	**0.130**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:46	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:46	B3F0158	KJ1	5
Magnesium	**20.2**	0.125	D	mg/L	0.0200	0.0500	06/15/23 15:46	B3F0158	KJ1	5
Manganese	**0.00560**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:46	B3F0158	KJ1	5
Nickel	**0.0138**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:46	B3F0158	KJ1	5
Potassium	**6.02**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:46	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:46	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:46	B3F0158	KJ1	5
Sodium	**205**	1.25	D	mg/L	0.500	1.00	06/15/23 16:49	B3F0158	KJ1	50
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:46	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:46	B3F0158	KJ1	5
Vanadium	**0.00235**	0.0250	J, D	mg/L	0.00150	0.00500	06/15/23 15:46	B3F0158	KJ1	5
Zinc	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:46	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 09:49	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:49	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 09:49	B3F0173	KJ1	5
Barium, Dissolved	**0.0861**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 09:49	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:49	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:49	B3F0173	KJ1	5
Calcium, Dissolved	**52.1**	1.25	D	mg/L	0.500	1.00	06/14/23 11:14	B3F0173	KJ1	50
Chromium, Dissolved	**0.00594**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 09:49	B3F0173	KJ1	5
Cobalt, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:49	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:49	B3F0173	KJ1	5

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW34
Report Date: 07/06/2023
Collection Date: 06/01/2023 10:41
Matrix: Groundwater
Lab ID: 23F0136-05 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	< 0.100	0.125	U	mg/L	0.0500	0.100	06/14/23 09:49	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 09:49	B3F0173	KJ1	5
Magnesium, Dissolved	**21.3**	0.125	D	mg/L	0.0200	0.0500	06/14/23 09:49	B3F0173	KJ1	5
Manganese, Dissolved	**0.0047**	0.0250	J, D	mg/L	0.0025	0.0100	06/14/23 09:49	B3F0173	KJ1	5
Nickel, Dissolved	**0.0158**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 09:49	B3F0173	KJ1	5
Potassium, Dissolved	**6.32**	0.125	D	mg/L	0.0500	0.100	06/14/23 09:49	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:49	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:49	B3F0173	KJ1	5
Sodium, Dissolved	**204**	12.5	D, B	mg/L	5.00	10.0	06/14/23 12:12	B3F0173	KJ1	500
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:49	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 09:49	B3F0173	KJ1	5
Vanadium, Dissolved	**0.00298**	0.0250	J, D	mg/L	0.00150	0.00500	06/14/23 09:49	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 09:49	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:29	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/09/23 08:20	B3F0270	ZZZ	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 16:41	B3F0409	PO1	2
1,1,1-Trichloroethane	< 0.400	1.00	U	ug/L	0.175	0.400	06/13/23 16:41	B3F0409	PO1	2
1,1,2,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.124	0.400	06/13/23 16:41	B3F0409	PO1	2
1,1,2-Trichloroethane	< 0.400	1.00	U	ug/L	0.166	0.400	06/13/23 16:41	B3F0409	PO1	2
1,1-Dichloroethane	**0.140**	1.00	J, D	ug/L	0.134	0.400	06/13/23 16:41	B3F0409	PO1	2
1,1-Dichloroethene	**1.40**	1.00	D	ug/L	0.191	0.400	06/13/23 16:41	B3F0409	PO1	2
1,1-Dichloropropene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 16:41	B3F0409	PO1	2
1,2,3-Trichlorobenzene	< 0.400	1.00	U	ug/L	0.204	0.400	06/13/23 16:41	B3F0409	PO1	2
1,2,3-Trichloropropane	< 0.400	1.00	U	ug/L	0.183	0.400	06/13/23 16:41	B3F0409	PO1	2
1,2,4-Trichlorobenzene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 16:41	B3F0409	PO1	2
1,2,4-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.132	0.400	06/13/23 16:41	B3F0409	PO1	2
1,2-Dibromo-3-chloropropane	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 16:41	B3F0409	PO1	2
1,2-Dibromoethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 16:41	B3F0409	PO1	2
1,2-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 16:41	B3F0409	PO1	2
1,2-Dichloroethane	< 0.600	1.20	U	ug/L	0.212	0.600	06/13/23 16:41	B3F0409	PO1	2
1,2-Dichloropropane	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 16:41	B3F0409	PO1	2
1,3,5-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.100	0.400	06/13/23 16:41	B3F0409	PO1	2
1,3-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.145	0.400	06/13/23 16:41	B3F0409	PO1	2
1,3-Dichloropropane	< 0.400	1.00	U	ug/L	0.136	0.400	06/13/23 16:41	B3F0409	PO1	2
1,4-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 16:41	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW34
Report Date: 07/06/2023
Collection Date: 06/01/2023 10:41
Matrix: Groundwater
Lab ID: 23F0136-05 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 16:41	B3F0409	PO1	2
2-Butanone	< 1.40	3.50	U	ug/L	0.660	1.40	06/13/23 16:41	B3F0409	PO1	2
2-Chlorotoluene	< 0.400	1.00	U	ug/L	0.147	0.400	06/13/23 16:41	B3F0409	PO1	2
2-Hexanone	< 1.40	3.50	U	ug/L	0.143	1.40	06/13/23 16:41	B3F0409	PO1	2
4-Chlorotoluene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 16:41	B3F0409	PO1	2
4-Isopropyltoluene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 16:41	B3F0409	PO1	2
MIBK	< 1.40	3.50	U	ug/L	0.270	1.40	06/13/23 16:41	B3F0409	PO1	2
Acetone	< 4.00	8.00	U	ug/L	1.04	4.00	06/13/23 16:41	B3F0409	PO1	2
Benzene	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 16:41	B3F0409	PO1	2
Bromobenzene	< 0.400	1.00	U	ug/L	0.170	0.400	06/13/23 16:41	B3F0409	PO1	2
Bromochloromethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 16:41	B3F0409	PO1	2
Bromodichloromethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 16:41	B3F0409	PO1	2
Bromoform	< 0.400	1.00	U	ug/L	0.206	0.400	06/13/23 16:41	B3F0409	PO1	2
Bromomethane	< 1.00	2.00	U	ug/L	0.320	1.00	06/13/23 16:41	B3F0409	PO1	2
Carbon disulfide	< 1.00	2.00	U	ug/L	0.280	1.00	06/13/23 16:41	B3F0409	PO1	2
Carbon tetrachloride	< 0.400	1.00	U	ug/L	0.169	0.400	06/13/23 16:41	B3F0409	PO1	2
Chlorobenzene	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 16:41	B3F0409	PO1	2
Chloroethane	< 0.400	1.00	U	ug/L	0.311	0.400	06/13/23 16:41	B3F0409	PO1	2
Chloroform	< 0.600	1.20	U	ug/L	0.203	0.600	06/13/23 16:41	B3F0409	PO1	2
Chloromethane	< 1.00	2.00	U	ug/L	0.384	1.00	06/13/23 16:41	B3F0409	PO1	2
cis-1,2-Dichloroethene	**33.4**	1.20	D	ug/L	0.205	0.600	06/13/23 16:41	B3F0409	PO1	2
cis-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 16:41	B3F0409	PO1	2
Dibromochloromethane	< 0.400	1.00	U	ug/L	0.152	0.400	06/13/23 16:41	B3F0409	PO1	2
Dibromomethane	< 0.400	1.00	U	ug/L	0.163	0.400	06/13/23 16:41	B3F0409	PO1	2
Dichlorodifluoromethane	< 1.00	2.00	U	ug/L	0.259	1.00	06/13/23 16:41	B3F0409	PO1	2
Ethylbenzene	< 0.200	0.400	U	ug/L	0.0600	0.200	06/13/23 16:41	B3F0409	PO1	2
Hexachlorobutadiene	< 0.400	1.00	Q, S1, U	ug/L	0.200	0.400	06/13/23 16:41	B3F0409	PO1	2
Isopropylbenzene	< 0.400	1.00	U	ug/L	0.110	0.400	06/13/23 16:41	B3F0409	PO1	2
m,p-Xylene	< 0.800	2.00	U	ug/L	0.178	0.800	06/13/23 16:41	B3F0409	PO1	2
Methyl tert-butyl ether	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 16:41	B3F0409	PO1	2
Methylene chloride	< 1.00	2.00	U	ug/L	0.447	1.00	06/13/23 16:41	B3F0409	PO1	2
n-Butylbenzene	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 16:41	B3F0409	PO1	2
n-Propylbenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 16:41	B3F0409	PO1	2
Naphthalene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 16:41	B3F0409	PO1	2
o-Xylene	< 0.400	1.00	U	ug/L	0.0832	0.400	06/13/23 16:41	B3F0409	PO1	2
sec-Butylbenzene	< 0.400	1.00	U	ug/L	0.120	0.400	06/13/23 16:41	B3F0409	PO1	2
Styrene	< 0.200	0.400	U	ug/L	0.0906	0.200	06/13/23 16:41	B3F0409	PO1	2
tert-Butylbenzene	< 0.400	1.00	U	ug/L	0.0906	0.400	06/13/23 16:41	B3F0409	PO1	2
Tetrachloroethene	< 1.00	2.00	Q, S1, U	ug/L	0.357	1.00	06/13/23 16:41	B3F0409	PO1	2
Toluene	< 0.400	1.00	U	ug/L	0.114	0.400	06/13/23 16:41	B3F0409	PO1	2
trans-1,2-Dichloroethene	**0.400**	1.00	J, D	ug/L	0.171	0.400	06/13/23 16:41	B3F0409	PO1	2
trans-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 16:41	B3F0409	PO1	2
Trichloroethene	**503**	1.00	E, D	ug/L	0.156	0.400	06/13/23 16:41	B3F0409	PO1	2
Trichlorofluoromethane	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 16:41	B3F0409	PO1	2
Vinyl chloride	< 1.00	2.00	U	ug/L	0.258	1.00	06/13/23 16:41	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW34
Report Date: 07/06/2023
Collection Date: 06/01/2023 10:41
Matrix: Groundwater
Lab ID: 23F0136-05 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 98%*	*Limits: 80-119*		*06/13/23 16:41*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 88%*	*Limits: 81-118*		*06/13/23 16:41*	*B3F0409*	*PO1*	*2*
Surrogate: Fluorobenzene				*Recovery: 98%*	*Limits: 80-116*		*06/13/23 16:41*	*B3F0409*	*PO1*	*2*
Surrogate: Toluene-d8				*Recovery: 97%*	*Limits: 89-112*		*06/13/23 16:41*	*B3F0409*	*PO1*	*2*
Surrogate: 4-Bromofluorobenzene				*Recovery: 101%*	*Limits: 85-114*		*06/13/23 16:41*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 103%*	*Limits: 87-138*		*06/13/23 16:41*	*B3F0409*	*PO1*	*2*

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 61DUP6
Report Date: 07/06/2023
Collection Date: 06/01/2023 11:00
Matrix: Groundwater
Lab ID: 23F0136-06

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**7.96**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:08	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**9.56**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:04	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/15/23 15:47	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:47	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 15:47	B3F0158	KJ1	5
Barium	**0.0167**	0.0250	J, D	mg/L	0.00200	0.00500	06/15/23 15:47	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:47	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:47	B3F0158	KJ1	5
Calcium	**368**	5.00	D	mg/L	2.00	4.00	06/15/23 17:19	B3F0158	KJ1	200
Chromium	**0.0215**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:47	B3F0158	KJ1	5
Cobalt	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:47	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:47	B3F0158	KJ1	5
Iron	**0.0908**	0.125	J, D	mg/L	0.0500	0.100	06/15/23 15:47	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:47	B3F0158	KJ1	5
Magnesium	**191**	1.25	D	mg/L	0.200	0.500	06/15/23 16:51	B3F0158	KJ1	50
Manganese	**0.0748**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:47	B3F0158	KJ1	5
Nickel	**0.00986**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:47	B3F0158	KJ1	5
Potassium	**50.8**	1.25	D	mg/L	0.500	1.00	06/15/23 16:51	B3F0158	KJ1	50
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:47	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:47	B3F0158	KJ1	5
Sodium	**1010**	5.00	D, E	mg/L	2.00	4.00	06/15/23 17:19	B3F0158	KJ1	200
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:47	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:47	B3F0158	KJ1	5
Vanadium	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:47	B3F0158	KJ1	5
Zinc	**0.0132**	0.0250	J, D	mg/L	0.0100	0.0200	06/15/23 15:47	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 09:51	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:51	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 09:51	B3F0173	KJ1	5
Barium, Dissolved	**0.0173**	0.0250	J, D	mg/L	0.00200	0.00500	06/14/23 09:51	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:51	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 09:51	B3F0173	KJ1	5
Calcium, Dissolved	**438**	50.0	D	mg/L	20.0	40.0	06/14/23 12:14	B3F0173	KJ1	2000
Chromium, Dissolved	**0.00858**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 09:51	B3F0173	KJ1	5
Cobalt, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:51	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 09:51	B3F0173	KJ1	5

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 61DUP6
Report Date: 07/06/2023
Collection Date: 06/01/2023 11:00
Matrix: Groundwater
Lab ID: 23F0136-06 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	< 0.100	0.125	U	mg/L	0.0500	0.100	06/14/23 09:51	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 09:51	B3F0173	KJ1	5
Magnesium, Dissolved	**240**	1.25	D, E	mg/L	0.200	0.500	06/14/23 11:16	B3F0173	KJ1	50
Manganese, Dissolved	**0.0239**	0.0250	J, D	mg/L	0.0025	0.0100	06/14/23 09:51	B3F0173	KJ1	5
Nickel, Dissolved	**0.00802**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 09:51	B3F0173	KJ1	5
Potassium, Dissolved	**30.9**	1.25	D	mg/L	0.500	1.00	06/14/23 11:16	B3F0173	KJ1	50
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 09:51	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:51	B3F0173	KJ1	5
Sodium, Dissolved	**1040**	50.0	D, B	mg/L	20.0	40.0	06/14/23 12:14	B3F0173	KJ1	2000
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 09:51	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 09:51	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 09:51	B3F0173	KJ1	5
Zinc, Dissolved	**0.0103**	0.0250	J, D	mg/L	0.0100	0.0200	06/14/23 09:51	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:31	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:00	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 17:06	B3F0409	PO1	2
1,1,1-Trichloroethane	< 0.400	1.00	U	ug/L	0.175	0.400	06/13/23 17:06	B3F0409	PO1	2
1,1,2,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.124	0.400	06/13/23 17:06	B3F0409	PO1	2
1,1,2-Trichloroethane	< 0.400	1.00	U	ug/L	0.166	0.400	06/13/23 17:06	B3F0409	PO1	2
1,1-Dichloroethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 17:06	B3F0409	PO1	2
1,1-Dichloroethene	< 0.400	1.00	U	ug/L	0.191	0.400	06/13/23 17:06	B3F0409	PO1	2
1,1-Dichloropropene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 17:06	B3F0409	PO1	2
1,2,3-Trichlorobenzene	< 0.400	1.00	U	ug/L	0.204	0.400	06/13/23 17:06	B3F0409	PO1	2
1,2,3-Trichloropropane	< 0.400	1.00	U	ug/L	0.183	0.400	06/13/23 17:06	B3F0409	PO1	2
1,2,4-Trichlorobenzene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 17:06	B3F0409	PO1	2
1,2,4-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.132	0.400	06/13/23 17:06	B3F0409	PO1	2
1,2-Dibromo-3-chloropropane	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 17:06	B3F0409	PO1	2
1,2-Dibromoethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 17:06	B3F0409	PO1	2
1,2-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 17:06	B3F0409	PO1	2
1,2-Dichloroethane	< 0.600	1.20	U	ug/L	0.212	0.600	06/13/23 17:06	B3F0409	PO1	2
1,2-Dichloropropane	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 17:06	B3F0409	PO1	2
1,3,5-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.100	0.400	06/13/23 17:06	B3F0409	PO1	2
1,3-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.145	0.400	06/13/23 17:06	B3F0409	PO1	2
1,3-Dichloropropane	< 0.400	1.00	U	ug/L	0.136	0.400	06/13/23 17:06	B3F0409	PO1	2
1,4-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 17:06	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 61DUP6
Report Date: 07/06/2023
Collection Date: 06/01/2023 11:00
Matrix: Groundwater
Lab ID: 23F0136-06 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 17:06	B3F0409	PO1	2
2-Butanone	< 1.40	3.50	U	ug/L	0.660	1.40	06/13/23 17:06	B3F0409	PO1	2
2-Chlorotoluene	< 0.400	1.00	U	ug/L	0.147	0.400	06/13/23 17:06	B3F0409	PO1	2
2-Hexanone	< 1.40	3.50	U	ug/L	0.143	1.40	06/13/23 17:06	B3F0409	PO1	2
4-Chlorotoluene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 17:06	B3F0409	PO1	2
4-Isopropyltoluene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 17:06	B3F0409	PO1	2
MIBK	< 1.40	3.50	U	ug/L	0.270	1.40	06/13/23 17:06	B3F0409	PO1	2
Acetone	< 4.00	8.00	U	ug/L	1.04	4.00	06/13/23 17:06	B3F0409	PO1	2
Benzene	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 17:06	B3F0409	PO1	2
Bromobenzene	< 0.400	1.00	U	ug/L	0.170	0.400	06/13/23 17:06	B3F0409	PO1	2
Bromochloromethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 17:06	B3F0409	PO1	2
Bromodichloromethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 17:06	B3F0409	PO1	2
Bromoform	< 0.400	1.00	U	ug/L	0.206	0.400	06/13/23 17:06	B3F0409	PO1	2
Bromomethane	< 1.00	2.00	U	ug/L	0.320	1.00	06/13/23 17:06	B3F0409	PO1	2
Carbon disulfide	< 1.00	2.00	U	ug/L	0.280	1.00	06/13/23 17:06	B3F0409	PO1	2
Carbon tetrachloride	< 0.400	1.00	U	ug/L	0.169	0.400	06/13/23 17:06	B3F0409	PO1	2
Chlorobenzene	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 17:06	B3F0409	PO1	2
Chloroethane	< 0.400	1.00	U	ug/L	0.311	0.400	06/13/23 17:06	B3F0409	PO1	2
Chloroform	< 0.600	1.20	U	ug/L	0.203	0.600	06/13/23 17:06	B3F0409	PO1	2
Chloromethane	< 1.00	2.00	U	ug/L	0.384	1.00	06/13/23 17:06	B3F0409	PO1	2
cis-1,2-Dichloroethene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 17:06	B3F0409	PO1	2
cis-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 17:06	B3F0409	PO1	2
Dibromochloromethane	< 0.400	1.00	U	ug/L	0.152	0.400	06/13/23 17:06	B3F0409	PO1	2
Dibromomethane	< 0.400	1.00	U	ug/L	0.163	0.400	06/13/23 17:06	B3F0409	PO1	2
Dichlorodifluoromethane	< 1.00	2.00	U	ug/L	0.259	1.00	06/13/23 17:06	B3F0409	PO1	2
Ethylbenzene	< 0.200	0.400	U	ug/L	0.0600	0.200	06/13/23 17:06	B3F0409	PO1	2
Hexachlorobutadiene	< 0.400	1.00	Q, S1, U	ug/L	0.200	0.400	06/13/23 17:06	B3F0409	PO1	2
Isopropylbenzene	< 0.400	1.00	U	ug/L	0.110	0.400	06/13/23 17:06	B3F0409	PO1	2
m,p-Xylene	< 0.800	2.00	U	ug/L	0.178	0.800	06/13/23 17:06	B3F0409	PO1	2
Methyl tert-butyl ether	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 17:06	B3F0409	PO1	2
Methylene chloride	< 1.00	2.00	U	ug/L	0.447	1.00	06/13/23 17:06	B3F0409	PO1	2
n-Butylbenzene	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 17:06	B3F0409	PO1	2
n-Propylbenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 17:06	B3F0409	PO1	2
Naphthalene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 17:06	B3F0409	PO1	2
o-Xylene	< 0.400	1.00	U	ug/L	0.0832	0.400	06/13/23 17:06	B3F0409	PO1	2
sec-Butylbenzene	< 0.400	1.00	U	ug/L	0.120	0.400	06/13/23 17:06	B3F0409	PO1	2
Styrene	< 0.200	0.400	U	ug/L	0.0906	0.200	06/13/23 17:06	B3F0409	PO1	2
tert-Butylbenzene	< 0.400	1.00	U	ug/L	0.0906	0.400	06/13/23 17:06	B3F0409	PO1	2
Tetrachloroethene	< 1.00	2.00	Q, S1, U	ug/L	0.357	1.00	06/13/23 17:06	B3F0409	PO1	2
Toluene	< 0.400	1.00	U	ug/L	0.114	0.400	06/13/23 17:06	B3F0409	PO1	2
trans-1,2-Dichloroethene	< 0.400	1.00	U	ug/L	0.171	0.400	06/13/23 17:06	B3F0409	PO1	2
trans-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 17:06	B3F0409	PO1	2
Trichloroethene	**1.24**	1.00	D	ug/L	0.156	0.400	06/13/23 17:06	B3F0409	PO1	2
Trichlorofluoromethane	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 17:06	B3F0409	PO1	2
Vinyl chloride	< 1.00	2.00	U	ug/L	0.258	1.00	06/13/23 17:06	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 61DUP6
Report Date: 07/06/2023
Collection Date: 06/01/2023 11:00
Matrix: Groundwater
Lab ID: 23F0136-06 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 96%*	*Limits: 80-119*		*06/13/23 17:06*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 89%*	*Limits: 81-118*		*06/13/23 17:06*	*B3F0409*	*PO1*	*2*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 17:06*	*B3F0409*	*PO1*	*2*
Surrogate: Toluene-d8				*Recovery: 97%*	*Limits: 89-112*		*06/13/23 17:06*	*B3F0409*	*PO1*	*2*
Surrogate: 4-Bromofluorobenzene				*Recovery: 98%*	*Limits: 85-114*		*06/13/23 17:06*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 102%*	*Limits: 87-138*		*06/13/23 17:06*	*B3F0409*	*PO1*	*2*

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW04
Report Date: 07/06/2023
Collection Date: 06/01/2023 12:30
Matrix: Groundwater
Lab ID: 23F0136-07

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**2.42**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:13	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**2.42**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:09	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**0.0419**	0.125	J, D	mg/L	0.0250	0.0500	06/15/23 15:53	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:53	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 15:53	B3F0158	KJ1	5
Barium	**0.0151**	0.0250	J, D	mg/L	0.00200	0.00500	06/15/23 15:53	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:53	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:53	B3F0158	KJ1	5
Calcium	**165**	1.25	D	mg/L	0.500	1.00	06/15/23 16:56	B3F0158	KJ1	50
Chromium	**0.833**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:53	B3F0158	KJ1	5
Cobalt	**0.0122**	0.0250	J, D	mg/L	0.00300	0.0100	06/15/23 15:53	B3F0158	KJ1	5
Copper	**0.00897**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:53	B3F0158	KJ1	5
Iron	**14.8**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:53	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:53	B3F0158	KJ1	5
Magnesium	**108**	1.25	D	mg/L	0.200	0.500	06/15/23 16:56	B3F0158	KJ1	50
Manganese	**0.136**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:53	B3F0158	KJ1	5
Nickel	**2.51**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:53	B3F0158	KJ1	5
Potassium	**1.93**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:53	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:53	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:53	B3F0158	KJ1	5
Sodium	**933**	5.00	D, E	mg/L	2.00	4.00	06/15/23 17:21	B3F0158	KJ1	200
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:53	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:53	B3F0158	KJ1	5
Vanadium	**0.00353**	0.0250	J, D	mg/L	0.00150	0.00500	06/15/23 15:53	B3F0158	KJ1	5
Zinc	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:53	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 10:08	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:08	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 10:08	B3F0173	KJ1	5
Barium, Dissolved	**0.0120**	0.0250	J, D	mg/L	0.00200	0.00500	06/14/23 10:08	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:08	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:08	B3F0173	KJ1	5
Calcium, Dissolved	**173**	1.25	D	mg/L	0.500	1.00	06/14/23 11:18	B3F0173	KJ1	50
Chromium, Dissolved	**0.142**	0.0250	D	mg/L	0.00250	0.0100	06/14/23 10:08	B3F0173	KJ1	5
Cobalt, Dissolved	**0.00940**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:08	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:08	B3F0173	KJ1	5

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW04
Report Date: 07/06/2023
Collection Date: 06/01/2023 12:30
Matrix: Groundwater
Lab ID: 23F0136-07 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	**2.74**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:08	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:08	B3F0173	KJ1	5
Magnesium, Dissolved	**113**	1.25	D	mg/L	0.200	0.500	06/14/23 11:18	B3F0173	KJ1	50
Manganese, Dissolved	**0.114**	0.0250	D	mg/L	0.0025	0.0100	06/14/23 10:08	B3F0173	KJ1	5
Nickel, Dissolved	**2.20**	0.0250	D	mg/L	0.00250	0.0100	06/14/23 10:08	B3F0173	KJ1	5
Potassium, Dissolved	**1.96**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:08	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:08	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:08	B3F0173	KJ1	5
Sodium, Dissolved	**929**	25.0	D, B	mg/L	10.0	20.0	06/14/23 12:20	B3F0173	KJ1	1000
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:08	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:08	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:08	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:08	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:33	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:02	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 17:31	B3F0409	PO1	2
1,1,1-Trichloroethane	< 0.400	1.00	U	ug/L	0.175	0.400	06/13/23 17:31	B3F0409	PO1	2
1,1,2,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.124	0.400	06/13/23 17:31	B3F0409	PO1	2
1,1,2-Trichloroethane	< 0.400	1.00	U	ug/L	0.166	0.400	06/13/23 17:31	B3F0409	PO1	2
1,1-Dichloroethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 17:31	B3F0409	PO1	2
1,1-Dichloroethene	< 0.400	1.00	U	ug/L	0.191	0.400	06/13/23 17:31	B3F0409	PO1	2
1,1-Dichloropropene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 17:31	B3F0409	PO1	2
1,2,3-Trichlorobenzene	< 0.400	1.00	U	ug/L	0.204	0.400	06/13/23 17:31	B3F0409	PO1	2
1,2,3-Trichloropropane	< 0.400	1.00	U	ug/L	0.183	0.400	06/13/23 17:31	B3F0409	PO1	2
1,2,4-Trichlorobenzene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 17:31	B3F0409	PO1	2
1,2,4-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.132	0.400	06/13/23 17:31	B3F0409	PO1	2
1,2-Dibromo-3-chloropropane	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 17:31	B3F0409	PO1	2
1,2-Dibromoethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 17:31	B3F0409	PO1	2
1,2-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 17:31	B3F0409	PO1	2
1,2-Dichloroethane	< 0.600	1.20	U	ug/L	0.212	0.600	06/13/23 17:31	B3F0409	PO1	2
1,2-Dichloropropane	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 17:31	B3F0409	PO1	2
1,3,5-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.100	0.400	06/13/23 17:31	B3F0409	PO1	2
1,3-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.145	0.400	06/13/23 17:31	B3F0409	PO1	2
1,3-Dichloropropane	< 0.400	1.00	U	ug/L	0.136	0.400	06/13/23 17:31	B3F0409	PO1	2
1,4-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 17:31	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW04
Report Date: 07/06/2023
Collection Date: 06/01/2023 12:30
Matrix: Groundwater
Lab ID: 23F0136-07 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 17:31	B3F0409	PO1	2
2-Butanone	< 1.40	3.50	U	ug/L	0.660	1.40	06/13/23 17:31	B3F0409	PO1	2
2-Chlorotoluene	< 0.400	1.00	U	ug/L	0.147	0.400	06/13/23 17:31	B3F0409	PO1	2
2-Hexanone	< 1.40	3.50	U	ug/L	0.143	1.40	06/13/23 17:31	B3F0409	PO1	2
4-Chlorotoluene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 17:31	B3F0409	PO1	2
4-Isopropyltoluene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 17:31	B3F0409	PO1	2
MIBK	< 1.40	3.50	U	ug/L	0.270	1.40	06/13/23 17:31	B3F0409	PO1	2
Acetone	< 4.00	8.00	U	ug/L	1.04	4.00	06/13/23 17:31	B3F0409	PO1	2
Benzene	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 17:31	B3F0409	PO1	2
Bromobenzene	< 0.400	1.00	U	ug/L	0.170	0.400	06/13/23 17:31	B3F0409	PO1	2
Bromochloromethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 17:31	B3F0409	PO1	2
Bromodichloromethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 17:31	B3F0409	PO1	2
Bromoform	< 0.400	1.00	U	ug/L	0.206	0.400	06/13/23 17:31	B3F0409	PO1	2
Bromomethane	< 1.00	2.00	U	ug/L	0.320	1.00	06/13/23 17:31	B3F0409	PO1	2
Carbon disulfide	< 1.00	2.00	U	ug/L	0.280	1.00	06/13/23 17:31	B3F0409	PO1	2
Carbon tetrachloride	< 0.400	1.00	U	ug/L	0.169	0.400	06/13/23 17:31	B3F0409	PO1	2
Chlorobenzene	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 17:31	B3F0409	PO1	2
Chloroethane	< 0.400	1.00	U	ug/L	0.311	0.400	06/13/23 17:31	B3F0409	PO1	2
Chloroform	< 0.600	1.20	U	ug/L	0.203	0.600	06/13/23 17:31	B3F0409	PO1	2
Chloromethane	< 1.00	2.00	U	ug/L	0.384	1.00	06/13/23 17:31	B3F0409	PO1	2
cis-1,2-Dichloroethene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 17:31	B3F0409	PO1	2
cis-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 17:31	B3F0409	PO1	2
Dibromochloromethane	< 0.400	1.00	U	ug/L	0.152	0.400	06/13/23 17:31	B3F0409	PO1	2
Dibromomethane	< 0.400	1.00	U	ug/L	0.163	0.400	06/13/23 17:31	B3F0409	PO1	2
Dichlorodifluoromethane	< 1.00	2.00	U	ug/L	0.259	1.00	06/13/23 17:31	B3F0409	PO1	2
Ethylbenzene	< 0.200	0.400	U	ug/L	0.0600	0.200	06/13/23 17:31	B3F0409	PO1	2
Hexachlorobutadiene	< 0.400	1.00	Q, S1, U	ug/L	0.200	0.400	06/13/23 17:31	B3F0409	PO1	2
Isopropylbenzene	< 0.400	1.00	U	ug/L	0.110	0.400	06/13/23 17:31	B3F0409	PO1	2
m,p-Xylene	< 0.800	2.00	U	ug/L	0.178	0.800	06/13/23 17:31	B3F0409	PO1	2
Methyl tert-butyl ether	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 17:31	B3F0409	PO1	2
Methylene chloride	< 1.00	2.00	U	ug/L	0.447	1.00	06/13/23 17:31	B3F0409	PO1	2
n-Butylbenzene	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 17:31	B3F0409	PO1	2
n-Propylbenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 17:31	B3F0409	PO1	2
Naphthalene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 17:31	B3F0409	PO1	2
o-Xylene	< 0.400	1.00	U	ug/L	0.0832	0.400	06/13/23 17:31	B3F0409	PO1	2
sec-Butylbenzene	< 0.400	1.00	U	ug/L	0.120	0.400	06/13/23 17:31	B3F0409	PO1	2
Styrene	< 0.200	0.400	U	ug/L	0.0906	0.200	06/13/23 17:31	B3F0409	PO1	2
tert-Butylbenzene	< 0.400	1.00	U	ug/L	0.0906	0.400	06/13/23 17:31	B3F0409	PO1	2
Tetrachloroethene	< 1.00	2.00	Q, S1, U	ug/L	0.357	1.00	06/13/23 17:31	B3F0409	PO1	2
Toluene	< 0.400	1.00	U	ug/L	0.114	0.400	06/13/23 17:31	B3F0409	PO1	2
trans-1,2-Dichloroethene	< 0.400	1.00	U	ug/L	0.171	0.400	06/13/23 17:31	B3F0409	PO1	2
trans-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 17:31	B3F0409	PO1	2
Trichloroethene	**0.260**	1.00	J, D	ug/L	0.156	0.400	06/13/23 17:31	B3F0409	PO1	2
Trichlorofluoromethane	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 17:31	B3F0409	PO1	2
Vinyl chloride	< 1.00	2.00	U	ug/L	0.258	1.00	06/13/23 17:31	B3F0409	PO1	2

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW04
Report Date: 07/06/2023
Collection Date: 06/01/2023 12:30
Matrix: Groundwater
Lab ID: 23F0136-07 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 98%*	*Limits: 80-119*		*06/13/23 17:31*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 90%*	*Limits: 81-118*		*06/13/23 17:31*	*B3F0409*	*PO1*	*2*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 17:31*	*B3F0409*	*PO1*	*2*
Surrogate: Toluene-d8				*Recovery: 96%*	*Limits: 89-112*		*06/13/23 17:31*	*B3F0409*	*PO1*	*2*
Surrogate: 4-Bromofluorobenzene				*Recovery: 98%*	*Limits: 85-114*		*06/13/23 17:31*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 103%*	*Limits: 87-138*		*06/13/23 17:31*	*B3F0409*	*PO1*	*2*

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW33
Report Date: 07/06/2023
Collection Date: 06/01/2023 15:25
Matrix: Groundwater
Lab ID: 23F0136-08

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**0.0811**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:17	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**0.0809**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:14	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**0.162**	0.125	D	mg/L	0.0250	0.0500	06/15/23 15:55	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:55	B3F0158	KJ1	5
Arsenic	**0.00406**	0.0250	J, D	mg/L	0.00200	0.00500	06/15/23 15:55	B3F0158	KJ1	5
Barium	**0.0183**	0.0250	J, D	mg/L	0.00200	0.00500	06/15/23 15:55	B3F0158	KJ1	5
Beryllium	**0.000508**	0.00250	J, D	mg/L	0.000500	0.00200	06/15/23 15:55	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:55	B3F0158	KJ1	5
Calcium	**4.85**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:55	B3F0158	KJ1	5
Chromium	**0.0154**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:55	B3F0158	KJ1	5
Cobalt	**0.0258**	0.0250	D	mg/L	0.00300	0.0100	06/15/23 15:55	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:55	B3F0158	KJ1	5
Iron	**4.94**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:55	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:55	B3F0158	KJ1	5
Magnesium	**3.46**	0.125	D	mg/L	0.0200	0.0500	06/15/23 15:55	B3F0158	KJ1	5
Manganese	**0.413**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:55	B3F0158	KJ1	5
Nickel	**0.0304**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:55	B3F0158	KJ1	5
Potassium	**0.541**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:55	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:55	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:55	B3F0158	KJ1	5
Sodium	**103**	1.25	D	mg/L	0.500	1.00	06/15/23 16:58	B3F0158	KJ1	50
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:55	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:55	B3F0158	KJ1	5
Vanadium	**0.00209**	0.0250	J, D	mg/L	0.00150	0.00500	06/15/23 15:55	B3F0158	KJ1	5
Zinc	**0.0269**	0.0250	D	mg/L	0.0100	0.0200	06/15/23 15:55	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 10:10	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:10	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 10:10	B3F0173	KJ1	5
Barium, Dissolved	**0.0145**	0.0250	J, D	mg/L	0.00200	0.00500	06/14/23 10:10	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:10	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:10	B3F0173	KJ1	5
Calcium, Dissolved	**5.14**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:10	B3F0173	KJ1	5
Chromium, Dissolved	**0.00883**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:10	B3F0173	KJ1	5
Cobalt, Dissolved	**0.0211**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:10	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:10	B3F0173	KJ1	5

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW33
Report Date: 07/06/2023
Collection Date: 06/01/2023 15:25
Matrix: Groundwater
Lab ID: 23F0136-08 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	**0.506**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:10	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:10	B3F0173	KJ1	5
Magnesium, Dissolved	**3.56**	0.125	D	mg/L	0.0200	0.0500	06/14/23 10:10	B3F0173	KJ1	5
Manganese, Dissolved	**0.360**	0.0250	D	mg/L	0.0025	0.0100	06/14/23 10:10	B3F0173	KJ1	5
Nickel, Dissolved	**0.0271**	0.0250	D	mg/L	0.00250	0.0100	06/14/23 10:10	B3F0173	KJ1	5
Potassium, Dissolved	**0.522**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:10	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:10	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:10	B3F0173	KJ1	5
Sodium, Dissolved	**104**	5.00	D, B	mg/L	2.00	4.00	06/14/23 12:22	B3F0173	KJ1	200
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:10	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:10	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:10	B3F0173	KJ1	5
Zinc, Dissolved	**0.0243**	0.0250	J, D	mg/L	0.0100	0.0200	06/14/23 10:10	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:35	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:04	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 17:56	B3F0409	PO1	2
1,1,1-Trichloroethane	< 0.400	1.00	U	ug/L	0.175	0.400	06/13/23 17:56	B3F0409	PO1	2
1,1,2,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.124	0.400	06/13/23 17:56	B3F0409	PO1	2
1,1,2-Trichloroethane	< 0.400	1.00	U	ug/L	0.166	0.400	06/13/23 17:56	B3F0409	PO1	2
1,1-Dichloroethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 17:56	B3F0409	PO1	2
1,1-Dichloroethene	< 0.400	1.00	U	ug/L	0.191	0.400	06/13/23 17:56	B3F0409	PO1	2
1,1-Dichloropropene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 17:56	B3F0409	PO1	2
1,2,3-Trichlorobenzene	< 0.400	1.00	U	ug/L	0.204	0.400	06/13/23 17:56	B3F0409	PO1	2
1,2,3-Trichloropropane	< 0.400	1.00	U	ug/L	0.183	0.400	06/13/23 17:56	B3F0409	PO1	2
1,2,4-Trichlorobenzene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 17:56	B3F0409	PO1	2
1,2,4-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.132	0.400	06/13/23 17:56	B3F0409	PO1	2
1,2-Dibromo-3-chloropropane	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 17:56	B3F0409	PO1	2
1,2-Dibromoethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 17:56	B3F0409	PO1	2
1,2-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 17:56	B3F0409	PO1	2
1,2-Dichloroethane	< 0.600	1.20	U	ug/L	0.212	0.600	06/13/23 17:56	B3F0409	PO1	2
1,2-Dichloropropane	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 17:56	B3F0409	PO1	2
1,3,5-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.100	0.400	06/13/23 17:56	B3F0409	PO1	2
1,3-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.145	0.400	06/13/23 17:56	B3F0409	PO1	2
1,3-Dichloropropane	< 0.400	1.00	U	ug/L	0.136	0.400	06/13/23 17:56	B3F0409	PO1	2
1,4-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 17:56	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW33
Report Date: 07/06/2023
Collection Date: 06/01/2023 15:25
Matrix: Groundwater
Lab ID: 23F0136-08 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 17:56	B3F0409	PO1	2
2-Butanone	< 1.40	3.50	U	ug/L	0.660	1.40	06/13/23 17:56	B3F0409	PO1	2
2-Chlorotoluene	< 0.400	1.00	U	ug/L	0.147	0.400	06/13/23 17:56	B3F0409	PO1	2
2-Hexanone	< 1.40	3.50	U	ug/L	0.143	1.40	06/13/23 17:56	B3F0409	PO1	2
4-Chlorotoluene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 17:56	B3F0409	PO1	2
4-Isopropyltoluene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 17:56	B3F0409	PO1	2
MIBK	< 1.40	3.50	U	ug/L	0.270	1.40	06/13/23 17:56	B3F0409	PO1	2
Acetone	< 4.00	8.00	U	ug/L	1.04	4.00	06/13/23 17:56	B3F0409	PO1	2
Benzene	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 17:56	B3F0409	PO1	2
Bromobenzene	< 0.400	1.00	U	ug/L	0.170	0.400	06/13/23 17:56	B3F0409	PO1	2
Bromochloromethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 17:56	B3F0409	PO1	2
Bromodichloromethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 17:56	B3F0409	PO1	2
Bromoform	< 0.400	1.00	U	ug/L	0.206	0.400	06/13/23 17:56	B3F0409	PO1	2
Bromomethane	< 1.00	2.00	U	ug/L	0.320	1.00	06/13/23 17:56	B3F0409	PO1	2
Carbon disulfide	< 1.00	2.00	U	ug/L	0.280	1.00	06/13/23 17:56	B3F0409	PO1	2
Carbon tetrachloride	< 0.400	1.00	U	ug/L	0.169	0.400	06/13/23 17:56	B3F0409	PO1	2
Chlorobenzene	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 17:56	B3F0409	PO1	2
Chloroethane	< 0.400	1.00	U	ug/L	0.311	0.400	06/13/23 17:56	B3F0409	PO1	2
Chloroform	< 0.600	1.20	U	ug/L	0.203	0.600	06/13/23 17:56	B3F0409	PO1	2
Chloromethane	< 1.00	2.00	U	ug/L	0.384	1.00	06/13/23 17:56	B3F0409	PO1	2
cis-1,2-Dichloroethene	**0.220**	1.20	J, D	ug/L	0.205	0.600	06/13/23 17:56	B3F0409	PO1	2
cis-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 17:56	B3F0409	PO1	2
Dibromochloromethane	< 0.400	1.00	U	ug/L	0.152	0.400	06/13/23 17:56	B3F0409	PO1	2
Dibromomethane	< 0.400	1.00	U	ug/L	0.163	0.400	06/13/23 17:56	B3F0409	PO1	2
Dichlorodifluoromethane	< 1.00	2.00	U	ug/L	0.259	1.00	06/13/23 17:56	B3F0409	PO1	2
Ethylbenzene	< 0.200	0.400	U	ug/L	0.0600	0.200	06/13/23 17:56	B3F0409	PO1	2
Hexachlorobutadiene	< 0.400	1.00	Q, S1, U	ug/L	0.200	0.400	06/13/23 17:56	B3F0409	PO1	2
Isopropylbenzene	< 0.400	1.00	U	ug/L	0.110	0.400	06/13/23 17:56	B3F0409	PO1	2
m,p-Xylene	< 0.800	2.00	U	ug/L	0.178	0.800	06/13/23 17:56	B3F0409	PO1	2
Methyl tert-butyl ether	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 17:56	B3F0409	PO1	2
Methylene chloride	< 1.00	2.00	U	ug/L	0.447	1.00	06/13/23 17:56	B3F0409	PO1	2
n-Butylbenzene	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 17:56	B3F0409	PO1	2
n-Propylbenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 17:56	B3F0409	PO1	2
Naphthalene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 17:56	B3F0409	PO1	2
o-Xylene	< 0.400	1.00	U	ug/L	0.0832	0.400	06/13/23 17:56	B3F0409	PO1	2
sec-Butylbenzene	< 0.400	1.00	U	ug/L	0.120	0.400	06/13/23 17:56	B3F0409	PO1	2
Styrene	< 0.200	0.400	U	ug/L	0.0906	0.200	06/13/23 17:56	B3F0409	PO1	2
tert-Butylbenzene	< 0.400	1.00	U	ug/L	0.0906	0.400	06/13/23 17:56	B3F0409	PO1	2
Tetrachloroethene	< 1.00	2.00	Q, S1, U	ug/L	0.357	1.00	06/13/23 17:56	B3F0409	PO1	2
Toluene	< 0.400	1.00	U	ug/L	0.114	0.400	06/13/23 17:56	B3F0409	PO1	2
trans-1,2-Dichloroethene	< 0.400	1.00	U	ug/L	0.171	0.400	06/13/23 17:56	B3F0409	PO1	2
trans-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 17:56	B3F0409	PO1	2
Trichloroethene	**0.780**	1.00	J, D	ug/L	0.156	0.400	06/13/23 17:56	B3F0409	PO1	2
Trichlorofluoromethane	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 17:56	B3F0409	PO1	2
Vinyl chloride	< 1.00	2.00	U	ug/L	0.258	1.00	06/13/23 17:56	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW33
Report Date: 07/06/2023
Collection Date: 06/01/2023 15:25
Matrix: Groundwater
Lab ID: 23F0136-08 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 98%*	*Limits: 80-119*		*06/13/23 17:56*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 90%*	*Limits: 81-118*		*06/13/23 17:56*	*B3F0409*	*PO1*	*2*
Surrogate: Fluorobenzene				*Recovery: 96%*	*Limits: 80-116*		*06/13/23 17:56*	*B3F0409*	*PO1*	*2*
Surrogate: Toluene-d8				*Recovery: 96%*	*Limits: 89-112*		*06/13/23 17:56*	*B3F0409*	*PO1*	*2*
Surrogate: 4-Bromofluorobenzene				*Recovery: 97%*	*Limits: 85-114*		*06/13/23 17:56*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 101%*	*Limits: 87-138*		*06/13/23 17:56*	*B3F0409*	*PO1*	*2*

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW46
Report Date: 07/06/2023
Collection Date: 06/01/2023 14:56
Matrix: Groundwater
Lab ID: 23F0136-09

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**1.78**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:21	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**1.81**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:18	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**0.303**	0.125	D	mg/L	0.0250	0.0500	06/15/23 15:57	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:57	B3F0158	KJ1	5
Arsenic	**0.00202**	0.0250	J, D	mg/L	0.00200	0.00500	06/15/23 15:57	B3F0158	KJ1	5
Barium	**0.0568**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 15:57	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:57	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:57	B3F0158	KJ1	5
Calcium	**123**	1.25	D	mg/L	0.500	1.00	06/15/23 17:00	B3F0158	KJ1	50
Chromium	**0.0381**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:57	B3F0158	KJ1	5
Cobalt	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:57	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 15:57	B3F0158	KJ1	5
Iron	**1.44**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:57	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:57	B3F0158	KJ1	5
Magnesium	**69.4**	1.25	D	mg/L	0.200	0.500	06/15/23 17:00	B3F0158	KJ1	50
Manganese	**0.536**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:57	B3F0158	KJ1	5
Nickel	**0.0211**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:57	B3F0158	KJ1	5
Potassium	**3.11**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:57	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:57	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:57	B3F0158	KJ1	5
Sodium	**676**	5.00	D	mg/L	2.00	4.00	06/15/23 17:23	B3F0158	KJ1	200
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:57	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:57	B3F0158	KJ1	5
Vanadium	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:57	B3F0158	KJ1	5
Zinc	**0.0170**	0.0250	J, D	mg/L	0.0100	0.0200	06/15/23 15:57	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 10:12	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:12	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 10:12	B3F0173	KJ1	5
Barium, Dissolved	**0.0574**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 10:12	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:12	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:12	B3F0173	KJ1	5
Calcium, Dissolved	**130**	1.25	D	mg/L	0.500	1.00	06/14/23 11:29	B3F0173	KJ1	50
Chromium, Dissolved	**0.0193**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:12	B3F0173	KJ1	5
Cobalt, Dissolved	**0.00324**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:12	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:12	B3F0173	KJ1	5

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW46
Report Date: 07/06/2023
Collection Date: 06/01/2023 14:56
Matrix: Groundwater
Lab ID: 23F0136-09 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	**1.04**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:12	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:12	B3F0173	KJ1	5
Magnesium, Dissolved	**72.0**	1.25	D	mg/L	0.200	0.500	06/14/23 11:29	B3F0173	KJ1	50
Manganese, Dissolved	**0.517**	0.0250	D	mg/L	0.0025	0.0100	06/14/23 10:12	B3F0173	KJ1	5
Nickel, Dissolved	**0.0192**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:12	B3F0173	KJ1	5
Potassium, Dissolved	**3.06**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:12	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:12	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:12	B3F0173	KJ1	5
Sodium, Dissolved	**671**	25.0	D, B	mg/L	10.0	20.0	06/14/23 12:24	B3F0173	KJ1	1000
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:12	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:12	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:12	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:12	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:37	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:05	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 18:21	B3F0409	PO1	2
1,1,1-Trichloroethane	< 0.400	1.00	U	ug/L	0.175	0.400	06/13/23 18:21	B3F0409	PO1	2
1,1,2,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.124	0.400	06/13/23 18:21	B3F0409	PO1	2
1,1,2-Trichloroethane	< 0.400	1.00	U	ug/L	0.166	0.400	06/13/23 18:21	B3F0409	PO1	2
1,1-Dichloroethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 18:21	B3F0409	PO1	2
1,1-Dichloroethene	< 0.400	1.00	U	ug/L	0.191	0.400	06/13/23 18:21	B3F0409	PO1	2
1,1-Dichloropropene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 18:21	B3F0409	PO1	2
1,2,3-Trichlorobenzene	< 0.400	1.00	U	ug/L	0.204	0.400	06/13/23 18:21	B3F0409	PO1	2
1,2,3-Trichloropropane	< 0.400	1.00	U	ug/L	0.183	0.400	06/13/23 18:21	B3F0409	PO1	2
1,2,4-Trichlorobenzene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 18:21	B3F0409	PO1	2
1,2,4-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.132	0.400	06/13/23 18:21	B3F0409	PO1	2
1,2-Dibromo-3-chloropropane	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 18:21	B3F0409	PO1	2
1,2-Dibromoethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 18:21	B3F0409	PO1	2
1,2-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 18:21	B3F0409	PO1	2
1,2-Dichloroethane	< 0.600	1.20	U	ug/L	0.212	0.600	06/13/23 18:21	B3F0409	PO1	2
1,2-Dichloropropane	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 18:21	B3F0409	PO1	2
1,3,5-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.100	0.400	06/13/23 18:21	B3F0409	PO1	2
1,3-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.145	0.400	06/13/23 18:21	B3F0409	PO1	2
1,3-Dichloropropane	< 0.400	1.00	U	ug/L	0.136	0.400	06/13/23 18:21	B3F0409	PO1	2
1,4-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 18:21	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW46
Report Date: 07/06/2023
Collection Date: 06/01/2023 14:56
Matrix: Groundwater
Lab ID: 23F0136-09 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 18:21	B3F0409	PO1	2
2-Butanone	< 1.40	3.50	U	ug/L	0.660	1.40	06/13/23 18:21	B3F0409	PO1	2
2-Chlorotoluene	< 0.400	1.00	U	ug/L	0.147	0.400	06/13/23 18:21	B3F0409	PO1	2
2-Hexanone	< 1.40	3.50	U	ug/L	0.143	1.40	06/13/23 18:21	B3F0409	PO1	2
4-Chlorotoluene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 18:21	B3F0409	PO1	2
4-Isopropyltoluene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 18:21	B3F0409	PO1	2
MIBK	< 1.40	3.50	U	ug/L	0.270	1.40	06/13/23 18:21	B3F0409	PO1	2
Acetone	< 4.00	8.00	U	ug/L	1.04	4.00	06/13/23 18:21	B3F0409	PO1	2
Benzene	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 18:21	B3F0409	PO1	2
Bromobenzene	< 0.400	1.00	U	ug/L	0.170	0.400	06/13/23 18:21	B3F0409	PO1	2
Bromochloromethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 18:21	B3F0409	PO1	2
Bromodichloromethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 18:21	B3F0409	PO1	2
Bromoform	< 0.400	1.00	U	ug/L	0.206	0.400	06/13/23 18:21	B3F0409	PO1	2
Bromomethane	< 1.00	2.00	U	ug/L	0.320	1.00	06/13/23 18:21	B3F0409	PO1	2
Carbon disulfide	< 1.00	2.00	U	ug/L	0.280	1.00	06/13/23 18:21	B3F0409	PO1	2
Carbon tetrachloride	< 0.400	1.00	U	ug/L	0.169	0.400	06/13/23 18:21	B3F0409	PO1	2
Chlorobenzene	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 18:21	B3F0409	PO1	2
Chloroethane	< 0.400	1.00	U	ug/L	0.311	0.400	06/13/23 18:21	B3F0409	PO1	2
Chloroform	< 0.600	1.20	U	ug/L	0.203	0.600	06/13/23 18:21	B3F0409	PO1	2
Chloromethane	< 1.00	2.00	U	ug/L	0.384	1.00	06/13/23 18:21	B3F0409	PO1	2
cis-1,2-Dichloroethene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 18:21	B3F0409	PO1	2
cis-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 18:21	B3F0409	PO1	2
Dibromochloromethane	< 0.400	1.00	U	ug/L	0.152	0.400	06/13/23 18:21	B3F0409	PO1	2
Dibromomethane	< 0.400	1.00	U	ug/L	0.163	0.400	06/13/23 18:21	B3F0409	PO1	2
Dichlorodifluoromethane	< 1.00	2.00	U	ug/L	0.259	1.00	06/13/23 18:21	B3F0409	PO1	2
Ethylbenzene	< 0.200	0.400	U	ug/L	0.0600	0.200	06/13/23 18:21	B3F0409	PO1	2
Hexachlorobutadiene	< 0.400	1.00	Q, S1, U	ug/L	0.200	0.400	06/13/23 18:21	B3F0409	PO1	2
Isopropylbenzene	< 0.400	1.00	U	ug/L	0.110	0.400	06/13/23 18:21	B3F0409	PO1	2
m,p-Xylene	< 0.800	2.00	U	ug/L	0.178	0.800	06/13/23 18:21	B3F0409	PO1	2
Methyl tert-butyl ether	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 18:21	B3F0409	PO1	2
Methylene chloride	< 1.00	2.00	U	ug/L	0.447	1.00	06/13/23 18:21	B3F0409	PO1	2
n-Butylbenzene	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 18:21	B3F0409	PO1	2
n-Propylbenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 18:21	B3F0409	PO1	2
Naphthalene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 18:21	B3F0409	PO1	2
o-Xylene	< 0.400	1.00	U	ug/L	0.0832	0.400	06/13/23 18:21	B3F0409	PO1	2
sec-Butylbenzene	< 0.400	1.00	U	ug/L	0.120	0.400	06/13/23 18:21	B3F0409	PO1	2
Styrene	< 0.200	0.400	U	ug/L	0.0906	0.200	06/13/23 18:21	B3F0409	PO1	2
tert-Butylbenzene	< 0.400	1.00	U	ug/L	0.0906	0.400	06/13/23 18:21	B3F0409	PO1	2
Tetrachloroethene	< 1.00	2.00	Q, S1, U	ug/L	0.357	1.00	06/13/23 18:21	B3F0409	PO1	2
Toluene	< 0.400	1.00	U	ug/L	0.114	0.400	06/13/23 18:21	B3F0409	PO1	2
trans-1,2-Dichloroethene	< 0.400	1.00	U	ug/L	0.171	0.400	06/13/23 18:21	B3F0409	PO1	2
trans-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 18:21	B3F0409	PO1	2
Trichloroethene	**0.880**	1.00	J, D	ug/L	0.156	0.400	06/13/23 18:21	B3F0409	PO1	2
Trichlorofluoromethane	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 18:21	B3F0409	PO1	2
Vinyl chloride	< 1.00	2.00	U	ug/L	0.258	1.00	06/13/23 18:21	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW46
Report Date: 07/06/2023
Collection Date: 06/01/2023 14:56
Matrix: Groundwater
Lab ID: 23F0136-09 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 99%*	*Limits: 80-119*		*06/13/23 18:21*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 92%*	*Limits: 81-118*		*06/13/23 18:21*	*B3F0409*	*PO1*	*2*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 18:21*	*B3F0409*	*PO1*	*2*
Surrogate: Toluene-d8				*Recovery: 95%*	*Limits: 89-112*		*06/13/23 18:21*	*B3F0409*	*PO1*	*2*
Surrogate: 4-Bromofluorobenzene				*Recovery: 97%*	*Limits: 85-114*		*06/13/23 18:21*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 104%*	*Limits: 87-138*		*06/13/23 18:21*	*B3F0409*	*PO1*	*2*

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW38
Report Date: 07/06/2023
Collection Date: 05/31/2023 10:11
Matrix: Groundwater
Lab ID: 23F0136-10

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**3.02**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:34	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**1.08**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:22	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**0.202**	0.125	D	mg/L	0.0250	0.0500	06/15/23 15:59	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:59	B3F0158	KJ1	5
Arsenic	**0.00315**	0.0250	J, D	mg/L	0.00200	0.00500	06/15/23 15:59	B3F0158	KJ1	5
Barium	**0.143**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 15:59	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 15:59	B3F0158	KJ1	5
Cadmium	**0.000712**	0.00250	J, D	mg/L	0.000500	0.00200	06/15/23 15:59	B3F0158	KJ1	5
Calcium	**120**	1.25	D	mg/L	0.500	1.00	06/15/23 17:02	B3F0158	KJ1	50
Chromium	**0.111**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:59	B3F0158	KJ1	5
Cobalt	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:59	B3F0158	KJ1	5
Copper	**0.00315**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 15:59	B3F0158	KJ1	5
Iron	**0.995**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:59	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:59	B3F0158	KJ1	5
Magnesium	**49.0**	1.25	D	mg/L	0.200	0.500	06/15/23 17:02	B3F0158	KJ1	50
Manganese	**0.326**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:59	B3F0158	KJ1	5
Nickel	**0.0336**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 15:59	B3F0158	KJ1	5
Potassium	**14.4**	0.125	D	mg/L	0.0500	0.100	06/15/23 15:59	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 15:59	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 15:59	B3F0158	KJ1	5
Sodium	**163**	1.25	D	mg/L	0.500	1.00	06/15/23 17:02	B3F0158	KJ1	50
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 15:59	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 15:59	B3F0158	KJ1	5
Vanadium	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 15:59	B3F0158	KJ1	5
Zinc	**0.0163**	0.0250	J, D	mg/L	0.0100	0.0200	06/15/23 15:59	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 10:14	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:14	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 10:14	B3F0173	KJ1	5
Barium, Dissolved	**0.0527**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 10:14	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:14	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:14	B3F0173	KJ1	5
Calcium, Dissolved	**53.0**	1.25	D	mg/L	0.500	1.00	06/14/23 11:31	B3F0173	KJ1	50
Chromium, Dissolved	**0.00893**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:14	B3F0173	KJ1	5
Cobalt, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:14	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:14	B3F0173	KJ1	5

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW38
Report Date: 07/06/2023
Collection Date: 05/31/2023 10:11
Matrix: Groundwater
Lab ID: 23F0136-10 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	**0.0575**	0.125	J, D	mg/L	0.0500	0.100	06/14/23 10:14	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:14	B3F0173	KJ1	5
Magnesium, Dissolved	**32.5**	1.25	D	mg/L	0.200	0.500	06/14/23 11:31	B3F0173	KJ1	50
Manganese, Dissolved	**0.123**	0.0250	D	mg/L	0.0025	0.0100	06/14/23 10:14	B3F0173	KJ1	5
Nickel, Dissolved	**0.0264**	0.0250	D	mg/L	0.00250	0.0100	06/14/23 10:14	B3F0173	KJ1	5
Potassium, Dissolved	**14.3**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:14	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:14	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:14	B3F0173	KJ1	5
Sodium, Dissolved	**157**	5.00	D, B	mg/L	2.00	4.00	06/14/23 12:25	B3F0173	KJ1	200
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:14	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:14	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:14	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:14	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:39	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:07	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 12:25	B3F0366	PO1	10
1,1,1-Trichloroethane	< 2.00	5.00	U	ug/L	0.877	2.00	06/13/23 12:25	B3F0366	PO1	10
1,1,2,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.621	2.00	06/13/23 12:25	B3F0366	PO1	10
1,1,2-Trichloroethane	< 2.00	5.00	U	ug/L	0.832	2.00	06/13/23 12:25	B3F0366	PO1	10
1,1-Dichloroethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 12:25	B3F0366	PO1	10
1,1-Dichloroethene	< 2.00	5.00	U	ug/L	0.954	2.00	06/13/23 12:25	B3F0366	PO1	10
1,1-Dichloropropene	< 2.00	5.00	U	ug/L	0.699	2.00	06/13/23 12:25	B3F0366	PO1	10
1,2,3-Trichlorobenzene	< 2.00	5.00	U	ug/L	1.02	2.00	06/13/23 12:25	B3F0366	PO1	10
1,2,3-Trichloropropane	< 2.00	5.00	U	ug/L	0.913	2.00	06/13/23 12:25	B3F0366	PO1	10
1,2,4-Trichlorobenzene	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 12:25	B3F0366	PO1	10
1,2,4-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.661	2.00	06/13/23 12:25	B3F0366	PO1	10
1,2-Dibromo-3-chloropropane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 12:25	B3F0366	PO1	10
1,2-Dibromoethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 12:25	B3F0366	PO1	10
1,2-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 12:25	B3F0366	PO1	10
1,2-Dichloroethane	< 3.00	6.00	U	ug/L	1.06	3.00	06/13/23 12:25	B3F0366	PO1	10
1,2-Dichloropropane	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 12:25	B3F0366	PO1	10
1,3,5-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.500	2.00	06/13/23 12:25	B3F0366	PO1	10
1,3-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.724	2.00	06/13/23 12:25	B3F0366	PO1	10
1,3-Dichloropropane	< 2.00	5.00	U	ug/L	0.680	2.00	06/13/23 12:25	B3F0366	PO1	10
1,4-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 12:25	B3F0366	PO1	10

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW38
Report Date: 07/06/2023
Collection Date: 05/31/2023 10:11
Matrix: Groundwater
Lab ID: 23F0136-10 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 12:25	B3F0366	PO1	10
2-Butanone	< 7.00	17.5	U	ug/L	3.30	7.00	06/13/23 12:25	B3F0366	PO1	10
2-Chlorotoluene	< 2.00	5.00	U	ug/L	0.733	2.00	06/13/23 12:25	B3F0366	PO1	10
2-Hexanone	< 7.00	17.5	U	ug/L	0.716	7.00	06/13/23 12:25	B3F0366	PO1	10
4-Chlorotoluene	< 2.00	5.00	U	ug/L	0.921	2.00	06/13/23 12:25	B3F0366	PO1	10
4-Isopropyltoluene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 12:25	B3F0366	PO1	10
MIBK	< 7.00	17.5	U	ug/L	1.35	7.00	06/13/23 12:25	B3F0366	PO1	10
Acetone	< 20.0	40.0	U	ug/L	5.18	20.0	06/13/23 12:25	B3F0366	PO1	10
Benzene	< 2.00	5.00	U	ug/L	0.507	2.00	06/13/23 12:25	B3F0366	PO1	10
Bromobenzene	< 2.00	5.00	U	ug/L	0.848	2.00	06/13/23 12:25	B3F0366	PO1	10
Bromochloromethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 12:25	B3F0366	PO1	10
Bromodichloromethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 12:25	B3F0366	PO1	10
Bromoform	< 2.00	5.00	U	ug/L	1.03	2.00	06/13/23 12:25	B3F0366	PO1	10
Bromomethane	< 5.00	10.0	U	ug/L	1.60	5.00	06/13/23 12:25	B3F0366	PO1	10
Carbon disulfide	< 5.00	10.0	U	ug/L	1.40	5.00	06/13/23 12:25	B3F0366	PO1	10
Carbon tetrachloride	< 2.00	5.00	U	ug/L	0.844	2.00	06/13/23 12:25	B3F0366	PO1	10
Chlorobenzene	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 12:25	B3F0366	PO1	10
Chloroethane	< 2.00	5.00	U	ug/L	1.55	2.00	06/13/23 12:25	B3F0366	PO1	10
Chloroform	< 3.00	6.00	U	ug/L	1.01	3.00	06/13/23 12:25	B3F0366	PO1	10
Chloromethane	< 5.00	10.0	U	ug/L	1.92	5.00	06/13/23 12:25	B3F0366	PO1	10
cis-1,2-Dichloroethene	< 3.00	6.00	U	ug/L	1.03	3.00	06/13/23 12:25	B3F0366	PO1	10
cis-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 12:25	B3F0366	PO1	10
Dibromochloromethane	< 2.00	5.00	U	ug/L	0.759	2.00	06/13/23 12:25	B3F0366	PO1	10
Dibromomethane	< 2.00	5.00	U	ug/L	0.817	2.00	06/13/23 12:25	B3F0366	PO1	10
Dichlorodifluoromethane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 12:25	B3F0366	PO1	10
Ethylbenzene	< 1.00	2.00	U	ug/L	0.300	1.00	06/13/23 12:25	B3F0366	PO1	10
Hexachlorobutadiene	< 2.00	5.00	U	ug/L	1.00	2.00	06/13/23 12:25	B3F0366	PO1	10
Isopropylbenzene	< 2.00	5.00	U	ug/L	0.549	2.00	06/13/23 12:25	B3F0366	PO1	10
m,p-Xylene	< 4.00	10.0	U	ug/L	0.889	4.00	06/13/23 12:25	B3F0366	PO1	10
Methyl tert-butyl ether	< 2.00	5.00	U	ug/L	0.530	2.00	06/13/23 12:25	B3F0366	PO1	10
Methylene chloride	< 5.00	10.0	U	ug/L	2.24	5.00	06/13/23 12:25	B3F0366	PO1	10
n-Butylbenzene	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 12:25	B3F0366	PO1	10
n-Propylbenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 12:25	B3F0366	PO1	10
Naphthalene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 12:25	B3F0366	PO1	10
o-Xylene	< 2.00	5.00	U	ug/L	0.416	2.00	06/13/23 12:25	B3F0366	PO1	10
sec-Butylbenzene	< 2.00	5.00	U	ug/L	0.598	2.00	06/13/23 12:25	B3F0366	PO1	10
Styrene	< 1.00	2.00	U	ug/L	0.453	1.00	06/13/23 12:25	B3F0366	PO1	10
tert-Butylbenzene	< 2.00	5.00	U	ug/L	0.453	2.00	06/13/23 12:25	B3F0366	PO1	10
Tetrachloroethene	< 5.00	10.0	U	ug/L	1.78	5.00	06/13/23 12:25	B3F0366	PO1	10
Toluene	< 2.00	5.00	U	ug/L	0.572	2.00	06/13/23 12:25	B3F0366	PO1	10
trans-1,2-Dichloroethene	< 2.00	5.00	U	ug/L	0.855	2.00	06/13/23 12:25	B3F0366	PO1	10
trans-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 12:25	B3F0366	PO1	10
Trichloroethene	< 2.00	5.00	U	ug/L	0.781	2.00	06/13/23 12:25	B3F0366	PO1	10
Trichlorofluoromethane	< 2.00	5.00	U	ug/L	0.505	2.00	06/13/23 12:25	B3F0366	PO1	10
Vinyl chloride	< 5.00	10.0	U	ug/L	1.29	5.00	06/13/23 12:25	B3F0366	PO1	10

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW38
Report Date: 07/06/2023
Collection Date: 05/31/2023 10:11
Matrix: Groundwater
Lab ID: 23F0136-10 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 99%*	*Limits: 80-119*		*06/13/23 12:25*	*B3F0366*	*PO1*	*10*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 90%*	*Limits: 81-118*		*06/13/23 12:25*	*B3F0366*	*PO1*	*10*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 12:25*	*B3F0366*	*PO1*	*10*
Surrogate: Toluene-d8				*Recovery: 97%*	*Limits: 89-112*		*06/13/23 12:25*	*B3F0366*	*PO1*	*10*
Surrogate: 4-Bromofluorobenzene				*Recovery: 97%*	*Limits: 85-114*		*06/13/23 12:25*	*B3F0366*	*PO1*	*10*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 101%*	*Limits: 87-138*		*06/13/23 12:25*	*B3F0366*	*PO1*	*10*

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531DUP6
Report Date: 07/06/2023
Collection Date: 05/31/2023 11:10
Matrix: Groundwater
Lab ID: 23F0136-11

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**1.14**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:38	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**1.21**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:26	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**0.0265**	0.125	J, D	mg/L	0.0250	0.0500	06/15/23 16:01	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:01	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 16:01	B3F0158	KJ1	5
Barium	**0.0949**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 16:01	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:01	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:01	B3F0158	KJ1	5
Calcium	**61.2**	1.25	D	mg/L	0.500	1.00	06/15/23 17:04	B3F0158	KJ1	50
Chromium	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 16:01	B3F0158	KJ1	5
Cobalt	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:01	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 16:01	B3F0158	KJ1	5
Iron	**0.244**	0.125	D	mg/L	0.0500	0.100	06/15/23 16:01	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 16:01	B3F0158	KJ1	5
Magnesium	**29.4**	1.25	D	mg/L	0.200	0.500	06/15/23 17:04	B3F0158	KJ1	50
Manganese	**0.165**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 16:01	B3F0158	KJ1	5
Nickel	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 16:01	B3F0158	KJ1	5
Potassium	**6.78**	0.125	D	mg/L	0.0500	0.100	06/15/23 16:01	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:01	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 16:01	B3F0158	KJ1	5
Sodium	**171**	1.25	D	mg/L	0.500	1.00	06/15/23 17:04	B3F0158	KJ1	50
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 16:01	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 16:01	B3F0158	KJ1	5
Vanadium	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 16:01	B3F0158	KJ1	5
Zinc	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 16:01	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 10:16	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:16	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 10:16	B3F0173	KJ1	5
Barium, Dissolved	**0.0945**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 10:16	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:16	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:16	B3F0173	KJ1	5
Calcium, Dissolved	**74.9**	1.25	D	mg/L	0.500	1.00	06/14/23 11:33	B3F0173	KJ1	50
Chromium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:16	B3F0173	KJ1	5
Cobalt, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:16	B3F0173	KJ1	5
Copper, Dissolved	**0.0118**	0.0250	J, D	mg/L	0.00300	0.0100	06/14/23 10:16	B3F0173	KJ1	5

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531DUP6
Report Date: 07/06/2023
Collection Date: 05/31/2023 11:10
Matrix: Groundwater
Lab ID: 23F0136-11 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	< 0.100	0.125	U	mg/L	0.0500	0.100	06/14/23 10:16	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:16	B3F0173	KJ1	5
Magnesium, Dissolved	**35.2**	1.25	D	mg/L	0.200	0.500	06/14/23 11:33	B3F0173	KJ1	50
Manganese, Dissolved	**0.0139**	0.0250	J, D	mg/L	0.0025	0.0100	06/14/23 10:16	B3F0173	KJ1	5
Nickel, Dissolved	**0.00359**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:16	B3F0173	KJ1	5
Potassium, Dissolved	**7.22**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:16	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:16	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:16	B3F0173	KJ1	5
Sodium, Dissolved	**166**	5.00	D, B	mg/L	2.00	4.00	06/14/23 12:27	B3F0173	KJ1	200
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:16	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:16	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:16	B3F0173	KJ1	5
Zinc, Dissolved	**0.0121**	0.0250	J, D	mg/L	0.0100	0.0200	06/14/23 10:16	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:41	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:09	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 20:00	B3F0409	PO1	10
1,1,1-Trichloroethane	< 2.00	5.00	U	ug/L	0.877	2.00	06/13/23 20:00	B3F0409	PO1	10
1,1,2,2-Tetrachloroethane	< 2.00	5.00	U	ug/L	0.621	2.00	06/13/23 20:00	B3F0409	PO1	10
1,1,2-Trichloroethane	< 2.00	5.00	U	ug/L	0.832	2.00	06/13/23 20:00	B3F0409	PO1	10
1,1-Dichloroethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 20:00	B3F0409	PO1	10
1,1-Dichloroethene	< 2.00	5.00	U	ug/L	0.954	2.00	06/13/23 20:00	B3F0409	PO1	10
1,1-Dichloropropene	< 2.00	5.00	U	ug/L	0.699	2.00	06/13/23 20:00	B3F0409	PO1	10
1,2,3-Trichlorobenzene	< 2.00	5.00	U	ug/L	1.02	2.00	06/13/23 20:00	B3F0409	PO1	10
1,2,3-Trichloropropane	< 2.00	5.00	U	ug/L	0.913	2.00	06/13/23 20:00	B3F0409	PO1	10
1,2,4-Trichlorobenzene	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 20:00	B3F0409	PO1	10
1,2,4-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.661	2.00	06/13/23 20:00	B3F0409	PO1	10
1,2-Dibromo-3-chloropropane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 20:00	B3F0409	PO1	10
1,2-Dibromoethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 20:00	B3F0409	PO1	10
1,2-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 20:00	B3F0409	PO1	10
1,2-Dichloroethane	< 3.00	6.00	U	ug/L	1.06	3.00	06/13/23 20:00	B3F0409	PO1	10
1,2-Dichloropropane	< 3.00	6.00	U	ug/L	1.02	3.00	06/13/23 20:00	B3F0409	PO1	10
1,3,5-Trimethylbenzene	< 2.00	5.00	U	ug/L	0.500	2.00	06/13/23 20:00	B3F0409	PO1	10
1,3-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.724	2.00	06/13/23 20:00	B3F0409	PO1	10
1,3-Dichloropropane	< 2.00	5.00	U	ug/L	0.680	2.00	06/13/23 20:00	B3F0409	PO1	10
1,4-Dichlorobenzene	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 20:00	B3F0409	PO1	10

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531DUP6
Report Date: 07/06/2023
Collection Date: 05/31/2023 11:10
Matrix: Groundwater
Lab ID: 23F0136-11 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 2.00	5.00	U	ug/L	0.920	2.00	06/13/23 20:00	B3F0409	PO1	10
2-Butanone	< 7.00	17.5	U	ug/L	3.30	7.00	06/13/23 20:00	B3F0409	PO1	10
2-Chlorotoluene	< 2.00	5.00	U	ug/L	0.733	2.00	06/13/23 20:00	B3F0409	PO1	10
2-Hexanone	< 7.00	17.5	U	ug/L	0.716	7.00	06/13/23 20:00	B3F0409	PO1	10
4-Chlorotoluene	< 2.00	5.00	U	ug/L	0.921	2.00	06/13/23 20:00	B3F0409	PO1	10
4-Isopropyltoluene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 20:00	B3F0409	PO1	10
MIBK	< 7.00	17.5	U	ug/L	1.35	7.00	06/13/23 20:00	B3F0409	PO1	10
Acetone	< 20.0	40.0	U	ug/L	5.18	20.0	06/13/23 20:00	B3F0409	PO1	10
Benzene	< 2.00	5.00	U	ug/L	0.507	2.00	06/13/23 20:00	B3F0409	PO1	10
Bromobenzene	< 2.00	5.00	U	ug/L	0.848	2.00	06/13/23 20:00	B3F0409	PO1	10
Bromochloromethane	< 2.00	5.00	U	ug/L	0.669	2.00	06/13/23 20:00	B3F0409	PO1	10
Bromodichloromethane	< 2.00	5.00	U	ug/L	0.531	2.00	06/13/23 20:00	B3F0409	PO1	10
Bromoform	< 2.00	5.00	U	ug/L	1.03	2.00	06/13/23 20:00	B3F0409	PO1	10
Bromomethane	< 5.00	10.0	U	ug/L	1.60	5.00	06/13/23 20:00	B3F0409	PO1	10
Carbon disulfide	< 5.00	10.0	U	ug/L	1.40	5.00	06/13/23 20:00	B3F0409	PO1	10
Carbon tetrachloride	< 2.00	5.00	U	ug/L	0.844	2.00	06/13/23 20:00	B3F0409	PO1	10
Chlorobenzene	< 2.00	5.00	U	ug/L	0.650	2.00	06/13/23 20:00	B3F0409	PO1	10
Chloroethane	< 2.00	5.00	U	ug/L	1.55	2.00	06/13/23 20:00	B3F0409	PO1	10
Chloroform	< 3.00	6.00	U	ug/L	1.01	3.00	06/13/23 20:00	B3F0409	PO1	10
Chloromethane	< 5.00	10.0	U	ug/L	1.92	5.00	06/13/23 20:00	B3F0409	PO1	10
cis-1,2-Dichloroethene	< 3.00	6.00	U	ug/L	1.03	3.00	06/13/23 20:00	B3F0409	PO1	10
cis-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 20:00	B3F0409	PO1	10
Dibromochloromethane	< 2.00	5.00	U	ug/L	0.759	2.00	06/13/23 20:00	B3F0409	PO1	10
Dibromomethane	< 2.00	5.00	U	ug/L	0.817	2.00	06/13/23 20:00	B3F0409	PO1	10
Dichlorodifluoromethane	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 20:00	B3F0409	PO1	10
Ethylbenzene	< 1.00	2.00	U	ug/L	0.300	1.00	06/13/23 20:00	B3F0409	PO1	10
Hexachlorobutadiene	< 2.00	5.00	Q, S1, U	ug/L	1.00	2.00	06/13/23 20:00	B3F0409	PO1	10
Isopropylbenzene	< 2.00	5.00	U	ug/L	0.549	2.00	06/13/23 20:00	B3F0409	PO1	10
m,p-Xylene	< 4.00	10.0	U	ug/L	0.889	4.00	06/13/23 20:00	B3F0409	PO1	10
Methyl tert-butyl ether	< 2.00	5.00	U	ug/L	0.530	2.00	06/13/23 20:00	B3F0409	PO1	10
Methylene chloride	< 5.00	10.0	U	ug/L	2.24	5.00	06/13/23 20:00	B3F0409	PO1	10
n-Butylbenzene	< 5.00	10.0	U	ug/L	1.30	5.00	06/13/23 20:00	B3F0409	PO1	10
n-Propylbenzene	< 2.00	5.00	U	ug/L	0.630	2.00	06/13/23 20:00	B3F0409	PO1	10
Naphthalene	< 2.00	5.00	U	ug/L	0.700	2.00	06/13/23 20:00	B3F0409	PO1	10
o-Xylene	< 2.00	5.00	U	ug/L	0.416	2.00	06/13/23 20:00	B3F0409	PO1	10
sec-Butylbenzene	< 2.00	5.00	U	ug/L	0.598	2.00	06/13/23 20:00	B3F0409	PO1	10
Styrene	< 1.00	2.00	U	ug/L	0.453	1.00	06/13/23 20:00	B3F0409	PO1	10
tert-Butylbenzene	< 2.00	5.00	U	ug/L	0.453	2.00	06/13/23 20:00	B3F0409	PO1	10
Tetrachloroethene	< 5.00	10.0	Q, S1, U	ug/L	1.78	5.00	06/13/23 20:00	B3F0409	PO1	10
Toluene	< 2.00	5.00	U	ug/L	0.572	2.00	06/13/23 20:00	B3F0409	PO1	10
trans-1,2-Dichloroethene	< 2.00	5.00	U	ug/L	0.855	2.00	06/13/23 20:00	B3F0409	PO1	10
trans-1,3-Dichloropropene	< 2.00	5.00	U	ug/L	0.587	2.00	06/13/23 20:00	B3F0409	PO1	10
Trichloroethene	< 2.00	5.00	U	ug/L	0.781	2.00	06/13/23 20:00	B3F0409	PO1	10
Trichlorofluoromethane	< 2.00	5.00	U	ug/L	0.505	2.00	06/13/23 20:00	B3F0409	PO1	10
Vinyl chloride	< 5.00	10.0	U	ug/L	1.29	5.00	06/13/23 20:00	B3F0409	PO1	10

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531DUP6
Report Date: 07/06/2023
Collection Date: 05/31/2023 11:10
Matrix: Groundwater
Lab ID: 23F0136-11 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 98%*	*Limits: 80-119*		*06/13/23 20:00*	*B3F0409*	*PO1*	*10*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 92%*	*Limits: 81-118*		*06/13/23 20:00*	*B3F0409*	*PO1*	*10*
Surrogate: Fluorobenzene				*Recovery: 96%*	*Limits: 80-116*		*06/13/23 20:00*	*B3F0409*	*PO1*	*10*
Surrogate: Toluene-d8				*Recovery: 96%*	*Limits: 89-112*		*06/13/23 20:00*	*B3F0409*	*PO1*	*10*
Surrogate: 4-Bromofluorobenzene				*Recovery: 94%*	*Limits: 85-114*		*06/13/23 20:00*	*B3F0409*	*PO1*	*10*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 103%*	*Limits: 87-138*		*06/13/23 20:00*	*B3F0409*	*PO1*	*10*

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531LHSMW50
Report Date: 07/06/2023
Collection Date: 05/31/2023 15:07
Matrix: Groundwater
Lab ID: 23F0136-12

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**4.12**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:42	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**4.26**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:39	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/15/23 16:02	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:02	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 16:02	B3F0158	KJ1	5
Barium	**0.0351**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 16:02	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:02	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:02	B3F0158	KJ1	5
Calcium	**188**	1.25	D	mg/L	0.500	1.00	06/15/23 17:06	B3F0158	KJ1	50
Chromium	**0.0938**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 16:02	B3F0158	KJ1	5
Cobalt	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:02	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 16:02	B3F0158	KJ1	5
Iron	**0.994**	0.125	D	mg/L	0.0500	0.100	06/15/23 16:02	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 16:02	B3F0158	KJ1	5
Magnesium	**116**	1.25	D	mg/L	0.200	0.500	06/15/23 17:06	B3F0158	KJ1	50
Manganese	**0.00889**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 16:02	B3F0158	KJ1	5
Nickel	**0.423**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 16:02	B3F0158	KJ1	5
Potassium	**1.30**	0.125	D	mg/L	0.0500	0.100	06/15/23 16:02	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:02	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 16:02	B3F0158	KJ1	5
Sodium	**543**	5.00	D	mg/L	2.00	4.00	06/15/23 17:25	B3F0158	KJ1	200
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 16:02	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 16:02	B3F0158	KJ1	5
Vanadium	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 16:02	B3F0158	KJ1	5
Zinc	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 16:02	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 10:25	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:25	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 10:25	B3F0173	KJ1	5
Barium, Dissolved	**0.0338**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 10:25	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:25	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:25	B3F0173	KJ1	5
Calcium, Dissolved	**195**	1.25	D	mg/L	0.500	1.00	06/14/23 11:34	B3F0173	KJ1	50
Chromium, Dissolved	**0.0149**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:25	B3F0173	KJ1	5
Cobalt, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:25	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:25	B3F0173	KJ1	5

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531LHSMW50
Report Date: 07/06/2023
Collection Date: 05/31/2023 15:07
Matrix: Groundwater
Lab ID: 23F0136-12 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	**0.218**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:25	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:25	B3F0173	KJ1	5
Magnesium, Dissolved	**121**	1.25	D	mg/L	0.200	0.500	06/14/23 11:34	B3F0173	KJ1	50
Manganese, Dissolved	**0.0080**	0.0250	J, D	mg/L	0.0025	0.0100	06/14/23 10:25	B3F0173	KJ1	5
Nickel, Dissolved	**0.551**	0.0250	D	mg/L	0.00250	0.0100	06/14/23 10:25	B3F0173	KJ1	5
Potassium, Dissolved	**1.37**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:25	B3F0173	KJ1	5
Selenium, Dissolved	**0.00270**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:25	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:25	B3F0173	KJ1	5
Sodium, Dissolved	**548**	25.0	D, B	mg/L	10.0	20.0	06/14/23 12:29	B3F0173	KJ1	1000
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:25	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:25	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:25	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:25	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:46	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:11	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 18:45	B3F0409	PO1	2
1,1,1-Trichloroethane	< 0.400	1.00	U	ug/L	0.175	0.400	06/13/23 18:45	B3F0409	PO1	2
1,1,2,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.124	0.400	06/13/23 18:45	B3F0409	PO1	2
1,1,2-Trichloroethane	< 0.400	1.00	U	ug/L	0.166	0.400	06/13/23 18:45	B3F0409	PO1	2
1,1-Dichloroethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 18:45	B3F0409	PO1	2
1,1-Dichloroethene	< 0.400	1.00	U	ug/L	0.191	0.400	06/13/23 18:45	B3F0409	PO1	2
1,1-Dichloropropene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 18:45	B3F0409	PO1	2
1,2,3-Trichlorobenzene	< 0.400	1.00	U	ug/L	0.204	0.400	06/13/23 18:45	B3F0409	PO1	2
1,2,3-Trichloropropane	< 0.400	1.00	U	ug/L	0.183	0.400	06/13/23 18:45	B3F0409	PO1	2
1,2,4-Trichlorobenzene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 18:45	B3F0409	PO1	2
1,2,4-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.132	0.400	06/13/23 18:45	B3F0409	PO1	2
1,2-Dibromo-3-chloropropane	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 18:45	B3F0409	PO1	2
1,2-Dibromoethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 18:45	B3F0409	PO1	2
1,2-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 18:45	B3F0409	PO1	2
1,2-Dichloroethane	< 0.600	1.20	U	ug/L	0.212	0.600	06/13/23 18:45	B3F0409	PO1	2
1,2-Dichloropropane	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 18:45	B3F0409	PO1	2
1,3,5-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.100	0.400	06/13/23 18:45	B3F0409	PO1	2
1,3-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.145	0.400	06/13/23 18:45	B3F0409	PO1	2
1,3-Dichloropropane	< 0.400	1.00	U	ug/L	0.136	0.400	06/13/23 18:45	B3F0409	PO1	2
1,4-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 18:45	B3F0409	PO1	2

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531LHSMW50
Report Date: 07/06/2023
Collection Date: 05/31/2023 15:07
Matrix: Groundwater
Lab ID: 23F0136-12 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 18:45	B3F0409	PO1	2
2-Butanone	< 1.40	3.50	U	ug/L	0.660	1.40	06/13/23 18:45	B3F0409	PO1	2
2-Chlorotoluene	< 0.400	1.00	U	ug/L	0.147	0.400	06/13/23 18:45	B3F0409	PO1	2
2-Hexanone	< 1.40	3.50	U	ug/L	0.143	1.40	06/13/23 18:45	B3F0409	PO1	2
4-Chlorotoluene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 18:45	B3F0409	PO1	2
4-Isopropyltoluene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 18:45	B3F0409	PO1	2
MIBK	< 1.40	3.50	U	ug/L	0.270	1.40	06/13/23 18:45	B3F0409	PO1	2
Acetone	< 4.00	8.00	U	ug/L	1.04	4.00	06/13/23 18:45	B3F0409	PO1	2
Benzene	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 18:45	B3F0409	PO1	2
Bromobenzene	< 0.400	1.00	U	ug/L	0.170	0.400	06/13/23 18:45	B3F0409	PO1	2
Bromochloromethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 18:45	B3F0409	PO1	2
Bromodichloromethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 18:45	B3F0409	PO1	2
Bromoform	< 0.400	1.00	U	ug/L	0.206	0.400	06/13/23 18:45	B3F0409	PO1	2
Bromomethane	< 1.00	2.00	U	ug/L	0.320	1.00	06/13/23 18:45	B3F0409	PO1	2
Carbon disulfide	< 1.00	2.00	U	ug/L	0.280	1.00	06/13/23 18:45	B3F0409	PO1	2
Carbon tetrachloride	< 0.400	1.00	U	ug/L	0.169	0.400	06/13/23 18:45	B3F0409	PO1	2
Chlorobenzene	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 18:45	B3F0409	PO1	2
Chloroethane	< 0.400	1.00	U	ug/L	0.311	0.400	06/13/23 18:45	B3F0409	PO1	2
Chloroform	< 0.600	1.20	U	ug/L	0.203	0.600	06/13/23 18:45	B3F0409	PO1	2
Chloromethane	< 1.00	2.00	U	ug/L	0.384	1.00	06/13/23 18:45	B3F0409	PO1	2
cis-1,2-Dichloroethene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 18:45	B3F0409	PO1	2
cis-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 18:45	B3F0409	PO1	2
Dibromochloromethane	< 0.400	1.00	U	ug/L	0.152	0.400	06/13/23 18:45	B3F0409	PO1	2
Dibromomethane	< 0.400	1.00	U	ug/L	0.163	0.400	06/13/23 18:45	B3F0409	PO1	2
Dichlorodifluoromethane	< 1.00	2.00	U	ug/L	0.259	1.00	06/13/23 18:45	B3F0409	PO1	2
Ethylbenzene	< 0.200	0.400	U	ug/L	0.0600	0.200	06/13/23 18:45	B3F0409	PO1	2
Hexachlorobutadiene	< 0.400	1.00	Q, S1, U	ug/L	0.200	0.400	06/13/23 18:45	B3F0409	PO1	2
Isopropylbenzene	< 0.400	1.00	U	ug/L	0.110	0.400	06/13/23 18:45	B3F0409	PO1	2
m,p-Xylene	< 0.800	2.00	U	ug/L	0.178	0.800	06/13/23 18:45	B3F0409	PO1	2
Methyl tert-butyl ether	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 18:45	B3F0409	PO1	2
Methylene chloride	< 1.00	2.00	U	ug/L	0.447	1.00	06/13/23 18:45	B3F0409	PO1	2
n-Butylbenzene	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 18:45	B3F0409	PO1	2
n-Propylbenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 18:45	B3F0409	PO1	2
Naphthalene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 18:45	B3F0409	PO1	2
o-Xylene	< 0.400	1.00	U	ug/L	0.0832	0.400	06/13/23 18:45	B3F0409	PO1	2
sec-Butylbenzene	< 0.400	1.00	U	ug/L	0.120	0.400	06/13/23 18:45	B3F0409	PO1	2
Styrene	< 0.200	0.400	U	ug/L	0.0906	0.200	06/13/23 18:45	B3F0409	PO1	2
tert-Butylbenzene	< 0.400	1.00	U	ug/L	0.0906	0.400	06/13/23 18:45	B3F0409	PO1	2
Tetrachloroethene	< 1.00	2.00	Q, S1, U	ug/L	0.357	1.00	06/13/23 18:45	B3F0409	PO1	2
Toluene	< 0.400	1.00	U	ug/L	0.114	0.400	06/13/23 18:45	B3F0409	PO1	2
trans-1,2-Dichloroethene	< 0.400	1.00	U	ug/L	0.171	0.400	06/13/23 18:45	B3F0409	PO1	2
trans-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 18:45	B3F0409	PO1	2
Trichloroethene	< 0.400	1.00	U	ug/L	0.156	0.400	06/13/23 18:45	B3F0409	PO1	2
Trichlorofluoromethane	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 18:45	B3F0409	PO1	2
Vinyl chloride	< 1.00	2.00	U	ug/L	0.258	1.00	06/13/23 18:45	B3F0409	PO1	2

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 531LHSMW50
Report Date: 07/06/2023
Collection Date: 05/31/2023 15:07
Matrix: Groundwater
Lab ID: 23F0136-12 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 98%*	*Limits: 80-119*		*06/13/23 18:45*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 91%*	*Limits: 81-118*		*06/13/23 18:45*	*B3F0409*	*PO1*	*2*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 18:45*	*B3F0409*	*PO1*	*2*
Surrogate: Toluene-d8				*Recovery: 96%*	*Limits: 89-112*		*06/13/23 18:45*	*B3F0409*	*PO1*	*2*
Surrogate: 4-Bromofluorobenzene				*Recovery: 98%*	*Limits: 85-114*		*06/13/23 18:45*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 103%*	*Limits: 87-138*		*06/13/23 18:45*	*B3F0409*	*PO1*	*2*

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW61
Report Date: 07/06/2023
Collection Date: 05/31/2023 10:35
Matrix: Groundwater
Lab ID: 23F0136-13

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**1.08**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:47	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**1.13**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:43	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**0.0328**	0.125	J, D	mg/L	0.0250	0.0500	06/15/23 16:04	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:04	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 16:04	B3F0158	KJ1	5
Barium	**0.182**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 16:04	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:04	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:04	B3F0158	KJ1	5
Calcium	**78.0**	1.25	D	mg/L	0.500	1.00	06/15/23 17:08	B3F0158	KJ1	50
Chromium	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 16:04	B3F0158	KJ1	5
Cobalt	**0.0122**	0.0250	J, D	mg/L	0.00300	0.0100	06/15/23 16:04	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 16:04	B3F0158	KJ1	5
Iron	**0.111**	0.125	J, D	mg/L	0.0500	0.100	06/15/23 16:04	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 16:04	B3F0158	KJ1	5
Magnesium	**43.9**	1.25	D	mg/L	0.200	0.500	06/15/23 17:08	B3F0158	KJ1	50
Manganese	**1.00**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 16:04	B3F0158	KJ1	5
Nickel	**0.00695**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 16:04	B3F0158	KJ1	5
Potassium	**4.08**	0.125	D	mg/L	0.0500	0.100	06/15/23 16:04	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:04	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 16:04	B3F0158	KJ1	5
Sodium	**531**	5.00	D	mg/L	2.00	4.00	06/15/23 17:27	B3F0158	KJ1	200
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 16:04	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 16:04	B3F0158	KJ1	5
Vanadium	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 16:04	B3F0158	KJ1	5
Zinc	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 16:04	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 10:27	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:27	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 10:27	B3F0173	KJ1	5
Barium, Dissolved	**0.184**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 10:27	B3F0173	KJ1	5
Beryllium, Dissolved	**0.000550**	0.00250	J, D	mg/L	0.000500	0.00200	06/14/23 10:27	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:27	B3F0173	KJ1	5
Calcium, Dissolved	**88.5**	1.25	D	mg/L	0.500	1.00	06/14/23 11:36	B3F0173	KJ1	50
Chromium, Dissolved	**0.00275**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:27	B3F0173	KJ1	5
Cobalt, Dissolved	**0.0123**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:27	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:27	B3F0173	KJ1	5

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW61
Report Date: 07/06/2023
Collection Date: 05/31/2023 10:35
Matrix: Groundwater
Lab ID: 23F0136-13 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	< 0.100	0.125	U	mg/L	0.0500	0.100	06/14/23 10:27	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:27	B3F0173	KJ1	5
Magnesium, Dissolved	**48.0**	1.25	D	mg/L	0.200	0.500	06/14/23 11:36	B3F0173	KJ1	50
Manganese, Dissolved	**0.988**	0.0250	D	mg/L	0.0025	0.0100	06/14/23 10:27	B3F0173	KJ1	5
Nickel, Dissolved	**0.00730**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:27	B3F0173	KJ1	5
Potassium, Dissolved	**4.76**	0.125	D	mg/L	0.0500	0.100	06/14/23 10:27	B3F0173	KJ1	5
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:27	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:27	B3F0173	KJ1	5
Sodium, Dissolved	**527**	25.0	D, B	mg/L	10.0	20.0	06/14/23 12:31	B3F0173	KJ1	1000
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:27	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:27	B3F0173	KJ1	5
Vanadium, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:27	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:27	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:48	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:20	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 19:10	B3F0409	PO1	2
1,1,1-Trichloroethane	< 0.400	1.00	U	ug/L	0.175	0.400	06/13/23 19:10	B3F0409	PO1	2
1,1,2,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.124	0.400	06/13/23 19:10	B3F0409	PO1	2
1,1,2-Trichloroethane	< 0.400	1.00	U	ug/L	0.166	0.400	06/13/23 19:10	B3F0409	PO1	2
1,1-Dichloroethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 19:10	B3F0409	PO1	2
1,1-Dichloroethene	< 0.400	1.00	U	ug/L	0.191	0.400	06/13/23 19:10	B3F0409	PO1	2
1,1-Dichloropropene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 19:10	B3F0409	PO1	2
1,2,3-Trichlorobenzene	< 0.400	1.00	U	ug/L	0.204	0.400	06/13/23 19:10	B3F0409	PO1	2
1,2,3-Trichloropropane	< 0.400	1.00	U	ug/L	0.183	0.400	06/13/23 19:10	B3F0409	PO1	2
1,2,4-Trichlorobenzene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 19:10	B3F0409	PO1	2
1,2,4-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.132	0.400	06/13/23 19:10	B3F0409	PO1	2
1,2-Dibromo-3-chloropropane	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 19:10	B3F0409	PO1	2
1,2-Dibromoethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 19:10	B3F0409	PO1	2
1,2-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 19:10	B3F0409	PO1	2
1,2-Dichloroethane	< 0.600	1.20	U	ug/L	0.212	0.600	06/13/23 19:10	B3F0409	PO1	2
1,2-Dichloropropane	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 19:10	B3F0409	PO1	2
1,3,5-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.100	0.400	06/13/23 19:10	B3F0409	PO1	2
1,3-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.145	0.400	06/13/23 19:10	B3F0409	PO1	2
1,3-Dichloropropane	< 0.400	1.00	U	ug/L	0.136	0.400	06/13/23 19:10	B3F0409	PO1	2
1,4-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 19:10	B3F0409	PO1	2

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW61
Report Date: 07/06/2023
Collection Date: 05/31/2023 10:35
Matrix: Groundwater
Lab ID: 23F0136-13 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 19:10	B3F0409	PO1	2
2-Butanone	< 1.40	3.50	U	ug/L	0.660	1.40	06/13/23 19:10	B3F0409	PO1	2
2-Chlorotoluene	< 0.400	1.00	U	ug/L	0.147	0.400	06/13/23 19:10	B3F0409	PO1	2
2-Hexanone	< 1.40	3.50	U	ug/L	0.143	1.40	06/13/23 19:10	B3F0409	PO1	2
4-Chlorotoluene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 19:10	B3F0409	PO1	2
4-Isopropyltoluene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 19:10	B3F0409	PO1	2
MIBK	< 1.40	3.50	U	ug/L	0.270	1.40	06/13/23 19:10	B3F0409	PO1	2
Acetone	< 4.00	8.00	U	ug/L	1.04	4.00	06/13/23 19:10	B3F0409	PO1	2
Benzene	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 19:10	B3F0409	PO1	2
Bromobenzene	< 0.400	1.00	U	ug/L	0.170	0.400	06/13/23 19:10	B3F0409	PO1	2
Bromochloromethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 19:10	B3F0409	PO1	2
Bromodichloromethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 19:10	B3F0409	PO1	2
Bromoform	< 0.400	1.00	U	ug/L	0.206	0.400	06/13/23 19:10	B3F0409	PO1	2
Bromomethane	< 1.00	2.00	U	ug/L	0.320	1.00	06/13/23 19:10	B3F0409	PO1	2
Carbon disulfide	< 1.00	2.00	U	ug/L	0.280	1.00	06/13/23 19:10	B3F0409	PO1	2
Carbon tetrachloride	< 0.400	1.00	U	ug/L	0.169	0.400	06/13/23 19:10	B3F0409	PO1	2
Chlorobenzene	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 19:10	B3F0409	PO1	2
Chloroethane	< 0.400	1.00	U	ug/L	0.311	0.400	06/13/23 19:10	B3F0409	PO1	2
Chloroform	< 0.600	1.20	U	ug/L	0.203	0.600	06/13/23 19:10	B3F0409	PO1	2
Chloromethane	< 1.00	2.00	U	ug/L	0.384	1.00	06/13/23 19:10	B3F0409	PO1	2
cis-1,2-Dichloroethene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 19:10	B3F0409	PO1	2
cis-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 19:10	B3F0409	PO1	2
Dibromochloromethane	< 0.400	1.00	U	ug/L	0.152	0.400	06/13/23 19:10	B3F0409	PO1	2
Dibromomethane	< 0.400	1.00	U	ug/L	0.163	0.400	06/13/23 19:10	B3F0409	PO1	2
Dichlorodifluoromethane	< 1.00	2.00	U	ug/L	0.259	1.00	06/13/23 19:10	B3F0409	PO1	2
Ethylbenzene	< 0.200	0.400	U	ug/L	0.0600	0.200	06/13/23 19:10	B3F0409	PO1	2
Hexachlorobutadiene	< 0.400	1.00	Q, S1, U	ug/L	0.200	0.400	06/13/23 19:10	B3F0409	PO1	2
Isopropylbenzene	< 0.400	1.00	U	ug/L	0.110	0.400	06/13/23 19:10	B3F0409	PO1	2
m,p-Xylene	< 0.800	2.00	U	ug/L	0.178	0.800	06/13/23 19:10	B3F0409	PO1	2
Methyl tert-butyl ether	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 19:10	B3F0409	PO1	2
Methylene chloride	< 1.00	2.00	U	ug/L	0.447	1.00	06/13/23 19:10	B3F0409	PO1	2
n-Butylbenzene	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 19:10	B3F0409	PO1	2
n-Propylbenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 19:10	B3F0409	PO1	2
Naphthalene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 19:10	B3F0409	PO1	2
o-Xylene	< 0.400	1.00	U	ug/L	0.0832	0.400	06/13/23 19:10	B3F0409	PO1	2
sec-Butylbenzene	< 0.400	1.00	U	ug/L	0.120	0.400	06/13/23 19:10	B3F0409	PO1	2
Styrene	< 0.200	0.400	U	ug/L	0.0906	0.200	06/13/23 19:10	B3F0409	PO1	2
tert-Butylbenzene	< 0.400	1.00	U	ug/L	0.0906	0.400	06/13/23 19:10	B3F0409	PO1	2
Tetrachloroethene	< 1.00	2.00	Q, S1, U	ug/L	0.357	1.00	06/13/23 19:10	B3F0409	PO1	2
Toluene	< 0.400	1.00	U	ug/L	0.114	0.400	06/13/23 19:10	B3F0409	PO1	2
trans-1,2-Dichloroethene	< 0.400	1.00	U	ug/L	0.171	0.400	06/13/23 19:10	B3F0409	PO1	2
trans-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 19:10	B3F0409	PO1	2
Trichloroethene	**0.180**	1.00	J, D	ug/L	0.156	0.400	06/13/23 19:10	B3F0409	PO1	2
Trichlorofluoromethane	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 19:10	B3F0409	PO1	2
Vinyl chloride	< 1.00	2.00	U	ug/L	0.258	1.00	06/13/23 19:10	B3F0409	PO1	2

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 53147WW61
Report Date: 07/06/2023
Collection Date: 05/31/2023 10:35
Matrix: Groundwater
Lab ID: 23F0136-13 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 99%*	*Limits: 80-119*		*06/13/23 19:10*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 91%*	*Limits: 81-118*		*06/13/23 19:10*	*B3F0409*	*PO1*	*2*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 19:10*	*B3F0409*	*PO1*	*2*
Surrogate: Toluene-d8				*Recovery: 96%*	*Limits: 89-112*		*06/13/23 19:10*	*B3F0409*	*PO1*	*2*
Surrogate: 4-Bromofluorobenzene				*Recovery: 98%*	*Limits: 85-114*		*06/13/23 19:10*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 104%*	*Limits: 87-138*		*06/13/23 19:10*	*B3F0409*	*PO1*	*2*

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW31
Report Date: 07/06/2023
Collection Date: 06/01/2023 10:45
Matrix: Groundwater
Lab ID: 23F0136-14

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**9.48**	0.0500		mg/L	0.0100	0.0400	06/06/23 17:51	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**7.96**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:48	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/15/23 16:06	B3F0158	KJ1	5
Antimony	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:06	B3F0158	KJ1	5
Arsenic	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/15/23 16:06	B3F0158	KJ1	5
Barium	**0.0184**	0.0250	J, D	mg/L	0.00200	0.00500	06/15/23 16:06	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:06	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:06	B3F0158	KJ1	5
Calcium	**456**	10.0	D	mg/L	4.00	8.00	06/15/23 17:28	B3F0158	KJ1	400
Chromium	**0.00605**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 16:06	B3F0158	KJ1	5
Cobalt	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:06	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 16:06	B3F0158	KJ1	5
Iron	**0.0587**	0.125	J, D	mg/L	0.0500	0.100	06/15/23 16:06	B3F0158	KJ1	5
Lead	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 16:06	B3F0158	KJ1	5
Magnesium	**223**	1.25	D	mg/L	0.200	0.500	06/15/23 17:09	B3F0158	KJ1	50
Manganese	**0.0701**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 16:06	B3F0158	KJ1	5
Nickel	**0.00870**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 16:06	B3F0158	KJ1	5
Potassium	**19.1**	0.125	D	mg/L	0.0500	0.100	06/15/23 16:06	B3F0158	KJ1	5
Selenium	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:06	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	U	mg/L	0.000400	0.00100	06/15/23 16:06	B3F0158	KJ1	5
Sodium	**1090**	10.0	D	mg/L	4.00	8.00	06/15/23 17:28	B3F0158	KJ1	400
Thallium	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/15/23 16:06	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 16:06	B3F0158	KJ1	5
Vanadium	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/15/23 16:06	B3F0158	KJ1	5
Zinc	**0.0149**	0.0250	J, D	mg/L	0.0100	0.0200	06/15/23 16:06	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	< 0.0500	0.125	U	mg/L	0.0250	0.0500	06/14/23 10:29	B3F0173	KJ1	5
Antimony, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:29	B3F0173	KJ1	5
Arsenic, Dissolved	< 0.00500	0.0250	U	mg/L	0.00200	0.00500	06/14/23 10:29	B3F0173	KJ1	5
Barium, Dissolved	**0.0158**	0.0250	J, D	mg/L	0.00200	0.00500	06/14/23 10:29	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:29	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:29	B3F0173	KJ1	5
Calcium, Dissolved	**363**	50.0	D	mg/L	20.0	40.0	06/14/23 12:33	B3F0173	KJ1	2000
Chromium, Dissolved	**0.0193**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:29	B3F0173	KJ1	5
Cobalt, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:29	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:29	B3F0173	KJ1	5

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW31
Report Date: 07/06/2023
Collection Date: 06/01/2023 10:45
Matrix: Groundwater
Lab ID: 23F0136-14 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	< 0.100	0.125	U	mg/L	0.0500	0.100	06/14/23 10:29	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:29	B3F0173	KJ1	5
Magnesium, Dissolved	**206**	1.25	D	mg/L	0.200	0.500	06/14/23 11:38	B3F0173	KJ1	50
Manganese, Dissolved	**0.0184**	0.0250	J, D	mg/L	0.0025	0.0100	06/14/23 10:29	B3F0173	KJ1	5
Nickel, Dissolved	**0.00901**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:29	B3F0173	KJ1	5
Potassium, Dissolved	**61.3**	1.25	D	mg/L	0.500	1.00	06/14/23 11:38	B3F0173	KJ1	50
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:29	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:29	B3F0173	KJ1	5
Sodium, Dissolved	**1020**	50.0	D, B	mg/L	20.0	40.0	06/14/23 12:33	B3F0173	KJ1	2000
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:29	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:29	B3F0173	KJ1	5
Vanadium, Dissolved	**0.00150**	0.0250	J, D	mg/L	0.00150	0.00500	06/14/23 10:29	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:29	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:50	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:22	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 19:35	B3F0409	PO1	2
1,1,1-Trichloroethane	< 0.400	1.00	U	ug/L	0.175	0.400	06/13/23 19:35	B3F0409	PO1	2
1,1,2,2-Tetrachloroethane	< 0.400	1.00	U	ug/L	0.124	0.400	06/13/23 19:35	B3F0409	PO1	2
1,1,2-Trichloroethane	< 0.400	1.00	U	ug/L	0.166	0.400	06/13/23 19:35	B3F0409	PO1	2
1,1-Dichloroethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 19:35	B3F0409	PO1	2
1,1-Dichloroethene	< 0.400	1.00	U	ug/L	0.191	0.400	06/13/23 19:35	B3F0409	PO1	2
1,1-Dichloropropene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 19:35	B3F0409	PO1	2
1,2,3-Trichlorobenzene	< 0.400	1.00	U	ug/L	0.204	0.400	06/13/23 19:35	B3F0409	PO1	2
1,2,3-Trichloropropane	< 0.400	1.00	U	ug/L	0.183	0.400	06/13/23 19:35	B3F0409	PO1	2
1,2,4-Trichlorobenzene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 19:35	B3F0409	PO1	2
1,2,4-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.132	0.400	06/13/23 19:35	B3F0409	PO1	2
1,2-Dibromo-3-chloropropane	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 19:35	B3F0409	PO1	2
1,2-Dibromoethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 19:35	B3F0409	PO1	2
1,2-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 19:35	B3F0409	PO1	2
1,2-Dichloroethane	< 0.600	1.20	U	ug/L	0.212	0.600	06/13/23 19:35	B3F0409	PO1	2
1,2-Dichloropropane	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 19:35	B3F0409	PO1	2
1,3,5-Trimethylbenzene	< 0.400	1.00	U	ug/L	0.100	0.400	06/13/23 19:35	B3F0409	PO1	2
1,3-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.145	0.400	06/13/23 19:35	B3F0409	PO1	2
1,3-Dichloropropane	< 0.400	1.00	U	ug/L	0.136	0.400	06/13/23 19:35	B3F0409	PO1	2
1,4-Dichlorobenzene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 19:35	B3F0409	PO1	2

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW31
Report Date: 07/06/2023
Collection Date: 06/01/2023 10:45
Matrix: Groundwater
Lab ID: 23F0136-14 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 19:35	B3F0409	PO1	2
2-Butanone	< 1.40	3.50	U	ug/L	0.660	1.40	06/13/23 19:35	B3F0409	PO1	2
2-Chlorotoluene	< 0.400	1.00	U	ug/L	0.147	0.400	06/13/23 19:35	B3F0409	PO1	2
2-Hexanone	< 1.40	3.50	U	ug/L	0.143	1.40	06/13/23 19:35	B3F0409	PO1	2
4-Chlorotoluene	< 0.400	1.00	U	ug/L	0.184	0.400	06/13/23 19:35	B3F0409	PO1	2
4-Isopropyltoluene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 19:35	B3F0409	PO1	2
MIBK	< 1.40	3.50	U	ug/L	0.270	1.40	06/13/23 19:35	B3F0409	PO1	2
Acetone	< 4.00	8.00	U	ug/L	1.04	4.00	06/13/23 19:35	B3F0409	PO1	2
Benzene	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 19:35	B3F0409	PO1	2
Bromobenzene	< 0.400	1.00	U	ug/L	0.170	0.400	06/13/23 19:35	B3F0409	PO1	2
Bromochloromethane	< 0.400	1.00	U	ug/L	0.134	0.400	06/13/23 19:35	B3F0409	PO1	2
Bromodichloromethane	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 19:35	B3F0409	PO1	2
Bromoform	< 0.400	1.00	U	ug/L	0.206	0.400	06/13/23 19:35	B3F0409	PO1	2
Bromomethane	< 1.00	2.00	U	ug/L	0.320	1.00	06/13/23 19:35	B3F0409	PO1	2
Carbon disulfide	< 1.00	2.00	U	ug/L	0.280	1.00	06/13/23 19:35	B3F0409	PO1	2
Carbon tetrachloride	< 0.400	1.00	U	ug/L	0.169	0.400	06/13/23 19:35	B3F0409	PO1	2
Chlorobenzene	< 0.400	1.00	U	ug/L	0.130	0.400	06/13/23 19:35	B3F0409	PO1	2
Chloroethane	< 0.400	1.00	U	ug/L	0.311	0.400	06/13/23 19:35	B3F0409	PO1	2
Chloroform	< 0.600	1.20	U	ug/L	0.203	0.600	06/13/23 19:35	B3F0409	PO1	2
Chloromethane	< 1.00	2.00	U	ug/L	0.384	1.00	06/13/23 19:35	B3F0409	PO1	2
cis-1,2-Dichloroethene	< 0.600	1.20	U	ug/L	0.205	0.600	06/13/23 19:35	B3F0409	PO1	2
cis-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 19:35	B3F0409	PO1	2
Dibromochloromethane	< 0.400	1.00	U	ug/L	0.152	0.400	06/13/23 19:35	B3F0409	PO1	2
Dibromomethane	< 0.400	1.00	U	ug/L	0.163	0.400	06/13/23 19:35	B3F0409	PO1	2
Dichlorodifluoromethane	< 1.00	2.00	U	ug/L	0.259	1.00	06/13/23 19:35	B3F0409	PO1	2
Ethylbenzene	< 0.200	0.400	U	ug/L	0.0600	0.200	06/13/23 19:35	B3F0409	PO1	2
Hexachlorobutadiene	< 0.400	1.00	Q, S1, U	ug/L	0.200	0.400	06/13/23 19:35	B3F0409	PO1	2
Isopropylbenzene	< 0.400	1.00	U	ug/L	0.110	0.400	06/13/23 19:35	B3F0409	PO1	2
m,p-Xylene	< 0.800	2.00	U	ug/L	0.178	0.800	06/13/23 19:35	B3F0409	PO1	2
Methyl tert-butyl ether	< 0.400	1.00	U	ug/L	0.106	0.400	06/13/23 19:35	B3F0409	PO1	2
Methylene chloride	< 1.00	2.00	U	ug/L	0.447	1.00	06/13/23 19:35	B3F0409	PO1	2
n-Butylbenzene	< 1.00	2.00	U	ug/L	0.260	1.00	06/13/23 19:35	B3F0409	PO1	2
n-Propylbenzene	< 0.400	1.00	U	ug/L	0.126	0.400	06/13/23 19:35	B3F0409	PO1	2
Naphthalene	< 0.400	1.00	U	ug/L	0.140	0.400	06/13/23 19:35	B3F0409	PO1	2
o-Xylene	< 0.400	1.00	U	ug/L	0.0832	0.400	06/13/23 19:35	B3F0409	PO1	2
sec-Butylbenzene	< 0.400	1.00	U	ug/L	0.120	0.400	06/13/23 19:35	B3F0409	PO1	2
Styrene	< 0.200	0.400	U	ug/L	0.0906	0.200	06/13/23 19:35	B3F0409	PO1	2
tert-Butylbenzene	< 0.400	1.00	U	ug/L	0.0906	0.400	06/13/23 19:35	B3F0409	PO1	2
Tetrachloroethene	< 1.00	2.00	Q, S1, U	ug/L	0.357	1.00	06/13/23 19:35	B3F0409	PO1	2
Toluene	< 0.400	1.00	U	ug/L	0.114	0.400	06/13/23 19:35	B3F0409	PO1	2
trans-1,2-Dichloroethene	< 0.400	1.00	U	ug/L	0.171	0.400	06/13/23 19:35	B3F0409	PO1	2
trans-1,3-Dichloropropene	< 0.400	1.00	U	ug/L	0.117	0.400	06/13/23 19:35	B3F0409	PO1	2
Trichloroethene	**0.960**	1.00	J, D	ug/L	0.156	0.400	06/13/23 19:35	B3F0409	PO1	2
Trichlorofluoromethane	< 0.400	1.00	U	ug/L	0.101	0.400	06/13/23 19:35	B3F0409	PO1	2
Vinyl chloride	< 1.00	2.00	U	ug/L	0.258	1.00	06/13/23 19:35	B3F0409	PO1	2

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW31
Report Date: 07/06/2023
Collection Date: 06/01/2023 10:45
Matrix: Groundwater
Lab ID: 23F0136-14 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 96%*	*Limits: 80-119*		*06/13/23 19:35*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 87%*	*Limits: 81-118*		*06/13/23 19:35*	*B3F0409*	*PO1*	*2*
Surrogate: Fluorobenzene				*Recovery: 96%*	*Limits: 80-116*		*06/13/23 19:35*	*B3F0409*	*PO1*	*2*
Surrogate: Toluene-d8				*Recovery: 96%*	*Limits: 89-112*		*06/13/23 19:35*	*B3F0409*	*PO1*	*2*
Surrogate: 4-Bromofluorobenzene				*Recovery: 98%*	*Limits: 85-114*		*06/13/23 19:35*	*B3F0409*	*PO1*	*2*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 101%*	*Limits: 87-138*		*06/13/23 19:35*	*B3F0409*	*PO1*	*2*

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW45
Report Date: 07/06/2023
Collection Date: 06/01/2023 12:26
Matrix: Groundwater
Lab ID: 23F0136-15

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Metals by ICP-AES										
Method: SW6010D / SW3015										
Strontium	**5.26**	0.0500		mg/L	0.0100	0.0400	06/06/23 18:14	B3F0161	QD1	1
Dissolved Metals by ICP-AES										
Method: SW6010 D / SW3005										
Strontium, Dissolved	**5.55**	0.0444		mg/L	0.00889	0.0356	06/08/23 16:52	B3F0174	QD1	1
Metals by ICP-MS										
Method: SW6020 B / SW3015										
Aluminum	**0.0644**	0.125	J, D	mg/L	0.0250	0.0500	06/15/23 16:15	B3F0158	KJ1	5
Antimony	**0.00576**	0.0250	J, D	mg/L	0.00300	0.0100	06/15/23 16:15	B3F0158	KJ1	5
Arsenic	**0.00631**	0.0250	J, D	mg/L	0.00200	0.00500	06/15/23 16:15	B3F0158	KJ1	5
Barium	**0.159**	0.0250	D	mg/L	0.00200	0.00500	06/15/23 16:15	B3F0158	KJ1	5
Beryllium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:15	B3F0158	KJ1	5
Cadmium	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/15/23 16:15	B3F0158	KJ1	5
Calcium	**49.1**	1.25	D	mg/L	0.500	1.00	06/15/23 17:11	B3F0158	KJ1	50
Chromium	**0.0363**	0.0250	D	mg/L	0.00250	0.0100	06/15/23 16:15	B3F0158	KJ1	5
Cobalt	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/15/23 16:15	B3F0158	KJ1	5
Copper	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/15/23 16:15	B3F0158	KJ1	5
Iron	**0.110**	0.125	J, D	mg/L	0.0500	0.100	06/15/23 16:15	B3F0158	KJ1	5
Lead	**0.00163**	0.0250	J, D	mg/L	0.00150	0.00500	06/15/23 16:15	B3F0158	KJ1	5
Magnesium	**0.149**	0.125	D	mg/L	0.0200	0.0500	06/15/23 16:15	B3F0158	KJ1	5
Manganese	**0.00456**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 16:15	B3F0158	KJ1	5
Nickel	**0.0132**	0.0250	J, D	mg/L	0.00250	0.0100	06/15/23 16:15	B3F0158	KJ1	5
Potassium	**25.1**	0.125	D, E	mg/L	0.0500	0.100	06/15/23 16:15	B3F0158	KJ1	5
Selenium	**0.00336**	0.0250	J, D	mg/L	0.00300	0.0100	06/15/23 16:15	B3F0158	KJ1	5
Silver	< 0.00100	0.00250	J1, U	mg/L	0.000400	0.00100	06/15/23 16:15	B3F0158	KJ1	5
Sodium	**352**	2.50	D	mg/L	1.00	2.00	06/15/23 17:30	B3F0158	KJ1	100
Thallium	**0.00169**	0.0250	J, D	mg/L	0.000400	0.00100	06/15/23 16:15	B3F0158	KJ1	5
Tin	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 16:15	B3F0158	KJ1	5
Vanadium	**0.0644**	0.0250	D	mg/L	0.00150	0.00500	06/15/23 16:15	B3F0158	KJ1	5
Zinc	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/15/23 16:15	B3F0158	KJ1	5
Dissolved Metals by ICP-MS										
Method: SW6020 B / SW3005										
Aluminum, Dissolved	**0.0494**	0.125	J, D	mg/L	0.0250	0.0500	06/14/23 10:31	B3F0173	KJ1	5
Antimony, Dissolved	**0.00510**	0.0250	J, D	mg/L	0.00300	0.0100	06/14/23 10:31	B3F0173	KJ1	5
Arsenic, Dissolved	**0.00399**	0.0250	J, D	mg/L	0.00200	0.00500	06/14/23 10:31	B3F0173	KJ1	5
Barium, Dissolved	**0.152**	0.0250	D	mg/L	0.00200	0.00500	06/14/23 10:31	B3F0173	KJ1	5
Beryllium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:31	B3F0173	KJ1	5
Cadmium, Dissolved	< 0.00200	0.00250	U	mg/L	0.000500	0.00200	06/14/23 10:31	B3F0173	KJ1	5
Calcium, Dissolved	**48.4**	1.25	D	mg/L	0.500	1.00	06/14/23 11:44	B3F0173	KJ1	50
Chromium, Dissolved	**0.0139**	0.0250	J, D	mg/L	0.00250	0.0100	06/14/23 10:31	B3F0173	KJ1	5
Cobalt, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:31	B3F0173	KJ1	5
Copper, Dissolved	< 0.0100	0.0250	U	mg/L	0.00300	0.0100	06/14/23 10:31	B3F0173	KJ1	5

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW45
Report Date: 07/06/2023
Collection Date: 06/01/2023 12:26
Matrix: Groundwater
Lab ID: 23F0136-15 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Dissolved Metals by ICP-MS (Continued)										
Method: SW6020 B / SW3005 (Continued)										
Iron, Dissolved	< 0.100	0.125	U	mg/L	0.0500	0.100	06/14/23 10:31	B3F0173	KJ1	5
Lead, Dissolved	< 0.00500	0.0250	U	mg/L	0.00150	0.00500	06/14/23 10:31	B3F0173	KJ1	5
Magnesium, Dissolved	**0.0489**	0.125	J, D	mg/L	0.0200	0.0500	06/14/23 10:31	B3F0173	KJ1	5
Manganese, Dissolved	< 0.0100	0.0250	U	mg/L	0.0025	0.0100	06/14/23 10:31	B3F0173	KJ1	5
Nickel, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:31	B3F0173	KJ1	5
Potassium, Dissolved	**27.1**	1.25	D	mg/L	0.500	1.00	06/14/23 11:44	B3F0173	KJ1	50
Selenium, Dissolved	< 0.0100	0.0250	U	mg/L	0.00250	0.0100	06/14/23 10:31	B3F0173	KJ1	5
Silver, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:31	B3F0173	KJ1	5
Sodium, Dissolved	**362**	12.5	D, B	mg/L	5.00	10.0	06/14/23 12:43	B3F0173	KJ1	500
Thallium, Dissolved	< 0.00100	0.0250	U	mg/L	0.000400	0.00100	06/14/23 10:31	B3F0173	KJ1	5
Tin, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:31	B3F0173	KJ1	5
Vanadium, Dissolved	**0.0617**	0.0250	D	mg/L	0.00150	0.00500	06/14/23 10:31	B3F0173	KJ1	5
Zinc, Dissolved	< 0.0200	0.0250	U	mg/L	0.0100	0.0200	06/14/23 10:31	B3F0173	KJ1	5
Mercury by CVAA										
Method: SW7470A										
Mercury	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/14/23 10:52	B3F0386	ES1	1
Dissolved Mercury by CVAA										
Method: SW7470A										
Mercury, Dissolved	< 0.00040	0.00050	U	mg/L	0.00020	0.00040	06/12/23 14:24	B3F0309	ES1	1
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 20.0	50.0	U	ug/L	6.50	20.0	06/13/23 20:25	B3F0409	PO1	100
1,1,1-Trichloroethane	< 20.0	50.0	U	ug/L	8.77	20.0	06/13/23 20:25	B3F0409	PO1	100
1,1,2,2-Tetrachloroethane	< 20.0	50.0	U	ug/L	6.21	20.0	06/13/23 20:25	B3F0409	PO1	100
1,1,2-Trichloroethane	< 20.0	50.0	U	ug/L	8.32	20.0	06/13/23 20:25	B3F0409	PO1	100
1,1-Dichloroethane	< 20.0	50.0	U	ug/L	6.69	20.0	06/13/23 20:25	B3F0409	PO1	100
1,1-Dichloroethene	< 20.0	50.0	U	ug/L	9.54	20.0	06/13/23 20:25	B3F0409	PO1	100
1,1-Dichloropropene	< 20.0	50.0	U	ug/L	6.99	20.0	06/13/23 20:25	B3F0409	PO1	100
1,2,3-Trichlorobenzene	< 20.0	50.0	U	ug/L	10.2	20.0	06/13/23 20:25	B3F0409	PO1	100
1,2,3-Trichloropropane	< 20.0	50.0	U	ug/L	9.13	20.0	06/13/23 20:25	B3F0409	PO1	100
1,2,4-Trichlorobenzene	< 30.0	60.0	U	ug/L	10.2	30.0	06/13/23 20:25	B3F0409	PO1	100
1,2,4-Trimethylbenzene	< 20.0	50.0	U	ug/L	6.61	20.0	06/13/23 20:25	B3F0409	PO1	100
1,2-Dibromo-3-chloropropane	< 50.0	100	U	ug/L	13.0	50.0	06/13/23 20:25	B3F0409	PO1	100
1,2-Dibromoethane	< 20.0	50.0	U	ug/L	5.31	20.0	06/13/23 20:25	B3F0409	PO1	100
1,2-Dichlorobenzene	< 20.0	50.0	U	ug/L	6.30	20.0	06/13/23 20:25	B3F0409	PO1	100
1,2-Dichloroethane	< 30.0	60.0	U	ug/L	10.6	30.0	06/13/23 20:25	B3F0409	PO1	100
1,2-Dichloropropane	< 30.0	60.0	U	ug/L	10.2	30.0	06/13/23 20:25	B3F0409	PO1	100
1,3,5-Trimethylbenzene	< 20.0	50.0	U	ug/L	5.00	20.0	06/13/23 20:25	B3F0409	PO1	100
1,3-Dichlorobenzene	< 20.0	50.0	U	ug/L	7.24	20.0	06/13/23 20:25	B3F0409	PO1	100
1,3-Dichloropropane	< 20.0	50.0	U	ug/L	6.80	20.0	06/13/23 20:25	B3F0409	PO1	100
1,4-Dichlorobenzene	< 20.0	50.0	U	ug/L	9.20	20.0	06/13/23 20:25	B3F0409	PO1	100

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW45
Report Date: 07/06/2023
Collection Date: 06/01/2023 12:26
Matrix: Groundwater
Lab ID: 23F0136-15 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
2,2-Dichloropropane	< 20.0	50.0	U	ug/L	9.20	20.0	06/13/23 20:25	B3F0409	PO1	100
2-Butanone	< 70.0	175	U	ug/L	33.0	70.0	06/13/23 20:25	B3F0409	PO1	100
2-Chlorotoluene	< 20.0	50.0	U	ug/L	7.33	20.0	06/13/23 20:25	B3F0409	PO1	100
2-Hexanone	< 70.0	175	U	ug/L	7.16	70.0	06/13/23 20:25	B3F0409	PO1	100
4-Chlorotoluene	< 20.0	50.0	U	ug/L	9.21	20.0	06/13/23 20:25	B3F0409	PO1	100
4-Isopropyltoluene	< 20.0	50.0	U	ug/L	7.00	20.0	06/13/23 20:25	B3F0409	PO1	100
MIBK	< 70.0	175	U	ug/L	13.5	70.0	06/13/23 20:25	B3F0409	PO1	100
Acetone	< 200	400	U	ug/L	51.8	200	06/13/23 20:25	B3F0409	PO1	100
Benzene	< 20.0	50.0	U	ug/L	5.07	20.0	06/13/23 20:25	B3F0409	PO1	100
Bromobenzene	< 20.0	50.0	U	ug/L	8.48	20.0	06/13/23 20:25	B3F0409	PO1	100
Bromochloromethane	< 20.0	50.0	U	ug/L	6.69	20.0	06/13/23 20:25	B3F0409	PO1	100
Bromodichloromethane	< 20.0	50.0	U	ug/L	5.31	20.0	06/13/23 20:25	B3F0409	PO1	100
Bromoform	< 20.0	50.0	U	ug/L	10.3	20.0	06/13/23 20:25	B3F0409	PO1	100
Bromomethane	< 50.0	100	U	ug/L	16.0	50.0	06/13/23 20:25	B3F0409	PO1	100
Carbon disulfide	< 50.0	100	U	ug/L	14.0	50.0	06/13/23 20:25	B3F0409	PO1	100
Carbon tetrachloride	< 20.0	50.0	U	ug/L	8.44	20.0	06/13/23 20:25	B3F0409	PO1	100
Chlorobenzene	< 20.0	50.0	U	ug/L	6.50	20.0	06/13/23 20:25	B3F0409	PO1	100
Chloroethane	< 20.0	50.0	U	ug/L	15.5	20.0	06/13/23 20:25	B3F0409	PO1	100
Chloroform	< 30.0	60.0	U	ug/L	10.1	30.0	06/13/23 20:25	B3F0409	PO1	100
Chloromethane	< 50.0	100	U	ug/L	19.2	50.0	06/13/23 20:25	B3F0409	PO1	100
cis-1,2-Dichloroethene	**24.0**	60.0	J, D	ug/L	10.3	30.0	06/13/23 20:25	B3F0409	PO1	100
cis-1,3-Dichloropropene	< 20.0	50.0	U	ug/L	5.87	20.0	06/13/23 20:25	B3F0409	PO1	100
Dibromochloromethane	< 20.0	50.0	U	ug/L	7.59	20.0	06/13/23 20:25	B3F0409	PO1	100
Dibromomethane	< 20.0	50.0	U	ug/L	8.17	20.0	06/13/23 20:25	B3F0409	PO1	100
Dichlorodifluoromethane	< 50.0	100	U	ug/L	13.0	50.0	06/13/23 20:25	B3F0409	PO1	100
Ethylbenzene	< 10.0	20.0	U	ug/L	3.00	10.0	06/13/23 20:25	B3F0409	PO1	100
Hexachlorobutadiene	< 20.0	50.0	Q, S1, U	ug/L	10.0	20.0	06/13/23 20:25	B3F0409	PO1	100
Isopropylbenzene	< 20.0	50.0	U	ug/L	5.49	20.0	06/13/23 20:25	B3F0409	PO1	100
m,p-Xylene	< 40.0	100	U	ug/L	8.89	40.0	06/13/23 20:25	B3F0409	PO1	100
Methyl tert-butyl ether	< 20.0	50.0	U	ug/L	5.30	20.0	06/13/23 20:25	B3F0409	PO1	100
Methylene chloride	< 50.0	100	U	ug/L	22.4	50.0	06/13/23 20:25	B3F0409	PO1	100
n-Butylbenzene	< 50.0	100	U	ug/L	13.0	50.0	06/13/23 20:25	B3F0409	PO1	100
n-Propylbenzene	< 20.0	50.0	U	ug/L	6.30	20.0	06/13/23 20:25	B3F0409	PO1	100
Naphthalene	< 20.0	50.0	U	ug/L	7.00	20.0	06/13/23 20:25	B3F0409	PO1	100
o-Xylene	< 20.0	50.0	U	ug/L	4.16	20.0	06/13/23 20:25	B3F0409	PO1	100
sec-Butylbenzene	< 20.0	50.0	U	ug/L	5.98	20.0	06/13/23 20:25	B3F0409	PO1	100
Styrene	< 10.0	20.0	U	ug/L	4.53	10.0	06/13/23 20:25	B3F0409	PO1	100
tert-Butylbenzene	< 20.0	50.0	U	ug/L	4.53	20.0	06/13/23 20:25	B3F0409	PO1	100
Tetrachloroethene	< 50.0	100	Q, S1, U	ug/L	17.8	50.0	06/13/23 20:25	B3F0409	PO1	100
Toluene	< 20.0	50.0	U	ug/L	5.72	20.0	06/13/23 20:25	B3F0409	PO1	100
trans-1,2-Dichloroethene	< 20.0	50.0	U	ug/L	8.55	20.0	06/13/23 20:25	B3F0409	PO1	100
trans-1,3-Dichloropropene	< 20.0	50.0	U	ug/L	5.87	20.0	06/13/23 20:25	B3F0409	PO1	100
Trichloroethene	**3700**	50.0	E, D	ug/L	7.81	20.0	06/13/23 20:25	B3F0409	PO1	100
Trichlorofluoromethane	< 20.0	50.0	U	ug/L	5.05	20.0	06/13/23 20:25	B3F0409	PO1	100
Vinyl chloride	< 50.0	100	U	ug/L	12.9	50.0	06/13/23 20:25	B3F0409	PO1	100

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 6147WW45
Report Date: 07/06/2023
Collection Date: 06/01/2023 12:26
Matrix: Groundwater
Lab ID: 23F0136-15 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS (Continued)										
Method: SW8260B/D / SW5030 (Continued)										
Surrogate: Dibromofluoromethane				*Recovery: 98%*	*Limits: 80-119*		*06/13/23 20:25*	*B3F0409*	*PO1*	*100*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 91%*	*Limits: 81-118*		*06/13/23 20:25*	*B3F0409*	*PO1*	*100*
Surrogate: Fluorobenzene				*Recovery: 97%*	*Limits: 80-116*		*06/13/23 20:25*	*B3F0409*	*PO1*	*100*
Surrogate: Toluene-d8				*Recovery: 96%*	*Limits: 89-112*		*06/13/23 20:25*	*B3F0409*	*PO1*	*100*
Surrogate: 4-Bromofluorobenzene				*Recovery: 97%*	*Limits: 85-114*		*06/13/23 20:25*	*B3F0409*	*PO1*	*100*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 105%*	*Limits: 87-138*		*06/13/23 20:25*	*B3F0409*	*PO1*	*100*

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 61Trip2
Report Date: 07/06/2023
Collection Date: 06/01/2023 17:50
Matrix: Groundwater
Lab ID: 23F0136-16

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Volatile Organic Compounds by GC/MS										
Method: SW8260B/D / SW5030										
1,1,1,2-Tetrachloroethane	< 0.200	0.500	U	ug/L	0.0650	0.200	06/13/23 20:50	B3F0409	PO1	1
1,1,1-Trichloroethane	< 0.200	0.500	U	ug/L	0.0877	0.200	06/13/23 20:50	B3F0409	PO1	1
1,1,2,2-Tetrachloroethane	< 0.200	0.500	U	ug/L	0.0621	0.200	06/13/23 20:50	B3F0409	PO1	1
1,1,2-Trichloroethane	< 0.200	0.500	U	ug/L	0.0832	0.200	06/13/23 20:50	B3F0409	PO1	1
1,1-Dichloroethane	< 0.200	0.500	U	ug/L	0.0669	0.200	06/13/23 20:50	B3F0409	PO1	1
1,1-Dichloroethene	< 0.200	0.500	U	ug/L	0.0954	0.200	06/13/23 20:50	B3F0409	PO1	1
1,1-Dichloropropene	< 0.200	0.500	U	ug/L	0.0699	0.200	06/13/23 20:50	B3F0409	PO1	1
1,2,3-Trichlorobenzene	< 0.200	0.500	U	ug/L	0.102	0.200	06/13/23 20:50	B3F0409	PO1	1
1,2,3-Trichloropropane	< 0.200	0.500	U	ug/L	0.0913	0.200	06/13/23 20:50	B3F0409	PO1	1
1,2,4-Trichlorobenzene	< 0.300	0.600	U	ug/L	0.102	0.300	06/13/23 20:50	B3F0409	PO1	1
1,2,4-Trimethylbenzene	< 0.200	0.500	U	ug/L	0.0661	0.200	06/13/23 20:50	B3F0409	PO1	1
1,2-Dibromo-3-chloropropane	< 0.500	1.00	U	ug/L	0.130	0.500	06/13/23 20:50	B3F0409	PO1	1
1,2-Dibromoethane	< 0.200	0.500	U	ug/L	0.0531	0.200	06/13/23 20:50	B3F0409	PO1	1
1,2-Dichlorobenzene	< 0.200	0.500	U	ug/L	0.0630	0.200	06/13/23 20:50	B3F0409	PO1	1
1,2-Dichloroethane	< 0.300	0.600	U	ug/L	0.106	0.300	06/13/23 20:50	B3F0409	PO1	1
1,2-Dichloropropane	< 0.300	0.600	U	ug/L	0.102	0.300	06/13/23 20:50	B3F0409	PO1	1
1,3,5-Trimethylbenzene	< 0.200	0.500	U	ug/L	0.0500	0.200	06/13/23 20:50	B3F0409	PO1	1
1,3-Dichlorobenzene	< 0.200	0.500	U	ug/L	0.0724	0.200	06/13/23 20:50	B3F0409	PO1	1
1,3-Dichloropropane	< 0.200	0.500	U	ug/L	0.0680	0.200	06/13/23 20:50	B3F0409	PO1	1
1,4-Dichlorobenzene	< 0.200	0.500	U	ug/L	0.0920	0.200	06/13/23 20:50	B3F0409	PO1	1
2,2-Dichloropropane	< 0.200	0.500	U	ug/L	0.0920	0.200	06/13/23 20:50	B3F0409	PO1	1
2-Butanone	< 0.700	1.75	U	ug/L	0.330	0.700	06/13/23 20:50	B3F0409	PO1	1
2-Chlorotoluene	< 0.200	0.500	U	ug/L	0.0733	0.200	06/13/23 20:50	B3F0409	PO1	1
2-Hexanone	< 0.700	1.75	U	ug/L	0.0716	0.700	06/13/23 20:50	B3F0409	PO1	1
4-Chlorotoluene	< 0.200	0.500	U	ug/L	0.0921	0.200	06/13/23 20:50	B3F0409	PO1	1
4-Isopropyltoluene	< 0.200	0.500	U	ug/L	0.0700	0.200	06/13/23 20:50	B3F0409	PO1	1
MIBK	< 0.700	1.75	U	ug/L	0.135	0.700	06/13/23 20:50	B3F0409	PO1	1
Acetone	< 2.00	4.00	U	ug/L	0.518	2.00	06/13/23 20:50	B3F0409	PO1	1
Benzene	< 0.200	0.500	U	ug/L	0.0507	0.200	06/13/23 20:50	B3F0409	PO1	1
Bromobenzene	< 0.200	0.500	U	ug/L	0.0848	0.200	06/13/23 20:50	B3F0409	PO1	1
Bromochloromethane	< 0.200	0.500	U	ug/L	0.0669	0.200	06/13/23 20:50	B3F0409	PO1	1
Bromodichloromethane	< 0.200	0.500	U	ug/L	0.0531	0.200	06/13/23 20:50	B3F0409	PO1	1
Bromoform	< 0.200	0.500	U	ug/L	0.103	0.200	06/13/23 20:50	B3F0409	PO1	1
Bromomethane	< 0.500	1.00	U	ug/L	0.160	0.500	06/13/23 20:50	B3F0409	PO1	1
Carbon disulfide	< 0.500	1.00	U	ug/L	0.140	0.500	06/13/23 20:50	B3F0409	PO1	1
Carbon tetrachloride	< 0.200	0.500	U	ug/L	0.0844	0.200	06/13/23 20:50	B3F0409	PO1	1
Chlorobenzene	< 0.200	0.500	U	ug/L	0.0650	0.200	06/13/23 20:50	B3F0409	PO1	1
Chloroethane	< 0.200	0.500	U	ug/L	0.155	0.200	06/13/23 20:50	B3F0409	PO1	1
Chloroform	< 0.300	0.600	U	ug/L	0.101	0.300	06/13/23 20:50	B3F0409	PO1	1
Chloromethane	< 0.500	1.00	U	ug/L	0.192	0.500	06/13/23 20:50	B3F0409	PO1	1
cis-1,2-Dichloroethene	< 0.300	0.600	U	ug/L	0.103	0.300	06/13/23 20:50	B3F0409	PO1	1
cis-1,3-Dichloropropene	< 0.200	0.500	U	ug/L	0.0587	0.200	06/13/23 20:50	B3F0409	PO1	1
Dibromochloromethane	< 0.200	0.500	U	ug/L	0.0759	0.200	06/13/23 20:50	B3F0409	PO1	1
Dibromomethane	< 0.200	0.500	U	ug/L	0.0817	0.200	06/13/23 20:50	B3F0409	PO1	1
Dichlorodifluoromethane	< 0.500	1.00	U	ug/L	0.130	0.500	06/13/23 20:50	B3F0409	PO1	1
Ethylbenzene	< 0.100	0.200	U	ug/L	0.0300	0.100	06/13/23 20:50	B3F0409	PO1	1

sterling labs - O'Hare Location

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Client Sample Results

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Client Sample ID: 61Trip2
Report Date: 07/06/2023
Collection Date: 06/01/2023 17:50
Matrix: Groundwater
Lab ID: 23F0136-16 (Continued)

Volatile Organic Compounds by GC/MS (Continued)

Method: SW8260B/D / SW5030 (Continued)

Analyses	Result	EMT Reporting Limit	Qual	Units	MDL	LOD	Date/Time Analyzed	Batch	Analyst	DF
Hexachlorobutadiene	< 0.200	0.500	Q, S1, U	ug/L	0.100	0.200	06/13/23 20:50	B3F0409	PO1	1
Isopropylbenzene	< 0.200	0.500	U	ug/L	0.0549	0.200	06/13/23 20:50	B3F0409	PO1	1
m,p-Xylene	< 0.400	1.00	U	ug/L	0.0889	0.400	06/13/23 20:50	B3F0409	PO1	1
Methyl tert-butyl ether	< 0.200	0.500	U	ug/L	0.0530	0.200	06/13/23 20:50	B3F0409	PO1	1
Methylene chloride	< 0.500	1.00	U	ug/L	0.224	0.500	06/13/23 20:50	B3F0409	PO1	1
n-Butylbenzene	< 0.500	1.00	U	ug/L	0.130	0.500	06/13/23 20:50	B3F0409	PO1	1
n-Propylbenzene	< 0.200	0.500	U	ug/L	0.0630	0.200	06/13/23 20:50	B3F0409	PO1	1
Naphthalene	< 0.200	0.500	U	ug/L	0.0700	0.200	06/13/23 20:50	B3F0409	PO1	1
o-Xylene	< 0.200	0.500	U	ug/L	0.0416	0.200	06/13/23 20:50	B3F0409	PO1	1
sec-Butylbenzene	< 0.200	0.500	U	ug/L	0.0598	0.200	06/13/23 20:50	B3F0409	PO1	1
Styrene	< 0.100	0.200	U	ug/L	0.0453	0.100	06/13/23 20:50	B3F0409	PO1	1
tert-Butylbenzene	< 0.200	0.500	U	ug/L	0.0453	0.200	06/13/23 20:50	B3F0409	PO1	1
Tetrachloroethene	< 0.500	1.00	U	ug/L	0.178	0.500	06/13/23 20:50	B3F0409	PO1	1
Toluene	< 0.200	0.500	U	ug/L	0.0572	0.200	06/13/23 20:50	B3F0409	PO1	1
trans-1,2-Dichloroethene	< 0.200	0.500	U	ug/L	0.0855	0.200	06/13/23 20:50	B3F0409	PO1	1
trans-1,3-Dichloropropene	< 0.200	0.500	U	ug/L	0.0587	0.200	06/13/23 20:50	B3F0409	PO1	1
Trichloroethene	**0.120**	0.500	J	ug/L	0.0781	0.200	06/13/23 20:50	B3F0409	PO1	1
Trichlorofluoromethane	< 0.200	0.500	U	ug/L	0.0505	0.200	06/13/23 20:50	B3F0409	PO1	1
Vinyl chloride	< 0.500	1.00	U	ug/L	0.129	0.500	06/13/23 20:50	B3F0409	PO1	1
Surrogate: Dibromofluoromethane				*Recovery: 99%*	*Limits: 80-119*		*06/13/23 20:50*	*B3F0409*	*PO1*	*1*
Surrogate: 1,2-Dichloroethane-d4				*Recovery: 94%*	*Limits: 81-118*		*06/13/23 20:50*	*B3F0409*	*PO1*	*1*
Surrogate: Fluorobenzene				*Recovery: 96%*	*Limits: 80-116*		*06/13/23 20:50*	*B3F0409*	*PO1*	*1*
Surrogate: Toluene-d8				*Recovery: 96%*	*Limits: 89-112*		*06/13/23 20:50*	*B3F0409*	*PO1*	*1*
Surrogate: 4-Bromofluorobenzene				*Recovery: 98%*	*Limits: 85-114*		*06/13/23 20:50*	*B3F0409*	*PO1*	*1*
Surrogate: 1,2-Dichlorobenzene-d4				*Recovery: 104%*	*Limits: 87-138*		*06/13/23 20:50*	*B3F0409*	*PO1*	*1*

sterling labs - O'Hare Location

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Dates Report

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-01	53147WW29	05/31/23	Groundwater	Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 16:42	B3F0158	S3F0259
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 16:42		
				Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 16:42		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:38		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 16:47	B3F0161	S3F0110
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42	B3F0173	S3F0237
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:03		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:06		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:03		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		

sterling labs - O'Hare Location

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Dates Report

(Continued)

Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-01	53147WW29	05/31/23	Groundwater	Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42	B3F0173	S3F0237
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:42		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 15:35	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/08/23 13:57	06/09/23 08:12	B3F0270	S3F0153
				Volatile Organic Compounds by GC/MS		06/13/23 08:00	06/13/23 11:10	B3F0366	S3F0222
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:15	B3F0386	S3F0232
23F0136-02	53147WW13	05/31/23		Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40	B3F0158	S3F0259
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 16:43		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 16:43		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:40		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 16:51	B3F0161	S3F0110
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44	B3F0173	S3F0237
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:08		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Dates Report

(Continued)

Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-02	53147WW13	05/31/23	Groundwater	Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44	B3F0173	S3F0237
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:44		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 15:48	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/08/23 13:57	06/09/23 08:14	B3F0270	S3F0153
				Volatile Organic Compounds by GC/MS		06/13/23 08:00	06/13/23 11:35	B3F0366	S3F0222
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:24	B3F0386	S3F0232
23F0136-03	53047WW08R	05/30/23		Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 15:42	B3F0158	S3F0259
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:17		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 16:45		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 16:45		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:42		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 16:55	B3F0161	S3F0110

sterling labs - O'Hare Location

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Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-03	53047WW08R	05/30/23	Groundwater	Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46	B3F0173	S3F0237
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:06		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:10		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:06		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:46		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 15:52	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/08/23 13:57	06/09/23 08:16	B3F0270	S3F0153
				Volatile Organic Compounds by GC/MS		06/12/23 12:00	06/12/23 16:55	B3F0366	S3F0209
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:26	B3F0386	S3F0232
23F0136-04	531DUP4	05/31/23		Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:44	B3F0158	S3F0259
				Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 16:47		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		

sterling labs - O'Hare Location

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Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-04	531DUP4	05/31/23	Groundwater	Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:44	B3F0158	S3F0259
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:44		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:00	B3F0161	S3F0110
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48	B3F0173	S3F0237
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:08		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:48		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 15:56	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/08/23 13:57	06/09/23 08:18	B3F0270	S3F0153
				Volatile Organic Compounds by GC/MS		06/13/23 08:00	06/13/23 12:00	B3F0366	S3F0222
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:28	B3F0386	S3F0232
23F0136-05	6147WW34	06/01/23		Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 15:46	B3F0158	S3F0259
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-05	6147WW34	06/01/23	Groundwater	Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:46	B3F0158	S3F0259
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 16:49		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 16:49		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:46		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:04	B3F0161	S3F0110
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49	B3F0173	S3F0237
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:12		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:14		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:49		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:00	B3F0174	S3F0151

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-05	6147WW34	06/01/23	Groundwater	Mercury, Dissolved CVAA		06/08/23 13:57	06/09/23 08:20	B3F0270	S3F0153
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:29	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 16:41	B3F0409	S3F0236
23F0136-06	61DUP6	06/01/23		Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 16:51	B3F0158	S3F0259
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:19		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 16:51		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 17:19		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:47		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:08	B3F0161	S3F0110
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51	B3F0173	S3F0237
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:14		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:16		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:16		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-06	61DUP6	06/01/23	Groundwater	Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51	B3F0173	S3F0237
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:14		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 09:51		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:04	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:00	B3F0309	S3F0199
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:31	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 17:06	B3F0409	S3F0236
23F0136-07	6147WW04	06/01/23		Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:53	B3F0158	S3F0259
				Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:21		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 16:56		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 16:56		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 15:53		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:13	B3F0161	S3F0110
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:20	B3F0173	S3F0237
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		

sterling labs - O'Hare Location

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Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-07	6147WW04	06/01/23	Groundwater	Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08	B3F0173	S3F0237
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:18		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:18		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:08		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:09	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:02	B3F0309	S3F0199
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:33	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 17:31	B3F0409	S3F0236
23F0136-08	6147WW33	06/01/23		Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55	B3F0158	S3F0259
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 16:58		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		

sterling labs - O'Hare Location

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Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-08	6147WW33	06/01/23	Groundwater	Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:55	B3F0158	S3F0259
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 15:55		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:17	B3F0161	S3F0110
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10	B3F0173	S3F0237
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:22		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:10		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:14	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:04	B3F0309	S3F0199
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:35	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 17:56	B3F0409	S3F0236
23F0136-09	6147WW46	06/01/23		Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:57	B3F0158	S3F0259
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:23		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 17:00		
				Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-09	6147WW46	06/01/23	Groundwater	Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 15:57	B3F0158	S3F0259
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 17:00		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:57		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:21	B3F0161	S3F0110
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12	B3F0173	S3F0237
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:29		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:24		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:29		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:12		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:18	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:05	B3F0309	S3F0199
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:37	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 18:21	B3F0409	S3F0236
23F0136-10	53147WW38	05/31/23		Iron, Total ICP-MS		06/06/23 10:53	06/15/23 15:59	B3F0158	S3F0259
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-10	53147WW38	05/31/23	Groundwater	Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 15:59	B3F0158	S3F0259
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:02		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 17:02		
				Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 17:02		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 15:59		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:34	B3F0161	S3F0110
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14	B3F0173	S3F0237
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:25		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:31		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:31		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-10	53147WW38	05/31/23	Groundwater	Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14	B3F0173	S3F0237
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:14		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:22	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:07	B3F0309	S3F0199
				Volatile Organic Compounds by GC/MS		06/13/23 08:00	06/13/23 12:25	B3F0366	S3F0222
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:39	B3F0386	S3F0232
23F0136-11	531DUP6	05/31/23		Copper, Total ICP-MS		06/06/23 10:53	06/15/23 16:01	B3F0158	S3F0259
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:04		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 17:04		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 17:04		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 16:01		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:38	B3F0161	S3F0110
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16	B3F0173	S3F0237
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:33		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:27		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Dates Report

(Continued)

Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-11	531DUP6	05/31/23	Groundwater	Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16	B3F0173	S3F0237
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:33		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:16		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:26	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:09	B3F0309	S3F0199
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:41	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 20:00	B3F0409	S3F0236
23F0136-12	531LHSMW50	05/31/23		Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 16:02	B3F0158	S3F0259
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:25		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 17:06		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 16:02		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 17:06		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:42	B3F0161	S3F0110
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25	B3F0173	S3F0237
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:29		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		

sterling labs - O'Hare Location

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Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-12	531LHSMW50	05/31/23	Groundwater	Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25	B3F0173	S3F0237
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:34		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:34		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:25		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:39	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:11	B3F0309	S3F0199
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:46	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 18:45	B3F0409	S3F0236
23F0136-13	53147WW61	05/31/23		Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 17:08	B3F0158	S3F0259
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:27		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		

sterling labs - O'Hare Location

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Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-13	53147WW61	05/31/23	Groundwater	Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 16:04	B3F0158	S3F0259
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 16:04		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 17:08		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:47	B3F0161	S3F0110
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27	B3F0173	S3F0237
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:36		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:36		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:31		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:27		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:43	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:20	B3F0309	S3F0199
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:48	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 19:10	B3F0409	S3F0236
23F0136-14	6147WW31	06/01/23		Barium, Total ICP-MS		06/06/23 10:53	06/15/23 16:06	B3F0158	S3F0259
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-14	6147WW31	06/01/23	Groundwater	Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 16:06	B3F0158	S3F0259
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:28		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 17:09		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 17:28		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 16:06		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 17:51	B3F0161	S3F0110
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:38	B3F0173	S3F0237
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:38		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:33		
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:33		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:29		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:48	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:22	B3F0309	S3F0199
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:50	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 19:35	B3F0409	S3F0236

sterling labs - O'Hare Location

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Dates Report

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Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-15	6147WW45	06/01/23	Groundwater	Potassium, Total ICP-MS		06/06/23 10:53	06/15/23 16:15	B3F0158	S3F0259
				Vanadium, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Thallium, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Tin, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Selenium, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Antimony, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Lead, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Beryllium, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Nickel, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Zinc, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Sodium, Total ICP-MS		06/06/23 10:53	06/15/23 17:30		
				Manganese, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Magnesium, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Copper, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Chromium, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Cobalt, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Calcium, Total ICP-MS		06/06/23 10:53	06/15/23 17:11		
				Barium, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Arsenic, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Aluminum, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Silver, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Cadmium, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Iron, Total ICP-MS		06/06/23 10:53	06/15/23 16:15		
				Strontium, Total ICP-AES		06/06/23 11:06	06/06/23 18:14	B3F0161	S3F0110
				Manganese, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31	B3F0173	S3F0237
				Sodium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 12:43		
				Nickel, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Lead, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Antimony, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Selenium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Tin, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Magnesium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Vanadium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Cadmium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Zinc, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Thallium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Asenic, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Chromium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Aluminum, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Potassium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:44		
				Barium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Beryllium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		

sterling labs - O'Hare Location

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Dates Report

(Continued)

Client: HDR

Project: Longhorn AAP
10355063, LHAAP-47

SDG: 23F0136

Report Date: 07/06/2023

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23F0136-15	6147WW45	06/01/23	Groundwater	Calcium, Dissolved ICP-MS		06/06/23 14:21	06/14/23 11:44	B3F0173	S3F0237
				Cobalt, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Copper, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Iron, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Silver, Dissolved ICP-MS		06/06/23 14:21	06/14/23 10:31		
				Strontium, Dissolved ICP-AES		06/06/23 14:28	06/08/23 16:52	B3F0174	S3F0151
				Mercury, Dissolved CVAA		06/09/23 12:58	06/12/23 14:24	B3F0309	S3F0199
				Mercury, Total CCVA		06/13/23 11:11	06/14/23 10:52	B3F0386	S3F0232
				Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 20:25	B3F0409	S3F0236
23F0136-16	61Trip2	06/01/23		Volatile Organic Compounds by GC/MS		06/13/23 12:15	06/13/23 20:50		

sterling labs - O'Hare Location

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Quality Control

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Metals by ICP-AES

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0161 - SW3015											
Blank (B3F0161-BLK1)				*Prepared: 06/06/2023 11:06*			*Analyzed: 06/06/2023 16:27*				
Strontium	<0.0400	0.0500	mg/L							U	1
LCS (B3F0161-BS1)				*Prepared: 06/06/2023 11:06*			*Analyzed: 06/06/2023 16:31*				
LCS (B3F0161-BS2)				*Prepared: 06/06/2023 11:06*			*Analyzed: 06/06/2023 16:43*				
Strontium	1.28	0.0500	mg/L	1.250		103	85-115				1
Serial Dilution (B3F0161-DUP1)		**Source: 23F0136-14**		*Prepared: 06/06/2023 11:06*			*Analyzed: 06/06/2023 18:10*				
Strontium	10.2	0.250	mg/L		9.48			8	10	D	5
Matrix Spike (B3F0161-MS1)		**Source: 23F0136-14**		*Prepared: 06/06/2023 11:06*			*Analyzed: 06/06/2023 17:56*				
Strontium	10.6	0.0500	mg/L	1.250	9.48	88	75-125				1
Matrix Spike Dup (B3F0161-MSD1)		**Source: 23F0136-14**		*Prepared: 06/06/2023 11:06*			*Analyzed: 06/06/2023 18:01*				
Strontium	10.7	0.0500	mg/L	1.250	9.48	97	75-125	1	20		1
Post Spike (B3F0161-PS1)		**Source: 23F0136-14**		*Prepared: 06/06/2023 11:06*			*Analyzed: 06/06/2023 18:05*				
Strontium	9.99	0.0556	mg/L	0.6944	9.48	73	80-120			S	1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Dissolved Metals by ICP-AES

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0174 - SW3005											
Blank (B3F0174-BLK1)				*Prepared: 06/06/2023 14:28*			*Analyzed: 06/07/2023 18:29*				
Strontium, Dissolved	<0.0356	0.0444	mg/L							U	1
LCS (B3F0174-BS1)				*Prepared: 06/06/2023 14:28*			*Analyzed: 06/07/2023 18:34*				
Strontium, Dissolved	0.578	0.0444	mg/L	0.5556		104	80-120				1
Post Spike (B3F0174-PS1)		**Source: 23F0196-06**		*Prepared: 06/06/2023 14:28*			*Analyzed: 06/07/2023 20:17*				
Strontium, Dissolved	4.33	0.0494	mg/L	0.6173	4.18	25	80-120			S	1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Metals by ICP-MS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0158 - SW3015											
Blank (B3F0158-BLK1)				*Prepared: 06/06/2023 10:53*			*Analyzed: 06/15/2023 15:34*				
Aluminum	<0.0500	0.125	mg/L							U	5
Antimony	<0.0100	0.0250	mg/L							U	5
Arsenic	<0.00500	0.0250	mg/L							U	5
Barium	<0.00500	0.0250	mg/L							U	5
Beryllium	<0.00200	0.00250	mg/L							U	5
Cadmium	<0.00200	0.00250	mg/L							U	5
Calcium	<0.100	0.125	mg/L							U	5
Chromium	<0.0100	0.0250	mg/L							U	5
Cobalt	<0.0100	0.0250	mg/L							U	5
Copper	<0.0100	0.0250	mg/L							U	5
Iron	<0.100	0.125	mg/L							U	5
Lead	<0.00500	0.0250	mg/L							U	5
Magnesium	<0.0500	0.125	mg/L							U	5
Manganese	<0.0100	0.0250	mg/L							U	5
Nickel	<0.0100	0.0250	mg/L							U	5
Potassium	<0.100	0.125	mg/L							U	5
Selenium	<0.0100	0.0250	mg/L							U	5
Silver	<0.00100	0.00250	mg/L							U	5
Sodium	<0.100	0.125	mg/L							U	5
Thallium	<0.00100	0.0250	mg/L							U	5
Tin	<0.0200	0.0250	mg/L							U	5
Vanadium	<0.00500	0.0250	mg/L							U	5
Zinc	<0.0200	0.0250	mg/L							U	5
LCS (B3F0158-BS1)				*Prepared: 06/06/2023 10:53*			*Analyzed: 06/15/2023 15:36*				
Aluminum	1.27	0.125	mg/L	1.250		101	80-120			D	5
Antimony	1.22	0.0250	mg/L	1.250		97	80-120			D	5
Arsenic	1.21	0.0250	mg/L	1.250		97	80-120			D	5
Barium	1.24	0.0250	mg/L	1.250		99	80-120			D	5
Beryllium	0.123	0.00250	mg/L	0.1250		98	80-120			D	5
Cadmium	0.123	0.00250	mg/L	0.1250		98	80-120			D	5
Calcium	6.50	0.125	mg/L	6.250		104	80-120			D	5
Chromium	1.16	0.0250	mg/L	1.250		93	80-120			D	5
Cobalt	1.32	0.0250	mg/L	1.250		105	80-120			D	5
Copper	1.26	0.0250	mg/L	1.250		101	80-120			D	5
Iron	2.51	0.125	mg/L	2.500		101	80-120			D	5
Lead	1.22	0.0250	mg/L	1.250		97	80-120			D	5
Magnesium	6.36	0.125	mg/L	6.250		102	80-120			D	5
Manganese	1.24	0.0250	mg/L	1.250		99	80-120			D	5
Nickel	1.25	0.0250	mg/L	1.250		100	80-120			D	5
Potassium	6.35	0.125	mg/L	6.250		102	80-120			D	5
Selenium	1.11	0.0250	mg/L	1.250		89	80-120			D	5

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Metals by ICP-MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0158 - SW3015 *(Continued)*											
LCS (B3F0158-BS1) (Continued)				*Prepared: 06/06/2023 10:53*			*Analyzed: 06/15/2023 15:36*				
Silver	0.139	0.00250	mg/L	0.1250		111	80-120			D	5
Sodium	6.38	0.125	mg/L	6.250		102	80-120			D	5
Thallium	1.22	0.0250	mg/L	1.250		98	80-120			D	5
Tin	1.26	0.0250	mg/L	1.250		101	80-120			D	5
Vanadium	1.34	0.0250	mg/L	1.250		107	80-120			D	5
Zinc	1.16	0.0250	mg/L	1.250		93	80-120			D	5
Serial Dilution (B3F0158-DUP1)				**Source: 23F0136-15**	*Prepared: 06/06/2023 10:53*		*Analyzed: 06/15/2023 16:23*				
Aluminum	<0.250	0.625	mg/L		ND				10	U	25
Antimony	<0.0500	0.125	mg/L		ND				10	U	25
Arsenic	<0.0250	0.125	mg/L		ND				10	U	25
Barium	0.165	0.125	mg/L		0.159			4	10	D	25
Beryllium	<0.0100	0.0125	mg/L		ND				10	U	25
Cadmium	<0.0100	0.0125	mg/L		ND				10	U	25
Calcium	49.1	0.625	mg/L		46.2			6	10	D	25
Chromium	0.0373	0.125	mg/L		0.0363			3	10	J, D	25
Cobalt	<0.0500	0.125	mg/L		ND				10	U	25
Copper	<0.0500	0.125	mg/L		ND				10	U	25
Iron	<0.500	0.625	mg/L		ND				10	U	25
Lead	<0.0250	0.125	mg/L		ND				10	U	25
Magnesium	0.189	0.625	mg/L		0.149			24	10	P, J, D	25
Manganese	<0.0500	0.125	mg/L		ND				10	U	25
Nickel	0.0135	0.125	mg/L		0.0132			3	10	J, D	25
Potassium	25.9	0.625	mg/L		25.1			3	10	D	25
Selenium	<0.0500	0.125	mg/L		ND				10	U	25
Silver	<0.00500	0.0125	mg/L		ND				10	U	25
Sodium	370	0.625	mg/L		359			3	10	D, E	25
Thallium	0.00220	0.125	mg/L		ND			26	10	P, J, D	25
Tin	<0.100	0.125	mg/L		ND				10	U	25
Vanadium	0.0620	0.125	mg/L		0.0644			4	10	J, D	25
Zinc	<0.100	0.125	mg/L		ND				10	U	25
Matrix Spike (B3F0158-MS1)				**Source: 23F0136-15**	*Prepared: 06/06/2023 10:53*		*Analyzed: 06/15/2023 16:17*				
Aluminum	1.35	0.125	mg/L	1.250	0.0644	102	75-125			D	5
Antimony	1.26	0.0250	mg/L	1.250	0.00576	100	75-125			D	5
Arsenic	1.22	0.0250	mg/L	1.250	0.00631	97	75-125			D	5
Barium	1.42	0.0250	mg/L	1.250	0.159	101	75-125			D	5
Beryllium	0.125	0.00250	mg/L	0.1250	ND	100	75-125			D	5
Cadmium	0.123	0.00250	mg/L	0.1250	ND	99	75-125			D	5
Calcium	54.7	0.125	mg/L	6.250	46.2	135	75-125			S, D, E	5
Chromium	1.15	0.0250	mg/L	1.250	0.0363	89	75-125			D	5

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Metals by ICP-MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0158 - SW3015 *(Continued)*											
Matrix Spike (B3F0158-MS1) (Continued)				**Source: 23F0136-15**		*Prepared: 06/06/2023 10:53*		*Analyzed: 06/15/2023 16:17*			
Cobalt	1.28	0.0250	mg/L	1.250	ND	102	75-125			D	5
Copper	1.19	0.0250	mg/L	1.250	ND	95	75-125			D	5
Iron	2.57	0.125	mg/L	2.500	0.110	98	75-125			D	5
Lead	1.26	0.0250	mg/L	1.250	0.00163	101	75-125			D	5
Magnesium	6.44	0.125	mg/L	6.250	0.149	101	75-125			D	5
Manganese	1.21	0.0250	mg/L	1.250	0.00456	97	75-125			D	5
Nickel	1.21	0.0250	mg/L	1.250	0.0132	96	75-125			D	5
Potassium	30.1	0.125	mg/L	6.250	25.1	81	75-125			D, E	5
Selenium	1.13	0.0250	mg/L	1.250	0.00336	90	75-125			D	5
Silver	0.0432	0.00250	mg/L	0.1250	ND	35	75-125			S, D	5
Sodium	378	0.125	mg/L	6.250	359	314	75-125			S, D, E	5
Thallium	1.26	0.0250	mg/L	1.250	0.00169	100	75-125			D	5
Tin	1.29	0.0250	mg/L	1.250	ND	103	75-125			D	5
Vanadium	1.39	0.0250	mg/L	1.250	0.0644	106	75-125			D	5
Zinc	1.14	0.0250	mg/L	1.250	ND	91	75-125			D	5
Matrix Spike Dup (B3F0158-MSD1)				**Source: 23F0136-15**		*Prepared: 06/06/2023 10:53*		*Analyzed: 06/15/2023 16:19*			
Aluminum	1.43	0.125	mg/L	1.250	0.0644	109	75-125	6	20	D	5
Antimony	1.25	0.0250	mg/L	1.250	0.00576	100	75-125	0.7	20	D	5
Arsenic	1.20	0.0250	mg/L	1.250	0.00631	95	75-125	2	20	D	5
Barium	1.40	0.0250	mg/L	1.250	0.159	99	75-125	2	20	D	5
Beryllium	0.123	0.00250	mg/L	0.1250	ND	98	75-125	2	20	D	5
Cadmium	0.121	0.00250	mg/L	0.1250	ND	97	75-125	2	20	D	5
Calcium	53.5	0.125	mg/L	6.250	46.2	116	75-125	2	20	D, E	5
Chromium	1.13	0.0250	mg/L	1.250	0.0363	87	75-125	2	20	D	5
Cobalt	1.26	0.0250	mg/L	1.250	ND	101	75-125	2	20	D	5
Copper	1.18	0.0250	mg/L	1.250	ND	94	75-125	1	20	D	5
Iron	2.52	0.125	mg/L	2.500	0.110	97	75-125	2	20	D	5
Lead	1.21	0.0250	mg/L	1.250	0.00163	97	75-125	4	20	D	5
Magnesium	6.33	0.125	mg/L	6.250	0.149	99	75-125	2	20	D	5
Manganese	1.19	0.0250	mg/L	1.250	0.00456	95	75-125	2	20	D	5
Nickel	1.20	0.0250	mg/L	1.250	0.0132	95	75-125	0.5	20	D	5
Potassium	29.7	0.125	mg/L	6.250	25.1	75	75-125	1	20	D, E	5
Selenium	1.10	0.0250	mg/L	1.250	0.00336	88	75-125	2	20	D	5
Silver	0.0368	0.00250	mg/L	0.1250	ND	29	75-125	16	20	S, D	5
Sodium	371	0.125	mg/L	6.250	359	192	75-125	2	20	S, D, E	5
Thallium	1.24	0.0250	mg/L	1.250	0.00169	99	75-125	2	20	D	5
Tin	1.27	0.0250	mg/L	1.250	ND	102	75-125	1	20	D	5
Vanadium	1.31	0.0250	mg/L	1.250	0.0644	100	75-125	5	20	D	5
Zinc	1.14	0.0250	mg/L	1.250	ND	91	75-125	0.7	20	D	5

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Metals by ICP-MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0158 - SW3015 *(Continued)*											
Post Spike (B3F0158-PS1)				**Source: 23F0136-15**	*Prepared: 06/06/2023 10:53*		*Analyzed: 06/15/2023 16:21*				
Aluminum	0.369	0.125	mg/L	0.3125	0.0644	97	80-120			D	1
Antimony	0.324	0.0250	mg/L	0.3125	0.00576	102	80-120			D	1
Arsenic	0.304	0.0250	mg/L	0.3125	0.00631	95	80-120			D	1
Barium	0.465	0.0250	mg/L	0.3125	0.159	98	80-120			D	1
Beryllium	0.153	0.00250	mg/L	0.1562	ND	98	80-120			D	1
Cadmium	0.298	0.00250	mg/L	0.3125	ND	96	80-120			D	1
Calcium	47.8	0.125	mg/L	1.562	46.2	102	80-120			D, E	1
Chromium	0.334	0.0250	mg/L	0.3125	0.0363	95	80-120			D	1
Cobalt	0.304	0.0250	mg/L	0.3125	ND	97	80-120			D	1
Copper	0.313	0.0250	mg/L	0.3125	ND	100	80-120			D	1
Iron	1.60	0.125	mg/L	1.562	0.110	95	80-120			D	1
Lead	0.325	0.0250	mg/L	0.3125	0.00163	104	80-120			D	1
Magnesium	1.68	0.125	mg/L	1.562	0.149	98	80-120			D	1
Manganese	0.302	0.0250	mg/L	0.3125	0.00456	95	80-120			D	1
Nickel	0.300	0.0250	mg/L	0.3125	0.0132	92	80-120			D	1
Potassium	25.9	0.125	mg/L	1.562	25.1	57	80-120			S, D, E	1
Selenium	0.281	0.0250	mg/L	0.3125	0.00336	89	80-120			D	1
Silver	0.316	0.00250	mg/L	0.3125	ND	101	80-120			D	1
Sodium	362	0.125	mg/L	1.562	359	213	80-120			S, D, E	1
Thallium	0.317	0.0250	mg/L	0.3125	0.00169	101	80-120			D	1
Tin	0.329	0.0250	mg/L	0.3125	ND	105	80-120			D	1
Vanadium	0.362	0.0250	mg/L	0.3125	0.0644	95	80-120			D	1
Zinc	0.296	0.0250	mg/L	0.3125	ND	95	80-120			D	1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Dissolved Metals by ICP-MS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0173 - SW3005											
Blank (B3F0173-BLK1)				*Prepared: 06/06/2023 14:21*			*Analyzed: 06/14/2023 09:38*				
Aluminum, Dissolved	<0.0100	0.0250	mg/L							U	1
Antimony, Dissolved	<0.00200	0.00500	mg/L							U	1
Arsenic, Dissolved	<0.00100	0.00500	mg/L							U	1
Barium, Dissolved	<0.00100	0.00500	mg/L							U	1
Beryllium, Dissolved	<0.000400	0.000500	mg/L							U	1
Cadmium, Dissolved	<0.000400	0.000500	mg/L							U	1
Calcium, Dissolved	<0.0200	0.0250	mg/L							U	1
Chromium, Dissolved	<0.00200	0.00500	mg/L							U	1
Cobalt, Dissolved	<0.00200	0.00500	mg/L							U	1
Copper, Dissolved	<0.00200	0.00500	mg/L							U	1
Iron, Dissolved	<0.0200	0.0250	mg/L							U	1
Lead, Dissolved	<0.00100	0.00500	mg/L							U	1
Magnesium, Dissolved	<0.0100	0.0250	mg/L							U	1
Manganese, Dissolved	<0.0020	0.0050	mg/L							U	1
Nickel, Dissolved	<0.00200	0.00500	mg/L							U	1
Potassium, Dissolved	<0.0200	0.0250	mg/L							U	1
Selenium, Dissolved	<0.00200	0.00500	mg/L							U	1
Silver, Dissolved	<0.000200	0.00500	mg/L							U	1
Sodium, Dissolved	0.0530	0.0250	mg/L							D	1
Thallium, Dissolved	<0.000200	0.00500	mg/L							U	1
Tin, Dissolved	<0.00400	0.00500	mg/L							U	1
Vanadium, Dissolved	<0.00100	0.00500	mg/L							U	1
Zinc, Dissolved	<0.00400	0.00500	mg/L							U	1
Blank (B3F0173-BLK2)				*Prepared: 06/06/2023 14:21*			*Analyzed: 06/15/2023 15:33*				
Aluminum, Dissolved	<0.0100	0.0250	mg/L							U	1
Sodium, Dissolved	<0.0200	0.0250	mg/L							U	1
LCS (B3F0173-BS1)				*Prepared: 06/06/2023 14:21*			*Analyzed: 06/14/2023 09:40*				
Aluminum, Dissolved	0.108	0.0450	mg/L	0.1000		108	84-117			D	1
Antimony, Dissolved	0.0975	0.00900	mg/L	0.1000		98	80-120			D	1
Arsenic, Dissolved	0.0986	0.00900	mg/L	0.1000		99	84-116			D	1
Barium, Dissolved	0.100	0.00900	mg/L	0.1000		100	86-114			D	1
Beryllium, Dissolved	0.0486	0.000900	mg/L	0.05000		97	83-121			D	1
Cadmium, Dissolved	0.0963	0.000900	mg/L	0.1000		96	87-115			D	1
Calcium, Dissolved	0.502	0.0450	mg/L	0.5000		100	87-118			D	1
Chromium, Dissolved	0.0990	0.00900	mg/L	0.1000		99	85-116			D	1
Cobalt, Dissolved	0.0958	0.00900	mg/L	0.1000		96	86-115			D	1
Copper, Dissolved	0.0985	0.00900	mg/L	0.1000		99	85-118			D	1
Iron, Dissolved	0.478	0.0450	mg/L	0.5000		96	87-118			D	1
Lead, Dissolved	0.0955	0.00900	mg/L	0.1000		96	88-115			D	1
Magnesium, Dissolved	0.512	0.0450	mg/L	0.5000		102	83-118			D	1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Dissolved Metals by ICP-MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0173 - SW3005 *(Continued)*											
LCS (B3F0173-BS1) (Continued)				*Prepared: 06/06/2023 14:21*			*Analyzed: 06/14/2023 09:40*				
Manganese, Dissolved	0.0982	0.0090	mg/L	0.1000		98	87-115			D	1
Nickel, Dissolved	0.0977	0.00900	mg/L	0.1000		98	85-117			D	1
Potassium, Dissolved	0.513	0.0450	mg/L	0.5000		103	87-115			D	1
Selenium, Dissolved	0.100	0.00900	mg/L	0.1000		100	80-120			D	1
Silver, Dissolved	0.0972	0.00900	mg/L	0.1000		97	85-116			D	1
Sodium, Dissolved	0.510	0.0450	mg/L	0.5000		102	85-117			D, B	1
Thallium, Dissolved	0.0994	0.00900	mg/L	0.1000		99	82-116			D	1
Tin, Dissolved	0.0981	0.00900	mg/L	0.1000		98	86-115			D	1
Vanadium, Dissolved	0.0989	0.00900	mg/L	0.1000		99	86-115			D	1
Zinc, Dissolved	0.0995	0.00900	mg/L	0.1000		99	83-119			D	1
Serial Dilution (B3F0173-DUP1)				**Source: 23F0196-06**	*Prepared: 06/06/2023 14:21*		*Analyzed: 06/14/2023 10:51*				
Aluminum, Dissolved	<0.250	0.625	mg/L		ND				10	U	25
Antimony, Dissolved	<0.0500	0.125	mg/L		ND				10	U	25
Arsenic, Dissolved	<0.0250	0.125	mg/L		ND				10	U	25
Barium, Dissolved	0.243	0.125	mg/L		0.243			0.06	10	D	25
Beryllium, Dissolved	<0.0100	0.0125	mg/L		ND				10	U	25
Cadmium, Dissolved	<0.0100	0.0125	mg/L		ND				10	U	25
Calcium, Dissolved	153	0.625	mg/L		146			4	10	D, E	25
Chromium, Dissolved	0.0144	0.125	mg/L		ND			35	10	P, J, D	25
Cobalt, Dissolved	<0.0500	0.125	mg/L		ND				10	U	25
Copper, Dissolved	<0.0500	0.125	mg/L		ND				10	U	25
Iron, Dissolved	<0.500	0.625	mg/L		0.312				10	U	25
Lead, Dissolved	<0.0250	0.125	mg/L		ND				10	U	25
Magnesium, Dissolved	89.7	0.625	mg/L		86.2			4	10	D	25
Manganese, Dissolved	0.227	0.125	mg/L		0.225			1	10	D	25
Nickel, Dissolved	0.0242	0.125	mg/L		0.0236			2	10	J, D	25
Potassium, Dissolved	17.5	0.625	mg/L		16.5			5	10	D	25
Selenium, Dissolved	<0.0500	0.125	mg/L		ND				10	U	25
Silver, Dissolved	<0.00500	0.125	mg/L		ND				10	U	25
Sodium, Dissolved	680	0.625	mg/L		653			4	10	D, B, E	25
Thallium, Dissolved	<0.00500	0.125	mg/L		ND				10	P, U	25
Tin, Dissolved	<0.100	0.125	mg/L		ND				10	U	25
Vanadium, Dissolved	<0.0250	0.125	mg/L		ND				10	U	25
Zinc, Dissolved	<0.100	0.125	mg/L		ND				10	U	25
Post Spike (B3F0173-PS1)				**Source: 23F0196-06**	*Prepared: 06/06/2023 14:21*		*Analyzed: 06/14/2023 10:49*				
Aluminum, Dissolved	0.322	0.125	mg/L	0.2778	ND	116	75-125			D	1
Antimony, Dissolved	0.272	0.0250	mg/L	0.2778	ND	98	75-125			D	1
Arsenic, Dissolved	0.269	0.0250	mg/L	0.2778	ND	97	75-125			D	1
Barium, Dissolved	0.512	0.0250	mg/L	0.2778	0.243	97	75-125			D	1
Beryllium, Dissolved	0.140	0.00250	mg/L	0.1389	ND	101	75-125			D	1

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Dissolved Metals by ICP-MS

(Continued)

Batch: B3F0173 - SW3005 *(Continued)*

Post Spike (B3F0173-PS1) (Continued) **Source: 23F0196-06** *Prepared: 06/06/2023 14:21 Analyzed: 06/14/2023 10:49*

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Cadmium, Dissolved	0.252	0.00250	mg/L	0.2778	ND	91	75-125			D	1
Calcium, Dissolved	147	0.125	mg/L	1.389	146	29	75-125			S, D, E	1
Chromium, Dissolved	0.264	0.0250	mg/L	0.2778	0.0102	91	75-125			D	1
Cobalt, Dissolved	0.262	0.0250	mg/L	0.2778	ND	94	75-125			D	1
Copper, Dissolved	0.257	0.0250	mg/L	0.2778	ND	92	75-125			D	1
Iron, Dissolved	1.68	0.125	mg/L	1.389	0.312	99	75-125			D	1
Lead, Dissolved	0.278	0.0250	mg/L	0.2778	ND	100	75-125			D	1
Magnesium, Dissolved	87.9	0.125	mg/L	1.389	86.2	125	75-125			D, E	1
Manganese, Dissolved	0.499	0.0250	mg/L	0.2778	0.225	99	75-125			D	1
Nickel, Dissolved	0.280	0.0250	mg/L	0.2778	0.0236	92	75-125			D	1
Potassium, Dissolved	18.0	0.125	mg/L	1.389	16.5	104	75-125			D	1
Selenium, Dissolved	0.249	0.0250	mg/L	0.2778	ND	90	75-125			D	1
Silver, Dissolved	0.243	0.0250	mg/L	0.2778	ND	87	75-125			D	1
Sodium, Dissolved	664	0.125	mg/L	1.389	653	818	75-125			S, D, B, E	1
Thallium, Dissolved	0.277	0.0250	mg/L	0.2778	ND	100	75-125			D	1
Tin, Dissolved	0.271	0.0250	mg/L	0.2778	ND	98	75-125			D	1
Vanadium, Dissolved	0.261	0.0250	mg/L	0.2778	ND	94	75-125			D	1
Zinc, Dissolved	0.253	0.0250	mg/L	0.2778	ND	91	75-125			D	1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Mercury by CVAA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0386											
Blank (B3F0386-BLK1)				*Prepared: 06/13/2023 11:11*			*Analyzed: 06/14/2023 10:02*				
Mercury	<0.00040	0.00050	mg/L							U	1
LCS (B3F0386-BS1)				*Prepared: 06/13/2023 11:11*			*Analyzed: 06/14/2023 10:04*				
Mercury	0.00512	0.00050	mg/L	0.005000		102	87.6-112				1
Leach Fluid Blank (B3F0386-LBK1)				*Prepared: 06/13/2023 11:11*			*Analyzed: 06/14/2023 10:05*				
Mercury	<0.00040	0.00050	mg/L							U	1
MRL Check (B3F0386-MRL1)				*Prepared: 06/13/2023 11:11*			*Analyzed: 06/14/2023 09:57*				
Mercury	0.00056	0.00050	mg/L	0.0005000		112	70-130				1
Matrix Spike (B3F0386-MS1)		**Source: 23F0326-01**		*Prepared: 06/13/2023 11:11*			*Analyzed: 06/14/2023 10:09*				
Mercury	0.00187	0.00050	mg/L	0.002000	ND	93.7	75-125				1
Matrix Spike (B3F0386-MS2)		**Source: 23F0136-01**		*Prepared: 06/13/2023 11:11*			*Analyzed: 06/14/2023 10:16*				
Mercury	0.00224	0.00050	mg/L	0.002000	ND	112	75-125				1
Matrix Spike Dup (B3F0386-MSD1)		**Source: 23F0326-01**		*Prepared: 06/13/2023 11:11*			*Analyzed: 06/14/2023 10:11*				
Mercury	0.00186	0.00050	mg/L	0.002000	ND	92.8	75-125	0.966	20		1
Matrix Spike Dup (B3F0386-MSD2)		**Source: 23F0136-01**		*Prepared: 06/13/2023 11:11*			*Analyzed: 06/14/2023 10:18*				
Mercury	0.00225	0.00050	mg/L	0.002000	ND	113	75-125	0.383	20		1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Dissolved Mercury by CVAA

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0270											
Blank (B3F0270-BLK1)				*Prepared: 06/08/2023 13:57*			*Analyzed: 06/09/2023 07:14*				
Mercury, Dissolved	<0.00040	0.00050	mg/L							U	1
LCS (B3F0270-BS1)				*Prepared: 06/08/2023 13:57*			*Analyzed: 06/09/2023 07:16*				
Mercury, Dissolved	0.00512	0.00050	mg/L	0.005000		102	87.6-112				1
MRL Check (B3F0270-MRL1)				*Prepared: 06/08/2023 13:57*			*Analyzed: 06/09/2023 07:11*				
Mercury, Dissolved	0.00051	0.00050	mg/L	0.0005000		103	70-130				1
Matrix Spike (B3F0270-MS1)		**Source: 23E0775-22**		*Prepared: 06/08/2023 13:57*			*Analyzed: 06/09/2023 07:32*				
Mercury, Dissolved	0.00201	0.00050	mg/L	0.002000	ND	101	75-125				1
Matrix Spike (B3F0270-MS2)		**Source: 23E0775-38**		*Prepared: 06/08/2023 13:57*			*Analyzed: 06/09/2023 07:54*				
Mercury, Dissolved	0.00234	0.00050	mg/L	0.002000	ND	117	75-125				1
Matrix Spike Dup (B3F0270-MSD1)		**Source: 23E0775-22**		*Prepared: 06/08/2023 13:57*			*Analyzed: 06/09/2023 07:33*				
Mercury, Dissolved	0.00208	0.00050	mg/L	0.002000	ND	104	75-125	3.23	20		1
Matrix Spike Dup (B3F0270-MSD2)		**Source: 23E0775-38**		*Prepared: 06/08/2023 13:57*			*Analyzed: 06/09/2023 07:56*				
Mercury, Dissolved	0.00226	0.00050	mg/L	0.002000	ND	113	75-125	3.70	20		1
Batch: B3F0309											
Blank (B3F0309-BLK1)				*Prepared: 06/09/2023 12:58*			*Analyzed: 06/12/2023 13:37*				
Mercury, Dissolved	<0.00040	0.00050	mg/L							U	1
LCS (B3F0309-BS1)				*Prepared: 06/09/2023 12:58*			*Analyzed: 06/12/2023 13:39*				
Mercury, Dissolved	0.00499	0.00050	mg/L	0.005000		99.9	87.6-112				1
MRL Check (B3F0309-MRL1)				*Prepared: 06/09/2023 12:58*			*Analyzed: 06/12/2023 14:00*				
Mercury, Dissolved	0.00060	0.00050	mg/L	0.0005000		121	70-130				1
Matrix Spike (B3F0309-MS1)		**Source: 23F0136-12**		*Prepared: 06/09/2023 12:58*			*Analyzed: 06/12/2023 14:13*				
Mercury, Dissolved	0.00204	0.00050	mg/L	0.002000	ND	102	75-125				1
Matrix Spike Dup (B3F0309-MSD1)		**Source: 23F0136-12**		*Prepared: 06/09/2023 12:58*			*Analyzed: 06/12/2023 14:18*				
Mercury, Dissolved	0.00204	0.00050	mg/L	0.002000	ND	102	75-125	0.245	20		1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0366 - SW5030											
Blank (B3F0366-BLK1)				*Prepared: 06/12/2023 08:20*	*Analyzed: 06/12/2023 11:32*						
1,1,1,2-Tetrachloroethane	<0.200	0.500	ug/L							U	1
1,1,1-Trichloroethane	<0.200	0.500	ug/L							U	1
1,1,2,2-Tetrachloroethane	<0.200	0.500	ug/L							U	1
1,1,2-Trichloroethane	<0.200	0.500	ug/L							U	1
1,1-Dichloroethane	<0.200	0.500	ug/L							U	1
1,1-Dichloroethene	<0.200	0.500	ug/L							U	1
1,1-Dichloropropene	<0.200	0.500	ug/L							U	1
1,2,3-Trichlorobenzene	<0.200	0.500	ug/L							U	1
1,2,3-Trichloropropane	<0.200	0.500	ug/L							U	1
1,2,4-Trichlorobenzene	<0.300	0.600	ug/L							U	1
1,2,4-Trimethylbenzene	<0.200	0.500	ug/L							U	1
1,2-Dibromo-3-chloropropane	<0.500	1.00	ug/L							U	1
1,2-Dibromoethane	<0.200	0.500	ug/L							U	1
1,2-Dichlorobenzene	<0.200	0.500	ug/L							U	1
1,2-Dichloroethane	<0.300	0.600	ug/L							U	1
1,2-Dichloropropane	<0.300	0.600	ug/L							U	1
1,3,5-Trimethylbenzene	<0.200	0.500	ug/L							U	1
1,3-Dichlorobenzene	<0.200	0.500	ug/L							U	1
1,3-Dichloropropane	<0.200	0.500	ug/L							U	1
1,4-Dichlorobenzene	<0.200	0.500	ug/L							U	1
2,2-Dichloropropane	<0.200	0.500	ug/L							U	1
2-Butanone	<0.700	1.75	ug/L							U	1
2-Chlorotoluene	<0.200	0.500	ug/L							U	1
2-Hexanone	<0.700	1.75	ug/L							U	1
4-Chlorotoluene	<0.200	0.500	ug/L							U	1
4-Isopropyltoluene	<0.200	0.500	ug/L							U	1
MIBK (4-Methyl-2-pentanone)	<0.700	1.75	ug/L							U	1
Acetone	<2.00	4.00	ug/L							U	1
Benzene	<0.200	0.500	ug/L							U	1
Bromobenzene	<0.200	0.500	ug/L							U	1
Bromochloromethane	<0.200	0.500	ug/L							U	1
Bromodichloromethane	<0.200	0.500	ug/L							U	1
Bromoform	<0.200	0.500	ug/L							U	1
Bromomethane	<0.500	1.00	ug/L							U	1
Carbon disulfide	<0.500	1.00	ug/L							U	1
Carbon tetrachloride	<0.200	0.500	ug/L							U	1
Chlorobenzene	<0.200	0.500	ug/L							U	1
Chloroethane	<0.200	0.500	ug/L							U	1
Chloroform	<0.300	0.600	ug/L							U	1
Chloromethane	<0.500	1.00	ug/L							U	1
cis-1,2-Dichloroethene	<0.300	0.600	ug/L							U	1
cis-1,3-Dichloropropene	<0.200	0.500	ug/L							U	1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0366 - SW5030 *(Continued)*											
Blank (B3F0366-BLK1) (Continued)				*Prepared: 06/12/2023 08:20*			*Analyzed: 06/12/2023 11:32*				
Dibromochloromethane	<0.200	0.500	ug/L							U	1
Dibromomethane	<0.200	0.500	ug/L							U	1
Dichlorodifluoromethane	<0.500	1.00	ug/L							U	1
Ethylbenzene	<0.100	0.200	ug/L							U	1
Hexachlorobutadiene	<0.200	0.500	ug/L							U	1
Isopropylbenzene	<0.200	0.500	ug/L							U	1
m,p-Xylene	<0.400	1.00	ug/L							U	1
Methyl tert-butyl ether	<0.200	0.500	ug/L							U	1
Methylene chloride	<0.500	1.00	ug/L							U	1
n-Butylbenzene	<0.500	1.00	ug/L							U	1
n-Propylbenzene	<0.200	0.500	ug/L							U	1
Naphthalene	<0.200	0.500	ug/L							U	1
o-Xylene	<0.200	0.500	ug/L							U	1
sec-Butylbenzene	<0.200	0.500	ug/L							U	1
Styrene	<0.100	0.200	ug/L							U	1
tert-Butylbenzene	<0.200	0.500	ug/L							U	1
Tetrachloroethene	<0.500	1.00	ug/L							U	1
Toluene	<0.200	0.500	ug/L							U	1
trans-1,2-Dichloroethene	<0.200	0.500	ug/L							U	1
trans-1,3-Dichloropropene	<0.200	0.500	ug/L							U	1
Trichloroethene	<0.200	0.500	ug/L							U	1
Trichlorofluoromethane	<0.200	0.500	ug/L							U	1
Vinyl chloride	<0.500	1.00	ug/L							U	1
Surrogate: Dibromofluoromethane	*20.1*		*ug/L*	*20.00*		*100*	*80-119*				1
Surrogate: 1,2-Dichloroethane-d4	*18.9*		*ug/L*	*20.00*		*95*	*81-118*				1
Surrogate: Fluorobenzene	*19.4*		*ug/L*	*20.00*		*97*	*80-116*				1
Surrogate: Toluene-d8	*19.2*		*ug/L*	*20.00*		*96*	*89-112*				1
Surrogate: 4-Bromofluorobenzene	*9.91*		*ug/L*	*10.00*		*99*	*85-114*				1
Surrogate: 1,2-Dichlorobenzene-d4	*20.4*		*ug/L*	*20.00*		*102*	*87-138*				1
LCS (B3F0366-BS1)				*Prepared: 06/12/2023 08:20*			*Analyzed: 06/12/2023 10:18*				
1,1,1,2-Tetrachloroethane	14.7	0.500	ug/L	15.00		98	78-124				1
1,1,1-Trichloroethane	14.0	0.500	ug/L	15.00		93	74-131				1
1,1,2,2-Tetrachloroethane	13.5	0.500	ug/L	15.00		90	71-121				1
1,1,2-Trichloroethane	14.4	0.500	ug/L	15.00		96	80-119				1
1,1-Dichloroethane	13.3	0.500	ug/L	15.00		89	77-125				1
1,1-Dichloroethene	12.7	0.500	ug/L	15.00		85	71-131				1
1,1-Dichloropropene	14.0	0.500	ug/L	15.00		93	79-125				1
1,2,3-Trichlorobenzene	13.9	0.500	ug/L	15.00		93	69-129				1
1,2,3-Trichloropropane	13.9	0.500	ug/L	15.00		93	73-122				1
1,2,4-Trichlorobenzene	14.0	0.600	ug/L	15.00		93	69-130				1
1,2,4-Trimethylbenzene	13.3	0.500	ug/L	15.00		89	76-124				1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Batch: B3F0366 - SW5030 *(Continued)*

LCS (B3F0366-BS1) (Continued) *Prepared: 06/12/2023 08:20 Analyzed: 06/12/2023 10:18*

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
1,2-Dibromo-3-chloropropane	14.7	1.00	ug/L	15.00		98	62-128				1
1,2-Dibromoethane	14.0	0.500	ug/L	15.00		94	77-121				1
1,2-Dichlorobenzene	15.2	0.500	ug/L	15.00		101	80-119				1
1,2-Dichloroethane	13.9	0.600	ug/L	15.00		93	73-128				1
1,2-Dichloropropane	13.9	0.600	ug/L	15.00		92	78-122				1
1,3,5-Trimethylbenzene	13.6	0.500	ug/L	15.00		90	75-124				1
1,3-Dichlorobenzene	14.5	0.500	ug/L	15.00		96	80-119				1
1,3-Dichloropropane	14.0	0.500	ug/L	15.00		93	80-119				1
1,4-Dichlorobenzene	14.8	0.500	ug/L	15.00		99	79-118				1
2,2-Dichloropropane	13.3	0.500	ug/L	15.00		89	60-139				1
2-Butanone	51.7	1.75	ug/L	52.50		99	56-143				1
2-Chlorotoluene	13.4	0.500	ug/L	15.00		89	79-122				1
2-Hexanone	46.4	1.75	ug/L	52.50		88	57-139				1
4-Chlorotoluene	13.6	0.500	ug/L	15.00		91	78-122				1
4-Isopropyltoluene	13.7	0.500	ug/L	15.00		91	77-127				1
MIBK (4-Methyl-2-pentanone)	44.9	1.75	ug/L	52.50		86	67-130				1
Acetone	51.7	4.00	ug/L	52.50		98	39-160				1
Benzene	13.7	0.500	ug/L	15.00		92	79-120				1
Bromobenzene	13.0	0.500	ug/L	15.00		87	80-120				1
Bromochloromethane	13.9	0.500	ug/L	15.00		92	78-123				1
Bromodichloromethane	15.2	0.500	ug/L	15.00		101	79-125				1
Bromoform	14.5	0.500	ug/L	15.00		97	66-130				1
Bromomethane	16.7	1.00	ug/L	15.00		111	53-141				1
Carbon disulfide	13.4	1.00	ug/L	15.00		89	64-133				1
Carbon tetrachloride	15.0	0.500	ug/L	15.00		100	72-136				1
Chlorobenzene	14.6	0.500	ug/L	15.00		97	82-118				1
Chloroethane	14.0	0.500	ug/L	15.00		93	60-138				1
Chloroform	13.6	0.600	ug/L	15.00		91	79-124				1
Chloromethane	13.6	1.00	ug/L	15.00		91	50-139				1
cis-1,2-Dichloroethene	13.3	0.600	ug/L	15.00		89	78-123				1
cis-1,3-Dichloropropene	13.6	0.500	ug/L	15.00		91	75-124				1
Dibromochloromethane	15.3	0.500	ug/L	15.00		102	74-126				1
Dibromomethane	15.2	0.500	ug/L	15.00		101	79-123				1
Dichlorodifluoromethane	12.7	1.00	ug/L	15.00		84	32-152				1
Ethylbenzene	14.6	0.200	ug/L	15.00		97	79-121				1
Hexachlorobutadiene	15.7	0.500	ug/L	15.00		104	66-134				1
Isopropylbenzene	13.5	0.500	ug/L	15.00		90	72-131				1
m,p-Xylene	28.1	1.00	ug/L	30.00		94	80-121				1
Methyl tert-butyl ether	13.1	0.500	ug/L	15.00		87	71-124				1
Methylene chloride	13.1	1.00	ug/L	15.00		88	74-124				1
n-Butylbenzene	14.0	1.00	ug/L	15.00		93	75-128				1
n-Propylbenzene	13.6	0.500	ug/L	15.00		91	76-126				1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0366 - SW5030 *(Continued)*											
LCS (B3F0366-BS1) (Continued)				*Prepared: 06/12/2023 08:20*			*Analyzed: 06/12/2023 10:18*				
Naphthalene	13.5	0.500	ug/L	15.00		90	61-128				1
o-Xylene	13.3	0.500	ug/L	15.00		89	78-122				1
sec-Butylbenzene	13.7	0.500	ug/L	15.00		91	77-126				1
Styrene	13.9	0.200	ug/L	15.00		92	78-123				1
tert-Butylbenzene	14.0	0.500	ug/L	15.00		94	78-124				1
Tetrachloroethene	15.5	1.00	ug/L	15.00		104	74-129				1
Toluene	14.9	0.500	ug/L	15.00		99	80-121				1
trans-1,2-Dichloroethene	12.6	0.500	ug/L	15.00		84	75-124				1
trans-1,3-Dichloropropene	13.2	0.500	ug/L	15.00		88	73-127				1
Trichloroethene	15.0	0.500	ug/L	15.00		100	79-123				1
Trichlorofluoromethane	14.5	0.500	ug/L	15.00		97	65-141				1
Vinyl chloride	12.9	1.00	ug/L	15.00		86	58-137				1
Surrogate: Dibromofluoromethane	*19.6*		*ug/L*	*20.00*		*98*	*80-119*				1
Surrogate: 1,2-Dichloroethane-d4	*18.1*		*ug/L*	*20.00*		*90*	*81-118*				1
Surrogate: Fluorobenzene	*19.6*		*ug/L*	*20.00*		*98*	*80-116*				1
Surrogate: Toluene-d8	*19.6*		*ug/L*	*20.00*		*98*	*89-112*				1
Surrogate: 4-Bromofluorobenzene	*10.1*		*ug/L*	*10.00*		*101*	*85-114*				1
Surrogate: 1,2-Dichlorobenzene-d4	*19.8*		*ug/L*	*20.00*		*99*	*87-138*				1
Matrix Spike (B3F0366-MS1)				**Source: 23E0775-38**	*Prepared: 06/12/2023 11:15*		*Analyzed: 06/12/2023 11:56*				
1,1,1,2-Tetrachloroethane	32.2	1.00	ug/L	30.00	ND	107	78-124			D	2
1,1,1-Trichloroethane	32.3	1.00	ug/L	30.00	ND	108	74-131			D	2
1,1,2,2-Tetrachloroethane	29.0	1.00	ug/L	30.00	ND	97	71-121			D	2
1,1,2-Trichloroethane	31.6	1.00	ug/L	30.00	0.620	103	80-119			D	2
1,1-Dichloroethane	33.7	1.00	ug/L	30.00	3.62	100	77-125			D	2
1,1-Dichloroethene	47.6	1.00	ug/L	30.00	19.7	93	71-131			D	2
1,1-Dichloropropene	32.9	1.00	ug/L	30.00	ND	110	79-125			D	2
1,2,3-Trichlorobenzene	30.0	1.00	ug/L	30.00	ND	100	69-129			D	2
1,2,3-Trichloropropane	29.3	1.00	ug/L	30.00	ND	98	73-122			D	2
1,2,4-Trichlorobenzene	32.1	1.20	ug/L	30.00	ND	107	69-130			D	2
1,2,4-Trimethylbenzene	29.9	1.00	ug/L	30.00	ND	100	76-124			D	2
1,2-Dibromo-3-chloropropane	29.6	2.00	ug/L	30.00	ND	99	62-128			D	2
1,2-Dibromoethane	30.0	1.00	ug/L	30.00	ND	100	77-121			D	2
1,2-Dichlorobenzene	33.4	1.00	ug/L	30.00	ND	111	80-119			D	2
1,2-Dichloroethane	31.5	1.20	ug/L	30.00	1.26	101	73-128			D	2
1,2-Dichloropropane	30.4	1.20	ug/L	30.00	ND	101	78-122			D	2
1,3,5-Trimethylbenzene	30.3	1.00	ug/L	30.00	ND	101	75-124			D	2
1,3-Dichlorobenzene	32.4	1.00	ug/L	30.00	ND	108	80-119			D	2
1,3-Dichloropropane	30.3	1.00	ug/L	30.00	ND	101	80-119			D	2
1,4-Dichlorobenzene	33.3	1.00	ug/L	30.00	ND	111	79-118			D	2
2,2-Dichloropropane	31.1	1.00	ug/L	30.00	ND	104	60-139			D	2
2-Butanone	91.5	3.50	ug/L	105.0	ND	87	56-143			D	2

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Batch: B3F0366 - SW5030 *(Continued)*

Matrix Spike (B3F0366-MS1) (Continued) **Source: 23E0775-38** *Prepared: 06/12/2023 11:15 Analyzed: 06/12/2023 11:56*

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
2-Chlorotoluene	29.8	1.00	ug/L	30.00	ND	99	79-122			D	2
2-Hexanone	86.3	3.50	ug/L	105.0	ND	82	57-139			D	2
4-Chlorotoluene	30.9	1.00	ug/L	30.00	ND	103	78-122			D	2
4-Isopropyltoluene	31.4	1.00	ug/L	30.00	ND	105	77-127			D	2
MIBK (4-Methyl-2-pentanone)	88.5	3.50	ug/L	105.0	ND	84	67-130			D	2
Acetone	87.9	8.00	ug/L	105.0	ND	84	39-160			D	2
Benzene	30.4	1.00	ug/L	30.00	ND	101	79-120			D	2
Bromobenzene	29.0	1.00	ug/L	30.00	ND	97	80-120			D	2
Bromochloromethane	30.5	1.00	ug/L	30.00	ND	102	78-123			D	2
Bromodichloromethane	32.5	1.00	ug/L	30.00	ND	108	79-125			D	2
Bromoform	31.5	1.00	ug/L	30.00	ND	105	66-130			D	2
Bromomethane	36.0	2.00	ug/L	30.00	ND	120	53-141			D	2
Carbon disulfide	30.7	2.00	ug/L	30.00	ND	102	64-133			D	2
Carbon tetrachloride	33.3	1.00	ug/L	30.00	ND	111	72-136			D	2
Chlorobenzene	32.2	1.00	ug/L	30.00	ND	107	82-118			D	2
Chloroethane	31.4	1.00	ug/L	30.00	ND	105	60-138			D	2
Chloroform	30.1	1.20	ug/L	30.00	ND	100	79-124			D	2
Chloromethane	29.6	2.00	ug/L	30.00	ND	99	50-139			D	2
cis-1,2-Dichloroethene	540	1.20	ug/L	30.00	531	27	78-123			S, D	2
cis-1,3-Dichloropropene	29.4	1.00	ug/L	30.00	ND	98	75-124			D	2
Dibromochloromethane	33.0	1.00	ug/L	30.00	ND	110	74-126			D	2
Dibromomethane	33.2	1.00	ug/L	30.00	ND	111	79-123			D	2
Dichlorodifluoromethane	30.5	2.00	ug/L	30.00	ND	102	32-152			D	2
Ethylbenzene	33.0	0.400	ug/L	30.00	ND	110	79-121			D	2
Hexachlorobutadiene	36.8	1.00	ug/L	30.00	ND	123	66-134			D	2
Isopropylbenzene	30.6	1.00	ug/L	30.00	ND	102	72-131			D	2
m,p-Xylene	63.6	2.00	ug/L	60.00	ND	106	80-121			D	2
Methyl tert-butyl ether	27.9	1.00	ug/L	30.00	ND	93	71-124			D	2
Methylene chloride	29.6	2.00	ug/L	30.00	ND	99	74-124			D	2
n-Butylbenzene	32.0	2.00	ug/L	30.00	ND	107	75-128			D	2
n-Propylbenzene	31.1	1.00	ug/L	30.00	ND	104	76-126			D	2
Naphthalene	29.0	1.00	ug/L	30.00	ND	97	61-128			D	2
o-Xylene	29.5	1.00	ug/L	30.00	ND	98	78-122			D	2
sec-Butylbenzene	31.2	1.00	ug/L	30.00	ND	104	77-126			D	2
Styrene	30.8	0.400	ug/L	30.00	ND	103	78-123			D	2
tert-Butylbenzene	31.8	1.00	ug/L	30.00	ND	106	78-124			D	2
Tetrachloroethene	35.9	2.00	ug/L	30.00	ND	120	74-129			D	2
Toluene	33.5	1.00	ug/L	30.00	0.220	111	80-121			D	2
trans-1,2-Dichloroethene	34.2	1.00	ug/L	30.00	5.80	95	75-124			D	2
trans-1,3-Dichloropropene	29.4	1.00	ug/L	30.00	ND	98	73-127			D	2
Trichloroethene	1890	1.00	ug/L	30.00	1890	10	79-123			S, D	2
Trichlorofluoromethane	34.7	1.00	ug/L	30.00	ND	116	65-141			D	2

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0366 - SW5030 *(Continued)*											
Matrix Spike (B3F0366-MS1) (Continued)			**Source: 23E0775-38**	*Prepared: 06/12/2023 11:15*		*Analyzed: 06/12/2023 11:56*					
Vinyl chloride	43.3	2.00	ug/L	30.00	15.1	94	58-137			D	2
Surrogate: Dibromofluoromethane	*19.3*		*ug/L*	*20.00*		*97*	*80-119*				2
Surrogate: 1,2-Dichloroethane-d4	*17.8*		*ug/L*	*20.00*		*89*	*81-118*				2
Surrogate: Fluorobenzene	*19.4*		*ug/L*	*20.00*		*97*	*80-116*				2
Surrogate: Toluene-d8	*19.6*		*ug/L*	*20.00*		*98*	*89-112*				2
Surrogate: 4-Bromofluorobenzene	*10.1*		*ug/L*	*10.00*		*101*	*85-114*				2
Surrogate: 1,2-Dichlorobenzene-d4	*20.0*		*ug/L*	*20.00*		*100*	*87-138*				2
Matrix Spike Dup (B3F0366-MSD1)			**Source: 23E0775-38**	*Prepared: 06/12/2023 11:15*		*Analyzed: 06/12/2023 12:21*					
1,1,1,2-Tetrachloroethane	30.5	1.00	ug/L	30.00	ND	102	78-124	5	20	D	2
1,1,1-Trichloroethane	30.9	1.00	ug/L	30.00	ND	103	74-131	4	20	D	2
1,1,2,2-Tetrachloroethane	27.6	1.00	ug/L	30.00	ND	92	71-121	5	20	D	2
1,1,2-Trichloroethane	29.7	1.00	ug/L	30.00	0.620	97	80-119	6	20	D	2
1,1-Dichloroethane	32.5	1.00	ug/L	30.00	3.62	96	77-125	4	20	D	2
1,1-Dichloroethene	45.3	1.00	ug/L	30.00	19.7	85	71-131	5	20	D	2
1,1-Dichloropropene	31.2	1.00	ug/L	30.00	ND	104	79-125	5	20	D	2
1,2,3-Trichlorobenzene	28.7	1.00	ug/L	30.00	ND	96	69-129	4	20	D	2
1,2,3-Trichloropropane	28.1	1.00	ug/L	30.00	ND	94	73-122	4	20	D	2
1,2,4-Trichlorobenzene	29.1	1.20	ug/L	30.00	ND	97	69-130	10	20	D	2
1,2,4-Trimethylbenzene	28.2	1.00	ug/L	30.00	ND	94	76-124	6	20	D	2
1,2-Dibromo-3-chloropropane	28.2	2.00	ug/L	30.00	ND	94	62-128	5	20	D	2
1,2-Dibromoethane	28.5	1.00	ug/L	30.00	ND	95	77-121	5	20	D	2
1,2-Dichlorobenzene	32.3	1.00	ug/L	30.00	ND	108	80-119	4	20	D	2
1,2-Dichloroethane	30.0	1.20	ug/L	30.00	1.26	96	73-128	5	20	D	2
1,2-Dichloropropane	28.6	1.20	ug/L	30.00	ND	95	78-122	6	20	D	2
1,3,5-Trimethylbenzene	29.0	1.00	ug/L	30.00	ND	97	75-124	5	20	D	2
1,3-Dichlorobenzene	31.1	1.00	ug/L	30.00	ND	104	80-119	4	20	D	2
1,3-Dichloropropane	28.8	1.00	ug/L	30.00	ND	96	80-119	5	20	D	2
1,4-Dichlorobenzene	31.6	1.00	ug/L	30.00	ND	105	79-118	5	20	D	2
2,2-Dichloropropane	29.8	1.00	ug/L	30.00	ND	99	60-139	4	20	D	2
2-Butanone	87.3	3.50	ug/L	105.0	ND	83	56-143	5	20	D	2
2-Chlorotoluene	28.6	1.00	ug/L	30.00	ND	95	79-122	4	20	D	2
2-Hexanone	82.4	3.50	ug/L	105.0	ND	78	57-139	5	20	D	2
4-Chlorotoluene	29.3	1.00	ug/L	30.00	ND	98	78-122	6	20	D	2
4-Isopropyltoluene	29.6	1.00	ug/L	30.00	ND	99	77-127	6	20	D	2
MIBK (4-Methyl-2-pentanone)	85.1	3.50	ug/L	105.0	ND	81	67-130	4	20	D	2
Acetone	83.4	8.00	ug/L	105.0	ND	79	39-160	5	20	D	2
Benzene	29.2	1.00	ug/L	30.00	ND	97	79-120	4	20	D	2
Bromobenzene	27.4	1.00	ug/L	30.00	ND	91	80-120	6	20	D	2
Bromochloromethane	29.3	1.00	ug/L	30.00	ND	98	78-123	4	20	D	2
Bromodichloromethane	31.2	1.00	ug/L	30.00	ND	104	79-125	4	20	D	2
Bromoform	29.4	1.00	ug/L	30.00	ND	98	66-130	7	20	D	2

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0366 - SW5030 *(Continued)*											
Matrix Spike Dup (B3F0366-MSD1) (Continued)			**Source: 23E0775-38**	*Prepared: 06/12/2023 11:15*		*Analyzed: 06/12/2023 12:21*					
Bromomethane	35.5	2.00	ug/L	30.00	ND	118	53-141	1	20	D	2
Carbon disulfide	30.1	2.00	ug/L	30.00	ND	100	64-133	2	20	D	2
Carbon tetrachloride	31.8	1.00	ug/L	30.00	ND	106	72-136	4	20	D	2
Chlorobenzene	30.5	1.00	ug/L	30.00	ND	102	82-118	6	20	D	2
Chloroethane	28.9	1.00	ug/L	30.00	ND	96	60-138	8	20	D	2
Chloroform	29.2	1.20	ug/L	30.00	ND	97	79-124	3	20	D	2
Chloromethane	28.9	2.00	ug/L	30.00	ND	96	50-139	2	20	D	2
cis-1,2-Dichloroethene	519	1.20	ug/L	30.00	531	NR	78-123	4	20	S, D	2
cis-1,3-Dichloropropene	28.5	1.00	ug/L	30.00	ND	95	75-124	3	20	D	2
Dibromochloromethane	31.4	1.00	ug/L	30.00	ND	105	74-126	5	20	D	2
Dibromomethane	31.1	1.00	ug/L	30.00	ND	104	79-123	7	20	D	2
Dichlorodifluoromethane	29.7	2.00	ug/L	30.00	ND	99	32-152	3	20	D	2
Ethylbenzene	31.0	0.400	ug/L	30.00	ND	103	79-121	6	20	D	2
Hexachlorobutadiene	32.2	1.00	ug/L	30.00	ND	107	66-134	13	20	D	2
Isopropylbenzene	29.3	1.00	ug/L	30.00	ND	98	72-131	4	20	D	2
m,p-Xylene	59.9	2.00	ug/L	60.00	ND	100	80-121	6	20	D	2
Methyl tert-butyl ether	26.9	1.00	ug/L	30.00	ND	90	71-124	4	20	D	2
Methylene chloride	27.9	2.00	ug/L	30.00	ND	93	74-124	6	20	D	2
n-Butylbenzene	29.7	2.00	ug/L	30.00	ND	99	75-128	7	20	D	2
n-Propylbenzene	29.7	1.00	ug/L	30.00	ND	99	76-126	5	20	D	2
Naphthalene	26.7	1.00	ug/L	30.00	ND	89	61-128	8	20	D	2
o-Xylene	28.5	1.00	ug/L	30.00	ND	95	78-122	4	20	D	2
sec-Butylbenzene	29.7	1.00	ug/L	30.00	ND	99	77-126	5	20	D	2
Styrene	29.2	0.400	ug/L	30.00	ND	97	78-123	6	20	D	2
tert-Butylbenzene	30.0	1.00	ug/L	30.00	ND	100	78-124	6	20	D	2
Tetrachloroethene	33.6	2.00	ug/L	30.00	ND	112	74-129	7	20	D	2
Toluene	31.8	1.00	ug/L	30.00	0.220	105	80-121	5	20	D	2
trans-1,2-Dichloroethene	32.8	1.00	ug/L	30.00	5.80	90	75-124	4	20	D	2
trans-1,3-Dichloropropene	28.4	1.00	ug/L	30.00	ND	95	73-127	3	20	D	2
Trichloroethene	1840	1.00	ug/L	30.00	1890	NR	79-123	3	20	S, D	2
Trichlorofluoromethane	33.4	1.00	ug/L	30.00	ND	111	65-141	4	20	D	2
Vinyl chloride	41.3	2.00	ug/L	30.00	15.1	87	58-137	5	20	D	2
Surrogate: Dibromofluoromethane	*19.4*		*ug/L*	*20.00*		*97*	*80-119*				*2*
Surrogate: 1,2-Dichloroethane-d4	*18.0*		*ug/L*	*20.00*		*90*	*81-118*				*2*
Surrogate: Fluorobenzene	*19.5*		*ug/L*	*20.00*		*97*	*80-116*				*2*
Surrogate: Toluene-d8	*19.6*		*ug/L*	*20.00*		*98*	*89-112*				*2*
Surrogate: 4-Bromofluorobenzene	*10.1*		*ug/L*	*10.00*		*101*	*85-114*				*2*
Surrogate: 1,2-Dichlorobenzene-d4	*19.8*		*ug/L*	*20.00*		*99*	*87-138*				*2*
Batch: B3F0409 - SW5030											
Blank (B3F0409-BLK1)				*Prepared: 06/13/2023 09:00*		*Analyzed: 06/13/2023 16:16*					
1,1,1,2-Tetrachloroethane	<0.200	0.500	ug/L							U	1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Batch: B3F0409 - SW5030 *(Continued)*

Blank (B3F0409-BLK1) (Continued) *Prepared: 06/13/2023 09:00 Analyzed: 06/13/2023 16:16*

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
1,1,1-Trichloroethane	<0.200	0.500	ug/L							U	1
1,1,2,2-Tetrachloroethane	<0.200	0.500	ug/L							U	1
1,1,2-Trichloroethane	<0.200	0.500	ug/L							U	1
1,1-Dichloroethane	<0.200	0.500	ug/L							U	1
1,1-Dichloroethene	<0.200	0.500	ug/L							U	1
1,1-Dichloropropene	<0.200	0.500	ug/L							U	1
1,2,3-Trichlorobenzene	<0.200	0.500	ug/L							U	1
1,2,3-Trichloropropane	<0.200	0.500	ug/L							U	1
1,2,4-Trichlorobenzene	<0.300	0.600	ug/L							U	1
1,2,4-Trimethylbenzene	<0.200	0.500	ug/L							U	1
1,2-Dibromo-3-chloropropane	<0.500	1.00	ug/L							U	1
1,2-Dibromoethane	<0.200	0.500	ug/L							U	1
1,2-Dichlorobenzene	<0.200	0.500	ug/L							U	1
1,2-Dichloroethane	<0.300	0.600	ug/L							U	1
1,2-Dichloropropane	<0.300	0.600	ug/L							U	1
1,3,5-Trimethylbenzene	<0.200	0.500	ug/L							U	1
1,3-Dichlorobenzene	<0.200	0.500	ug/L							U	1
1,3-Dichloropropane	<0.200	0.500	ug/L							U	1
1,4-Dichlorobenzene	<0.200	0.500	ug/L							U	1
2,2-Dichloropropane	<0.200	0.500	ug/L							U	1
2-Butanone	<0.700	1.75	ug/L							U	1
2-Chlorotoluene	<0.200	0.500	ug/L							U	1
2-Hexanone	<0.700	1.75	ug/L							U	1
4-Chlorotoluene	<0.200	0.500	ug/L							U	1
4-Isopropyltoluene	<0.200	0.500	ug/L							U	1
MIBK (4-Methyl-2-pentanone)	<0.700	1.75	ug/L							U	1
Acetone	<2.00	4.00	ug/L							U	1
Benzene	<0.200	0.500	ug/L							U	1
Bromobenzene	<0.200	0.500	ug/L							U	1
Bromochloromethane	<0.200	0.500	ug/L							U	1
Bromodichloromethane	<0.200	0.500	ug/L							U	1
Bromoform	<0.200	0.500	ug/L							U	1
Bromomethane	<0.500	1.00	ug/L							U	1
Carbon disulfide	<0.500	1.00	ug/L							U	1
Carbon tetrachloride	<0.200	0.500	ug/L							U	1
Chlorobenzene	<0.200	0.500	ug/L							U	1
Chloroethane	<0.200	0.500	ug/L							U	1
Chloroform	<0.300	0.600	ug/L							U	1
Chloromethane	<0.500	1.00	ug/L							U	1
cis-1,2-Dichloroethene	<0.300	0.600	ug/L							U	1
cis-1,3-Dichloropropene	<0.200	0.500	ug/L							U	1
Dibromochloromethane	<0.200	0.500	ug/L							U	1

sterling labs - O'Hare Location

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Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0409 - SW5030 *(Continued)*											
Blank (B3F0409-BLK1) (Continued)				*Prepared: 06/13/2023 09:00*			*Analyzed: 06/13/2023 16:16*				
Dibromomethane	<0.200	0.500	ug/L							U	1
Dichlorodifluoromethane	<0.500	1.00	ug/L							U	1
Ethylbenzene	<0.100	0.200	ug/L							U	1
Hexachlorobutadiene	<0.200	0.500	ug/L							U	1
Isopropylbenzene	<0.200	0.500	ug/L							U	1
m,p-Xylene	<0.400	1.00	ug/L							U	1
Methyl tert-butyl ether	<0.200	0.500	ug/L							U	1
Methylene chloride	<0.500	1.00	ug/L							U	1
n-Butylbenzene	<0.500	1.00	ug/L							U	1
n-Propylbenzene	<0.200	0.500	ug/L							U	1
Naphthalene	<0.200	0.500	ug/L							U	1
o-Xylene	<0.200	0.500	ug/L							U	1
sec-Butylbenzene	<0.200	0.500	ug/L							U	1
Styrene	<0.100	0.200	ug/L							U	1
tert-Butylbenzene	<0.200	0.500	ug/L							U	1
Tetrachloroethene	<0.500	1.00	ug/L							U	1
Toluene	<0.200	0.500	ug/L							U	1
trans-1,2-Dichloroethene	<0.200	0.500	ug/L							U	1
trans-1,3-Dichloropropene	<0.200	0.500	ug/L							U	1
Trichloroethene	<0.200	0.500	ug/L							U	1
Trichlorofluoromethane	<0.200	0.500	ug/L							U	1
Vinyl chloride	<0.500	1.00	ug/L							U	1
Surrogate: Dibromofluoromethane	*19.5*		*ug/L*	*20.00*		*97*	*80-119*				1
Surrogate: 1,2-Dichloroethane-d4	*18.0*		*ug/L*	*20.00*		*90*	*81-118*				1
Surrogate: Fluorobenzene	*19.5*		*ug/L*	*20.00*		*97*	*80-116*				1
Surrogate: Toluene-d8	*19.0*		*ug/L*	*20.00*		*95*	*89-112*				1
Surrogate: 4-Bromofluorobenzene	*9.68*		*ug/L*	*10.00*		*97*	*85-114*				1
Surrogate: 1,2-Dichlorobenzene-d4	*20.5*		*ug/L*	*20.00*		*103*	*87-138*				1
LCS (B3F0409-BS1)				*Prepared: 06/13/2023 09:00*			*Analyzed: 06/13/2023 14:53*				
1,1,1,2-Tetrachloroethane	15.2	0.500	ug/L	15.00		101	78-124				1
1,1,1-Trichloroethane	14.8	0.500	ug/L	15.00		99	74-131				1
1,1,2,2-Tetrachloroethane	13.5	0.500	ug/L	15.00		90	71-121				1
1,1,2-Trichloroethane	14.9	0.500	ug/L	15.00		99	80-119				1
1,1-Dichloroethane	13.9	0.500	ug/L	15.00		93	77-125				1
1,1-Dichloroethene	13.4	0.500	ug/L	15.00		89	71-131				1
1,1-Dichloropropene	14.6	0.500	ug/L	15.00		97	79-125				1
1,2,3-Trichlorobenzene	14.3	0.500	ug/L	15.00		95	69-129				1
1,2,3-Trichloropropane	14.1	0.500	ug/L	15.00		94	73-122				1
1,2,4-Trichlorobenzene	15.1	0.600	ug/L	15.00		101	69-130				1
1,2,4-Trimethylbenzene	13.6	0.500	ug/L	15.00		91	76-124				1
1,2-Dibromo-3-chloropropane	15.6	1.00	ug/L	15.00		104	62-128				1

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Batch: B3F0409 - SW5030 *(Continued)*

LCS (B3F0409-BS1) (Continued) *Prepared: 06/13/2023 09:00 Analyzed: 06/13/2023 14:53*

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
1,2-Dibromoethane	14.6	0.500	ug/L	15.00		97	77-121				1
1,2-Dichlorobenzene	15.5	0.500	ug/L	15.00		103	80-119				1
1,2-Dichloroethane	14.4	0.600	ug/L	15.00		96	73-128				1
1,2-Dichloropropane	14.4	0.600	ug/L	15.00		96	78-122				1
1,3,5-Trimethylbenzene	13.6	0.500	ug/L	15.00		91	75-124				1
1,3-Dichlorobenzene	14.8	0.500	ug/L	15.00		99	80-119				1
1,3-Dichloropropane	14.5	0.500	ug/L	15.00		97	80-119				1
1,4-Dichlorobenzene	15.4	0.500	ug/L	15.00		103	79-118				1
2,2-Dichloropropane	13.5	0.500	ug/L	15.00		90	60-139				1
2-Butanone	53.0	1.75	ug/L	52.50		101	56-143				1
2-Chlorotoluene	13.5	0.500	ug/L	15.00		90	79-122				1
2-Hexanone	48.0	1.75	ug/L	52.50		91	57-139				1
4-Chlorotoluene	13.8	0.500	ug/L	15.00		92	78-122				1
4-Isopropyltoluene	14.2	0.500	ug/L	15.00		95	77-127				1
MIBK (4-Methyl-2-pentanone)	46.7	1.75	ug/L	52.50		89	67-130				1
Acetone	55.3	4.00	ug/L	52.50		105	39-160				1
Benzene	14.2	0.500	ug/L	15.00		95	79-120				1
Bromobenzene	13.2	0.500	ug/L	15.00		88	80-120				1
Bromochloromethane	14.6	0.500	ug/L	15.00		97	78-123				1
Bromodichloromethane	15.8	0.500	ug/L	15.00		105	79-125				1
Bromoform	15.1	0.500	ug/L	15.00		101	66-130				1
Bromomethane	16.9	1.00	ug/L	15.00		113	53-141				1
Carbon disulfide	14.0	1.00	ug/L	15.00		93	64-133				1
Carbon tetrachloride	15.8	0.500	ug/L	15.00		105	72-136				1
Chlorobenzene	15.0	0.500	ug/L	15.00		100	82-118				1
Chloroethane	14.5	0.500	ug/L	15.00		97	60-138				1
Chloroform	14.2	0.600	ug/L	15.00		95	79-124				1
Chloromethane	13.6	1.00	ug/L	15.00		91	50-139				1
cis-1,2-Dichloroethene	13.8	0.600	ug/L	15.00		92	78-123				1
cis-1,3-Dichloropropene	14.0	0.500	ug/L	15.00		94	75-124				1
Dibromochloromethane	15.8	0.500	ug/L	15.00		106	74-126				1
Dibromomethane	16.1	0.500	ug/L	15.00		107	79-123				1
Dichlorodifluoromethane	13.8	1.00	ug/L	15.00		92	32-152				1
Ethylbenzene	15.2	0.200	ug/L	15.00		101	79-121				1
Hexachlorobutadiene	17.0	0.500	ug/L	15.00		114	66-134				1
Isopropylbenzene	13.5	0.500	ug/L	15.00		90	72-131				1
m,p-Xylene	29.1	1.00	ug/L	30.00		97	80-121				1
Methyl tert-butyl ether	13.7	0.500	ug/L	15.00		91	71-124				1
Methylene chloride	13.9	1.00	ug/L	15.00		92	74-124				1
n-Butylbenzene	14.2	1.00	ug/L	15.00		95	75-128				1
n-Propylbenzene	13.8	0.500	ug/L	15.00		92	76-126				1
Naphthalene	14.0	0.500	ug/L	15.00		93	61-128				1

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Batch: B3F0409 - SW5030 (Continued)

LCS (B3F0409-BS1) (Continued) *Prepared: 06/13/2023 09:00 Analyzed: 06/13/2023 14:53*

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
o-Xylene	13.2	0.500	ug/L	15.00		88	78-122				1
sec-Butylbenzene	13.9	0.500	ug/L	15.00		93	77-126				1
Styrene	14.4	0.200	ug/L	15.00		96	78-123				1
tert-Butylbenzene	13.6	0.500	ug/L	15.00		90	78-124				1
Tetrachloroethene	20.2	1.00	ug/L	15.00		134	74-129			S	1
Toluene	15.4	0.500	ug/L	15.00		102	80-121				1
trans-1,2-Dichloroethene	13.1	0.500	ug/L	15.00		87	75-124				1
trans-1,3-Dichloropropene	13.8	0.500	ug/L	15.00		92	73-127				1
Trichloroethene	15.9	0.500	ug/L	15.00		106	79-123				1
Trichlorofluoromethane	16.0	0.500	ug/L	15.00		107	65-141				1
Vinyl chloride	13.4	1.00	ug/L	15.00		89	58-137				1
Surrogate: Dibromofluoromethane	*19.6*		*ug/L*	*20.00*		*98*	*80-119*				1
Surrogate: 1,2-Dichloroethane-d4	*17.8*		*ug/L*	*20.00*		*89*	*81-118*				1
Surrogate: Fluorobenzene	*19.4*		*ug/L*	*20.00*		*97*	*80-116*				1
Surrogate: Toluene-d8	*19.5*		*ug/L*	*20.00*		*97*	*89-112*				1
Surrogate: 4-Bromofluorobenzene	*9.85*		*ug/L*	*10.00*		*98*	*85-114*				1
Surrogate: 1,2-Dichlorobenzene-d4	*19.8*		*ug/L*	*20.00*		*99*	*87-138*				1

LCS Dup (B3F0409-BSD1) *Prepared: 06/13/2023 09:00 Analyzed: 06/13/2023 15:26*

1,1,1,2-Tetrachloroethane	14.2	0.500	ug/L	15.00		95	78-124	7	20		1
1,1,1-Trichloroethane	13.8	0.500	ug/L	15.00		92	74-131	7	20		1
1,1,2,2-Tetrachloroethane	13.0	0.500	ug/L	15.00		87	71-121	4	20		1
1,1,2-Trichloroethane	13.8	0.500	ug/L	15.00		92	80-119	8	20		1
1,1-Dichloroethane	13.1	0.500	ug/L	15.00		87	77-125	6	20		1
1,1-Dichloroethene	12.4	0.500	ug/L	15.00		82	71-131	8	20		1
1,1-Dichloropropene	13.4	0.500	ug/L	15.00		90	79-125	8	20		1
1,2,3-Trichlorobenzene	13.5	0.500	ug/L	15.00		90	69-129	5	20		1
1,2,3-Trichloropropane	13.2	0.500	ug/L	15.00		88	73-122	7	20		1
1,2,4-Trichlorobenzene	13.9	0.600	ug/L	15.00		93	69-130	8	20		1
1,2,4-Trimethylbenzene	13.2	0.500	ug/L	15.00		88	76-124	3	20		1
1,2-Dibromo-3-chloropropane	13.4	1.00	ug/L	15.00		90	62-128	15	20		1
1,2-Dibromoethane	13.3	0.500	ug/L	15.00		89	77-121	9	20		1
1,2-Dichlorobenzene	14.8	0.500	ug/L	15.00		99	80-119	5	20		1
1,2-Dichloroethane	13.5	0.600	ug/L	15.00		90	73-128	7	20		1
1,2-Dichloropropane	13.7	0.600	ug/L	15.00		92	78-122	5	20		1
1,3,5-Trimethylbenzene	13.2	0.500	ug/L	15.00		88	75-124	3	20		1
1,3-Dichlorobenzene	14.2	0.500	ug/L	15.00		94	80-119	5	20		1
1,3-Dichloropropane	13.4	0.500	ug/L	15.00		89	80-119	8	20		1
1,4-Dichlorobenzene	14.7	0.500	ug/L	15.00		98	79-118	5	20		1
2,2-Dichloropropane	12.9	0.500	ug/L	15.00		86	60-139	4	20		1
2-Butanone	44.2	1.75	ug/L	52.50		84	56-143	18	20		1
2-Chlorotoluene	13.2	0.500	ug/L	15.00		88	79-122	2	20		1

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Batch: B3F0409 - SW5030 *(Continued)*

LCS Dup (B3F0409-BSD1) (Continued) *Prepared: 06/13/2023 09:00 Analyzed: 06/13/2023 15:26*

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
2-Hexanone	39.6	1.75	ug/L	52.50		76	57-139	19	20		1
4-Chlorotoluene	13.4	0.500	ug/L	15.00		90	78-122	3	20		1
4-Isopropyltoluene	13.5	0.500	ug/L	15.00		90	77-127	5	20		1
MIBK (4-Methyl-2-pentanone)	41.4	1.75	ug/L	52.50		79	67-130	12	20		1
Acetone	42.3	4.00	ug/L	52.50		81	39-160	27	20	P	1
Benzene	13.4	0.500	ug/L	15.00		90	79-120	6	20		1
Bromobenzene	12.7	0.500	ug/L	15.00		85	80-120	4	20		1
Bromochloromethane	13.6	0.500	ug/L	15.00		91	78-123	7	20		1
Bromodichloromethane	14.7	0.500	ug/L	15.00		98	79-125	7	20		1
Bromoform	13.7	0.500	ug/L	15.00		91	66-130	10	20		1
Bromomethane	15.7	1.00	ug/L	15.00		105	53-141	8	20		1
Carbon disulfide	13.2	1.00	ug/L	15.00		88	64-133	5	20		1
Carbon tetrachloride	14.7	0.500	ug/L	15.00		98	72-136	7	20		1
Chlorobenzene	14.0	0.500	ug/L	15.00		94	82-118	7	20		1
Chloroethane	13.1	0.500	ug/L	15.00		87	60-138	10	20		1
Chloroform	13.4	0.600	ug/L	15.00		90	79-124	6	20		1
Chloromethane	12.5	1.00	ug/L	15.00		83	50-139	9	20		1
cis-1,2-Dichloroethene	12.7	0.600	ug/L	15.00		85	78-123	8	20		1
cis-1,3-Dichloropropene	13.3	0.500	ug/L	15.00		88	75-124	6	20		1
Dibromochloromethane	14.7	0.500	ug/L	15.00		98	74-126	7	20		1
Dibromomethane	14.9	0.500	ug/L	15.00		99	79-123	8	20		1
Dichlorodifluoromethane	11.5	1.00	ug/L	15.00		77	32-152	18	20		1
Ethylbenzene	14.0	0.200	ug/L	15.00		93	79-121	8	20		1
Hexachlorobutadiene	14.9	0.500	ug/L	15.00		100	66-134	13	20		1
Isopropylbenzene	13.2	0.500	ug/L	15.00		88	72-131	3	20		1
m,p-Xylene	26.8	1.00	ug/L	30.00		89	80-121	8	20		1
Methyl tert-butyl ether	12.7	0.500	ug/L	15.00		85	71-124	8	20		1
Methylene chloride	13.0	1.00	ug/L	15.00		87	74-124	6	20		1
n-Butylbenzene	13.5	1.00	ug/L	15.00		90	75-128	5	20		1
n-Propylbenzene	13.3	0.500	ug/L	15.00		89	76-126	3	20		1
Naphthalene	12.6	0.500	ug/L	15.00		84	61-128	10	20		1
o-Xylene	13.1	0.500	ug/L	15.00		87	78-122	1	20		1
sec-Butylbenzene	13.4	0.500	ug/L	15.00		90	77-126	4	20		1
Styrene	13.4	0.200	ug/L	15.00		89	78-123	7	20		1
tert-Butylbenzene	13.7	0.500	ug/L	15.00		91	78-124	1	20		1
Tetrachloroethene	15.4	1.00	ug/L	15.00		102	74-129	27	20	P	1
Toluene	14.4	0.500	ug/L	15.00		96	80-121	7	20		1
trans-1,2-Dichloroethene	12.4	0.500	ug/L	15.00		82	75-124	6	20		1
trans-1,3-Dichloropropene	12.9	0.500	ug/L	15.00		86	73-127	6	20		1
Trichloroethene	14.9	0.500	ug/L	15.00		99	79-123	7	20		1
Trichlorofluoromethane	13.8	0.500	ug/L	15.00		92	65-141	15	20		1
Vinyl chloride	12.3	1.00	ug/L	15.00		82	58-137	8	20		1

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Quality Control

(Continued)

Client: HDR
Project: Longhorn AAP
10355063, LHAAP-47
SDG: 23F0136

Report Date: 07/06/2023
Matrix: Water

Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
Batch: B3F0409 - SW5030 *(Continued)*											
LCS Dup (B3F0409-BSD1) (Continued)				*Prepared: 06/13/2023 09:00*			*Analyzed: 06/13/2023 15:26*				
Surrogate: Dibromofluoromethane	*19.6*		*ug/L*	*20.00*		*98*	*80-119*				1
Surrogate: 1,2-Dichloroethane-d4	*18.1*		*ug/L*	*20.00*		*91*	*81-118*				1
Surrogate: Fluorobenzene	*19.4*		*ug/L*	*20.00*		*97*	*80-116*				1
Surrogate: Toluene-d8	*19.5*		*ug/L*	*20.00*		*98*	*89-112*				1
Surrogate: 4-Bromofluorobenzene	*10.4*		*ug/L*	*10.00*		*104*	*85-114*				1
Surrogate: 1,2-Dichlorobenzene-d4	*20.1*		*ug/L*	*20.00*		*101*	*87-138*				1

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Certified Analyses included in this Report

Analyte	CAS #	Certifications
SW6010 D in Water		
Strontium, Dissolved	7440-24-6	DoD
SW6010D in Water		
Strontium	7440-24-6	DoD,ILEPA
SW6020 B in Water		
Aluminum	7429-90-5	DoD,ILEPA,ISO,WDNR
Aluminum, Dissolved	7429-90-5	DoD,ILEPA,WDNR
Antimony	7440-36-0	DoD,ILEPA,ISO,WDNR
Antimony, Dissolved	7440-36-0	DoD,ILEPA,WDNR
Arsenic	7440-38-2	DoD,ILEPA,ISO,AKDEC,WDNR
Arsenic, Dissolved	7440-38-2	AKDEC,DoD,ILEPA,WDNR
Barium	7440-39-3	DoD,ILEPA,ISO,AKDEC,WDNR
Barium, Dissolved	7440-39-3	AKDEC,DoD,ILEPA,WDNR
Beryllium	7440-41-7	DoD,ILEPA,ISO,WDNR
Beryllium, Dissolved	7440-41-7	DoD,ILEPA,WDNR
Cadmium	7440-43-9	DoD,ILEPA,ISO,AKDEC,WDNR
Cadmium, Dissolved	7440-43-9	AKDEC,DoD,ILEPA,WDNR
Calcium	7440-70-2	DoD,ILEPA
Calcium, Dissolved	7440-70-2	DoD,ILEPA
Chromium	7440-47-3	DoD,ILEPA,ISO,AKDEC,WDNR
Chromium, Dissolved	7440-47-3	AKDEC,DoD,ILEPA,WDNR
Cobalt	7440-48-4	DoD,ILEPA,ISO,WDNR
Cobalt, Dissolved	7440-48-4	DoD,ILEPA,WDNR
Copper	7440-50-8	DoD,ILEPA,ISO,WDNR
Copper, Dissolved	7440-50-8	DoD,ILEPA,WDNR
Iron	7439-89-6	DoD,ILEPA,ISO,WDNR
Iron, Dissolved	7439-89-6	DoD,ILEPA,WDNR
Lead	7439-92-1	DoD,ILEPA,ISO,AKDEC,WDNR
Lead, Dissolved	7439-92-1	AKDEC,DoD,ILEPA,WDNR
Magnesium	7439-95-4	DoD,ILEPA
Magnesium, Dissolved	7439-95-4	DoD,ILEPA
Manganese	7439-96-5	DoD,ILEPA,ISO,WDNR
Manganese, Dissolved	7439-96-5	DoD,ILEPA,WDNR
Nickel	7440-02-0	DoD,ILEPA,ISO,AKDEC,WDNR
Nickel, Dissolved	7440-02-0	AKDEC,DoD,ILEPA,WDNR
Potassium	7440-09-7	DoD,ILEPA,WDNR
Potassium, Dissolved	7440-09-7	DoD,ILEPA,WDNR
Selenium	7782-49-2	DoD,ILEPA,ISO,WDNR
Selenium, Dissolved	7782-49-2	DoD,ILEPA,WDNR
Silver	7440-22-4	DoD,ILEPA,ISO,WDNR
Silver, Dissolved	7440-22-4	DoD,ILEPA,WDNR

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Certified Analyses included in this Report (Continued)

Analyte	CAS #	Certifications
SW6020 B in Water (Continued)		
Sodium	7440-23-5	DoD,ILEPA
Sodium, Dissolved	7440-23-5	DoD,ILEPA
Thallium	7440-28-0	DoD,ILEPA,ISO,WDNR
Thallium, Dissolved	7440-28-0	DoD,ILEPA,WDNR
Tin	7440-31-5	ISO,WDNR,DoD
Tin, Dissolved	7440-31-5	DoD,ILEPA,WDNR
Vanadium	7440-62-2	DoD,ILEPA,ISO,AKDEC,WDNR
Vanadium, Dissolved	7440-62-2	AKDEC,DoD,ILEPA,WDNR
Zinc	7440-66-6	DoD,ILEPA,ISO,WDNR
Zinc, Dissolved	7440-66-6	DoD,ILEPA,WDNR
SW7470A in Water		
Mercury	7439-97-6	DoD,ILEPA,WDNR
Mercury, Dissolved	7439-97-6	DoD,ILEPA,WDNR
SW8260B/D in Water		
1,1,1,2-Tetrachloroethane	630-20-6	WDNR,DoD,ILEPA
1,1,1-Trichloroethane	71-55-6	AKDEC,WDNR,DoD,ILEPA
1,1,2,2-Tetrachloroethane	79-34-5	AKDEC,WDNR,DoD,ILEPA
1,1,2-Trichloroethane	79-00-5	AKDEC,WDNR,DoD,ILEPA
1,1-Dichloroethane	75-34-3	AKDEC,WDNR,DoD,ILEPA
1,1-Dichloroethene	75-35-4	AKDEC,WDNR,DoD,ILEPA
1,1-Dichloropropene	563-58-6	WDNR,DoD,ILEPA
1,2,3-Trichlorobenzene	87-61-6	WDNR,DoD,ILEPA
1,2,3-Trichloropropane	96-18-4	AKDEC,WDNR,DoD,ILEPA
1,2,4-Trichlorobenzene	120-82-1	WDNR,DoD,ILEPA
1,2,4-Trimethylbenzene	95-63-6	WDNR,DoD,ILEPA
1,2-Dibromo-3-chloropropane	96-12-8	AKDEC,WDNR,DoD,ILEPA
1,2-Dibromoethane	106-93-4	AKDEC,WDNR,DoD,ILEPA
1,2-Dichlorobenzene	95-50-1	AKDEC,WDNR,DoD
1,2-Dichloroethane	107-06-2	AKDEC,WDNR,DoD,ILEPA
1,2-Dichloropropane	78-87-5	AKDEC,WDNR,DoD,ILEPA
1,3,5-Trimethylbenzene	108-67-8	WDNR,DoD,ILEPA
1,3-Dichlorobenzene	541-73-1	WDNR,DoD
1,3-Dichloropropane	142-28-9	WDNR,DoD,ILEPA
1,4-Dichlorobenzene	106-46-7	WDNR,DoD,ILEPA
2,2-Dichloropropane	594-20-7	WDNR,DoD,ILEPA
2-Butanone	78-93-3	WDNR,DoD,ILEPA
2-Chlorotoluene	95-49-8	WDNR,DoD,ILEPA
2-Hexanone	591-78-6	WDNR,DoD,ILEPA
4-Chlorotoluene	106-43-4	WDNR,DoD,ILEPA
4-Isopropyltoluene	99-87-6	WDNR,DoD,ILEPA

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Certified Analyses included in this Report (Continued)

Analyte	CAS #	Certifications
SW8260B/D in Water (Continued)		
MIBK	108-10-1	WDNR,DoD,ILEPA
Acetone	67-64-1	WDNR,DoD,ILEPA
Benzene	71-43-2	AKDEC,WDNR,DoD,ILEPA
Bromobenzene	108-86-1	WDNR,DoD,ILEPA
Bromochloromethane	74-97-5	WDNR,DoD,ILEPA
Bromodichloromethane	75-27-4	AKDEC,WDNR,DoD,ILEPA
Bromoform	75-25-2	AKDEC,WDNR,DoD,ILEPA
Bromomethane	74-83-9	AKDEC,WDNR,DoD,ILEPA
Carbon disulfide	75-15-0	WDNR,DoD,ILEPA
Carbon tetrachloride	56-23-5	AKDEC,WDNR,DoD,ILEPA
Chlorobenzene	108-90-7	AKDEC,WDNR,DoD,ILEPA
Chloroethane	75-00-3	WDNR,DoD,ILEPA
Chloroform	67-66-3	AKDEC,WDNR,DoD,ILEPA
Chloromethane	74-87-3	AKDEC,WDNR,DoD,ILEPA
cis-1,2-Dichloroethene	156-59-2	WDNR,DoD,ILEPA
cis-1,3-Dichloropropene	10061-01-5	AKDEC,WDNR,DoD,ILEPA
Dibromochloromethane	124-48-1	AKDEC,WDNR,DoD,ILEPA
Dibromomethane	74-95-3	WDNR,DoD,ILEPA
Dichlorodifluoromethane	75-71-8	WDNR,DoD,ILEPA
Ethylbenzene	100-41-4	AKDEC,WDNR,DoD,ILEPA
Hexachlorobutadiene	87-68-3	WDNR,DoD
Isopropylbenzene	98-82-8	WDNR,DoD,ILEPA
m,p-Xylene	179601-23-1	AKDEC,WDNR,DoD,ILEPA
Methyl tert-butyl ether	1634-04-4	WDNR,DoD,ILEPA
Methylene chloride	75-09-2	AKDEC,WDNR,DoD,ILEPA
n-Butylbenzene	104-51-8	WDNR,DoD,ILEPA
n-Propylbenzene	103-65-1	WDNR,DoD,ILEPA
Naphthalene	91-20-3	WDNR,DoD,ILEPA
o-Xylene	95-47-6	AKDEC,WDNR,DoD,ILEPA
sec-Butylbenzene	135-98-8	WDNR,DoD,ILEPA
Styrene	100-42-5	WDNR,DoD
tert-Butylbenzene	98-06-6	WDNR,DoD,ILEPA
Tetrachloroethene	127-18-4	AKDEC,WDNR,DoD,ILEPA
Toluene	108-88-3	AKDEC,WDNR,DoD,ILEPA
trans-1,2-Dichloroethene	156-60-5	AKDEC,WDNR,DoD,ILEPA
trans-1,3-Dichloropropene	10061-02-6	AKDEC,WDNR,DoD,ILEPA
Trichloroethene	79-01-6	AKDEC,WDNR,DoD,ILEPA
Trichlorofluoromethane	75-69-4	AKDEC,WDNR,DoD,ILEPA
Vinyl chloride	75-01-4	AKDEC,WDNR,DoD,ILEPA

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

List of Certifications

Code	Description	Number	Expires
AKDEC	State of Alaska, Dept. Environmental Conservation	17-011	04/30/2024
CPSC	US Consumer Product Safety Commission, Accredited by PJLA Lab No. 1050	L18-184-R1	03/31/2024
DoD	Department of Defense, Accredited by PJLA	L20-164-R2	03/31/2024
ILEPA	State of Illinois, NELAP Accredited Lab No. 100256	1002562021-6	07/27/2023
ISO	ISO/IEC 17025:2017, Accredited by PJLA	L20-165	03/31/2024
NEFAP	TNI National Environmental Field Activities Program	L20-166	03/31/2024
NY	New York State Department of Health	65634	04/01/2024
WA	Washington State Department of Ecology	C1057	01/06/2024
WDNR	State of Wisconsin Dept of Natural Resources	999888890	08/31/2023

sterling labs - O'Hare Location

509 N. 3rd Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 www.thesterlinglab.com

Qualifiers and Definitions

Item	Description
B	Analyte was present in the method blank.
D	Data reported from a dilution
E	Reported concentrations are estimated values as the result exceeded the calibration range.
J	The reported result is an estimated value.
J1	The sample was utilized for MS/MSD purposes. For this compound, the recovery and/or RPD fell outside control criteria.
P	The quality control sample %RPD is above the laboratory control limit.
Q	One or more quality control results were outside of the acceptance limits (e.g. LCS recovery, surrogate spike recovery, or CCV recovery).
S	The quality control sample recovery is outside of the laboratory control limits.
S1	The percent recovery is above the limits (e.g. LCS recovery, surrogate spike recovery, or CCV recovery), but the analyte was not detected in the sample. Data is acceptable.
U	Analyte included in the analysis, but not detected
%Rec	Percent Recovery

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

509 N. 3rd Avenue
Des Plaines, IL 60016

23F0136
PM: Olga Karplyuk
HDR
Longhorn AAP

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☑ ROUTINE

735

Due Date: ____-____-____ COC #: 256373

Company: HDR
Address: 369 Inverness Parkway, Ste 325
Englewood, CO 80112

Phone #: (720) 883 - 7275 Fax #: (____) ____ - ____
P.O. #: ____ Proj.#: 10355063
Client Contact: Greg Kelly
Project ID / Location: LHAAP-47

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	VOCs 8260D	TCL Metals	TCL Metals-Diss	EMT USE ONLY / EMT WORKORDER # 23F0136
53147WW29	W	40/120/250	G/P	5	SS/PR	5/31	1345				3/5	✓	✓	✓	01A-E
53147WW13						5/31	1215					✓	✓	✓	02A-E
53047WW08R						5/30	1500					✓	✓	✓	03A-E
531DUP4						5/31	0845					✓	✓	✓	04A-E
61147WW34						6/1	1041					✓	✓	✓	05A-E
61DUP6						6/1	1100					✓	✓	✓	06A-E
61147WW04						6/1	1230					✓	✓	✓	07A-E
61147WW33						6/1	1525					✓	✓	✓	08A-E
61147WW46						6/1	1456					✓	✓	✓	09A-E
53147WW38						5/31	1011					✓	✓	✓	10A-E

Relinquished By: Travis Ritter	Date: 6-1-2023 Time: 19:00	Received By: FED	Date: 6-1-223 Time: 19:00	EMT USE ONLY Client Code:
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: [signature]	Date: 06-02-23 Time: 10:02	Jar Lot No.

☑ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE
cooler 1 : 5.4°c

01341107

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS: TCL Metals Diss field Filtered

116/1699

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ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

509 N. 3rd Avenue
Des Plaines, IL 60016

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☑ ROUTINE

Due Date: ____-____-____ COC #: 256374

Company: HDR
Address: 369 Inverness Parkway, Ste 325

Phone #: (720) 883-7275 Fax #: (____) ____-____
P.O. #: ____ Proj.#: 10355063
Client Contact: Greg Kelly
Project ID / Location: LHAAP-47

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	VOCs-8260	TCL Metals-Diss	TCL Metals-Diss	EMT USE ONLY / EMT WORKORDER # 23F0136
531DUP6	6	40/120 250	G/P	5	SP/TR	5/31	1110					✓	✓	✓	11 A-E
531LHSMW50	6		↓	↓	↓	5/31	1159					✓	✓	✓	12 A-E
53147WW61	6					5/31	1035					✓	✓	✓	13 A-E
6147WW31	6					6/1	1045					✓	✓	✓	14 A-E
6147WW45	6		↓	↓	↓	6/1	1226					✓	✓	✓	15 A-E
61TRIP2	8	40	G	3	SP	6/1	1750					✓			16 A-C

Relinquished By: Travis Ritter	Date: 6-1-2023 Time: 19:00	Received By: Fed Ex	Date: 6-1-2023 Time: 19:00	EMT USE ONLY Client Code:
Relinquished By:	Date: - - Time: :	Received By:	Date: - - Time: :	EMT Project I.D.
Relinquished By:	Date: - - Time: :	Received For Lab By: Kaline	Date: 06-02-23 Time: 10:02	Jar Lot No.

☑ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE
5.4°c

EMT SAMPLE RETURN POLICY ON BACK

01341108

SPECIAL INSTRUCTIONS: TCL Metals Diss field filtered

1177/699

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Sample Receipt Checklist

Work Order: 23F0136

Printed: 6/2/2023 10:54:56AM

Client: HDR
Project: Longhorn AAP

Date Due: Friday, June 23, 2023

Received By: Kaline Langley
Logged In By: Kaline Langley

Date Received: 06/02/23 10:02
Date Logged In: 06/02/23 10:21

How were samples received?	FedEx
Cooler temperature at or below 6 degrees Celsius	Yes
Chain of Custody present and properly completed	Yes
Turn Around Time is indicated and specified	Yes
Chain of Custody agrees with sample labels	Yes
Samples received within hold time	Yes
Proper sample containers received intact	Yes
Containers properly preserved	Yes
Sufficient Sample Volume	Yes
Custody seals present	No
Volatile water vials received	Yes
Vials contain larger than pea sized air bubbles	Yes

Samples going out of hold time within 24 hours:

_____
_____
_____
_____

Sample Receipt Comments
Work Order: 23F0136

The samples were received on 06/02/23 10:02. The temperature of the cooler(s) at receipt was:

Cooler	Temp C°
Cooler 1	5.4

The samples were received in good condition and were properly preserved.

Samples 16AB (2 vials), 9BC (2 vials), 5B (1 vial), 6B (1 vial) contain larger than pea-sized (6 mm) air bubbles.

KLL
Reviewed By:

06/02/23
Date:

Analysis Class: ICP

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater		Laboratory ID:	23F0136-01	File ID:	06062023-037	
Sampled:	05/31/23 13:45		Prepared:	06/06/23 11:06	Analyzed:	06/06/23 16:47	
			Preparation:	3015_METALS_PREP	Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	1.16	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-01 Acquired: 6/6/2023 16:47:34 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0295**	**.0031**	**.0563**	**.0803**	**.0000**	**42.28**	**.0001**	**.0022**
Stddev	.0009	.0079	.0054	.0007	.0008	.0001	.24	.0001	.0005
%RSD	119.4	26.70	175.4	1.184	.9812	1389.	.5580	109.3	21.17
#1	.0017	.0220	.0088	.0569	.0806	.0000	42.40	.0000	.0018
#2	.0009	.0288	-.0018	.0564	.0808	-.0001	42.42	.0002	.0027
#3	-.0002	.0378	.0021	.0556	.0794	.0001	42.00	.0001	.0022

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0024**	**.1754**	**5.470**	**.0540**	**23.07**	**.1252**	**.0011**	F **134.0**
Stddev	.0004	.0018	.0023	.025	.0005	.10	.0006	.0004	1.3
%RSD	121.6	74.44	1.292	.4625	.9203	.4286	.4815	41.63	.9969
#1	.0005	.0032	.1729	5.485	.0534	23.11	.1258	.0006	132.4
#2	-.0001	.0037	.1774	5.441	.0542	23.13	.1251	.0015	134.8
#3	.0006	.0004	.1757	5.484	.0543	22.95	.1247	.0010	134.7

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0206**	**.0055**	**.0087**	**-.0029**	**.0116**	**-.0002**	**.9317**	**.0004**
Stddev	.0007	.0047	.0068	.0018	.0064	.0042	.0039	.0056	.0005
%RSD	86.06	22.95	123.0	20.88	222.6	36.40	1674.	.5968	118.0
#1	.0012	.0259	.0061	.0074	-.0038	.0163	-.0040	.9333	-.0001
#2	.0012	.0167	.0120	.0079	.0039	.0081	-.0005	.9362	.0008
#3	.0000	.0192	-.0016	.0107	-.0088	.0105	.0038	.9255	.0005

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0046**	**.0003**	**.0014**
Stddev	.0012	.0006	.0003
%RSD	26.74	241.9	17.61
#1	.0053	.0009	.0013
#2	.0032	.0004	.0017
#3	.0053	-.0004	.0013

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02	File ID:	06062023-038
Sampled:	05/31/23 12:15	Prepared:	06/06/23 11:06	Analyzed:	06/06/23 16:51
		Preparation:	3015_METALS_PREP	Dilution:	1
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	0.0688	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-02 Acquired: 6/6/2023 16:51:48 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**15.78**	**.0007**	**.0312**	**.1329**	**.0007**	**1.941**	**.0003**	**.0127**
Stddev	.0002	.31	.0066	.0014	.0014	.0001	.024	.0001	.0004
%RSD	153.5	1.983	914.0	4.536	1.046	16.05	1.241	39.31	2.784
#1	-.0003	15.44	-.0052	.0302	.1313	.0008	1.919	.0004	.0129
#2	.0000	15.85	.0079	.0306	.1332	.0006	1.937	.0004	.0128
#3	-.0001	16.05	-.0006	.0329	.1341	.0008	1.966	.0002	.0123

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0320**	**.0109**	**11.63**	**1.204**	**.0120**	**2.224**	**.1177**	**.0012**	**24.07**
Stddev	.0006	.0012	.16	.025	.0003	.022	.0022	.0011	.26
%RSD	1.981	10.67	1.392	2.106	2.301	.9954	1.848	89.21	1.061
#1	.0318	.0097	11.45	1.180	.0121	2.199	.1158	.0016	23.78
#2	.0328	.0108	11.68	1.200	.0122	2.234	.1171	.0020	24.17
#3	.0316	.0121	11.77	1.230	.0117	2.240	.1201	-.0000	24.26

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0220**	**.1238**	**.0255**	**.0441**	**-.0085**	**.0083**	**.0004**	**.0550**	**.2584**
Stddev	.0005	.0114	.0044	.0055	.0021	.0080	.0016	.0007	.0076
%RSD	2.484	9.195	17.42	12.38	24.50	95.59	372.5	1.319	2.924
#1	.0217	.1359	.0286	.0495	-.0061	.0170	.0023	.0544	.2505
#2	.0226	.1133	.0274	.0386	-.0095	.0067	-.0006	.0547	.2594
#3	.0216	.1221	.0204	.0441	-.0100	.0013	-.0004	.0558	.2655

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0031**	**.0218**	**.0280**
Stddev	.0028	.0010	.0004
%RSD	90.86	4.793	1.598
#1	-.0061	.0212	.0279
#2	-.0007	.0230	.0276
#3	-.0024	.0213	.0285

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater		Laboratory ID:	23F0136-03	File ID:	06062023-039	
Sampled:	05/30/23 15:00		Prepared:	06/06/23 11:06	Analyzed:	06/06/23 16:55	
			Preparation:	3015_METALS_PREP	Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	3.60	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-03 Acquired: 6/6/2023 16:55:50 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0339**	**.0026**	**.0791**	**.0235**	**-.0000**	F **90.06**	**.0000**	**.0000**
Stddev	.0008	.0038	.0022	.0002	.0001	.0001	.25	.0003	.0003
%RSD	204.5	11.29	84.16	.2315	.4828	523.3	.2763	589.8	724.8
#1	.0011	.0300	.0012	.0791	.0236	.0000	90.31	-.0002	.0002
#2	.0006	.0342	.0014	.0793	.0234	-.0001	89.81	-.0000	-.0003
#3	-.0005	.0376	.0051	.0789	.0234	.0000	90.06	.0004	.0002

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0011**	**.0180**	**.9494**	**.1211**	F **65.44**	**.0137**	**.0010**	F **502.7**
Stddev	.0003	.0004	.0007	.0474	.0003	.89	.0002	.0007	7.2
%RSD	253.6	39.24	3.894	4.994	.2886	1.363	1.384	64.92	1.431
#1	-.0002	.0006	.0173	.9827	.1215	66.40	.0136	.0017	511.0
#2	-.0004	.0015	.0186	.8951	.1209	65.29	.0139	.0008	498.6
#3	.0002	.0012	.0183	.9703	.1209	64.64	.0137	.0005	498.6

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.1009**	**.0125**	**.0045**	**-.0049**	**.0085**	**.0004**	**2.877**	**-.0015**
Stddev	.0010	.0057	.0109	.0047	.0091	.0012	.0030	.044	.0001
%RSD	206.1	5.693	87.46	103.7	186.3	13.54	771.5	1.515	6.864
#1	.0016	.1034	.0002	.0008	-.0100	.0074	.0032	2.928	-.0016
#2	-.0001	.1050	.0211	.0030	-.0102	.0085	.0007	2.854	-.0016
#3	-.0001	.0943	.0161	.0098	.0056	.0097	-.0027	2.851	-.0014

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0001**	**.0010**	**-.0006**
Stddev	.0071	.0018	.0008
%RSD	13760.	182.6	148.0
#1	-.0023	-.0011	.0004
#2	.0079	.0017	-.0008
#3	-.0058	.0024	-.0012

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater	Laboratory ID:	23F0136-04		File ID:	06062023-040	
Sampled:	05/31/23 08:45	Prepared:	06/06/23 11:06		Analyzed:	06/06/23 17:00	
		Preparation:	3015_METALS_PREP		Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	0.0622	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-04 Acquired: 6/6/2023 17:00:20 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**8.647**	**.0003**	**.0139**	**.1142**	**.0008**	**1.794**	**.0002**	**.0075**
Stddev	.0012	.049	.0025	.0021	.0006	.0001	.005	.0001	.0001
%RSD	450.8	.5664	903.5	15.36	.4834	14.77	.2680	60.00	1.310
#1	.0016	8.692	.0008	.0162	.1149	.0009	1.799	.0001	.0075
#2	-.0002	8.653	.0025	.0135	.1139	.0007	1.793	.0003	.0076
#3	-.0006	8.595	-.0025	.0120	.1139	.0007	1.790	.0003	.0075

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0191**	**.0078**	**5.226**	**.6466**	**.0098**	**1.715**	**.0978**	**.0015**	**23.95**
Stddev	.0006	.0004	.032	.0488	.0003	.004	.0002	.0004	.10
%RSD	2.979	4.508	.6044	7.541	3.121	.2159	.2549	30.24	.4124
#1	.0186	.0076	5.261	.6345	.0095	1.719	.0979	.0015	24.06
#2	.0190	.0083	5.219	.6051	.0097	1.715	.0979	.0019	23.88
#3	.0197	.0077	5.199	.7003	.0101	1.712	.0975	.0010	23.91

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0131**	**.0986**	**.0071**	**.0259**	**-.0041**	**.0056**	**.0006**	**.0498**	**.1639**
Stddev	.0009	.0025	.0062	.0030	.0054	.0021	.0020	.0003	.0028
%RSD	7.032	2.529	87.02	11.52	132.3	36.78	358.0	.5638	1.694
#1	.0134	.1011	.0050	.0292	-.0037	.0036	.0028	.0498	.1658
#2	.0139	.0986	.0023	.0252	.0011	.0077	-.0009	.0500	.1651
#3	.0121	.0961	.0140	.0234	-.0097	.0055	-.0003	.0495	.1607

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0000**	**.0122**	**.0125**
Stddev	.0052	.0017	.0002
%RSD	16300.	13.90	1.713
#1	.0060	.0141	.0127
#2	-.0037	.0116	.0125
#3	-.0022	.0109	.0123

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater		Laboratory ID:	23F0136-05	File ID:	06062023-041	
Sampled:	06/01/23 10:41		Prepared:	06/06/23 11:06	Analyzed:	06/06/23 17:04	
			Preparation:	3015_METALS_PREP	Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	0.590	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-05 Acquired: 6/6/2023 17:04:22 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0298**	**.0015**	**.0340**	**.0667**	**.0001**	**32.21**	**.0001**	**-.0000**
Stddev	.0012	.0022	.0031	.0013	.0005	.0002	.15	.0002	.0004
%RSD	244.4	7.513	209.9	3.780	.7003	308.6	.4739	190.3	70440.
#1	-.0005	.0272	.0049	.0331	.0662	.0001	32.15	.0001	.0004
#2	.0001	.0315	-.0010	.0355	.0671	.0003	32.38	-.0001	-.0003
#3	.0018	.0306	.0005	.0335	.0667	-.0002	32.10	.0003	-.0001

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0212**	**.0020**	**.0970**	**4.709**	**.0661**	**15.76**	**.0052**	**.0013**	F **153.5**
Stddev	.0007	.0003	.0007	.063	.0008	.04	.0001	.0008	1.5
%RSD	3.087	16.98	.7136	1.327	1.173	.2350	2.230	61.20	.9554
#1	.0207	.0024	.0977	4.656	.0656	15.74	.0051	.0017	154.3
#2	.0210	.0017	.0963	4.778	.0669	15.80	.0053	.0004	151.8
#3	.0220	.0021	.0970	4.693	.0656	15.73	.0051	.0019	154.3

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0110**	**.1338**	**.0096**	**.0009**	**-.0026**	**.0044**	**-.0006**	**.4718**	**-.0005**
Stddev	.0009	.0109	.0097	.0065	.0056	.0074	.0038	.0022	.0002
%RSD	8.326	8.177	100.9	733.4	217.1	165.8	631.3	.4732	33.44
#1	.0113	.1464	.0050	.0016	.0002	.0102	-.0049	.4703	-.0006
#2	.0100	.1283	.0031	.0070	-.0090	.0070	.0010	.4743	-.0003
#3	.0117	.1267	.0208	-.0060	.0011	-.0039	.0021	.4707	-.0006

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0022**	**.0014**	**.0002**
Stddev	.0014	.0004	.0003
%RSD	62.07	27.70	183.5
#1	-.0036	.0015	.0004
#2	-.0022	.0009	.0002
#3	-.0008	.0016	-.0001

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater	Laboratory ID:	23F0136-06		File ID:	06062023-042	
Sampled:	06/01/23 11:00	Prepared:	06/06/23 11:06		Analyzed:	06/06/23 17:08	
		Preparation:	3015_METALS_PREP		Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	7.96	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-06 Acquired: 6/6/2023 17:08:36 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0304**	**.0001**	**.1155**	**.0130**	**-.0001**	F **227.0**	**.0003**	**.0010**
Stddev	.0005	.0052	.0031	.0010	.0001	.0001	1.8	.0001	.0004
%RSD	146.8	17.00	3759.	.8716	1.021	171.7	.7951	33.44	42.22
#1	.0004	.0245	.0031	.1165	.0131	.0000	229.1	.0003	.0015
#2	.0008	.0321	-.0031	.1145	.0129	-.0001	226.1	.0002	.0007
#3	-.0002	.0344	.0003	.1154	.0131	-.0002	225.8	.0004	.0008

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0177**	**.0024**	**.0479**	**38.46**	**.2498**	F **138.8**	**.0566**	**.0013**	F **735.7**
Stddev	.0013	.0001	.0009	.44	.0015	.9	.0007	.0009	2.6
%RSD	7.118	2.829	1.946	1.155	.6047	.6389	1.158	70.87	.3516
#1	.0180	.0024	.0480	38.80	.2512	139.8	.0572	.0009	737.8
#2	.0188	.0025	.0488	37.96	.2482	138.2	.0559	.0024	732.8
#3	.0163	.0024	.0470	38.63	.2501	138.4	.0568	.0006	736.4

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0076**	**.0651**	**.0186**	**.0059**	**-.0089**	**.0039**	**-.0007**	**6.372**	**-.0052**
Stddev	.0008	.0119	.0206	.0057	.0039	.0070	.0024	.095	.0003
%RSD	9.989	18.28	110.4	97.24	43.52	180.4	348.7	1.495	5.873
#1	.0081	.0514	.0080	.0082	-.0059	.0003	-.0006	6.461	-.0050
#2	.0068	.0709	.0056	-.0006	-.0133	-.0006	.0016	6.272	-.0050
#3	.0081	.0730	.0423	.0101	-.0075	.0120	-.0031	6.385	-.0055

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0008**	**.0006**	**.0083**
Stddev	.0080	.0008	.0006
%RSD	945.0	125.4	7.460
#1	-.0081	.0016	.0082
#2	.0071	.0002	.0076
#3	.0035	.0001	.0089

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater		Laboratory ID:	23F0136-07	File ID:	06062023-043	
Sampled:	06/01/23 12:30		Prepared:	06/06/23 11:06	Analyzed:	06/06/23 17:13	
			Preparation:	3015_METALS_PREP	Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	2.42	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-07 Acquired: 6/6/2023 17:13:15 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.1335**	**-.0038**	**.0490**	**.0122**	**-.0000**	F **110.6**	**.0007**	**.0096**
Stddev	.0001	.0011	.0029	.0001	.0002	.0001	.9	.0002	.0012
%RSD	36.61	.8273	75.29	.1233	1.906	302.0	.8449	22.76	12.85
#1	-.0002	.1337	-.0033	.0491	.0121	.0000	109.7	.0005	.0087
#2	-.0005	.1344	-.0070	.0490	.0120	-.0002	110.6	.0008	.0110
#3	-.0004	.1323	-.0013	.0490	.0124	.0000	111.6	.0007	.0091

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6867**	**.0098**	**11.60**	**1.461**	**.0691**	F **80.42**	**.1067**	**.0108**	F **698.6**
Stddev	.0048	.0005	.09	.029	.0006	1.45	.0010	.0006	7.8
%RSD	.7010	4.781	.7796	1.955	.9211	1.806	.9480	5.304	1.112
#1	.6819	.0092	11.51	1.434	.0685	79.20	.1057	.0102	691.5
#2	.6866	.0101	11.60	1.491	.0691	80.04	.1067	.0109	706.9
#3	.6915	.0100	11.69	1.460	.0698	82.03	.1077	.0113	697.5

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.083**	**.1028**	**.0491**	**.0033**	**-.0073**	**.0039**	**.0033**	**1.935**	**-.0041**
Stddev	.012	.0057	.0057	.0026	.0049	.0030	.0016	.014	.0008
%RSD	.5721	5.566	11.55	78.10	66.71	78.33	48.90	.7073	19.79
#1	2.072	.1013	.0552	.0012	-.0036	.0045	.0015	1.927	-.0050
#2	2.095	.0980	.0440	.0024	-.0056	.0065	.0039	1.928	-.0036
#3	2.082	.1092	.0481	.0062	-.0129	.0006	.0045	1.951	-.0037

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0023**	**-.0070**	**.0067**
Stddev	.0008	.0010	.0002
%RSD	36.15	14.84	3.675
#1	-.0015	-.0058	.0067
#2	-.0031	-.0074	.0070
#3	-.0024	-.0077	.0065

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater		Laboratory ID:	23F0136-08	File ID:	06062023-044	
Sampled:	06/01/23 15:25		Prepared:	06/06/23 11:06	Analyzed:	06/06/23 17:17	
			Preparation:	3015_METALS_PREP	Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	0.0811	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-08 Acquired: 6/6/2023 17:17:42 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.6491**	**.0013**	**.0148**	**.0155**	**.0007**	**3.522**	**.0002**	**.0197**
Stddev	.0011	.0299	.0021	.0023	.0004	.0002	.060	.0001	.0004
%RSD	119.4	4.613	166.6	15.40	2.696	24.46	1.714	44.75	2.225
#1	.0018	.6145	.0034	.0163	.0150	.0008	3.465	.0003	.0195
#2	-.0003	.6659	-.0009	.0160	.0157	.0005	3.517	.0001	.0194
#3	.0012	.6668	.0014	.0122	.0157	.0008	3.585	.0002	.0202

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0066**	**.0018**	**4.325**	**.3977**	**.0530**	**2.800**	**.3261**	**-.0003**	F **82.25**
Stddev	.0013	.0010	.080	.0133	.0010	.031	.0054	.0003	.78
%RSD	19.88	55.88	1.852	3.348	1.799	1.092	1.644	93.14	.9525
#1	.0075	.0013	4.239	.4063	.0520	2.766	.3203	-.0001	81.38
#2	.0051	.0011	4.339	.3824	.0530	2.824	.3270	-.0002	82.90
#3	.0071	.0029	4.397	.4045	.0539	2.810	.3309	-.0007	82.48

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0257**	**1.118**	**.0199**	**.0080**	**-.0061**	**.0011**	**.0017**	**.0649**	**.0195**
Stddev	.0006	.004	.0080	.0032	.0038	.0066	.0046	.0006	.0016
%RSD	2.431	.3827	40.16	39.98	61.95	606.9	266.2	.9910	8.267
#1	.0252	1.117	.0153	.0107	-.0103	.0081	.0013	.0641	.0176
#2	.0256	1.123	.0292	.0087	-.0052	-.0050	.0065	.0653	.0206
#3	.0264	1.114	.0153	.0045	-.0029	.0001	-.0027	.0652	.0201

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0044**	**.0035**	**.0203**
Stddev	.0016	.0014	.0002
%RSD	36.82	39.72	.9325
#1	-.0057	.0026	.0204
#2	-.0049	.0028	.0200
#3	-.0026	.0051	.0204

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09	File ID:	06062023-045
Sampled:	06/01/23 14:56	Prepared:	06/06/23 11:06	Analyzed:	06/06/23 17:21
		Preparation:	3015_METALS_PREP	Dilution:	1
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	1.78	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-09 Acquired: 6/6/2023 17:21:46 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.8860**	**-.0024**	**.0831**	**.0433**	**-.0000**	F **82.02**	**-.0000**	**.0027**
Stddev	.0030	.0172	.0073	.0031	.0005	.0002	.16	.0000	.0003
%RSD	618.0	1.939	305.4	3.771	1.193	705.6	.2011	222.5	11.99
#1	-.0029	.8946	.0051	.0866	.0434	-.0001	82.20	-.0000	.0029
#2	.0026	.8662	-.0027	.0805	.0428	.0002	81.88	-.0000	.0029
#3	.0017	.8972	-.0096	.0824	.0438	-.0001	81.97	.0000	.0023

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0313**	**.0031**	**1.255**	**2.398**	**.0551**	F **51.92**	**.4169**	**.0022**	F **502.7**
Stddev	.0010	.0013	.011	.015	.0001	.17	.0016	.0007	3.2
%RSD	3.291	40.89	.8759	.6204	.1476	.3196	.3791	33.70	.6459
#1	.0302	.0023	1.255	2.399	.0551	52.11	.4187	.0022	502.9
#2	.0316	.0024	1.244	2.412	.0550	51.80	.4157	.0029	499.3
#3	.0322	.0046	1.266	2.383	.0552	51.85	.4164	.0014	505.8

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0153**	**.0933**	**.0009**	**.0077**	**-.0060**	**.0017**	**-.0016**	**1.425**	**.0289**
Stddev	.0003	.0199	.0222	.0010	.0080	.0055	.0013	.010	.0054
%RSD	1.962	21.32	2455.	12.61	133.0	320.5	78.36	.6925	18.66
#1	.0155	.0728	.0213	.0081	.0029	-.0046	-.0031	1.436	.0316
#2	.0149	.1125	.0041	.0084	-.0125	.0058	-.0007	1.416	.0324
#3	.0154	.0946	-.0227	.0066	-.0084	.0039	-.0011	1.423	.0227

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0037**	**-.0001**	**.0007**
Stddev	.0036	.0012	.0003
%RSD	97.21	1408.	46.51
#1	-.0012	-.0012	.0009
#2	-.0020	.0012	.0008
#3	-.0078	-.0003	.0003

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10	File ID:	06062023-048
Sampled:	05/31/23 10:11	Prepared:	06/06/23 11:06	Analyzed:	06/06/23 17:34
		Preparation:	3015_METALS_PREP	Dilution:	1
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	3.02	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-10 Acquired: 6/6/2023 17:34:20 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.3256**	**.0022**	**.0416**	**.1141**	**.0000**	F **74.35**	**.0007**	**.0022**
Stddev	.0013	.0168	.0016	.0014	.0008	.0001	.32	.0003	.0006
%RSD	144.5	5.148	71.70	3.372	.7024	1042.	.4265	47.25	29.20
#1	.0004	.3154	.0039	.0429	.1142	.0000	74.63	.0010	.0018
#2	.0024	.3450	.0016	.0417	.1148	-.0001	74.42	.0007	.0018
#3	-.0001	.3164	.0010	.0401	.1132	.0001	74.01	.0004	.0029

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0885**	**.0070**	**.8320**	**11.33**	**.0740**	**37.67**	**.2556**	**.0035**	F **120.0**
Stddev	.0009	.0012	.0102	.11	.0007	.23	.0030	.0001	.3
%RSD	.9874	17.53	1.231	.9546	1.012	.6042	1.168	3.676	.2815
#1	.0894	.0056	.8339	11.38	.0747	37.74	.2579	.0033	120.1
#2	.0885	.0079	.8411	11.40	.0741	37.86	.2567	.0036	119.6
#3	.0877	.0073	.8209	11.20	.0733	37.42	.2522	.0034	120.3

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0260**	**.1195**	**-.0116**	**.0044**	**.0040**	**.0078**	**.0003**	**2.412**	**.0112**
Stddev	.0004	.0129	.0218	.0057	.0067	.0079	.0025	.034	.0009
%RSD	1.446	10.83	187.5	130.4	166.1	101.0	866.9	1.400	8.445
#1	.0257	.1195	-.0338	.0107	-.0035	.0096	-.0016	2.412	.0102
#2	.0265	.1324	-.0109	-.0002	.0094	-.0008	.0032	2.379	.0112
#3	.0260	.1065	.0098	.0025	.0062	.0147	-.0007	2.446	.0121

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0001**	**.0006**	**.0101**
Stddev	.0024	.0007	.0001
%RSD	2007.	128.5	.5543
#1	-.0022	.0002	.0101
#2	.0025	.0014	.0102
#3	.0000	.0001	.0101

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater	Laboratory ID:	23F0136-11		File ID:	06062023-049	
Sampled:	05/31/23 11:10	Prepared:	06/06/23 11:06		Analyzed:	06/06/23 17:38	
		Preparation:	3015_METALS_PREP		Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	1.14	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-11 Acquired: 6/6/2023 17:38:42 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0245**	**-.0015**	**.0543**	**.0783**	**.0000**	**41.41**	**-.0001**	**.0012**
Stddev	.0009	.0046	.0073	.0008	.0006	.0002	.13	.0002	.0010
%RSD	92.47	18.88	499.0	1.485	.7135	337.0	.3067	231.1	83.86
#1	-.0010	.0298	.0060	.0535	.0777	.0000	41.28	-.0002	.0018
#2	-.0019	.0212	-.0085	.0543	.0788	.0002	41.54	.0001	.0018
#3	-.0001	.0225	-.0019	.0551	.0784	-.0001	41.41	-.0002	.0000

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0014**	**.1855**	**5.302**	**.0510**	**22.53**	**.1132**	**-.0001**	F **128.0**
Stddev	.0004	.0006	.0010	.080	.0010	.07	.0007	.0007	.7
%RSD	91.02	43.35	.5589	1.509	1.883	.2938	.6215	790.9	.5282
#1	.0006	.0021	.1852	5.227	.0506	22.46	.1124	.0006	127.3
#2	.0008	.0012	.1847	5.386	.0521	22.60	.1136	-.0007	128.4
#3	-.0000	.0010	.1867	5.293	.0503	22.52	.1136	-.0002	128.4

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0261**	**-.0035**	**.0030**	**-.0020**	**.0062**	**.0006**	**.9086**	**.0008**
Stddev	.0010	.0076	.0046	.0046	.0036	.0166	.0008	.0038	.0009
%RSD	73.43	29.08	130.4	155.7	179.7	267.6	127.6	.4206	122.0
#1	.0003	.0205	-.0024	.0061	.0021	.0223	.0005	.9048	.0005
#2	.0013	.0347	-.0085	.0051	-.0046	-.0108	-.0001	.9124	-.0000
#3	.0022	.0230	.0004	-.0023	-.0036	.0071	.0014	.9085	.0018

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0037**	**.0004**	**.0012**
Stddev	.0035	.0009	.0002
%RSD	94.37	242.6	18.67
#1	-.0077	-.0000	.0010
#2	-.0019	.0014	.0012
#3	-.0015	-.0003	.0014

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12	File ID:	06062023-050
Sampled:	05/31/23 15:07	Prepared:	06/06/23 11:06	Analyzed:	06/06/23 17:42
		Preparation:	3015_METALS_PREP	Dilution:	1
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	4.12	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-12 Acquired: 6/6/2023 17:42:58 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0014**	**.0306**	**.0030**	**.0414**	**.0274**	**-.0001**	F **106.5**	**.0007**	**.0011**
Stddev	.0015	.0022	.0017	.0027	.0001	.0000	.3	.0013	.0011
%RSD	106.1	7.298	56.68	6.423	.4034	43.70	.3025	190.0	97.82
#1	-.0001	.0284	.0028	.0386	.0274	-.0001	106.5	-.0000	.0005
#2	-.0030	.0306	.0047	.0439	.0276	-.0001	106.8	.0022	.0024
#3	-.0010	.0329	.0014	.0418	.0273	-.0001	106.1	-.0001	.0005

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0745**	**.0038**	**.7853**	**.9752**	**.1453**	F **79.65**	**.0075**	**.0048**	F **419.0**
Stddev	.0009	.0016	.0067	.0286	.0010	.62	.0003	.0013	.2
%RSD	1.159	41.56	.8478	2.933	.6618	.7724	3.952	28.13	.0422
#1	.0754	.0043	.7927	1.008	.1461	78.98	.0072	.0035	418.8
#2	.0736	.0050	.7832	.9549	.1442	80.18	.0075	.0062	419.1
#3	.0744	.0020	.7799	.9629	.1455	79.79	.0078	.0047	419.0

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3320**	**.0550**	**.0106**	**.0064**	**-.0056**	**.0110**	**.0031**	**3.292**	**-.0028**
Stddev	.0038	.0018	.0077	.0080	.0010	.0022	.0035	.059	.0006
%RSD	1.157	3.330	72.76	125.8	17.89	19.73	112.4	1.793	21.28
#1	.3277	.0533	.0077	-.0017	-.0057	.0121	.0032	3.261	-.0034
#2	.3333	.0570	.0193	.0144	-.0045	.0085	.0066	3.360	-.0029
#3	.3351	.0548	.0048	.0064	-.0065	.0124	-.0004	3.256	-.0022

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0038**	**.0004**	**-.0004**
Stddev	.0043	.0021	.0014
%RSD	114.3	474.0	368.2
#1	-.0000	-.0015	-.0008
#2	.0029	.0001	.0012
#3	.0085	.0027	-.0015

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13	File ID:	06062023-051
Sampled:	05/31/23 10:35	Prepared:	06/06/23 11:06	Analyzed:	06/06/23 17:47
		Preparation:	3015_METALS_PREP	Dilution:	1
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	1.08	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-13 Acquired: 6/6/2023 17:47:30 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0563**	**-.0016**	**.0743**	**.1395**	**.0000**	F **52.89**	**-.0001**	**.0089**
Stddev	.0023	.0005	.0026	.0012	.0006	.0001	.17	.0002	.0004
%RSD	223.0	.8057	155.7	1.596	.4377	14490.	.3283	144.2	4.267
#1	.0027	.0564	-.0026	.0743	.1402	.0002	53.08	-.0004	.0094
#2	.0019	.0559	.0013	.0732	.1390	-.0001	52.73	-.0000	.0086
#3	-.0016	.0568	-.0036	.0755	.1392	-.0000	52.87	-.0000	.0089

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0019**	**.0852**	**3.165**	**.0794**	**32.93**	**.7776**	**.0029**	F **395.9**
Stddev	.0001	.0006	.0005	.054	.0004	.08	.0040	.0011	4.3
%RSD	37.42	32.55	.6213	1.713	.4767	.2312	.5184	38.10	1.090
#1	.0002	.0017	.0858	3.226	.0793	32.94	.7799	.0042	398.8
#2	.0003	.0027	.0851	3.121	.0791	32.85	.7730	.0024	391.0
#3	.0005	.0015	.0848	3.149	.0798	33.00	.7801	.0022	398.1

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063**	**.0096**	**.0139**	**-.0022**	**-.0103**	**.0061**	**.0014**	**.8644**	**-.0002**
Stddev	.0005	.0074	.0144	.0043	.0031	.0082	.0028	.0009	.0001
%RSD	7.544	77.09	104.1	195.2	30.23	136.0	193.4	.1037	76.01
#1	.0068	.0124	.0306	.0012	-.0117	.0093	-.0006	.8645	-.0001
#2	.0062	.0153	.0051	-.0071	-.0067	.0122	.0004	.8635	-.0001
#3	.0059	.0012	.0059	-.0008	-.0124	-.0033	.0046	.8653	-.0003

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0027**	**.0003**	**.0014**
Stddev	.0006	.0009	.0002
%RSD	21.85	325.6	15.19
#1	-.0032	-.0006	.0012
#2	-.0028	.0003	.0014
#3	-.0020	.0011	.0016

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater	Laboratory ID:	23F0136-14		File ID:	06062023-052	
Sampled:	06/01/23 10:45	Prepared:	06/06/23 11:06		Analyzed:	06/06/23 17:51	
		Preparation:	3015_METALS_PREP		Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	9.48	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-14 Acquired: 6/6/2023 17:51:44 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0372**	**.0011**	**.1077**	**.0139**	**.0001**	F **274.7**	**.0004**	**.0006**
Stddev	.0022	.0034	.0034	.0027	.0003	.0002	2.8	.0002	.0003
%RSD	1343.	9.023	321.1	2.513	1.977	225.9	1.024	50.62	54.68
#1	-.0027	.0410	.0014	.1054	.0137	.0001	273.2	.0006	.0009
#2	.0009	.0358	.0043	.1070	.0138	.0002	273.0	.0002	.0002
#3	.0012	.0348	-.0025	.1107	.0142	-.0001	278.0	.0003	.0008

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0026**	**.0228**	**14.08**	**.2211**	F **156.7**	**.0529**	**.0016**	F **770.4**
Stddev	.0007	.0016	.0014	.40	.0049	.1	.0004	.0004	3.7
%RSD	16.07	61.69	6.126	2.829	2.230	.0591	.7571	22.78	.4746
#1	.0036	.0012	.0215	13.77	.2171	156.6	.0526	.0013	773.3
#2	.0048	.0043	.0227	13.94	.2197	156.8	.0527	.0020	766.2
#3	.0049	.0022	.0243	14.53	.2266	156.6	.0534	.0015	771.6

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**.0892**	**.0237**	**.0102**	**-.0024**	**.0045**	**.0029**	**7.585**	**-.0061**
Stddev	.0016	.0048	.0033	.0073	.0059	.0066	.0017	.106	.0002
%RSD	25.88	5.430	14.06	70.98	245.4	146.6	56.53	1.395	2.650
#1	.0044	.0880	.0202	.0045	-.0028	.0009	.0012	7.463	-.0060
#2	.0075	.0945	.0239	.0079	-.0081	.0004	.0045	7.652	-.0060
#3	.0068	.0850	.0268	.0184	.0037	.0121	.0031	7.639	-.0063

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0036**	**.0013**	**.0098**
Stddev	.0057	.0014	.0002
%RSD	157.6	107.0	1.643
#1	.0101	.0028	.0100
#2	.0011	.0002	.0097
#3	-.0004	.0008	.0097

1 - FORM I
ANALYSIS DATA SHEET

SW6010D

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Groundwater		Laboratory ID:	23F0136-15	File ID:	06062023-057	
Sampled:	06/01/23 12:26		Prepared:	06/06/23 11:06	Analyzed:	06/06/23 18:14	
			Preparation:	3015_METALS_PREP	Dilution:	1	
Initial/Final:	40 ml / 50 ml						
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	5.26	0.0100	0.0400	0.0500	

Italicized = secondary result

Sample Name: 23F0136-15 Acquired: 6/6/2023 18:14:23 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0580**	**.0053**	**.0595**	**.1229**	**.0010**	**13.18**	**.0001**	**-.0002**
Stddev	.0016	.0073	.0007	.0022	.0013	.0015	1.78	.0001	.0010
%RSD	137.9	12.57	12.88	3.649	1.028	155.8	13.53	134.9	559.5
#1	.0019	.0513	.0058	.0579	.1222	.0001	12.19	-.0001	.0009
#2	.0021	.0658	.0046	.0619	.1243	.0027	15.24	.0002	-.0008
#3	-.0007	.0570	.0057	.0586	.1221	.0001	12.12	.0002	-.0006

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0307**	**.0074**	**.0844**	**19.57**	**.0619**	**.7393**	**.0051**	**.0033**	F **269.2**
Stddev	.0010	.0017	.0020	.17	.0052	1.086	.0014	.0009	1.6
%RSD	3.186	22.86	2.368	.8871	8.325	146.9	26.34	26.15	.6031
#1	.0302	.0057	.0857	19.77	.0586	.1146	.0043	.0034	271.0
#2	.0318	.0091	.0854	19.48	.0678	1.993	.0067	.0042	268.0
#3	.0300	.0074	.0821	19.45	.0592	.1102	.0044	.0024	268.5

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0110**	**.0287**	**.0037**	**.0014**	**-.0003**	**.0101**	**.0016**	**4.212**	**.0024**
Stddev	.0009	.0084	.0065	.0044	.0033	.0077	.0033	.030	.0015
%RSD	7.963	29.28	175.0	324.3	984.9	76.67	204.9	.7246	62.26
#1	.0101	.0190	.0003	-.0037	.0035	.0181	.0041	4.186	.0016
#2	.0110	.0341	-.0004	.0046	-.0023	.0095	.0030	4.245	.0041
#3	.0119	.0331	.0111	.0031	-.0022	.0027	-.0022	4.204	.0014

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0012**	**.0481**	**-.0001**
Stddev	.0077	.0012	.0001
%RSD	644.4	2.584	182.3
#1	.0055	.0486	.0000
#2	.0057	.0490	-.0000
#3	-.0077	.0466	-.0002

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0161-BLK1		File ID:	06062023-032	
		Prepared:	06/06/23 11:06		Analyzed:	06/06/23 16:27	
		Preparation:	3015_METALS_PREP		Dilution:	1	
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium		0.0100	0.0400	0.0500	U

Sample Name: B3F0161-BLK1 Acquired: 6/6/2023 16:27:02 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**-.0011**	**.0024**	**-.0047**	**-.0000**	**.0000**	**-.0147**	**-.0001**	**-.0008**
Stddev	.0016	.0033	.0051	.0006	.0001	.0001	.0016	.0002	.0006
%RSD	231.1	299.6	216.8	13.77	364.4	311.2	11.22	279.9	85.12
#1	-.0025	-.0047	.0044	-.0049	-.0001	-.0000	-.0128	-.0002	-.0013
#2	.0006	-.0001	-.0035	-.0052	-.0000	-.0000	-.0156	-.0002	-.0001
#3	-.0002	.0015	.0061	-.0040	.0001	.0001	-.0157	.0001	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0019**	**-.0019**	**-.0256**	**-.0008**	**.0012**	**.0001**	**-.0004**	**.0588**
Stddev	.0008	.0005	.0013	.0059	.0002	.0002	.0002	.0003	.0092
%RSD	125.0	25.79	70.02	23.04	21.50	21.28	263.5	77.17	15.74
#1	-.0016	.0025	-.0006	-.0207	-.0009	.0011	.0001	-.0008	.0679
#2	-.0001	.0017	-.0032	-.0240	-.0006	.0009	-.0002	-.0003	.0590
#3	-.0002	.0015	-.0019	-.0322	-.0010	.0014	.0003	-.0002	.0494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0048**	**.0013**	**-.0039**	**-.0036**	**.0111**	**-.0008**	**.0000**	**.0000**
Stddev	.0010	.0032	.0102	.0042	.0029	.0051	.0020	.0000	.0003
%RSD	2946.	67.91	778.9	107.2	80.52	45.90	263.0	380.4	1375.
#1	.0010	-.0082	.0089	-.0052	-.0066	.0098	.0004	.0000	.0000
#2	-.0009	-.0043	-.0103	-.0072	-.0009	.0167	-.0031	-.0000	.0003
#3	-.0002	-.0018	.0054	.0008	-.0032	.0068	.0004	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: B3F0161-BLK1 Acquired: 6/6/2023 16:27:02 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0030**	**.0012**	**-.0024**
Stddev	.0033	.0003	.0004
%RSD	111.1	23.59	17.59
#1	.0008	.0010	-.0020
#2	-.0043	.0011	-.0028
#3	-.0054	.0016	-.0024
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0161-BS1		File ID:	06062023-033	
		Prepared:	06/06/23 11:06		Analyzed:	06/06/23 16:31	
		Preparation:	3015_METALS_PREP		Dilution:	1	
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium		0.0100	0.0400	0.0500	U

Sample Name: B3F0161-BS1 Acquired: 6/6/2023 16:31:10 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1038**	**1.048**	**.9997**	**.4916**	**.9980**	**.1041**	**5.138**	**.1004**	**1.039**
Stddev	.0014	.009	.0060	.0036	.0033	.0017	.052	.0001	.006
%RSD	1.314	.8991	.6036	.7280	.3296	1.640	1.005	.0578	.5940
#1	.1054	1.059	.9933	.4955	.9983	.1059	5.195	.1003	1.032
#2	.1034	1.046	1.000	.4910	1.001	.1036	5.125	.1005	1.040
#3	.1028	1.040	1.005	.4884	.9946	.1026	5.094	.1004	1.044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.041**	**1.043**	**2.083**	**5.122**	F **.0010**	**5.005**	**.9681**	**1.012**	**5.066**
Stddev	.014	.010	.030	.071	.0001	.013	.0024	.006	.020
%RSD	1.333	.9600	1.453	1.379	12.54	.2685	.2519	.5580	.3866
#1	1.056	1.054	2.117	5.193	.0010	4.990	.9660	1.005	5.049
#2	1.040	1.038	2.074	5.052	.0011	5.010	.9708	1.014	5.088
#3	1.029	1.035	2.059	5.120	.0008	5.016	.9677	1.016	5.061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					1.000				
Range					-20.00%				

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9988**	F **7.241**	**.9994**	**1.066**	**.9647**	**.9906**	**.9662**	F **.0007**	**1.009**
Stddev	.0051	.023	.0088	.004	.0126	.0132	.0070	.0001	.016
%RSD	.5118	.3226	.8791	.3750	1.304	1.328	.7251	8.695	1.630
#1	.9930	7.218	.9945	1.070	.9507	.9760	.9600	.0008	1.028
#2	1.001	7.265	.9942	1.065	.9686	.9942	.9647	.0007	1.001
#3	1.002	7.239	1.010	1.062	.9749	1.002	.9738	.0008	.9982
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value		5.000						1.000	
Range		20.00%						-20.00%	

Sample Name: B3F0161-BS1 Acquired: 6/6/2023 16:31:10 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**1.015**	**1.043**	**.9586**
Stddev	.006	.005	.0044
%RSD	.6133	.4394	.4539
#1	1.012	1.047	.9540
#2	1.010	1.043	.9626
#3	1.022	1.038	.9592
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0161-BS2		File ID:	06062023-036	
		Prepared:	06/06/23 11:06		Analyzed:	06/06/23 16:43	
		Preparation:	3015_METALS_PREP		Dilution:	1	
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	1.28	0.0100	0.0400	0.0500	

Sample Name: B3F0161-BS2 Acquired: 6/6/2023 16:43:26 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0006**	F **-.0052**	F **.0028**	F **-.0025**	F **-.0001**	F **.0000**	F **-.0085**	F **-.0002**
Stddev	.0016	.0041	.0024	.0014	.0000	.0001	.0029	.0001
%RSD	252.0	77.56	83.32	54.34	37.15	315.0	33.81	67.36
#1	.0005	-.0012	.0042	-.0011	-.0000	.0001	-.0052	-.0000
#2	.0001	-.0093	.0043	-.0026	-.0001	-.0001	-.0098	-.0002
#3	-.0024	-.0053	.0001	-.0039	-.0001	.0001	-.0104	-.0002
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	.1000	1.000	1.000	.5000	1.000	.1000	5.000	.1000
Range	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%

Elem	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **-.0003**	F **-.0006**	F **.0015**	F **-.0020**	F **-.0644**	**.9805**	F **.0005**	F **.0001**
Stddev	.0007	.0004	.0013	.0007	.0515	.0050	.0010	.0004
%RSD	199.5	67.35	85.18	33.69	79.99	.5134	183.5	444.3
#1	-.0006	-.0008	.0000	-.0025	-.0581	.9754	.0002	-.0003
#2	.0004	-.0001	.0025	-.0012	-.0163	.9807	-.0003	.0001
#3	-.0008	-.0008	.0021	-.0023	-.1187	.9855	.0016	.0004
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail
Value	1.000	1.000	1.000	2.000	5.000		5.000	1.000
Range	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%		-20.00%	-20.00%

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0014**	F **.0281**	F **.0000**	F **.0099**	F **-.0021**	F **-.0001**	F **-.0073**	F **.0071**
Stddev	.0005	.0045	.0000	.0075	.0047	.0010	.0032	.0044
%RSD	37.43	16.01	120.2	76.10	219.4	1062.	43.87	62.02
#1	.0020	.0313	-.0000	.0121	.0031	.0010	-.0082	.0109
#2	.0012	.0302	.0000	.0015	-.0036	-.0007	-.0099	.0023
#3	.0010	.0230	.0000	.0161	-.0060	-.0006	-.0037	.0080
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	1.000	5.000	1.000	5.000	1.000	1.000	1.000	1.000
Range	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%

Sample Name: B3F0161-BS2 Acquired: 6/6/2023 16:43:26 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Sn1899	Sr4077	Ti3361	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0033**	**1.028**	F **.0002**	F **-.0007**	F **-.0008**	F **-.0018**
Stddev	.0016	.006	.0004	.0075	.0011	.0004
%RSD	47.63	.5926	246.1	1005.	134.9	22.92
#1	.0051	1.022	.0003	-.0041	-.0020	-.0013
#2	.0029	1.029	.0005	.0079	-.0005	-.0021
#3	.0020	1.034	-.0003	-.0060	.0001	-.0020
Check ?	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	1.000		1.000	1.000	1.000	1.000
Range	-20.00%		-20.00%	-20.00%	-20.00%	-20.00%

1 - FORM I
ANALYSIS DATA SHEET

Duplicate

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0161-DUP1	File ID:	06062023-056
		Prepared:	06/06/23 11:06	Analyzed:	06/06/23 18:10
		Preparation:	3015_METALS_PREP	Dilution:	5
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	10.2	0.0500	0.200	0.250	D

Sample Name: B3F0161-DUP1@5 Acquired: 6/6/2023 18:10:10 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**.0122**	**-.0012**	**.0166**	**.0029**	**.0000**	F **59.71**	**.0001**	**-.0004**
Stddev	.0014	.0071	.0076	.0012	.0000	.0001	.40	.0001	.0008
%RSD	63.41	58.13	663.2	7.344	.3877	254.1	.6669	66.63	230.8
#1	.0013	.0047	-.0090	.0173	.0029	-.0001	59.33	.0002	-.0007
#2	.0037	.0187	.0062	.0173	.0029	.0000	60.12	.0001	.0006
#3	.0014	.0133	-.0007	.0152	.0029	.0002	59.67	.0001	-.0010

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0012**	**.0056**	**2.881**	**.0454**	**34.01**	**.0111**	**.0003**	F **162.4**
Stddev	.0003	.0021	.0008	.033	.0005	.24	.0002	.0011	1.8
%RSD	40.45	173.0	14.07	1.130	1.061	.7113	1.961	403.9	1.125
#1	.0012	-.0012	.0051	2.845	.0449	33.89	.0108	.0011	161.8
#2	.0007	.0028	.0051	2.908	.0454	34.28	.0113	-.0010	164.4
#3	.0006	.0021	.0065	2.891	.0459	33.84	.0111	.0007	160.9

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0126**	**.0043**	**.0003**	**-.0032**	**.0071**	**.0014**	**1.637**	**-.0020**
Stddev	.0012	.0113	.0096	.0038	.0066	.0115	.0012	.015	.0002
%RSD	71.64	89.77	223.8	1157.	206.7	160.8	88.08	.9161	11.81
#1	.0022	-.0004	-.0016	.0038	-.0043	.0013	.0028	1.630	-.0022
#2	.0003	.0178	-.0009	-.0037	-.0091	.0203	.0003	1.654	-.0021
#3	.0026	.0204	.0154	.0010	.0039	-.0003	.0011	1.628	-.0018

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0022**	**-.0007**	**.0122**
Stddev	.0061	.0024	.0004
%RSD	274.6	346.5	3.048
#1	.0092	-.0031	.0122
#2	-.0019	-.0007	.0118
#3	-.0007	.0017	.0126

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0161-MS1	File ID:	06062023-053
		Prepared:	06/06/23 11:06	Analyzed:	06/06/23 17:56
		Preparation:	3015_METALS_PREP	Dilution:	1
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	10.6	0.0100	0.0400	0.0500	

Sample Name: B3F0161-MS1 Acquired: 6/6/2023 17:56:22 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0294**	**.0023**	**.1087**	**.0140**	**.0001**	F **277.4**	**.0004**	**.0018**
Stddev	.0009	.0097	.0064	.0021	.0001	.0001	2.8	.0001	.0008
%RSD	183.3	33.06	281.1	1.945	.6201	132.9	1.010	15.23	42.34
#1	-.0015	.0360	.0077	.1062	.0141	.0001	279.6	.0004	.0018
#2	-.0004	.0338	-.0048	.1098	.0139	.0002	278.4	.0005	.0026
#3	.0004	.0182	.0040	.1100	.0140	-.0000	274.2	.0004	.0011

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**.0027**	**.0389**	**14.18**	**1.112**	F **157.4**	**.0522**	**.0002**	F **769.5**
Stddev	.0003	.0005	.0012	.14	.007	.6	.0002	.0011	4.8
%RSD	7.651	17.49	2.999	.9823	.6718	.3729	.4485	452.2	.6288
#1	.0041	.0031	.0403	14.07	1.103	157.9	.0525	-.0009	765.7
#2	.0039	.0022	.0384	14.34	1.114	156.8	.0521	.0013	774.9
#3	.0045	.0028	.0381	14.13	1.117	157.5	.0521	.0003	767.8

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044**	**.0835**	**.0342**	**.0082**	**.0019**	**.0042**	**-.0021**	**8.464**	**-.0061**
Stddev	.0010	.0152	.0127	.0079	.0053	.0052	.0006	.007	.0008
%RSD	21.89	18.21	37.18	96.21	275.2	123.8	29.57	.0855	12.93
#1	.0053	.0989	.0456	-.0006	.0061	-.0000	-.0026	8.457	-.0066
#2	.0046	.0685	.0365	.0106	-.0040	.0026	-.0014	8.464	-.0052
#3	.0034	.0830	.0205	.0145	.0037	.0100	-.0024	8.471	-.0065

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0005**	**.0009**	**.0102**
Stddev	.0089	.0016	.0003
%RSD	1744.	173.1	2.634
#1	-.0108	-.0008	.0101
#2	.0056	.0024	.0100
#3	.0037	.0012	.0105

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0161-MSD1	File ID:	06062023-054
		Prepared:	06/06/23 11:06	Analyzed:	06/06/23 18:01
		Preparation:	3015_METALS_PREP	Dilution:	1
Batch:	B3F0161	Sequence:	S3F0110	Calibration:	EF30027
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium	10.7	0.0100	0.0400	0.0500	

Sample Name: B3F0161-MSD1 Acquired: 6/6/2023 18:01:00 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0310**	**-.0031**	**.1100**	**.0145**	**.0001**	F **281.2**	**.0005**	**.0013**
Stddev	.0010	.0047	.0025	.0025	.0003	.0001	2.0	.0003	.0006
%RSD	4531.	14.99	79.51	2.302	2.259	70.04	.7185	67.89	45.32
#1	-.0012	.0258	-.0003	.1087	.0141	.0000	278.9	.0003	.0015
#2	.0006	.0346	-.0042	.1083	.0147	.0001	282.0	.0009	.0007
#3	.0005	.0328	-.0049	.1129	.0146	.0002	282.6	.0003	.0018

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041**	**.0022**	**.0249**	**14.54**	**1.123**	F **159.8**	**.0541**	**.0006**	F **784.8**
Stddev	.0010	.0004	.0010	.16	.011	1.4	.0016	.0005	9.4
%RSD	23.67	20.17	4.039	1.128	.9638	.8671	2.870	76.78	1.203
#1	.0051	.0017	.0238	14.36	1.113	159.2	.0527	.0005	776.2
#2	.0032	.0024	.0253	14.58	1.121	158.8	.0558	.0011	783.3
#3	.0040	.0025	.0257	14.68	1.134	161.4	.0538	.0002	794.9

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071**	**.0810**	**.0283**	**.0037**	**-.0020**	**.0139**	**.0018**	**8.553**	**-.0069**
Stddev	.0014	.0172	.0177	.0021	.0030	.0050	.0018	.130	.0003
%RSD	20.31	21.21	62.49	58.18	150.6	35.99	101.1	1.515	4.789
#1	.0088	.0617	.0172	.0043	-.0038	.0148	-.0002	8.452	-.0072
#2	.0063	.0947	.0487	.0013	-.0037	.0185	.0034	8.699	-.0066
#3	.0062	.0865	.0190	.0054	.0015	.0086	.0021	8.508	-.0069

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0037**	**.0001**	**.0292**
Stddev	.0030	.0007	.0005
%RSD	82.59	991.7	1.634
#1	-.0019	-.0004	.0288
#2	-.0020	.0008	.0291
#3	-.0072	-.0002	.0298

INITIAL AND CONTINUING CALIBRATION CHECK

01341156

SW6010D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-AES 7400	Calibration:	EF30027
		Sequence:	S3F0110

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0110-ICV1	Strontium	5.000	5.06	101	mg/L	+/- 10.00%
S3F0110-CCV1	Strontium	5.000	5.06	101	mg/L	+/- 10.00%
S3F0110-HCV1	**Strontium**	**50.00**	**1000000**	**2000000**	**mg/L**	+/- 10.00%
S3F0110-CCV2	Strontium	5.000	4.88	98	mg/L	+/- 10.00%
S3F0110-CCV3	Strontium	5.000	4.88	98	mg/L	+/- 10.00%
S3F0110-CCV4	Strontium	5.000	4.97	99	mg/L	+/- 10.00%
S3F0110-CCV5	Strontium	5.000	4.86	97	mg/L	+/- 10.00%
S3F0110-CCV6	Strontium	5.000	4.87	97	mg/L	+/- 10.00%

Sample Name: SEQ-ICV Acquired: 6/6/2023 14:30:46 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.008**	**4.998**	**4.922**	**4.994**	**4.955**	**4.966**	**4.835**	**4.930**	**4.951**
Stddev	.036	.057	.013	.059	.017	.026	.032	.015	.017
%RSD	.7286	1.138	.2539	1.185	.3403	.5155	.6642	.2998	.3350
#1	5.035	5.045	4.930	5.054	4.967	4.992	4.847	4.923	4.941
#2	4.967	4.935	4.907	4.936	4.963	4.940	4.799	4.920	4.941
#3	5.023	5.014	4.928	4.992	4.936	4.966	4.860	4.947	4.970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.962**	**4.993**	**4.979**	**4.931**	**4.986**	**4.977**	**4.940**	**4.916**	**4.936**
Stddev	.021	.043	.028	.086	.045	.044	.037	.002	.047
%RSD	.4203	.8633	.5628	1.753	.9038	.8810	.7423	.0480	.9606
#1	4.985	5.028	4.993	5.028	5.033	5.009	4.970	4.917	4.983
#2	4.944	4.945	4.947	4.862	4.943	4.927	4.900	4.914	4.888
#3	4.958	5.006	4.998	4.905	4.983	4.994	4.952	4.918	4.936
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.980**	**4.839**	**4.930**	**4.936**	**4.904**	**4.935**	**4.871**	**5.063**	**4.937**
Stddev	.004	.021	.005	.025	.023	.003	.019	.013	.041
%RSD	.0798	.4362	.0979	.5115	.4736	.0640	.3828	.2568	.8353
#1	4.984	4.847	4.935	4.960	4.905	4.933	4.869	5.076	4.980
#2	4.979	4.816	4.925	4.940	4.880	4.934	4.853	5.050	4.897
#3	4.977	4.856	4.929	4.909	4.926	4.939	4.890	5.064	4.935
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-ICV Acquired: 6/6/2023 14:30:46 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**4.930**	**4.961**	**4.947**
Stddev	.014	.043	.025
%RSD	.2738	.8602	.5159
#1	4.920	5.007	4.943
#2	4.925	4.923	4.923
#3	4.945	4.952	4.974
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/6/2023 14:39:03 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.230**	**4.929**	**4.990**	**4.873**	**4.970**	**4.956**	**4.923**	**4.947**	**4.960**
Stddev	.020	.018	.014	.023	.016	.015	.010	.006	.003
%RSD	.3791	.3669	.2758	.4715	.3224	.3042	.2076	.1292	.0509
#1	5.218	4.927	4.981	4.848	4.960	4.940	4.912	4.944	4.957
#2	5.219	4.912	4.984	4.877	4.988	4.969	4.927	4.942	4.961
#3	5.253	4.948	5.006	4.894	4.961	4.960	4.931	4.954	4.962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.997**	**4.962**	**4.973**	**4.929**	**5.015**	**4.917**	**4.900**	**4.911**	**4.862**
Stddev	.014	.017	.007	.023	.021	.008	.013	.013	.014
%RSD	.2762	.3385	.1497	.4615	.4121	.1572	.2612	.2664	.2891
#1	4.981	4.944	4.966	4.947	4.995	4.910	4.885	4.906	4.846
#2	5.004	4.965	4.981	4.904	5.013	4.915	4.908	4.901	4.871
#3	5.006	4.977	4.974	4.936	5.036	4.925	4.906	4.926	4.870
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.990**	**4.840**	**4.961**	**5.070**	**4.900**	**4.940**	**4.845**	**5.057**	**4.912**
Stddev	.011	.020	.021	.027	.011	.018	.011	.016	.009
%RSD	.2098	.4194	.4127	.5318	.2169	.3596	.2252	.3179	.1914
#1	4.983	4.854	4.957	5.039	4.894	4.924	4.850	5.070	4.902
#2	4.984	4.850	4.983	5.083	4.893	4.959	4.833	5.039	4.914
#3	5.002	4.817	4.942	5.088	4.912	4.937	4.853	5.061	4.921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/6/2023 14:39:03 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**5.012**	**4.932**	**4.917**
Stddev	.034	.025	.009
%RSD	.6819	.5137	.1903
#1	4.974	4.903	4.923
#2	5.021	4.945	4.906
#3	5.040	4.948	4.922
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-HCV1 Acquired: 6/6/2023 15:11:39 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.41**	**51.01**	**49.38**	**48.42**	**46.88**	**45.34**	**45.84**	F **44.54**	**46.07**
Stddev	.08	.03	.22	.11	.16	.35	.04	.12	.15
%RSD	.1709	.0625	.4501	.2291	.3499	.7776	.0903	.2676	.3227
#1	49.33	50.98	49.22	48.29	47.07	44.96	45.88	44.40	45.92
#2	49.50	51.04	49.29	48.46	46.78	45.66	45.85	44.58	46.09
#3	49.40	51.01	49.63	48.50	46.79	45.39	45.80	44.63	46.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
Value								50.00	
Range								-10.00%	

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**48.13**	**49.37**	**47.35**	**50.01**	**50.97**	**49.29**	**45.90**	**46.22**	**49.47**
Stddev	.04	.14	.02	.09	.24	.09	.53	.15	.12
%RSD	.0761	.2879	.0373	.1805	.4716	.1813	1.148	.3264	.2388
#1	48.13	49.22	47.37	49.94	51.25	49.21	45.83	46.05	49.33
#2	48.09	49.49	47.34	50.11	50.85	49.39	45.41	46.26	49.52
#3	48.17	49.41	47.34	49.97	50.83	49.28	46.46	46.34	49.55
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**45.82**	**48.87**	**47.19**	**47.63**	**48.78**	**48.92**	F **44.39**	^F *****	**47.63**
Stddev	.14	.24	.18	.26	.22	.13	.22	-----	.21
%RSD	.3099	.4994	.3743	.5363	.4586	.2661	.5058	-----	.4474
#1	45.74	48.61	47.04	47.61	48.56	48.85	44.15	^ -----	47.68
#2	45.74	48.91	47.14	47.38	48.79	48.84	44.59	^ -----	47.40
#3	45.99	49.09	47.38	47.89	49.00	49.07	44.43	^ -----	47.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value							50.00	50.00	
Range							-10.00%	-10.00%	

Sample Name: SEQ-HCV1 Acquired: 6/6/2023 15:11:39 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**47.00**	**47.87**	**46.58**
Stddev	.21	.08	.10
%RSD	.4472	.1725	.2127
#1	47.00	47.78	46.46
#2	46.79	47.90	46.63
#3	47.21	47.94	46.64
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/6/2023 15:45:15 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.315**	**4.966**	**4.954**	**4.862**	**5.010**	**4.983**	**4.872**	**4.785**	**4.839**
Stddev	.037	.033	.031	.037	.069	.029	.036	.008	.008
%RSD	.7062	.6637	.6336	.7601	1.382	.5908	.7300	.1739	.1690
#1	5.329	4.980	4.989	4.873	4.978	4.988	4.882	4.793	4.845
#2	5.344	4.989	4.945	4.892	4.962	5.009	4.901	4.777	4.830
#3	5.273	4.928	4.928	4.821	5.089	4.951	4.832	4.786	4.843
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.066**	**5.013**	**5.004**	**4.873**	**5.219**	**4.868**	**4.823**	**4.817**	**4.947**
Stddev	.035	.035	.030	.024	.067	.013	.026	.021	.034
%RSD	.6963	.6992	.6093	.4932	1.279	.2728	.5439	.4355	.6933
#1	5.072	5.022	5.019	4.847	5.242	4.872	4.826	4.841	4.912
#2	5.097	5.043	5.024	4.895	5.271	4.878	4.847	4.806	4.949
#3	5.028	4.974	4.969	4.878	5.143	4.853	4.795	4.803	4.981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.928**	**4.639**	**4.844**	**5.150**	**4.819**	**4.873**	**4.631**	**4.884**	**4.946**
Stddev	.022	.020	.033	.021	.025	.011	.013	.063	.029
%RSD	.4520	.4193	.6880	.4178	.5148	.2297	.2856	1.283	.5971
#1	4.952	4.660	4.880	5.138	4.847	4.881	4.635	4.926	4.957
#2	4.924	4.621	4.837	5.175	4.802	4.860	4.616	4.812	4.968
#3	4.909	4.638	4.815	5.139	4.808	4.878	4.641	4.915	4.913
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/6/2023 15:45:15 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**5.001**	**4.881**	**4.731**
Stddev	.034	.027	.025
%RSD	.6758	.5554	.5223
#1	5.038	4.892	4.759
#2	4.993	4.900	4.720
#3	4.971	4.850	4.714
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/6/2023 16:35:08 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.308**	**4.937**	**4.993**	**4.783**	**4.947**	**4.924**	**4.846**	**4.821**	**4.868**
Stddev	.026	.029	.017	.019	.021	.018	.025	.015	.009
%RSD	.4927	.5767	.3332	.4055	.4302	.3752	.5070	.3001	.1873
#1	5.319	4.954	4.980	4.801	4.922	4.941	4.846	4.812	4.865
#2	5.326	4.954	4.988	4.785	4.961	4.927	4.871	4.813	4.861
#3	5.278	4.904	5.012	4.763	4.958	4.905	4.822	4.838	4.879
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.044**	**4.928**	**4.990**	**4.789**	**5.160**	**4.812**	**4.743**	**4.862**	**4.797**
Stddev	.004	.014	.024	.026	.015	.022	.020	.022	.029
%RSD	.0856	.2794	.4865	.5339	.2973	.4547	.4180	.4603	.6091
#1	5.046	4.933	4.991	4.815	5.170	4.815	4.746	4.849	4.785
#2	5.047	4.939	5.014	4.788	5.168	4.832	4.762	4.850	4.830
#3	5.039	4.913	4.966	4.764	5.142	4.788	4.723	4.888	4.775
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.978**	**4.659**	**4.884**	**5.231**	**4.839**	**4.910**	**4.656**	**4.882**	**4.888**
Stddev	.029	.020	.029	.027	.025	.021	.015	.049	.012
%RSD	.5748	.4274	.5853	.5107	.5109	.4204	.3258	1.008	.2369
#1	4.965	4.670	4.852	5.212	4.814	4.889	4.667	4.939	4.894
#2	4.958	4.636	4.904	5.219	4.839	4.911	4.639	4.854	4.896
#3	5.011	4.671	4.897	5.261	4.864	4.930	4.663	4.854	4.875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/6/2023 16:35:08 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**5.058**	**4.817**	**4.743**
Stddev	.010	.022	.030
%RSD	.2031	.4619	.6288
#1	5.062	4.817	4.721
#2	5.046	4.839	4.731
#3	5.065	4.795	4.777
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/6/2023 17:26:02 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.253**	**4.998**	**4.983**	**4.823**	**4.943**	**4.951**	**4.884**	**4.844**	**4.879**
Stddev	.043	.046	.003	.059	.044	.044	.047	.009	.005
%RSD	.8264	.9227	.0636	1.214	.8881	.8897	.9657	.1933	.1060
#1	5.205	4.949	4.986	4.755	4.911	4.901	4.832	4.842	4.874
#2	5.290	5.040	4.980	4.863	4.993	4.981	4.923	4.837	4.877
#3	5.263	5.006	4.984	4.850	4.926	4.972	4.896	4.855	4.884
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.058**	**4.963**	**5.019**	**4.794**	**5.143**	**4.888**	**4.784**	**4.847**	**4.845**
Stddev	.053	.054	.046	.095	.053	.040	.047	.017	.040
%RSD	1.054	1.095	.9098	1.973	1.025	.8088	.9730	.3419	.8285
#1	4.997	4.902	4.967	4.714	5.082	4.844	4.731	4.844	4.801
#2	5.096	5.007	5.054	4.898	5.175	4.921	4.816	4.832	4.879
#3	5.082	4.979	5.034	4.770	5.171	4.899	4.806	4.864	4.854
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.973**	**4.672**	**4.879**	**5.180**	**4.842**	**4.898**	**4.687**	**4.972**	**4.931**
Stddev	.011	.035	.017	.018	.017	.005	.025	.057	.051
%RSD	.2270	.7574	.3521	.3418	.3566	.1057	.5366	1.149	1.027
#1	4.974	4.638	4.877	5.180	4.854	4.894	4.671	4.917	4.873
#2	4.961	4.671	4.862	5.163	4.823	4.897	4.674	5.031	4.966
#3	4.984	4.709	4.897	5.198	4.850	4.904	4.716	4.969	4.954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/6/2023 17:26:02 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**5.036**	**4.843**	**4.775**
Stddev	.019	.054	.010
%RSD	.3691	1.109	.2070
#1	5.021	4.781	4.773
#2	5.030	4.880	4.765
#3	5.057	4.867	4.785
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/6/2023 18:18:47 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.197**	**4.912**	**4.914**	**4.749**	**4.884**	**4.892**	**4.848**	**4.809**	**4.815**
Stddev	.024	.024	.026	.013	.038	.013	.018	.012	.017
%RSD	.4669	.4906	.5264	.2714	.7810	.2611	.3774	.2451	.3436
#1	5.189	4.902	4.939	4.743	4.888	4.883	4.832	4.822	4.831
#2	5.224	4.939	4.887	4.764	4.844	4.907	4.868	4.806	4.817
#3	5.177	4.894	4.917	4.740	4.920	4.887	4.845	4.798	4.798
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.010**	**4.882**	**4.963**	**4.787**	**5.049**	**4.806**	**4.735**	**4.781**	**4.868**
Stddev	.013	.019	.012	.012	.034	.016	.005	.016	.145
%RSD	.2662	.3833	.2400	.2600	.6752	.3384	.1019	.3312	2.977
#1	5.002	4.870	4.952	4.773	5.031	4.798	4.731	4.799	4.790
#2	5.025	4.903	4.975	4.798	5.089	4.824	4.741	4.768	5.035
#3	5.001	4.873	4.961	4.789	5.029	4.794	4.734	4.778	4.779
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.907**	**4.622**	**4.847**	**5.126**	**4.775**	**4.852**	**4.637**	**4.863**	**4.851**
Stddev	.020	.039	.017	.021	.028	.017	.021	.066	.021
%RSD	.4154	.8460	.3534	.4155	.5754	.3453	.4512	1.346	.4388
#1	4.929	4.644	4.862	5.127	4.807	4.870	4.652	4.841	4.849
#2	4.888	4.645	4.829	5.105	4.757	4.848	4.613	4.812	4.873
#3	4.906	4.577	4.851	5.147	4.763	4.837	4.645	4.937	4.830
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/6/2023 18:18:47 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**4.964**	**4.789**	**4.710**
Stddev	.010	.017	.022
%RSD	.2026	.3584	.4636
#1	4.974	4.805	4.725
#2	4.954	4.791	4.721
#3	4.965	4.770	4.685
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/6/2023 19:07:51 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.278**	**4.918**	**4.933**	**4.739**	**4.898**	**4.916**	**4.834**	**4.731**	**4.754**
Stddev	.019	.011	.012	.023	.047	.015	.027	.009	.020
%RSD	.3555	.2182	.2452	.4759	.9619	.3130	.5671	.1828	.4272
#1	5.257	4.907	4.944	4.720	4.952	4.898	4.809	4.739	4.768
#2	5.288	4.918	4.936	4.733	4.875	4.923	4.829	4.733	4.764
#3	5.290	4.929	4.920	4.764	4.866	4.927	4.864	4.722	4.731
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.082**	**4.911**	**5.012**	**4.724**	**5.165**	**4.776**	**4.700**	**4.739**	**4.735**
Stddev	.018	.022	.025	.065	.020	.020	.025	.006	.019
%RSD	.3473	.4485	.4973	1.382	.3925	.4250	.5422	.1261	.4007
#1	5.066	4.887	4.985	4.656	5.143	4.762	4.670	4.733	4.713
#2	5.080	4.917	5.017	4.786	5.173	4.767	4.714	4.739	4.743
#3	5.101	4.930	5.034	4.731	5.181	4.799	4.715	4.745	4.748
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.900**	**4.529**	**4.830**	**5.283**	**4.753**	**4.829**	**4.530**	**4.871**	**4.884**
Stddev	.004	.019	.028	.007	.010	.008	.008	.088	.018
%RSD	.0870	.4286	.5874	.1333	.2174	.1606	.1842	1.806	.3792
#1	4.895	4.550	4.800	5.291	4.752	4.821	4.526	4.874	4.863
#2	4.903	4.511	4.857	5.281	4.743	4.829	4.525	4.781	4.889
#3	4.902	4.526	4.833	5.278	4.764	4.837	4.540	4.957	4.899
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/6/2023 19:07:51 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**5.029**	**4.777**	**4.586**
Stddev	.007	.021	.009
%RSD	.1425	.4293	.1989
#1	5.036	4.754	4.590
#2	5.022	4.787	4.593
#3	5.030	4.791	4.576
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Performance Evaluation Mixture

01341173

SW6010D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-AES 7400	Calibration:	EF30027
Sequence:	S3F0110		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S3F0110-CRL1	Strontium	0.05000	0.0523	105	mg/L	80 - 120

Sample Name: SEQ-CRL1 Acquired: 6/6/2023 15:07:31 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0524**	**.0500**	**.0493**	**.0441**	**.0511**	**.0499**	**.0451**	**.0499**
Stddev	.0017	.0038	.0057	.0007	.0001	.0008	.0027	.0003
%RSD	3.324	7.695	11.63	1.513	.2268	1.532	6.054	.6902
#1	.0534	.0513	.0532	.0448	.0511	.0508	.0454	.0502
#2	.0503	.0456	.0519	.0439	.0512	.0494	.0477	.0498
#3	.0533	.0530	.0427	.0435	.0510	.0496	.0423	.0495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0501**	**.0518**	**.0531**	**.0503**	F **-.0106**	**.0514**	**.0503**	**.0494**
Stddev	.0007	.0020	.0009	.0006	.0382	.0002	.0004	.0002
%RSD	1.367	3.808	1.601	1.254	359.8	.4400	.8749	.4711
#1	.0502	.0520	.0540	.0503	-.0426	.0513	.0498	.0494
#2	.0507	.0537	.0530	.0497	.0317	.0512	.0504	.0492
#3	.0493	.0497	.0523	.0510	-.0210	.0516	.0507	.0497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value					.0500			
Range					-20.00%			

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0526**	**.0540**	**.0511**	**.0536**	**.0411**	**.0561**	**.0499**	**.0597**
Stddev	.0006	.0053	.0010	.0057	.0118	.0034	.0054	.0013
%RSD	1.048	9.877	1.926	10.64	28.69	6.001	10.90	2.232
#1	.0525	.0497	.0520	.0500	.0490	.0528	.0495	.0611
#2	.0520	.0600	.0501	.0507	.0466	.0560	.0446	.0584
#3	.0531	.0524	.0512	.0602	.0275	.0596	.0555	.0597
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Sample Name: SEQ-CRL1 Acquired: 6/6/2023 15:07:31 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Sn1899	Sr4077	Ti3361	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0474**	**.0523**	**.0504**	**.0542**	**.0498**	**.0488**
Stddev	.0025	.0001	.0009	.0048	.0010	.0005
%RSD	5.223	.2506	1.708	8.848	1.949	.9386
#1	.0479	.0522	.0511	.0487	.0509	.0487
#2	.0497	.0522	.0495	.0561	.0494	.0493
#3	.0448	.0524	.0508	.0577	.0491	.0484
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

FORM 3 - Blank Summary

SW6010D

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-AES 7400	Calibration:	EF30027
Sequence:	S3F0110		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0110-ICB1	Strontium		mg/L	0.0500	U
S3F0110-CCB1	Strontium		mg/L	0.0500	U
S3F0110-CCB2	Strontium		mg/L	0.0500	U
B3F0161-BLK1	Strontium		mg/L	0.0500	U
S3F0110-CCB3	Strontium		mg/L	0.0500	U
S3F0110-CCB4	Strontium		mg/L	0.0500	U
S3F0110-CCB5	Strontium		mg/L	0.0500	U
S3F0110-CCB6	Strontium		mg/L	0.0500	U

Sample Name: SEQ-ICB Acquired: 6/6/2023 14:34:53 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**-.0042**	**.0033**	**.0089**	**.0000**	**.0002**	**-.0068**	**-.0000**
Stddev	.0009	.0029	.0049	.0028	.0001	.0001	.0014	.0002
%RSD	63.92	67.79	150.0	31.27	290.4	56.19	20.58	758.0
#1	.0021	-.0074	.0008	.0113	.0001	.0002	-.0068	-.0002
#2	.0017	-.0020	.0001	.0097	.0001	.0003	-.0082	.0001
#3	.0004	-.0032	.0090	.0058	-.0001	.0001	-.0054	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0000**	**.0017**	**-.0002**	**-.0385**	**-.0004**	**.0001**	**.0003**
Stddev	.0007	.0009	.0003	.0010	.0368	.0007	.0003	.0003
%RSD	608.8	1831.	19.93	433.6	95.64	151.3	242.5	96.38
#1	.0000	-.0002	.0014	.0006	-.0747	.0001	.0004	.0006
#2	-.0006	.0009	.0016	.0000	-.0011	-.0012	-.0002	.0005
#3	.0009	-.0009	.0021	-.0013	-.0397	-.0002	.0001	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0056**	**.0008**	**.0087**	F **-.0048**	**.0005**	**.0028**	**.0122**
Stddev	.0014	.0030	.0007	.0174	.0054	.0046	.0047	.0022
%RSD	30.90	52.77	91.71	199.3	112.9	948.0	167.8	18.45
#1	.0052	.0038	.0010	.0204	-.0019	-.0042	.0063	.0100
#2	.0029	.0091	-.0000	.0169	-.0111	.0007	.0046	.0120
#3	.0053	.0040	.0013	-.0112	-.0015	.0049	-.0025	.0145
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					.0044			
Low Limit					-.0044			

Sample Name: SEQ-ICB Acquired: 6/6/2023 14:34:53 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Sn1899	Sr4077	Ti3361	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**.0001**	**.0007**	**.0018**	**-.0001**	**-.0015**
Stddev	.0002	.0000	.0003	.0046	.0007	.0003
%RSD	6.045	31.60	41.18	253.3	1419.	21.36
#1	.0038	.0001	.0007	.0016	.0003	-.0013
#2	.0040	.0001	.0009	-.0027	-.0009	-.0013
#3	.0035	.0001	.0004	.0064	.0005	-.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: SEQ-CCB Acquired: 6/6/2023 14:43:12 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0002**	**.0020**	**.0048**	**-.0000**	**.0000**	**-.0044**	**.0000**	**-.0002**
Stddev	.0018	.0012	.0029	.0006	.0002	.0000	.0024	.0003	.0002
%RSD	214.1	619.2	146.1	12.58	739.9	285.9	53.44	6483.	135.4
#1	-.0002	.0008	-.0013	.0043	-.0003	.0000	-.0067	-.0004	-.0003
#2	.0029	.0002	.0040	.0047	.0000	-.0000	-.0046	.0003	-.0003
#3	-.0002	-.0016	.0033	.0055	.0001	.0000	-.0020	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0026**	**-.0008**	**-.0684**	**-.0005**	**.0001**	**.0003**	**.0039**	**-.0003**
Stddev	.0009	.0011	.0006	.0702	.0004	.0002	.0002	.0005	.0091
%RSD	708.2	42.28	78.17	102.5	96.31	188.8	66.39	11.51	3313.
#1	.0001	.0014	-.0015	-.1416	.0000	-.0001	.0001	.0044	.0101
#2	.0010	.0032	-.0002	-.0017	-.0008	.0002	.0003	.0038	-.0040
#3	-.0007	.0034	-.0007	-.0621	-.0006	.0003	.0005	.0036	-.0068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0059**	**.0004**	**-.0028**	**.0072**	**.0107**	**.0009**	**.0001**	**.0008**
Stddev	.0007	.0064	.0086	.0023	.0055	.0112	.0020	.0001	.0005
%RSD	5051.	108.5	2109.	83.29	77.60	104.6	231.4	121.8	65.06
#1	.0007	.0131	-.0058	-.0050	.0077	.0019	.0022	.0001	.0013
#2	-.0008	.0009	.0103	-.0004	.0013	.0069	.0018	.0001	.0007
#3	.0001	.0037	-.0033	-.0028	.0124	.0234	-.0014	-.0000	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: SEQ-CCB Acquired: 6/6/2023 14:43:12 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0007**	**.0004**	**-.0009**
Stddev	.0035	.0007	.0001
%RSD	507.3	176.9	9.476
#1	-.0046	.0007	-.0008
#2	.0018	.0009	-.0009
#3	.0008	-.0004	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: SEQ-CCB Acquired: 6/6/2023 15:49:24 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0034**	**.0038**	**.0024**	**-.0001**	**-.0000**	**-.0020**	**.0001**	**-.0004**
Stddev	.0005	.0050	.0033	.0008	.0001	.0001	.0041	.0000	.0006
%RSD	46.73	145.2	86.57	32.52	97.64	272.2	200.4	54.68	153.5
#1	.0011	.0065	.0071	.0025	-.0000	.0001	.0014	.0001	-.0004
#2	.0005	-.0023	.0006	.0031	-.0001	-.0002	-.0009	.0001	-.0010
#3	.0014	.0061	.0035	.0016	-.0003	-.0000	-.0065	.0000	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**.0023**	**.0002**	**-.0829**	**-.0009**	**-.0001**	**.0002**	**.0038**	**.0204**
Stddev	.0009	.0003	.0008	.0060	.0009	.0010	.0002	.0012	.0031
%RSD	3041.	13.65	505.7	7.298	99.44	1387.	113.1	30.26	15.00
#1	.0009	.0020	.0004	-.0780	-.0007	-.0008	.0000	.0050	.0231
#2	-.0008	.0022	.0008	-.0810	-.0018	-.0005	.0001	.0040	.0210
#3	-.0002	.0026	-.0008	-.0897	-.0001	.0011	.0005	.0026	.0170
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0043**	**.0008**	**-.0007**	**-.0018**	**.0162**	**.0031**	**.0001**	**.0003**
Stddev	.0009	.0130	.0076	.0038	.0065	.0051	.0008	.0000	.0001
%RSD	1874.	300.5	913.1	524.2	363.2	31.25	26.08	1.912	49.18
#1	-.0009	-.0140	.0073	-.0048	.0057	.0148	.0022	.0001	.0003
#2	.0002	-.0094	-.0076	.0001	-.0049	.0218	.0033	.0001	.0004
#3	.0008	.0104	.0029	.0026	-.0061	.0120	.0038	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: SEQ-CCB Acquired: 6/6/2023 15:49:24 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0028**	**.0007**	**-.0006**
Stddev	.0024	.0017	.0002
%RSD	86.48	235.7	30.34
#1	.0034	-.0003	-.0005
#2	.0049	-.0002	-.0005
#3	.0001	.0026	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: B3F0161-BLK1 Acquired: 6/6/2023 16:27:02 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**-.0011**	**.0024**	**-.0047**	**-.0000**	**.0000**	**-.0147**	**-.0001**	**-.0008**
Stddev	.0016	.0033	.0051	.0006	.0001	.0001	.0016	.0002	.0006
%RSD	231.1	299.6	216.8	13.77	364.4	311.2	11.22	279.9	85.12
#1	-.0025	-.0047	.0044	-.0049	-.0001	-.0000	-.0128	-.0002	-.0013
#2	.0006	-.0001	-.0035	-.0052	-.0000	-.0000	-.0156	-.0002	-.0001
#3	-.0002	.0015	.0061	-.0040	.0001	.0001	-.0157	.0001	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0019**	**-.0019**	**-.0256**	**-.0008**	**.0012**	**.0001**	**-.0004**	**.0588**
Stddev	.0008	.0005	.0013	.0059	.0002	.0002	.0002	.0003	.0092
%RSD	125.0	25.79	70.02	23.04	21.50	21.28	263.5	77.17	15.74
#1	-.0016	.0025	-.0006	-.0207	-.0009	.0011	.0001	-.0008	.0679
#2	-.0001	.0017	-.0032	-.0240	-.0006	.0009	-.0002	-.0003	.0590
#3	-.0002	.0015	-.0019	-.0322	-.0010	.0014	.0003	-.0002	.0494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0000**	**-.0048**	**.0013**	**-.0039**	**-.0036**	**.0111**	**-.0008**	**.0000**	**.0000**
Stddev	.0010	.0032	.0102	.0042	.0029	.0051	.0020	.0000	.0003
%RSD	2946.	67.91	778.9	107.2	80.52	45.90	263.0	380.4	1375.
#1	.0010	-.0082	.0089	-.0052	-.0066	.0098	.0004	.0000	.0000
#2	-.0009	-.0043	-.0103	-.0072	-.0009	.0167	-.0031	-.0000	.0003
#3	-.0002	-.0018	.0054	.0008	-.0032	.0068	.0004	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: B3F0161-BLK1 Acquired: 6/6/2023 16:27:02 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0030**	**.0012**	**-.0024**
Stddev	.0033	.0003	.0004
%RSD	111.1	23.59	17.59
#1	.0008	.0010	-.0020
#2	-.0043	.0011	-.0028
#3	-.0054	.0016	-.0024
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: SEQ-CCB Acquired: 6/6/2023 16:39:16 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0026**	**-.0020**	**.0028**	**-.0000**	**.0001**	**-.0012**	**.0002**
Stddev	.0014	.0057	.0034	.0010	.0002	.0001	.0018	.0003
%RSD	913.9	224.3	174.8	36.96	2016.	164.7	149.3	166.9
#1	-.0007	-.0091	.0015	.0016	-.0002	.0002	-.0019	.0001
#2	-.0006	.0016	-.0021	.0034	.0000	-.0001	.0008	.0004
#3	.0018	-.0001	-.0053	.0034	.0001	.0001	-.0027	-.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**-.0006**	**.0015**	**-.0005**	**-.0370**	**-.0004**	**.0001**	**.0003**
Stddev	.0006	.0007	.0005	.0008	.0205	.0007	.0008	.0003
%RSD	66.16	122.3	30.92	145.8	55.22	179.4	646.6	100.4
#1	-.0007	-.0010	.0018	-.0014	-.0484	-.0007	-.0006	.0007
#2	-.0015	-.0011	.0010	-.0003	-.0134	-.0008	.0010	.0003
#3	-.0004	.0002	.0017	.0001	-.0493	.0004	-.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047**	F **.0506**	**.0002**	**.0031**	F **-.0041**	**-.0028**	**.0030**	**.0147**
Stddev	.0001	.0094	.0006	.0093	.0049	.0065	.0020	.0065
%RSD	2.693	18.49	275.3	301.2	117.4	228.2	65.14	44.01
#1	.0048	.0416	.0008	.0057	-.0068	-.0101	.0044	.0097
#2	.0047	.0603	-.0000	.0108	-.0071	-.0007	.0040	.0125
#3	.0046	.0499	-.0002	-.0073	.0015	.0023	.0008	.0220
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit		.0312			.0027			
Low Limit		-.0312			-.0027			

Sample Name: SEQ-CCB Acquired: 6/6/2023 16:39:16 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Sn1899	Sr4077	Ti3361	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0002**	**.0003**	**.0008**	**.0005**	**-.0008**
Stddev	.0018	.0001	.0006	.0052	.0003	.0003
%RSD	234.0	42.54	221.7	672.8	60.14	43.66
#1	.0025	.0001	-.0004	-.0049	.0007	-.0004
#2	.0008	.0002	.0008	.0019	.0002	-.0010
#3	-.0010	.0002	.0005	.0053	.0006	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: SEQ-CCB Acquired: 6/6/2023 17:30:11 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0012**	**.0066**	**-.0003**	**-.0000**	**.0002**	**-.0065**	F **.0048**	**.0050**
Stddev	.0014	.0006	.0064	.0012	.0001	.0000	.0022	.0079	.0078
%RSD	272.3	48.90	97.00	463.1	480.7	24.29	33.74	165.2	156.3
#1	-.0009	.0017	.0141	.0011	.0000	.0002	-.0040	.0138	.0139
#2	.0005	.0006	.0031	-.0010	-.0001	.0001	-.0077	.0001	-.0002
#3	.0019	.0012	.0027	-.0008	.0000	.0002	-.0079	.0004	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit								.0031	
Low Limit								-.0031	

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0019**	**.0001**	**.0073**	**-.0005**	**.0006**	**.0000**	**.0082**	F **.0478**
Stddev	.0004	.0026	.0024	.0135	.0006	.0008	.0004	.0094	.0100
%RSD	88.68	137.1	2833.	185.7	130.0	147.4	1514.	113.7	20.86
#1	.0009	.0017	-.0011	-.0058	-.0012	.0010	-.0003	.0190	.0381
#2	.0002	.0047	-.0014	.0065	-.0001	.0010	.0004	.0033	.0581
#3	.0002	-.0006	.0028	.0211	-.0002	-.0004	-.0000	.0024	.0473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit									.0312
Low Limit									-.0312

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0059**	**.0089**	**.0023**	**-.0004**	**.0056**	**.0108**	**.0064**	**.0002**	**.0009**
Stddev	.0104	.0103	.0085	.0096	.0173	.0083	.0083	.0000	.0003
%RSD	175.7	116.0	370.7	2137.	309.0	76.97	130.3	7.260	29.62
#1	.0179	.0072	.0118	.0106	.0249	.0197	.0156	.0002	.0012
#2	.0004	-.0005	-.0046	-.0052	.0004	.0092	.0042	.0002	.0006
#3	-.0006	.0200	-.0003	-.0067	-.0085	.0034	-.0006	.0002	.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: SEQ-CCB Acquired: 6/6/2023 17:30:11 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0031**	**-.0006**	**.0038**
Stddev	.0092	.0007	.0083
%RSD	295.5	119.4	220.0
#1	.0094	-.0005	.0134
#2	.0073	.0000	-.0012
#3	-.0074	-.0014	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: SEQ-CCB Acquired: 6/6/2023 18:22:56 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024**	**-.0054**	**.0005**	**.0011**	**.0006**	**.0008**	**-.0027**	**.0002**	**-.0005**
Stddev	.0011	.0038	.0037	.0012	.0011	.0009	.0035	.0002	.0009
%RSD	46.29	69.89	712.7	112.4	179.3	125.8	133.1	108.7	173.6
#1	.0029	-.0050	.0046	.0024	.0019	.0018	-.0007	-.0000	-.0014
#2	.0032	-.0094	-.0004	.0008	-.0001	.0003	-.0005	.0003	-.0004
#3	.0011	-.0019	-.0026	.0000	.0000	.0002	-.0067	.0003	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0028**	**-.0006**	**-.0076**	**-.0000**	**.0006**	**.0006**	**.0037**	F **.0688**
Stddev	.0013	.0023	.0017	.0143	.0008	.0014	.0011	.0006	.0067
%RSD	1122.	80.34	267.8	187.0	44930.	233.9	171.0	15.93	9.764
#1	.0014	.0054	.0013	-.0052	.0009	.0022	.0019	.0040	.0713
#2	-.0008	.0011	-.0014	.0053	-.0003	-.0004	-.0002	.0040	.0739
#3	-.0010	.0020	-.0018	-.0230	-.0006	-.0000	.0003	.0030	.0612
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit									.0312
Low Limit									-.0312

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0052**	**-.0022**	**-.0027**	**-.0009**	**.0096**	**.0027**	**.0009**	**.0009**
Stddev	.0005	.0031	.0037	.0050	.0080	.0004	.0010	.0011	.0005
%RSD	338.6	60.11	167.2	185.8	883.0	4.568	36.20	121.0	56.32
#1	.0007	.0035	.0019	.0026	.0083	.0099	.0037	.0021	.0015
#2	.0001	.0032	-.0033	-.0034	-.0052	.0091	.0027	.0003	.0009
#3	-.0003	.0088	-.0053	-.0074	-.0059	.0097	.0017	.0002	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: SEQ-CCB Acquired: 6/6/2023 18:22:56 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0001**	**-.0009**	**-.0006**
Stddev	.0060	.0015	.0005
%RSD	9970.	177.9	76.16
#1	-.0068	.0007	-.0002
#2	.0047	-.0023	-.0006
#3	.0019	-.0010	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: SEQ-CCB Acquired: 6/6/2023 19:12:00 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0196**	**.0017**	**.0006**	**.0006**	**.0002**	**.0002**	**-.0018**	**.0003**	**-.0002**
Stddev	.0014	.0035	.0045	.0006	.0002	.0003	.0009	.0001	.0005
%RSD	7.347	203.0	801.8	107.5	108.5	128.4	50.06	46.95	294.5
#1	.0211	.0045	.0043	.0013	.0004	.0005	-.0007	.0001	.0001
#2	.0182	-.0022	-.0044	.0004	.0001	.0001	-.0023	.0004	-.0007
#3	.0196	.0028	.0019	.0001	.0000	.0000	-.0022	.0003	.0002
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0027								
Low Limit	-.0027								

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0017**	**-.0005**	**-.0807**	**-.0004**	**.0008**	**.0006**	**.0037**	F **.0400**
Stddev	.0012	.0005	.0009	.0185	.0012	.0002	.0003	.0010	.0057
%RSD	197.2	31.42	177.7	22.87	309.6	21.38	42.68	26.28	14.16
#1	.0010	.0011	.0005	-.0912	.0004	.0009	.0009	.0036	.0449
#2	.0017	.0017	-.0010	-.0594	-.0017	.0006	.0005	.0047	.0413
#3	-.0007	.0022	-.0011	-.0916	.0002	.0008	.0005	.0028	.0338
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit									.0312
Low Limit									-.0312

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**-.0002**	F **.0066**	**-.0019**	**.0105**	**.0134**	**.0028**	**.0003**	**.0007**
Stddev	.0012	.0046	.0029	.0008	.0009	.0040	.0003	.0002	.0002
%RSD	115.8	2761.	43.48	39.63	8.105	30.01	12.23	55.51	36.33
#1	.0013	-.0010	.0098	-.0026	.0100	.0172	.0032	.0005	.0008
#2	.0020	.0048	.0046	-.0011	.0115	.0092	.0026	.0002	.0008
#3	-.0003	-.0043	.0052	-.0021	.0100	.0137	.0026	.0002	.0004
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0027						
Low Limit			-.0027						

Sample Name: SEQ-CCB Acquired: 6/6/2023 19:12:00 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0001**	**-.0004**	**-.0007**
Stddev	.0043	.0009	.0003
%RSD	4128.	191.4	37.46
#1	.0028	.0005	-.0009
#2	.0020	-.0011	-.0004
#3	-.0050	-.0008	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

01341193

6147WW31

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW6010D
Prep Batch:	B3F0161	Prep Method:	3015_METALS_PREP
Percent Solids:		Laboratory ID:	B3F0161-MS1
		Source Sample ID:	23F0136-14

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Strontium	1.250	9.48	10.6	88	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Strontium	1.250	10.7	97	1	20	75 - 125

* Values outside of QC limits

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010D

6147WW31 01341194

Laboratory: Environmental Monitoring and Technologies, Inc
SDG: 23F0136
Client: HDR
Project: Longhorn AAP
Matrix: Water
Laboratory ID: B3F0161-PS1
Batch: B3F0161
Lab Source ID: 23F0136-14
Preparation: 3015_METALS_PREP
Initial/Final: 7.2 ml / 10 ml
Source Sample Name: 6147WW31
% Solids:

Analyte	Control Limit %R	Spike Sample Result (SSR) (mg/L)	Sample Result (SR) (mg/L)	Spike Added (SA) (mg/L)	%R
Strontium	80 - 120	9.99	9.48	0.6944	73 *

* Values outside of QC limits

Sample Name: B3F0161-PS1 Acquired: 6/6/2023 18:05:38 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4074	.5085	.4964	.5578	.4740	.4883	F 250.0	.4526	.4546
Stddev	.0018	.0018	.0052	.0060	.0032	.0057	1.2	.0004	.0012
%RSD	.4388	.3447	1.057	1.076	.6724	1.163	.4829	.0819	.2734
#1	.4064	.5077	.4923	.5526	.4707	.4819	251.4	.4527	.4534
#2	.4063	.5074	.4946	.5644	.4741	.4929	249.2	.4522	.4559
#3	.4094	.5105	.5023	.5564	.4771	.4899	249.4	.4529	.4546

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4714	.4774	.4841	13.14	.6762	F 141.1	.4951	.4616	F 685.6
Stddev	.0048	.0062	.0096	.10	.0028	1.1	.0063	.0027	6.2
%RSD	1.027	1.298	1.980	.7283	.4090	.7603	1.264	.5783	.9075
#1	.4673	.4703	.4731	13.16	.6730	142.0	.4883	.4618	691.9
#2	.4767	.4820	.4907	13.22	.6776	140.0	.5006	.4588	685.3
#3	.4702	.4799	.4885	13.03	.6780	141.4	.4963	.4641	679.5

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4596	.5898	.4800	.4751	.4865	.5066	.4402	7.193	.4634
Stddev	.0012	.0094	.0068	.0057	.0058	.0031	.0017	.106	.0062
%RSD	.2659	1.599	1.427	1.206	1.185	.6113	.3867	1.468	1.346
#1	.4606	.6007	.4763	.4686	.4862	.5101	.4415	7.315	.4562
#2	.4582	.5848	.4758	.4795	.4809	.5041	.4407	7.132	.4676
#3	.4600	.5840	.4879	.4772	.4924	.5056	.4383	7.133	.4664

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	.4592	.4613	.4839
Stddev	.0087	.0070	.0007
%RSD	1.891	1.528	.1460
#1	.4568	.4531	.4832
#2	.4688	.4654	.4838
#3	.4519	.4652	.4846

LCS / LCS DUPLICATE RECOVERY

SW6010D

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	3015_METALS_PREP
Prep Batch:	B3F0161	Lab Sample ID:	B3F0161-BS2

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Strontium	1.250	1.28	103	85 - 115

* Values outside of QC limits

SERIAL DILUTION

SW6010D

6147WW31 01341197

Laboratory: Environmental Monitoring and Technologies, Inc
SDG: 23F0136
Client: HDR
Project: Longhorn AAP
Matrix: Water
Laboratory ID: B3F0161-DUP1
Sequence: S3F0110
Lab Source ID: 23F0136-14
Preparation: 3015_METALS_PREP
Initial/Final: 40 / 50
Source Sample Name: 6147WW31
% Solids:

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Strontium	9.48		10.2		7.91		SW6010D	10

NA = Dilution test is only applicable for analytes with concentrations > 50X LOQ
* = Values outside of QC limits, with concentrations > 50X LOQ

Sample Name: B3F0161-DUP1@5 Acquired: 6/6/2023 18:10:10 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010 MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**.0122**	**-.0012**	**.0166**	**.0029**	**.0000**	F **59.71**	**.0001**	**-.0004**
Stddev	.0014	.0071	.0076	.0012	.0000	.0001	.40	.0001	.0008
%RSD	63.41	58.13	663.2	7.344	.3877	254.1	.6669	66.63	230.8
#1	.0013	.0047	-.0090	.0173	.0029	-.0001	59.33	.0002	-.0007
#2	.0037	.0187	.0062	.0173	.0029	.0000	60.12	.0001	.0006
#3	.0014	.0133	-.0007	.0152	.0029	.0002	59.67	.0001	-.0010

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0012**	**.0056**	**2.881**	**.0454**	**34.01**	**.0111**	**.0003**	F **162.4**
Stddev	.0003	.0021	.0008	.033	.0005	.24	.0002	.0011	1.8
%RSD	40.45	173.0	14.07	1.130	1.061	.7113	1.961	403.9	1.125
#1	.0012	-.0012	.0051	2.845	.0449	33.89	.0108	.0011	161.8
#2	.0007	.0028	.0051	2.908	.0454	34.28	.0113	-.0010	164.4
#3	.0006	.0021	.0065	2.891	.0459	33.84	.0111	.0007	160.9

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0126**	**.0043**	**.0003**	**-.0032**	**.0071**	**.0014**	**1.637**	**-.0020**
Stddev	.0012	.0113	.0096	.0038	.0066	.0115	.0012	.015	.0002
%RSD	71.64	89.77	223.8	1157.	206.7	160.8	88.08	.9161	11.81
#1	.0022	-.0004	-.0016	.0038	-.0043	.0013	.0028	1.630	-.0022
#2	.0003	.0178	-.0009	-.0037	-.0091	.0203	.0003	1.654	-.0021
#3	.0026	.0204	.0154	.0010	.0039	-.0003	.0011	1.628	-.0018

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0022**	**-.0007**	**.0122**
Stddev	.0061	.0024	.0004
%RSD	274.6	346.5	3.048
#1	.0092	-.0031	.0122
#2	-.0019	-.0007	.0118
#3	-.0007	.0017	.0126

PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0161

Matrix: Water **Method: SW6010D** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-01	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							
23F0136-02	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							

Page 1 of 11

PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method: SW6010D** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-03	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							
23F0136-04	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method: SW6010D** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-05	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							
23F0136-06	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method: SW6010D** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-07	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							
23F0136-08	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method: SW6010D** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-09	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							
23F0136-10	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method: SW6010D** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-11	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							
23F0136-12	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method: SW6010D** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-13	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							
23F0136-14	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method: SW6010D** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-15	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Strontium							
B3F0161-BLK1	06/06/23 11:06	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** :							**Prepared By**: MBD
B3F0161-BS1	06/06/23 11:06	40	50	3050540		1000	
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** :							**Prepared By**: MBD

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PREPARATION BENCH SHEET

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B3F0161-BS2	06/06/23 11:06	40	50	3040561		1000	
Seal checked before and after: yes	**!Microwave:** MW Mars XPress	**Temperature:** 168	**pH:** <2	:			**Prepared By**: MBD
B3F0161-MS1	06/06/23 11:06	40	50	3040561	23F0136-14	1000	
Seal checked before and after: yes	**!Microwave:** MW Mars XPress	**Temperature:** 168	**pH:** <2	:			**Prepared By**: MBD
B3F0161-MSD1	06/06/23 11:06	40	50	3040561	23F0136-14	1000	
Seal checked before and after: yes	**!Microwave:** MW Mars XPress	**Temperature:** 168	**pH:** <2	:			**Prepared By**: MBD

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PREPARATION BENCH SHEET

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments

Spiking Solution(s)

3040561	METALS LCS LI,BI.SR# 18
3050540	METALS WORKING TM LCS 397

Reagents / Equipment

Standard	Description	LotNum
2100069	pH paper 0-14 mbd	225320a
3040100	Nitric Acid HNO3 - Metals	1122090
3050255	Autopipette # MD4 1mL	n/a

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PREPARATION BENCH SHEET

Print Date/Time: 06/06/2023

B3F0161

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3015_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
					3050671		CYLINDERS 50 ml MBD 2206050

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ANALYSIS SEQUENCE SUMMARY

01341210

Metals by ICP-AES

Client: HDR
Project: Longhorn AAP

Sequence: S3F0110 Instrument: ICP-AES 7400
Calibration: EF30027

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check (STD # 3050787)	S3F0110-ICV1	06062023-006	06/06/23 14:30
Initial Cal Blank	S3F0110-ICB1	06062023-007	06/06/23 14:34
Calibration Check (STD # 3060312)	S3F0110-CCV1	06062023-008	06/06/23 14:39
Calibration Blank	S3F0110-CCB1	06062023-009	06/06/23 14:43
Instrument RL Check (STD # 3050786)	S3F0110-CRL1	06062023-013	06/06/23 15:07
Closing Cal Check (STD # 3030761)	S3F0110-HCV1	06062023-014	06/06/23 15:11
Calibration Check (STD # 3060312)	S3F0110-CCV2	06062023-022	06/06/23 15:45
Calibration Blank	S3F0110-CCB2	06062023-023	06/06/23 15:49
Blank	B3F0161-BLK1	06062023-032	06/06/23 16:27
Calibration Check (STD # 3060312)	S3F0110-CCV3	06062023-034	06/06/23 16:35
Calibration Blank	S3F0110-CCB3	06062023-035	06/06/23 16:39
LCS	B3F0161-BS2	06062023-036	06/06/23 16:43
53147WW29	23F0136-01	06062023-037	06/06/23 16:47
53147WW13	23F0136-02	06062023-038	06/06/23 16:51
53047WW08R	23F0136-03	06062023-039	06/06/23 16:55
531DUP4	23F0136-04	06062023-040	06/06/23 17:00
6147WW34	23F0136-05	06062023-041	06/06/23 17:04
61DUP6	23F0136-06	06062023-042	06/06/23 17:08
6147WW04	23F0136-07	06062023-043	06/06/23 17:13
6147WW33	23F0136-08	06062023-044	06/06/23 17:17
6147WW46	23F0136-09	06062023-045	06/06/23 17:21
Calibration Check (STD # 3060312)	S3F0110-CCV4	06062023-046	06/06/23 17:26
Calibration Blank	S3F0110-CCB4	06062023-047	06/06/23 17:30
53147WW38	23F0136-10	06062023-048	06/06/23 17:34
531DUP6	23F0136-11	06062023-049	06/06/23 17:38
531LHSMW50	23F0136-12	06062023-050	06/06/23 17:42
53147WW61	23F0136-13	06062023-051	06/06/23 17:47
6147WW31	23F0136-14	06062023-052	06/06/23 17:51
6147WW31	B3F0161-MS1	06062023-053	06/06/23 17:56
6147WW31	B3F0161-MSD1	06062023-054	06/06/23 18:01
6147WW31	B3F0161-PS1	06062023-055	06/06/23 18:05
6147WW31	B3F0161-DUP1	06062023-056	06/06/23 18:10
6147WW45	23F0136-15	06062023-057	06/06/23 18:14

ANALYSIS SEQUENCE SUMMARY

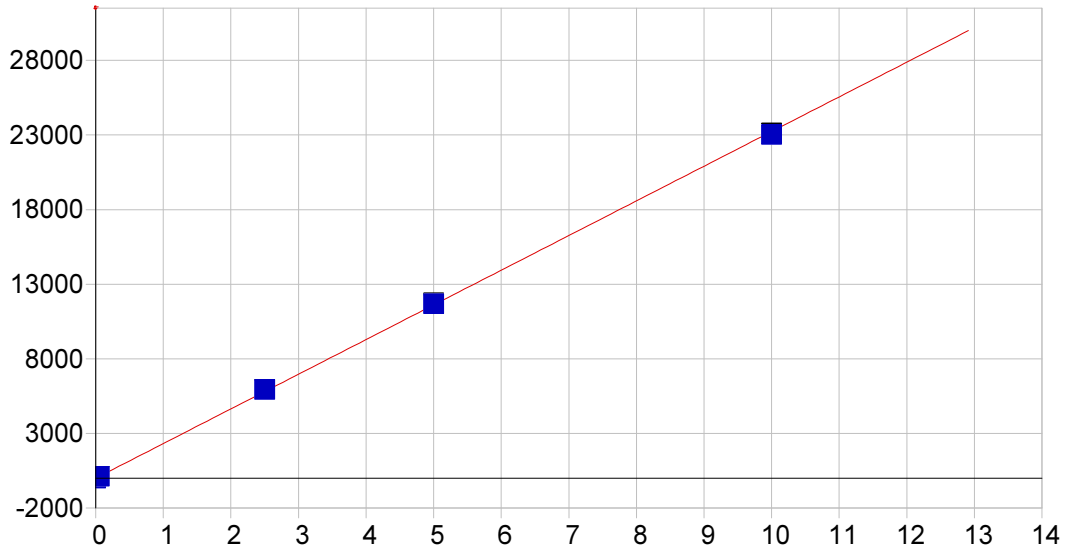
01341211

Metals by ICP-AES

Client: HDR
Project: Longhorn AAP

Sequence:	S3F0110	Instrument:	ICP-AES 7400
Calibration:	EF30027		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check (STD # 3060312)	S3F0110-CCV5	06062023-058	06/06/23 18:18
Calibration Blank (STD # 2110023)	S3F0110-CCB5	06062023-059	06/06/23 18:22
Calibration Check (STD # 3060312)	S3F0110-CCV6	06062023-070	06/06/23 19:07
Calibration Blank	S3F0110-CCB6	06062023-071	06/06/23 19:12

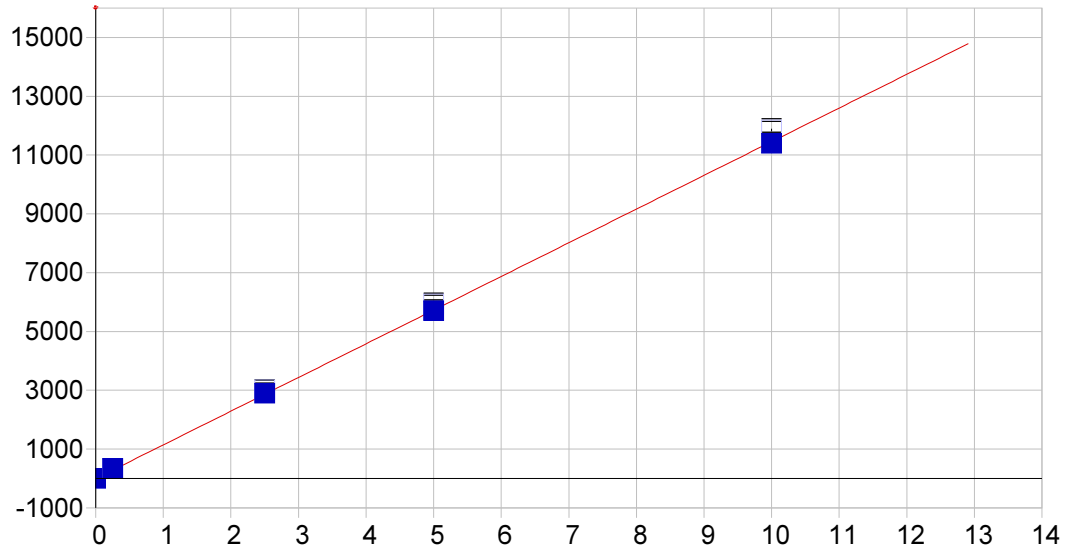


Ag 328.068 {103}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-6.441843	Re-Slope:	1.000000
A1 (Gain):	2323.773690	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999885	Status:	OK.
Std Error of Est:	1.346240		
Predicted MDL:	0.002490		
Predicted MQL:	0.008300		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-6.4667	3.54	1
SEQ-CAL2	.05000	.05980	.010	19.6	132.51	4.68	1
SEQ-CAL3	2.5000	2.5529	.053	2.11	5925.8	19.1	1
SEQ-CAL4	5.0000	5.0285	.028	.569	11679.	54.0	1
SEQ-CAL5	10.000	9.9089	-.091	-.911	23019.	88.6	1

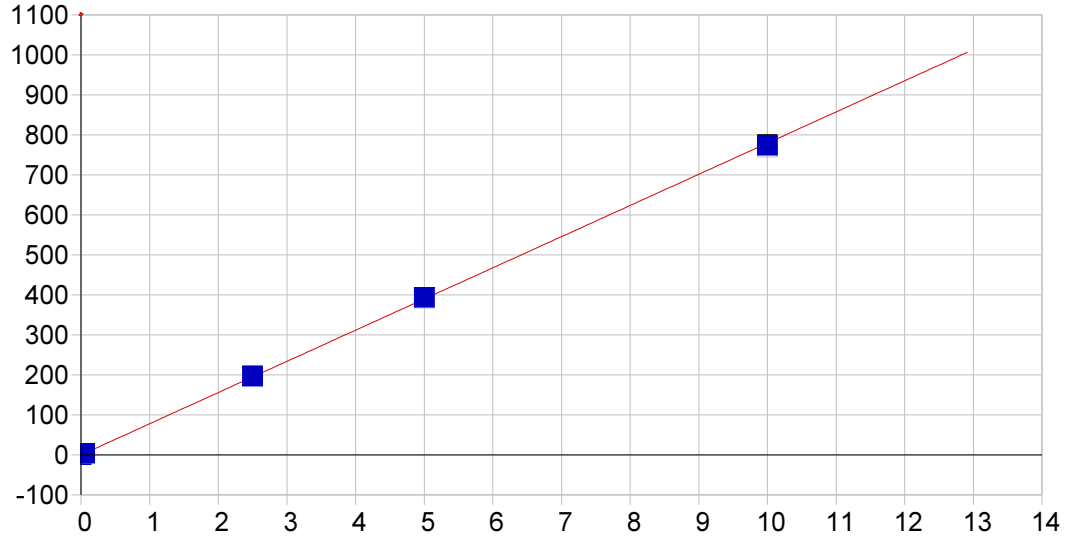


Al 396.152 { 85}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-1.829121	Re-Slope:	1.000000
A1 (Gain):	1145.684355	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999753	Status:	OK.
Std Error of Est:	2.278651		
Predicted MDL:	0.007251		
Predicted MQL:	0.024170		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00005	-.000	.000	-1.8833	3.94	1
SEQ-CAL2	.25000	.29655	.047	18.6	340.26	2.77	1
SEQ-CAL3	2.5000	2.5325	.032	1.30	3016.2	12.6	1
SEQ-CAL4	5.0000	4.9784	-.022	-.431	5935.2	30.2	1
SEQ-CAL5	10.000	9.9440	-.056	-.560	11857.	43.5	1

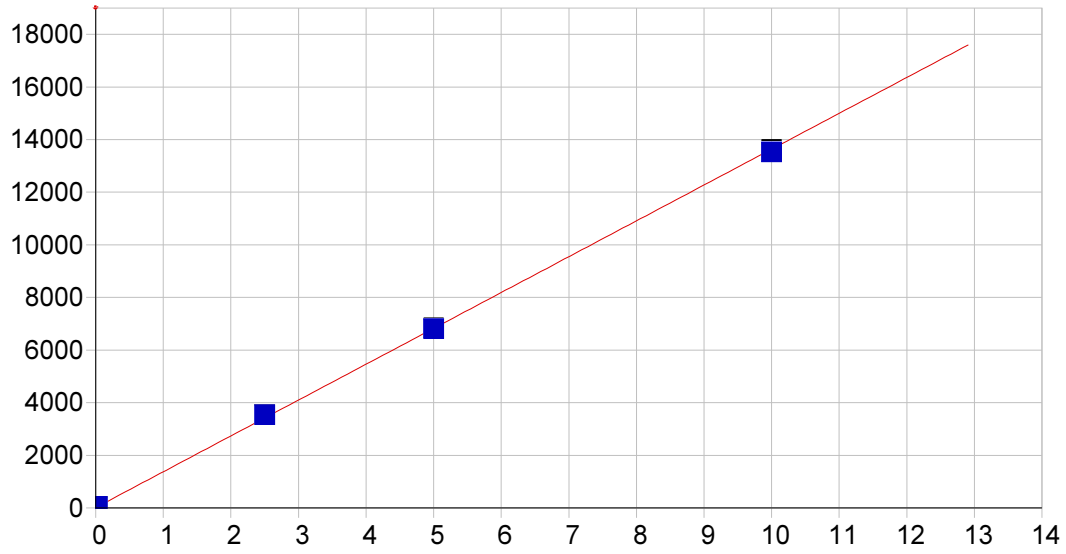


As 193.759 {474}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.051746	Re-Slope:	1.000000
A1 (Gain):	77.955512	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.031198		
Predicted MDL:	0.005812		
Predicted MQL:	0.019374		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-.05222	.181	1
SEQ-CAL2	.05000	.05545	.005	10.9	4.2494	.338	1
SEQ-CAL3	2.5000	2.5227	.023	.907	195.51	.313	1
SEQ-CAL4	5.0000	5.0503	.050	1.01	391.47	.278	1
SEQ-CAL5	10.000	9.9215	-.078	-.785	769.02	2.10	1

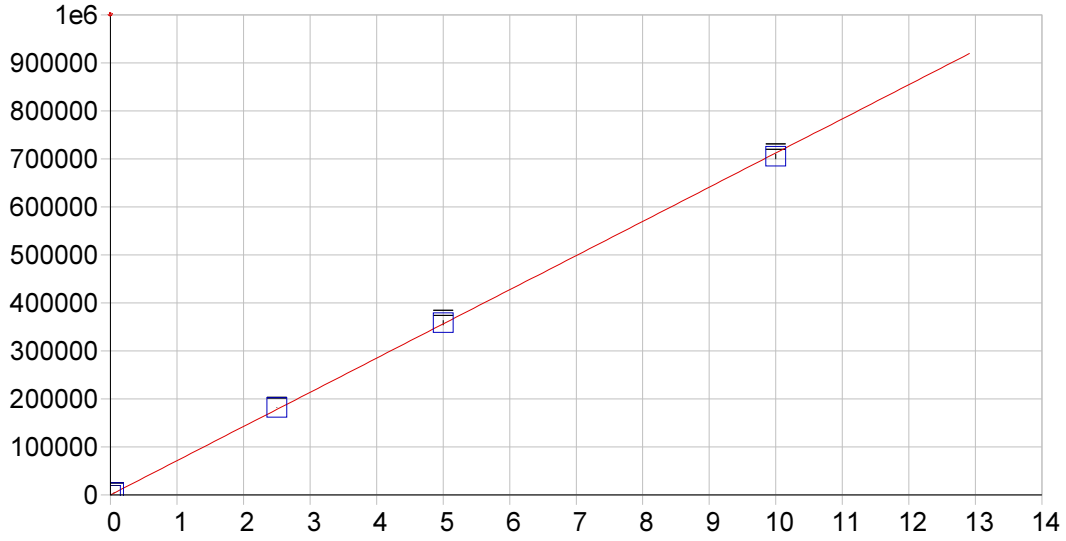


B 249.773 {135}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	12.021192	Re-Slope:	1.000000
A1 (Gain):	1362.471557	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999866	Status:	OK.
Std Error of Est:	0.602045		
Predicted MDL:	0.001852		
Predicted MQL:	0.006172		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL2	.02500	.03016	.005	20.6	53.240	1.49	1
SEQ-CAL3	2.5000	2.5857	.086	3.43	3538.2	10.1	1
SEQ-CAL4	5.0000	4.9910	-.009	-.180	6818.5	16.7	1
SEQ-CAL5	10.000	9.9181	-.082	-.819	13538.	69.5	1
SEQ-CAL1	.00000	-.00001	-.000	.000	12.013	2.71	1

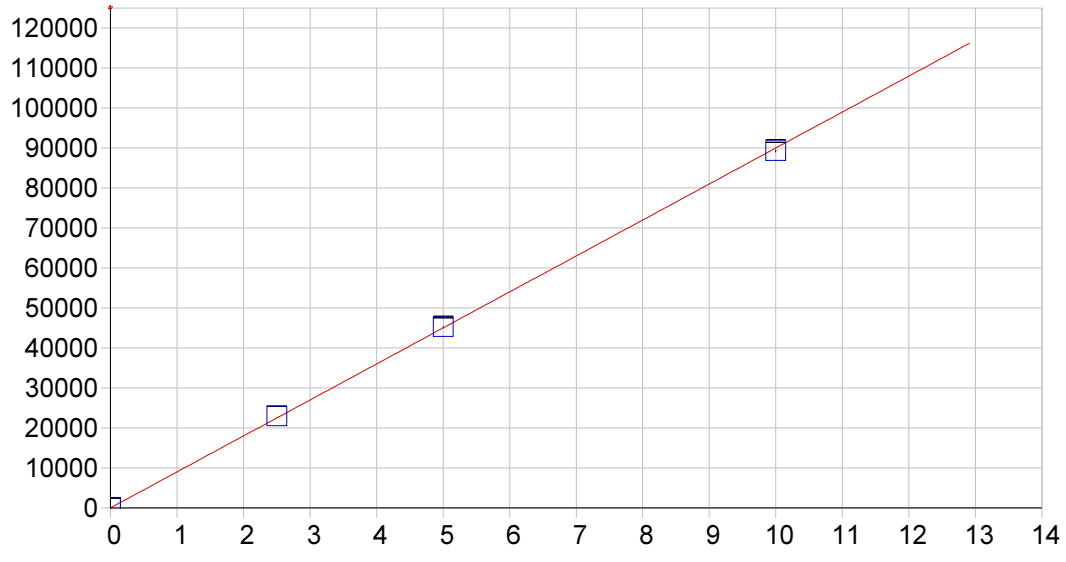


Ba 455.403 { 74}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	45.345689	Re-Slope:	1.000000
A1 (Gain):	71223.21870	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999838	Status:	OK.
Std Error of Est:	49.013443		
Predicted MDL:	0.000152		
Predicted MQL:	0.000507		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	44.370	.104	1
SEQ-CAL2	.05000	.06279	.013	25.6	4517.1	19.2	1
SEQ-CAL3	2.5000	2.5535	.053	2.14	181910.	468.	1
SEQ-CAL4	5.0000	5.0351	.035	.701	358660.	5550.	1
SEQ-CAL5	10.000	9.8987	-.101	-1.01	705060.	5420.	1

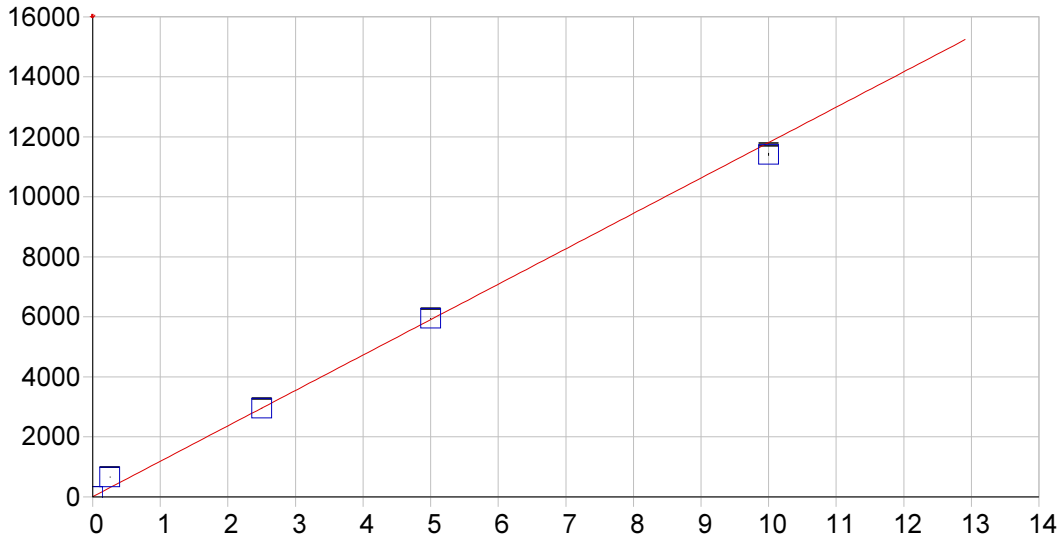


Be 234.861 {144}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.602262	Re-Slope:	1.000000
A1 (Gain):	9000.267978	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	1.172757		
Predicted MDL:	0.000186		
Predicted MQL:	0.000621		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.59048	.462	1
SEQ-CAL2	.00500	.00622	.001	24.5	56.613	.751	1
SEQ-CAL3	2.5000	2.5474	.047	1.89	22928.	37.9	1
SEQ-CAL4	5.0000	5.0316	.032	.632	45286.	203.	1
SEQ-CAL5	10.000	9.9198	-.080	-.802	89282.	346.	1

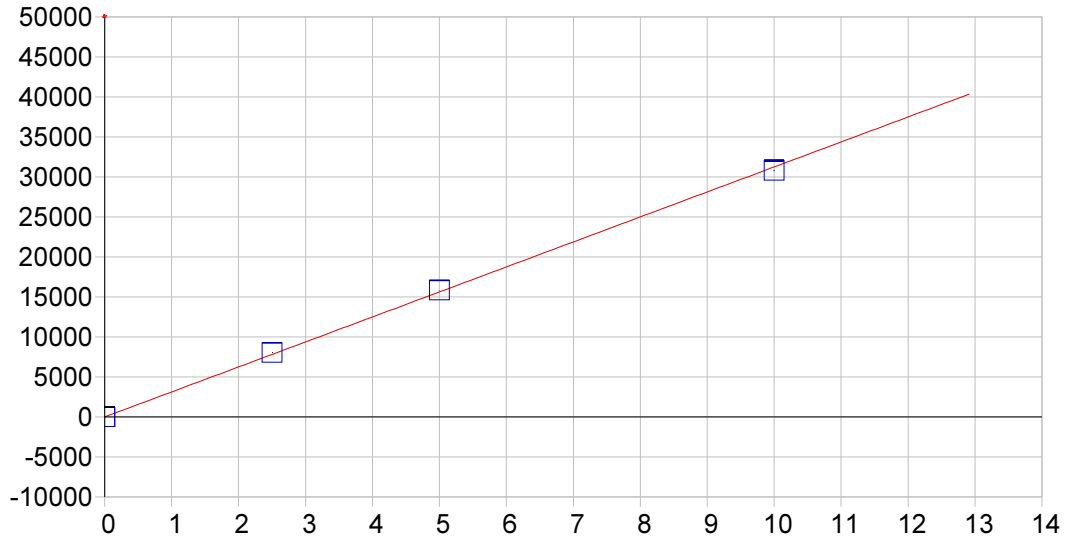


Ca 315.887 {107}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	8.402453	Re-Slope:	1.000000
A1 (Gain):	1180.164128	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.989303	Status:	OK.
Std Error of Est:	14.955128		
Predicted MDL:	0.003883		
Predicted MQL:	0.012943		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00030	-.000	.000	8.0500	1.48	1
SEQ-CAL2	.25000	.55579	.306	122.	664.33	.711	1
SEQ-CAL3	2.5000	2.4954	-.005	-.183	2953.4	16.9	1
SEQ-CAL4	5.0000	5.0337	.034	.674	5949.0	15.2	1
SEQ-CAL5	10.000	9.6651	-.335	-3.35	11415.	48.6	1

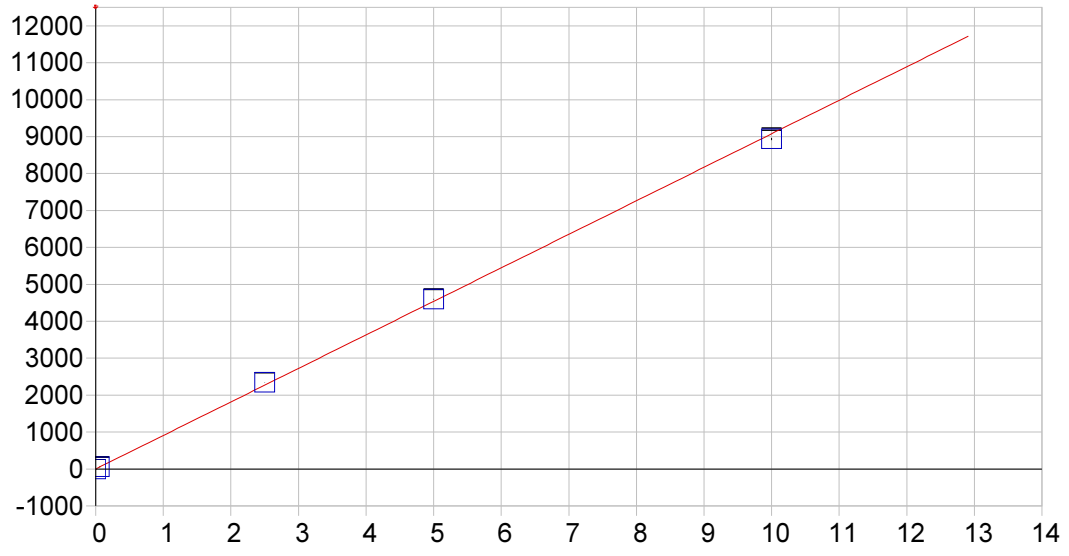


Cd 214.438 {457}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.055239	Re-Slope:	1.000000
A1 (Gain):	3124.493094	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999848	Status:	OK.
Std Error of Est:	0.656822		
Predicted MDL:	0.000252		
Predicted MQL:	0.000841		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.05110	.754	1
SEQ-CAL2	.00500	.00618	.001	23.6	19.369	.674	1
SEQ-CAL3	2.5000	2.5724	.072	2.90	8037.5	10.6	1
SEQ-CAL4	5.0000	5.0681	.068	1.36	15835.	23.8	1
SEQ-CAL5	10.000	9.8584	-.142	-1.42	30802.	85.7	1

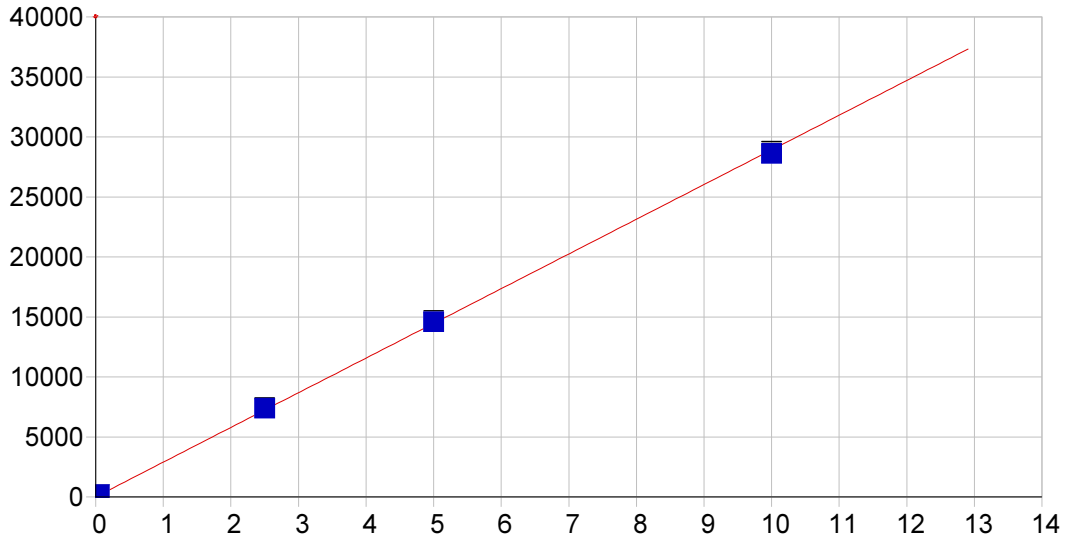


Co 228.616 {447}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.330685	Re-Slope:	1.000000
A1 (Gain):	907.656517	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999767	Status:	OK.
Std Error of Est:	0.749586		
Predicted MDL:	0.000868		
Predicted MQL:	0.002893		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.31951	.331	1
SEQ-CAL2	.05000	.06085	.011	21.7	55.559	.759	1
SEQ-CAL3	2.5000	2.5785	.079	3.14	2340.7	4.31	1
SEQ-CAL4	5.0000	5.0675	.067	1.35	4599.9	9.29	1
SEQ-CAL5	10.000	9.8432	-.157	-1.57	8934.5	31.3	1

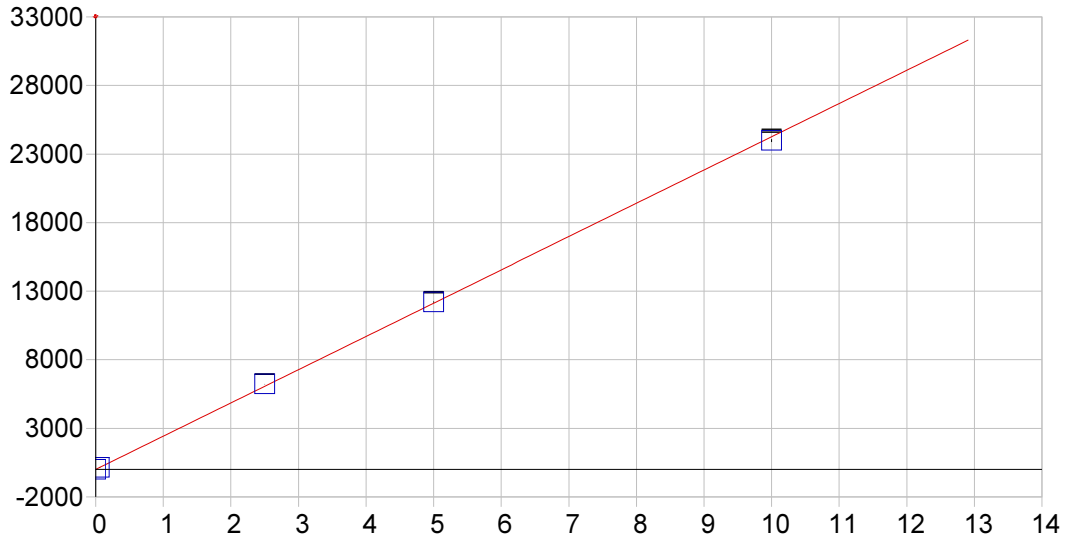


Cr 283.563 {119}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	5.383372	Re-Slope:	1.000000
A1 (Gain):	2891.498687	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999866	Status:	OK.
Std Error of Est:	1.809707		
Predicted MDL:	0.001170		
Predicted MQL:	0.003900		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	5.3500	3.79	1
SEQ-CAL2	.05000	.06063	.011	21.3	181.10	2.47	1
SEQ-CAL3	2.5000	2.5501	.050	2.00	7383.3	27.5	1
SEQ-CAL4	5.0000	5.0429	.043	.858	14596.	76.5	1
SEQ-CAL5	10.000	9.8964	-.104	-1.04	28638.	154.	1

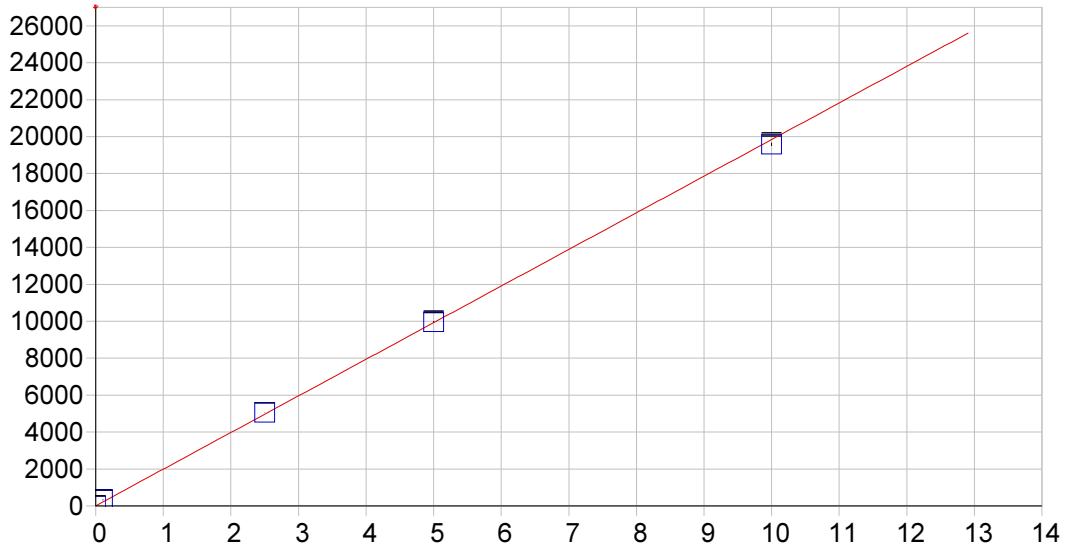


Cu 324.754 {104}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-1.010980	Re-Slope:	1.000000
A1 (Gain):	2426.191092	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999798	Status:	OK.
Std Error of Est:	1.866262		
Predicted MDL:	0.001992		
Predicted MQL:	0.006640		

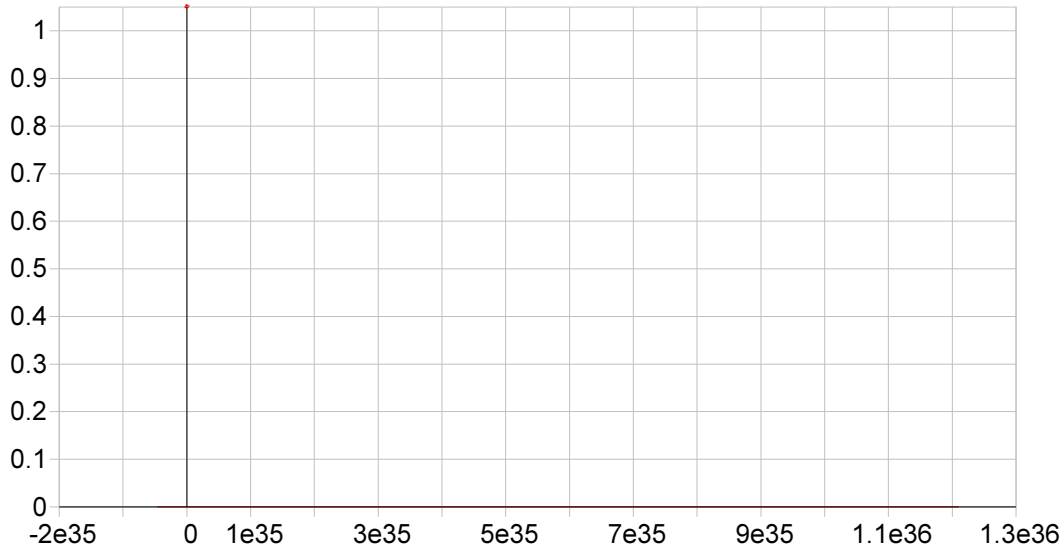
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-1.0467	3.06	1
SEQ-CAL2	.05000	.06358	.014	27.2	153.25	1.43	1
SEQ-CAL3	2.5000	2.5692	.069	2.77	6232.3	9.81	1
SEQ-CAL4	5.0000	5.0314	.031	.627	12206.	52.7	1
SEQ-CAL5	10.000	9.8859	-.114	-1.14	23984.	111.	1



Fe 259.940 {130}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	7.593113		Re-Slope:	1.000000	
A1 (Gain):	1983.178710		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.998806		Status:	OK.	
Std Error of Est:	5.250490				
Predicted MDL:	0.001275				
Predicted MQL:	0.004251				

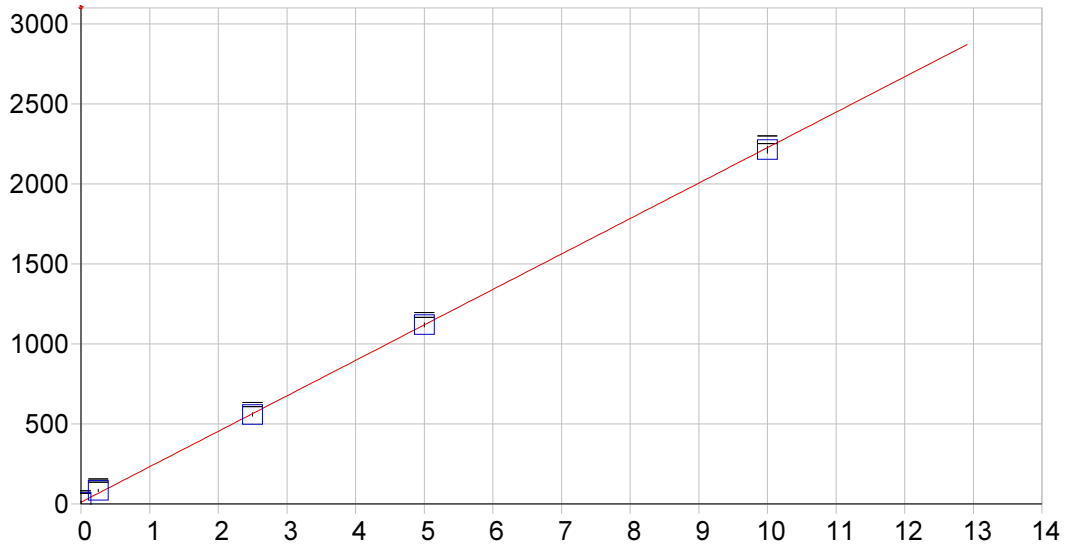
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00006	-.000	.000	7.4667	2.33	1
SEQ-CAL2	.10000	.16282	.063	62.8	330.50	4.71	1
SEQ-CAL3	2.5000	2.5446	.045	1.78	5054.0	7.98	1
SEQ-CAL4	5.0000	5.0228	.023	.456	9968.7	46.7	1
SEQ-CAL5	10.000	9.8698	-.130	-1.30	19581.	86.5	1



K 766.490 { 44}

Date of Fit:	5/8/2023 17:16:51	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	1.145570				
Predicted MDL:	0.047854				
Predicted MQL:	0.159512				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

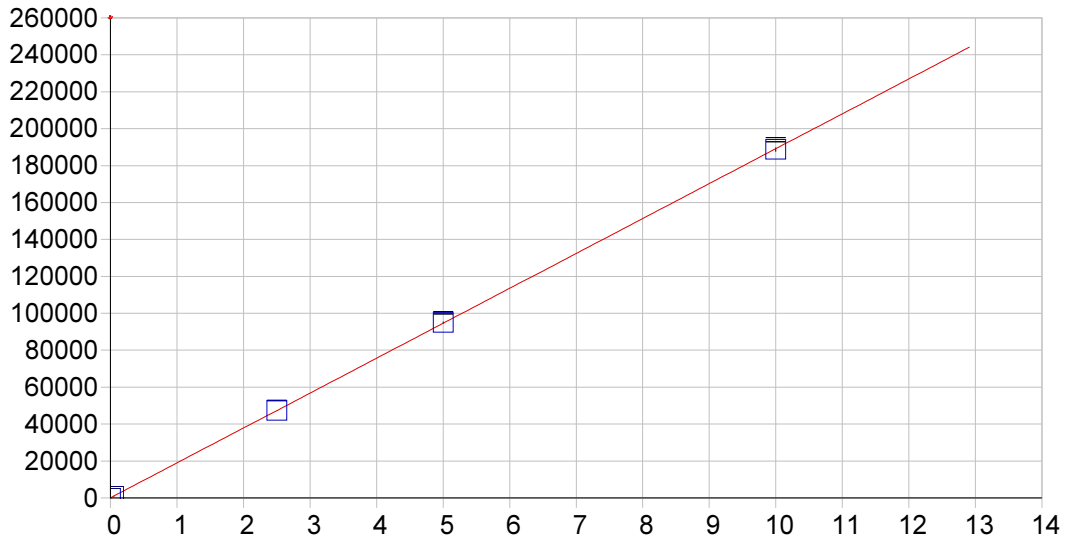


K 769.896 { 44}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	10.796191	Re-Slope:	1.000000
A1 (Gain):	221.581442	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999316	Status:	OK.
Std Error of Est:	0.704890		
Predicted MDL:	0.061373		
Predicted MQL:	0.204575		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00007	-.000	.000	10.780	9.54	1
SEQ-CAL2	.25000	.32699	.077	30.8	83.250	10.1	1
SEQ-CAL3	2.5000	2.4723	-.028	-1.11	558.62	13.3	1
SEQ-CAL4	5.0000	5.0034	.003	.069	1119.5	14.8	1
SEQ-CAL5	10.000	9.9473	-.053	-.527	2214.9	23.9	1

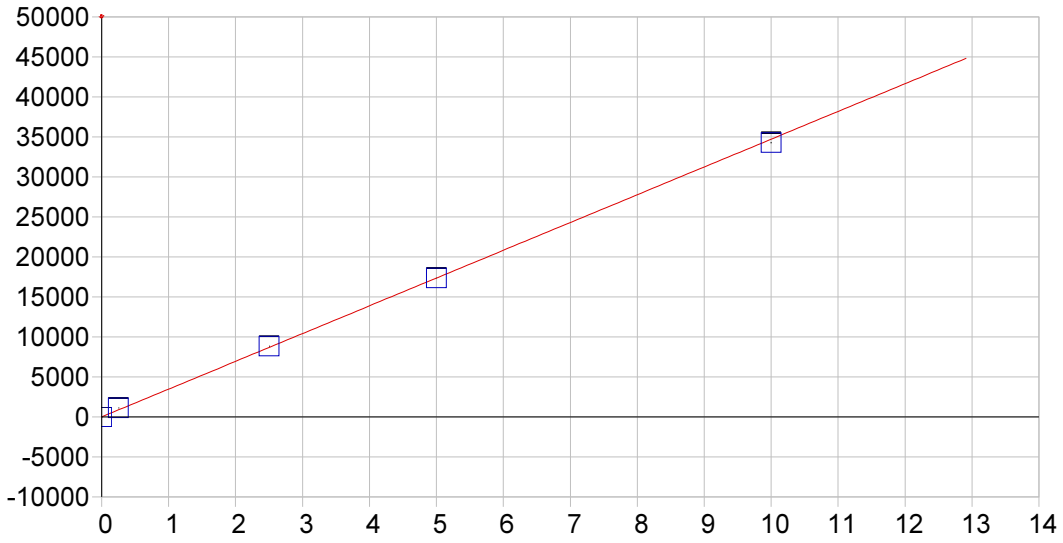


Li 670.784 { 50}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	40.516726	Re-Slope:	1.000000
A1 (Gain):	18911.14642	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	3.492786		
Predicted MDL:	0.000881		
Predicted MQL:	0.002938		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	40.442	5.16	1
SEQ-CAL2	.05000	.05386	.004	7.72	1059.0	12.1	1
SEQ-CAL3	2.5000	2.5033	.003	.132	47381.	95.7	1
SEQ-CAL4	5.0000	5.0162	.016	.325	94903.	550.	1
SEQ-CAL5	10.000	9.9766	-.023	-.234	188710.	1090.	1

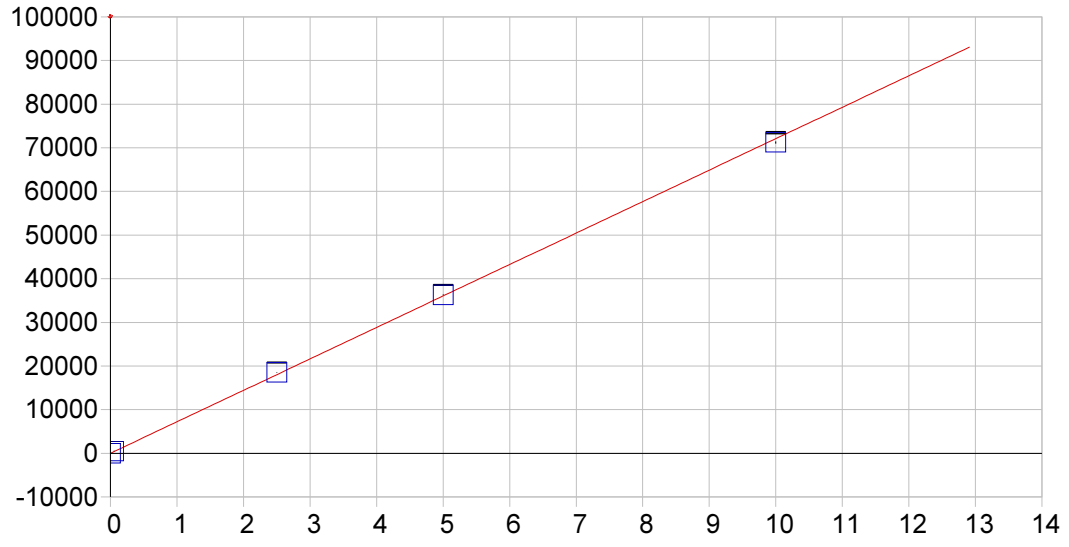


Mg 285.213 {118}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	2.149110	Re-Slope:	1.000000
A1 (Gain):	3471.144820	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999367	Status:	OK.
Std Error of Est:	10.618089		
Predicted MDL:	0.001033		
Predicted MQL:	0.003442		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00007	-.000	.000	1.8967	2.95	1
SEQ-CAL2	.25000	.32086	.071	28.3	1115.9	1.25	1
SEQ-CAL3	2.5000	2.5474	.047	1.90	8844.7	11.0	1
SEQ-CAL4	5.0000	5.0032	.003	.063	17369.	48.4	1
SEQ-CAL5	10.000	9.8785	-.121	-1.21	34292.	78.0	1

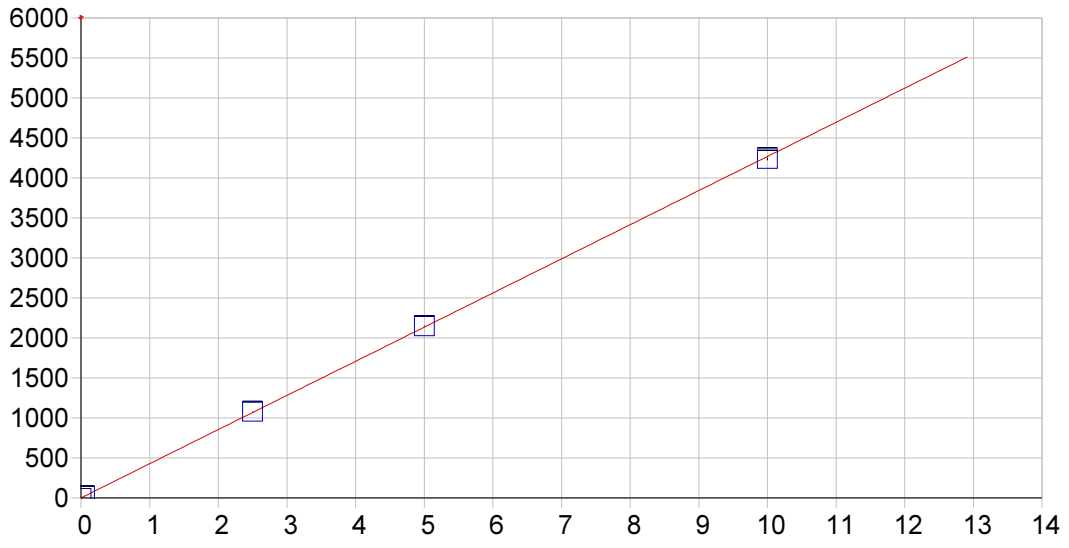


Mn 257.610 {131}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	1.121021	Re-Slope:	1.000000
A1 (Gain):	7209.485713	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999785	Status:	OK.
Std Error of Est:	5.709727		
Predicted MDL:	0.000356		
Predicted MQL:	0.001185		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	1.0146	1.11	1
SEQ-CAL2	.05000	.06356	.014	27.1	459.38	2.94	1
SEQ-CAL3	2.5000	2.5727	.073	2.91	18549.	80.2	1
SEQ-CAL4	5.0000	5.0355	.035	.709	36304.	111.	1
SEQ-CAL5	10.000	9.8782	-.122	-1.22	71218.	238.	1

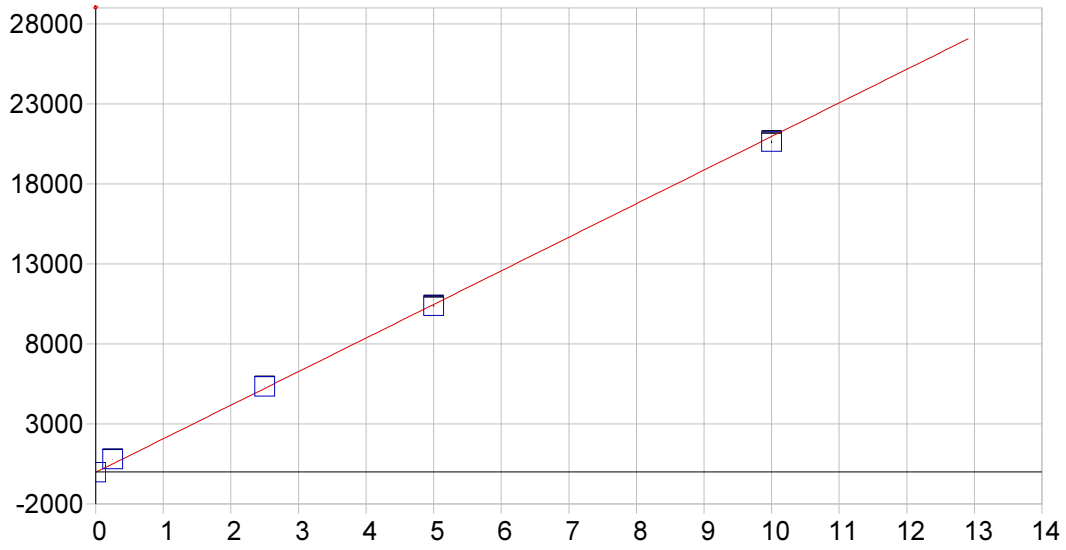


Mo 202.030 {467}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.712628	Re-Slope:	1.000000
A1 (Gain):	426.743412	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999930	Status:	OK.
Std Error of Est:	0.192517		
Predicted MDL:	0.001194		
Predicted MQL:	0.003981		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.70879	.261	1
SEQ-CAL2	.05000	.05844	.008	16.9	25.652	.472	1
SEQ-CAL3	2.5000	2.5277	.028	1.11	1079.4	3.06	1
SEQ-CAL4	5.0000	5.0335	.034	.670	2148.7	5.79	1
SEQ-CAL5	10.000	9.9303	-.070	-.697	4238.4	17.9	1

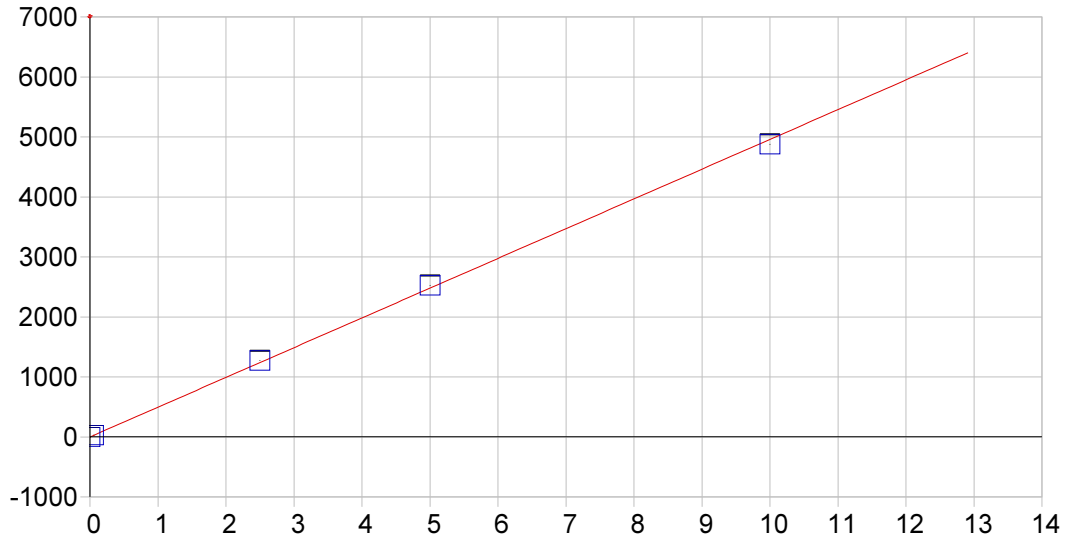


Na 589.592 { 57}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-28.269342	Re-Slope:	1.000000
A1 (Gain):	2099.143914	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997619	Status:	OK.
Std Error of Est:	12.471395		
Predicted MDL:	0.007804		
Predicted MQL:	0.026014		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00014	-.000	.000	-28.567	12.6	1
SEQ-CAL2	.25000	.39170	.142	56.7	793.96	6.45	1
SEQ-CAL3	2.5000	2.5615	.062	2.46	5348.7	7.73	1
SEQ-CAL4	5.0000	4.9549	-.045	-.903	10373.	47.0	1
SEQ-CAL5	10.000	9.8419	-.158	-1.58	20631.	62.8	1

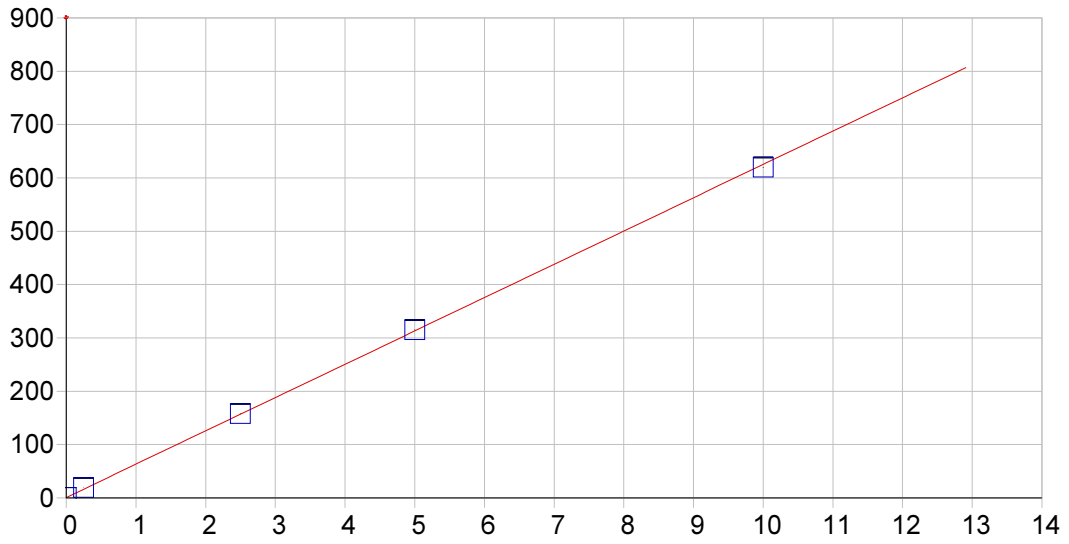


Ni 231.604 {446}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.439266	Re-Slope:	1.000000
A1 (Gain):	495.897248	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999757	Status:	OK.
Std Error of Est:	0.418328		
Predicted MDL:	0.001376		
Predicted MQL:	0.004585		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-.44550	.154	1
SEQ-CAL2	.05000	.06119	.011	22.4	29.905	.569	1
SEQ-CAL3	2.5000	2.5658	.066	2.63	1271.9	2.86	1
SEQ-CAL4	5.0000	5.0886	.089	1.77	2523.0	5.60	1
SEQ-CAL5	10.000	9.8345	-.166	-1.66	4876.4	4.20	1

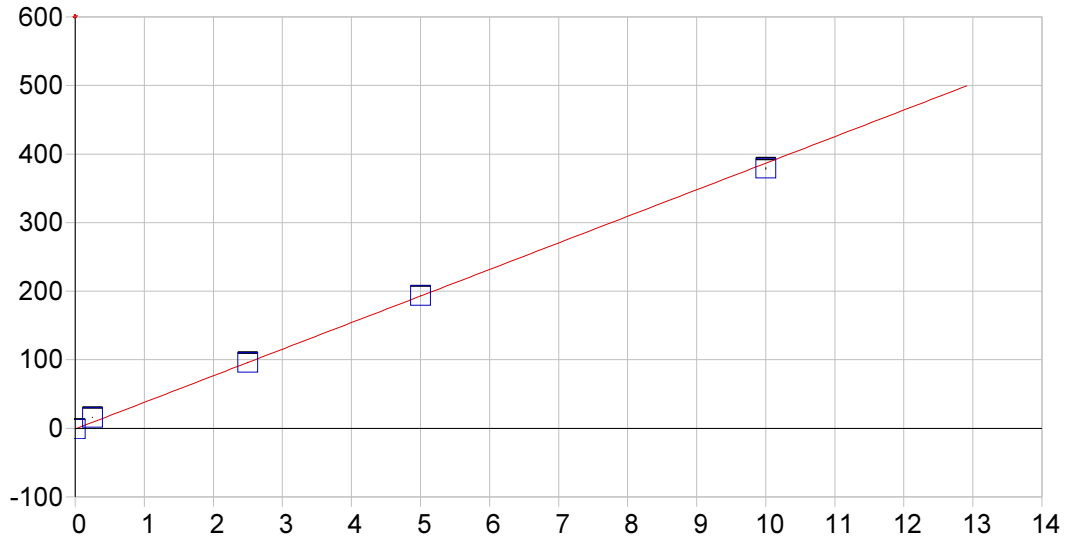


P 178.284 {489}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.809325	Re-Slope:	1.000000
A1 (Gain):	62.448871	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999756	Status:	OK.
Std Error of Est:	0.118593		
Predicted MDL:	0.006411		
Predicted MQL:	0.021369		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00004	-.000	.000	.80656	.430	1
SEQ-CAL2	.25000	.29338	.043	17.4	19.131	.261	1
SEQ-CAL3	2.5000	2.5161	.016	.642	157.93	.759	1
SEQ-CAL4	5.0000	5.0315	.032	.630	315.02	.633	1
SEQ-CAL5	10.000	9.9090	-.091	-.910	619.62	.636	1

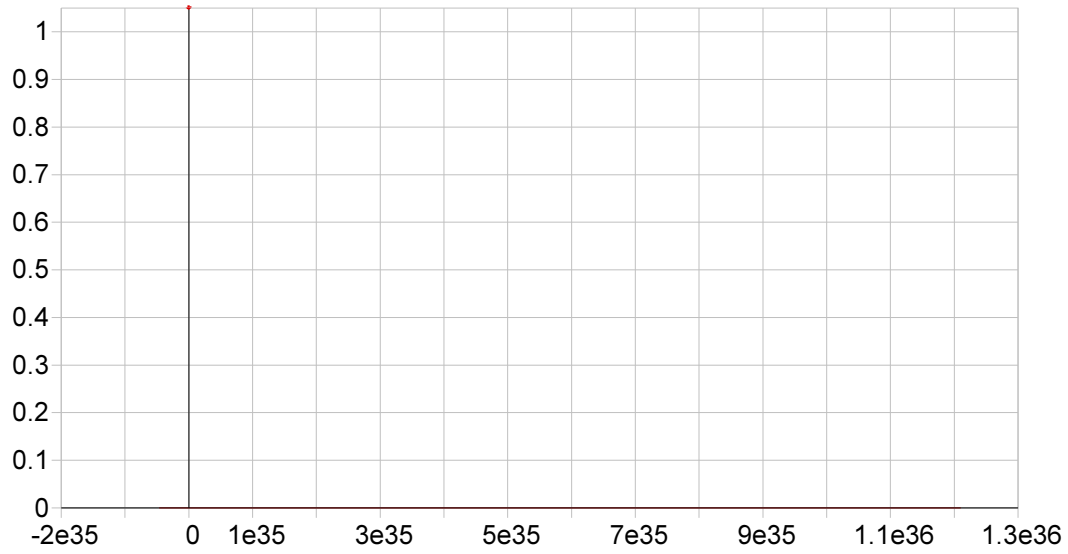


P 214.914 {457}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.853167	Re-Slope:	1.000000
A1 (Gain):	38.751117	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996149	Status:	OK.
Std Error of Est:	0.293129		
Predicted MDL:	0.016724		
Predicted MQL:	0.055748		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00018	-.000	.000	-.86009	.393	1
SEQ-CAL2	.25000	.43267	.183	73.1	15.913	.751	1
SEQ-CAL3	2.5000	2.5028	.003	.111	96.132	1.03	1
SEQ-CAL4	5.0000	5.0111	.011	.222	193.33	.495	1
SEQ-CAL5	10.000	9.8035	-.197	-1.97	379.04	1.44	1

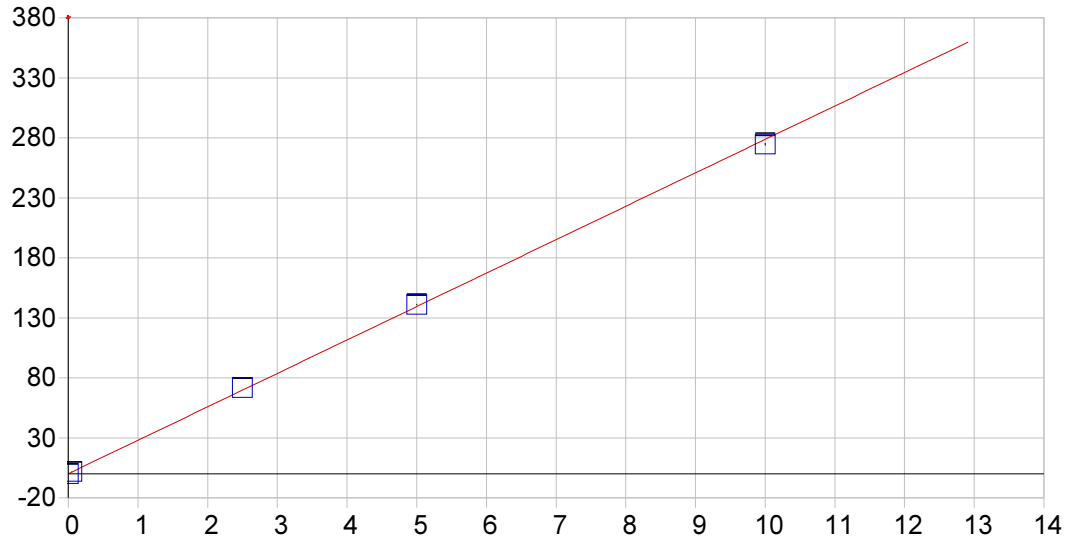


Pb 168.215 {500}

Date of Fit:	5/8/2023 17:16:51	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.006758		
Predicted MDL:	4.285810		
Predicted MQL:	14.286034		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



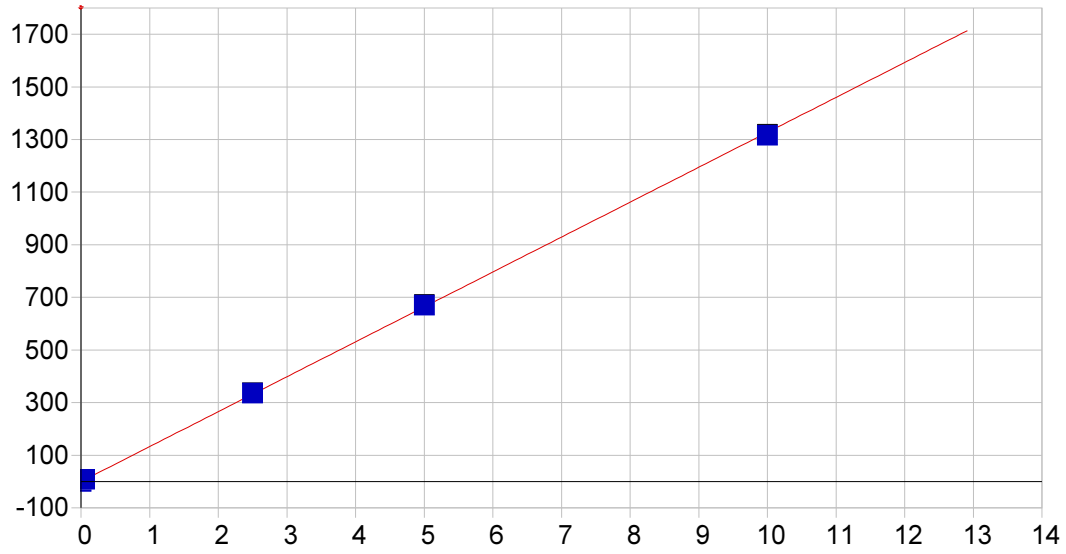
Pb 182.205 {485}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.108168	Re-Slope:	1.000000
A1 (Gain):	27.859131	Y-int:	0.000000

A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.999706		Status:	OK.		
Std Error of Est:	0.025839					
Predicted MDL:	0.013301					
Predicted MQL:	0.044338					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00002	-.000	.000	.10766	.147	1
SEQ-CAL2	.05000	.06692	.017	33.8	1.9725	.281	1
SEQ-CAL3	2.5000	2.5666	.067	2.66	71.611	.192	1
SEQ-CAL4	5.0000	5.0609	.061	1.22	141.10	.591	1
SEQ-CAL5	10.000	9.8556	-.144	-1.44	274.68	1.17	1

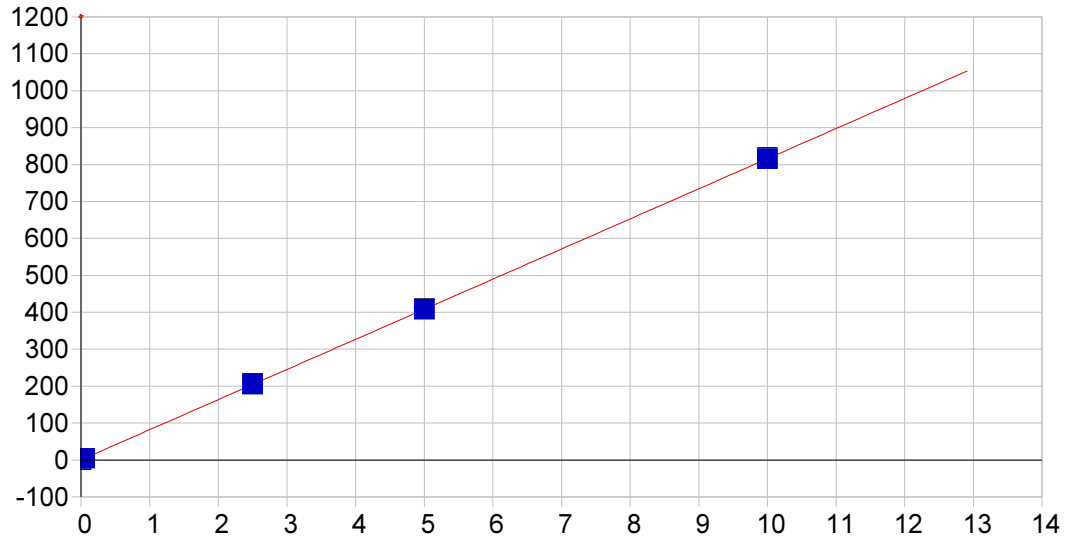


Pb 220.353 {453}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.009729	Re-Slope:	1.000000
A1 (Gain):	132.737599	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999901	Status:	OK.
Std Error of Est:	0.071500		
Predicted MDL:	0.006328		
Predicted MQL:	0.021092		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-.01111	.307	1
SEQ-CAL2	.05000	.05975	.010	19.5	7.8545	.852	1
SEQ-CAL3	2.5000	2.5314	.031	1.26	336.15	2.01	1
SEQ-CAL4	5.0000	5.0462	.046	.924	670.12	1.68	1
SEQ-CAL5	10.000	9.9128	-.087	-.872	1316.4	3.65	1

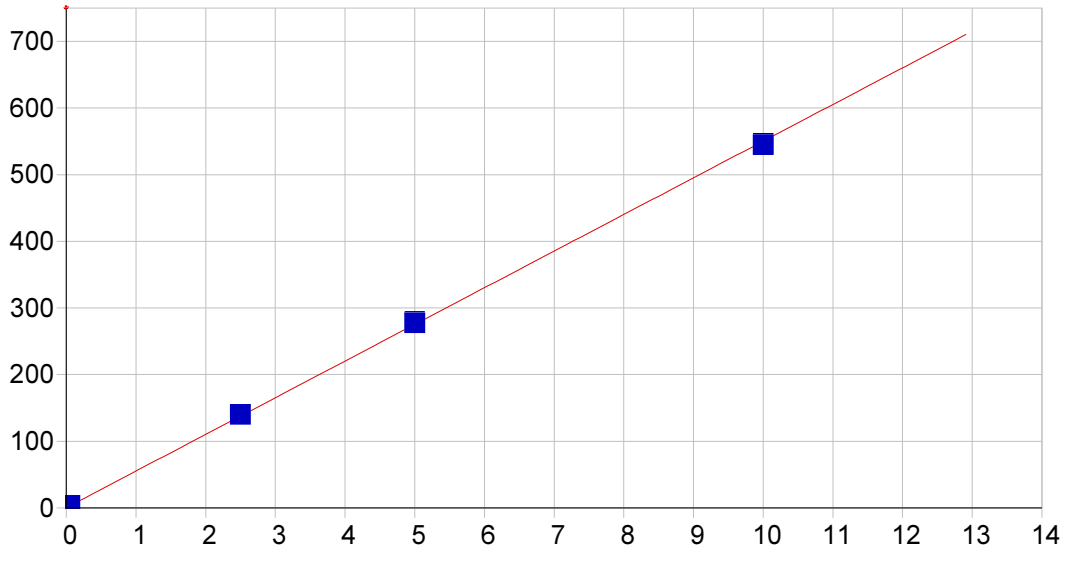


Sb 217.581 {455}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.360093	Re-Slope:	1.000000
A1 (Gain):	81.568286	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.006565		
Predicted MDL:	0.008462		
Predicted MQL:	0.028206		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.35995	.556	1
SEQ-CAL2	.05000	.05166	.002	3.32	4.5803	.204	1
SEQ-CAL3	2.5000	2.5066	.007	.265	205.19	1.79	1
SEQ-CAL4	5.0000	4.9961	-.004	-.078	408.62	1.47	1
SEQ-CAL5	10.000	9.9956	-.004	-.044	817.16	1.39	1

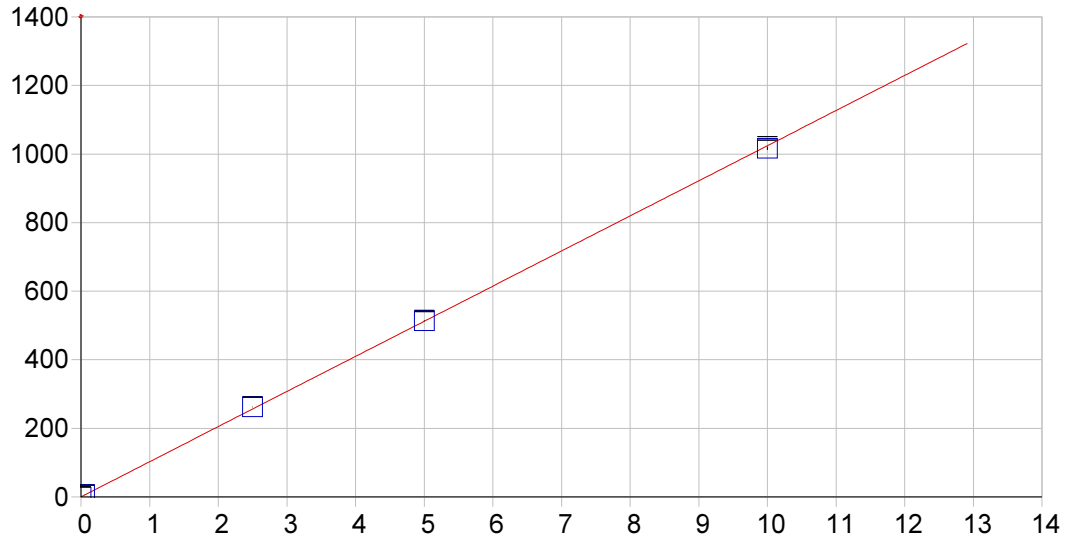


Se 196.090 {472}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.313968	Re-Slope:	1.000000
A1 (Gain):	54.996841	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999870	Status:	OK.
Std Error of Est:	0.033943		
Predicted MDL:	0.009711		
Predicted MQL:	0.032370		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.31329	.113	1
SEQ-CAL2	.05000	.06155	.012	23.1	3.6995	.212	1
SEQ-CAL3	2.5000	2.5398	.040	1.59	140.05	.159	1
SEQ-CAL4	5.0000	5.0434	.043	.867	277.79	1.39	1
SEQ-CAL5	10.000	9.9053	-.095	-.947	545.29	1.75	1

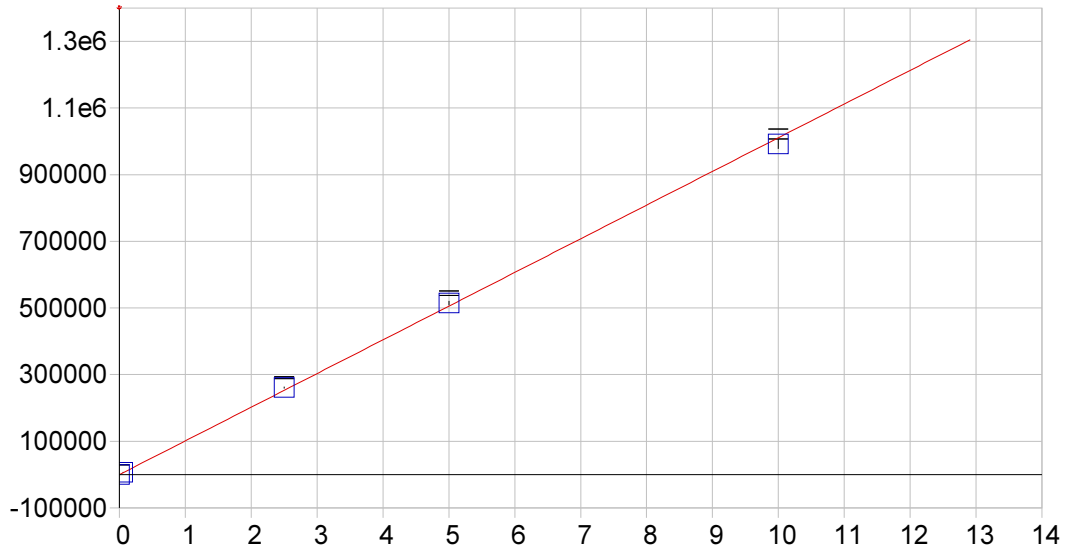


Sn 189.989 {477}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.297098	Re-Slope:	1.000000
A1 (Gain):	102.412237	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999887	Status:	OK.
Std Error of Est:	0.058757		
Predicted MDL:	0.003970		
Predicted MQL:	0.013233		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.29596	.253	1
SEQ-CAL2	.05000	.06028	.010	20.6	6.4702	.489	1
SEQ-CAL3	2.5000	2.5566	.057	2.27	262.13	.724	1
SEQ-CAL4	5.0000	5.0070	.007	.139	513.07	1.76	1
SEQ-CAL5	10.000	9.9261	-.074	-.739	1016.9	5.21	1

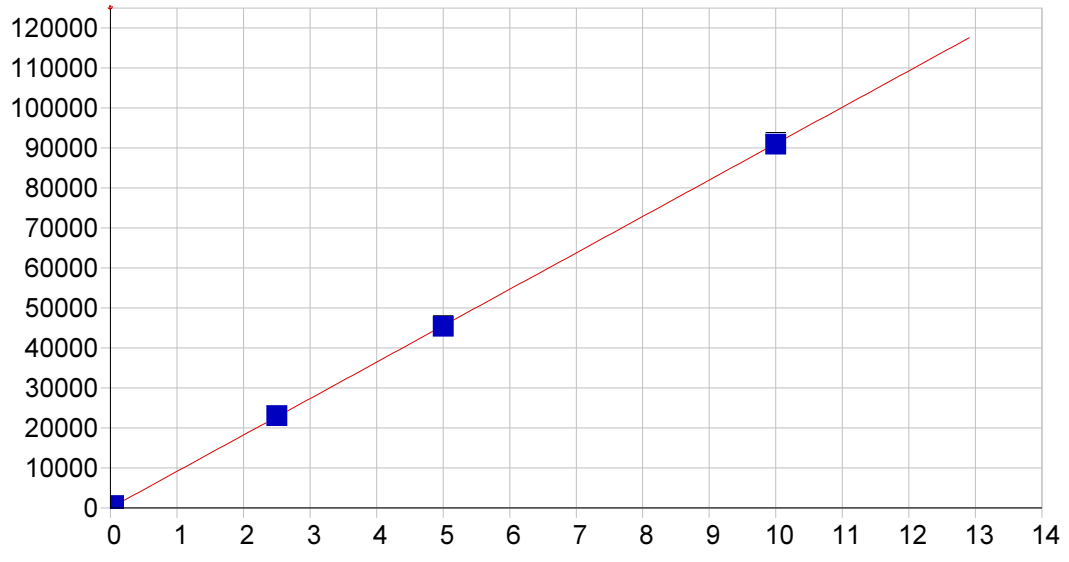


Sr 407.771 { 83}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	3.350831	Re-Slope:	1.000000
A1 (Gain):	101089.6205	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999685	Status:	OK.
Std Error of Est:	97.002562		
Predicted MDL:	0.000070		
Predicted MQL:	0.000235		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL2	.05000	.06291	.013	25.8	6362.6	31.1	1
SEQ-CAL3	2.5000	2.5832	.083	3.33	261140.	2800.	1
SEQ-CAL4	5.0000	5.0883	.088	1.77	514370.	6540.	1
SEQ-CAL5	10.000	9.8156	-.184	-1.84	992260.	14800.	1
SEQ-CAL1	.00000	-.00001	-.000	.000	1.8818	5.69	1

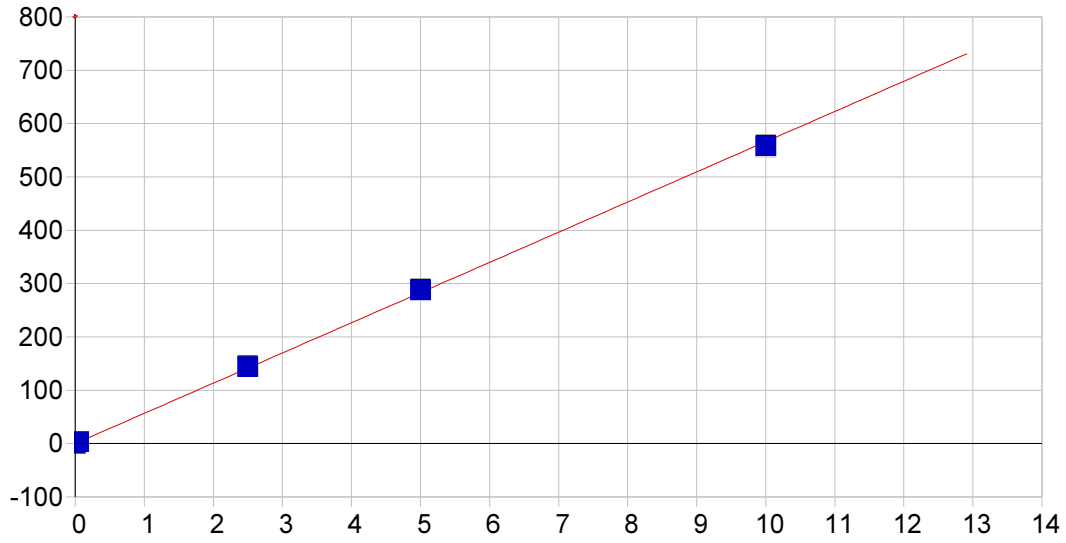


Ti 336.121 {100}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	10.512101	Re-Slope:	1.000000
A1 (Gain):	9108.932188	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999934	Status:	OK.
Std Error of Est:	4.021939		
Predicted MDL:	0.000660		
Predicted MQL:	0.002200		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	10.420	1.41	1
SEQ-CAL2	.05000	.05986	.010	19.7	556.59	2.71	1
SEQ-CAL3	2.5000	2.5269	.027	1.07	23069.	68.7	1
SEQ-CAL4	5.0000	4.9800	-.020	-.400	45457.	154.	1
SEQ-CAL5	10.000	9.9833	-.017	-.167	91115.	275.	1

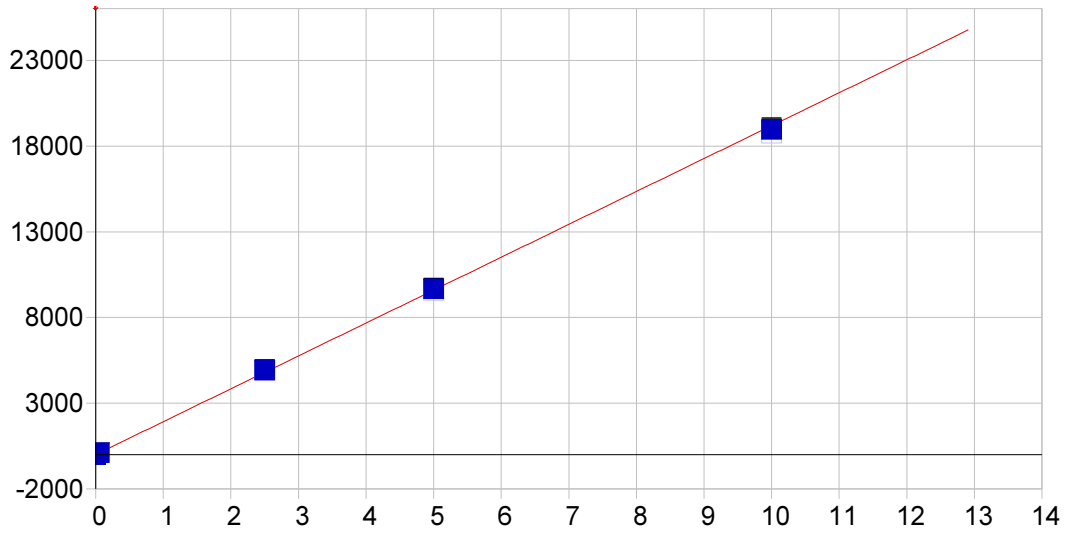


Tl 190.856 {477}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.095883	Re-Slope:	1.000000
A1 (Gain):	56.601058	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999869	Status:	OK.
Std Error of Est:	0.034868		
Predicted MDL:	0.008050		
Predicted MQL:	0.026832		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.09554	.352	1
SEQ-CAL2	.05000	.05495	.005	9.90	3.1907	.271	1
SEQ-CAL3	2.5000	2.5437	.044	1.75	143.30	1.17	1
SEQ-CAL4	5.0000	5.0862	.086	1.72	286.44	1.24	1
SEQ-CAL5	10.000	9.8652	-.135	-1.35	555.39	1.20	1

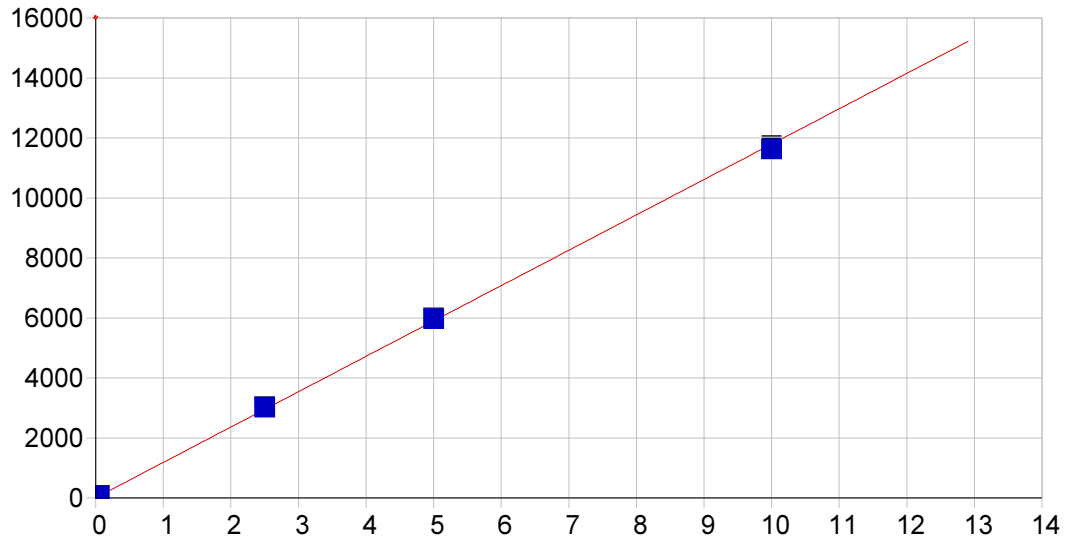


V 292.402 {115}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	2.345092	Re-Slope:	1.000000
A1 (Gain):	1919.097861	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999832	Status:	OK.
Std Error of Est:	1.330238		
Predicted MDL:	0.001986		
Predicted MQL:	0.006619		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	2.3233	2.90	1
SEQ-CAL2	.05000	.06014	.010	20.3	116.70	4.78	1
SEQ-CAL3	2.5000	2.5695	.069	2.78	4880.0	9.71	1
SEQ-CAL4	5.0000	5.0408	.041	.815	9569.2	35.5	1
SEQ-CAL5	10.000	9.8796	-.120	-1.20	18749.	96.8	1



Zn 213.856 {458}

Date of Fit:	6/6/2023 14:30:41	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	4.305904	Re-Slope:	1.000000
A1 (Gain):	1178.752831	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999448	Status:	OK.
Std Error of Est:	1.505517		
Predicted MDL:	0.000480		
Predicted MQL:	0.001599		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00003	-.000	.000	4.2719	.346	1
SEQ-CAL2	.05000	.07788	.028	55.8	96.498	.278	1
SEQ-CAL3	2.5000	2.5542	.054	2.17	3031.9	11.3	1
SEQ-CAL4	5.0000	5.0621	.062	1.24	6005.0	9.41	1
SEQ-CAL5	10.000	9.8558	-.144	-1.44	11689.	48.1	1

Sample Name: SEQ-CAL5 Acquired: 6/6/2023 14:26:45 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**23020.**	**11860.**	**769.0**	**13540.**	**705100.**	**89280.**	**11410.**
Stddev	89.	44.	2.1	70.	5416.	346.	49.
%RSD	.3850	.3672	.2729	.5135	.7681	.3871	.4258
#1	22930.	11850.	771.0	13460.	711200.	88940.	11370.
#2	23020.	11820.	769.2	13550.	702900.	89280.	11410.
#3	23110.	11900.	766.8	13600.	701100.	89630.	11460.

Elem	Cd2144	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**30800.**	**8935.**	**28640.**	**23980.**	**19580.**	**2215.**	**188700.**
Stddev	86.	31.	154.	111.	87.	24.	1087.
%RSD	.2781	.3499	.5381	.4626	.4419	1.080	.5761
#1	30870.	8963.	28470.	23870.	19510.	2193.	188000.
#2	30710.	8901.	28680.	23990.	19560.	2240.	188200.
#3	30830.	8939.	28770.	24090.	19680.	2211.	190000.

Elem	Mg2852	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb1822
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**34290.**	**71220.**	**4238.**	**20630.**	**4876.**	**379.0**	**274.7**
Stddev	78.	238.	18.	63.	4.	1.4	1.2
%RSD	.2275	.3339	.4218	.3043	.0862	.3797	.4272
#1	34290.	70940.	4241.	20580.	4879.	380.5	275.1
#2	34220.	71330.	4220.	20610.	4872.	377.6	273.3
#3	34370.	71380.	4255.	20700.	4879.	379.1	275.6

Elem	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1316.**	**817.2**	**545.3**	**1017.**	**992300.**	**91110.**	**555.4**
Stddev	4.	1.4	1.8	5.	14790.	275.	1.2
%RSD	.2771	.1700	.3215	.5121	1.490	.3023	.2152
#1	1312.	816.7	546.4	1021.	1005000.	90890.	556.0
#2	1319.	816.0	543.3	1011.	976000.	91030.	554.0
#3	1318.	818.7	546.2	1018.	996000.	91420.	556.1

Sample Name: SEQ-CAL5 Acquired: 6/6/2023 14:26:45 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	**18750.**	**11690.**
Stddev	97.	48.
%RSD	.5163	.4111
#1	18650.	11720.
#2	18760.	11630.
#3	18840.	11710.

Sample Name: SEQ-CAL4 Acquired: 6/6/2023 14:22:39 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**11680.**	**5935.**	**391.5**	**6819.**	**358700.**	**45290.**	**5949.**
Stddev	54.	30.	.3	17.	5546.	203.	15.
%RSD	.4622	.5084	.0711	.2448	1.546	.4476	.2554
#1	11620.	5907.	391.5	6823.	353500.	45220.	5948.
#2	11680.	5932.	391.2	6800.	358000.	45130.	5935.
#3	11730.	5967.	391.7	6833.	364500.	45510.	5965.

Elem	Cd2144	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**15840.**	**4600.**	**14600.**	**12210.**	**9969.**	**1119.**	**94900.**
Stddev	24.	9.	77.	53.	47.	15.	550.
%RSD	.1501	.2020	.5242	.4318	.4688	1.326	.5799
#1	15840.	4603.	14570.	12200.	9950.	1123.	94490.
#2	15810.	4589.	14530.	12160.	9934.	1103.	94690.
#3	15850.	4607.	14680.	12260.	10020.	1132.	95530.

Elem	Mg2852	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb1822
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**17370.**	**36300.**	**2149.**	**10370.**	**2523.**	**193.3**	**141.1**
Stddev	48.	111.	6.	47.	6.	.5	.6
%RSD	.2785	.3055	.2693	.4529	.2221	.2563	.4185
#1	17320.	36310.	2155.	10340.	2528.	193.7	141.5
#2	17380.	36190.	2147.	10360.	2523.	193.6	140.4
#3	17410.	36410.	2144.	10430.	2517.	192.8	141.4

Elem	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**670.1**	**408.6**	**277.8**	**513.1**	**514400.**	**45460.**	**286.4**
Stddev	1.7	1.5	1.4	1.8	6543.	154.	1.2
%RSD	.2508	.3600	.5015	.3433	1.272	.3388	.4323
#1	671.9	409.7	279.4	515.1	510800.	45390.	287.6
#2	668.6	406.9	277.0	512.2	510400.	45350.	286.5
#3	669.8	409.2	277.0	512.0	521900.	45630.	285.2

Sample Name: SEQ-CAL4 Acquired: 6/6/2023 14:22:39 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	**9569.**	**6005.**
Stddev	36.	9.
%RSD	.3715	.1568
#1	9563.	5995.
#2	9537.	6006.
#3	9607.	6014.

Sample Name: SEQ-CAL3 Acquired: 6/6/2023 14:18:38 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5926.**	**3016.**	**195.5**	**3538.**	**181900.**	**22930.**	**2953.**
Stddev	19.	13.	.3	10.	469.	38.	17.
%RSD	.3223	.4162	.1599	.2846	.2575	.1655	.5735
#1	5932.	3026.	195.9	3532.	182000.	22960.	2958.
#2	5941.	3020.	195.4	3550.	182400.	22930.	2968.
#3	5904.	3002.	195.3	3533.	181400.	22890.	2935.

Elem	Cd2144	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8038.**	**2341.**	**7383.**	**6232.**	**5054.**	**558.6**	**47380.**
Stddev	11.	4.	27.	10.	8.	13.3	96.
%RSD	.1314	.1840	.3720	.1574	.1579	2.376	.2019
#1	8046.	2338.	7388.	6240.	5062.	549.9	47350.
#2	8026.	2339.	7408.	6236.	5054.	552.1	47490.
#3	8041.	2346.	7354.	6221.	5046.	573.9	47300.

Elem	Mg2852	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb1822
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8845.**	**18550.**	**1079.**	**5349.**	**1272.**	**96.13**	**71.61**
Stddev	11.	80.	3.	8.	3.	1.03	.19
%RSD	.1245	.4321	.2832	.1444	.2247	1.070	.2677
#1	8856.	18600.	1078.	5341.	1269.	94.99	71.63
#2	8834.	18590.	1078.	5348.	1272.	96.43	71.79
#3	8843.	18460.	1083.	5357.	1275.	96.98	71.41

Elem	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**336.2**	**205.2**	**140.0**	**262.1**	**261100.**	**23070.**	**143.3**
Stddev	2.0	1.8	.2	.7	2796.	69.	1.2
%RSD	.5973	.8726	.1132	.2763	1.071	.2979	.8147
#1	334.0	203.1	139.9	261.3	261500.	23110.	142.0
#2	337.9	206.0	140.2	262.7	258200.	23100.	144.1
#3	336.5	206.5	140.0	262.4	263800.	22990.	143.9

Sample Name: SEQ-CAL3 Acquired: 6/6/2023 14:18:38 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	**4880.**	**3032.**
Stddev	10.	11.
%RSD	.1989	.3741
#1	4890.	3034.
#2	4871.	3020.
#3	4879.	3042.

Sample Name: SEQ-CAL2 Acquired: 6/6/2023 14:14:32 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**132.5**	**340.3**	**4.249**	**53.24**	**4517.**	**56.61**	**664.3**	**19.37**	**55.56**
Stddev	4.7	2.8	.338	1.49	19.	.75	.7	.67	.76
%RSD	3.530	.8149	7.963	2.805	.4242	1.326	.1071	3.478	1.366
#1	127.2	343.3	4.289	52.72	4501.	56.75	663.9	18.64	55.74
#2	134.4	337.9	3.893	52.08	4513.	57.29	663.9	19.50	56.21
#3	136.0	339.5	4.566	54.92	4538.	55.80	665.2	19.96	54.73

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**181.1**	**153.3**	**330.5**	**83.25**	**1059.**	**1116.**	**459.4**	**25.65**	**794.0**
Stddev	2.5	1.4	4.7	10.06	12.	1.	2.9	.47	6.5
%RSD	1.365	.9334	1.426	12.08	1.145	.1120	.6409	1.841	.8125
#1	179.0	154.4	326.6	73.04	1068.	1115.	457.2	26.19	789.6
#2	180.6	153.7	335.7	93.15	1064.	1117.	462.7	25.46	790.9
#3	183.8	151.6	329.2	83.57	1045.	1116.	458.2	25.30	801.4

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**29.90**	**15.91**	**1.972**	**7.855**	**4.580**	**3.700**	**6.470**	**6363.**	**556.6**
Stddev	.57	.75	.281	.852	.204	.212	.489	31.	2.7
%RSD	1.904	4.718	14.26	10.84	4.450	5.721	7.554	.4889	.4868
#1	29.87	16.43	1.966	6.886	4.798	3.460	6.146	6328.	557.1
#2	30.49	15.05	1.694	8.192	4.549	3.779	7.032	6373.	559.0
#3	29.36	16.26	2.257	8.486	4.394	3.859	6.233	6387.	553.6

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	**3.191**	**116.7**	**96.50**
Stddev	.271	4.8	.28
%RSD	8.502	4.099	.2880
#1	3.486	111.6	96.42
#2	2.953	117.3	96.27
#3	3.133	121.2	96.81

Sample Name: SEQ-CAL1 Acquired: 6/6/2023 14:10:25 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-6.467**	**-1.883**	**-.0522**	**12.01**	**44.37**	**.5905**	**8.050**	**.0511**	**.3195**
Stddev	3.536	3.943	.1814	2.71	.10	.4620	1.478	.7544	.3307
%RSD	54.69	209.4	347.3	22.56	.2353	78.25	18.35	1476.	103.5
#1	-4.450	2.550	-.1433	13.30	44.25	.1500	9.025	.4733	-.0440
#2	-4.400	-5.000	-.1700	8.900	44.44	1.071	8.775	.4999	.6026
#3	-10.55	-3.200	.1566	13.84	44.42	.5500	6.350	-.8199	.3999

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.350**	**-1.047**	**7.467**	**10.78**	**40.44**	**1.897**	**1.015**	**.7088**	**-28.57**
Stddev	3.789	3.061	2.332	9.54	5.16	2.955	1.113	.2613	12.65
%RSD	70.82	292.4	31.23	88.48	12.76	155.8	109.7	36.86	44.28
#1	8.675	-.5900	4.775	18.84	37.52	1.340	.8187	.4879	-21.79
#2	1.225	1.760	8.750	.2500	37.40	-.7400	.0125	.6412	-43.16
#3	6.150	-4.310	8.875	13.25	46.40	5.090	2.213	.9972	-20.75

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.4455**	**-.8601**	**.1077**	**-.0111**	**.3600**	**.3133**	**.2960**	**1.882**	**10.42**
Stddev	.1538	.3931	.1471	.3070	.5562	.1133	.2535	5.689	1.41
%RSD	34.52	45.70	136.6	2763.	154.5	36.17	85.64	302.3	13.55
#1	-.2700	-1.162	-.0533	-.0867	.8079	.2000	.3946	1.545	9.840
#2	-.5566	-.4157	.2351	-.2733	-.2626	.4266	.0080	-3.632	12.03
#3	-.5099	-1.002	.1412	.3266	.5346	.3133	.4853	7.732	9.390

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	**.0955**	**2.323**	**4.272**
Stddev	.3518	2.901	.346
%RSD	368.2	124.9	8.102
#1	-.0733	4.280	4.671
#2	-.1400	3.700	4.062
#3	.4999	-1.010	4.082

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	-6.441862	2323.3754	0.000000	1.000000
Al 396.152 { 85}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	-1.829288	1146.5538	0.000000	1.000000
As 193.759 {474}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	-0.051746	77.955512	0.000000	1.000000
B 249.773 {135}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	12.020928	1358.9173	0.000000	1.000000
Ba 455.403 { 74}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	45.345689	71223.218	0.000000	1.000000
Be 234.861 {144}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.602262	9000.2679	0.000000	1.000000
Ca 315.887 {107}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	8.402453	1180.1641	0.000000	1.000000
Cd 214.438 {457}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.055239	3124.4930	0.000000	1.000000
Co 228.616 {447}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.330685	907.65651	0.000000	1.000000
Cr 283.563 {119}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	5.383614	2896.4189	0.000000	1.000000
Cu 324.754 {104}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	-1.010980	2426.1910	0.000000	1.000000
Fe 259.940 {130}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	7.593113	1983.1787	0.000000	1.000000
K 766.490 { 44}	6/6/2023 15:02:14	2/19/2015 16:26:35	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 769.896 { 44}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	10.796191	221.58144	0.000000	1.000000
Li 670.784 { 50}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	40.516726	18911.146	0.000000	1.000000
Mg 285.213 {118}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	2.149110	3471.1448	0.000000	1.000000
Mn 257.610 {131}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	1.121021	7209.4857	0.000000	1.000000
Mo 202.030 {467}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.712628	426.74341	0.000000	1.000000
Na 589.592 { 57}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	-28.269342	2099.1439	0.000000	1.000000
Ni 231.604 {446}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	-0.439266	495.89724	0.000000	1.000000
P 178.284 {489}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.809325	62.448871	0.000000	1.000000
P 214.914 {457}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	-0.853167	38.751117	0.000000	1.000000
Pb 168.215 {500}	6/6/2023 15:02:14	5/27/2021 12:44:34	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Pb 182.205 {485}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.108168	27.859131	0.000000	1.000000
Pb 220.353 {453}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	-0.009729	132.73759	0.000000	1.000000
Sb 217.581 {455}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.360093	81.568286	0.000000	1.000000
Se 196.090 {472}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.313968	54.996841	0.000000	1.000000
Sn 189.989 {477}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.297098	102.41223	0.000000	1.000000
Sr 407.771 { 83}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	3.350831	101089.62	0.000000	1.000000
Ti 336.121 {100}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	10.512101	9130.4953	0.000000	1.000000
Tl 190.856 {477}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	0.095883	56.666582	0.000000	1.000000
V 292.402 {115}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	2.345092	1931.0902	0.000000	1.000000
Zn 213.856 {458}	6/6/2023 15:02:14	6/6/2023 14:30:41	Linear	1/Conc	4.305904	1176.2044	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ag 328.068 {103}	0.999885	1.345680	0.002491	0.008302	OK.	1.000000	0.000000	1	0
Al 396.152 { 85}	0.999754	2.271818	0.007245	0.024152	OK.	1.000000	0.000000	1	0
As 193.759 {474}	0.999945	0.031198	0.005812	0.019374	OK.	1.000000	0.000000	1	0
B 249.773 {135}	0.999869	0.596955	0.001856	0.006188	OK.	1.000000	0.000000	1	0
Ba 455.403 { 74}	0.999838	49.013443	0.000152	0.000507	OK.	1.000000	0.000000	1	0
Be 234.861 {144}	0.999942	1.172757	0.000186	0.000621	OK.	1.000000	0.000000	1	0
Ca 315.887 {107}	0.989303	14.955128	0.003883	0.012943	OK.	1.000000	0.000000	1	0
Cd 214.438 {457}	0.999848	0.656822	0.000252	0.000841	OK.	1.000000	0.000000	1	0
Co 228.616 {447}	0.999767	0.749586	0.000868	0.002893	OK.	1.000000	0.000000	1	0
Cr 283.563 {119}	0.999865	1.816651	0.001168	0.003893	OK.	1.000000	0.000000	1	0
Cu 324.754 {104}	0.999798	1.866262	0.001992	0.006640	OK.	1.000000	0.000000	1	0
Fe 259.940 {130}	0.998806	5.250490	0.001275	0.004251	OK.	1.000000	0.000000	1	0
K 766.490 { 44}	0.000000	1.145570	0.047854	0.159512	Warnin	1.000000	0.000000	1	0
K 769.896 { 44}	0.999316	0.704890	0.061373	0.204575	OK.	1.000000	0.000000	1	0
Li 670.784 { 50}	0.999988	3.492786	0.000881	0.002938	OK.	1.000000	0.000000	1	0
Mg 285.213 {118}	0.999367	10.618089	0.001033	0.003442	OK.	1.000000	0.000000	1	0
Mn 257.610 {131}	0.999785	5.709727	0.000356	0.001185	OK.	1.000000	0.000000	1	0
Mo 202.030 {467}	0.999930	0.192517	0.001194	0.003981	OK.	1.000000	0.000000	1	0
Na 589.592 { 57}	0.997619	12.471395	0.007804	0.026014	OK.	1.000000	0.000000	1	0
Ni 231.604 {446}	0.999757	0.418328	0.001376	0.004585	OK.	1.000000	0.000000	1	0
P 178.284 {489}	0.999756	0.118593	0.006411	0.021369	OK.	1.000000	0.000000	1	0
P 214.914 {457}	0.996149	0.293129	0.016724	0.055748	OK.	1.000000	0.000000	1	0
Pb 168.215 {500}	0.000000	0.006758	4.285810	14.286034	Warnin	1.000000	0.000000	1	0
Pb 182.205 {485}	0.999706	0.025839	0.013301	0.044338	OK.	1.000000	0.000000	1	0
Pb 220.353 {453}	0.999901	0.071500	0.006328	0.021092	OK.	1.000000	0.000000	1	0
Sb 217.581 {455}	0.999998	0.006565	0.008462	0.028206	OK.	1.000000	0.000000	1	0
Se 196.090 {472}	0.999870	0.033943	0.009711	0.032370	OK.	1.000000	0.000000	1	0
Sn 189.989 {477}	0.999887	0.058757	0.003970	0.013233	OK.	1.000000	0.000000	1	0
Sr 407.771 { 83}	0.999685	97.002562	0.000070	0.000235	OK.	1.000000	0.000000	1	0
Ti 336.121 {100}	0.999934	4.021939	0.000659	0.002195	OK.	1.000000	0.000000	1	0
Tl 190.856 {477}	0.999869	0.034868	0.008040	0.026801	OK.	1.000000	0.000000	1	0
V 292.402 {115}	0.999832	1.330238	0.001973	0.006578	OK.	1.000000	0.000000	1	0
Zn 213.856 {458}	0.999448	1.505520	0.000481	0.001602	OK.	1.000000	0.000000	1	0

Analysis Class: ICP

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01	File ID:	06072023A-033
Sampled:	05/31/23 13:45	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 18:38
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*1.22*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-01 Acquired: 6/7/2023 18:38:01 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0013**	**.0060**	**-.0056**	**.0649**	**.0908**	**-.0001**	F **52.52**	**-.0003**	**.0011**
Stddev	.0025	.0015	.0067	.0006	.0005	.0001	.20	.0001	.0003
%RSD	194.3	25.59	119.9	.9309	.5806	66.08	.3818	51.38	29.90
#1	-.0010	.0069	.0015	.0656	.0909	-.0001	52.75	-.0002	.0014
#2	-.0040	.0070	-.0066	.0646	.0913	-.0001	52.44	-.0004	.0011
#3	.0011	.0043	-.0118	.0646	.0902	-.0002	52.38	-.0002	.0007

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0008**	**.0104**	**6.823**	**.0626**	**27.81**	**.0097**	**-.0034**	F **169.5**
Stddev	.0006	.0016	.0009	.010	.0009	.08	.0004	.0010	2.1
%RSD	131.4	208.3	8.236	.1413	1.509	.3049	3.706	30.59	1.238
#1	-.0009	-.0020	.0108	6.833	.0615	27.90	.0097	-.0030	171.4
#2	-.0007	.0010	.0109	6.823	.0633	27.80	.0101	-.0045	167.3
#3	.0002	-.0014	.0094	6.814	.0631	27.73	.0094	-.0026	169.9

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0018**	**.0014**	**-.0045**	**.0027**	**-.0069**	**-.0012**	**-.0001**	**1.096**	**-.0022**
Stddev	.0008	.0081	.0088	.0050	.0065	.0034	.0010	.003	.0005
%RSD	41.03	600.1	193.7	180.9	94.17	299.5	1169.	.2778	21.46
#1	-.0011	-.0080	.0055	.0069	-.0049	-.0046	-.0011	1.095	-.0024
#2	-.0019	.0068	-.0107	-.0027	-.0141	.0023	.0009	1.093	-.0017
#3	-.0026	.0053	-.0085	.0041	-.0016	-.0012	-.0001	1.099	-.0026

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0043**	**-.0003**	**.0017**
Stddev	.0037	.0008	.0002
%RSD	87.29	263.9	8.756
#1	-.0016	-.0006	.0016
#2	-.0085	-.0009	.0019
#3	-.0027	.0006	.0018

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01RE1	File ID:	06082023-021
Sampled:	05/31/23 13:45	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 15:35
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	1.14	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-01RE1 Acquired: 6/8/2023 15:35:34 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0080**	**-.0023**	**.0715**	**.0848**	**.0001**	F **47.44**	**.0002**	**-.0005**
Stddev	.0017	.0085	.0035	.0018	.0004	.0000	.21	.0002	.0004
%RSD	1260.	105.4	152.8	2.499	.5113	51.55	.4344	148.4	78.63
#1	.0010	.0170	-.0056	.0727	.0843	.0001	47.21	.0000	-.0004
#2	.0013	.0002	-.0028	.0723	.0851	.0001	47.56	.0000	-.0009
#3	-.0019	.0069	.0014	.0694	.0851	.0000	47.57	.0005	-.0001

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**.0015**	**.0137**	**5.908**	**.0592**	**25.65**	**.0097**	**.0006**	F **149.6**
Stddev	.0011	.0027	.0004	.066	.0003	.15	.0004	.0008	.7
%RSD	99.31	179.4	3.103	1.123	.4622	.5774	4.280	122.0	.4412
#1	-.0008	.0006	.0135	5.832	.0591	25.51	.0092	.0002	149.7
#2	-.0002	-.0006	.0141	5.952	.0591	25.80	.0099	.0015	150.2
#3	-.0024	.0046	.0134	5.942	.0596	25.65	.0099	.0002	148.9

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0240**	**.0041**	**.0114**	**-.0010**	**-.0015**	**-.0001**	**1.028**	**-.0010**
Stddev	.0008	.0052	.0139	.0021	.0033	.0054	.0019	.006	.0003
%RSD	115.0	21.69	342.1	18.39	320.7	351.0	1573.	.6291	26.99
#1	.0001	.0284	-.0085	.0138	.0027	.0042	-.0023	1.023	-.0011
#2	-.0014	.0253	.0190	.0103	-.0019	-.0065	.0010	1.035	-.0012
#3	-.0008	.0182	.0016	.0101	-.0038	-.0024	.0009	1.026	-.0007

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0020**	**.0003**	**.0019**
Stddev	.0031	.0003	.0003
%RSD	151.9	95.97	14.44
#1	-.0015	.0001	.0020
#2	.0038	.0003	.0022
#3	.0037	.0007	.0016

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02	File ID:	06072023A-034
Sampled:	05/31/23 12:15	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 18:42
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*0.0324*	*0.00889*	*0.0356*	*0.0444*	*Q, J*

Italicized = secondary result

Sample Name: 23F0136-02 Acquired: 6/7/2023 18:42:14 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.8753**	**-.0011**	**-.0050**	**.0608**	**.0002**	**1.181**	**-.0002**	**.0040**
Stddev	.0007	.0110	.0086	.0010	.0006	.0001	.007	.0003	.0003
%RSD	73.63	1.253	766.1	20.96	1.067	57.95	.5767	150.2	7.566
#1	-.0014	.8869	-.0100	-.0055	.0611	.0002	1.187	-.0001	.0037
#2	-.0013	.8651	.0072	-.0056	.0601	.0001	1.174	.0000	.0043
#3	-.0001	.8738	-.0005	-.0038	.0613	.0002	1.182	-.0005	.0042

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0146**	**.0035**	**.5584**	**.1461**	**.0077**	**.8175**	**.0604**	**-.0042**	**31.10**
Stddev	.0005	.0003	.0053	.0032	.0006	.0078	.0007	.0006	.23
%RSD	3.540	9.256	.9577	2.217	7.381	.9497	1.217	13.56	.7357
#1	.0143	.0038	.5635	.1442	.0074	.8216	.0604	-.0045	31.17
#2	.0144	.0031	.5528	.1499	.0084	.8085	.0597	-.0035	30.84
#3	.0152	.0035	.5588	.1444	.0074	.8223	.0611	-.0045	31.28

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048**	**.0519**	**-.0000**	**.0102**	**-.0115**	**-.0062**	**-.0008**	**.0292**	**.0045**
Stddev	.0002	.0069	.0043	.0023	.0035	.0068	.0012	.0003	.0003
%RSD	5.006	13.23	9212.	22.10	30.53	111.4	148.6	.8702	6.945
#1	.0048	.0512	-.0032	.0118	-.0132	-.0110	-.0015	.0295	.0047
#2	.0045	.0454	.0049	.0113	-.0138	-.0091	-.0015	.0290	.0041
#3	.0050	.0591	-.0018	.0077	-.0075	.0017	.0006	.0292	.0046

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0003**	**.0028**	**.0025**
Stddev	.0060	.0005	.0002
%RSD	2011.	18.99	9.136
#1	.0055	.0027	.0027
#2	-.0062	.0033	.0023
#3	.0015	.0022	.0026

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02RE1	File ID:	06082023-024
Sampled:	05/31/23 12:15	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 15:48
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	0.0312	0.00889	0.0356	0.0444	J

Italicized = secondary result

Sample Name: 23F0136-02RE1 Acquired: 6/8/2023 15:48:09 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0032**	**5.820**	**.0010**	**.0192**	**.0631**	**.0006**	**1.066**	**.0002**	**.0037**
Stddev	.0027	.295	.0048	.0019	.0002	.0001	.010	.0000	.0007
%RSD	85.20	5.063	487.7	9.803	.3824	21.64	.9692	24.56	19.13
#1	.0001	6.144	.0066	.0207	.0634	.0005	1.077	.0002	.0037
#2	.0052	5.750	-.0020	.0199	.0630	.0007	1.066	.0002	.0030
#3	.0043	5.567	-.0016	.0171	.0629	.0006	1.056	.0001	.0044

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0172**	**.0063**	**3.058**	**.3812**	**.0088**	**1.018**	**.0559**	**.0016**	**26.62**
Stddev	.0005	.0007	.160	.0603	.0002	.018	.0007	.0007	.10
%RSD	2.775	11.93	5.234	15.82	2.195	1.761	1.305	43.48	.3745
#1	.0170	.0068	3.232	.3239	.0090	1.037	.0566	.0023	26.61
#2	.0177	.0054	3.024	.4442	.0088	1.013	.0560	.0009	26.52
#3	.0168	.0066	2.917	.3757	.0086	1.002	.0551	.0017	26.72

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0077**	**.0807**	**.0022**	**.0174**	**-.0007**	**.0017**	**-.0033**	**.0281**	**.1196**
Stddev	.0004	.0083	.0132	.0037	.0030	.0094	.0027	.0003	.0068
%RSD	5.818	10.33	590.3	21.37	432.5	558.2	80.32	.9162	5.701
#1	.0073	.0718	-.0072	.0149	.0006	-.0082	-.0002	.0283	.1271
#2	.0082	.0883	-.0035	.0156	-.0041	.0106	-.0047	.0283	.1181
#3	.0076	.0819	.0174	.0217	.0015	.0027	-.0050	.0278	.1137

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0015**	**.0080**	**.0086**
Stddev	.0025	.0014	.0000
%RSD	162.7	17.37	.1014
#1	-.0013	.0085	.0086
#2	.0024	.0090	.0086
#3	.0035	.0064	.0086

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03	File ID:	06072023A-035
Sampled:	05/30/23 15:00	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 18:46
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*3.71*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-03 Acquired: 6/7/2023 18:46:19 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0021**	**.0112**	**.0043**	**.0950**	**.0280**	**-.0002**	F **110.6**	**-.0000**	**.0006**
Stddev	.0008	.0110	.0054	.0020	.0002	.0001	.3	.0001	.0003
%RSD	36.75	98.10	125.9	2.064	.8513	73.33	.2611	749.4	52.35
#1	-.0026	.0006	.0003	.0953	.0283	-.0002	110.5	.0001	.0003
#2	-.0012	.0225	.0105	.0968	.0279	-.0003	110.4	-.0000	.0009
#3	-.0024	.0104	.0021	.0929	.0278	-.0000	110.9	-.0001	.0007

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0014**	**-.0020**	**1.305**	**.1470**	F **77.04**	**.0140**	**-.0052**	F **636.1**
Stddev	.0008	.0010	.0002	.034	.0007	.65	.0005	.0010	8.7
%RSD	133.0	70.70	10.90	2.609	.4829	.8434	3.241	19.10	1.364
#1	-.0014	.0021	-.0022	1.301	.1478	76.47	.0144	-.0040	640.3
#2	-.0006	.0019	-.0018	1.341	.1467	77.75	.0140	-.0056	626.2
#3	.0002	.0003	-.0021	1.274	.1464	76.92	.0135	-.0059	641.9

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0697**	**.0152**	**.0026**	**-.0084**	**-.0102**	**-.0002**	**3.339**	**-.0039**
Stddev	.0008	.0128	.0133	.0070	.0119	.0098	.0026	.021	.0001
%RSD	421.6	18.42	87.59	266.9	141.7	96.23	1272.	.6332	3.812
#1	-.0001	.0843	.0182	.0096	-.0188	.0007	-.0010	3.341	-.0040
#2	.0006	.0647	.0268	.0026	.0046	-.0131	-.0023	3.359	-.0037
#3	-.0011	.0600	.0007	-.0044	-.0110	-.0182	.0027	3.317	-.0040

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0041**	**.0006**	**-.0001**
Stddev	.0022	.0007	.0001
%RSD	54.74	107.2	90.73
#1	-.0059	.0007	-.0000
#2	-.0048	.0013	-.0000
#3	-.0016	-.0001	-.0002

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03RE1	File ID:	06082023-025
Sampled:	05/30/23 15:00	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 15:52
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	3.64	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-03RE1 Acquired: 6/8/2023 15:52:11 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0201**	**.0039**	**.0994**	**.0271**	**.0006**	F **103.8**	**.0001**	**.0008**
Stddev	.0018	.0022	.0043	.0012	.0004	.0005	.4	.0001	.0007
%RSD	174.9	11.03	107.9	1.177	1.510	86.29	.3899	117.7	97.57
#1	-.0004	.0177	-.0010	.0992	.0276	.0011	103.4	.0002	.0012
#2	-.0031	.0219	.0062	.0983	.0270	.0003	104.1	-.0000	.0012
#3	.0004	.0208	.0066	.1006	.0268	.0003	104.0	.0001	-.0001

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**.0012**	**.0032**	**1.142**	**.1418**	F **74.66**	**.0134**	**.0020**	F **578.5**
Stddev	.0011	.0017	.0015	.043	.0007	.45	.0005	.0008	2.2
%RSD	102.3	145.1	47.36	3.729	.5160	.6016	4.066	38.70	.3744
#1	.0001	.0024	.0049	1.120	.1410	74.80	.0140	.0024	577.1
#2	-.0021	.0021	.0025	1.191	.1418	74.16	.0132	.0011	577.4
#3	-.0012	-.0008	.0021	1.116	.1425	75.03	.0129	.0024	581.0

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.1199**	**.0028**	**.0122**	**-.0010**	**.0098**	**-.0020**	**3.280**	**-.0018**
Stddev	.0012	.0058	.0028	.0035	.0031	.0066	.0024	.034	.0006
%RSD	981.6	4.859	99.79	28.95	325.6	67.32	118.7	1.024	31.42
#1	.0003	.1236	.0028	.0085	.0020	.0168	-.0041	3.253	-.0012
#2	-.0011	.1228	.0056	.0127	-.0006	.0088	-.0025	3.270	-.0020
#3	.0012	.1132	.0000	.0155	-.0042	.0037	.0006	3.318	-.0022

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0031**	**.0017**	**.0014**
Stddev	.0062	.0013	.0003
%RSD	203.3	75.71	22.66
#1	.0034	.0024	.0011
#2	-.0090	.0002	.0013
#3	-.0036	.0024	.0017

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04	File ID:	06072023A-036
Sampled:	05/31/23 08:45	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 18:50
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*0.0481*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-04 Acquired: 6/7/2023 18:50:50 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**1.218**	**.0013**	**-.0062**	**.0950**	**.0005**	**1.715**	**.0000**	**.0050**
Stddev	.0016	.006	.0061	.0006	.0011	.0002	.006	.0002	.0008
%RSD	696.3	.4672	473.6	9.913	1.152	43.27	.3298	37800.	15.26
#1	.0013	1.216	.0073	-.0069	.0937	.0004	1.714	-.0000	.0055
#2	.0010	1.225	-.0048	-.0061	.0956	.0007	1.721	.0002	.0041
#3	-.0016	1.214	.0014	-.0057	.0956	.0003	1.710	-.0002	.0054

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0179**	**.0033**	**.8064**	**.1472**	**.0080**	**1.195**	**.0915**	**-.0045**	**29.85**
Stddev	.0011	.0013	.0011	.0140	.0004	.007	.0003	.0007	.23
%RSD	6.283	39.23	.1329	9.486	4.746	.5659	.3488	15.39	.7666
#1	.0188	.0042	.8055	.1323	.0078	1.187	.0914	-.0044	29.63
#2	.0182	.0018	.8061	.1493	.0085	1.201	.0919	-.0052	29.84
#3	.0166	.0039	.8076	.1599	.0078	1.196	.0913	-.0038	30.08

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0076**	**.0586**	**.0008**	**.0094**	**-.0157**	**-.0069**	**-.0017**	**.0433**	**.0043**
Stddev	.0003	.0012	.0115	.0014	.0057	.0041	.0007	.0000	.0006
%RSD	4.167	2.095	1357.	15.35	36.27	59.03	40.43	.0639	13.66
#1	.0076	.0597	-.0012	.0083	-.0207	-.0038	-.0019	.0433	.0043
#2	.0073	.0573	.0132	.0088	-.0169	-.0054	-.0022	.0433	.0037
#3	.0079	.0589	-.0095	.0110	-.0095	-.0116	-.0009	.0433	.0049

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0044**	**.0040**	**.0035**
Stddev	.0015	.0010	.0003
%RSD	34.26	26.03	8.420
#1	-.0062	.0028	.0038
#2	-.0036	.0048	.0032
#3	-.0035	.0045	.0036

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04RE1	File ID:	06082023-026
Sampled:	05/31/23 08:45	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 15:56
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	0.0493	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-04RE1 Acquired: 6/8/2023 15:56:41 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**5.179**	**-.0023**	**.0128**	**.0993**	**.0008**	**1.670**	**.0001**	**.0061**
Stddev	.0004	.122	.0051	.0026	.0001	.0001	.009	.0003	.0008
%RSD	69.33	2.346	216.6	20.22	.1126	17.50	.5712	281.2	12.71
#1	.0002	5.296	.0008	.0104	.0994	.0008	1.672	.0002	.0067
#2	.0009	5.189	-.0082	.0156	.0992	.0007	1.659	.0004	.0052
#3	.0006	5.053	.0004	.0124	.0994	.0010	1.678	-.0002	.0064

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0246**	**.0070**	**2.888**	**.3667**	**.0092**	**1.396**	**.0888**	**.0006**	**27.68**
Stddev	.0002	.0020	.056	.0564	.0001	.006	.0003	.0006	.03
%RSD	.8449	28.19	1.943	15.37	1.101	.4481	.3581	104.5	.0909
#1	.0244	.0093	2.943	.4189	.0091	1.403	.0885	.0003	27.71
#2	.0245	.0063	2.890	.3743	.0091	1.393	.0887	.0002	27.66
#3	.0248	.0055	2.831	.3069	.0093	1.391	.0892	.0013	27.68

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0104**	**.1057**	**-.0003**	**.0231**	**.0022**	**.0059**	**-.0018**	**.0444**	**.0910**
Stddev	.0007	.0063	.0034	.0032	.0010	.0012	.0038	.0002	.0029
%RSD	6.607	5.973	1231.	13.95	45.64	20.96	215.9	.4678	3.157
#1	.0112	.1121	.0027	.0221	.0033	.0059	-.0046	.0446	.0938
#2	.0099	.1057	.0004	.0205	.0017	.0047	-.0033	.0442	.0911
#3	.0101	.0995	-.0039	.0267	.0015	.0071	.0026	.0444	.0881

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0013**	**.0067**	**.0089**
Stddev	.0063	.0021	.0003
%RSD	477.1	31.77	3.797
#1	.0064	.0055	.0086
#2	.0032	.0092	.0089
#3	-.0057	.0055	.0093

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05	File ID:	06072023A-037
Sampled:	06/01/23 10:41	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 18:54
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*0.619*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-05 Acquired: 6/7/2023 18:54:55 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0020**	**.0078**	**.0008**	**.0397**	**.0803**	**-.0002**	**40.14**	**.0001**	**.0004**
Stddev	.0006	.0084	.0027	.0005	.0008	.0002	.27	.0005	.0008
%RSD	30.26	108.4	332.6	1.356	.9926	111.3	.6659	514.6	186.0
#1	-.0023	.0098	-.0012	.0403	.0812	-.0003	40.42	.0006	.0009
#2	-.0024	-.0015	-.0002	.0395	.0800	.0000	40.12	-.0003	.0008
#3	-.0013	.0150	.0038	.0393	.0797	-.0002	39.88	.0000	-.0005

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041**	**.0001**	**.0658**	**6.147**	**.0817**	**18.95**	**.0050**	**-.0039**	F **202.8**
Stddev	.0009	.0007	.0010	.046	.0008	.16	.0001	.0003	.1
%RSD	20.77	753.1	1.509	.7418	.9667	.8313	1.530	8.426	.0323
#1	.0050	.0006	.0669	6.197	.0821	19.12	.0050	-.0039	202.9
#2	.0033	-.0007	.0654	6.137	.0807	18.94	.0050	-.0035	202.8
#3	.0040	.0004	.0651	6.108	.0821	18.81	.0051	-.0041	202.8

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0140**	**.1025**	**-.0078**	**.0035**	**-.0134**	**.0009**	**-.0019**	**.5574**	**-.0021**
Stddev	.0008	.0054	.0105	.0076	.0001	.0097	.0013	.0056	.0005
%RSD	5.631	5.230	134.0	217.4	.7209	1114.	69.42	1.013	22.09
#1	.0149	.1007	-.0197	.0120	-.0134	-.0039	-.0004	.5627	-.0017
#2	.0137	.0984	.0003	-.0028	-.0134	-.0055	-.0030	.5582	-.0022
#3	.0134	.1086	-.0041	.0014	-.0135	.0121	-.0024	.5514	-.0026

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0022**	**.0028**	**.0002**
Stddev	.0040	.0003	.0003
%RSD	180.9	12.20	182.5
#1	-.0067	.0028	.0000
#2	.0012	.0024	.0005
#3	-.0012	.0031	-.0000

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05RE1	File ID:	06082023-027
Sampled:	06/01/23 10:41	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:00
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	0.624	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-05RE1 Acquired: 6/8/2023 16:00:44 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0195**	**.0004**	**.0486**	**.0801**	**.0001**	**38.94**	**.0001**	**.0007**
Stddev	.0021	.0002	.0023	.0012	.0007	.0000	.25	.0002	.0006
%RSD	265.2	1.269	638.0	2.471	.8259	33.16	.6410	169.0	94.46
#1	.0021	.0196	.0011	.0472	.0795	.0002	38.71	-.0001	.0012
#2	-.0017	.0192	.0023	.0491	.0800	.0002	38.89	.0001	-.0000
#3	.0020	.0196	-.0022	.0495	.0808	.0001	39.20	.0003	.0009

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035**	**.0012**	**.0724**	**5.690**	**.0802**	**18.82**	**.0050**	**.0013**	F **187.1**
Stddev	.0008	.0004	.0012	.059	.0011	.09	.0003	.0011	.8
%RSD	21.98	29.89	1.623	1.034	1.409	.5009	6.796	83.43	.4491
#1	.0030	.0008	.0710	5.630	.0790	18.73	.0047	.0002	187.6
#2	.0031	.0015	.0731	5.693	.0805	18.81	.0053	.0024	187.6
#3	.0043	.0012	.0730	5.747	.0812	18.92	.0049	.0013	186.1

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0137**	**.1683**	**-.0074**	**.0062**	**-.0005**	**.0045**	**-.0039**	**.5616**	**-.0011**
Stddev	.0009	.0183	.0094	.0075	.0007	.0022	.0028	.0044	.0004
%RSD	6.386	10.86	127.6	122.2	136.0	49.42	70.49	.7809	37.39
#1	.0129	.1589	.0035	-.0020	-.0013	.0030	-.0070	.5570	-.0011
#2	.0136	.1894	-.0123	.0129	.0002	.0070	-.0016	.5623	-.0006
#3	.0147	.1566	-.0132	.0076	-.0005	.0034	-.0032	.5657	-.0014

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0009**	**.0025**	**.0019**
Stddev	.0035	.0004	.0004
%RSD	385.7	17.55	22.97
#1	.0004	.0029	.0016
#2	-.0049	.0020	.0024
#3	.0017	.0027	.0017

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06	File ID:	06072023A-038
Sampled:	06/01/23 11:00	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 18:59
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*9.46*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-06 Acquired: 6/7/2023 18:59:10 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0022**	**.0197**	**.0015**	**.1369**	**.0159**	**-.0003**	F **324.3**	**.0003**	**.0004**
Stddev	.0003	.0050	.0024	.0013	.0001	.0002	1.3	.0000	.0002
%RSD	11.21	25.24	157.7	.9793	.7126	65.79	.3873	3.140	42.74
#1	-.0023	.0140	.0033	.1380	.0160	-.0001	324.9	.0003	.0003
#2	-.0024	.0224	-.0012	.1354	.0158	-.0004	322.8	.0003	.0003
#3	-.0019	.0229	.0025	.1374	.0160	-.0005	325.1	.0003	.0005

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0066**	**-.0013**	**.0194**	**26.85**	**.2844**	F **182.7**	**.0230**	**-.0042**	F **995.6**
Stddev	.0003	.0009	.0007	.15	.0021	2.3	.0003	.0003	20.6
%RSD	5.286	69.00	3.735	.5601	.7304	1.257	1.399	7.786	2.073
#1	.0065	-.0012	.0187	27.02	.2867	180.9	.0233	-.0043	975.9
#2	.0063	-.0022	.0202	26.81	.2840	182.0	.0231	-.0044	993.9
#3	.0070	-.0004	.0194	26.72	.2826	185.3	.0227	-.0038	1017.

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0052**	**.0584**	**.0251**	**.0091**	**-.0031**	**-.0050**	**-.0019**	**8.512**	**-.0091**
Stddev	.0015	.0129	.0016	.0011	.0099	.0062	.0024	.087	.0003
%RSD	29.34	22.04	6.198	12.52	323.4	124.4	123.1	1.017	3.807
#1	.0065	.0470	.0266	.0080	-.0137	-.0121	-.0002	8.547	-.0092
#2	.0055	.0558	.0235	.0103	-.0012	-.0003	-.0046	8.413	-.0093
#3	.0035	.0723	.0250	.0091	.0057	-.0027	-.0010	8.575	-.0087

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0050**	**-.0001**	**.0094**
Stddev	.0010	.0003	.0003
%RSD	19.97	228.4	2.966
#1	.0060	-.0002	.0095
#2	.0041	.0002	.0091
#3	.0047	-.0004	.0096

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06RE1	File ID:	06082023-028
Sampled:	06/01/23 11:00	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:04
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	9.56	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-06RE1 Acquired: 6/8/2023 16:04:57 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0017**	**.0306**	**.0015**	**.1359**	**.0158**	**.0001**	F **310.8**	**.0003**	**.0004**
Stddev	.0012	.0031	.0040	.0012	.0001	.0001	1.3	.0002	.0008
%RSD	73.08	10.26	265.4	.8842	.7345	101.0	.4124	75.97	204.3
#1	-.0013	.0307	-.0026	.1350	.0156	.0001	312.3	.0005	.0011
#2	-.0007	.0337	.0016	.1373	.0157	-.0000	309.8	.0002	.0006
#3	-.0030	.0274	.0055	.1355	.0159	.0001	310.4	.0001	-.0005

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0061**	**.0006**	**.0163**	**24.31**	**.2821**	F **179.1**	**.0210**	**.0019**	F **893.9**
Stddev	.0013	.0015	.0017	.29	.0019	2.2	.0006	.0005	4.6
%RSD	21.98	271.6	10.53	1.193	.6767	1.221	2.642	25.07	.5095
#1	.0055	-.0009	.0150	24.23	.2799	176.6	.0210	.0024	897.5
#2	.0052	.0005	.0157	24.07	.2831	180.9	.0216	.0016	895.4
#3	.0076	.0021	.0182	24.63	.2833	179.7	.0204	.0016	888.7

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**.1003**	**.0347**	**.0107**	**.0044**	**-.0003**	**.0003**	**8.608**	**-.0073**
Stddev	.0021	.0175	.0143	.0055	.0038	.0054	.0008	.119	.0009
%RSD	37.52	17.49	41.11	51.03	86.24	2092.	255.7	1.380	11.96
#1	.0067	.1003	.0481	.0166	.0085	.0055	-.0006	8.692	-.0064
#2	.0031	.1178	.0198	.0097	.0008	-.0052	.0011	8.472	-.0075
#3	.0067	.0827	.0361	.0058	.0040	-.0010	.0005	8.660	-.0081

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0010**	**.0011**	**.0121**
Stddev	.0088	.0009	.0005
%RSD	858.9	76.09	4.035
#1	.0089	.0022	.0116
#2	.0027	.0006	.0120
#3	-.0085	.0006	.0126

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07	File ID:	06072023A-041
Sampled:	06/01/23 12:30	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 19:12
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*2.27*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-07 Acquired: 6/7/2023 19:12:10 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0163**	**-.0027**	**.0167**	**.0109**	**-.0002**	F **127.5**	**.0000**	**.0084**
Stddev	.0019	.0016	.0039	.0020	.0002	.0001	1.2	.0001	.0008
%RSD	1633.	9.988	146.2	11.78	1.691	57.14	.9601	389.3	9.252
#1	-.0017	.0151	.0010	.0188	.0111	-.0001	128.9	-.0000	.0092
#2	.0019	.0182	-.0023	.0150	.0108	-.0003	126.8	.0001	.0077
#3	-.0006	.0157	-.0068	.0161	.0108	-.0004	126.8	-.0000	.0084

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0975**	**.0032**	**2.138**	**1.791**	**.0800**	F **87.73**	**.1107**	**.0035**	F **828.0**
Stddev	.0018	.0013	.030	.013	.0016	1.15	.0016	.0003	19.4
%RSD	1.857	39.93	1.413	.7346	2.009	1.308	1.459	7.421	2.342
#1	.0981	.0022	2.172	1.793	.0817	87.83	.1125	.0034	812.2
#2	.0955	.0046	2.117	1.777	.0785	86.53	.1096	.0038	822.1
#3	.0990	.0028	2.123	1.803	.0799	88.82	.1100	.0033	849.6

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**-.0015**	**.0181**	**.0075**	**-.0099**	**-.0084**	**-.0018**	**2.047**	**-.0094**
Stddev	.005	.0031	.0092	.0087	.0041	.0048	.0013	.058	.0003
%RSD	.2335	211.7	50.60	114.9	41.93	56.88	73.38	2.853	3.167
#1	2.001	.0020	.0213	.0170	-.0141	-.0049	-.0028	2.112	-.0097
#2	2.007	-.0026	.0078	.0056	-.0059	-.0065	-.0003	2.000	-.0091
#3	2.010	-.0038	.0253	.0000	-.0096	-.0139	-.0022	2.028	-.0094

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0037**	**-.0004**	**-.0018**
Stddev	.0077	.0004	.0002
%RSD	207.7	106.5	12.23
#1	-.0021	.0001	-.0020
#2	-.0120	-.0006	-.0017
#3	.0031	-.0005	-.0016

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07RE1	File ID:	06082023-029
Sampled:	06/01/23 12:30	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:09
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	2.42	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-07RE1 Acquired: 6/8/2023 16:09:36 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0261**	**.0012**	**.0305**	**.0111**	**.0001**	F **126.1**	**.0003**	**.0070**
Stddev	.0013	.0075	.0022	.0012	.0002	.0001	.2	.0001	.0007
%RSD	2179.	28.78	186.9	3.836	1.502	114.3	.1975	56.62	10.65
#1	-.0004	.0282	.0018	.0308	.0112	.0003	126.4	.0001	.0062
#2	.0014	.0177	.0029	.0293	.0112	.0001	126.1	.0003	.0071
#3	-.0012	.0322	-.0013	.0316	.0109	-.0000	125.9	.0004	.0077

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1162**	**.0027**	**2.318**	**1.695**	**.0819**	F **91.63**	**.1020**	**.0079**	F **785.7**
Stddev	.0018	.0029	.016	.021	.0015	.22	.0005	.0005	7.2
%RSD	1.513	107.4	.6967	1.216	1.799	.2346	.4600	6.167	.9167
#1	.1168	-.0004	2.337	1.718	.0833	91.49	.1020	.0076	788.5
#2	.1176	.0032	2.312	1.680	.0820	91.52	.1024	.0077	777.5
#3	.1142	.0052	2.306	1.686	.0803	91.88	.1015	.0085	791.1

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.024**	**.0186**	**.0218**	**.0079**	**.0029**	**.0065**	**.0002**	**2.177**	**-.0085**
Stddev	.006	.0022	.0162	.0082	.0012	.0027	.0033	.014	.0005
%RSD	.2875	11.65	74.34	104.2	41.88	41.05	1876.	.6288	6.446
#1	2.022	.0175	.0076	-.0016	.0033	.0079	.0034	2.168	-.0081
#2	2.019	.0173	.0394	.0134	.0038	.0034	-.0031	2.193	-.0091
#3	2.030	.0211	.0184	.0118	.0015	.0082	.0002	2.171	-.0082

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0042**	**-.0019**	**.0041**
Stddev	.0053	.0019	.0002
%RSD	125.6	103.5	5.819
#1	-.0078	-.0022	.0039
#2	-.0066	.0002	.0041
#3	.0019	-.0037	.0044

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08	File ID:	06072023A-042
Sampled:	06/01/23 15:25	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 19:16
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*0.0753*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-08 Acquired: 6/7/2023 19:16:40 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0491**	**-.0012**	**-.0008**	**.0132**	**.0003**	**4.040**	**-.0001**	**.0194**
Stddev	.0011	.0044	.0029	.0005	.0002	.0001	.025	.0003	.0007
%RSD	648.6	9.014	236.0	55.92	1.579	23.89	.6272	538.1	3.509
#1	.0003	.0483	.0018	-.0007	.0131	.0003	4.050	-.0002	.0189
#2	.0006	.0539	-.0014	-.0005	.0134	.0004	4.059	.0003	.0202
#3	-.0014	.0452	-.0040	-.0014	.0130	.0004	4.011	-.0003	.0192

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063**	**.0007**	**.5217**	**.4847**	**.0591**	**3.009**	**.3605**	**-.0043**	F **99.91**
Stddev	.0001	.0011	.0044	.0270	.0015	.036	.0034	.0010	1.08
%RSD	2.168	151.9	.8475	5.566	2.500	1.208	.9514	22.27	1.078
#1	.0061	-.0005	.5227	.5088	.0597	3.033	.3600	-.0034	100.3
#2	.0064	.0010	.5255	.4896	.0603	3.027	.3641	-.0042	100.7
#3	.0063	.0017	.5168	.4556	.0575	2.967	.3573	-.0053	98.69

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0280**	**.0908**	**.0018**	**.0109**	**-.0079**	**-.0118**	**-.0013**	**.0678**	**-.0009**
Stddev	.0070	.0035	.0108	.0026	.0067	.0050	.0002	.0008	.0004
%RSD	25.07	3.827	589.7	23.62	85.05	42.58	12.91	1.186	47.56
#1	.0235	.0883	.0109	.0139	-.0001	-.0172	-.0011	.0684	-.0004
#2	.0361	.0947	-.0101	.0095	-.0114	-.0072	-.0014	.0681	-.0012
#3	.0244	.0893	.0046	.0093	-.0120	-.0110	-.0013	.0669	-.0011

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0058**	**-.0000**	**.0252**
Stddev	.0048	.0005	.0007
%RSD	82.65	2393.	2.737
#1	-.0105	-.0001	.0251
#2	-.0009	.0005	.0259
#3	-.0061	-.0004	.0245

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08RE1	File ID:	06082023-030
Sampled:	06/01/23 15:25	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:14
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	0.0809	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-08RE1 Acquired: 6/8/2023 16:14:05 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**.0331**	**-.0033**	**.0093**	**.0139**	**.0006**	**4.063**	**.0000**	**.0201**
Stddev	.0030	.0011	.0026	.0006	.0001	.0002	.013	.0000	.0005
%RSD	148.3	3.467	78.87	6.711	.8527	29.98	.3208	48.13	2.599
#1	-.0005	.0318	-.0062	.0086	.0138	.0008	4.074	.0001	.0207
#2	.0053	.0340	-.0014	.0095	.0140	.0004	4.067	.0000	.0199
#3	.0013	.0336	-.0022	.0098	.0138	.0005	4.049	.0000	.0197

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**.0030**	**.5260**	**.4362**	**.0599**	**3.133**	**.3343**	**.0009**	F **93.90**
Stddev	.0006	.0021	.0011	.0710	.0004	.013	.0017	.0009	.59
%RSD	9.143	72.04	.2036	16.28	.6934	.4155	.4986	96.56	.6308
#1	.0061	.0005	.5256	.4527	.0602	3.133	.3345	.0012	94.26
#2	.0068	.0038	.5271	.3584	.0594	3.145	.3358	-.0001	94.22
#3	.0056	.0046	.5251	.4975	.0601	3.119	.3325	.0015	93.22

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0263**	**.1269**	**-.0055**	**.0132**	**-.0018**	**.0108**	**-.0010**	**.0728**	**-.0002**
Stddev	.0007	.0033	.0137	.0028	.0056	.0063	.0037	.0004	.0003
%RSD	2.682	2.563	247.1	20.88	310.1	58.37	368.9	.5970	135.1
#1	.0255	.1303	-.0203	.0162	.0045	.0038	-.0024	.0729	.0001
#2	.0267	.1267	.0067	.0125	-.0061	.0125	-.0037	.0732	-.0005
#3	.0267	.1238	-.0030	.0108	-.0038	.0160	.0032	.0723	-.0003

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0040**	**.0004**	**.0241**
Stddev	.0022	.0017	.0005
%RSD	54.36	387.7	2.052
#1	-.0066	-.0012	.0242
#2	-.0028	.0004	.0236
#3	-.0027	.0022	.0245

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09	File ID:	06072023A-043
Sampled:	06/01/23 14:56	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 19:20
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*1.69*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-09 Acquired: 6/7/2023 19:20:45 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0199**	**.0013**	**.0917**	**.0500**	**-.0001**	F **93.07**	**-.0001**	**.0026**
Stddev	.0020	.0054	.0059	.0009	.0003	.0000	.69	.0002	.0003
%RSD	188.8	27.05	448.8	.9486	.6602	45.48	.7385	257.5	13.11
#1	.0010	.0138	-.0036	.0907	.0503	-.0001	93.77	.0001	.0026
#2	-.0012	.0240	-.0003	.0922	.0497	-.0001	92.40	-.0001	.0022
#3	-.0029	.0220	.0079	.0923	.0499	-.0001	93.03	-.0002	.0029

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0153**	**-.0003**	**.9666**	**2.822**	**.0626**	F **56.09**	**.4897**	**-.0036**	F **608.5**
Stddev	.0004	.0008	.0039	.047	.0011	.57	.0018	.0016	6.2
%RSD	2.442	239.3	.4021	1.671	1.703	1.024	.3707	45.27	1.019
#1	.0149	-.0003	.9709	2.858	.0631	56.32	.4918	-.0028	611.5
#2	.0157	-.0011	.9656	2.839	.0634	55.43	.4883	-.0055	601.4
#3	.0154	.0005	.9633	2.769	.0614	56.51	.4890	-.0025	612.6

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0150**	**.0698**	**.0064**	**.0065**	**-.0137**	**-.0017**	**.0004**	**1.523**	**-.0037**
Stddev	.0005	.0033	.0068	.0063	.0027	.0052	.0012	.013	.0005
%RSD	3.570	4.663	105.9	96.97	19.46	299.2	326.4	.8299	13.13
#1	.0145	.0701	.0138	.0006	-.0137	-.0047	.0016	1.531	-.0043
#2	.0155	.0729	.0049	.0131	-.0163	.0043	-.0006	1.508	-.0033
#3	.0150	.0664	.0005	.0057	-.0110	-.0047	.0000	1.530	-.0036

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0087**	**.0000**	**-.0011**
Stddev	.0072	.0015	.0003
%RSD	82.46	31660.	26.37
#1	-.0013	.0008	-.0008
#2	-.0091	-.0017	-.0014
#3	-.0157	.0008	-.0012

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09RE1	File ID:	06082023-031
Sampled:	06/01/23 14:56	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:18
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	1.81	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-09RE1 Acquired: 6/8/2023 16:18:10 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0171**	**.0025**	**.0988**	**.0524**	**.0001**	F **94.13**	**.0001**	**.0019**
Stddev	.0009	.0064	.0024	.0009	.0005	.0001	.35	.0002	.0001
%RSD	132.9	37.32	96.80	.9190	.9384	72.25	.3688	195.6	3.945
#1	.0015	.0242	.0021	.0979	.0525	.0002	94.23	.0002	.0019
#2	-.0002	.0118	.0050	.0987	.0519	.0002	93.74	-.0001	.0019
#3	.0005	.0153	.0003	.0998	.0528	.0000	94.41	.0002	.0020

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0160**	**.0007**	**.9755**	**2.643**	**.0642**	F **58.43**	**.4626**	**.0014**	F **574.6**
Stddev	.0012	.0001	.0078	.038	.0010	.69	.0025	.0011	10.5
%RSD	7.801	14.56	.7963	1.426	1.548	1.173	.5394	79.04	1.830
#1	.0162	.0008	.9795	2.626	.0651	59.09	.4641	.0003	566.2
#2	.0171	.0007	.9666	2.616	.0642	58.48	.4597	.0025	571.3
#3	.0146	.0006	.9806	2.686	.0631	57.72	.4639	.0014	586.4

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0148**	**.1081**	**.0154**	**.0097**	**-.0020**	**.0035**	**.0024**	**1.629**	**-.0027**
Stddev	.0010	.0118	.0057	.0045	.0039	.0060	.0014	.006	.0005
%RSD	6.776	10.91	36.71	46.67	197.8	174.3	58.44	.3502	20.55
#1	.0158	.1147	.0204	.0134	.0021	-.0022	.0008	1.634	-.0021
#2	.0147	.1152	.0093	.0046	-.0025	.0098	.0030	1.623	-.0027
#3	.0138	.0945	.0166	.0111	-.0056	.0027	.0034	1.631	-.0032

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0039**	**.0004**	**.0009**
Stddev	.0044	.0010	.0005
%RSD	112.8	265.3	49.67
#1	-.0019	-.0007	.0014
#2	-.0088	.0005	.0007
#3	-.0008	.0013	.0006

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10	File ID:	06072023A-044
Sampled:	05/31/23 10:11	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 19:25
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*1.01*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-10 Acquired: 6/7/2023 19:25:04 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0125**	**-.0018**	**.0297**	**.0476**	**-.0003**	**40.66**	**-.0002**	**.0008**
Stddev	.0014	.0087	.0039	.0005	.0008	.0001	.35	.0002	.0006
%RSD	153.0	69.69	215.8	1.565	1.767	46.55	.8612	92.11	69.66
#1	.0007	.0221	.0013	.0302	.0481	-.0002	40.88	-.0004	.0014
#2	-.0015	.0107	-.0005	.0297	.0481	-.0004	40.84	-.0002	.0008
#3	-.0020	.0049	-.0062	.0293	.0466	-.0003	40.26	-.0000	.0002

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0068**	**.0000**	**.0765**	**13.86**	**.0831**	**27.36**	**.1218**	**-.0047**	F **148.7**
Stddev	.0004	.0022	.0057	.17	.0021	.51	.0020	.0011	2.5
%RSD	6.601	25540.	7.404	1.259	2.547	1.870	1.616	23.98	1.687
#1	.0073	.0012	.0744	13.94	.0831	27.56	.1213	-.0035	150.1
#2	.0065	-.0026	.0829	13.98	.0852	27.74	.1240	-.0058	150.2
#3	.0065	.0014	.0721	13.66	.0809	26.78	.1202	-.0049	145.8

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0221**	**.0293**	**-.0017**	**.0057**	**-.0154**	**-.0032**	**-.0022**	**.9109**	**-.0024**
Stddev	.0014	.0112	.0049	.0084	.0092	.0120	.0007	.0200	.0004
%RSD	6.322	38.32	285.0	147.5	59.80	369.7	30.63	2.200	16.07
#1	.0237	.0225	-.0006	-.0040	-.0048	.0065	-.0023	.9234	-.0020
#2	.0216	.0423	.0025	.0103	-.0199	-.0167	-.0027	.9216	-.0028
#3	.0210	.0232	-.0070	.0109	-.0215	.0004	-.0014	.8878	-.0024

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0068**	**-.0003**	**-.0018**
Stddev	.0055	.0015	.0001
%RSD	81.65	536.5	3.868
#1	-.0118	-.0013	-.0018
#2	-.0008	.0015	-.0018
#3	-.0077	-.0011	-.0017

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10RE1	File ID:	06082023-032
Sampled:	05/31/23 10:11	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:22
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	1.08	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-10RE1 Acquired: 6/8/2023 16:22:31 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0087**	**.0001**	**.0399**	**.0493**	**.0000**	**40.61**	**.0003**	**.0004**
Stddev	.0016	.0043	.0021	.0009	.0005	.0001	.18	.0001	.0004
%RSD	799.9	48.71	3019.	2.169	.9380	1348.	.4518	31.54	103.9
#1	-.0015	.0079	-.0001	.0389	.0489	.0001	40.42	.0003	.0009
#2	.0017	.0134	-.0019	.0407	.0498	.0000	40.62	.0002	.0001
#3	.0004	.0050	.0023	.0400	.0492	-.0001	40.78	.0003	.0002

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0070**	**.0007**	**.0774**	**12.87**	**.0843**	**28.42**	**.1132**	**.0017**	F **140.3**
Stddev	.0006	.0015	.0006	.16	.0015	.15	.0005	.0007	1.7
%RSD	9.190	216.7	.7853	1.238	1.789	.5334	.4383	42.04	1.194
#1	.0064	.0019	.0768	12.72	.0827	28.34	.1126	.0011	138.9
#2	.0077	.0011	.0775	12.84	.0857	28.33	.1135	.0015	142.2
#3	.0068	-.0010	.0780	13.04	.0844	28.59	.1135	.0024	140.0

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0251**	**.0409**	**.0017**	**.0081**	**.0016**	**.0029**	**.0012**	**.9707**	**-.0008**
Stddev	.0012	.0104	.0036	.0053	.0047	.0111	.0021	.0067	.0006
%RSD	4.738	25.47	215.7	65.75	298.5	375.9	171.1	.6887	72.13
#1	.0254	.0397	-.0021	.0020	.0052	-.0058	.0036	.9658	-.0014
#2	.0238	.0518	.0052	.0113	-.0038	.0154	.0009	.9679	-.0002
#3	.0261	.0311	.0020	.0111	.0033	-.0008	-.0007	.9783	-.0008

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0010**	**-.0002**	**.0003**
Stddev	.0028	.0016	.0002
%RSD	281.8	796.9	69.79
#1	-.0027	-.0017	.0005
#2	.0022	-.0003	.0003
#3	-.0025	.0014	.0001

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11	File ID:	06072023A-045
Sampled:	05/31/23 11:10	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 19:29
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*1.12*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-11 Acquired: 6/7/2023 19:29:17 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0014**	**.0059**	**-.0028**	**.0633**	**.0850**	**-.0002**	F **49.03**	**-.0002**	**.0007**
Stddev	.0012	.0018	.0063	.0022	.0007	.0001	.40	.0001	.0006
%RSD	89.38	30.85	225.4	3.402	.7827	62.06	.8166	49.22	82.63
#1	-.0000	.0057	-.0098	.0650	.0851	-.0001	49.26	-.0002	.0010
#2	-.0017	.0078	-.0006	.0641	.0857	-.0003	49.26	-.0001	.0000
#3	-.0024	.0042	.0021	.0609	.0844	-.0001	48.56	-.0002	.0011

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0011**	**.0003**	**.0147**	**6.751**	**.0611**	**25.67**	**.0106**	**-.0055**	F **164.3**
Stddev	.0001	.0021	.0006	.057	.0006	.30	.0001	.0002	1.4
%RSD	13.33	753.3	3.814	.8439	.8999	1.162	.5613	3.855	.8808
#1	-.0009	.0026	.0148	6.756	.0609	25.80	.0106	-.0056	162.7
#2	-.0011	-.0013	.0152	6.805	.0617	25.87	.0107	-.0057	165.5
#3	-.0012	-.0005	.0141	6.691	.0607	25.32	.0105	-.0053	164.7

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0037**	**.0028**	**.0016**	**-.0172**	**-.0021**	**-.0016**	**1.011**	**-.0028**
Stddev	.0012	.0048	.0104	.0031	.0102	.0024	.0014	.012	.0008
%RSD	145.6	128.8	376.0	192.5	59.55	114.4	84.27	1.183	28.28
#1	-.0005	-.0072	-.0090	.0041	-.0073	-.0002	-.0003	1.012	-.0026
#2	.0017	-.0056	.0109	.0025	-.0278	-.0012	-.0030	1.022	-.0037
#3	.0012	.0017	.0064	-.0018	-.0165	-.0048	-.0016	.9982	-.0022

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0038**	**-.0006**	**.0007**
Stddev	.0070	.0003	.0002
%RSD	184.9	52.87	27.77
#1	.0042	-.0006	.0006
#2	-.0069	-.0009	.0009
#3	-.0088	-.0003	.0006

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11RE1	File ID:	06082023-033
Sampled:	05/31/23 11:10	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:26
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	1.21	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-11RE1 Acquired: 6/8/2023 16:26:46 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0140**	**.0009**	**.0684**	**.0888**	**.0000**	F **49.66**	**.0000**	**.0006**
Stddev	.0014	.0040	.0026	.0010	.0004	.0001	.06	.0001	.0004
%RSD	1164.	28.68	281.6	1.481	.4552	199.3	.1237	633.3	65.82
#1	-.0000	.0156	.0023	.0673	.0886	-.0000	49.65	-.0000	.0001
#2	-.0012	.0170	-.0021	.0685	.0884	.0000	49.61	-.0001	.0009
#3	.0015	.0095	.0025	.0694	.0892	.0001	49.73	.0002	.0007

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0013**	**.0272**	**6.274**	**.0620**	**27.06**	**.0113**	**.0002**	F **156.4**
Stddev	.0011	.0016	.0010	.054	.0008	.17	.0005	.0007	1.0
%RSD	2366.	124.1	3.843	.8574	1.222	.6260	4.092	342.9	.6358
#1	.0012	.0016	.0271	6.299	.0615	27.11	.0108	.0010	155.4
#2	-.0000	.0027	.0282	6.212	.0629	27.20	.0117	.0000	157.4
#3	-.0010	-.0004	.0261	6.310	.0616	26.87	.0115	-.0004	156.4

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**.0265**	**.0096**	**.0082**	**-.0033**	**.0005**	**.0011**	**1.092**	**-.0012**
Stddev	.0006	.0050	.0040	.0044	.0038	.0049	.0015	.001	.0004
%RSD	29.64	18.97	41.36	53.65	112.9	987.6	137.6	.0865	31.19
#1	.0023	.0287	.0089	.0123	-.0019	.0020	-.0002	1.091	-.0010
#2	.0014	.0301	.0138	.0087	-.0005	.0045	.0028	1.093	-.0009
#3	.0027	.0208	.0060	.0036	-.0076	-.0050	.0007	1.092	-.0016

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0051**	**-.0000**	**.0022**
Stddev	.0081	.0010	.0003
%RSD	157.5	3088.	12.94
#1	.0024	-.0009	.0020
#2	-.0137	-.0003	.0025
#3	-.0041	.0011	.0021

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12	File ID:	06072023A-046
Sampled:	05/31/23 15:07	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 19:33
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*3.77*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-12 Acquired: 6/7/2023 19:33:30 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.0174**	**-.0023**	**.0392**	**.0288**	**-.0003**	F **118.8**	**-.0002**	**.0012**
Stddev	.0012	.0044	.0046	.0013	.0001	.0001	.2	.0001	.0004
%RSD	157.9	25.55	196.1	3.230	.3692	22.61	.2009	65.25	35.94
#1	.0002	.0225	-.0041	.0385	.0288	-.0003	118.7	-.0001	.0017
#2	-.0021	.0142	.0029	.0407	.0290	-.0002	119.1	-.0001	.0009
#3	-.0004	.0155	-.0057	.0385	.0288	-.0004	118.7	-.0003	.0011

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0099**	**.0021**	**.2069**	**1.228**	**.1647**	F **85.57**	**.0078**	**-.0001**	F **519.5**
Stddev	.0008	.0018	.0006	.030	.0013	.54	.0001	.0005	11.3
%RSD	8.470	85.23	.3061	2.445	.7816	.6327	.9569	584.2	2.180
#1	.0094	.0011	.2063	1.243	.1633	85.29	.0079	-.0004	521.9
#2	.0108	.0041	.2076	1.194	.1658	86.19	.0079	.0005	529.5
#3	.0094	.0010	.2067	1.249	.1651	85.23	.0078	-.0004	507.2

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4913**	**.0271**	**.0107**	**.0043**	**-.0101**	**-.0017**	**-.0021**	**3.393**	**-.0054**
Stddev	.0014	.0021	.0092	.0063	.0096	.0151	.0013	.062	.0004
%RSD	.2855	7.677	85.76	145.5	95.60	899.4	60.62	1.823	7.170
#1	.4897	.0264	.0174	-.0020	-.0211	-.0176	-.0007	3.459	-.0050
#2	.4917	.0294	.0002	.0044	-.0041	-.0001	-.0026	3.337	-.0055
#3	.4925	.0254	.0144	.0106	-.0049	.0126	-.0032	3.382	-.0058

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0004**	**.0011**	**-.0025**
Stddev	.0016	.0003	.0001
%RSD	420.9	27.90	4.363
#1	-.0014	.0010	-.0026
#2	-.0013	.0015	-.0026
#3	.0015	.0009	-.0024

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12RE1	File ID:	06082023-036
Sampled:	05/31/23 15:07	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:39
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	4.26	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-12RE1 Acquired: 6/8/2023 16:39:20 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0262**	**.0026**	**.0509**	**.0311**	**.0002**	F **122.7**	**.0002**	**.0010**
Stddev	.0005	.0024	.0039	.0018	.0003	.0002	.6	.0002	.0006
%RSD	1799.	8.990	151.1	3.507	1.030	132.5	.4587	101.3	60.66
#1	-.0003	.0235	.0022	.0524	.0309	.0002	122.2	.0002	.0013
#2	-.0002	.0270	.0066	.0514	.0315	-.0001	123.3	.0000	.0015
#3	.0006	.0280	-.0011	.0489	.0309	.0004	122.6	.0005	.0003

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0122**	**.0025**	**.2157**	**1.223**	**.1753**	F **92.17**	**.0084**	**.0063**	F **510.6**
Stddev	.0012	.0006	.0018	.037	.0007	.14	.0001	.0012	6.8
%RSD	9.410	22.29	.8459	3.030	.3991	.1531	1.626	18.95	1.325
#1	.0135	.0025	.2138	1.193	.1755	92.28	.0083	.0076	516.9
#2	.0119	.0019	.2174	1.212	.1759	92.23	.0086	.0052	511.4
#3	.0113	.0031	.2158	1.265	.1745	92.01	.0084	.0062	503.4

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5025**	**.0397**	**.0044**	**.0134**	**.0020**	**.0091**	**-.0007**	**3.830**	**-.0047**
Stddev	.0061	.0137	.0102	.0021	.0050	.0026	.0011	.061	.0007
%RSD	1.218	34.52	231.3	15.35	255.4	28.29	159.3	1.606	15.34
#1	.5033	.0393	-.0043	.0155	-.0034	.0064	-.0016	3.809	-.0045
#2	.5081	.0262	.0156	.0134	.0027	.0115	.0005	3.899	-.0055
#3	.4960	.0535	.0018	.0114	.0066	.0093	-.0009	3.782	-.0041

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0043**	**-.0002**	**.0005**
Stddev	.0036	.0031	.0002
%RSD	84.03	1654.	45.12
#1	.0042	.0005	.0007
#2	.0079	-.0036	.0003
#3	.0007	.0025	.0003

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13	File ID:	06072023A-047
Sampled:	05/31/23 10:35	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 19:38
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*1.05*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-13 Acquired: 6/7/2023 19:38:00 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**.0125**	**.0009**	**.0910**	**.1637**	**-.0001**	F **62.66**	**-.0002**	**.0115**
Stddev	.0013	.0055	.0023	.0003	.0005	.0001	.34	.0002	.0005
%RSD	78.71	43.77	244.4	.3795	.2879	152.7	.5376	154.1	4.695
#1	-.0024	.0125	.0033	.0906	.1642	-.0002	62.89	.0000	.0112
#2	-.0023	.0070	.0009	.0913	.1633	.0000	62.82	-.0004	.0112
#3	-.0001	.0180	-.0013	.0911	.1635	-.0000	62.27	-.0001	.0122

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0009**	**.0576**	**4.571**	**.0903**	**36.93**	**.9754**	**-.0012**	F **503.9**
Stddev	.0005	.0004	.0008	.056	.0010	.12	.0098	.0009	3.7
%RSD	209.8	42.06	1.390	1.230	1.124	.3380	1.000	76.40	.7289
#1	.0009	-.0013	.0583	4.631	.0913	37.05	.9851	-.0010	500.0
#2	-.0002	-.0005	.0578	4.520	.0893	36.93	.9755	-.0004	507.2
#3	.0001	-.0009	.0568	4.561	.0902	36.80	.9656	-.0022	504.6

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060**	**.0090**	**.0099**	**.0028**	**-.0108**	**-.0149**	**-.0021**	**.9464**	**-.0029**
Stddev	.0007	.0052	.0053	.0060	.0067	.0033	.0033	.0072	.0004
%RSD	11.56	57.90	53.76	213.4	62.65	22.22	156.7	.7644	12.71
#1	.0059	.0034	.0161	.0050	-.0184	-.0179	-.0018	.9509	-.0031
#2	.0053	.0136	.0068	.0074	-.0084	-.0113	.0010	.9503	-.0031
#3	.0067	.0100	.0070	-.0040	-.0055	-.0156	-.0055	.9380	-.0025

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0066**	**.0012**	**.0010**
Stddev	.0017	.0007	.0001
%RSD	25.94	59.26	7.992
#1	-.0069	.0011	.0009
#2	-.0048	.0006	.0010
#3	-.0082	.0020	.0011

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13RE1	File ID:	06082023-037
Sampled:	05/31/23 10:35	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:43
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	1.13	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-13RE1 Acquired: 6/8/2023 16:43:53 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0231**	**.0029**	**.0934**	**.1692**	**.0002**	F **63.13**	**.0002**	**.0111**
Stddev	.0010	.0065	.0028	.0013	.0006	.0002	.10	.0001	.0002
%RSD	308.1	27.97	95.79	1.353	.3308	89.68	.1515	52.28	1.820
#1	-.0004	.0157	.0049	.0945	.1689	.0003	63.05	.0001	.0113
#2	-.0001	.0266	.0040	.0920	.1688	.0000	63.11	.0003	.0109
#3	.0015	.0271	-.0003	.0935	.1698	.0002	63.23	.0001	.0110

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**.0004**	**.0587**	**4.225**	**.0912**	**39.00**	**.9073**	**.0042**	F **467.2**
Stddev	.0007	.0003	.0024	.036	.0010	.13	.0043	.0005	1.3
%RSD	60.85	72.15	4.160	.8493	1.068	.3283	.4741	11.54	.2796
#1	.0018	.0005	.0565	4.188	.0902	38.86	.9045	.0048	465.8
#2	.0014	.0001	.0613	4.226	.0922	39.05	.9122	.0040	467.5
#3	.0004	.0005	.0583	4.260	.0912	39.10	.9051	.0039	468.4

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057**	**.0045**	**.0057**	**.0127**	**-.0008**	**.0063**	**.0001**	**1.021**	**-.0016**
Stddev	.0008	.0078	.0087	.0040	.0048	.0056	.0028	.006	.0002
%RSD	13.55	175.0	153.1	31.87	569.4	89.01	3163.	.5589	10.33
#1	.0048	.0035	-.0029	.0150	.0042	.0013	.0033	1.015	-.0015
#2	.0061	-.0028	.0054	.0150	-.0053	.0124	-.0009	1.021	-.0018
#3	.0061	.0127	.0144	.0080	-.0015	.0053	-.0020	1.026	-.0015

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0086**	**.0013**	**.0025**
Stddev	.0093	.0013	.0002
%RSD	107.3	104.7	6.129
#1	-.0103	.0025	.0024
#2	.0013	-.0001	.0027
#3	-.0170	.0014	.0025

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14	File ID:	06072023A-048
Sampled:	06/01/23 10:45	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 19:42
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*7.21*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-14 Acquired: 6/7/2023 19:42:13 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0013**	**.0170**	**-.0021**	**.1338**	**.0132**	**-.0003**	F **247.9**	**.0001**	**.0009**
Stddev	.0002	.0042	.0048	.0023	.0002	.0000	.4	.0003	.0010
%RSD	15.10	24.97	224.9	1.690	1.447	15.30	.1527	260.9	105.8
#1	-.0014	.0219	-.0069	.1315	.0129	-.0003	247.9	-.0002	.0013
#2	-.0014	.0140	-.0023	.1360	.0132	-.0003	247.6	.0004	.0017
#3	-.0011	.0151	.0027	.1338	.0133	-.0003	248.3	.0001	-.0002

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0179**	**.0005**	**.0112**	F **51.13**	**.2859**	F **147.8**	**.0173**	**-.0023**	F **878.5**
Stddev	.0013	.0008	.0009	.34	.0046	.4	.0001	.0014	10.7
%RSD	7.207	171.4	7.736	.6693	1.624	.2914	.6647	60.19	1.219
#1	.0168	-.0003	.0105	50.75	.2805	147.5	.0172	-.0014	890.7
#2	.0175	.0013	.0109	51.23	.2885	148.3	.0174	-.0016	873.5
#3	.0193	.0003	.0122	51.40	.2886	147.8	.0173	-.0039	871.1

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0064**	**.0483**	**.0297**	**.0047**	**-.0102**	**-.0069**	**-.0008**	**6.490**	**-.0077**
Stddev	.0030	.0073	.0097	.0022	.0050	.0089	.0013	.110	.0005
%RSD	47.12	15.03	32.56	46.36	49.22	128.7	170.6	1.694	6.878
#1	.0045	.0417	.0370	.0065	-.0100	-.0048	-.0020	6.521	-.0072
#2	.0099	.0560	.0335	.0053	-.0153	.0007	.0006	6.368	-.0083
#3	.0049	.0471	.0187	.0023	-.0053	-.0167	-.0009	6.581	-.0077

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0009**	**.0001**	**.0060**
Stddev	.0100	.0011	.0006
%RSD	1097.	1240.	9.805
#1	.0113	.0010	.0056
#2	.0001	-.0011	.0067
#3	-.0087	.0004	.0059

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14RE1	File ID:	06082023-038
Sampled:	06/01/23 10:45	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:48
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	7.96	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-14RE1 Acquired: 6/8/2023 16:48:07 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0288**	**.0018**	**.1390**	**.0143**	**.0001**	F **257.8**	**.0004**	**.0004**
Stddev	.0010	.0046	.0039	.0027	.0002	.0001	1.5	.0001	.0008
%RSD	166.4	16.10	221.7	1.952	1.279	65.20	.5917	20.58	184.4
#1	-.0017	.0332	.0062	.1413	.0146	.0001	256.3	.0005	.0012
#2	-.0000	.0292	.0004	.1360	.0142	.0002	259.4	.0003	-.0004
#3	-.0000	.0240	-.0012	.1398	.0143	.0000	257.6	.0004	.0005

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0173**	**-.0002**	**.0152**	F **48.50**	**.2979**	F **157.5**	**.0171**	**.0036**	F **851.0**
Stddev	.0012	.0012	.0008	.26	.0019	3.4	.0001	.0010	11.5
%RSD	6.949	739.2	4.963	.5426	.6448	2.133	.8559	29.01	1.349
#1	.0160	.0012	.0158	48.61	.3001	153.7	.0172	.0026	837.9
#2	.0175	-.0008	.0154	48.20	.2964	159.0	.0171	.0036	856.0
#3	.0183	-.0009	.0143	48.70	.2971	159.9	.0169	.0046	859.1

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0061**	**.0883**	**.0174**	**.0111**	**.0045**	**.0064**	**.0004**	**7.168**	**-.0064**
Stddev	.0006	.0060	.0206	.0020	.0083	.0074	.0028	.065	.0004
%RSD	10.59	6.795	118.1	17.96	185.3	115.6	735.2	.9003	5.919
#1	.0053	.0952	.0256	.0110	.0084	.0149	.0018	7.122	-.0060
#2	.0065	.0842	.0327	.0132	.0101	.0012	.0022	7.140	-.0066
#3	.0064	.0856	-.0060	.0092	-.0051	.0031	-.0028	7.242	-.0067

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0001**	**.0004**	**.0078**
Stddev	.0023	.0007	.0005
%RSD	2033.	172.2	6.022
#1	-.0008	-.0000	.0075
#2	-.0016	.0013	.0077
#3	.0027	.0000	.0084

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15	File ID:	06072023A-049
Sampled:	06/01/23 12:26	Prepared:	06/06/23 14:28	Analyzed:	06/07/23 19:46
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	*Strontium, Dissolved*	*5.13*	*0.00889*	*0.0356*	*0.0444*	*Q*

Italicized = secondary result

Sample Name: 23F0136-15 Acquired: 6/7/2023 19:46:52 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0454**	**-.0004**	**.0680**	**.1356**	**-.0002**	**13.03**	**-.0003**	**.0010**
Stddev	.0005	.0039	.0015	.0006	.0003	.0001	.01	.0002	.0011
%RSD	52.70	8.526	347.3	.8906	.1915	30.84	.1142	57.49	109.2
#1	-.0004	.0420	-.0021	.0673	.1353	-.0002	13.04	-.0002	.0019
#2	-.0011	.0447	-.0003	.0682	.1358	-.0002	13.05	-.0002	-.0002
#3	-.0013	.0496	.0010	.0684	.1357	-.0003	13.02	-.0005	.0014

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0126**	**.0009**	**-.0000**	**25.06**	**.0712**	**.0356**	**-.0002**	**-.0023**	F **346.2**
Stddev	.0010	.0005	.0011	.16	.0007	.0010	.0001	.0006	3.9
%RSD	7.849	49.81	26530.	.6319	1.011	2.813	61.33	26.56	1.121
#1	.0127	.0014	-.0007	25.24	.0713	.0366	-.0004	-.0029	346.2
#2	.0136	.0006	-.0006	24.99	.0719	.0354	-.0002	-.0022	342.2
#3	.0116	.0007	.0013	24.95	.0705	.0347	-.0001	-.0017	350.0

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**.0057**	**-.0123**	**.0060**	**-.0083**	**-.0061**	**-.0021**	**4.613**	**-.0018**
Stddev	.0006	.0047	.0046	.0095	.0072	.0067	.0001	.043	.0003
%RSD	42.85	82.22	37.16	158.6	87.19	109.5	2.383	.9244	15.97
#1	.0019	.0061	-.0070	-.0007	-.0002	-.0103	-.0022	4.654	-.0020
#2	.0008	.0008	-.0143	.0018	-.0106	-.0096	-.0021	4.616	-.0015
#3	.0014	.0102	-.0154	.0168	-.0140	.0016	-.0021	4.569	-.0019

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0003**	**.0618**	**-.0026**
Stddev	.0032	.0005	.0001
%RSD	1050.	.8709	3.141
#1	.0039	.0620	-.0025
#2	-.0010	.0612	-.0025
#3	-.0020	.0622	-.0027

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15RE1	File ID:	06082023-039
Sampled:	06/01/23 12:26	Prepared:	06/06/23 14:28	Analyzed:	06/08/23 16:52
		Preparation:	3005_METALS_PREP	Dilution:	1
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0174	Sequence:	S3F0151	Calibration:	EF30037	Instrument:	ICP-AES 7400

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	5.55	0.00889	0.0356	0.0444	

Italicized = secondary result

Sample Name: 23F0136-15RE1 Acquired: 6/8/2023 16:52:45 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: Sr

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**.0412**	**.0013**	**.0766**	**.1415**	**.0001**	**13.34**	**-.0000**	**-.0000**
Stddev	.0007	.0042	.0083	.0017	.0005	.0001	.06	.0001	.0005
%RSD	46.52	10.15	650.6	2.198	.3194	90.77	.4311	280.1	974.6
#1	.0011	.0392	.0071	.0778	.1415	.0000	13.35	-.0001	.0001
#2	.0010	.0461	-.0083	.0773	.1411	.0001	13.28	-.0001	.0003
#3	.0022	.0385	.0050	.0747	.1420	.0002	13.39	.0001	-.0006

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0121**	**.0023**	**.0025**	**23.57**	**.0714**	**.0439**	**.0000**	**.0027**	F **329.5**
Stddev	.0007	.0004	.0008	.32	.0005	.0009	.0003	.0005	1.0
%RSD	6.022	15.63	31.66	1.372	.7507	2.133	783.2	18.66	.3087
#1	.0113	.0025	.0021	23.58	.0708	.0449	.0004	.0022	329.7
#2	.0127	.0019	.0034	23.24	.0718	.0439	-.0003	.0032	328.3
#3	.0122	.0024	.0020	23.89	.0717	.0430	.0000	.0026	330.3

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0003**	**-.0042**	**.0066**	**.0017**	**.0071**	**-.0011**	**4.995**	**-.0006**
Stddev	.0010	.0153	.0070	.0087	.0029	.0028	.0023	.020	.0008
%RSD	179.1	4658.	167.6	132.1	167.6	39.50	217.1	.3936	128.8
#1	.0016	-.0013	.0034	.0021	.0020	.0070	.0016	4.996	-.0015
#2	-.0002	-.0152	-.0055	.0010	.0044	.0044	-.0027	5.013	-.0003
#3	.0002	.0155	-.0104	.0166	-.0013	.0100	-.0021	4.974	.0000

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0037**	**.0580**	**-.0006**
Stddev	.0077	.0010	.0001
%RSD	206.9	1.780	11.27
#1	.0012	.0568	-.0006
#2	-.0024	.0584	-.0007
#3	.0123	.0587	-.0007

1 - FORM I
ANALYSIS DATA SHEET

SW6010 D

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0174-BLK1	File ID:	06072023A-031
		Prepared:	06/06/23 14:28	Analyzed:	06/07/23 18:29
		Preparation:	3005_METALS_PREP	Dilution:	1
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved		0.00889	0.0356	0.0444	U

Sample Name: B3F0174-BLK1 Acquired: 6/7/2023 18:29:57 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**.0020**	**-.0006**	F **-.0138**	**-.0003**	**-.0003**	**-.0151**	**-.0002**
Stddev	.0006	.0040	.0047	.0009	.0001	.0001	.0023	.0003
%RSD	37.52	202.6	796.8	6.265	44.05	39.39	15.54	140.3
#1	-.0021	.0018	.0014	-.0146	-.0004	-.0002	-.0127	-.0005
#2	-.0018	.0060	.0028	-.0129	-.0003	-.0003	-.0174	.0000
#3	-.0009	-.0019	-.0060	-.0140	-.0001	-.0005	-.0153	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0125				
Low Limit				-.0125				

Elem	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0011**	**.0012**	**.0019**	**.0044**	**.0002**	**.0015**	**-.0003**
Stddev	.0001	.0006	.0005	.0005	.0102	.0006	.0007	.0002
%RSD	15.10	58.93	45.26	24.67	234.0	249.9	49.36	71.22
#1	.0007	-.0008	.0009	.0019	.0102	-.0005	.0007	-.0006
#2	.0008	-.0007	.0008	.0014	.0103	.0007	.0015	-.0001
#3	.0010	-.0018	.0018	.0024	-.0074	.0005	.0021	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0046**	**-.0180**	**-.0011**	**-.0088**	F **-.0075**	**.0008**	**-.0108**	**-.0029**
Stddev	.0006	.0027	.0010	.0106	.0064	.0021	.0107	.0030
%RSD	11.96	15.20	85.17	119.8	84.56	259.5	99.18	105.8
#1	-.0051	-.0172	-.0000	-.0166	-.0057	.0033	-.0150	.0005
#2	-.0040	-.0211	-.0019	.0032	-.0146	-.0001	-.0187	-.0037
#3	-.0048	-.0158	-.0015	-.0131	-.0023	-.0007	.0014	-.0054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					.0025			
Low Limit					-.0025			

Sample Name: B3F0174-BLK1 Acquired: 6/7/2023 18:29:57 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment:

Elem	Sn1899	Sr4077	Ti3361	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0026**	**-.0001**	**-.0014**	**-.0053**	**.0004**	**-.0029**
Stddev	.0009	.0000	.0004	.0049	.0011	.0002
%RSD	34.87	46.79	26.34	92.91	261.4	7.601
#1	-.0018	-.0000	-.0010	-.0009	.0012	-.0031
#2	-.0024	-.0001	-.0018	-.0105	-.0009	-.0031
#3	-.0036	-.0001	-.0014	-.0044	.0010	-.0027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

1 - FORM I
ANALYSIS DATA SHEET
SW6010 D

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0174-BS1	File ID:	06072023A-032
		Prepared:	06/06/23 14:28	Analyzed:	06/07/23 18:34
		Preparation:	3005_METALS_PREP	Dilution:	1
Batch:	B3F0174	Sequence:	S3F0140	Calibration:	EF30034
Instrument:	ICP-AES 7400				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-24-6	Strontium, Dissolved	0.578	0.00889	0.0356	0.0444	

Sample Name: B3F0174-BS1 Acquired: 6/7/2023 18:34:04 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .5214	F .5641	F .5246	.5250	F .5268	F .5270	F .5138	F .5243	F .5276
Stddev	.0024	.0025	.0046	.0040	.0030	.0057	.0032	.0007	.0002
%RSD	.4651	.4496	.8820	.7573	.5606	1.088	.6213	.1284	.0433
#1	.5198	.5668	.5289	.5227	.5255	.5209	.5129	.5235	.5273
#2	.5202	.5618	.5251	.5227	.5247	.5277	.5111	.5248	.5277
#3	.5242	.5637	.5197	.5296	.5301	.5323	.5173	.5245	.5278
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	.1000	1.000	1.000		1.000	.1000	5.000	.1000	1.000
Range	20.00%	-20.00%	-20.00%		-20.00%	20.00%	-20.00%	20.00%	-20.00%

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .5386	F .5321	F .5291	F .5570	F .5413	F .5139	F .5463	F .5115	F .5305
Stddev	.0034	.0034	.0032	.0533	.0049	.0046	.0049	.0027	.0043
%RSD	.6372	.6341	.6022	9.575	.8968	.9006	.9002	.5231	.8182
#1	.5363	.5285	.5269	.6091	.5382	.5085	.5418	.5087	.5262
#2	.5369	.5326	.5277	.5596	.5387	.5165	.5454	.5119	.5303
#3	.5426	.5352	.5328	.5025	.5468	.5166	.5515	.5140	.5349
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	1.000	1.000	2.000	5.000	1.000	5.000	1.000	1.000	5.000
Range	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .5296	F .5132	F .5219	F .5505	F .5034	F .5123	F .5270	F .5199	F .5235
Stddev	.0020	.0055	.0152	.0104	.0065	.0087	.0044	.0019	.0041
%RSD	.3722	1.066	2.904	1.882	1.297	1.700	.8436	.3618	.7800
#1	.5306	.5138	.5251	.5524	.5011	.5171	.5236	.5186	.5201
#2	.5273	.5184	.5054	.5598	.4984	.5023	.5253	.5191	.5223
#3	.5308	.5075	.5352	.5394	.5108	.5177	.5320	.5220	.5280
Check ?	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value	1.000	5.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Range	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%	-20.00%

Sample Name: B3F0174-BS1 Acquired: 6/7/2023 18:34:04 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	F .5470	F .5411	F .5339
Stddev	.0087	.0028	.0013
%RSD	1.593	.5266	.2469
#1	.5445	.5398	.5326
#2	.5567	.5392	.5353
#3	.5398	.5444	.5337
Check ?	Chk Fail	Chk Fail	Chk Fail
Value	1.000	1.000	1.000
Range	-20.00%	-20.00%	-20.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010 D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-AES 7400	Calibration:	EF30037
		Sequence:	S3F0151

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0151-ICV1	Strontium, Dissolved	5.000	4.90	98	mg/L	+/- 10.00%
S3F0151-CCV1	Strontium, Dissolved	5.000	4.85	97	mg/L	+/- 10.00%
S3F0151-HCV1	**Strontium, Dissolved**	**50.00**	**1000000**	**2000000**	**mg/L**	+/- %
S3F0151-CCV2	Strontium, Dissolved	5.000	4.76	95	mg/L	+/- 10.00%
S3F0151-CCV3	Strontium, Dissolved	5.000	4.98	100	mg/L	+/- 10.00%
S3F0151-CCV4	Strontium, Dissolved	5.000	5.05	101	mg/L	+/- 10.00%
S3F0151-CCV5	Strontium, Dissolved	5.000	5.11	102	mg/L	+/- 10.00%

Sample Name: SEQ-ICV Acquired: 6/8/2023 14:25:15 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.914**	**4.911**	**4.890**	**4.897**	**4.907**	**4.876**	**4.838**	**4.866**	**4.860**
Stddev	.030	.030	.016	.030	.055	.011	.022	.036	.042
%RSD	.6018	.6110	.3245	.6077	1.119	.2300	.4657	.7332	.8637
#1	4.880	4.884	4.904	4.863	4.845	4.865	4.814	4.901	4.898
#2	4.928	4.943	4.893	4.910	4.925	4.876	4.840	4.866	4.868
#3	4.935	4.907	4.873	4.917	4.951	4.887	4.859	4.830	4.815
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.917**	**4.885**	**4.906**	**4.796**	**4.896**	**4.892**	**4.890**	**4.833**	**4.851**
Stddev	.020	.020	.013	.045	.034	.026	.025	.045	.024
%RSD	.4126	.4019	.2595	.9311	.6889	.5275	.5131	.9314	.4847
#1	4.894	4.866	4.892	4.748	4.859	4.870	4.864	4.859	4.825
#2	4.926	4.883	4.917	4.805	4.925	4.920	4.914	4.858	4.871
#3	4.931	4.905	4.909	4.836	4.905	4.885	4.892	4.781	4.857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.915**	**4.778**	**4.862**	**4.931**	**4.805**	**4.849**	**4.785**	**4.903**	**4.852**
Stddev	.031	.057	.040	.004	.049	.064	.031	.051	.025
%RSD	.6241	1.185	.8169	.0867	1.009	1.315	.6504	1.037	.5187
#1	4.930	4.792	4.859	4.936	4.835	4.871	4.796	4.872	4.823
#2	4.935	4.826	4.903	4.929	4.830	4.899	4.808	4.876	4.870
#3	4.880	4.716	4.824	4.929	4.749	4.777	4.749	4.962	4.863
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-ICV Acquired: 6/8/2023 14:25:15 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**4.874**	**4.868**	**4.852**
Stddev	.026	.030	.047
%RSD	.5414	.6212	.9608
#1	4.877	4.834	4.885
#2	4.898	4.892	4.872
#3	4.846	4.877	4.799
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/8/2023 14:33:33 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.891**	**4.845**	**4.893**	**4.779**	**4.851**	**4.853**	**4.917**	**4.884**	**4.877**
Stddev	.018	.020	.015	.004	.059	.006	.005	.004	.009
%RSD	.3648	.4069	.2968	.0841	1.206	.1146	.0975	.0916	.1737
#1	4.871	4.822	4.876	4.784	4.855	4.856	4.922	4.878	4.874
#2	4.901	4.857	4.901	4.778	4.790	4.856	4.913	4.886	4.870
#3	4.902	4.855	4.901	4.776	4.907	4.846	4.915	4.886	4.886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.910**	**4.843**	**4.898**	**4.754**	**4.921**	**4.828**	**4.822**	**4.838**	**4.762**
Stddev	.009	.005	.007	.056	.018	.015	.015	.019	.004
%RSD	.1941	.0993	.1440	1.183	.3657	.3194	.3173	.3871	.0926
#1	4.913	4.842	4.891	4.758	4.900	4.810	4.804	4.823	4.758
#2	4.917	4.848	4.905	4.808	4.931	4.839	4.828	4.859	4.762
#3	4.899	4.838	4.898	4.696	4.932	4.835	4.833	4.832	4.767
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.920**	**4.774**	**4.868**	**4.995**	**4.797**	**4.871**	**4.771**	**4.846**	**4.800**
Stddev	.012	.026	.016	.022	.019	.030	.023	.037	.009
%RSD	.2426	.5503	.3353	.4329	.3989	.6200	.4732	.7584	.1960
#1	4.911	4.790	4.851	4.974	4.792	4.838	4.762	4.835	4.794
#2	4.933	4.789	4.883	5.017	4.818	4.898	4.797	4.816	4.810
#3	4.915	4.744	4.872	4.993	4.781	4.877	4.755	4.887	4.794
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/8/2023 14:33:33 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	TI1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**4.933**	**4.804**	**4.833**
Stddev	.016	.007	.002
%RSD	.3263	.1516	.0370
#1	4.918	4.799	4.833
#2	4.950	4.812	4.831
#3	4.929	4.800	4.834
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-HCV1 Acquired: 6/8/2023 15:05:49 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**47.47**	**48.71**	**47.54**	**46.71**	**45.64**	F **44.54**	**45.13**	F **43.44**	F **44.43**
Stddev	.42	.55	.15	.49	.16	.43	.37	.18	.25
%RSD	.8819	1.131	.3234	1.045	.3579	.9630	.8103	.4063	.5537
#1	47.75	49.06	47.58	47.06	45.82	44.78	45.35	43.44	44.38
#2	47.66	49.00	47.38	46.91	45.50	44.80	45.33	43.27	44.20
#3	46.99	48.08	47.68	46.15	45.61	44.04	44.71	43.62	44.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail	Chk Fail
Value						50.00		50.00	50.00
Range						-10.00%		-10.00%	-10.00%

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**46.77**	**47.18**	**46.02**	**47.44**	**49.32**	**47.42**	F **44.89**	F **44.51**	**47.68**
Stddev	.29	.41	.32	.23	.29	.61	.38	.23	.63
%RSD	.6282	.8788	.7029	.4861	.5904	1.280	.8547	.5096	1.311
#1	47.01	47.49	46.26	47.51	49.59	47.78	45.05	44.45	48.05
#2	46.86	47.34	46.15	47.62	49.01	47.76	45.16	44.32	48.03
#3	46.44	46.71	45.65	47.18	49.37	46.72	44.45	44.76	46.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value							50.00	50.00	
Range							-10.00%	-10.00%	

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **44.39**	**46.53**	**45.58**	**46.62**	**46.51**	**46.80**	F **43.02**	^F *****	**46.47**
Stddev	.18	.36	.28	.06	.24	.23	.26	-----	.26
%RSD	.3960	.7831	.6091	.1278	.5136	.4994	.6039	-----	.5501
#1	44.36	46.42	45.58	46.69	46.46	46.76	42.93	^ -----	46.75
#2	44.23	46.23	45.31	46.58	46.31	46.59	42.81	^ -----	46.25
#3	44.57	46.93	45.86	46.61	46.78	47.05	43.31	^ -----	46.40
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass
Value	50.00						50.00	50.00	
Range	-10.00%						-10.00%	-10.00%	

Sample Name: SEQ-HCV1 Acquired: 6/8/2023 15:05:49 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**45.69**	**46.23**	F **44.84**
Stddev	.23	.56	.23
%RSD	.5065	1.204	.5020
#1	45.69	46.56	44.77
#2	45.46	46.54	44.66
#3	45.92	45.59	45.09
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			50.00
Range			-10.00%

Sample Name: SEQ-CCV Acquired: 6/8/2023 15:39:50 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.895**	**4.826**	**4.866**	**4.687**	**4.848**	**4.827**	**4.827**	**4.722**	**4.745**
Stddev	.015	.009	.007	.014	.022	.017	.003	.008	.009
%RSD	.3100	.1874	.1362	.2881	.4500	.3522	.0637	.1671	.1897
#1	4.892	4.830	4.874	4.698	4.829	4.838	4.831	4.730	4.755
#2	4.882	4.832	4.863	4.672	4.842	4.808	4.825	4.721	4.744
#3	4.912	4.815	4.862	4.692	4.872	4.836	4.827	4.714	4.737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.936**	**4.815**	**4.891**	**4.674**	**5.020**	**4.732**	**4.678**	**4.712**	**4.654**
Stddev	.011	.017	.017	.059	.023	.006	.013	.017	.019
%RSD	.2191	.3472	.3456	1.251	.4566	.1272	.2773	.3548	.4057
#1	4.945	4.829	4.887	4.669	5.032	4.734	4.666	4.721	4.671
#2	4.924	4.797	4.877	4.618	4.994	4.725	4.677	4.693	4.634
#3	4.937	4.819	4.910	4.735	5.035	4.737	4.692	4.722	4.658
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.846**	**4.524**	**4.776**	**5.122**	**4.706**	**4.745**	**4.552**	**4.762**	**4.775**
Stddev	.014	.042	.029	.006	.003	.029	.018	.044	.015
%RSD	.2973	.9164	.6163	.1150	.0611	.6026	.4062	.9322	.3126
#1	4.862	4.570	4.780	5.122	4.705	4.773	4.573	4.802	4.784
#2	4.833	4.490	4.745	5.128	4.704	4.748	4.539	4.769	4.758
#3	4.843	4.512	4.803	5.116	4.710	4.716	4.544	4.714	4.783
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/8/2023 15:39:50 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**4.918**	**4.696**	**4.631**
Stddev	.014	.009	.021
%RSD	.2861	.1994	.4605
#1	4.934	4.706	4.654
#2	4.911	4.688	4.612
#3	4.908	4.695	4.626
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/8/2023 16:31:02 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.090**	**5.022**	**4.977**	**4.877**	**5.006**	**4.982**	**4.985**	**4.876**	**4.921**
Stddev	.037	.045	.024	.042	.014	.022	.021	.009	.007
%RSD	.7316	.8925	.4767	.8591	.2834	.4334	.4113	.1756	.1473
#1	5.047	4.970	4.969	4.836	5.022	4.959	4.961	4.867	4.913
#2	5.110	5.049	4.959	4.874	4.997	4.983	4.994	4.884	4.921
#3	5.112	5.047	5.004	4.920	4.998	5.003	4.999	4.879	4.928
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.080**	**5.005**	**5.053**	**4.834**	**5.216**	**4.943**	**4.896**	**4.878**	**4.944**
Stddev	.017	.028	.028	.057	.032	.029	.040	.016	.029
%RSD	.3395	.5667	.5554	1.174	.6203	.5968	.8119	.3225	.5951
#1	5.061	4.972	5.021	4.769	5.179	4.911	4.855	4.863	4.910
#2	5.095	5.022	5.072	4.863	5.235	4.947	4.899	4.875	4.959
#3	5.084	5.021	5.066	4.871	5.236	4.970	4.934	4.894	4.963
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.983**	**4.697**	**4.903**	**5.146**	**4.866**	**4.914**	**4.728**	**4.977**	**4.974**
Stddev	.007	.041	.020	.011	.023	.035	.028	.007	.024
%RSD	.1411	.8795	.4144	.2040	.4757	.7015	.5882	.1383	.4717
#1	4.979	4.674	4.891	5.158	4.869	4.876	4.700	4.969	4.947
#2	4.978	4.671	4.892	5.141	4.841	4.923	4.728	4.983	4.987
#3	4.991	4.744	4.926	5.140	4.887	4.943	4.756	4.978	4.987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/8/2023 16:31:02 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	TI1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**5.017**	**4.910**	**4.828**
Stddev	.014	.019	.020
%RSD	.2760	.3886	.4051
#1	5.024	4.891	4.807
#2	5.001	4.911	4.830
#3	5.025	4.929	4.846
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/8/2023 17:24:45 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.127**	**5.049**	**4.989**	**4.905**	**5.042**	**4.986**	**5.037**	**4.929**	**4.958**
Stddev	.018	.014	.012	.015	.050	.016	.010	.015	.018
%RSD	.3597	.2688	.2479	.3120	.9874	.3242	.1923	.2941	.3589
#1	5.147	5.065	4.979	4.922	5.000	5.001	5.042	4.915	4.940
#2	5.121	5.043	4.986	4.895	5.029	4.969	5.044	4.928	4.957
#3	5.111	5.040	5.003	4.897	5.097	4.988	5.026	4.944	4.975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.058**	**5.021**	**5.060**	**4.945**	**5.201**	**5.021**	**4.988**	**4.917**	**5.059**
Stddev	.032	.018	.014	.058	.024	.023	.044	.016	.027
%RSD	.6280	.3495	.2664	1.174	.4528	.4535	.8770	.3285	.5398
#1	5.074	5.041	5.071	4.928	5.224	5.029	5.004	4.904	5.079
#2	5.022	5.012	5.045	5.009	5.177	5.039	5.021	4.913	5.071
#3	5.079	5.009	5.064	4.897	5.203	4.996	4.938	4.935	5.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.018**	**4.782**	**4.926**	**5.120**	**4.901**	**4.952**	**4.797**	**5.053**	**4.985**
Stddev	.011	.024	.012	.021	.012	.009	.015	.017	.013
%RSD	.2092	.4933	.2503	.4002	.2428	.1911	.3175	.3436	.2633
#1	5.028	4.775	4.927	5.140	4.901	4.949	4.781	5.040	5.000
#2	5.007	4.763	4.913	5.099	4.913	4.945	4.799	5.047	4.978
#3	5.019	4.808	4.938	5.120	4.889	4.963	4.812	5.073	4.976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/8/2023 17:24:45 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**5.032**	**4.944**	**4.884**
Stddev	.011	.005	.011
%RSD	.2243	.1036	.2197
#1	5.043	4.945	4.872
#2	5.031	4.948	4.887
#3	5.021	4.938	4.893
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Sample Name: SEQ-CCV Acquired: 6/8/2023 18:16:38 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.179**	**5.059**	**5.123**	**5.006**	**5.144**	**5.099**	**5.120**	**5.007**	**5.062**
Stddev	.006	.009	.022	.017	.079	.012	.015	.012	.012
%RSD	.1162	.1720	.4249	.3343	1.541	.2409	.2826	.2463	.2337
#1	5.182	5.060	5.102	4.998	5.155	5.092	5.126	4.993	5.048
#2	5.184	5.068	5.145	5.026	5.060	5.113	5.131	5.018	5.067
#3	5.172	5.050	5.123	4.996	5.217	5.092	5.104	5.009	5.070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.201**	**5.134**	**5.155**	**4.971**	**5.207**	**5.011**	**4.977**	**5.053**	**5.070**
Stddev	.003	.004	.005	.010	.004	.021	.024	.025	.014
%RSD	.0529	.0732	.0924	.2014	.0841	.4296	.4731	.4884	.2711
#1	5.204	5.135	5.153	4.975	5.202	5.005	4.954	5.039	5.080
#2	5.200	5.137	5.160	4.960	5.210	5.035	5.001	5.082	5.076
#3	5.198	5.129	5.152	4.978	5.209	4.994	4.976	5.039	5.054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.152**	**4.888**	**5.085**	**5.288**	**5.018**	**5.089**	**4.911**	**5.110**	**5.082**
Stddev	.021	.057	.020	.015	.036	.029	.009	.041	.012
%RSD	.4047	1.164	.3998	.2801	.7092	.5732	.1844	.8042	.2323
#1	5.153	4.867	5.076	5.278	5.013	5.084	4.907	5.081	5.075
#2	5.172	4.952	5.109	5.280	5.056	5.120	4.921	5.092	5.095
#3	5.130	4.844	5.071	5.305	4.985	5.062	4.904	5.157	5.074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CCV Acquired: 6/8/2023 18:16:38 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**5.192**	**5.062**	**4.933**
Stddev	.013	.014	.023
%RSD	.2580	.2668	.4706
#1	5.195	5.058	4.919
#2	5.204	5.077	4.959
#3	5.178	5.051	4.920
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Performance Evaluation Mixture

SW6010 D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-AES 7400	Calibration:	EF30037
Sequence:	S3F0151		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S3F0151-CRL1	Strontium, Dissolved	0.05000	0.0511	102	mg/L	0 - 200

Sample Name: SEQ-CRL1 Acquired: 6/8/2023 15:01:43 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0516**	**.0549**	**.0484**	**.0471**	**.0511**	**.0506**	F **.0688**	**.0507**	**.0511**
Stddev	.0015	.0018	.0032	.0011	.0009	.0009	.0023	.0003	.0005
%RSD	2.931	3.267	6.676	2.275	1.725	1.855	3.388	.5404	.9349
#1	.0527	.0529	.0514	.0466	.0503	.0496	.0669	.0505	.0507
#2	.0499	.0557	.0450	.0463	.0510	.0506	.0682	.0510	.0516
#3	.0523	.0562	.0488	.0483	.0521	.0515	.0714	.0506	.0509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value							.0500		
Range							20.00%		

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0522**	**.0532**	**.0550**	F **.0242**	**.0508**	**.0515**	**.0498**	**.0525**	**.0426**
Stddev	.0012	.0012	.0009	.0118	.0001	.0011	.0008	.0009	.0052
%RSD	2.313	2.340	1.616	48.96	.1405	2.100	1.570	1.749	12.21
#1	.0509	.0538	.0541	.0127	.0508	.0515	.0491	.0516	.0373
#2	.0532	.0518	.0558	.0363	.0507	.0505	.0496	.0534	.0477
#3	.0526	.0541	.0550	.0235	.0509	.0526	.0507	.0524	.0429
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0500					
Range				-20.00%					

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0507**	**.0494**	**.0483**	**.0568**	**.0510**	**.0512**	**.0478**	**.0511**	**.0497**
Stddev	.0007	.0078	.0084	.0026	.0068	.0096	.0050	.0007	.0010
%RSD	1.394	15.71	17.50	4.539	13.26	18.75	10.44	1.301	2.032
#1	.0500	.0455	.0507	.0597	.0582	.0474	.0532	.0505	.0494
#2	.0506	.0444	.0552	.0557	.0502	.0441	.0469	.0509	.0489
#3	.0514	.0584	.0388	.0549	.0447	.0621	.0433	.0518	.0508
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: SEQ-CRL1 Acquired: 6/8/2023 15:01:43 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0529**	**.0504**	**.0526**
Stddev	.0021	.0010	.0003
%RSD	3.971	1.894	.6062
#1	.0506	.0493	.0524
#2	.0535	.0511	.0529
#3	.0546	.0507	.0524
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

FORM 3 - Blank Summary

SW6010 D

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-AES 7400	Calibration:	EF30034
Sequence:	S3F0140		

Lab Sample ID	Analyte	Found	Units	RL	Qual
B3F0174-BLK1	Strontium, Dissolved		mg/L	0.0444	U

Sample Name: B3F0174-BLK1 Acquired: 6/7/2023 18:29:57 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**.0020**	**-.0006**	F **-.0138**	**-.0003**	**-.0003**	**-.0151**	**-.0002**
Stddev	.0006	.0040	.0047	.0009	.0001	.0001	.0023	.0003
%RSD	37.52	202.6	796.8	6.265	44.05	39.39	15.54	140.3
#1	-.0021	.0018	.0014	-.0146	-.0004	-.0002	-.0127	-.0005
#2	-.0018	.0060	.0028	-.0129	-.0003	-.0003	-.0174	.0000
#3	-.0009	-.0019	-.0060	-.0140	-.0001	-.0005	-.0153	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0125				
Low Limit				-.0125				

Elem	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0011**	**.0012**	**.0019**	**.0044**	**.0002**	**.0015**	**-.0003**
Stddev	.0001	.0006	.0005	.0005	.0102	.0006	.0007	.0002
%RSD	15.10	58.93	45.26	24.67	234.0	249.9	49.36	71.22
#1	.0007	-.0008	.0009	.0019	.0102	-.0005	.0007	-.0006
#2	.0008	-.0007	.0008	.0014	.0103	.0007	.0015	-.0001
#3	.0010	-.0018	.0018	.0024	-.0074	.0005	.0021	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0046**	**-.0180**	**-.0011**	**-.0088**	F **-.0075**	**.0008**	**-.0108**	**-.0029**
Stddev	.0006	.0027	.0010	.0106	.0064	.0021	.0107	.0030
%RSD	11.96	15.20	85.17	119.8	84.56	259.5	99.18	105.8
#1	-.0051	-.0172	-.0000	-.0166	-.0057	.0033	-.0150	.0005
#2	-.0040	-.0211	-.0019	.0032	-.0146	-.0001	-.0187	-.0037
#3	-.0048	-.0158	-.0015	-.0131	-.0023	-.0007	.0014	-.0054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit					.0025			
Low Limit					-.0025			

Sample Name: B3F0174-BLK1 Acquired: 6/7/2023 18:29:57 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment:

Elem	Sn1899	Sr4077	Ti3361	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0026**	**-.0001**	**-.0014**	**-.0053**	**.0004**	**-.0029**
Stddev	.0009	.0000	.0004	.0049	.0011	.0002
%RSD	34.87	46.79	26.34	92.91	261.4	7.601
#1	-.0018	-.0000	-.0010	-.0009	.0012	-.0031
#2	-.0024	-.0001	-.0018	-.0105	-.0009	-.0031
#3	-.0036	-.0001	-.0014	-.0044	.0010	-.0027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

FORM 3 - Blank Summary

SW6010 D

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-AES 7400	Calibration:	EF30037
Sequence:	S3F0151		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0151-ICB1	Strontium, Dissolved		mg/L	0.0400	U
S3F0151-CCB1	Strontium, Dissolved		mg/L	0.0400	U
S3F0151-CCB2	Strontium, Dissolved		mg/L	0.0400	U
S3F0151-CCB3	Strontium, Dissolved		mg/L	0.0400	U
S3F0151-CCB4	Strontium, Dissolved		mg/L	0.0400	U
S3F0151-CCB5	Strontium, Dissolved		mg/L	0.0400	U

Sample Name: SEQ-ICB Acquired: 6/8/2023 14:29:23 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**-.0019**	**.0032**	**.0109**	**.0000**	**.0002**	**-.0012**	**.0004**	**-.0002**
Stddev	.0008	.0048	.0033	.0011	.0001	.0001	.0016	.0002	.0004
%RSD	38.10	256.5	104.0	9.839	426.6	53.09	129.6	52.44	215.1
#1	.0028	.0036	.0065	.0122	.0001	.0001	-.0030	.0002	.0003
#2	.0012	-.0042	-.0001	.0103	.0001	.0001	-.0009	.0003	-.0002
#3	.0025	-.0050	.0031	.0103	-.0001	.0003	.0002	.0006	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0020**	**.0001**	**-.0324**	**-.0008**	**.0004**	**.0004**	**.0056**	**-.0143**
Stddev	.0009	.0005	.0009	.0148	.0010	.0011	.0001	.0009	.0021
%RSD	386.2	25.72	1351.	45.72	119.6	257.5	38.50	15.50	14.58
#1	-.0011	.0025	-.0009	-.0243	-.0020	.0014	.0002	.0065	-.0167
#2	.0007	.0019	.0005	-.0496	-.0002	.0007	.0005	.0054	-.0130
#3	-.0003	.0015	.0006	-.0234	-.0003	-.0008	.0004	.0048	-.0131
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0014**	**.0035**	**.0034**	**.0048**	**.0074**	**.0049**	**.0017**	**.0002**	**.0009**
Stddev	.0009	.0084	.0015	.0031	.0053	.0034	.0057	.0001	.0002
%RSD	69.24	236.6	43.52	64.83	72.43	69.83	340.1	37.79	22.44
#1	-.0022	-.0011	.0020	.0012	.0122	.0010	.0077	.0002	.0011
#2	-.0016	-.0015	.0050	.0067	.0083	.0062	-.0038	.0003	.0009
#3	-.0003	.0132	.0033	.0064	.0016	.0073	.0012	.0002	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: SEQ-ICB Acquired: 6/8/2023 14:29:23 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0007**	**.0001**	**-.0002**
Stddev	.0029	.0023	.0004
%RSD	408.0	3284.	255.0
#1	.0018	.0028	-.0002
#2	.0000	-.0014	-.0006
#3	-.0039	-.0011	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: SEQ-CCB Acquired: 6/8/2023 14:37:41 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0009**	**.0057**	**.0095**	**.0004**	**.0005**	**.0175**	**.0005**	**-.0004**
Stddev	.0017	.0035	.0026	.0017	.0001	.0001	.0018	.0004	.0004
%RSD	103.0	367.1	45.55	18.01	25.95	21.37	10.08	65.68	99.53
#1	.0030	-.0001	.0035	.0114	.0003	.0006	.0162	.0007	.0000
#2	-.0002	.0048	.0049	.0091	.0005	.0004	.0195	.0008	-.0004
#3	.0021	-.0019	.0086	.0081	.0004	.0005	.0168	.0001	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0010**	**.0094**	**-.0309**	**-.0005**	**.0008**	**.0006**	**.0050**	**-.0019**
Stddev	.0012	.0009	.0007	.0156	.0005	.0005	.0004	.0010	.0015
%RSD	1001.	84.88	7.399	50.40	101.0	66.46	68.22	20.05	76.18
#1	.0013	.0000	.0089	-.0340	.0001	.0004	.0001	.0060	-.0018
#2	.0001	.0015	.0092	-.0140	-.0007	.0014	.0008	.0047	-.0005
#3	-.0010	.0015	.0102	-.0446	-.0008	.0006	.0009	.0041	-.0034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**.0115**	**.0018**	**.0070**	**.0039**	**.0085**	**-.0010**	**.0006**	**.0010**
Stddev	.0004	.0112	.0105	.0053	.0094	.0099	.0002	.0001	.0002
%RSD	49.56	97.73	587.3	75.27	240.0	116.2	22.30	12.22	21.13
#1	-.0005	.0239	.0136	.0026	.0099	.0031	-.0012	.0007	.0012
#2	-.0013	.0087	-.0020	.0128	-.0069	.0025	-.0010	.0005	.0008
#3	-.0007	.0019	-.0063	.0055	.0088	.0199	-.0007	.0006	.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: SEQ-CCB Acquired: 6/8/2023 14:37:41 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0031**	**.0004**	**.0023**
Stddev	.0068	.0009	.0003
%RSD	219.0	228.4	11.26
#1	-.0090	.0008	.0024
#2	.0043	.0011	.0025
#3	-.0045	-.0007	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: SEQ-CCB Acquired: 6/8/2023 15:44:00 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0000**	**.0090**	**.0075**	**.0008**	**.0010**	**.0199**	**.0021**	**.0023**
Stddev	.0034	.0013	.0023	.0006	.0004	.0003	.0051	.0020	.0019
%RSD	215.8	6794.	25.79	8.304	46.33	27.42	25.53	93.82	81.43
#1	.0000	-.0012	.0107	.0069	.0007	.0009	.0143	.0029	.0035
#2	.0055	-.0001	.0063	.0076	.0004	.0009	.0213	.0035	.0033
#3	-.0008	.0014	.0099	.0081	.0012	.0013	.0241	-.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0008**	**.0102**	**-.0220**	**.0006**	**.0036**	**.0012**	**.0067**	**.0096**
Stddev	.0000	.0011	.0014	.0433	.0003	.0003	.0003	.0025	.0068
%RSD	3.864	148.8	13.82	196.3	49.75	9.083	29.39	36.70	71.23
#1	-.0007	.0013	.0118	.0124	.0006	.0038	.0008	.0079	.0028
#2	-.0007	-.0005	.0093	-.0706	.0004	.0032	.0012	.0084	.0096
#3	-.0007	.0015	.0095	-.0080	.0010	.0037	.0015	.0039	.0164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0084**	F **.0033**	**.0057**	**.0119**	**.0053**	**.0049**	**.0010**	**.0016**
Stddev	.0007	.0099	.0024	.0038	.0018	.0101	.0042	.0003	.0007
%RSD	218.1	116.6	72.92	66.78	15.29	191.8	84.33	33.27	42.65
#1	.0005	.0066	.0048	.0078	.0099	.0161	.0063	.0008	.0015
#2	-.0007	-.0003	.0047	.0013	.0133	.0037	.0082	.0008	.0022
#3	-.0008	.0191	.0005	.0078	.0126	-.0040	.0003	.0014	.0009
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0027						
Low Limit			-.0027						

Sample Name: SEQ-CCB Acquired: 6/8/2023 15:44:00 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0054**	**.0014**	**.0040**
Stddev	.0061	.0009	.0016
%RSD	113.5	66.16	39.06
#1	.0123	.0008	.0049
#2	.0005	.0010	.0050
#3	.0034	.0025	.0022
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: SEQ-CCB Acquired: 6/8/2023 16:35:11 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0028**	**.0027**	**.0032**	**.0023**	**.0002**	**.0003**	**.0078**	**.0004**	**.0001**
Stddev	.0019	.0064	.0051	.0016	.0001	.0001	.0014	.0002	.0008
%RSD	69.06	233.0	161.3	68.59	28.91	41.82	18.13	47.65	811.2
#1	.0040	-.0027	-.0016	.0040	.0002	.0004	.0083	.0004	-.0008
#2	.0006	.0097	.0026	.0019	.0002	.0002	.0062	.0002	.0005
#3	.0038	.0011	.0086	.0010	.0003	.0002	.0090	.0006	.0005
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0027								
Low Limit	-.0027								

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0020**	**.0065**	**-.0809**	**-.0008**	**.0010**	**.0001**	**.0057**	**.0245**
Stddev	.0008	.0011	.0014	.0134	.0004	.0004	.0005	.0016	.0068
%RSD	415.2	56.23	22.20	16.57	47.00	42.43	337.7	27.96	27.83
#1	-.0005	.0024	.0080	-.0810	-.0009	.0014	.0007	.0072	.0293
#2	-.0008	.0028	.0064	-.0943	-.0011	.0005	-.0002	.0041	.0167
#3	.0008	.0007	.0051	-.0675	-.0004	.0012	-.0001	.0057	.0276
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0035**	**-.0014**	**.0046**	**.0053**	**.0055**	**.0036**	**.0004**	**.0006**
Stddev	.0021	.0122	.0130	.0066	.0026	.0057	.0005	.0001	.0003
%RSD	419.6	351.8	914.0	143.7	47.87	104.6	12.81	28.72	53.12
#1	.0012	-.0088	-.0158	-.0028	.0053	.0092	.0040	.0005	.0003
#2	-.0019	.0156	.0022	.0098	.0079	-.0011	.0031	.0005	.0006
#3	.0021	.0036	.0094	.0069	.0028	.0083	.0038	.0003	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: SEQ-CCB Acquired: 6/8/2023 16:35:11 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0059**	**.0005**	**.0012**
Stddev	.0011	.0003	.0001
%RSD	18.53	67.52	10.03
#1	-.0072	.0003	.0010
#2	-.0054	.0009	.0012
#3	-.0051	.0003	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: SEQ-CCB Acquired: 6/8/2023 17:28:54 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**.0000**	**.0057**	**.0026**	**.0003**	**.0004**	**.0278**	**.0003**	**.0001**
Stddev	.0029	.0052	.0038	.0015	.0001	.0001	.0014	.0003	.0006
%RSD	148.7	62150.	66.44	55.25	34.10	25.79	5.085	104.7	555.7
#1	-.0014	-.0054	.0058	.0014	.0003	.0005	.0289	.0004	.0007
#2	.0035	.0005	.0094	.0022	.0002	.0004	.0283	-.0001	-.0004
#3	.0038	.0050	.0019	.0043	.0003	.0003	.0262	.0005	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0005**	**.0063**	**-.0200**	**-.0007**	**.0145**	**.0003**	**.0059**	F **.0951**
Stddev	.0002	.0014	.0016	.0773	.0004	.0009	.0002	.0007	.0051
%RSD	98.59	273.7	26.00	386.0	59.99	6.204	53.82	12.33	5.378
#1	.0000	-.0000	.0075	-.1060	-.0006	.0138	.0004	.0067	.0894
#2	-.0004	-.0005	.0070	.0435	-.0011	.0142	.0002	.0055	.0965
#3	-.0003	.0021	.0044	.0024	-.0003	.0156	.0002	.0054	.0993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit									.0312
Low Limit									-.0312

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**-.0102**	**-.0007**	**.0061**	**.0003**	**.0037**	**.0014**	**.0013**	**.0005**
Stddev	.0008	.0038	.0111	.0025	.0099	.0016	.0007	.0000	.0003
%RSD	94.58	36.84	1546.	40.65	3072.	44.51	46.39	2.233	60.29
#1	-.0001	-.0102	-.0109	.0039	.0112	.0055	.0021	.0013	.0008
#2	-.0017	-.0064	.0111	.0088	-.0020	.0022	.0008	.0012	.0003
#3	-.0006	-.0140	-.0023	.0056	-.0082	.0034	.0013	.0013	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: SEQ-CCB Acquired: 6/8/2023 17:28:54 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0003**	**.0001**	**.0012**
Stddev	.0051	.0008	.0003
%RSD	1950.	1354.	28.70
#1	-.0046	-.0008	.0016
#2	.0053	.0002	.0009
#3	-.0015	.0008	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Sample Name: SEQ-CCB Acquired: 6/8/2023 18:20:46 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0105**	**.0027**	**.0020**	**.0030**	**.0000**	**.0004**	**.0090**	**.0004**	**.0003**
Stddev	.0015	.0007	.0023	.0014	.0001	.0000	.0009	.0003	.0006
%RSD	14.11	27.70	113.4	46.86	164.8	10.78	10.50	86.56	223.4
#1	.0101	.0022	-.0006	.0047	.0001	.0003	.0081	.0003	-.0001
#2	.0122	.0036	.0038	.0022	-.0000	.0004	.0088	.0008	-.0001
#3	.0093	.0024	.0028	.0022	.0001	.0004	.0100	.0001	.0009
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit	.0027								
Low Limit	-.0027								

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0006**	**.0064**	**.0182**	**-.0003**	**.0028**	**.0002**	**.0052**	F **.0373**
Stddev	.0006	.0010	.0010	.0266	.0009	.0005	.0002	.0007	.0042
%RSD	232.4	182.6	15.12	146.1	278.9	19.09	89.56	14.30	11.20
#1	.0003	.0010	.0053	.0419	.0005	.0026	.0004	.0060	.0329
#2	-.0008	.0013	.0067	.0231	-.0002	.0034	.0003	.0045	.0376
#3	-.0002	-.0006	.0071	-.0105	-.0013	.0024	.0000	.0052	.0413
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit									.0312
Low Limit									-.0312

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**-.0016**	F **.0056**	**.0047**	**.0062**	**.0119**	**-.0017**	**.0004**	**-.0001**
Stddev	.0008	.0057	.0182	.0037	.0012	.0055	.0019	.0000	.0006
%RSD	90.45	354.7	326.2	78.45	18.71	46.08	115.3	10.85	700.2
#1	-.0004	.0031	.0264	.0019	.0075	.0085	.0004	.0005	-.0006
#2	-.0019	-.0000	-.0071	.0032	.0060	.0090	-.0035	.0004	.0006
#3	-.0005	-.0080	-.0026	.0088	.0052	.0182	-.0020	.0004	-.0003
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0027						
Low Limit			-.0027						

Sample Name: SEQ-CCB Acquired: 6/8/2023 18:20:46 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**-.0004**	**.0016**	**.0010**
Stddev	.0037	.0012	.0003
%RSD	849.3	71.51	33.04
#1	-.0033	.0026	.0011
#2	-.0018	.0020	.0006
#3	.0038	.0003	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

QC082023-010

01341347

Sample Name: SEQ-IFA1 Acquired: 6/8/2023 14:41:50 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **.0184**	**98.86**	**-.0104**	F **.2667**	**.0006**	**-.0012**	**.1000**	**.0014**
Stddev	.0029	.79	.0117	.0022	.0001	.0002	.0034	.0003
%RSD	15.94	.7973	112.6	.8142	23.50	15.33	3.405	20.93
#1	.0163	99.72	.0008	.2648	.0007	-.0013	.1033	.0013
#2	.0171	98.68	-.0094	.2691	.0004	-.0014	.0965	.0017
#3	.0218	98.17	-.0225	.2662	.0007	-.0010	.1004	.0011
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Fail	None	None	None	None
High Limit	.0040			.0400				
Low Limit	-.0040			-.0400				

Elem	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2042**	F **-.1663**	**-.0596**	**96.18**	**-.0592**	**-.0006**	**-.0603**	**92.17**
Stddev	.0044	.0010	.0010	.78	.0151	.0006	.0003	1.17
%RSD	2.154	.5737	1.691	.8065	25.49	88.49	.4674	1.268
#1	.2023	-.1667	-.0605	97.04	-.0461	-.0000	-.0605	92.91
#2	.2011	-.1652	-.0598	95.98	-.0757	-.0011	-.0604	92.77
#3	.2092	-.1670	-.0585	95.53	-.0558	-.0008	-.0600	90.82
Check ?	None	Chk Fail	None	Chk Pass	None	None	None	Chk Pass
High Limit		.0200						
Low Limit		-.0200						

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0147**	**.1306**	**.0036**	**-.2329**	**.1884**	**.0145**	**-.0292**	**.0025**
Stddev	.0013	.0037	.0016	.0251	.0085	.0076	.0114	.0046
%RSD	8.690	2.851	44.27	10.78	4.501	52.61	38.94	184.5
#1	-.0143	.1326	.0024	-.2312	.1816	.0067	-.0300	-.0016
#2	-.0136	.1263	.0054	-.2086	.1856	.0219	-.0175	.0075
#3	-.0161	.1328	.0029	-.2587	.1979	.0148	-.0402	.0016
Check ?	None	None	None	None	None	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Sample Name: SEQ-IFA1 Acquired: 6/8/2023 14:41:50 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Sn1899	Sr4077	Ti3361	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.1378**	**.0014**	**92.49**	**.0048**	**95.80**	**-.0116**
Stddev	.0036	.0000	1.67	.0166	.74	.0013
%RSD	2.628	1.334	1.806	344.4	.7728	10.79
#1	-.1403	.0013	94.13	-.0072	96.61	-.0110
#2	-.1337	.0014	92.54	-.0022	95.63	-.0108
#3	-.1395	.0014	90.79	.0238	95.15	-.0130
Check ?	None	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: SEQ-IFA1 Acquired: 6/8/2023 14:41:50 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**98.93**	**-.0131**	**.0111**	**.0006**	**-.0012**	**.1000**	**.0014**	**.2042**
Stddev	.0031	.79	.0116	.0037	.0001	.0002	.0034	.0003	.0044
%RSD	433.8	.7973	88.90	33.24	23.50	15.33	3.405	20.93	2.154
#1	-.0015	99.79	-.0019	.0070	.0007	-.0013	.1033	.0013	.2023
#2	-.0006	98.75	-.0122	.0140	.0004	-.0014	.0965	.0017	.2011
#3	.0042	98.24	-.0252	.0123	.0007	-.0010	.1004	.0011	.2092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
High Limit									
Low Limit									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0065**	**-.0596**	**96.18**	**-.0592**	**-.0006**	**-.0603**	**92.17**	**-.0147**	**.1306**
Stddev	.0016	.0010	.78	.0151	.0006	.0003	1.17	.0013	.0037
%RSD	24.29	1.691	.8065	25.49	88.49	.4674	1.268	8.690	2.851
#1	-.0054	-.0605	97.04	-.0461	-.0000	-.0605	92.91	-.0143	.1326
#2	-.0057	-.0598	95.98	-.0757	-.0011	-.0604	92.77	-.0136	.1263
#3	-.0083	-.0585	95.53	-.0558	-.0008	-.0600	90.82	-.0161	.1328
Check ?	Chk Pass	None	Chk Pass	None	None	None	Chk Pass	None	None
High Limit									
Low Limit									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**-.2329**	**.1884**	**.0148**	**-.0281**	**.0025**	**-.1378**	**.0014**	**92.41**
Stddev	.0016	.0251	.0085	.0076	.0114	.0046	.0036	.0000	1.67
%RSD	44.27	10.78	4.501	51.42	40.56	184.5	2.628	1.334	1.806
#1	.0024	-.2312	.1816	.0070	-.0289	-.0016	-.1403	.0013	94.06
#2	.0054	-.2086	.1856	.0223	-.0163	.0075	-.1337	.0014	92.46
#3	.0029	-.2587	.1979	.0152	-.0391	.0016	-.1395	.0014	90.72
Check ?	None	None	None	Chk Pass	Chk Pass	Chk Pass	None	None	Chk Pass
High Limit									
Low Limit									

Sample Name: SEQ-IFA1 Acquired: 6/8/2023 14:41:50 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0037**	**95.35**	**-.0117**
Stddev	.0166	.74	.0013
%RSD	449.7	.7728	10.70
#1	-.0083	96.15	-.0111
#2	-.0033	95.18	-.0109
#3	.0226	94.71	-.0131
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

06082023-01

01341351

Sample Name: SEQ-IFB1 Acquired: 6/8/2023 14:46:10 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0272**	F **.0734**	**-.0360**	**-.0127**	**.0053**	**.0149**	**1.667**	**.0229**
Stddev	.0036	.2918	.0054	.0044	.0017	.0018	.011	.0002
%RSD	13.27	397.4	14.94	34.70	31.19	12.40	.6466	1.074
#1	.0312	.4075	-.0392	-.0078	.0072	.0170	1.669	.0227
#2	.0244	-.0556	-.0389	-.0140	.0045	.0135	1.677	.0227
#3	.0258	-.1317	-.0298	-.0164	.0042	.0142	1.655	.0231
Check ?	None	Chk Fail	Chk Pass	Chk Pass	None	None	None	None
Value		.0400						
Range		-.0400						

Elem	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**99.48**	**100.4**	**101.0**	**.1591**	**.0836**	**.0715**	**.0806**	**.1807**
Stddev	.34	.3	.5	.2773	.0247	.0013	.0020	.2761
%RSD	.3425	.2916	.5401	174.3	29.49	1.875	2.419	152.8
#1	99.34	100.6	101.6	.4793	.1035	.0731	.0826	.4996
#2	99.23	100.1	100.8	.0001	.0913	.0708	.0807	.0219
#3	99.86	100.4	100.5	-.0020	.0560	.0706	.0787	.0207
Check ?	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	None
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**95.74**	**.3580**	**100.6**	^ *****	**.0088**	**-.0196**	**.0513**	**-.0368**
Stddev	.41	.0039	.3	-----	.0079	.0019	.0046	.0087
%RSD	.4330	1.092	.2684	-----	90.52	9.782	8.941	23.64
#1	95.58	.3565	100.5	^ -----	.0109	-.0174	.0522	-.0333
#2	95.44	.3625	100.3	^ -----	.0154	-.0206	.0464	-.0305
#3	96.22	.3551	100.9	^ -----	-.0000	-.0209	.0554	-.0468
Check ?	Chk Pass	None	Chk Pass	None	None	Chk Pass	None	Chk Pass
Value								
Range								

Sample Name: SEQ-IFB1 Acquired: 6/8/2023 14:46:10 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Sn1899	Sr4077	Ti3361	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0269**	**.0282**	F **-.0799**	F **-.1258**	F **-.4678**	F **.2185**
Stddev	.0012	.0019	.2716	.0096	.2755	.0008
%RSD	4.375	6.606	339.9	7.643	58.90	.3849
#1	.0262	.0304	.2337	-.1302	-.1501	.2188
#2	.0282	.0274	-.2358	-.1323	-.6407	.2193
#3	.0262	.0269	-.2377	-.1147	-.6127	.2176
Check ?	None	None	Chk Fail	Chk Fail	Chk Fail	Chk Fail
Value			.0200	.0286	.0200	.0400
Range			-.0200	-.0286	-.0200	-.0400

Sample Name: SEQ-IFB1 Acquired: 6/8/2023 14:46:10 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0271**	**.0059**	**-.0331**	**-.0132**	**.0053**	**.0149**	**1.667**	**.0229**	**99.48**
Stddev	.0036	.2921	.0054	.0037	.0017	.0018	.011	.0002	.34
%RSD	13.10	4938.	16.26	28.26	31.19	12.40	.6466	1.074	.3425
#1	.0311	.3403	-.0363	-.0091	.0072	.0170	1.669	.0227	99.34
#2	.0244	-.1229	-.0361	-.0140	.0045	.0135	1.677	.0227	99.23
#3	.0258	-.1996	-.0269	-.0164	.0042	.0142	1.655	.0231	99.86
Check ?	None	Chk Pass	Chk Pass	Chk Pass	None	None	None	None	Chk Pass
Value									
Range									

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**100.2**	**101.0**	**.1591**	**.0836**	**.0715**	**.0806**	**.1807**	**95.74**	**.3580**
Stddev	.3	.5	.2773	.0247	.0013	.0020	.2761	.41	.0039
%RSD	.2919	.5401	174.3	29.49	1.875	2.419	152.8	.4330	1.092
#1	100.5	101.6	.4793	.1035	.0731	.0826	.4996	95.58	.3565
#2	99.90	100.8	.0001	.0913	.0708	.0807	.0219	95.44	.3625
#3	100.3	100.5	-.0020	.0560	.0706	.0787	.0207	96.22	.3551
Check ?	Chk Pass	Chk Pass	None	None	None	None	None	Chk Pass	None
Value									
Range									

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**100.6**	**^ *****	**.0088**	**-.0200**	**.0501**	**-.0368**	**.0269**	**.0282**	**.0004**
Stddev	.3	-----	.0079	.0019	.0046	.0087	.0012	.0019	.2714
%RSD	.2684	-----	90.52	9.623	9.157	23.64	4.375	6.606	74620.
#1	100.5	^ -----	.0109	-.0178	.0510	-.0333	.0262	.0304	.3137
#2	100.3	^ -----	.0154	-.0209	.0451	-.0305	.0282	.0274	-.1556
#3	100.9	^ -----	-.0000	-.0213	.0542	-.0468	.0262	.0269	-.1571
Check ?	Chk Pass	None	None	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Sample Name: SEQ-IFB1 Acquired: 6/8/2023 14:46:10 Type: QC
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 200.7/6010 MATRIX:
Comment:

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.0015**	**.0080**	**.0005**
Stddev	.0100	.2753	.0014
%RSD	684.5	3441.	285.7
#1	-.0031	.3254	.0008
#2	-.0054	-.1656	.0018
#3	.0130	-.1359	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	3	Fe	0.000188	0.000000	No
			Ti	-0.000005	0.000000	No
			Mn	-0.000003	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.041460	0.000000	No
As 193.759 {474}	☒	2	V	-0.006074	0.000000	No
			Mo	0.000474	0.000000	No
B 249.773 {135}	☒	2	Fe	0.003568	0.000000	No
			Co	0.000047	0.000000	No
Ba 455.403 { 74}	☐	None				
Be 234.861 {144}	☐	1	Fe	-0.000007	0.000000	No
Ca 315.887 {107}	☐	1	Co	0.000948	0.000000	No
Cd 214.438 {457}	☐	1	Co	0.000012	0.000000	No
Co 228.616 {447}	☐	1	Mo	-0.000951	0.000000	No
Cr 283.563 {119}	☒	2	Fe	0.000566	0.000000	No
			Mo	-0.001620	0.000000	No
Cu 324.754 {104}	☐	1	V	-0.000399	0.000000	No
Fe 259.940 {130}	☐	None				
K 766.490 { 44}	☐	None				
K 769.896 { 44}	☐	3	Mn	0.000195	0.000000	No
			Fe	0.000038	0.000000	No
			Co	0.000220	0.000000	No
Li 670.784 { 50}	☐	None				
Mg 285.213 {118}	☐	None				
Mn 257.610 {131}	☐	None				
Mo 202.030 {467}	☐	None				
Na 589.592 { 57}	☐	None				
Ni 231.604 {446}	☐	None				
P 178.284 {489}	☐	4	Mo	-0.003456	0.000000	No
			Co	-0.002686	0.000000	No
			Ni	0.004168	0.000000	No
			Cu	0.000786	0.000000	No
P 214.914 {457}	☐	None				
Pb 168.215 {500}	☐	4	Cu	-0.000476	0.000000	No
			Al	0.017430	0.000000	No
			Ni	0.000099	0.000000	No
			Sn	-0.002025	0.000000	No
Pb 182.205 {485}	☐	3	Ti	-0.000591	0.000000	No
			Fe	0.000418	0.000000	No
			Mn	-0.000473	0.000000	No
Pb 220.353 {453}	☒	6	Cu	0.000312	0.000000	No
			Mo	-0.000334	0.000000	No
			Al	-0.002636	0.000000	No
			Ti	0.002009	0.000000	No
			Ni	-0.000151	0.000000	No
			Co	0.001265	0.000000	No
Sb 217.581 {455}	☒	3	Mn	-0.000483	0.000000	No
			V	0.002583	0.000000	No
			Fe	-0.000290	0.000000	No
Se 196.090 {472}	☒	3	Mn	0.000520	0.000000	No
			Fe	-0.000209	0.000000	No
			Mo	0.000074	0.000000	No
Sn 189.989 {477}	☐	1	Ti	-0.000555	0.000000	No
Sr 407.771 { 83}	☐	None				
Ti 336.121 {100}	☒	1	Ni	0.001037	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Tl 190.856 {477}	☒	5	Co	0.017332	0.000000	No
			V	-0.002263	0.000000	No
			Mo	-0.027119	0.000000	No
			Mn	0.005416	0.000000	No
			Ti	-0.000073	0.000000	No
V 292.402 {115}	☒	2	Cr	0.007203	0.000000	No
			Mo	-0.023000	0.000000	No
Zn 213.856 {458}	☒	3	Ni	0.008045	0.000000	No
			Ti	-0.000345	0.000000	No
			Al	0.000205	0.000000	No

ICP-OES

SN# IC74RC152609 01341357

Instrument Analyst: GDI		Date of analysis: 2/8/2023	
Instrument Operating Conditions			
Incident RF power	1150W		
Argon supply	Liquid argon		
Argon pressure	80 psi		
Coolant argon flow rate	15 LPM		
Auxiliary (plasma) argon flow rate	0.5 LRM		
IEC Factors:	IEC-1 (Al, V, Fe, Mn, Ti)	IEC-2 (Cr, Cu, Mo, Co, Ni))	

Analyte	Interferent IEC # 2	IEC # 1	Coefficient K1	Modified to
Ag		Fe	0,0000035	0,0001875
		Ti		
		Mn		
Al	Mo		0,0407255	0,0414595
As		V		
	Mo			
B		Fe	0,000901	0,003568
	Co			
Cr		Fe	0,002229	0,000566
	Mo			
Co	Mo			
P	Co			
	Cu			
	Mo			
	Ni			
Pb 1822		Ti		
		Mn		
		Fe		
Pb 2203	Cu			
	Mo			
	Ni			
	Co			
		Al		
		Ti		
Sb		Mn		
		V		
		Fe		
Se		Mn		
		Fe		
	Mo			
Tl	Co		0,018589	0,017332
	Mo			
		Mn		
		V		
		Ti		
Ti	Ni		0,001836	0,001037
V	Cr		0,011862	0,007203
	Mo			
Zn	Ni		0,005859	0,008045
		Al		
		Ti		

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010 D

01341358
Post Spike

Laboratory: Environmental Monitoring and Technologies, Inc
SDG: 23F0136
Client: HDR
Project: Longhorn AAP
Matrix: Water
Laboratory ID: B3F0174-PS1
Batch: B3F0174
Lab Source ID: 23F0196-06
Preparation: 3005_METALS_PREP
Initial/Final: 8.1 ml / 10 ml
Source Sample Name: Post Spike
% Solids:

Analyte	Control Limit %R	Spike Sample Result (SSR) (mg/L)	Sample Result (SR) (mg/L)	Spike Added (SA) (mg/L)	%R
Strontium, Dissolved	80 - 120	4.33	4.18	0.6173	25 *

* Values outside of QC limits

Sample Name: B3F0174-PS1 Acquired: 6/7/2023 20:17:59 Type: Unk
Method: EMT-6010(v2186) Mode: CONC Corr. Factor: 1.000000
User: QDO ANALYST: QD1 METHOD: 6010_DISS MATRIX: WATER
Comment: ND

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3169**	**.5025**	**.5020**	**.5989**	**.6421**	**.5009**	F **81.28**	**.4626**	**.4610**
Stddev	.0061	.0043	.0033	.0073	.0032	.0060	.61	.0049	.0088
%RSD	1.936	.8604	.6628	1.222	.5014	1.198	.7486	1.055	1.901
#1	.3230	.5058	.5013	.6054	.6456	.5072	81.56	.4570	.4517
#2	.3170	.4976	.5056	.5910	.6393	.4953	80.58	.4648	.4623
#3	.3107	.5040	.4991	.6003	.6415	.5001	81.69	.4660	.4691

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5079**	**.4786**	**1.045**	**13.07**	**.5721**	F **54.42**	**.6887**	**.4562**	F **430.6**
Stddev	.0068	.0045	.011	.17	.0027	.61	.0088	.0086	8.8
%RSD	1.347	.9314	1.024	1.295	.4789	1.129	1.279	1.881	2.041
#1	.5141	.4819	1.053	13.24	.5751	54.81	.6963	.4477	440.5
#2	.5005	.4736	1.033	12.90	.5698	54.74	.6790	.4562	423.9
#3	.5092	.4804	1.049	13.08	.5714	53.71	.6906	.4648	427.2

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4847**	**.6177**	**.4719**	**.5421**	**.4702**	**.4779**	**.4938**	**3.507**	**.4795**
Stddev	.0060	.0119	.0063	.0097	.0153	.0091	.0115	.042	.0059
%RSD	1.241	1.919	1.345	1.788	3.246	1.909	2.334	1.188	1.239
#1	.4784	.6083	.4661	.5321	.4526	.4698	.4819	3.484	.4859
#2	.4853	.6137	.4708	.5428	.4783	.4761	.4946	3.555	.4741
#3	.4904	.6310	.4787	.5515	.4797	.4878	.5049	3.482	.4787

Elem	Tl1908	V_2924	Zn2138
Units	ppm	ppm	ppm
Avg	**.4867**	**.5195**	**.5185**
Stddev	.0147	.0061	.0102
%RSD	3.014	1.171	1.965
#1	.4703	.5262	.5075
#2	.4916	.5142	.5202
#3	.4983	.5182	.5276

LCS / LCS DUPLICATE RECOVERY

01341360

SW6010 D

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	3005_METALS_PREP
Prep Batch:	B3F0174	Lab Sample ID:	B3F0174-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Strontium, Dissolved (dissolved)	0.5556	0.578	104	80 - 120

* Values outside of QC limits

PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-01	06/06/23 14:28	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Strontium, Dissolved						
23F0136-02	06/06/23 14:28	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Strontium, Dissolved						

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23F0136-03 : : : : :	06/06/23 14:28	45	50					**Prepared By**: MBD
Analytes:	Strontium, Dissolved							
23F0136-04 : : : : :	06/06/23 14:28	45	50					**Prepared By**: MBD
Analytes:	Strontium, Dissolved							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23F0136-05	06/06/23 14:28	45	50					**Prepared By**: MBD
: : : : :								
Analytes:	Strontium, Dissolved							
23F0136-06	06/06/23 14:28	45	50					**Prepared By**: MBD
: : : : :								
Analytes:	Strontium, Dissolved							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23F0136-07 : : : : :	06/06/23 14:28	45	50					**Prepared By**: MBD
Analytes:	Strontium, Dissolved							
23F0136-08 : : : : :	06/06/23 14:28	45	50					**Prepared By**: MBD
Analytes:	Strontium, Dissolved							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23F0136-09	06/06/23 14:28	45	50					**Prepared By**: MBD
: : : : :								
Analytes:	Strontium, Dissolved							
23F0136-10	06/06/23 14:28	45	50					**Prepared By**: MBD
: : : : :								
Analytes:	Strontium, Dissolved							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23F0136-11 : : : : :	06/06/23 14:28	45	50					**Prepared By**: MBD
Analytes:	Strontium, Dissolved							
23F0136-12 : : : : :	06/06/23 14:28	45	50					**Prepared By**: MBD
Analytes:	Strontium, Dissolved							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23F0136-13 : : : : :	06/06/23 14:28	45	50					**Prepared By**: MBD
Analytes:	Strontium, Dissolved							
23F0136-14 : : : : :	06/06/23 14:28	45	50					**Prepared By**: MBD
Analytes:	Strontium, Dissolved							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23F0136-15	06/06/23 14:28	45	50					**Prepared By**: MBD
: : : : :								
Analytes:	Strontium, Dissolved							
23F0196-01	06/06/23 14:28	45	50					**Prepared By**: MBD
: : : : :								
Analytes:	Strontium, Dissolved							

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0196-02 : : : : :	06/06/23 14:28	45	50				**Prepared By**: MBD
Analytes:	Strontium, Dissolved						
23F0196-04 : : : : :	06/06/23 14:28	45	50				**Prepared By**: MBD
Analytes:	Strontium, Dissolved						

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PREPARATION BENCH SHEET
ICP

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method: SW6010 D** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23F0196-05	06/06/23 14:28	45	50					**Prepared By**: MBD
: : : : :								
Analytes:	Strontium, Dissolved							
23F0196-06	06/06/23 14:28	45	50					**Prepared By**: MBD
: : : : :								
Analytes:	Strontium, Dissolved							

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PREPARATION BENCH SHEET

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B3F0174-BLK1	06/06/23 14:28	45	50				
: : : : :							**Prepared By**: MBD

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PREPARATION BENCH SHEET

Print Date/Time: 06/06/2023

B3F0174

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3005_METALS_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments

Spiking Solution(s)

Reagents / Equipment

Standard	Description	LotNum
2100069	pH paper 0-14 mbd	225320a
3040100	Nitric Acid HNO3 - Metals	1122090
3050671	CYLINDERS 50 ml MBD	2206050

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ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-AES

Client: HDR
Project: Longhorn AAP

Sequence:	S3F0140	Instrument:	ICP-AES 7400
Calibration:	EF30034		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Blank	B3F0174-BLK1	06072023A-031	06/07/23 18:29
LCS	B3F0174-BS1	06072023A-032	06/07/23 18:34
53147WW29	23F0136-01	06072023A-033	06/07/23 18:38
53147WW13	23F0136-02	06072023A-034	06/07/23 18:42
53047WW08R	23F0136-03	06072023A-035	06/07/23 18:46
531DUP4	23F0136-04	06072023A-036	06/07/23 18:50
6147WW34	23F0136-05	06072023A-037	06/07/23 18:54
61DUP6	23F0136-06	06072023A-038	06/07/23 18:59
6147WW04	23F0136-07	06072023A-041	06/07/23 19:12
6147WW33	23F0136-08	06072023A-042	06/07/23 19:16
6147WW46	23F0136-09	06072023A-043	06/07/23 19:20
53147WW38	23F0136-10	06072023A-044	06/07/23 19:25
531DUP6	23F0136-11	06072023A-045	06/07/23 19:29
531LHSMW50	23F0136-12	06072023A-046	06/07/23 19:33
53147WW61	23F0136-13	06072023A-047	06/07/23 19:38
6147WW31	23F0136-14	06072023A-048	06/07/23 19:42
6147WW45	23F0136-15	06072023A-049	06/07/23 19:46
Post Spike	B3F0174-PS1	06072023A-056	06/07/23 20:17

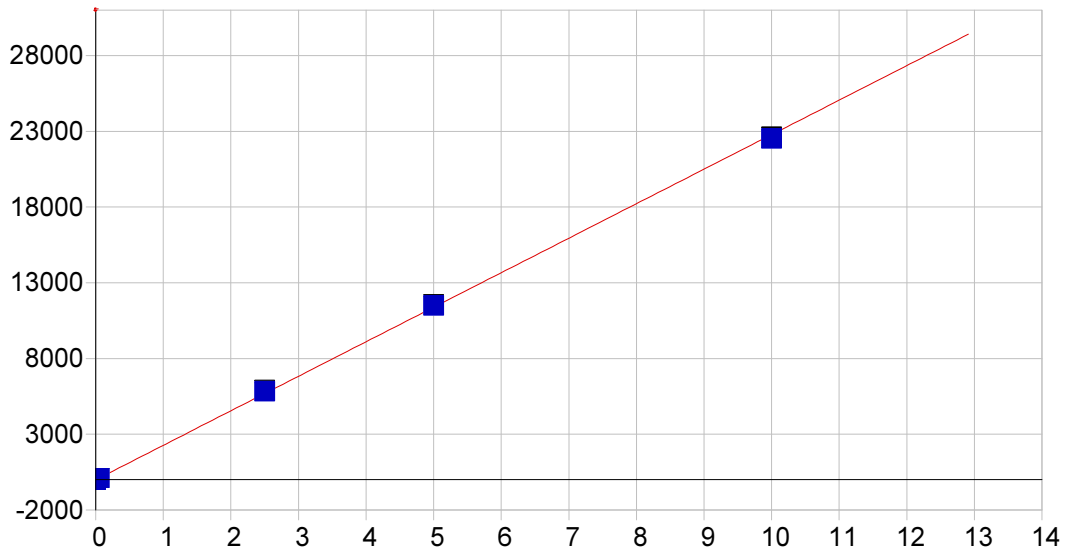
ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-AES

Client: HDR
Project: Longhorn AAP

Sequence:	S3F0151	Instrument:	ICP-AES 7400
Calibration:	EF30037		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check (STD # 3050787)	S3F0151-ICV1	06082023-006	06/08/23 14:25
Initial Cal Blank	S3F0151-ICB1	06082023-007	06/08/23 14:29
Calibration Check (STD # 3060312)	S3F0151-CCV1	06082023-008	06/08/23 14:33
Calibration Blank	S3F0151-CCB1	06082023-009	06/08/23 14:37
Interference Check A (STD # 3050762)	S3F0151-IFA1	06082023-010	06/08/23 14:41
Interference Check B (STD # 3050763)	S3F0151-IFB1	06082023-011	06/08/23 14:46
Instrument RL Check (STD # 3050786)	S3F0151-CRL1	06082023-013	06/08/23 15:01
Closing Cal Check (STD # 3030761)	S3F0151-HCV1	06082023-014	06/08/23 15:05
53147WW29	23F0136-01RE1	06082023-021	06/08/23 15:35
Calibration Check (STD # 3060312)	S3F0151-CCV2	06082023-022	06/08/23 15:39
Calibration Blank	S3F0151-CCB2	06082023-023	06/08/23 15:44
53147WW13	23F0136-02RE1	06082023-024	06/08/23 15:48
53047WW08R	23F0136-03RE1	06082023-025	06/08/23 15:52
531DUP4	23F0136-04RE1	06082023-026	06/08/23 15:56
6147WW34	23F0136-05RE1	06082023-027	06/08/23 16:00
61DUP6	23F0136-06RE1	06082023-028	06/08/23 16:04
6147WW04	23F0136-07RE1	06082023-029	06/08/23 16:09
6147WW33	23F0136-08RE1	06082023-030	06/08/23 16:14
6147WW46	23F0136-09RE1	06082023-031	06/08/23 16:18
53147WW38	23F0136-10RE1	06082023-032	06/08/23 16:22
531DUP6	23F0136-11RE1	06082023-033	06/08/23 16:26
Calibration Check (STD # 3060312)	S3F0151-CCV3	06082023-034	06/08/23 16:31
Calibration Blank	S3F0151-CCB3	06082023-035	06/08/23 16:35
531LHSMW50	23F0136-12RE1	06082023-036	06/08/23 16:39
53147WW61	23F0136-13RE1	06082023-037	06/08/23 16:43
6147WW31	23F0136-14RE1	06082023-038	06/08/23 16:48
6147WW45	23F0136-15RE1	06082023-039	06/08/23 16:52
Calibration Check (STD # 3060312)	S3F0151-CCV4	06082023-046	06/08/23 17:24
Calibration Blank	S3F0151-CCB4	06082023-047	06/08/23 17:28
Calibration Check (STD # 3060312)	S3F0151-CCV5	06082023-058	06/08/23 18:16
Calibration Blank (STD # 2110023)	S3F0151-CCB5	06082023-059	06/08/23 18:20

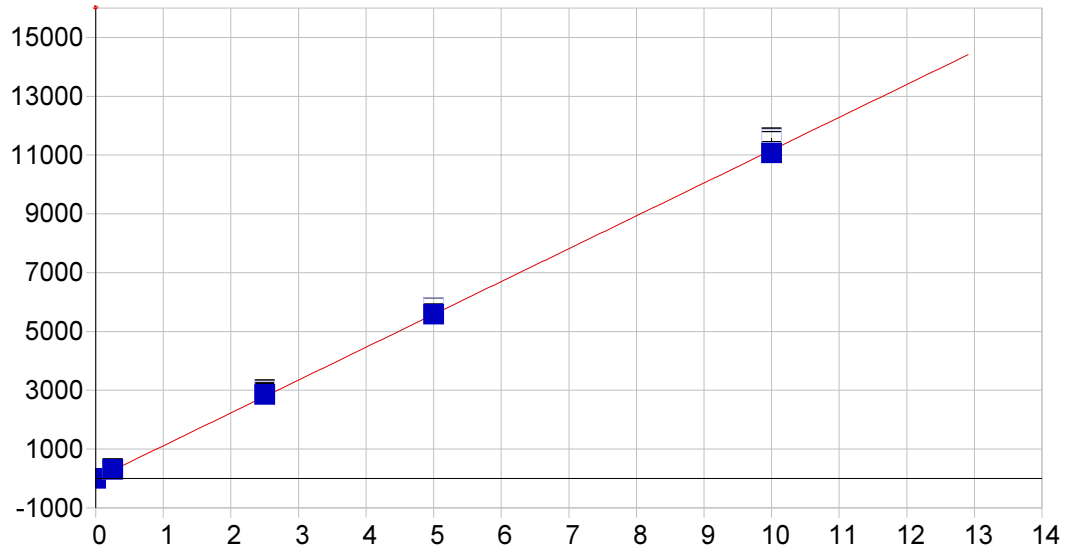


Ag 328.068 {103}

Date of Fit:	6/7/2023 16:59:54	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-8.404934	Re-Slope:	1.000000
A1 (Gain):	2278.865299	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999900	Status:	OK.
Std Error of Est:	1.229535		
Predicted MDL:	0.002581		
Predicted MQL:	0.008602		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-8.4167	2.63	1
SEQ-CAL2	.05000	.05402	.004	8.04	114.70	5.70	1
SEQ-CAL3	2.5000	2.5609	.061	2.44	5827.6	80.4	1
SEQ-CAL4	5.0000	5.0468	.047	.937	11493.	47.9	1
SEQ-CAL5	10.000	9.8882	-.112	-1.12	22525.	91.9	1

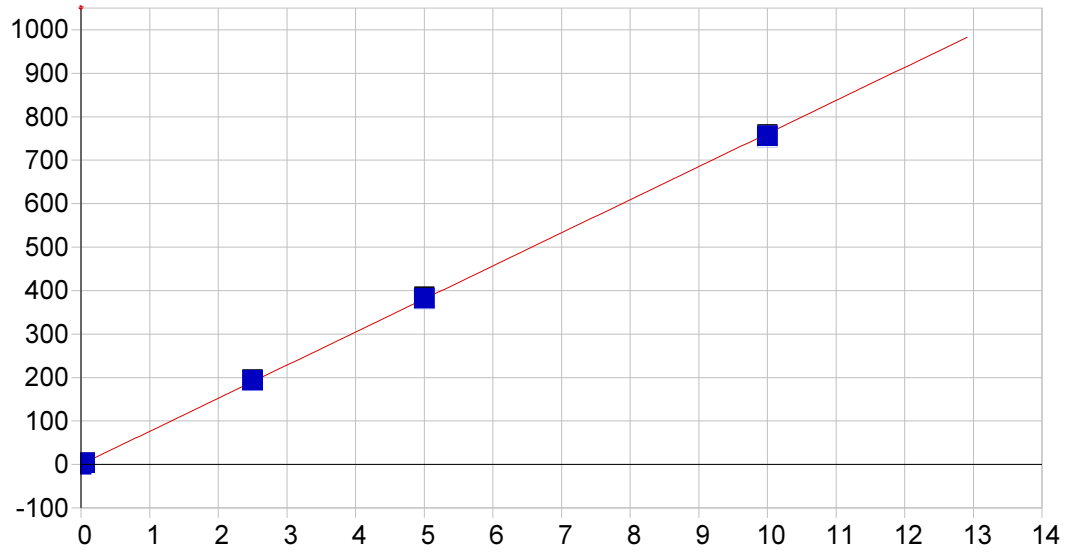


Al 396.152 { 85}

Date of Fit:	6/7/2023 16:59:54	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-3.434012	Re-Slope:	1.000000
A1 (Gain):	1116.996582	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999861	Status:	OK.
Std Error of Est:	1.667811		
Predicted MDL:	0.007536		
Predicted MQL:	0.025121		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00003	-.000	.000	-3.4700	7.65	1
SEQ-CAL2	.25000	.27852	.029	11.4	309.95	13.7	1
SEQ-CAL3	2.5000	2.5569	.057	2.28	2966.4	47.5	1
SEQ-CAL4	5.0000	5.0047	.005	.095	5814.3	3.45	1
SEQ-CAL5	10.000	9.9107	-.089	-.893	11522.	56.3	1

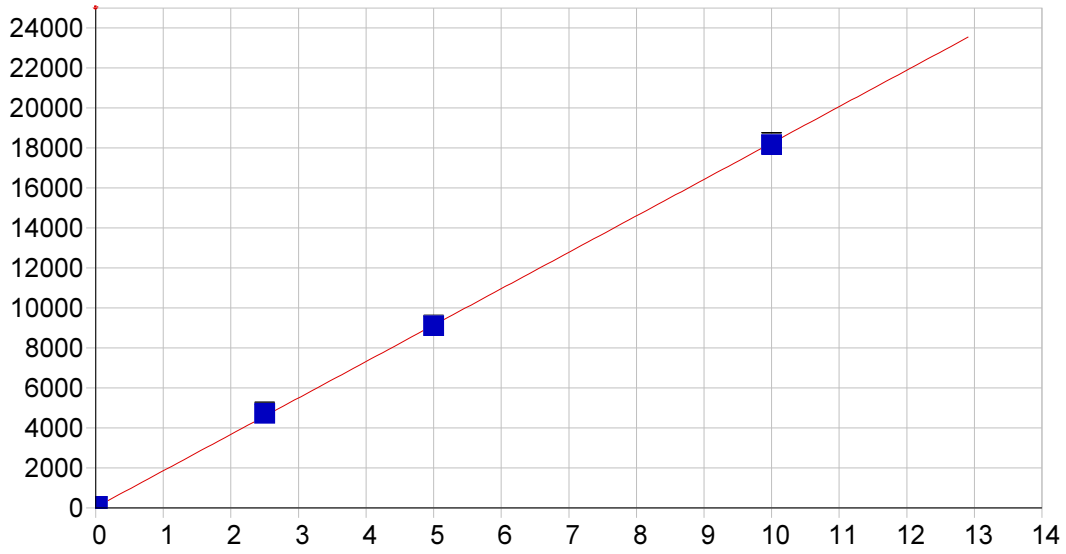


As 193.759 {474}

Date of Fit:	6/7/2023 16:59:54	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.035747	Re-Slope:	1.000000
A1 (Gain):	76.122444	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999963	Status:	OK.
Std Error of Est:	0.024831		
Predicted MDL:	0.006008		
Predicted MQL:	0.020028		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.03555	.342	1
SEQ-CAL2	.05000	.05185	.002	3.71	3.9617	.328	1
SEQ-CAL3	2.5000	2.5425	.043	1.70	192.51	.831	1
SEQ-CAL4	5.0000	5.0195	.020	.391	380.00	3.05	1
SEQ-CAL5	10.000	9.9361	-.064	-.639	752.13	2.34	1

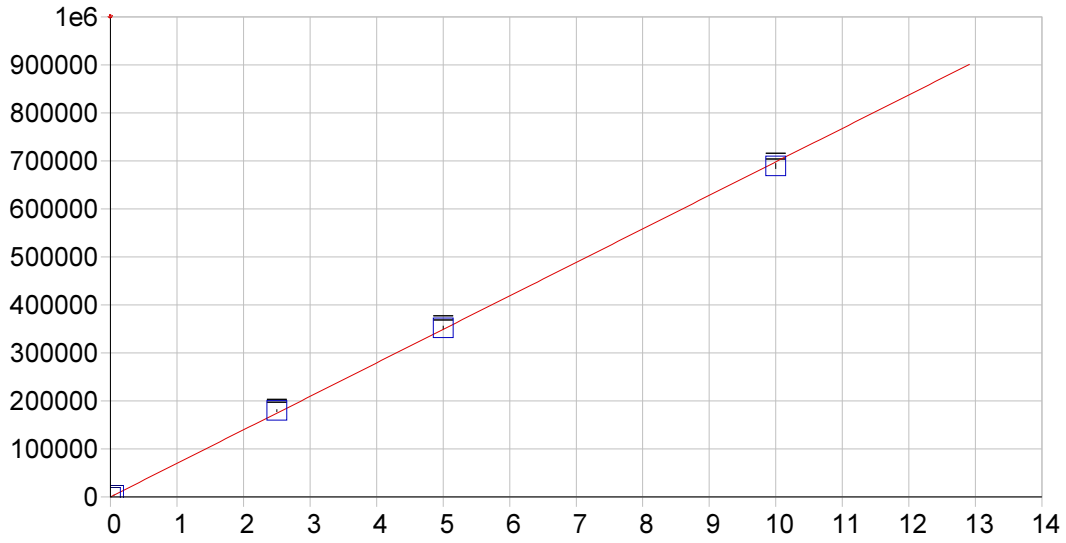


B 249.773 {135}

Date of Fit:	6/7/2023 16:59:54	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	35.230636	Re-Slope:	1.000000
A1 (Gain):	1821.407053	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999877	Status:	OK.
Std Error of Est:	0.772966		
Predicted MDL:	0.001387		
Predicted MQL:	0.004622		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL2	.02500	.01842	-.007	-26.3	68.942	2.19	1
SEQ-CAL3	2.5000	2.5754	.075	3.02	4730.4	54.2	1
SEQ-CAL4	5.0000	4.9783	-.022	-.434	9111.4	25.7	1
SEQ-CAL5	10.000	9.9529	-.047	-.471	18181.	97.6	1
SEQ-CAL1	.00000	.00001	.000	.000	35.242	2.53	1

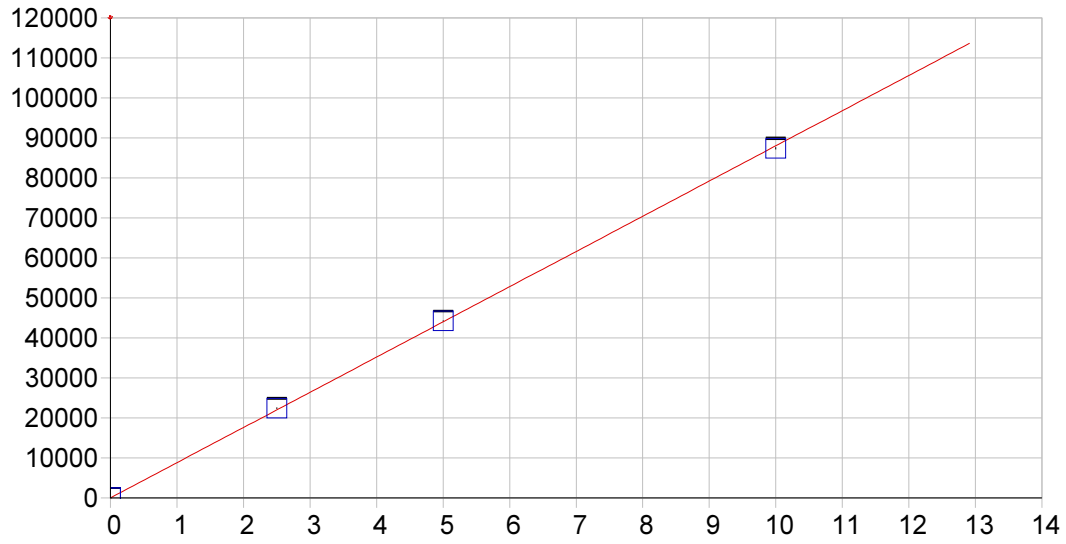


Ba 455.403 { 74}

Date of Fit:	6/7/2023 16:59:54	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	59.324979	Re-Slope:	1.000000
A1 (Gain):	69792.07516	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999853	Status:	OK.
Std Error of Est:	45.702506		
Predicted MDL:	0.000156		
Predicted MQL:	0.000521		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	58.763	12.7	1
SEQ-CAL2	.05000	.05674	.007	13.5	4019.3	16.6	1
SEQ-CAL3	2.5000	2.5738	.074	2.95	179690.	2900.	1
SEQ-CAL4	5.0000	5.0469	.047	.939	352300.	4310.	1
SEQ-CAL5	10.000	9.8726	-.127	-1.27	689090.	5980.	1

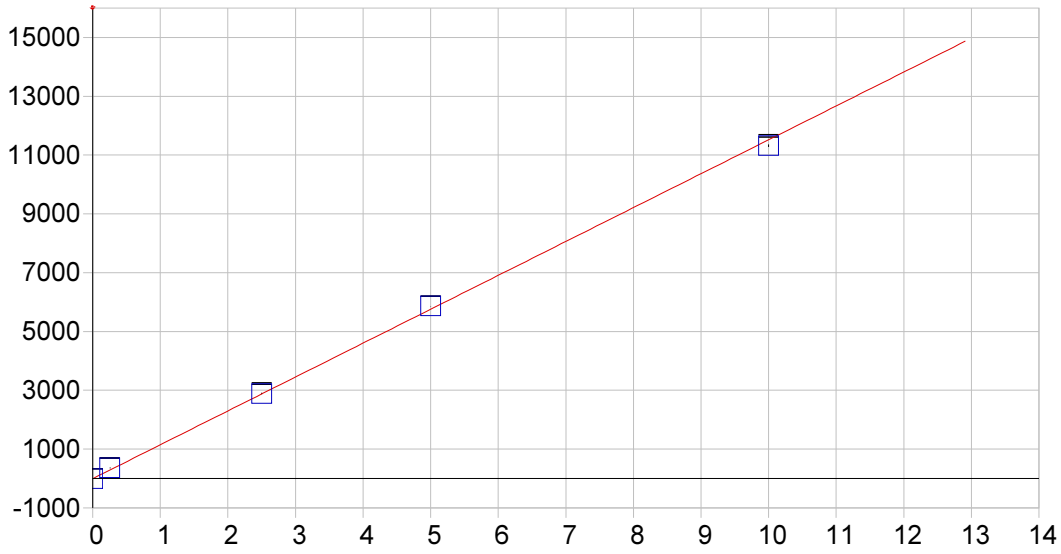


Be 234.861 {144}

Date of Fit:	6/7/2023 16:59:54	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	2.475571	Re-Slope:	1.000000
A1 (Gain):	8801.134086	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999955	Status:	OK.
Std Error of Est:	1.005813		
Predicted MDL:	0.000191		
Predicted MQL:	0.000638		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	2.4714	.443	1
SEQ-CAL2	.00500	.00539	.000	7.75	49.893	1.09	1
SEQ-CAL3	2.5000	2.5472	.047	1.89	22421.	215.	1
SEQ-CAL4	5.0000	5.0248	.025	.497	44227.	159.	1
SEQ-CAL5	10.000	9.9276	-.072	-.724	87376.	275.	1

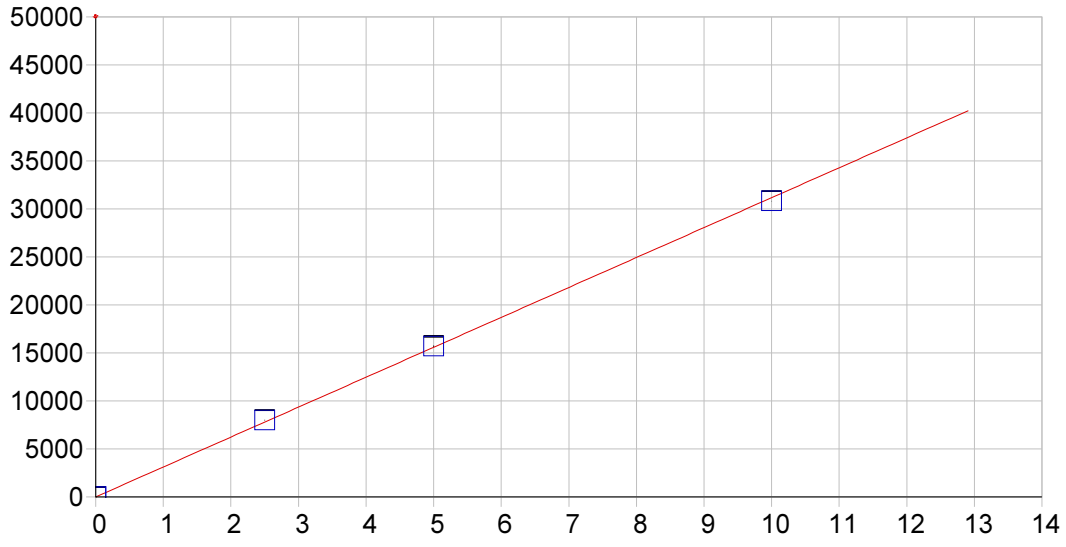


Ca 315.887 {107}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-5.285781	Re-Slope:	1.000000
A1 (Gain):	1152.364767	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999379	Status:	OK.
Std Error of Est:	3.492406		
Predicted MDL:	0.004074		
Predicted MQL:	0.013579		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00007	-.000	.000	-5.3633	3.51	1
SEQ-CAL2	.25000	.31579	.066	26.3	358.62	2.49	1
SEQ-CAL3	2.5000	2.5106	.011	.423	2887.8	26.3	1
SEQ-CAL4	5.0000	5.0943	.094	1.89	5865.2	3.48	1
SEQ-CAL5	10.000	9.8293	-.171	-1.71	11322.	39.7	1

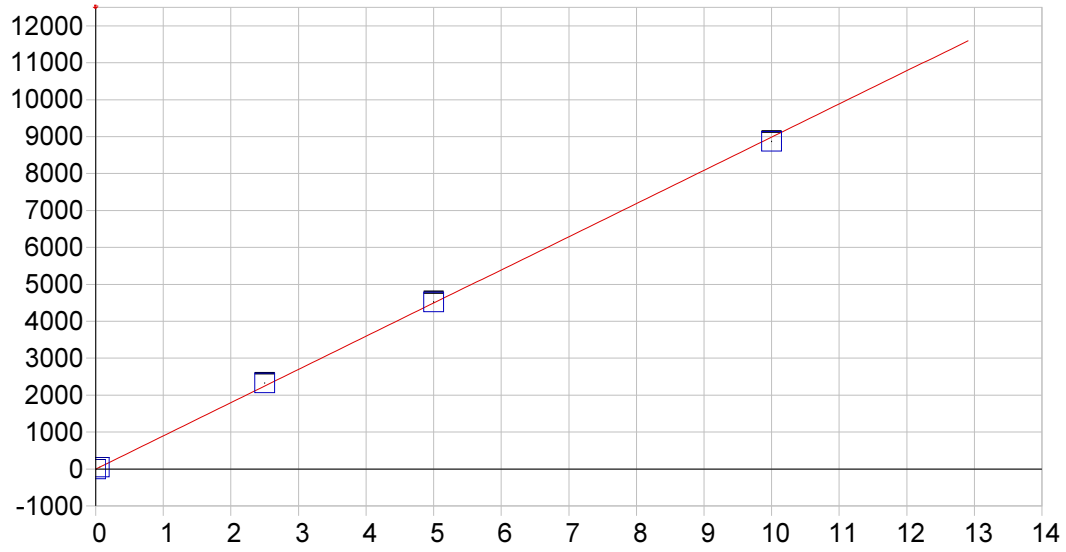


Cd 214.438 {457}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.547103	Re-Slope:	1.000000
A1 (Gain):	3116.773025	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.542397		
Predicted MDL:	0.000256		
Predicted MQL:	0.000853		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.54437	.329	1
SEQ-CAL2	.00500	.00575	.001	15.0	18.471	.460	1
SEQ-CAL3	2.5000	2.5716	.072	2.86	8015.6	32.4	1
SEQ-CAL4	5.0000	5.0372	.037	.744	15700.	81.0	1
SEQ-CAL5	10.000	9.8905	-.110	-1.10	30827.	15.1	1

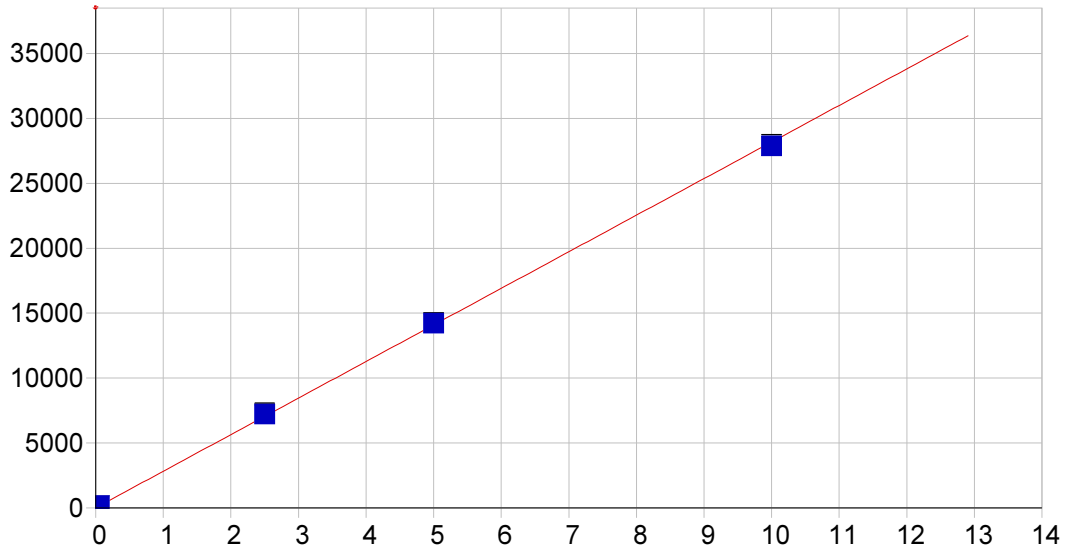


Co 228.616 {447}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.265908	Re-Slope:	1.000000
A1 (Gain):	898.493476	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999830	Status:	OK.
Std Error of Est:	0.632708		
Predicted MDL:	0.000889		
Predicted MQL:	0.002962		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-.27285	.493	1
SEQ-CAL2	.05000	.05624	.006	12.5	50.263	1.29	1
SEQ-CAL3	2.5000	2.5907	.091	3.63	2327.4	19.2	1
SEQ-CAL4	5.0000	5.0326	.033	.652	4521.5	25.3	1
SEQ-CAL5	10.000	9.8705	-.130	-1.30	8868.3	19.6	1

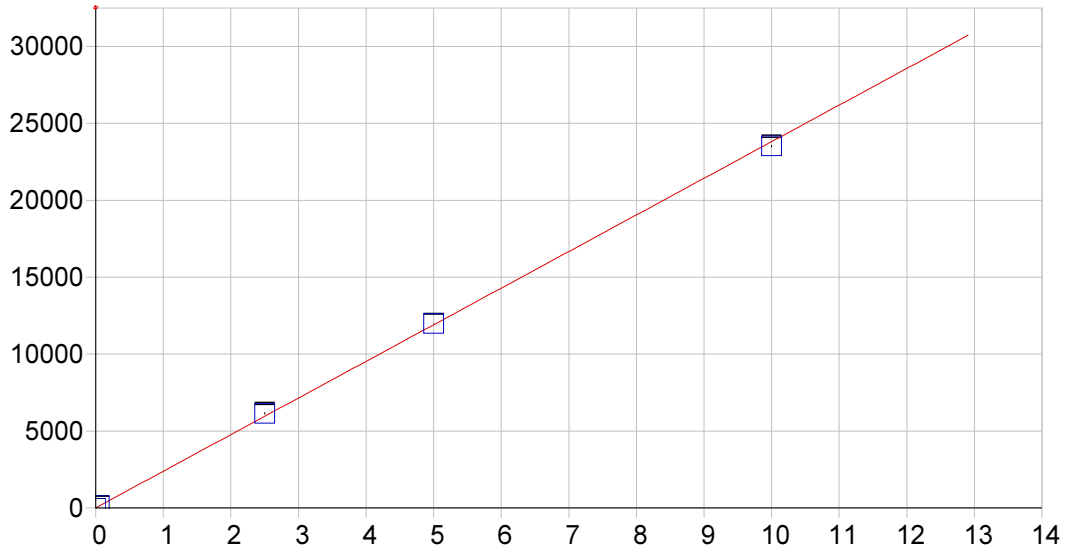


Cr 283.563 {119}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	6.703064	Re-Slope:	1.000000
A1 (Gain):	2817.469509	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999891	Status:	OK.
Std Error of Est:	1.588614		
Predicted MDL:	0.001207		
Predicted MQL:	0.004023		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	6.6833	.543	1
SEQ-CAL2	.05000	.05589	.006	11.8	164.58	1.10	1
SEQ-CAL3	2.5000	2.5612	.061	2.45	7227.0	75.6	1
SEQ-CAL4	5.0000	5.0441	.044	.882	14227.	41.3	1
SEQ-CAL5	10.000	9.8888	-.111	-1.11	27885.	111.	1

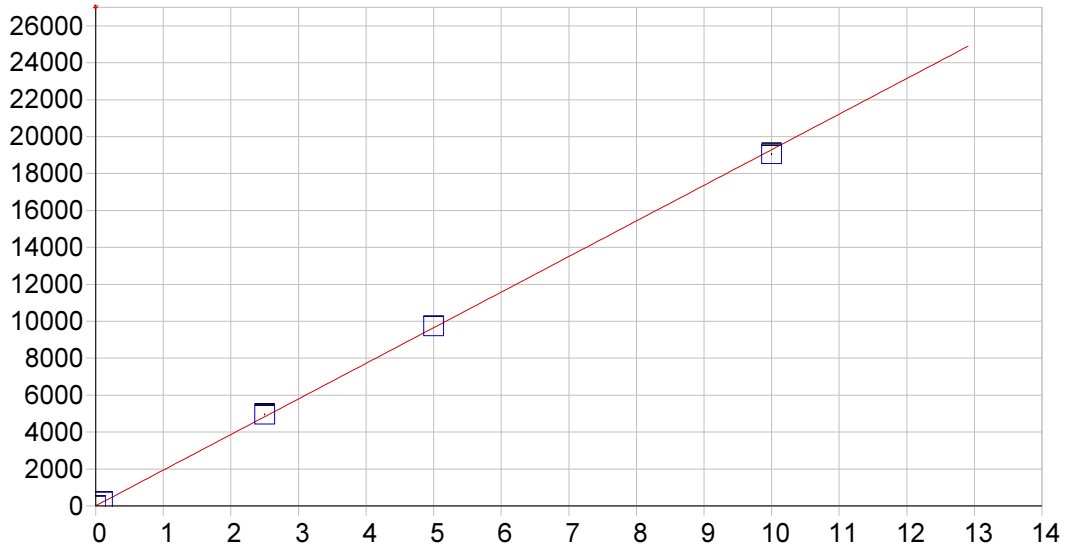


Cu 324.754 {104}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	4.216592	Re-Slope:	1.000000
A1 (Gain):	2380.693236	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999857	Status:	OK.
Std Error of Est:	1.537322		
Predicted MDL:	0.002039		
Predicted MQL:	0.006797		

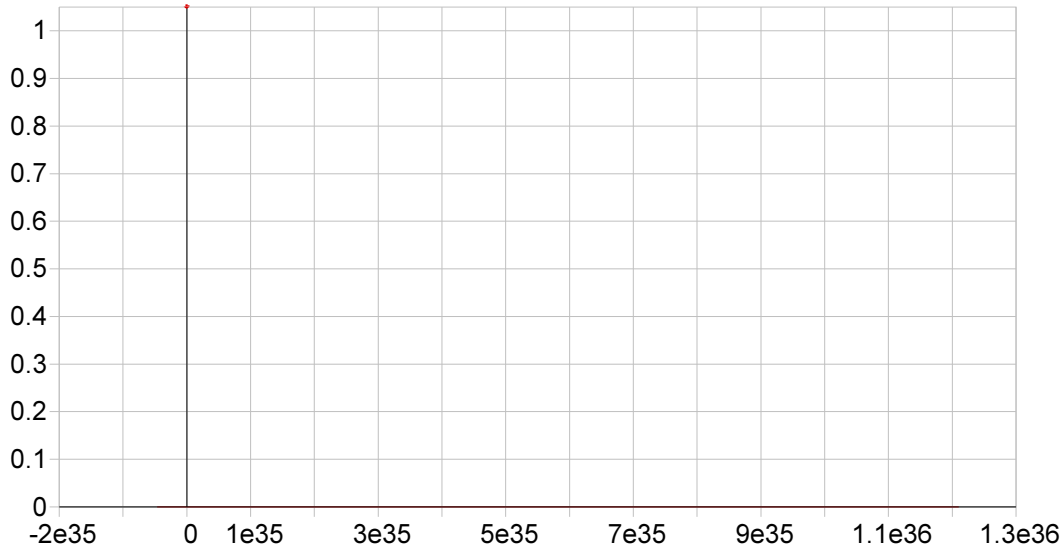
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	4.1967	2.58	1
SEQ-CAL2	.05000	.05708	.007	14.2	140.10	5.09	1
SEQ-CAL3	2.5000	2.5775	.077	3.10	6140.4	74.6	1
SEQ-CAL4	5.0000	5.0331	.033	.663	11987.	15.2	1
SEQ-CAL5	10.000	9.8823	-.118	-1.18	23531.	73.4	1



Fe 259.940 {130}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	9.568401		Re-Slope:	1.000000	
A1 (Gain):	1928.013179		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999831		Status:	OK.	
Std Error of Est:	1.921296				
Predicted MDL:	0.001326				
Predicted MQL:	0.004419				

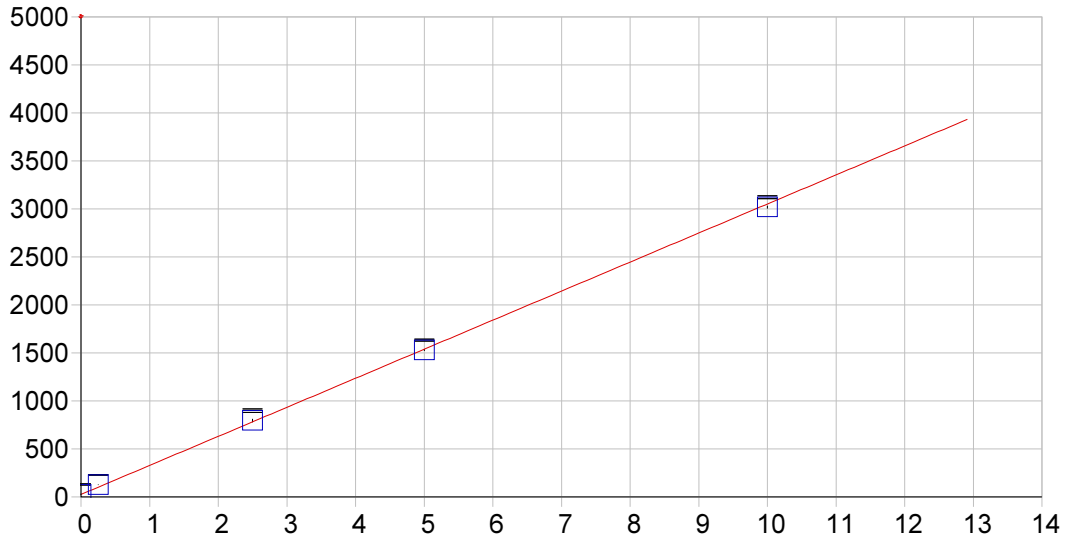
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00002	-.000	.000	9.5333	1.55	1
SEQ-CAL2	.10000	.11606	.016	16.1	233.32	2.35	1
SEQ-CAL3	2.5000	2.5621	.062	2.48	4949.3	50.7	1
SEQ-CAL4	5.0000	5.0431	.043	.863	9732.8	13.0	1
SEQ-CAL5	10.000	9.8787	-.121	-1.21	19056.	61.7	1



K 766.490 { 44}

Date of Fit:	5/8/2023 17:16:51	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	1.145570				
Predicted MDL:	0.047854				
Predicted MQL:	0.159512				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

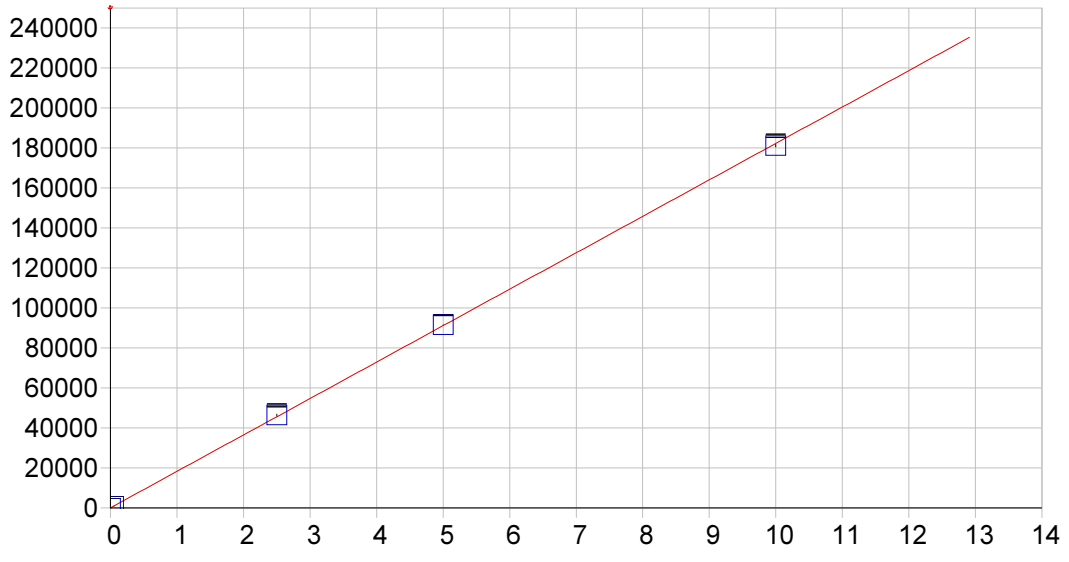


K 769.896 { 44}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	25.552113	Re-Slope:	1.000000
A1 (Gain):	302.591952	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999045	Status:	OK.
Std Error of Est:	1.137131		
Predicted MDL:	0.045399		
Predicted MQL:	0.151329		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00009	-.000	.000	25.525	7.09	1
SEQ-CAL2	.25000	.33912	.089	35.6	128.17	3.33	1
SEQ-CAL3	2.5000	2.5459	.046	1.84	795.92	19.1	1
SEQ-CAL4	5.0000	4.9708	-.029	-.585	1529.7	9.26	1
SEQ-CAL5	10.000	9.8942	-.106	-1.06	3019.5	15.0	1

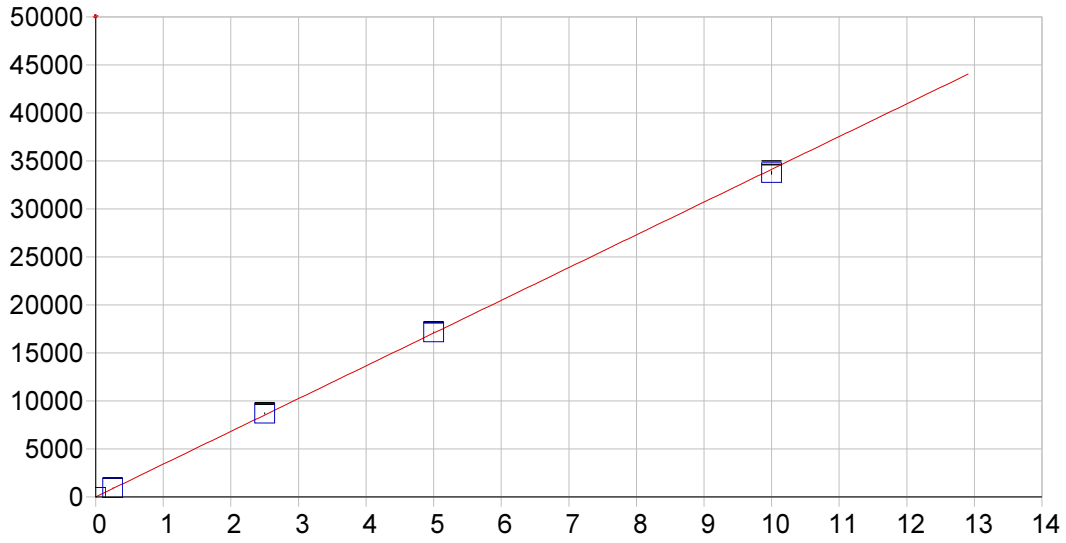


Li 670.784 { 50}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	33.370683	Re-Slope:	1.000000
A1 (Gain):	18225.91542	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999968	Status:	OK.
Std Error of Est:	5.598275		
Predicted MDL:	0.000924		
Predicted MQL:	0.003081		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	33.329	3.43	1
SEQ-CAL2	.05000	.05161	.002	3.22	973.99	23.3	1
SEQ-CAL3	2.5000	2.5406	.041	1.62	46338.	767.	1
SEQ-CAL4	5.0000	5.0178	.018	.355	91487.	234.	1
SEQ-CAL5	10.000	9.9400	-.060	-.600	181200.	762.	1

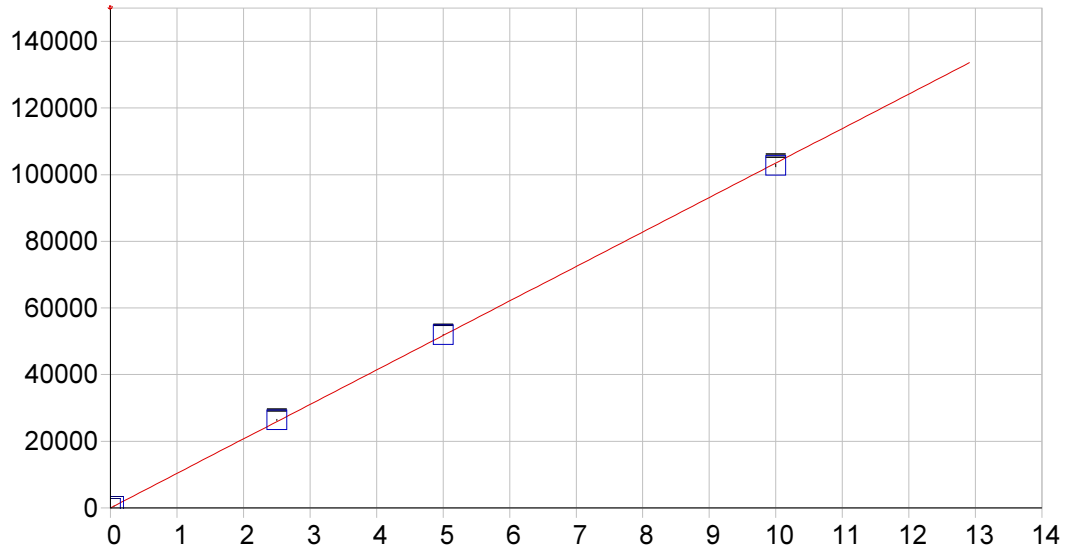


Mg 285.213 {118}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	2.181998	Re-Slope:	1.000000
A1 (Gain):	3412.132015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999867	Status:	OK.
Std Error of Est:	4.784891		
Predicted MDL:	0.001065		
Predicted MQL:	0.003549		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00003	-.000	.000	2.0833	.621	1
SEQ-CAL2	.25000	.27512	.025	10.0	940.93	5.72	1
SEQ-CAL3	2.5000	2.5497	.050	1.99	8702.1	103.	1
SEQ-CAL4	5.0000	5.0279	.028	.557	17158.	62.1	1
SEQ-CAL5	10.000	9.8973	-.103	-1.03	33773.	199.	1

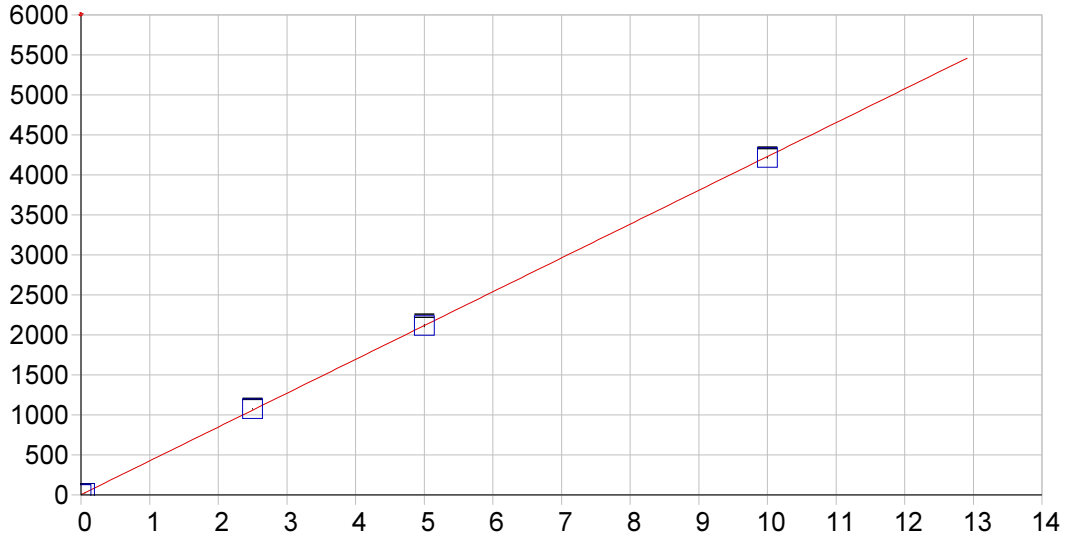


Mn 257.610 {131}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	6.073694	Re-Slope:	1.000000
A1 (Gain):	10349.02386	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999930	Status:	OK.
Std Error of Est:	4.673284		
Predicted MDL:	0.000249		
Predicted MQL:	0.000831		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	6.0000	1.80	1
SEQ-CAL2	.05000	.05630	.006	12.6	588.76	2.54	1
SEQ-CAL3	2.5000	2.5503	.050	2.01	26399.	288.	1
SEQ-CAL4	5.0000	5.0189	.019	.379	51947.	170.	1
SEQ-CAL5	10.000	9.9245	-.076	-.755	102710.	478.	1

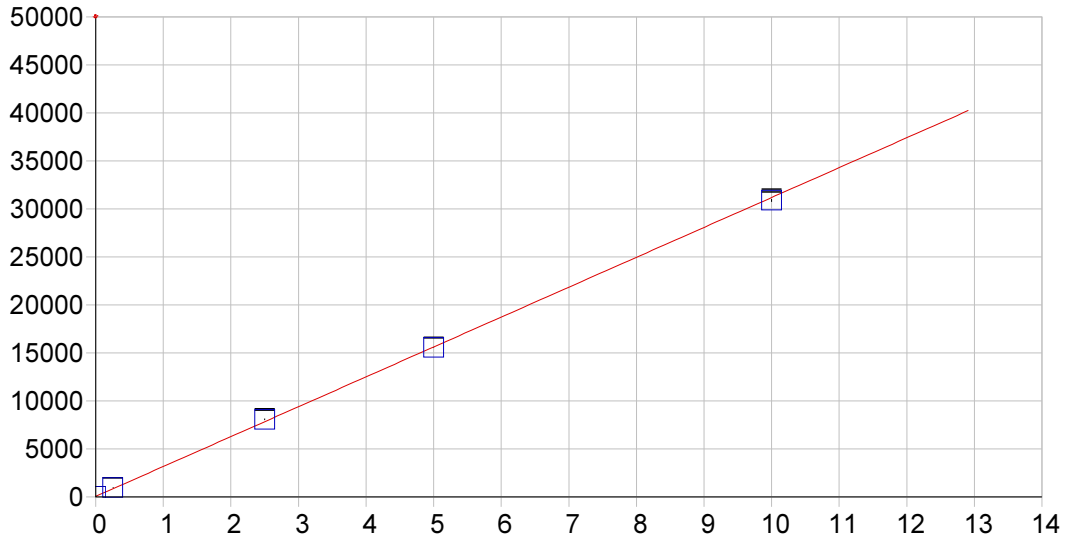


Mo 202.030 {467}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	3.016520	Re-Slope:	1.000000
A1 (Gain):	422.692517	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.106055		
Predicted MDL:	0.001219		
Predicted MQL:	0.004065		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	3.0160	.655	1
SEQ-CAL2	.05000	.05056	.001	1.12	24.387	.485	1
SEQ-CAL3	2.5000	2.5390	.039	1.56	1076.2	7.36	1
SEQ-CAL4	5.0000	4.9980	-.002	-.039	2115.7	21.4	1
SEQ-CAL5	10.000	9.9624	-.038	-.376	4214.1	9.18	1

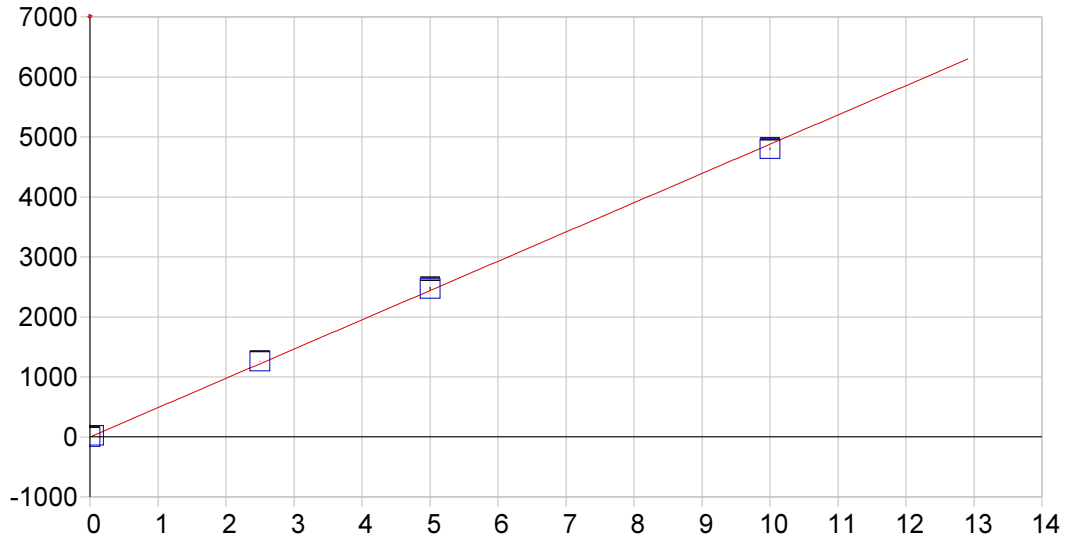


Na 589.592 { 57}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	53.593372	Re-Slope:	1.000000
A1 (Gain):	3113.168659	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999733	Status:	OK.
Std Error of Est:	6.183260		
Predicted MDL:	0.005329		
Predicted MQL:	0.017762		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00004	-.000	.000	53.458	3.39	1
SEQ-CAL2	.25000	.28911	.039	15.6	953.63	.527	1
SEQ-CAL3	2.5000	2.5768	.077	3.07	8075.6	83.6	1
SEQ-CAL4	5.0000	4.9795	-.021	-.411	15556.	36.8	1
SEQ-CAL5	10.000	9.9046	-.095	-.954	30888.	144.	1

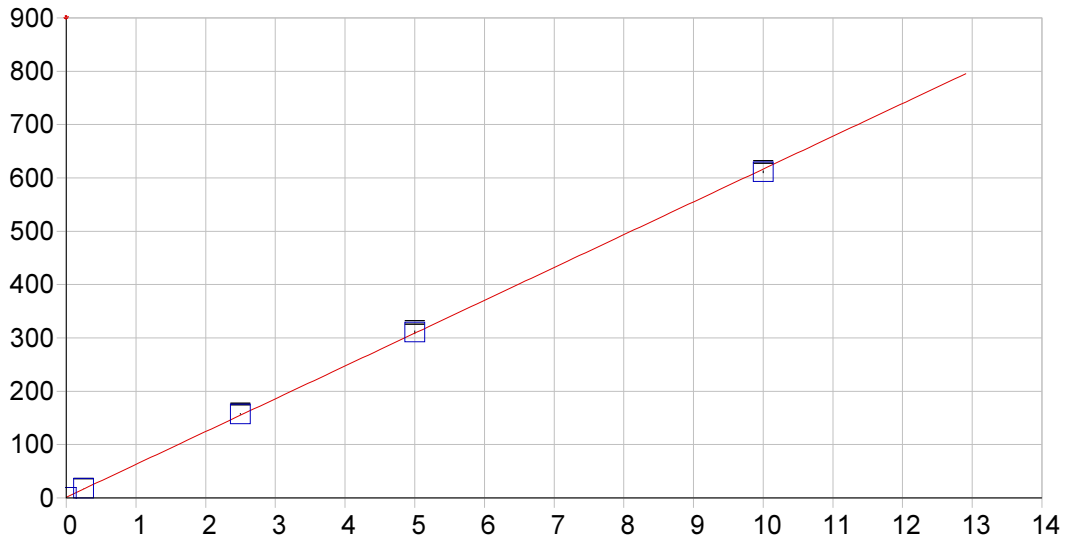


Ni 231.604 {446}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.019756	Re-Slope:	1.000000
A1 (Gain):	487.820336	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999815	Status:	OK.
Std Error of Est:	0.358643		
Predicted MDL:	0.001415		
Predicted MQL:	0.004715		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-.02222	.094	1
SEQ-CAL2	.05000	.05345	.003	6.90	26.055	.595	1
SEQ-CAL3	2.5000	2.5851	.085	3.40	1261.1	7.27	1
SEQ-CAL4	5.0000	5.0677	.068	1.35	2472.1	25.4	1
SEQ-CAL5	10.000	9.8438	-.156	-1.56	4802.0	17.3	1

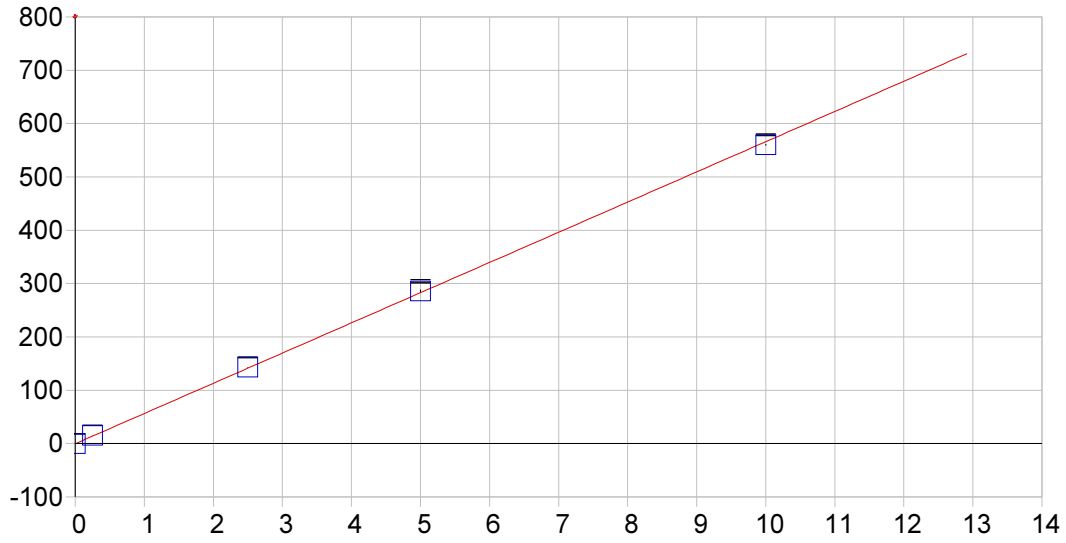


P 178.284 {489}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	1.250072	Re-Slope:	1.000000
A1 (Gain):	61.531138	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999919	Status:	OK.
Std Error of Est:	0.067280		
Predicted MDL:	0.006530		
Predicted MQL:	0.021767		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00002	-.000	.000	1.2487	.286	1
SEQ-CAL2	.25000	.26882	.019	7.53	17.791	.477	1
SEQ-CAL3	2.5000	2.5391	.039	1.56	157.48	1.35	1
SEQ-CAL4	5.0000	5.0262	.026	.524	310.52	3.32	1
SEQ-CAL5	10.000	9.9159	-.084	-.841	611.39	2.33	1

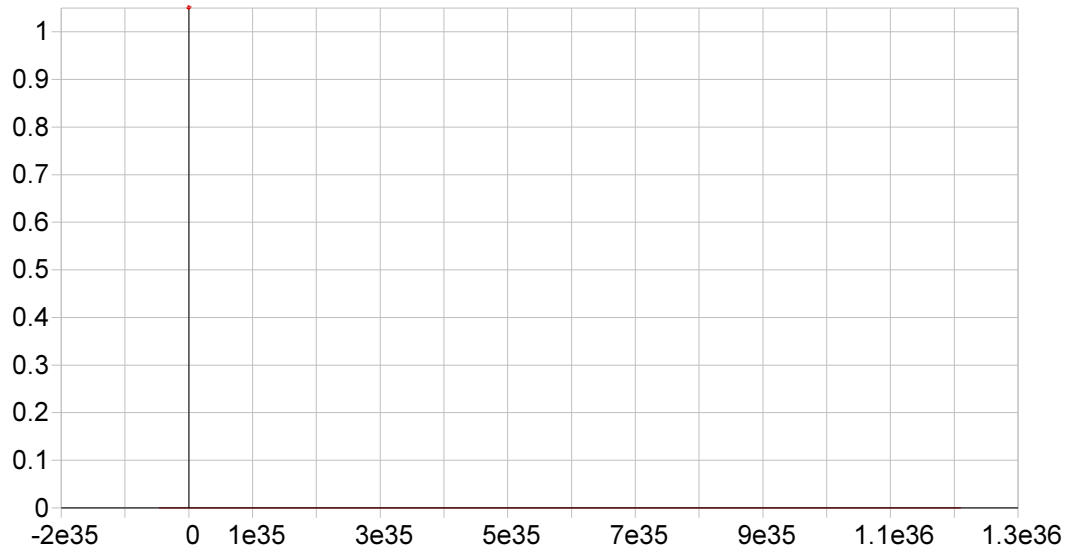


P 214.914 {457}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.215852	Re-Slope:	1.000000
A1 (Gain):	56.627623	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999863	Status:	OK.
Std Error of Est:	0.080660		
Predicted MDL:	0.011510		
Predicted MQL:	0.038368		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00003	-.000	.000	-.21755	.122	1
SEQ-CAL2	.25000	.27741	.027	11.0	15.493	.387	1
SEQ-CAL3	2.5000	2.5258	.026	1.03	142.82	.621	1
SEQ-CAL4	5.0000	5.0508	.051	1.02	285.80	2.71	1
SEQ-CAL5	10.000	9.8959	-.104	-1.04	560.17	1.65	1

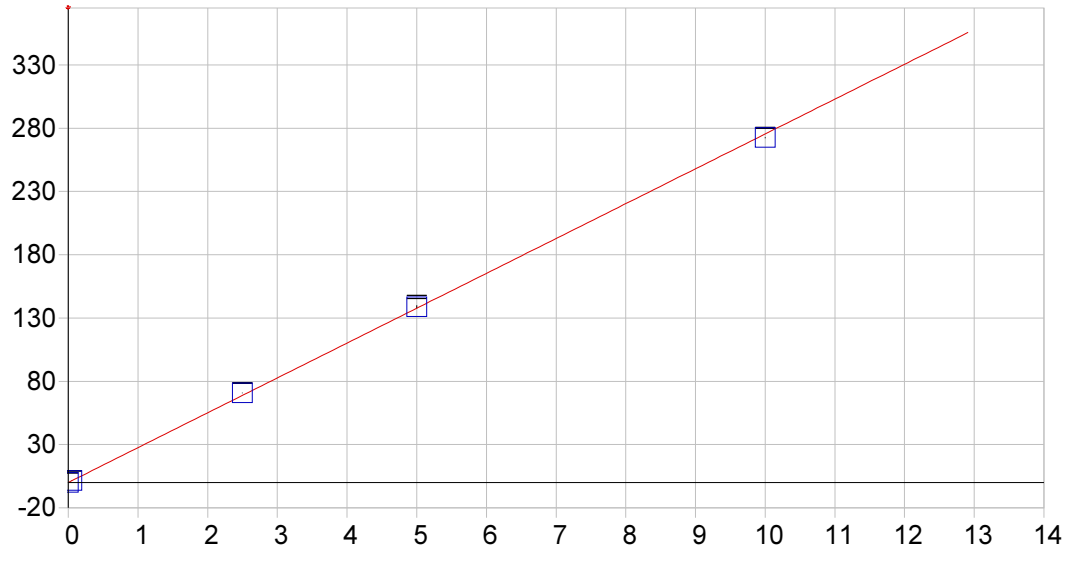


Pb 168.215 {500}

Date of Fit:	5/8/2023 17:16:51	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.006758		
Predicted MDL:	4.285810		
Predicted MQL:	14.286034		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



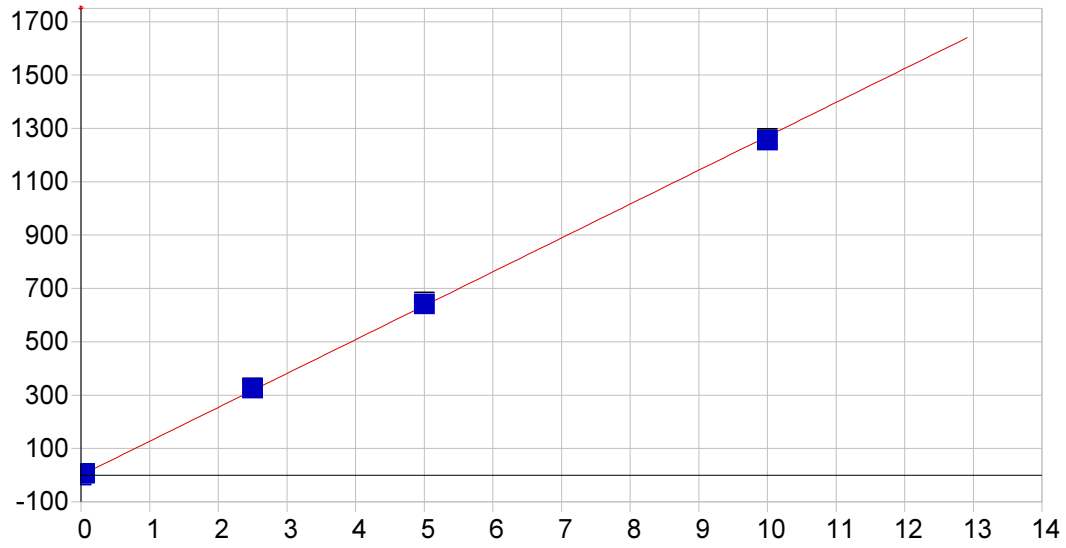
Pb 182.205 {485}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.023709	Re-Slope:	1.000000
A1 (Gain):	27.541122	Y-int:	0.000000

A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.999903		Status:	OK.		
Std Error of Est:	0.014682					
Predicted MDL:	0.013560					
Predicted MQL:	0.045201					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.02363	.247	1
SEQ-CAL2	.05000	.05155	.002	3.10	1.4434	.186	1
SEQ-CAL3	2.5000	2.5694	.069	2.78	70.789	.358	1
SEQ-CAL4	5.0000	5.0369	.037	.738	138.75	1.30	1
SEQ-CAL5	10.000	9.8921	-.108	-1.08	272.46	.392	1

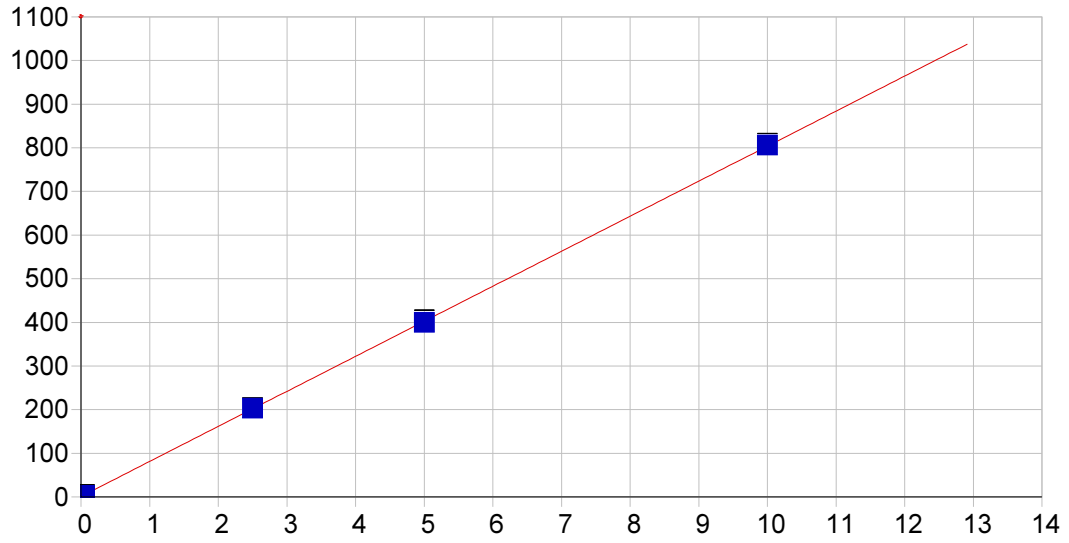


Pb 220.353 {453}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004850	Re-Slope:	1.000000
A1 (Gain):	127.027392	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999897	Status:	OK.
Std Error of Est:	0.069776		
Predicted MDL:	0.006658		
Predicted MQL:	0.022195		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.00444	.276	1
SEQ-CAL2	.05000	.05200	.002	3.99	6.5458	.593	1
SEQ-CAL3	2.5000	2.5635	.063	2.54	325.78	.499	1
SEQ-CAL4	5.0000	5.0523	.052	1.05	642.08	6.07	1
SEQ-CAL5	10.000	9.8822	-.118	-1.18	1255.9	5.33	1

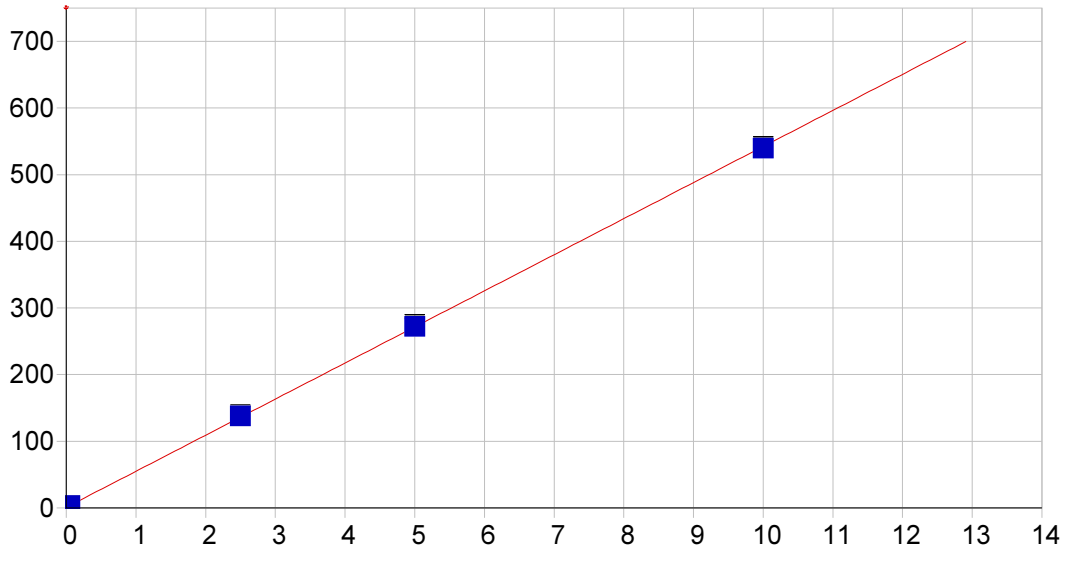


Sb 217.581 {455}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	1.068706	Re-Slope:	1.000000
A1 (Gain):	80.271765	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999966	Status:	OK.
Std Error of Est:	0.025442		
Predicted MDL:	0.008680		
Predicted MQL:	0.028935		

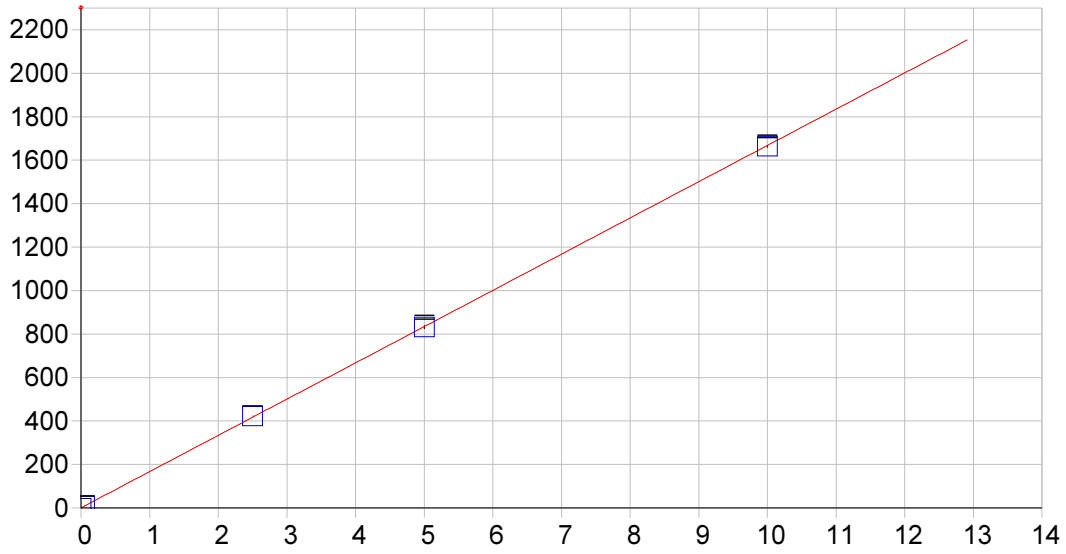
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	.00001	.000	.000	1.0692	.403	1
SEQ-CAL2	.05000	.04391	-.006	-12.2	4.5998	.563	1
SEQ-CAL3	2.5000	2.5137	.014	.546	203.21	1.63	1
SEQ-CAL4	5.0000	4.9616	-.038	-.769	400.07	5.17	1
SEQ-CAL5	10.000	10.031	.031	.309	807.72	2.98	1



Se 196.090 {472}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.799866		Re-Slope:	1.000000	
A1 (Gain):	54.147947		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999978		Status:	OK.	
Std Error of Est:	0.013818				
Predicted MDL:	0.009961				
Predicted MQL:	0.033204				

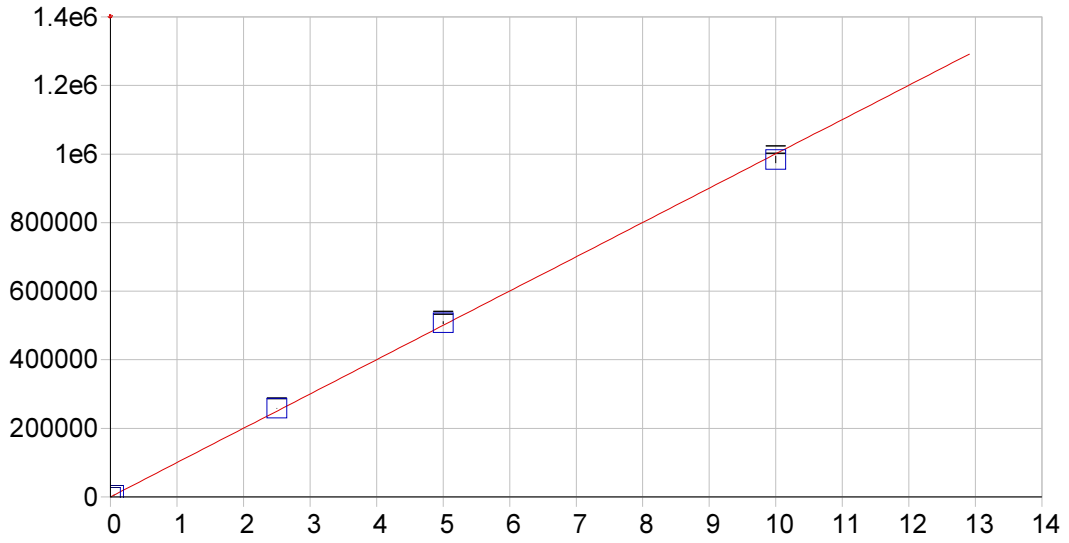
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	.00000	.000	.000	.79989	.404	1
SEQ-CAL2	.05000	.04890	-.001	-2.19	3.4484	.337	1
SEQ-CAL3	2.5000	2.5346	.035	1.38	138.10	1.19	1
SEQ-CAL4	5.0000	5.0149	.015	.299	272.45	2.76	1
SEQ-CAL5	10.000	9.9516	-.048	-.484	539.86	2.37	1



Sn 189.989 {477}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.383114		Re-Slope:	1.000000	
A1 (Gain):	166.756948		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999968		Status:	OK.	
Std Error of Est:	0.050614				
Predicted MDL:	0.002460				
Predicted MQL:	0.008200				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.38217	.193	1
SEQ-CAL2	.05000	.05524	.005	10.5	9.5954	.123	1
SEQ-CAL3	2.5000	2.5337	.034	1.35	422.90	.407	1
SEQ-CAL4	5.0000	4.9861	-.014	-.278	831.85	8.42	1
SEQ-CAL5	10.000	9.9749	-.025	-.251	1663.8	6.13	1

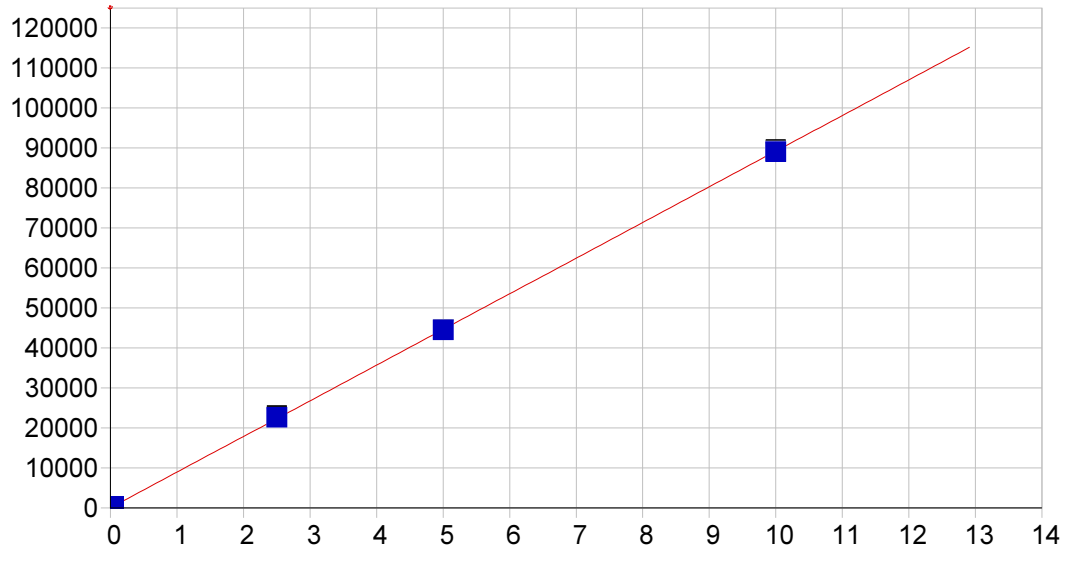


Sr 407.771 { 83}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	14.225006	Re-Slope:	1.000000
A1 (Gain):	100061.5991	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999777	Status:	OK.
Std Error of Est:	80.870443		
Predicted MDL:	0.000072		
Predicted MQL:	0.000240		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL2	.05000	.05820	.008	16.4	5838.0	25.8	1
SEQ-CAL3	2.5000	2.5794	.079	3.18	258120.	956.	1
SEQ-CAL4	5.0000	5.0782	.078	1.56	508150.	4120.	1
SEQ-CAL5	10.000	9.8341	-.166	-1.66	984030.	10700.	1
SEQ-CAL1	.00000	-.00001	-.000	.000	13.250	2.53	1

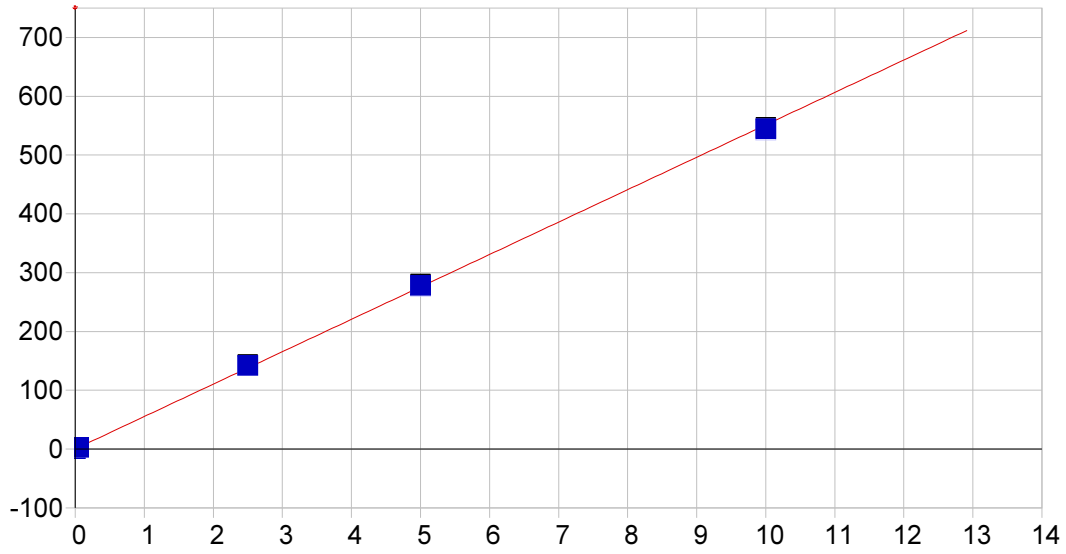


Ti 336.121 {100}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	23.711123	Re-Slope:	1.000000
A1 (Gain):	8919.584427	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	2.249580		
Predicted MDL:	0.000681		
Predicted MQL:	0.002270		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	23.680	5.89	1
SEQ-CAL2	.05000	.05307	.003	6.15	497.93	6.38	1
SEQ-CAL3	2.5000	2.5344	.034	1.38	22671.	331.	1
SEQ-CAL4	5.0000	4.9828	-.017	-.343	44550.	50.7	1
SEQ-CAL5	10.000	9.9797	-.020	-.203	89202.	332.	1

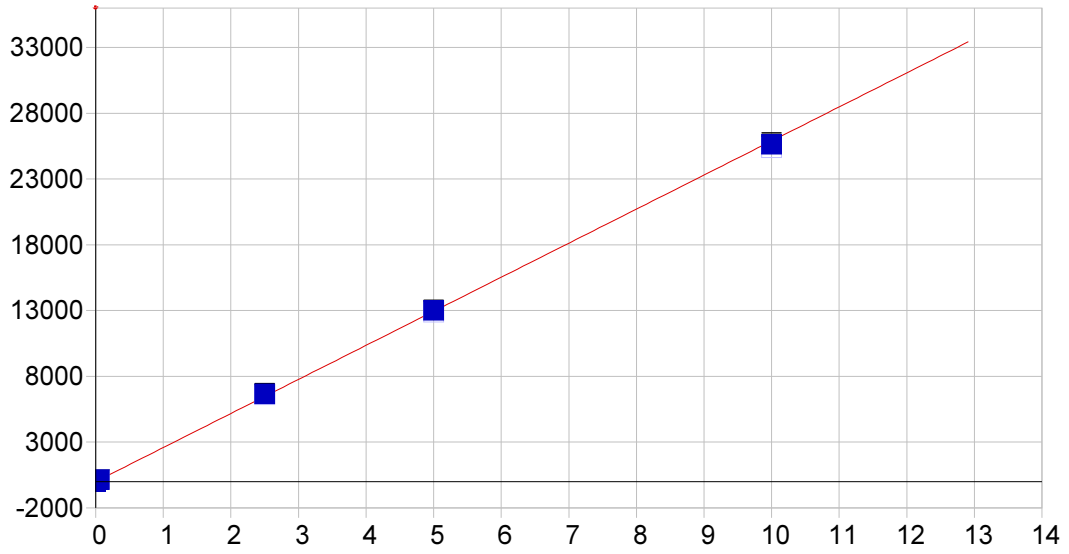


Tl 190.856 {477}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.293362	Re-Slope:	1.000000
A1 (Gain):	55.110565	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999881	Status:	OK.
Std Error of Est:	0.032309		
Predicted MDL:	0.008312		
Predicted MQL:	0.027708		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.29329	.351	1
SEQ-CAL2	.05000	.04986	-.000	-.276	3.0263	.129	1
SEQ-CAL3	2.5000	2.5780	.078	3.12	141.62	1.09	1
SEQ-CAL4	5.0000	5.0395	.040	.791	276.52	2.57	1
SEQ-CAL5	10.000	9.8825	-.117	-1.17	541.92	2.32	1

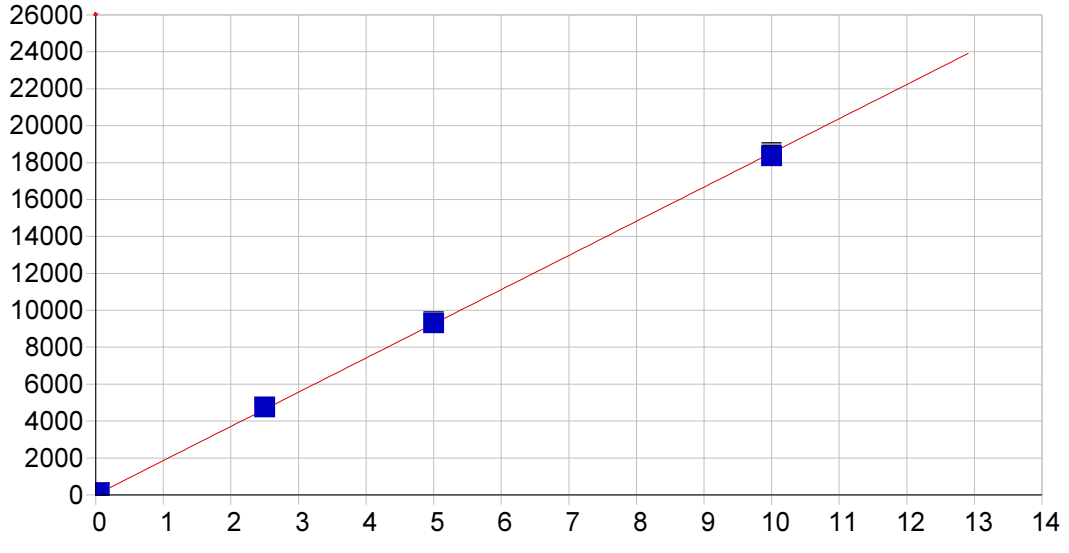


V 292.402 {115}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.040239	Re-Slope:	1.000000
A1 (Gain):	2589.534784	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999894	Status:	OK.
Std Error of Est:	1.422890		
Predicted MDL:	0.001473		
Predicted MQL:	0.004909		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-.05833	.995	1
SEQ-CAL2	.05000	.05587	.006	11.7	143.20	1.01	1
SEQ-CAL3	2.5000	2.5692	.069	2.77	6580.9	67.1	1
SEQ-CAL4	5.0000	5.0214	.021	.427	12859.	34.8	1
SEQ-CAL5	10.000	9.9036	-.096	-.964	25357.	118.	1



Zn 213.856 {458}

Date of Fit:	6/7/2023 16:59:55	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	7.238069	Re-Slope:	1.000000
A1 (Gain):	1851.915064	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999902	Status:	OK.
Std Error of Est:	0.994271		
Predicted MDL:	0.000311		
Predicted MQL:	0.001036		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	7.2224	.139	1
SEQ-CAL2	.05000	.05750	.008	15.0	114.34	.870	1
SEQ-CAL3	2.5000	2.5605	.061	2.42	4775.6	12.5	1
SEQ-CAL4	5.0000	5.0206	.021	.412	9357.9	43.4	1
SEQ-CAL5	10.000	9.9114	-.089	-.886	18468.	68.9	1

Sample Name: SEQ-CAL5 Acquired: 6/7/2023 16:55:59 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**22530.**	**11520.**	**752.1**	**18180.**	**689100.**	**87380.**	**11320.**
Stddev	92.	56.	2.3	98.	5977.	275.	40.
%RSD	.4081	.4888	.3113	.5371	.8674	.3150	.3509
#1	22600.	11570.	753.9	18110.	694300.	87350.	11310.
#2	22420.	11460.	753.0	18140.	690500.	87110.	11290.
#3	22550.	11530.	749.5	18290.	682500.	87660.	11370.

Elem	Cd2144	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**30830.**	**8868.**	**27890.**	**23530.**	**19060.**	**3019.**	**181200.**
Stddev	15.	20.	111.	73.	62.	15.	762.
%RSD	.0491	.2211	.3982	.3119	.3240	.4956	.4204
#1	30830.	8891.	27850.	23530.	19080.	3014.	180700.
#2	30810.	8858.	27800.	23460.	18990.	3008.	180800.
#3	30840.	8856.	28010.	23600.	19100.	3036.	182100.

Elem	Mg2852	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb1822
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**33770.**	**102700.**	**4214.**	**30890.**	**4802.**	**560.2**	**272.5**
Stddev	199.	478.	9.	144.	17.	1.6	.4
%RSD	.5900	.4650	.2177	.4646	.3600	.2942	.1440
#1	33960.	102400.	4222.	30830.	4816.	562.1	272.2
#2	33570.	102500.	4215.	30780.	4807.	559.3	272.3
#3	33790.	103300.	4204.	31050.	4783.	559.1	272.9

Elem	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1256.**	**807.7**	**539.9**	**1664.**	**984000.**	**89200.**	**541.9**
Stddev	5.	3.0	2.4	6.	10690.	332.	2.3
%RSD	.4241	.3688	.4387	.3685	1.086	.3727	.4278
#1	1262.	810.7	542.5	1670.	971700.	89440.	544.5
#2	1254.	804.8	538.0	1658.	989800.	88820.	540.1
#3	1252.	807.7	539.1	1664.	990600.	89340.	541.1

Sample Name: SEQ-CAL5 Acquired: 6/7/2023 16:55:59 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	**25360.**	**18470.**
Stddev	118.	69.
%RSD	.4645	.3731
#1	25310.	18520.
#2	25270.	18490.
#3	25490.	18390.

Sample Name: SEQ-CAL4 Acquired: 6/7/2023 16:51:52 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**11490.**	**5814.**	**380.0**	**9111.**	**352300.**	**44230.**	**5865.**
Stddev	48.	3.	3.1	26.	4309.	159.	3.
%RSD	.4164	.0593	.8038	.2826	1.223	.3601	.0593
#1	11520.	5815.	382.0	9083.	356100.	44270.	5861.
#2	11440.	5810.	376.5	9118.	353100.	44050.	5868.
#3	11520.	5817.	381.5	9133.	347600.	44360.	5866.

Elem	Cd2144	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**15700.**	**4522.**	**14230.**	**11990.**	**9733.**	**1530.**	**91490.**
Stddev	81.	25.	41.	15.	13.	9.	234.
%RSD	.5157	.5600	.2900	.1270	.1333	.6056	.2558
#1	15750.	4534.	14200.	11980.	9743.	1537.	91250.
#2	15610.	4492.	14210.	11970.	9718.	1519.	91490.
#3	15750.	4538.	14270.	12000.	9738.	1533.	91720.

Elem	Mg2852	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb1822
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**17160.**	**51950.**	**2116.**	**15560.**	**2472.**	**285.8**	**138.7**
Stddev	62.	170.	21.	37.	25.	2.7	1.3
%RSD	.3617	.3270	1.010	.2364	1.029	.9475	.9396
#1	17210.	51780.	2121.	15510.	2477.	287.3	138.7
#2	17090.	51950.	2092.	15580.	2444.	282.7	137.5
#3	17170.	52120.	2134.	15580.	2495.	287.5	140.1

Elem	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**642.1**	**400.1**	**272.5**	**831.9**	**508100.**	**44550.**	**276.5**
Stddev	6.1	5.2	2.8	8.4	4119.	51.	2.6
%RSD	.9454	1.291	1.012	1.012	.8105	.1137	.9285
#1	644.4	398.9	273.0	833.2	511500.	44530.	276.1
#2	635.2	395.6	269.4	822.9	509400.	44520.	274.2
#3	646.6	405.7	274.9	839.5	503600.	44610.	279.3

Sample Name: SEQ-CAL4 Acquired: 6/7/2023 16:51:52 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	**12860.**	**9358.**
Stddev	35.	43.
%RSD	.2707	.4640
#1	12820.	9394.
#2	12870.	9310.
#3	12890.	9371.

Sample Name: SEQ-CAL3 Acquired: 6/7/2023 16:47:51 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5828.**	**2966.**	**192.5**	**4730.**	**179700.**	**22420.**	**2888.**
Stddev	80.	47.	.8	54.	2901.	215.	26.
%RSD	1.380	1.601	.4319	1.145	1.614	.9568	.9105
#1	5822.	2960.	193.5	4709.	178800.	22330.	2875.
#2	5750.	2923.	192.0	4691.	177300.	22270.	2871.
#3	5911.	3017.	192.1	4792.	182900.	22670.	2918.

Elem	Cd2144	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8016.**	**2327.**	**7227.**	**6140.**	**4949.**	**795.9**	**46340.**
Stddev	32.	19.	76.	75.	51.	19.1	767.
%RSD	.4043	.8234	1.046	1.215	1.025	2.396	1.656
#1	8042.	2348.	7188.	6114.	4928.	791.9	46000.
#2	8026.	2324.	7179.	6083.	4913.	779.2	45790.
#3	7979.	2310.	7314.	6225.	5007.	816.7	47220.

Elem	Mg2852	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb1822
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8702.**	**26400.**	**1076.**	**8076.**	**1261.**	**142.8**	**70.79**
Stddev	103.	288.	7.	84.	7.	.6	.36
%RSD	1.179	1.090	.6835	1.035	.5761	.4349	.5052
#1	8711.	26300.	1085.	8051.	1269.	143.5	70.68
#2	8595.	26180.	1074.	8007.	1259.	142.8	70.50
#3	8800.	26720.	1070.	8169.	1255.	142.2	71.19

Elem	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**325.8**	**203.2**	**138.1**	**422.9**	**258100.**	**22670.**	**141.6**
Stddev	.5	1.6	1.2	.4	956.	331.	1.1
%RSD	.1532	.7999	.8616	.0961	.3703	1.458	.7719
#1	326.2	205.1	139.3	423.0	257900.	22580.	141.8
#2	326.0	202.1	138.0	423.3	259200.	22400.	142.6
#3	325.2	202.4	137.0	422.5	257300.	23040.	140.4

Sample Name: SEQ-CAL3 Acquired: 6/7/2023 16:47:51 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	**6581.**	**4776.**
Stddev	67.	13.
%RSD	1.020	.2626
#1	6547.	4788.
#2	6537.	4776.
#3	6658.	4763.

Sample Name: SEQ-CAL2 Acquired: 6/7/2023 16:43:45 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**114.7**	**309.9**	**3.962**	**68.94**	**4019.**	**49.89**	**358.6**	**18.47**	**50.26**
Stddev	5.7	13.7	.328	2.19	17.	1.09	2.5	.46	1.29
%RSD	4.966	4.422	8.286	3.173	.4135	2.193	.6957	2.488	2.571
#1	109.7	325.4	3.616	68.68	4000.	48.89	357.9	17.94	48.90
#2	113.5	305.4	4.269	71.25	4030.	51.06	361.4	18.68	51.47
#3	120.9	299.1	3.999	66.90	4028.	49.74	356.6	18.79	50.41

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**164.6**	**140.1**	**233.3**	**128.2**	**974.0**	**940.9**	**588.8**	**24.39**	**953.6**
Stddev	1.1	5.1	2.3	3.3	23.3	5.7	2.5	.49	.5
%RSD	.6674	3.633	1.007	2.595	2.391	.6078	.4322	1.990	.0553
#1	165.4	138.5	234.3	124.8	962.6	937.6	588.1	23.96	953.8
#2	165.1	145.8	230.7	128.3	958.6	947.5	586.6	24.29	954.1
#3	163.3	136.0	235.1	131.4	1001.	937.6	591.6	24.91	953.1

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**26.06**	**15.49**	**1.443**	**6.546**	**4.600**	**3.448**	**9.595**	**5838.**	**497.9**
Stddev	.59	.39	.186	.593	.563	.337	.123	26.	6.4
%RSD	2.282	2.501	12.87	9.065	12.23	9.769	1.277	.4411	1.282
#1	26.51	15.81	1.589	6.559	5.198	3.433	9.495	5836.	501.4
#2	26.28	15.60	1.506	7.132	4.081	3.793	9.559	5865.	490.6
#3	25.38	15.06	1.234	5.946	4.521	3.120	9.732	5813.	501.8

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	**3.026**	**143.2**	**114.3**
Stddev	.129	1.0	.9
%RSD	4.248	.7042	.7609
#1	2.880	142.1	113.5
#2	3.120	143.4	115.2
#3	3.080	144.1	114.4

Sample Name: SEQ-CAL1 Acquired: 6/7/2023 16:39:41 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-8.417**	**-3.470**	**.0356**	**35.24**	**58.76**	**2.471**	**-5.363**	**.5444**	**-.2729**
Stddev	2.627	7.651	.3420	2.53	12.65	.443	3.507	.3291	.4931
%RSD	31.21	220.5	962.0	7.173	21.53	17.92	65.39	60.45	180.7
#1	-5.850	-1.940	-.0933	37.53	65.46	1.971	-6.060	.8199	-.8412
#2	-8.300	3.300	.4233	35.68	66.66	2.814	-8.470	.1800	.0400
#3	-11.10	-11.77	-.2233	32.53	44.17	2.629	-1.560	.6332	-.0173

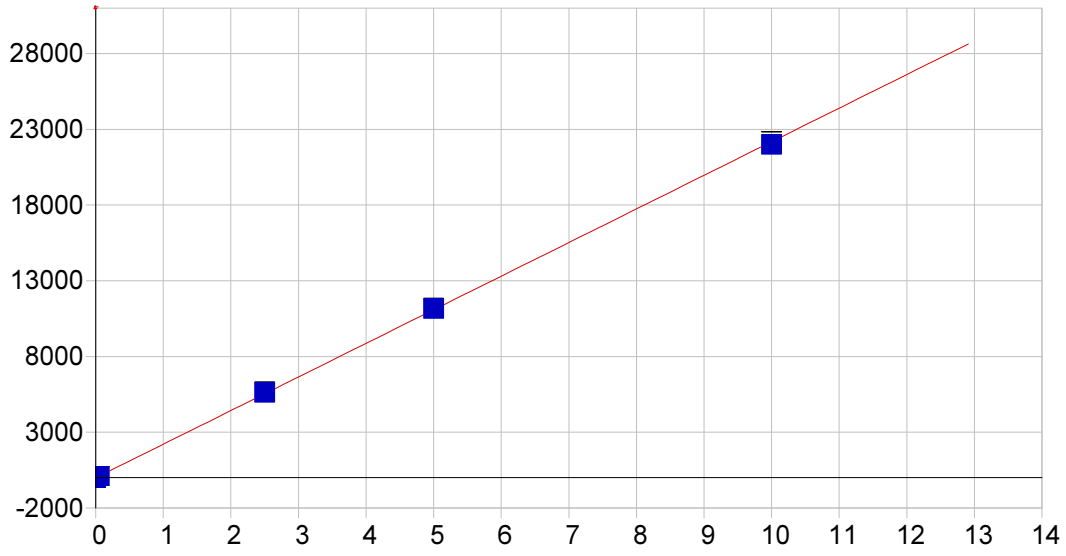
Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.683**	**4.197**	**9.533**	**25.52**	**33.33**	**2.083**	**6.000**	**3.016**	**53.46**
Stddev	.543	2.575	1.554	7.09	3.43	.621	1.803	.655	3.39
%RSD	8.130	61.36	16.30	27.77	10.30	29.83	30.05	21.71	6.347
#1	6.275	7.170	10.25	23.78	37.15	1.390	7.500	3.749	51.43
#2	6.475	2.740	10.60	19.47	30.50	2.270	4.000	2.810	57.38
#3	7.300	2.680	7.750	33.32	32.33	2.590	6.500	2.489	51.57

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0222**	**-.2175**	**.0236**	**.0044**	**1.069**	**.7999**	**.3822**	**13.25**	**23.68**
Stddev	.0936	.1223	.2472	.2762	.403	.4037	.1935	2.53	5.89
%RSD	421.4	56.21	1046.	6214.	37.65	50.46	50.63	19.08	24.87
#1	-.0133	-.3527	-.1418	.1400	.7986	.4466	.5999	16.00	29.96
#2	-.1200	-.1854	.3078	.1866	1.532	1.240	.3166	11.02	22.80
#3	.0667	-.1145	-.0951	-.3133	.8772	.7132	.2300	12.72	18.28

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	**.2933**	**-.0583**	**7.222**
Stddev	.3514	.9951	.139
%RSD	119.8	1706.	1.919
#1	-.0200	-1.200	7.072
#2	.2266	.6250	7.249
#3	.6732	.4000	7.346

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	6/7/2023 17:30:20	6/7/2023 16:59:54	Linear	1/Conc	-8.404934	2278.8652	0.000000	1.000000
Al 396.152 { 85}	6/7/2023 17:30:20	6/7/2023 16:59:54	Linear	1/Conc	-3.434012	1116.9965	0.000000	1.000000
As 193.759 {474}	6/7/2023 17:30:20	6/7/2023 16:59:54	Linear	1/Conc	0.035747	76.122444	0.000000	1.000000
B 249.773 {135}	6/7/2023 17:30:20	6/7/2023 16:59:54	Linear	1/Conc	35.230636	1821.4070	0.000000	1.000000
Ba 455.403 { 74}	6/7/2023 17:30:20	6/7/2023 16:59:54	Linear	1/Conc	59.324979	69792.075	0.000000	1.000000
Be 234.861 {144}	6/7/2023 17:30:20	6/7/2023 16:59:54	Linear	1/Conc	2.475571	8801.1340	0.000000	1.000000
Ca 315.887 {107}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	-5.285781	1152.3647	0.000000	1.000000
Cd 214.438 {457}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	0.547103	3116.7730	0.000000	1.000000
Co 228.616 {447}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	-0.265908	898.49347	0.000000	1.000000
Cr 283.563 {119}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	6.703309	2822.4407	0.000000	1.000000
Cu 324.754 {104}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	4.216592	2380.6932	0.000000	1.000000
Fe 259.940 {130}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	9.568401	1928.0131	0.000000	1.000000
K 766.490 { 44}	6/7/2023 17:30:20	2/19/2015 16:26:35	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 769.896 { 44}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	25.552113	302.59195	0.000000	1.000000
Li 670.784 { 50}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	33.370683	18225.915	0.000000	1.000000
Mg 285.213 {118}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	2.181998	3412.1320	0.000000	1.000000
Mn 257.610 {131}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	6.073694	10349.023	0.000000	1.000000
Mo 202.030 {467}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	3.016520	422.69251	0.000000	1.000000
Na 589.592 { 57}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	53.593372	3113.1686	0.000000	1.000000
Ni 231.604 {446}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	-0.019756	487.82033	0.000000	1.000000
P 178.284 {489}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	1.250072	61.531138	0.000000	1.000000
P 214.914 {457}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	-0.215852	56.627623	0.000000	1.000000
Pb 168.215 {500}	6/7/2023 17:30:20	5/27/2021 12:44:34	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Pb 182.205 {485}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	0.023709	27.541122	0.000000	1.000000
Pb 220.353 {453}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	0.004850	127.02739	0.000000	1.000000
Sb 217.581 {455}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	1.068706	80.314335	0.000000	1.000000
Se 196.090 {472}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	0.799866	54.173615	0.000000	1.000000
Sn 189.989 {477}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	0.383114	166.75694	0.000000	1.000000
Sr 407.771 { 83}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	14.225006	100061.59	0.000000	1.000000
Ti 336.121 {100}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	23.711123	8941.0214	0.000000	1.000000
Tl 190.856 {477}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	0.293362	55.177252	0.000000	1.000000
V 292.402 {115}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	-0.040239	2591.7416	0.000000	1.000000
Zn 213.856 {458}	6/7/2023 17:30:20	6/7/2023 16:59:55	Linear	1/Conc	7.238069	1851.9150	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ag 328.068 {103}	0.999900	1.229535	0.002581	0.008602	OK.	1.000000	0.000000	1	0
Al 396.152 { 85}	0.999861	1.667811	0.007536	0.025121	OK.	1.000000	0.000000	1	0
As 193.759 {474}	0.999963	0.024831	0.006008	0.020028	OK.	1.000000	0.000000	1	0
B 249.773 {135}	0.999877	0.772966	0.001387	0.004622	OK.	1.000000	0.000000	1	0
Ba 455.403 { 74}	0.999853	45.702506	0.000156	0.000521	OK.	1.000000	0.000000	1	0
Be 234.861 {144}	0.999955	1.005813	0.000191	0.000638	OK.	1.000000	0.000000	1	0
Ca 315.887 {107}	0.999379	3.492406	0.004074	0.013579	OK.	1.000000	0.000000	1	0
Cd 214.438 {457}	0.999896	0.542397	0.000256	0.000853	OK.	1.000000	0.000000	1	0
Co 228.616 {447}	0.999830	0.632708	0.000889	0.002962	OK.	1.000000	0.000000	1	0
Cr 283.563 {119}	0.999891	1.592949	0.001205	0.004016	OK.	1.000000	0.000000	1	0
Cu 324.754 {104}	0.999857	1.537322	0.002039	0.006797	OK.	1.000000	0.000000	1	0
Fe 259.940 {130}	0.999831	1.921296	0.001326	0.004419	OK.	1.000000	0.000000	1	0
K 766.490 { 44}	0.000000	1.145570	0.047854	0.159512	Warnin	1.000000	0.000000	1	0
K 769.896 { 44}	0.999045	1.137131	0.045399	0.151329	OK.	1.000000	0.000000	1	0
Li 670.784 { 50}	0.999968	5.598275	0.000924	0.003081	OK.	1.000000	0.000000	1	0
Mg 285.213 {118}	0.999867	4.784891	0.001065	0.003549	OK.	1.000000	0.000000	1	0
Mn 257.610 {131}	0.999930	4.673284	0.000249	0.000831	OK.	1.000000	0.000000	1	0
Mo 202.030 {467}	0.999978	0.106055	0.001219	0.004065	OK.	1.000000	0.000000	1	0
Na 589.592 { 57}	0.999733	6.183260	0.005329	0.017762	OK.	1.000000	0.000000	1	0
Ni 231.604 {446}	0.999815	0.358643	0.001415	0.004715	OK.	1.000000	0.000000	1	0
P 178.284 {489}	0.999919	0.067280	0.006530	0.021767	OK.	1.000000	0.000000	1	0
P 214.914 {457}	0.999863	0.080660	0.011510	0.038368	OK.	1.000000	0.000000	1	0
Pb 168.215 {500}	0.000000	0.006758	4.285810	14.286034	Warnin	1.000000	0.000000	1	0
Pb 182.205 {485}	0.999903	0.014682	0.013560	0.045201	OK.	1.000000	0.000000	1	0
Pb 220.353 {453}	0.999897	0.069776	0.006658	0.022195	OK.	1.000000	0.000000	1	0
Sb 217.581 {455}	0.999966	0.025442	0.008676	0.028920	OK.	1.000000	0.000000	1	0
Se 196.090 {472}	0.999978	0.013818	0.009957	0.033189	OK.	1.000000	0.000000	1	0
Sn 189.989 {477}	0.999968	0.050614	0.002460	0.008200	OK.	1.000000	0.000000	1	0
Sr 407.771 { 83}	0.999777	80.870443	0.000072	0.000240	OK.	1.000000	0.000000	1	0
Ti 336.121 {100}	0.999978	2.249580	0.000679	0.002264	OK.	1.000000	0.000000	1	0
Tl 190.856 {477}	0.999881	0.032309	0.008302	0.027675	OK.	1.000000	0.000000	1	0
V 292.402 {115}	0.999894	1.422890	0.001471	0.004905	OK.	1.000000	0.000000	1	0
Zn 213.856 {458}	0.999902	0.994271	0.000311	0.001036	OK.	1.000000	0.000000	1	0

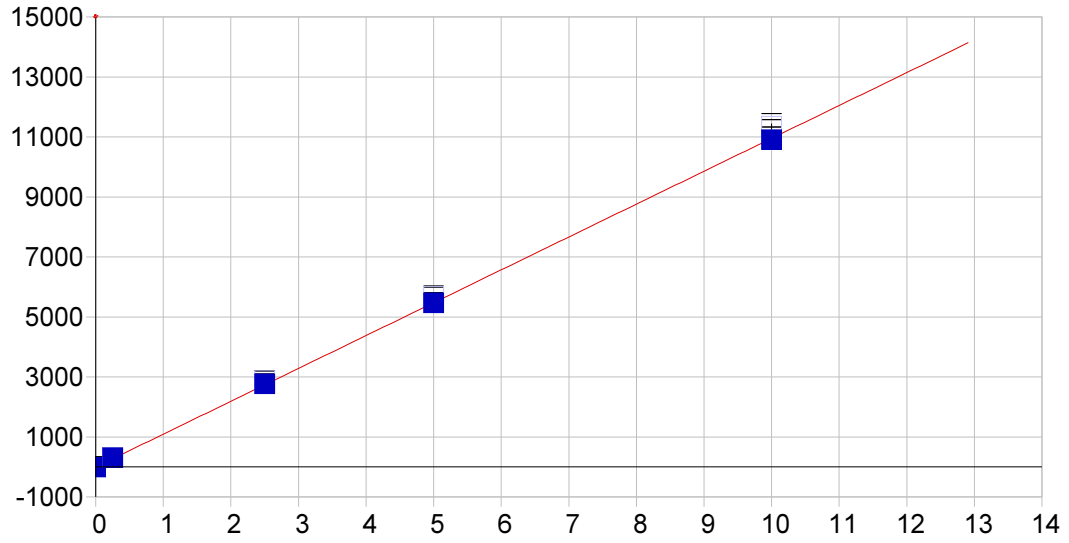


Ag 328.068 {103}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-7.120062	Re-Slope:	1.000000
A1 (Gain):	2218.730629	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999939	Status:	OK.
Std Error of Est:	0.933350		
Predicted MDL:	0.002690		
Predicted MQL:	0.008965		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-7.1333	3.19	1
SEQ-CAL2	.05000	.05521	.005	10.4	115.38	3.33	1
SEQ-CAL3	2.5000	2.5415	.041	1.66	5631.7	12.6	1
SEQ-CAL4	5.0000	5.0343	.034	.687	11163.	28.9	1
SEQ-CAL5	10.000	9.9190	-.081	-.810	22000.	196.	1

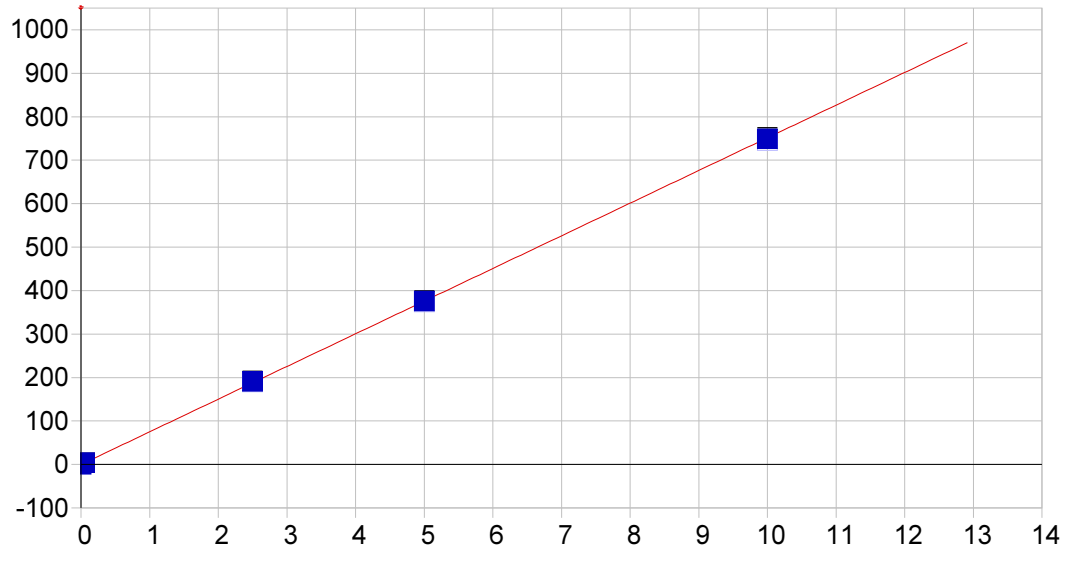


Al 396.152 { 85}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-4.079672	Re-Slope:	1.000000
A1 (Gain):	1095.545900	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999874	Status:	OK.
Std Error of Est:	1.553182		
Predicted MDL:	0.007828		
Predicted MQL:	0.026092		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00003	-.000	.000	-4.1167	6.15	1
SEQ-CAL2	.25000	.28303	.033	13.2	308.23	2.62	1
SEQ-CAL3	2.5000	2.5241	.024	.964	2872.7	7.61	1
SEQ-CAL4	5.0000	4.9892	-.011	-.216	5684.9	13.3	1
SEQ-CAL5	10.000	9.9547	-.045	-.453	11348.	101.	1

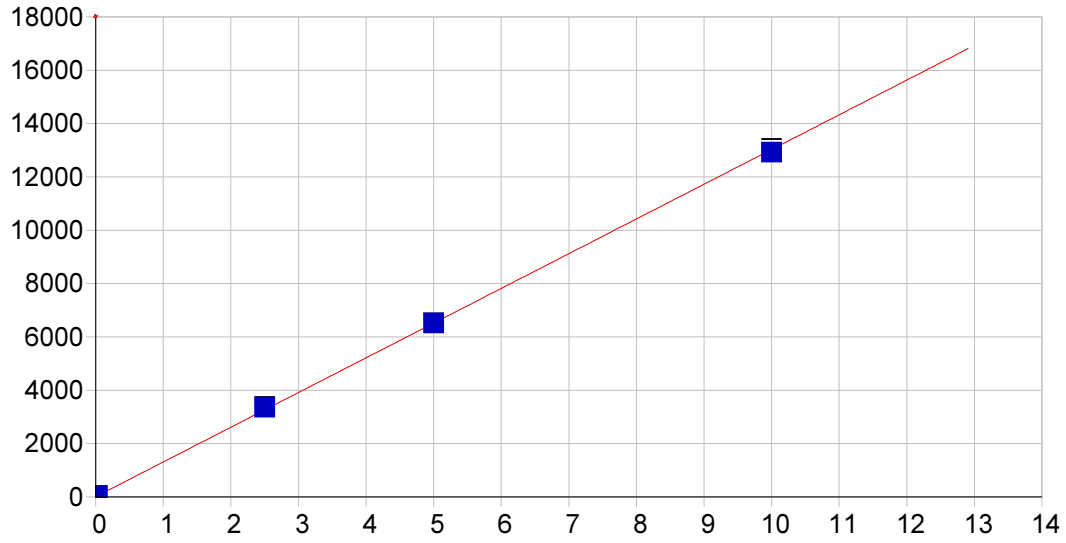


As 193.759 {474}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.093136	Re-Slope:	1.000000
A1 (Gain):	75.157712	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.018293		
Predicted MDL:	0.006167		
Predicted MQL:	0.020557		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	-.09332	.376	1
SEQ-CAL2	.05000	.05195	.002	3.91	3.7906	.217	1
SEQ-CAL3	2.5000	2.5361	.036	1.44	189.46	.773	1
SEQ-CAL4	5.0000	4.9952	-.005	-.095	373.23	1.30	1
SEQ-CAL5	10.000	9.9668	-.033	-.332	744.78	2.57	1

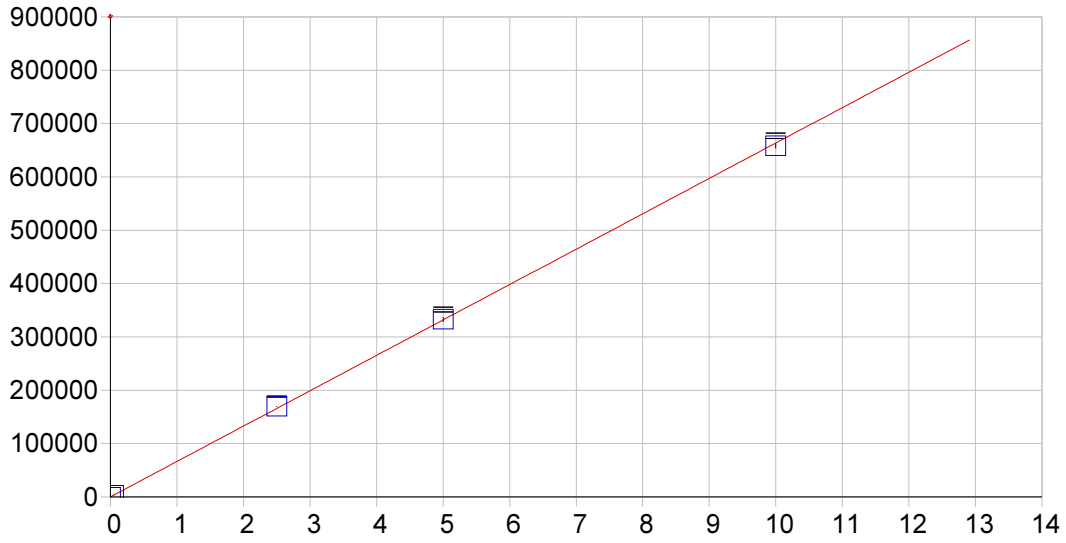


B 249.773 {135}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	8.402781	Re-Slope:	1.000000
A1 (Gain):	1301.856301	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999915	Status:	OK.
Std Error of Est:	0.459749		
Predicted MDL:	0.001985		
Predicted MQL:	0.006616		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL2	.02500	.02657	.002	6.28	43.113	1.75	1
SEQ-CAL3	2.5000	2.5755	.076	3.02	3364.4	16.8	1
SEQ-CAL4	5.0000	5.0015	.001	.029	6525.7	13.0	1
SEQ-CAL5	10.000	9.9215	-.079	-.785	12937.	114.	1
SEQ-CAL1	.00000	-.00000	-.000	.000	8.4000	1.40	1

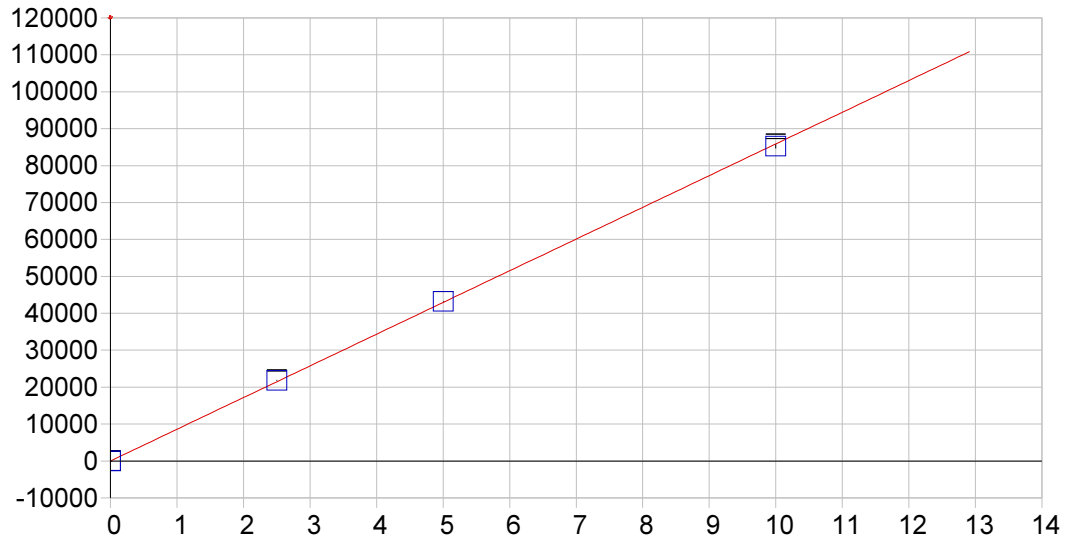


Ba 455.403 { 74}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	51.708757	Re-Slope:	1.000000
A1 (Gain):	66347.07987	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999916	Status:	OK.
Std Error of Est:	32.914311		
Predicted MDL:	0.000168		
Predicted MQL:	0.000560		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	51.177	12.7	1
SEQ-CAL2	.05000	.05713	.007	14.3	3842.4	13.1	1
SEQ-CAL3	2.5000	2.5566	.057	2.27	169680.	915.	1
SEQ-CAL4	5.0000	5.0145	.014	.289	332750.	4490.	1
SEQ-CAL5	10.000	9.9218	-.078	-.782	658330.	5080.	1

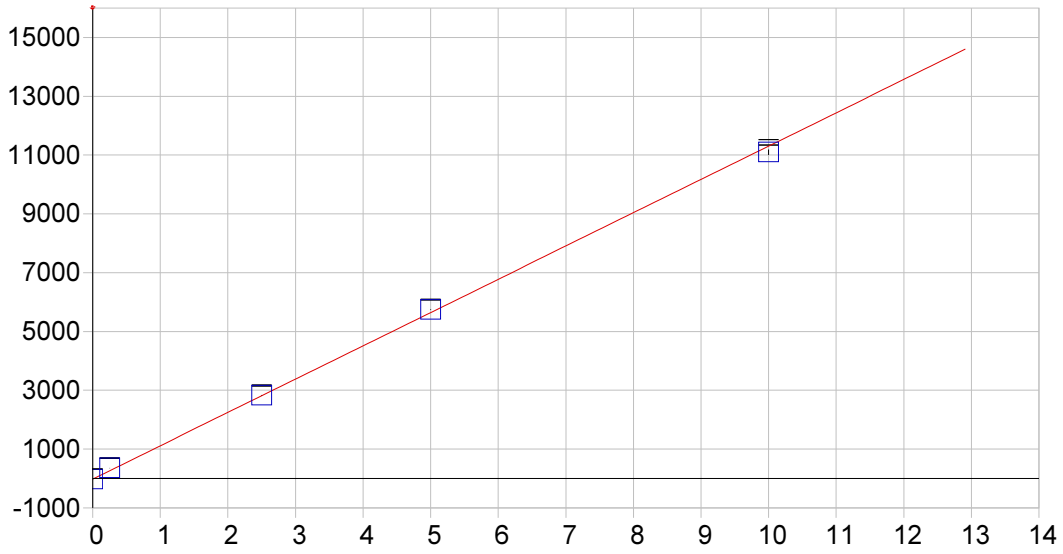


Be 234.861 {144}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.188384	Re-Slope:	1.000000
A1 (Gain):	8586.855077	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999953	Status:	OK.
Std Error of Est:	1.003064		
Predicted MDL:	0.000200		
Predicted MQL:	0.000667		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	-.19524	1.78	1
SEQ-CAL2	.00500	.00572	.001	14.4	48.907	2.71	1
SEQ-CAL3	2.5000	2.5434	.043	1.74	21840.	136.	1
SEQ-CAL4	5.0000	5.0319	.032	.639	43208.	23.0	1
SEQ-CAL5	10.000	9.9239	-.076	-.761	85215.	615.	1

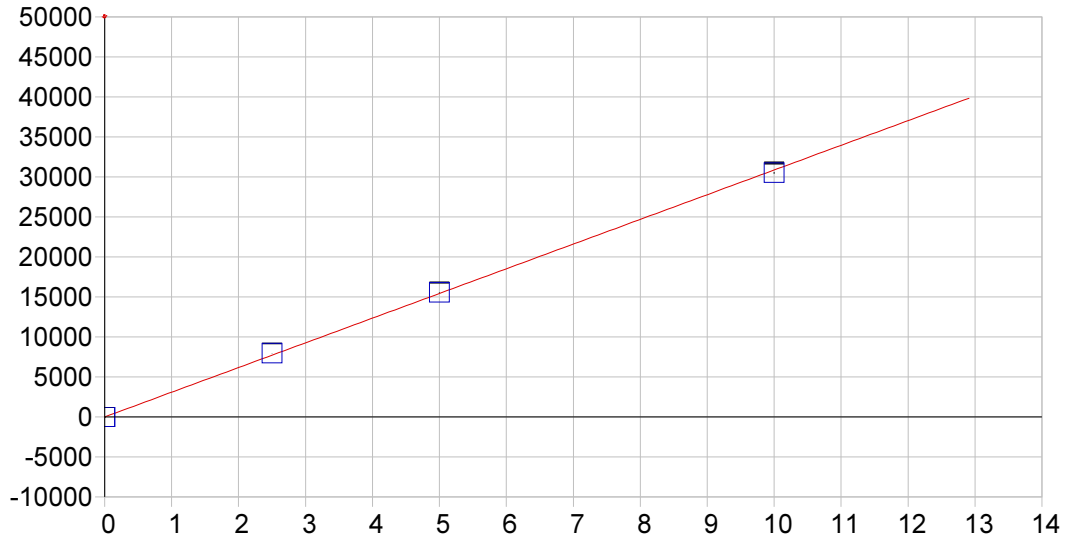


Ca 315.887 {107}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-17.779757	Re-Slope:	1.000000
A1 (Gain):	1132.338232	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999107	Status:	OK.
Std Error of Est:	4.114226		
Predicted MDL:	0.004199		
Predicted MQL:	0.013996		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00008	-.000	.000	-17.873	3.08	1
SEQ-CAL2	.25000	.33158	.082	32.6	357.68	2.98	1
SEQ-CAL3	2.5000	2.5110	.011	.442	2825.6	11.9	1
SEQ-CAL4	5.0000	5.0910	.091	1.82	5746.9	13.1	1
SEQ-CAL5	10.000	9.8164	-.184	-1.84	11098.	89.0	1

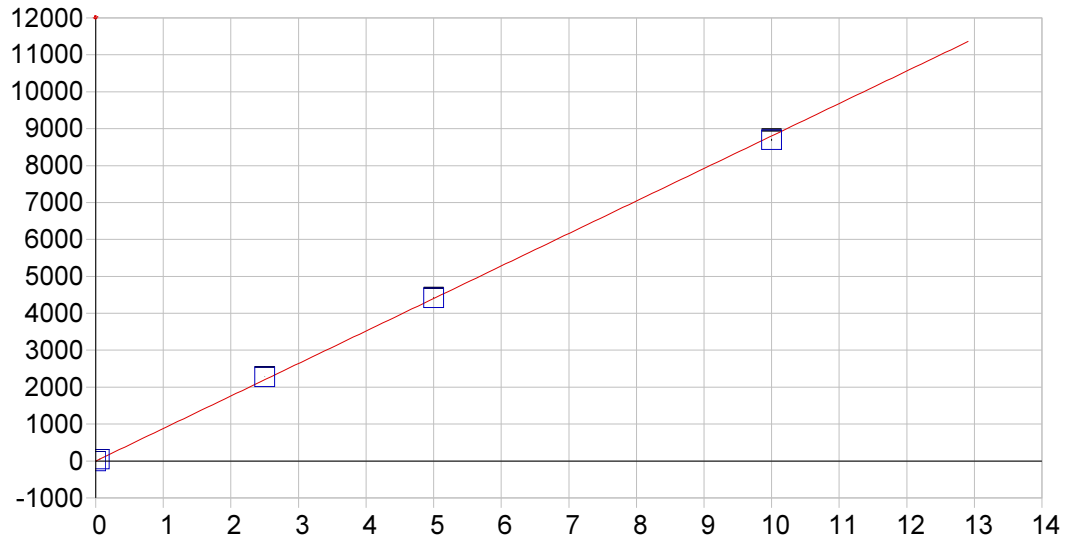


Cd 214.438 {457}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.320851	Re-Slope:	1.000000
A1 (Gain):	3086.352945	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999884	Status:	OK.
Std Error of Est:	0.567557		
Predicted MDL:	0.000263		
Predicted MQL:	0.000876		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	-.32440	.211	1
SEQ-CAL2	.00500	.00602	.001	20.4	18.255	.262	1
SEQ-CAL3	2.5000	2.5756	.076	3.03	7949.0	19.2	1
SEQ-CAL4	5.0000	5.0370	.037	.740	15546.	41.6	1
SEQ-CAL5	10.000	9.8863	-.114	-1.14	30512.	101.	1

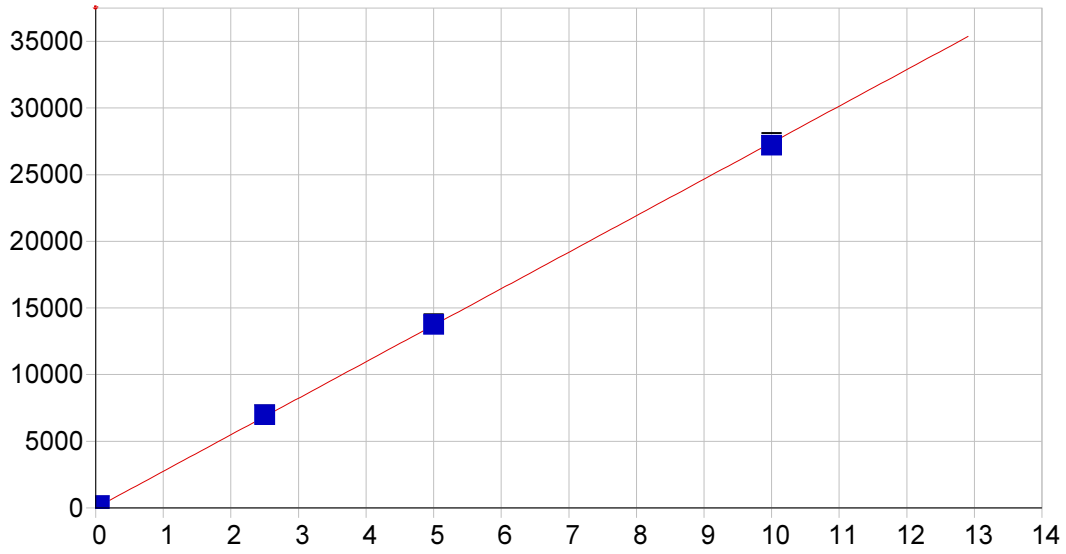


Co 228.616 {447}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.066902	Re-Slope:	1.000000
A1 (Gain):	880.156610	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999843	Status:	OK.
Std Error of Est:	0.596280		
Predicted MDL:	0.000920		
Predicted MQL:	0.003067		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.05955	.193	1
SEQ-CAL2	.05000	.05696	.007	13.9	50.204	.533	1
SEQ-CAL3	2.5000	2.5877	.088	3.51	2277.6	4.82	1
SEQ-CAL4	5.0000	5.0223	.022	.446	4420.5	16.5	1
SEQ-CAL5	10.000	9.8830	-.117	-1.17	8698.7	26.3	1

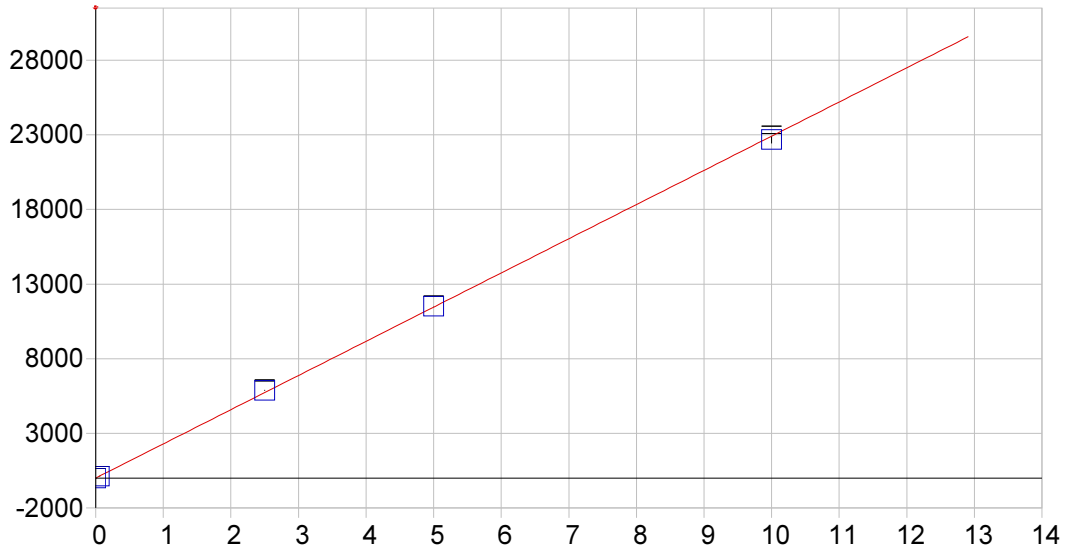


Cr 283.563 {119}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	6.231887	Re-Slope:	1.000000
A1 (Gain):	2739.715357	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	1.095797		
Predicted MDL:	0.001269		
Predicted MQL:	0.004229		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	6.2167	3.58	1
SEQ-CAL2	.05000	.05478	.005	9.56	156.71	3.63	1
SEQ-CAL3	2.5000	2.5458	.046	1.83	6985.3	36.1	1
SEQ-CAL4	5.0000	5.0220	.022	.439	13773.	27.2	1
SEQ-CAL5	10.000	9.9274	-.073	-.726	27221.	161.	1

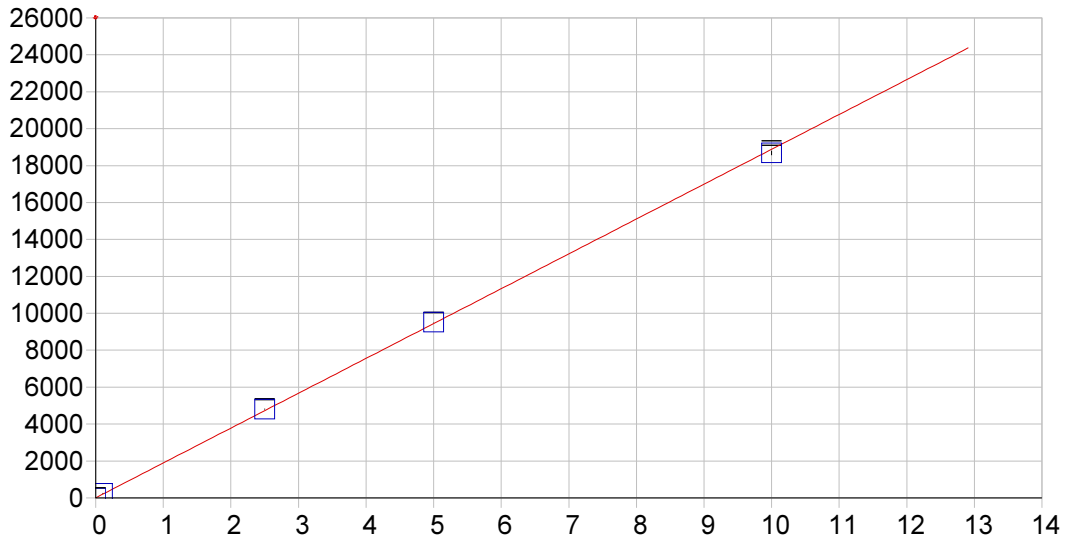


Cu 324.754 {104}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.672978	Re-Slope:	1.000000
A1 (Gain):	2291.309816	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999884	Status:	OK.
Std Error of Est:	1.335773		
Predicted MDL:	0.002165		
Predicted MQL:	0.007216		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.65333	1.80	1
SEQ-CAL2	.05000	.05747	.007	14.9	132.36	.915	1
SEQ-CAL3	2.5000	2.5664	.066	2.66	5881.1	29.0	1
SEQ-CAL4	5.0000	5.0282	.028	.564	11522.	17.6	1
SEQ-CAL5	10.000	9.8979	-.102	-1.02	22680.	246.	1

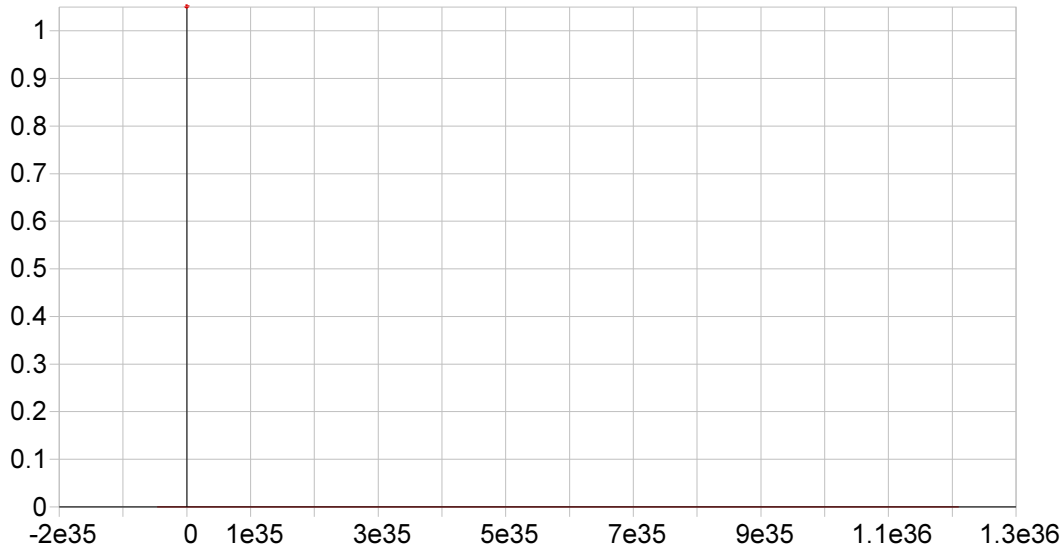


Fe 259.940 {130}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	6.837092	Re-Slope:	1.000000
A1 (Gain):	1887.490046	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999796	Status:	OK.
Std Error of Est:	2.064323		
Predicted MDL:	0.001375		
Predicted MQL:	0.004584		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00002	-.000	.000	6.7917	2.13	1
SEQ-CAL2	.10000	.12262	.023	22.6	238.28	.267	1
SEQ-CAL3	2.5000	2.5439	.044	1.76	4808.5	25.0	1
SEQ-CAL4	5.0000	5.0354	.035	.708	9511.1	11.2	1
SEQ-CAL5	10.000	9.8981	-.102	-1.02	18689.	123.	1

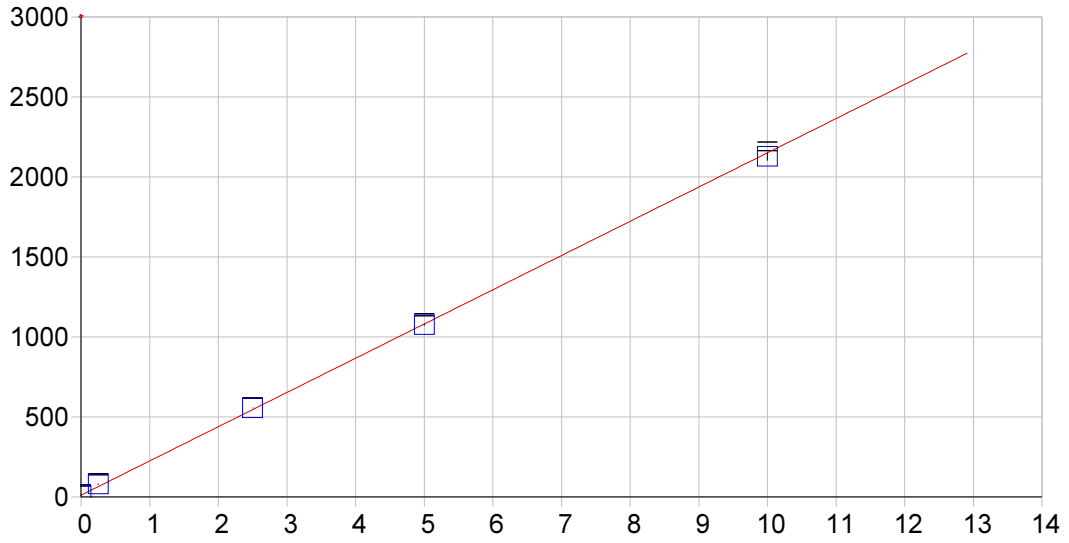


K 766.490 { 44}

Date of Fit:	5/8/2023 17:16:51	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	1.145570		
Predicted MDL:	0.047854		
Predicted MQL:	0.159512		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis

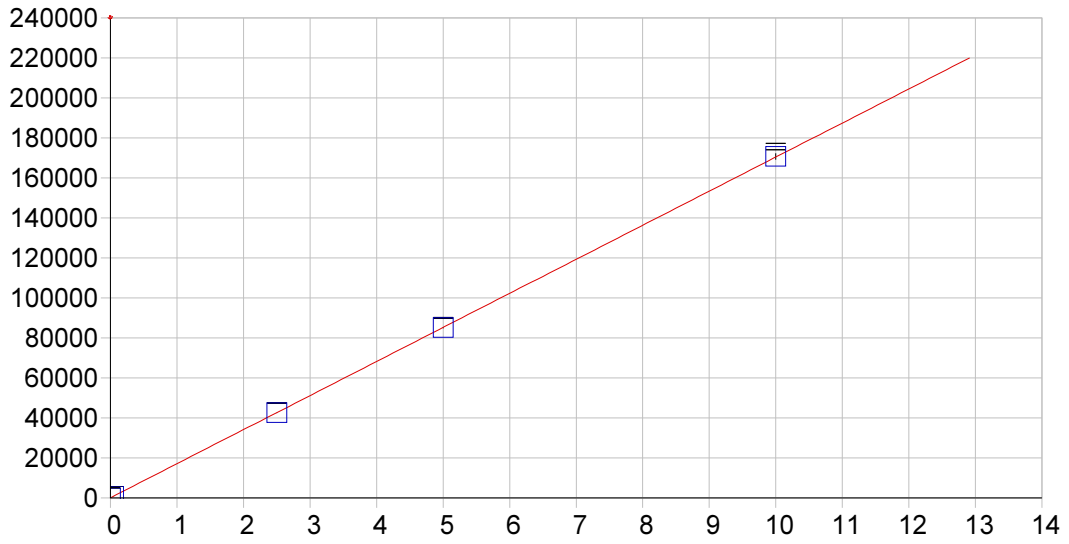


K 769.896 { 44}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	10.686099	Re-Slope:	1.000000
A1 (Gain):	213.994491	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999326	Status:	OK.
Std Error of Est:	0.675591		
Predicted MDL:	0.065420		
Predicted MQL:	0.218065		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00008	-.000	.000	10.670	3.95	1
SEQ-CAL2	.25000	.32395	.074	29.6	80.010	4.95	1
SEQ-CAL3	2.5000	2.5477	.048	1.91	555.89	.806	1
SEQ-CAL4	5.0000	4.9820	-.018	-.360	1076.8	7.23	1
SEQ-CAL5	10.000	9.8963	-.104	-1.04	2128.4	27.4	1

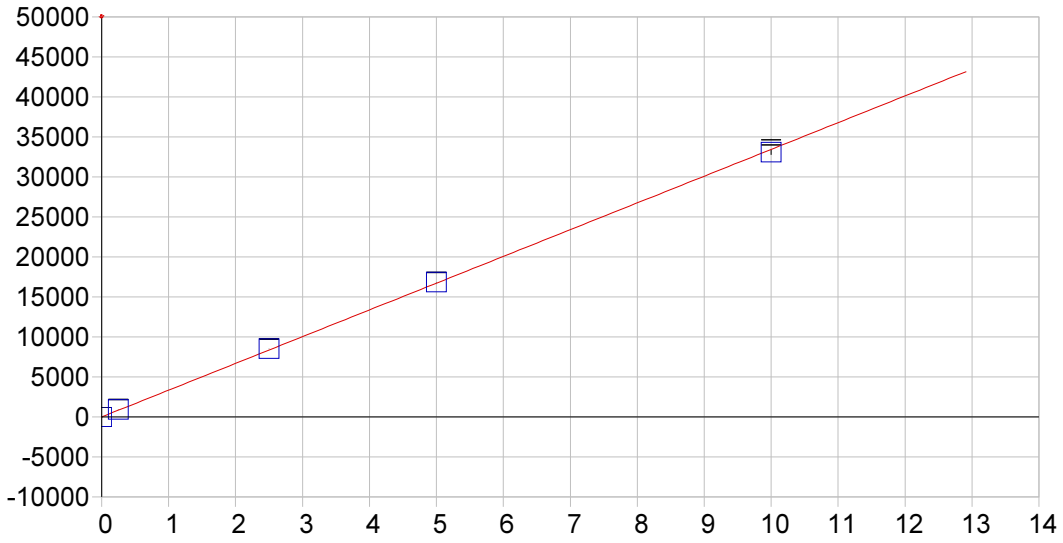


Li 670.784 { 50}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	68.089883	Re-Slope:	1.000000
A1 (Gain):	17034.56991	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	1.685026		
Predicted MDL:	0.001043		
Predicted MQL:	0.003478		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	.00000	.000	.000	68.117	12.3	1
SEQ-CAL2	.05000	.04859	-.001	-2.81	895.86	18.3	1
SEQ-CAL3	2.5000	2.4912	-.009	-.354	42504.	115.	1
SEQ-CAL4	5.0000	4.9919	-.008	-.162	85103.	240.	1
SEQ-CAL5	10.000	10.018	.018	.183	170730.	1640.	1

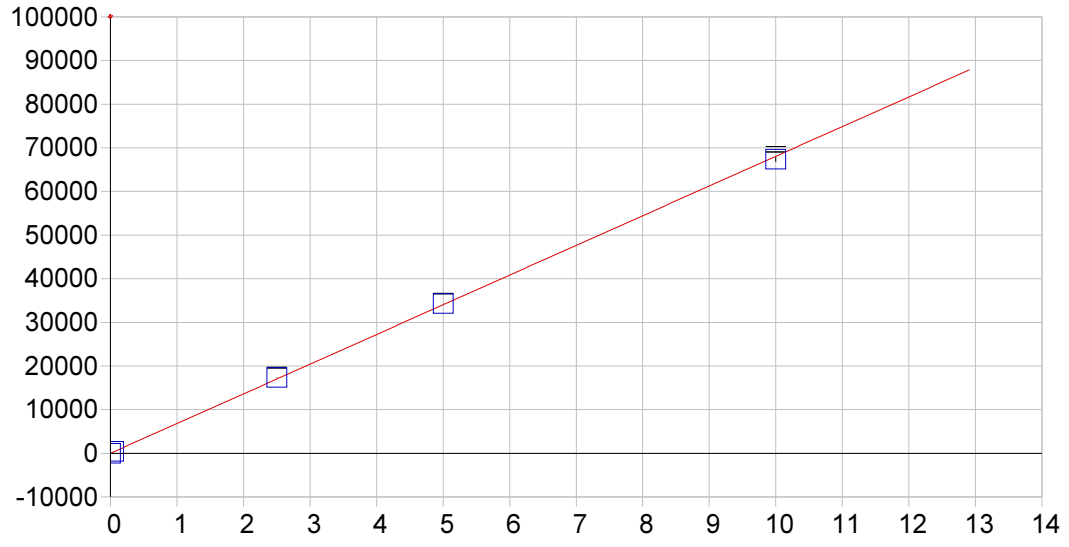


Mg 285.213 {118}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	1.001389	Re-Slope:	1.000000
A1 (Gain):	3343.588067	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999849	Status:	OK.
Std Error of Est:	4.992703		
Predicted MDL:	0.001105		
Predicted MQL:	0.003684		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00003	-.000	.000	.89333	2.45	1
SEQ-CAL2	.25000	.27907	.029	11.6	934.09	11.2	1
SEQ-CAL3	2.5000	2.5427	.043	1.71	8502.8	21.8	1
SEQ-CAL4	5.0000	5.0308	.031	.617	16822.	29.1	1
SEQ-CAL5	10.000	9.8974	-.103	-1.03	33094.	321.	1

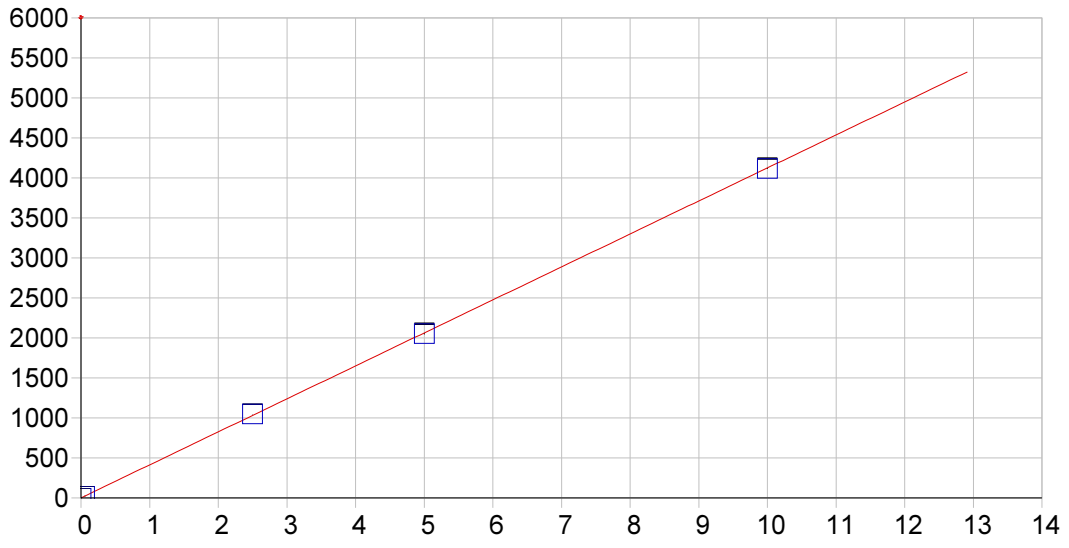


Mn 257.610 {131}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.791903	Re-Slope:	1.000000
A1 (Gain):	6805.557610	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999905	Status:	OK.
Std Error of Est:	3.594434		
Predicted MDL:	0.000382		
Predicted MQL:	0.001275		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.73542	2.18	1
SEQ-CAL2	.05000	.05740	.007	14.8	391.46	1.87	1
SEQ-CAL3	2.5000	2.5477	.048	1.91	17340.	62.3	1
SEQ-CAL4	5.0000	5.0432	.043	.865	34323.	15.0	1
SEQ-CAL5	10.000	9.9016	-.098	-.984	67387.	612.	1

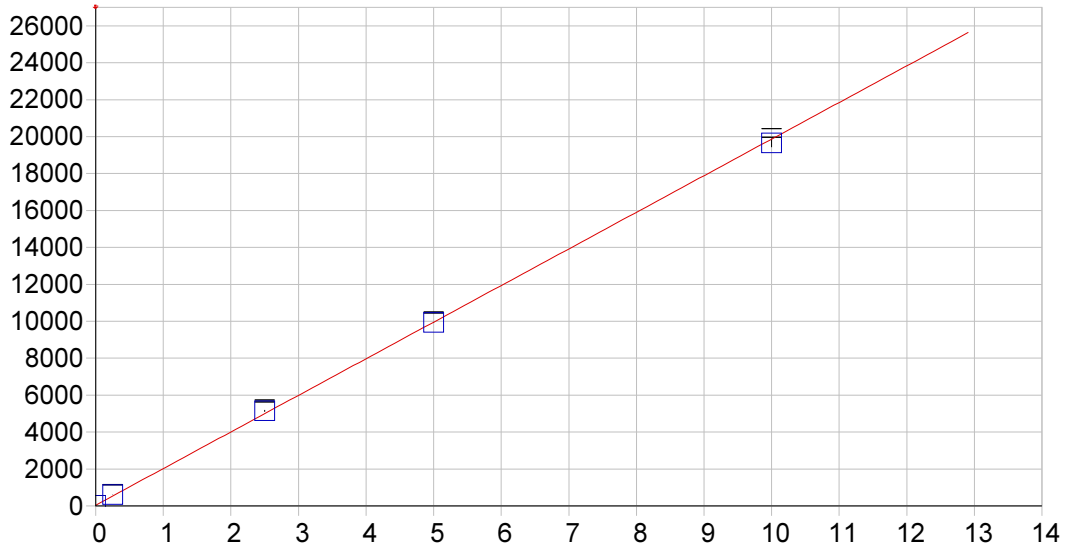


Mo 202.030 {467}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.705790	Re-Slope:	1.000000
A1 (Gain):	412.366430	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999966	Status:	OK.
Std Error of Est:	0.130534		
Predicted MDL:	0.001266		
Predicted MQL:	0.004221		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.70346	.501	1
SEQ-CAL2	.05000	.05527	.005	10.5	23.496	.243	1
SEQ-CAL3	2.5000	2.5354	.035	1.41	1046.2	1.13	1
SEQ-CAL4	5.0000	4.9752	-.025	-.495	2052.3	8.08	1
SEQ-CAL5	10.000	9.9841	-.016	-.159	4117.8	7.35	1

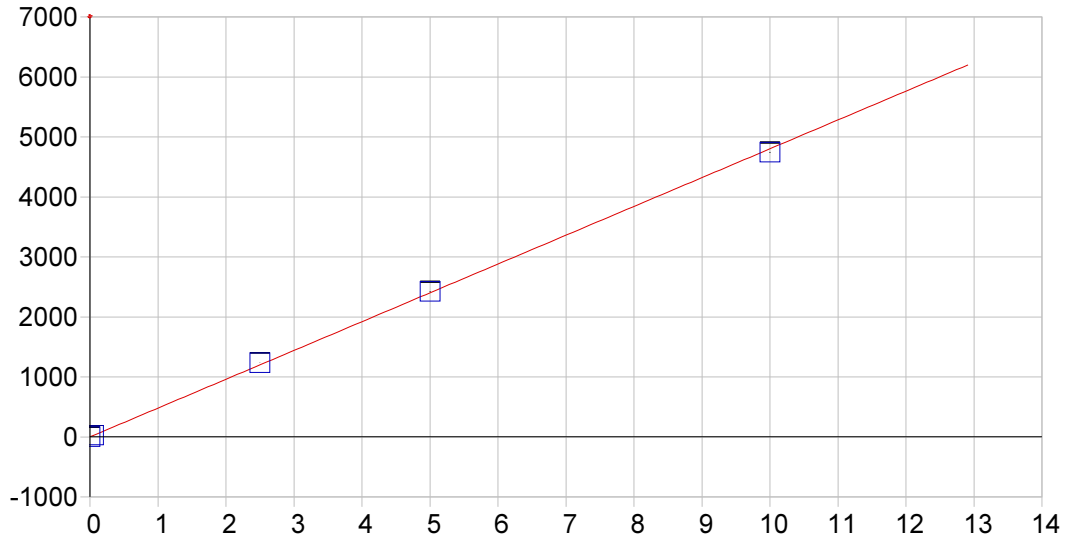


Na 589.592 { 57}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	40.274334	Re-Slope:	1.000000
A1 (Gain):	1982.494719	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999739	Status:	OK.
Std Error of Est:	3.891339		
Predicted MDL:	0.008517		
Predicted MQL:	0.028391		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00004	-.000	.000	40.190	3.70	1
SEQ-CAL2	.25000	.28795	.038	15.2	611.13	4.65	1
SEQ-CAL3	2.5000	2.5765	.077	3.06	5148.2	53.2	1
SEQ-CAL4	5.0000	4.9921	-.008	-.159	9937.0	21.8	1
SEQ-CAL5	10.000	9.8935	-.107	-1.07	19654.	233.	1

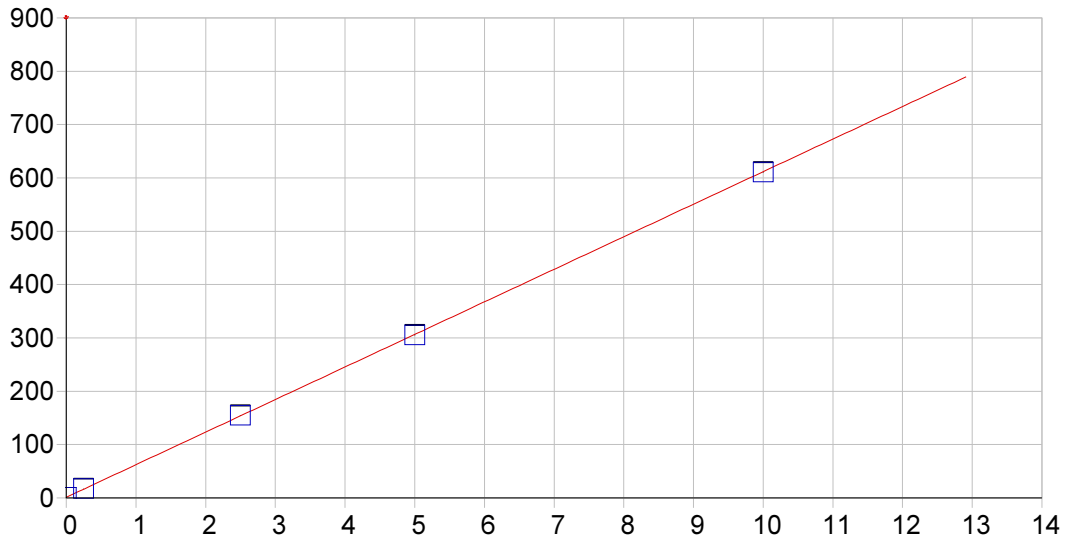


Ni 231.604 {446}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.099919	Re-Slope:	1.000000
A1 (Gain):	480.206108	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999864	Status:	OK.
Std Error of Est:	0.302806		
Predicted MDL:	0.001459		
Predicted MQL:	0.004862		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.09665	.532	1
SEQ-CAL2	.05000	.05549	.005	11.0	26.744	.247	1
SEQ-CAL3	2.5000	2.5746	.075	2.98	1236.4	2.16	1
SEQ-CAL4	5.0000	5.0445	.044	.889	2422.5	8.03	1
SEQ-CAL5	10.000	9.8754	-.125	-1.25	4742.3	6.59	1

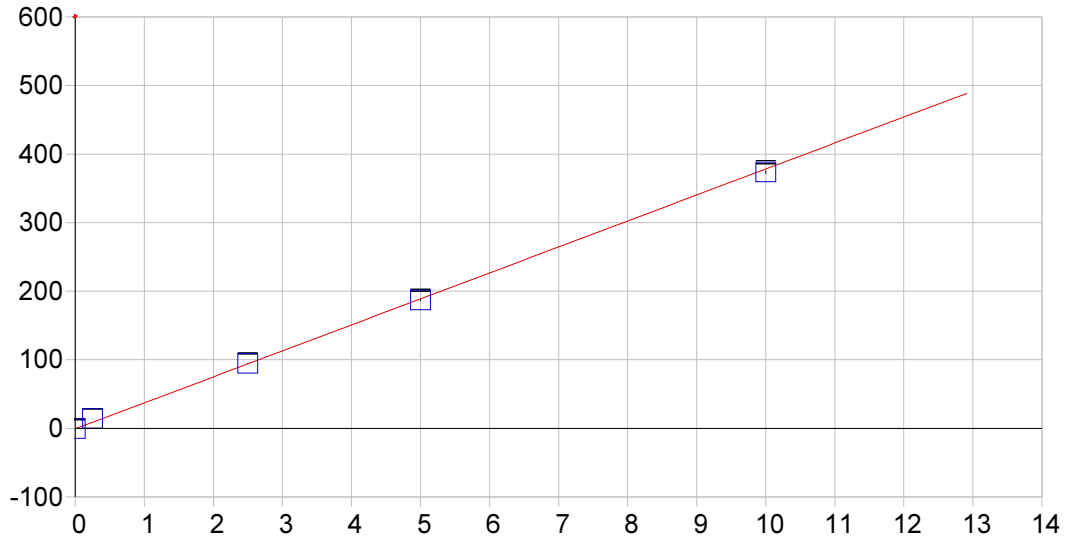


P 178.284 {489}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	1.225468	Re-Slope:	1.000000
A1 (Gain):	61.050520	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999953	Status:	OK.
Std Error of Est:	0.050631		
Predicted MDL:	0.006655		
Predicted MQL:	0.022183		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00002	-.000	.000	1.2243	.361	1
SEQ-CAL2	.25000	.26912	.019	7.65	17.655	.374	1
SEQ-CAL3	2.5000	2.5159	.016	.637	154.82	.684	1
SEQ-CAL4	5.0000	4.9840	-.016	-.319	305.50	.990	1
SEQ-CAL5	10.000	9.9809	-.019	-.191	610.57	.589	1

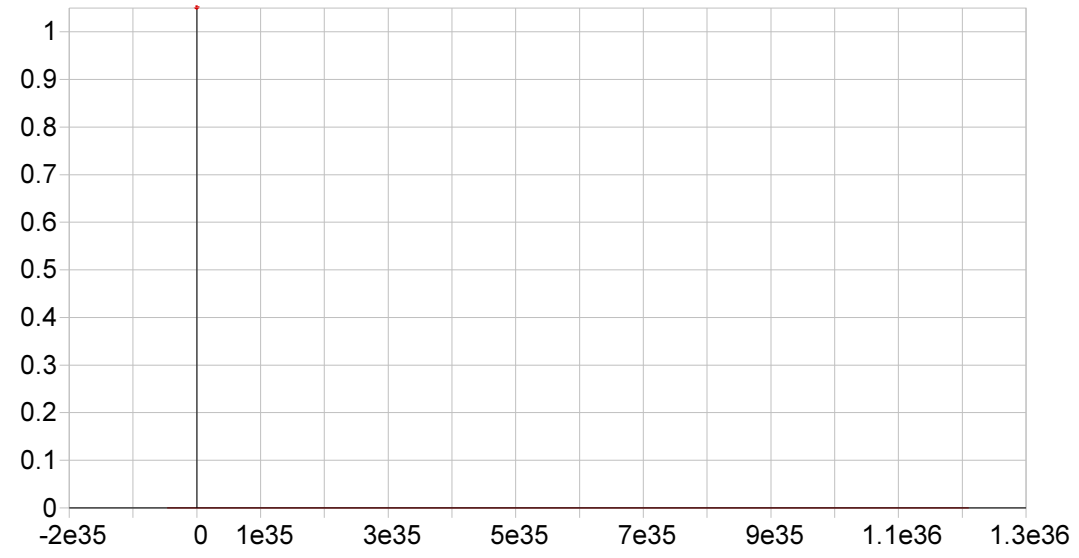


P 214.914 {457}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.799727	Re-Slope:	1.000000
A1 (Gain):	37.902159	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997541	Status:	OK.
Std Error of Est:	0.228843		
Predicted MDL:	0.017580		
Predicted MQL:	0.058600		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00014	-.000	.000	-.80515	1.02	1
SEQ-CAL2	.25000	.39611	.146	58.4	14.214	.177	1
SEQ-CAL3	2.5000	2.5224	.022	.898	94.806	.712	1
SEQ-CAL4	5.0000	4.9528	-.047	-.944	186.92	1.34	1
SEQ-CAL5	10.000	9.8787	-.121	-1.21	373.62	2.27	1

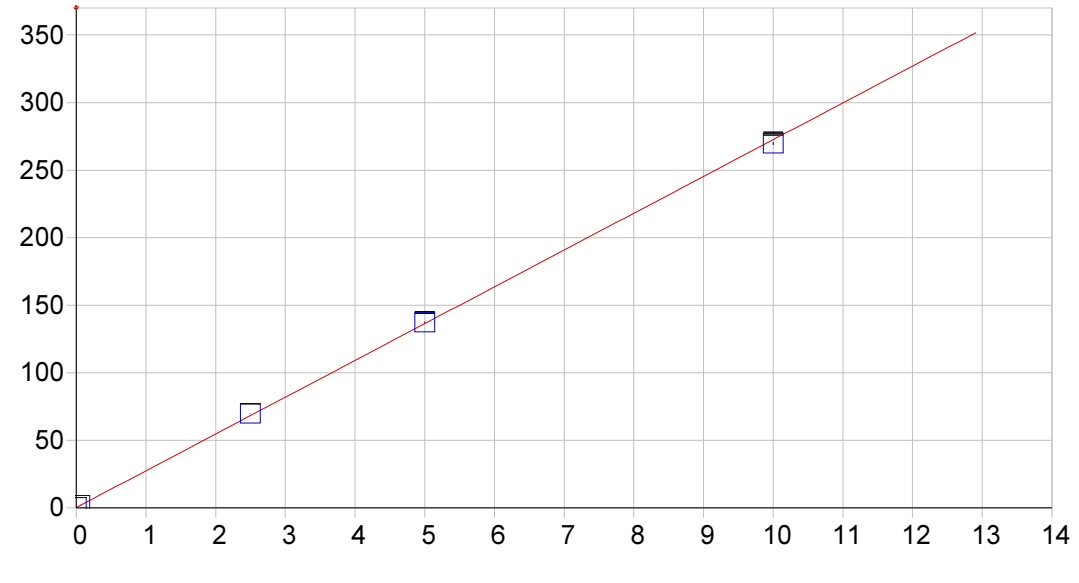


Pb 168.215 {500}

Date of Fit:	5/8/2023 17:16:51	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.000000	Status:	Warning Zero Gain
Std Error of Est:	0.006758		
Predicted MDL:	4.285810		
Predicted MQL:	14.286034		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



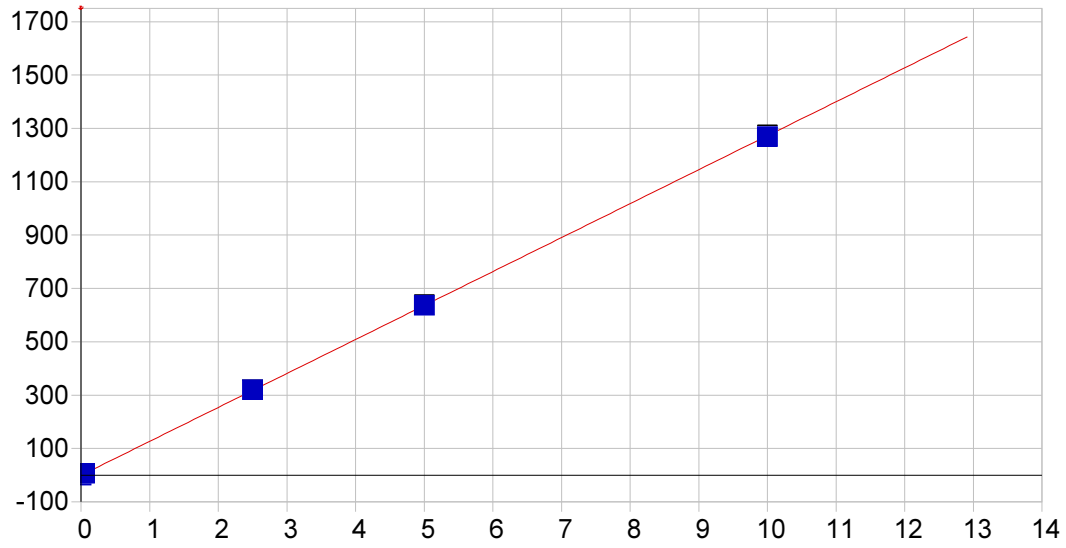
Pb 182.205 {485}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.183750	Re-Slope:	1.000000
A1 (Gain):	27.233035	Y-int:	0.000000

A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.999853		Status:	OK.		
Std Error of Est:	0.017857					
Predicted MDL:	0.013846					
Predicted MQL:	0.046155					

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.18341	.054	1
SEQ-CAL2	.05000	.06153	.012	23.1	1.8593	.049	1
SEQ-CAL3	2.5000	2.5549	.055	2.20	69.761	.108	1
SEQ-CAL4	5.0000	5.0357	.036	.715	137.32	.652	1
SEQ-CAL5	10.000	9.8978	-.102	-1.02	269.73	1.05	1

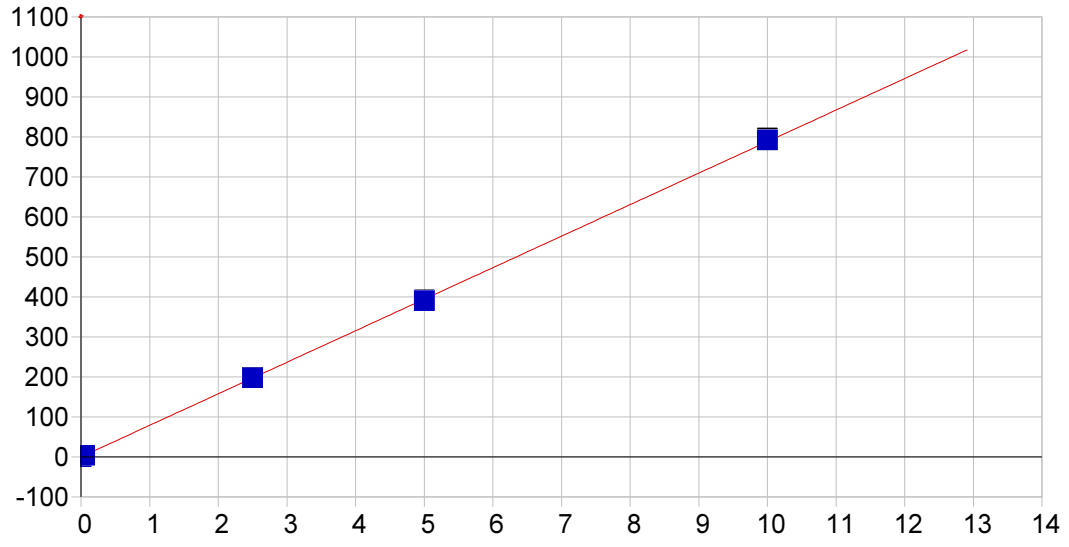


Pb 220.353 {453}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.719016	Re-Slope:	1.000000
A1 (Gain):	127.328570	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999967	Status:	OK.
Std Error of Est:	0.039450		
Predicted MDL:	0.006788		
Predicted MQL:	0.022625		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	-.71990	.162	1
SEQ-CAL2	.05000	.05669	.007	13.4	6.4347	.301	1
SEQ-CAL3	2.5000	2.5204	.020	.815	320.34	.788	1
SEQ-CAL4	5.0000	5.0030	.003	.060	636.60	1.04	1
SEQ-CAL5	10.000	9.9700	-.030	-.300	1269.3	5.53	1

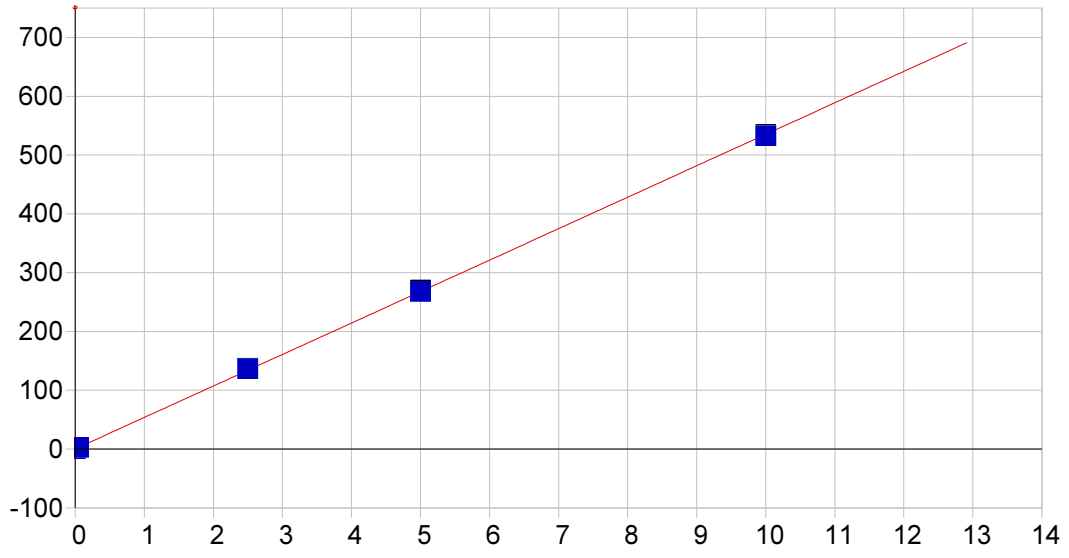


Sb 217.581 {455}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.095539	Re-Slope:	1.000000
A1 (Gain):	78.818567	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999981	Status:	OK.
Std Error of Est:	0.018652		
Predicted MDL:	0.009000		
Predicted MQL:	0.029999		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	.00000	.000	.000	.09554	.556	1
SEQ-CAL2	.05000	.05011	.000	.217	4.0510	.432	1
SEQ-CAL3	2.5000	2.5061	.006	.246	197.98	.431	1
SEQ-CAL4	5.0000	4.9512	-.049	-.976	391.06	.561	1
SEQ-CAL5	10.000	10.043	.043	.425	793.06	3.63	1

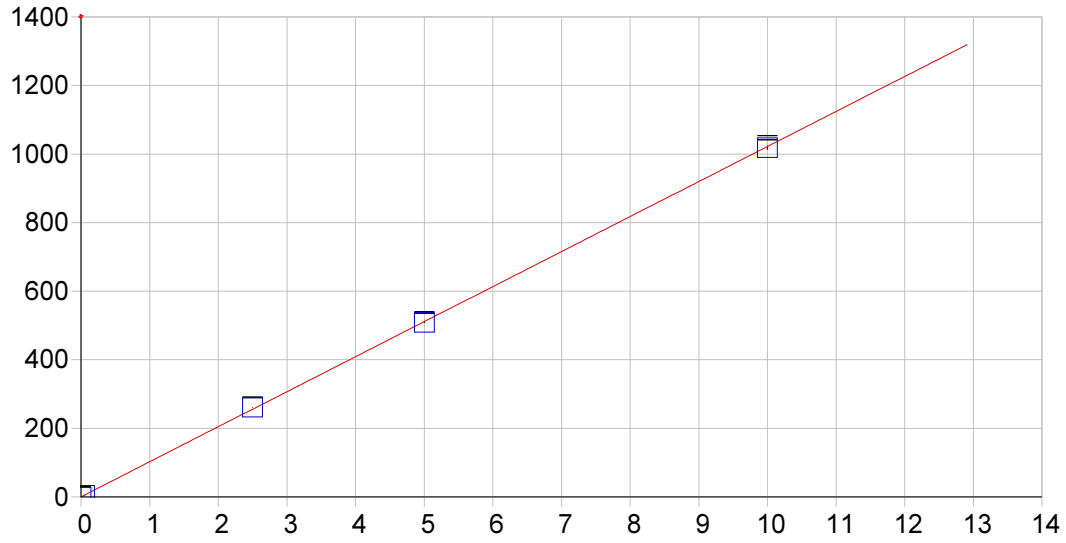


Se 196.090 {472}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.333350	Re-Slope:	1.000000
A1 (Gain):	53.503705	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.015962		
Predicted MDL:	0.010259		
Predicted MQL:	0.034196		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.33329	.370	1
SEQ-CAL2	.05000	.05045	.000	.894	3.0329	.217	1
SEQ-CAL3	2.5000	2.5463	.046	1.85	136.62	.428	1
SEQ-CAL4	5.0000	4.9985	-.001	-.029	267.88	2.09	1
SEQ-CAL5	10.000	9.9547	-.045	-.453	533.15	1.59	1

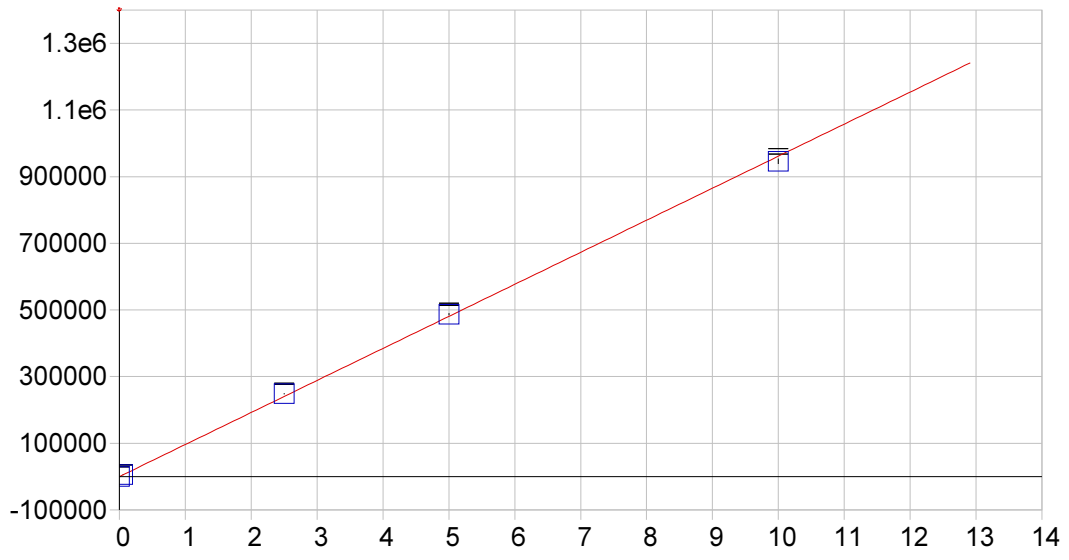


Sn 189.989 {477}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.349150	Re-Slope:	1.000000
A1 (Gain):	102.160663	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999958	Status:	OK.
Std Error of Est:	0.035750		
Predicted MDL:	0.004061		
Predicted MQL:	0.013535		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00000	-.000	.000	.34884	.321	1
SEQ-CAL2	.05000	.05232	.002	4.64	5.6944	.192	1
SEQ-CAL3	2.5000	2.5537	.054	2.15	261.23	.773	1
SEQ-CAL4	5.0000	4.9786	-.021	-.429	508.96	2.35	1
SEQ-CAL5	10.000	9.9655	-.035	-.345	1018.4	6.17	1

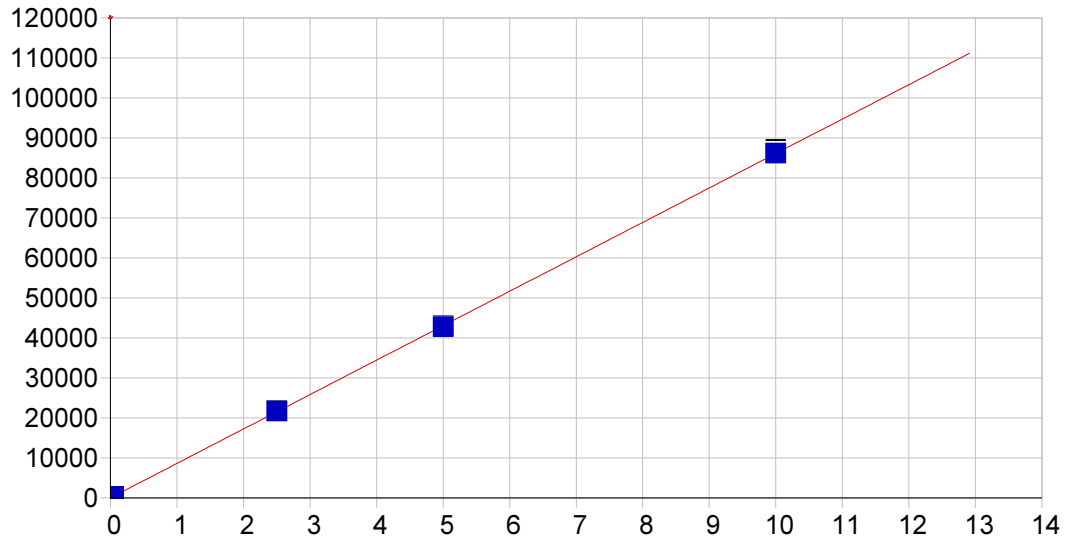


Sr 407.771 { 83}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.581312	Re-Slope:	1.000000
A1 (Gain):	96163.40590	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999774	Status:	OK.
Std Error of Est:	78.199212		
Predicted MDL:	0.000076		
Predicted MQL:	0.000255		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL2	.05000	.05849	.008	17.0	5624.5	33.1	1
SEQ-CAL3	2.5000	2.5874	.087	3.50	248810.	1730.	1
SEQ-CAL4	5.0000	5.0652	.065	1.30	487080.	3630.	1
SEQ-CAL5	10.000	9.8389	-.161	-1.61	946150.	8380.	1
SEQ-CAL1	.00000	-.00001	-.000	.000	-1.5515	4.81	1

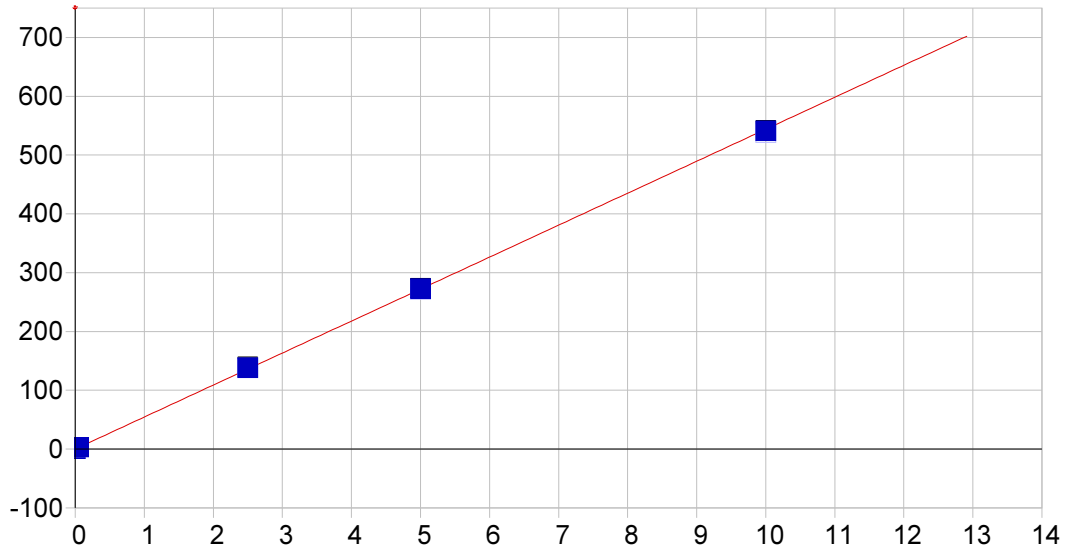


Ti 336.121 {100}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	15.733253	Re-Slope:	1.000000
A1 (Gain):	8608.468576	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	2.301134		
Predicted MDL:	0.000718		
Predicted MQL:	0.002394		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	15.690	8.11	1
SEQ-CAL2	.05000	.05490	.005	9.81	489.15	3.06	1
SEQ-CAL3	2.5000	2.5204	.020	.817	21752.	107.	1
SEQ-CAL4	5.0000	4.9679	-.032	-.641	42861.	98.1	1
SEQ-CAL5	10.000	10.007	.007	.067	86316.	762.	1

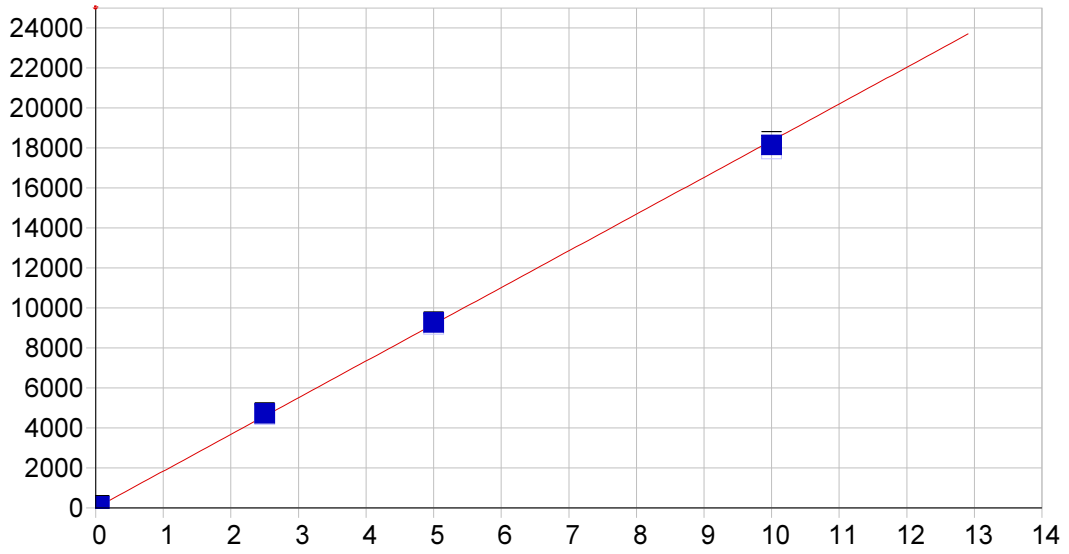


Tl 190.856 {477}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.200374	Re-Slope:	1.000000
A1 (Gain):	54.374121	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999944	Status:	OK.
Std Error of Est:	0.021798		
Predicted MDL:	0.008542		
Predicted MQL:	0.028475		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	.19997	.294	1
SEQ-CAL2	.05000	.05674	.007	13.5	3.2707	.361	1
SEQ-CAL3	2.5000	2.5410	.041	1.64	137.63	.972	1
SEQ-CAL4	5.0000	5.0096	.010	.193	271.11	.555	1
SEQ-CAL5	10.000	9.9426	-.057	-.574	537.86	.942	1

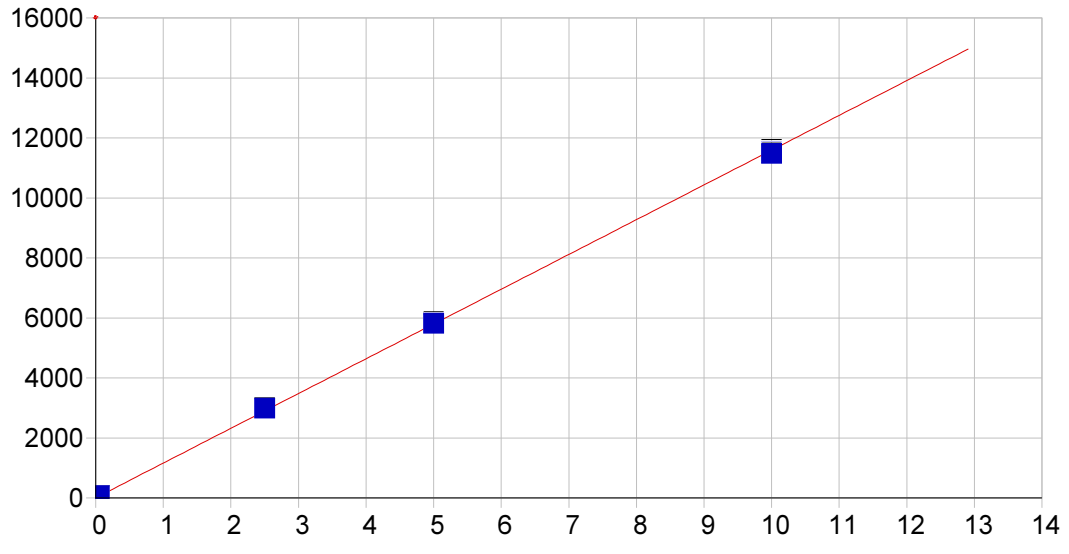


V 292.402 {115}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	2.192044	Re-Slope:	1.000000
A1 (Gain):	1836.341254	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999878	Status:	OK.
Std Error of Est:	1.083195		
Predicted MDL:	0.002126		
Predicted MQL:	0.007087		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	2.1800	1.42	1
SEQ-CAL2	.05000	.05535	.005	10.7	102.81	2.01	1
SEQ-CAL3	2.5000	2.5671	.067	2.68	4665.2	36.9	1
SEQ-CAL4	5.0000	5.0455	.045	.909	9165.1	26.2	1
SEQ-CAL5	10.000	9.8821	-.118	-1.18	17945.	175.	1



Zn 213.856 {458}

Date of Fit:	6/8/2023 14:25:10	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	2.135551	Re-Slope:	1.000000
A1 (Gain):	1158.999990	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999840	Status:	OK.
Std Error of Est:	0.797260		
Predicted MDL:	0.000501		
Predicted MQL:	0.001669		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
SEQ-CAL1	.00000	-.00001	-.000	.000	2.1211	.169	1
SEQ-CAL2	.05000	.06142	.011	22.8	73.696	.105	1
SEQ-CAL3	2.5000	2.5730	.073	2.92	3000.9	11.5	1
SEQ-CAL4	5.0000	5.0112	.011	.224	5843.3	22.8	1
SEQ-CAL5	10.000	9.9043	-.096	-.957	11548.	65.0	1

Sample Name: SEQ-CAL5 Acquired: 6/8/2023 14:21:13 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**22000.**	**11350.**	**744.8**	**12940.**	**658300.**	**85220.**	**11100.**
Stddev	196.	101.	2.6	114.	5076.	615.	89.
%RSD	.8917	.8888	.3445	.8783	.7711	.7218	.8017
#1	21780.	11230.	747.7	12810.	653200.	84510.	11000.
#2	22060.	11420.	743.2	12960.	663300.	85510.	11130.
#3	22160.	11390.	743.4	13040.	658500.	85630.	11170.

Elem	Cd2144	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**30510.**	**8699.**	**27220.**	**22680.**	**18690.**	**2128.**	**170700.**
Stddev	101.	26.	161.	246.	123.	27.	1636.
%RSD	.3298	.3021	.5898	1.083	.6587	1.288	.9581
#1	30590.	8726.	27040.	22400.	18550.	2097.	168800.
#2	30550.	8697.	27280.	22800.	18730.	2140.	171800.
#3	30400.	8673.	27350.	22840.	18790.	2148.	171600.

Elem	Mg2852	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb1822
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**33090.**	**67390.**	**4118.**	**19650.**	**4742.**	**373.6**	**269.7**
Stddev	321.	612.	7.	233.	7.	2.3	1.0
%RSD	.9687	.9079	.1786	1.186	.1390	.6074	.3890
#1	32730.	66710.	4126.	19390.	4750.	376.2	270.9
#2	33200.	67560.	4117.	19770.	4740.	372.6	269.6
#3	33350.	67890.	4111.	19800.	4737.	372.0	268.8

Elem	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1269.**	**793.1**	**533.2**	**1018.**	**946100.**	**86320.**	**537.9**
Stddev	6.	3.6	1.6	6.	8384.	762.	.9
%RSD	.4355	.4571	.2975	.6062	.8861	.8832	.1751
#1	1264.	797.0	534.5	1022.	939100.	85440.	538.7
#2	1270.	792.4	533.6	1021.	943900.	86690.	536.8
#3	1275.	789.8	531.4	1011.	955400.	86820.	538.1

Sample Name: SEQ-CAL5 Acquired: 6/8/2023 14:21:13 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	**17940.**	**11550.**
Stddev	175.	65.
%RSD	.9748	.5628
#1	17740.	11610.
#2	18060.	11550.
#3	18030.	11480.

Sample Name: SEQ-CAL4 Acquired: 6/8/2023 14:17:06 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**11160.**	**5685.**	**373.2**	**6526.**	**332700.**	**43210.**	**5747.**
Stddev	29.	13.	1.3	13.	4495.	23.	13.
%RSD	.2585	.2338	.3479	.1986	1.351	.0532	.2278
#1	11170.	5673.	374.0	6525.	330800.	43210.	5761.
#2	11190.	5699.	371.7	6513.	329500.	43230.	5736.
#3	11130.	5683.	374.0	6539.	337900.	43190.	5744.

Elem	Cd2144	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**15550.**	**4420.**	**13770.**	**11520.**	**9511.**	**1077.**	**85100.**
Stddev	42.	16.	27.	18.	11.	7.	240.
%RSD	.2674	.3727	.1973	.1528	.1179	.6719	.2818
#1	15590.	4439.	13750.	11520.	9500.	1085.	84860.
#2	15540.	4416.	13800.	11500.	9523.	1073.	85340.
#3	15510.	4407.	13760.	11540.	9511.	1072.	85110.

Elem	Mg2852	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb1822
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**16820.**	**34320.**	**2052.**	**9937.**	**2422.**	**186.9**	**137.3**
Stddev	29.	15.	8.	22.	8.	1.3	.7
%RSD	.1729	.0436	.3939	.2192	.3315	.7165	.4748
#1	16800.	34310.	2061.	9912.	2432.	188.2	138.0
#2	16850.	34340.	2050.	9945.	2419.	185.6	136.7
#3	16810.	34310.	2046.	9953.	2417.	187.0	137.2

Elem	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**636.6**	**391.1**	**267.9**	**509.0**	**487100.**	**42860.**	**271.1**
Stddev	1.0	.6	2.1	2.4	3626.	98.	.6
%RSD	.1638	.1435	.7784	.4620	.7445	.2289	.2049
#1	637.4	391.6	270.1	511.7	486900.	42750.	271.8
#2	635.4	391.0	267.5	507.7	483600.	42930.	270.8
#3	636.9	390.5	266.0	507.5	490800.	42900.	270.8

Sample Name: SEQ-CAL4 Acquired: 6/8/2023 14:17:06 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	**9165.**	**5843.**
Stddev	26.	23.
%RSD	.2858	.3909
#1	9135.	5868.
#2	9178.	5839.
#3	9182.	5823.

Sample Name: SEQ-CAL3 Acquired: 6/8/2023 14:13:05 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5632.**	**2873.**	**189.5**	**3364.**	**169700.**	**21840.**	**2826.**
Stddev	13.	8.	.8	17.	915.	136.	12.
%RSD	.2229	.2649	.4080	.5000	.5391	.6215	.4210
#1	5645.	2880.	188.9	3375.	170100.	21890.	2833.
#2	5620.	2874.	189.2	3345.	168600.	21690.	2812.
#3	5630.	2865.	190.3	3373.	170300.	21940.	2831.

Elem	Cd2144	Co2286	Cr2835	Cu3247	Fe2599	K_7698	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7949.**	**2278.**	**6985.**	**5881.**	**4808.**	**555.9**	**42500.**
Stddev	19.	5.	36.	29.	25.	.8	115.
%RSD	.2412	.2118	.5173	.4937	.5193	.1449	.2712
#1	7958.	2276.	6985.	5908.	4817.	555.9	42550.
#2	7962.	2283.	6949.	5850.	4780.	556.7	42590.
#3	7927.	2274.	7021.	5885.	4828.	555.1	42370.

Elem	Mg2852	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb1822
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8503.**	**17340.**	**1046.**	**5148.**	**1236.**	**94.81**	**69.76**
Stddev	22.	62.	1.	53.	2.	.71	.11
%RSD	.2564	.3593	.1081	1.034	.1746	.7509	.1554
#1	8525.	17410.	1046.	5172.	1239.	94.06	69.88
#2	8481.	17300.	1047.	5087.	1234.	94.88	69.68
#3	8503.	17310.	1045.	5186.	1236.	95.48	69.71

Elem	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**320.3**	**198.0**	**136.6**	**261.2**	**248800.**	**21750.**	**137.6**
Stddev	.8	.4	.4	.8	1731.	107.	1.0
%RSD	.2459	.2176	.3136	.2959	.6958	.4914	.7066
#1	321.2	198.4	136.8	261.3	247900.	21820.	138.7
#2	320.1	198.0	136.1	262.0	247700.	21630.	137.1
#3	319.7	197.5	136.9	260.4	250800.	21810.	137.0

Sample Name: SEQ-CAL3 Acquired: 6/8/2023 14:13:05 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	V_2924	Zn2138
Units	Cts/S	Cts/S
Avg	**4665.**	**3001.**
Stddev	37.	11.
%RSD	.7903	.3824
#1	4680.	2999.
#2	4623.	3013.
#3	4692.	2991.

Sample Name: SEQ-CAL2 Acquired: 6/8/2023 14:08:59 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**115.4**	**308.2**	**3.791**	**43.11**	**3842.**	**48.91**	**357.7**	**18.26**	**50.20**
Stddev	3.3	2.6	.217	1.74	13.	2.71	3.0	.26	.53
%RSD	2.889	.8496	5.718	4.048	.3411	5.532	.8333	1.433	1.062
#1	111.8	310.5	3.600	41.45	3841.	46.57	357.1	17.96	50.64
#2	116.1	305.4	4.026	44.93	3830.	48.28	360.9	18.47	49.61
#3	118.3	308.8	3.746	42.96	3856.	51.87	355.0	18.33	50.36

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**156.7**	**132.4**	**238.3**	**80.01**	**895.9**	**934.1**	**391.5**	**23.50**	**611.1**
Stddev	3.6	.9	.3	4.95	18.3	11.2	1.9	.24	4.7
%RSD	2.315	.6910	.1122	6.184	2.040	1.199	.4777	1.035	.7609
#1	152.9	132.0	238.5	76.09	916.7	924.4	392.9	23.24	615.8
#2	157.1	131.7	238.4	85.57	882.6	931.5	389.3	23.73	606.5
#3	160.1	133.4	238.0	78.37	888.3	946.4	392.2	23.51	611.1

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**26.74**	**14.21**	**1.859**	**6.435**	**4.051**	**3.033**	**5.694**	**5624.**	**489.2**
Stddev	.25	.18	.049	.301	.432	.217	.192	33.	3.1
%RSD	.9251	1.248	2.612	4.671	10.66	7.145	3.368	.5885	.6256
#1	27.03	14.03	1.914	6.746	3.566	3.253	5.483	5603.	492.7
#2	26.61	14.38	1.842	6.412	4.193	3.026	5.742	5608.	487.2
#3	26.59	14.23	1.822	6.146	4.394	2.820	5.858	5663.	487.6

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	**3.271**	**102.8**	**73.70**
Stddev	.361	2.0	.10
%RSD	11.03	1.957	.1424
#1	3.666	104.2	73.74
#2	2.960	100.5	73.58
#3	3.186	103.8	73.77

Sample Name: SEQ-CAL1 Acquired: 6/8/2023 14:04:52 Type: Cal
Method: EMT-6010(v2186) Mode: IR Corr. Factor: 1.000000
User: QDO ANALYST: METHOD: MATRIX:
Comment:

Elem	Ag3280	Al3961	As1937	B_2497	Ba4554	Be2348	Ca3158	Cd2144	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-7.133**	**-4.117**	**-.0933**	**8.400**	**51.18**	**-.1952**	**-17.87**	**-.3244**	**.0595**
Stddev	3.194	6.151	.3758	1.402	12.68	1.775	3.08	.2110	.1935
%RSD	44.78	149.4	402.7	16.69	24.77	909.3	17.22	65.05	324.9
#1	-3.500	-6.400	.3233	8.930	65.81	-2.214	-19.63	-.5466	.2706
#2	-9.500	-8.800	-.1966	9.460	43.53	1.121	-19.67	-.3000	.0173
#3	-8.400	2.850	-.4066	6.810	44.19	.5071	-14.32	-.1266	-.1093

Elem	Cr2835	Cu3247	Fe2599	K_7698	Li6707	Mg2852	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.217**	**.6533**	**6.792**	**10.67**	**68.12**	**.8933**	**.7354**	**.7035**	**40.19**
Stddev	3.576	1.804	2.126	3.95	12.30	2.449	2.184	.5005	3.70
%RSD	57.52	276.1	31.30	37.06	18.05	274.2	297.0	71.15	9.213
#1	2.600	1.860	8.700	14.09	67.57	-.4400	-1.756	1.261	44.40
#2	9.750	1.520	7.175	11.58	56.10	3.720	2.319	.5559	38.73
#3	6.300	-1.420	4.500	6.340	80.67	-.6000	1.644	.2933	37.44

Elem	Ni2316	P_2149	Pb1822	Pb2203	Sb2175	Se1960	Sn1899	Sr4077	Ti3361
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0967**	**-.8051**	**.1834**	**-.7199**	**.0955**	**.3333**	**.3488**	**-1.552**	**15.69**
Stddev	.5319	1.018	.0538	.1618	.5560	.3695	.3205	4.809	8.11
%RSD	550.3	126.4	29.32	22.47	581.9	110.9	91.89	310.0	51.72
#1	-.4733	-1.682	.2454	-.6332	-.3746	.5533	.5599	.3591	21.45
#2	.1833	-1.045	.1497	-.6199	-.0480	-.0933	.5066	2.009	6.410
#3	.5799	.3115	.1551	-.9065	.7092	.5399	-.0200	-7.023	19.21

Elem	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S
Avg	**.2000**	**2.180**	**2.121**
Stddev	.2935	1.417	.169
%RSD	146.8	65.01	7.953
#1	.5333	1.240	1.950
#2	-.0200	1.490	2.125
#3	.0867	3.810	2.288

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	-7.120082	2218.3214	0.000000	1.000000
Al 396.152 { 85}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	-4.079525	1094.7807	0.000000	1.000000
As 193.759 {474}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	-0.093136	75.157712	0.000000	1.000000
B 249.773 {135}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	8.402523	1298.3828	0.000000	1.000000
Ba 455.403 { 74}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	51.708757	66347.079	0.000000	1.000000
Be 234.861 {144}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	-0.188384	8586.8550	0.000000	1.000000
Ca 315.887 {107}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	-17.779757	1132.3382	0.000000	1.000000
Cd 214.438 {457}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	-0.320851	3086.3529	0.000000	1.000000
Co 228.616 {447}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.066902	880.15661	0.000000	1.000000
Cr 283.563 {119}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	6.232112	2744.2880	0.000000	1.000000
Cu 324.754 {104}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.672978	2291.3098	0.000000	1.000000
Fe 259.940 {130}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	6.837092	1887.4900	0.000000	1.000000
K 766.490 { 44}	6/8/2023 14:56:27	2/19/2015 16:26:35	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 769.896 { 44}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	10.686099	213.99449	0.000000	1.000000
Li 670.784 { 50}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	68.089883	17034.569	0.000000	1.000000
Mg 285.213 {118}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	1.001389	3343.5880	0.000000	1.000000
Mn 257.610 {131}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.791903	6805.5576	0.000000	1.000000
Mo 202.030 {467}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.705790	412.36643	0.000000	1.000000
Na 589.592 { 57}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	40.274334	1982.4947	0.000000	1.000000
Ni 231.604 {446}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.099919	480.20610	0.000000	1.000000
P 178.284 {489}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	1.225468	61.050520	0.000000	1.000000
P 214.914 {457}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	-0.799727	37.902159	0.000000	1.000000
Pb 168.215 {500}	6/8/2023 14:56:27	5/27/2021 12:44:34	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Pb 182.205 {485}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.183750	27.233035	0.000000	1.000000
Pb 220.353 {453}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	-0.719016	127.32857	0.000000	1.000000
Sb 217.581 {455}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.095539	78.818567	0.000000	1.000000
Se 196.090 {472}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.333350	53.503705	0.000000	1.000000
Sn 189.989 {477}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.349150	102.16066	0.000000	1.000000
Sr 407.771 { 83}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	-0.581312	96163.405	0.000000	1.000000
Ti 336.121 {100}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	15.733253	8615.3396	0.000000	1.000000
Tl 190.856 {477}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	0.200374	54.442931	0.000000	1.000000
V 292.402 {115}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	2.192044	1845.0340	0.000000	1.000000
Zn 213.856 {458}	6/8/2023 14:56:27	6/8/2023 14:25:10	Linear	1/Conc	2.135551	1156.4862	0.000000	1.000000

Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
						Slope	Y-int	Slope factor	Offset
Ag 328.068 {103}	0.999939	0.932929	0.002690	0.008967	OK.	1.000000	0.000000	1	0
Al 396.152 { 85}	0.999873	1.559173	0.007833	0.026111	OK.	1.000000	0.000000	1	0
As 193.759 {474}	0.999979	0.018293	0.006167	0.020557	OK.	1.000000	0.000000	1	0
B 249.773 {135}	0.999915	0.457947	0.001990	0.006633	OK.	1.000000	0.000000	1	0
Ba 455.403 { 74}	0.999916	32.914311	0.000168	0.000560	OK.	1.000000	0.000000	1	0
Be 234.861 {144}	0.999953	1.003064	0.000200	0.000667	OK.	1.000000	0.000000	1	0
Ca 315.887 {107}	0.999107	4.114226	0.004199	0.013996	OK.	1.000000	0.000000	1	0
Cd 214.438 {457}	0.999884	0.567557	0.000263	0.000876	OK.	1.000000	0.000000	1	0
Co 228.616 {447}	0.999843	0.596280	0.000920	0.003067	OK.	1.000000	0.000000	1	0
Cr 283.563 {119}	0.999945	1.100359	0.001267	0.004222	OK.	1.000000	0.000000	1	0
Cu 324.754 {104}	0.999884	1.335773	0.002165	0.007216	OK.	1.000000	0.000000	1	0
Fe 259.940 {130}	0.999796	2.064323	0.001375	0.004584	OK.	1.000000	0.000000	1	0
K 766.490 { 44}	0.000000	1.145570	0.047854	0.159512	Warnin	1.000000	0.000000	1	0
K 769.896 { 44}	0.999326	0.675591	0.065420	0.218065	OK.	1.000000	0.000000	1	0
Li 670.784 { 50}	0.999997	1.685026	0.001043	0.003478	OK.	1.000000	0.000000	1	0
Mg 285.213 {118}	0.999849	4.992703	0.001105	0.003684	OK.	1.000000	0.000000	1	0
Mn 257.610 {131}	0.999905	3.594434	0.000382	0.001275	OK.	1.000000	0.000000	1	0
Mo 202.030 {467}	0.999966	0.130534	0.001266	0.004221	OK.	1.000000	0.000000	1	0
Na 589.592 { 57}	0.999739	3.891339	0.008517	0.028391	OK.	1.000000	0.000000	1	0
Ni 231.604 {446}	0.999864	0.302806	0.001459	0.004862	OK.	1.000000	0.000000	1	0
P 178.284 {489}	0.999953	0.050631	0.006655	0.022183	OK.	1.000000	0.000000	1	0
P 214.914 {457}	0.997541	0.228843	0.017580	0.058600	OK.	1.000000	0.000000	1	0
Pb 168.215 {500}	0.000000	0.006758	4.285810	14.286034	Warnin	1.000000	0.000000	1	0
Pb 182.205 {485}	0.999853	0.017857	0.013846	0.046155	OK.	1.000000	0.000000	1	0
Pb 220.353 {453}	0.999967	0.039450	0.006788	0.022625	OK.	1.000000	0.000000	1	0
Sb 217.581 {455}	0.999981	0.018652	0.009000	0.029999	OK.	1.000000	0.000000	1	0
Se 196.090 {472}	0.999970	0.015962	0.010259	0.034196	OK.	1.000000	0.000000	1	0
Sn 189.989 {477}	0.999958	0.035750	0.004061	0.013535	OK.	1.000000	0.000000	1	0
Sr 407.771 { 83}	0.999774	78.199212	0.000076	0.000255	OK.	1.000000	0.000000	1	0
Ti 336.121 {100}	0.999976	2.301134	0.000718	0.002392	OK.	1.000000	0.000000	1	0
Tl 190.856 {477}	0.999944	0.021798	0.008532	0.028439	OK.	1.000000	0.000000	1	0
V 292.402 {115}	0.999878	1.083195	0.002116	0.007054	OK.	1.000000	0.000000	1	0
Zn 213.856 {458}	0.999840	0.797263	0.000502	0.001672	OK.	1.000000	0.000000	1	0

Analysis Class: ICPMS

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01	File ID:	061523B.xml-023
Sampled:	05/31/23 13:45	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:38
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	0.0305	0.0250	0.0500	0.125	J, D
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.101	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*63.4*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt	0.00308	0.00300	0.0100	0.0250	J, D
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	0.226	0.0500	0.100	0.125	D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*28.3*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	0.166	0.00250	0.0100	0.0250	D
7440-02-0	Nickel		0.00250	0.0100	0.0250	U
7440-09-7	Potassium	6.90	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*170*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	24	Stop Time:	6/15/2023 3:40:29 PM	Comment	1/5 6020
Sample ID:	23F0136-01@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:38:38 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.047 ppb	7.3 %
11B (KED)	12.212 ppb	4.0 %
23Na (KED)	27,231.188 ppb	0.6 %
24Mg (KED)	4,526.453 ppb	1.7 %
27Al (KED)	4.887 ppb	4.1 %
31P (KED)	6.392 ppb	10.5 %
39K (KED)	1,103.667 ppb	0.7 %
44Ca (KED)	10,142.495 ppb	0.9 %
47Ti (KED)	0.032 ppb	103.8 %
51V (KED)	-0.043 ppb	67.0 %
52Cr (KED)	0.186 ppb	7.0 %
55Mn (KED)	26.570 ppb	1.0 %
57Fe (KED)	36.211 ppb	0.9 %
59Co (KED)	0.493 ppb	3.9 %
60Ni (KED)	0.262 ppb	12.0 %
63Cu (KED)	-0.268 ppb	4.2 %
66Zn (KED)	0.945 ppb	2.9 %
75As (KED)	0.065 ppb	21.1 %
78Se (KED)	0.118 ppb	8.4 %
95Mo (KED)	0.096 ppb	3.8 %
107Ag (KED)	-0.053 ppb	3.4 %
111Cd (KED)	-0.017 ppb	20.1 %
118Sn (KED)	-0.238 ppb	2.3 %
121Sb (KED)	-0.034 ppb	15.7 %
137Ba (KED)	16.167 ppb	3.7 %
205Tl (KED)	0.017 ppb	39.1 %
208Pb (KED)	-0.023 ppb	19.8 %

ISTD's	Concentration average
6Li (KED)	99.207 %
45Sc (KED)	94.240 %
72Ge (KED)	95.768 %
89Y (KED)	95.750 %
115In (KED)	97.382 %
159Tb (KED)	100.837 %
209Bi (KED)	96.824 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01RE1	File ID:	061523B.xml-057
Sampled:	05/31/23 13:45	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:42
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	63.7	0.500	1.00	1.25	D
7439-95-4	Magnesium	30.1	0.200	0.500	1.25	D
7440-23-5	Sodium	172	0.500	1.00	1.25	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	58	Stop Time:	6/15/2023 4:43:53 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-01RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 4:41:59 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.050 ppb	15.4 %
11B (KED)	1.040 ppb	8.0 %
23Na (KED)	2,758.361 ppb	1.6 %
24Mg (KED)	481.498 ppb	1.3 %
27Al (KED)	0.822 ppb	19.1 %
31P (KED)	5.957 ppb	43.1 %
39K (KED)	110.914 ppb	0.8 %
44Ca (KED)	1,019.866 ppb	0.9 %
47Ti (KED)	-0.190 ppb	9.4 %
51V (KED)	-0.065 ppb	16.7 %
52Cr (KED)	-0.008 ppb	69.8 %
55Mn (KED)	2.531 ppb	1.6 %
57Fe (KED)	4.338 ppb	3.8 %
59Co (KED)	-0.072 ppb	4.8 %
60Ni (KED)	0.015 ppb	38.4 %
63Cu (KED)	-0.333 ppb	2.6 %
66Zn (KED)	0.217 ppb	6.7 %
75As (KED)	0.034 ppb	25.8 %
78Se (KED)	0.102 ppb	3.1 %
95Mo (KED)	0.001 ppb	394.8 %
107Ag (KED)	-0.055 ppb	1.6 %
111Cd (KED)	-0.025 ppb	11.6 %
118Sn (KED)	-0.283 ppb	0.4 %
121Sb (KED)	-0.093 ppb	0.9 %
137Ba (KED)	1.549 ppb	1.5 %
205Tl (KED)	0.004 ppb	12.8 %
208Pb (KED)	-0.038 ppb	1.7 %

ISTD's	Concentration average
6Li (KED)	77.029 %
45Sc (KED)	79.048 %
72Ge (KED)	84.040 %
89Y (KED)	85.004 %
115In (KED)	88.978 %
159Tb (KED)	87.783 %
209Bi (KED)	88.617 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02	File ID:	061523B.xml-024
Sampled:	05/31/23 12:15	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:40
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	*Aluminum*	*10.6*	*0.0250*	*0.0500*	*0.125*	*D, E*
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic	0.00328	0.00200	0.00500	0.0250	J, D
7440-39-3	Barium	0.151	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium	0.00120	0.000500	0.00200	0.00250	J, D
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	Calcium	4.49	0.0500	0.100	0.125	D
7440-47-3	Chromium	0.0444	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt	0.0149	0.00300	0.0100	0.0250	J, D
7440-50-8	Copper	0.0132	0.00250	0.0100	0.0250	J, D
7439-89-6	Iron	12.2	0.0500	0.100	0.125	D
7439-92-1	Lead	0.00599	0.00150	0.00500	0.0250	J, D
7439-95-4	Magnesium	2.72	0.0200	0.0500	0.125	D
7439-96-5	Manganese	0.147	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	0.0254	0.00250	0.0100	0.0250	D
7440-09-7	Potassium	1.17	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*35.5*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium	0.0196	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc	0.0530	0.0100	0.0200	0.0250	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	25	Stop Time:	6/15/2023 3:42:19 PM	Comment	1/5 6020
Sample ID:	23F0136-02@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:40:30 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.192 ppb	12.3 %
11B (KED)	8.441 ppb	2.3 %
23Na (KED)	5,674.066 ppb	0.3 %
24Mg (KED)	435.830 ppb	1.4 %
27Al (KED)	1,697.063 ppb	0.8 %
31P (KED)	20.985 ppb	24.7 %
39K (KED)	187.573 ppb	1.5 %
44Ca (KED)	718.633 ppb	2.1 %
47Ti (KED)	9.467 ppb	1.9 %
51V (KED)	3.130 ppb	1.4 %
52Cr (KED)	7.100 ppb	1.8 %
55Mn (KED)	23.566 ppb	0.7 %
57Fe (KED)	1,951.746 ppb	0.9 %
59Co (KED)	2.377 ppb	0.6 %
60Ni (KED)	4.067 ppb	2.4 %
63Cu (KED)	2.117 ppb	1.1 %
66Zn (KED)	8.482 ppb	1.7 %
75As (KED)	0.524 ppb	1.9 %
78Se (KED)	0.438 ppb	9.9 %
95Mo (KED)	0.212 ppb	0.9 %
107Ag (KED)	-0.049 ppb	4.4 %
111Cd (KED)	0.009 ppb	12.1 %
118Sn (KED)	-0.153 ppb	3.8 %
121Sb (KED)	-0.065 ppb	1.2 %
137Ba (KED)	24.189 ppb	1.3 %
205Tl (KED)	0.041 ppb	5.7 %
208Pb (KED)	0.958 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	103.615 %
45Sc (KED)	98.754 %
72Ge (KED)	98.464 %
89Y (KED)	123.137 %
115In (KED)	101.219 %
159Tb (KED)	107.836 %
209Bi (KED)	105.074 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02RE1	File ID:	061523B.xml-058
Sampled:	05/31/23 12:15	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:43
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	11.4	0.250	0.500	1.25	D
7440-23-5	Sodium	36.2	0.500	1.00	1.25	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	59	Stop Time:	6/15/2023 4:45:48 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-02RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 4:43:54 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.040 ppb	10.6 %
11B (KED)	0.780 ppb	17.7 %
23Na (KED)	579.252 ppb	1.6 %
24Mg (KED)	46.465 ppb	3.6 %
27Al (KED)	183.041 ppb	1.5 %
31P (KED)	6.251 ppb	31.4 %
39K (KED)	19.817 ppb	6.1 %
44Ca (KED)	72.862 ppb	3.8 %
47Ti (KED)	0.825 ppb	14.9 %
51V (KED)	0.243 ppb	4.3 %
52Cr (KED)	0.841 ppb	5.2 %
55Mn (KED)	2.347 ppb	2.2 %
57Fe (KED)	196.679 ppb	0.7 %
59Co (KED)	0.114 ppb	6.7 %
60Ni (KED)	0.411 ppb	3.6 %
63Cu (KED)	-0.098 ppb	12.9 %
66Zn (KED)	1.110 ppb	2.9 %
75As (KED)	0.080 ppb	13.7 %
78Se (KED)	0.158 ppb	15.8 %
95Mo (KED)	0.022 ppb	21.0 %
107Ag (KED)	-0.052 ppb	2.5 %
111Cd (KED)	-0.025 ppb	5.9 %
118Sn (KED)	-0.275 ppb	0.6 %
121Sb (KED)	-0.094 ppb	1.1 %
137Ba (KED)	2.465 ppb	2.1 %
205Tl (KED)	0.007 ppb	10.8 %
208Pb (KED)	0.058 ppb	9.8 %

ISTD's	Concentration average
6Li (KED)	81.824 %
45Sc (KED)	83.484 %
72Ge (KED)	88.413 %
89Y (KED)	89.330 %
115In (KED)	90.445 %
159Tb (KED)	91.195 %
209Bi (KED)	91.915 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03	File ID:	061523B.xml-025
Sampled:	05/30/23 15:00	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:42
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum		0.0250	0.0500	0.125	U
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.0285	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*140*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron		0.0500	0.100	0.125	U
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*82.3*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	0.0168	0.00250	0.0100	0.0250	J, D
7440-02-0	Nickel		0.00250	0.0100	0.0250	U
7440-09-7	Potassium	1.31	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*673*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	26	Stop Time:	6/15/2023 3:44:08 PM	Comment	1/5 6020
Sample ID:	23F0136-03@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:42:20 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.040 ppb	15.0 %
11B (KED)	17.166 ppb	3.1 %
23Na (KED)	107,706.350 ppb	0.4 %
24Mg (KED)	13,160.500 ppb	1.2 %
27Al (KED)	1.808 ppb	6.8 %
31P (KED)	18.275 ppb	8.3 %
39K (KED)	210.313 ppb	0.8 %
44Ca (KED)	22,478.681 ppb	0.7 %
47Ti (KED)	-0.156 ppb	19.8 %
51V (KED)	0.066 ppb	20.2 %
52Cr (KED)	0.051 ppb	14.9 %
55Mn (KED)	2.683 ppb	3.3 %
57Fe (KED)	5.835 ppb	7.8 %
59Co (KED)	-0.087 ppb	2.2 %
60Ni (KED)	0.211 ppb	3.2 %
63Cu (KED)	-0.269 ppb	2.3 %
66Zn (KED)	0.559 ppb	2.7 %
75As (KED)	0.096 ppb	1.2 %
78Se (KED)	0.112 ppb	35.7 %
95Mo (KED)	0.036 ppb	15.7 %
107Ag (KED)	-0.053 ppb	4.6 %
111Cd (KED)	-0.004 ppb	31.8 %
118Sn (KED)	-0.265 ppb	0.9 %
121Sb (KED)	-0.079 ppb	0.5 %
137Ba (KED)	4.562 ppb	4.0 %
205Tl (KED)	0.006 ppb	6.9 %
208Pb (KED)	-0.035 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	99.969 %
45Sc (KED)	95.208 %
72Ge (KED)	94.377 %
89Y (KED)	94.946 %
115In (KED)	94.184 %
159Tb (KED)	99.836 %
209Bi (KED)	89.565 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03RE1	File ID:	061523B.xml-059
Sampled:	05/30/23 15:00	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:45
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	142	0.500	1.00	1.25	D
7439-95-4	Magnesium	86.6	0.200	0.500	1.25	D
7440-23-5	*Sodium*	*667*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	60	Stop Time:	6/15/2023 4:47:40 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-03RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 4:45:50 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.048 ppb	16.6 %
11B (KED)	1.573 ppb	14.4 %
23Na (KED)	10,664.981 ppb	1.3 %
24Mg (KED)	1,385.640 ppb	1.1 %
27Al (KED)	0.555 ppb	12.7 %
31P (KED)	6.322 ppb	26.1 %
39K (KED)	21.159 ppb	5.7 %
44Ca (KED)	2,274.641 ppb	1.7 %
47Ti (KED)	-0.214 ppb	2.0 %
51V (KED)	-0.062 ppb	2.6 %
52Cr (KED)	-0.023 ppb	15.7 %
55Mn (KED)	0.183 ppb	10.9 %
57Fe (KED)	1.221 ppb	12.9 %
59Co (KED)	-0.130 ppb	0.0 %
60Ni (KED)	0.009 ppb	44.2 %
63Cu (KED)	-0.338 ppb	1.2 %
66Zn (KED)	0.186 ppb	8.7 %
75As (KED)	0.039 ppb	10.9 %
78Se (KED)	0.119 ppb	21.6 %
95Mo (KED)	0.000 ppb	1,593.3 %
107Ag (KED)	-0.054 ppb	4.7 %
111Cd (KED)	-0.028 ppb	6.7 %
118Sn (KED)	-0.284 ppb	0.9 %
121Sb (KED)	-0.094 ppb	0.9 %
137Ba (KED)	0.378 ppb	5.9 %
205Tl (KED)	0.003 ppb	12.3 %
208Pb (KED)	-0.043 ppb	2.3 %

ISTD's	Concentration average
6Li (KED)	85.574 %
45Sc (KED)	87.612 %
72Ge (KED)	90.853 %
89Y (KED)	92.090 %
115In (KED)	92.092 %
159Tb (KED)	92.095 %
209Bi (KED)	92.073 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03RE2	File ID:	061523B.xml-076
Sampled:	05/30/23 15:00	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:17
		Preparation:	3015_METALS_PREP_M	Dilution:	200
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium	661	2.00	4.00	5.00	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	77	Stop Time:	6/15/2023 5:19:24 PM	Comment	1/100/2=200
Sample ID:	23F0136-03RE2@200	Dilution Factor	0.5		
Start Time:	6/15/2023 5:17:29 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.034 ppb	36.1 %
11B (KED)	0.383 ppb	36.0 %
23Na (KED)	2,643.301 ppb	0.6 %
24Mg (KED)	336.701 ppb	2.3 %
27Al (KED)	0.483 ppb	10.5 %
31P (KED)	4.054 ppb	29.6 %
39K (KED)	6.758 ppb	15.3 %
44Ca (KED)	564.458 ppb	3.0 %
47Ti (KED)	-0.205 ppb	7.7 %
51V (KED)	-0.083 ppb	4.5 %
52Cr (KED)	-0.028 ppb	11.4 %
55Mn (KED)	-0.038 ppb	14.1 %
57Fe (KED)	0.791 ppb	19.7 %
59Co (KED)	-0.132 ppb	0.5 %
60Ni (KED)	0.002 ppb	143.2 %
63Cu (KED)	-0.309 ppb	1.3 %
66Zn (KED)	0.177 ppb	3.6 %
75As (KED)	0.037 ppb	13.7 %
78Se (KED)	0.108 ppb	7.3 %
95Mo (KED)	-0.005 ppb	36.1 %
107Ag (KED)	-0.048 ppb	3.3 %
111Cd (KED)	-0.026 ppb	6.1 %
118Sn (KED)	-0.283 ppb	0.5 %
121Sb (KED)	-0.088 ppb	2.9 %
137Ba (KED)	0.011 ppb	90.4 %
205Tl (KED)	0.008 ppb	23.1 %
208Pb (KED)	-0.042 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	111.761 %
45Sc (KED)	105.558 %
72Ge (KED)	107.145 %
89Y (KED)	104.895 %
115In (KED)	106.179 %
159Tb (KED)	103.250 %
209Bi (KED)	102.793 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04	File ID:	061523B.xml-026
Sampled:	05/31/23 08:45	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:44
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	3.78	0.0250	0.0500	0.125	D
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.133	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium	0.000574	0.000500	0.00200	0.00250	J, D
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	Calcium	4.06	0.0500	0.100	0.125	D
7440-47-3	Chromium	0.0248	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt	0.00854	0.00300	0.0100	0.0250	J, D
7440-50-8	Copper	0.00834	0.00250	0.0100	0.0250	J, D
7439-89-6	Iron	4.10	0.0500	0.100	0.125	D
7439-92-1	Lead	0.00315	0.00150	0.00500	0.0250	J, D
7439-95-4	Magnesium	2.05	0.0200	0.0500	0.125	D
7439-96-5	Manganese	0.119	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	0.0163	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium	0.541	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*34.6*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium	0.00823	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc	0.0313	0.0100	0.0200	0.0250	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	27	Stop Time:	6/15/2023 3:46:01 PM	Comment	1/5 6020
Sample ID:	23F0136-04@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:44:09 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.092 ppb	30.8 %
11B (KED)	7.408 ppb	7.3 %
23Na (KED)	5,540.447 ppb	1.0 %
24Mg (KED)	327.692 ppb	0.5 %
27Al (KED)	605.428 ppb	0.3 %
31P (KED)	14.562 ppb	11.2 %
39K (KED)	86.571 ppb	2.5 %
44Ca (KED)	650.253 ppb	2.1 %
47Ti (KED)	3.422 ppb	0.4 %
51V (KED)	1.316 ppb	3.2 %
52Cr (KED)	3.970 ppb	1.7 %
55Mn (KED)	19.075 ppb	1.1 %
57Fe (KED)	656.198 ppb	1.6 %
59Co (KED)	1.367 ppb	1.7 %
60Ni (KED)	2.610 ppb	3.2 %
63Cu (KED)	1.334 ppb	1.1 %
66Zn (KED)	5.012 ppb	0.3 %
75As (KED)	0.311 ppb	1.9 %
78Se (KED)	0.301 ppb	9.4 %
95Mo (KED)	0.147 ppb	2.3 %
107Ag (KED)	-0.050 ppb	6.8 %
111Cd (KED)	0.003 ppb	88.3 %
118Sn (KED)	-0.179 ppb	2.0 %
121Sb (KED)	-0.078 ppb	1.6 %
137Ba (KED)	21.292 ppb	1.5 %
205Tl (KED)	0.022 ppb	4.9 %
208Pb (KED)	0.504 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	107.927 %
45Sc (KED)	100.041 %
72Ge (KED)	100.647 %
89Y (KED)	113.957 %
115In (KED)	101.340 %
159Tb (KED)	105.693 %
209Bi (KED)	103.832 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04RE1	File ID:	061523B.xml-060
Sampled:	05/31/23 08:45	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:47
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium	35.6	0.500	1.00	1.25	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	61	Stop Time:	6/15/2023 4:49:27 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-04RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 4:47:42 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.033 ppb	30.3 %
11B (KED)	0.670 ppb	21.9 %
23Na (KED)	568.943 ppb	1.3 %
24Mg (KED)	35.871 ppb	2.0 %
27Al (KED)	63.793 ppb	1.6 %
31P (KED)	6.408 ppb	16.2 %
39K (KED)	9.365 ppb	13.7 %
44Ca (KED)	65.496 ppb	1.4 %
47Ti (KED)	0.109 ppb	73.3 %
51V (KED)	0.065 ppb	26.6 %
52Cr (KED)	0.400 ppb	1.1 %
55Mn (KED)	1.869 ppb	2.9 %
57Fe (KED)	64.940 ppb	2.5 %
59Co (KED)	0.015 ppb	25.7 %
60Ni (KED)	0.253 ppb	4.3 %
63Cu (KED)	-0.175 ppb	6.3 %
66Zn (KED)	0.676 ppb	3.8 %
75As (KED)	0.067 ppb	12.0 %
78Se (KED)	0.137 ppb	18.4 %
95Mo (KED)	0.015 ppb	45.1 %
107Ag (KED)	-0.052 ppb	5.8 %
111Cd (KED)	-0.027 ppb	9.2 %
118Sn (KED)	-0.276 ppb	0.7 %
121Sb (KED)	-0.095 ppb	0.6 %
137Ba (KED)	2.090 ppb	2.2 %
205Tl (KED)	0.005 ppb	8.4 %
208Pb (KED)	0.013 ppb	12.6 %

ISTD's	Concentration average
6Li (KED)	89.710 %
45Sc (KED)	90.513 %
72Ge (KED)	93.756 %
89Y (KED)	95.759 %
115In (KED)	96.497 %
159Tb (KED)	94.494 %
209Bi (KED)	93.956 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05	File ID:	061523B.xml-027
Sampled:	06/01/23 10:41	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:46
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum		0.0250	0.0500	0.125	U
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.0818	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*45.8*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium	0.0273	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	0.130	0.0500	0.100	0.125	D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	Magnesium	20.2	0.0200	0.0500	0.125	D
7439-96-5	Manganese	0.00560	0.00250	0.0100	0.0250	J, D
7440-02-0	Nickel	0.0138	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium	6.02	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*201*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium	0.00235	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	28	Stop Time:	6/15/2023 3:47:55 PM	Comment	1/5 6020
Sample ID:	23F0136-05@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:46:02 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.035 ppb	31.5 %
11B (KED)	7.911 ppb	3.8 %
23Na (KED)	32,205.955 ppb	1.0 %
24Mg (KED)	3,234.730 ppb	1.0 %
27Al (KED)	2.236 ppb	4.4 %
31P (KED)	24.385 ppb	17.7 %
39K (KED)	963.343 ppb	0.7 %
44Ca (KED)	7,334.798 ppb	1.4 %
47Ti (KED)	-0.185 ppb	20.6 %
51V (KED)	0.376 ppb	2.6 %
52Cr (KED)	4.369 ppb	0.2 %
55Mn (KED)	0.897 ppb	2.0 %
57Fe (KED)	20.818 ppb	2.4 %
59Co (KED)	-0.045 ppb	7.7 %
60Ni (KED)	2.205 ppb	4.2 %
63Cu (KED)	-0.169 ppb	1.0 %
66Zn (KED)	0.713 ppb	2.7 %
75As (KED)	0.094 ppb	9.9 %
78Se (KED)	0.155 ppb	10.3 %
95Mo (KED)	0.251 ppb	2.4 %
107Ag (KED)	-0.052 ppb	3.7 %
111Cd (KED)	-0.025 ppb	7.1 %
118Sn (KED)	-0.260 ppb	0.5 %
121Sb (KED)	-0.081 ppb	1.0 %
137Ba (KED)	13.082 ppb	3.3 %
205Tl (KED)	0.007 ppb	11.7 %
208Pb (KED)	-0.038 ppb	3.5 %

ISTD's	Concentration average
6Li (KED)	107.275 %
45Sc (KED)	101.778 %
72Ge (KED)	101.106 %
89Y (KED)	100.104 %
115In (KED)	101.154 %
159Tb (KED)	103.801 %
209Bi (KED)	96.633 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05RE1	File ID:	061523B.xml-061
Sampled:	06/01/23 10:41	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:49
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	46.9	0.500	1.00	1.25	D
7440-23-5	Sodium	205	0.500	1.00	1.25	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	62	Stop Time:	6/15/2023 4:51:15 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-05RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 4:49:29 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.045 ppb	14.4 %
11B (KED)	0.743 ppb	12.0 %
23Na (KED)	3,277.705 ppb	2.1 %
24Mg (KED)	330.849 ppb	1.8 %
27Al (KED)	0.813 ppb	5.9 %
31P (KED)	6.070 ppb	35.6 %
39K (KED)	99.615 ppb	1.3 %
44Ca (KED)	749.715 ppb	1.7 %
47Ti (KED)	-0.169 ppb	24.0 %
51V (KED)	-0.032 ppb	44.7 %
52Cr (KED)	0.403 ppb	2.6 %
55Mn (KED)	0.003 ppb	649.3 %
57Fe (KED)	2.965 ppb	11.1 %
59Co (KED)	-0.124 ppb	0.4 %
60Ni (KED)	0.217 ppb	7.8 %
63Cu (KED)	-0.323 ppb	0.3 %
66Zn (KED)	0.206 ppb	7.3 %
75As (KED)	0.042 ppb	7.6 %
78Se (KED)	0.102 ppb	13.8 %
95Mo (KED)	0.023 ppb	40.0 %
107Ag (KED)	-0.054 ppb	5.0 %
111Cd (KED)	-0.030 ppb	0.0 %
118Sn (KED)	-0.284 ppb	0.4 %
121Sb (KED)	-0.094 ppb	0.8 %
137Ba (KED)	1.265 ppb	1.1 %
205Tl (KED)	0.005 ppb	14.2 %
208Pb (KED)	-0.043 ppb	0.1 %

ISTD's	Concentration average
6Li (KED)	93.039 %
45Sc (KED)	93.375 %
72Ge (KED)	94.468 %
89Y (KED)	95.405 %
115In (KED)	97.579 %
159Tb (KED)	94.059 %
209Bi (KED)	96.762 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06	File ID:	061523B.xml-028
Sampled:	06/01/23 11:00	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:47
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum		0.0250	0.0500	0.125	U
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.0167	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*348*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium	0.0215	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	0.0908	0.0500	0.100	0.125	J, D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*182*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	0.0748	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	0.00986	0.00250	0.0100	0.0250	J, D
7440-09-7	*Potassium*	*46.8*	*0.0500*	*0.100*	*0.125*	*D, E*
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*1010*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc	0.0132	0.0100	0.0200	0.0250	J, D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	29	Stop Time:	6/15/2023 3:49:46 PM	Comment	1/5 6020
Sample ID:	23F0136-06@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:47:56 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.024 ppb	50.7 %
11B (KED)	24.187 ppb	2.2 %
23Na (KED)	161,516.257 ppb	1.1 %
24Mg (KED)	29,190.304 ppb	2.2 %
27Al (KED)	2.167 ppb	3.7 %
31P (KED)	15.199 ppb	4.7 %
39K (KED)	7,495.790 ppb	0.5 %
44Ca (KED)	55,705.793 ppb	1.1 %
47Ti (KED)	-0.199 ppb	6.1 %
51V (KED)	0.139 ppb	13.6 %
52Cr (KED)	3.436 ppb	2.1 %
55Mn (KED)	11.963 ppb	0.6 %
57Fe (KED)	14.524 ppb	1.9 %
59Co (KED)	0.188 ppb	3.4 %
60Ni (KED)	1.578 ppb	2.5 %
63Cu (KED)	-0.200 ppb	3.6 %
66Zn (KED)	2.107 ppb	2.3 %
75As (KED)	0.090 ppb	11.3 %
78Se (KED)	0.152 ppb	15.4 %
95Mo (KED)	0.457 ppb	6.2 %
107Ag (KED)	-0.055 ppb	3.5 %
111Cd (KED)	0.037 ppb	40.5 %
118Sn (KED)	-0.217 ppb	1.8 %
121Sb (KED)	-0.088 ppb	1.4 %
137Ba (KED)	2.667 ppb	2.2 %
205Tl (KED)	0.004 ppb	7.9 %
208Pb (KED)	-0.026 ppb	3.2 %

ISTD's	Concentration average
6Li (KED)	102.867 %
45Sc (KED)	97.313 %
72Ge (KED)	92.888 %
89Y (KED)	95.588 %
115In (KED)	90.651 %
159Tb (KED)	96.275 %
209Bi (KED)	87.701 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06RE1	File ID:	061523B.xml-062
Sampled:	06/01/23 11:00	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:51
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	*Calcium*	*373*	*0.500*	*1.00*	*1.25*	*D, E*
7439-95-4	Magnesium	191	0.200	0.500	1.25	D
7440-09-7	Potassium	50.8	0.500	1.00	1.25	D
7440-23-5	*Sodium*	*1000*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	63	Stop Time:	6/15/2023 4:53:09 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-06RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 4:51:16 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.026 ppb	48.5 %
11B (KED)	2.488 ppb	11.1 %
23Na (KED)	16,065.206 ppb	1.0 %
24Mg (KED)	3,063.088 ppb	0.4 %
27Al (KED)	0.624 ppb	10.7 %
31P (KED)	4.273 ppb	9.2 %
39K (KED)	812.096 ppb	0.6 %
44Ca (KED)	5,964.924 ppb	0.6 %
47Ti (KED)	-0.200 ppb	11.0 %
51V (KED)	-0.052 ppb	10.1 %
52Cr (KED)	0.344 ppb	1.1 %
55Mn (KED)	1.080 ppb	1.4 %
57Fe (KED)	1.942 ppb	6.9 %
59Co (KED)	-0.102 ppb	0.4 %
60Ni (KED)	0.144 ppb	13.7 %
63Cu (KED)	-0.328 ppb	0.8 %
66Zn (KED)	0.379 ppb	2.7 %
75As (KED)	0.034 ppb	19.8 %
78Se (KED)	0.104 ppb	31.3 %
95Mo (KED)	0.040 ppb	20.6 %
107Ag (KED)	-0.052 ppb	3.3 %
111Cd (KED)	-0.024 ppb	5.2 %
118Sn (KED)	-0.280 ppb	1.3 %
121Sb (KED)	-0.094 ppb	0.5 %
137Ba (KED)	0.202 ppb	7.5 %
205Tl (KED)	0.004 ppb	27.8 %
208Pb (KED)	-0.042 ppb	1.9 %

ISTD's	Concentration average
6Li (KED)	94.367 %
45Sc (KED)	94.284 %
72Ge (KED)	96.806 %
89Y (KED)	95.531 %
115In (KED)	95.044 %
159Tb (KED)	96.141 %
209Bi (KED)	93.778 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06RE2	File ID:	061523B.xml-077
Sampled:	06/01/23 11:00	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:19
		Preparation:	3015_METALS_PREP_M	Dilution:	200
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	368	2.00	4.00	5.00	D
7440-23-5	Sodium	1010	2.00	4.00	5.00	D, E

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	78	Stop Time:	6/15/2023 5:21:20 PM	Comment	1/100/2=200
Sample ID:	23F0136-06RE2@200	Dilution Factor	0.5		
Start Time:	6/15/2023 5:19:26 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.034 ppb	50.7 %
11B (KED)	0.500 ppb	28.7 %
23Na (KED)	4,035.255 ppb	0.8 %
24Mg (KED)	756.796 ppb	0.5 %
27Al (KED)	0.487 ppb	11.8 %
31P (KED)	5.218 ppb	6.6 %
39K (KED)	204.797 ppb	0.8 %
44Ca (KED)	1,472.906 ppb	1.1 %
47Ti (KED)	-0.212 ppb	4.6 %
51V (KED)	-0.081 ppb	0.5 %
52Cr (KED)	0.050 ppb	13.1 %
55Mn (KED)	0.193 ppb	5.2 %
57Fe (KED)	1.034 ppb	6.9 %
59Co (KED)	-0.125 ppb	0.3 %
60Ni (KED)	0.046 ppb	11.5 %
63Cu (KED)	-0.298 ppb	2.0 %
66Zn (KED)	0.242 ppb	1.1 %
75As (KED)	0.038 ppb	8.7 %
78Se (KED)	0.131 ppb	13.7 %
95Mo (KED)	0.006 ppb	63.3 %
107Ag (KED)	-0.050 ppb	2.8 %
111Cd (KED)	-0.028 ppb	6.8 %
118Sn (KED)	-0.282 ppb	0.1 %
121Sb (KED)	-0.092 ppb	2.3 %
137Ba (KED)	-0.032 ppb	42.7 %
205Tl (KED)	0.008 ppb	6.2 %
208Pb (KED)	-0.043 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	111.312 %
45Sc (KED)	104.810 %
72Ge (KED)	107.144 %
89Y (KED)	105.652 %
115In (KED)	103.327 %
159Tb (KED)	103.628 %
209Bi (KED)	102.516 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07	File ID:	061523B.xml-031
Sampled:	06/01/23 12:30	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:53
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	0.0419	0.0250	0.0500	0.125	J, D
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.0151	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*164*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium	0.833	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt	0.0122	0.00300	0.0100	0.0250	J, D
7440-50-8	Copper	0.00897	0.00250	0.0100	0.0250	J, D
7439-89-6	Iron	14.8	0.0500	0.100	0.125	D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*104*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	0.136	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	2.51	0.00250	0.0100	0.0250	D
7440-09-7	Potassium	1.93	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*935*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium	0.00353	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	32	Stop Time:	6/15/2023 3:55:28 PM	Comment	1/5 6020
Sample ID:	23F0136-07@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:53:35 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.019 ppb	76.9 %
11B (KED)	4.953 ppb	6.7 %
23Na (KED)	149,590.732 ppb	2.3 %
24Mg (KED)	16,564.883 ppb	1.6 %
27Al (KED)	6.700 ppb	2.7 %
31P (KED)	18.683 ppb	13.8 %
39K (KED)	309.586 ppb	1.2 %
44Ca (KED)	26,178.963 ppb	1.6 %
47Ti (KED)	-0.058 ppb	19.2 %
51V (KED)	0.565 ppb	1.2 %
52Cr (KED)	133.247 ppb	0.7 %
55Mn (KED)	21.681 ppb	0.8 %
57Fe (KED)	2,364.559 ppb	0.7 %
59Co (KED)	1.955 ppb	0.7 %
60Ni (KED)	401.140 ppb	1.4 %
63Cu (KED)	1.436 ppb	0.7 %
66Zn (KED)	1.036 ppb	3.2 %
75As (KED)	0.112 ppb	8.1 %
78Se (KED)	0.199 ppb	21.2 %
95Mo (KED)	2.337 ppb	2.8 %
107Ag (KED)	-0.054 ppb	6.2 %
111Cd (KED)	0.069 ppb	15.0 %
118Sn (KED)	-0.233 ppb	0.3 %
121Sb (KED)	-0.068 ppb	4.5 %
137Ba (KED)	2.420 ppb	2.2 %
205Tl (KED)	0.005 ppb	21.4 %
208Pb (KED)	-0.018 ppb	11.9 %

ISTD's	Concentration average
6Li (KED)	103.922 %
45Sc (KED)	97.312 %
72Ge (KED)	94.993 %
89Y (KED)	97.407 %
115In (KED)	92.591 %
159Tb (KED)	96.279 %
209Bi (KED)	89.772 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07RE1	File ID:	061523B.xml-065
Sampled:	06/01/23 12:30	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:56
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	165	0.500	1.00	1.25	D
7439-95-4	Magnesium	108	0.200	0.500	1.25	D
7440-23-5	*Sodium*	*940*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	66	Stop Time:	6/15/2023 4:58:49 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-07RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 4:56:58 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.020 ppb	63.6 %
11B (KED)	0.396 ppb	10.4 %
23Na (KED)	15,044.485 ppb	0.5 %
24Mg (KED)	1,727.261 ppb	0.8 %
27Al (KED)	1.148 ppb	8.2 %
31P (KED)	5.461 ppb	13.4 %
39K (KED)	32.430 ppb	1.7 %
44Ca (KED)	2,640.067 ppb	2.8 %
47Ti (KED)	-0.204 ppb	8.5 %
51V (KED)	-0.012 ppb	57.8 %
52Cr (KED)	13.683 ppb	2.0 %
55Mn (KED)	2.145 ppb	1.7 %
57Fe (KED)	233.142 ppb	0.8 %
59Co (KED)	0.077 ppb	4.2 %
60Ni (KED)	42.816 ppb	0.8 %
63Cu (KED)	-0.165 ppb	1.9 %
66Zn (KED)	0.227 ppb	6.0 %
75As (KED)	0.052 ppb	11.6 %
78Se (KED)	0.177 ppb	5.6 %
95Mo (KED)	0.207 ppb	0.9 %
107Ag (KED)	-0.051 ppb	4.0 %
111Cd (KED)	-0.018 ppb	14.4 %
118Sn (KED)	-0.278 ppb	1.0 %
121Sb (KED)	-0.088 ppb	1.5 %
137Ba (KED)	0.169 ppb	9.4 %
205Tl (KED)	0.007 ppb	7.0 %
208Pb (KED)	-0.040 ppb	1.7 %

ISTD's	Concentration average
6Li (KED)	99.725 %
45Sc (KED)	97.496 %
72Ge (KED)	99.406 %
89Y (KED)	100.470 %
115In (KED)	99.163 %
159Tb (KED)	98.516 %
209Bi (KED)	96.859 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07RE2	File ID:	061523B.xml-078
Sampled:	06/01/23 12:30	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:21
		Preparation:	3015_METALS_PREP_M	Dilution:	200
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium	933	2.00	4.00	5.00	D, E

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	79	Stop Time:	6/15/2023 5:23:13 PM	Comment	1/100/2=200
Sample ID:	23F0136-07RE2@200	Dilution Factor	0.5		
Start Time:	6/15/2023 5:21:21 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.036 ppb	39.6 %
11B (KED)	0.029 ppb	286.4 %
23Na (KED)	3,730.752 ppb	1.0 %
24Mg (KED)	427.395 ppb	0.9 %
27Al (KED)	0.599 ppb	15.0 %
31P (KED)	6.330 ppb	26.3 %
39K (KED)	8.508 ppb	4.9 %
44Ca (KED)	650.899 ppb	1.1 %
47Ti (KED)	-0.203 ppb	1.8 %
51V (KED)	-0.074 ppb	9.2 %
52Cr (KED)	3.384 ppb	1.6 %
55Mn (KED)	0.437 ppb	5.3 %
57Fe (KED)	59.575 ppb	2.2 %
59Co (KED)	-0.081 ppb	1.8 %
60Ni (KED)	10.583 ppb	0.7 %
63Cu (KED)	-0.268 ppb	1.0 %
66Zn (KED)	0.229 ppb	6.5 %
75As (KED)	0.041 ppb	1.9 %
78Se (KED)	0.118 ppb	9.9 %
95Mo (KED)	0.048 ppb	6.2 %
107Ag (KED)	-0.052 ppb	5.2 %
111Cd (KED)	-0.029 ppb	3.7 %
118Sn (KED)	-0.284 ppb	0.6 %
121Sb (KED)	-0.094 ppb	0.3 %
137Ba (KED)	-0.035 ppb	25.7 %
205Tl (KED)	0.007 ppb	12.4 %
208Pb (KED)	-0.043 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	112.410 %
45Sc (KED)	106.246 %
72Ge (KED)	107.263 %
89Y (KED)	107.477 %
115In (KED)	109.245 %
159Tb (KED)	102.282 %
209Bi (KED)	104.110 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08	File ID:	061523B.xml-032
Sampled:	06/01/23 15:25	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:55
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	0.162	0.0250	0.0500	0.125	D
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic	0.00406	0.00200	0.00500	0.0250	J, D
7440-39-3	Barium	0.0183	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium	0.000508	0.000500	0.00200	0.00250	J, D
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	Calcium	4.85	0.0500	0.100	0.125	D
7440-47-3	Chromium	0.0154	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt	0.0258	0.00300	0.0100	0.0250	D
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	4.94	0.0500	0.100	0.125	D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	Magnesium	3.46	0.0200	0.0500	0.125	D
7439-96-5	Manganese	0.413	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	0.0304	0.00250	0.0100	0.0250	D
7440-09-7	Potassium	0.541	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*104*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium	0.00209	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc	0.0269	0.0100	0.0200	0.0250	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	33	Stop Time:	6/15/2023 3:57:21 PM	Comment	1/5 6020
Sample ID:	23F0136-08@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:55:28 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.081 ppb	9.8 %
11B (KED)	2.608 ppb	6.3 %
23Na (KED)	16,642.405 ppb	0.8 %
24Mg (KED)	553.528 ppb	2.0 %
27Al (KED)	25.867 ppb	1.0 %
31P (KED)	137.991 ppb	3.1 %
39K (KED)	86.544 ppb	4.9 %
44Ca (KED)	776.056 ppb	2.6 %
47Ti (KED)	0.242 ppb	4.0 %
51V (KED)	0.335 ppb	3.6 %
52Cr (KED)	2.469 ppb	3.4 %
55Mn (KED)	66.084 ppb	2.1 %
57Fe (KED)	790.828 ppb	3.0 %
59Co (KED)	4.122 ppb	1.6 %
60Ni (KED)	4.865 ppb	1.9 %
63Cu (KED)	-0.219 ppb	1.0 %
66Zn (KED)	4.304 ppb	1.9 %
75As (KED)	0.650 ppb	3.0 %
78Se (KED)	0.141 ppb	5.1 %
95Mo (KED)	0.042 ppb	5.5 %
107Ag (KED)	-0.047 ppb	8.9 %
111Cd (KED)	-0.010 ppb	29.8 %
118Sn (KED)	-0.268 ppb	0.7 %
121Sb (KED)	-0.085 ppb	1.2 %
137Ba (KED)	2.921 ppb	1.9 %
205Tl (KED)	0.011 ppb	5.3 %
208Pb (KED)	-0.001 ppb	165.6 %

ISTD's	Concentration average
6Li (KED)	110.478 %
45Sc (KED)	101.654 %
72Ge (KED)	102.166 %
89Y (KED)	103.661 %
115In (KED)	100.889 %
159Tb (KED)	104.633 %
209Bi (KED)	102.605 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08RE1	File ID:	061523B.xml-066
Sampled:	06/01/23 15:25	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:58
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium	103	0.500	1.00	1.25	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	67	Stop Time:	6/15/2023 5:00:37 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-08RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 4:58:51 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.004 ppb	255.0 %
11B (KED)	0.286 ppb	12.5 %
23Na (KED)	1,654.206 ppb	0.5 %
24Mg (KED)	55.808 ppb	2.9 %
27Al (KED)	3.043 ppb	3.4 %
31P (KED)	16.266 ppb	22.0 %
39K (KED)	8.856 ppb	8.6 %
44Ca (KED)	78.506 ppb	8.8 %
47Ti (KED)	-0.161 ppb	17.0 %
51V (KED)	-0.041 ppb	16.4 %
52Cr (KED)	0.236 ppb	4.2 %
55Mn (KED)	6.637 ppb	2.4 %
57Fe (KED)	79.216 ppb	1.5 %
59Co (KED)	0.302 ppb	2.4 %
60Ni (KED)	0.458 ppb	4.2 %
63Cu (KED)	-0.320 ppb	0.7 %
66Zn (KED)	0.587 ppb	1.1 %
75As (KED)	0.098 ppb	9.1 %
78Se (KED)	0.147 ppb	15.3 %
95Mo (KED)	0.000 ppb	1,739.8 %
107Ag (KED)	-0.053 ppb	1.0 %
111Cd (KED)	-0.027 ppb	8.6 %
118Sn (KED)	-0.283 ppb	0.4 %
121Sb (KED)	-0.093 ppb	1.0 %
137Ba (KED)	0.202 ppb	17.6 %
205Tl (KED)	0.006 ppb	8.8 %
208Pb (KED)	-0.040 ppb	3.4 %

ISTD's	Concentration average
6Li (KED)	103.197 %
45Sc (KED)	99.204 %
72Ge (KED)	100.755 %
89Y (KED)	99.417 %
115In (KED)	101.120 %
159Tb (KED)	99.395 %
209Bi (KED)	100.861 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09	File ID:	061523B.xml-033
Sampled:	06/01/23 14:56	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:57
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	0.303	0.0250	0.0500	0.125	D
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic	0.00202	0.00200	0.00500	0.0250	J, D
7440-39-3	Barium	0.0568	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*122*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium	0.0381	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	1.44	0.0500	0.100	0.125	D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*65.2*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	0.536	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	0.0211	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium	3.11	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*679*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc	0.0170	0.0100	0.0200	0.0250	J, D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	34	Stop Time:	6/15/2023 3:59:12 PM	Comment	1/5 6020
Sample ID:	23F0136-09@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:57:22 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.020 ppb	60.3 %
11B (KED)	21.855 ppb	4.5 %
23Na (KED)	108,647.187 ppb	1.8 %
24Mg (KED)	10,434.933 ppb	0.2 %
27Al (KED)	48.427 ppb	1.8 %
31P (KED)	18.268 ppb	17.9 %
39K (KED)	498.307 ppb	1.3 %
44Ca (KED)	19,523.174 ppb	0.6 %
47Ti (KED)	0.760 ppb	22.8 %
51V (KED)	0.110 ppb	7.4 %
52Cr (KED)	6.091 ppb	2.3 %
55Mn (KED)	85.783 ppb	1.7 %
57Fe (KED)	230.621 ppb	0.3 %
59Co (KED)	0.378 ppb	2.3 %
60Ni (KED)	3.380 ppb	1.7 %
63Cu (KED)	0.240 ppb	2.4 %
66Zn (KED)	2.715 ppb	0.9 %
75As (KED)	0.323 ppb	3.8 %
78Se (KED)	0.143 ppb	18.2 %
95Mo (KED)	0.293 ppb	3.0 %
107Ag (KED)	-0.051 ppb	2.8 %
111Cd (KED)	-0.020 ppb	11.8 %
118Sn (KED)	-0.137 ppb	4.0 %
121Sb (KED)	-0.086 ppb	0.7 %
137Ba (KED)	9.080 ppb	1.2 %
205Tl (KED)	0.008 ppb	11.6 %
208Pb (KED)	0.058 ppb	6.6 %

ISTD's	Concentration average
6Li (KED)	106.888 %
45Sc (KED)	101.664 %
72Ge (KED)	98.694 %
89Y (KED)	101.300 %
115In (KED)	97.211 %
159Tb (KED)	100.029 %
209Bi (KED)	90.834 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09RE1	File ID:	061523B.xml-067
Sampled:	06/01/23 14:56	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:00
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	123	0.500	1.00	1.25	D
7439-95-4	Magnesium	69.4	0.200	0.500	1.25	D
7440-23-5	*Sodium*	*687*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	68	Stop Time:	6/15/2023 5:02:31 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-09RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 5:00:39 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.029 ppb	19.6 %
11B (KED)	2.141 ppb	8.7 %
23Na (KED)	10,987.744 ppb	0.2 %
24Mg (KED)	1,110.978 ppb	1.7 %
27Al (KED)	5.046 ppb	3.0 %
31P (KED)	6.531 ppb	23.1 %
39K (KED)	52.068 ppb	2.7 %
44Ca (KED)	1,962.171 ppb	0.4 %
47Ti (KED)	-0.139 ppb	17.9 %
51V (KED)	-0.066 ppb	5.4 %
52Cr (KED)	0.611 ppb	2.3 %
55Mn (KED)	8.701 ppb	1.9 %
57Fe (KED)	23.531 ppb	2.4 %
59Co (KED)	-0.083 ppb	3.0 %
60Ni (KED)	0.339 ppb	2.2 %
63Cu (KED)	-0.270 ppb	3.2 %
66Zn (KED)	0.438 ppb	3.5 %
75As (KED)	0.070 ppb	12.8 %
78Se (KED)	0.126 ppb	19.1 %
95Mo (KED)	0.023 ppb	36.4 %
107Ag (KED)	-0.051 ppb	0.7 %
111Cd (KED)	-0.029 ppb	3.9 %
118Sn (KED)	-0.271 ppb	1.6 %
121Sb (KED)	-0.093 ppb	2.5 %
137Ba (KED)	0.880 ppb	7.3 %
205Tl (KED)	0.006 ppb	9.0 %
208Pb (KED)	-0.033 ppb	1.4 %

ISTD's	Concentration average
6Li (KED)	104.060 %
45Sc (KED)	102.222 %
72Ge (KED)	103.463 %
89Y (KED)	103.659 %
115In (KED)	101.929 %
159Tb (KED)	99.437 %
209Bi (KED)	99.260 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09RE2	File ID:	061523B.xml-079
Sampled:	06/01/23 14:56	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:23
		Preparation:	3015_METALS_PREP_M	Dilution:	200
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium	676	2.00	4.00	5.00	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	80	Stop Time:	6/15/2023 5:25:06 PM	Comment	1/100/2=200
Sample ID:	23F0136-09RE2@200	Dilution Factor	0.5		
Start Time:	6/15/2023 5:23:15 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.035 ppb	9.3 %
11B (KED)	0.501 ppb	32.5 %
23Na (KED)	2,703.346 ppb	2.6 %
24Mg (KED)	272.092 ppb	2.2 %
27Al (KED)	1.625 ppb	4.4 %
31P (KED)	5.902 ppb	25.3 %
39K (KED)	12.893 ppb	6.5 %
44Ca (KED)	495.812 ppb	5.3 %
47Ti (KED)	-0.168 ppb	11.1 %
51V (KED)	-0.082 ppb	4.3 %
52Cr (KED)	0.131 ppb	8.9 %
55Mn (KED)	2.129 ppb	1.2 %
57Fe (KED)	6.763 ppb	11.0 %
59Co (KED)	-0.121 ppb	0.7 %
60Ni (KED)	0.074 ppb	17.7 %
63Cu (KED)	-0.311 ppb	1.8 %
66Zn (KED)	0.235 ppb	4.9 %
75As (KED)	0.046 ppb	14.6 %
78Se (KED)	0.111 ppb	13.7 %
95Mo (KED)	0.002 ppb	206.6 %
107Ag (KED)	-0.053 ppb	4.3 %
111Cd (KED)	-0.029 ppb	2.1 %
118Sn (KED)	-0.283 ppb	0.2 %
121Sb (KED)	-0.095 ppb	0.8 %
137Ba (KED)	0.149 ppb	8.6 %
205Tl (KED)	0.007 ppb	20.9 %
208Pb (KED)	-0.041 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	113.537 %
45Sc (KED)	107.769 %
72Ge (KED)	108.027 %
89Y (KED)	106.467 %
115In (KED)	107.590 %
159Tb (KED)	103.583 %
209Bi (KED)	102.016 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10	File ID:	061523B.xml-034
Sampled:	05/31/23 10:11	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:59
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	0.202	0.0250	0.0500	0.125	D
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic	0.00315	0.00200	0.00500	0.0250	J, D
7440-39-3	Barium	0.143	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium	0.000712	0.000500	0.00200	0.00250	J, D
7440-70-2	*Calcium*	*116*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium	0.111	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper	0.00315	0.00250	0.0100	0.0250	J, D
7439-89-6	Iron	0.995	0.0500	0.100	0.125	D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*46.5*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	0.326	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	0.0336	0.00250	0.0100	0.0250	D
7440-09-7	Potassium	14.4	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*158*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc	0.0163	0.0100	0.0200	0.0250	J, D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	35	Stop Time:	6/15/2023 4:00:59 PM	Comment	1/5 6020
Sample ID:	23F0136-10@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:59:14 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.032 ppb	25.6 %
11B (KED)	11.528 ppb	4.0 %
23Na (KED)	25,309.101 ppb	1.3 %
24Mg (KED)	7,434.724 ppb	1.7 %
27Al (KED)	32.272 ppb	1.2 %
31P (KED)	19.277 ppb	16.8 %
39K (KED)	2,304.859 ppb	0.6 %
44Ca (KED)	18,609.178 ppb	0.6 %
47Ti (KED)	0.333 ppb	18.0 %
51V (KED)	0.229 ppb	7.2 %
52Cr (KED)	17.794 ppb	0.7 %
55Mn (KED)	52.153 ppb	1.0 %
57Fe (KED)	159.264 ppb	1.0 %
59Co (KED)	0.444 ppb	2.8 %
60Ni (KED)	5.376 ppb	2.1 %
63Cu (KED)	0.505 ppb	2.1 %
66Zn (KED)	2.610 ppb	0.7 %
75As (KED)	0.503 ppb	0.7 %
78Se (KED)	0.193 ppb	27.8 %
95Mo (KED)	0.372 ppb	2.2 %
107Ag (KED)	-0.024 ppb	2.5 %
111Cd (KED)	0.114 ppb	13.6 %
118Sn (KED)	-0.165 ppb	3.6 %
121Sb (KED)	-0.063 ppb	1.9 %
137Ba (KED)	22.853 ppb	1.8 %
205Tl (KED)	0.008 ppb	15.3 %
208Pb (KED)	0.051 ppb	2.0 %

ISTD's	Concentration average
6Li (KED)	110.583 %
45Sc (KED)	105.262 %
72Ge (KED)	103.017 %
89Y (KED)	102.783 %
115In (KED)	100.758 %
159Tb (KED)	103.716 %
209Bi (KED)	97.871 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10RE1	File ID:	061523B.xml-068
Sampled:	05/31/23 10:11	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:02
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	120	0.500	1.00	1.25	D
7439-95-4	Magnesium	49.0	0.200	0.500	1.25	D
7440-23-5	Sodium	163	0.500	1.00	1.25	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	69	Stop Time:	6/15/2023 5:04:24 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-10RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 5:02:33 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.037 ppb	23.1 %
11B (KED)	1.212 ppb	4.6 %
23Na (KED)	2,602.372 ppb	0.5 %
24Mg (KED)	783.256 ppb	1.4 %
27Al (KED)	3.721 ppb	4.5 %
31P (KED)	5.305 ppb	17.1 %
39K (KED)	239.107 ppb	0.3 %
44Ca (KED)	1,912.574 ppb	0.4 %
47Ti (KED)	-0.148 ppb	24.6 %
51V (KED)	-0.054 ppb	10.1 %
52Cr (KED)	1.752 ppb	3.1 %
55Mn (KED)	5.211 ppb	3.1 %
57Fe (KED)	17.495 ppb	2.0 %
59Co (KED)	-0.072 ppb	2.0 %
60Ni (KED)	0.557 ppb	3.1 %
63Cu (KED)	-0.231 ppb	3.1 %
66Zn (KED)	0.454 ppb	4.2 %
75As (KED)	0.087 ppb	12.2 %
78Se (KED)	0.111 ppb	10.3 %
95Mo (KED)	0.034 ppb	5.6 %
107Ag (KED)	-0.048 ppb	3.3 %
111Cd (KED)	-0.019 ppb	19.6 %
118Sn (KED)	-0.269 ppb	0.7 %
121Sb (KED)	-0.091 ppb	1.6 %
137Ba (KED)	2.238 ppb	5.1 %
205Tl (KED)	0.009 ppb	15.0 %
208Pb (KED)	-0.033 ppb	2.1 %

ISTD's	Concentration average
6Li (KED)	106.499 %
45Sc (KED)	102.189 %
72Ge (KED)	103.477 %
89Y (KED)	101.955 %
115In (KED)	105.860 %
159Tb (KED)	101.851 %
209Bi (KED)	102.637 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11	File ID:	061523B.xml-035
Sampled:	05/31/23 11:10	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:01
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	0.0265	0.0250	0.0500	0.125	J, D
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.0949	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*61.3*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	0.244	0.0500	0.100	0.125	D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*28.2*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	0.165	0.00250	0.0100	0.0250	D
7440-02-0	Nickel		0.00250	0.0100	0.0250	U
7440-09-7	Potassium	6.78	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*170*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	36	Stop Time:	6/15/2023 4:02:46 PM	Comment	1/5 6020
Sample ID:	23F0136-11@5	Dilution Factor	0.2		
Start Time:	6/15/2023 4:01:01 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.038 ppb	21.8 %
11B (KED)	11.655 ppb	4.0 %
23Na (KED)	27,276.889 ppb	0.4 %
24Mg (KED)	4,508.174 ppb	0.2 %
27Al (KED)	4.233 ppb	3.4 %
31P (KED)	9.115 ppb	30.8 %
39K (KED)	1,084.165 ppb	1.2 %
44Ca (KED)	9,803.282 ppb	0.9 %
47Ti (KED)	-0.053 ppb	91.3 %
51V (KED)	-0.076 ppb	5.6 %
52Cr (KED)	0.175 ppb	10.5 %
55Mn (KED)	26.478 ppb	0.4 %
57Fe (KED)	39.075 ppb	0.4 %
59Co (KED)	0.457 ppb	0.5 %
60Ni (KED)	0.269 ppb	10.6 %
63Cu (KED)	-0.288 ppb	1.2 %
66Zn (KED)	0.908 ppb	3.8 %
75As (KED)	0.053 ppb	14.3 %
78Se (KED)	0.102 ppb	21.4 %
95Mo (KED)	0.041 ppb	6.5 %
107Ag (KED)	-0.052 ppb	3.2 %
111Cd (KED)	-0.012 ppb	13.9 %
118Sn (KED)	-0.270 ppb	0.3 %
121Sb (KED)	-0.082 ppb	3.1 %
137Ba (KED)	15.182 ppb	1.6 %
205Tl (KED)	0.008 ppb	11.8 %
208Pb (KED)	-0.036 ppb	4.6 %

ISTD's	Concentration average
6Li (KED)	111.537 %
45Sc (KED)	104.094 %
72Ge (KED)	103.137 %
89Y (KED)	102.388 %
115In (KED)	102.401 %
159Tb (KED)	105.198 %
209Bi (KED)	98.552 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11RE1	File ID:	061523B.xml-069
Sampled:	05/31/23 11:10	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:04
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	61.2	0.500	1.00	1.25	D
7439-95-4	Magnesium	29.4	0.200	0.500	1.25	D
7440-23-5	Sodium	171	0.500	1.00	1.25	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	70	Stop Time:	6/15/2023 5:06:15 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-11RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 5:04:25 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.017 ppb	118.0 %
11B (KED)	1.049 ppb	22.5 %
23Na (KED)	2,729.856 ppb	0.4 %
24Mg (KED)	470.287 ppb	0.6 %
27Al (KED)	0.760 ppb	8.1 %
31P (KED)	4.284 ppb	0.2 %
39K (KED)	110.082 ppb	3.0 %
44Ca (KED)	978.838 ppb	0.8 %
47Ti (KED)	-0.177 ppb	7.6 %
51V (KED)	-0.081 ppb	7.5 %
52Cr (KED)	-0.011 ppb	52.6 %
55Mn (KED)	2.513 ppb	3.2 %
57Fe (KED)	4.545 ppb	11.2 %
59Co (KED)	-0.073 ppb	4.2 %
60Ni (KED)	0.019 ppb	16.4 %
63Cu (KED)	-0.333 ppb	1.5 %
66Zn (KED)	0.214 ppb	2.6 %
75As (KED)	0.036 ppb	3.7 %
78Se (KED)	0.126 ppb	11.2 %
95Mo (KED)	-0.003 ppb	110.5 %
107Ag (KED)	-0.053 ppb	6.2 %
111Cd (KED)	-0.028 ppb	3.9 %
118Sn (KED)	-0.284 ppb	0.5 %
121Sb (KED)	-0.095 ppb	0.8 %
137Ba (KED)	1.524 ppb	1.2 %
205Tl (KED)	0.007 ppb	12.9 %
208Pb (KED)	-0.044 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	107.572 %
45Sc (KED)	104.056 %
72Ge (KED)	104.635 %
89Y (KED)	103.297 %
115In (KED)	103.711 %
159Tb (KED)	101.799 %
209Bi (KED)	100.782 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12	File ID:	061523B.xml-036
Sampled:	05/31/23 15:07	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:02
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum		0.0250	0.0500	0.125	U
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.0351	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*170*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium	0.0938	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	0.994	0.0500	0.100	0.125	D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*102*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	0.00889	0.00250	0.0100	0.0250	J, D
7440-02-0	Nickel	0.423	0.00250	0.0100	0.0250	D
7440-09-7	Potassium	1.30	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*571*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	37	Stop Time:	6/15/2023 4:04:33 PM	Comment	1/5 6020
Sample ID:	23F0136-12@5	Dilution Factor	0.2		
Start Time:	6/15/2023 4:02:48 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.043 ppb	19.4 %
11B (KED)	9.409 ppb	2.8 %
23Na (KED)	91,417.777 ppb	0.3 %
24Mg (KED)	16,344.338 ppb	1.0 %
27Al (KED)	1.888 ppb	7.1 %
31P (KED)	11.759 ppb	7.7 %
39K (KED)	208.344 ppb	1.1 %
44Ca (KED)	27,164.431 ppb	0.3 %
47Ti (KED)	-0.168 ppb	4.3 %
51V (KED)	0.099 ppb	5.4 %
52Cr (KED)	15.001 ppb	1.7 %
55Mn (KED)	1.423 ppb	3.5 %
57Fe (KED)	159.026 ppb	0.6 %
59Co (KED)	0.059 ppb	2.8 %
60Ni (KED)	67.715 ppb	1.5 %
63Cu (KED)	0.221 ppb	7.0 %
66Zn (KED)	0.288 ppb	7.2 %
75As (KED)	0.071 ppb	9.2 %
78Se (KED)	0.398 ppb	12.8 %
95Mo (KED)	0.798 ppb	1.8 %
107Ag (KED)	-0.054 ppb	2.6 %
111Cd (KED)	-0.020 ppb	13.0 %
118Sn (KED)	-0.253 ppb	0.6 %
121Sb (KED)	-0.081 ppb	2.3 %
137Ba (KED)	5.617 ppb	1.5 %
205Tl (KED)	0.004 ppb	17.7 %
208Pb (KED)	-0.035 ppb	3.2 %

ISTD's	Concentration average
6Li (KED)	108.837 %
45Sc (KED)	102.856 %
72Ge (KED)	100.296 %
89Y (KED)	100.599 %
115In (KED)	96.311 %
159Tb (KED)	99.192 %
209Bi (KED)	94.447 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12RE1	File ID:	061523B.xml-070
Sampled:	05/31/23 15:07	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:06
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	188	0.500	1.00	1.25	D
7439-95-4	Magnesium	116	0.200	0.500	1.25	D
7440-23-5	*Sodium*	*618*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	71	Stop Time:	6/15/2023 5:08:05 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-12RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 5:06:17 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.043 ppb	19.8 %
11B (KED)	0.775 ppb	7.5 %
23Na (KED)	9,885.780 ppb	0.2 %
24Mg (KED)	1,852.673 ppb	0.7 %
27Al (KED)	0.584 ppb	4.7 %
31P (KED)	6.613 ppb	17.9 %
39K (KED)	24.213 ppb	4.4 %
44Ca (KED)	3,012.522 ppb	0.3 %
47Ti (KED)	-0.216 ppb	3.4 %
51V (KED)	-0.067 ppb	5.1 %
52Cr (KED)	1.647 ppb	3.3 %
55Mn (KED)	0.069 ppb	21.9 %
57Fe (KED)	17.091 ppb	2.1 %
59Co (KED)	-0.113 ppb	1.3 %
60Ni (KED)	7.407 ppb	1.9 %
63Cu (KED)	-0.281 ppb	2.1 %
66Zn (KED)	0.139 ppb	15.8 %
75As (KED)	0.043 ppb	5.2 %
78Se (KED)	0.148 ppb	24.5 %
95Mo (KED)	0.074 ppb	16.8 %
107Ag (KED)	-0.051 ppb	4.9 %
111Cd (KED)	-0.028 ppb	6.0 %
118Sn (KED)	-0.283 ppb	0.3 %
121Sb (KED)	-0.094 ppb	1.3 %
137Ba (KED)	0.552 ppb	5.6 %
205Tl (KED)	0.005 ppb	16.7 %
208Pb (KED)	-0.043 ppb	2.1 %

ISTD's	Concentration average
6Li (KED)	108.504 %
45Sc (KED)	104.604 %
72Ge (KED)	105.362 %
89Y (KED)	103.191 %
115In (KED)	103.322 %
159Tb (KED)	102.323 %
209Bi (KED)	99.341 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13RE1	File ID:	061523B.xml-071
Sampled:	05/31/23 10:35	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:08
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	78.0	0.500	1.00	1.25	D
7439-95-4	Magnesium	43.9	0.200	0.500	1.25	D
7440-23-5	*Sodium*	*537*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	72	Stop Time:	6/15/2023 5:09:55 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-13RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 5:08:06 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.016 ppb	39.3 %
11B (KED)	1.469 ppb	5.6 %
23Na (KED)	8,599.153 ppb	0.2 %
24Mg (KED)	702.734 ppb	0.4 %
27Al (KED)	0.805 ppb	3.2 %
31P (KED)	5.972 ppb	16.8 %
39K (KED)	67.649 ppb	1.1 %
44Ca (KED)	1,247.456 ppb	1.6 %
47Ti (KED)	-0.205 ppb	7.8 %
51V (KED)	-0.076 ppb	4.0 %
52Cr (KED)	-0.007 ppb	84.3 %
55Mn (KED)	16.163 ppb	0.8 %
57Fe (KED)	2.556 ppb	4.7 %
59Co (KED)	0.077 ppb	4.5 %
60Ni (KED)	0.111 ppb	7.6 %
63Cu (KED)	-0.331 ppb	1.6 %
66Zn (KED)	0.202 ppb	8.9 %
75As (KED)	0.048 ppb	9.3 %
78Se (KED)	0.156 ppb	9.4 %
95Mo (KED)	0.065 ppb	18.9 %
107Ag (KED)	-0.053 ppb	2.8 %
111Cd (KED)	-0.026 ppb	3.6 %
118Sn (KED)	-0.269 ppb	2.1 %
121Sb (KED)	-0.094 ppb	1.4 %
137Ba (KED)	2.834 ppb	0.4 %
205Tl (KED)	0.006 ppb	11.6 %
208Pb (KED)	-0.043 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	110.394 %
45Sc (KED)	106.175 %
72Ge (KED)	107.095 %
89Y (KED)	105.737 %
115In (KED)	105.036 %
159Tb (KED)	105.349 %
209Bi (KED)	102.557 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13	File ID:	061523B.xml-037
Sampled:	05/31/23 10:35	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:04
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	0.0328	0.0250	0.0500	0.125	J, D
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.182	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*77.8*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt	0.0122	0.00300	0.0100	0.0250	J, D
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	0.111	0.0500	0.100	0.125	J, D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*41.9*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	1.00	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	0.00695	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium	4.08	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*535*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061523B.imexp

Index #: 38
Sample ID: 23F0136-13@5
Start Time: 6/15/2023 4:04:34 PM
Stop Time: 6/15/2023 4:06:20 PM
Dilution Factor 0.2
prepFAST DF 5
Comment 1/5 6020

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.039 ppb	44.3 %
11B (KED)	16.316 ppb	3.9 %
23Na (KED)	85,521.291 ppb	0.5 %
24Mg (KED)	6,700.545 ppb	1.0 %
27Al (KED)	5.256 ppb	8.1 %
31P (KED)	8.189 ppb	25.3 %
39K (KED)	652.282 ppb	0.7 %
44Ca (KED)	12,447.210 ppb	1.1 %
47Ti (KED)	-0.135 ppb	9.0 %
51V (KED)	0.046 ppb	25.9 %
52Cr (KED)	0.205 ppb	6.4 %
55Mn (KED)	160.485 ppb	0.8 %
57Fe (KED)	17.744 ppb	1.9 %
59Co (KED)	1.950 ppb	1.9 %
60Ni (KED)	1.112 ppb	1.2 %
63Cu (KED)	-0.303 ppb	1.0 %
66Zn (KED)	0.733 ppb	4.8 %
75As (KED)	0.079 ppb	13.6 %
78Se (KED)	0.178 ppb	24.0 %
95Mo (KED)	0.711 ppb	1.1 %
107Ag (KED)	-0.053 ppb	1.8 %
111Cd (KED)	-0.014 ppb	10.1 %
118Sn (KED)	-0.132 ppb	4.1 %
121Sb (KED)	-0.073 ppb	1.8 %
137Ba (KED)	29.123 ppb	3.4 %
205Tl (KED)	0.010 ppb	18.9 %
208Pb (KED)	-0.024 ppb	4.1 %

ISTD's	Concentration average
6Li (KED)	109.844 %
45Sc (KED)	103.410 %
72Ge (KED)	101.551 %
89Y (KED)	101.199 %
115In (KED)	96.938 %
159Tb (KED)	102.819 %
209Bi (KED)	93.238 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13RE1	File ID:	061523B.xml-071
Sampled:	05/31/23 10:35	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:08
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	78.0	0.500	1.00	1.25	D
7439-95-4	Magnesium	43.9	0.200	0.500	1.25	D
7440-23-5	*Sodium*	*537*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	72	Stop Time:	6/15/2023 5:09:55 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-13RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 5:08:06 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.016 ppb	39.3 %
11B (KED)	1.469 ppb	5.6 %
23Na (KED)	8,599.153 ppb	0.2 %
24Mg (KED)	702.734 ppb	0.4 %
27Al (KED)	0.805 ppb	3.2 %
31P (KED)	5.972 ppb	16.8 %
39K (KED)	67.649 ppb	1.1 %
44Ca (KED)	1,247.456 ppb	1.6 %
47Ti (KED)	-0.205 ppb	7.8 %
51V (KED)	-0.076 ppb	4.0 %
52Cr (KED)	-0.007 ppb	84.3 %
55Mn (KED)	16.163 ppb	0.8 %
57Fe (KED)	2.556 ppb	4.7 %
59Co (KED)	0.077 ppb	4.5 %
60Ni (KED)	0.111 ppb	7.6 %
63Cu (KED)	-0.331 ppb	1.6 %
66Zn (KED)	0.202 ppb	8.9 %
75As (KED)	0.048 ppb	9.3 %
78Se (KED)	0.156 ppb	9.4 %
95Mo (KED)	0.065 ppb	18.9 %
107Ag (KED)	-0.053 ppb	2.8 %
111Cd (KED)	-0.026 ppb	3.6 %
118Sn (KED)	-0.269 ppb	2.1 %
121Sb (KED)	-0.094 ppb	1.4 %
137Ba (KED)	2.834 ppb	0.4 %
205Tl (KED)	0.006 ppb	11.6 %
208Pb (KED)	-0.043 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	110.394 %
45Sc (KED)	106.175 %
72Ge (KED)	107.095 %
89Y (KED)	105.737 %
115In (KED)	105.036 %
159Tb (KED)	105.349 %
209Bi (KED)	102.557 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13RE2	File ID:	061523B.xml-081
Sampled:	05/31/23 10:35	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:27
		Preparation:	3015_METALS_PREP_M	Dilution:	200
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium	531	2.00	4.00	5.00	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	82	Stop Time:	6/15/2023 5:28:51 PM	Comment	1/100/2=200
Sample ID:	23F0136-13RE2@200	Dilution Factor	0.5		
Start Time:	6/15/2023 5:26:59 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.049 ppb	22.8 %
11B (KED)	0.257 ppb	51.6 %
23Na (KED)	2,124.724 ppb	1.1 %
24Mg (KED)	174.266 ppb	1.5 %
27Al (KED)	0.583 ppb	15.6 %
31P (KED)	4.420 ppb	7.2 %
39K (KED)	18.643 ppb	3.1 %
44Ca (KED)	310.289 ppb	1.9 %
47Ti (KED)	-0.195 ppb	6.5 %
51V (KED)	-0.084 ppb	4.5 %
52Cr (KED)	-0.028 ppb	8.0 %
55Mn (KED)	3.933 ppb	1.2 %
57Fe (KED)	1.049 ppb	12.1 %
59Co (KED)	-0.081 ppb	1.2 %
60Ni (KED)	0.021 ppb	35.5 %
63Cu (KED)	-0.331 ppb	0.9 %
66Zn (KED)	0.183 ppb	5.3 %
75As (KED)	0.048 ppb	14.0 %
78Se (KED)	0.127 ppb	29.3 %
95Mo (KED)	0.009 ppb	46.8 %
107Ag (KED)	-0.053 ppb	3.4 %
111Cd (KED)	-0.028 ppb	2.2 %
118Sn (KED)	-0.282 ppb	0.9 %
121Sb (KED)	-0.094 ppb	1.1 %
137Ba (KED)	0.617 ppb	1.2 %
205Tl (KED)	0.007 ppb	11.3 %
208Pb (KED)	-0.044 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	112.058 %
45Sc (KED)	106.598 %
72Ge (KED)	106.662 %
89Y (KED)	105.351 %
115In (KED)	106.255 %
159Tb (KED)	103.030 %
209Bi (KED)	103.536 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14	File ID:	061523B.xml-038
Sampled:	06/01/23 10:45	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:06
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum		0.0250	0.0500	0.125	U
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium	0.0184	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*428*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium	0.00605	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	0.0587	0.0500	0.100	0.125	J, D
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium*	*214*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese	0.0701	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	0.00870	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium	19.1	0.0500	0.100	0.125	D
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	*Sodium*	*1100*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc	0.0149	0.0100	0.0200	0.0250	J, D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	39	Stop Time:	6/15/2023 4:08:14 PM	Comment	1/5 6020
Sample ID:	23F0136-14@5	Dilution Factor	0.2		
Start Time:	6/15/2023 4:06:22 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.027 ppb	49.5 %
11B (KED)	23.181 ppb	2.1 %
23Na (KED)	176,103.608 ppb	0.2 %
24Mg (KED)	34,225.050 ppb	1.7 %
27Al (KED)	1.563 ppb	6.2 %
31P (KED)	16.456 ppb	14.4 %
39K (KED)	3,062.078 ppb	0.9 %
44Ca (KED)	68,402.251 ppb	0.9 %
47Ti (KED)	-0.177 ppb	15.2 %
51V (KED)	0.114 ppb	9.0 %
52Cr (KED)	0.968 ppb	1.1 %
55Mn (KED)	11.222 ppb	1.1 %
57Fe (KED)	9.385 ppb	4.1 %
59Co (KED)	0.156 ppb	0.6 %
60Ni (KED)	1.392 ppb	5.0 %
63Cu (KED)	-0.246 ppb	3.8 %
66Zn (KED)	2.382 ppb	1.3 %
75As (KED)	0.103 ppb	7.2 %
78Se (KED)	0.134 ppb	7.8 %
95Mo (KED)	0.169 ppb	10.0 %
107Ag (KED)	-0.054 ppb	4.7 %
111Cd (KED)	0.042 ppb	21.1 %
118Sn (KED)	-0.270 ppb	0.6 %
121Sb (KED)	-0.088 ppb	1.1 %
137Ba (KED)	2.937 ppb	3.3 %
205Tl (KED)	0.005 ppb	6.2 %
208Pb (KED)	-0.032 ppb	2.9 %

ISTD's	Concentration average
6Li (KED)	105.142 %
45Sc (KED)	100.769 %
72Ge (KED)	95.122 %
89Y (KED)	95.721 %
115In (KED)	90.857 %
159Tb (KED)	95.299 %
209Bi (KED)	86.969 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14RE1	File ID:	061523B.xml-072
Sampled:	06/01/23 10:45	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:09
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-95-4	Magnesium	223	0.200	0.500	1.25	D
7440-23-5	*Sodium*	*1080*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	73	Stop Time:	6/15/2023 5:11:44 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-14RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 5:09:57 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.048 ppb	6.5 %
11B (KED)	2.128 ppb	3.1 %
23Na (KED)	17,352.406 ppb	0.9 %
24Mg (KED)	3,569.323 ppb	0.4 %
27Al (KED)	0.551 ppb	9.8 %
31P (KED)	7.196 ppb	42.4 %
39K (KED)	302.128 ppb	1.0 %
44Ca (KED)	7,308.457 ppb	0.6 %
47Ti (KED)	-0.205 ppb	7.4 %
51V (KED)	-0.067 ppb	2.0 %
52Cr (KED)	0.081 ppb	4.4 %
55Mn (KED)	1.057 ppb	2.0 %
57Fe (KED)	1.879 ppb	17.2 %
59Co (KED)	-0.104 ppb	0.8 %
60Ni (KED)	0.124 ppb	19.5 %
63Cu (KED)	-0.326 ppb	0.6 %
66Zn (KED)	0.385 ppb	2.6 %
75As (KED)	0.054 ppb	17.3 %
78Se (KED)	0.130 ppb	18.1 %
95Mo (KED)	0.010 ppb	50.0 %
107Ag (KED)	-0.053 ppb	3.0 %
111Cd (KED)	-0.022 ppb	7.8 %
118Sn (KED)	-0.285 ppb	0.7 %
121Sb (KED)	-0.096 ppb	1.1 %
137Ba (KED)	0.217 ppb	10.3 %
205Tl (KED)	0.006 ppb	8.8 %
208Pb (KED)	-0.043 ppb	2.4 %

ISTD's	Concentration average
6Li (KED)	108.631 %
45Sc (KED)	103.817 %
72Ge (KED)	103.662 %
89Y (KED)	102.849 %
115In (KED)	102.918 %
159Tb (KED)	101.586 %
209Bi (KED)	98.672 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14RE2	File ID:	061523B.xml-082
Sampled:	06/01/23 10:45	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:28
		Preparation:	3015_METALS_PREP_M	Dilution:	400
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	456	4.00	8.00	10.0	D
7440-23-5	Sodium	1090	4.00	8.00	10.0	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	83	Stop Time:	6/15/2023 5:30:44 PM	Comment	1/100/5=400
Sample ID:	23F0136-14RE2@400	Dilution Factor	0.25		
Start Time:	6/15/2023 5:28:52 PM	prepFAST DF	4		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.043 ppb	30.5 %
11B (KED)	0.146 ppb	36.4 %
23Na (KED)	2,189.813 ppb	1.9 %
24Mg (KED)	445.471 ppb	1.4 %
27Al (KED)	0.392 ppb	12.8 %
31P (KED)	5.351 ppb	27.7 %
39K (KED)	40.318 ppb	3.0 %
44Ca (KED)	911.974 ppb	3.8 %
47Ti (KED)	-0.214 ppb	2.9 %
51V (KED)	-0.088 ppb	3.9 %
52Cr (KED)	-0.018 ppb	23.7 %
55Mn (KED)	0.027 ppb	15.2 %
57Fe (KED)	0.822 ppb	7.9 %
59Co (KED)	-0.130 ppb	0.3 %
60Ni (KED)	0.007 ppb	96.4 %
63Cu (KED)	-0.330 ppb	0.9 %
66Zn (KED)	0.169 ppb	2.3 %
75As (KED)	0.044 ppb	11.1 %
78Se (KED)	0.092 ppb	30.6 %
95Mo (KED)	-0.005 ppb	8.2 %
107Ag (KED)	-0.054 ppb	3.7 %
111Cd (KED)	-0.027 ppb	8.9 %
118Sn (KED)	-0.282 ppb	0.7 %
121Sb (KED)	-0.096 ppb	2.1 %
137Ba (KED)	-0.053 ppb	28.0 %
205Tl (KED)	0.007 ppb	24.0 %
208Pb (KED)	-0.043 ppb	2.0 %

ISTD's	Concentration average
6Li (KED)	113.241 %
45Sc (KED)	106.712 %
72Ge (KED)	108.023 %
89Y (KED)	106.018 %
115In (KED)	108.672 %
159Tb (KED)	103.610 %
209Bi (KED)	103.287 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15	File ID:	061523B.xml-043
Sampled:	06/01/23 12:26	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:15
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	0.0644	0.0250	0.0500	0.125	J, D
7440-36-0	Antimony	0.00576	0.00300	0.0100	0.0250	J, D
7440-38-2	Arsenic	0.00631	0.00200	0.00500	0.0250	J, D
7440-39-3	Barium	0.159	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium*	*46.2*	*0.0500*	*0.100*	*0.125*	*J1, D, E*
7440-47-3	Chromium	0.0363	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron	0.110	0.0500	0.100	0.125	J, D
7439-92-1	Lead	0.00163	0.00150	0.00500	0.0250	J, D
7439-95-4	Magnesium	0.149	0.0200	0.0500	0.125	D
7439-96-5	Manganese	0.00456	0.00250	0.0100	0.0250	J, D
7440-02-0	Nickel	0.0132	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium	25.1	0.0500	0.100	0.125	D, E
7782-49-2	Selenium	0.00336	0.00300	0.0100	0.0250	J, D
7440-22-4	Silver		0.000400	0.00100	0.00250	J1, U
7440-23-5	*Sodium*	*359*	*0.0500*	*0.100*	*0.125*	*J1, D, E*
7440-28-0	Thallium	0.00169	0.000400	0.00100	0.0250	J, D
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium	0.0644	0.00150	0.00500	0.0250	D
7440-66-6	Zinc		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	44	Stop Time:	6/15/2023 4:17:43 PM	Comment	1/5 6020
Sample ID:	23F0136-15@5	Dilution Factor	0.2		
Start Time:	6/15/2023 4:15:48 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.014 ppb	143.5 %
11B (KED)	13.280 ppb	6.1 %
23Na (KED)	57,373.219 ppb	0.1 %
24Mg (KED)	23.820 ppb	3.8 %
27Al (KED)	10.297 ppb	1.8 %
31P (KED)	10.007 ppb	24.2 %
39K (KED)	4,008.609 ppb	0.3 %
44Ca (KED)	7,398.809 ppb	0.5 %
47Ti (KED)	0.124 ppb	40.7 %
51V (KED)	10.304 ppb	0.5 %
52Cr (KED)	5.811 ppb	2.2 %
55Mn (KED)	0.729 ppb	5.1 %
57Fe (KED)	17.614 ppb	2.7 %
59Co (KED)	-0.043 ppb	1.7 %
60Ni (KED)	2.109 ppb	1.1 %
63Cu (KED)	0.341 ppb	1.1 %
66Zn (KED)	0.571 ppb	1.6 %
75As (KED)	1.009 ppb	1.4 %
78Se (KED)	0.538 ppb	10.4 %
95Mo (KED)	0.620 ppb	3.6 %
107Ag (KED)	-0.026 ppb	5.6 %
111Cd (KED)	-0.001 ppb	412.1 %
118Sn (KED)	0.077 ppb	13.6 %
121Sb (KED)	0.921 ppb	2.7 %
137Ba (KED)	25.410 ppb	3.2 %
205Tl (KED)	0.271 ppb	2.9 %
208Pb (KED)	0.261 ppb	4.4 %

ISTD's	Concentration average
6Li (KED)	91.490 %
45Sc (KED)	90.586 %
72Ge (KED)	91.383 %
89Y (KED)	92.720 %
115In (KED)	92.356 %
159Tb (KED)	94.634 %
209Bi (KED)	92.328 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15RE1	File ID:	061523B.xml-073
Sampled:	06/01/23 12:26	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:11
		Preparation:	3015_METALS_PREP_M	Dilution:	50
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium	49.1	0.500	1.00	1.25	D
7439-95-4	*Magnesium*	*0.236*	*0.200*	*0.500*	*1.25*	*J, D*
7440-23-5	*Sodium*	*381*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	74	Stop Time:	6/15/2023 5:13:40 PM	Comment	1/10/5=50 6020
Sample ID:	23F0136-15RE1@50	Dilution Factor	0.2		
Start Time:	6/15/2023 5:11:46 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.040 ppb	20.3 %
11B (KED)	1.312 ppb	10.1 %
23Na (KED)	6,089.511 ppb	0.6 %
24Mg (KED)	3.779 ppb	14.1 %
27Al (KED)	1.464 ppb	12.0 %
31P (KED)	5.402 ppb	18.5 %
39K (KED)	419.687 ppb	2.5 %
44Ca (KED)	785.897 ppb	1.4 %
47Ti (KED)	-0.169 ppb	13.3 %
51V (KED)	0.907 ppb	5.5 %
52Cr (KED)	0.569 ppb	3.0 %
55Mn (KED)	-0.028 ppb	19.7 %
57Fe (KED)	2.439 ppb	4.4 %
59Co (KED)	-0.124 ppb	0.1 %
60Ni (KED)	0.204 ppb	6.2 %
63Cu (KED)	-0.261 ppb	1.2 %
66Zn (KED)	0.152 ppb	9.3 %
75As (KED)	0.145 ppb	4.0 %
78Se (KED)	0.172 ppb	13.0 %
95Mo (KED)	0.060 ppb	15.0 %
107Ag (KED)	-0.050 ppb	1.3 %
111Cd (KED)	-0.027 ppb	7.1 %
118Sn (KED)	-0.248 ppb	1.4 %
121Sb (KED)	0.006 ppb	79.4 %
137Ba (KED)	2.544 ppb	1.2 %
205Tl (KED)	0.034 ppb	3.8 %
208Pb (KED)	-0.012 ppb	21.5 %

ISTD's	Concentration average
6Li (KED)	111.623 %
45Sc (KED)	105.180 %
72Ge (KED)	106.631 %
89Y (KED)	103.706 %
115In (KED)	104.995 %
159Tb (KED)	104.018 %
209Bi (KED)	100.383 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15RE2	File ID:	061523B.xml-083
Sampled:	06/01/23 12:26	Prepared:	06/06/23 10:53	Analyzed:	06/15/23 17:30
		Preparation:	3015_METALS_PREP_M	Dilution:	100
Initial/Final:	40 ml / 50 ml				
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium	352	1.00	2.00	2.50	D

Italicized = secondary result

Labbook:
061523B.imexp

Index #:	84	Stop Time:	6/15/2023 5:32:36 PM	Comment	1/100
Sample ID:	23F0136-15RE2@100	Dilution Factor	1		
Start Time:	6/15/2023 5:30:46 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.049 ppb	6.3 %
11B (KED)	0.552 ppb	11.4 %
23Na (KED)	2,815.408 ppb	1.0 %
24Mg (KED)	2.313 ppb	4.2 %
27Al (KED)	0.944 ppb	8.2 %
31P (KED)	4.024 ppb	35.2 %
39K (KED)	199.682 ppb	1.8 %
44Ca (KED)	361.313 ppb	0.2 %
47Ti (KED)	-0.189 ppb	11.9 %
51V (KED)	0.387 ppb	3.8 %
52Cr (KED)	0.241 ppb	10.0 %
55Mn (KED)	-0.082 ppb	19.2 %
57Fe (KED)	1.391 ppb	5.2 %
59Co (KED)	-0.129 ppb	0.4 %
60Ni (KED)	0.096 ppb	20.6 %
63Cu (KED)	-0.259 ppb	0.7 %
66Zn (KED)	0.247 ppb	5.9 %
75As (KED)	0.080 ppb	7.9 %
78Se (KED)	0.113 ppb	22.0 %
95Mo (KED)	0.021 ppb	13.8 %
107Ag (KED)	-0.052 ppb	2.2 %
111Cd (KED)	-0.029 ppb	2.1 %
118Sn (KED)	-0.267 ppb	1.1 %
121Sb (KED)	-0.047 ppb	5.4 %
137Ba (KED)	1.154 ppb	2.4 %
205Tl (KED)	0.019 ppb	9.9 %
208Pb (KED)	-0.027 ppb	2.8 %

ISTD's	Concentration average
6Li (KED)	113.326 %
45Sc (KED)	107.114 %
72Ge (KED)	108.672 %
89Y (KED)	106.324 %
115In (KED)	105.236 %
159Tb (KED)	103.962 %
209Bi (KED)	102.883 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0158-BLK1	File ID:	061523B.xml-021
		Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:34
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum		0.0250	0.0500	0.125	U
7440-36-0	Antimony		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic		0.00200	0.00500	0.0250	U
7440-39-3	Barium		0.00200	0.00500	0.0250	U
7440-41-7	Beryllium		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium		0.000500	0.00200	0.00250	U
7440-70-2	Calcium		0.0500	0.100	0.125	U
7440-47-3	Chromium		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt		0.00300	0.0100	0.0250	U
7440-50-8	Copper		0.00250	0.0100	0.0250	U
7439-89-6	Iron		0.0500	0.100	0.125	U
7439-92-1	Lead		0.00150	0.00500	0.0250	U
7439-95-4	Magnesium		0.0200	0.0500	0.125	U
7439-96-5	Manganese		0.00250	0.0100	0.0250	U
7440-02-0	Nickel		0.00250	0.0100	0.0250	U
7440-09-7	Potassium		0.0500	0.100	0.125	U
7782-49-2	Selenium		0.00300	0.0100	0.0250	U
7440-22-4	Silver		0.000400	0.00100	0.00250	U
7440-23-5	Sodium		0.0500	0.100	0.125	U
7440-28-0	Thallium		0.000400	0.00100	0.0250	U
7440-31-5	Tin		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium		0.00150	0.00500	0.0250	U
7440-66-6	Zinc		0.0100	0.0200	0.0250	U

Labbook:
061523B.imexp

Index #:	22	Stop Time:	6/15/2023 3:36:44 PM	Comment	1/5 6020
Sample ID:	B3F0158-BLK1@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:34:57 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.035 ppb	19.9 %
11B (KED)	-0.033 ppb	49.1 %
23Na (KED)	0.830 ppb	6.0 %
24Mg (KED)	1.410 ppb	7.7 %
27Al (KED)	0.659 ppb	8.2 %
31P (KED)	6.653 ppb	40.4 %
39K (KED)	-1.759 ppb	66.1 %
44Ca (KED)	-0.888 ppb	128.1 %
47Ti (KED)	-0.205 ppb	3.6 %
51V (KED)	-0.087 ppb	1.8 %
52Cr (KED)	-0.014 ppb	29.3 %
55Mn (KED)	-0.097 ppb	2.2 %
57Fe (KED)	1.133 ppb	7.4 %
59Co (KED)	-0.130 ppb	0.4 %
60Ni (KED)	-0.008 ppb	36.0 %
63Cu (KED)	-0.328 ppb	1.5 %
66Zn (KED)	0.167 ppb	6.9 %
75As (KED)	0.031 ppb	12.7 %
78Se (KED)	0.088 ppb	12.8 %
95Mo (KED)	-0.002 ppb	71.8 %
107Ag (KED)	-0.049 ppb	6.6 %
111Cd (KED)	-0.029 ppb	2.3 %
118Sn (KED)	-0.267 ppb	0.2 %
121Sb (KED)	-0.093 ppb	0.7 %
137Ba (KED)	-0.086 ppb	4.2 %
205Tl (KED)	0.007 ppb	17.2 %
208Pb (KED)	-0.042 ppb	1.5 %

ISTD's	Concentration average
6Li (KED)	97.632 %
45Sc (KED)	92.869 %
72Ge (KED)	96.016 %
89Y (KED)	97.024 %
115In (KED)	99.184 %
159Tb (KED)	101.228 %
209Bi (KED)	100.428 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0158-BS1	File ID:	061523B.xml-022
		Prepared:	06/06/23 10:53	Analyzed:	06/15/23 15:36
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	1.27	0.0250	0.0500	0.125	D
7440-36-0	Antimony	1.22	0.00300	0.0100	0.0250	D
7440-38-2	Arsenic	1.21	0.00200	0.00500	0.0250	D
7440-39-3	Barium	1.24	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium	0.123	0.000500	0.00200	0.00250	D
7440-43-9	Cadmium	0.123	0.000500	0.00200	0.00250	D
7440-70-2	Calcium	6.50	0.0500	0.100	0.125	D
7440-47-3	Chromium	1.16	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt	1.32	0.00300	0.0100	0.0250	D
7440-50-8	Copper	1.26	0.00250	0.0100	0.0250	D
7439-89-6	Iron	2.51	0.0500	0.100	0.125	D
7439-92-1	Lead	1.22	0.00150	0.00500	0.0250	D
7439-95-4	Magnesium	6.36	0.0200	0.0500	0.125	D
7439-96-5	Manganese	1.24	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	1.25	0.00250	0.0100	0.0250	D
7440-09-7	Potassium	6.35	0.0500	0.100	0.125	D
7782-49-2	Selenium	1.11	0.00300	0.0100	0.0250	D
7440-22-4	Silver	0.139	0.000400	0.00100	0.00250	D
7440-23-5	Sodium	6.38	0.0500	0.100	0.125	D
7440-28-0	Thallium	1.22	0.000400	0.00100	0.0250	D
7440-31-5	Tin	1.26	0.0100	0.0200	0.0250	D
7440-62-2	Vanadium	1.34	0.00150	0.00500	0.0250	D
7440-66-6	Zinc	1.16	0.0100	0.0200	0.0250	D

Labbook:
061523B.imexp

Index #:	23	Stop Time:	6/15/2023 3:38:37 PM	Comment	1/5 6020
Sample ID:	B3F0158-BS1@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:36:45 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	19.601 ppb	2.0 %
11B (KED)	92.117 ppb	0.7 %
23Na (KED)	1,020.629 ppb	1.8 %
24Mg (KED)	1,017.529 ppb	1.8 %
27Al (KED)	202.473 ppb	1.9 %
31P (KED)	886.042 ppb	3.5 %
39K (KED)	1,015.510 ppb	1.4 %
44Ca (KED)	1,039.926 ppb	1.0 %
47Ti (KED)	203.273 ppb	1.5 %
51V (KED)	213.861 ppb	2.6 %
52Cr (KED)	185.216 ppb	2.0 %
55Mn (KED)	198.566 ppb	2.8 %
57Fe (KED)	402.161 ppb	2.3 %
59Co (KED)	210.949 ppb	1.5 %
60Ni (KED)	200.742 ppb	1.2 %
63Cu (KED)	201.710 ppb	1.2 %
66Zn (KED)	185.344 ppb	0.9 %
75As (KED)	193.297 ppb	1.1 %
78Se (KED)	178.364 ppb	2.4 %
95Mo (KED)	209.231 ppb	2.5 %
107Ag (KED)	22.285 ppb	0.2 %
111Cd (KED)	19.650 ppb	2.5 %
118Sn (KED)	201.906 ppb	0.7 %
121Sb (KED)	194.594 ppb	0.6 %
137Ba (KED)	198.173 ppb	3.5 %
205Tl (KED)	195.521 ppb	1.3 %
208Pb (KED)	194.682 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	98.963 %
45Sc (KED)	94.036 %
72Ge (KED)	95.538 %
89Y (KED)	98.017 %
115In (KED)	100.053 %
159Tb (KED)	103.304 %
209Bi (KED)	105.847 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

Duplicate

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0158-DUP1	File ID:	061523B.xml-047
		Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:23
		Preparation:	3015_METALS_PREP_M	Dilution:	25

Batch: B3F0158 Sequence: S3F0259 Calibration: EF30066 Instrument: ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum		0.125	0.250	0.625	U
7440-36-0	Antimony		0.0150	0.0500	0.125	U
7440-38-2	Arsenic		0.0100	0.0250	0.125	U
7440-39-3	Barium	0.165	0.0100	0.0250	0.125	D
7440-41-7	Beryllium		0.00250	0.0100	0.0125	U
7440-43-9	Cadmium		0.00250	0.0100	0.0125	U
7440-70-2	Calcium	49.1	0.250	0.500	0.625	D
7440-47-3	Chromium	0.0373	0.0125	0.0500	0.125	J, D
7440-48-4	Cobalt		0.0150	0.0500	0.125	U
7440-50-8	Copper		0.0125	0.0500	0.125	U
7439-89-6	Iron		0.250	0.500	0.625	U
7439-92-1	Lead		0.00750	0.0250	0.125	U
7439-95-4	Magnesium	0.189	0.100	0.250	0.625	P, J, D
7439-96-5	Manganese		0.0125	0.0500	0.125	U
7440-02-0	Nickel	0.0135	0.0125	0.0500	0.125	J, D
7440-09-7	Potassium	25.9	0.250	0.500	0.625	D
7782-49-2	Selenium		0.0150	0.0500	0.125	U
7440-22-4	Silver		0.00200	0.00500	0.0125	U
7440-23-5	Sodium	370	0.250	0.500	0.625	D, E
7440-28-0	Thallium	0.00220	0.00200	0.00500	0.125	P, J, D
7440-31-5	Tin		0.0500	0.100	0.125	U
7440-62-2	Vanadium	0.0620	0.00750	0.0250	0.125	J, D
7440-66-6	Zinc		0.0500	0.100	0.125	U

Labbook:
061523B.imexp

Index #:	48	Stop Time:	6/15/2023 4:25:05 PM	Comment	1/5/5=25 6020
Sample ID:	B3F0158-DUP1@25	Dilution Factor	0.2		
Start Time:	6/15/2023 4:23:15 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.044 ppb	19.4 %
11B (KED)	2.955 ppb	1.8 %
23Na (KED)	11,847.180 ppb	0.7 %
24Mg (KED)	6.046 ppb	4.8 %
27Al (KED)	2.449 ppb	0.5 %
31P (KED)	7.325 ppb	24.7 %
39K (KED)	830.273 ppb	1.0 %
44Ca (KED)	1,571.759 ppb	1.4 %
47Ti (KED)	-0.152 ppb	21.7 %
51V (KED)	1.983 ppb	2.8 %
52Cr (KED)	1.194 ppb	1.7 %
55Mn (KED)	0.073 ppb	18.9 %
57Fe (KED)	4.286 ppb	3.4 %
59Co (KED)	-0.110 ppb	2.3 %
60Ni (KED)	0.434 ppb	7.1 %
63Cu (KED)	-0.185 ppb	4.1 %
66Zn (KED)	0.199 ppb	3.0 %
75As (KED)	0.226 ppb	2.0 %
78Se (KED)	0.190 ppb	6.4 %
95Mo (KED)	0.136 ppb	12.6 %
107Ag (KED)	-0.042 ppb	12.9 %
111Cd (KED)	-0.022 ppb	9.7 %
118Sn (KED)	-0.204 ppb	1.7 %
121Sb (KED)	0.120 ppb	9.9 %
137Ba (KED)	5.279 ppb	0.5 %
205Tl (KED)	0.070 ppb	2.9 %
208Pb (KED)	0.023 ppb	10.4 %

ISTD's	Concentration average
6Li (KED)	105.632 %
45Sc (KED)	101.789 %
72Ge (KED)	101.609 %
89Y (KED)	100.693 %
115In (KED)	99.026 %
159Tb (KED)	101.443 %
209Bi (KED)	100.693 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B
Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0158-MS1	File ID:	061523B.xml-044
		Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:17
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	1.35	0.0250	0.0500	0.125	D
7440-36-0	Antimony	1.26	0.00300	0.0100	0.0250	D
7440-38-2	Arsenic	1.22	0.00200	0.00500	0.0250	D
7440-39-3	Barium	1.42	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium	0.125	0.000500	0.00200	0.00250	D
7440-43-9	Cadmium	0.123	0.000500	0.00200	0.00250	D
7440-70-2	Calcium	54.7	0.0500	0.100	0.125	S, D, E
7440-47-3	Chromium	1.15	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt	1.28	0.00300	0.0100	0.0250	D
7440-50-8	Copper	1.19	0.00250	0.0100	0.0250	D
7439-89-6	Iron	2.57	0.0500	0.100	0.125	D
7439-92-1	Lead	1.26	0.00150	0.00500	0.0250	D
7439-95-4	Magnesium	6.44	0.0200	0.0500	0.125	D
7439-96-5	Manganese	1.21	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	1.21	0.00250	0.0100	0.0250	D
7440-09-7	Potassium	30.1	0.0500	0.100	0.125	D, E
7782-49-2	Selenium	1.13	0.00300	0.0100	0.0250	D
7440-22-4	Silver	0.0432	0.000400	0.00100	0.00250	S, D
7440-23-5	Sodium	378	0.0500	0.100	0.125	S, D, E
7440-28-0	Thallium	1.26	0.000400	0.00100	0.0250	D
7440-31-5	Tin	1.29	0.0100	0.0200	0.0250	D
7440-62-2	Vanadium	1.39	0.00150	0.00500	0.0250	D
7440-66-6	Zinc	1.14	0.0100	0.0200	0.0250	D

Labbook:
061523B.imexp

Index #:	45	Stop Time:	6/15/2023 4:19:38 PM	Comment	1/5 6020
Sample ID:	B3F0158-MS1@5	Dilution Factor	0.2		
Start Time:	6/15/2023 4:17:45 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	20.073 ppb	0.3 %
11B (KED)	108.293 ppb	1.1 %
23Na (KED)	60,512.241 ppb	0.4 %
24Mg (KED)	1,030.886 ppb	0.7 %
27Al (KED)	215.262 ppb	0.2 %
31P (KED)	966.440 ppb	3.2 %
39K (KED)	4,820.277 ppb	1.1 %
44Ca (KED)	8,747.147 ppb	0.7 %
47Ti (KED)	203.455 ppb	0.6 %
51V (KED)	221.631 ppb	2.3 %
52Cr (KED)	183.314 ppb	0.9 %
55Mn (KED)	194.197 ppb	1.2 %
57Fe (KED)	410.850 ppb	1.4 %
59Co (KED)	204.338 ppb	0.5 %
60Ni (KED)	193.164 ppb	0.8 %
63Cu (KED)	190.428 ppb	0.6 %
66Zn (KED)	182.895 ppb	1.4 %
75As (KED)	194.997 ppb	0.9 %
78Se (KED)	180.040 ppb	1.1 %
95Mo (KED)	212.764 ppb	2.6 %
107Ag (KED)	6.904 ppb	28.5 %
111Cd (KED)	19.757 ppb	0.0 %
118Sn (KED)	206.551 ppb	1.1 %
121Sb (KED)	201.887 ppb	2.1 %
137Ba (KED)	227.544 ppb	3.6 %
205Tl (KED)	201.020 ppb	2.1 %
208Pb (KED)	201.262 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	94.151 %
45Sc (KED)	91.112 %
72Ge (KED)	92.684 %
89Y (KED)	93.463 %
115In (KED)	94.550 %
159Tb (KED)	95.751 %
209Bi (KED)	93.245 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0158-MSD1	File ID:	061523B.xml-045
		Prepared:	06/06/23 10:53	Analyzed:	06/15/23 16:19
		Preparation:	3015_METALS_PREP_M	Dilution:	5
Batch:	B3F0158	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum	1.43	0.0250	0.0500	0.125	D
7440-36-0	Antimony	1.25	0.00300	0.0100	0.0250	D
7440-38-2	Arsenic	1.20	0.00200	0.00500	0.0250	D
7440-39-3	Barium	1.40	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium	0.123	0.000500	0.00200	0.00250	D
7440-43-9	Cadmium	0.121	0.000500	0.00200	0.00250	D
7440-70-2	Calcium	53.5	0.0500	0.100	0.125	D, E
7440-47-3	Chromium	1.13	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt	1.26	0.00300	0.0100	0.0250	D
7440-50-8	Copper	1.18	0.00250	0.0100	0.0250	D
7439-89-6	Iron	2.52	0.0500	0.100	0.125	D
7439-92-1	Lead	1.21	0.00150	0.00500	0.0250	D
7439-95-4	Magnesium	6.33	0.0200	0.0500	0.125	D
7439-96-5	Manganese	1.19	0.00250	0.0100	0.0250	D
7440-02-0	Nickel	1.20	0.00250	0.0100	0.0250	D
7440-09-7	Potassium	29.7	0.0500	0.100	0.125	D, E
7782-49-2	Selenium	1.10	0.00300	0.0100	0.0250	D
7440-22-4	Silver	0.0368	0.000400	0.00100	0.00250	S, D
7440-23-5	Sodium	371	0.0500	0.100	0.125	S, D, E
7440-28-0	Thallium	1.24	0.000400	0.00100	0.0250	D
7440-31-5	Tin	1.27	0.0100	0.0200	0.0250	D
7440-62-2	Vanadium	1.31	0.00150	0.00500	0.0250	D
7440-66-6	Zinc	1.14	0.0100	0.0200	0.0250	D

Labbook:
061523B.imexp

Index #:	46	Stop Time:	6/15/2023 4:21:25 PM	Comment	1/5 6020
Sample ID:	B3F0158-MSD1@5	Dilution Factor	0.2		
Start Time:	6/15/2023 4:19:39 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	19.645 ppb	0.7 %
11B (KED)	106.662 ppb	1.1 %
23Na (KED)	59,288.428 ppb	0.7 %
24Mg (KED)	1,013.056 ppb	1.4 %
27Al (KED)	228.535 ppb	0.7 %
31P (KED)	927.288 ppb	2.3 %
39K (KED)	4,759.691 ppb	0.1 %
44Ca (KED)	8,562.431 ppb	1.2 %
47Ti (KED)	200.300 ppb	0.9 %
51V (KED)	210.305 ppb	1.0 %
52Cr (KED)	180.372 ppb	0.2 %
55Mn (KED)	190.672 ppb	1.3 %
57Fe (KED)	403.957 ppb	0.4 %
59Co (KED)	201.290 ppb	0.4 %
60Ni (KED)	192.255 ppb	0.1 %
63Cu (KED)	188.038 ppb	0.5 %
66Zn (KED)	181.646 ppb	0.9 %
75As (KED)	191.787 ppb	0.4 %
78Se (KED)	176.738 ppb	0.3 %
95Mo (KED)	206.163 ppb	0.6 %
107Ag (KED)	5.893 ppb	4.1 %
111Cd (KED)	19.395 ppb	1.8 %
118Sn (KED)	203.692 ppb	0.8 %
121Sb (KED)	200.393 ppb	0.4 %
137Ba (KED)	223.919 ppb	1.1 %
205Tl (KED)	197.645 ppb	1.9 %
208Pb (KED)	194.226 ppb	1.6 %

ISTD's	Concentration average
6Li (KED)	97.081 %
45Sc (KED)	93.279 %
72Ge (KED)	94.660 %
89Y (KED)	95.792 %
115In (KED)	95.146 %
159Tb (KED)	97.548 %
209Bi (KED)	95.939 %

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
		Sequence:	S3F0259

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0259-ICV1	Aluminum	100.0	96.2	96	ug/L	+/- 10.00%
	Antimony	100.0	102	102	ug/L	+/- 10.00%
	Arsenic	100.0	95.6	96	ug/L	+/- 10.00%
	Barium	100.0	97.1	97	ug/L	+/- 10.00%
	Beryllium	50.00	49.6	99	ug/L	+/- 10.00%
	Cadmium	100.0	100	100	ug/L	+/- 10.00%
	Calcium	500.0	488	98	ug/L	+/- 10.00%
	Chromium	100.0	98.2	98	ug/L	+/- 10.00%
	Cobalt	100.0	97.9	98	ug/L	+/- 10.00%
	Copper	100.0	104	104	ug/L	+/- 10.00%
	Iron	500.0	489	98	ug/L	+/- 10.00%
	Lead	100.0	95.6	96	ug/L	+/- 10.00%
	Magnesium	500.0	488	98	ug/L	+/- 10.00%
	Manganese	100.0	96.8	97	ug/L	+/- 10.00%
	Nickel	100.0	99.1	99	ug/L	+/- 10.00%
	Potassium	500.0	486	97	ug/L	+/- 10.00%
	Selenium	100.0	95.9	96	ug/L	+/- 10.00%
	Silver	100.0	100	100	ug/L	+/- 10.00%
	Sodium	500.0	482	96	ug/L	+/- 10.00%
	Thallium	100.0	97.0	97	ug/L	+/- 10.00%
	Tin	100.0	103	103	ug/L	+/- 10.00%
	Vanadium	100.0	101	101	ug/L	+/- 10.00%
	Zinc	100.0	96.3	96	ug/L	+/- 10.00%
S3F0259-HCV1	Aluminum	1000	936	94	ug/L	+/- 10.00%
	Antimony	1000	954	95	ug/L	+/- 10.00%
	Arsenic	1000	988	99	ug/L	+/- 10.00%
	Barium	1000	914	91	ug/L	+/- 10.00%
	Beryllium	500.0	489	98	ug/L	+/- 10.00%
	Cadmium	1000	908	91	ug/L	+/- 10.00%
	Calcium	5000	4860	97	ug/L	+/- 10.00%
	Chromium	1000	949	95	ug/L	+/- 10.00%
	Cobalt	1000	971	97	ug/L	+/- 10.00%
	Copper	1000	967	97	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
		Sequence:	S3F0259

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0259-HCV1	Iron	5000	4960	99	ug/L	+/- 10.00%
	Lead	1000	988	99	ug/L	+/- 10.00%
	Magnesium	5000	4590	92	ug/L	+/- 10.00%
	Manganese	1000	927	93	ug/L	+/- 10.00%
	Nickel	1000	920	92	ug/L	+/- 10.00%
	Potassium	5000	4550	91	ug/L	+/- 10.00%
	Selenium	1000	949	95	ug/L	+/- 10.00%
	Silver	1000	957	96	ug/L	+/- 10.00%
	Sodium	5000	4830	97	ug/L	+/- 10.00%
	Thallium	1000	1010	101	ug/L	+/- 10.00%
	Tin	1000	945	94	ug/L	+/- 10.00%
	Vanadium	1000	951	95	ug/L	+/- 10.00%
	Zinc	1000	918	92	ug/L	+/- 10.00%
S3F0259-CCV1	Aluminum	100.0	98.2	98	ug/L	+/- 10.00%
	Antimony	100.0	107	107	ug/L	+/- 10.00%
	Arsenic	100.0	102	102	ug/L	+/- 10.00%
	Barium	100.0	99.6	100	ug/L	+/- 10.00%
	Beryllium	50.00	50.7	101	ug/L	+/- 10.00%
	Cadmium	100.0	105	105	ug/L	+/- 10.00%
	Calcium	500.0	492	98	ug/L	+/- 10.00%
	Chromium	100.0	103	103	ug/L	+/- 10.00%
	Cobalt	100.0	101	101	ug/L	+/- 10.00%
	Copper	100.0	108	108	ug/L	+/- 10.00%
	Iron	500.0	508	102	ug/L	+/- 10.00%
	Lead	100.0	101	101	ug/L	+/- 10.00%
	Magnesium	500.0	494	99	ug/L	+/- 10.00%
	Manganese	100.0	99.5	100	ug/L	+/- 10.00%
	Nickel	100.0	101	101	ug/L	+/- 10.00%
	Potassium	500.0	483	97	ug/L	+/- 10.00%
	Selenium	100.0	99.3	99	ug/L	+/- 10.00%
	Silver	100.0	102	102	ug/L	+/- 10.00%
	Sodium	500.0	484	97	ug/L	+/- 10.00%
	Thallium	100.0	100	100	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
		Sequence:	S3F0259

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0259-CCV1	Tin	100.0	107	107	ug/L	+/- 10.00%
	Vanadium	100.0	103	103	ug/L	+/- 10.00%
	Zinc	100.0	102	102	ug/L	+/- 10.00%
S3F0259-CCV2	Aluminum	100.0	97.1	97	ug/L	+/- 10.00%
	Antimony	100.0	105	105	ug/L	+/- 10.00%
	Arsenic	100.0	101	101	ug/L	+/- 10.00%
	Barium	100.0	100	100	ug/L	+/- 10.00%
	Beryllium	50.00	49.3	99	ug/L	+/- 10.00%
	Cadmium	100.0	104	104	ug/L	+/- 10.00%
	Calcium	500.0	501	100	ug/L	+/- 10.00%
	Chromium	100.0	103	103	ug/L	+/- 10.00%
	Cobalt	100.0	99.5	100	ug/L	+/- 10.00%
	Copper	100.0	102	102	ug/L	+/- 10.00%
	Iron	500.0	501	100	ug/L	+/- 10.00%
	Lead	100.0	102	102	ug/L	+/- 10.00%
	Magnesium	500.0	501	100	ug/L	+/- 10.00%
	Manganese	100.0	99.2	99	ug/L	+/- 10.00%
	Nickel	100.0	98.4	98	ug/L	+/- 10.00%
	Potassium	500.0	500	100	ug/L	+/- 10.00%
	Selenium	100.0	98.6	99	ug/L	+/- 10.00%
	Silver	100.0	102	102	ug/L	+/- 10.00%
	Sodium	500.0	504	101	ug/L	+/- 10.00%
	Thallium	100.0	101	101	ug/L	+/- 10.00%
	Tin	100.0	105	105	ug/L	+/- 10.00%
	Vanadium	100.0	99.5	100	ug/L	+/- 10.00%
	Zinc	100.0	101	101	ug/L	+/- 10.00%
S3F0259-CCV3	Aluminum	100.0	99.7	100	ug/L	+/- 10.00%
	Antimony	100.0	105	105	ug/L	+/- 10.00%
	Arsenic	100.0	100	100	ug/L	+/- 10.00%
	Barium	100.0	99.8	100	ug/L	+/- 10.00%
	Beryllium	50.00	50.5	101	ug/L	+/- 10.00%
	Cadmium	100.0	100	100	ug/L	+/- 10.00%
	Calcium	500.0	492	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
		Sequence:	S3F0259

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0259-CCV3	Chromium	100.0	100	100	ug/L	+/- 10.00%
	Cobalt	100.0	98.4	98	ug/L	+/- 10.00%
	Copper	100.0	104	104	ug/L	+/- 10.00%
	Iron	500.0	496	99	ug/L	+/- 10.00%
	Lead	100.0	99.7	100	ug/L	+/- 10.00%
	Magnesium	500.0	493	99	ug/L	+/- 10.00%
	Manganese	100.0	99.2	99	ug/L	+/- 10.00%
	Nickel	100.0	98.4	98	ug/L	+/- 10.00%
	Potassium	500.0	491	98	ug/L	+/- 10.00%
	Selenium	100.0	99.8	100	ug/L	+/- 10.00%
	Silver	100.0	98.8	99	ug/L	+/- 10.00%
	Sodium	500.0	488	98	ug/L	+/- 10.00%
	Thallium	100.0	101	101	ug/L	+/- 10.00%
	Tin	100.0	105	105	ug/L	+/- 10.00%
	Vanadium	100.0	102	102	ug/L	+/- 10.00%
	Zinc	100.0	99.4	99	ug/L	+/- 10.00%
S3F0259-CCV4	Aluminum	100.0	99.4	99	ug/L	+/- 10.00%
	Antimony	100.0	105	105	ug/L	+/- 10.00%
	Arsenic	100.0	101	101	ug/L	+/- 10.00%
	Barium	100.0	99.8	100	ug/L	+/- 10.00%
	Beryllium	50.00	49.2	98	ug/L	+/- 10.00%
	Cadmium	100.0	102	102	ug/L	+/- 10.00%
	Calcium	500.0	497	99	ug/L	+/- 10.00%
	Chromium	100.0	102	102	ug/L	+/- 10.00%
	Cobalt	100.0	98.3	98	ug/L	+/- 10.00%
	Copper	100.0	105	105	ug/L	+/- 10.00%
	Iron	500.0	497	99	ug/L	+/- 10.00%
	Lead	100.0	99.1	99	ug/L	+/- 10.00%
	Magnesium	500.0	502	100	ug/L	+/- 10.00%
	Manganese	100.0	98.6	99	ug/L	+/- 10.00%
	Nickel	100.0	96.4	96	ug/L	+/- 10.00%
	Potassium	500.0	508	102	ug/L	+/- 10.00%
	Selenium	100.0	98.4	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
		Sequence:	S3F0259

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0259-CCV4	Silver	100.0	102	102	ug/L	+/- 10.00%
	Sodium	500.0	501	100	ug/L	+/- 10.00%
	Thallium	100.0	97.8	98	ug/L	+/- 10.00%
	Tin	100.0	105	105	ug/L	+/- 10.00%
	Vanadium	100.0	97.8	98	ug/L	+/- 10.00%
	Zinc	100.0	99.8	100	ug/L	+/- 10.00%
S3F0259-CCV5	Aluminum	100.0	102	102	ug/L	+/- 10.00%
	Antimony	100.0	105	105	ug/L	+/- 10.00%
	Arsenic	100.0	101	101	ug/L	+/- 10.00%
	Barium	100.0	100	100	ug/L	+/- 10.00%
	Beryllium	50.00	50.3	101	ug/L	+/- 10.00%
	Cadmium	100.0	102	102	ug/L	+/- 10.00%
	Calcium	500.0	495	99	ug/L	+/- 10.00%
	Chromium	100.0	102	102	ug/L	+/- 10.00%
	Cobalt	100.0	98.8	99	ug/L	+/- 10.00%
	Copper	100.0	103	103	ug/L	+/- 10.00%
	Iron	500.0	498	100	ug/L	+/- 10.00%
	Lead	100.0	98.3	98	ug/L	+/- 10.00%
	Magnesium	500.0	509	102	ug/L	+/- 10.00%
	Manganese	100.0	99.8	100	ug/L	+/- 10.00%
	Nickel	100.0	98.0	98	ug/L	+/- 10.00%
	Potassium	500.0	511	102	ug/L	+/- 10.00%
	Selenium	100.0	101	101	ug/L	+/- 10.00%
	Silver	100.0	101	101	ug/L	+/- 10.00%
	Sodium	500.0	501	100	ug/L	+/- 10.00%
	Thallium	100.0	97.7	98	ug/L	+/- 10.00%
	Tin	100.0	106	106	ug/L	+/- 10.00%
	Vanadium	100.0	100	100	ug/L	+/- 10.00%
	Zinc	100.0	100	100	ug/L	+/- 10.00%
S3F0259-CCV6	Aluminum	100.0	100	100	ug/L	+/- 10.00%
	Antimony	100.0	105	105	ug/L	+/- 10.00%
	Arsenic	100.0	100	100	ug/L	+/- 10.00%
	Barium	100.0	100	100	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
		Sequence:	S3F0259

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0259-CCV6	Beryllium	50.00	48.9	98	ug/L	+/- 10.00%
	Cadmium	100.0	102	102	ug/L	+/- 10.00%
	Calcium	500.0	519	104	ug/L	+/- 10.00%
	Chromium	100.0	102	102	ug/L	+/- 10.00%
	Cobalt	100.0	99.4	99	ug/L	+/- 10.00%
	Copper	100.0	100	100	ug/L	+/- 10.00%
	Iron	500.0	498	100	ug/L	+/- 10.00%
	Lead	100.0	101	101	ug/L	+/- 10.00%
	Magnesium	500.0	502	100	ug/L	+/- 10.00%
	Manganese	100.0	100	100	ug/L	+/- 10.00%
	Nickel	100.0	97.6	98	ug/L	+/- 10.00%
	Potassium	500.0	510	102	ug/L	+/- 10.00%
	Selenium	100.0	99.0	99	ug/L	+/- 10.00%
	Silver	100.0	103	103	ug/L	+/- 10.00%
	Sodium	500.0	500	100	ug/L	+/- 10.00%
	Thallium	100.0	101	101	ug/L	+/- 10.00%
	Tin	100.0	106	106	ug/L	+/- 10.00%
	Vanadium	100.0	98.7	99	ug/L	+/- 10.00%
	Zinc	100.0	99.5	100	ug/L	+/- 10.00%
S3F0259-CCV7	Aluminum	100.0	99.8	100	ug/L	+/- 10.00%
	Antimony	100.0	106	106	ug/L	+/- 10.00%
	Arsenic	100.0	101	101	ug/L	+/- 10.00%
	Barium	100.0	100	100	ug/L	+/- 10.00%
	Beryllium	50.00	48.6	97	ug/L	+/- 10.00%
	Cadmium	100.0	103	103	ug/L	+/- 10.00%
	Calcium	500.0	495	99	ug/L	+/- 10.00%
	Chromium	100.0	102	102	ug/L	+/- 10.00%
	Cobalt	100.0	99.9	100	ug/L	+/- 10.00%
	Copper	100.0	101	101	ug/L	+/- 10.00%
	Iron	500.0	502	100	ug/L	+/- 10.00%
	Lead	100.0	101	101	ug/L	+/- 10.00%
	Magnesium	500.0	501	100	ug/L	+/- 10.00%
	Manganese	100.0	98.9	99	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
		Sequence:	S3F0259

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0259-CCV7	Nickel	100.0	97.3	97	ug/L	+/- 10.00%
	Potassium	500.0	512	102	ug/L	+/- 10.00%
	Selenium	100.0	98.9	99	ug/L	+/- 10.00%
	Silver	100.0	103	103	ug/L	+/- 10.00%
	Sodium	500.0	498	100	ug/L	+/- 10.00%
	Thallium	100.0	99.8	100	ug/L	+/- 10.00%
	Tin	100.0	106	106	ug/L	+/- 10.00%
	Vanadium	100.0	97.6	98	ug/L	+/- 10.00%
	Zinc	100.0	99.8	100	ug/L	+/- 10.00%

Labbook:
061523B.imexp

Index #: 9
Sample ID: SEQ-ICV
Start Time: 6/15/2023 3:10:53 PM
Stop Time: 6/15/2023 3:12:39 PM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Verification

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.556 ppb	99.113 %	50.000 ppb	1.3 %
11B (KED)	94.650 ppb	94.650 %	100.000 ppb	3.4 %
23Na (KED)	482.219 ppb	96.444 %	500.000 ppb	0.2 %
24Mg (KED)	487.646 ppb	97.529 %	500.000 ppb	1.4 %
27Al (KED)	96.168 ppb	96.168 %	100.000 ppb	1.4 %
31P (KED)	472.858 ppb	94.572 %	500.000 ppb	5.4 %
39K (KED)	485.778 ppb	97.156 %	500.000 ppb	0.7 %
44Ca (KED)	488.384 ppb	97.677 %	500.000 ppb	1.3 %
47Ti (KED)	99.107 ppb	99.107 %	100.000 ppb	0.4 %
51V (KED)	101.019 ppb	101.019 %	100.000 ppb	1.0 %
52Cr (KED)	98.173 ppb	98.173 %	100.000 ppb	2.3 %
55Mn (KED)	96.834 ppb	96.834 %	100.000 ppb	1.5 %
57Fe (KED)	489.055 ppb	97.811 %	500.000 ppb	2.2 %
59Co (KED)	97.949 ppb	97.949 %	100.000 ppb	1.3 %
60Ni (KED)	99.084 ppb	99.084 %	100.000 ppb	0.4 %
63Cu (KED)	103.653 ppb	103.653 %	100.000 ppb	0.6 %
66Zn (KED)	96.347 ppb	96.347 %	100.000 ppb	0.6 %
75As (KED)	95.629 ppb	95.629 %	100.000 ppb	1.3 %
78Se (KED)	95.934 ppb	95.934 %	100.000 ppb	0.6 %
95Mo (KED)	100.339 ppb	100.339 %	100.000 ppb	1.1 %
107Ag (KED)	100.200 ppb	100.200 %	100.000 ppb	4.5 %
111Cd (KED)	100.488 ppb	100.488 %	100.000 ppb	2.6 %
118Sn (KED)	102.731 ppb	102.731 %	100.000 ppb	1.7 %
121Sb (KED)	102.227 ppb	102.227 %	100.000 ppb	1.8 %
137Ba (KED)	97.141 ppb	97.141 %	100.000 ppb	1.6 %
205Tl (KED)	97.013 ppb	97.013 %	100.000 ppb	2.5 %
208Pb (KED)	95.641 ppb	95.641 %	100.000 ppb	1.8 %

ISTD's	Concentration average
6Li (KED)	97.210 %
45Sc (KED)	94.472 %
72Ge (KED)	96.132 %
89Y (KED)	96.962 %
115In (KED)	96.533 %
159Tb (KED)	98.064 %
209Bi (KED)	101.134 %

Labbook:
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Index #: 14
Sample ID: SEQ-HCV1
Start Time: 6/15/2023 3:20:04 PM
Stop Time: 6/15/2023 3:21:53 PM
Dilution Factor 1
prepFAST DF 1
Comment IHIGH Cal Verification

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	489.355 ppb	97.871 %	500.000 ppb	0.3 %
11B (KED)	936.185 ppb	93.618 %	1,000.000 ppb	0.2 %
23Na (KED)	4,831.978 ppb	96.640 %	5,000.000 ppb	0.1 %
24Mg (KED)	4,591.800 ppb	91.836 %	5,000.000 ppb	1.6 %
27Al (KED)	935.977 ppb	93.598 %	1,000.000 ppb	0.3 %
31P (KED)	4,607.739 ppb	92.155 %	5,000.000 ppb	2.0 %
39K (KED)	4,553.060 ppb	91.061 %	5,000.000 ppb	1.8 %
44Ca (KED)	4,855.432 ppb	97.109 %	5,000.000 ppb	0.4 %
47Ti (KED)	981.488 ppb	98.149 %	1,000.000 ppb	0.6 %
51V (KED)	950.909 ppb	95.091 %	1,000.000 ppb	1.1 %
52Cr (KED)	948.829 ppb	94.883 %	1,000.000 ppb	1.8 %
55Mn (KED)	927.171 ppb	92.717 %	1,000.000 ppb	1.2 %
57Fe (KED)	4,961.424 ppb	99.228 %	5,000.000 ppb	0.6 %
59Co (KED)	971.349 ppb	97.135 %	1,000.000 ppb	1.3 %
60Ni (KED)	920.009 ppb	92.001 %	1,000.000 ppb	2.6 %
63Cu (KED)	967.024 ppb	96.702 %	1,000.000 ppb	0.8 %
66Zn (KED)	917.868 ppb	91.787 %	1,000.000 ppb	1.2 %
75As (KED)	988.380 ppb	98.838 %	1,000.000 ppb	1.4 %
78Se (KED)	948.690 ppb	94.869 %	1,000.000 ppb	1.7 %
95Mo (KED)	976.840 ppb	97.684 %	1,000.000 ppb	1.9 %
107Ag (KED)	957.177 ppb	95.718 %	1,000.000 ppb	3.0 %
111Cd (KED)	908.211 ppb	90.821 %	1,000.000 ppb	3.7 %
118Sn (KED)	944.691 ppb	94.469 %	1,000.000 ppb	3.3 %
121Sb (KED)	954.045 ppb	95.405 %	1,000.000 ppb	3.1 %
137Ba (KED)	913.750 ppb	91.375 %	1,000.000 ppb	4.5 %
205Tl (KED)	1,012.971 ppb	101.297 %	1,000.000 ppb	4.7 %
208Pb (KED)	988.183 ppb	98.818 %	1,000.000 ppb	2.4 %

ISTD's	Concentration average
6Li (KED)	106.029 %
45Sc (KED)	96.743 %
72Ge (KED)	97.528 %
89Y (KED)	97.551 %
115In (KED)	103.783 %
159Tb (KED)	99.867 %
209Bi (KED)	100.768 %

Labbook:
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Index #: 18
Sample ID: SEQ-CCV
Start Time: 6/15/2023 3:27:28 PM
Stop Time: 6/15/2023 3:29:16 PM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.735 ppb	101.470 %	50.000 ppb	2.2 %
11B (KED)	96.117 ppb	96.117 %	100.000 ppb	0.5 %
23Na (KED)	484.367 ppb	96.873 %	500.000 ppb	0.9 %
24Mg (KED)	493.654 ppb	98.731 %	500.000 ppb	0.7 %
27Al (KED)	98.158 ppb	98.158 %	100.000 ppb	0.9 %
31P (KED)	491.945 ppb	98.389 %	500.000 ppb	4.0 %
39K (KED)	482.829 ppb	96.566 %	500.000 ppb	0.5 %
44Ca (KED)	491.822 ppb	98.364 %	500.000 ppb	1.0 %
47Ti (KED)	101.211 ppb	101.211 %	100.000 ppb	0.7 %
51V (KED)	103.475 ppb	103.475 %	100.000 ppb	0.6 %
52Cr (KED)	102.535 ppb	102.535 %	100.000 ppb	1.8 %
55Mn (KED)	99.519 ppb	99.519 %	100.000 ppb	0.9 %
57Fe (KED)	508.441 ppb	101.688 %	500.000 ppb	0.8 %
59Co (KED)	100.700 ppb	100.700 %	100.000 ppb	0.6 %
60Ni (KED)	100.877 ppb	100.877 %	100.000 ppb	0.6 %
63Cu (KED)	107.863 ppb	107.863 %	100.000 ppb	0.2 %
66Zn (KED)	101.814 ppb	101.814 %	100.000 ppb	1.2 %
75As (KED)	101.562 ppb	101.562 %	100.000 ppb	1.3 %
78Se (KED)	99.331 ppb	99.331 %	100.000 ppb	2.0 %
95Mo (KED)	103.944 ppb	103.944 %	100.000 ppb	1.0 %
107Ag (KED)	102.088 ppb	102.088 %	100.000 ppb	2.3 %
111Cd (KED)	104.842 ppb	104.842 %	100.000 ppb	3.6 %
118Sn (KED)	106.570 ppb	106.570 %	100.000 ppb	4.0 %
121Sb (KED)	106.605 ppb	106.605 %	100.000 ppb	4.0 %
137Ba (KED)	99.616 ppb	99.616 %	100.000 ppb	3.3 %
205Tl (KED)	100.066 ppb	100.066 %	100.000 ppb	1.0 %
208Pb (KED)	101.257 ppb	101.257 %	100.000 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	86.134 %
45Sc (KED)	83.182 %
72Ge (KED)	86.546 %
89Y (KED)	87.768 %
115In (KED)	89.836 %
159Tb (KED)	94.625 %
209Bi (KED)	96.749 %

Labbook:
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Index #: 30
Sample ID: SEQ-CCV
Start Time: 6/15/2023 3:49:47 PM
Stop Time: 6/15/2023 3:51:40 PM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.288 ppb	98.575 %	50.000 ppb	0.2 %
11B (KED)	97.272 ppb	97.272 %	100.000 ppb	2.0 %
23Na (KED)	504.151 ppb	100.830 %	500.000 ppb	1.4 %
24Mg (KED)	501.106 ppb	100.221 %	500.000 ppb	0.8 %
27Al (KED)	97.050 ppb	97.050 %	100.000 ppb	1.4 %
31P (KED)	488.694 ppb	97.739 %	500.000 ppb	5.0 %
39K (KED)	499.823 ppb	99.965 %	500.000 ppb	0.5 %
44Ca (KED)	500.899 ppb	100.180 %	500.000 ppb	3.7 %
47Ti (KED)	99.241 ppb	99.241 %	100.000 ppb	0.6 %
51V (KED)	99.538 ppb	99.538 %	100.000 ppb	0.8 %
52Cr (KED)	102.980 ppb	102.980 %	100.000 ppb	1.7 %
55Mn (KED)	99.171 ppb	99.171 %	100.000 ppb	0.4 %
57Fe (KED)	500.684 ppb	100.137 %	500.000 ppb	1.4 %
59Co (KED)	99.542 ppb	99.542 %	100.000 ppb	0.7 %
60Ni (KED)	98.359 ppb	98.359 %	100.000 ppb	0.9 %
63Cu (KED)	102.340 ppb	102.340 %	100.000 ppb	3.9 %
66Zn (KED)	101.321 ppb	101.321 %	100.000 ppb	0.6 %
75As (KED)	100.766 ppb	100.766 %	100.000 ppb	0.7 %
78Se (KED)	98.585 ppb	98.585 %	100.000 ppb	0.2 %
95Mo (KED)	104.411 ppb	104.411 %	100.000 ppb	2.6 %
107Ag (KED)	101.681 ppb	101.681 %	100.000 ppb	1.5 %
111Cd (KED)	103.586 ppb	103.586 %	100.000 ppb	0.6 %
118Sn (KED)	105.415 ppb	105.415 %	100.000 ppb	1.4 %
121Sb (KED)	105.357 ppb	105.357 %	100.000 ppb	1.2 %
137Ba (KED)	100.374 ppb	100.374 %	100.000 ppb	1.5 %
205Tl (KED)	101.273 ppb	101.273 %	100.000 ppb	3.6 %
208Pb (KED)	102.104 ppb	102.104 %	100.000 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	112.198 %
45Sc (KED)	102.228 %
72Ge (KED)	101.917 %
89Y (KED)	101.273 %
115In (KED)	102.263 %
159Tb (KED)	100.886 %
209Bi (KED)	101.333 %

Labbook:
061523B.imexp

Index #:	42	Stop Time:	6/15/2023 4:13:51 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 4:11:57 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.535 ppb	101.071 %	50.000 ppb	1.7 %
11B (KED)	98.115 ppb	98.115 %	100.000 ppb	2.9 %
23Na (KED)	488.027 ppb	97.605 %	500.000 ppb	1.0 %
24Mg (KED)	493.021 ppb	98.604 %	500.000 ppb	0.9 %
27Al (KED)	99.691 ppb	99.691 %	100.000 ppb	1.9 %
31P (KED)	499.619 ppb	99.924 %	500.000 ppb	2.6 %
39K (KED)	490.960 ppb	98.192 %	500.000 ppb	2.1 %
44Ca (KED)	491.618 ppb	98.324 %	500.000 ppb	4.7 %
47Ti (KED)	99.735 ppb	99.735 %	100.000 ppb	0.9 %
51V (KED)	102.008 ppb	102.008 %	100.000 ppb	0.6 %
52Cr (KED)	100.350 ppb	100.350 %	100.000 ppb	1.4 %
55Mn (KED)	99.190 ppb	99.190 %	100.000 ppb	0.7 %
57Fe (KED)	496.382 ppb	99.276 %	500.000 ppb	1.0 %
59Co (KED)	98.357 ppb	98.357 %	100.000 ppb	1.0 %
60Ni (KED)	98.394 ppb	98.394 %	100.000 ppb	1.4 %
63Cu (KED)	104.370 ppb	104.370 %	100.000 ppb	0.9 %
66Zn (KED)	99.405 ppb	99.405 %	100.000 ppb	0.6 %
75As (KED)	100.286 ppb	100.286 %	100.000 ppb	0.9 %
78Se (KED)	99.789 ppb	99.789 %	100.000 ppb	0.2 %
95Mo (KED)	100.724 ppb	100.724 %	100.000 ppb	1.4 %
107Ag (KED)	98.841 ppb	98.841 %	100.000 ppb	1.1 %
111Cd (KED)	100.025 ppb	100.025 %	100.000 ppb	2.3 %
118Sn (KED)	104.617 ppb	104.617 %	100.000 ppb	1.4 %
121Sb (KED)	104.728 ppb	104.728 %	100.000 ppb	2.7 %
137Ba (KED)	99.810 ppb	99.810 %	100.000 ppb	0.7 %
205Tl (KED)	101.436 ppb	101.436 %	100.000 ppb	2.5 %
208Pb (KED)	99.663 ppb	99.663 %	100.000 ppb	4.4 %

ISTD's	Concentration average
6Li (KED)	83.838 %
45Sc (KED)	84.052 %
72Ge (KED)	87.425 %
89Y (KED)	89.015 %
115In (KED)	91.824 %
159Tb (KED)	91.619 %
209Bi (KED)	94.162 %

Labbook:
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Index #:	52	Stop Time:	6/15/2023 4:32:33 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 4:30:40 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.169 ppb	98.338 %	50.000 ppb	2.8 %
11B (KED)	96.500 ppb	96.500 %	100.000 ppb	0.3 %
23Na (KED)	500.650 ppb	100.130 %	500.000 ppb	0.6 %
24Mg (KED)	502.142 ppb	100.428 %	500.000 ppb	0.5 %
27Al (KED)	99.385 ppb	99.385 %	100.000 ppb	1.0 %
31P (KED)	491.657 ppb	98.331 %	500.000 ppb	3.7 %
39K (KED)	507.581 ppb	101.516 %	500.000 ppb	1.2 %
44Ca (KED)	497.243 ppb	99.449 %	500.000 ppb	1.4 %
47Ti (KED)	98.122 ppb	98.122 %	100.000 ppb	0.9 %
51V (KED)	97.766 ppb	97.766 %	100.000 ppb	1.0 %
52Cr (KED)	101.792 ppb	101.792 %	100.000 ppb	2.4 %
55Mn (KED)	98.604 ppb	98.604 %	100.000 ppb	1.0 %
57Fe (KED)	496.592 ppb	99.318 %	500.000 ppb	0.8 %
59Co (KED)	98.335 ppb	98.335 %	100.000 ppb	0.4 %
60Ni (KED)	96.426 ppb	96.426 %	100.000 ppb	0.6 %
63Cu (KED)	104.754 ppb	104.754 %	100.000 ppb	0.1 %
66Zn (KED)	99.841 ppb	99.841 %	100.000 ppb	0.8 %
75As (KED)	100.649 ppb	100.649 %	100.000 ppb	0.5 %
78Se (KED)	98.375 ppb	98.375 %	100.000 ppb	0.9 %
95Mo (KED)	103.088 ppb	103.088 %	100.000 ppb	1.6 %
107Ag (KED)	101.846 ppb	101.846 %	100.000 ppb	2.6 %
111Cd (KED)	102.012 ppb	102.012 %	100.000 ppb	1.5 %
118Sn (KED)	104.883 ppb	104.883 %	100.000 ppb	1.1 %
121Sb (KED)	104.971 ppb	104.971 %	100.000 ppb	2.0 %
137Ba (KED)	99.799 ppb	99.799 %	100.000 ppb	2.9 %
205Tl (KED)	97.839 ppb	97.839 %	100.000 ppb	4.3 %
208Pb (KED)	99.086 ppb	99.086 %	100.000 ppb	4.5 %

ISTD's	Concentration average
6Li (KED)	109.213 %
45Sc (KED)	104.832 %
72Ge (KED)	103.907 %
89Y (KED)	103.716 %
115In (KED)	103.576 %
159Tb (KED)	101.929 %
209Bi (KED)	102.847 %

Labbook:
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Index #:	64	Stop Time:	6/15/2023 4:55:01 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 4:53:10 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.294 ppb	100.588 %	50.000 ppb	0.7 %
11B (KED)	96.513 ppb	96.513 %	100.000 ppb	2.1 %
23Na (KED)	501.410 ppb	100.282 %	500.000 ppb	0.8 %
24Mg (KED)	508.631 ppb	101.726 %	500.000 ppb	0.5 %
27Al (KED)	102.033 ppb	102.033 %	100.000 ppb	0.3 %
31P (KED)	483.856 ppb	96.771 %	500.000 ppb	4.7 %
39K (KED)	511.457 ppb	102.291 %	500.000 ppb	0.8 %
44Ca (KED)	495.224 ppb	99.045 %	500.000 ppb	0.1 %
47Ti (KED)	100.398 ppb	100.398 %	100.000 ppb	0.4 %
51V (KED)	100.350 ppb	100.350 %	100.000 ppb	0.7 %
52Cr (KED)	101.558 ppb	101.558 %	100.000 ppb	2.4 %
55Mn (KED)	99.751 ppb	99.751 %	100.000 ppb	1.3 %
57Fe (KED)	497.667 ppb	99.533 %	500.000 ppb	1.4 %
59Co (KED)	98.789 ppb	98.789 %	100.000 ppb	0.7 %
60Ni (KED)	97.989 ppb	97.989 %	100.000 ppb	0.5 %
63Cu (KED)	102.977 ppb	102.977 %	100.000 ppb	3.7 %
66Zn (KED)	100.093 ppb	100.093 %	100.000 ppb	1.1 %
75As (KED)	101.170 ppb	101.170 %	100.000 ppb	0.1 %
78Se (KED)	100.761 ppb	100.761 %	100.000 ppb	0.5 %
95Mo (KED)	99.927 ppb	99.927 %	100.000 ppb	0.3 %
107Ag (KED)	100.502 ppb	100.502 %	100.000 ppb	0.4 %
111Cd (KED)	102.374 ppb	102.374 %	100.000 ppb	1.7 %
118Sn (KED)	105.829 ppb	105.829 %	100.000 ppb	1.4 %
121Sb (KED)	105.346 ppb	105.346 %	100.000 ppb	1.9 %
137Ba (KED)	100.024 ppb	100.024 %	100.000 ppb	0.3 %
205Tl (KED)	97.698 ppb	97.698 %	100.000 ppb	3.3 %
208Pb (KED)	98.311 ppb	98.311 %	100.000 ppb	2.6 %

ISTD's	Concentration average
6Li (KED)	98.254 %
45Sc (KED)	95.792 %
72Ge (KED)	97.280 %
89Y (KED)	97.489 %
115In (KED)	98.598 %
159Tb (KED)	98.621 %
209Bi (KED)	99.855 %

Labbook:
061523B.imexp

Index #: 75
Sample ID: SEQ-CCV
Start Time: 6/15/2023 5:13:42 PM
Stop Time: 6/15/2023 5:15:34 PM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	48.912 ppb	97.824 %	50.000 ppb	1.4 %
11B (KED)	96.067 ppb	96.067 %	100.000 ppb	1.6 %
23Na (KED)	500.317 ppb	100.063 %	500.000 ppb	1.8 %
24Mg (KED)	502.418 ppb	100.484 %	500.000 ppb	1.0 %
27Al (KED)	100.316 ppb	100.316 %	100.000 ppb	1.4 %
31P (KED)	514.004 ppb	102.801 %	500.000 ppb	1.3 %
39K (KED)	510.187 ppb	102.037 %	500.000 ppb	0.8 %
44Ca (KED)	518.775 ppb	103.755 %	500.000 ppb	2.9 %
47Ti (KED)	99.294 ppb	99.294 %	100.000 ppb	1.3 %
51V (KED)	98.652 ppb	98.652 %	100.000 ppb	0.5 %
52Cr (KED)	101.964 ppb	101.964 %	100.000 ppb	2.5 %
55Mn (KED)	100.459 ppb	100.459 %	100.000 ppb	0.8 %
57Fe (KED)	498.236 ppb	99.647 %	500.000 ppb	1.4 %
59Co (KED)	99.448 ppb	99.448 %	100.000 ppb	0.5 %
60Ni (KED)	97.621 ppb	97.621 %	100.000 ppb	1.5 %
63Cu (KED)	100.350 ppb	100.350 %	100.000 ppb	1.0 %
66Zn (KED)	99.532 ppb	99.532 %	100.000 ppb	0.1 %
75As (KED)	100.338 ppb	100.338 %	100.000 ppb	0.3 %
78Se (KED)	98.989 ppb	98.989 %	100.000 ppb	2.1 %
95Mo (KED)	103.303 ppb	103.303 %	100.000 ppb	1.9 %
107Ag (KED)	103.439 ppb	103.439 %	100.000 ppb	0.6 %
111Cd (KED)	102.244 ppb	102.244 %	100.000 ppb	4.7 %
118Sn (KED)	106.181 ppb	106.181 %	100.000 ppb	2.2 %
121Sb (KED)	105.412 ppb	105.412 %	100.000 ppb	2.0 %
137Ba (KED)	100.410 ppb	100.410 %	100.000 ppb	1.4 %
205Tl (KED)	101.438 ppb	101.438 %	100.000 ppb	3.9 %
208Pb (KED)	100.590 ppb	100.590 %	100.000 ppb	2.0 %

ISTD's	Concentration average
6Li (KED)	111.082 %
45Sc (KED)	104.576 %
72Ge (KED)	105.095 %
89Y (KED)	104.019 %
115In (KED)	103.794 %
159Tb (KED)	101.622 %
209Bi (KED)	103.958 %

Labbook:
061523B.imexp

Index #:	85	Stop Time:	6/15/2023 5:34:33 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 5:32:38 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	48.555 ppb	97.110 %	50.000 ppb	0.9 %
11B (KED)	94.251 ppb	94.251 %	100.000 ppb	1.1 %
23Na (KED)	497.729 ppb	99.546 %	500.000 ppb	0.3 %
24Mg (KED)	501.474 ppb	100.295 %	500.000 ppb	1.0 %
27Al (KED)	99.800 ppb	99.800 %	100.000 ppb	0.5 %
31P (KED)	483.843 ppb	96.769 %	500.000 ppb	3.6 %
39K (KED)	511.520 ppb	102.304 %	500.000 ppb	0.4 %
44Ca (KED)	495.392 ppb	99.078 %	500.000 ppb	1.8 %
47Ti (KED)	98.350 ppb	98.350 %	100.000 ppb	0.6 %
51V (KED)	97.589 ppb	97.589 %	100.000 ppb	1.4 %
52Cr (KED)	101.613 ppb	101.613 %	100.000 ppb	1.5 %
55Mn (KED)	98.918 ppb	98.918 %	100.000 ppb	1.9 %
57Fe (KED)	501.545 ppb	100.309 %	500.000 ppb	1.3 %
59Co (KED)	99.945 ppb	99.945 %	100.000 ppb	1.8 %
60Ni (KED)	97.282 ppb	97.282 %	100.000 ppb	0.3 %
63Cu (KED)	101.295 ppb	101.295 %	100.000 ppb	3.0 %
66Zn (KED)	99.770 ppb	99.770 %	100.000 ppb	1.5 %
75As (KED)	100.841 ppb	100.841 %	100.000 ppb	1.6 %
78Se (KED)	98.872 ppb	98.872 %	100.000 ppb	1.7 %
95Mo (KED)	103.930 ppb	103.930 %	100.000 ppb	1.4 %
107Ag (KED)	102.764 ppb	102.764 %	100.000 ppb	0.6 %
111Cd (KED)	103.279 ppb	103.279 %	100.000 ppb	1.9 %
118Sn (KED)	106.497 ppb	106.497 %	100.000 ppb	2.5 %
121Sb (KED)	105.784 ppb	105.784 %	100.000 ppb	2.8 %
137Ba (KED)	100.328 ppb	100.328 %	100.000 ppb	3.9 %
205Tl (KED)	99.830 ppb	99.830 %	100.000 ppb	1.1 %
208Pb (KED)	100.959 ppb	100.959 %	100.000 ppb	2.4 %

ISTD's	Concentration average
6Li (KED)	112.720 %
45Sc (KED)	106.154 %
72Ge (KED)	105.477 %
89Y (KED)	104.646 %
115In (KED)	104.694 %
159Tb (KED)	102.607 %
209Bi (KED)	103.788 %

Performance Evaluation Mixture

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
Sequence:	S3F0259		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S3F0259-CRL1	Aluminum	5.000	5.40	108	ug/L	80 - 120
	Antimony	5.000	5.06	101	ug/L	80 - 120
	Arsenic	5.000	4.93	99	ug/L	80 - 120
	Barium	5.000	4.98	100	ug/L	80 - 120
	Beryllium	2.500	2.62	105	ug/L	80 - 120
	Cadmium	5.000	5.05	101	ug/L	80 - 120
	Calcium	25.00	24.8	99	ug/L	80 - 120
	Chromium	5.000	5.01	100	ug/L	80 - 120
	Cobalt	5.000	5.02	100	ug/L	80 - 120
	Copper	5.000	4.95	99	ug/L	80 - 120
	Iron	25.00	25.8	103	ug/L	80 - 120
	Lead	5.000	5.10	102	ug/L	80 - 120
	Magnesium	25.00	26.4	106	ug/L	80 - 120
	Manganese	5.000	4.77	95	ug/L	80 - 120
	Nickel	5.000	4.91	98	ug/L	80 - 120
	Potassium	25.00	24.2	97	ug/L	80 - 120
	Selenium	5.000	5.06	101	ug/L	80 - 120
	Silver	5.000	5.33	107	ug/L	80 - 120
	Sodium	25.00	25.1	100	ug/L	80 - 120
	Thallium	5.000	5.06	101	ug/L	80 - 120
	Tin	5.000	4.94	99	ug/L	80 - 120
	Vanadium	5.000	5.03	101	ug/L	80 - 120
	Zinc	5.000	5.04	101	ug/L	80 - 120

Labbook:
061523B.imexp

Index #: 11
Sample ID: SEQ-CRL
Start Time: 6/15/2023 3:14:30 PM
Stop Time: 6/15/2023 3:16:24 PM
Dilution Factor 0.05
prepFAST DF 20
Comment Perf Eval Mix

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	2.616 ppb	104.655 %	2.500 ppb	2.5 %
11B (KED)	4.654 ppb	93.085 %	5.000 ppb	8.7 %
23Na (KED)	25.067 ppb	100.269 %	25.000 ppb	3.1 %
24Mg (KED)	26.418 ppb	105.670 %	25.000 ppb	2.3 %
27Al (KED)	5.404 ppb	108.076 %	5.000 ppb	5.2 %
31P (KED)	27.599 ppb	110.395 %	25.000 ppb	15.6 %
39K (KED)	24.191 ppb	96.766 %	25.000 ppb	3.9 %
44Ca (KED)	24.769 ppb	99.075 %	25.000 ppb	14.6 %
47Ti (KED)	4.742 ppb	94.845 %	5.000 ppb	5.8 %
51V (KED)	5.025 ppb	100.501 %	5.000 ppb	3.0 %
52Cr (KED)	5.010 ppb	100.195 %	5.000 ppb	4.8 %
55Mn (KED)	4.773 ppb	95.455 %	5.000 ppb	1.7 %
57Fe (KED)	25.794 ppb	103.175 %	25.000 ppb	3.4 %
59Co (KED)	5.019 ppb	100.372 %	5.000 ppb	1.7 %
60Ni (KED)	4.911 ppb	98.228 %	5.000 ppb	2.0 %
63Cu (KED)	4.950 ppb	98.992 %	5.000 ppb	2.3 %
66Zn (KED)	5.044 ppb	100.882 %	5.000 ppb	1.6 %
75As (KED)	4.926 ppb	98.512 %	5.000 ppb	1.7 %
78Se (KED)	5.063 ppb	101.252 %	5.000 ppb	2.6 %
95Mo (KED)	4.975 ppb	99.496 %	5.000 ppb	1.7 %
107Ag (KED)	5.331 ppb	106.630 %	5.000 ppb	2.6 %
111Cd (KED)	5.047 ppb	100.944 %	5.000 ppb	1.4 %
118Sn (KED)	4.942 ppb	98.844 %	5.000 ppb	3.2 %
121Sb (KED)	5.057 ppb	101.148 %	5.000 ppb	1.6 %
137Ba (KED)	4.983 ppb	99.663 %	5.000 ppb	0.9 %
205Tl (KED)	5.062 ppb	101.235 %	5.000 ppb	1.7 %
208Pb (KED)	5.100 ppb	101.993 %	5.000 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	97.989 %
45Sc (KED)	96.677 %
72Ge (KED)	97.278 %
89Y (KED)	97.279 %
115In (KED)	98.925 %
159Tb (KED)	100.364 %
209Bi (KED)	98.862 %

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
Sequence:	S3F0259		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0259-ICB1	Aluminum		ug/L	20.0	U
	Antimony		ug/L	4.00	U
	Arsenic		ug/L	4.00	U
	Barium		ug/L	4.00	U
	Beryllium		ug/L	0.400	U
	Cadmium		ug/L	0.400	U
	Calcium		ug/L	20.0	U
	Chromium		ug/L	4.00	U
	Cobalt		ug/L	4.00	U
	Copper		ug/L	4.00	U
	Iron		ug/L	20.0	U
	Lead		ug/L	4.00	U
	Magnesium		ug/L	20.0	U
	Manganese		ug/L	4.00	U
	Nickel		ug/L	4.00	U
	Potassium		ug/L	20.0	U
	Selenium		ug/L	4.00	U
	Silver		ug/L	0.400	U
	Sodium		ug/L	20.0	U
	Thallium		ug/L	4.00	U
	Tin		ug/L	4.00	U
	Vanadium		ug/L	4.00	U
	Zinc		ug/L	4.00	U
S3F0259-CCB1	Aluminum		ug/L	20.0	U
	Antimony		ug/L	4.00	U
	Arsenic		ug/L	4.00	U
	Barium		ug/L	4.00	U
	Beryllium		ug/L	0.400	U
	Cadmium		ug/L	0.400	U
	Calcium		ug/L	20.0	U
	Chromium		ug/L	4.00	U
	Cobalt		ug/L	4.00	U
	Copper		ug/L	4.00	U
	Iron		ug/L	20.0	U
	Lead		ug/L	4.00	U
	Magnesium		ug/L	20.0	U
	Manganese		ug/L	4.00	U
	Nickel		ug/L	4.00	U
	Potassium		ug/L	20.0	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
Sequence:	S3F0259		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0259-CCB1	Selenium		ug/L	4.00	U
	Silver		ug/L	0.400	U
	Sodium		ug/L	20.0	U
	Thallium		ug/L	4.00	U
	Tin		ug/L	4.00	U
	Vanadium		ug/L	4.00	U
	Zinc		ug/L	4.00	U
B3F0158-BLK1	Aluminum		mg/L	0.125	U
	Antimony		mg/L	0.0250	U
	Arsenic		mg/L	0.0250	U
	Barium		mg/L	0.0250	U
	Beryllium		mg/L	0.00250	U
	Cadmium		mg/L	0.00250	U
	Calcium		mg/L	0.125	U
	Chromium		mg/L	0.0250	U
	Cobalt		mg/L	0.0250	U
	Copper		mg/L	0.0250	U
	Iron		mg/L	0.125	U
	Lead		mg/L	0.0250	U
	Magnesium		mg/L	0.125	U
	Manganese		mg/L	0.0250	U
	Nickel		mg/L	0.0250	U
	Potassium		mg/L	0.125	U
	Selenium		mg/L	0.0250	U
	Silver		mg/L	0.00250	U
	Sodium		mg/L	0.125	U
	Thallium		mg/L	0.0250	U
	Tin		mg/L	0.0250	U
	Vanadium		mg/L	0.0250	U
	Zinc		mg/L	0.0250	U
S3F0259-CCB2	Aluminum		ug/L	20.0	U
	Antimony		ug/L	4.00	U
	Arsenic		ug/L	4.00	U
	Barium		ug/L	4.00	U
	Beryllium		ug/L	0.400	U
	Cadmium		ug/L	0.400	U
	Calcium		ug/L	20.0	U
	Chromium		ug/L	4.00	U
	Cobalt		ug/L	4.00	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
Sequence:	S3F0259		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0259-CCB2	Copper		ug/L	4.00	U
	Iron		ug/L	20.0	U
	Lead		ug/L	4.00	U
	Magnesium		ug/L	20.0	U
	Manganese		ug/L	4.00	U
	Nickel		ug/L	4.00	U
	Potassium		ug/L	20.0	U
	Selenium		ug/L	4.00	U
	Silver		ug/L	0.400	U
	Sodium		ug/L	20.0	U
	Thallium		ug/L	4.00	U
	Tin		ug/L	4.00	U
	Vanadium		ug/L	4.00	U
	Zinc		ug/L	4.00	U
S3F0259-CCB3	Aluminum		ug/L	20.0	U
	Antimony		ug/L	4.00	U
	Arsenic		ug/L	4.00	U
	Barium		ug/L	4.00	U
	Beryllium		ug/L	0.400	U
	Cadmium		ug/L	0.400	U
	Calcium		ug/L	20.0	U
	Chromium		ug/L	4.00	U
	Cobalt		ug/L	4.00	U
	Copper		ug/L	4.00	U
	Iron		ug/L	20.0	U
	Lead		ug/L	4.00	U
	Magnesium		ug/L	20.0	U
	Manganese		ug/L	4.00	U
	Nickel		ug/L	4.00	U
	Potassium		ug/L	20.0	U
	Selenium		ug/L	4.00	U
	Silver		ug/L	0.400	U
	Sodium		ug/L	20.0	U
	Thallium		ug/L	4.00	U
	Tin		ug/L	4.00	U
	Vanadium		ug/L	4.00	U
	Zinc		ug/L	4.00	U
S3F0259-CCB4	Aluminum		ug/L	20.0	U
	Antimony		ug/L	4.00	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
Sequence:	S3F0259		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0259-CCB4	Arsenic		ug/L	4.00	U
	Barium		ug/L	4.00	U
	Beryllium		ug/L	0.400	U
	Cadmium		ug/L	0.400	U
	Calcium		ug/L	20.0	U
	Chromium		ug/L	4.00	U
	Cobalt		ug/L	4.00	U
	Copper		ug/L	4.00	U
	Iron		ug/L	20.0	U
	Lead		ug/L	4.00	U
	Magnesium		ug/L	20.0	U
	Manganese		ug/L	4.00	U
	Nickel		ug/L	4.00	U
	Potassium		ug/L	20.0	U
	Selenium		ug/L	4.00	U
	Silver		ug/L	0.400	U
	Sodium		ug/L	20.0	U
	Thallium		ug/L	4.00	U
	Tin		ug/L	4.00	U
	Vanadium		ug/L	4.00	U
	Zinc		ug/L	4.00	U
S3F0259-CCB5	Aluminum		ug/L	20.0	U
	Antimony		ug/L	4.00	U
	Arsenic		ug/L	4.00	U
	Barium		ug/L	4.00	U
	Beryllium		ug/L	0.400	U
	Cadmium		ug/L	0.400	U
	Calcium		ug/L	20.0	U
	Chromium		ug/L	4.00	U
	Cobalt		ug/L	4.00	U
	Copper		ug/L	4.00	U
	Iron		ug/L	20.0	U
	Lead		ug/L	4.00	U
	Magnesium		ug/L	20.0	U
	Manganese		ug/L	4.00	U
	Nickel		ug/L	4.00	U
	Potassium		ug/L	20.0	U
	Selenium		ug/L	4.00	U
	Silver		ug/L	0.400	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
Sequence:	S3F0259		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0259-CCB5	Sodium		ug/L	20.0	U
	Thallium		ug/L	4.00	U
	Tin		ug/L	4.00	U
	Vanadium		ug/L	4.00	U
	Zinc		ug/L	4.00	U
S3F0259-CCB6	Aluminum		ug/L	20.0	U
	Antimony		ug/L	4.00	U
	Arsenic		ug/L	4.00	U
	Barium		ug/L	4.00	U
	Beryllium		ug/L	0.400	U
	Cadmium		ug/L	0.400	U
	Calcium		ug/L	20.0	U
	Chromium		ug/L	4.00	U
	Cobalt		ug/L	4.00	U
	Copper		ug/L	4.00	U
	Iron		ug/L	20.0	U
	Lead		ug/L	4.00	U
	Magnesium		ug/L	20.0	U
	Manganese		ug/L	4.00	U
	Nickel		ug/L	4.00	U
	Potassium		ug/L	20.0	U
	Selenium		ug/L	4.00	U
	Silver		ug/L	0.400	U
	Sodium		ug/L	20.0	U
	Thallium		ug/L	4.00	U
	Tin		ug/L	4.00	U
	Vanadium		ug/L	4.00	U
	Zinc		ug/L	4.00	U
S3F0259-CCB7	Aluminum		ug/L	20.0	U
	Antimony		ug/L	4.00	U
	Arsenic		ug/L	4.00	U
	Barium		ug/L	4.00	U
	Beryllium		ug/L	0.400	U
	Cadmium		ug/L	0.400	U
	Calcium		ug/L	20.0	U
	Chromium		ug/L	4.00	U
	Cobalt		ug/L	4.00	U
	Copper		ug/L	4.00	U
	Iron		ug/L	20.0	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
Sequence:	S3F0259		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0259-CCB7	Lead		ug/L	4.00	U
	Magnesium		ug/L	20.0	U
	Manganese		ug/L	4.00	U
	Nickel		ug/L	4.00	U
	Potassium		ug/L	20.0	U
	Selenium		ug/L	4.00	U
	Silver		ug/L	0.400	U
	Sodium		ug/L	20.0	U
	Thallium		ug/L	4.00	U
	Tin		ug/L	4.00	U
	Vanadium		ug/L	4.00	U
	Zinc		ug/L	4.00	U

Labbook:
061523B.imexp

Index #: 10
Sample ID: SEQ-ICB
Start Time: 6/15/2023 3:12:39 PM
Stop Time: 6/15/2023 3:14:29 PM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.043 ppb	-19.539 %	8.3 %
11B (KED)	0.267 ppb	21.395 %	40.2 %
23Na (KED)	-0.082 ppb	-0.659 %	145.7 %
24Mg (KED)	1.253 ppb	10.028 %	7.3 %
27Al (KED)	0.406 ppb	16.239 %	5.7 %
31P (KED)	4.892 ppb	39.133 %	7.6 %
39K (KED)	-0.001 ppb	-0.008 %	119,471.6 %
44Ca (KED)	-0.464 ppb	-3.851 %	152.0 %
47Ti (KED)	-0.210 ppb	-15.919 %	3.8 %
51V (KED)	-0.081 ppb	-12.271 %	14.7 %
52Cr (KED)	-0.026 ppb	-2.358 %	9.3 %
55Mn (KED)	-0.112 ppb	-10.209 %	3.3 %
57Fe (KED)	0.614 ppb	9.825 %	15.2 %
59Co (KED)	-0.127 ppb	-9.632 %	2.3 %
60Ni (KED)	-0.007 ppb	-0.593 %	110.6 %
63Cu (KED)	-0.334 ppb	-30.356 %	1.9 %
66Zn (KED)	0.105 ppb	4.180 %	15.7 %
75As (KED)	0.045 ppb	5.128 %	11.1 %
78Se (KED)	0.124 ppb	9.371 %	4.3 %
95Mo (KED)	0.009 ppb	0.787 %	34.3 %
107Ag (KED)	-0.045 ppb	-26.297 %	11.5 %
111Cd (KED)	-0.022 ppb	-31.269 %	5.8 %
118Sn (KED)	-0.267 ppb	-10.668 %	0.2 %
121Sb (KED)	-0.063 ppb	-4.804 %	4.4 %
137Ba (KED)	-0.088 ppb	-10.010 %	7.7 %
205Tl (KED)	0.012 ppb	6.538 %	11.1 %
208Pb (KED)	-0.037 ppb	-19.424 %	5.2 %

ISTD's	Concentration average
6Li (KED)	96.391 %
45Sc (KED)	95.354 %
72Ge (KED)	95.890 %
89Y (KED)	96.660 %
115In (KED)	96.784 %
159Tb (KED)	99.243 %
209Bi (KED)	99.057 %

Labbook:
061523B.imexp

Index #: 19
Sample ID: SEQ-CCB
Start Time: 6/15/2023 3:29:17 PM
Stop Time: 6/15/2023 3:31:10 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.029 ppb	-13.117 %	34.7 %
11B (KED)	0.251 ppb	20.045 %	69.3 %
23Na (KED)	0.217 ppb	1.740 %	102.1 %
24Mg (KED)	1.268 ppb	10.144 %	15.7 %
27Al (KED)	0.432 ppb	17.298 %	12.4 %
31P (KED)	4.387 ppb	35.099 %	18.1 %
39K (KED)	-1.643 ppb	-13.144 %	28.3 %
44Ca (KED)	-0.593 ppb	-4.923 %	84.6 %
47Ti (KED)	-0.203 ppb	-15.410 %	7.6 %
51V (KED)	-0.083 ppb	-12.649 %	3.7 %
52Cr (KED)	-0.028 ppb	-2.539 %	9.8 %
55Mn (KED)	-0.108 ppb	-9.773 %	3.8 %
57Fe (KED)	0.655 ppb	10.487 %	23.3 %
59Co (KED)	-0.130 ppb	-9.814 %	0.7 %
60Ni (KED)	-0.007 ppb	-0.609 %	132.8 %
63Cu (KED)	-0.330 ppb	-29.965 %	1.5 %
66Zn (KED)	0.117 ppb	4.669 %	12.9 %
75As (KED)	0.038 ppb	4.262 %	25.2 %
78Se (KED)	0.121 ppb	9.153 %	29.2 %
95Mo (KED)	0.006 ppb	0.553 %	40.7 %
107Ag (KED)	-0.043 ppb	-25.376 %	4.9 %
111Cd (KED)	-0.024 ppb	-34.336 %	26.8 %
118Sn (KED)	-0.273 ppb	-10.901 %	0.9 %
121Sb (KED)	-0.069 ppb	-5.232 %	0.5 %
137Ba (KED)	-0.090 ppb	-10.257 %	6.6 %
205Tl (KED)	0.010 ppb	5.620 %	4.5 %
208Pb (KED)	-0.040 ppb	-21.222 %	2.0 %

ISTD's	Concentration average
6Li (KED)	90.421 %
45Sc (KED)	87.069 %
72Ge (KED)	90.432 %
89Y (KED)	91.518 %
115In (KED)	94.973 %
159Tb (KED)	98.903 %
209Bi (KED)	99.403 %

Labbook:
061523B.imexp

Index #:	22	Stop Time:	6/15/2023 3:36:44 PM	Comment	1/5 6020
Sample ID:	B3F0158-BLK1@5	Dilution Factor	0.2		
Start Time:	6/15/2023 3:34:57 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.035 ppb	19.9 %
11B (KED)	-0.033 ppb	49.1 %
23Na (KED)	0.830 ppb	6.0 %
24Mg (KED)	1.410 ppb	7.7 %
27Al (KED)	0.659 ppb	8.2 %
31P (KED)	6.653 ppb	40.4 %
39K (KED)	-1.759 ppb	66.1 %
44Ca (KED)	-0.888 ppb	128.1 %
47Ti (KED)	-0.205 ppb	3.6 %
51V (KED)	-0.087 ppb	1.8 %
52Cr (KED)	-0.014 ppb	29.3 %
55Mn (KED)	-0.097 ppb	2.2 %
57Fe (KED)	1.133 ppb	7.4 %
59Co (KED)	-0.130 ppb	0.4 %
60Ni (KED)	-0.008 ppb	36.0 %
63Cu (KED)	-0.328 ppb	1.5 %
66Zn (KED)	0.167 ppb	6.9 %
75As (KED)	0.031 ppb	12.7 %
78Se (KED)	0.088 ppb	12.8 %
95Mo (KED)	-0.002 ppb	71.8 %
107Ag (KED)	-0.049 ppb	6.6 %
111Cd (KED)	-0.029 ppb	2.3 %
118Sn (KED)	-0.267 ppb	0.2 %
121Sb (KED)	-0.093 ppb	0.7 %
137Ba (KED)	-0.086 ppb	4.2 %
205Tl (KED)	0.007 ppb	17.2 %
208Pb (KED)	-0.042 ppb	1.5 %

ISTD's	Concentration average
6Li (KED)	97.632 %
45Sc (KED)	92.869 %
72Ge (KED)	96.016 %
89Y (KED)	97.024 %
115In (KED)	99.184 %
159Tb (KED)	101.228 %
209Bi (KED)	100.428 %

Labbook:
061523B.imexp

Index #: 31
Sample ID: SEQ-CCB
Start Time: 6/15/2023 3:51:41 PM
Stop Time: 6/15/2023 3:53:34 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.034 ppb	-15.609 %	38.5 %
11B (KED)	0.019 ppb	1.526 %	236.5 %
23Na (KED)	3.955 ppb	31.642 %	10.3 %
24Mg (KED)	1.543 ppb	12.346 %	11.2 %
27Al (KED)	0.451 ppb	18.034 %	4.7 %
31P (KED)	5.642 ppb	45.132 %	21.2 %
39K (KED)	-0.281 ppb	-2.251 %	488.4 %
44Ca (KED)	0.199 ppb	1.649 %	327.8 %
47Ti (KED)	-0.202 ppb	-15.331 %	2.0 %
51V (KED)	-0.087 ppb	-13.143 %	2.5 %
52Cr (KED)	-0.022 ppb	-1.993 %	12.0 %
55Mn (KED)	-0.113 ppb	-10.252 %	5.6 %
57Fe (KED)	0.685 ppb	10.958 %	28.0 %
59Co (KED)	-0.130 ppb	-9.843 %	0.3 %
60Ni (KED)	-0.011 ppb	-0.958 %	89.1 %
63Cu (KED)	-0.336 ppb	-30.509 %	1.9 %
66Zn (KED)	0.087 ppb	3.475 %	10.1 %
75As (KED)	0.036 ppb	4.067 %	32.6 %
78Se (KED)	0.123 ppb	9.317 %	20.7 %
95Mo (KED)	0.002 ppb	0.145 %	139.2 %
107Ag (KED)	-0.049 ppb	-28.784 %	5.1 %
111Cd (KED)	-0.027 ppb	-38.892 %	8.3 %
118Sn (KED)	-0.275 ppb	-10.984 %	0.2 %
121Sb (KED)	-0.070 ppb	-5.286 %	1.2 %
137Ba (KED)	-0.093 ppb	-10.525 %	5.0 %
205Tl (KED)	0.011 ppb	6.137 %	8.2 %
208Pb (KED)	-0.041 ppb	-21.349 %	3.0 %

ISTD's	Concentration average
6Li (KED)	112.198 %
45Sc (KED)	101.907 %
72Ge (KED)	103.338 %
89Y (KED)	100.073 %
115In (KED)	104.897 %
159Tb (KED)	104.827 %
209Bi (KED)	103.156 %

Labbook:
061523B.imexp

Index #: 43
Sample ID: SEQ-CCB
Start Time: 6/15/2023 4:13:52 PM
Stop Time: 6/15/2023 4:15:47 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.042 ppb	-19.119 %	18.1 %
11B (KED)	0.099 ppb	7.943 %	96.6 %
23Na (KED)	2.085 ppb	16.679 %	7.9 %
24Mg (KED)	1.356 ppb	10.846 %	13.3 %
27Al (KED)	0.437 ppb	17.474 %	5.5 %
31P (KED)	5.760 ppb	46.082 %	30.4 %
39K (KED)	-1.083 ppb	-8.663 %	62.1 %
44Ca (KED)	-0.378 ppb	-3.139 %	74.8 %
47Ti (KED)	-0.214 ppb	-16.206 %	4.1 %
51V (KED)	-0.077 ppb	-11.594 %	4.7 %
52Cr (KED)	-0.027 ppb	-2.426 %	4.5 %
55Mn (KED)	-0.109 ppb	-9.868 %	6.2 %
57Fe (KED)	0.685 ppb	10.957 %	24.0 %
59Co (KED)	-0.129 ppb	-9.798 %	0.2 %
60Ni (KED)	-0.014 ppb	-1.248 %	24.9 %
63Cu (KED)	-0.341 ppb	-30.956 %	1.9 %
66Zn (KED)	0.099 ppb	3.953 %	8.7 %
75As (KED)	0.031 ppb	3.523 %	26.5 %
78Se (KED)	0.131 ppb	9.890 %	16.6 %
95Mo (KED)	0.004 ppb	0.389 %	10.1 %
107Ag (KED)	-0.048 ppb	-28.010 %	4.5 %
111Cd (KED)	-0.024 ppb	-34.926 %	11.5 %
118Sn (KED)	-0.272 ppb	-10.885 %	0.3 %
121Sb (KED)	-0.068 ppb	-5.160 %	2.8 %
137Ba (KED)	-0.091 ppb	-10.294 %	4.9 %
205Tl (KED)	0.008 ppb	4.557 %	15.5 %
208Pb (KED)	-0.040 ppb	-21.258 %	1.0 %

ISTD's	Concentration average
6Li (KED)	90.791 %
45Sc (KED)	88.381 %
72Ge (KED)	90.915 %
89Y (KED)	92.222 %
115In (KED)	93.616 %
159Tb (KED)	95.570 %
209Bi (KED)	97.087 %

Labbook:
061523B.imexp

Index #: 53
Sample ID: SEQ-CCB
Start Time: 6/15/2023 4:32:34 PM
Stop Time: 6/15/2023 4:34:29 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.034 ppb	-15.304 %	24.7 %
11B (KED)	0.120 ppb	9.589 %	83.5 %
23Na (KED)	2.030 ppb	16.241 %	37.4 %
24Mg (KED)	1.311 ppb	10.486 %	10.8 %
27Al (KED)	0.455 ppb	18.201 %	12.4 %
31P (KED)	4.874 ppb	38.996 %	24.2 %
39K (KED)	-0.212 ppb	-1.694 %	679.7 %
44Ca (KED)	0.781 ppb	6.484 %	79.3 %
47Ti (KED)	-0.194 ppb	-14.697 %	13.4 %
51V (KED)	-0.078 ppb	-11.837 %	2.7 %
52Cr (KED)	-0.022 ppb	-2.006 %	38.2 %
55Mn (KED)	-0.108 ppb	-9.807 %	8.1 %
57Fe (KED)	0.770 ppb	12.324 %	22.6 %
59Co (KED)	-0.127 ppb	-9.596 %	4.2 %
60Ni (KED)	-0.012 ppb	-1.073 %	46.3 %
63Cu (KED)	-0.335 ppb	-30.465 %	2.5 %
66Zn (KED)	0.121 ppb	4.834 %	11.0 %
75As (KED)	0.039 ppb	4.465 %	35.8 %
78Se (KED)	0.127 ppb	9.650 %	7.2 %
95Mo (KED)	0.006 ppb	0.549 %	62.8 %
107Ag (KED)	-0.045 ppb	-26.716 %	6.4 %
111Cd (KED)	-0.026 ppb	-36.687 %	9.0 %
118Sn (KED)	-0.268 ppb	-10.731 %	1.2 %
121Sb (KED)	-0.065 ppb	-4.941 %	3.6 %
137Ba (KED)	-0.088 ppb	-10.013 %	2.3 %
205Tl (KED)	0.010 ppb	5.603 %	17.2 %
208Pb (KED)	-0.039 ppb	-20.461 %	4.3 %

ISTD's	Concentration average
6Li (KED)	108.920 %
45Sc (KED)	103.207 %
72Ge (KED)	104.725 %
89Y (KED)	103.674 %
115In (KED)	102.684 %
159Tb (KED)	103.618 %
209Bi (KED)	101.227 %

Labbook:
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Index #: 65
Sample ID: SEQ-CCB
Start Time: 6/15/2023 4:55:03 PM
Stop Time: 6/15/2023 4:56:56 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.024 ppb	-10.735 %	38.3 %
11B (KED)	0.055 ppb	4.413 %	106.0 %
23Na (KED)	1.875 ppb	15.002 %	70.4 %
24Mg (KED)	1.583 ppb	12.662 %	27.8 %
27Al (KED)	0.447 ppb	17.875 %	7.7 %
31P (KED)	5.048 ppb	40.381 %	12.4 %
39K (KED)	0.725 ppb	5.799 %	213.5 %
44Ca (KED)	0.996 ppb	8.262 %	283.2 %
47Ti (KED)	-0.194 ppb	-14.719 %	11.4 %
51V (KED)	-0.075 ppb	-11.432 %	5.5 %
52Cr (KED)	-0.026 ppb	-2.338 %	33.3 %
55Mn (KED)	-0.112 ppb	-10.190 %	3.2 %
57Fe (KED)	0.707 ppb	11.308 %	1.7 %
59Co (KED)	-0.128 ppb	-9.695 %	1.7 %
60Ni (KED)	-0.008 ppb	-0.709 %	89.4 %
63Cu (KED)	-0.342 ppb	-31.077 %	0.4 %
66Zn (KED)	0.126 ppb	5.042 %	0.9 %
75As (KED)	0.042 ppb	4.803 %	33.1 %
78Se (KED)	0.143 ppb	10.812 %	15.9 %
95Mo (KED)	0.012 ppb	1.135 %	114.8 %
107Ag (KED)	-0.041 ppb	-24.306 %	17.6 %
111Cd (KED)	-0.019 ppb	-27.231 %	56.9 %
118Sn (KED)	-0.265 ppb	-10.593 %	5.9 %
121Sb (KED)	-0.059 ppb	-4.459 %	22.9 %
137Ba (KED)	-0.076 ppb	-8.612 %	20.5 %
205Tl (KED)	0.015 ppb	8.265 %	76.4 %
208Pb (KED)	-0.033 ppb	-17.516 %	31.9 %

ISTD's	Concentration average
6Li (KED)	99.843 %
45Sc (KED)	96.924 %
72Ge (KED)	99.072 %
89Y (KED)	99.056 %
115In (KED)	100.815 %
159Tb (KED)	98.883 %
209Bi (KED)	100.296 %

Labbook:
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Index #: 76
Sample ID: SEQ-CCB
Start Time: 6/15/2023 5:15:35 PM
Stop Time: 6/15/2023 5:17:27 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.020 ppb	-8.918 %	97.1 %
11B (KED)	-0.033 ppb	-2.606 %	215.2 %
23Na (KED)	1.083 ppb	8.665 %	34.0 %
24Mg (KED)	1.261 ppb	10.085 %	14.8 %
27Al (KED)	0.486 ppb	19.429 %	3.7 %
31P (KED)	4.647 ppb	37.174 %	18.9 %
39K (KED)	1.050 ppb	8.402 %	67.1 %
44Ca (KED)	0.488 ppb	4.046 %	279.9 %
47Ti (KED)	-0.201 ppb	-15.213 %	5.5 %
51V (KED)	-0.087 ppb	-13.213 %	2.4 %
52Cr (KED)	-0.026 ppb	-2.383 %	3.2 %
55Mn (KED)	-0.113 ppb	-10.287 %	3.9 %
57Fe (KED)	0.637 ppb	10.191 %	15.3 %
59Co (KED)	-0.130 ppb	-9.820 %	1.4 %
60Ni (KED)	-0.011 ppb	-1.045 %	5.5 %
63Cu (KED)	-0.345 ppb	-31.359 %	2.2 %
66Zn (KED)	0.122 ppb	4.862 %	6.0 %
75As (KED)	0.049 ppb	5.623 %	32.7 %
78Se (KED)	0.112 ppb	8.457 %	11.8 %
95Mo (KED)	0.006 ppb	0.530 %	71.8 %
107Ag (KED)	-0.045 ppb	-26.410 %	3.9 %
111Cd (KED)	-0.026 ppb	-37.356 %	4.7 %
118Sn (KED)	-0.274 ppb	-10.977 %	0.5 %
121Sb (KED)	-0.066 ppb	-5.033 %	5.2 %
137Ba (KED)	-0.091 ppb	-10.321 %	0.9 %
205Tl (KED)	0.010 ppb	5.646 %	6.2 %
208Pb (KED)	-0.040 ppb	-21.021 %	1.9 %

ISTD's	Concentration average
6Li (KED)	110.897 %
45Sc (KED)	104.259 %
72Ge (KED)	104.625 %
89Y (KED)	102.949 %
115In (KED)	104.735 %
159Tb (KED)	103.112 %
209Bi (KED)	101.863 %

Labbook:
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Index #: 86
Sample ID: SEQ-CCB
Start Time: 6/15/2023 5:34:35 PM
Stop Time: 6/15/2023 5:36:24 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.024 ppb	-10.745 %	34.7 %
11B (KED)	0.095 ppb	7.612 %	54.4 %
23Na (KED)	0.633 ppb	5.065 %	31.7 %
24Mg (KED)	1.208 ppb	9.665 %	6.6 %
27Al (KED)	0.436 ppb	17.453 %	8.5 %
31P (KED)	4.426 ppb	35.407 %	19.4 %
39K (KED)	0.577 ppb	4.616 %	223.9 %
44Ca (KED)	-1.014 ppb	-8.411 %	96.4 %
47Ti (KED)	-0.186 ppb	-14.123 %	7.0 %
51V (KED)	-0.088 ppb	-13.278 %	4.3 %
52Cr (KED)	-0.030 ppb	-2.746 %	14.0 %
55Mn (KED)	-0.116 ppb	-10.544 %	3.8 %
57Fe (KED)	0.487 ppb	7.796 %	22.6 %
59Co (KED)	-0.130 ppb	-9.828 %	1.6 %
60Ni (KED)	-0.012 ppb	-1.067 %	44.8 %
63Cu (KED)	-0.341 ppb	-30.960 %	0.5 %
66Zn (KED)	0.128 ppb	5.118 %	6.1 %
75As (KED)	0.042 ppb	4.797 %	3.1 %
78Se (KED)	0.130 ppb	9.823 %	20.0 %
95Mo (KED)	0.002 ppb	0.219 %	101.4 %
107Ag (KED)	-0.046 ppb	-27.275 %	6.6 %
111Cd (KED)	-0.022 ppb	-31.734 %	15.8 %
118Sn (KED)	-0.272 ppb	-10.890 %	0.8 %
121Sb (KED)	-0.066 ppb	-4.994 %	7.7 %
137Ba (KED)	-0.091 ppb	-10.327 %	2.2 %
205Tl (KED)	0.009 ppb	5.013 %	12.2 %
208Pb (KED)	-0.040 ppb	-21.156 %	2.8 %

ISTD's	Concentration average
6Li (KED)	111.940 %
45Sc (KED)	105.920 %
72Ge (KED)	105.943 %
89Y (KED)	105.204 %
115In (KED)	105.655 %
159Tb (KED)	103.691 %
209Bi (KED)	104.804 %

Labbook:
061523B.imexp

Index #: 12
Sample ID: SEQ-IFA
Start Time: 6/15/2023 3:16:24 PM
Stop Time: 6/15/2023 3:18:14 PM
Dilution Factor 1
prepFAST DF 1
Comment Int Check Soln A

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.049 ppb		14.1 %
11B (KED)	0.955 ppb	76.427 %	4.2 %
23Na (KED)	9,582.933 ppb		0.4 %
24Mg (KED)	9,103.334 ppb		0.3 %
27Al (KED)	8,537.890 ppb		0.3 %
31P (KED)	9,570.023 ppb		0.7 %
39K (KED)	8,839.967 ppb		0.8 %
44Ca (KED)	9,645.614 ppb		0.3 %
47Ti (KED)	1,960.214 ppb		0.1 %
51V (KED)	-0.047 ppb	-7.105 %	5.3 %
52Cr (KED)	0.130 ppb	11.783 %	7.2 %
55Mn (KED)	0.145 ppb	13.209 %	12.5 %
57Fe (KED)	9,614.333 ppb		1.3 %
59Co (KED)	0.002 ppb	0.168 %	132.9 %
60Ni (KED)	1.349 ppb	122.682 %	1.3 %
63Cu (KED)	-0.295 ppb	-26.831 %	3.0 %
66Zn (KED)	0.945 ppb	37.787 %	2.7 %
75As (KED)	0.049 ppb	5.557 %	21.5 %
78Se (KED)	0.110 ppb	8.342 %	18.4 %
95Mo (KED)	2,041.283 ppb		1.8 %
107Ag (KED)	-0.048 ppb	-28.424 %	3.5 %
111Cd (KED)	-0.257 ppb	-366.879 %	11.6 %
118Sn (KED)	-0.243 ppb	-9.724 %	0.6 %
121Sb (KED)	-0.011 ppb		42.4 %
137Ba (KED)	-0.018 ppb		54.6 %
205Tl (KED)	0.008 ppb		4.8 %
208Pb (KED)	-0.029 ppb	-15.183 %	4.4 %

ISTD's	Concentration average
6Li (KED)	98.900 %
45Sc (KED)	93.765 %
72Ge (KED)	92.784 %
89Y (KED)	94.580 %
115In (KED)	94.800 %
159Tb (KED)	101.562 %
209Bi (KED)	96.130 %

Labbook:
061523B.imexp

Index #: 13
Sample ID: SEQ-IFB
Start Time: 6/15/2023 3:18:15 PM
Stop Time: 6/15/2023 3:20:03 PM
Dilution Factor 1
prepFAST DF 1
Comment Int Check Soln AB

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	-0.050 ppb			17.7 %
11B (KED)	0.395 ppb			24.9 %
23Na (KED)	9,475.267 ppb	94.753 %	10,000.000 ppb	2.5 %
24Mg (KED)	8,887.078 ppb	88.871 %	10,000.000 ppb	3.4 %
27Al (KED)	8,349.350 ppb	83.493 %	10,000.000 ppb	3.4 %
31P (KED)	9,290.311 ppb	92.903 %	10,000.000 ppb	3.0 %
39K (KED)	8,789.698 ppb	87.897 %	10,000.000 ppb	2.2 %
44Ca (KED)	9,519.738 ppb	95.197 %	10,000.000 ppb	2.0 %
47Ti (KED)	1,972.725 ppb	98.636 %	2,000.000 ppb	2.4 %
51V (KED)	20.002 ppb	100.011 %	20.000 ppb	2.6 %
52Cr (KED)	18.745 ppb	93.727 %	20.000 ppb	2.3 %
55Mn (KED)	19.382 ppb	96.910 %	20.000 ppb	3.6 %
57Fe (KED)	9,513.068 ppb	95.131 %	10,000.000 ppb	3.1 %
59Co (KED)	19.856 ppb	99.282 %	20.000 ppb	2.7 %
60Ni (KED)	20.502 ppb	102.509 %	20.000 ppb	2.1 %
63Cu (KED)	19.841 ppb	99.207 %	20.000 ppb	2.3 %
66Zn (KED)	19.966 ppb	99.828 %	20.000 ppb	2.8 %
75As (KED)	19.170 ppb	95.851 %	20.000 ppb	1.9 %
78Se (KED)	20.086 ppb	100.431 %	20.000 ppb	1.2 %
95Mo (KED)	2,022.009 ppb	101.100 %	2,000.000 ppb	1.0 %
107Ag (KED)	21.290 ppb	106.448 %	20.000 ppb	2.9 %
111Cd (KED)	19.647 ppb	98.236 %	20.000 ppb	4.0 %
118Sn (KED)	-0.267 ppb			1.9 %
121Sb (KED)	-0.024 ppb			17.4 %
137Ba (KED)	-0.024 ppb			45.1 %
205Tl (KED)	0.007 ppb			5.6 %
208Pb (KED)	-0.026 ppb			6.8 %

ISTD's	Concentration average
6Li (KED)	103.863 %
45Sc (KED)	94.885 %
72Ge (KED)	95.925 %
89Y (KED)	97.531 %
115In (KED)	95.809 %
159Tb (KED)	101.161 %
209Bi (KED)	99.347 %

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

01341563

6147WW45

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW6020 B
Prep Batch:	B3F0158	Prep Method:	3015_METALS_PREP_MS
Percent Solids:		Laboratory ID:	B3F0158-MS1
		Source Sample ID:	23F0136-15

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.		QC LIMITS REC.
Aluminum	1.250	0.0644	1.35	102		75 - 125
Antimony	1.250	0.00576	1.26	100		75 - 125
Arsenic	1.250	0.00631	1.22	97		75 - 125
Barium	1.250	0.159	1.42	101		75 - 125
Beryllium	0.1250	ND	0.125	100		75 - 125
Cadmium	0.1250	ND	0.123	99		75 - 125
Calcium	6.250	46.2	54.7	135	*	75 - 125
Chromium	1.250	0.0363	1.15	89		75 - 125
Cobalt	1.250	ND	1.28	102		75 - 125
Copper	1.250	ND	1.19	95		75 - 125
Iron	2.500	0.110	2.57	98		75 - 125
Lead	1.250	0.00163	1.26	101		75 - 125
Magnesium	6.250	0.149	6.44	101		75 - 125
Manganese	1.250	0.00456	1.21	97		75 - 125
Nickel	1.250	0.0132	1.21	96		75 - 125
Potassium	6.250	25.1	30.1	81		75 - 125
Selenium	1.250	0.00336	1.13	90		75 - 125
Silver	0.1250	ND	0.0432	35	*	75 - 125
Sodium	6.250	359	378	314	*	75 - 125
Thallium	1.250	0.00169	1.26	100		75 - 125
Tin	1.250	ND	1.29	103		75 - 125
Vanadium	1.250	0.0644	1.39	106		75 - 125
Zinc	1.250	ND	1.14	91		75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

01341564

6147WW45

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW6020 B
Prep Batch:	B3F0158	Prep Method:	3015_METALS_PREP_MS
Percent Solids:		Laboratory ID:	B3F0158-MSD1
		Source Sample ID:	23F0136-15

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #		% RPD	QC LIMITS RPD	QC LIMITS REC.
Aluminum	1.250	1.43	109		6	20	75 - 125
Antimony	1.250	1.25	100		0.7	20	75 - 125
Arsenic	1.250	1.20	95		2	20	75 - 125
Barium	1.250	1.40	99		2	20	75 - 125
Beryllium	0.1250	0.123	98		2	20	75 - 125
Cadmium	0.1250	0.121	97		2	20	75 - 125
Calcium	6.250	53.5	116		2	20	75 - 125
Chromium	1.250	1.13	87		2	20	75 - 125
Cobalt	1.250	1.26	101		2	20	75 - 125
Copper	1.250	1.18	94		1	20	75 - 125
Iron	2.500	2.52	97		2	20	75 - 125
Lead	1.250	1.21	97		4	20	75 - 125
Magnesium	6.250	6.33	99		2	20	75 - 125
Manganese	1.250	1.19	95		2	20	75 - 125
Nickel	1.250	1.20	95		0.5	20	75 - 125
Potassium	6.250	29.7	75		1	20	75 - 125
Selenium	1.250	1.10	88		2	20	75 - 125
Silver	0.1250	0.0368	29	*	16	20	75 - 125
Sodium	6.250	371	192	*	2	20	75 - 125
Thallium	1.250	1.24	99		2	20	75 - 125
Tin	1.250	1.27	102		1	20	75 - 125
Vanadium	1.250	1.31	100		5	20	75 - 125
Zinc	1.250	1.14	91		0.7	20	75 - 125

* Values outside of QC limits

POST DIGEST SPIKE SAMPLE RECOVERY

SW6020 B

01341565
6147WW45

Laboratory: Environmental Monitoring and Technologies, Inc
SDG: 23F0136
Client: HDR
Project: Longhorn AAP
Matrix: Water
Laboratory ID: B3F0158-PS1
Batch: B3F0158
Lab Source ID: 23F0136-15
Preparation: 3015_METALS_PREP_MS
Initial/Final: 1.6 ml / 10 ml
Source Sample Name: 6147WW45
% Solids:

Analyte	Control Limit %R	Spike Sample Result (SSR) (mg/L)	Sample Result (SR) (mg/L)	Spike Added (SA) (mg/L)	%R	
Aluminum	80 - 120	0.369	0.0644	0.3125	97	
Antimony	80 - 120	0.324	0.00576	0.3125	102	
Arsenic	80 - 120	0.304	0.00631	0.3125	95	
Barium	80 - 120	0.465	0.159	0.3125	98	
Beryllium	80 - 120	0.153	ND	0.1562	98	
Cadmium	80 - 120	0.298	ND	0.3125	96	
Calcium	80 - 120	47.8	46.2	1.562	102	
Chromium	80 - 120	0.334	0.0363	0.3125	95	
Cobalt	80 - 120	0.304	ND	0.3125	97	
Copper	80 - 120	0.313	ND	0.3125	100	
Iron	80 - 120	1.60	0.110	1.562	95	
Lead	80 - 120	0.325	0.00163	0.3125	104	
Magnesium	80 - 120	1.68	0.149	1.562	98	
Manganese	80 - 120	0.302	0.00456	0.3125	95	
Nickel	80 - 120	0.300	0.0132	0.3125	92	
Potassium	80 - 120	25.9	25.1	1.562	57	*
Selenium	80 - 120	0.281	0.00336	0.3125	89	
Silver	80 - 120	0.316	ND	0.3125	101	
Sodium	80 - 120	362	359	1.562	213	*
Thallium	80 - 120	0.317	0.00169	0.3125	101	
Tin	80 - 120	0.329	ND	0.3125	105	
Vanadium	80 - 120	0.362	0.0644	0.3125	95	
Zinc	80 - 120	0.296	ND	0.3125	95	
Lithium	60 - 200	99.0		100.0	118	
Scandium	60 - 200	96.4		100.0	115	
Germanium	60 - 200	95.7		100.0	109	

Yttrium	60 - 200	97.1		100.0	109
Indium	60 - 200	95.0		100.0	104
Terbium	60 - 200	99.1		100.0	108
Bismuth	60 - 200	91.2		100.0	97

* Values outside of QC limits

Labbook:
061523B.imexp

Index #:	47	Stop Time:	6/15/2023 4:23:14 PM	Comment	1/5 6020
Sample ID:	B3F0158-PS1	Dilution Factor	1		
Start Time:	6/15/2023 4:21:26 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	24.439 ppb	0.4 %
11B (KED)	62.271 ppb	0.1 %
23Na (KED)	57,905.969 ppb	0.9 %
24Mg (KED)	268.134 ppb	1.2 %
27Al (KED)	59.045 ppb	2.5 %
31P (KED)	256.124 ppb	2.6 %
39K (KED)	4,150.539 ppb	5.0 %
44Ca (KED)	7,654.433 ppb	0.7 %
47Ti (KED)	48.714 ppb	0.4 %
51V (KED)	57.912 ppb	1.8 %
52Cr (KED)	53.481 ppb	1.0 %
55Mn (KED)	48.255 ppb	0.9 %
57Fe (KED)	256.110 ppb	0.7 %
59Co (KED)	48.716 ppb	1.0 %
60Ni (KED)	47.941 ppb	1.5 %
63Cu (KED)	50.003 ppb	1.1 %
66Zn (KED)	47.315 ppb	0.7 %
75As (KED)	48.573 ppb	0.7 %
78Se (KED)	44.961 ppb	0.7 %
95Mo (KED)	50.815 ppb	0.2 %
107Ag (KED)	50.598 ppb	3.5 %
111Cd (KED)	47.756 ppb	2.3 %
118Sn (KED)	52.613 ppb	2.2 %
121Sb (KED)	51.796 ppb	1.8 %
137Ba (KED)	74.444 ppb	2.3 %
205Tl (KED)	50.685 ppb	1.2 %
208Pb (KED)	52.074 ppb	1.7 %

ISTD's	Concentration average
6Li (KED)	99.033 %
45Sc (KED)	96.428 %
72Ge (KED)	95.708 %
89Y (KED)	97.116 %
115In (KED)	95.042 %
159Tb (KED)	99.126 %
209Bi (KED)	91.153 %

LCS / LCS DUPLICATE RECOVERY

01341568

SW6020 B

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	3015_METALS_PREP_MS
Prep Batch:	B3F0158	Lab Sample ID:	B3F0158-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Aluminum	1.250	1.27	101	80 - 120
Antimony	1.250	1.22	97	80 - 120
Arsenic	1.250	1.21	97	80 - 120
Barium	1.250	1.24	99	80 - 120
Beryllium	0.1250	0.123	98	80 - 120
Cadmium	0.1250	0.123	98	80 - 120
Calcium	6.250	6.50	104	80 - 120
Chromium	1.250	1.16	93	80 - 120
Cobalt	1.250	1.32	105	80 - 120
Copper	1.250	1.26	101	80 - 120
Iron	2.500	2.51	101	80 - 120
Lead	1.250	1.22	97	80 - 120
Magnesium	6.250	6.36	102	80 - 120
Manganese	1.250	1.24	99	80 - 120
Nickel	1.250	1.25	100	80 - 120
Potassium	6.250	6.35	102	80 - 120
Selenium	1.250	1.11	89	80 - 120
Silver	0.1250	0.139	111	80 - 120
Sodium	6.250	6.38	102	80 - 120
Thallium	1.250	1.22	98	80 - 120
Tin	1.250	1.26	101	80 - 120
Vanadium	1.250	1.34	107	80 - 120
Zinc	1.250	1.16	93	80 - 120

* Values outside of QC limits

SERIAL DILUTION

SW6020 B

01341569
6147WW45

Laboratory: Environmental Monitoring and Technologies, Inc
Client: HDR
Matrix: Water
Sequence: S3F0259
Preparation: 3015_METALS_PREP_MS
Source Sample Name: 6147WW45

SDG: 23F0136
Project: Longhorn AAP
Laboratory ID: B3F0158-DUP1
Lab Source ID: 23F0136-15
Initial/Final: 40 / 50
% Solids:

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Aluminum	ND		ND		0	NA	SW6020 B	10
Antimony	ND		ND		0	NA	SW6020 B	10
Arsenic	ND		ND		0	NA	SW6020 B	10
Barium	0.159		0.165		3.87	NA	SW6020 B	10
Beryllium	ND		ND		0	NA	SW6020 B	10
Cadmium	ND		ND		0	NA	SW6020 B	10
Calcium	46.2		49.1		6.22		SW6020 B	10
Chromium	0.0363		0.0373		2.71	NA	SW6020 B	10
Cobalt	ND		ND		0	NA	SW6020 B	10
Copper	ND		ND		0	NA	SW6020 B	10
Iron	ND		ND		0	NA	SW6020 B	10
Lead	ND		ND		0	NA	SW6020 B	10
Magnesium	0.149		0.189		26.9	NA	SW6020 B	10
Manganese	ND		ND		0	NA	SW6020 B	10
Nickel	0.0132		0.0135		2.8	NA	SW6020 B	10
Potassium	25.1		25.9		3.56		SW6020 B	10
Selenium	ND		ND		0	NA	SW6020 B	10
Silver	ND		ND		0	NA	SW6020 B	10
Sodium	359		370		3.25		SW6020 B	10
Thallium	ND		0.00220		0	NA	SW6020 B	10
Tin	ND		ND		0	NA	SW6020 B	10
Vanadium	0.0644		0.0620		3.78	NA	SW6020 B	10
Zinc	ND		ND		0	NA	SW6020 B	10

NA = Dilution test is only applicable for analytes with concentrations > 50X LOQ
* = Values outside of QC limits, with concentrations > 50X LOQ

Labbook:
061523B.imexp

Index #:	48	Stop Time:	6/15/2023 4:25:05 PM	Comment	1/5/5=25 6020
Sample ID:	B3F0158-DUP1@25	Dilution Factor	0.2		
Start Time:	6/15/2023 4:23:15 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.044 ppb	19.4 %
11B (KED)	2.955 ppb	1.8 %
23Na (KED)	11,847.180 ppb	0.7 %
24Mg (KED)	6.046 ppb	4.8 %
27Al (KED)	2.449 ppb	0.5 %
31P (KED)	7.325 ppb	24.7 %
39K (KED)	830.273 ppb	1.0 %
44Ca (KED)	1,571.759 ppb	1.4 %
47Ti (KED)	-0.152 ppb	21.7 %
51V (KED)	1.983 ppb	2.8 %
52Cr (KED)	1.194 ppb	1.7 %
55Mn (KED)	0.073 ppb	18.9 %
57Fe (KED)	4.286 ppb	3.4 %
59Co (KED)	-0.110 ppb	2.3 %
60Ni (KED)	0.434 ppb	7.1 %
63Cu (KED)	-0.185 ppb	4.1 %
66Zn (KED)	0.199 ppb	3.0 %
75As (KED)	0.226 ppb	2.0 %
78Se (KED)	0.190 ppb	6.4 %
95Mo (KED)	0.136 ppb	12.6 %
107Ag (KED)	-0.042 ppb	12.9 %
111Cd (KED)	-0.022 ppb	9.7 %
118Sn (KED)	-0.204 ppb	1.7 %
121Sb (KED)	0.120 ppb	9.9 %
137Ba (KED)	5.279 ppb	0.5 %
205Tl (KED)	0.070 ppb	2.9 %
208Pb (KED)	0.023 ppb	10.4 %

ISTD's	Concentration average
6Li (KED)	105.632 %
45Sc (KED)	101.789 %
72Ge (KED)	101.609 %
89Y (KED)	100.693 %
115In (KED)	99.026 %
159Tb (KED)	101.443 %
209Bi (KED)	100.693 %

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-01	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-02	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-03	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-04	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-05	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-06	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-07	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-08	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-09	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-10	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-11	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-12	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-13	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-14	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-15	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Potassium, Scandium, Selenium, Silver, Sodium, Terbium, Thallium, Tin, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0158-01	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Scandium, Selenium, Silver, Terbium, Thallium, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0158-02	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Scandium, Selenium, Silver, Terbium, Thallium, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0158-03	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Scandium, Selenium, Silver, Terbium, Thallium, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0158-04	06/06/23 10:53	40	50				

Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :

Prepared By: MBD

Analytes: Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Scandium, Selenium, Silver, Terbium, Thallium, Vanadium, Yttrium, Zinc

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0158-05	06/06/23 10:53	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
Analytes: Antimony, Arsenic, Barium, Beryllium, Bismuth, Cadmium, Calcium, Chromium, Cobalt, Copper, Germanium, Indium, Iron, Lead, Lithium, Magnesium, Manganese, Nickel, Scandium, Selenium, Silver, Terbium, Thallium, Vanadium, Yttrium, Zinc							
B3F0158-BLK1	06/06/23 10:53	40	50				
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** :							**Prepared By**: MBD

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PREPARATION BENCH SHEET

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B3F0158-BS1	06/06/23 10:53	40	50	3050540		1000	
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** :							**Prepared By**: MBD
B3F0158-MS1	06/06/23 10:53	40	50	3050540	23F0136-15	1000	
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD
B3F0158-MSD1	06/06/23 10:53	40	50	3050540	23F0136-15	1000	
Seal checked before and after: yes **!Microwave:** MW Mars XPress **Temperature:** 168 **pH:** <2 :							**Prepared By**: MBD

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PREPARATION BENCH SHEET

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments

Spiking Solution(s)

3050374	METALS WORKING ODD LCS 289
3050540	METALS WORKING TM LCS 397

Reagents / Equipment

Standard	Description	LotNum
2100069	pH paper 0-14 mbd	225320a
3040100	Nitric Acid HNO3 - Metals	1122090
3050255	Autopipette # MD4 1mL	n/a

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PREPARATION BENCH SHEET

Print Date/Time: 06/06/2023

B3F0158

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3015_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments

3050671	CYLINDERS 50 ml MBD	2206050
5120535	Autopipette #835, 2.5mL	n/a

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ANALYSIS SEQUENCE SUMMARY

Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0259 Instrument: ICP-MS iCAP Q
Calibration: EF30066

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3050591)	S3F0259-TUN1	061523BTUNE	06/15/23 14:08
Initial Cal Check (STD # 3060721)	S3F0259-ICV1	061523B.xml-008	06/15/23 15:10
Initial Cal Blank	S3F0259-ICB1	061523B.xml-009	06/15/23 15:12
Instrument RL Check (STD # 3060722)	S3F0259-CRL1	061523B.xml-010	06/15/23 15:14
Interference Check A (STD # 3050595)	S3F0259-IFA1	061523B.xml-011	06/15/23 15:16
Interference Check B (STD # 3050596)	S3F0259-IFB1	061523B.xml-012	06/15/23 15:18
Closing Cal Check (STD # 3060620)	S3F0259-HCV1	061523B.xml-013	06/15/23 15:20
Calibration Check (STD # 3060433)	S3F0259-CCV1	061523B.xml-017	06/15/23 15:27
Calibration Blank	S3F0259-CCB1	061523B.xml-018	06/15/23 15:29
Blank	B3F0158-BLK1	061523B.xml-021	06/15/23 15:34
LCS	B3F0158-BS1	061523B.xml-022	06/15/23 15:36
53147WW29	23F0136-01	061523B.xml-023	06/15/23 15:38
53147WW13	23F0136-02	061523B.xml-024	06/15/23 15:40
53047WW08R	23F0136-03	061523B.xml-025	06/15/23 15:42
531DUP4	23F0136-04	061523B.xml-026	06/15/23 15:44
6147WW34	23F0136-05	061523B.xml-027	06/15/23 15:46
61DUP6	23F0136-06	061523B.xml-028	06/15/23 15:47
Calibration Check (STD # 3060433)	S3F0259-CCV2	061523B.xml-029	06/15/23 15:49
Calibration Blank	S3F0259-CCB2	061523B.xml-030	06/15/23 15:51
6147WW04	23F0136-07	061523B.xml-031	06/15/23 15:53
6147WW33	23F0136-08	061523B.xml-032	06/15/23 15:55
6147WW46	23F0136-09	061523B.xml-033	06/15/23 15:57
53147WW38	23F0136-10	061523B.xml-034	06/15/23 15:59
531DUP6	23F0136-11	061523B.xml-035	06/15/23 16:01
531LHSMW50	23F0136-12	061523B.xml-036	06/15/23 16:02
53147WW61	23F0136-13	061523B.xml-037	06/15/23 16:04
6147WW31	23F0136-14	061523B.xml-038	06/15/23 16:06
Calibration Check (STD # 3060433)	S3F0259-CCV3	061523B.xml-041	06/15/23 16:11
Calibration Blank	S3F0259-CCB3	061523B.xml-042	06/15/23 16:13
6147WW45	23F0136-15	061523B.xml-043	06/15/23 16:15
6147WW45	B3F0158-MS1	061523B.xml-044	06/15/23 16:17
6147WW45	B3F0158-MSD1	061523B.xml-045	06/15/23 16:19

ANALYSIS SEQUENCE SUMMARY

Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0259 Instrument: ICP-MS iCAP Q
Calibration: EF30066

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
6147WW45	B3F0158-PS1	061523B.xml-046	06/15/23 16:21
6147WW45	B3F0158-DUP1	061523B.xml-047	06/15/23 16:23
Calibration Check (STD # 3060433)	S3F0259-CCV4	061523B.xml-051	06/15/23 16:30
Calibration Blank	S3F0259-CCB4	061523B.xml-052	06/15/23 16:32
53147WW29	23F0136-01RE1	061523B.xml-057	06/15/23 16:42
53147WW13	23F0136-02RE1	061523B.xml-058	06/15/23 16:43
53047WW08R	23F0136-03RE1	061523B.xml-059	06/15/23 16:45
531DUP4	23F0136-04RE1	061523B.xml-060	06/15/23 16:47
6147WW34	23F0136-05RE1	061523B.xml-061	06/15/23 16:49
61DUP6	23F0136-06RE1	061523B.xml-062	06/15/23 16:51
Calibration Check (STD # 3060433)	S3F0259-CCV5	061523B.xml-063	06/15/23 16:53
Calibration Blank	S3F0259-CCB5	061523B.xml-064	06/15/23 16:55
6147WW04	23F0136-07RE1	061523B.xml-065	06/15/23 16:56
6147WW33	23F0136-08RE1	061523B.xml-066	06/15/23 16:58
6147WW46	23F0136-09RE1	061523B.xml-067	06/15/23 17:00
53147WW38	23F0136-10RE1	061523B.xml-068	06/15/23 17:02
531DUP6	23F0136-11RE1	061523B.xml-069	06/15/23 17:04
531LHSMW50	23F0136-12RE1	061523B.xml-070	06/15/23 17:06
53147WW61	23F0136-13RE1	061523B.xml-071	06/15/23 17:08
6147WW31	23F0136-14RE1	061523B.xml-072	06/15/23 17:09
6147WW45	23F0136-15RE1	061523B.xml-073	06/15/23 17:11
Calibration Check (STD # 3060433)	S3F0259-CCV6	061523B.xml-074	06/15/23 17:13
Calibration Blank	S3F0259-CCB6	061523B.xml-075	06/15/23 17:15
53047WW08R	23F0136-03RE2	061523B.xml-076	06/15/23 17:17
61DUP6	23F0136-06RE2	061523B.xml-077	06/15/23 17:19
6147WW04	23F0136-07RE2	061523B.xml-078	06/15/23 17:21
6147WW46	23F0136-09RE2	061523B.xml-079	06/15/23 17:23
531LHSMW50	23F0136-12RE2	061523B.xml-080	06/15/23 17:25
53147WW61	23F0136-13RE2	061523B.xml-081	06/15/23 17:27
6147WW31	23F0136-14RE2	061523B.xml-082	06/15/23 17:28
6147WW45	23F0136-15RE2	061523B.xml-083	06/15/23 17:30
Calibration Check (STD # 3060433)	S3F0259-CCV7	061523B.xml-084	06/15/23 17:32

ANALYSIS SEQUENCE SUMMARY

Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence:	S3F0259	Instrument:	ICP-MS iCAP Q
Calibration:	EF30066		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	S3F0259-CCB7	061523B.xml-085	06/15/23 17:34

QC SUMMARY REPORT
INTERNAL STANDARD RELATIVE INTENSITY

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0259

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0259-ICV1	6/15/2023	15:10	97.21	94.47	96.13	96.96	96.53	98.06	101.13
S3F0259-ICB1	6/15/2023	15:12	96.39	95.35	95.89	96.66	96.78	99.24	99.06
S3F0259-CRL1	6/15/2023	15:14	97.99	96.68	97.28	97.28	98.92	100.36	98.86
S3F0259-IFA1	6/15/2023	15:16	98.90	93.77	92.78	94.58	94.80	101.56	96.13
S3F0259-IFB1	6/15/2023	15:18	103.86	94.88	95.92	97.53	95.81	101.16	99.35
S3F0259-HCV1	6/15/2023	15:20	106.03	96.74	97.53	97.55	103.78	99.87	100.77
S3F0259-CCV1	6/15/2023	15:27	86.13	83.18	86.55	87.77	89.84	94.62	96.75
S3F0259-CCB1	6/15/2023	15:29	90.42	87.07	90.43	91.52	94.97	98.90	99.40
B3F0158-BLK1	6/15/2023	15:34	97.63	92.87	96.02	97.02	99.18	101.23	100.43
B3F0158-BS1	6/15/2023	15:36	98.96	94.04	95.54	98.02	100.05	103.30	105.85
23F0136-01	6/15/2023	15:38	99.21	94.24	95.77	95.75	97.38	100.84	96.82
23F0136-02	6/15/2023	15:40	103.62	98.75	98.46	123.14	101.22	107.84	105.07
23F0136-03	6/15/2023	15:42	99.97	95.21	94.38	94.95	94.18	99.84	89.56
23F0136-04	6/15/2023	15:44	107.93	100.04	100.65	113.96	101.34	105.69	103.83
23F0136-05	6/15/2023	15:46	107.27	101.78	101.11	100.10	101.15	103.80	96.63
23F0136-06	6/15/2023	15:47	102.87	97.31	92.89	95.59	90.65	96.28	87.70
S3F0259-CCV2	6/15/2023	15:49	112.20	102.23	101.92	101.27	102.26	100.89	101.33
S3F0259-CCB2	6/15/2023	15:51	112.20	101.91	103.34	100.07	104.90	104.83	103.16
23F0136-07	6/15/2023	15:53	103.92	97.31	94.99	97.41	92.59	96.28	89.77
23F0136-08	6/15/2023	15:55	110.48	101.65	102.17	103.66	100.89	104.63	102.61
23F0136-09	6/15/2023	15:57	106.89	101.66	98.69	101.30	97.21	100.03	90.83
23F0136-10	6/15/2023	15:59	110.58	105.26	103.02	102.78	100.76	103.72	97.87
23F0136-11	6/15/2023	16:01	111.54	104.09	103.14	102.39	102.40	105.20	98.55
23F0136-12	6/15/2023	16:02	108.84	102.86	100.30	100.60	96.31	99.19	94.45
23F0136-13	6/15/2023	16:04	109.84	103.41	101.55	101.20	96.94	102.82	93.24
23F0136-14	6/15/2023	16:06	105.14	100.77	95.12	95.72	90.86	95.30	86.97
S3F0259-CCV3	6/15/2023	16:11	83.84	84.05	87.42	89.01	91.82	91.62	94.16
S3F0259-CCB3	6/15/2023	16:13	90.79	88.38	90.91	92.22	93.62	95.57	97.09

Element		QC Range
Li	=	> 70%
Sc	=	> 70%
Ge	=	> 70%
Y	=	> 70%
In	=	> 70%
Tb	=	> 70%
Bi	=	> 70%

QC SUMMARY REPORT
INTERNAL STANDARD RELATIVE INTENSITY

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0259

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23F0136-15	6/15/2023	16:15	91.49	90.59	91.38	92.72	92.36	94.63	92.33
B3F0158-MS1	6/15/2023	16:17	94.15	91.11	92.68	93.46	94.55	95.75	93.25
B3F0158-MSD1	6/15/2023	16:19	97.08	93.28	94.66	95.79	95.15	97.55	95.94
B3F0158-PS1	6/15/2023	16:21	99.03	96.43	95.71	97.12	95.04	99.13	91.15
B3F0158-DUP1	6/15/2023	16:23	105.63	101.79	101.61	100.69	99.03	101.44	100.69
S3F0259-CCV4	6/15/2023	16:30	109.21	104.83	103.91	103.72	103.58	101.93	102.85
S3F0259-CCB4	6/15/2023	16:32	108.92	103.21	104.72	103.67	102.68	103.62	101.23
23F0136-01RE1	6/15/2023	16:42	77.03	79.05	84.04	85.00			
23F0136-02RE1	6/15/2023	16:43	81.82	83.48	88.41				
23F0136-03RE1	6/15/2023	16:45	85.57	87.61	90.85	92.09			
23F0136-04RE1	6/15/2023	16:47	89.71	90.51	93.76				
23F0136-05RE1	6/15/2023	16:49	93.04	93.38	94.47	95.40			
23F0136-06RE1	6/15/2023	16:51	94.37	94.28	96.81	95.53			
S3F0259-CCV5	6/15/2023	16:53	98.25	95.79	97.28	97.49	98.60	98.62	99.85
S3F0259-CCB5	6/15/2023	16:55	99.84	96.92	99.07	99.06	100.82	98.88	100.30
23F0136-07RE1	6/15/2023	16:56	99.73	97.50	99.41	100.47			
23F0136-08RE1	6/15/2023	16:58	103.20	99.20	100.76				
23F0136-09RE1	6/15/2023	17:00	104.06	102.22	103.46	103.66			
23F0136-10RE1	6/15/2023	17:02	106.50	102.19	103.48	101.95			
23F0136-11RE1	6/15/2023	17:04	107.57	104.06	104.64	103.30			
23F0136-12RE1	6/15/2023	17:06	108.50	104.60	105.36	103.19			
23F0136-13RE1	6/15/2023	17:08	110.39	106.18	107.10	105.74			
23F0136-14RE1	6/15/2023	17:09	108.63	103.82	103.66				
23F0136-15RE1	6/15/2023	17:11	111.62	105.18	106.63	103.71			
S3F0259-CCV6	6/15/2023	17:13	111.08	104.58	105.09	104.02	103.79	101.62	103.96
S3F0259-CCB6	6/15/2023	17:15	110.90	104.26	104.63	102.95	104.74	103.11	101.86
23F0136-03RE2	6/15/2023	17:17	111.76	105.56	107.15				
23F0136-06RE2	6/15/2023	17:19	111.31	104.81	107.14	105.65			

Element		QC Range
Li	=	> 70%
Sc	=	> 70%
Ge	=	> 70%
Y	=	> 70%
In	=	> 70%
Tb	=	> 70%
Bi	=	> 70%

QC SUMMARY REPORT
INTERNAL STANDARD RELATIVE INTENSITY

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0259

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23F0136-07RE2	6/15/2023	17:21	112.41	106.25	107.26				
23F0136-09RE2	6/15/2023	17:23	113.54	107.77	108.03				
23F0136-12RE2	6/15/2023	17:25	112.98	107.96	107.30				
23F0136-13RE2	6/15/2023	17:27	112.06	106.60	106.66				
23F0136-14RE2	6/15/2023	17:28	113.24	106.71	108.02	106.02			
23F0136-15RE2	6/15/2023	17:30	113.33	107.11	108.67				
S3F0259-CCV7	6/15/2023	17:32	112.72	106.15	105.48	104.65	104.69	102.61	103.79
S3F0259-CCB7	6/15/2023	17:34	111.94	105.92	105.94	105.20	105.66	103.69	104.80

Element		QC Range
Li	=	> 70%
Sc	=	> 70%
Ge	=	> 70%
Y	=	> 70%
In	=	> 70%
Tb	=	> 70%
Bi	=	> 70%

System (SN 02314R):

Time	6/15/2023 2:08:56 PM
Instrument id	iCAP Q
Operator	EMT\TICPMSUSER
Template	EMT Tuning Report For 200.8_6020, Oxides, doubly charged
Serial number	02314R
Last Autotune	Autotune-SourceTune High Matrix-20230613-113851447.imatdat
Solution	EMT iCAPqc Tuning check solution: 11.0 Be and Mg, rest at 1.0 ppb, with Ba and Ce. In 1% HNO3.

Sensitivity & Stability Test:

Result	Runs	Sweeps
Passed	5	10

Sensitivity:
Manufacturer recommended settings
No firm Method requirements (200.8 or 6020)

Analyte	Result	Value	Condition	Limit
9Be	Passed	4,098.95 CPS	Greater than	5.0 CPS
59Co	Passed	53,829.0 CPS	Greater than	1,000.0 CPS
24Mg	Passed	12,329.5 CPS	Greater than	50.0 CPS
208Pb	Passed	170,705.0 CPS	Greater than	1,000.0 CPS
140Ce.16O/140Ce	Passed	0.0046	Less than	0.02
137Ba++/137Ba	Passed	0.048	Less than	0.1
115In	Passed	75,377.0 CPS	Greater than	1,000.0 CPS

Stability:
< 5% for 5 Replicates (200.8)

Analyte	Value	Limit
9Be	0.6%	5
59Co	0.4%	5
24Mg	1.4%	5
208Pb	0.9%	5
115In	0.8%	5

Mass Calibration Test:

Within 0.1 amu target mass (200.8 and 6020) and peak widths
(~ 0.75 amu at 5% peak height for 200.8 and < 0.90 amu at 10% peak height for 6020)
- set to 0.65 to 0.85 amu at 5% height- most stringent

Result	Channels	Dwell	MeasureWidth	PointSpacing	Sweeps
Passed	75	0.1	1.5	0.02	5

Analyte	Result	Centroid	Offset	Peak Width	Peak Width Min	Peak Width Max
9Be	Passed	9.0030	0.0092	0.691	0.650	0.850
24Mg	Passed	23.9724	0.0127	0.680	0.650	0.850
59Co	Passed	58.9314	0.0018	0.693	0.650	0.850
115In	Passed	114.9271	0.0232	0.694	0.650	0.850
208Pb	Passed	208.0389	0.0622	0.705	0.650	0.850

Tune and Instrument Settings:

Parameter	Value
Additional Gas Flow 1	0.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
Angular Deflection	-382.40
Auxilliary Flow	0.80
CCT Bias	-21.00
CCT Entry Lens	-105.98
CCT Exit Lens	-40.00
CCT Focus Lens	-2.34
CCT1 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Flow	4.73
CCT2 Shut-Off Valve	1.00
Cool Flow	14.00
D1 Lens	-353.20
D2 Lens	-158.00
Deflection Entry Lens	-35.01
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Positive	0.00
Extraction Lens 2	-115.00
Focus Lens	-6.50
Nebulizer Flow	0.93
Peristaltic Pump Speed	40.00
Plasma Power	1550.00
Pole Bias	-18.00
Quad Entry Lens	-62.00
Sampling Depth	5.00
Spray Chamber Temperature	2.70
Torch Horizontal Position	0.03
Torch Vertical Position	0.83
Virtual CCT Mass Maximum Dac Limit Set	4095.00
Virtual CCT Mass parameter b	1.00
Virtual CCT Mass to Dac Factor	60.00
Virtual CCT Mass to Dac Offset	100.00

Vacuum Check:

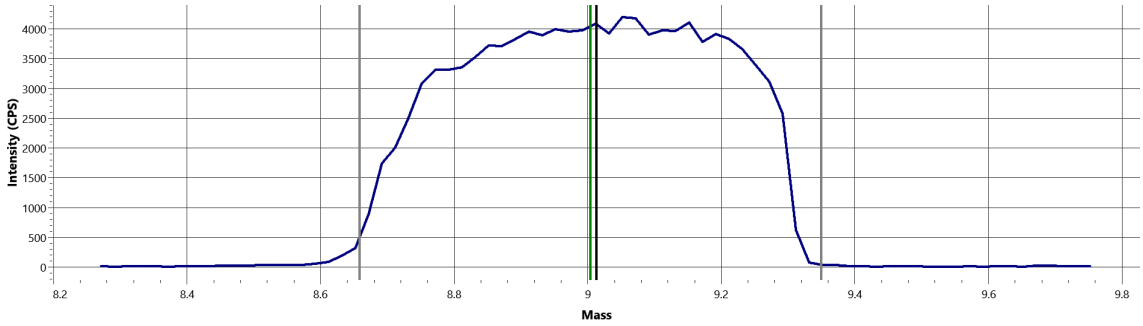
Parameter	Result	Value
Analyzer Pressure		5.912e-7
Interface Pressure		1.581e+0

Detector (EM) Voltages:

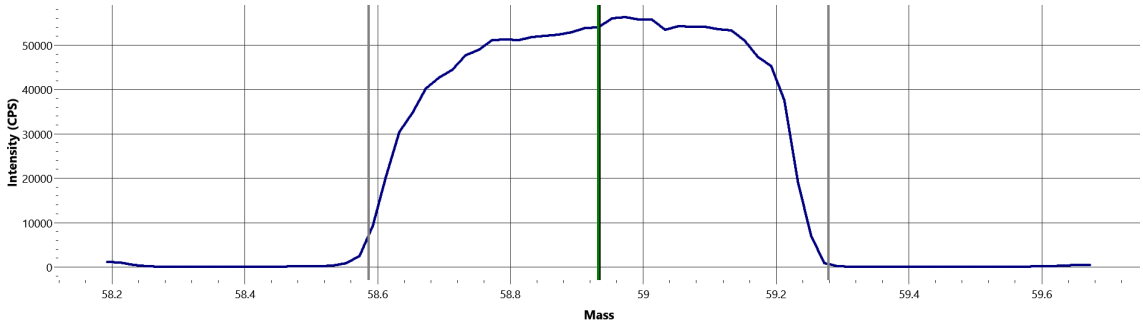
Analog	Counting
-2837.50	1812.50

Mass Calibration Peaks

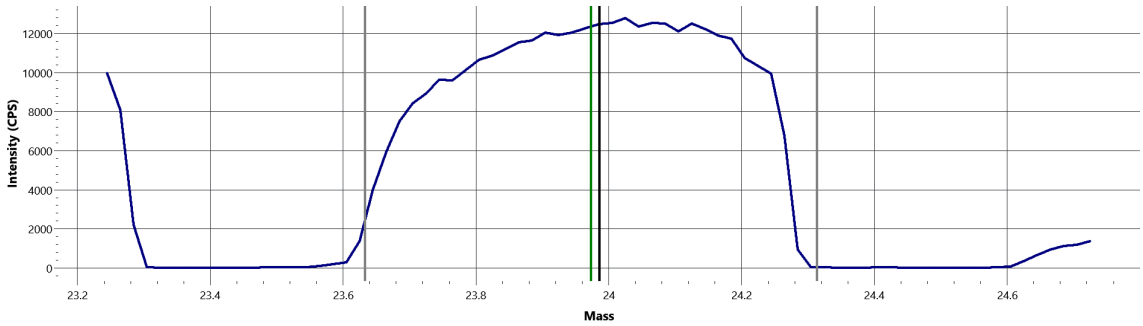
9Be



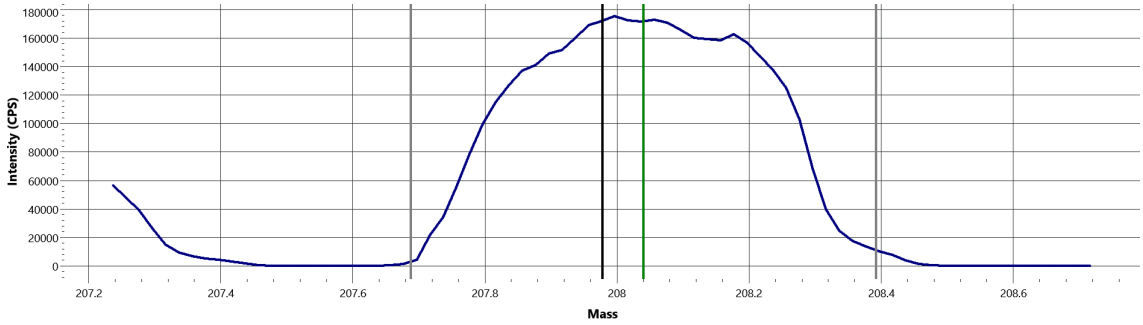
59Co



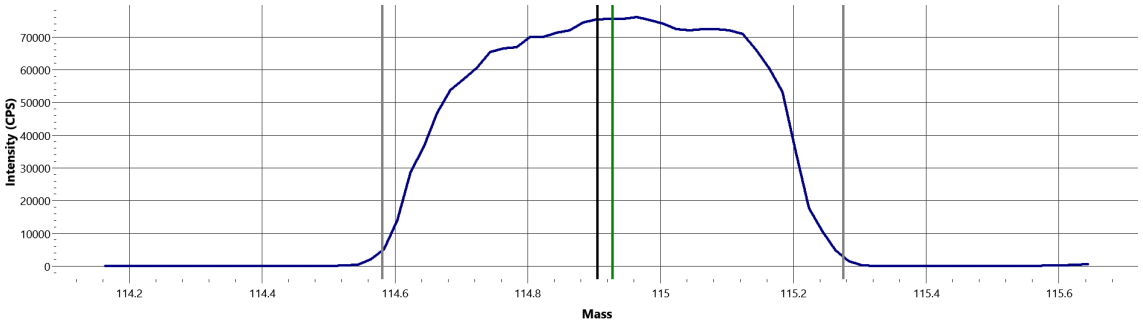
24Mg



208Pb



115In


Intensity (CPS)
70000
60000
50000
40000
30000
20000
10000
0
114.2
114.4
114.6
114.8
115
115.2
115.4
115.6
Mass

Calibration
6/15/2023 5:36:57 PM

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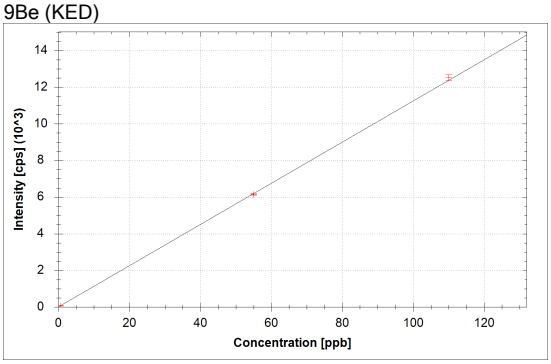
Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	02314R

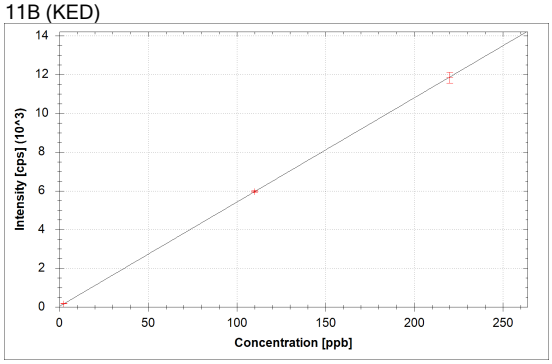
Labbook:	Labbook Path:
061523B.imexp	_Application Data\Workspace\LabBooks

9Be (KED)



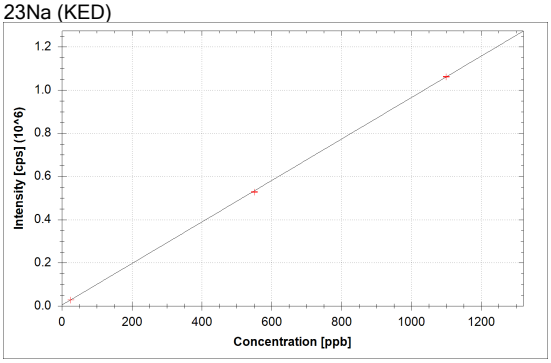
f(x) = 112.3321*x + 6.4442
R² = 0.9997
BEC = 0.057 ppb
LoD = N/A

11B (KED)



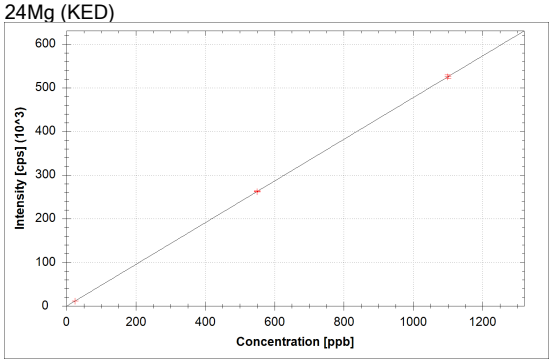
f(x) = 53.8102*x + 35.4569
R² = 1.0000
BEC = 0.659 ppb
LoD = N/A

23Na (KED)



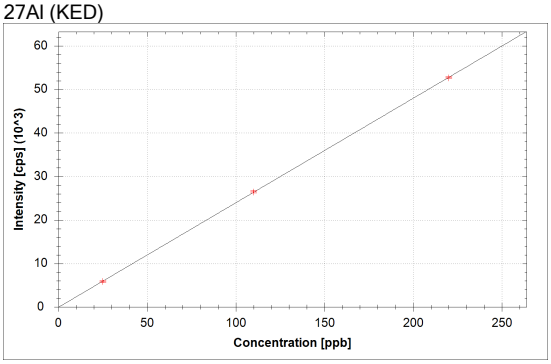
f(x) = 960.5718*x + 4551.6019
R² = 1.0000
BEC = 4.738 ppb
LoD = N/A

24Mg (KED)



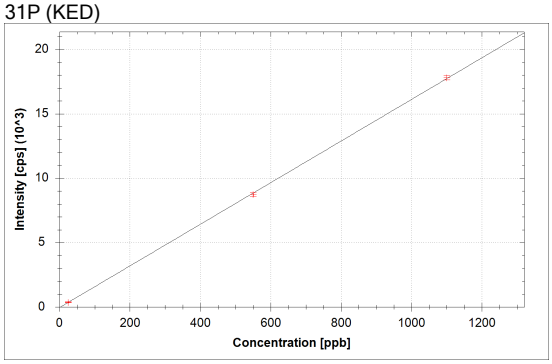
f(x) = 477.5654*x + -268.4286
R² = 1.0000
BEC = -0.562 ppb
LoD = N/A

27Al (KED)



f(x) = 240.1198*x + -55.7420
R² = 1.0000
BEC = -0.232 ppb
LoD = N/A

31P (KED)



f(x) = 16.1493*x + -40.6985
R² = 0.9999
BEC = -2.520 ppb
LoD = N/A

Calibration

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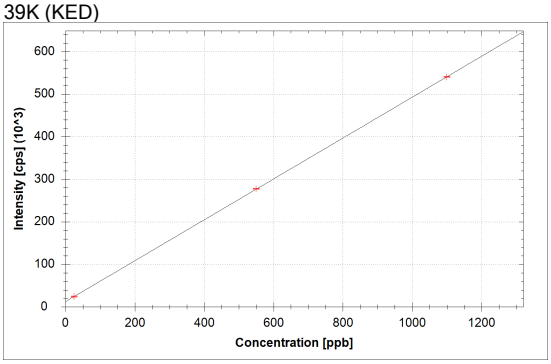
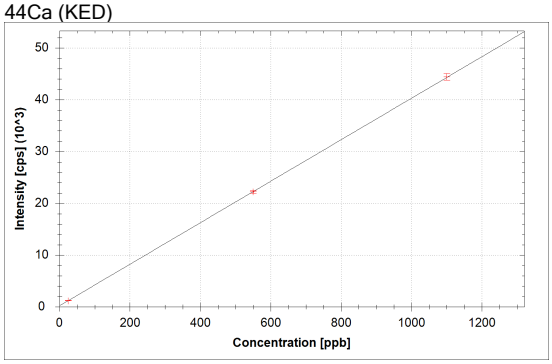
39K (KED)



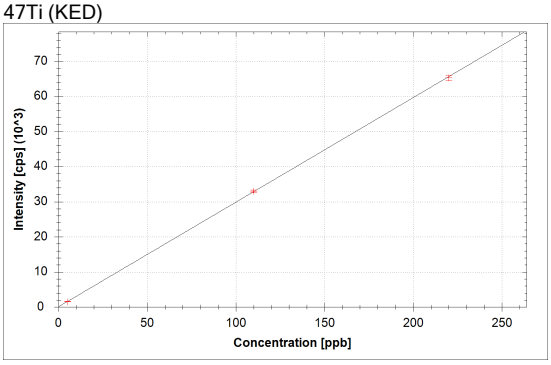
f(x) = 480.4329*x + 12355.8935
R² = 1.0000
BEC = 25.718 ppb
LoD = N/A

44Ca (KED)



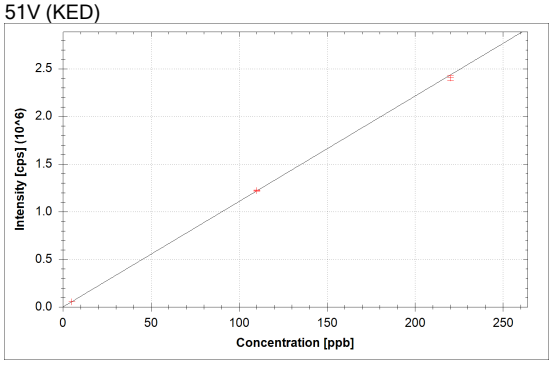
f(x) = 40.0870*x + 207.3817
R² = 1.0000
BEC = 5.173 ppb
LoD = N/A

47Ti (KED)



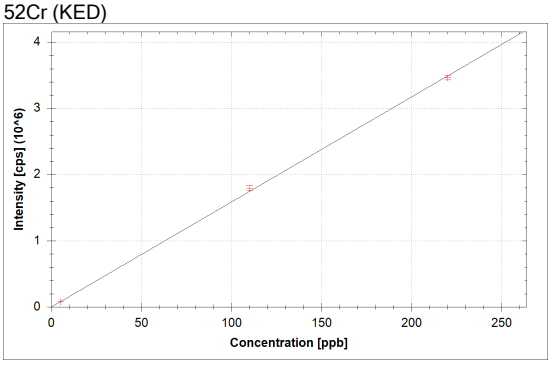
f(x) = 297.9369*x + 67.4904
R² = 1.0000
BEC = 0.227 ppb
LoD = N/A

51V (KED)



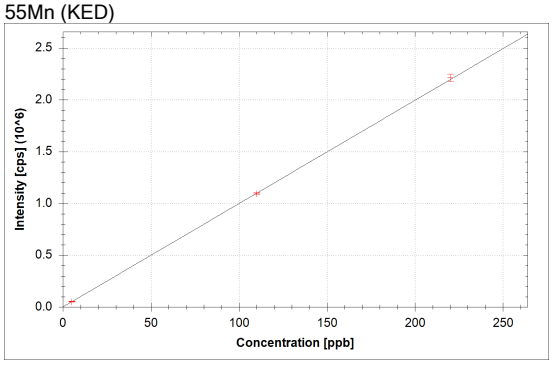
f(x) = 11062.6152*x + 1063.8981
R² = 0.9997
BEC = 0.096 ppb
LoD = N/A

52Cr (KED)



f(x) = 15854.4419*x + 690.7026
R² = 0.9995
BEC = 0.044 ppb
LoD = N/A

55Mn (KED)



f(x) = 9969.3959*x + 1332.3510
R² = 0.9998
BEC = 0.134 ppb
LoD = N/A

Calibration

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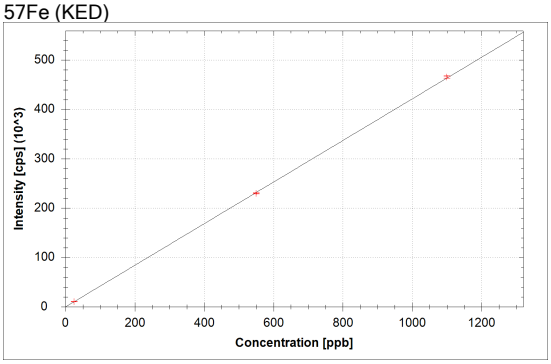
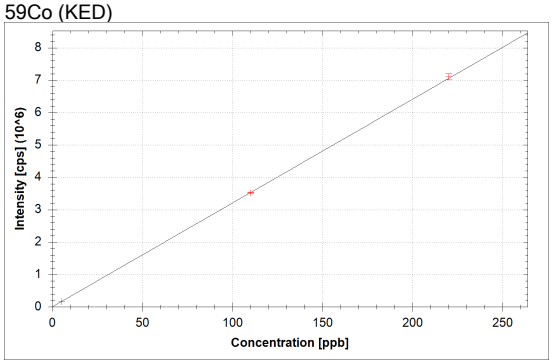
57Fe (KED)



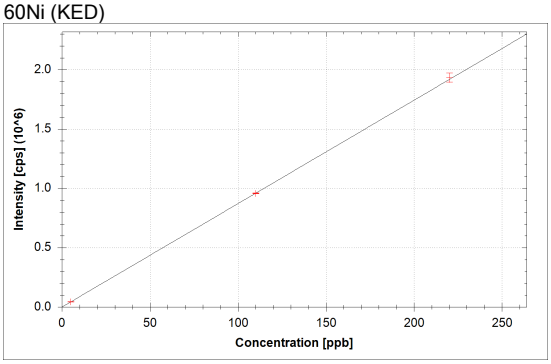
f(x) = 421.3536*x + -35.5799
R² = 0.9999
BEC = -0.084 ppb
LoD = N/A

59Co (KED)



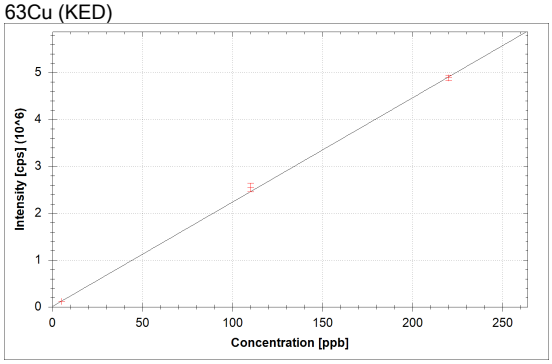
f(x) = 32031.2062*x + 4352.1493
R² = 0.9999
BEC = 0.136 ppb
LoD = N/A

60Ni (KED)



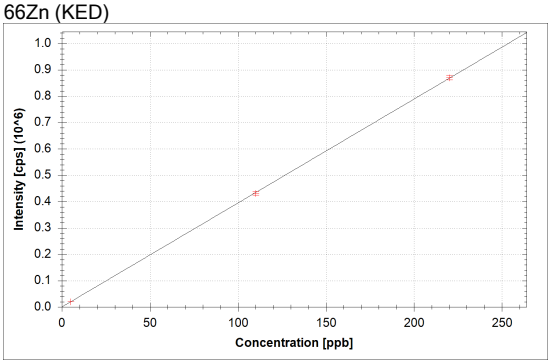
f(x) = 8711.7676*x + 230.9853
R² = 0.9999
BEC = 0.027 ppb
LoD = N/A

63Cu (KED)



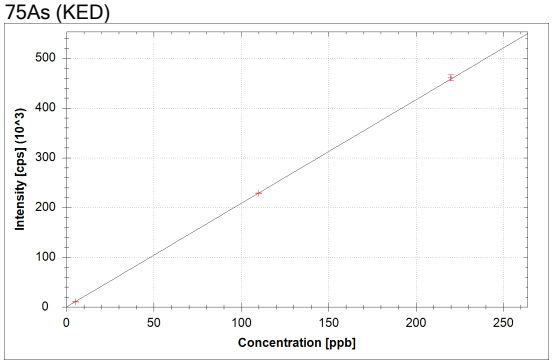
f(x) = 22245.2491*x + 12930.4811
R² = 0.9992
BEC = 0.581 ppb
LoD = N/A

66Zn (KED)



f(x) = 3942.2475*x + 664.0858
R² = 1.0000
BEC = 0.168 ppb
LoD = N/A

75As (KED)



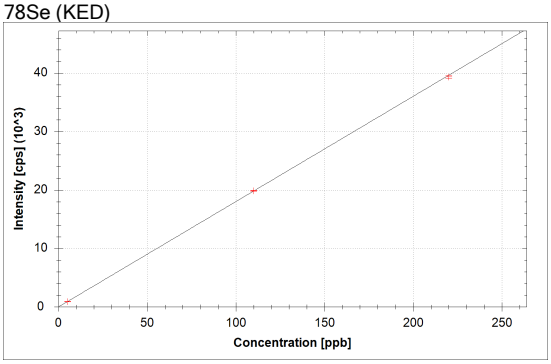
f(x) = 2081.2714*x + 118.8726
R² = 0.9999
BEC = 0.057 ppb
LoD = N/A

Calibration

6/15/2023 5:36:57 PM

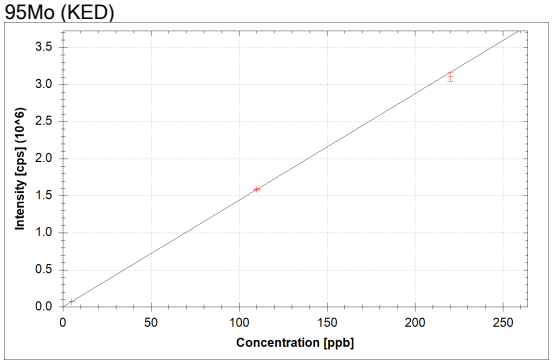
QTEGRA

78Se (KED)



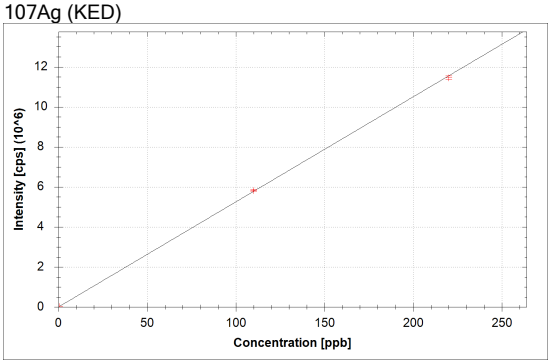
f(x) = 180.1231*x + -6.7871
R² = 0.9999
BEC = -0.038 ppb
LoD = N/A

95Mo (KED)



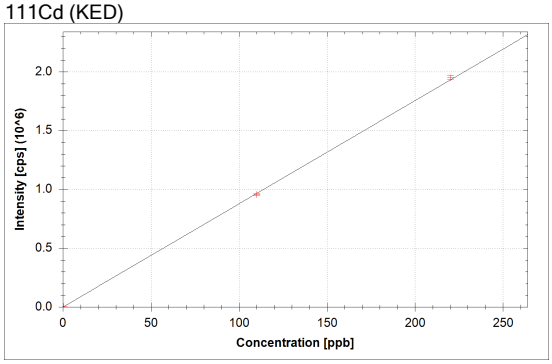
f(x) = 14373.0865*x + 158.2824
R² = 0.9992
BEC = 0.011 ppb
LoD = N/A

107Ag (KED)



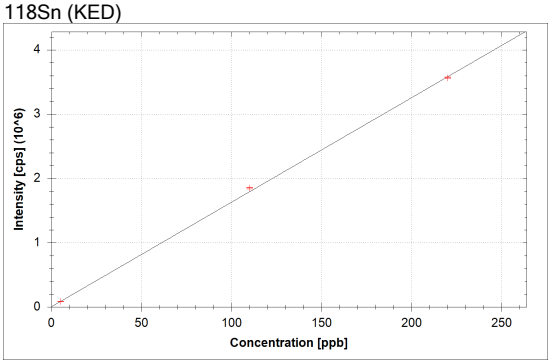
f(x) = 52481.9616*x + 4228.0923
R² = 0.9998
BEC = 0.081 ppb
LoD = N/A

111Cd (KED)



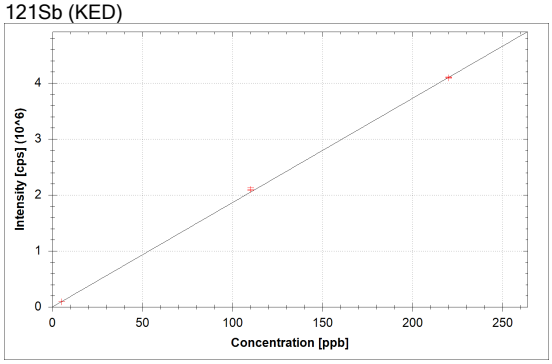
f(x) = 8773.0934*x + 264.3886
R² = 0.9997
BEC = 0.030 ppb
LoD = N/A

118Sn (KED)



f(x) = 16251.1392*x + 4873.8024
R² = 0.9994
BEC = 0.300 ppb
LoD = N/A

121Sb (KED)



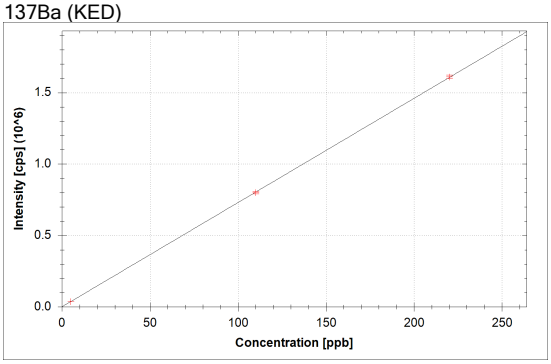
f(x) = 18626.0876*x + 1910.9496
R² = 0.9997
BEC = 0.103 ppb
LoD = N/A

Calibration

6/15/2023 5:36:57 PM

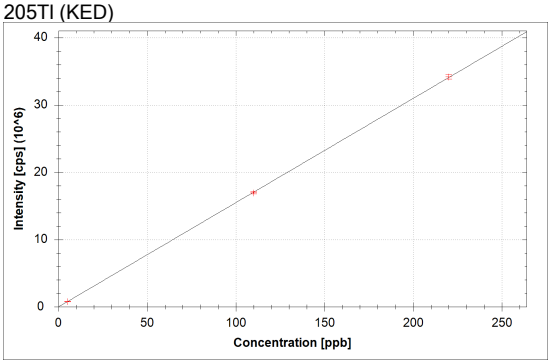
QTEGRA

137Ba (KED)



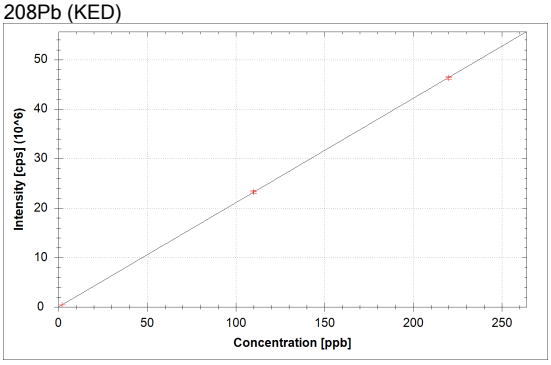
f(x) = 7295.6604*x + 717.2085
R² = 1.0000
BEC = 0.098 ppb
LoD = N/A

205Tl (KED)



f(x) = 154866.0713*x + 359.8682
R² = 1.0000
BEC = 0.002 ppb
LoD = N/A

208Pb (KED)



f(x) = 210860.7757*x + 10549.9752
R² = 1.0000
BEC = 0.050 ppb
LoD = N/A

Calibration

6/15/2023 5:36:57 PM

QTEGRA

Standards:

Analysis Index: 6
Analysis Name: Calibration 1
AnalysisType STD
Analysis Started at: 6/15/2023 3:05:17 PM
Standard (Stock): Calibration 1
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	100.408 %	N/A	0.0 %	
9Be (KED)	0.502 ppb	10.0 %	1.4 %	0.500 ppb
11B (KED)	2.499 ppb	6.6 %	0.3 %	2.500 ppb
23Na (KED)	25.008 ppb	0.8 %	0.8 %	25.000 ppb
24Mg (KED)	25.001 ppb	1.3 %	0.1 %	25.000 ppb
27Al (KED)	24.709 ppb	4.2 %	1.3 %	25.000 ppb
31P (KED)	25.317 ppb	11.0 %	1.9 %	25.000 ppb
39K (KED)	24.648 ppb	8.0 %	1.4 %	25.000 ppb
44Ca (KED)	25.010 ppb	3.5 %	0.3 %	25.000 ppb
45Sc (KED)	100.549 %	N/A	0.0 %	
47Ti (KED)	4.999 ppb	1.3 %	0.6 %	5.000 ppb
51V (KED)	4.994 ppb	2.4 %	1.2 %	5.000 ppb
52Cr (KED)	4.999 ppb	1.1 %	2.9 %	5.000 ppb
55Mn (KED)	5.008 ppb	4.4 %	0.9 %	5.000 ppb
57Fe (KED)	25.226 ppb	4.8 %	1.3 %	25.000 ppb
59Co (KED)	5.000 ppb	0.6 %	0.8 %	5.000 ppb
60Ni (KED)	5.000 ppb	0.8 %	0.8 %	5.000 ppb
63Cu (KED)	5.000 ppb	0.3 %	3.8 %	5.000 ppb
66Zn (KED)	5.001 ppb	1.6 %	0.7 %	5.000 ppb
72Ge (KED)	100.502 %	N/A	0.0 %	
75As (KED)	5.001 ppb	1.4 %	0.6 %	5.000 ppb
78Se (KED)	4.997 ppb	1.3 %	0.7 %	5.000 ppb
89Y (KED)	100.166 %	N/A	0.0 %	
95Mo (KED)	4.999 ppb	1.5 %	1.9 %	5.000 ppb
107Ag (KED)	0.500 ppb	3.0 %	1.2 %	0.500 ppb
111Cd (KED)	0.501 ppb	5.8 %	1.4 %	0.500 ppb
115In (KED)	100.303 %	N/A	0.0 %	
118Sn (KED)	4.999 ppb	0.5 %	3.3 %	5.000 ppb
121Sb (KED)	4.998 ppb	1.2 %	2.5 %	5.000 ppb
137Ba (KED)	5.002 ppb	2.0 %	0.5 %	5.000 ppb
159Tb (KED)	98.934 %	N/A	0.0 %	
205Tl (KED)	5.004 ppb	3.3 %	0.5 %	5.000 ppb
208Pb (KED)	2.000 ppb	2.1 %	0.3 %	2.000 ppb
209Bi (KED)	100.788 %	N/A	0.0 %	

Calibration

6/15/2023 5:36:57 PM

QTEGRA

Standards:

Analysis Index: 7
Analysis Name: Calibration 2
AnalysisType STD
Analysis Started at: 6/15/2023 3:07:12 PM
Standard (Stock): Calibration 2
Standard DF: 0.5

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	99.088 %	N/A	0.0 %	
9Be (KED)	54.695 ppb	0.8 %	1.4 %	55.000 ppb
11B (KED)	110.050 ppb	1.0 %	0.3 %	110.000 ppb
23Na (KED)	545.561 ppb	0.6 %	0.8 %	550.000 ppb
24Mg (KED)	549.888 ppb	0.5 %	0.1 %	550.000 ppb
27Al (KED)	110.563 ppb	1.0 %	1.3 %	110.000 ppb
31P (KED)	542.737 ppb	1.8 %	1.9 %	550.000 ppb
39K (KED)	551.413 ppb	0.5 %	1.4 %	550.000 ppb
44Ca (KED)	549.100 ppb	1.1 %	0.3 %	550.000 ppb
45Sc (KED)	98.031 %	N/A	0.0 %	
47Ti (KED)	110.484 ppb	1.2 %	0.6 %	110.000 ppb
51V (KED)	110.364 ppb	0.6 %	1.2 %	110.000 ppb
52Cr (KED)	113.145 ppb	2.0 %	2.9 %	110.000 ppb
55Mn (KED)	109.697 ppb	0.9 %	0.9 %	110.000 ppb
57Fe (KED)	546.250 ppb	0.6 %	1.3 %	550.000 ppb
59Co (KED)	109.811 ppb	0.7 %	0.8 %	110.000 ppb
60Ni (KED)	109.971 ppb	0.3 %	0.8 %	110.000 ppb
63Cu (KED)	114.148 ppb	3.6 %	3.8 %	110.000 ppb
66Zn (KED)	109.299 ppb	1.6 %	0.7 %	110.000 ppb
72Ge (KED)	99.143 %	N/A	0.0 %	
75As (KED)	109.978 ppb	0.2 %	0.6 %	110.000 ppb
78Se (KED)	110.366 ppb	0.4 %	0.7 %	110.000 ppb
89Y (KED)	99.448 %	N/A	0.0 %	
95Mo (KED)	110.241 ppb	0.7 %	1.9 %	110.000 ppb
107Ag (KED)	111.062 ppb	0.9 %	1.2 %	110.000 ppb
111Cd (KED)	109.006 ppb	0.8 %	1.4 %	110.000 ppb
115In (KED)	101.695 %	N/A	0.0 %	
118Sn (KED)	113.604 ppb	0.9 %	3.3 %	110.000 ppb
121Sb (KED)	112.704 ppb	1.3 %	2.5 %	110.000 ppb
137Ba (KED)	109.505 ppb	1.0 %	0.5 %	110.000 ppb
159Tb (KED)	100.121 %	N/A	0.0 %	
205Tl (KED)	109.538 ppb	1.1 %	0.5 %	110.000 ppb
208Pb (KED)	110.330 ppb	1.4 %	0.3 %	110.000 ppb
209Bi (KED)	100.120 %	N/A	0.0 %	

Calibration

6/15/2023 5:36:57 PM

QTEGRA

Standards:

Analysis Index: 8
Analysis Name: Calibration 3
AnalysisType STD
Analysis Started at: 6/15/2023 3:09:04 PM
Standard (Stock): Calibration 3
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	97.686 %	N/A	0.0 %	
9Be (KED)	111.367 ppb	1.2 %	1.4 %	110.000 ppb
11B (KED)	219.416 ppb	2.3 %	0.3 %	220.000 ppb
23Na (KED)	1,100.837 ppb	0.2 %	0.8 %	1,100.000 ppb
24Mg (KED)	1,100.514 ppb	0.8 %	0.1 %	1,100.000 ppb
27Al (KED)	219.742 ppb	0.5 %	1.3 %	220.000 ppb
31P (KED)	1,104.675 ppb	1.0 %	1.9 %	1,100.000 ppb
39K (KED)	1,099.640 ppb	0.2 %	1.4 %	1,100.000 ppb
44Ca (KED)	1,103.147 ppb	1.5 %	0.3 %	1,100.000 ppb
45Sc (KED)	95.327 %	N/A	0.0 %	
47Ti (KED)	219.084 ppb	1.1 %	0.6 %	220.000 ppb
51V (KED)	217.500 ppb	1.2 %	1.2 %	220.000 ppb
52Cr (KED)	218.429 ppb	1.0 %	2.9 %	220.000 ppb
55Mn (KED)	221.897 ppb	1.6 %	0.9 %	220.000 ppb
57Fe (KED)	1,106.179 ppb	0.6 %	1.3 %	1,100.000 ppb
59Co (KED)	221.654 ppb	1.4 %	0.8 %	220.000 ppb
60Ni (KED)	221.826 ppb	2.0 %	0.8 %	220.000 ppb
63Cu (KED)	219.352 ppb	1.1 %	3.8 %	220.000 ppb
66Zn (KED)	220.596 ppb	1.0 %	0.7 %	220.000 ppb
72Ge (KED)	96.404 %	N/A	0.0 %	
75As (KED)	221.423 ppb	1.2 %	0.6 %	220.000 ppb
78Se (KED)	218.529 ppb	0.6 %	0.7 %	220.000 ppb
89Y (KED)	96.428 %	N/A	0.0 %	
95Mo (KED)	215.856 ppb	2.1 %	1.9 %	220.000 ppb
107Ag (KED)	218.263 ppb	0.8 %	1.2 %	220.000 ppb
111Cd (KED)	222.293 ppb	0.8 %	1.4 %	220.000 ppb
115In (KED)	99.038 %	N/A	0.0 %	
118Sn (KED)	219.257 ppb	0.3 %	3.3 %	220.000 ppb
121Sb (KED)	219.838 ppb	0.2 %	2.5 %	220.000 ppb
137Ba (KED)	220.655 ppb	0.8 %	0.5 %	220.000 ppb
159Tb (KED)	97.963 %	N/A	0.0 %	
205Tl (KED)	220.725 ppb	1.0 %	0.5 %	220.000 ppb
208Pb (KED)	219.854 ppb	0.7 %	0.3 %	220.000 ppb
209Bi (KED)	99.582 %	N/A	0.0 %	

Analysis Class: ICPMS

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01	File ID:	061423.xml-038
Sampled:	05/31/23 13:45	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 09:42
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0953	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*64.3*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt, Dissolved		0.00250	0.0100	0.0250	U
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved		0.0500	0.100	0.125	U
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*30.2*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0111	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved		0.00250	0.0100	0.0250	U
7440-09-7	Potassium, Dissolved	6.86	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*184*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #:	39	Stop Time:	6/14/2023 9:44:21 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-01@5	Dilution Factor	0.2		
Start Time:	6/14/2023 9:42:33 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.058 ppb	22.2 %
11B (KED)	13.802 ppb	3.3 %
23Na (KED)	33,036.811 ppb	1.7 %
24Mg (KED)	5,443.474 ppb	1.9 %
27Al (KED)	0.917 ppb	12.2 %
31P (KED)	-3.992 ppb	49.5 %
39K (KED)	1,233.927 ppb	1.0 %
44Ca (KED)	11,565.592 ppb	0.9 %
47Ti (KED)	0.163 ppb	5.0 %
51V (KED)	0.046 ppb	4.7 %
52Cr (KED)	0.323 ppb	3.0 %
55Mn (KED)	1.996 ppb	0.0 %
57Fe (KED)	-1.661 ppb	16.4 %
59Co (KED)	0.158 ppb	2.4 %
60Ni (KED)	0.063 ppb	10.8 %
63Cu (KED)	-0.113 ppb	2.1 %
66Zn (KED)	0.340 ppb	3.9 %
75As (KED)	-0.006 ppb	77.7 %
78Se (KED)	0.010 ppb	68.3 %
95Mo (KED)	0.070 ppb	6.4 %
107Ag (KED)	-0.024 ppb	6.5 %
111Cd (KED)	-0.012 ppb	27.6 %
118Sn (KED)	-0.007 ppb	28.1 %
121Sb (KED)	0.201 ppb	1.1 %
137Ba (KED)	17.148 ppb	0.9 %
205Tl (KED)	0.008 ppb	6.4 %
208Pb (KED)	0.018 ppb	5.7 %

ISTD's	Concentration average
6Li (KED)	103.179 %
45Sc (KED)	103.255 %
72Ge (KED)	99.961 %
89Y (KED)	99.123 %
115In (KED)	101.823 %
159Tb (KED)	101.595 %
209Bi (KED)	96.374 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01RE1	File ID:	061423.xml-081
Sampled:	05/31/23 13:45	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:03
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	66.1	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	30.7	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*190*	*0.500*	*1.00*	*1.25*	*D, B*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	82	Stop Time:	6/14/2023 11:04:52 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-01RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:03:01 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.050 ppb	110.8 %
11B (KED)	1.866 ppb	6.7 %
23Na (KED)	3,420.499 ppb	0.9 %
24Mg (KED)	552.788 ppb	2.1 %
27Al (KED)	0.579 ppb	14.9 %
31P (KED)	-5.109 ppb	32.3 %
39K (KED)	125.909 ppb	1.4 %
44Ca (KED)	1,190.436 ppb	1.1 %
47Ti (KED)	0.181 ppb	25.8 %
51V (KED)	0.059 ppb	8.7 %
52Cr (KED)	0.206 ppb	2.1 %
55Mn (KED)	0.050 ppb	37.9 %
57Fe (KED)	-4.906 ppb	4.7 %
59Co (KED)	0.114 ppb	1.3 %
60Ni (KED)	0.010 ppb	95.5 %
63Cu (KED)	-0.140 ppb	7.7 %
66Zn (KED)	-0.006 ppb	157.6 %
75As (KED)	0.002 ppb	329.0 %
78Se (KED)	0.095 ppb	80.1 %
95Mo (KED)	0.005 ppb	175.6 %
107Ag (KED)	-0.019 ppb	62.4 %
111Cd (KED)	-0.012 ppb	105.0 %
118Sn (KED)	-0.030 ppb	42.1 %
121Sb (KED)	0.199 ppb	6.9 %
137Ba (KED)	1.701 ppb	5.6 %
205Tl (KED)	0.011 ppb	98.5 %
208Pb (KED)	0.023 ppb	49.9 %

ISTD's	Concentration average
6Li (KED)	108.825 %
45Sc (KED)	103.443 %
72Ge (KED)	103.215 %
89Y (KED)	103.820 %
115In (KED)	105.914 %
159Tb (KED)	103.320 %
209Bi (KED)	105.552 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01RE2	File ID:	061423.xml-115
Sampled:	05/31/23 13:45	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:06
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	166	2.00	4.00	5.00	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	116	Stop Time:	6/14/2023 12:08:48 PM	Comment	1/100/2=200 Na
Sample ID:	23F0136-01RE2@200	Dilution Factor	0.5		
Start Time:	6/14/2023 12:06:58 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.031 ppb	89.7 %
11B (KED)	0.837 ppb	15.6 %
23Na (KED)	745.089 ppb	0.9 %
24Mg (KED)	132.294 ppb	1.6 %
27Al (KED)	0.578 ppb	6.0 %
31P (KED)	-4.065 ppb	42.8 %
39K (KED)	32.088 ppb	2.1 %
44Ca (KED)	276.866 ppb	0.8 %
47Ti (KED)	0.193 ppb	13.7 %
51V (KED)	0.049 ppb	3.2 %
52Cr (KED)	0.183 ppb	0.7 %
55Mn (KED)	-0.098 ppb	5.0 %
57Fe (KED)	-5.670 ppb	2.8 %
59Co (KED)	0.108 ppb	0.4 %
60Ni (KED)	-0.010 ppb	114.2 %
63Cu (KED)	-0.147 ppb	4.1 %
66Zn (KED)	-0.028 ppb	17.7 %
75As (KED)	-0.001 ppb	647.6 %
78Se (KED)	0.066 ppb	43.0 %
95Mo (KED)	-0.002 ppb	256.1 %
107Ag (KED)	-0.025 ppb	9.5 %
111Cd (KED)	-0.018 ppb	24.4 %
118Sn (KED)	-0.040 ppb	2.7 %
121Sb (KED)	0.190 ppb	2.3 %
137Ba (KED)	0.295 ppb	2.9 %
205Tl (KED)	0.005 ppb	14.7 %
208Pb (KED)	0.015 ppb	2.8 %

ISTD's	Concentration average
6Li (KED)	97.866 %
45Sc (KED)	96.496 %
72Ge (KED)	97.119 %
89Y (KED)	97.213 %
115In (KED)	101.608 %
159Tb (KED)	97.540 %
209Bi (KED)	101.443 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02	File ID:	061423.xml-039
Sampled:	05/31/23 12:15	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 09:44
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	2.73	0.0250	0.0500	0.125	D
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0669	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	Calcium, Dissolved	3.18	0.0500	0.100	0.125	D
7440-47-3	Chromium, Dissolved	0.0240	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.00514	0.00250	0.0100	0.0250	J, D
7440-50-8	Copper, Dissolved	0.00736	0.00300	0.0100	0.0250	J, D
7439-89-6	Iron, Dissolved	2.11	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved	0.00229	0.00150	0.00500	0.0250	J, D
7439-95-4	Magnesium, Dissolved	1.30	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.0669	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00936	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	0.419	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*37.8*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved	0.00604	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc, Dissolved	0.0169	0.0100	0.0200	0.0250	J, D

Italicized = secondary result

Labbook:
061423.imexp

Index #:	40	Stop Time:	6/14/2023 9:46:13 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-02@5	Dilution Factor	0.2		
Start Time:	6/14/2023 9:44:22 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.056 ppb	61.0 %
11B (KED)	10.083 ppb	4.3 %
23Na (KED)	6,808.866 ppb	0.4 %
24Mg (KED)	234.762 ppb	0.5 %
27Al (KED)	490.576 ppb	1.7 %
31P (KED)	6.208 ppb	31.5 %
39K (KED)	75.443 ppb	3.8 %
44Ca (KED)	572.616 ppb	2.3 %
47Ti (KED)	8.413 ppb	0.9 %
51V (KED)	1.087 ppb	3.1 %
52Cr (KED)	4.322 ppb	0.3 %
55Mn (KED)	12.034 ppb	0.3 %
57Fe (KED)	379.917 ppb	1.9 %
59Co (KED)	0.925 ppb	0.6 %
60Ni (KED)	1.684 ppb	2.6 %
63Cu (KED)	1.325 ppb	1.6 %
66Zn (KED)	3.048 ppb	1.7 %
75As (KED)	0.258 ppb	4.7 %
78Se (KED)	0.199 ppb	30.4 %
95Mo (KED)	0.186 ppb	7.4 %
107Ag (KED)	-0.026 ppb	6.3 %
111Cd (KED)	-0.003 ppb	41.9 %
118Sn (KED)	0.091 ppb	8.8 %
121Sb (KED)	0.199 ppb	0.3 %
137Ba (KED)	12.040 ppb	3.3 %
205Tl (KED)	0.017 ppb	5.9 %
208Pb (KED)	0.413 ppb	1.9 %

ISTD's	Concentration average
6Li (KED)	107.893 %
45Sc (KED)	106.329 %
72Ge (KED)	102.273 %
89Y (KED)	113.728 %
115In (KED)	107.082 %
159Tb (KED)	106.059 %
209Bi (KED)	102.191 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02RE1	File ID:	061423.xml-082
Sampled:	05/31/23 12:15	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:04
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	*Calcium, Dissolved*	*67.5*	*0.500*	*1.00*	*1.25*	*D*
7439-95-4	*Magnesium, Dissolved*	*31.6*	*0.200*	*0.500*	*1.25*	*D*
7440-23-5	*Sodium, Dissolved*	*194*	*0.500*	*1.00*	*1.25*	*D, B*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	83	Stop Time:	6/14/2023 11:06:44 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-02RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:04:54 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.127 ppb	64.3 %
11B (KED)	1.987 ppb	19.4 %
23Na (KED)	3,493.098 ppb	1.3 %
24Mg (KED)	568.348 ppb	0.8 %
27Al (KED)	0.668 ppb	17.6 %
31P (KED)	-3.211 ppb	53.3 %
39K (KED)	133.264 ppb	0.7 %
44Ca (KED)	1,215.810 ppb	1.8 %
47Ti (KED)	0.220 ppb	10.7 %
51V (KED)	0.048 ppb	8.5 %
52Cr (KED)	0.196 ppb	2.1 %
55Mn (KED)	0.069 ppb	31.1 %
57Fe (KED)	-4.997 ppb	2.0 %
59Co (KED)	0.112 ppb	0.6 %
60Ni (KED)	0.001 ppb	329.5 %
63Cu (KED)	-0.136 ppb	10.2 %
66Zn (KED)	-0.007 ppb	165.0 %
75As (KED)	0.002 ppb	649.7 %
78Se (KED)	0.104 ppb	43.5 %
95Mo (KED)	0.001 ppb	91.1 %
107Ag (KED)	-0.025 ppb	5.2 %
111Cd (KED)	-0.020 ppb	3.8 %
118Sn (KED)	-0.039 ppb	9.4 %
121Sb (KED)	0.185 ppb	0.9 %
137Ba (KED)	1.662 ppb	3.5 %
205Tl (KED)	0.004 ppb	7.9 %
208Pb (KED)	0.015 ppb	4.0 %

ISTD's	Concentration average
6Li (KED)	108.976 %
45Sc (KED)	103.629 %
72Ge (KED)	102.952 %
89Y (KED)	101.758 %
115In (KED)	104.715 %
159Tb (KED)	103.940 %
209Bi (KED)	103.621 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02RE2	File ID:	061423.xml-116
Sampled:	05/31/23 12:15	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:08
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	188	2.00	4.00	5.00	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	117	Stop Time:	6/14/2023 12:10:40 PM	Comment	1/100/2=200 Na
Sample ID:	23F0136-02RE2@200	Dilution Factor	0.5		
Start Time:	6/14/2023 12:08:51 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.070 ppb	38.1 %
11B (KED)	0.780 ppb	26.7 %
23Na (KED)	846.433 ppb	1.3 %
24Mg (KED)	148.061 ppb	1.9 %
27Al (KED)	0.575 ppb	2.9 %
31P (KED)	-2.599 ppb	69.0 %
39K (KED)	37.695 ppb	2.8 %
44Ca (KED)	318.260 ppb	2.3 %
47Ti (KED)	0.188 ppb	10.8 %
51V (KED)	0.048 ppb	27.2 %
52Cr (KED)	0.185 ppb	4.4 %
55Mn (KED)	-0.094 ppb	24.2 %
57Fe (KED)	-5.392 ppb	0.3 %
59Co (KED)	0.112 ppb	6.9 %
60Ni (KED)	0.011 ppb	184.1 %
63Cu (KED)	-0.145 ppb	10.7 %
66Zn (KED)	0.000 ppb	6,418.0 %
75As (KED)	0.002 ppb	495.6 %
78Se (KED)	0.101 ppb	20.4 %
95Mo (KED)	0.002 ppb	58.7 %
107Ag (KED)	-0.023 ppb	17.2 %
111Cd (KED)	-0.020 ppb	3.9 %
118Sn (KED)	-0.039 ppb	8.9 %
121Sb (KED)	0.188 ppb	1.5 %
137Ba (KED)	0.372 ppb	7.0 %
205Tl (KED)	0.006 ppb	40.8 %
208Pb (KED)	0.016 ppb	16.4 %

ISTD's	Concentration average
6Li (KED)	98.365 %
45Sc (KED)	96.313 %
72Ge (KED)	96.013 %
89Y (KED)	95.000 %
115In (KED)	98.716 %
159Tb (KED)	96.918 %
209Bi (KED)	100.174 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03	File ID:	061423.xml-040
Sampled:	05/30/23 15:00	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 09:46
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0294	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*149*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt, Dissolved		0.00250	0.0100	0.0250	U
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved		0.0500	0.100	0.125	U
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*90.6*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0142	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved		0.00250	0.0100	0.0250	U
7440-09-7	Potassium, Dissolved	1.40	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*739*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #:	41	Stop Time:	6/14/2023 9:48:00 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-03@5	Dilution Factor	0.2		
Start Time:	6/14/2023 9:46:15 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.059 ppb	24.0 %
11B (KED)	19.444 ppb	2.6 %
23Na (KED)	133,052.735 ppb	1.5 %
24Mg (KED)	16,303.188 ppb	1.2 %
27Al (KED)	1.037 ppb	5.9 %
31P (KED)	7.702 ppb	62.8 %
39K (KED)	251.869 ppb	1.2 %
44Ca (KED)	26,787.859 ppb	0.8 %
47Ti (KED)	0.165 ppb	12.4 %
51V (KED)	0.215 ppb	6.0 %
52Cr (KED)	0.210 ppb	2.8 %
55Mn (KED)	2.547 ppb	1.7 %
57Fe (KED)	-3.741 ppb	2.8 %
59Co (KED)	0.134 ppb	3.1 %
60Ni (KED)	0.313 ppb	7.3 %
63Cu (KED)	0.093 ppb	3.6 %
66Zn (KED)	0.385 ppb	0.7 %
75As (KED)	0.059 ppb	31.0 %
78Se (KED)	0.034 ppb	71.7 %
95Mo (KED)	0.043 ppb	19.8 %
107Ag (KED)	-0.024 ppb	12.1 %
111Cd (KED)	0.003 ppb	162.3 %
118Sn (KED)	-0.033 ppb	8.8 %
121Sb (KED)	0.191 ppb	3.4 %
137Ba (KED)	5.284 ppb	0.2 %
205Tl (KED)	0.008 ppb	31.1 %
208Pb (KED)	0.021 ppb	6.6 %

ISTD's	Concentration average
6Li (KED)	112.653 %
45Sc (KED)	108.640 %
72Ge (KED)	102.481 %
89Y (KED)	103.722 %
115In (KED)	100.763 %
159Tb (KED)	102.557 %
209Bi (KED)	95.054 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03RE1	File ID:	061423.xml-083
Sampled:	05/30/23 15:00	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:06
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	151	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	90.4	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*749*	*0.500*	*1.00*	*1.25*	*D, B, E*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	84	Stop Time:	6/14/2023 11:08:39 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-03RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:06:46 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.011 ppb	128.7 %
11B (KED)	2.268 ppb	4.2 %
23Na (KED)	13,474.015 ppb	1.6 %
24Mg (KED)	1,627.220 ppb	1.7 %
27Al (KED)	0.606 ppb	19.4 %
31P (KED)	-3.421 ppb	110.8 %
39K (KED)	28.597 ppb	6.8 %
44Ca (KED)	2,714.526 ppb	1.5 %
47Ti (KED)	0.180 ppb	13.9 %
51V (KED)	0.061 ppb	2.4 %
52Cr (KED)	0.187 ppb	4.7 %
55Mn (KED)	0.112 ppb	7.3 %
57Fe (KED)	-5.303 ppb	1.6 %
59Co (KED)	0.109 ppb	0.7 %
60Ni (KED)	0.021 ppb	24.7 %
63Cu (KED)	-0.119 ppb	2.8 %
66Zn (KED)	0.005 ppb	141.4 %
75As (KED)	0.001 ppb	1,358.4 %
78Se (KED)	0.035 ppb	86.9 %
95Mo (KED)	-0.001 ppb	179.0 %
107Ag (KED)	-0.027 ppb	9.1 %
111Cd (KED)	-0.019 ppb	6.6 %
118Sn (KED)	-0.042 ppb	3.4 %
121Sb (KED)	0.184 ppb	0.3 %
137Ba (KED)	0.472 ppb	2.0 %
205Tl (KED)	0.004 ppb	13.1 %
208Pb (KED)	0.016 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	112.681 %
45Sc (KED)	108.075 %
72Ge (KED)	106.247 %
89Y (KED)	104.720 %
115In (KED)	107.371 %
159Tb (KED)	105.661 %
209Bi (KED)	104.839 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03RE2	File ID:	061423.xml-117
Sampled:	05/30/23 15:00	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:10
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	690	10.0	20.0	25.0	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	118	Stop Time:	6/14/2023 12:12:35 PM	Comment	1/100/10=1000 Na
Sample ID:	23F0136-03RE2@1000	Dilution Factor	0.1		
Start Time:	6/14/2023 12:10:43 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.042 ppb	138.5 %
11B (KED)	0.433 ppb	30.7 %
23Na (KED)	620.759 ppb	0.8 %
24Mg (KED)	80.524 ppb	1.5 %
27Al (KED)	0.566 ppb	1.5 %
31P (KED)	-4.717 ppb	21.4 %
39K (KED)	3.009 ppb	22.6 %
44Ca (KED)	138.928 ppb	11.3 %
47Ti (KED)	0.189 ppb	9.0 %
51V (KED)	0.047 ppb	11.6 %
52Cr (KED)	0.183 ppb	3.1 %
55Mn (KED)	-0.145 ppb	5.2 %
57Fe (KED)	-5.290 ppb	1.0 %
59Co (KED)	0.107 ppb	0.4 %
60Ni (KED)	-0.008 ppb	34.2 %
63Cu (KED)	-0.140 ppb	3.9 %
66Zn (KED)	-0.070 ppb	13.0 %
75As (KED)	-0.003 ppb	331.4 %
78Se (KED)	0.065 ppb	38.0 %
95Mo (KED)	-0.004 ppb	10.7 %
107Ag (KED)	-0.027 ppb	5.9 %
111Cd (KED)	-0.020 ppb	3.5 %
118Sn (KED)	-0.043 ppb	5.3 %
121Sb (KED)	0.182 ppb	1.4 %
137Ba (KED)	-0.071 ppb	4.2 %
205Tl (KED)	0.005 ppb	22.7 %
208Pb (KED)	0.018 ppb	2.5 %

ISTD's	Concentration average
6Li (KED)	100.473 %
45Sc (KED)	99.303 %
72Ge (KED)	98.600 %
89Y (KED)	97.570 %
115In (KED)	102.054 %
159Tb (KED)	98.187 %
209Bi (KED)	100.497 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04	File ID:	061423.xml-041
Sampled:	05/31/23 08:45	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 09:48
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	2.74	0.0250	0.0500	0.125	D
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.105	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	Calcium, Dissolved	3.66	0.0500	0.100	0.125	D
7440-47-3	Chromium, Dissolved	0.0355	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt, Dissolved	0.00814	0.00250	0.0100	0.0250	J, D
7440-50-8	Copper, Dissolved	0.00830	0.00300	0.0100	0.0250	J, D
7439-89-6	Iron, Dissolved	2.86	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved	0.00307	0.00150	0.00500	0.0250	J, D
7439-95-4	Magnesium, Dissolved	1.72	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.103	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0126	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	0.419	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*38.4*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved	0.00667	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc, Dissolved	0.0190	0.0100	0.0200	0.0250	J, D

Italicized = secondary result

Labbook:
061423.imexp

Index #:	42	Stop Time:	6/14/2023 9:49:50 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-04@5	Dilution Factor	0.2		
Start Time:	6/14/2023 9:48:02 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.075 ppb	39.9 %
11B (KED)	9.287 ppb	3.0 %
23Na (KED)	6,920.262 ppb	0.8 %
24Mg (KED)	310.479 ppb	1.1 %
27Al (KED)	493.921 ppb	1.3 %
31P (KED)	4.259 ppb	56.4 %
39K (KED)	75.338 ppb	2.3 %
44Ca (KED)	659.085 ppb	1.5 %
47Ti (KED)	3.906 ppb	5.4 %
51V (KED)	1.200 ppb	3.9 %
52Cr (KED)	6.386 ppb	2.1 %
55Mn (KED)	18.471 ppb	1.3 %
57Fe (KED)	515.129 ppb	0.2 %
59Co (KED)	1.466 ppb	0.5 %
60Ni (KED)	2.261 ppb	2.7 %
63Cu (KED)	1.495 ppb	2.7 %
66Zn (KED)	3.411 ppb	0.8 %
75As (KED)	0.330 ppb	3.8 %
78Se (KED)	0.312 ppb	23.8 %
95Mo (KED)	0.188 ppb	4.1 %
107Ag (KED)	-0.022 ppb	13.7 %
111Cd (KED)	0.003 ppb	74.8 %
118Sn (KED)	0.065 ppb	14.2 %
121Sb (KED)	0.199 ppb	1.1 %
137Ba (KED)	18.983 ppb	0.6 %
205Tl (KED)	0.023 ppb	12.6 %
208Pb (KED)	0.553 ppb	1.4 %

ISTD's	Concentration average
6Li (KED)	117.218 %
45Sc (KED)	111.932 %
72Ge (KED)	108.668 %
89Y (KED)	126.884 %
115In (KED)	108.041 %
159Tb (KED)	113.178 %
209Bi (KED)	109.106 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04RE1	File ID:	061423.xml-084
Sampled:	05/31/23 08:45	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:08
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	38.2	0.500	1.00	1.25	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	85	Stop Time:	6/14/2023 11:10:27 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-04RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:08:41 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.038 ppb	55.6 %
11B (KED)	0.946 ppb	9.6 %
23Na (KED)	687.715 ppb	0.3 %
24Mg (KED)	33.427 ppb	3.3 %
27Al (KED)	59.838 ppb	0.4 %
31P (KED)	-1.203 ppb	299.5 %
39K (KED)	9.447 ppb	11.4 %
44Ca (KED)	68.100 ppb	6.7 %
47Ti (KED)	0.584 ppb	11.4 %
51V (KED)	0.168 ppb	15.4 %
52Cr (KED)	0.820 ppb	2.6 %
55Mn (KED)	1.782 ppb	2.9 %
57Fe (KED)	47.710 ppb	2.7 %
59Co (KED)	0.241 ppb	2.3 %
60Ni (KED)	0.203 ppb	6.6 %
63Cu (KED)	0.028 ppb	24.5 %
66Zn (KED)	0.329 ppb	7.8 %
75As (KED)	0.030 ppb	26.5 %
78Se (KED)	0.056 ppb	32.9 %
95Mo (KED)	0.021 ppb	8.5 %
107Ag (KED)	-0.024 ppb	11.2 %
111Cd (KED)	-0.017 ppb	17.7 %
118Sn (KED)	-0.033 ppb	2.9 %
121Sb (KED)	0.184 ppb	0.8 %
137Ba (KED)	1.946 ppb	3.4 %
205Tl (KED)	0.005 ppb	7.4 %
208Pb (KED)	0.069 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	117.757 %
45Sc (KED)	110.644 %
72Ge (KED)	109.937 %
89Y (KED)	110.907 %
115In (KED)	111.856 %
159Tb (KED)	107.812 %
209Bi (KED)	110.589 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05	File ID:	061423.xml-042
Sampled:	06/01/23 10:41	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 09:49
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0861	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*48.5*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00594	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved		0.00250	0.0100	0.0250	U
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved		0.0500	0.100	0.125	U
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	Magnesium, Dissolved	21.3	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.0047	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.0158	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	6.32	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*229*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved	0.00298	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #:	43	Stop Time:	6/14/2023 9:51:40 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-05@5	Dilution Factor	0.2		
Start Time:	6/14/2023 9:49:51 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.057 ppb	6.9 %
11B (KED)	10.253 ppb	4.5 %
23Na (KED)	41,174.812 ppb	1.0 %
24Mg (KED)	3,840.086 ppb	0.8 %
27Al (KED)	1.521 ppb	11.3 %
31P (KED)	19.507 ppb	13.5 %
39K (KED)	1,138.464 ppb	1.2 %
44Ca (KED)	8,734.434 ppb	0.4 %
47Ti (KED)	0.187 ppb	6.3 %
51V (KED)	0.536 ppb	0.7 %
52Cr (KED)	1.070 ppb	2.4 %
55Mn (KED)	0.841 ppb	7.6 %
57Fe (KED)	8.543 ppb	6.3 %
59Co (KED)	0.208 ppb	0.3 %
60Ni (KED)	2.851 ppb	2.6 %
63Cu (KED)	0.069 ppb	5.6 %
66Zn (KED)	0.421 ppb	6.1 %
75As (KED)	0.061 ppb	20.9 %
78Se (KED)	0.054 ppb	72.7 %
95Mo (KED)	0.205 ppb	6.1 %
107Ag (KED)	-0.023 ppb	6.8 %
111Cd (KED)	-0.015 ppb	9.0 %
118Sn (KED)	-0.037 ppb	1.6 %
121Sb (KED)	0.191 ppb	0.1 %
137Ba (KED)	15.502 ppb	2.6 %
205Tl (KED)	0.007 ppb	8.0 %
208Pb (KED)	0.017 ppb	3.6 %

ISTD's	Concentration average
6Li (KED)	118.519 %
45Sc (KED)	113.405 %
72Ge (KED)	107.317 %
89Y (KED)	108.969 %
115In (KED)	107.649 %
159Tb (KED)	108.013 %
209Bi (KED)	103.272 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05RE1	File ID:	061423.xml-087
Sampled:	06/01/23 10:41	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:14
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	52.1	0.500	1.00	1.25	D
7439-95-4	*Magnesium, Dissolved*	*22.8*	*0.200*	*0.500*	*1.25*	*D*
7440-23-5	*Sodium, Dissolved*	*241*	*0.500*	*1.00*	*1.25*	*D, B, E*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	88	Stop Time:	6/14/2023 11:16:11 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-05RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:14:22 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.015 ppb	102.4 %
11B (KED)	1.604 ppb	7.7 %
23Na (KED)	4,345.268 ppb	0.9 %
24Mg (KED)	409.672 ppb	1.5 %
27Al (KED)	0.588 ppb	6.1 %
31P (KED)	-4.766 ppb	8.5 %
39K (KED)	123.992 ppb	1.6 %
44Ca (KED)	937.282 ppb	2.8 %
47Ti (KED)	0.173 ppb	14.1 %
51V (KED)	0.093 ppb	8.4 %
52Cr (KED)	0.274 ppb	2.4 %
55Mn (KED)	-0.055 ppb	4.8 %
57Fe (KED)	-4.197 ppb	7.4 %
59Co (KED)	0.118 ppb	0.5 %
60Ni (KED)	0.291 ppb	6.3 %
63Cu (KED)	-0.115 ppb	1.8 %
66Zn (KED)	-0.001 ppb	2,814.8 %
75As (KED)	0.006 ppb	135.7 %
78Se (KED)	0.033 ppb	142.0 %
95Mo (KED)	0.019 ppb	8.4 %
107Ag (KED)	-0.025 ppb	18.3 %
111Cd (KED)	-0.021 ppb	6.5 %
118Sn (KED)	-0.041 ppb	5.1 %
121Sb (KED)	0.189 ppb	0.7 %
137Ba (KED)	1.534 ppb	5.4 %
205Tl (KED)	0.006 ppb	13.9 %
208Pb (KED)	0.017 ppb	6.8 %

ISTD's	Concentration average
6Li (KED)	118.327 %
45Sc (KED)	110.650 %
72Ge (KED)	108.647 %
89Y (KED)	106.072 %
115In (KED)	109.096 %
159Tb (KED)	106.980 %
209Bi (KED)	107.830 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05RE2	File ID:	061423.xml-118
Sampled:	06/01/23 10:41	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:12
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	204	5.00	10.0	12.5	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	119	Stop Time:	6/14/2023 12:14:33 PM	Comment	1/100/5=500 Na
Sample ID:	23F0136-05RE2@500	Dilution Factor	0.2		
Start Time:	6/14/2023 12:12:38 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.093 ppb	62.1 %
11B (KED)	0.602 ppb	34.7 %
23Na (KED)	367.645 ppb	1.7 %
24Mg (KED)	37.111 ppb	1.2 %
27Al (KED)	0.531 ppb	6.2 %
31P (KED)	-4.457 ppb	22.1 %
39K (KED)	15.363 ppb	14.1 %
44Ca (KED)	91.193 ppb	6.0 %
47Ti (KED)	0.203 ppb	9.6 %
51V (KED)	0.046 ppb	19.9 %
52Cr (KED)	0.193 ppb	3.4 %
55Mn (KED)	-0.143 ppb	2.7 %
57Fe (KED)	-5.083 ppb	7.8 %
59Co (KED)	0.108 ppb	0.3 %
60Ni (KED)	0.020 ppb	78.0 %
63Cu (KED)	-0.142 ppb	3.1 %
66Zn (KED)	-0.048 ppb	28.5 %
75As (KED)	0.005 ppb	20.9 %
78Se (KED)	0.107 ppb	41.6 %
95Mo (KED)	-0.007 ppb	18.0 %
107Ag (KED)	-0.025 ppb	6.1 %
111Cd (KED)	-0.021 ppb	0.0 %
118Sn (KED)	-0.042 ppb	4.9 %
121Sb (KED)	0.183 ppb	0.3 %
137Ba (KED)	0.058 ppb	18.3 %
205Tl (KED)	0.005 ppb	9.7 %
208Pb (KED)	0.016 ppb	3.4 %

ISTD's	Concentration average
6Li (KED)	103.049 %
45Sc (KED)	99.800 %
72Ge (KED)	99.225 %
89Y (KED)	100.296 %
115In (KED)	102.184 %
159Tb (KED)	97.573 %
209Bi (KED)	100.338 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06	File ID:	061423.xml-043
Sampled:	06/01/23 11:00	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 09:51
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0173	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*457*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00858	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved		0.00250	0.0100	0.0250	U
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved		0.0500	0.100	0.125	U
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*230*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0239	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.00802	0.00250	0.0100	0.0250	J, D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*1230*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved	0.0103	0.0100	0.0200	0.0250	J, D

Italicized = secondary result

Labbook:
061423.imexp

Index #:	44	Stop Time:	6/14/2023 9:53:32 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-06@5	Dilution Factor	0.2		
Start Time:	6/14/2023 9:51:41 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.051 ppb	27.4 %
11B (KED)	27.844 ppb	2.2 %
23Na (KED)	221,390.839 ppb	0.5 %
24Mg (KED)	41,386.339 ppb	0.3 %
27Al (KED)	1.012 ppb	29.0 %
31P (KED)	7.293 ppb	90.9 %
39K (KED)	5,130.407 ppb	1.1 %
44Ca (KED)	82,305.264 ppb	1.2 %
47Ti (KED)	0.188 ppb	12.5 %
51V (KED)	0.254 ppb	4.3 %
52Cr (KED)	1.545 ppb	3.0 %
55Mn (KED)	4.303 ppb	3.3 %
57Fe (KED)	0.972 ppb	49.1 %
59Co (KED)	0.164 ppb	5.9 %
60Ni (KED)	1.444 ppb	3.0 %
63Cu (KED)	-0.048 ppb	34.8 %
66Zn (KED)	1.858 ppb	3.1 %
75As (KED)	0.061 ppb	35.3 %
78Se (KED)	0.048 ppb	37.1 %
95Mo (KED)	0.263 ppb	8.0 %
107Ag (KED)	-0.025 ppb	15.3 %
111Cd (KED)	0.044 ppb	21.7 %
118Sn (KED)	-0.034 ppb	10.1 %
121Sb (KED)	0.190 ppb	3.0 %
137Ba (KED)	3.117 ppb	2.2 %
205Tl (KED)	0.008 ppb	56.9 %
208Pb (KED)	0.019 ppb	18.1 %

ISTD's	Concentration average
6Li (KED)	125.087 %
45Sc (KED)	113.726 %
72Ge (KED)	105.607 %
89Y (KED)	108.886 %
115In (KED)	103.808 %
159Tb (KED)	107.256 %
209Bi (KED)	95.717 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06RE1	File ID:	061423.xml-088
Sampled:	06/01/23 11:00	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:16
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	*Calcium, Dissolved*	*483*	*0.500*	*1.00*	*1.25*	*D, E*
7439-95-4	Magnesium, Dissolved	240	0.200	0.500	1.25	D, E
7440-09-7	Potassium, Dissolved	30.9	0.500	1.00	1.25	D
7440-23-5	*Sodium, Dissolved*	*1260*	*0.500*	*1.00*	*1.25*	*D, B, E*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	89	Stop Time:	6/14/2023 11:18:01 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-06RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:16:13 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.048 ppb	27.8 %
11B (KED)	3.579 ppb	6.1 %
23Na (KED)	22,756.190 ppb	1.7 %
24Mg (KED)	4,314.517 ppb	1.3 %
27Al (KED)	0.614 ppb	8.3 %
31P (KED)	-2.231 ppb	70.8 %
39K (KED)	555.479 ppb	0.8 %
44Ca (KED)	8,696.402 ppb	1.0 %
47Ti (KED)	0.196 ppb	5.9 %
51V (KED)	0.068 ppb	8.1 %
52Cr (KED)	0.333 ppb	1.9 %
55Mn (KED)	0.302 ppb	8.6 %
57Fe (KED)	-4.839 ppb	4.4 %
59Co (KED)	0.113 ppb	0.9 %
60Ni (KED)	0.157 ppb	16.3 %
63Cu (KED)	-0.139 ppb	5.7 %
66Zn (KED)	0.165 ppb	6.8 %
75As (KED)	-0.001 ppb	384.9 %
78Se (KED)	0.087 ppb	52.0 %
95Mo (KED)	0.021 ppb	15.8 %
107Ag (KED)	-0.026 ppb	10.3 %
111Cd (KED)	-0.015 ppb	25.3 %
118Sn (KED)	-0.039 ppb	0.8 %
121Sb (KED)	0.186 ppb	0.7 %
137Ba (KED)	0.257 ppb	8.6 %
205Tl (KED)	0.005 ppb	10.2 %
208Pb (KED)	0.015 ppb	2.1 %

ISTD's	Concentration average
6Li (KED)	119.279 %
45Sc (KED)	111.164 %
72Ge (KED)	109.380 %
89Y (KED)	106.746 %
115In (KED)	109.212 %
159Tb (KED)	106.820 %
209Bi (KED)	104.778 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06RE2	File ID:	061423.xml-119
Sampled:	06/01/23 11:00	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:14
		Preparation:	3005_METALS_PREP_M	Dilution:	2000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	438	20.0	40.0	50.0	D
7440-23-5	Sodium, Dissolved	1040	20.0	40.0	50.0	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	120	Stop Time:	6/14/2023 12:16:22 PM	Comment	1/100/20=2000 Na
Sample ID:	23F0136-06RE2@2000	Dilution Factor	0.05		
Start Time:	6/14/2023 12:14:36 PM	prepFAST DF	20		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.043 ppb	29.4 %
11B (KED)	0.358 ppb	17.1 %
23Na (KED)	468.664 ppb	0.5 %
24Mg (KED)	97.769 ppb	2.6 %
27Al (KED)	0.503 ppb	12.4 %
31P (KED)	-3.169 ppb	28.8 %
39K (KED)	15.830 ppb	2.3 %
44Ca (KED)	197.104 ppb	3.7 %
47Ti (KED)	0.176 ppb	11.9 %
51V (KED)	0.056 ppb	45.1 %
52Cr (KED)	0.182 ppb	0.7 %
55Mn (KED)	-0.141 ppb	2.3 %
57Fe (KED)	-5.516 ppb	3.3 %
59Co (KED)	0.107 ppb	0.3 %
60Ni (KED)	-0.006 ppb	127.5 %
63Cu (KED)	-0.147 ppb	1.7 %
66Zn (KED)	-0.069 ppb	4.0 %
75As (KED)	-0.002 ppb	880.3 %
78Se (KED)	0.056 ppb	64.8 %
95Mo (KED)	-0.004 ppb	47.6 %
107Ag (KED)	-0.026 ppb	2.7 %
111Cd (KED)	-0.021 ppb	0.2 %
118Sn (KED)	-0.043 ppb	4.9 %
121Sb (KED)	0.182 ppb	0.1 %
137Ba (KED)	-0.082 ppb	5.3 %
205Tl (KED)	0.005 ppb	17.0 %
208Pb (KED)	0.015 ppb	1.6 %

ISTD's	Concentration average
6Li (KED)	105.217 %
45Sc (KED)	102.438 %
72Ge (KED)	102.227 %
89Y (KED)	99.941 %
115In (KED)	104.512 %
159Tb (KED)	102.436 %
209Bi (KED)	103.839 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07	File ID:	061423.xml-052
Sampled:	06/01/23 12:30	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:08
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0120	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*166*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.142	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt, Dissolved	0.00940	0.00250	0.0100	0.0250	J, D
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved	2.74	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*108*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.114	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	2.20	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	1.96	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*997*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #: 53
Sample ID: 23F0136-07@5
Start Time: 6/14/2023 10:08:55 AM
Stop Time: 6/14/2023 10:10:49 AM
Dilution Factor 0.2
prepFAST DF 5
Comment 1/5 6020 DISS

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.044 ppb	58.6 %
11B (KED)	5.733 ppb	5.3 %
23Na (KED)	179,403.452 ppb	0.9 %
24Mg (KED)	19,440.243 ppb	1.1 %
27Al (KED)	1.573 ppb	21.7 %
31P (KED)	-1.223 ppb	146.0 %
39K (KED)	352.610 ppb	0.5 %
44Ca (KED)	29,822.280 ppb	0.9 %
47Ti (KED)	0.174 ppb	13.5 %
51V (KED)	0.189 ppb	9.4 %
52Cr (KED)	25.526 ppb	1.0 %
55Mn (KED)	20.460 ppb	0.7 %
57Fe (KED)	492.765 ppb	1.1 %
59Co (KED)	1.692 ppb	0.4 %
60Ni (KED)	396.825 ppb	0.4 %
63Cu (KED)	0.449 ppb	2.5 %
66Zn (KED)	0.190 ppb	24.5 %
75As (KED)	0.022 ppb	33.2 %
78Se (KED)	0.062 ppb	39.6 %
95Mo (KED)	1.716 ppb	2.5 %
107Ag (KED)	-0.027 ppb	10.4 %
111Cd (KED)	0.035 ppb	28.6 %
118Sn (KED)	-0.027 ppb	6.3 %
121Sb (KED)	0.200 ppb	0.3 %
137Ba (KED)	2.166 ppb	4.2 %
205Tl (KED)	0.008 ppb	2.7 %
208Pb (KED)	0.023 ppb	3.7 %

ISTD's	Concentration average
6Li (KED)	100.814 %
45Sc (KED)	97.742 %
72Ge (KED)	93.869 %
89Y (KED)	95.570 %
115In (KED)	94.384 %
159Tb (KED)	98.676 %
209Bi (KED)	89.374 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07RE1	File ID:	061423.xml-089
Sampled:	06/01/23 12:30	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:18
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	173	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	113	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*1040*	*0.500*	*1.00*	*1.25*	*D, B, E*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	90	Stop Time:	6/14/2023 11:19:49 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-07RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:18:03 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.030 ppb	65.6 %
11B (KED)	0.917 ppb	6.5 %
23Na (KED)	18,777.469 ppb	0.5 %
24Mg (KED)	2,026.303 ppb	0.2 %
27Al (KED)	0.781 ppb	15.9 %
31P (KED)	-3.975 ppb	54.0 %
39K (KED)	41.133 ppb	1.0 %
44Ca (KED)	3,116.557 ppb	0.7 %
47Ti (KED)	0.174 ppb	7.5 %
51V (KED)	0.050 ppb	6.2 %
52Cr (KED)	2.770 ppb	1.6 %
55Mn (KED)	1.987 ppb	2.6 %
57Fe (KED)	45.501 ppb	3.2 %
59Co (KED)	0.266 ppb	2.4 %
60Ni (KED)	41.434 ppb	0.6 %
63Cu (KED)	-0.073 ppb	6.2 %
66Zn (KED)	-0.029 ppb	62.9 %
75As (KED)	-0.002 ppb	617.7 %
78Se (KED)	0.093 ppb	64.6 %
95Mo (KED)	0.169 ppb	7.5 %
107Ag (KED)	-0.026 ppb	4.7 %
111Cd (KED)	-0.017 ppb	3.9 %
118Sn (KED)	-0.041 ppb	2.1 %
121Sb (KED)	0.184 ppb	0.2 %
137Ba (KED)	0.152 ppb	15.8 %
205Tl (KED)	0.005 ppb	3.4 %
208Pb (KED)	0.016 ppb	6.4 %

ISTD's	Concentration average
6Li (KED)	125.270 %
45Sc (KED)	117.656 %
72Ge (KED)	113.808 %
89Y (KED)	112.532 %
115In (KED)	113.271 %
159Tb (KED)	111.022 %
209Bi (KED)	108.450 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07RE2	File ID:	061423.xml-122
Sampled:	06/01/23 12:30	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:20
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	929	10.0	20.0	25.0	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	123	Stop Time:	6/14/2023 12:22:03 PM	Comment	1/100/10=1000 Na
Sample ID:	23F0136-07RE2@1000	Dilution Factor	0.1		
Start Time:	6/14/2023 12:20:08 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.037 ppb	52.4 %
11B (KED)	0.302 ppb	25.9 %
23Na (KED)	836.541 ppb	1.1 %
24Mg (KED)	98.292 ppb	1.4 %
27Al (KED)	0.510 ppb	5.1 %
31P (KED)	-5.719 ppb	20.8 %
39K (KED)	4.955 ppb	15.1 %
44Ca (KED)	154.354 ppb	4.9 %
47Ti (KED)	0.151 ppb	6.3 %
51V (KED)	0.044 ppb	7.4 %
52Cr (KED)	0.295 ppb	3.5 %
55Mn (KED)	-0.049 ppb	17.1 %
57Fe (KED)	-2.867 ppb	10.1 %
59Co (KED)	0.115 ppb	0.4 %
60Ni (KED)	1.962 ppb	1.4 %
63Cu (KED)	-0.150 ppb	4.3 %
66Zn (KED)	-0.062 ppb	8.7 %
75As (KED)	-0.006 ppb	91.9 %
78Se (KED)	0.037 ppb	4.1 %
95Mo (KED)	0.007 ppb	29.2 %
107Ag (KED)	-0.027 ppb	4.5 %
111Cd (KED)	-0.020 ppb	5.9 %
118Sn (KED)	-0.041 ppb	5.0 %
121Sb (KED)	0.185 ppb	0.3 %
137Ba (KED)	-0.079 ppb	5.5 %
205Tl (KED)	0.006 ppb	9.8 %
208Pb (KED)	0.016 ppb	1.9 %

ISTD's	Concentration average
6Li (KED)	109.575 %
45Sc (KED)	106.494 %
72Ge (KED)	104.421 %
89Y (KED)	104.187 %
115In (KED)	107.939 %
159Tb (KED)	103.014 %
209Bi (KED)	104.135 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08	File ID:	061423.xml-053
Sampled:	06/01/23 15:25	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:10
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0145	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	Calcium, Dissolved	5.14	0.0500	0.100	0.125	D
7440-47-3	Chromium, Dissolved	0.00883	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.0211	0.00250	0.0100	0.0250	J, D
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved	0.506	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	Magnesium, Dissolved	3.56	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.360	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0271	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	0.522	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*115*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved	0.0243	0.0100	0.0200	0.0250	J, D

Italicized = secondary result

Labbook:
061423.imexp

Index #:	54	Stop Time:	6/14/2023 10:12:36 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-08@5	Dilution Factor	0.2		
Start Time:	6/14/2023 10:10:50 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.042 ppb	35.2 %
11B (KED)	3.648 ppb	8.4 %
23Na (KED)	20,677.898 ppb	0.2 %
24Mg (KED)	640.929 ppb	0.8 %
27Al (KED)	4.032 ppb	11.2 %
31P (KED)	15.331 ppb	20.8 %
39K (KED)	94.014 ppb	1.3 %
44Ca (KED)	925.310 ppb	0.9 %
47Ti (KED)	0.195 ppb	4.1 %
51V (KED)	0.114 ppb	10.8 %
52Cr (KED)	1.589 ppb	2.1 %
55Mn (KED)	64.790 ppb	0.8 %
57Fe (KED)	91.131 ppb	0.7 %
59Co (KED)	3.807 ppb	0.6 %
60Ni (KED)	4.870 ppb	2.0 %
63Cu (KED)	0.145 ppb	3.9 %
66Zn (KED)	4.374 ppb	1.8 %
75As (KED)	0.077 ppb	13.6 %
78Se (KED)	0.027 ppb	78.1 %
95Mo (KED)	0.022 ppb	28.9 %
107Ag (KED)	-0.027 ppb	8.0 %
111Cd (KED)	0.002 ppb	104.6 %
118Sn (KED)	-0.035 ppb	8.8 %
121Sb (KED)	0.190 ppb	0.7 %
137Ba (KED)	2.604 ppb	3.9 %
205Tl (KED)	0.010 ppb	13.6 %
208Pb (KED)	0.021 ppb	10.2 %

ISTD's	Concentration average
6Li (KED)	109.798 %
45Sc (KED)	103.295 %
72Ge (KED)	102.791 %
89Y (KED)	103.403 %
115In (KED)	104.840 %
159Tb (KED)	106.433 %
209Bi (KED)	102.349 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08RE1	File ID:	061423.xml-090
Sampled:	06/01/23 15:25	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:19
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	*Calcium, Dissolved*	*5.33*	*0.500*	*1.00*	*1.25*	*D*
7439-95-4	*Magnesium, Dissolved*	*3.82*	*0.200*	*0.500*	*1.25*	*D*
7440-23-5	*Sodium, Dissolved*	*122*	*0.500*	*1.00*	*1.25*	*D, B*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	91	Stop Time:	6/14/2023 11:21:37 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-08RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:19:51 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.081 ppb	69.9 %
11B (KED)	0.776 ppb	14.6 %
23Na (KED)	2,203.068 ppb	0.9 %
24Mg (KED)	68.753 ppb	0.9 %
27Al (KED)	1.025 ppb	12.8 %
31P (KED)	-2.299 ppb	18.0 %
39K (KED)	13.927 ppb	5.3 %
44Ca (KED)	95.890 ppb	3.3 %
47Ti (KED)	0.250 ppb	4.3 %
51V (KED)	0.043 ppb	9.3 %
52Cr (KED)	0.332 ppb	2.5 %
55Mn (KED)	6.814 ppb	1.3 %
57Fe (KED)	4.960 ppb	9.7 %
59Co (KED)	0.492 ppb	0.5 %
60Ni (KED)	0.499 ppb	5.6 %
63Cu (KED)	-0.105 ppb	5.2 %
66Zn (KED)	0.417 ppb	2.6 %
75As (KED)	0.013 ppb	31.2 %
78Se (KED)	0.045 ppb	61.1 %
95Mo (KED)	-0.003 ppb	90.5 %
107Ag (KED)	-0.025 ppb	2.4 %
111Cd (KED)	-0.019 ppb	19.0 %
118Sn (KED)	-0.042 ppb	5.9 %
121Sb (KED)	0.182 ppb	0.6 %
137Ba (KED)	0.205 ppb	15.3 %
205Tl (KED)	0.006 ppb	11.9 %
208Pb (KED)	0.016 ppb	5.7 %

ISTD's	Concentration average
6Li (KED)	127.375 %
45Sc (KED)	117.730 %
72Ge (KED)	114.268 %
89Y (KED)	112.718 %
115In (KED)	117.011 %
159Tb (KED)	110.105 %
209Bi (KED)	110.639 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08RE2	File ID:	061423.xml-123
Sampled:	06/01/23 15:25	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:22
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	104	2.00	4.00	5.00	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	124	Stop Time:	6/14/2023 12:23:59 PM	Comment	1/100/2=200 Na
Sample ID:	23F0136-08RE2@200	Dilution Factor	0.5		
Start Time:	6/14/2023 12:22:06 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.049 ppb	12.0 %
11B (KED)	0.399 ppb	11.5 %
23Na (KED)	467.840 ppb	0.2 %
24Mg (KED)	16.150 ppb	4.0 %
27Al (KED)	0.663 ppb	9.7 %
31P (KED)	-4.654 ppb	42.4 %
39K (KED)	6.287 ppb	22.6 %
44Ca (KED)	22.462 ppb	12.0 %
47Ti (KED)	0.191 ppb	9.7 %
51V (KED)	0.041 ppb	12.6 %
52Cr (KED)	0.218 ppb	4.0 %
55Mn (KED)	1.507 ppb	0.9 %
57Fe (KED)	-3.345 ppb	13.9 %
59Co (KED)	0.195 ppb	2.8 %
60Ni (KED)	0.134 ppb	12.9 %
63Cu (KED)	-0.132 ppb	1.6 %
66Zn (KED)	0.109 ppb	27.8 %
75As (KED)	0.003 ppb	156.3 %
78Se (KED)	0.030 ppb	146.1 %
95Mo (KED)	-0.002 ppb	158.4 %
107Ag (KED)	-0.025 ppb	9.4 %
111Cd (KED)	-0.020 ppb	10.5 %
118Sn (KED)	-0.040 ppb	13.7 %
121Sb (KED)	0.191 ppb	4.7 %
137Ba (KED)	-0.023 ppb	72.1 %
205Tl (KED)	0.010 ppb	81.9 %
208Pb (KED)	0.022 ppb	43.1 %

ISTD's	Concentration average
6Li (KED)	111.783 %
45Sc (KED)	106.143 %
72Ge (KED)	104.227 %
89Y (KED)	104.476 %
115In (KED)	107.598 %
159Tb (KED)	102.658 %
209Bi (KED)	105.132 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09	File ID:	061423.xml-054
Sampled:	06/01/23 14:56	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:12
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0574	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*123*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0193	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.00324	0.00250	0.0100	0.0250	J, D
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved	1.04	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*70.3*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.517	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0192	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	3.06	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*733*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #:	55	Stop Time:	6/14/2023 10:14:28 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-09@5	Dilution Factor	0.2		
Start Time:	6/14/2023 10:12:38 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.033 ppb	77.9 %
11B (KED)	19.437 ppb	2.8 %
23Na (KED)	131,887.277 ppb	0.7 %
24Mg (KED)	12,645.534 ppb	2.2 %
27Al (KED)	2.036 ppb	25.4 %
31P (KED)	7.642 ppb	48.5 %
39K (KED)	550.758 ppb	1.6 %
44Ca (KED)	22,053.245 ppb	1.2 %
47Ti (KED)	0.153 ppb	10.6 %
51V (KED)	0.056 ppb	3.8 %
52Cr (KED)	3.472 ppb	2.2 %
55Mn (KED)	93.005 ppb	2.7 %
57Fe (KED)	186.653 ppb	2.1 %
59Co (KED)	0.583 ppb	1.4 %
60Ni (KED)	3.453 ppb	5.3 %
63Cu (KED)	-0.129 ppb	1.4 %
66Zn (KED)	0.205 ppb	3.9 %
75As (KED)	0.296 ppb	2.1 %
78Se (KED)	0.009 ppb	371.4 %
95Mo (KED)	0.222 ppb	1.1 %
107Ag (KED)	-0.027 ppb	7.9 %
111Cd (KED)	-0.020 ppb	12.8 %
118Sn (KED)	-0.034 ppb	3.7 %
121Sb (KED)	0.187 ppb	1.5 %
137Ba (KED)	10.335 ppb	0.3 %
205Tl (KED)	0.006 ppb	10.2 %
208Pb (KED)	0.018 ppb	6.7 %

ISTD's	Concentration average
6Li (KED)	115.827 %
45Sc (KED)	109.126 %
72Ge (KED)	104.166 %
89Y (KED)	103.793 %
115In (KED)	104.094 %
159Tb (KED)	106.099 %
209Bi (KED)	96.824 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09RE1	File ID:	061423.xml-095
Sampled:	06/01/23 14:56	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:29
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	130	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	72.0	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*755*	*0.500*	*1.00*	*1.25*	*D, B, E*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	96	Stop Time:	6/14/2023 11:31:03 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-09RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:29:08 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.017 ppb	360.7 %
11B (KED)	2.654 ppb	11.0 %
23Na (KED)	13,588.224 ppb	0.8 %
24Mg (KED)	1,296.423 ppb	0.9 %
27Al (KED)	0.689 ppb	11.2 %
31P (KED)	-4.686 ppb	38.4 %
39K (KED)	59.554 ppb	1.4 %
44Ca (KED)	2,348.608 ppb	1.9 %
47Ti (KED)	0.187 ppb	9.6 %
51V (KED)	0.051 ppb	4.7 %
52Cr (KED)	0.553 ppb	3.6 %
55Mn (KED)	9.554 ppb	0.6 %
57Fe (KED)	13.931 ppb	6.0 %
59Co (KED)	0.154 ppb	1.0 %
60Ni (KED)	0.334 ppb	7.5 %
63Cu (KED)	-0.143 ppb	0.9 %
66Zn (KED)	-0.029 ppb	34.2 %
75As (KED)	0.034 ppb	15.8 %
78Se (KED)	0.060 ppb	68.1 %
95Mo (KED)	0.023 ppb	2.5 %
107Ag (KED)	-0.027 ppb	3.9 %
111Cd (KED)	-0.020 ppb	4.1 %
118Sn (KED)	-0.040 ppb	5.7 %
121Sb (KED)	0.188 ppb	1.3 %
137Ba (KED)	1.074 ppb	5.7 %
205Tl (KED)	0.006 ppb	11.5 %
208Pb (KED)	0.016 ppb	4.9 %

ISTD's	Concentration average
6Li (KED)	99.956 %
45Sc (KED)	98.037 %
72Ge (KED)	97.499 %
89Y (KED)	97.127 %
115In (KED)	97.600 %
159Tb (KED)	97.709 %
209Bi (KED)	98.586 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09RE2	File ID:	061423.xml-124
Sampled:	06/01/23 14:56	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:24
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	671	10.0	20.0	25.0	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	125	Stop Time:	6/14/2023 12:25:50 PM	Comment	1/100/10=1000 Na
Sample ID:	23F0136-09RE2@1000	Dilution Factor	0.1		
Start Time:	6/14/2023 12:24:02 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.010 ppb	281.9 %
11B (KED)	0.454 ppb	11.9 %
23Na (KED)	604.013 ppb	1.0 %
24Mg (KED)	62.293 ppb	2.2 %
27Al (KED)	0.498 ppb	11.7 %
31P (KED)	-5.463 ppb	8.3 %
39K (KED)	6.829 ppb	21.8 %
44Ca (KED)	107.939 ppb	6.5 %
47Ti (KED)	0.169 ppb	9.2 %
51V (KED)	0.038 ppb	9.2 %
52Cr (KED)	0.199 ppb	3.5 %
55Mn (KED)	0.323 ppb	4.5 %
57Fe (KED)	-4.599 ppb	6.4 %
59Co (KED)	0.108 ppb	0.2 %
60Ni (KED)	0.008 ppb	76.1 %
63Cu (KED)	-0.138 ppb	4.2 %
66Zn (KED)	-0.080 ppb	15.5 %
75As (KED)	0.002 ppb	124.8 %
78Se (KED)	0.048 ppb	46.4 %
95Mo (KED)	-0.002 ppb	217.2 %
107Ag (KED)	-0.029 ppb	2.2 %
111Cd (KED)	-0.022 ppb	3.1 %
118Sn (KED)	-0.043 ppb	4.5 %
121Sb (KED)	0.183 ppb	1.0 %
137Ba (KED)	-0.043 ppb	15.2 %
205Tl (KED)	0.006 ppb	9.4 %
208Pb (KED)	0.015 ppb	2.8 %

ISTD's	Concentration average
6Li (KED)	111.377 %
45Sc (KED)	107.328 %
72Ge (KED)	105.277 %
89Y (KED)	104.946 %
115In (KED)	106.342 %
159Tb (KED)	101.192 %
209Bi (KED)	106.245 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10	File ID:	061423.xml-055
Sampled:	05/31/23 10:11	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:14
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0527	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*52.7*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00893	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved		0.00250	0.0100	0.0250	U
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved	0.0575	0.0500	0.100	0.125	J, D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*32.7*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.123	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0264	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	14.3	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*171*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #:	56	Stop Time:	6/14/2023 10:16:20 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-10@5	Dilution Factor	0.2		
Start Time:	6/14/2023 10:14:30 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.057 ppb	24.9 %
11B (KED)	8.381 ppb	2.6 %
23Na (KED)	30,834.956 ppb	1.3 %
24Mg (KED)	5,884.644 ppb	1.5 %
27Al (KED)	2.109 ppb	6.4 %
31P (KED)	2.633 ppb	143.8 %
39K (KED)	2,580.107 ppb	0.5 %
44Ca (KED)	9,494.021 ppb	0.9 %
47Ti (KED)	0.192 ppb	14.8 %
51V (KED)	0.132 ppb	5.0 %
52Cr (KED)	1.608 ppb	1.8 %
55Mn (KED)	22.107 ppb	0.9 %
57Fe (KED)	10.353 ppb	9.3 %
59Co (KED)	0.299 ppb	1.0 %
60Ni (KED)	4.744 ppb	1.6 %
63Cu (KED)	-0.032 ppb	45.3 %
66Zn (KED)	0.118 ppb	11.6 %
75As (KED)	0.265 ppb	2.2 %
78Se (KED)	0.056 ppb	84.4 %
95Mo (KED)	0.211 ppb	5.8 %
107Ag (KED)	-0.028 ppb	4.5 %
111Cd (KED)	0.002 ppb	219.7 %
118Sn (KED)	-0.034 ppb	2.5 %
121Sb (KED)	0.199 ppb	0.7 %
137Ba (KED)	9.494 ppb	0.7 %
205Tl (KED)	0.007 ppb	12.1 %
208Pb (KED)	0.019 ppb	5.7 %

ISTD's	Concentration average
6Li (KED)	121.397 %
45Sc (KED)	113.142 %
72Ge (KED)	108.617 %
89Y (KED)	110.313 %
115In (KED)	111.107 %
159Tb (KED)	109.364 %
209Bi (KED)	106.732 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10RE1	File ID:	061423.xml-096
Sampled:	05/31/23 10:11	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:31
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	53.0	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	32.5	0.200	0.500	1.25	D
7440-09-7	*Potassium, Dissolved*	*14.9*	*0.500*	*1.00*	*1.25*	*D*
7440-23-5	*Sodium, Dissolved*	*170*	*0.500*	*1.00*	*1.25*	*D, B*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	97	Stop Time:	6/14/2023 11:32:58 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-10RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:31:06 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.041 ppb	156.4 %
11B (KED)	1.253 ppb	16.6 %
23Na (KED)	3,068.287 ppb	1.8 %
24Mg (KED)	585.749 ppb	1.8 %
27Al (KED)	0.734 ppb	16.8 %
31P (KED)	-3.950 ppb	33.3 %
39K (KED)	267.712 ppb	1.0 %
44Ca (KED)	954.164 ppb	1.1 %
47Ti (KED)	0.163 ppb	5.3 %
51V (KED)	0.052 ppb	10.6 %
52Cr (KED)	0.319 ppb	4.0 %
55Mn (KED)	2.063 ppb	2.0 %
57Fe (KED)	-3.851 ppb	12.1 %
59Co (KED)	0.125 ppb	1.0 %
60Ni (KED)	0.479 ppb	8.3 %
63Cu (KED)	-0.131 ppb	2.9 %
66Zn (KED)	-0.024 ppb	56.5 %
75As (KED)	0.034 ppb	25.2 %
78Se (KED)	0.108 ppb	44.1 %
95Mo (KED)	0.017 ppb	23.9 %
107Ag (KED)	-0.026 ppb	2.4 %
111Cd (KED)	-0.016 ppb	32.4 %
118Sn (KED)	-0.040 ppb	7.5 %
121Sb (KED)	0.185 ppb	1.0 %
137Ba (KED)	0.888 ppb	3.4 %
205Tl (KED)	0.004 ppb	21.8 %
208Pb (KED)	0.016 ppb	2.2 %

ISTD's	Concentration average
6Li (KED)	105.493 %
45Sc (KED)	101.637 %
72Ge (KED)	100.343 %
89Y (KED)	100.049 %
115In (KED)	104.460 %
159Tb (KED)	101.405 %
209Bi (KED)	103.186 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10RE2	File ID:	061423.xml-125
Sampled:	05/31/23 10:11	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:25
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	157	2.00	4.00	5.00	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	126	Stop Time:	6/14/2023 12:27:39 PM	Comment	1/100/2=200 Na
Sample ID:	23F0136-10RE2@200	Dilution Factor	0.5		
Start Time:	6/14/2023 12:25:53 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.092 ppb	74.0 %
11B (KED)	0.663 ppb	13.3 %
23Na (KED)	707.955 ppb	0.9 %
24Mg (KED)	143.385 ppb	1.2 %
27Al (KED)	0.605 ppb	9.1 %
31P (KED)	-3.334 ppb	15.8 %
39K (KED)	69.676 ppb	3.9 %
44Ca (KED)	226.665 ppb	2.0 %
47Ti (KED)	0.174 ppb	9.6 %
51V (KED)	0.036 ppb	9.1 %
52Cr (KED)	0.212 ppb	2.3 %
55Mn (KED)	0.389 ppb	10.8 %
57Fe (KED)	-5.269 ppb	0.3 %
59Co (KED)	0.111 ppb	0.6 %
60Ni (KED)	0.093 ppb	13.0 %
63Cu (KED)	-0.131 ppb	3.2 %
66Zn (KED)	-0.015 ppb	95.6 %
75As (KED)	0.024 ppb	14.1 %
78Se (KED)	0.089 ppb	36.4 %
95Mo (KED)	0.002 ppb	87.6 %
107Ag (KED)	-0.027 ppb	9.1 %
111Cd (KED)	-0.017 ppb	17.8 %
118Sn (KED)	-0.042 ppb	2.4 %
121Sb (KED)	0.183 ppb	0.8 %
137Ba (KED)	0.141 ppb	20.1 %
205Tl (KED)	0.006 ppb	5.8 %
208Pb (KED)	0.015 ppb	6.0 %

ISTD's	Concentration average
6Li (KED)	111.719 %
45Sc (KED)	106.713 %
72Ge (KED)	105.668 %
89Y (KED)	103.272 %
115In (KED)	106.836 %
159Tb (KED)	99.739 %
209Bi (KED)	103.929 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11	File ID:	061423.xml-056
Sampled:	05/31/23 11:10	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:16
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0945	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*65.1*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt, Dissolved		0.00250	0.0100	0.0250	U
7440-50-8	Copper, Dissolved	0.0118	0.00300	0.0100	0.0250	J, D
7439-89-6	Iron, Dissolved		0.0500	0.100	0.125	U
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*31.6*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0139	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.00359	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	7.22	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*193*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved	0.0121	0.0100	0.0200	0.0250	J, D

Italicized = secondary result

Labbook:
061423.imexp

Index #:	57	Stop Time:	6/14/2023 10:18:08 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-11@5	Dilution Factor	0.2		
Start Time:	6/14/2023 10:16:22 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.069 ppb	5.7 %
11B (KED)	14.566 ppb	0.7 %
23Na (KED)	34,726.573 ppb	2.7 %
24Mg (KED)	5,688.629 ppb	1.3 %
27Al (KED)	1.600 ppb	6.7 %
31P (KED)	-1.171 ppb	37.1 %
39K (KED)	1,299.195 ppb	1.0 %
44Ca (KED)	11,718.892 ppb	0.5 %
47Ti (KED)	0.180 ppb	4.9 %
51V (KED)	0.048 ppb	13.7 %
52Cr (KED)	0.335 ppb	2.8 %
55Mn (KED)	2.508 ppb	1.6 %
57Fe (KED)	2.210 ppb	26.6 %
59Co (KED)	0.164 ppb	0.9 %
60Ni (KED)	0.646 ppb	4.1 %
63Cu (KED)	2.133 ppb	0.6 %
66Zn (KED)	2.172 ppb	0.4 %
75As (KED)	0.001 ppb	164.0 %
78Se (KED)	-0.001 ppb	1,709.2 %
95Mo (KED)	0.069 ppb	11.3 %
107Ag (KED)	-0.021 ppb	38.9 %
111Cd (KED)	-0.009 ppb	157.9 %
118Sn (KED)	-0.018 ppb	37.9 %
121Sb (KED)	0.196 ppb	3.2 %
137Ba (KED)	17.004 ppb	3.8 %
205Tl (KED)	0.010 ppb	84.6 %
208Pb (KED)	0.200 ppb	4.2 %

ISTD's	Concentration average
6Li (KED)	123.840 %
45Sc (KED)	114.585 %
72Ge (KED)	110.782 %
89Y (KED)	111.103 %
115In (KED)	111.881 %
159Tb (KED)	112.959 %
209Bi (KED)	107.163 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11RE1	File ID:	061423.xml-097
Sampled:	05/31/23 11:10	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:33
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	74.9	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	35.2	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*215*	*0.500*	*1.00*	*1.25*	*D, B*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	98	Stop Time:	6/14/2023 11:34:53 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-11RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:33:00 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.089 ppb	83.6 %
11B (KED)	2.143 ppb	13.2 %
23Na (KED)	3,871.647 ppb	1.1 %
24Mg (KED)	633.385 ppb	1.1 %
27Al (KED)	0.611 ppb	4.3 %
31P (KED)	-2.417 ppb	106.8 %
39K (KED)	152.433 ppb	1.6 %
44Ca (KED)	1,347.891 ppb	1.8 %
47Ti (KED)	0.203 ppb	21.3 %
51V (KED)	0.045 ppb	5.6 %
52Cr (KED)	0.195 ppb	0.8 %
55Mn (KED)	0.155 ppb	9.5 %
57Fe (KED)	-4.013 ppb	4.5 %
59Co (KED)	0.114 ppb	0.7 %
60Ni (KED)	0.080 ppb	16.1 %
63Cu (KED)	-0.131 ppb	2.4 %
66Zn (KED)	0.006 ppb	197.8 %
75As (KED)	-0.002 ppb	152.1 %
78Se (KED)	0.107 ppb	48.8 %
95Mo (KED)	0.004 ppb	95.8 %
107Ag (KED)	-0.026 ppb	7.8 %
111Cd (KED)	-0.019 ppb	13.3 %
118Sn (KED)	-0.040 ppb	6.2 %
121Sb (KED)	0.184 ppb	0.4 %
137Ba (KED)	1.861 ppb	2.1 %
205Tl (KED)	0.006 ppb	8.6 %
208Pb (KED)	0.016 ppb	4.8 %

ISTD's	Concentration average
6Li (KED)	107.687 %
45Sc (KED)	103.806 %
72Ge (KED)	102.883 %
89Y (KED)	102.585 %
115In (KED)	105.072 %
159Tb (KED)	101.627 %
209Bi (KED)	102.659 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11RE2	File ID:	061423.xml-126
Sampled:	05/31/23 11:10	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:27
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	166	2.00	4.00	5.00	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	127	Stop Time:	6/14/2023 12:29:33 PM	Comment	1/100/2=200 Na
Sample ID:	23F0136-11RE2@200	Dilution Factor	0.5		
Start Time:	6/14/2023 12:27:42 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.027 ppb	63.8 %
11B (KED)	0.532 ppb	30.0 %
23Na (KED)	746.895 ppb	1.3 %
24Mg (KED)	128.941 ppb	1.6 %
27Al (KED)	0.551 ppb	5.4 %
31P (KED)	-5.457 ppb	17.2 %
39K (KED)	35.652 ppb	6.4 %
44Ca (KED)	277.042 ppb	3.8 %
47Ti (KED)	0.145 ppb	5.6 %
51V (KED)	0.034 ppb	7.2 %
52Cr (KED)	0.184 ppb	1.2 %
55Mn (KED)	-0.095 ppb	0.4 %
57Fe (KED)	-5.316 ppb	2.7 %
59Co (KED)	0.108 ppb	0.2 %
60Ni (KED)	0.005 ppb	72.0 %
63Cu (KED)	-0.136 ppb	2.0 %
66Zn (KED)	0.190 ppb	12.6 %
75As (KED)	-0.009 ppb	65.4 %
78Se (KED)	0.025 ppb	66.0 %
95Mo (KED)	-0.002 ppb	85.2 %
107Ag (KED)	-0.027 ppb	4.3 %
111Cd (KED)	-0.021 ppb	5.5 %
118Sn (KED)	-0.044 ppb	5.8 %
121Sb (KED)	0.183 ppb	0.9 %
137Ba (KED)	0.321 ppb	8.9 %
205Tl (KED)	0.005 ppb	8.3 %
208Pb (KED)	0.015 ppb	4.9 %

ISTD's	Concentration average
6Li (KED)	114.199 %
45Sc (KED)	107.403 %
72Ge (KED)	105.841 %
89Y (KED)	104.488 %
115In (KED)	107.354 %
159Tb (KED)	101.343 %
209Bi (KED)	105.649 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12	File ID:	061423.xml-061
Sampled:	05/31/23 15:07	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:25
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0338	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*173*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0149	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved		0.00250	0.0100	0.0250	U
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved	0.218	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*109*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0080	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.551	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	1.37	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved	0.00270	0.00250	0.0100	0.0250	J, D
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*635*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #:	62	Stop Time:	6/14/2023 10:27:28 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-12@5	Dilution Factor	0.2		
Start Time:	6/14/2023 10:25:36 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.019 ppb	215.9 %
11B (KED)	10.472 ppb	2.6 %
23Na (KED)	114,295.464 ppb	1.5 %
24Mg (KED)	19,549.502 ppb	0.8 %
27Al (KED)	0.814 ppb	9.9 %
31P (KED)	3.860 ppb	81.5 %
39K (KED)	247.315 ppb	1.9 %
44Ca (KED)	31,076.763 ppb	1.0 %
47Ti (KED)	0.199 ppb	11.6 %
51V (KED)	0.207 ppb	4.1 %
52Cr (KED)	2.687 ppb	1.5 %
55Mn (KED)	1.446 ppb	6.7 %
57Fe (KED)	39.275 ppb	1.1 %
59Co (KED)	0.300 ppb	2.2 %
60Ni (KED)	99.252 ppb	0.7 %
63Cu (KED)	0.174 ppb	5.4 %
66Zn (KED)	0.011 ppb	63.3 %
75As (KED)	0.029 ppb	35.7 %
78Se (KED)	0.486 ppb	5.9 %
95Mo (KED)	1.044 ppb	2.9 %
107Ag (KED)	-0.027 ppb	11.8 %
111Cd (KED)	0.000 ppb	15,427.6 %
118Sn (KED)	-0.030 ppb	27.7 %
121Sb (KED)	0.206 ppb	4.8 %
137Ba (KED)	6.084 ppb	1.7 %
205Tl (KED)	0.017 ppb	110.7 %
208Pb (KED)	0.029 ppb	58.1 %

ISTD's	Concentration average
6Li (KED)	104.827 %
45Sc (KED)	101.074 %
72Ge (KED)	97.035 %
89Y (KED)	98.641 %
115In (KED)	99.323 %
159Tb (KED)	102.423 %
209Bi (KED)	91.805 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12RE1	File ID:	061423.xml-098
Sampled:	05/31/23 15:07	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:34
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	195	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	121	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*713*	*0.500*	*1.00*	*1.25*	*D, B, E*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	99	Stop Time:	6/14/2023 11:36:46 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-12RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:34:56 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.101 ppb	22.3 %
11B (KED)	1.795 ppb	5.0 %
23Na (KED)	12,832.430 ppb	0.7 %
24Mg (KED)	2,171.658 ppb	0.8 %
27Al (KED)	0.585 ppb	13.1 %
31P (KED)	-3.251 ppb	50.9 %
39K (KED)	32.009 ppb	2.8 %
44Ca (KED)	3,513.543 ppb	0.5 %
47Ti (KED)	0.228 ppb	18.3 %
51V (KED)	0.054 ppb	4.0 %
52Cr (KED)	0.448 ppb	2.1 %
55Mn (KED)	0.015 ppb	100.7 %
57Fe (KED)	-0.307 ppb	43.2 %
59Co (KED)	0.127 ppb	0.2 %
60Ni (KED)	10.915 ppb	1.7 %
63Cu (KED)	-0.113 ppb	2.2 %
66Zn (KED)	-0.044 ppb	27.3 %
75As (KED)	0.001 ppb	717.6 %
78Se (KED)	0.160 ppb	17.6 %
95Mo (KED)	0.103 ppb	11.6 %
107Ag (KED)	-0.027 ppb	18.7 %
111Cd (KED)	-0.019 ppb	3.5 %
118Sn (KED)	-0.041 ppb	5.5 %
121Sb (KED)	0.184 ppb	0.4 %
137Ba (KED)	0.655 ppb	9.2 %
205Tl (KED)	0.005 ppb	17.2 %
208Pb (KED)	0.015 ppb	4.2 %

ISTD's	Concentration average
6Li (KED)	107.597 %
45Sc (KED)	104.339 %
72Ge (KED)	102.790 %
89Y (KED)	101.547 %
115In (KED)	102.769 %
159Tb (KED)	98.865 %
209Bi (KED)	99.356 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12RE2	File ID:	061423.xml-127
Sampled:	05/31/23 15:07	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:29
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	548	10.0	20.0	25.0	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	128	Stop Time:	6/14/2023 12:31:28 PM	Comment	1/100/10=1000 Na
Sample ID:	23F0136-12RE2@1000	Dilution Factor	0.1		
Start Time:	6/14/2023 12:29:36 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.010 ppb	391.0 %
11B (KED)	0.481 ppb	31.4 %
23Na (KED)	493.589 ppb	0.3 %
24Mg (KED)	89.264 ppb	2.8 %
27Al (KED)	0.573 ppb	14.2 %
31P (KED)	-4.980 ppb	38.8 %
39K (KED)	5.220 ppb	9.2 %
44Ca (KED)	137.826 ppb	2.0 %
47Ti (KED)	0.180 ppb	26.0 %
51V (KED)	0.037 ppb	11.4 %
52Cr (KED)	0.194 ppb	0.5 %
55Mn (KED)	-0.147 ppb	5.5 %
57Fe (KED)	-5.079 ppb	1.2 %
59Co (KED)	0.107 ppb	0.4 %
60Ni (KED)	0.445 ppb	3.4 %
63Cu (KED)	-0.143 ppb	0.4 %
66Zn (KED)	-0.068 ppb	8.2 %
75As (KED)	0.006 ppb	55.3 %
78Se (KED)	0.069 ppb	69.2 %
95Mo (KED)	-0.002 ppb	167.6 %
107Ag (KED)	-0.025 ppb	7.4 %
111Cd (KED)	-0.019 ppb	9.2 %
118Sn (KED)	-0.044 ppb	3.2 %
121Sb (KED)	0.180 ppb	1.7 %
137Ba (KED)	-0.065 ppb	4.9 %
205Tl (KED)	0.005 ppb	6.7 %
208Pb (KED)	0.015 ppb	3.7 %

ISTD's	Concentration average
6Li (KED)	113.745 %
45Sc (KED)	108.886 %
72Ge (KED)	105.786 %
89Y (KED)	105.765 %
115In (KED)	107.626 %
159Tb (KED)	103.271 %
209Bi (KED)	105.530 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13	File ID:	061423.xml-062
Sampled:	05/31/23 10:35	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:27
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.184	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved	0.000550	0.000500	0.00200	0.00250	D, J
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*81.1*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00275	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.0123	0.00250	0.0100	0.0250	J, D
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved		0.0500	0.100	0.125	U
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*45.4*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.988	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00730	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	4.76	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*588*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved		0.00150	0.00500	0.0250	U
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #:	63	Stop Time:	6/14/2023 10:29:21 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-13@5	Dilution Factor	0.2		
Start Time:	6/14/2023 10:27:30 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.099 ppb	16.3 %
11B (KED)	19.103 ppb	3.1 %
23Na (KED)	105,804.470 ppb	1.6 %
24Mg (KED)	8,172.409 ppb	1.3 %
27Al (KED)	3.984 ppb	5.8 %
31P (KED)	0.449 ppb	155.3 %
39K (KED)	856.503 ppb	1.4 %
44Ca (KED)	14,599.431 ppb	0.7 %
47Ti (KED)	0.234 ppb	22.7 %
51V (KED)	0.183 ppb	9.0 %
52Cr (KED)	0.494 ppb	2.1 %
55Mn (KED)	177.893 ppb	1.1 %
57Fe (KED)	7.160 ppb	1.8 %
59Co (KED)	2.208 ppb	0.4 %
60Ni (KED)	1.313 ppb	1.3 %
63Cu (KED)	-0.090 ppb	3.1 %
66Zn (KED)	0.520 ppb	3.4 %
75As (KED)	0.037 ppb	17.0 %
78Se (KED)	0.129 ppb	64.8 %
95Mo (KED)	0.789 ppb	1.8 %
107Ag (KED)	-0.026 ppb	9.6 %
111Cd (KED)	-0.017 ppb	13.4 %
118Sn (KED)	0.034 ppb	3.0 %
121Sb (KED)	0.204 ppb	0.4 %
137Ba (KED)	33.083 ppb	0.3 %
205Tl (KED)	0.010 ppb	6.0 %
208Pb (KED)	0.017 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	111.651 %
45Sc (KED)	105.384 %
72Ge (KED)	102.575 %
89Y (KED)	104.047 %
115In (KED)	101.747 %
159Tb (KED)	105.944 %
209Bi (KED)	98.975 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13RE1	File ID:	061423.xml-099
Sampled:	05/31/23 10:35	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:36
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	88.5	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	48.0	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*632*	*0.500*	*1.00*	*1.25*	*D, B, E*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	100	Stop Time:	6/14/2023 11:38:40 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-13RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:36:49 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.056 ppb	33.3 %
11B (KED)	2.569 ppb	0.8 %
23Na (KED)	11,379.535 ppb	1.7 %
24Mg (KED)	864.356 ppb	1.6 %
27Al (KED)	0.845 ppb	13.6 %
31P (KED)	-4.925 ppb	18.5 %
39K (KED)	98.571 ppb	1.9 %
44Ca (KED)	1,592.709 ppb	1.7 %
47Ti (KED)	0.200 ppb	16.6 %
51V (KED)	0.060 ppb	8.7 %
52Cr (KED)	0.217 ppb	0.6 %
55Mn (KED)	19.050 ppb	1.8 %
57Fe (KED)	-4.154 ppb	5.7 %
59Co (KED)	0.330 ppb	0.1 %
60Ni (KED)	0.147 ppb	11.9 %
63Cu (KED)	-0.139 ppb	3.3 %
66Zn (KED)	0.021 ppb	64.9 %
75As (KED)	0.013 ppb	43.7 %
78Se (KED)	0.043 ppb	110.2 %
95Mo (KED)	0.075 ppb	19.2 %
107Ag (KED)	-0.027 ppb	2.0 %
111Cd (KED)	-0.020 ppb	10.1 %
118Sn (KED)	-0.035 ppb	2.1 %
121Sb (KED)	0.184 ppb	0.5 %
137Ba (KED)	3.638 ppb	2.3 %
205Tl (KED)	0.006 ppb	13.0 %
208Pb (KED)	0.016 ppb	2.9 %

ISTD's	Concentration average
6Li (KED)	110.605 %
45Sc (KED)	106.773 %
72Ge (KED)	104.194 %
89Y (KED)	101.299 %
115In (KED)	104.708 %
159Tb (KED)	100.525 %
209Bi (KED)	101.427 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13RE2	File ID:	061423.xml-128
Sampled:	05/31/23 10:35	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:31
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	527	10.0	20.0	25.0	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	129	Stop Time:	6/14/2023 12:33:24 PM	Comment	1/100/10=1000 Na
Sample ID:	23F0136-13RE2@1000	Dilution Factor	0.1		
Start Time:	6/14/2023 12:31:31 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.012 ppb	333.7 %
11B (KED)	0.376 ppb	19.9 %
23Na (KED)	473.994 ppb	0.8 %
24Mg (KED)	39.366 ppb	3.0 %
27Al (KED)	0.569 ppb	7.3 %
31P (KED)	-3.209 ppb	48.7 %
39K (KED)	8.303 ppb	8.4 %
44Ca (KED)	67.825 ppb	7.9 %
47Ti (KED)	0.166 ppb	19.9 %
51V (KED)	0.038 ppb	19.3 %
52Cr (KED)	0.184 ppb	3.4 %
55Mn (KED)	0.683 ppb	3.6 %
57Fe (KED)	-5.332 ppb	2.3 %
59Co (KED)	0.120 ppb	3.3 %
60Ni (KED)	0.005 ppb	155.1 %
63Cu (KED)	-0.129 ppb	1.4 %
66Zn (KED)	-0.063 ppb	8.2 %
75As (KED)	0.001 ppb	409.9 %
78Se (KED)	0.044 ppb	44.0 %
95Mo (KED)	0.001 ppb	305.9 %
107Ag (KED)	-0.023 ppb	9.5 %
111Cd (KED)	-0.016 ppb	41.8 %
118Sn (KED)	-0.041 ppb	9.8 %
121Sb (KED)	0.182 ppb	1.6 %
137Ba (KED)	0.074 ppb	18.6 %
205Tl (KED)	0.008 ppb	28.3 %
208Pb (KED)	0.017 ppb	8.8 %

ISTD's	Concentration average
6Li (KED)	114.443 %
45Sc (KED)	109.797 %
72Ge (KED)	107.496 %
89Y (KED)	105.576 %
115In (KED)	106.683 %
159Tb (KED)	102.396 %
209Bi (KED)	105.436 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14	File ID:	061423.xml-063
Sampled:	06/01/23 10:45	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:29
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.0250	0.0500	0.125	U
7440-36-0	Antimony, Dissolved		0.00300	0.0100	0.0250	U
7440-38-2	Arsenic, Dissolved		0.00200	0.00500	0.0250	U
7440-39-3	Barium, Dissolved	0.0158	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*367*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0193	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved		0.00250	0.0100	0.0250	U
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved		0.0500	0.100	0.125	U
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*196*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0184	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.00901	0.00250	0.0100	0.0250	J, D
7440-09-7	*Potassium, Dissolved*	*56.0*	*0.0500*	*0.100*	*0.125*	*D, E*
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*1120*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved	0.00150	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #:	64	Stop Time:	6/14/2023 10:31:10 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-14@5	Dilution Factor	0.2		
Start Time:	6/14/2023 10:29:22 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.021 ppb	44.2 %
11B (KED)	29.130 ppb	1.2 %
23Na (KED)	201,378.572 ppb	1.3 %
24Mg (KED)	35,263.746 ppb	1.2 %
27Al (KED)	0.801 ppb	3.4 %
31P (KED)	5.467 ppb	32.4 %
39K (KED)	10,076.509 ppb	0.9 %
44Ca (KED)	66,145.942 ppb	1.1 %
47Ti (KED)	0.194 ppb	12.3 %
51V (KED)	0.270 ppb	5.5 %
52Cr (KED)	3.481 ppb	3.2 %
55Mn (KED)	3.317 ppb	2.4 %
57Fe (KED)	1.488 ppb	43.9 %
59Co (KED)	0.175 ppb	1.2 %
60Ni (KED)	1.621 ppb	1.4 %
63Cu (KED)	-0.032 ppb	10.9 %
66Zn (KED)	1.432 ppb	1.4 %
75As (KED)	0.058 ppb	15.7 %
78Se (KED)	0.135 ppb	31.3 %
95Mo (KED)	0.591 ppb	2.7 %
107Ag (KED)	-0.027 ppb	3.2 %
111Cd (KED)	0.032 ppb	33.3 %
118Sn (KED)	-0.033 ppb	0.9 %
121Sb (KED)	0.188 ppb	0.9 %
137Ba (KED)	2.842 ppb	0.2 %
205Tl (KED)	0.005 ppb	4.3 %
208Pb (KED)	0.018 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	121.498 %
45Sc (KED)	112.297 %
72Ge (KED)	104.744 %
89Y (KED)	106.454 %
115In (KED)	101.831 %
159Tb (KED)	106.637 %
209Bi (KED)	94.911 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14RE1	File ID:	061423.xml-100
Sampled:	06/01/23 10:45	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:38
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	*Calcium, Dissolved*	*395*	*0.500*	*1.00*	*1.25*	*D, E*
7439-95-4	Magnesium, Dissolved	206	0.200	0.500	1.25	D
7440-09-7	Potassium, Dissolved	61.3	0.500	1.00	1.25	D
7440-23-5	*Sodium, Dissolved*	*1160*	*0.500*	*1.00*	*1.25*	*D, B, E*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	101	Stop Time:	6/14/2023 11:40:29 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-14RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:38:43 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.011 ppb	261.0 %
11B (KED)	3.297 ppb	4.3 %
23Na (KED)	20,932.690 ppb	1.0 %
24Mg (KED)	3,699.157 ppb	0.8 %
27Al (KED)	0.622 ppb	10.8 %
31P (KED)	-3.607 ppb	101.5 %
39K (KED)	1,103.863 ppb	0.3 %
44Ca (KED)	7,101.060 ppb	1.4 %
47Ti (KED)	0.181 ppb	7.1 %
51V (KED)	0.063 ppb	3.1 %
52Cr (KED)	0.546 ppb	1.9 %
55Mn (KED)	0.218 ppb	13.3 %
57Fe (KED)	-4.516 ppb	4.0 %
59Co (KED)	0.113 ppb	1.3 %
60Ni (KED)	0.175 ppb	8.2 %
63Cu (KED)	-0.136 ppb	3.4 %
66Zn (KED)	0.121 ppb	15.3 %
75As (KED)	0.010 ppb	38.9 %
78Se (KED)	0.065 ppb	80.0 %
95Mo (KED)	0.051 ppb	14.3 %
107Ag (KED)	-0.026 ppb	4.2 %
111Cd (KED)	-0.014 ppb	17.8 %
118Sn (KED)	-0.042 ppb	7.5 %
121Sb (KED)	0.182 ppb	0.4 %
137Ba (KED)	0.212 ppb	10.7 %
205Tl (KED)	0.005 ppb	2.9 %
208Pb (KED)	0.015 ppb	5.2 %

ISTD's	Concentration average
6Li (KED)	111.777 %
45Sc (KED)	107.542 %
72Ge (KED)	103.791 %
89Y (KED)	102.387 %
115In (KED)	105.288 %
159Tb (KED)	101.800 %
209Bi (KED)	100.911 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14RE2	File ID:	061423.xml-129
Sampled:	06/01/23 10:45	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:33
		Preparation:	3005_METALS_PREP_M	Dilution:	2000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	363	20.0	40.0	50.0	D
7440-23-5	Sodium, Dissolved	1020	20.0	40.0	50.0	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	130	Stop Time:	6/14/2023 12:35:16 PM	Comment	1/100/20=2000 Na
Sample ID:	23F0136-14RE2@2000	Dilution Factor	0.05		
Start Time:	6/14/2023 12:33:27 PM	prepFAST DF	20		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.008 ppb	280.4 %
11B (KED)	0.338 ppb	14.1 %
23Na (KED)	458.482 ppb	1.1 %
24Mg (KED)	89.651 ppb	2.0 %
27Al (KED)	0.473 ppb	9.8 %
31P (KED)	-4.775 ppb	17.8 %
39K (KED)	31.218 ppb	7.4 %
44Ca (KED)	163.484 ppb	6.1 %
47Ti (KED)	0.157 ppb	10.4 %
51V (KED)	0.034 ppb	1.7 %
52Cr (KED)	0.191 ppb	4.0 %
55Mn (KED)	-0.145 ppb	4.1 %
57Fe (KED)	-5.503 ppb	4.5 %
59Co (KED)	0.107 ppb	0.3 %
60Ni (KED)	-0.006 ppb	95.7 %
63Cu (KED)	-0.145 ppb	0.6 %
66Zn (KED)	-0.074 ppb	13.8 %
75As (KED)	-0.001 ppb	986.2 %
78Se (KED)	0.030 ppb	21.8 %
95Mo (KED)	-0.005 ppb	35.0 %
107Ag (KED)	-0.025 ppb	7.0 %
111Cd (KED)	-0.021 ppb	3.0 %
118Sn (KED)	-0.045 ppb	1.0 %
121Sb (KED)	0.182 ppb	0.8 %
137Ba (KED)	-0.084 ppb	3.4 %
205Tl (KED)	0.006 ppb	7.5 %
208Pb (KED)	0.015 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	119.130 %
45Sc (KED)	110.975 %
72Ge (KED)	110.017 %
89Y (KED)	109.437 %
115In (KED)	112.812 %
159Tb (KED)	106.311 %
209Bi (KED)	107.562 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15	File ID:	061423.xml-064
Sampled:	06/01/23 12:26	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:31
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.0494	0.0250	0.0500	0.125	J, D
7440-36-0	Antimony, Dissolved	0.00510	0.00300	0.0100	0.0250	J, D
7440-38-2	Arsenic, Dissolved	0.00399	0.00200	0.00500	0.0250	J, D
7440-39-3	Barium, Dissolved	0.152	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*47.4*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0139	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved		0.00250	0.0100	0.0250	U
7440-50-8	Copper, Dissolved		0.00300	0.0100	0.0250	U
7439-89-6	Iron, Dissolved		0.0500	0.100	0.125	U
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	Magnesium, Dissolved	0.0489	0.0200	0.0500	0.125	J, D
7439-96-5	Manganese, Dissolved		0.0025	0.0100	0.0250	U
7440-02-0	Nickel, Dissolved		0.00250	0.0100	0.0250	U
7440-09-7	*Potassium, Dissolved*	*25.7*	*0.0500*	*0.100*	*0.125*	*D, E*
7782-49-2	Selenium, Dissolved		0.00250	0.0100	0.0250	U
7440-22-4	Silver, Dissolved		0.000400	0.00100	0.0250	U
7440-23-5	*Sodium, Dissolved*	*417*	*0.0500*	*0.100*	*0.125*	*D, B, E*
7440-28-0	Thallium, Dissolved		0.000400	0.00100	0.0250	U
7440-31-5	Tin, Dissolved		0.0100	0.0200	0.0250	U
7440-62-2	Vanadium, Dissolved	0.0617	0.00150	0.00500	0.0250	D
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

Labbook:
061423.imexp

Index #:	65	Stop Time:	6/14/2023 10:33:03 AM	Comment	1/5 6020 DISS
Sample ID:	23F0136-15@5	Dilution Factor	0.2		
Start Time:	6/14/2023 10:31:11 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.050 ppb	28.1 %
11B (KED)	17.171 ppb	1.0 %
23Na (KED)	75,103.223 ppb	1.1 %
24Mg (KED)	8.796 ppb	4.6 %
27Al (KED)	8.885 ppb	3.8 %
31P (KED)	-2.722 ppb	24.4 %
39K (KED)	4,627.760 ppb	1.3 %
44Ca (KED)	8,524.178 ppb	0.8 %
47Ti (KED)	0.246 ppb	10.8 %
51V (KED)	11.105 ppb	1.4 %
52Cr (KED)	2.497 ppb	1.7 %
55Mn (KED)	-0.100 ppb	8.1 %
57Fe (KED)	-4.763 ppb	2.6 %
59Co (KED)	0.145 ppb	0.8 %
60Ni (KED)	0.424 ppb	6.5 %
63Cu (KED)	0.204 ppb	2.6 %
66Zn (KED)	-0.039 ppb	29.6 %
75As (KED)	0.717 ppb	1.4 %
78Se (KED)	0.292 ppb	27.6 %
95Mo (KED)	0.631 ppb	2.7 %
107Ag (KED)	-0.025 ppb	3.0 %
111Cd (KED)	-0.019 ppb	15.5 %
118Sn (KED)	-0.032 ppb	9.5 %
121Sb (KED)	0.918 ppb	2.9 %
137Ba (KED)	27.271 ppb	2.5 %
205Tl (KED)	0.004 ppb	7.6 %
208Pb (KED)	0.017 ppb	3.4 %

ISTD's	Concentration average
6Li (KED)	135.173 %
45Sc (KED)	122.129 %
72Ge (KED)	115.706 %
89Y (KED)	113.156 %
115In (KED)	112.466 %
159Tb (KED)	116.928 %
209Bi (KED)	104.517 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15RE1	File ID:	061423.xml-103
Sampled:	06/01/23 12:26	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 11:44
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	48.4	0.500	1.00	1.25	D
7439-95-4	*Magnesium, Dissolved*		*0.200*	*0.500*	*1.25*	*U*
7440-09-7	Potassium, Dissolved	27.1	0.500	1.00	1.25	D
7440-23-5	*Sodium, Dissolved*	*408*	*0.500*	*1.00*	*1.25*	*D, B, E*

Italicized = secondary result

Labbook:
061423.imexp

Index #:	104	Stop Time:	6/14/2023 11:46:04 AM	Comment	1/10/5=50 6020 DISS
Sample ID:	23F0136-15RE1@50	Dilution Factor	0.2		
Start Time:	6/14/2023 11:44:14 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.050 ppb	13.8 %
11B (KED)	2.061 ppb	11.3 %
23Na (KED)	7,351.834 ppb	1.7 %
24Mg (KED)	1.285 ppb	14.5 %
27Al (KED)	1.441 ppb	9.4 %
31P (KED)	-5.055 ppb	22.2 %
39K (KED)	488.359 ppb	1.3 %
44Ca (KED)	871.028 ppb	0.2 %
47Ti (KED)	0.171 ppb	6.8 %
51V (KED)	1.152 ppb	3.3 %
52Cr (KED)	0.429 ppb	2.5 %
55Mn (KED)	-0.149 ppb	5.0 %
57Fe (KED)	-5.335 ppb	1.8 %
59Co (KED)	0.111 ppb	0.2 %
60Ni (KED)	0.031 ppb	13.0 %
63Cu (KED)	-0.103 ppb	6.6 %
66Zn (KED)	-0.048 ppb	33.8 %
75As (KED)	0.073 ppb	1.8 %
78Se (KED)	0.117 ppb	7.4 %
95Mo (KED)	0.057 ppb	9.6 %
107Ag (KED)	-0.023 ppb	11.8 %
111Cd (KED)	-0.019 ppb	3.7 %
118Sn (KED)	-0.041 ppb	6.5 %
121Sb (KED)	0.265 ppb	1.0 %
137Ba (KED)	2.776 ppb	2.5 %
205Tl (KED)	0.007 ppb	8.2 %
208Pb (KED)	0.016 ppb	4.3 %

ISTD's	Concentration average
6Li (KED)	117.300 %
45Sc (KED)	111.936 %
72Ge (KED)	108.717 %
89Y (KED)	106.660 %
115In (KED)	108.494 %
159Tb (KED)	103.517 %
209Bi (KED)	106.072 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15RE2	File ID:	061423.xml-134
Sampled:	06/01/23 12:26	Prepared:	06/06/23 14:21	Analyzed:	06/14/23 12:43
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	362	5.00	10.0	12.5	D, B

Italicized = secondary result

Labbook:
061423.imexp

Index #:	135	Stop Time:	6/14/2023 12:44:51 PM	Comment	1/100/5=500 Na
Sample ID:	23F0136-15RE2@500	Dilution Factor	0.2		
Start Time:	6/14/2023 12:43:00 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.110 ppb	85.5 %
11B (KED)	0.715 ppb	10.0 %
23Na (KED)	651.540 ppb	1.0 %
24Mg (KED)	0.612 ppb	16.0 %
27Al (KED)	0.605 ppb	17.4 %
31P (KED)	-4.772 ppb	19.0 %
39K (KED)	47.094 ppb	3.6 %
44Ca (KED)	82.959 ppb	1.2 %
47Ti (KED)	0.178 ppb	8.1 %
51V (KED)	0.167 ppb	16.3 %
52Cr (KED)	0.203 ppb	2.5 %
55Mn (KED)	-0.155 ppb	2.2 %
57Fe (KED)	-5.451 ppb	3.6 %
59Co (KED)	0.107 ppb	0.4 %
60Ni (KED)	-0.004 ppb	102.4 %
63Cu (KED)	-0.139 ppb	0.7 %
66Zn (KED)	-0.061 ppb	18.2 %
75As (KED)	0.009 ppb	63.5 %
78Se (KED)	0.079 ppb	50.7 %
95Mo (KED)	0.001 ppb	295.8 %
107Ag (KED)	-0.026 ppb	4.8 %
111Cd (KED)	-0.021 ppb	3.5 %
118Sn (KED)	-0.042 ppb	4.1 %
121Sb (KED)	0.189 ppb	0.0 %
137Ba (KED)	0.175 ppb	6.2 %
205Tl (KED)	0.004 ppb	9.9 %
208Pb (KED)	0.014 ppb	4.1 %

ISTD's	Concentration average
6Li (KED)	91.948 %
45Sc (KED)	90.683 %
72Ge (KED)	92.569 %
89Y (KED)	93.976 %
115In (KED)	98.226 %
159Tb (KED)	95.145 %
209Bi (KED)	99.498 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0173-BLK1	File ID:	061423.xml-036
		Prepared:	06/06/23 14:21	Analyzed:	06/14/23 09:38
		Preparation:	3005_METALS_PREP_M	Dilution:	1
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.00500	0.0100	0.0250	U
7440-36-0	Antimony, Dissolved		0.000600	0.00200	0.00500	U
7440-38-2	Arsenic, Dissolved		0.000400	0.00100	0.00500	U
7440-39-3	Barium, Dissolved		0.000400	0.00100	0.00500	U
7440-41-7	Beryllium, Dissolved		0.000100	0.000400	0.000500	U
7440-43-9	Cadmium, Dissolved		0.000100	0.000400	0.000500	U
7440-70-2	Calcium, Dissolved		0.0100	0.0200	0.0250	U
7440-47-3	Chromium, Dissolved		0.000500	0.00200	0.00500	U
7440-48-4	Cobalt, Dissolved		0.000500	0.00200	0.00500	U
7440-50-8	Copper, Dissolved		0.000600	0.00200	0.00500	U
7439-89-6	Iron, Dissolved		0.0100	0.0200	0.0250	U
7439-92-1	Lead, Dissolved		0.000300	0.00100	0.00500	U
7439-95-4	Magnesium, Dissolved		0.00400	0.0100	0.0250	U
7439-96-5	Manganese, Dissolved		0.0005	0.0020	0.0050	U
7440-02-0	Nickel, Dissolved		0.000500	0.00200	0.00500	U
7440-09-7	Potassium, Dissolved		0.0100	0.0200	0.0250	U
7782-49-2	Selenium, Dissolved		0.000500	0.00200	0.00500	U
7440-22-4	Silver, Dissolved		0.0000800	0.000200	0.00500	U
7440-23-5	Sodium, Dissolved	0.0530	0.0100	0.0200	0.0250	D
7440-28-0	Thallium, Dissolved		0.0000800	0.000200	0.00500	U
7440-31-5	Tin, Dissolved		0.00200	0.00400	0.00500	U
7440-62-2	Vanadium, Dissolved		0.000300	0.00100	0.00500	U
7440-66-6	Zinc, Dissolved		0.00200	0.00400	0.00500	U

Labbook:
061423.imexp

Index #:	37	Stop Time:	6/14/2023 9:40:41 AM	Comment	ND 6020 DISS
Sample ID:	B3F0173-BLK1	Dilution Factor	1		
Start Time:	6/14/2023 9:38:47 AM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.053 ppb	28.8 %
11B (KED)	0.336 ppb	60.0 %
23Na (KED)	47.677 ppb	166.0 %
24Mg (KED)	2.230 ppb	68.3 %
27Al (KED)	1.673 ppb	17.7 %
31P (KED)	0.361 ppb	700.0 %
39K (KED)	3.954 ppb	174.6 %
44Ca (KED)	4.059 ppb	202.3 %
47Ti (KED)	0.229 ppb	23.8 %
51V (KED)	0.045 ppb	28.5 %
52Cr (KED)	0.221 ppb	21.2 %
55Mn (KED)	-0.061 ppb	42.5 %
57Fe (KED)	-3.840 ppb	3.1 %
59Co (KED)	0.124 ppb	9.6 %
60Ni (KED)	0.037 ppb	94.5 %
63Cu (KED)	-0.114 ppb	29.2 %
66Zn (KED)	-0.096 ppb	22.0 %
75As (KED)	-0.004 ppb	414.9 %
78Se (KED)	0.035 ppb	47.8 %
95Mo (KED)	0.004 ppb	206.1 %
107Ag (KED)	-0.021 ppb	28.3 %
111Cd (KED)	-0.017 ppb	27.3 %
118Sn (KED)	-0.006 ppb	247.8 %
121Sb (KED)	0.200 ppb	5.5 %
137Ba (KED)	-0.076 ppb	10.9 %
205Tl (KED)	0.014 ppb	71.5 %
208Pb (KED)	0.033 ppb	31.0 %

ISTD's	Concentration average
6Li (KED)	103.566 %
45Sc (KED)	103.193 %
72Ge (KED)	98.839 %
89Y (KED)	103.390 %
115In (KED)	106.669 %
159Tb (KED)	105.949 %
209Bi (KED)	99.988 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0173-BLK2	File ID:	061523B.xml-020
		Prepared:	06/06/23 14:21	Analyzed:	06/15/23 15:33
		Preparation:	3005_METALS_PREP_M	Dilution:	1
Batch:	B3F0173	Sequence:	S3F0259	Calibration:	EF30066
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.00500	0.0100	0.0250	U
7440-23-5	Sodium, Dissolved		0.0100	0.0200	0.0250	U

Labbook:
061523B.imexp

Index #:	21	Stop Time:	6/15/2023 3:34:56 PM	Comment	ND 6020 DISS Na
Sample ID:	B3F0173-BLK2	Dilution Factor	1		
Start Time:	6/15/2023 3:33:07 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.005 ppb	74.6 %
11B (KED)	0.122 ppb	88.3 %
23Na (KED)	2.112 ppb	3.9 %
24Mg (KED)	2.066 ppb	8.9 %
27Al (KED)	1.797 ppb	6.4 %
31P (KED)	6.847 ppb	5.7 %
39K (KED)	-3.429 ppb	54.1 %
44Ca (KED)	5.328 ppb	26.6 %
47Ti (KED)	-0.151 ppb	10.6 %
51V (KED)	-0.086 ppb	3.5 %
52Cr (KED)	-0.008 ppb	65.4 %
55Mn (KED)	-0.035 ppb	31.5 %
57Fe (KED)	2.572 ppb	10.2 %
59Co (KED)	-0.121 ppb	1.2 %
60Ni (KED)	0.011 ppb	71.8 %
63Cu (KED)	-0.336 ppb	1.8 %
66Zn (KED)	0.125 ppb	2.1 %
75As (KED)	0.031 ppb	22.3 %
78Se (KED)	0.123 ppb	2.3 %
95Mo (KED)	0.002 ppb	160.3 %
107Ag (KED)	-0.049 ppb	0.6 %
111Cd (KED)	-0.029 ppb	2.2 %
118Sn (KED)	-0.254 ppb	0.6 %
121Sb (KED)	-0.088 ppb	1.1 %
137Ba (KED)	-0.079 ppb	8.8 %
205Tl (KED)	0.008 ppb	17.3 %
208Pb (KED)	-0.028 ppb	2.8 %

ISTD's	Concentration average
6Li (KED)	97.769 %
45Sc (KED)	94.107 %
72Ge (KED)	95.687 %
89Y (KED)	99.550 %
115In (KED)	101.231 %
159Tb (KED)	106.085 %
209Bi (KED)	103.518 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0173-BS1	File ID:	061423.xml-037
		Prepared:	06/06/23 14:21	Analyzed:	06/14/23 09:40
		Preparation:	3005_METALS_PREP_M	Dilution:	1
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.108	0.00900	0.0180	0.0450	D
7440-36-0	Antimony, Dissolved	0.0975	0.00108	0.00360	0.00900	D
7440-38-2	Arsenic, Dissolved	0.0986	0.000720	0.00180	0.00900	D
7440-39-3	Barium, Dissolved	0.100	0.000720	0.00180	0.00900	D
7440-41-7	Beryllium, Dissolved	0.0486	0.000180	0.000720	0.000900	D
7440-43-9	Cadmium, Dissolved	0.0963	0.000180	0.000720	0.000900	D
7440-70-2	Calcium, Dissolved	0.502	0.0180	0.0360	0.0450	D
7440-47-3	Chromium, Dissolved	0.0990	0.000900	0.00360	0.00900	D
7440-48-4	Cobalt, Dissolved	0.0958	0.000900	0.00360	0.00900	D
7440-50-8	Copper, Dissolved	0.0985	0.00108	0.00360	0.00900	D
7439-89-6	Iron, Dissolved	0.478	0.0180	0.0360	0.0450	D
7439-92-1	Lead, Dissolved	0.0955	0.000540	0.00180	0.00900	D
7439-95-4	Magnesium, Dissolved	0.512	0.00720	0.0180	0.0450	D
7439-96-5	Manganese, Dissolved	0.0982	0.0009	0.0036	0.0090	D
7440-02-0	Nickel, Dissolved	0.0977	0.000900	0.00360	0.00900	D
7440-09-7	Potassium, Dissolved	0.513	0.0180	0.0360	0.0450	D
7782-49-2	Selenium, Dissolved	0.100	0.000900	0.00360	0.00900	D
7440-22-4	Silver, Dissolved	0.0972	0.000144	0.000360	0.00900	D
7440-23-5	Sodium, Dissolved	0.510	0.0180	0.0360	0.0450	D, B
7440-28-0	Thallium, Dissolved	0.0994	0.000144	0.000360	0.00900	D
7440-31-5	Tin, Dissolved	0.0981	0.00360	0.00720	0.00900	D
7440-62-2	Vanadium, Dissolved	0.0989	0.000540	0.00180	0.00900	D
7440-66-6	Zinc, Dissolved	0.0995	0.00360	0.00720	0.00900	D

Labbook:
061423.imexp

Index #:	38	Stop Time:	6/14/2023 9:42:31 AM	Comment	ND 6020 DISS
Sample ID:	B3F0173-BS1	Dilution Factor	1		
Start Time:	6/14/2023 9:40:42 AM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	24.279 ppb	0.5 %
11B (KED)	49.264 ppb	1.2 %
23Na (KED)	255.096 ppb	0.8 %
24Mg (KED)	256.072 ppb	1.3 %
27Al (KED)	54.137 ppb	1.9 %
31P (KED)	249.605 ppb	5.3 %
39K (KED)	256.281 ppb	1.5 %
44Ca (KED)	250.872 ppb	7.4 %
47Ti (KED)	50.332 ppb	0.9 %
51V (KED)	49.457 ppb	0.1 %
52Cr (KED)	49.485 ppb	0.4 %
55Mn (KED)	49.098 ppb	1.1 %
57Fe (KED)	239.134 ppb	0.6 %
59Co (KED)	47.916 ppb	0.5 %
60Ni (KED)	48.846 ppb	1.9 %
63Cu (KED)	49.265 ppb	1.2 %
66Zn (KED)	49.732 ppb	0.6 %
75As (KED)	49.280 ppb	1.3 %
78Se (KED)	50.218 ppb	1.2 %
95Mo (KED)	47.767 ppb	2.5 %
107Ag (KED)	48.576 ppb	2.1 %
111Cd (KED)	48.155 ppb	1.3 %
118Sn (KED)	49.057 ppb	1.1 %
121Sb (KED)	48.757 ppb	1.2 %
137Ba (KED)	50.135 ppb	1.6 %
205Tl (KED)	49.676 ppb	0.8 %
208Pb (KED)	47.765 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	101.364 %
45Sc (KED)	100.783 %
72Ge (KED)	99.493 %
89Y (KED)	98.406 %
115In (KED)	100.711 %
159Tb (KED)	97.246 %
209Bi (KED)	98.127 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

Duplicate

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0173-DUP1	File ID:	061423.xml-075
		Prepared:	06/06/23 14:21	Analyzed:	06/14/23 10:51
		Preparation:	3005_METALS_PREP_M	Dilution:	25
Batch:	B3F0173	Sequence:	S3F0237	Calibration:	EF30060
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved		0.125	0.250	0.625	U
7440-36-0	Antimony, Dissolved		0.0150	0.0500	0.125	U
7440-38-2	Arsenic, Dissolved		0.0100	0.0250	0.125	U
7440-39-3	Barium, Dissolved	0.243	0.0100	0.0250	0.125	D
7440-41-7	Beryllium, Dissolved		0.00250	0.0100	0.0125	U
7440-43-9	Cadmium, Dissolved		0.00250	0.0100	0.0125	U
7440-70-2	Calcium, Dissolved	153	0.250	0.500	0.625	D, E
7440-47-3	Chromium, Dissolved	0.0144	0.0125	0.0500	0.125	P, J, D
7440-48-4	Cobalt, Dissolved		0.0125	0.0500	0.125	U
7440-50-8	Copper, Dissolved		0.0150	0.0500	0.125	U
7439-89-6	Iron, Dissolved		0.250	0.500	0.625	U
7439-92-1	Lead, Dissolved		0.00750	0.0250	0.125	U
7439-95-4	Magnesium, Dissolved	89.7	0.100	0.250	0.625	D
7439-96-5	Manganese, Dissolved	0.227	0.0125	0.0500	0.125	D
7440-02-0	Nickel, Dissolved	0.0242	0.0125	0.0500	0.125	J, D
7440-09-7	Potassium, Dissolved	17.5	0.250	0.500	0.625	D
7782-49-2	Selenium, Dissolved		0.0125	0.0500	0.125	U
7440-22-4	Silver, Dissolved		0.00200	0.00500	0.125	U
7440-23-5	Sodium, Dissolved	680	0.250	0.500	0.625	D, B, E
7440-28-0	Thallium, Dissolved		0.00200	0.00500	0.125	P, U
7440-31-5	Tin, Dissolved		0.0500	0.100	0.125	U
7440-62-2	Vanadium, Dissolved		0.00750	0.0250	0.125	U
7440-66-6	Zinc, Dissolved		0.0500	0.100	0.125	U

Labbook:
061423.imexp

Index #:	76	Stop Time:	6/14/2023 10:53:38 AM	Comment	1/5/5=25 6020 DISS
Sample ID:	B3F0173-DUP1@25	Dilution Factor	0.2		
Start Time:	6/14/2023 10:51:44 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.026 ppb	60.8 %
11B (KED)	5.011 ppb	8.0 %
23Na (KED)	24,485.508 ppb	0.2 %
24Mg (KED)	3,229.488 ppb	0.8 %
27Al (KED)	0.697 ppb	6.1 %
31P (KED)	4.912 ppb	65.1 %
39K (KED)	629.116 ppb	1.8 %
44Ca (KED)	5,502.462 ppb	0.7 %
47Ti (KED)	0.163 ppb	19.3 %
51V (KED)	0.055 ppb	10.4 %
52Cr (KED)	0.520 ppb	1.5 %
55Mn (KED)	8.188 ppb	1.2 %
57Fe (KED)	6.742 ppb	5.3 %
59Co (KED)	0.154 ppb	1.6 %
60Ni (KED)	0.870 ppb	6.4 %
63Cu (KED)	-0.121 ppb	2.2 %
66Zn (KED)	-0.025 ppb	56.0 %
75As (KED)	0.060 ppb	3.2 %
78Se (KED)	0.046 ppb	65.3 %
95Mo (KED)	0.055 ppb	8.5 %
107Ag (KED)	-0.023 ppb	10.6 %
111Cd (KED)	-0.019 ppb	5.1 %
118Sn (KED)	-0.034 ppb	1.7 %
121Sb (KED)	0.187 ppb	0.4 %
137Ba (KED)	8.735 ppb	0.8 %
205Tl (KED)	0.007 ppb	11.4 %
208Pb (KED)	0.019 ppb	2.7 %

ISTD's	Concentration average
6Li (KED)	148.563 %
45Sc (KED)	130.835 %
72Ge (KED)	125.428 %
89Y (KED)	121.797 %
115In (KED)	121.307 %
159Tb (KED)	119.452 %
209Bi (KED)	113.044 %

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-ICV1	Aluminum, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	98.2	98	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.2	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	49.9	100	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	96.7	97	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	514	103	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	487	97	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	96.5	97	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	519	104	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	97.2	97	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	499	100	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	495	99	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
S3F0237-HCV1	Aluminum, Dissolved	1000	987	99	ug/L	+/- 10.00%
	Antimony, Dissolved	1000	988	99	ug/L	+/- 10.00%
	Arsenic, Dissolved	1000	976	98	ug/L	+/- 10.00%
	Barium, Dissolved	1000	960	96	ug/L	+/- 10.00%
	Beryllium, Dissolved	500.0	530	106	ug/L	+/- 10.00%
	Cadmium, Dissolved	1000	963	96	ug/L	+/- 10.00%
	Calcium, Dissolved	5000	5070	101	ug/L	+/- 10.00%
	Chromium, Dissolved	1000	956	96	ug/L	+/- 10.00%
	Cobalt, Dissolved	1000	955	95	ug/L	+/- 10.00%
	Copper, Dissolved	1000	949	95	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-HCV1	Iron, Dissolved	5000	4870	97	ug/L	+/- 10.00%
	Lead, Dissolved	1000	976	98	ug/L	+/- 10.00%
	Magnesium, Dissolved	5000	5280	106	ug/L	+/- 10.00%
	Manganese, Dissolved	1000	982	98	ug/L	+/- 10.00%
	Nickel, Dissolved	1000	954	95	ug/L	+/- 10.00%
	Potassium, Dissolved	5000	5030	101	ug/L	+/- 10.00%
	Selenium, Dissolved	1000	959	96	ug/L	+/- 10.00%
	Silver, Dissolved	1000	965	96	ug/L	+/- 10.00%
	Sodium, Dissolved	**5000**	**5570**	**111**	**ug/L**	+/- 10.00%
	Thallium, Dissolved	1000	995	99	ug/L	+/- 10.00%
	Tin, Dissolved	1000	980	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	1000	978	98	ug/L	+/- 10.00%
	Zinc, Dissolved	1000	964	96	ug/L	+/- 10.00%
S3F0237-CCV1	Aluminum, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	53.1	106	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	521	104	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	484	97	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	96.4	96	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	98.0	98	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	499	100	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCV1	Tin, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	96.9	97	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
S3F0237-CCV2	Aluminum, Dissolved	100.0	107	107	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.5	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	52.7	105	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	516	103	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	505	101	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.5	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	527	105	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	97.5	98	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	522	104	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Sodium, Dissolved	**500.0**	**553**	**111**	**ug/L**	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	100	100	ug/L	+/- 10.00%
S3F0237-CCV3	Aluminum, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	48.6	97	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	517	103	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCV3	Chromium, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	96.6	97	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	490	98	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	497	99	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	506	101	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	497	99	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.8	99	ug/L	+/- 10.00%
S3F0237-CCV4	Aluminum, Dissolved	100.0	108	108	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	54.0	108	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	519	104	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	497	99	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	97.5	97	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	536	107	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.5	99	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	521	104	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCV4	Silver, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	548	110	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	101	101	ug/L	+/- 10.00%
S3F0237-CCV5	Aluminum, Dissolved	100.0	110	110	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	54.1	108	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	528	106	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	510	102	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	538	108	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	528	106	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	549	110	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	101	101	ug/L	+/- 10.00%
S3F0237-CCV6	Aluminum, Dissolved	100.0	97.2	97	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	99.5	99	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	100	100	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCV6	Beryllium, Dissolved	50.00	49.0	98	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	96.6	97	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	501	100	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	98.2	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	94.8	95	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	481	96	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	498	100	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	95.8	96	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	504	101	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	94.9	95	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	486	97	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.2	97	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
S3F0237-CCV7	Aluminum, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.8	102	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	96.9	97	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	491	98	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	511	102	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCV7	Nickel, Dissolved	100.0	96.5	97	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	520	104	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	96.1	96	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	502	100	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
S3F0237-CCV8	Aluminum, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	52.0	104	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	517	103	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	99.5	99	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	493	99	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	522	104	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	97.5	98	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	520	104	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	95.1	95	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	523	105	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
S3F0237-CCV9	Aluminum, Dissolved	100.0	103	103	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCV9	Antimony, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	51.2	102	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	94.9	95	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	514	103	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.1	97	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	95.3	95	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	97.6	98	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	484	97	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	510	102	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	95.0	95	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	95.1	95	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	504	101	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.5	98	ug/L	+/- 10.00%
S3F0237-CCVA	Aluminum, Dissolved	100.0	107	107	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.5	101	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	96.3	96	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	522	104	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	95.8	96	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	98.0	98	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	494	99	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCVA	Lead, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	95.5	96	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	523	105	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	93.3	93	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
S3F0237-CCVB	Aluminum, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.2	100	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	94.2	94	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	524	105	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	95.3	95	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	487	97	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.5	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	94.6	95	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	92.2	92	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	508	102	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCVB	Vanadium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.5	100	ug/L	+/- 10.00%
S3F0237-CCVC	Aluminum, Dissolved	100.0	108	108	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.3	101	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	96.4	96	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	533	107	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	95.8	96	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	491	98	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	524	105	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	94.3	94	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	532	106	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	94.8	95	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	523	105	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.1	97	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
S3F0237-CCVD	Aluminum, Dissolved	100.0	97.5	97	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.4	101	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	525	105	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	96.7	97	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCVD	Cobalt, Dissolved	100.0	94.0	94	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	95.8	96	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	484	97	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	516	103	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	93.4	93	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	519	104	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	94.2	94	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	500	100	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
S3F0237-CCVE	Aluminum, Dissolved	100.0	106	106	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.0	100	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	530	106	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	98.0	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	95.9	96	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	96.4	96	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	483	97	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	513	103	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	94.8	95	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	524	105	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	94.9	95	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCVE	Sodium, Dissolved	500.0	503	101	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	98.1	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
S3F0237-CCVF	Aluminum, Dissolved	100.0	109	109	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.8	102	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	95.5	95	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	517	103	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	96.5	97	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	95.4	95	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	95.9	96	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	490	98	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	517	103	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	93.8	94	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	529	106	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	93.5	94	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	97.6	98	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.8	99	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.2	97	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
S3F0237-CCVG	Aluminum, Dissolved	100.0	105	105	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.5	101	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
		Sequence:	S3F0237

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0237-CCVG	Cadmium, Dissolved	100.0	96.5	96	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	98.5	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	96.5	96	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	96.5	96	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	496	99	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	520	104	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	94.0	94	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	527	105	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	107	107	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	94.5	95	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	510	102	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	98.1	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%

Labbook:
061423.imexp

Index #: 7
Sample ID: SEQ-ICV
Start Time: 6/14/2023 8:38:19 AM
Stop Time: 6/14/2023 8:40:05 AM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Verification

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.885 ppb	99.770 %	50.000 ppb	1.4 %
11B (KED)	97.592 ppb	97.592 %	100.000 ppb	0.8 %
23Na (KED)	495.276 ppb	99.055 %	500.000 ppb	0.9 %
24Mg (KED)	518.693 ppb	103.739 %	500.000 ppb	0.6 %
27Al (KED)	101.419 ppb	101.419 %	100.000 ppb	0.5 %
31P (KED)	503.963 ppb	100.793 %	500.000 ppb	5.0 %
39K (KED)	499.446 ppb	99.889 %	500.000 ppb	0.6 %
44Ca (KED)	513.516 ppb	102.703 %	500.000 ppb	1.0 %
47Ti (KED)	100.650 ppb	100.650 %	100.000 ppb	1.8 %
51V (KED)	99.576 ppb	99.576 %	100.000 ppb	0.7 %
52Cr (KED)	97.399 ppb	97.399 %	100.000 ppb	0.3 %
55Mn (KED)	97.168 ppb	97.168 %	100.000 ppb	0.6 %
57Fe (KED)	486.573 ppb	97.315 %	500.000 ppb	1.5 %
59Co (KED)	99.344 ppb	99.344 %	100.000 ppb	1.1 %
60Ni (KED)	100.927 ppb	100.927 %	100.000 ppb	1.2 %
63Cu (KED)	100.894 ppb	100.894 %	100.000 ppb	0.9 %
66Zn (KED)	99.033 ppb	99.033 %	100.000 ppb	0.7 %
75As (KED)	98.176 ppb	98.176 %	100.000 ppb	0.4 %
78Se (KED)	97.741 ppb	97.741 %	100.000 ppb	1.9 %
95Mo (KED)	96.933 ppb	96.933 %	100.000 ppb	1.0 %
107Ag (KED)	98.415 ppb	98.415 %	100.000 ppb	0.9 %
111Cd (KED)	96.706 ppb	96.706 %	100.000 ppb	0.1 %
118Sn (KED)	98.362 ppb	98.362 %	100.000 ppb	0.4 %
121Sb (KED)	97.696 ppb	97.696 %	100.000 ppb	0.6 %
137Ba (KED)	98.207 ppb	98.207 %	100.000 ppb	1.7 %
205Tl (KED)	101.294 ppb	101.294 %	100.000 ppb	5.2 %
208Pb (KED)	96.532 ppb	96.532 %	100.000 ppb	2.0 %

ISTD's	Concentration average
6Li (KED)	101.787 %
45Sc (KED)	99.082 %
72Ge (KED)	99.310 %
89Y (KED)	99.512 %
115In (KED)	102.351 %
159Tb (KED)	104.944 %
209Bi (KED)	103.765 %

Labbook:
061423.imexp

Index #: 13
Sample ID: SEQ-HCV1
Start Time: 6/14/2023 8:54:44 AM
Stop Time: 6/14/2023 8:56:33 AM
Dilution Factor 1
prepFAST DF 1
Comment IHIGH Cal Verification

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	530.040 ppb	106.008 %	500.000 ppb	1.4 %
11B (KED)	1,031.309 ppb	103.131 %	1,000.000 ppb	1.1 %
23Na (KED)	5,568.867 ppb	111.377 %	5,000.000 ppb	0.6 %
24Mg (KED)	5,282.746 ppb	105.655 %	5,000.000 ppb	2.3 %
27Al (KED)	986.597 ppb	98.660 %	1,000.000 ppb	0.4 %
31P (KED)	4,875.694 ppb	97.514 %	5,000.000 ppb	1.6 %
39K (KED)	5,032.946 ppb	100.659 %	5,000.000 ppb	1.1 %
44Ca (KED)	5,069.040 ppb	101.381 %	5,000.000 ppb	0.6 %
47Ti (KED)	964.316 ppb	96.432 %	1,000.000 ppb	0.3 %
51V (KED)	977.616 ppb	97.762 %	1,000.000 ppb	0.3 %
52Cr (KED)	955.974 ppb	95.597 %	1,000.000 ppb	0.8 %
55Mn (KED)	982.115 ppb	98.211 %	1,000.000 ppb	1.7 %
57Fe (KED)	4,871.046 ppb	97.421 %	5,000.000 ppb	1.8 %
59Co (KED)	954.796 ppb	95.480 %	1,000.000 ppb	0.5 %
60Ni (KED)	953.968 ppb	95.397 %	1,000.000 ppb	0.1 %
63Cu (KED)	948.742 ppb	94.874 %	1,000.000 ppb	1.3 %
66Zn (KED)	964.049 ppb	96.405 %	1,000.000 ppb	1.1 %
75As (KED)	976.193 ppb	97.619 %	1,000.000 ppb	1.0 %
78Se (KED)	958.688 ppb	95.869 %	1,000.000 ppb	0.6 %
95Mo (KED)	994.556 ppb	99.456 %	1,000.000 ppb	0.9 %
107Ag (KED)	964.700 ppb	96.470 %	1,000.000 ppb	0.4 %
111Cd (KED)	962.787 ppb	96.279 %	1,000.000 ppb	1.0 %
118Sn (KED)	979.929 ppb	97.993 %	1,000.000 ppb	1.5 %
121Sb (KED)	988.133 ppb	98.813 %	1,000.000 ppb	2.2 %
137Ba (KED)	959.815 ppb	95.982 %	1,000.000 ppb	1.9 %
205Tl (KED)	994.744 ppb	99.474 %	1,000.000 ppb	5.2 %
208Pb (KED)	975.844 ppb	97.584 %	1,000.000 ppb	2.3 %

ISTD's	Concentration average
6Li (KED)	126.453 %
45Sc (KED)	111.106 %
72Ge (KED)	110.845 %
89Y (KED)	111.916 %
115In (KED)	114.126 %
159Tb (KED)	115.929 %
209Bi (KED)	115.882 %

Labbook:
061423.imexp

Index #:	17	Stop Time:	6/14/2023 9:03:47 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 9:01:59 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	53.150 ppb	106.300 %	50.000 ppb	1.0 %
11B (KED)	101.299 ppb	101.299 %	100.000 ppb	2.5 %
23Na (KED)	511.882 ppb	102.376 %	500.000 ppb	1.1 %
24Mg (KED)	511.878 ppb	102.376 %	500.000 ppb	0.6 %
27Al (KED)	99.401 ppb	99.401 %	100.000 ppb	2.0 %
31P (KED)	528.835 ppb	105.767 %	500.000 ppb	5.7 %
39K (KED)	498.683 ppb	99.737 %	500.000 ppb	1.7 %
44Ca (KED)	520.834 ppb	104.167 %	500.000 ppb	3.5 %
47Ti (KED)	96.216 ppb	96.216 %	100.000 ppb	0.8 %
51V (KED)	96.916 ppb	96.916 %	100.000 ppb	0.4 %
52Cr (KED)	97.908 ppb	97.908 %	100.000 ppb	0.7 %
55Mn (KED)	96.358 ppb	96.358 %	100.000 ppb	1.3 %
57Fe (KED)	484.041 ppb	96.808 %	500.000 ppb	0.7 %
59Co (KED)	97.323 ppb	97.323 %	100.000 ppb	0.1 %
60Ni (KED)	97.958 ppb	97.958 %	100.000 ppb	0.3 %
63Cu (KED)	100.436 ppb	100.436 %	100.000 ppb	0.4 %
66Zn (KED)	99.640 ppb	99.640 %	100.000 ppb	0.2 %
75As (KED)	98.748 ppb	98.748 %	100.000 ppb	0.2 %
78Se (KED)	98.563 ppb	98.563 %	100.000 ppb	0.4 %
95Mo (KED)	101.151 ppb	101.151 %	100.000 ppb	1.2 %
107Ag (KED)	99.828 ppb	99.828 %	100.000 ppb	0.9 %
111Cd (KED)	100.859 ppb	100.859 %	100.000 ppb	1.8 %
118Sn (KED)	101.274 ppb	101.274 %	100.000 ppb	3.1 %
121Sb (KED)	101.607 ppb	101.607 %	100.000 ppb	2.7 %
137Ba (KED)	101.756 ppb	101.756 %	100.000 ppb	1.8 %
205Tl (KED)	101.404 ppb	101.404 %	100.000 ppb	1.1 %
208Pb (KED)	101.936 ppb	101.936 %	100.000 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	99.469 %
45Sc (KED)	91.997 %
72Ge (KED)	95.365 %
89Y (KED)	93.592 %
115In (KED)	96.809 %
159Tb (KED)	97.943 %
209Bi (KED)	99.941 %

Labbook:
061423.imexp

Index #:	29	Stop Time:	6/14/2023 9:25:49 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 9:23:59 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	52.738 ppb	105.476 %	50.000 ppb	0.9 %
11B (KED)	102.721 ppb	102.721 %	100.000 ppb	1.5 %
23Na (KED)	552.765 ppb	110.553 %	500.000 ppb	1.0 %
24Mg (KED)	526.794 ppb	105.359 %	500.000 ppb	1.5 %
27Al (KED)	107.331 ppb	107.331 %	100.000 ppb	0.9 %
31P (KED)	521.209 ppb	104.242 %	500.000 ppb	1.9 %
39K (KED)	522.328 ppb	104.466 %	500.000 ppb	1.5 %
44Ca (KED)	515.617 ppb	103.123 %	500.000 ppb	2.7 %
47Ti (KED)	101.761 ppb	101.761 %	100.000 ppb	0.6 %
51V (KED)	99.355 ppb	99.355 %	100.000 ppb	0.1 %
52Cr (KED)	100.073 ppb	100.073 %	100.000 ppb	0.0 %
55Mn (KED)	101.087 ppb	101.087 %	100.000 ppb	0.7 %
57Fe (KED)	504.584 ppb	100.917 %	500.000 ppb	0.4 %
59Co (KED)	99.023 ppb	99.023 %	100.000 ppb	0.6 %
60Ni (KED)	97.540 ppb	97.540 %	100.000 ppb	2.1 %
63Cu (KED)	100.804 ppb	100.804 %	100.000 ppb	0.4 %
66Zn (KED)	100.413 ppb	100.413 %	100.000 ppb	0.8 %
75As (KED)	99.506 ppb	99.506 %	100.000 ppb	1.0 %
78Se (KED)	99.675 ppb	99.675 %	100.000 ppb	1.5 %
95Mo (KED)	98.821 ppb	98.821 %	100.000 ppb	0.7 %
107Ag (KED)	98.675 ppb	98.675 %	100.000 ppb	1.0 %
111Cd (KED)	100.453 ppb	100.453 %	100.000 ppb	0.7 %
118Sn (KED)	100.469 ppb	100.469 %	100.000 ppb	1.5 %
121Sb (KED)	100.612 ppb	100.612 %	100.000 ppb	1.8 %
137Ba (KED)	100.288 ppb	100.288 %	100.000 ppb	1.9 %
205Tl (KED)	100.862 ppb	100.862 %	100.000 ppb	3.2 %
208Pb (KED)	99.476 ppb	99.476 %	100.000 ppb	2.8 %

ISTD's	Concentration average
6Li (KED)	118.703 %
45Sc (KED)	110.430 %
72Ge (KED)	107.998 %
89Y (KED)	106.121 %
115In (KED)	108.115 %
159Tb (KED)	107.434 %
209Bi (KED)	107.918 %

Labbook:
061423.imexp

Index #: 35
Sample ID: SEQ-CCV
Start Time: 6/14/2023 9:35:04 AM
Stop Time: 6/14/2023 9:36:54 AM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	48.602 ppb	97.203 %	50.000 ppb	1.1 %
11B (KED)	97.215 ppb	97.215 %	100.000 ppb	0.6 %
23Na (KED)	496.688 ppb	99.338 %	500.000 ppb	1.7 %
24Mg (KED)	496.847 ppb	99.369 %	500.000 ppb	1.5 %
27Al (KED)	100.916 ppb	100.916 %	100.000 ppb	1.3 %
31P (KED)	502.346 ppb	100.469 %	500.000 ppb	4.1 %
39K (KED)	506.142 ppb	101.228 %	500.000 ppb	0.8 %
44Ca (KED)	516.643 ppb	103.329 %	500.000 ppb	3.4 %
47Ti (KED)	100.506 ppb	100.506 %	100.000 ppb	1.4 %
51V (KED)	99.611 ppb	99.611 %	100.000 ppb	1.0 %
52Cr (KED)	99.784 ppb	99.784 %	100.000 ppb	1.7 %
55Mn (KED)	98.964 ppb	98.964 %	100.000 ppb	1.5 %
57Fe (KED)	489.907 ppb	97.981 %	500.000 ppb	1.3 %
59Co (KED)	96.575 ppb	96.575 %	100.000 ppb	1.7 %
60Ni (KED)	96.776 ppb	96.776 %	100.000 ppb	1.9 %
63Cu (KED)	99.347 ppb	99.347 %	100.000 ppb	1.0 %
66Zn (KED)	98.763 ppb	98.763 %	100.000 ppb	1.0 %
75As (KED)	100.466 ppb	100.466 %	100.000 ppb	1.4 %
78Se (KED)	102.027 ppb	102.027 %	100.000 ppb	1.8 %
95Mo (KED)	97.529 ppb	97.529 %	100.000 ppb	0.8 %
107Ag (KED)	96.840 ppb	96.840 %	100.000 ppb	2.7 %
111Cd (KED)	98.968 ppb	98.968 %	100.000 ppb	2.9 %
118Sn (KED)	101.173 ppb	101.173 %	100.000 ppb	3.4 %
121Sb (KED)	101.815 ppb	101.815 %	100.000 ppb	2.8 %
137Ba (KED)	104.085 ppb	104.085 %	100.000 ppb	2.3 %
205Tl (KED)	103.232 ppb	103.232 %	100.000 ppb	0.8 %
208Pb (KED)	99.448 ppb	99.448 %	100.000 ppb	1.4 %

ISTD's	Concentration average
6Li (KED)	85.629 %
45Sc (KED)	87.413 %
72Ge (KED)	88.213 %
89Y (KED)	88.033 %
115In (KED)	90.125 %
159Tb (KED)	89.209 %
209Bi (KED)	91.947 %

Labbook:
061423.imexp

Index #:	45	Stop Time:	6/14/2023 9:55:28 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 9:53:33 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	54.039 ppb	108.078 %	50.000 ppb	1.2 %
11B (KED)	104.826 ppb	104.826 %	100.000 ppb	0.7 %
23Na (KED)	548.155 ppb	109.631 %	500.000 ppb	2.0 %
24Mg (KED)	535.930 ppb	107.186 %	500.000 ppb	1.4 %
27Al (KED)	108.013 ppb	108.013 %	100.000 ppb	2.0 %
31P (KED)	517.996 ppb	103.599 %	500.000 ppb	4.7 %
39K (KED)	521.017 ppb	104.203 %	500.000 ppb	1.8 %
44Ca (KED)	518.949 ppb	103.790 %	500.000 ppb	3.9 %
47Ti (KED)	101.074 ppb	101.074 %	100.000 ppb	1.0 %
51V (KED)	97.740 ppb	97.740 %	100.000 ppb	1.5 %
52Cr (KED)	98.982 ppb	98.982 %	100.000 ppb	0.3 %
55Mn (KED)	100.875 ppb	100.875 %	100.000 ppb	1.9 %
57Fe (KED)	497.324 ppb	99.465 %	500.000 ppb	0.8 %
59Co (KED)	98.432 ppb	98.432 %	100.000 ppb	1.3 %
60Ni (KED)	99.451 ppb	99.451 %	100.000 ppb	1.8 %
63Cu (KED)	98.573 ppb	98.573 %	100.000 ppb	1.7 %
66Zn (KED)	100.550 ppb	100.550 %	100.000 ppb	1.8 %
75As (KED)	99.078 ppb	99.078 %	100.000 ppb	1.5 %
78Se (KED)	99.652 ppb	99.652 %	100.000 ppb	2.0 %
95Mo (KED)	98.337 ppb	98.337 %	100.000 ppb	1.2 %
107Ag (KED)	98.415 ppb	98.415 %	100.000 ppb	2.3 %
111Cd (KED)	98.634 ppb	98.634 %	100.000 ppb	2.1 %
118Sn (KED)	98.682 ppb	98.682 %	100.000 ppb	3.1 %
121Sb (KED)	99.192 ppb	99.192 %	100.000 ppb	3.4 %
137Ba (KED)	99.317 ppb	99.317 %	100.000 ppb	2.2 %
205Tl (KED)	101.451 ppb	101.451 %	100.000 ppb	4.0 %
208Pb (KED)	97.481 ppb	97.481 %	100.000 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	140.732 %
45Sc (KED)	123.597 %
72Ge (KED)	119.745 %
89Y (KED)	119.345 %
115In (KED)	121.912 %
159Tb (KED)	119.075 %
209Bi (KED)	119.207 %

Labbook:
061423.imexp

Index #:	46	Stop Time:	6/14/2023 9:57:26 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 9:55:30 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	54.111 ppb	108.222 %	50.000 ppb	1.4 %
11B (KED)	104.679 ppb	104.679 %	100.000 ppb	0.4 %
23Na (KED)	548.585 ppb	109.717 %	500.000 ppb	1.0 %
24Mg (KED)	538.393 ppb	107.679 %	500.000 ppb	1.3 %
27Al (KED)	109.925 ppb	109.925 %	100.000 ppb	3.2 %
31P (KED)	505.186 ppb	101.037 %	500.000 ppb	2.5 %
39K (KED)	527.959 ppb	105.592 %	500.000 ppb	1.2 %
44Ca (KED)	527.658 ppb	105.532 %	500.000 ppb	2.1 %
47Ti (KED)	102.917 ppb	102.917 %	100.000 ppb	1.7 %
51V (KED)	98.681 ppb	98.681 %	100.000 ppb	1.4 %
52Cr (KED)	99.825 ppb	99.825 %	100.000 ppb	0.7 %
55Mn (KED)	103.131 ppb	103.131 %	100.000 ppb	1.4 %
57Fe (KED)	510.248 ppb	102.050 %	500.000 ppb	0.4 %
59Co (KED)	100.278 ppb	100.278 %	100.000 ppb	0.7 %
60Ni (KED)	99.057 ppb	99.057 %	100.000 ppb	1.2 %
63Cu (KED)	100.094 ppb	100.094 %	100.000 ppb	1.3 %
66Zn (KED)	101.393 ppb	101.393 %	100.000 ppb	1.3 %
75As (KED)	100.065 ppb	100.065 %	100.000 ppb	1.6 %
78Se (KED)	100.161 ppb	100.161 %	100.000 ppb	2.0 %
95Mo (KED)	98.949 ppb	98.949 %	100.000 ppb	1.0 %
107Ag (KED)	100.618 ppb	100.618 %	100.000 ppb	2.0 %
111Cd (KED)	100.636 ppb	100.636 %	100.000 ppb	2.1 %
118Sn (KED)	102.001 ppb	102.001 %	100.000 ppb	1.7 %
121Sb (KED)	100.805 ppb	100.805 %	100.000 ppb	1.9 %
137Ba (KED)	99.212 ppb	99.212 %	100.000 ppb	2.6 %
205Tl (KED)	102.057 ppb	102.057 %	100.000 ppb	2.3 %
208Pb (KED)	99.388 ppb	99.388 %	100.000 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	142.437 %
45Sc (KED)	124.753 %
72Ge (KED)	118.865 %
89Y (KED)	118.328 %
115In (KED)	118.889 %
159Tb (KED)	117.597 %
209Bi (KED)	118.824 %

Labbook:
061423.imexp

Index #: 51
Sample ID: SEQ-CCV
Start Time: 6/14/2023 10:05:06 AM
Stop Time: 6/14/2023 10:06:58 AM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.029 ppb	98.059 %	50.000 ppb	2.3 %
11B (KED)	96.761 ppb	96.761 %	100.000 ppb	2.3 %
23Na (KED)	485.923 ppb	97.185 %	500.000 ppb	1.4 %
24Mg (KED)	497.727 ppb	99.545 %	500.000 ppb	1.5 %
27Al (KED)	97.238 ppb	97.238 %	100.000 ppb	2.7 %
31P (KED)	495.125 ppb	99.025 %	500.000 ppb	7.4 %
39K (KED)	504.052 ppb	100.810 %	500.000 ppb	2.0 %
44Ca (KED)	500.585 ppb	100.117 %	500.000 ppb	3.4 %
47Ti (KED)	97.142 ppb	97.142 %	100.000 ppb	0.7 %
51V (KED)	97.167 ppb	97.167 %	100.000 ppb	2.0 %
52Cr (KED)	98.233 ppb	98.233 %	100.000 ppb	0.8 %
55Mn (KED)	97.727 ppb	97.727 %	100.000 ppb	0.8 %
57Fe (KED)	480.527 ppb	96.105 %	500.000 ppb	1.1 %
59Co (KED)	94.833 ppb	94.833 %	100.000 ppb	1.0 %
60Ni (KED)	95.786 ppb	95.786 %	100.000 ppb	1.3 %
63Cu (KED)	97.870 ppb	97.870 %	100.000 ppb	0.7 %
66Zn (KED)	98.878 ppb	98.878 %	100.000 ppb	1.0 %
75As (KED)	99.436 ppb	99.436 %	100.000 ppb	0.6 %
78Se (KED)	102.029 ppb	102.029 %	100.000 ppb	2.1 %
95Mo (KED)	96.532 ppb	96.532 %	100.000 ppb	2.0 %
107Ag (KED)	94.850 ppb	94.850 %	100.000 ppb	1.1 %
111Cd (KED)	96.603 ppb	96.603 %	100.000 ppb	1.7 %
118Sn (KED)	98.666 ppb	98.666 %	100.000 ppb	2.4 %
121Sb (KED)	99.495 ppb	99.495 %	100.000 ppb	2.2 %
137Ba (KED)	100.379 ppb	100.379 %	100.000 ppb	1.3 %
205Tl (KED)	100.257 ppb	100.257 %	100.000 ppb	2.7 %
208Pb (KED)	99.828 ppb	99.828 %	100.000 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	85.527 %
45Sc (KED)	85.159 %
72Ge (KED)	86.978 %
89Y (KED)	88.087 %
115In (KED)	93.306 %
159Tb (KED)	92.773 %
209Bi (KED)	94.839 %

Labbook:
061423.imexp

Index #:	60	Stop Time:	6/14/2023 10:23:45 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 10:21:56 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.827 ppb	101.653 %	50.000 ppb	1.1 %
11B (KED)	99.068 ppb	99.068 %	100.000 ppb	0.6 %
23Na (KED)	502.034 ppb	100.407 %	500.000 ppb	1.0 %
24Mg (KED)	510.718 ppb	102.144 %	500.000 ppb	0.5 %
27Al (KED)	101.112 ppb	101.112 %	100.000 ppb	1.3 %
31P (KED)	497.121 ppb	99.424 %	500.000 ppb	4.6 %
39K (KED)	519.768 ppb	103.954 %	500.000 ppb	1.0 %
44Ca (KED)	515.303 ppb	103.061 %	500.000 ppb	3.0 %
47Ti (KED)	100.792 ppb	100.792 %	100.000 ppb	0.4 %
51V (KED)	99.014 ppb	99.014 %	100.000 ppb	1.3 %
52Cr (KED)	99.601 ppb	99.601 %	100.000 ppb	0.6 %
55Mn (KED)	99.005 ppb	99.005 %	100.000 ppb	0.4 %
57Fe (KED)	491.248 ppb	98.250 %	500.000 ppb	0.9 %
59Co (KED)	96.856 ppb	96.856 %	100.000 ppb	0.6 %
60Ni (KED)	96.516 ppb	96.516 %	100.000 ppb	0.9 %
63Cu (KED)	98.601 ppb	98.601 %	100.000 ppb	1.1 %
66Zn (KED)	99.872 ppb	99.872 %	100.000 ppb	0.9 %
75As (KED)	100.160 ppb	100.160 %	100.000 ppb	1.0 %
78Se (KED)	102.323 ppb	102.323 %	100.000 ppb	1.2 %
95Mo (KED)	95.452 ppb	95.452 %	100.000 ppb	0.4 %
107Ag (KED)	96.120 ppb	96.120 %	100.000 ppb	2.5 %
111Cd (KED)	97.788 ppb	97.788 %	100.000 ppb	2.8 %
118Sn (KED)	100.523 ppb	100.523 %	100.000 ppb	3.2 %
121Sb (KED)	101.694 ppb	101.694 %	100.000 ppb	3.2 %
137Ba (KED)	102.134 ppb	102.134 %	100.000 ppb	0.9 %
205Tl (KED)	99.586 ppb	99.586 %	100.000 ppb	0.5 %
208Pb (KED)	97.927 ppb	97.927 %	100.000 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	96.337 %
45Sc (KED)	93.083 %
72Ge (KED)	93.727 %
89Y (KED)	94.535 %
115In (KED)	97.962 %
159Tb (KED)	98.459 %
209Bi (KED)	101.327 %

Labbook:
061423.imexp

Index #:	69	Stop Time:	6/14/2023 10:40:29 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 10:38:39 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	51.952 ppb	103.903 %	50.000 ppb	1.8 %
11B (KED)	102.523 ppb	102.523 %	100.000 ppb	2.7 %
23Na (KED)	523.282 ppb	104.656 %	500.000 ppb	4.2 %
24Mg (KED)	522.151 ppb	104.430 %	500.000 ppb	2.8 %
27Al (KED)	103.122 ppb	103.122 %	100.000 ppb	0.5 %
31P (KED)	509.941 ppb	101.988 %	500.000 ppb	1.2 %
39K (KED)	520.263 ppb	104.053 %	500.000 ppb	1.0 %
44Ca (KED)	517.297 ppb	103.459 %	500.000 ppb	1.1 %
47Ti (KED)	102.628 ppb	102.628 %	100.000 ppb	0.5 %
51V (KED)	99.648 ppb	99.648 %	100.000 ppb	0.4 %
52Cr (KED)	99.491 ppb	99.491 %	100.000 ppb	0.5 %
55Mn (KED)	99.881 ppb	99.881 %	100.000 ppb	0.5 %
57Fe (KED)	493.279 ppb	98.656 %	500.000 ppb	0.6 %
59Co (KED)	97.304 ppb	97.304 %	100.000 ppb	0.4 %
60Ni (KED)	97.530 ppb	97.530 %	100.000 ppb	0.5 %
63Cu (KED)	99.370 ppb	99.370 %	100.000 ppb	0.6 %
66Zn (KED)	99.860 ppb	99.860 %	100.000 ppb	0.4 %
75As (KED)	100.319 ppb	100.319 %	100.000 ppb	0.3 %
78Se (KED)	102.028 ppb	102.028 %	100.000 ppb	0.9 %
95Mo (KED)	96.049 ppb	96.049 %	100.000 ppb	0.7 %
107Ag (KED)	95.071 ppb	95.071 %	100.000 ppb	0.8 %
111Cd (KED)	97.795 ppb	97.795 %	100.000 ppb	1.8 %
118Sn (KED)	99.844 ppb	99.844 %	100.000 ppb	2.7 %
121Sb (KED)	101.014 ppb	101.014 %	100.000 ppb	1.5 %
137Ba (KED)	102.915 ppb	102.915 %	100.000 ppb	2.6 %
205Tl (KED)	100.446 ppb	100.446 %	100.000 ppb	1.7 %
208Pb (KED)	100.083 ppb	100.083 %	100.000 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	107.871 %
45Sc (KED)	102.729 %
72Ge (KED)	101.169 %
89Y (KED)	103.603 %
115In (KED)	105.397 %
159Tb (KED)	103.214 %
209Bi (KED)	102.464 %

Labbook:
061423.imexp

Index #: 80
Sample ID: SEQ-CCV
Start Time: 6/14/2023 10:59:18 AM
Stop Time: 6/14/2023 11:01:07 AM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	51.244 ppb	102.488 %	50.000 ppb	4.2 %
11B (KED)	99.240 ppb	99.240 %	100.000 ppb	2.0 %
23Na (KED)	503.500 ppb	100.700 %	500.000 ppb	2.6 %
24Mg (KED)	509.872 ppb	101.974 %	500.000 ppb	1.6 %
27Al (KED)	103.428 ppb	103.428 %	100.000 ppb	1.0 %
31P (KED)	497.848 ppb	99.570 %	500.000 ppb	8.4 %
39K (KED)	511.730 ppb	102.346 %	500.000 ppb	1.5 %
44Ca (KED)	514.437 ppb	102.887 %	500.000 ppb	3.3 %
47Ti (KED)	99.604 ppb	99.604 %	100.000 ppb	0.5 %
51V (KED)	97.946 ppb	97.946 %	100.000 ppb	0.4 %
52Cr (KED)	97.123 ppb	97.123 %	100.000 ppb	0.8 %
55Mn (KED)	99.142 ppb	99.142 %	100.000 ppb	1.0 %
57Fe (KED)	483.608 ppb	96.722 %	500.000 ppb	0.8 %
59Co (KED)	95.319 ppb	95.319 %	100.000 ppb	0.7 %
60Ni (KED)	94.967 ppb	94.967 %	100.000 ppb	0.6 %
63Cu (KED)	97.592 ppb	97.592 %	100.000 ppb	0.2 %
66Zn (KED)	98.454 ppb	98.454 %	100.000 ppb	0.5 %
75As (KED)	99.335 ppb	99.335 %	100.000 ppb	0.9 %
78Se (KED)	99.922 ppb	99.922 %	100.000 ppb	1.5 %
95Mo (KED)	97.070 ppb	97.070 %	100.000 ppb	0.7 %
107Ag (KED)	95.112 ppb	95.112 %	100.000 ppb	2.7 %
111Cd (KED)	94.912 ppb	94.912 %	100.000 ppb	1.6 %
118Sn (KED)	98.750 ppb	98.750 %	100.000 ppb	1.2 %
121Sb (KED)	100.103 ppb	100.103 %	100.000 ppb	0.8 %
137Ba (KED)	100.257 ppb	100.257 %	100.000 ppb	1.5 %
205Tl (KED)	97.884 ppb	97.884 %	100.000 ppb	2.6 %
208Pb (KED)	97.720 ppb	97.720 %	100.000 ppb	1.6 %

ISTD's	Concentration average
6Li (KED)	99.865 %
45Sc (KED)	95.910 %
72Ge (KED)	95.826 %
89Y (KED)	95.299 %
115In (KED)	102.084 %
159Tb (KED)	100.257 %
209Bi (KED)	102.928 %

Labbook:
061423.imexp

Index #:	86	Stop Time:	6/14/2023 11:12:25 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 11:10:30 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.541 ppb	101.081 %	50.000 ppb	2.2 %
11B (KED)	100.355 ppb	100.355 %	100.000 ppb	4.5 %
23Na (KED)	514.718 ppb	102.944 %	500.000 ppb	1.2 %
24Mg (KED)	514.526 ppb	102.905 %	500.000 ppb	1.5 %
27Al (KED)	106.594 ppb	106.594 %	100.000 ppb	1.4 %
31P (KED)	493.983 ppb	98.797 %	500.000 ppb	2.4 %
39K (KED)	523.093 ppb	104.619 %	500.000 ppb	1.1 %
44Ca (KED)	522.351 ppb	104.470 %	500.000 ppb	0.4 %
47Ti (KED)	101.664 ppb	101.664 %	100.000 ppb	1.0 %
51V (KED)	97.838 ppb	97.838 %	100.000 ppb	0.6 %
52Cr (KED)	97.418 ppb	97.418 %	100.000 ppb	0.5 %
55Mn (KED)	100.760 ppb	100.760 %	100.000 ppb	0.6 %
57Fe (KED)	493.771 ppb	98.754 %	500.000 ppb	1.0 %
59Co (KED)	95.783 ppb	95.783 %	100.000 ppb	0.0 %
60Ni (KED)	95.530 ppb	95.530 %	100.000 ppb	0.4 %
63Cu (KED)	98.002 ppb	98.002 %	100.000 ppb	0.7 %
66Zn (KED)	98.866 ppb	98.866 %	100.000 ppb	0.2 %
75As (KED)	99.656 ppb	99.656 %	100.000 ppb	0.4 %
78Se (KED)	102.139 ppb	102.139 %	100.000 ppb	0.4 %
95Mo (KED)	95.473 ppb	95.473 %	100.000 ppb	1.1 %
107Ag (KED)	93.328 ppb	93.328 %	100.000 ppb	1.7 %
111Cd (KED)	96.273 ppb	96.273 %	100.000 ppb	0.4 %
118Sn (KED)	99.044 ppb	99.044 %	100.000 ppb	0.8 %
121Sb (KED)	100.262 ppb	100.262 %	100.000 ppb	1.1 %
137Ba (KED)	100.366 ppb	100.366 %	100.000 ppb	1.0 %
205Tl (KED)	100.595 ppb	100.595 %	100.000 ppb	0.5 %
208Pb (KED)	100.620 ppb	100.620 %	100.000 ppb	2.4 %

ISTD's	Concentration average
6Li (KED)	115.972 %
45Sc (KED)	109.951 %
72Ge (KED)	107.240 %
89Y (KED)	107.276 %
115In (KED)	110.328 %
159Tb (KED)	107.343 %
209Bi (KED)	106.950 %

Labbook:
061423.imexp

Index #:	94	Stop Time:	6/14/2023 11:27:11 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 11:25:23 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.229 ppb	100.458 %	50.000 ppb	0.8 %
11B (KED)	101.389 ppb	101.389 %	100.000 ppb	2.6 %
23Na (KED)	508.029 ppb	101.606 %	500.000 ppb	1.4 %
24Mg (KED)	512.194 ppb	102.439 %	500.000 ppb	1.1 %
27Al (KED)	102.065 ppb	102.065 %	100.000 ppb	1.3 %
31P (KED)	500.758 ppb	100.152 %	500.000 ppb	1.3 %
39K (KED)	515.270 ppb	103.054 %	500.000 ppb	1.0 %
44Ca (KED)	523.995 ppb	104.799 %	500.000 ppb	5.3 %
47Ti (KED)	99.934 ppb	99.934 %	100.000 ppb	0.6 %
51V (KED)	97.805 ppb	97.805 %	100.000 ppb	0.3 %
52Cr (KED)	97.771 ppb	97.771 %	100.000 ppb	1.0 %
55Mn (KED)	99.481 ppb	99.481 %	100.000 ppb	0.3 %
57Fe (KED)	487.452 ppb	97.490 %	500.000 ppb	1.6 %
59Co (KED)	95.330 ppb	95.330 %	100.000 ppb	0.4 %
60Ni (KED)	94.600 ppb	94.600 %	100.000 ppb	1.4 %
63Cu (KED)	97.271 ppb	97.271 %	100.000 ppb	0.4 %
66Zn (KED)	99.531 ppb	99.531 %	100.000 ppb	0.5 %
75As (KED)	100.062 ppb	100.062 %	100.000 ppb	0.7 %
78Se (KED)	103.958 ppb	103.958 %	100.000 ppb	1.4 %
95Mo (KED)	94.662 ppb	94.662 %	100.000 ppb	1.1 %
107Ag (KED)	92.159 ppb	92.159 %	100.000 ppb	0.5 %
111Cd (KED)	94.227 ppb	94.227 %	100.000 ppb	1.3 %
118Sn (KED)	97.844 ppb	97.844 %	100.000 ppb	1.3 %
121Sb (KED)	99.779 ppb	99.779 %	100.000 ppb	0.9 %
137Ba (KED)	99.753 ppb	99.753 %	100.000 ppb	0.1 %
205Tl (KED)	99.382 ppb	99.382 %	100.000 ppb	1.9 %
208Pb (KED)	98.684 ppb	98.684 %	100.000 ppb	1.1 %

ISTD's	Concentration average
6Li (KED)	96.009 %
45Sc (KED)	92.812 %
72Ge (KED)	92.852 %
89Y (KED)	94.916 %
115In (KED)	101.172 %
159Tb (KED)	96.688 %
209Bi (KED)	100.570 %

Labbook:
061423.imexp

Index #: 102
Sample ID: SEQ-CCV
Start Time: 6/14/2023 11:40:31 AM
Stop Time: 6/14/2023 11:42:20 AM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.291 ppb	100.581 %	50.000 ppb	1.4 %
11B (KED)	101.819 ppb	101.819 %	100.000 ppb	0.7 %
23Na (KED)	522.811 ppb	104.562 %	500.000 ppb	1.3 %
24Mg (KED)	523.827 ppb	104.765 %	500.000 ppb	0.7 %
27Al (KED)	108.150 ppb	108.150 %	100.000 ppb	2.1 %
31P (KED)	519.107 ppb	103.821 %	500.000 ppb	4.9 %
39K (KED)	532.255 ppb	106.451 %	500.000 ppb	1.1 %
44Ca (KED)	533.293 ppb	106.659 %	500.000 ppb	2.9 %
47Ti (KED)	101.060 ppb	101.060 %	100.000 ppb	0.5 %
51V (KED)	97.081 ppb	97.081 %	100.000 ppb	1.3 %
52Cr (KED)	97.760 ppb	97.760 %	100.000 ppb	1.5 %
55Mn (KED)	101.301 ppb	101.301 %	100.000 ppb	1.0 %
57Fe (KED)	491.221 ppb	98.244 %	500.000 ppb	0.6 %
59Co (KED)	95.791 ppb	95.791 %	100.000 ppb	0.4 %
60Ni (KED)	94.308 ppb	94.308 %	100.000 ppb	0.8 %
63Cu (KED)	96.759 ppb	96.759 %	100.000 ppb	0.7 %
66Zn (KED)	99.417 ppb	99.417 %	100.000 ppb	0.6 %
75As (KED)	99.239 ppb	99.239 %	100.000 ppb	1.0 %
78Se (KED)	101.234 ppb	101.234 %	100.000 ppb	1.5 %
95Mo (KED)	94.879 ppb	94.879 %	100.000 ppb	1.0 %
107Ag (KED)	94.770 ppb	94.770 %	100.000 ppb	2.8 %
111Cd (KED)	96.413 ppb	96.413 %	100.000 ppb	2.5 %
118Sn (KED)	99.590 ppb	99.590 %	100.000 ppb	2.3 %
121Sb (KED)	101.298 ppb	101.298 %	100.000 ppb	2.0 %
137Ba (KED)	100.731 ppb	100.731 %	100.000 ppb	1.4 %
205Tl (KED)	99.955 ppb	99.955 %	100.000 ppb	3.1 %
208Pb (KED)	99.333 ppb	99.333 %	100.000 ppb	3.0 %

ISTD's	Concentration average
6Li (KED)	116.305 %
45Sc (KED)	109.516 %
72Ge (KED)	106.744 %
89Y (KED)	106.162 %
115In (KED)	108.477 %
159Tb (KED)	104.959 %
209Bi (KED)	106.084 %

Labbook:
061423.imexp

Index #: 114
Sample ID: SEQ-CCV
Start Time: 6/14/2023 12:03:03 PM
Stop Time: 6/14/2023 12:04:57 PM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.368 ppb	100.737 %	50.000 ppb	1.2 %
11B (KED)	99.835 ppb	99.835 %	100.000 ppb	2.2 %
23Na (KED)	499.625 ppb	99.925 %	500.000 ppb	1.9 %
24Mg (KED)	515.555 ppb	103.111 %	500.000 ppb	0.6 %
27Al (KED)	97.499 ppb	97.499 %	100.000 ppb	2.0 %
31P (KED)	511.215 ppb	102.243 %	500.000 ppb	3.5 %
39K (KED)	518.725 ppb	103.745 %	500.000 ppb	1.6 %
44Ca (KED)	525.383 ppb	105.077 %	500.000 ppb	1.2 %
47Ti (KED)	100.022 ppb	100.022 %	100.000 ppb	0.3 %
51V (KED)	97.423 ppb	97.423 %	100.000 ppb	1.8 %
52Cr (KED)	96.675 ppb	96.675 %	100.000 ppb	0.7 %
55Mn (KED)	98.589 ppb	98.589 %	100.000 ppb	1.3 %
57Fe (KED)	484.116 ppb	96.823 %	500.000 ppb	1.1 %
59Co (KED)	94.019 ppb	94.019 %	100.000 ppb	0.5 %
60Ni (KED)	93.428 ppb	93.428 %	100.000 ppb	1.3 %
63Cu (KED)	95.805 ppb	95.805 %	100.000 ppb	0.9 %
66Zn (KED)	98.632 ppb	98.632 %	100.000 ppb	0.6 %
75As (KED)	99.554 ppb	99.554 %	100.000 ppb	0.3 %
78Se (KED)	103.826 ppb	103.826 %	100.000 ppb	0.3 %
95Mo (KED)	94.548 ppb	94.548 %	100.000 ppb	1.8 %
107Ag (KED)	94.196 ppb	94.196 %	100.000 ppb	1.4 %
111Cd (KED)	97.366 ppb	97.366 %	100.000 ppb	1.2 %
118Sn (KED)	100.625 ppb	100.625 %	100.000 ppb	1.3 %
121Sb (KED)	103.123 ppb	103.123 %	100.000 ppb	1.3 %
137Ba (KED)	102.729 ppb	102.729 %	100.000 ppb	2.3 %
205Tl (KED)	100.756 ppb	100.756 %	100.000 ppb	3.2 %
208Pb (KED)	99.955 ppb	99.955 %	100.000 ppb	1.7 %

ISTD's	Concentration average
6Li (KED)	89.966 %
45Sc (KED)	87.718 %
72Ge (KED)	89.355 %
89Y (KED)	91.926 %
115In (KED)	94.044 %
159Tb (KED)	93.875 %
209Bi (KED)	96.202 %

Labbook:
061423.imexp

Index #:	121	Stop Time:	6/14/2023 12:18:14 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 12:16:25 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.998 ppb	99.996 %	50.000 ppb	1.8 %
11B (KED)	100.622 ppb	100.622 %	100.000 ppb	0.8 %
23Na (KED)	502.924 ppb	100.585 %	500.000 ppb	1.0 %
24Mg (KED)	513.014 ppb	102.603 %	500.000 ppb	1.6 %
27Al (KED)	106.211 ppb	106.211 %	100.000 ppb	2.2 %
31P (KED)	496.311 ppb	99.262 %	500.000 ppb	3.8 %
39K (KED)	524.339 ppb	104.868 %	500.000 ppb	0.8 %
44Ca (KED)	529.555 ppb	105.911 %	500.000 ppb	2.2 %
47Ti (KED)	102.259 ppb	102.259 %	100.000 ppb	1.9 %
51V (KED)	98.107 ppb	98.107 %	100.000 ppb	1.8 %
52Cr (KED)	97.968 ppb	97.968 %	100.000 ppb	2.6 %
55Mn (KED)	101.315 ppb	101.315 %	100.000 ppb	2.3 %
57Fe (KED)	483.119 ppb	96.624 %	500.000 ppb	1.9 %
59Co (KED)	95.870 ppb	95.870 %	100.000 ppb	1.3 %
60Ni (KED)	94.822 ppb	94.822 %	100.000 ppb	1.3 %
63Cu (KED)	96.407 ppb	96.407 %	100.000 ppb	1.6 %
66Zn (KED)	99.901 ppb	99.901 %	100.000 ppb	1.3 %
75As (KED)	99.895 ppb	99.895 %	100.000 ppb	1.6 %
78Se (KED)	103.941 ppb	103.941 %	100.000 ppb	2.8 %
95Mo (KED)	95.247 ppb	95.247 %	100.000 ppb	1.2 %
107Ag (KED)	94.934 ppb	94.934 %	100.000 ppb	1.0 %
111Cd (KED)	97.806 ppb	97.806 %	100.000 ppb	2.3 %
118Sn (KED)	101.082 ppb	101.082 %	100.000 ppb	0.3 %
121Sb (KED)	102.201 ppb	102.201 %	100.000 ppb	1.2 %
137Ba (KED)	102.681 ppb	102.681 %	100.000 ppb	1.2 %
205Tl (KED)	99.734 ppb	99.734 %	100.000 ppb	4.0 %
208Pb (KED)	98.292 ppb	98.292 %	100.000 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	106.795 %
45Sc (KED)	103.024 %
72Ge (KED)	100.910 %
89Y (KED)	101.975 %
115In (KED)	103.876 %
159Tb (KED)	100.135 %
209Bi (KED)	103.566 %

Labbook:
061423.imexp

Index #: 131
Sample ID: SEQ-CCV
Start Time: 6/14/2023 12:35:20 PM
Stop Time: 6/14/2023 12:37:15 PM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.775 ppb	101.549 %	50.000 ppb	0.8 %
11B (KED)	102.896 ppb	102.896 %	100.000 ppb	1.4 %
23Na (KED)	515.029 ppb	103.006 %	500.000 ppb	1.2 %
24Mg (KED)	516.585 ppb	103.317 %	500.000 ppb	1.7 %
27Al (KED)	108.627 ppb	108.627 %	100.000 ppb	1.8 %
31P (KED)	516.018 ppb	103.204 %	500.000 ppb	6.9 %
39K (KED)	529.190 ppb	105.838 %	500.000 ppb	1.8 %
44Ca (KED)	517.222 ppb	103.444 %	500.000 ppb	1.6 %
47Ti (KED)	101.937 ppb	101.937 %	100.000 ppb	0.6 %
51V (KED)	97.183 ppb	97.183 %	100.000 ppb	0.2 %
52Cr (KED)	96.548 ppb	96.548 %	100.000 ppb	0.5 %
55Mn (KED)	100.426 ppb	100.426 %	100.000 ppb	0.9 %
57Fe (KED)	489.534 ppb	97.907 %	500.000 ppb	1.6 %
59Co (KED)	95.355 ppb	95.355 %	100.000 ppb	1.4 %
60Ni (KED)	93.752 ppb	93.752 %	100.000 ppb	1.0 %
63Cu (KED)	95.917 ppb	95.917 %	100.000 ppb	0.4 %
66Zn (KED)	98.429 ppb	98.429 %	100.000 ppb	0.5 %
75As (KED)	98.957 ppb	98.957 %	100.000 ppb	0.6 %
78Se (KED)	102.889 ppb	102.889 %	100.000 ppb	0.2 %
95Mo (KED)	95.130 ppb	95.130 %	100.000 ppb	1.1 %
107Ag (KED)	93.532 ppb	93.532 %	100.000 ppb	1.2 %
111Cd (KED)	95.485 ppb	95.485 %	100.000 ppb	1.0 %
118Sn (KED)	98.777 ppb	98.777 %	100.000 ppb	1.6 %
121Sb (KED)	100.518 ppb	100.518 %	100.000 ppb	0.4 %
137Ba (KED)	101.479 ppb	101.479 %	100.000 ppb	1.2 %
205Tl (KED)	97.648 ppb	97.648 %	100.000 ppb	0.9 %
208Pb (KED)	98.713 ppb	98.713 %	100.000 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	117.728 %
45Sc (KED)	111.166 %
72Ge (KED)	107.963 %
89Y (KED)	107.543 %
115In (KED)	110.471 %
159Tb (KED)	105.031 %
209Bi (KED)	108.245 %

Labbook:
061423.imexp

Index #:	141	Stop Time:	6/14/2023 12:56:16 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/14/2023 12:54:21 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.492 ppb	100.985 %	50.000 ppb	1.4 %
11B (KED)	100.338 ppb	100.338 %	100.000 ppb	1.2 %
23Na (KED)	509.718 ppb	101.944 %	500.000 ppb	0.7 %
24Mg (KED)	519.935 ppb	103.987 %	500.000 ppb	0.7 %
27Al (KED)	105.240 ppb	105.240 %	100.000 ppb	1.5 %
31P (KED)	489.031 ppb	97.806 %	500.000 ppb	2.1 %
39K (KED)	527.061 ppb	105.412 %	500.000 ppb	1.1 %
44Ca (KED)	515.387 ppb	103.077 %	500.000 ppb	2.1 %
47Ti (KED)	101.908 ppb	101.908 %	100.000 ppb	1.3 %
51V (KED)	98.107 ppb	98.107 %	100.000 ppb	1.2 %
52Cr (KED)	98.488 ppb	98.488 %	100.000 ppb	0.5 %
55Mn (KED)	101.515 ppb	101.515 %	100.000 ppb	0.8 %
57Fe (KED)	495.735 ppb	99.147 %	500.000 ppb	1.4 %
59Co (KED)	96.457 ppb	96.457 %	100.000 ppb	1.4 %
60Ni (KED)	94.049 ppb	94.049 %	100.000 ppb	1.8 %
63Cu (KED)	96.475 ppb	96.475 %	100.000 ppb	0.8 %
66Zn (KED)	99.820 ppb	99.820 %	100.000 ppb	1.0 %
75As (KED)	100.650 ppb	100.650 %	100.000 ppb	0.7 %
78Se (KED)	106.722 ppb	106.722 %	100.000 ppb	0.6 %
95Mo (KED)	94.747 ppb	94.747 %	100.000 ppb	0.9 %
107Ag (KED)	94.510 ppb	94.510 %	100.000 ppb	1.5 %
111Cd (KED)	96.488 ppb	96.488 %	100.000 ppb	1.1 %
118Sn (KED)	100.751 ppb	100.751 %	100.000 ppb	0.6 %
121Sb (KED)	103.047 ppb	103.047 %	100.000 ppb	0.6 %
137Ba (KED)	103.800 ppb	103.800 %	100.000 ppb	0.6 %
205Tl (KED)	100.148 ppb	100.148 %	100.000 ppb	2.9 %
208Pb (KED)	99.170 ppb	99.170 %	100.000 ppb	1.4 %

ISTD's	Concentration average
6Li (KED)	104.696 %
45Sc (KED)	101.475 %
72Ge (KED)	99.203 %
89Y (KED)	101.203 %
115In (KED)	102.185 %
159Tb (KED)	100.371 %
209Bi (KED)	101.786 %

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
		Sequence:	S3F0259

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0259-ICV1	Aluminum, Dissolved	100.0	96.2	96	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	482	96	ug/L	+/- 10.00%
S3F0259-HCV1	Aluminum, Dissolved	1000	936	94	ug/L	+/- 10.00%
	Sodium, Dissolved	5000	4830	97	ug/L	+/- 10.00%
S3F0259-CCV1	Aluminum, Dissolved	100.0	98.2	98	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	484	97	ug/L	+/- 10.00%
S3F0259-CCV2	Aluminum, Dissolved	100.0	97.1	97	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	504	101	ug/L	+/- 10.00%
S3F0259-CCV3	Aluminum, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	488	98	ug/L	+/- 10.00%
S3F0259-CCV4	Aluminum, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	501	100	ug/L	+/- 10.00%
S3F0259-CCV5	Aluminum, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	501	100	ug/L	+/- 10.00%
S3F0259-CCV6	Aluminum, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	500	100	ug/L	+/- 10.00%
S3F0259-CCV7	Aluminum, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	498	100	ug/L	+/- 10.00%

Labbook:
061523B.imexp

Index #: 9
Sample ID: SEQ-ICV
Start Time: 6/15/2023 3:10:53 PM
Stop Time: 6/15/2023 3:12:39 PM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Verification

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.556 ppb	99.113 %	50.000 ppb	1.3 %
11B (KED)	94.650 ppb	94.650 %	100.000 ppb	3.4 %
23Na (KED)	482.219 ppb	96.444 %	500.000 ppb	0.2 %
24Mg (KED)	487.646 ppb	97.529 %	500.000 ppb	1.4 %
27Al (KED)	96.168 ppb	96.168 %	100.000 ppb	1.4 %
31P (KED)	472.858 ppb	94.572 %	500.000 ppb	5.4 %
39K (KED)	485.778 ppb	97.156 %	500.000 ppb	0.7 %
44Ca (KED)	488.384 ppb	97.677 %	500.000 ppb	1.3 %
47Ti (KED)	99.107 ppb	99.107 %	100.000 ppb	0.4 %
51V (KED)	101.019 ppb	101.019 %	100.000 ppb	1.0 %
52Cr (KED)	98.173 ppb	98.173 %	100.000 ppb	2.3 %
55Mn (KED)	96.834 ppb	96.834 %	100.000 ppb	1.5 %
57Fe (KED)	489.055 ppb	97.811 %	500.000 ppb	2.2 %
59Co (KED)	97.949 ppb	97.949 %	100.000 ppb	1.3 %
60Ni (KED)	99.084 ppb	99.084 %	100.000 ppb	0.4 %
63Cu (KED)	103.653 ppb	103.653 %	100.000 ppb	0.6 %
66Zn (KED)	96.347 ppb	96.347 %	100.000 ppb	0.6 %
75As (KED)	95.629 ppb	95.629 %	100.000 ppb	1.3 %
78Se (KED)	95.934 ppb	95.934 %	100.000 ppb	0.6 %
95Mo (KED)	100.339 ppb	100.339 %	100.000 ppb	1.1 %
107Ag (KED)	100.200 ppb	100.200 %	100.000 ppb	4.5 %
111Cd (KED)	100.488 ppb	100.488 %	100.000 ppb	2.6 %
118Sn (KED)	102.731 ppb	102.731 %	100.000 ppb	1.7 %
121Sb (KED)	102.227 ppb	102.227 %	100.000 ppb	1.8 %
137Ba (KED)	97.141 ppb	97.141 %	100.000 ppb	1.6 %
205Tl (KED)	97.013 ppb	97.013 %	100.000 ppb	2.5 %
208Pb (KED)	95.641 ppb	95.641 %	100.000 ppb	1.8 %

ISTD's	Concentration average
6Li (KED)	97.210 %
45Sc (KED)	94.472 %
72Ge (KED)	96.132 %
89Y (KED)	96.962 %
115In (KED)	96.533 %
159Tb (KED)	98.064 %
209Bi (KED)	101.134 %

Labbook:
061523B.imexp

Index #: 14
Sample ID: SEQ-HCV1
Start Time: 6/15/2023 3:20:04 PM
Stop Time: 6/15/2023 3:21:53 PM
Dilution Factor 1
prepFAST DF 1
Comment IHIGH Cal Verification

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	489.355 ppb	97.871 %	500.000 ppb	0.3 %
11B (KED)	936.185 ppb	93.618 %	1,000.000 ppb	0.2 %
23Na (KED)	4,831.978 ppb	96.640 %	5,000.000 ppb	0.1 %
24Mg (KED)	4,591.800 ppb	91.836 %	5,000.000 ppb	1.6 %
27Al (KED)	935.977 ppb	93.598 %	1,000.000 ppb	0.3 %
31P (KED)	4,607.739 ppb	92.155 %	5,000.000 ppb	2.0 %
39K (KED)	4,553.060 ppb	91.061 %	5,000.000 ppb	1.8 %
44Ca (KED)	4,855.432 ppb	97.109 %	5,000.000 ppb	0.4 %
47Ti (KED)	981.488 ppb	98.149 %	1,000.000 ppb	0.6 %
51V (KED)	950.909 ppb	95.091 %	1,000.000 ppb	1.1 %
52Cr (KED)	948.829 ppb	94.883 %	1,000.000 ppb	1.8 %
55Mn (KED)	927.171 ppb	92.717 %	1,000.000 ppb	1.2 %
57Fe (KED)	4,961.424 ppb	99.228 %	5,000.000 ppb	0.6 %
59Co (KED)	971.349 ppb	97.135 %	1,000.000 ppb	1.3 %
60Ni (KED)	920.009 ppb	92.001 %	1,000.000 ppb	2.6 %
63Cu (KED)	967.024 ppb	96.702 %	1,000.000 ppb	0.8 %
66Zn (KED)	917.868 ppb	91.787 %	1,000.000 ppb	1.2 %
75As (KED)	988.380 ppb	98.838 %	1,000.000 ppb	1.4 %
78Se (KED)	948.690 ppb	94.869 %	1,000.000 ppb	1.7 %
95Mo (KED)	976.840 ppb	97.684 %	1,000.000 ppb	1.9 %
107Ag (KED)	957.177 ppb	95.718 %	1,000.000 ppb	3.0 %
111Cd (KED)	908.211 ppb	90.821 %	1,000.000 ppb	3.7 %
118Sn (KED)	944.691 ppb	94.469 %	1,000.000 ppb	3.3 %
121Sb (KED)	954.045 ppb	95.405 %	1,000.000 ppb	3.1 %
137Ba (KED)	913.750 ppb	91.375 %	1,000.000 ppb	4.5 %
205Tl (KED)	1,012.971 ppb	101.297 %	1,000.000 ppb	4.7 %
208Pb (KED)	988.183 ppb	98.818 %	1,000.000 ppb	2.4 %

ISTD's	Concentration average
6Li (KED)	106.029 %
45Sc (KED)	96.743 %
72Ge (KED)	97.528 %
89Y (KED)	97.551 %
115In (KED)	103.783 %
159Tb (KED)	99.867 %
209Bi (KED)	100.768 %

Labbook:
061523B.imexp

Index #:	18	Stop Time:	6/15/2023 3:29:16 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 3:27:28 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.735 ppb	101.470 %	50.000 ppb	2.2 %
11B (KED)	96.117 ppb	96.117 %	100.000 ppb	0.5 %
23Na (KED)	484.367 ppb	96.873 %	500.000 ppb	0.9 %
24Mg (KED)	493.654 ppb	98.731 %	500.000 ppb	0.7 %
27Al (KED)	98.158 ppb	98.158 %	100.000 ppb	0.9 %
31P (KED)	491.945 ppb	98.389 %	500.000 ppb	4.0 %
39K (KED)	482.829 ppb	96.566 %	500.000 ppb	0.5 %
44Ca (KED)	491.822 ppb	98.364 %	500.000 ppb	1.0 %
47Ti (KED)	101.211 ppb	101.211 %	100.000 ppb	0.7 %
51V (KED)	103.475 ppb	103.475 %	100.000 ppb	0.6 %
52Cr (KED)	102.535 ppb	102.535 %	100.000 ppb	1.8 %
55Mn (KED)	99.519 ppb	99.519 %	100.000 ppb	0.9 %
57Fe (KED)	508.441 ppb	101.688 %	500.000 ppb	0.8 %
59Co (KED)	100.700 ppb	100.700 %	100.000 ppb	0.6 %
60Ni (KED)	100.877 ppb	100.877 %	100.000 ppb	0.6 %
63Cu (KED)	107.863 ppb	107.863 %	100.000 ppb	0.2 %
66Zn (KED)	101.814 ppb	101.814 %	100.000 ppb	1.2 %
75As (KED)	101.562 ppb	101.562 %	100.000 ppb	1.3 %
78Se (KED)	99.331 ppb	99.331 %	100.000 ppb	2.0 %
95Mo (KED)	103.944 ppb	103.944 %	100.000 ppb	1.0 %
107Ag (KED)	102.088 ppb	102.088 %	100.000 ppb	2.3 %
111Cd (KED)	104.842 ppb	104.842 %	100.000 ppb	3.6 %
118Sn (KED)	106.570 ppb	106.570 %	100.000 ppb	4.0 %
121Sb (KED)	106.605 ppb	106.605 %	100.000 ppb	4.0 %
137Ba (KED)	99.616 ppb	99.616 %	100.000 ppb	3.3 %
205Tl (KED)	100.066 ppb	100.066 %	100.000 ppb	1.0 %
208Pb (KED)	101.257 ppb	101.257 %	100.000 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	86.134 %
45Sc (KED)	83.182 %
72Ge (KED)	86.546 %
89Y (KED)	87.768 %
115In (KED)	89.836 %
159Tb (KED)	94.625 %
209Bi (KED)	96.749 %

Labbook:
061523B.imexp

Index #: 30
Sample ID: SEQ-CCV
Start Time: 6/15/2023 3:49:47 PM
Stop Time: 6/15/2023 3:51:40 PM
Dilution Factor 0.454545
prepFAST DF 2.2
Comment Contin Cal Ver

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.288 ppb	98.575 %	50.000 ppb	0.2 %
11B (KED)	97.272 ppb	97.272 %	100.000 ppb	2.0 %
23Na (KED)	504.151 ppb	100.830 %	500.000 ppb	1.4 %
24Mg (KED)	501.106 ppb	100.221 %	500.000 ppb	0.8 %
27Al (KED)	97.050 ppb	97.050 %	100.000 ppb	1.4 %
31P (KED)	488.694 ppb	97.739 %	500.000 ppb	5.0 %
39K (KED)	499.823 ppb	99.965 %	500.000 ppb	0.5 %
44Ca (KED)	500.899 ppb	100.180 %	500.000 ppb	3.7 %
47Ti (KED)	99.241 ppb	99.241 %	100.000 ppb	0.6 %
51V (KED)	99.538 ppb	99.538 %	100.000 ppb	0.8 %
52Cr (KED)	102.980 ppb	102.980 %	100.000 ppb	1.7 %
55Mn (KED)	99.171 ppb	99.171 %	100.000 ppb	0.4 %
57Fe (KED)	500.684 ppb	100.137 %	500.000 ppb	1.4 %
59Co (KED)	99.542 ppb	99.542 %	100.000 ppb	0.7 %
60Ni (KED)	98.359 ppb	98.359 %	100.000 ppb	0.9 %
63Cu (KED)	102.340 ppb	102.340 %	100.000 ppb	3.9 %
66Zn (KED)	101.321 ppb	101.321 %	100.000 ppb	0.6 %
75As (KED)	100.766 ppb	100.766 %	100.000 ppb	0.7 %
78Se (KED)	98.585 ppb	98.585 %	100.000 ppb	0.2 %
95Mo (KED)	104.411 ppb	104.411 %	100.000 ppb	2.6 %
107Ag (KED)	101.681 ppb	101.681 %	100.000 ppb	1.5 %
111Cd (KED)	103.586 ppb	103.586 %	100.000 ppb	0.6 %
118Sn (KED)	105.415 ppb	105.415 %	100.000 ppb	1.4 %
121Sb (KED)	105.357 ppb	105.357 %	100.000 ppb	1.2 %
137Ba (KED)	100.374 ppb	100.374 %	100.000 ppb	1.5 %
205Tl (KED)	101.273 ppb	101.273 %	100.000 ppb	3.6 %
208Pb (KED)	102.104 ppb	102.104 %	100.000 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	112.198 %
45Sc (KED)	102.228 %
72Ge (KED)	101.917 %
89Y (KED)	101.273 %
115In (KED)	102.263 %
159Tb (KED)	100.886 %
209Bi (KED)	101.333 %

Labbook:
061523B.imexp

Index #:	42	Stop Time:	6/15/2023 4:13:51 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 4:11:57 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.535 ppb	101.071 %	50.000 ppb	1.7 %
11B (KED)	98.115 ppb	98.115 %	100.000 ppb	2.9 %
23Na (KED)	488.027 ppb	97.605 %	500.000 ppb	1.0 %
24Mg (KED)	493.021 ppb	98.604 %	500.000 ppb	0.9 %
27Al (KED)	99.691 ppb	99.691 %	100.000 ppb	1.9 %
31P (KED)	499.619 ppb	99.924 %	500.000 ppb	2.6 %
39K (KED)	490.960 ppb	98.192 %	500.000 ppb	2.1 %
44Ca (KED)	491.618 ppb	98.324 %	500.000 ppb	4.7 %
47Ti (KED)	99.735 ppb	99.735 %	100.000 ppb	0.9 %
51V (KED)	102.008 ppb	102.008 %	100.000 ppb	0.6 %
52Cr (KED)	100.350 ppb	100.350 %	100.000 ppb	1.4 %
55Mn (KED)	99.190 ppb	99.190 %	100.000 ppb	0.7 %
57Fe (KED)	496.382 ppb	99.276 %	500.000 ppb	1.0 %
59Co (KED)	98.357 ppb	98.357 %	100.000 ppb	1.0 %
60Ni (KED)	98.394 ppb	98.394 %	100.000 ppb	1.4 %
63Cu (KED)	104.370 ppb	104.370 %	100.000 ppb	0.9 %
66Zn (KED)	99.405 ppb	99.405 %	100.000 ppb	0.6 %
75As (KED)	100.286 ppb	100.286 %	100.000 ppb	0.9 %
78Se (KED)	99.789 ppb	99.789 %	100.000 ppb	0.2 %
95Mo (KED)	100.724 ppb	100.724 %	100.000 ppb	1.4 %
107Ag (KED)	98.841 ppb	98.841 %	100.000 ppb	1.1 %
111Cd (KED)	100.025 ppb	100.025 %	100.000 ppb	2.3 %
118Sn (KED)	104.617 ppb	104.617 %	100.000 ppb	1.4 %
121Sb (KED)	104.728 ppb	104.728 %	100.000 ppb	2.7 %
137Ba (KED)	99.810 ppb	99.810 %	100.000 ppb	0.7 %
205Tl (KED)	101.436 ppb	101.436 %	100.000 ppb	2.5 %
208Pb (KED)	99.663 ppb	99.663 %	100.000 ppb	4.4 %

ISTD's	Concentration average
6Li (KED)	83.838 %
45Sc (KED)	84.052 %
72Ge (KED)	87.425 %
89Y (KED)	89.015 %
115In (KED)	91.824 %
159Tb (KED)	91.619 %
209Bi (KED)	94.162 %

Labbook:
061523B.imexp

Index #:	52	Stop Time:	6/15/2023 4:32:33 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 4:30:40 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.169 ppb	98.338 %	50.000 ppb	2.8 %
11B (KED)	96.500 ppb	96.500 %	100.000 ppb	0.3 %
23Na (KED)	500.650 ppb	100.130 %	500.000 ppb	0.6 %
24Mg (KED)	502.142 ppb	100.428 %	500.000 ppb	0.5 %
27Al (KED)	99.385 ppb	99.385 %	100.000 ppb	1.0 %
31P (KED)	491.657 ppb	98.331 %	500.000 ppb	3.7 %
39K (KED)	507.581 ppb	101.516 %	500.000 ppb	1.2 %
44Ca (KED)	497.243 ppb	99.449 %	500.000 ppb	1.4 %
47Ti (KED)	98.122 ppb	98.122 %	100.000 ppb	0.9 %
51V (KED)	97.766 ppb	97.766 %	100.000 ppb	1.0 %
52Cr (KED)	101.792 ppb	101.792 %	100.000 ppb	2.4 %
55Mn (KED)	98.604 ppb	98.604 %	100.000 ppb	1.0 %
57Fe (KED)	496.592 ppb	99.318 %	500.000 ppb	0.8 %
59Co (KED)	98.335 ppb	98.335 %	100.000 ppb	0.4 %
60Ni (KED)	96.426 ppb	96.426 %	100.000 ppb	0.6 %
63Cu (KED)	104.754 ppb	104.754 %	100.000 ppb	0.1 %
66Zn (KED)	99.841 ppb	99.841 %	100.000 ppb	0.8 %
75As (KED)	100.649 ppb	100.649 %	100.000 ppb	0.5 %
78Se (KED)	98.375 ppb	98.375 %	100.000 ppb	0.9 %
95Mo (KED)	103.088 ppb	103.088 %	100.000 ppb	1.6 %
107Ag (KED)	101.846 ppb	101.846 %	100.000 ppb	2.6 %
111Cd (KED)	102.012 ppb	102.012 %	100.000 ppb	1.5 %
118Sn (KED)	104.883 ppb	104.883 %	100.000 ppb	1.1 %
121Sb (KED)	104.971 ppb	104.971 %	100.000 ppb	2.0 %
137Ba (KED)	99.799 ppb	99.799 %	100.000 ppb	2.9 %
205Tl (KED)	97.839 ppb	97.839 %	100.000 ppb	4.3 %
208Pb (KED)	99.086 ppb	99.086 %	100.000 ppb	4.5 %

ISTD's	Concentration average
6Li (KED)	109.213 %
45Sc (KED)	104.832 %
72Ge (KED)	103.907 %
89Y (KED)	103.716 %
115In (KED)	103.576 %
159Tb (KED)	101.929 %
209Bi (KED)	102.847 %

Labbook:
061523B.imexp

Index #:	64	Stop Time:	6/15/2023 4:55:01 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 4:53:10 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.294 ppb	100.588 %	50.000 ppb	0.7 %
11B (KED)	96.513 ppb	96.513 %	100.000 ppb	2.1 %
23Na (KED)	501.410 ppb	100.282 %	500.000 ppb	0.8 %
24Mg (KED)	508.631 ppb	101.726 %	500.000 ppb	0.5 %
27Al (KED)	102.033 ppb	102.033 %	100.000 ppb	0.3 %
31P (KED)	483.856 ppb	96.771 %	500.000 ppb	4.7 %
39K (KED)	511.457 ppb	102.291 %	500.000 ppb	0.8 %
44Ca (KED)	495.224 ppb	99.045 %	500.000 ppb	0.1 %
47Ti (KED)	100.398 ppb	100.398 %	100.000 ppb	0.4 %
51V (KED)	100.350 ppb	100.350 %	100.000 ppb	0.7 %
52Cr (KED)	101.558 ppb	101.558 %	100.000 ppb	2.4 %
55Mn (KED)	99.751 ppb	99.751 %	100.000 ppb	1.3 %
57Fe (KED)	497.667 ppb	99.533 %	500.000 ppb	1.4 %
59Co (KED)	98.789 ppb	98.789 %	100.000 ppb	0.7 %
60Ni (KED)	97.989 ppb	97.989 %	100.000 ppb	0.5 %
63Cu (KED)	102.977 ppb	102.977 %	100.000 ppb	3.7 %
66Zn (KED)	100.093 ppb	100.093 %	100.000 ppb	1.1 %
75As (KED)	101.170 ppb	101.170 %	100.000 ppb	0.1 %
78Se (KED)	100.761 ppb	100.761 %	100.000 ppb	0.5 %
95Mo (KED)	99.927 ppb	99.927 %	100.000 ppb	0.3 %
107Ag (KED)	100.502 ppb	100.502 %	100.000 ppb	0.4 %
111Cd (KED)	102.374 ppb	102.374 %	100.000 ppb	1.7 %
118Sn (KED)	105.829 ppb	105.829 %	100.000 ppb	1.4 %
121Sb (KED)	105.346 ppb	105.346 %	100.000 ppb	1.9 %
137Ba (KED)	100.024 ppb	100.024 %	100.000 ppb	0.3 %
205Tl (KED)	97.698 ppb	97.698 %	100.000 ppb	3.3 %
208Pb (KED)	98.311 ppb	98.311 %	100.000 ppb	2.6 %

ISTD's	Concentration average
6Li (KED)	98.254 %
45Sc (KED)	95.792 %
72Ge (KED)	97.280 %
89Y (KED)	97.489 %
115In (KED)	98.598 %
159Tb (KED)	98.621 %
209Bi (KED)	99.855 %

Labbook:
061523B.imexp

Index #:	75	Stop Time:	6/15/2023 5:15:34 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 5:13:42 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	48.912 ppb	97.824 %	50.000 ppb	1.4 %
11B (KED)	96.067 ppb	96.067 %	100.000 ppb	1.6 %
23Na (KED)	500.317 ppb	100.063 %	500.000 ppb	1.8 %
24Mg (KED)	502.418 ppb	100.484 %	500.000 ppb	1.0 %
27Al (KED)	100.316 ppb	100.316 %	100.000 ppb	1.4 %
31P (KED)	514.004 ppb	102.801 %	500.000 ppb	1.3 %
39K (KED)	510.187 ppb	102.037 %	500.000 ppb	0.8 %
44Ca (KED)	518.775 ppb	103.755 %	500.000 ppb	2.9 %
47Ti (KED)	99.294 ppb	99.294 %	100.000 ppb	1.3 %
51V (KED)	98.652 ppb	98.652 %	100.000 ppb	0.5 %
52Cr (KED)	101.964 ppb	101.964 %	100.000 ppb	2.5 %
55Mn (KED)	100.459 ppb	100.459 %	100.000 ppb	0.8 %
57Fe (KED)	498.236 ppb	99.647 %	500.000 ppb	1.4 %
59Co (KED)	99.448 ppb	99.448 %	100.000 ppb	0.5 %
60Ni (KED)	97.621 ppb	97.621 %	100.000 ppb	1.5 %
63Cu (KED)	100.350 ppb	100.350 %	100.000 ppb	1.0 %
66Zn (KED)	99.532 ppb	99.532 %	100.000 ppb	0.1 %
75As (KED)	100.338 ppb	100.338 %	100.000 ppb	0.3 %
78Se (KED)	98.989 ppb	98.989 %	100.000 ppb	2.1 %
95Mo (KED)	103.303 ppb	103.303 %	100.000 ppb	1.9 %
107Ag (KED)	103.439 ppb	103.439 %	100.000 ppb	0.6 %
111Cd (KED)	102.244 ppb	102.244 %	100.000 ppb	4.7 %
118Sn (KED)	106.181 ppb	106.181 %	100.000 ppb	2.2 %
121Sb (KED)	105.412 ppb	105.412 %	100.000 ppb	2.0 %
137Ba (KED)	100.410 ppb	100.410 %	100.000 ppb	1.4 %
205Tl (KED)	101.438 ppb	101.438 %	100.000 ppb	3.9 %
208Pb (KED)	100.590 ppb	100.590 %	100.000 ppb	2.0 %

ISTD's	Concentration average
6Li (KED)	111.082 %
45Sc (KED)	104.576 %
72Ge (KED)	105.095 %
89Y (KED)	104.019 %
115In (KED)	103.794 %
159Tb (KED)	101.622 %
209Bi (KED)	103.958 %

Labbook:
061523B.imexp

Index #:	85	Stop Time:	6/15/2023 5:34:33 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 5:32:38 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	48.555 ppb	97.110 %	50.000 ppb	0.9 %
11B (KED)	94.251 ppb	94.251 %	100.000 ppb	1.1 %
23Na (KED)	497.729 ppb	99.546 %	500.000 ppb	0.3 %
24Mg (KED)	501.474 ppb	100.295 %	500.000 ppb	1.0 %
27Al (KED)	99.800 ppb	99.800 %	100.000 ppb	0.5 %
31P (KED)	483.843 ppb	96.769 %	500.000 ppb	3.6 %
39K (KED)	511.520 ppb	102.304 %	500.000 ppb	0.4 %
44Ca (KED)	495.392 ppb	99.078 %	500.000 ppb	1.8 %
47Ti (KED)	98.350 ppb	98.350 %	100.000 ppb	0.6 %
51V (KED)	97.589 ppb	97.589 %	100.000 ppb	1.4 %
52Cr (KED)	101.613 ppb	101.613 %	100.000 ppb	1.5 %
55Mn (KED)	98.918 ppb	98.918 %	100.000 ppb	1.9 %
57Fe (KED)	501.545 ppb	100.309 %	500.000 ppb	1.3 %
59Co (KED)	99.945 ppb	99.945 %	100.000 ppb	1.8 %
60Ni (KED)	97.282 ppb	97.282 %	100.000 ppb	0.3 %
63Cu (KED)	101.295 ppb	101.295 %	100.000 ppb	3.0 %
66Zn (KED)	99.770 ppb	99.770 %	100.000 ppb	1.5 %
75As (KED)	100.841 ppb	100.841 %	100.000 ppb	1.6 %
78Se (KED)	98.872 ppb	98.872 %	100.000 ppb	1.7 %
95Mo (KED)	103.930 ppb	103.930 %	100.000 ppb	1.4 %
107Ag (KED)	102.764 ppb	102.764 %	100.000 ppb	0.6 %
111Cd (KED)	103.279 ppb	103.279 %	100.000 ppb	1.9 %
118Sn (KED)	106.497 ppb	106.497 %	100.000 ppb	2.5 %
121Sb (KED)	105.784 ppb	105.784 %	100.000 ppb	2.8 %
137Ba (KED)	100.328 ppb	100.328 %	100.000 ppb	3.9 %
205Tl (KED)	99.830 ppb	99.830 %	100.000 ppb	1.1 %
208Pb (KED)	100.959 ppb	100.959 %	100.000 ppb	2.4 %

ISTD's	Concentration average
6Li (KED)	112.720 %
45Sc (KED)	106.154 %
72Ge (KED)	105.477 %
89Y (KED)	104.646 %
115In (KED)	104.694 %
159Tb (KED)	102.607 %
209Bi (KED)	103.788 %

Performance Evaluation Mixture

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S3F0237-CRL1	Aluminum, Dissolved	5.000	6.00	120	ug/L	80 - 120
	Antimony, Dissolved	5.000	4.96	99	ug/L	80 - 120
	Arsenic, Dissolved	5.000	4.86	97	ug/L	80 - 120
	Barium, Dissolved	5.000	4.65	93	ug/L	80 - 120
	Beryllium, Dissolved	2.500	2.72	109	ug/L	80 - 120
	Cadmium, Dissolved	5.000	4.78	96	ug/L	80 - 120
	Calcium, Dissolved	25.00	25.2	101	ug/L	80 - 120
	Chromium, Dissolved	5.000	4.92	98	ug/L	80 - 120
	Cobalt, Dissolved	5.000	4.91	98	ug/L	80 - 120
	Copper, Dissolved	5.000	4.94	99	ug/L	80 - 120
	Iron, Dissolved	25.00	20.0	80	ug/L	80 - 120
	Lead, Dissolved	5.000	4.89	98	ug/L	80 - 120
	Magnesium, Dissolved	25.00	28.5	114	ug/L	80 - 120
	Manganese, Dissolved	5.000	4.75	95	ug/L	80 - 120
	Nickel, Dissolved	5.000	4.97	99	ug/L	80 - 120
	Potassium, Dissolved	25.00	26.0	104	ug/L	80 - 120
	Selenium, Dissolved	5.000	4.84	97	ug/L	80 - 120
	Silver, Dissolved	5.000	5.22	104	ug/L	80 - 120
	Sodium, Dissolved	25.00	25.8	103	ug/L	80 - 120
	Thallium, Dissolved	5.000	5.08	102	ug/L	80 - 120
	Tin, Dissolved	5.000	4.86	97	ug/L	80 - 120
	Vanadium, Dissolved	5.000	4.86	97	ug/L	80 - 120
	Zinc, Dissolved	5.000	5.02	100	ug/L	80 - 120

Labbook:
061423.imexp

Index #: 12
Sample ID: SEQ-CRL
Start Time: 6/14/2023 8:47:21 AM
Stop Time: 6/14/2023 8:49:10 AM
Dilution Factor 1
prepFAST DF 1
Comment Perf Eval Mix

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	2.718 ppb	108.720 %	2.500 ppb	6.2 %
11B (KED)	5.465 ppb	109.300 %	5.000 ppb	4.2 %
23Na (KED)	25.811 ppb	103.245 %	25.000 ppb	3.1 %
24Mg (KED)	28.508 ppb	114.030 %	25.000 ppb	4.2 %
27Al (KED)	6.003 ppb	120.062 %	5.000 ppb	3.1 %
31P (KED)	23.238 ppb	92.952 %	25.000 ppb	11.1 %
39K (KED)	26.019 ppb	104.077 %	25.000 ppb	1.4 %
44Ca (KED)	25.181 ppb	100.723 %	25.000 ppb	11.9 %
47Ti (KED)	5.107 ppb	102.133 %	5.000 ppb	5.2 %
51V (KED)	4.862 ppb	97.241 %	5.000 ppb	4.6 %
52Cr (KED)	4.917 ppb	98.337 %	5.000 ppb	1.8 %
55Mn (KED)	4.753 ppb	95.060 %	5.000 ppb	3.3 %
57Fe (KED)	19.989 ppb	79.955 %	25.000 ppb	3.3 %
59Co (KED)	4.911 ppb	98.215 %	5.000 ppb	2.1 %
60Ni (KED)	4.971 ppb	99.412 %	5.000 ppb	2.9 %
63Cu (KED)	4.942 ppb	98.836 %	5.000 ppb	1.4 %
66Zn (KED)	5.023 ppb	100.461 %	5.000 ppb	1.9 %
75As (KED)	4.857 ppb	97.137 %	5.000 ppb	1.6 %
78Se (KED)	4.840 ppb	96.809 %	5.000 ppb	2.2 %
95Mo (KED)	4.963 ppb	99.269 %	5.000 ppb	0.3 %
107Ag (KED)	5.224 ppb	104.487 %	5.000 ppb	1.4 %
111Cd (KED)	4.781 ppb	95.617 %	5.000 ppb	1.7 %
118Sn (KED)	4.860 ppb	97.202 %	5.000 ppb	0.5 %
121Sb (KED)	4.959 ppb	99.173 %	5.000 ppb	0.3 %
137Ba (KED)	4.654 ppb	93.071 %	5.000 ppb	1.9 %
205Tl (KED)	5.083 ppb	101.652 %	5.000 ppb	3.1 %
208Pb (KED)	4.893 ppb	97.867 %	5.000 ppb	2.6 %

ISTD's	Concentration average
6Li (KED)	128.806 %
45Sc (KED)	111.537 %
72Ge (KED)	110.324 %
89Y (KED)	111.231 %
115In (KED)	113.883 %
159Tb (KED)	116.703 %
209Bi (KED)	114.980 %

Performance Evaluation Mixture

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
Sequence:	S3F0259		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S3F0259-CRL1	Aluminum, Dissolved	5.000	5.40	108	ug/L	80 - 120
	Sodium, Dissolved	25.00	25.1	100	ug/L	80 - 120

Labbook:
061523B.imexp

Index #: 11
Sample ID: SEQ-CRL
Start Time: 6/15/2023 3:14:30 PM
Stop Time: 6/15/2023 3:16:24 PM
Dilution Factor 0.05
prepFAST DF 20
Comment Perf Eval Mix

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	2.616 ppb	104.655 %	2.500 ppb	2.5 %
11B (KED)	4.654 ppb	93.085 %	5.000 ppb	8.7 %
23Na (KED)	25.067 ppb	100.269 %	25.000 ppb	3.1 %
24Mg (KED)	26.418 ppb	105.670 %	25.000 ppb	2.3 %
27Al (KED)	5.404 ppb	108.076 %	5.000 ppb	5.2 %
31P (KED)	27.599 ppb	110.395 %	25.000 ppb	15.6 %
39K (KED)	24.191 ppb	96.766 %	25.000 ppb	3.9 %
44Ca (KED)	24.769 ppb	99.075 %	25.000 ppb	14.6 %
47Ti (KED)	4.742 ppb	94.845 %	5.000 ppb	5.8 %
51V (KED)	5.025 ppb	100.501 %	5.000 ppb	3.0 %
52Cr (KED)	5.010 ppb	100.195 %	5.000 ppb	4.8 %
55Mn (KED)	4.773 ppb	95.455 %	5.000 ppb	1.7 %
57Fe (KED)	25.794 ppb	103.175 %	25.000 ppb	3.4 %
59Co (KED)	5.019 ppb	100.372 %	5.000 ppb	1.7 %
60Ni (KED)	4.911 ppb	98.228 %	5.000 ppb	2.0 %
63Cu (KED)	4.950 ppb	98.992 %	5.000 ppb	2.3 %
66Zn (KED)	5.044 ppb	100.882 %	5.000 ppb	1.6 %
75As (KED)	4.926 ppb	98.512 %	5.000 ppb	1.7 %
78Se (KED)	5.063 ppb	101.252 %	5.000 ppb	2.6 %
95Mo (KED)	4.975 ppb	99.496 %	5.000 ppb	1.7 %
107Ag (KED)	5.331 ppb	106.630 %	5.000 ppb	2.6 %
111Cd (KED)	5.047 ppb	100.944 %	5.000 ppb	1.4 %
118Sn (KED)	4.942 ppb	98.844 %	5.000 ppb	3.2 %
121Sb (KED)	5.057 ppb	101.148 %	5.000 ppb	1.6 %
137Ba (KED)	4.983 ppb	99.663 %	5.000 ppb	0.9 %
205Tl (KED)	5.062 ppb	101.235 %	5.000 ppb	1.7 %
208Pb (KED)	5.100 ppb	101.993 %	5.000 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	97.989 %
45Sc (KED)	96.677 %
72Ge (KED)	97.278 %
89Y (KED)	97.279 %
115In (KED)	98.925 %
159Tb (KED)	100.364 %
209Bi (KED)	98.862 %

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-ICB1	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCB1	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCB1	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCB2	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved	24.4	ug/L	22.5	
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCB3	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCB3	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
B3F0173-BLK1	Aluminum, Dissolved		mg/L	0.0250	U
	Antimony, Dissolved		mg/L	0.00500	U
	Arsenic, Dissolved		mg/L	0.00500	U
	Barium, Dissolved		mg/L	0.00500	U
	Beryllium, Dissolved		mg/L	0.000500	U
	Cadmium, Dissolved		mg/L	0.000500	U
	Calcium, Dissolved		mg/L	0.0250	U
	Chromium, Dissolved		mg/L	0.00500	U
	Cobalt, Dissolved		mg/L	0.00500	U
	Copper, Dissolved		mg/L	0.00500	U
	Iron, Dissolved		mg/L	0.0250	U
	Lead, Dissolved		mg/L	0.00500	U
	Magnesium, Dissolved		mg/L	0.0250	U
	Manganese, Dissolved		mg/L	0.0050	U
	Nickel, Dissolved		mg/L	0.00500	U
	Potassium, Dissolved		mg/L	0.0250	U
	Selenium, Dissolved		mg/L	0.00500	U
	Silver, Dissolved		mg/L	0.00500	U
	Sodium, Dissolved	0.0530	mg/L	0.0250	
	Thallium, Dissolved		mg/L	0.00500	U
	Tin, Dissolved		mg/L	0.00500	U
	Vanadium, Dissolved		mg/L	0.00500	U
	Zinc, Dissolved		mg/L	0.00500	U
S3F0237-CCB4	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCB4	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCB5	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCB5	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCB6	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCB7	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCB7	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCB8	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCB9	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCB9	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCBA	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCBA	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCBB	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCBC	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCBC	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCBD	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCBE	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCBE	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0237-CCBF	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U
	Arsenic, Dissolved		ug/L	4.50	U
	Barium, Dissolved		ug/L	4.50	U
	Beryllium, Dissolved		ug/L	0.450	U
	Cadmium, Dissolved		ug/L	0.450	U
	Calcium, Dissolved		ug/L	22.5	U
	Chromium, Dissolved		ug/L	4.50	U
	Cobalt, Dissolved		ug/L	4.50	U
	Copper, Dissolved		ug/L	4.50	U
	Iron, Dissolved		ug/L	22.5	U
	Lead, Dissolved		ug/L	4.50	U
	Magnesium, Dissolved		ug/L	22.5	U
	Manganese, Dissolved		ug/L	4.50	U
	Nickel, Dissolved		ug/L	4.50	U
	Potassium, Dissolved		ug/L	22.5	U
	Selenium, Dissolved		ug/L	4.50	U
	Silver, Dissolved		ug/L	4.50	U
	Sodium, Dissolved		ug/L	22.5	U
	Thallium, Dissolved		ug/L	4.50	U
	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30060
Sequence:	S3F0237		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0237-CCBF	Zinc, Dissolved		ug/L	4.50	U

Labbook:
061423.imexp

Index #: 8
Sample ID: SEQ-ICB
Start Time: 6/14/2023 8:40:06 AM
Stop Time: 6/14/2023 8:41:55 AM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.058 ppb	-26.256 %	13.4 %
11B (KED)	0.419 ppb	33.519 %	27.0 %
23Na (KED)	-1.932 ppb	-15.457 %	3.2 %
24Mg (KED)	0.414 ppb	3.308 %	11.6 %
27Al (KED)	0.420 ppb	16.787 %	7.5 %
31P (KED)	-5.869 ppb	-46.948 %	14.3 %
39K (KED)	0.632 ppb	5.059 %	70.8 %
44Ca (KED)	-2.870 ppb	-23.817 %	39.4 %
47Ti (KED)	0.151 ppb	11.472 %	11.6 %
51V (KED)	0.036 ppb	5.437 %	9.2 %
52Cr (KED)	0.182 ppb	16.569 %	2.4 %
55Mn (KED)	-0.149 ppb	-13.517 %	1.9 %
57Fe (KED)	-5.933 ppb	-94.935 %	2.9 %
59Co (KED)	0.110 ppb	8.351 %	1.1 %
60Ni (KED)	-0.007 ppb	-0.606 %	63.7 %
63Cu (KED)	-0.135 ppb	-12.234 %	2.7 %
66Zn (KED)	-0.137 ppb	-5.463 %	7.9 %
75As (KED)	-0.008 ppb	-0.953 %	67.5 %
78Se (KED)	0.017 ppb	1.265 %	174.8 %
95Mo (KED)	0.015 ppb	1.321 %	42.3 %
107Ag (KED)	-0.019 ppb	-11.313 %	21.3 %
111Cd (KED)	-0.018 ppb	-26.316 %	10.4 %
118Sn (KED)	-0.032 ppb	-1.274 %	13.1 %
121Sb (KED)	0.214 ppb	16.243 %	0.6 %
137Ba (KED)	-0.093 ppb	-10.595 %	2.6 %
205Tl (KED)	0.011 ppb	6.381 %	11.7 %
208Pb (KED)	0.019 ppb	9.894 %	4.5 %

ISTD's	Concentration average
6Li (KED)	100.771 %
45Sc (KED)	99.509 %
72Ge (KED)	100.430 %
89Y (KED)	99.036 %
115In (KED)	103.226 %
159Tb (KED)	101.454 %
209Bi (KED)	102.808 %

Labbook:
061423.imexp

Index #: 18
Sample ID: SEQ-CCB
Start Time: 6/14/2023 9:03:48 AM
Stop Time: 6/14/2023 9:05:36 AM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.032 ppb	-14.713 %	25.9 %
11B (KED)	0.454 ppb	36.324 %	22.4 %
23Na (KED)	-1.501 ppb	-12.007 %	28.1 %
24Mg (KED)	0.458 ppb	3.662 %	35.4 %
27Al (KED)	0.460 ppb	18.407 %	6.3 %
31P (KED)	-6.376 ppb	-51.012 %	16.1 %
39K (KED)	0.524 ppb	4.194 %	295.7 %
44Ca (KED)	-3.521 ppb	-29.216 %	20.5 %
47Ti (KED)	0.161 ppb	12.191 %	6.3 %
51V (KED)	0.038 ppb	5.715 %	9.3 %
52Cr (KED)	0.184 ppb	16.767 %	0.2 %
55Mn (KED)	-0.155 ppb	-14.100 %	3.2 %
57Fe (KED)	-5.859 ppb	-93.747 %	1.7 %
59Co (KED)	0.110 ppb	8.317 %	1.0 %
60Ni (KED)	-0.007 ppb	-0.674 %	47.7 %
63Cu (KED)	-0.133 ppb	-12.113 %	1.2 %
66Zn (KED)	-0.135 ppb	-5.394 %	14.3 %
75As (KED)	-0.001 ppb	-0.062 %	575.7 %
78Se (KED)	0.020 ppb	1.545 %	65.8 %
95Mo (KED)	0.008 ppb	0.721 %	27.3 %
107Ag (KED)	-0.019 ppb	-11.364 %	22.9 %
111Cd (KED)	-0.017 ppb	-24.235 %	8.5 %
118Sn (KED)	-0.036 ppb	-1.445 %	3.5 %
121Sb (KED)	0.210 ppb	15.934 %	0.4 %
137Ba (KED)	-0.092 ppb	-10.505 %	2.7 %
205Tl (KED)	0.011 ppb	6.280 %	8.8 %
208Pb (KED)	0.019 ppb	9.843 %	3.5 %

ISTD's	Concentration average
6Li (KED)	103.855 %
45Sc (KED)	95.031 %
72Ge (KED)	97.179 %
89Y (KED)	95.960 %
115In (KED)	99.164 %
159Tb (KED)	99.461 %
209Bi (KED)	104.470 %

Labbook:
061423.imexp

Index #:	30	Stop Time:	6/14/2023 9:27:41 AM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/14/2023 9:25:50 AM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.057 ppb	-26.032 %	30.4 %
11B (KED)	0.493 ppb	39.441 %	28.7 %
23Na (KED)	24.446 ppb	195.567 %	43.3 %
24Mg (KED)	0.771 ppb	6.168 %	42.5 %
27Al (KED)	0.419 ppb	16.779 %	22.4 %
31P (KED)	-5.086 ppb	-40.690 %	30.4 %
39K (KED)	3.496 ppb	27.965 %	55.8 %
44Ca (KED)	0.593 ppb	4.919 %	284.8 %
47Ti (KED)	0.144 ppb	10.940 %	9.4 %
51V (KED)	0.036 ppb	5.466 %	16.4 %
52Cr (KED)	0.188 ppb	17.095 %	2.2 %
55Mn (KED)	-0.153 ppb	-13.938 %	6.7 %
57Fe (KED)	-5.834 ppb	-93.350 %	1.2 %
59Co (KED)	0.111 ppb	8.394 %	3.1 %
60Ni (KED)	-0.008 ppb	-0.716 %	165.2 %
63Cu (KED)	-0.127 ppb	-11.568 %	3.2 %
66Zn (KED)	-0.117 ppb	-4.672 %	15.3 %
75As (KED)	-0.005 ppb	-0.546 %	145.7 %
78Se (KED)	0.014 ppb	1.088 %	123.5 %
95Mo (KED)	0.006 ppb	0.553 %	21.3 %
107Ag (KED)	-0.023 ppb	-13.670 %	2.2 %
111Cd (KED)	-0.018 ppb	-25.622 %	6.7 %
118Sn (KED)	-0.031 ppb	-1.252 %	13.0 %
121Sb (KED)	0.212 ppb	16.034 %	0.1 %
137Ba (KED)	-0.088 ppb	-10.036 %	1.5 %
205Tl (KED)	0.011 ppb	6.069 %	10.2 %
208Pb (KED)	0.019 ppb	10.008 %	16.1 %

ISTD's	Concentration average
6Li (KED)	122.653 %
45Sc (KED)	113.535 %
72Ge (KED)	109.377 %
89Y (KED)	108.569 %
115In (KED)	110.961 %
159Tb (KED)	107.411 %
209Bi (KED)	109.738 %

Labbook:
061423.imexp

Index #: 36
Sample ID: SEQ-CCB
Start Time: 6/14/2023 9:36:56 AM
Stop Time: 6/14/2023 9:38:46 AM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.057 ppb	-25.943 %	14.1 %
11B (KED)	0.413 ppb	33.039 %	29.9 %
23Na (KED)	6.045 ppb	48.360 %	6.0 %
24Mg (KED)	0.636 ppb	5.090 %	34.0 %
27Al (KED)	0.473 ppb	18.913 %	6.2 %
31P (KED)	-4.017 ppb	-32.137 %	22.2 %
39K (KED)	3.353 ppb	26.821 %	29.1 %
44Ca (KED)	-1.994 ppb	-16.548 %	85.3 %
47Ti (KED)	0.147 ppb	11.121 %	10.6 %
51V (KED)	0.040 ppb	6.116 %	15.6 %
52Cr (KED)	0.186 ppb	16.897 %	5.2 %
55Mn (KED)	-0.152 ppb	-13.791 %	1.2 %
57Fe (KED)	-5.783 ppb	-92.528 %	2.6 %
59Co (KED)	0.109 ppb	8.283 %	0.8 %
60Ni (KED)	-0.008 ppb	-0.702 %	61.6 %
63Cu (KED)	-0.135 ppb	-12.265 %	2.6 %
66Zn (KED)	-0.124 ppb	-4.941 %	3.4 %
75As (KED)	-0.008 ppb	-0.955 %	62.4 %
78Se (KED)	0.012 ppb	0.924 %	218.8 %
95Mo (KED)	0.005 ppb	0.483 %	38.3 %
107Ag (KED)	-0.023 ppb	-13.240 %	4.5 %
111Cd (KED)	-0.019 ppb	-27.828 %	3.9 %
118Sn (KED)	-0.029 ppb	-1.173 %	5.1 %
121Sb (KED)	0.206 ppb	15.570 %	1.1 %
137Ba (KED)	-0.092 ppb	-10.400 %	6.5 %
205Tl (KED)	0.011 ppb	6.096 %	10.3 %
208Pb (KED)	0.020 ppb	10.687 %	5.9 %

ISTD's	Concentration average
6Li (KED)	95.357 %
45Sc (KED)	95.335 %
72Ge (KED)	94.047 %
89Y (KED)	93.878 %
115In (KED)	96.969 %
159Tb (KED)	94.920 %
209Bi (KED)	95.871 %

Labbook:
061423.imexp

Index #:	37	Stop Time:	6/14/2023 9:40:41 AM	Comment	ND 6020 DISS
Sample ID:	B3F0173-BLK1	Dilution Factor	1		
Start Time:	6/14/2023 9:38:47 AM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.053 ppb	28.8 %
11B (KED)	0.336 ppb	60.0 %
23Na (KED)	47.677 ppb	166.0 %
24Mg (KED)	2.230 ppb	68.3 %
27Al (KED)	1.673 ppb	17.7 %
31P (KED)	0.361 ppb	700.0 %
39K (KED)	3.954 ppb	174.6 %
44Ca (KED)	4.059 ppb	202.3 %
47Ti (KED)	0.229 ppb	23.8 %
51V (KED)	0.045 ppb	28.5 %
52Cr (KED)	0.221 ppb	21.2 %
55Mn (KED)	-0.061 ppb	42.5 %
57Fe (KED)	-3.840 ppb	3.1 %
59Co (KED)	0.124 ppb	9.6 %
60Ni (KED)	0.037 ppb	94.5 %
63Cu (KED)	-0.114 ppb	29.2 %
66Zn (KED)	-0.096 ppb	22.0 %
75As (KED)	-0.004 ppb	414.9 %
78Se (KED)	0.035 ppb	47.8 %
95Mo (KED)	0.004 ppb	206.1 %
107Ag (KED)	-0.021 ppb	28.3 %
111Cd (KED)	-0.017 ppb	27.3 %
118Sn (KED)	-0.006 ppb	247.8 %
121Sb (KED)	0.200 ppb	5.5 %
137Ba (KED)	-0.076 ppb	10.9 %
205Tl (KED)	0.014 ppb	71.5 %
208Pb (KED)	0.033 ppb	31.0 %

ISTD's	Concentration average
6Li (KED)	103.566 %
45Sc (KED)	103.193 %
72Ge (KED)	98.839 %
89Y (KED)	103.390 %
115In (KED)	106.669 %
159Tb (KED)	105.949 %
209Bi (KED)	99.988 %

Labbook:
061423.imexp

Index #: 47
Sample ID: SEQ-CCB
Start Time: 6/14/2023 9:57:28 AM
Stop Time: 6/14/2023 9:59:20 AM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.049 ppb	-22.073 %	22.2 %
11B (KED)	0.209 ppb	16.745 %	87.9 %
23Na (KED)	8.483 ppb	67.866 %	115.9 %
24Mg (KED)	1.873 ppb	14.981 %	80.2 %
27Al (KED)	0.454 ppb	18.174 %	2.6 %
31P (KED)	-4.885 ppb	-39.076 %	40.7 %
39K (KED)	3.224 ppb	25.796 %	5.4 %
44Ca (KED)	0.092 ppb	0.765 %	2,514.9 %
47Ti (KED)	0.150 ppb	11.379 %	8.3 %
51V (KED)	0.039 ppb	5.874 %	11.8 %
52Cr (KED)	0.184 ppb	16.763 %	1.5 %
55Mn (KED)	-0.152 ppb	-13.802 %	4.4 %
57Fe (KED)	-5.784 ppb	-92.549 %	1.9 %
59Co (KED)	0.113 ppb	8.597 %	3.8 %
60Ni (KED)	0.003 ppb	0.284 %	133.7 %
63Cu (KED)	-0.137 ppb	-12.478 %	2.6 %
66Zn (KED)	-0.124 ppb	-4.953 %	4.2 %
75As (KED)	0.006 ppb	0.626 %	44.0 %
78Se (KED)	0.004 ppb	0.271 %	229.1 %
95Mo (KED)	0.012 ppb	1.052 %	80.5 %
107Ag (KED)	-0.012 ppb	-7.094 %	78.2 %
111Cd (KED)	-0.011 ppb	-16.013 %	95.3 %
118Sn (KED)	-0.022 ppb	-0.877 %	83.9 %
121Sb (KED)	0.228 ppb	17.256 %	11.5 %
137Ba (KED)	-0.068 ppb	-7.721 %	48.5 %
205Tl (KED)	0.026 ppb	14.570 %	97.1 %
208Pb (KED)	0.033 ppb	17.336 %	68.9 %

ISTD's	Concentration average
6Li (KED)	143.909 %
45Sc (KED)	125.581 %
72Ge (KED)	120.114 %
89Y (KED)	120.622 %
115In (KED)	121.532 %
159Tb (KED)	120.266 %
209Bi (KED)	120.425 %

Labbook:
061423.imexp

Index #: 52
Sample ID: SEQ-CCB
Start Time: 6/14/2023 10:07:00 AM
Stop Time: 6/14/2023 10:08:53 AM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.059 ppb	-27.020 %	21.5 %
11B (KED)	0.178 ppb	14.236 %	31.9 %
23Na (KED)	-0.855 ppb	-6.837 %	43.4 %
24Mg (KED)	0.573 ppb	4.586 %	32.0 %
27Al (KED)	0.439 ppb	17.544 %	13.0 %
31P (KED)	-4.230 ppb	-33.837 %	44.5 %
39K (KED)	1.770 ppb	14.164 %	20.7 %
44Ca (KED)	-3.325 ppb	-27.595 %	7.1 %
47Ti (KED)	0.144 ppb	10.910 %	7.2 %
51V (KED)	0.052 ppb	7.921 %	10.4 %
52Cr (KED)	0.181 ppb	16.454 %	2.7 %
55Mn (KED)	-0.157 ppb	-14.259 %	4.3 %
57Fe (KED)	-5.712 ppb	-91.396 %	0.4 %
59Co (KED)	0.108 ppb	8.167 %	0.8 %
60Ni (KED)	0.002 ppb	0.140 %	246.8 %
63Cu (KED)	-0.131 ppb	-11.867 %	2.8 %
66Zn (KED)	-0.111 ppb	-4.427 %	4.2 %
75As (KED)	-0.008 ppb	-0.963 %	116.5 %
78Se (KED)	-0.004 ppb	-0.283 %	249.7 %
95Mo (KED)	0.002 ppb	0.146 %	292.8 %
107Ag (KED)	-0.025 ppb	-14.598 %	9.3 %
111Cd (KED)	-0.019 ppb	-27.704 %	11.0 %
118Sn (KED)	-0.035 ppb	-1.381 %	4.9 %
121Sb (KED)	0.203 ppb	15.379 %	1.9 %
137Ba (KED)	-0.095 ppb	-10.792 %	6.4 %
205Tl (KED)	0.008 ppb	4.669 %	5.7 %
208Pb (KED)	0.018 ppb	9.230 %	3.0 %

ISTD's	Concentration average
6Li (KED)	93.221 %
45Sc (KED)	92.828 %
72Ge (KED)	92.838 %
89Y (KED)	93.210 %
115In (KED)	94.736 %
159Tb (KED)	98.212 %
209Bi (KED)	98.034 %

Labbook:
061423.imexp

Index #: 61
Sample ID: SEQ-CCB
Start Time: 6/14/2023 10:23:46 AM
Stop Time: 6/14/2023 10:25:34 AM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.154 ppb	69.972 %	82.2 %
11B (KED)	0.712 ppb	56.963 %	26.6 %
23Na (KED)	-0.395 ppb	-3.161 %	35.5 %
24Mg (KED)	0.508 ppb	4.068 %	44.1 %
27Al (KED)	0.581 ppb	23.243 %	26.0 %
31P (KED)	-4.983 ppb	-39.868 %	29.8 %
39K (KED)	0.835 ppb	6.677 %	76.2 %
44Ca (KED)	-2.253 ppb	-18.695 %	13.7 %
47Ti (KED)	0.198 ppb	15.034 %	17.2 %
51V (KED)	0.054 ppb	8.177 %	10.7 %
52Cr (KED)	0.185 ppb	16.832 %	1.8 %
55Mn (KED)	-0.150 ppb	-13.634 %	7.4 %
57Fe (KED)	-5.781 ppb	-92.491 %	2.4 %
59Co (KED)	0.114 ppb	8.649 %	7.3 %
60Ni (KED)	-0.001 ppb	-0.051 %	1,875.7 %
63Cu (KED)	-0.118 ppb	-10.711 %	13.2 %
66Zn (KED)	-0.099 ppb	-3.968 %	11.3 %
75As (KED)	0.013 ppb	1.509 %	19.8 %
78Se (KED)	0.079 ppb	5.961 %	30.4 %
95Mo (KED)	0.008 ppb	0.749 %	129.3 %
107Ag (KED)	-0.017 ppb	-10.273 %	49.5 %
111Cd (KED)	-0.013 ppb	-18.882 %	56.8 %
118Sn (KED)	-0.030 ppb	-1.217 %	23.7 %
121Sb (KED)	0.210 ppb	15.919 %	3.9 %
137Ba (KED)	-0.081 ppb	-9.189 %	7.0 %
205Tl (KED)	0.011 ppb	6.064 %	37.6 %
208Pb (KED)	0.021 ppb	10.790 %	26.8 %

ISTD's	Concentration average
6Li (KED)	101.941 %
45Sc (KED)	98.114 %
72Ge (KED)	97.545 %
89Y (KED)	96.655 %
115In (KED)	101.055 %
159Tb (KED)	101.733 %
209Bi (KED)	104.296 %

Labbook:
061423.imexp

Index #: 70
Sample ID: SEQ-CCB
Start Time: 6/14/2023 10:40:31 AM
Stop Time: 6/14/2023 10:42:23 AM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.058 ppb	26.411 %	132.2 %
11B (KED)	0.435 ppb	34.809 %	41.7 %
23Na (KED)	-0.084 ppb	-0.671 %	310.2 %
24Mg (KED)	0.562 ppb	4.496 %	29.8 %
27Al (KED)	0.519 ppb	20.770 %	3.2 %
31P (KED)	-4.663 ppb	-37.302 %	9.3 %
39K (KED)	3.166 ppb	25.329 %	38.2 %
44Ca (KED)	-2.731 ppb	-22.662 %	67.5 %
47Ti (KED)	0.180 ppb	13.642 %	2.6 %
51V (KED)	0.053 ppb	8.016 %	10.8 %
52Cr (KED)	0.185 ppb	16.830 %	0.3 %
55Mn (KED)	-0.153 ppb	-13.884 %	2.1 %
57Fe (KED)	-5.796 ppb	-92.740 %	2.4 %
59Co (KED)	0.111 ppb	8.397 %	0.4 %
60Ni (KED)	-0.001 ppb	-0.109 %	282.4 %
63Cu (KED)	-0.126 ppb	-11.421 %	4.2 %
66Zn (KED)	-0.093 ppb	-3.709 %	19.4 %
75As (KED)	0.005 ppb	0.548 %	229.7 %
78Se (KED)	0.087 ppb	6.624 %	41.6 %
95Mo (KED)	0.004 ppb	0.331 %	79.0 %
107Ag (KED)	-0.020 ppb	-11.706 %	15.0 %
111Cd (KED)	-0.019 ppb	-26.568 %	9.4 %
118Sn (KED)	-0.033 ppb	-1.337 %	2.8 %
121Sb (KED)	0.209 ppb	15.859 %	0.6 %
137Ba (KED)	-0.093 ppb	-10.557 %	4.5 %
205Tl (KED)	0.010 ppb	5.512 %	4.7 %
208Pb (KED)	0.019 ppb	9.974 %	6.9 %

ISTD's	Concentration average
6Li (KED)	112.635 %
45Sc (KED)	106.754 %
72Ge (KED)	105.123 %
89Y (KED)	103.280 %
115In (KED)	107.641 %
159Tb (KED)	102.982 %
209Bi (KED)	102.332 %

Labbook:
061423.imexp

Index #: 81
Sample ID: SEQ-CCB
Start Time: 6/14/2023 11:01:09 AM
Stop Time: 6/14/2023 11:02:59 AM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.016 ppb	-7.231 %	147.3 %
11B (KED)	0.320 ppb	25.561 %	13.1 %
23Na (KED)	-0.257 ppb	-2.059 %	8.3 %
24Mg (KED)	0.377 ppb	3.015 %	7.6 %
27Al (KED)	0.477 ppb	19.072 %	5.8 %
31P (KED)	-4.722 ppb	-37.777 %	21.0 %
39K (KED)	1.420 ppb	11.360 %	149.4 %
44Ca (KED)	-2.871 ppb	-23.826 %	16.0 %
47Ti (KED)	0.163 ppb	12.348 %	8.9 %
51V (KED)	0.060 ppb	9.085 %	7.4 %
52Cr (KED)	0.184 ppb	16.683 %	1.7 %
55Mn (KED)	-0.159 ppb	-14.447 %	2.1 %
57Fe (KED)	-5.570 ppb	-89.123 %	2.7 %
59Co (KED)	0.108 ppb	8.190 %	1.0 %
60Ni (KED)	-0.001 ppb	-0.058 %	474.6 %
63Cu (KED)	-0.130 ppb	-11.774 %	7.8 %
66Zn (KED)	-0.100 ppb	-4.005 %	26.3 %
75As (KED)	-0.004 ppb	-0.466 %	57.5 %
78Se (KED)	-0.012 ppb	-0.916 %	38.5 %
95Mo (KED)	0.002 ppb	0.152 %	141.1 %
107Ag (KED)	-0.024 ppb	-14.115 %	22.3 %
111Cd (KED)	-0.020 ppb	-28.697 %	12.5 %
118Sn (KED)	-0.035 ppb	-1.417 %	5.8 %
121Sb (KED)	0.201 ppb	15.242 %	1.1 %
137Ba (KED)	-0.091 ppb	-10.294 %	0.2 %
205Tl (KED)	0.007 ppb	4.102 %	13.2 %
208Pb (KED)	0.017 ppb	9.055 %	0.5 %

ISTD's	Concentration average
6Li (KED)	105.403 %
45Sc (KED)	99.256 %
72Ge (KED)	99.173 %
89Y (KED)	98.520 %
115In (KED)	103.686 %
159Tb (KED)	101.022 %
209Bi (KED)	103.957 %

Labbook:
061423.imexp

Index #:	87	Stop Time:	6/14/2023 11:14:20 AM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/14/2023 11:12:27 AM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.019 ppb	-8.659 %	153.9 %
11B (KED)	0.419 ppb	33.482 %	11.5 %
23Na (KED)	-0.696 ppb	-5.566 %	42.0 %
24Mg (KED)	0.644 ppb	5.150 %	17.3 %
27Al (KED)	0.482 ppb	19.295 %	6.2 %
31P (KED)	-4.850 ppb	-38.800 %	31.6 %
39K (KED)	2.253 ppb	18.025 %	49.1 %
44Ca (KED)	-1.806 ppb	-14.987 %	37.9 %
47Ti (KED)	0.154 ppb	11.697 %	15.2 %
51V (KED)	0.049 ppb	7.455 %	24.0 %
52Cr (KED)	0.183 ppb	16.619 %	1.5 %
55Mn (KED)	-0.155 ppb	-14.109 %	5.8 %
57Fe (KED)	-5.627 ppb	-90.026 %	0.3 %
59Co (KED)	0.109 ppb	8.280 %	0.9 %
60Ni (KED)	0.005 ppb	0.488 %	129.8 %
63Cu (KED)	-0.128 ppb	-11.631 %	3.2 %
66Zn (KED)	-0.091 ppb	-3.644 %	3.8 %
75As (KED)	-0.006 ppb	-0.733 %	34.1 %
78Se (KED)	0.050 ppb	3.797 %	106.5 %
95Mo (KED)	0.003 ppb	0.269 %	143.0 %
107Ag (KED)	-0.021 ppb	-12.585 %	7.8 %
111Cd (KED)	-0.018 ppb	-25.197 %	22.9 %
118Sn (KED)	-0.035 ppb	-1.382 %	1.2 %
121Sb (KED)	0.208 ppb	15.736 %	2.1 %
137Ba (KED)	-0.090 ppb	-10.179 %	5.8 %
205Tl (KED)	0.009 ppb	4.921 %	12.1 %
208Pb (KED)	0.018 ppb	9.265 %	4.9 %

ISTD's	Concentration average
6Li (KED)	122.077 %
45Sc (KED)	114.235 %
72Ge (KED)	111.267 %
89Y (KED)	111.309 %
115In (KED)	112.592 %
159Tb (KED)	111.295 %
209Bi (KED)	111.695 %

Labbook:
061423.imexp

Index #: 95
Sample ID: SEQ-CCB
Start Time: 6/14/2023 11:27:14 AM
Stop Time: 6/14/2023 11:29:06 AM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.095 ppb	43.357 %	66.8 %
11B (KED)	0.547 ppb	43.728 %	15.6 %
23Na (KED)	11.389 ppb	91.113 %	187.2 %
24Mg (KED)	2.605 ppb	20.844 %	135.4 %
27Al (KED)	0.529 ppb	21.151 %	6.8 %
31P (KED)	-4.650 ppb	-37.199 %	29.2 %
39K (KED)	2.096 ppb	16.769 %	124.6 %
44Ca (KED)	0.336 ppb	2.789 %	1,118.7 %
47Ti (KED)	0.241 ppb	18.236 %	1.7 %
51V (KED)	0.061 ppb	9.206 %	4.0 %
52Cr (KED)	0.193 ppb	17.532 %	2.9 %
55Mn (KED)	-0.145 ppb	-13.171 %	10.9 %
57Fe (KED)	-5.712 ppb	-91.396 %	2.4 %
59Co (KED)	0.115 ppb	8.734 %	7.2 %
60Ni (KED)	0.008 ppb	0.725 %	233.4 %
63Cu (KED)	-0.119 ppb	-10.778 %	8.4 %
66Zn (KED)	-0.078 ppb	-3.104 %	11.6 %
75As (KED)	0.007 ppb	0.752 %	165.5 %
78Se (KED)	0.078 ppb	5.895 %	32.3 %
95Mo (KED)	0.007 ppb	0.677 %	83.3 %
107Ag (KED)	-0.019 ppb	-10.909 %	17.1 %
111Cd (KED)	-0.017 ppb	-24.296 %	12.0 %
118Sn (KED)	-0.031 ppb	-1.258 %	15.0 %
121Sb (KED)	0.211 ppb	15.970 %	3.1 %
137Ba (KED)	-0.089 ppb	-10.141 %	5.6 %
205Tl (KED)	0.011 ppb	6.048 %	19.5 %
208Pb (KED)	0.021 ppb	11.222 %	10.7 %

ISTD's	Concentration average
6Li (KED)	99.804 %
45Sc (KED)	96.925 %
72Ge (KED)	93.804 %
89Y (KED)	97.449 %
115In (KED)	100.375 %
159Tb (KED)	99.459 %
209Bi (KED)	100.647 %

Labbook:
061423.imexp

Index #: 103
Sample ID: SEQ-CCB
Start Time: 6/14/2023 11:42:23 AM
Stop Time: 6/14/2023 11:44:11 AM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.013 ppb	5.809 %	205.8 %
11B (KED)	0.611 ppb	48.869 %	30.2 %
23Na (KED)	-0.308 ppb	-2.463 %	102.8 %
24Mg (KED)	0.543 ppb	4.342 %	29.0 %
27Al (KED)	0.557 ppb	22.291 %	4.6 %
31P (KED)	-4.271 ppb	-34.164 %	41.6 %
39K (KED)	3.886 ppb	31.092 %	18.5 %
44Ca (KED)	-2.585 ppb	-21.456 %	28.8 %
47Ti (KED)	0.184 ppb	13.930 %	7.0 %
51V (KED)	0.039 ppb	5.840 %	5.8 %
52Cr (KED)	0.182 ppb	16.525 %	2.0 %
55Mn (KED)	-0.160 ppb	-14.511 %	1.6 %
57Fe (KED)	-5.871 ppb	-93.932 %	2.3 %
59Co (KED)	0.109 ppb	8.259 %	0.3 %
60Ni (KED)	0.005 ppb	0.433 %	65.4 %
63Cu (KED)	-0.133 ppb	-12.113 %	1.6 %
66Zn (KED)	-0.082 ppb	-3.261 %	6.5 %
75As (KED)	0.005 ppb	0.574 %	56.0 %
78Se (KED)	0.065 ppb	4.932 %	31.6 %
95Mo (KED)	0.004 ppb	0.402 %	119.7 %
107Ag (KED)	-0.022 ppb	-13.156 %	11.2 %
111Cd (KED)	-0.019 ppb	-26.643 %	12.9 %
118Sn (KED)	-0.034 ppb	-1.356 %	2.9 %
121Sb (KED)	0.210 ppb	15.892 %	1.0 %
137Ba (KED)	-0.092 ppb	-10.509 %	4.5 %
205Tl (KED)	0.009 ppb	4.848 %	6.9 %
208Pb (KED)	0.017 ppb	9.013 %	5.5 %

ISTD's	Concentration average
6Li (KED)	119.125 %
45Sc (KED)	111.459 %
72Ge (KED)	107.929 %
89Y (KED)	107.083 %
115In (KED)	108.397 %
159Tb (KED)	104.016 %
209Bi (KED)	107.053 %

Labbook:
061423.imexp

Index #: 115
Sample ID: SEQ-CCB
Start Time: 6/14/2023 12:05:00 PM
Stop Time: 6/14/2023 12:06:55 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.041 ppb	18.411 %	66.1 %
11B (KED)	0.456 ppb	36.498 %	36.5 %
23Na (KED)	-1.219 ppb	-9.754 %	6.7 %
24Mg (KED)	0.534 ppb	4.272 %	6.6 %
27Al (KED)	0.514 ppb	20.545 %	9.6 %
31P (KED)	-5.405 ppb	-43.240 %	9.6 %
39K (KED)	2.396 ppb	19.166 %	36.3 %
44Ca (KED)	-2.044 ppb	-16.964 %	44.0 %
47Ti (KED)	0.172 ppb	13.044 %	15.6 %
51V (KED)	0.057 ppb	8.570 %	5.7 %
52Cr (KED)	0.180 ppb	16.405 %	0.9 %
55Mn (KED)	-0.157 ppb	-14.272 %	2.1 %
57Fe (KED)	-5.777 ppb	-92.439 %	1.9 %
59Co (KED)	0.109 ppb	8.288 %	1.1 %
60Ni (KED)	0.002 ppb	0.175 %	72.3 %
63Cu (KED)	-0.126 ppb	-11.485 %	3.2 %
66Zn (KED)	-0.096 ppb	-3.846 %	14.2 %
75As (KED)	0.000 ppb	-0.002 %	31,106.3 %
78Se (KED)	0.080 ppb	6.025 %	38.9 %
95Mo (KED)	0.003 ppb	0.263 %	28.4 %
107Ag (KED)	-0.023 ppb	-13.788 %	7.0 %
111Cd (KED)	-0.019 ppb	-26.591 %	12.4 %
118Sn (KED)	-0.036 ppb	-1.433 %	2.6 %
121Sb (KED)	0.202 ppb	15.321 %	2.1 %
137Ba (KED)	-0.094 ppb	-10.728 %	5.5 %
205Tl (KED)	0.007 ppb	3.998 %	5.3 %
208Pb (KED)	0.018 ppb	9.697 %	5.7 %

ISTD's	Concentration average
6Li (KED)	93.325 %
45Sc (KED)	91.287 %
72Ge (KED)	91.539 %
89Y (KED)	93.366 %
115In (KED)	98.174 %
159Tb (KED)	93.956 %
209Bi (KED)	97.062 %

Labbook:
061423.imexp

Index #: 122
Sample ID: SEQ-CCB
Start Time: 6/14/2023 12:18:17 PM
Stop Time: 6/14/2023 12:20:05 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.130 ppb	59.216 %	23.8 %
11B (KED)	0.442 ppb	35.387 %	13.7 %
23Na (KED)	-1.119 ppb	-8.949 %	12.3 %
24Mg (KED)	0.554 ppb	4.431 %	19.3 %
27Al (KED)	0.498 ppb	19.937 %	6.5 %
31P (KED)	-4.662 ppb	-37.298 %	10.4 %
39K (KED)	2.978 ppb	23.824 %	20.9 %
44Ca (KED)	-1.683 ppb	-13.964 %	64.3 %
47Ti (KED)	0.213 ppb	16.162 %	6.0 %
51V (KED)	0.055 ppb	8.313 %	19.4 %
52Cr (KED)	0.190 ppb	17.271 %	4.0 %
55Mn (KED)	-0.153 ppb	-13.937 %	1.0 %
57Fe (KED)	-5.715 ppb	-91.448 %	0.9 %
59Co (KED)	0.111 ppb	8.427 %	4.2 %
60Ni (KED)	0.009 ppb	0.838 %	76.4 %
63Cu (KED)	-0.125 ppb	-11.334 %	5.7 %
66Zn (KED)	-0.089 ppb	-3.564 %	9.5 %
75As (KED)	0.002 ppb	0.195 %	431.4 %
78Se (KED)	0.133 ppb	10.075 %	36.0 %
95Mo (KED)	0.006 ppb	0.541 %	35.4 %
107Ag (KED)	-0.022 ppb	-12.776 %	8.8 %
111Cd (KED)	-0.018 ppb	-25.557 %	23.5 %
118Sn (KED)	-0.034 ppb	-1.375 %	12.0 %
121Sb (KED)	0.210 ppb	15.932 %	3.6 %
137Ba (KED)	-0.091 ppb	-10.351 %	11.7 %
205Tl (KED)	0.016 ppb	8.761 %	68.0 %
208Pb (KED)	0.025 ppb	12.929 %	50.5 %

ISTD's	Concentration average
6Li (KED)	111.932 %
45Sc (KED)	106.961 %
72Ge (KED)	104.061 %
89Y (KED)	105.741 %
115In (KED)	110.529 %
159Tb (KED)	104.226 %
209Bi (KED)	105.769 %

Labbook:
061423.imexp

Index #:	132	Stop Time:	6/14/2023 12:39:07 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/14/2023 12:37:18 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.001 ppb	0.407 %	2,979.0 %
11B (KED)	0.341 ppb	27.245 %	38.1 %
23Na (KED)	-1.184 ppb	-9.475 %	15.0 %
24Mg (KED)	0.691 ppb	5.528 %	18.5 %
27Al (KED)	0.500 ppb	20.001 %	6.6 %
31P (KED)	-6.060 ppb	-48.480 %	12.0 %
39K (KED)	5.018 ppb	40.148 %	31.3 %
44Ca (KED)	-2.398 ppb	-19.899 %	32.9 %
47Ti (KED)	0.158 ppb	11.976 %	14.8 %
51V (KED)	0.039 ppb	5.908 %	9.7 %
52Cr (KED)	0.183 ppb	16.645 %	0.9 %
55Mn (KED)	-0.155 ppb	-14.104 %	2.0 %
57Fe (KED)	-5.699 ppb	-91.182 %	0.7 %
59Co (KED)	0.109 ppb	8.251 %	0.8 %
60Ni (KED)	0.004 ppb	0.377 %	168.1 %
63Cu (KED)	-0.130 ppb	-11.777 %	2.8 %
66Zn (KED)	-0.091 ppb	-3.654 %	6.6 %
75As (KED)	0.009 ppb	1.018 %	98.5 %
78Se (KED)	0.041 ppb	3.084 %	31.8 %
95Mo (KED)	0.003 ppb	0.262 %	62.8 %
107Ag (KED)	-0.022 ppb	-13.163 %	6.6 %
111Cd (KED)	-0.020 ppb	-28.894 %	5.9 %
118Sn (KED)	-0.035 ppb	-1.412 %	6.9 %
121Sb (KED)	0.208 ppb	15.724 %	1.2 %
137Ba (KED)	-0.092 ppb	-10.412 %	2.6 %
205Tl (KED)	0.010 ppb	5.382 %	1.3 %
208Pb (KED)	0.018 ppb	9.214 %	7.2 %

ISTD's	Concentration average
6Li (KED)	119.701 %
45Sc (KED)	111.945 %
72Ge (KED)	107.243 %
89Y (KED)	107.935 %
115In (KED)	109.500 %
159Tb (KED)	105.839 %
209Bi (KED)	105.815 %

Labbook:
061423.imexp

Index #: 142
Sample ID: SEQ-CCB
Start Time: 6/14/2023 12:56:19 PM
Stop Time: 6/14/2023 12:58:11 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.018 ppb	-8.029 %	210.5 %
11B (KED)	0.332 ppb	26.599 %	10.5 %
23Na (KED)	-1.268 ppb	-10.142 %	17.2 %
24Mg (KED)	0.574 ppb	4.589 %	24.0 %
27Al (KED)	0.492 ppb	19.682 %	8.1 %
31P (KED)	-5.730 ppb	-45.837 %	15.9 %
39K (KED)	3.075 ppb	24.601 %	10.3 %
44Ca (KED)	-3.167 ppb	-26.279 %	16.4 %
47Ti (KED)	0.164 ppb	12.393 %	3.1 %
51V (KED)	0.044 ppb	6.637 %	19.5 %
52Cr (KED)	0.184 ppb	16.706 %	0.8 %
55Mn (KED)	-0.150 ppb	-13.653 %	1.0 %
57Fe (KED)	-5.601 ppb	-89.622 %	1.4 %
59Co (KED)	0.110 ppb	8.345 %	0.5 %
60Ni (KED)	0.001 ppb	0.133 %	200.9 %
63Cu (KED)	-0.121 ppb	-10.960 %	3.8 %
66Zn (KED)	-0.104 ppb	-4.169 %	18.0 %
75As (KED)	0.005 ppb	0.560 %	44.6 %
78Se (KED)	0.043 ppb	3.243 %	80.6 %
95Mo (KED)	0.002 ppb	0.195 %	125.6 %
107Ag (KED)	-0.022 ppb	-13.049 %	22.5 %
111Cd (KED)	-0.019 ppb	-27.197 %	0.4 %
118Sn (KED)	-0.034 ppb	-1.379 %	6.2 %
121Sb (KED)	0.207 ppb	15.704 %	1.2 %
137Ba (KED)	-0.090 ppb	-10.184 %	4.2 %
205Tl (KED)	0.010 ppb	5.535 %	10.6 %
208Pb (KED)	0.019 ppb	9.819 %	4.8 %

ISTD's	Concentration average
6Li (KED)	114.206 %
45Sc (KED)	107.750 %
72Ge (KED)	106.121 %
89Y (KED)	105.648 %
115In (KED)	109.214 %
159Tb (KED)	105.321 %
209Bi (KED)	106.665 %

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30066
Sequence:	S3F0259		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0259-ICB1	Aluminum, Dissolved		ug/L	22.5	U
	Sodium, Dissolved		ug/L	22.5	U
S3F0259-CCB1	Aluminum, Dissolved		ug/L	22.5	U
	Sodium, Dissolved		ug/L	22.5	U
B3F0173-BLK2	Aluminum, Dissolved		mg/L	0.0250	U
	Sodium, Dissolved		mg/L	0.0250	U
S3F0259-CCB2	Aluminum, Dissolved		ug/L	22.5	U
	Sodium, Dissolved		ug/L	22.5	U
S3F0259-CCB3	Aluminum, Dissolved		ug/L	22.5	U
	Sodium, Dissolved		ug/L	22.5	U
S3F0259-CCB4	Aluminum, Dissolved		ug/L	22.5	U
	Sodium, Dissolved		ug/L	22.5	U
S3F0259-CCB5	Aluminum, Dissolved		ug/L	22.5	U
	Sodium, Dissolved		ug/L	22.5	U
S3F0259-CCB6	Aluminum, Dissolved		ug/L	22.5	U
	Sodium, Dissolved		ug/L	22.5	U
S3F0259-CCB7	Aluminum, Dissolved		ug/L	22.5	U
	Sodium, Dissolved		ug/L	22.5	U

Labbook:
061523B.imexp

Index #: 10
Sample ID: SEQ-ICB
Start Time: 6/15/2023 3:12:39 PM
Stop Time: 6/15/2023 3:14:29 PM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.043 ppb	-19.539 %	8.3 %
11B (KED)	0.267 ppb	21.395 %	40.2 %
23Na (KED)	-0.082 ppb	-0.659 %	145.7 %
24Mg (KED)	1.253 ppb	10.028 %	7.3 %
27Al (KED)	0.406 ppb	16.239 %	5.7 %
31P (KED)	4.892 ppb	39.133 %	7.6 %
39K (KED)	-0.001 ppb	-0.008 %	119,471.6 %
44Ca (KED)	-0.464 ppb	-3.851 %	152.0 %
47Ti (KED)	-0.210 ppb	-15.919 %	3.8 %
51V (KED)	-0.081 ppb	-12.271 %	14.7 %
52Cr (KED)	-0.026 ppb	-2.358 %	9.3 %
55Mn (KED)	-0.112 ppb	-10.209 %	3.3 %
57Fe (KED)	0.614 ppb	9.825 %	15.2 %
59Co (KED)	-0.127 ppb	-9.632 %	2.3 %
60Ni (KED)	-0.007 ppb	-0.593 %	110.6 %
63Cu (KED)	-0.334 ppb	-30.356 %	1.9 %
66Zn (KED)	0.105 ppb	4.180 %	15.7 %
75As (KED)	0.045 ppb	5.128 %	11.1 %
78Se (KED)	0.124 ppb	9.371 %	4.3 %
95Mo (KED)	0.009 ppb	0.787 %	34.3 %
107Ag (KED)	-0.045 ppb	-26.297 %	11.5 %
111Cd (KED)	-0.022 ppb	-31.269 %	5.8 %
118Sn (KED)	-0.267 ppb	-10.668 %	0.2 %
121Sb (KED)	-0.063 ppb	-4.804 %	4.4 %
137Ba (KED)	-0.088 ppb	-10.010 %	7.7 %
205Tl (KED)	0.012 ppb	6.538 %	11.1 %
208Pb (KED)	-0.037 ppb	-19.424 %	5.2 %

ISTD's	Concentration average
6Li (KED)	96.391 %
45Sc (KED)	95.354 %
72Ge (KED)	95.890 %
89Y (KED)	96.660 %
115In (KED)	96.784 %
159Tb (KED)	99.243 %
209Bi (KED)	99.057 %

Labbook:
061523B.imexp

Index #: 19
Sample ID: SEQ-CCB
Start Time: 6/15/2023 3:29:17 PM
Stop Time: 6/15/2023 3:31:10 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.029 ppb	-13.117 %	34.7 %
11B (KED)	0.251 ppb	20.045 %	69.3 %
23Na (KED)	0.217 ppb	1.740 %	102.1 %
24Mg (KED)	1.268 ppb	10.144 %	15.7 %
27Al (KED)	0.432 ppb	17.298 %	12.4 %
31P (KED)	4.387 ppb	35.099 %	18.1 %
39K (KED)	-1.643 ppb	-13.144 %	28.3 %
44Ca (KED)	-0.593 ppb	-4.923 %	84.6 %
47Ti (KED)	-0.203 ppb	-15.410 %	7.6 %
51V (KED)	-0.083 ppb	-12.649 %	3.7 %
52Cr (KED)	-0.028 ppb	-2.539 %	9.8 %
55Mn (KED)	-0.108 ppb	-9.773 %	3.8 %
57Fe (KED)	0.655 ppb	10.487 %	23.3 %
59Co (KED)	-0.130 ppb	-9.814 %	0.7 %
60Ni (KED)	-0.007 ppb	-0.609 %	132.8 %
63Cu (KED)	-0.330 ppb	-29.965 %	1.5 %
66Zn (KED)	0.117 ppb	4.669 %	12.9 %
75As (KED)	0.038 ppb	4.262 %	25.2 %
78Se (KED)	0.121 ppb	9.153 %	29.2 %
95Mo (KED)	0.006 ppb	0.553 %	40.7 %
107Ag (KED)	-0.043 ppb	-25.376 %	4.9 %
111Cd (KED)	-0.024 ppb	-34.336 %	26.8 %
118Sn (KED)	-0.273 ppb	-10.901 %	0.9 %
121Sb (KED)	-0.069 ppb	-5.232 %	0.5 %
137Ba (KED)	-0.090 ppb	-10.257 %	6.6 %
205Tl (KED)	0.010 ppb	5.620 %	4.5 %
208Pb (KED)	-0.040 ppb	-21.222 %	2.0 %

ISTD's	Concentration average
6Li (KED)	90.421 %
45Sc (KED)	87.069 %
72Ge (KED)	90.432 %
89Y (KED)	91.518 %
115In (KED)	94.973 %
159Tb (KED)	98.903 %
209Bi (KED)	99.403 %

Labbook:
061523B.imexp

Index #:	21	Stop Time:	6/15/2023 3:34:56 PM	Comment	ND 6020 DISS Na
Sample ID:	B3F0173-BLK2	Dilution Factor	1		
Start Time:	6/15/2023 3:33:07 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.005 ppb	74.6 %
11B (KED)	0.122 ppb	88.3 %
23Na (KED)	2.112 ppb	3.9 %
24Mg (KED)	2.066 ppb	8.9 %
27Al (KED)	1.797 ppb	6.4 %
31P (KED)	6.847 ppb	5.7 %
39K (KED)	-3.429 ppb	54.1 %
44Ca (KED)	5.328 ppb	26.6 %
47Ti (KED)	-0.151 ppb	10.6 %
51V (KED)	-0.086 ppb	3.5 %
52Cr (KED)	-0.008 ppb	65.4 %
55Mn (KED)	-0.035 ppb	31.5 %
57Fe (KED)	2.572 ppb	10.2 %
59Co (KED)	-0.121 ppb	1.2 %
60Ni (KED)	0.011 ppb	71.8 %
63Cu (KED)	-0.336 ppb	1.8 %
66Zn (KED)	0.125 ppb	2.1 %
75As (KED)	0.031 ppb	22.3 %
78Se (KED)	0.123 ppb	2.3 %
95Mo (KED)	0.002 ppb	160.3 %
107Ag (KED)	-0.049 ppb	0.6 %
111Cd (KED)	-0.029 ppb	2.2 %
118Sn (KED)	-0.254 ppb	0.6 %
121Sb (KED)	-0.088 ppb	1.1 %
137Ba (KED)	-0.079 ppb	8.8 %
205Tl (KED)	0.008 ppb	17.3 %
208Pb (KED)	-0.028 ppb	2.8 %

ISTD's	Concentration average
6Li (KED)	97.769 %
45Sc (KED)	94.107 %
72Ge (KED)	95.687 %
89Y (KED)	99.550 %
115In (KED)	101.231 %
159Tb (KED)	106.085 %
209Bi (KED)	103.518 %

Labbook:
061523B.imexp

Index #: 31
Sample ID: SEQ-CCB
Start Time: 6/15/2023 3:51:41 PM
Stop Time: 6/15/2023 3:53:34 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.034 ppb	-15.609 %	38.5 %
11B (KED)	0.019 ppb	1.526 %	236.5 %
23Na (KED)	3.955 ppb	31.642 %	10.3 %
24Mg (KED)	1.543 ppb	12.346 %	11.2 %
27Al (KED)	0.451 ppb	18.034 %	4.7 %
31P (KED)	5.642 ppb	45.132 %	21.2 %
39K (KED)	-0.281 ppb	-2.251 %	488.4 %
44Ca (KED)	0.199 ppb	1.649 %	327.8 %
47Ti (KED)	-0.202 ppb	-15.331 %	2.0 %
51V (KED)	-0.087 ppb	-13.143 %	2.5 %
52Cr (KED)	-0.022 ppb	-1.993 %	12.0 %
55Mn (KED)	-0.113 ppb	-10.252 %	5.6 %
57Fe (KED)	0.685 ppb	10.958 %	28.0 %
59Co (KED)	-0.130 ppb	-9.843 %	0.3 %
60Ni (KED)	-0.011 ppb	-0.958 %	89.1 %
63Cu (KED)	-0.336 ppb	-30.509 %	1.9 %
66Zn (KED)	0.087 ppb	3.475 %	10.1 %
75As (KED)	0.036 ppb	4.067 %	32.6 %
78Se (KED)	0.123 ppb	9.317 %	20.7 %
95Mo (KED)	0.002 ppb	0.145 %	139.2 %
107Ag (KED)	-0.049 ppb	-28.784 %	5.1 %
111Cd (KED)	-0.027 ppb	-38.892 %	8.3 %
118Sn (KED)	-0.275 ppb	-10.984 %	0.2 %
121Sb (KED)	-0.070 ppb	-5.286 %	1.2 %
137Ba (KED)	-0.093 ppb	-10.525 %	5.0 %
205Tl (KED)	0.011 ppb	6.137 %	8.2 %
208Pb (KED)	-0.041 ppb	-21.349 %	3.0 %

ISTD's	Concentration average
6Li (KED)	112.198 %
45Sc (KED)	101.907 %
72Ge (KED)	103.338 %
89Y (KED)	100.073 %
115In (KED)	104.897 %
159Tb (KED)	104.827 %
209Bi (KED)	103.156 %

Labbook:
061523B.imexp

Index #: 43
Sample ID: SEQ-CCB
Start Time: 6/15/2023 4:13:52 PM
Stop Time: 6/15/2023 4:15:47 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.042 ppb	-19.119 %	18.1 %
11B (KED)	0.099 ppb	7.943 %	96.6 %
23Na (KED)	2.085 ppb	16.679 %	7.9 %
24Mg (KED)	1.356 ppb	10.846 %	13.3 %
27Al (KED)	0.437 ppb	17.474 %	5.5 %
31P (KED)	5.760 ppb	46.082 %	30.4 %
39K (KED)	-1.083 ppb	-8.663 %	62.1 %
44Ca (KED)	-0.378 ppb	-3.139 %	74.8 %
47Ti (KED)	-0.214 ppb	-16.206 %	4.1 %
51V (KED)	-0.077 ppb	-11.594 %	4.7 %
52Cr (KED)	-0.027 ppb	-2.426 %	4.5 %
55Mn (KED)	-0.109 ppb	-9.868 %	6.2 %
57Fe (KED)	0.685 ppb	10.957 %	24.0 %
59Co (KED)	-0.129 ppb	-9.798 %	0.2 %
60Ni (KED)	-0.014 ppb	-1.248 %	24.9 %
63Cu (KED)	-0.341 ppb	-30.956 %	1.9 %
66Zn (KED)	0.099 ppb	3.953 %	8.7 %
75As (KED)	0.031 ppb	3.523 %	26.5 %
78Se (KED)	0.131 ppb	9.890 %	16.6 %
95Mo (KED)	0.004 ppb	0.389 %	10.1 %
107Ag (KED)	-0.048 ppb	-28.010 %	4.5 %
111Cd (KED)	-0.024 ppb	-34.926 %	11.5 %
118Sn (KED)	-0.272 ppb	-10.885 %	0.3 %
121Sb (KED)	-0.068 ppb	-5.160 %	2.8 %
137Ba (KED)	-0.091 ppb	-10.294 %	4.9 %
205Tl (KED)	0.008 ppb	4.557 %	15.5 %
208Pb (KED)	-0.040 ppb	-21.258 %	1.0 %

ISTD's	Concentration average
6Li (KED)	90.791 %
45Sc (KED)	88.381 %
72Ge (KED)	90.915 %
89Y (KED)	92.222 %
115In (KED)	93.616 %
159Tb (KED)	95.570 %
209Bi (KED)	97.087 %

Labbook:
061523B.imexp

Index #: 53
Sample ID: SEQ-CCB
Start Time: 6/15/2023 4:32:34 PM
Stop Time: 6/15/2023 4:34:29 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.034 ppb	-15.304 %	24.7 %
11B (KED)	0.120 ppb	9.589 %	83.5 %
23Na (KED)	2.030 ppb	16.241 %	37.4 %
24Mg (KED)	1.311 ppb	10.486 %	10.8 %
27Al (KED)	0.455 ppb	18.201 %	12.4 %
31P (KED)	4.874 ppb	38.996 %	24.2 %
39K (KED)	-0.212 ppb	-1.694 %	679.7 %
44Ca (KED)	0.781 ppb	6.484 %	79.3 %
47Ti (KED)	-0.194 ppb	-14.697 %	13.4 %
51V (KED)	-0.078 ppb	-11.837 %	2.7 %
52Cr (KED)	-0.022 ppb	-2.006 %	38.2 %
55Mn (KED)	-0.108 ppb	-9.807 %	8.1 %
57Fe (KED)	0.770 ppb	12.324 %	22.6 %
59Co (KED)	-0.127 ppb	-9.596 %	4.2 %
60Ni (KED)	-0.012 ppb	-1.073 %	46.3 %
63Cu (KED)	-0.335 ppb	-30.465 %	2.5 %
66Zn (KED)	0.121 ppb	4.834 %	11.0 %
75As (KED)	0.039 ppb	4.465 %	35.8 %
78Se (KED)	0.127 ppb	9.650 %	7.2 %
95Mo (KED)	0.006 ppb	0.549 %	62.8 %
107Ag (KED)	-0.045 ppb	-26.716 %	6.4 %
111Cd (KED)	-0.026 ppb	-36.687 %	9.0 %
118Sn (KED)	-0.268 ppb	-10.731 %	1.2 %
121Sb (KED)	-0.065 ppb	-4.941 %	3.6 %
137Ba (KED)	-0.088 ppb	-10.013 %	2.3 %
205Tl (KED)	0.010 ppb	5.603 %	17.2 %
208Pb (KED)	-0.039 ppb	-20.461 %	4.3 %

ISTD's	Concentration average
6Li (KED)	108.920 %
45Sc (KED)	103.207 %
72Ge (KED)	104.725 %
89Y (KED)	103.674 %
115In (KED)	102.684 %
159Tb (KED)	103.618 %
209Bi (KED)	101.227 %

Labbook:
061523B.imexp

Index #: 65
Sample ID: SEQ-CCB
Start Time: 6/15/2023 4:55:03 PM
Stop Time: 6/15/2023 4:56:56 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.024 ppb	-10.735 %	38.3 %
11B (KED)	0.055 ppb	4.413 %	106.0 %
23Na (KED)	1.875 ppb	15.002 %	70.4 %
24Mg (KED)	1.583 ppb	12.662 %	27.8 %
27Al (KED)	0.447 ppb	17.875 %	7.7 %
31P (KED)	5.048 ppb	40.381 %	12.4 %
39K (KED)	0.725 ppb	5.799 %	213.5 %
44Ca (KED)	0.996 ppb	8.262 %	283.2 %
47Ti (KED)	-0.194 ppb	-14.719 %	11.4 %
51V (KED)	-0.075 ppb	-11.432 %	5.5 %
52Cr (KED)	-0.026 ppb	-2.338 %	33.3 %
55Mn (KED)	-0.112 ppb	-10.190 %	3.2 %
57Fe (KED)	0.707 ppb	11.308 %	1.7 %
59Co (KED)	-0.128 ppb	-9.695 %	1.7 %
60Ni (KED)	-0.008 ppb	-0.709 %	89.4 %
63Cu (KED)	-0.342 ppb	-31.077 %	0.4 %
66Zn (KED)	0.126 ppb	5.042 %	0.9 %
75As (KED)	0.042 ppb	4.803 %	33.1 %
78Se (KED)	0.143 ppb	10.812 %	15.9 %
95Mo (KED)	0.012 ppb	1.135 %	114.8 %
107Ag (KED)	-0.041 ppb	-24.306 %	17.6 %
111Cd (KED)	-0.019 ppb	-27.231 %	56.9 %
118Sn (KED)	-0.265 ppb	-10.593 %	5.9 %
121Sb (KED)	-0.059 ppb	-4.459 %	22.9 %
137Ba (KED)	-0.076 ppb	-8.612 %	20.5 %
205Tl (KED)	0.015 ppb	8.265 %	76.4 %
208Pb (KED)	-0.033 ppb	-17.516 %	31.9 %

ISTD's	Concentration average
6Li (KED)	99.843 %
45Sc (KED)	96.924 %
72Ge (KED)	99.072 %
89Y (KED)	99.056 %
115In (KED)	100.815 %
159Tb (KED)	98.883 %
209Bi (KED)	100.296 %

Labbook:
061523B.imexp

Index #: 76
Sample ID: SEQ-CCB
Start Time: 6/15/2023 5:15:35 PM
Stop Time: 6/15/2023 5:17:27 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.020 ppb	-8.918 %	97.1 %
11B (KED)	-0.033 ppb	-2.606 %	215.2 %
23Na (KED)	1.083 ppb	8.665 %	34.0 %
24Mg (KED)	1.261 ppb	10.085 %	14.8 %
27Al (KED)	0.486 ppb	19.429 %	3.7 %
31P (KED)	4.647 ppb	37.174 %	18.9 %
39K (KED)	1.050 ppb	8.402 %	67.1 %
44Ca (KED)	0.488 ppb	4.046 %	279.9 %
47Ti (KED)	-0.201 ppb	-15.213 %	5.5 %
51V (KED)	-0.087 ppb	-13.213 %	2.4 %
52Cr (KED)	-0.026 ppb	-2.383 %	3.2 %
55Mn (KED)	-0.113 ppb	-10.287 %	3.9 %
57Fe (KED)	0.637 ppb	10.191 %	15.3 %
59Co (KED)	-0.130 ppb	-9.820 %	1.4 %
60Ni (KED)	-0.011 ppb	-1.045 %	5.5 %
63Cu (KED)	-0.345 ppb	-31.359 %	2.2 %
66Zn (KED)	0.122 ppb	4.862 %	6.0 %
75As (KED)	0.049 ppb	5.623 %	32.7 %
78Se (KED)	0.112 ppb	8.457 %	11.8 %
95Mo (KED)	0.006 ppb	0.530 %	71.8 %
107Ag (KED)	-0.045 ppb	-26.410 %	3.9 %
111Cd (KED)	-0.026 ppb	-37.356 %	4.7 %
118Sn (KED)	-0.274 ppb	-10.977 %	0.5 %
121Sb (KED)	-0.066 ppb	-5.033 %	5.2 %
137Ba (KED)	-0.091 ppb	-10.321 %	0.9 %
205Tl (KED)	0.010 ppb	5.646 %	6.2 %
208Pb (KED)	-0.040 ppb	-21.021 %	1.9 %

ISTD's	Concentration average
6Li (KED)	110.897 %
45Sc (KED)	104.259 %
72Ge (KED)	104.625 %
89Y (KED)	102.949 %
115In (KED)	104.735 %
159Tb (KED)	103.112 %
209Bi (KED)	101.863 %

Labbook:
061523B.imexp

Index #: 86
Sample ID: SEQ-CCB
Start Time: 6/15/2023 5:34:35 PM
Stop Time: 6/15/2023 5:36:24 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.024 ppb	-10.745 %	34.7 %
11B (KED)	0.095 ppb	7.612 %	54.4 %
23Na (KED)	0.633 ppb	5.065 %	31.7 %
24Mg (KED)	1.208 ppb	9.665 %	6.6 %
27Al (KED)	0.436 ppb	17.453 %	8.5 %
31P (KED)	4.426 ppb	35.407 %	19.4 %
39K (KED)	0.577 ppb	4.616 %	223.9 %
44Ca (KED)	-1.014 ppb	-8.411 %	96.4 %
47Ti (KED)	-0.186 ppb	-14.123 %	7.0 %
51V (KED)	-0.088 ppb	-13.278 %	4.3 %
52Cr (KED)	-0.030 ppb	-2.746 %	14.0 %
55Mn (KED)	-0.116 ppb	-10.544 %	3.8 %
57Fe (KED)	0.487 ppb	7.796 %	22.6 %
59Co (KED)	-0.130 ppb	-9.828 %	1.6 %
60Ni (KED)	-0.012 ppb	-1.067 %	44.8 %
63Cu (KED)	-0.341 ppb	-30.960 %	0.5 %
66Zn (KED)	0.128 ppb	5.118 %	6.1 %
75As (KED)	0.042 ppb	4.797 %	3.1 %
78Se (KED)	0.130 ppb	9.823 %	20.0 %
95Mo (KED)	0.002 ppb	0.219 %	101.4 %
107Ag (KED)	-0.046 ppb	-27.275 %	6.6 %
111Cd (KED)	-0.022 ppb	-31.734 %	15.8 %
118Sn (KED)	-0.272 ppb	-10.890 %	0.8 %
121Sb (KED)	-0.066 ppb	-4.994 %	7.7 %
137Ba (KED)	-0.091 ppb	-10.327 %	2.2 %
205Tl (KED)	0.009 ppb	5.013 %	12.2 %
208Pb (KED)	-0.040 ppb	-21.156 %	2.8 %

ISTD's	Concentration average
6Li (KED)	111.940 %
45Sc (KED)	105.920 %
72Ge (KED)	105.943 %
89Y (KED)	105.204 %
115In (KED)	105.655 %
159Tb (KED)	103.691 %
209Bi (KED)	104.804 %

Labbook:
061423.imexp

Index #: 10
Sample ID: SEQ-IFA
Start Time: 6/14/2023 8:43:44 AM
Stop Time: 6/14/2023 8:45:33 AM
Dilution Factor 1
prepFAST DF 1
Comment Int Check Soln A

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.025 ppb		89.0 %
11B (KED)	1.409 ppb	112.730 %	13.7 %
23Na (KED)	11,343.871 ppb		1.0 %
24Mg (KED)	10,462.370 ppb		2.7 %
27Al (KED)	9,644.546 ppb		1.2 %
31P (KED)	10,239.870 ppb		0.6 %
39K (KED)	9,753.041 ppb		0.1 %
44Ca (KED)	10,102.390 ppb		0.7 %
47Ti (KED)	1,945.952 ppb		1.2 %
51V (KED)	0.064 ppb	9.669 %	17.3 %
52Cr (KED)	0.342 ppb	31.079 %	4.9 %
55Mn (KED)	0.158 ppb	14.364 %	13.1 %
57Fe (KED)	10,240.610 ppb		0.5 %
59Co (KED)	0.235 ppb	17.799 %	2.2 %
60Ni (KED)	1.393 ppb	126.601 %	1.3 %
63Cu (KED)	-0.091 ppb	-8.309 %	4.7 %
66Zn (KED)	0.730 ppb	29.180 %	3.1 %
75As (KED)	0.006 ppb	0.738 %	91.0 %
78Se (KED)	0.001 ppb	0.110 %	1,095.8 %
95Mo (KED)	2,125.099 ppb		0.2 %
107Ag (KED)	-0.024 ppb	-14.102 %	10.2 %
111Cd (KED)	-0.313 ppb	-447.239 %	4.1 %
118Sn (KED)	0.038 ppb	1.524 %	4.6 %
121Sb (KED)	0.263 ppb		0.2 %
137Ba (KED)	-0.025 ppb		42.9 %
205Tl (KED)	0.009 ppb		14.8 %
208Pb (KED)	0.029 ppb	15.414 %	3.6 %

ISTD's	Concentration average
6Li (KED)	123.925 %
45Sc (KED)	107.672 %
72Ge (KED)	108.421 %
89Y (KED)	108.454 %
115In (KED)	109.506 %
159Tb (KED)	116.833 %
209Bi (KED)	111.793 %

Labbook:
061423.imexp

Index #: 11
Sample ID: SEQ-IFB
Start Time: 6/14/2023 8:45:34 AM
Stop Time: 6/14/2023 8:47:20 AM
Dilution Factor 1
prepFAST DF 1
Comment Int Check Soln AB

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	-0.041 ppb			26.5 %
11B (KED)	0.883 ppb			19.3 %
23Na (KED)	11,388.347 ppb	113.883 %	10,000.000 ppb	1.3 %
24Mg (KED)	10,428.845 ppb	104.288 %	10,000.000 ppb	2.2 %
27Al (KED)	9,603.146 ppb	96.031 %	10,000.000 ppb	1.9 %
31P (KED)	10,081.360 ppb	100.814 %	10,000.000 ppb	1.3 %
39K (KED)	9,789.582 ppb	97.896 %	10,000.000 ppb	0.8 %
44Ca (KED)	9,959.305 ppb	99.593 %	10,000.000 ppb	1.6 %
47Ti (KED)	2,014.941 ppb	100.747 %	2,000.000 ppb	1.1 %
51V (KED)	19.762 ppb	98.812 %	20.000 ppb	0.5 %
52Cr (KED)	19.029 ppb	95.146 %	20.000 ppb	0.9 %
55Mn (KED)	19.896 ppb	99.482 %	20.000 ppb	1.0 %
57Fe (KED)	10,529.573 ppb	105.296 %	10,000.000 ppb	1.1 %
59Co (KED)	19.732 ppb	98.662 %	20.000 ppb	1.0 %
60Ni (KED)	21.195 ppb	105.974 %	20.000 ppb	1.2 %
63Cu (KED)	19.726 ppb	98.628 %	20.000 ppb	1.1 %
66Zn (KED)	20.374 ppb	101.870 %	20.000 ppb	0.6 %
75As (KED)	19.861 ppb	99.303 %	20.000 ppb	1.2 %
78Se (KED)	20.976 ppb	104.882 %	20.000 ppb	0.7 %
95Mo (KED)	2,089.320 ppb	104.466 %	2,000.000 ppb	0.4 %
107Ag (KED)	20.770 ppb	103.851 %	20.000 ppb	1.2 %
111Cd (KED)	19.619 ppb	98.096 %	20.000 ppb	3.2 %
118Sn (KED)	-0.029 ppb			14.0 %
121Sb (KED)	0.250 ppb			3.1 %
137Ba (KED)	-0.034 ppb			17.5 %
205Tl (KED)	0.011 ppb			40.9 %
208Pb (KED)	0.027 ppb			14.6 %

ISTD's	Concentration average
6Li (KED)	128.677 %
45Sc (KED)	110.667 %
72Ge (KED)	108.795 %
89Y (KED)	110.876 %
115In (KED)	110.715 %
159Tb (KED)	116.292 %
209Bi (KED)	112.748 %

Labbook:
061523B.imexp

Index #: 12
Sample ID: SEQ-IFA
Start Time: 6/15/2023 3:16:24 PM
Stop Time: 6/15/2023 3:18:14 PM
Dilution Factor 1
prepFAST DF 1
Comment Int Check Soln A

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.049 ppb		14.1 %
11B (KED)	0.955 ppb	76.427 %	4.2 %
23Na (KED)	9,582.933 ppb		0.4 %
24Mg (KED)	9,103.334 ppb		0.3 %
27Al (KED)	8,537.890 ppb		0.3 %
31P (KED)	9,570.023 ppb		0.7 %
39K (KED)	8,839.967 ppb		0.8 %
44Ca (KED)	9,645.614 ppb		0.3 %
47Ti (KED)	1,960.214 ppb		0.1 %
51V (KED)	-0.047 ppb	-7.105 %	5.3 %
52Cr (KED)	0.130 ppb	11.783 %	7.2 %
55Mn (KED)	0.145 ppb	13.209 %	12.5 %
57Fe (KED)	9,614.333 ppb		1.3 %
59Co (KED)	0.002 ppb	0.168 %	132.9 %
60Ni (KED)	1.349 ppb	122.682 %	1.3 %
63Cu (KED)	-0.295 ppb	-26.831 %	3.0 %
66Zn (KED)	0.945 ppb	37.787 %	2.7 %
75As (KED)	0.049 ppb	5.557 %	21.5 %
78Se (KED)	0.110 ppb	8.342 %	18.4 %
95Mo (KED)	2,041.283 ppb		1.8 %
107Ag (KED)	-0.048 ppb	-28.424 %	3.5 %
111Cd (KED)	-0.257 ppb	-366.879 %	11.6 %
118Sn (KED)	-0.243 ppb	-9.724 %	0.6 %
121Sb (KED)	-0.011 ppb		42.4 %
137Ba (KED)	-0.018 ppb		54.6 %
205Tl (KED)	0.008 ppb		4.8 %
208Pb (KED)	-0.029 ppb	-15.183 %	4.4 %

ISTD's	Concentration average
6Li (KED)	98.900 %
45Sc (KED)	93.765 %
72Ge (KED)	92.784 %
89Y (KED)	94.580 %
115In (KED)	94.800 %
159Tb (KED)	101.562 %
209Bi (KED)	96.130 %

Labbook:
061523B.imexp

Index #: 13
Sample ID: SEQ-IFB
Start Time: 6/15/2023 3:18:15 PM
Stop Time: 6/15/2023 3:20:03 PM
Dilution Factor 1
prepFAST DF 1
Comment Int Check Soln AB

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	-0.050 ppb			17.7 %
11B (KED)	0.395 ppb			24.9 %
23Na (KED)	9,475.267 ppb	94.753 %	10,000.000 ppb	2.5 %
24Mg (KED)	8,887.078 ppb	88.871 %	10,000.000 ppb	3.4 %
27Al (KED)	8,349.350 ppb	83.493 %	10,000.000 ppb	3.4 %
31P (KED)	9,290.311 ppb	92.903 %	10,000.000 ppb	3.0 %
39K (KED)	8,789.698 ppb	87.897 %	10,000.000 ppb	2.2 %
44Ca (KED)	9,519.738 ppb	95.197 %	10,000.000 ppb	2.0 %
47Ti (KED)	1,972.725 ppb	98.636 %	2,000.000 ppb	2.4 %
51V (KED)	20.002 ppb	100.011 %	20.000 ppb	2.6 %
52Cr (KED)	18.745 ppb	93.727 %	20.000 ppb	2.3 %
55Mn (KED)	19.382 ppb	96.910 %	20.000 ppb	3.6 %
57Fe (KED)	9,513.068 ppb	95.131 %	10,000.000 ppb	3.1 %
59Co (KED)	19.856 ppb	99.282 %	20.000 ppb	2.7 %
60Ni (KED)	20.502 ppb	102.509 %	20.000 ppb	2.1 %
63Cu (KED)	19.841 ppb	99.207 %	20.000 ppb	2.3 %
66Zn (KED)	19.966 ppb	99.828 %	20.000 ppb	2.8 %
75As (KED)	19.170 ppb	95.851 %	20.000 ppb	1.9 %
78Se (KED)	20.086 ppb	100.431 %	20.000 ppb	1.2 %
95Mo (KED)	2,022.009 ppb	101.100 %	2,000.000 ppb	1.0 %
107Ag (KED)	21.290 ppb	106.448 %	20.000 ppb	2.9 %
111Cd (KED)	19.647 ppb	98.236 %	20.000 ppb	4.0 %
118Sn (KED)	-0.267 ppb			1.9 %
121Sb (KED)	-0.024 ppb			17.4 %
137Ba (KED)	-0.024 ppb			45.1 %
205Tl (KED)	0.007 ppb			5.6 %
208Pb (KED)	-0.026 ppb			6.8 %

ISTD's	Concentration average
6Li (KED)	103.863 %
45Sc (KED)	94.885 %
72Ge (KED)	95.925 %
89Y (KED)	97.531 %
115In (KED)	95.809 %
159Tb (KED)	101.161 %
209Bi (KED)	99.347 %

POST DIGEST SPIKE SAMPLE RECOVERY

SW6020 B

01341796
Post Spike

Laboratory: Environmental Monitoring and Technologies, Inc
Client: HDR
Matrix: Water
Batch: B3F0173
Preparation: 3005_METALS_PREP_MS
Source Sample Name: Post Spike

SDG: 23F0136
Project: Longhorn AAP
Laboratory ID: B3F0173-PS1
Lab Source ID: 23F0196-06
Initial/Final: 1.8 ml / 10 ml
% Solids:

Analyte	Control Limit %R	Spike Sample Result (SSR) (mg/L)	Sample Result (SR) (mg/L)	Spike Added (SA) (mg/L)	%R	
Aluminum, Dissolved	75 - 125	0.322	ND	0.2778	116	
Antimony, Dissolved	75 - 125	0.272	ND	0.2778	98	
Arsenic, Dissolved	75 - 125	0.269	ND	0.2778	97	
Barium, Dissolved	75 - 125	0.512	0.243	0.2778	97	
Beryllium, Dissolved	75 - 125	0.140	ND	0.1389	101	
Cadmium, Dissolved	75 - 125	0.252	ND	0.2778	91	
Calcium, Dissolved	75 - 125	147	146	1.389	29	*
Chromium, Dissolved	75 - 125	0.264	0.0102	0.2778	91	
Cobalt, Dissolved	75 - 125	0.262	ND	0.2778	94	
Copper, Dissolved	75 - 125	0.257	ND	0.2778	92	
Iron, Dissolved	75 - 125	1.68	0.312	1.389	99	
Lead, Dissolved	75 - 125	0.278	ND	0.2778	100	
Magnesium, Dissolved	75 - 125	87.9	86.2	1.389	125	
Manganese, Dissolved	75 - 125	0.499	0.225	0.2778	99	
Nickel, Dissolved	75 - 125	0.280	0.0236	0.2778	92	
Potassium, Dissolved	75 - 125	18.0	16.5	1.389	104	
Selenium, Dissolved	75 - 125	0.249	ND	0.2778	90	
Silver, Dissolved	75 - 125	0.243	ND	0.2778	87	
Sodium, Dissolved	75 - 125	664	653	1.389	818	*
Thallium, Dissolved	75 - 125	0.277	ND	0.2778	100	
Tin, Dissolved	75 - 125	0.271	ND	0.2778	98	
Vanadium, Dissolved	75 - 125	0.261	ND	0.2778	94	
Zinc, Dissolved	75 - 125	0.253	ND	0.2778	91	
Lithium	60 - 200	138		100.0	128	
Scandium	60 - 200	125		100.0	121	
Germanium	60 - 200	116		100.0	114	

Yttrium	60 - 200	114		100.0	110
Indium	60 - 200	113		100.0	107
Terbium	60 - 200	112		100.0	109
Bismuth	60 - 200	102		100.0	99

* Values outside of QC limits

01341797

Labbook:
061423.imexp

Index #:	75	Stop Time:	6/14/2023 10:51:43 AM	Comment	1/5 6020 DISS
Sample ID:	B3F0173-PS1	Dilution Factor	1		
Start Time:	6/14/2023 10:49:57 AM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	25.259 ppb	1.3 %
11B (KED)	72.576 ppb	2.8 %
23Na (KED)	119,573.242 ppb	1.5 %
24Mg (KED)	15,824.630 ppb	1.6 %
27Al (KED)	58.002 ppb	2.6 %
31P (KED)	282.551 ppb	8.0 %
39K (KED)	3,238.139 ppb	0.8 %
44Ca (KED)	26,396.185 ppb	1.3 %
47Ti (KED)	51.074 ppb	0.3 %
51V (KED)	47.042 ppb	0.9 %
52Cr (KED)	47.468 ppb	0.7 %
55Mn (KED)	89.865 ppb	0.6 %
57Fe (KED)	302.745 ppb	1.1 %
59Co (KED)	47.139 ppb	0.2 %
60Ni (KED)	50.433 ppb	1.0 %
63Cu (KED)	46.205 ppb	0.3 %
66Zn (KED)	45.616 ppb	1.2 %
75As (KED)	48.475 ppb	1.0 %
78Se (KED)	44.830 ppb	1.5 %
95Mo (KED)	49.273 ppb	1.7 %
107Ag (KED)	43.738 ppb	2.8 %
111Cd (KED)	45.393 ppb	1.1 %
118Sn (KED)	48.810 ppb	1.9 %
121Sb (KED)	48.882 ppb	2.3 %
137Ba (KED)	92.179 ppb	3.0 %
205Tl (KED)	49.849 ppb	2.8 %
208Pb (KED)	49.988 ppb	2.7 %

ISTD's	Concentration average
6Li (KED)	138.463 %
45Sc (KED)	124.542 %
72Ge (KED)	115.831 %
89Y (KED)	113.752 %
115In (KED)	112.820 %
159Tb (KED)	112.460 %
209Bi (KED)	101.513 %

LCS / LCS DUPLICATE RECOVERY

SW6020 B

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	3005_METALS_PREP_MS
Prep Batch:	B3F0173	Lab Sample ID:	B3F0173-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Aluminum, Dissolved (dissolved)	0.1000	0.108	108	84 - 117
Antimony, Dissolved (dissolved)	0.1000	0.0975	98	80 - 120
Arsenic, Dissolved (dissolved)	0.1000	0.0986	99	84 - 116
Barium, Dissolved (dissolved)	0.1000	0.100	100	86 - 114
Beryllium, Dissolved (dissolved)	0.05000	0.0486	97	83 - 121
Cadmium, Dissolved (dissolved)	0.1000	0.0963	96	87 - 115
Calcium, Dissolved (dissolved)	0.5000	0.502	100	87 - 118
Chromium, Dissolved (dissolved)	0.1000	0.0990	99	85 - 116
Cobalt, Dissolved (dissolved)	0.1000	0.0958	96	86 - 115
Copper, Dissolved (dissolved)	0.1000	0.0985	99	85 - 118
Iron, Dissolved (dissolved)	0.5000	0.478	96	87 - 118
Lead, Dissolved (dissolved)	0.1000	0.0955	96	88 - 115
Magnesium, Dissolved (dissolved)	0.5000	0.512	102	83 - 118
Manganese, Dissolved (dissolved)	0.1000	0.0982	98	87 - 115
Nickel, Dissolved (dissolved)	0.1000	0.0977	98	85 - 117
Potassium, Dissolved (dissolved)	0.5000	0.513	103	87 - 115
Selenium, Dissolved (dissolved)	0.1000	0.100	100	80 - 120
Silver, Dissolved (dissolved)	0.1000	0.0972	97	85 - 116
Sodium, Dissolved (dissolved)	0.5000	0.510	102	85 - 117
Thallium, Dissolved (dissolved)	0.1000	0.0994	99	82 - 116
Tin, Dissolved (dissolved)	0.1000	0.0981	98	86 - 115
Vanadium, Dissolved (dissolved)	0.1000	0.0989	99	86 - 115
Zinc, Dissolved (dissolved)	0.1000	0.0995	99	83 - 119

* Values outside of QC limits

SERIAL DILUTION

SW6020 B

01341800
Duplicate

Laboratory: Environmental Monitoring and Technologies, Inc
Client: HDR
Matrix: Water
Sequence: S3F0237
Preparation: 3005_METALS_PREP_MS
Source Sample Name: Duplicate

SDG: 23F0136
Project: Longhorn AAP
Laboratory ID: B3F0173-DUP1
Lab Source ID: 23F0196-06
Initial/Final: 45 / 50
% Solids:

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method	QC Limits % Difference
Aluminum, Dissolved	ND		ND		0	NA	SW6020 B	10
Antimony, Dissolved	ND		ND		0	NA	SW6020 B	10
Arsenic, Dissolved	ND		ND		0	NA	SW6020 B	10
Barium, Dissolved	0.243		0.243		0.06	NA	SW6020 B	10
Beryllium, Dissolved	ND		ND		0	NA	SW6020 B	10
Cadmium, Dissolved	ND		ND		0	NA	SW6020 B	10
Calcium, Dissolved	146		153		4.51		SW6020 B	10
Chromium, Dissolved	ND		0.0144		0	NA	SW6020 B	10
Cobalt, Dissolved	ND		ND		0	NA	SW6020 B	10
Copper, Dissolved	ND		ND		0	NA	SW6020 B	10
Iron, Dissolved	0.312		ND		40.1	NA	SW6020 B	10
Lead, Dissolved	ND		ND		0	NA	SW6020 B	10
Magnesium, Dissolved	86.2		89.7		4.1		SW6020 B	10
Manganese, Dissolved	0.225		0.227		1.26	NA	SW6020 B	10
Nickel, Dissolved	0.0236		0.0242		2.45	NA	SW6020 B	10
Potassium, Dissolved	16.5		17.5		5.62		SW6020 B	10
Selenium, Dissolved	ND		ND		0	NA	SW6020 B	10
Silver, Dissolved	ND		ND		0	NA	SW6020 B	10
Sodium, Dissolved	653		680		4.17		SW6020 B	10
Thallium, Dissolved	ND		ND		0	NA	SW6020 B	10
Tin, Dissolved	ND		ND		0	NA	SW6020 B	10
Vanadium, Dissolved	ND		ND		0	NA	SW6020 B	10
Zinc, Dissolved	ND		ND		0	NA	SW6020 B	10

NA = Dilution test is only applicable for analytes with concentrations > 50X LOQ
* = Values outside of QC limits, with concentrations > 50X LOQ

Labbook:
061423.imexp

Index #:	76	Stop Time:	6/14/2023 10:53:38 AM	Comment	1/5/5=25 6020 DISS
Sample ID:	B3F0173-DUP1@25	Dilution Factor	0.2		
Start Time:	6/14/2023 10:51:44 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.026 ppb	60.8 %
11B (KED)	5.011 ppb	8.0 %
23Na (KED)	24,485.508 ppb	0.2 %
24Mg (KED)	3,229.488 ppb	0.8 %
27Al (KED)	0.697 ppb	6.1 %
31P (KED)	4.912 ppb	65.1 %
39K (KED)	629.116 ppb	1.8 %
44Ca (KED)	5,502.462 ppb	0.7 %
47Ti (KED)	0.163 ppb	19.3 %
51V (KED)	0.055 ppb	10.4 %
52Cr (KED)	0.520 ppb	1.5 %
55Mn (KED)	8.188 ppb	1.2 %
57Fe (KED)	6.742 ppb	5.3 %
59Co (KED)	0.154 ppb	1.6 %
60Ni (KED)	0.870 ppb	6.4 %
63Cu (KED)	-0.121 ppb	2.2 %
66Zn (KED)	-0.025 ppb	56.0 %
75As (KED)	0.060 ppb	3.2 %
78Se (KED)	0.046 ppb	65.3 %
95Mo (KED)	0.055 ppb	8.5 %
107Ag (KED)	-0.023 ppb	10.6 %
111Cd (KED)	-0.019 ppb	5.1 %
118Sn (KED)	-0.034 ppb	1.7 %
121Sb (KED)	0.187 ppb	0.4 %
137Ba (KED)	8.735 ppb	0.8 %
205Tl (KED)	0.007 ppb	11.4 %
208Pb (KED)	0.019 ppb	2.7 %

ISTD's	Concentration average
6Li (KED)	148.563 %
45Sc (KED)	130.835 %
72Ge (KED)	125.428 %
89Y (KED)	121.797 %
115In (KED)	121.307 %
159Tb (KED)	119.452 %
209Bi (KED)	113.044 %

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-01	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-02	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-03	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-04	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-05	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-06	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-07	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-08	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-09	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-10	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-11	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-12	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-13	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-14	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0136-15	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0196-01	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0196-02	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0196-03	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0196-04	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23F0196-06	06/06/23 14:21	45	50				
: : : : :							

Prepared By: MBD

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method: SW6020 B** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Barium, Dissolved, Beryllium, Dissolved, Bismuth, Cadmium, Dissolved, Calcium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Manganese, Dissolved, Nickel, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Silver, Dissolved, Sodium, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium, Zinc, Dissolved						

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PREPARATION BENCH SHEET

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
B3F0173-BLK1	06/06/23 14:21	45	50				
: : : : :							**Prepared By**: MBD

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PREPARATION BENCH SHEET

Print Date/Time: 06/07/2023

B3F0173

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 3005_METALS_PREP_MS**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments

Spiking Solution(s)

Reagents / Equipment

Standard	Description	LotNum
2100069	pH paper 0-14 mbd	225320a
3040100	Nitric Acid HNO3 - Metals	1122090
3050671	CYLINDERS 50 ml MBD	2206050

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ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence:	S3F0237	Instrument:	ICP-MS iCAP Q
Calibration:	EF30060		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3050591)	S3F0237-TUN1	061423TUNE	06/14/23 08:13
Initial Cal Check (STD # 3060393)	S3F0237-ICV1	061423.xml-006	06/14/23 08:38
Initial Cal Blank	S3F0237-ICB1	061423.xml-007	06/14/23 08:40
Interference Check A (STD # 3050595)	S3F0237-IFA1	061423.xml-009	06/14/23 08:43
Interference Check B (STD # 3050596)	S3F0237-IFB1	061423.xml-010	06/14/23 08:45
Instrument RL Check (STD # 3060394)	S3F0237-CRL1	061423.xml-011	06/14/23 08:47
Closing Cal Check (STD # 3060620)	S3F0237-HCV1	061423.xml-012	06/14/23 08:54
Calibration Check (STD # 3060433)	S3F0237-CCV1	061423.xml-016	06/14/23 09:01
Calibration Blank	S3F0237-CCB1	061423.xml-017	06/14/23 09:03
Calibration Check (STD # 3060433)	S3F0237-CCV2	061423.xml-028	06/14/23 09:23
Calibration Blank	S3F0237-CCB2	061423.xml-029	06/14/23 09:25
Calibration Check (STD # 3060433)	S3F0237-CCV3	061423.xml-034	06/14/23 09:35
Calibration Blank	S3F0237-CCB3	061423.xml-035	06/14/23 09:36
Blank	B3F0173-BLK1	061423.xml-036	06/14/23 09:38
LCS	B3F0173-BS1	061423.xml-037	06/14/23 09:40
53147WW29	23F0136-01	061423.xml-038	06/14/23 09:42
53147WW13	23F0136-02	061423.xml-039	06/14/23 09:44
53047WW08R	23F0136-03	061423.xml-040	06/14/23 09:46
531DUP4	23F0136-04	061423.xml-041	06/14/23 09:48
6147WW34	23F0136-05	061423.xml-042	06/14/23 09:49
61DUP6	23F0136-06	061423.xml-043	06/14/23 09:51
Calibration Check (STD # 3060433)	S3F0237-CCV4	061423.xml-044	06/14/23 09:53
Calibration Check (STD # 3060433)	S3F0237-CCV5	061423.xml-045	06/14/23 09:55
Calibration Blank	S3F0237-CCB4	061423.xml-046	06/14/23 09:57
Calibration Check (STD # 3060433)	S3F0237-CCV6	061423.xml-050	06/14/23 10:05
Calibration Blank	S3F0237-CCB5	061423.xml-051	06/14/23 10:07
6147WW04	23F0136-07	061423.xml-052	06/14/23 10:08
6147WW33	23F0136-08	061423.xml-053	06/14/23 10:10
6147WW46	23F0136-09	061423.xml-054	06/14/23 10:12
53147WW38	23F0136-10	061423.xml-055	06/14/23 10:14
531DUP6	23F0136-11	061423.xml-056	06/14/23 10:16
Calibration Check (STD # 3060433)	S3F0237-CCV7	061423.xml-059	06/14/23 10:21

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence:	S3F0237	Instrument:	ICP-MS iCAP Q
Calibration:	EF30060		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	S3F0237-CCB6	061423.xml-060	06/14/23 10:23
531LHSMW50	23F0136-12	061423.xml-061	06/14/23 10:25
53147WW61	23F0136-13	061423.xml-062	06/14/23 10:27
6147WW31	23F0136-14	061423.xml-063	06/14/23 10:29
6147WW45	23F0136-15	061423.xml-064	06/14/23 10:31
Calibration Check (STD # 3060433)	S3F0237-CCV8	061423.xml-068	06/14/23 10:38
Calibration Blank	S3F0237-CCB7	061423.xml-069	06/14/23 10:40
Post Spike	B3F0173-PS1	061423.xml-074	06/14/23 10:49
Duplicate	B3F0173-DUP1	061423.xml-075	06/14/23 10:51
Calibration Check (STD # 3060433)	S3F0237-CCV9	061423.xml-079	06/14/23 10:59
Calibration Blank	S3F0237-CCB8	061423.xml-080	06/14/23 11:01
53147WW29	23F0136-01RE1	061423.xml-081	06/14/23 11:03
53147WW13	23F0136-02RE1	061423.xml-082	06/14/23 11:04
53047WW08R	23F0136-03RE1	061423.xml-083	06/14/23 11:06
531DUP4	23F0136-04RE1	061423.xml-084	06/14/23 11:08
Calibration Check (STD # 3060433)	S3F0237-CCVA	061423.xml-085	06/14/23 11:10
Calibration Blank	S3F0237-CCB9	061423.xml-086	06/14/23 11:12
6147WW34	23F0136-05RE1	061423.xml-087	06/14/23 11:14
61DUP6	23F0136-06RE1	061423.xml-088	06/14/23 11:16
6147WW04	23F0136-07RE1	061423.xml-089	06/14/23 11:18
6147WW33	23F0136-08RE1	061423.xml-090	06/14/23 11:19
Calibration Check (STD # 3060433)	S3F0237-CCVB	061423.xml-093	06/14/23 11:25
Calibration Blank	S3F0237-CCBA	061423.xml-094	06/14/23 11:27
6147WW46	23F0136-09RE1	061423.xml-095	06/14/23 11:29
53147WW38	23F0136-10RE1	061423.xml-096	06/14/23 11:31
531DUP6	23F0136-11RE1	061423.xml-097	06/14/23 11:33
531LHSMW50	23F0136-12RE1	061423.xml-098	06/14/23 11:34
53147WW61	23F0136-13RE1	061423.xml-099	06/14/23 11:36
6147WW31	23F0136-14RE1	061423.xml-100	06/14/23 11:38
Calibration Check (STD # 3060433)	S3F0237-CCVC	061423.xml-101	06/14/23 11:40
Calibration Blank	S3F0237-CCBB	061423.xml-102	06/14/23 11:42
6147WW45	23F0136-15RE1	061423.xml-103	06/14/23 11:44

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence:	S3F0237	Instrument:	ICP-MS iCAP Q
Calibration:	EF30060		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check (STD # 3060433)	S3F0237-CCVD	061423.xml-113	06/14/23 12:03
Calibration Blank	S3F0237-CCBC	061423.xml-114	06/14/23 12:05
53147WW29	23F0136-01RE2	061423.xml-115	06/14/23 12:06
53147WW13	23F0136-02RE2	061423.xml-116	06/14/23 12:08
53047WW08R	23F0136-03RE2	061423.xml-117	06/14/23 12:10
6147WW34	23F0136-05RE2	061423.xml-118	06/14/23 12:12
61DUP6	23F0136-06RE2	061423.xml-119	06/14/23 12:14
Calibration Check (STD # 3060433)	S3F0237-CCVE	061423.xml-120	06/14/23 12:16
Calibration Blank	S3F0237-CCBD	061423.xml-121	06/14/23 12:18
6147WW04	23F0136-07RE2	061423.xml-122	06/14/23 12:20
6147WW33	23F0136-08RE2	061423.xml-123	06/14/23 12:22
6147WW46	23F0136-09RE2	061423.xml-124	06/14/23 12:24
53147WW38	23F0136-10RE2	061423.xml-125	06/14/23 12:25
531DUP6	23F0136-11RE2	061423.xml-126	06/14/23 12:27
531LHSMW50	23F0136-12RE2	061423.xml-127	06/14/23 12:29
53147WW61	23F0136-13RE2	061423.xml-128	06/14/23 12:31
6147WW31	23F0136-14RE2	061423.xml-129	06/14/23 12:33
Calibration Check (STD # 3060433)	S3F0237-CCVF	061423.xml-130	06/14/23 12:35
Calibration Blank	S3F0237-CCBE	061423.xml-131	06/14/23 12:37
6147WW45	23F0136-15RE2	061423.xml-134	06/14/23 12:43
Calibration Check (STD # 3060433)	S3F0237-CCVG	061423.xml-140	06/14/23 12:54
Calibration Blank	S3F0237-CCBF	061423.xml-141	06/14/23 12:56

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0259 Instrument: ICP-MS iCAP Q
Calibration: EF30066

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3050591)	S3F0259-TUN1	061523BTUNE	06/15/23 14:08
Initial Cal Check (STD # 3060721)	S3F0259-ICV1	061523B.xml-008	06/15/23 15:10
Initial Cal Blank	S3F0259-ICB1	061523B.xml-009	06/15/23 15:12
Instrument RL Check (STD # 3060722)	S3F0259-CRL1	061523B.xml-010	06/15/23 15:14
Interference Check A (STD # 3050595)	S3F0259-IFA1	061523B.xml-011	06/15/23 15:16
Interference Check B (STD # 3050596)	S3F0259-IFB1	061523B.xml-012	06/15/23 15:18
Closing Cal Check (STD # 3060620)	S3F0259-HCV1	061523B.xml-013	06/15/23 15:20
Calibration Check (STD # 3060433)	S3F0259-CCV1	061523B.xml-017	06/15/23 15:27
Calibration Blank	S3F0259-CCB1	061523B.xml-018	06/15/23 15:29
Blank	B3F0173-BLK2	061523B.xml-020	06/15/23 15:33
Calibration Check (STD # 3060433)	S3F0259-CCV2	061523B.xml-029	06/15/23 15:49
Calibration Blank	S3F0259-CCB2	061523B.xml-030	06/15/23 15:51
Calibration Check (STD # 3060433)	S3F0259-CCV3	061523B.xml-041	06/15/23 16:11
Calibration Blank	S3F0259-CCB3	061523B.xml-042	06/15/23 16:13
Calibration Check (STD # 3060433)	S3F0259-CCV4	061523B.xml-051	06/15/23 16:30
Calibration Blank	S3F0259-CCB4	061523B.xml-052	06/15/23 16:32
Calibration Check (STD # 3060433)	S3F0259-CCV5	061523B.xml-063	06/15/23 16:53
Calibration Blank	S3F0259-CCB5	061523B.xml-064	06/15/23 16:55
Calibration Check (STD # 3060433)	S3F0259-CCV6	061523B.xml-074	06/15/23 17:13
Calibration Blank	S3F0259-CCB6	061523B.xml-075	06/15/23 17:15
Calibration Check (STD # 3060433)	S3F0259-CCV7	061523B.xml-084	06/15/23 17:32
Calibration Blank	S3F0259-CCB7	061523B.xml-085	06/15/23 17:34

QC SUMMARY REPORT
INTERNAL STANDARD RELATIVE INTENSITY

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0237

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0237-ICV1	6/14/2023	08:38	101.79	99.08	99.31	99.51	102.35	104.94	103.76
S3F0237-ICB1	6/14/2023	08:40	100.77	99.51	100.43	99.04	103.23	101.45	102.81
S3F0237-IFA1	6/14/2023	08:43	123.92	107.67	108.42	108.45	109.51	116.83	111.79
S3F0237-IFB1	6/14/2023	08:45	128.68	110.67	108.79	110.88	110.72	116.29	112.75
S3F0237-CRL1	6/14/2023	08:47	128.81	111.54	110.32	111.23	113.88	116.70	114.98
S3F0237-HCV1	6/14/2023	08:54	126.45	111.11	110.84	111.92	114.13	115.93	115.88
S3F0237-CCV1	6/14/2023	09:01	99.47	92.00	95.37	93.59	96.81	97.94	99.94
S3F0237-CCB1	6/14/2023	09:03	103.86	95.03	97.18	95.96	99.16	99.46	104.47
S3F0237-CCV2	6/14/2023	09:23	118.70	110.43	108.00	106.12	108.11	107.43	107.92
S3F0237-CCB2	6/14/2023	09:25	122.65	113.54	109.38	108.57	110.96	107.41	109.74
S3F0237-CCV3	6/14/2023	09:35	85.63	87.41	88.21	88.03	90.12	89.21	91.95
S3F0237-CCB3	6/14/2023	09:36	95.36	95.34	94.05	93.88	96.97	94.92	95.87
B3F0173-BLK1	6/14/2023	09:38	103.57	103.19	98.84	103.39	106.67	105.95	99.99
B3F0173-BS1	6/14/2023	09:40	101.36	100.78	99.49	98.41	100.71	97.25	98.13
23F0136-01	6/14/2023	09:42	103.18	103.25	99.96	99.12	101.82	101.60	96.37
23F0136-02	6/14/2023	09:44	107.89	106.33	102.27	113.73	107.08	106.06	102.19
23F0136-03	6/14/2023	09:46	112.65	108.64	102.48	103.72	100.76	102.56	95.05
23F0136-04	6/14/2023	09:48	117.22	111.93	108.67	126.88	108.04	113.18	109.11
23F0136-05	6/14/2023	09:49	118.52	113.41	107.32	108.97	107.65	108.01	103.27
23F0136-06	6/14/2023	09:51	125.09	113.73	105.61	108.89	103.81	107.26	95.72
S3F0237-CCV4	6/14/2023	09:53	140.73	123.60	119.75	119.35	121.91	119.07	119.21
S3F0237-CCV5	6/14/2023	09:55	142.44	124.75	118.87	118.33	118.89	117.60	118.82
S3F0237-CCB4	6/14/2023	09:57	143.91	125.58	120.11	120.62	121.53	120.27	120.43
S3F0237-CCV6	6/14/2023	10:05	85.53	85.16	86.98	88.09	93.31	92.77	94.84
S3F0237-CCB5	6/14/2023	10:07	93.22	92.83	92.84	93.21	94.74	98.21	98.03
23F0136-07	6/14/2023	10:08	100.81	97.74	93.87	95.57	94.38	98.68	89.37
23F0136-08	6/14/2023	10:10	109.80	103.30	102.79	103.40	104.84	106.43	102.35
23F0136-09	6/14/2023	10:12	115.83	109.13	104.17	103.79	104.09	106.10	96.82

Element		QC Range
Li	=	> 70%
Sc	=	> 70%
Ge	=	> 70%
Y	=	> 70%
In	=	> 70%
Tb	=	> 70%
Bi	=	> 70%

QC SUMMARY REPORT
INTERNAL STANDARD RELATIVE INTENSITY

01341850

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0237

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23F0136-10	6/14/2023	10:14	121.40	113.14	108.62	110.31	111.11	109.36	106.73
23F0136-11	6/14/2023	10:16	123.84	114.59	110.78	111.10	111.88	112.96	107.16
S3F0237-CCV7	6/14/2023	10:21	96.34	93.08	93.73	94.54	97.96	98.46	101.33
S3F0237-CCB6	6/14/2023	10:23	101.94	98.11	97.55	96.65	101.05	101.73	104.30
23F0136-12	6/14/2023	10:25	104.83	101.07	97.03	98.64	99.32	102.42	91.81
23F0136-13	6/14/2023	10:27	111.65	105.38	102.58	104.05	101.75	105.94	98.98
23F0136-14	6/14/2023	10:29	121.50	112.30	104.74	106.45	101.83	106.64	94.91
23F0136-15	6/14/2023	10:31	135.17	122.13	115.71	113.16	112.47	116.93	104.52
S3F0237-CCV8	6/14/2023	10:38	107.87	102.73	101.17	103.60	105.40	103.21	102.46
S3F0237-CCB7	6/14/2023	10:40	112.64	106.75	105.12	103.28	107.64	102.98	102.33
B3F0173-PS1	6/14/2023	10:49	138.46	124.54	115.83	113.75	112.82	112.46	101.51
B3F0173-DUP1	6/14/2023	10:51	148.56	130.83	125.43	121.80	121.31	119.45	113.04
S3F0237-CCV9	6/14/2023	10:59	99.87	95.91	95.83	95.30	102.08	100.26	102.93
S3F0237-CCB8	6/14/2023	11:01	105.40	99.26	99.17	98.52	103.69	101.02	103.96
23F0136-01RE1	6/14/2023	11:03	108.83	103.44	103.22	103.82			
23F0136-02RE1	6/14/2023	11:04	108.98	103.63	102.95	101.76			
23F0136-03RE1	6/14/2023	11:06	112.68	108.08	106.25	104.72			
23F0136-04RE1	6/14/2023	11:08	117.76	110.64	109.94				
S3F0237-CCVA	6/14/2023	11:10	115.97	109.95	107.24	107.28	110.33	107.34	106.95
S3F0237-CCB9	6/14/2023	11:12	122.08	114.23	111.27	111.31	112.59	111.30	111.70
23F0136-05RE1	6/14/2023	11:14	118.33	110.65	108.65	106.07			
23F0136-06RE1	6/14/2023	11:16	119.28	111.16	109.38	106.75			
23F0136-07RE1	6/14/2023	11:18	125.27	117.66	113.81	112.53			
23F0136-08RE1	6/14/2023	11:19	127.38	117.73	114.27	112.72			
S3F0237-CCVB	6/14/2023	11:25	96.01	92.81	92.85	94.92	101.17	96.69	100.57
S3F0237-CCBA	6/14/2023	11:27	99.80	96.93	93.80	97.45	100.37	99.46	100.65
23F0136-09RE1	6/14/2023	11:29	99.96	98.04	97.50	97.13			
23F0136-10RE1	6/14/2023	11:31	105.49	101.64	100.34	100.05			

Element		QC Range
Li	=	> 70%
Sc	=	> 70%
Ge	=	> 70%
Y	=	> 70%
In	=	> 70%
Tb	=	> 70%
Bi	=	> 70%

QC SUMMARY REPORT
INTERNAL STANDARD RELATIVE INTENSITY

01341851

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0237

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23F0136-11RE1	6/14/2023	11:33	107.69	103.81	102.88	102.59			
23F0136-12RE1	6/14/2023	11:34	107.60	104.34	102.79	101.55			
23F0136-13RE1	6/14/2023	11:36	110.61	106.77	104.19	101.30			
23F0136-14RE1	6/14/2023	11:38	111.78	107.54	103.79	102.39			
S3F0237-CCVC	6/14/2023	11:40	116.31	109.52	106.74	106.16	108.48	104.96	106.08
S3F0237-CCBB	6/14/2023	11:42	119.13	111.46	107.93	107.08	108.40	104.02	107.05
23F0136-15RE1	6/14/2023	11:44	117.30	111.94	108.72	106.66			
S3F0237-CCVD	6/14/2023	12:03	89.97	87.72	89.35	91.93	94.04	93.87	96.20
S3F0237-CCBC	6/14/2023	12:05	93.32	91.29	91.54	93.37	98.17	93.96	97.06
23F0136-01RE2	6/14/2023	12:06	97.87	96.50	97.12				
23F0136-02RE2	6/14/2023	12:08	98.36	96.31	96.01				
23F0136-03RE2	6/14/2023	12:10	100.47	99.30	98.60				
23F0136-05RE2	6/14/2023	12:12	103.05	99.80	99.22				
23F0136-06RE2	6/14/2023	12:14	105.22	102.44	102.23	99.94			
S3F0237-CCVE	6/14/2023	12:16	106.79	103.02	100.91	101.98	103.88	100.13	103.57
S3F0237-CCBD	6/14/2023	12:18	111.93	106.96	104.06	105.74	110.53	104.23	105.77
23F0136-07RE2	6/14/2023	12:20	109.57	106.49	104.42				
23F0136-08RE2	6/14/2023	12:22	111.78	106.14	104.23				
23F0136-09RE2	6/14/2023	12:24	111.38	107.33	105.28				
23F0136-10RE2	6/14/2023	12:25	111.72	106.71	105.67				
23F0136-11RE2	6/14/2023	12:27	114.20	107.40	105.84				
23F0136-12RE2	6/14/2023	12:29	113.75	108.89	105.79				
23F0136-13RE2	6/14/2023	12:31	114.44	109.80	107.50				
23F0136-14RE2	6/14/2023	12:33	119.13	110.98	110.02	109.44			
S3F0237-CCVF	6/14/2023	12:35	117.73	111.17	107.96	107.54	110.47	105.03	108.24
S3F0237-CCBE	6/14/2023	12:37	119.70	111.95	107.24	107.94	109.50	105.84	105.81
23F0136-15RE2	6/14/2023	12:43	91.95	90.68	92.57				
S3F0237-CCVG	6/14/2023	12:54	104.70	101.48	99.20	101.20	102.18	100.37	101.79

Element		QC Range
Li	=	> 70%
Sc	=	> 70%
Ge	=	> 70%
Y	=	> 70%
In	=	> 70%
Tb	=	> 70%
Bi	=	> 70%

QC SUMMARY REPORT
INTERNAL STANDARD RELATIVE INTENSITY

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0237

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0237-CCBF	6/14/2023	12:56	114.21	107.75	106.12	105.65	109.21	105.32	106.67

Element		QC Range
Li	=	> 70%
Sc	=	> 70%
Ge	=	> 70%
Y	=	> 70%
In	=	> 70%
Tb	=	> 70%
Bi	=	> 70%

QC SUMMARY REPORT
INTERNAL STANDARD RELATIVE INTENSITY

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0259

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0259-ICV1	6/15/2023	15:10	97.21	94.47	96.13				
S3F0259-ICB1	6/15/2023	15:12	96.39	95.35	95.89				
S3F0259-CRL1	6/15/2023	15:14	97.99	96.68	97.28				
S3F0259-IFA1	6/15/2023	15:16	98.90	93.77	92.78				
S3F0259-IFB1	6/15/2023	15:18	103.86	94.88	95.92				
S3F0259-HCV1	6/15/2023	15:20	106.03	96.74	97.53				
S3F0259-CCV1	6/15/2023	15:27	86.13	83.18	86.55				
S3F0259-CCB1	6/15/2023	15:29	90.42	87.07	90.43				
B3F0173-BLK2	6/15/2023	15:33	97.77	94.11	95.69				
S3F0259-CCV2	6/15/2023	15:49	112.20	102.23	101.92				
S3F0259-CCB2	6/15/2023	15:51	112.20	101.91	103.34				
S3F0259-CCV3	6/15/2023	16:11	83.84	84.05	87.42				
S3F0259-CCB3	6/15/2023	16:13	90.79	88.38	90.91				
S3F0259-CCV4	6/15/2023	16:30	109.21	104.83	103.91				
S3F0259-CCB4	6/15/2023	16:32	108.92	103.21	104.72				
S3F0259-CCV5	6/15/2023	16:53	98.25	95.79	97.28				
S3F0259-CCB5	6/15/2023	16:55	99.84	96.92	99.07				
S3F0259-CCV6	6/15/2023	17:13	111.08	104.58	105.09				
S3F0259-CCB6	6/15/2023	17:15	110.90	104.26	104.63				
S3F0259-CCV7	6/15/2023	17:32	112.72	106.15	105.48				
S3F0259-CCB7	6/15/2023	17:34	111.94	105.92	105.94				

Element		QC Range
Li	=	> 70%
Sc	=	> 70%
Ge	=	> 70%
Y	=	> 70%
In	=	> 70%
Tb	=	> 70%
Bi	=	> 70%

System (SN 02314R):

Time	6/14/2023 8:13:15 AM
Instrument id	iCAP Q
Operator	EMT\TICPMSUSER
Template	EMT Tuning Report For 200.8_6020, Oxides, doubly charged
Serial number	02314R
Last Autotune	Autotune-SourceTune High Matrix-20230613-113851447.imatdat
Solution	EMT iCAPqc Tuning check solution: 11.0 Be and Mg, rest at 1.0 ppb, with Ba and Ce. In 1% HNO3.

Sensitivity & Stability Test:

Result	Runs	Sweeps
Passed	5	10

Sensitivity:
Manufacturer recommended settings
No firm Method requirements (200.8 or 6020)

Analyte	Result	Value	Condition	Limit
9Be	Passed	2,932.94 CPS	Greater than	5.0 CPS
59Co	Passed	40,967.0 CPS	Greater than	1,000.0 CPS
24Mg	Passed	8,222.3 CPS	Greater than	50.0 CPS
208Pb	Passed	144,531.0 CPS	Greater than	1,000.0 CPS
140Ce.16O/140Ce	Passed	0.0049	Less than	0.02
137Ba++/137Ba	Passed	0.045	Less than	0.1
115In	Passed	59,887.0 CPS	Greater than	1,000.0 CPS

Stability:
< 5% for 5 Replicates (200.8)

Analyte	Value	Limit
9Be	0.6%	5
59Co	0.6%	5
24Mg	1.5%	5
208Pb	0.8%	5
115In	0.8%	5

Mass Calibration Test:

Within 0.1 amu target mass (200.8 and 6020) and peak widths
(~ 0.75 amu at 5% peak height for 200.8 and < 0.90 amu at 10% peak height for 6020)
- set to 0.65 to 0.85 amu at 5% height- most stringent

Result	Channels	Dwell	MeasureWidth	PointSpacing	Sweeps
Passed	75	0.1	1.5	0.02	5

Analyte	Result	Centroid	Offset	Peak Width	Peak Width Min	Peak Width Max
9Be	Passed	9.0056	0.0066	0.692	0.650	0.850
24Mg	Passed	23.9756	0.0094	0.683	0.650	0.850
59Co	Passed	58.9395	0.0063	0.692	0.650	0.850
115In	Passed	114.9425	0.0386	0.689	0.650	0.850
208Pb	Passed	208.0626	0.0859	0.692	0.650	0.850

Tune and Instrument Settings:

Parameter	Value
Additional Gas Flow 1	0.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
Angular Deflection	-382.40
Auxilliary Flow	0.80
CCT Bias	-21.00
CCT Entry Lens	-105.98
CCT Exit Lens	-40.00
CCT Focus Lens	-2.34
CCT1 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Flow	4.73
CCT2 Shut-Off Valve	1.00
Cool Flow	14.00
D1 Lens	-353.20
D2 Lens	-158.00
Deflection Entry Lens	-35.01
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Positive	0.00
Extraction Lens 2	-115.00
Focus Lens	-6.50
Nebulizer Flow	0.93
Peristaltic Pump Speed	40.00
Plasma Power	1550.00
Pole Bias	-18.00
Quad Entry Lens	-62.00
Sampling Depth	5.00
Spray Chamber Temperature	2.70
Torch Horizontal Position	0.03
Torch Vertical Position	0.83
Virtual CCT Mass Maximum Dac Limit Set	4095.00
Virtual CCT Mass parameter b	1.00
Virtual CCT Mass to Dac Factor	60.00
Virtual CCT Mass to Dac Offset	100.00

Vacuum Check:

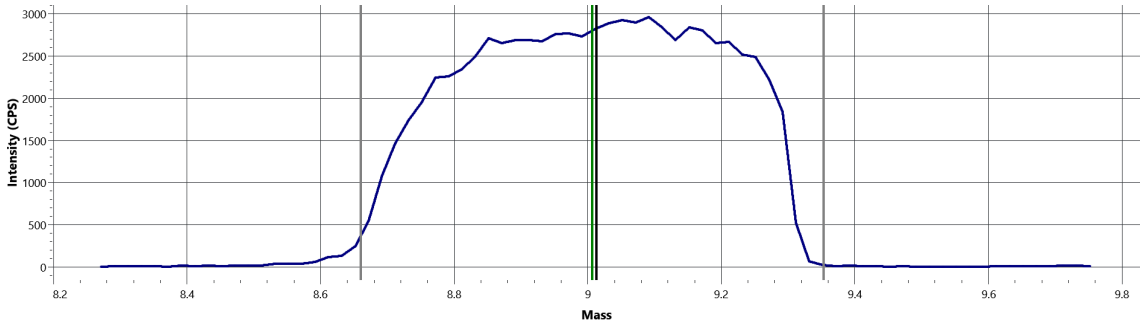
Parameter	Result	Value
Analyzer Pressure		5.403e-7
Interface Pressure		1.617e+0

Detector (EM) Voltages:

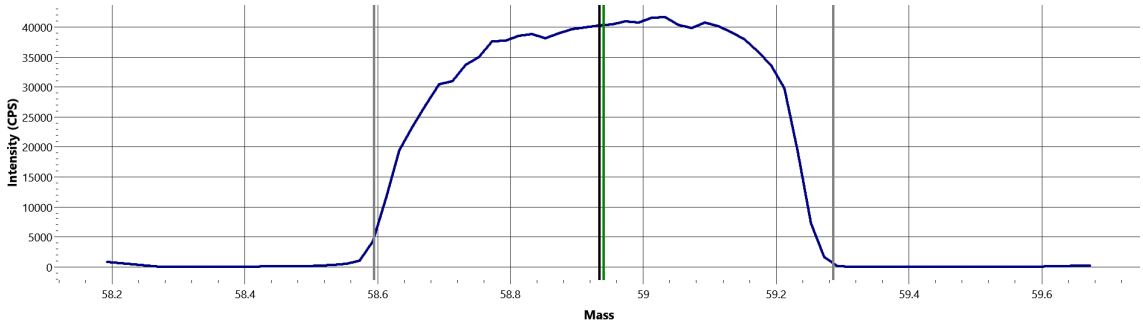
Analog	Counting
-2837.50	1812.50

Mass Calibration Peaks

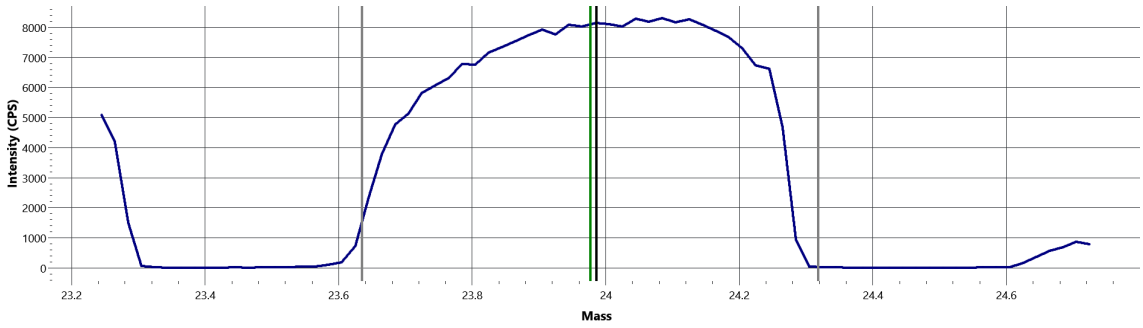
9Be



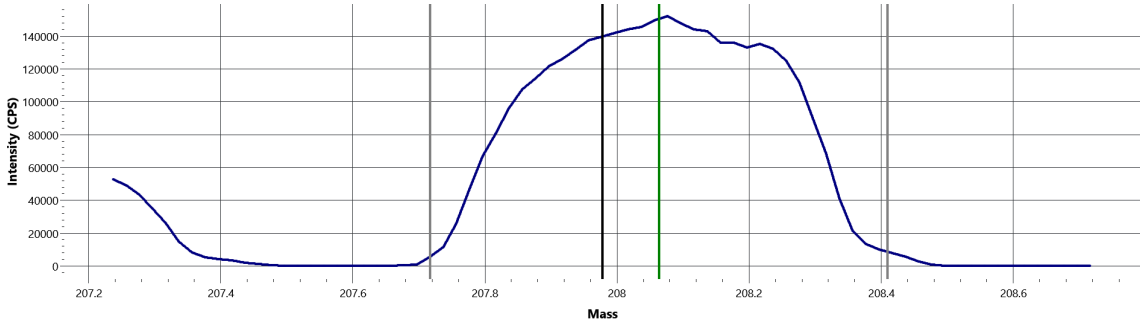
59Co



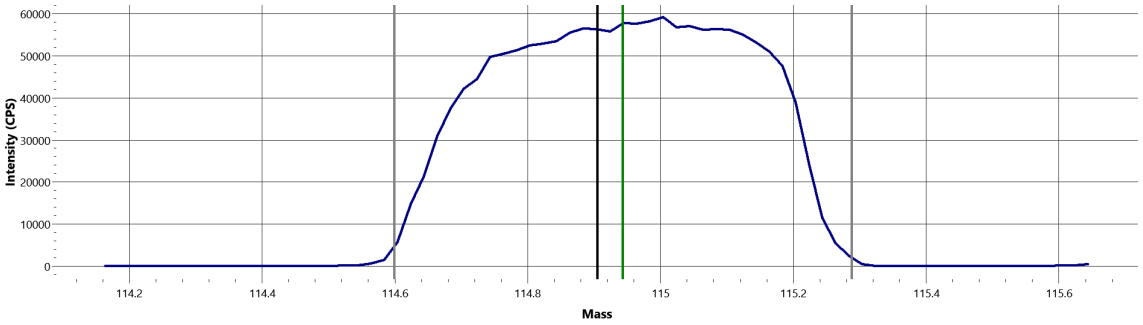
24Mg



208Pb



115In


60000
50000
40000
30000
20000
10000
0
Intensity (CPS)
114.2
114.4
114.6
114.8
115
115.2
115.4
115.6
Mass

System (SN 02314R):

Time	6/15/2023 2:08:56 PM
Instrument id	iCAP Q
Operator	EMT\TICPMSUSER
Template	EMT Tuning Report For 200.8_6020, Oxides, doubly charged
Serial number	02314R
Last Autotune	Autotune-SourceTune High Matrix-20230613-113851447.imatdat
Solution	EMT iCAPqc Tuning check solution: 11.0 Be and Mg, rest at 1.0 ppb, with Ba and Ce. In 1% HNO3.

Sensitivity & Stability Test:

Result	Runs	Sweeps
Passed	5	10

Sensitivity:
Manufacturer recommended settings
No firm Method requirements (200.8 or 6020)

Analyte	Result	Value	Condition	Limit
9Be	Passed	4,098.95 CPS	Greater than	5.0 CPS
59Co	Passed	53,829.0 CPS	Greater than	1,000.0 CPS
24Mg	Passed	12,329.5 CPS	Greater than	50.0 CPS
208Pb	Passed	170,705.0 CPS	Greater than	1,000.0 CPS
140Ce.16O/140Ce	Passed	0.0046	Less than	0.02
137Ba++/137Ba	Passed	0.048	Less than	0.1
115In	Passed	75,377.0 CPS	Greater than	1,000.0 CPS

Stability:
< 5% for 5 Replicates (200.8)

Analyte	Value	Limit
9Be	0.6%	5
59Co	0.4%	5
24Mg	1.4%	5
208Pb	0.9%	5
115In	0.8%	5

Mass Calibration Test:

Within 0.1 amu target mass (200.8 and 6020) and peak widths
(~ 0.75 amu at 5% peak height for 200.8 and < 0.90 amu at 10% peak height for 6020)
- set to 0.65 to 0.85 amu at 5% height- most stringent

Result	Channels	Dwell	MeasureWidth	PointSpacing	Sweeps
Passed	75	0.1	1.5	0.02	5

Analyte	Result	Centroid	Offset	Peak Width	Peak Width Min	Peak Width Max
9Be	Passed	9.0030	0.0092	0.691	0.650	0.850
24Mg	Passed	23.9724	0.0127	0.680	0.650	0.850
59Co	Passed	58.9314	0.0018	0.693	0.650	0.850
115In	Passed	114.9271	0.0232	0.694	0.650	0.850
208Pb	Passed	208.0389	0.0622	0.705	0.650	0.850

Tune and Instrument Settings:

Parameter	Value
Additional Gas Flow 1	0.00
Additional Gas Flow 2	0.00
Additional Gas Flow 3	0.00
Angular Deflection	-382.40
Auxilliary Flow	0.80
CCT Bias	-21.00
CCT Entry Lens	-105.98
CCT Exit Lens	-40.00
CCT Focus Lens	-2.34
CCT1 Flow	0.00
CCT1 Shut-Off Valve	0.00
CCT2 Flow	4.73
CCT2 Shut-Off Valve	1.00
Cool Flow	14.00
D1 Lens	-353.20
D2 Lens	-158.00
Deflection Entry Lens	-35.01
Extraction Lens 1 Negative	0.00
Extraction Lens 1 Polarity	0.00
Extraction Lens 1 Positive	0.00
Extraction Lens 2	-115.00
Focus Lens	-6.50
Nebulizer Flow	0.93
Peristaltic Pump Speed	40.00
Plasma Power	1550.00
Pole Bias	-18.00
Quad Entry Lens	-62.00
Sampling Depth	5.00
Spray Chamber Temperature	2.70
Torch Horizontal Position	0.03
Torch Vertical Position	0.83
Virtual CCT Mass Maximum Dac Limit Set	4095.00
Virtual CCT Mass parameter b	1.00
Virtual CCT Mass to Dac Factor	60.00
Virtual CCT Mass to Dac Offset	100.00

Vacuum Check:

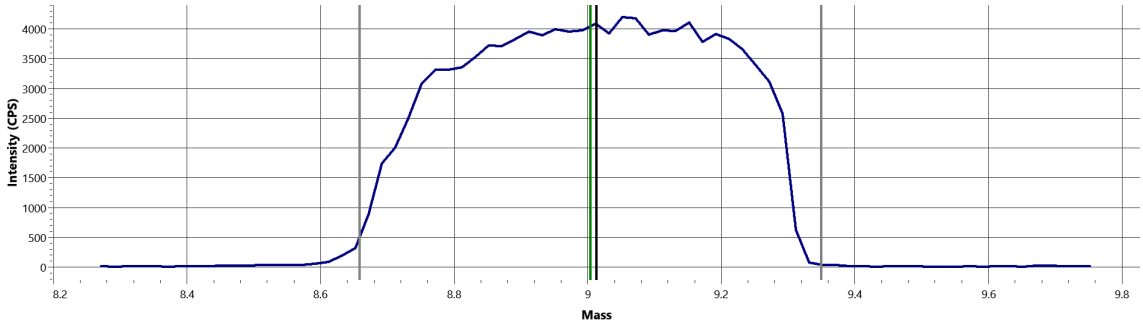
Parameter	Result	Value
Analyzer Pressure		5.912e-7
Interface Pressure		1.581e+0

Detector (EM) Voltages:

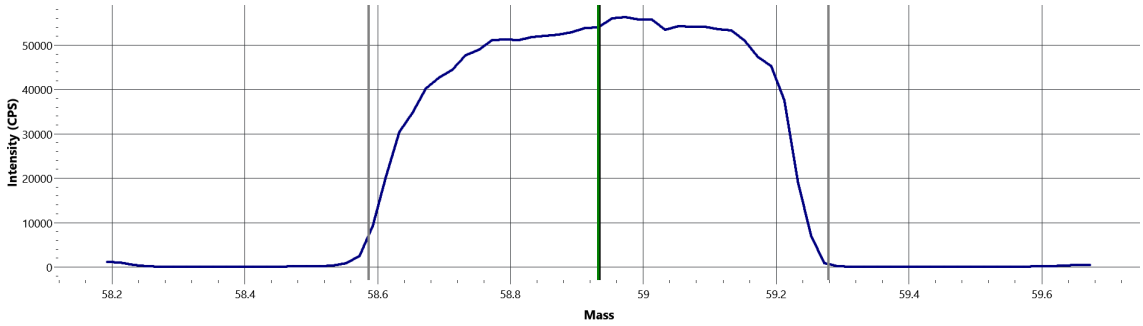
Analog	Counting
-2837.50	1812.50

Mass Calibration Peaks

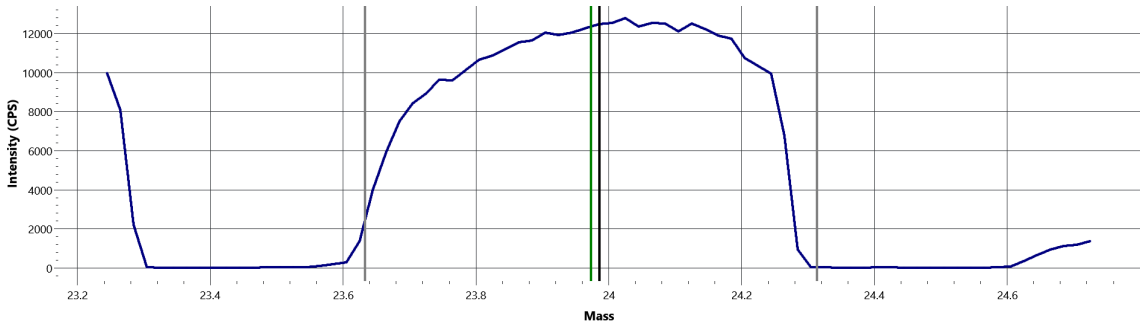
9Be



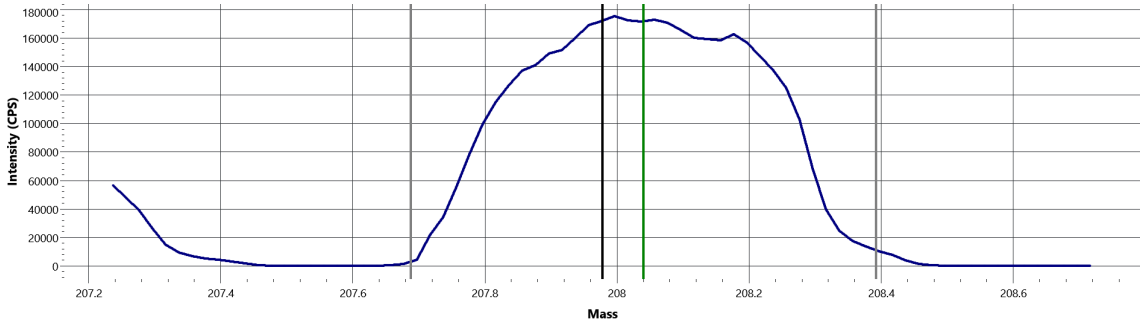
59Co



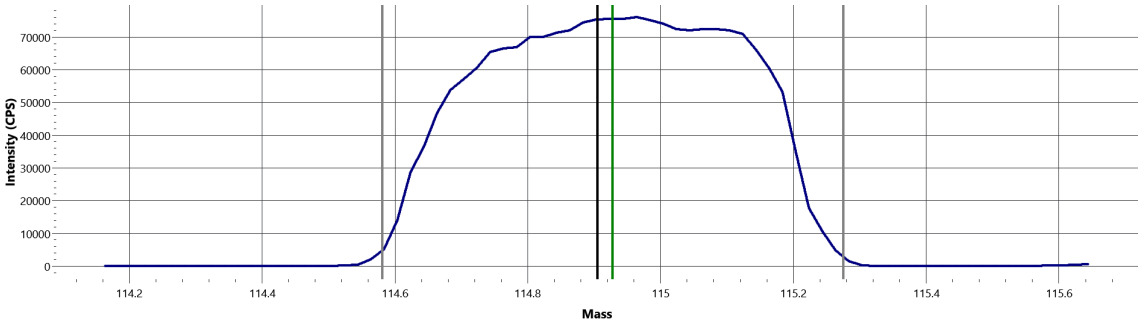
24Mg



208Pb



115In


Intensity (CPS)
70000
60000
50000
40000
30000
20000
10000
0
114.2
114.4
114.6
114.8
115
115.2
115.4
115.6
Mass

Calibration
6/14/2023 1:00:49 PM

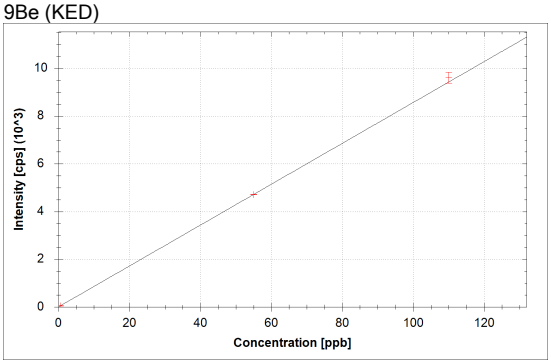
QTEGRA

Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	Undefined

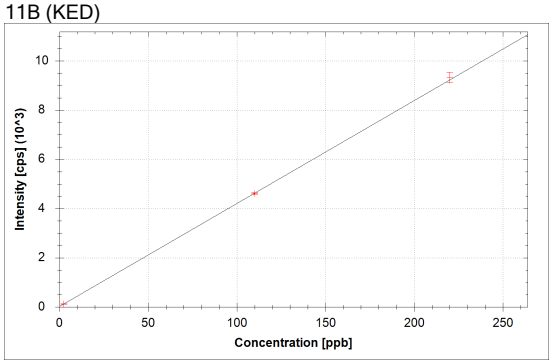
Labbook:	Labbook Path:
061423.imexp	_Application Data\Workspace\LabBooks

9Be (KED)



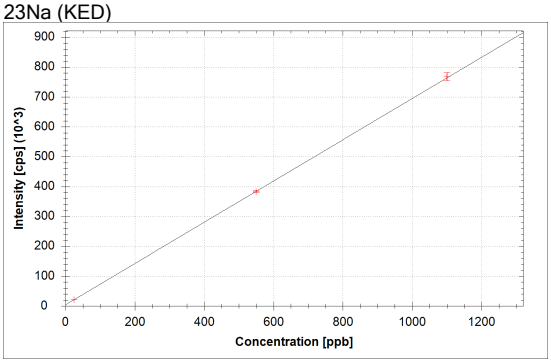
f(x) = 85.5992*x + 6.2806
R² = 0.9993
BEC = 0.073 ppb
LoD = N/A

11B (KED)



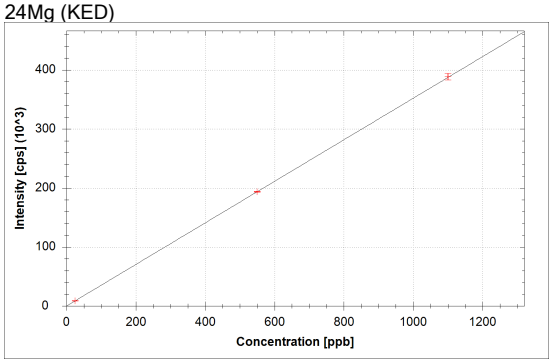
f(x) = 41.8295*x + 18.8805
R² = 0.9998
BEC = 0.451 ppb
LoD = N/A

23Na (KED)



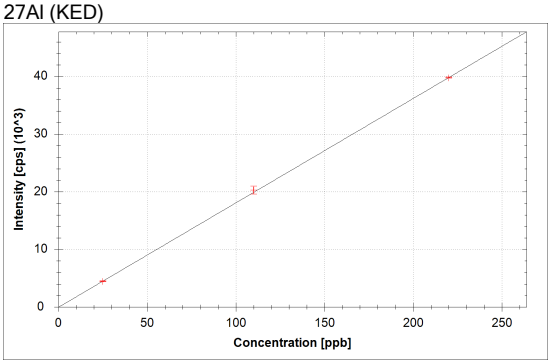
f(x) = 690.3756*x + 4245.1207
R² = 0.9999
BEC = 6.149 ppb
LoD = N/A

24Mg (KED)



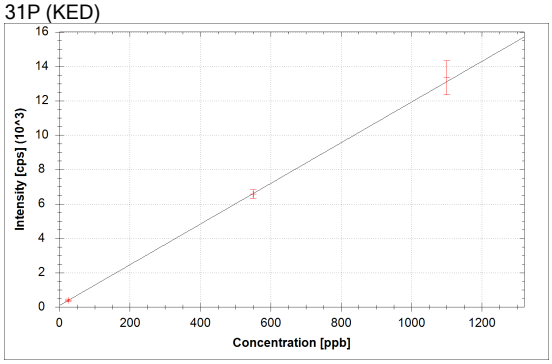
f(x) = 352.0409*x + 42.1055
R² = 1.0000
BEC = 0.120 ppb
LoD = N/A

27Al (KED)



f(x) = 181.0675*x + -43.0208
R² = 0.9998
BEC = -0.238 ppb
LoD = N/A

31P (KED)



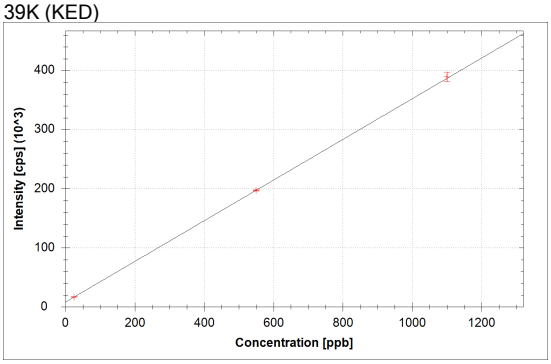
f(x) = 11.8364*x + 89.5060
R² = 0.9993
BEC = 7.562 ppb
LoD = N/A

Calibration

6/14/2023 1:00:49 PM

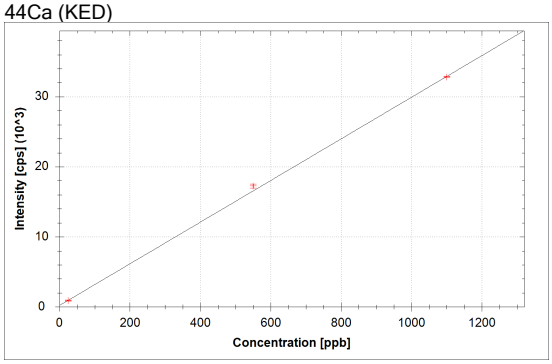
QTEGRA

39K (KED)



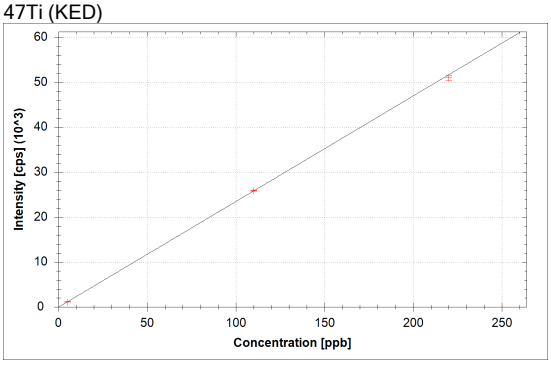
f(x) = 344.0486*x + 8137.2354
R² = 0.9999
BEC = 23.651 ppb
LoD = N/A

44Ca (KED)



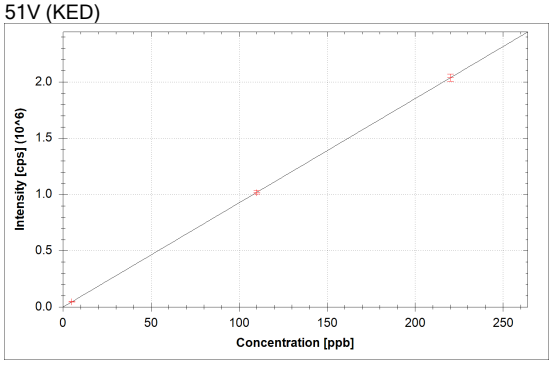
f(x) = 29.7213*x + 199.4097
R² = 0.9990
BEC = 6.709 ppb
LoD = N/A

47Ti (KED)



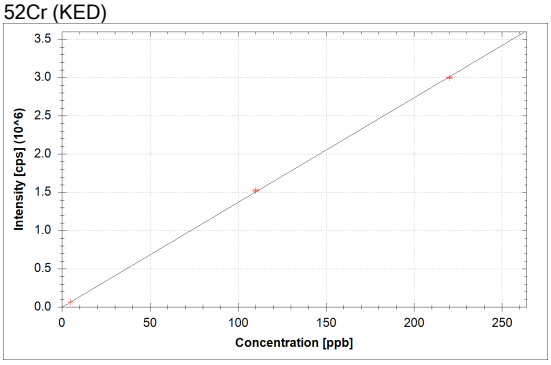
f(x) = 235.0549*x + -30.2783
R² = 0.9997
BEC = -0.129 ppb
LoD = N/A

51V (KED)



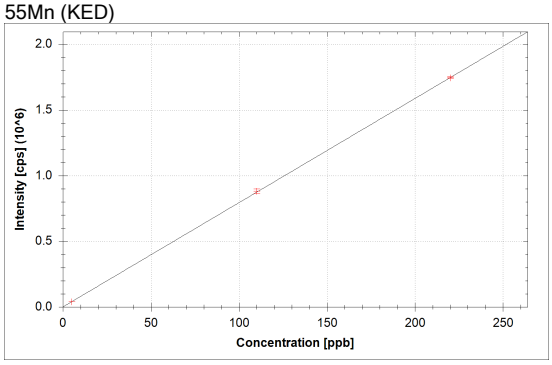
f(x) = 9259.5437*x + -239.6242
R² = 1.0000
BEC = -0.026 ppb
LoD = N/A

52Cr (KED)



f(x) = 13686.5039*x + -2229.3825
R² = 0.9999
BEC = -0.163 ppb
LoD = N/A

55Mn (KED)



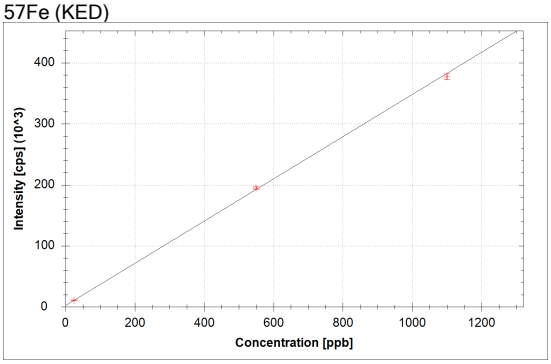
f(x) = 7937.5418*x + 1402.5835
R² = 1.0000
BEC = 0.177 ppb
LoD = N/A

Calibration

6/14/2023 1:00:49 PM

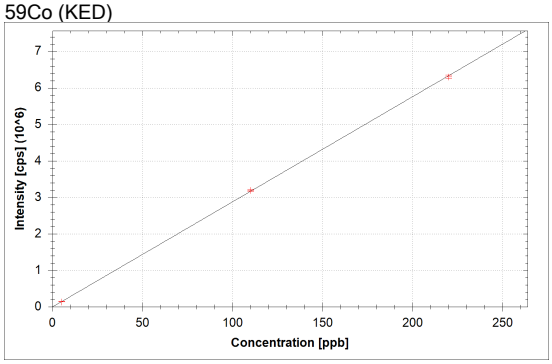
QTEGRA

57Fe (KED)



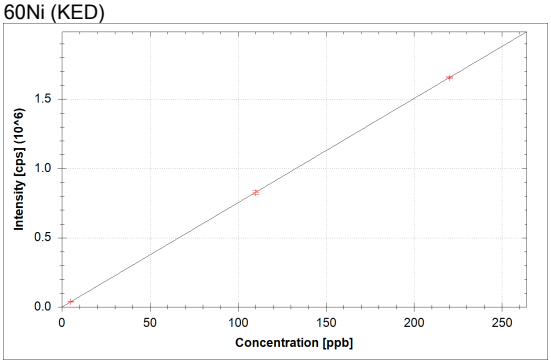
f(x) = 345.8305*x + 2194.5288
R² = 0.9994
BEC = 6.346 ppb
LoD = N/A

59Co (KED)



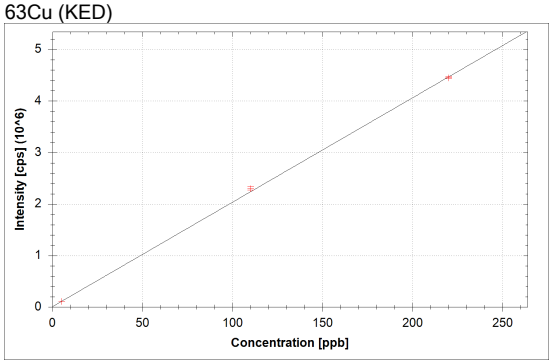
f(x) = 28815.1564*x + -2986.3740
R² = 0.9999
BEC = -0.104 ppb
LoD = N/A

60Ni (KED)



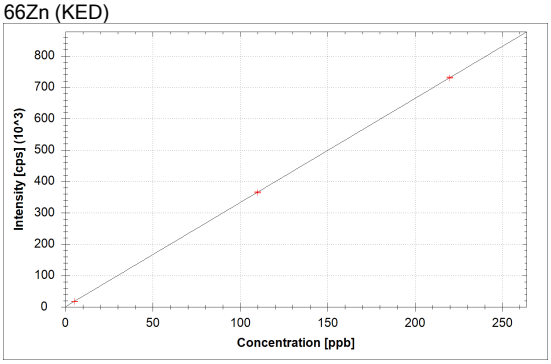
f(x) = 7521.9060*x + 193.0586
R² = 1.0000
BEC = 0.026 ppb
LoD = N/A

63Cu (KED)



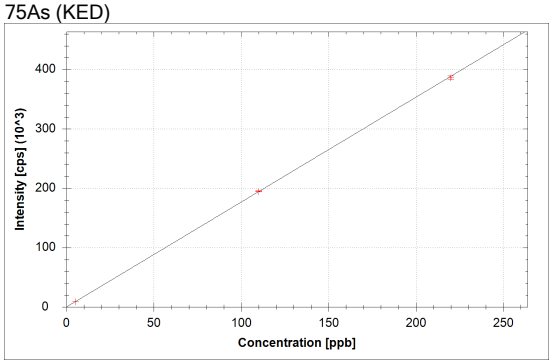
f(x) = 20268.2601*x + 7478.4872
R² = 0.9995
BEC = 0.369 ppb
LoD = N/A

66Zn (KED)



f(x) = 3316.1993*x + 1302.7846
R² = 1.0000
BEC = 0.393 ppb
LoD = N/A

75As (KED)

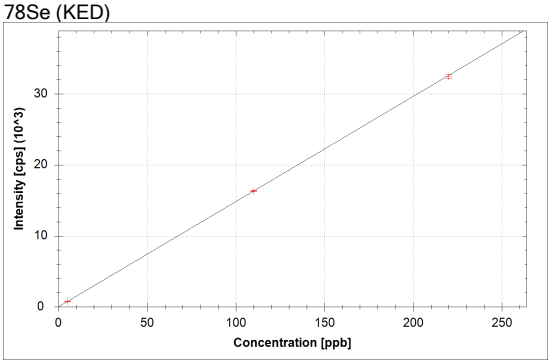


f(x) = 1765.5015*x + 147.1202
R² = 0.9999
BEC = 0.083 ppb
LoD = N/A

Calibration

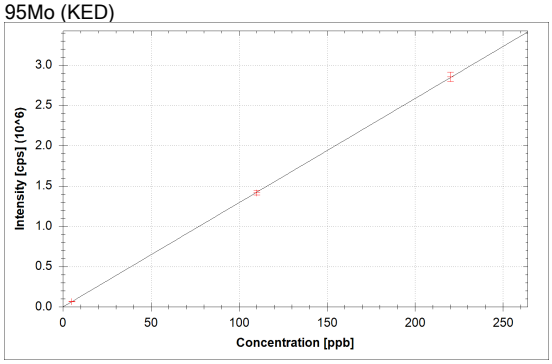
6/14/2023 1:00:49 PM

78Se (KED)



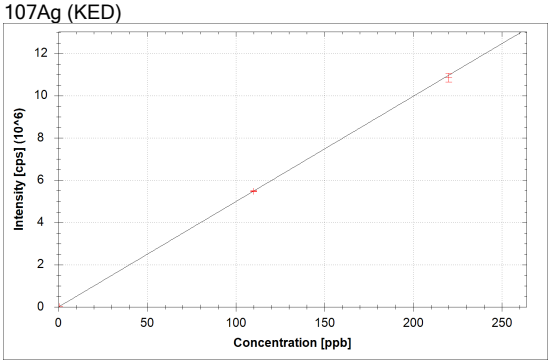
f(x) = 148.1910*x + 9.9278
R² = 0.9999
BEC = 0.067 ppb
LoD = N/A

95Mo (KED)



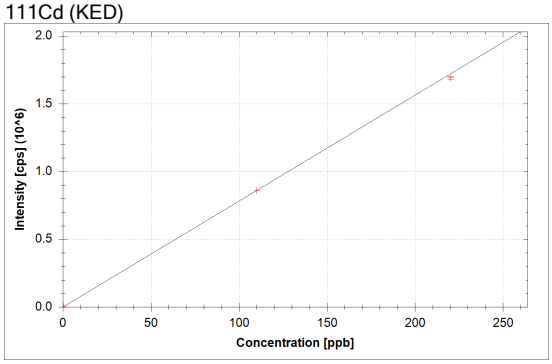
f(x) = 12923.1644*x + 132.0368
R² = 1.0000
BEC = 0.010 ppb
LoD = N/A

107Ag (KED)



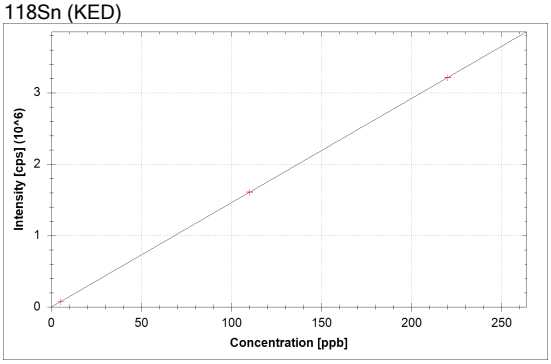
f(x) = 49837.0577*x + 2298.5837
R² = 0.9998
BEC = 0.046 ppb
LoD = N/A

111Cd (KED)



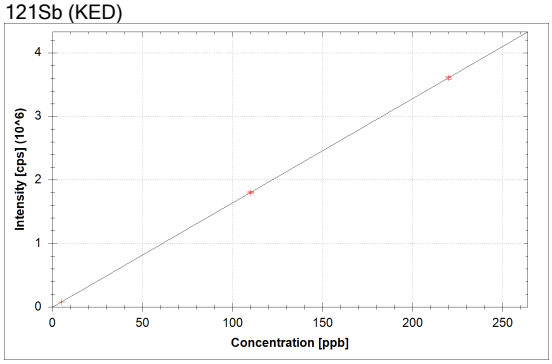
f(x) = 7814.8788*x + 176.3552
R² = 0.9995
BEC = 0.023 ppb
LoD = N/A

118Sn (KED)



f(x) = 14589.3809*x + 884.4675
R² = 1.0000
BEC = 0.061 ppb
LoD = N/A

121Sb (KED)



f(x) = 16397.7686*x + -2791.5896
R² = 1.0000
BEC = -0.170 ppb
LoD = N/A

Calibration

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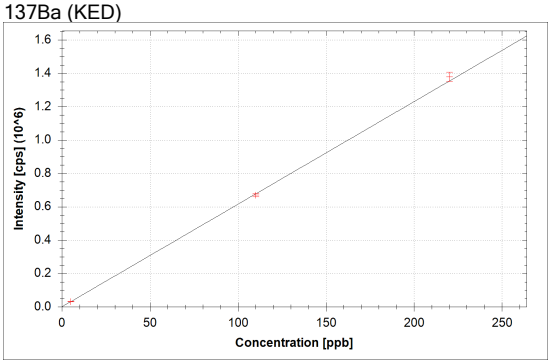
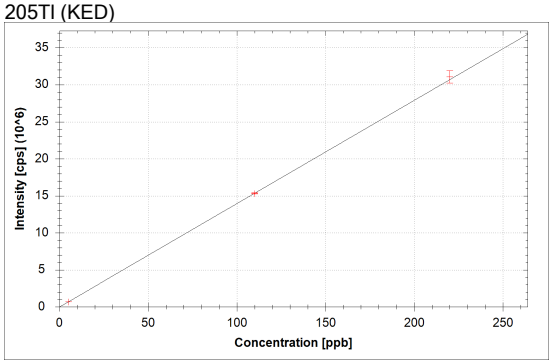
137Ba (KED)



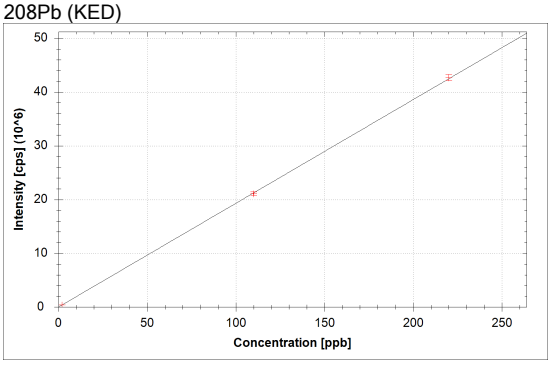
f(x) = 6147.3230*x + 625.2879
R² = 0.9992
BEC = 0.102 ppb
LoD = N/A

205Tl (KED)



f(x) = 139499.7019*x + -15593.0661
R² = 0.9997
BEC = -0.112 ppb
LoD = N/A

208Pb (KED)



f(x) = 192951.5032*x + -1660.5527
R² = 0.9999
BEC = -0.009 ppb
LoD = N/A

Calibration

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QTEGRA

Standards:

Analysis Index: 4
Analysis Name: Calibration 1
AnalysisType STD
Analysis Started at: 6/14/2023 8:32:56 AM
Standard (Stock): Calibration 1
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	101.176 %	N/A	0.0 %	
9Be (KED)	0.500 ppb	5.0 %	2.0 %	0.500 ppb
11B (KED)	2.502 ppb	5.5 %	1.1 %	2.500 ppb
23Na (KED)	25.005 ppb	2.3 %	0.6 %	25.000 ppb
24Mg (KED)	25.026 ppb	5.2 %	0.4 %	25.000 ppb
27Al (KED)	24.968 ppb	2.5 %	2.0 %	25.000 ppb
31P (KED)	25.094 ppb	22.4 %	1.9 %	25.000 ppb
39K (KED)	25.018 ppb	4.3 %	0.7 %	25.000 ppb
44Ca (KED)	24.013 ppb	11.0 %	5.8 %	25.000 ppb
45Sc (KED)	100.036 %	N/A	0.0 %	
47Ti (KED)	4.967 ppb	5.2 %	1.4 %	5.000 ppb
51V (KED)	5.000 ppb	1.4 %	0.1 %	5.000 ppb
52Cr (KED)	4.986 ppb	2.0 %	1.6 %	5.000 ppb
55Mn (KED)	4.999 ppb	1.5 %	0.8 %	5.000 ppb
57Fe (KED)	24.859 ppb	4.9 %	2.0 %	25.000 ppb
59Co (KED)	4.999 ppb	1.0 %	1.0 %	5.000 ppb
60Ni (KED)	5.000 ppb	2.6 %	0.1 %	5.000 ppb
63Cu (KED)	4.998 ppb	1.2 %	2.9 %	5.000 ppb
66Zn (KED)	5.000 ppb	2.0 %	0.0 %	5.000 ppb
72Ge (KED)	100.917 %	N/A	0.0 %	
75As (KED)	4.996 ppb	1.7 %	0.6 %	5.000 ppb
78Se (KED)	4.983 ppb	4.1 %	0.7 %	5.000 ppb
89Y (KED)	99.006 %	N/A	0.0 %	
95Mo (KED)	5.000 ppb	1.2 %	0.6 %	5.000 ppb
107Ag (KED)	0.500 ppb	6.5 %	1.0 %	0.500 ppb
111Cd (KED)	0.498 ppb	6.8 %	1.6 %	0.500 ppb
115In (KED)	100.837 %	N/A	0.0 %	
118Sn (KED)	4.992 ppb	1.6 %	0.2 %	5.000 ppb
121Sb (KED)	5.001 ppb	1.8 %	0.2 %	5.000 ppb
137Ba (KED)	5.002 ppb	1.9 %	2.2 %	5.000 ppb
159Tb (KED)	99.156 %	N/A	0.0 %	
205Tl (KED)	5.001 ppb	2.3 %	1.3 %	5.000 ppb
208Pb (KED)	2.000 ppb	0.9 %	0.9 %	2.000 ppb
209Bi (KED)	100.287 %	N/A	0.0 %	

Calibration

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QTEGRA

Standards:

Analysis Index: 5
Analysis Name: Calibration 2
AnalysisType STD
Analysis Started at: 6/14/2023 8:34:44 AM
Standard (Stock): Calibration 2
Standard DF: 0.5

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	102.305 %	N/A	0.0 %	
9Be (KED)	54.994 ppb	0.2 %	2.0 %	55.000 ppb
11B (KED)	109.831 ppb	0.9 %	1.1 %	110.000 ppb
23Na (KED)	549.398 ppb	0.8 %	0.6 %	550.000 ppb
24Mg (KED)	549.725 ppb	0.5 %	0.4 %	550.000 ppb
27Al (KED)	112.156 ppb	3.4 %	2.0 %	110.000 ppb
31P (KED)	547.453 ppb	3.8 %	1.9 %	550.000 ppb
39K (KED)	549.650 ppb	0.6 %	0.7 %	550.000 ppb
44Ca (KED)	573.363 ppb	1.6 %	5.8 %	550.000 ppb
45Sc (KED)	101.276 %	N/A	0.0 %	
47Ti (KED)	110.273 ppb	0.5 %	1.4 %	110.000 ppb
51V (KED)	109.937 ppb	1.3 %	0.1 %	110.000 ppb
52Cr (KED)	111.637 ppb	0.7 %	1.6 %	110.000 ppb
55Mn (KED)	110.861 ppb	2.0 %	0.8 %	110.000 ppb
57Fe (KED)	557.143 ppb	1.1 %	2.0 %	550.000 ppb
59Co (KED)	110.933 ppb	1.0 %	1.0 %	110.000 ppb
60Ni (KED)	109.876 ppb	1.6 %	0.1 %	110.000 ppb
63Cu (KED)	113.187 ppb	1.4 %	2.9 %	110.000 ppb
66Zn (KED)	109.974 ppb	0.6 %	0.0 %	110.000 ppb
72Ge (KED)	101.135 %	N/A	0.0 %	
75As (KED)	110.237 ppb	0.4 %	0.6 %	110.000 ppb
78Se (KED)	110.211 ppb	0.5 %	0.7 %	110.000 ppb
89Y (KED)	100.532 %	N/A	0.0 %	
95Mo (KED)	109.571 ppb	2.0 %	0.6 %	110.000 ppb
107Ag (KED)	110.017 ppb	0.2 %	1.0 %	110.000 ppb
111Cd (KED)	110.057 ppb	0.1 %	1.6 %	110.000 ppb
115In (KED)	103.186 %	N/A	0.0 %	
118Sn (KED)	110.083 ppb	0.2 %	0.2 %	110.000 ppb
121Sb (KED)	109.791 ppb	1.0 %	0.2 %	110.000 ppb
137Ba (KED)	108.862 ppb	1.5 %	2.2 %	110.000 ppb
159Tb (KED)	102.563 %	N/A	0.0 %	
205Tl (KED)	109.934 ppb	0.6 %	1.3 %	110.000 ppb
208Pb (KED)	109.246 ppb	1.6 %	0.9 %	110.000 ppb
209Bi (KED)	103.327 %	N/A	0.0 %	

Calibration

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QTEGRA

Standards:

Analysis Index: 6
Analysis Name: Calibration 3
AnalysisType STD
Analysis Started at: 6/14/2023 8:36:31 AM
Standard (Stock): Calibration 3
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	103.271 %	N/A	0.0 %	
9Be (KED)	112.159 ppb	2.4 %	2.0 %	110.000 ppb
11B (KED)	222.326 ppb	2.3 %	1.1 %	220.000 ppb
23Na (KED)	1,106.170 ppb	1.8 %	0.6 %	1,100.000 ppb
24Mg (KED)	1,103.795 ppb	1.4 %	0.4 %	1,100.000 ppb
27Al (KED)	219.980 ppb	0.3 %	2.0 %	220.000 ppb
31P (KED)	1,119.957 ppb	7.5 %	1.9 %	1,100.000 ppb
39K (KED)	1,107.855 ppb	2.1 %	0.7 %	1,100.000 ppb
44Ca (KED)	1,098.147 ppb	0.3 %	5.8 %	1,100.000 ppb
45Sc (KED)	100.479 %	N/A	0.0 %	
47Ti (KED)	217.315 ppb	1.1 %	1.4 %	220.000 ppb
51V (KED)	220.174 ppb	1.6 %	0.1 %	220.000 ppb
52Cr (KED)	219.246 ppb	0.3 %	1.6 %	220.000 ppb
55Mn (KED)	219.936 ppb	0.4 %	0.8 %	220.000 ppb
57Fe (KED)	1,083.766 ppb	1.2 %	2.0 %	1,100.000 ppb
59Co (KED)	218.986 ppb	0.7 %	1.0 %	220.000 ppb
60Ni (KED)	220.021 ppb	0.5 %	0.1 %	220.000 ppb
63Cu (KED)	219.333 ppb	0.5 %	2.9 %	220.000 ppb
66Zn (KED)	220.009 ppb	0.2 %	0.0 %	220.000 ppb
72Ge (KED)	100.849 %	N/A	0.0 %	
75As (KED)	218.688 ppb	0.7 %	0.6 %	220.000 ppb
78Se (KED)	218.611 ppb	0.9 %	0.7 %	220.000 ppb
89Y (KED)	101.019 %	N/A	0.0 %	
95Mo (KED)	220.862 ppb	2.0 %	0.6 %	220.000 ppb
107Ag (KED)	217.713 ppb	1.9 %	1.0 %	220.000 ppb
111Cd (KED)	216.577 ppb	0.6 %	1.6 %	220.000 ppb
115In (KED)	103.174 %	N/A	0.0 %	
118Sn (KED)	219.983 ppb	0.1 %	0.2 %	220.000 ppb
121Sb (KED)	220.202 ppb	0.7 %	0.2 %	220.000 ppb
137Ba (KED)	224.204 ppb	2.0 %	2.2 %	220.000 ppb
159Tb (KED)	103.527 %	N/A	0.0 %	
205Tl (KED)	222.829 ppb	2.7 %	1.3 %	220.000 ppb
208Pb (KED)	221.158 ppb	1.3 %	0.9 %	220.000 ppb
209Bi (KED)	103.535 %	N/A	0.0 %	

Calibration
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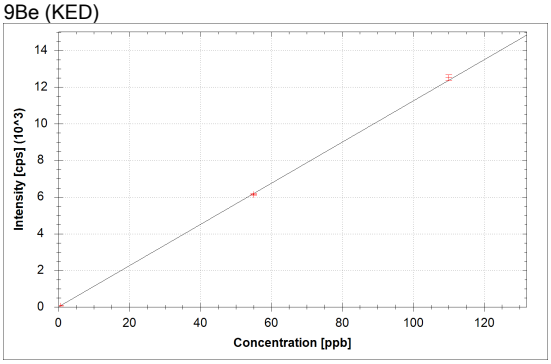
QTEGRA

Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	02314R

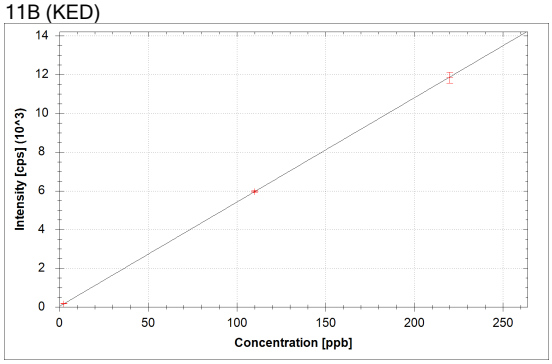
Labbook:	Labbook Path:
061523B.imexp	_Application Data\Workspace\LabBooks

9Be (KED)



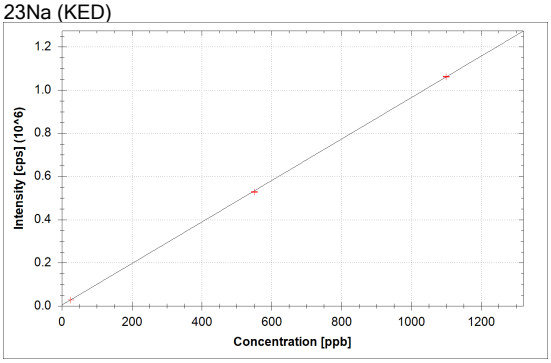
f(x) = 112.3321*x + 6.4442
R² = 0.9997
BEC = 0.057 ppb
LoD = N/A

11B (KED)



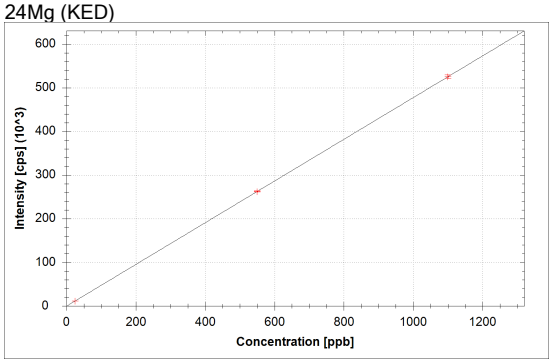
f(x) = 53.8102*x + 35.4569
R² = 1.0000
BEC = 0.659 ppb
LoD = N/A

23Na (KED)



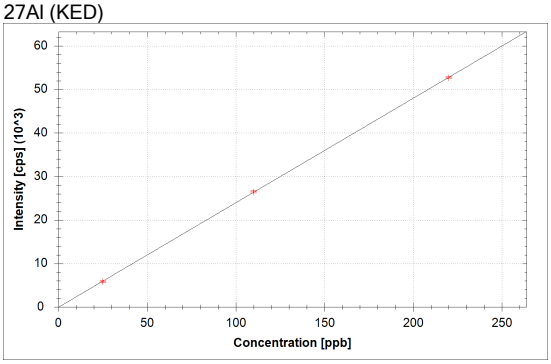
f(x) = 960.5718*x + 4551.6019
R² = 1.0000
BEC = 4.738 ppb
LoD = N/A

24Mg (KED)



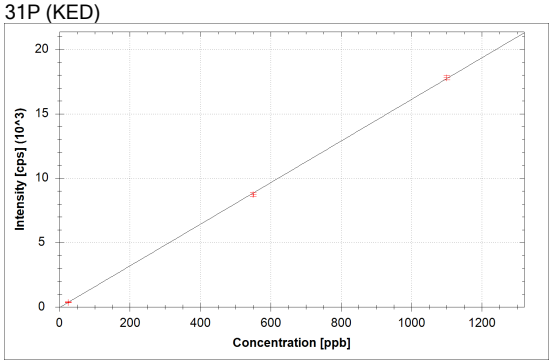
f(x) = 477.5654*x + -268.4286
R² = 1.0000
BEC = -0.562 ppb
LoD = N/A

27Al (KED)



f(x) = 240.1198*x + -55.7420
R² = 1.0000
BEC = -0.232 ppb
LoD = N/A

31P (KED)



f(x) = 16.1493*x + -40.6985
R² = 0.9999
BEC = -2.520 ppb
LoD = N/A

Calibration

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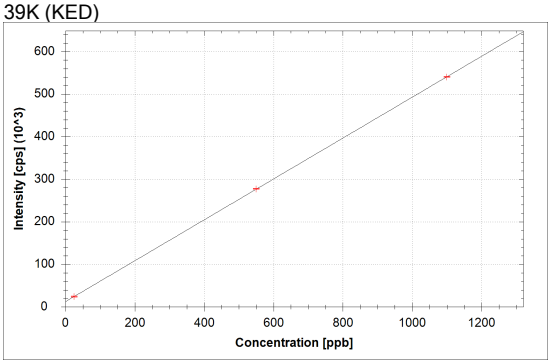
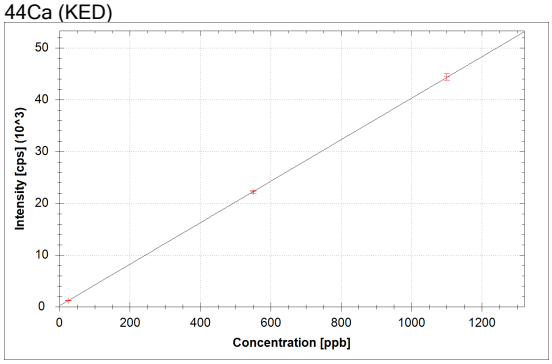
39K (KED)



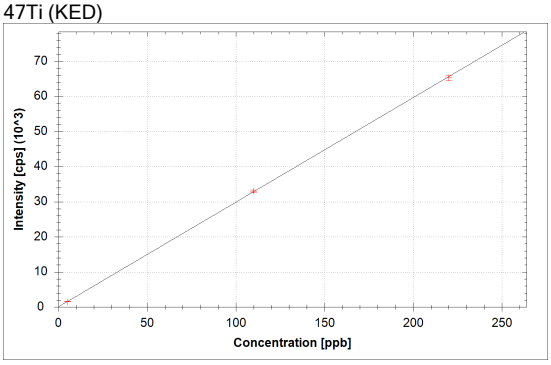
f(x) = 480.4329*x + 12355.8935
R² = 1.0000
BEC = 25.718 ppb
LoD = N/A

44Ca (KED)



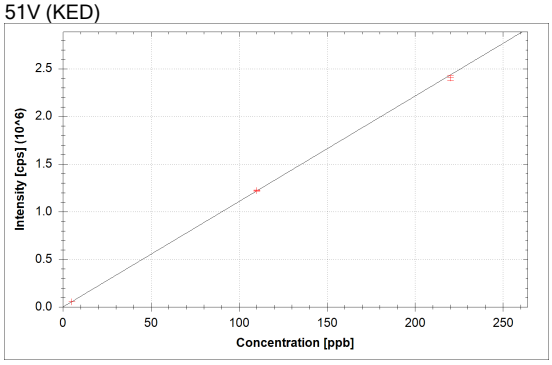
f(x) = 40.0870*x + 207.3817
R² = 1.0000
BEC = 5.173 ppb
LoD = N/A

47Ti (KED)



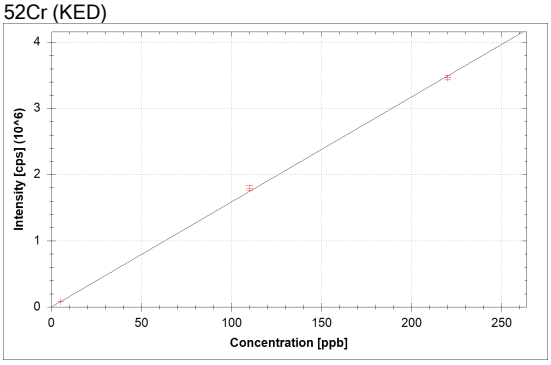
f(x) = 297.9369*x + 67.4904
R² = 1.0000
BEC = 0.227 ppb
LoD = N/A

51V (KED)



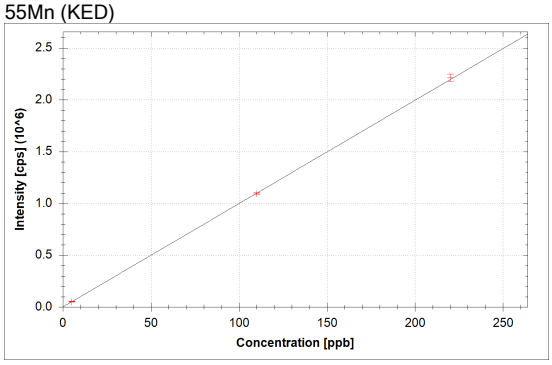
f(x) = 11062.6152*x + 1063.8981
R² = 0.9997
BEC = 0.096 ppb
LoD = N/A

52Cr (KED)



f(x) = 15854.4419*x + 690.7026
R² = 0.9995
BEC = 0.044 ppb
LoD = N/A

55Mn (KED)



f(x) = 9969.3959*x + 1332.3510
R² = 0.9998
BEC = 0.134 ppb
LoD = N/A

Calibration

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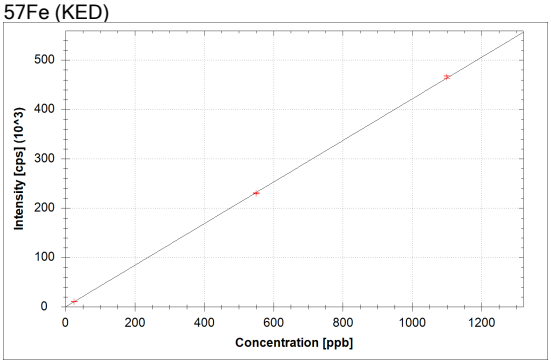
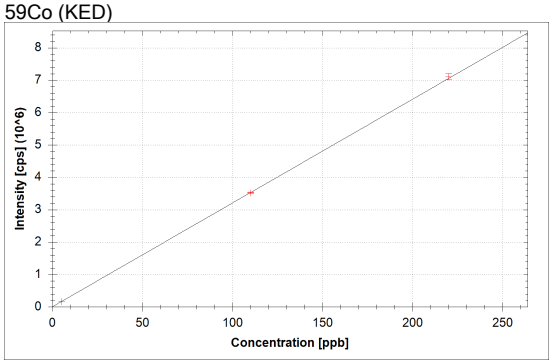
57Fe (KED)



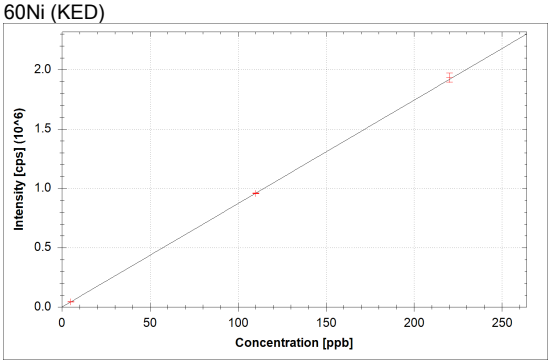
f(x) = 421.3536*x + -35.5799
R² = 0.9999
BEC = -0.084 ppb
LoD = N/A

59Co (KED)



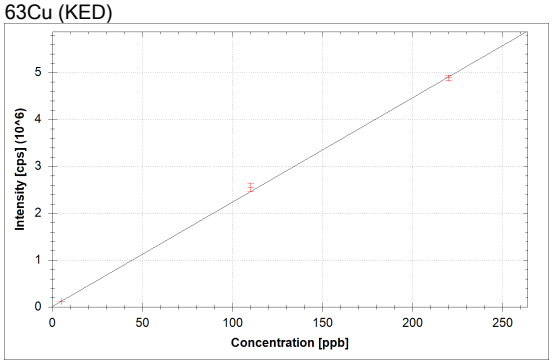
f(x) = 32031.2062*x + 4352.1493
R² = 0.9999
BEC = 0.136 ppb
LoD = N/A

60Ni (KED)



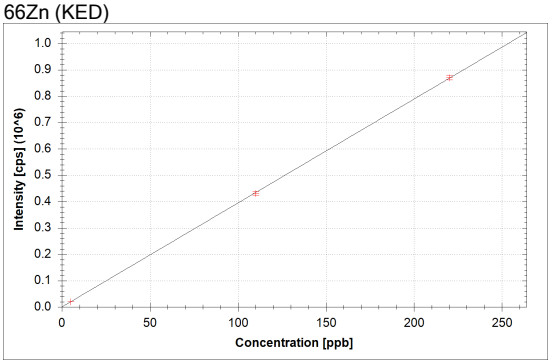
f(x) = 8711.7676*x + 230.9853
R² = 0.9999
BEC = 0.027 ppb
LoD = N/A

63Cu (KED)



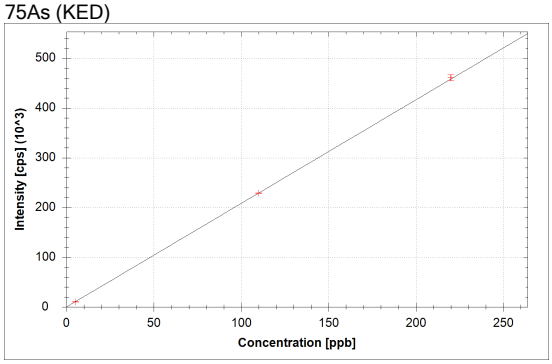
f(x) = 22245.2491*x + 12930.4811
R² = 0.9992
BEC = 0.581 ppb
LoD = N/A

66Zn (KED)



f(x) = 3942.2475*x + 664.0858
R² = 1.0000
BEC = 0.168 ppb
LoD = N/A

75As (KED)

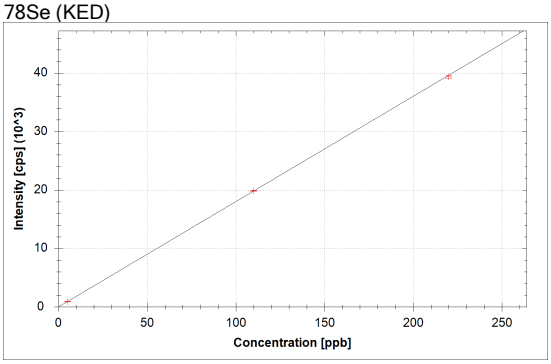


f(x) = 2081.2714*x + 118.8726
R² = 0.9999
BEC = 0.057 ppb
LoD = N/A

Calibration

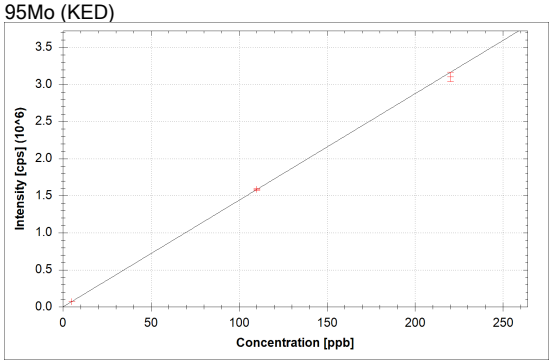
6/15/2023 5:36:57 PM

78Se (KED)



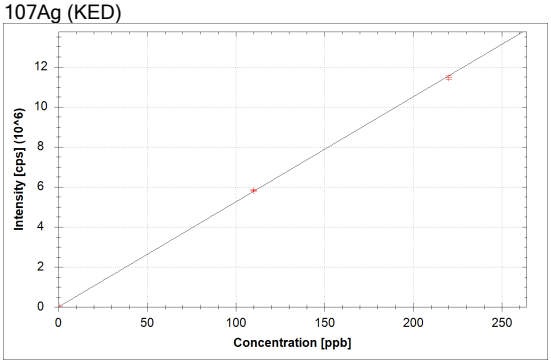
f(x) = 180.1231*x + -6.7871
R² = 0.9999
BEC = -0.038 ppb
LoD = N/A

95Mo (KED)



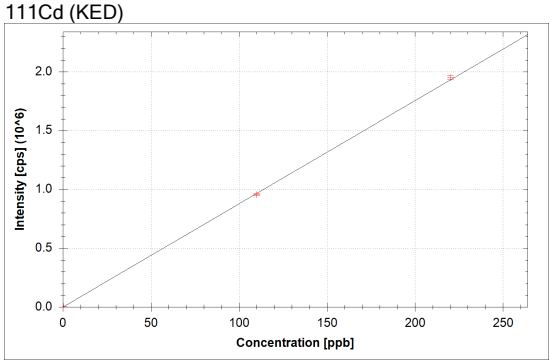
f(x) = 14373.0865*x + 158.2824
R² = 0.9992
BEC = 0.011 ppb
LoD = N/A

107Ag (KED)



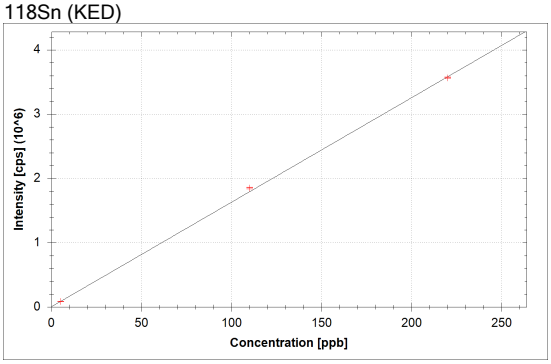
f(x) = 52481.9616*x + 4228.0923
R² = 0.9998
BEC = 0.081 ppb
LoD = N/A

111Cd (KED)



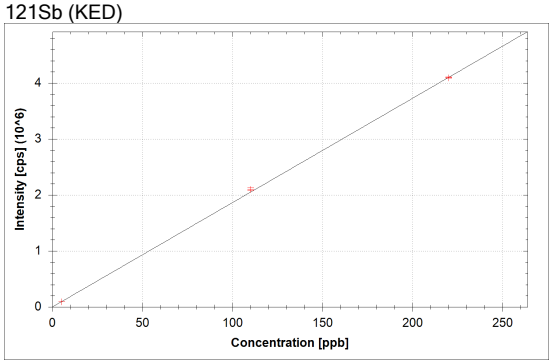
f(x) = 8773.0934*x + 264.3886
R² = 0.9997
BEC = 0.030 ppb
LoD = N/A

118Sn (KED)



f(x) = 16251.1392*x + 4873.8024
R² = 0.9994
BEC = 0.300 ppb
LoD = N/A

121Sb (KED)

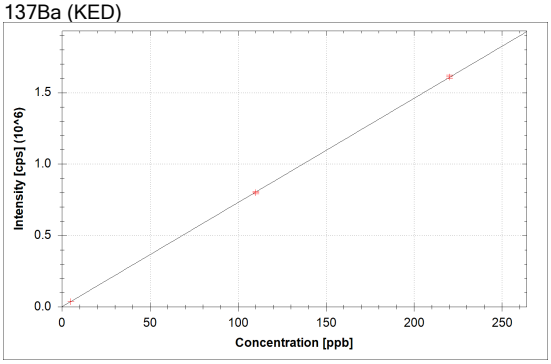


f(x) = 18626.0876*x + 1910.9496
R² = 0.9997
BEC = 0.103 ppb
LoD = N/A

Calibration

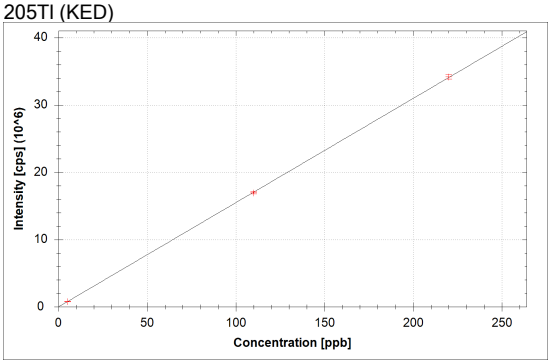
6/15/2023 5:36:57 PM

137Ba (KED)



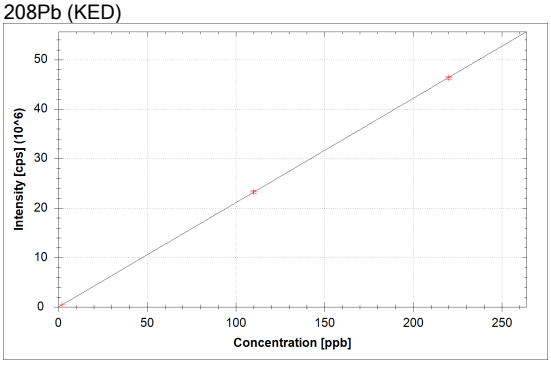
f(x) = 7295.6604*x + 717.2085
R² = 1.0000
BEC = 0.098 ppb
LoD = N/A

205Tl (KED)



f(x) = 154866.0713*x + 359.8682
R² = 1.0000
BEC = 0.002 ppb
LoD = N/A

208Pb (KED)



f(x) = 210860.7757*x + 10549.9752
R² = 1.0000
BEC = 0.050 ppb
LoD = N/A

Calibration

6/15/2023 5:36:57 PM

QTEGRA

Standards:

Analysis Index: 6
Analysis Name: Calibration 1
AnalysisType STD
Analysis Started at: 6/15/2023 3:05:17 PM
Standard (Stock): Calibration 1
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	100.408 %	N/A	0.0 %	
9Be (KED)	0.502 ppb	10.0 %	1.4 %	0.500 ppb
11B (KED)	2.499 ppb	6.6 %	0.3 %	2.500 ppb
23Na (KED)	25.008 ppb	0.8 %	0.8 %	25.000 ppb
24Mg (KED)	25.001 ppb	1.3 %	0.1 %	25.000 ppb
27Al (KED)	24.709 ppb	4.2 %	1.3 %	25.000 ppb
31P (KED)	25.317 ppb	11.0 %	1.9 %	25.000 ppb
39K (KED)	24.648 ppb	8.0 %	1.4 %	25.000 ppb
44Ca (KED)	25.010 ppb	3.5 %	0.3 %	25.000 ppb
45Sc (KED)	100.549 %	N/A	0.0 %	
47Ti (KED)	4.999 ppb	1.3 %	0.6 %	5.000 ppb
51V (KED)	4.994 ppb	2.4 %	1.2 %	5.000 ppb
52Cr (KED)	4.999 ppb	1.1 %	2.9 %	5.000 ppb
55Mn (KED)	5.008 ppb	4.4 %	0.9 %	5.000 ppb
57Fe (KED)	25.226 ppb	4.8 %	1.3 %	25.000 ppb
59Co (KED)	5.000 ppb	0.6 %	0.8 %	5.000 ppb
60Ni (KED)	5.000 ppb	0.8 %	0.8 %	5.000 ppb
63Cu (KED)	5.000 ppb	0.3 %	3.8 %	5.000 ppb
66Zn (KED)	5.001 ppb	1.6 %	0.7 %	5.000 ppb
72Ge (KED)	100.502 %	N/A	0.0 %	
75As (KED)	5.001 ppb	1.4 %	0.6 %	5.000 ppb
78Se (KED)	4.997 ppb	1.3 %	0.7 %	5.000 ppb
89Y (KED)	100.166 %	N/A	0.0 %	
95Mo (KED)	4.999 ppb	1.5 %	1.9 %	5.000 ppb
107Ag (KED)	0.500 ppb	3.0 %	1.2 %	0.500 ppb
111Cd (KED)	0.501 ppb	5.8 %	1.4 %	0.500 ppb
115In (KED)	100.303 %	N/A	0.0 %	
118Sn (KED)	4.999 ppb	0.5 %	3.3 %	5.000 ppb
121Sb (KED)	4.998 ppb	1.2 %	2.5 %	5.000 ppb
137Ba (KED)	5.002 ppb	2.0 %	0.5 %	5.000 ppb
159Tb (KED)	98.934 %	N/A	0.0 %	
205Tl (KED)	5.004 ppb	3.3 %	0.5 %	5.000 ppb
208Pb (KED)	2.000 ppb	2.1 %	0.3 %	2.000 ppb
209Bi (KED)	100.788 %	N/A	0.0 %	

Calibration

6/15/2023 5:36:57 PM

QTEGRA

Standards:

Analysis Index: 7
Analysis Name: Calibration 2
AnalysisType STD
Analysis Started at: 6/15/2023 3:07:12 PM
Standard (Stock): Calibration 2
Standard DF: 0.5

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	99.088 %	N/A	0.0 %	
9Be (KED)	54.695 ppb	0.8 %	1.4 %	55.000 ppb
11B (KED)	110.050 ppb	1.0 %	0.3 %	110.000 ppb
23Na (KED)	545.561 ppb	0.6 %	0.8 %	550.000 ppb
24Mg (KED)	549.888 ppb	0.5 %	0.1 %	550.000 ppb
27Al (KED)	110.563 ppb	1.0 %	1.3 %	110.000 ppb
31P (KED)	542.737 ppb	1.8 %	1.9 %	550.000 ppb
39K (KED)	551.413 ppb	0.5 %	1.4 %	550.000 ppb
44Ca (KED)	549.100 ppb	1.1 %	0.3 %	550.000 ppb
45Sc (KED)	98.031 %	N/A	0.0 %	
47Ti (KED)	110.484 ppb	1.2 %	0.6 %	110.000 ppb
51V (KED)	110.364 ppb	0.6 %	1.2 %	110.000 ppb
52Cr (KED)	113.145 ppb	2.0 %	2.9 %	110.000 ppb
55Mn (KED)	109.697 ppb	0.9 %	0.9 %	110.000 ppb
57Fe (KED)	546.250 ppb	0.6 %	1.3 %	550.000 ppb
59Co (KED)	109.811 ppb	0.7 %	0.8 %	110.000 ppb
60Ni (KED)	109.971 ppb	0.3 %	0.8 %	110.000 ppb
63Cu (KED)	114.148 ppb	3.6 %	3.8 %	110.000 ppb
66Zn (KED)	109.299 ppb	1.6 %	0.7 %	110.000 ppb
72Ge (KED)	99.143 %	N/A	0.0 %	
75As (KED)	109.978 ppb	0.2 %	0.6 %	110.000 ppb
78Se (KED)	110.366 ppb	0.4 %	0.7 %	110.000 ppb
89Y (KED)	99.448 %	N/A	0.0 %	
95Mo (KED)	110.241 ppb	0.7 %	1.9 %	110.000 ppb
107Ag (KED)	111.062 ppb	0.9 %	1.2 %	110.000 ppb
111Cd (KED)	109.006 ppb	0.8 %	1.4 %	110.000 ppb
115In (KED)	101.695 %	N/A	0.0 %	
118Sn (KED)	113.604 ppb	0.9 %	3.3 %	110.000 ppb
121Sb (KED)	112.704 ppb	1.3 %	2.5 %	110.000 ppb
137Ba (KED)	109.505 ppb	1.0 %	0.5 %	110.000 ppb
159Tb (KED)	100.121 %	N/A	0.0 %	
205Tl (KED)	109.538 ppb	1.1 %	0.5 %	110.000 ppb
208Pb (KED)	110.330 ppb	1.4 %	0.3 %	110.000 ppb
209Bi (KED)	100.120 %	N/A	0.0 %	

Calibration

6/15/2023 5:36:57 PM

QTEGRA

Standards:

Analysis Index: 8
Analysis Name: Calibration 3
AnalysisType STD
Analysis Started at: 6/15/2023 3:09:04 PM
Standard (Stock): Calibration 3
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	97.686 %	N/A	0.0 %	
9Be (KED)	111.367 ppb	1.2 %	1.4 %	110.000 ppb
11B (KED)	219.416 ppb	2.3 %	0.3 %	220.000 ppb
23Na (KED)	1,100.837 ppb	0.2 %	0.8 %	1,100.000 ppb
24Mg (KED)	1,100.514 ppb	0.8 %	0.1 %	1,100.000 ppb
27Al (KED)	219.742 ppb	0.5 %	1.3 %	220.000 ppb
31P (KED)	1,104.675 ppb	1.0 %	1.9 %	1,100.000 ppb
39K (KED)	1,099.640 ppb	0.2 %	1.4 %	1,100.000 ppb
44Ca (KED)	1,103.147 ppb	1.5 %	0.3 %	1,100.000 ppb
45Sc (KED)	95.327 %	N/A	0.0 %	
47Ti (KED)	219.084 ppb	1.1 %	0.6 %	220.000 ppb
51V (KED)	217.500 ppb	1.2 %	1.2 %	220.000 ppb
52Cr (KED)	218.429 ppb	1.0 %	2.9 %	220.000 ppb
55Mn (KED)	221.897 ppb	1.6 %	0.9 %	220.000 ppb
57Fe (KED)	1,106.179 ppb	0.6 %	1.3 %	1,100.000 ppb
59Co (KED)	221.654 ppb	1.4 %	0.8 %	220.000 ppb
60Ni (KED)	221.826 ppb	2.0 %	0.8 %	220.000 ppb
63Cu (KED)	219.352 ppb	1.1 %	3.8 %	220.000 ppb
66Zn (KED)	220.596 ppb	1.0 %	0.7 %	220.000 ppb
72Ge (KED)	96.404 %	N/A	0.0 %	
75As (KED)	221.423 ppb	1.2 %	0.6 %	220.000 ppb
78Se (KED)	218.529 ppb	0.6 %	0.7 %	220.000 ppb
89Y (KED)	96.428 %	N/A	0.0 %	
95Mo (KED)	215.856 ppb	2.1 %	1.9 %	220.000 ppb
107Ag (KED)	218.263 ppb	0.8 %	1.2 %	220.000 ppb
111Cd (KED)	222.293 ppb	0.8 %	1.4 %	220.000 ppb
115In (KED)	99.038 %	N/A	0.0 %	
118Sn (KED)	219.257 ppb	0.3 %	3.3 %	220.000 ppb
121Sb (KED)	219.838 ppb	0.2 %	2.5 %	220.000 ppb
137Ba (KED)	220.655 ppb	0.8 %	0.5 %	220.000 ppb
159Tb (KED)	97.963 %	N/A	0.0 %	
205Tl (KED)	220.725 ppb	1.0 %	0.5 %	220.000 ppb
208Pb (KED)	219.854 ppb	0.7 %	0.3 %	220.000 ppb
209Bi (KED)	99.582 %	N/A	0.0 %	

Analysis Class: HG

1 - FORM I
ANALYSIS DATA SHEET

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01	File ID:	061423L-020
Sampled:	05/31/23 13:45	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:15
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02	File ID:	061423L-025
Sampled:	05/31/23 12:15	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:24
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03	File ID:	061423L-026
Sampled:	05/30/23 15:00	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:26
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06	File ID:	061423L-029
Sampled:	06/01/23 11:00	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:31
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05	File ID:	061423L-028
Sampled:	06/01/23 10:41	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:29
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06	File ID:	061423L-029
Sampled:	06/01/23 11:00	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:31
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07	File ID:	061423L-030
Sampled:	06/01/23 12:30	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:33
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08	File ID:	061423L-031
Sampled:	06/01/23 15:25	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:35
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09	File ID:	061423L-032
Sampled:	06/01/23 14:56	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:37
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10	File ID:	061423L-033
Sampled:	05/31/23 10:11	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:39
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11	File ID:	061423L-034
Sampled:	05/31/23 11:10	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:41
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12	File ID:	061423L-037
Sampled:	05/31/23 15:07	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:46
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13	File ID:	061423L-038
Sampled:	05/31/23 10:35	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:48
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14	File ID:	061423L-039
Sampled:	06/01/23 10:45	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:50
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15	File ID:	061423L-040
Sampled:	06/01/23 12:26	Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:52
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0386-BLK1	File ID:	061423L-013
		Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:02
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Environmental Monitoring and Technologies, I				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0386-BS1		File ID:	061423L-014	
		Prepared:	06/13/23 11:11		Analyzed:	06/14/23 10:04	
		Preparation:	245-7470_HG_PREP		Dilution:	1	
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00512	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0386-MS1	File ID:	061423L-017
		Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:09
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00187	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0386-MS2	File ID:	061423L-021
		Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:16
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00224	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, I				SDG:	23F0136	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0386-MSD1		File ID:	061423L-018	
		Prepared:	06/13/23 11:11		Analyzed:	06/14/23 10:11	
		Preparation:	245-7470_HG_PREP		Dilution:	1	
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00186	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0386-MSD2	File ID:	061423L-022
		Prepared:	06/13/23 11:11	Analyzed:	06/14/23 10:18
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0386	Sequence:	S3F0232	Calibration:	EF30058
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00225	0.00020	0.00040	0.00050	

INITIAL AND CONTINUING CALIBRATION CHECK

01341900

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30058
		Sequence:	S3F0232

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0232-ICV1	Mercury	5.000	4.91	98.2	ug/L	+/- 10.00%
S3F0232-CCV1	Mercury	5.000	5.08	102	ug/L	+/- 10.00%
S3F0232-CCV2	Mercury	5.000	5.04	101	ug/L	+/- 10.00%
S3F0232-CCV3	Mercury	5.000	4.76	95.2	ug/L	+/- 10.00%
S3F0232-CCV4	Mercury	5.000	5.04	101	ug/L	+/- 10.00%

LOQ Check

01341901

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B3F0386-MRL1	Mercury	0.0005000	0.00056	112	mg/L	70 - 130

FORM 3 - Blank Summary

01341902

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30058
Sequence:	S3F0232		

Lab Sample ID	Analyte	Found	Units	LOQ	Qual
S3F0232-ICB1	Mercury		ug/L	0.500	U
S3F0232-CCB1	Mercury		ug/L	0.500	U
B3F0386-BLK1	Mercury		mg/L	0.00050	U
S3F0232-CCB2	Mercury		ug/L	0.500	U
S3F0232-CCB3	Mercury		ug/L	0.500	U
S3F0232-CCB4	Mercury		ug/L	0.500	U

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

01341903

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0386	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0386-MS1
		Source Sample ID:	23F0326-01

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury	0.002000	ND	0.00187	93.7	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury	0.002000	0.00186	92.8	0.966	20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

01341904

53147WW29

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0386	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0386-MS2
		Source Sample ID:	23F0136-01

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury	0.002000	ND	0.00224	112	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury	0.002000	0.00225	113	0.383	20	75 - 125

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW7470A

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	245-7470_HG_PREP
Prep Batch:	B3F0386	Lab Sample ID:	B3F0386-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Mercury	0.005000	0.00512	102	87.6 - 112

* Values outside of QC limits

PREPARATION BENCH SHEET
ME

01341906

Print Date/Time: 06/14/2023

B3F0386

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY
7470_MERCURY_TCLP

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
B3F0386-BLK1	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0386-BS1	06/13/23 11:11	50	50	3050521		250		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0386-LBK1	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0386-MRL1	06/13/23 11:11	50	50	3050520		200		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0386-MS1	06/13/23 11:11	50	50	3050521	23F0326-01	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0386-MS2	06/13/23 11:11	50	50	3050521	23F0136-01	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0386-MSD1	06/13/23 11:11	50	50	3050521	23F0326-01	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0386-MSD2	06/13/23 11:11	50	50	3050521	23F0136-01	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
23F0136-01 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-02 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-03 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-04 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-05 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							

PREPARATION BENCH SHEET
ME

01341907

Print Date/Time: 06/14/2023

B3F0386

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY
7470_MERCURY_TCLP

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-06 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-07 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-08 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-09 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-10 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-11 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-12 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-13 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-14 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0136-15 D	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0158-01 F	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							

PREPARATION BENCH SHEET
ME

01341908

Print Date/Time: 06/14/2023

B3F0386

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY
7470_MERCURY_TCLP

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0158-02 F	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0158-03 F	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0272-01 A	06/13/23 11:11	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0326-01 A 01	06/13/23 11:11	50	50					Added for BatchQC in: B3F0386 BatchQC
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							

Spiking Solution(s)

3050520	MERCURY 125 PPB ICV CHECK
3050521	MERCURY 1000 PPB LCS/MS/MSD

Reagents / Equipment

Standard	Description	LotNum
2090624	Nitric Acid HNO3 - Metals	62082
2100069	pH paper 0-14 mbd	225320a
3040514	Hydrochloric Acid HCL	23a1362009
3050121	CYLINDERS 100 ml	2211204 2202231
3050375	Sulfuric acid H2SO4	62252
3050454	5% K2S2O8	1003376829
3050890	SNCL2	22240209
3060348	10% KMNO4	1003366985
3060479	10% HCL	23A1362009
3060484	NH2OH.HCL	2LF0424

ANALYSIS SEQUENCE SUMMARY

01341909

Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0232 Instrument: Hg Hydra II # 2
Calibration: EF30058

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard (STD # 3060679)	S3F0232-CAL1	061423L-001	06/14/23 09:38
Cal Standard (STD # 3060680)	S3F0232-CAL2	061423L-002	06/14/23 09:40
Cal Standard (STD # 3060681)	S3F0232-CAL3	061423L-003	06/14/23 09:42
Cal Standard (STD # 3060682)	S3F0232-CAL4	061423L-004	06/14/23 09:44
Cal Standard (STD # 3060683)	S3F0232-CAL5	061423L-005	06/14/23 09:46
Cal Standard (STD # 3060684)	S3F0232-CAL6	061423L-006	06/14/23 09:48
Initial Cal Check (STD # 3060685)	S3F0232-ICV1	061423L-007	06/14/23 09:49
Initial Cal Blank	S3F0232-ICB1	061423L-008	06/14/23 09:51
Calibration Check (STD # 3060683)	S3F0232-CCV1	061423L-009	06/14/23 09:53
Calibration Blank	S3F0232-CCB1	061423L-010	06/14/23 09:55
MRL Check	B3F0386-MRL1	061423L-011	06/14/23 09:57
Instrument RL Check (STD # 3060686)	S3F0232-CRL1	061423L-012	06/14/23 09:59
Blank	B3F0386-BLK1	061423L-013	06/14/23 10:02
LCS	B3F0386-BS1	061423L-014	06/14/23 10:04
Leach Fluid Blank	B3F0386-LBK1	061423L-015	06/14/23 10:05
Matrix Spike	B3F0386-MS1	061423L-017	06/14/23 10:09
Matrix Spike Dup	B3F0386-MSD1	061423L-018	06/14/23 10:11
53147WW29	23F0136-01	061423L-020	06/14/23 10:15
53147WW29	B3F0386-MS2	061423L-021	06/14/23 10:16
53147WW29	B3F0386-MSD2	061423L-022	06/14/23 10:18
Calibration Check (STD # 3060683)	S3F0232-CCV2	061423L-023	06/14/23 10:20
Calibration Blank	S3F0232-CCB2	061423L-024	06/14/23 10:22
53147WW13	23F0136-02	061423L-025	06/14/23 10:24
53047WW08R	23F0136-03	061423L-026	06/14/23 10:26
531DUP4	23F0136-04	061423L-027	06/14/23 10:28
6147WW34	23F0136-05	061423L-028	06/14/23 10:29
61DUP6	23F0136-06	061423L-029	06/14/23 10:31
6147WW04	23F0136-07	061423L-030	06/14/23 10:33
6147WW33	23F0136-08	061423L-031	06/14/23 10:35
6147WW46	23F0136-09	061423L-032	06/14/23 10:37
53147WW38	23F0136-10	061423L-033	06/14/23 10:39
531DUP6	23F0136-11	061423L-034	06/14/23 10:41
Calibration Check (STD # 3060683)	S3F0232-CCV3	061423L-035	06/14/23 10:42

ANALYSIS SEQUENCE SUMMARY

01341910

Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0232 Instrument: Hg Hydra II # 2
Calibration: EF30058

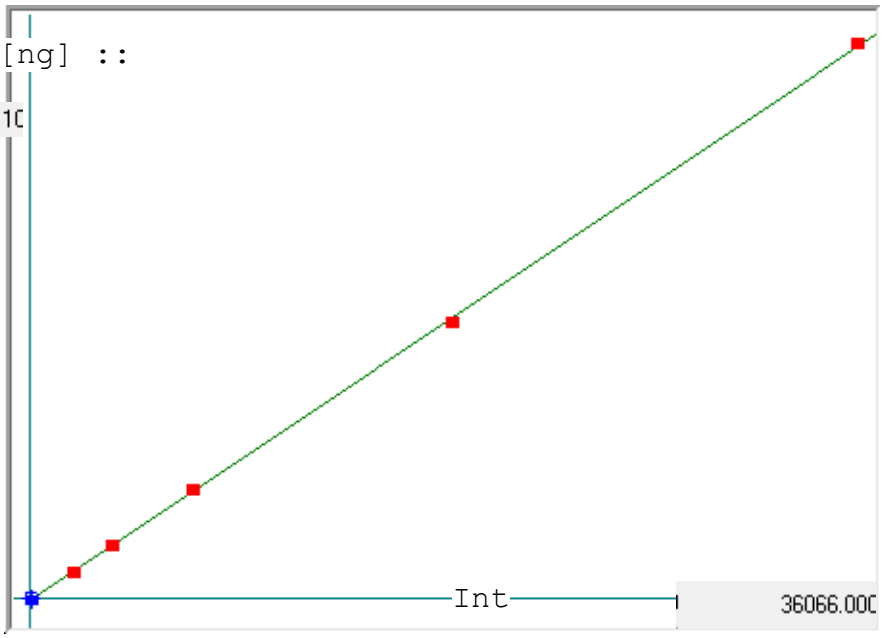
Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	S3F0232-CCB3	061423L-036	06/14/23 10:44
531LHSMW50	23F0136-12	061423L-037	06/14/23 10:46
53147WW61	23F0136-13	061423L-038	06/14/23 10:48
6147WW31	23F0136-14	061423L-039	06/14/23 10:50
6147WW45	23F0136-15	061423L-040	06/14/23 10:52
Calibration Check (STD # 3060683)	S3F0232-CCV4	061423L-044	06/14/23 10:59
Calibration Blank	S3F0232-CCB4	061423L-045	06/14/23 11:01

EF30058

True value for cal standard	Measured concentration of the cal std,	% Relative Error	Recovery Acceptance range		Recovery Evaluation
ppm	ppm	%	Low%	High%	
0.5	0.512	2.40	-30	30	TRUE
1	0.975	-2.50	-30	30	TRUE
2	1.958	-2.10	-30	30	TRUE
5	5.085	1.70	-10	10	TRUE
10	9.967	-0.33	-10	10	TRUE

HG WATER

Linear



A= 0.0000e+000

B= 2.7691e-004

C= -2.0565e-002

Rho= 0.9999249

Accept= Accepted

Accepted Date=

06/14/23 09:49

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Blank	0.000	0.003	0.003	85	0.000	85				
0.5	0.500	0.512	0.012	1925	0.0 %	1925				
1	1.000	0.975	-0.025	3594	0.0 %	3594				
2	2.000	1.958	-0.042	7145	0.0 %	7145				
5	5.000	5.085	0.085	18439	0.0 %	18439				
10	10.000	9.967	-0.033	36066	0.0 %	36066				

Report Title

Method: HG WATER Operator: IGORELIK Date of Analysis: 13 Jun 2023 14:08:22

01341913

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Date	Curve Type	Method
S	Blank - 1		-	85	ppb	14 Jun 2023 09:38:45	-	HG WATER
S	0.5 - 1		-	1925	ppb	14 Jun 2023 09:40:37	-	HG WATER
S	1 - 1		-	3594	ppb	14 Jun 2023 09:42:29	-	HG WATER
S	2 - 1		-	7145	ppb	14 Jun 2023 09:44:22	-	HG WATER
S	5 - 1		-	18439	ppb	14 Jun 2023 09:46:14	-	HG WATER
S	10 - 1		-	36066	ppb	14 Jun 2023 09:48:05	-	HG WATER
C	SEQ-ICV - 1		98.2% 4.9101	17806	ppb	14 Jun 2023 09:49:56	Linear	HG WATER
C	SEQ-ICB - 1		-0.0347	-51	ppb	14 Jun 2023 09:51:45	Linear	HG WATER
C	SEQ-CCV - 1		101.5% 5.0763	18406	ppb	14 Jun 2023 09:53:35	Linear	HG WATER
C	SEQ-CCB - 1		-0.0294	-32	ppb	14 Jun 2023 09:55:27	Linear	HG WATER
C	SEQ-MRL - 1		111.8% 0.5590	2093	ppb	14 Jun 2023 09:57:17	Linear	HG WATER
C	SEQ-CRL - 1		98.9% 0.4945	1860	ppb	14 Jun 2023 09:59:06	Linear	HG WATER
U	B3F0386-BLK1 - 1	7470 / TCLP	-0.0056	54	ppb	14 Jun 2023 10:02:12	Linear	HG WATER
U	B3F0386-BS1 - 1	5.0 PPB	5.1233	18576	ppb	14 Jun 2023 10:04:02	Linear	HG WATER
U	B3F0386-LBK1 - 1	B3F0357	-0.0322	-42	ppb	14 Jun 2023 10:05:52	Linear	HG WATER
U	23F0326-01 - 1		-0.0103	37	ppb	14 Jun 2023 10:07:42	Linear	HG WATER
U	B3F0386-MS1 - 1	23F0326-01	1.8732	6839	ppb	14 Jun 2023 10:09:33	Linear	HG WATER
U	B3F0386-MSD1 - 1	23F0326-01	1.8552	6774	ppb	14 Jun 2023 10:11:23	Linear	HG WATER
U	23F0272-01 - 1		-0.0244	-14	ppb	14 Jun 2023 10:13:14	Linear	HG WATER
U	23F0136-01 - 1		-0.0217	-4	ppb	14 Jun 2023 10:15:05	Linear	HG WATER
U	B3F0386-MS2 - 1	23F0136-01	2.2429	8174	ppb	14 Jun 2023 10:16:56	Linear	HG WATER
U	B3F0386-MSD2 - 1	23F0136-01	2.2515	8205	ppb	14 Jun 2023 10:18:48	Linear	HG WATER
C	SEQ-CCV - 1		100.7% 5.0353	18258	ppb	14 Jun 2023 10:20:40	Linear	HG WATER
C	SEQ-CCB - 1		-0.0286	-29	ppb	14 Jun 2023 10:22:31	Linear	HG WATER
U	23F0136-02 - 1		0.0215	152	ppb	14 Jun 2023 10:24:21	Linear	HG WATER
U	23F0136-03 - 1		-0.0172	12	ppb	14 Jun 2023 10:26:13	Linear	HG WATER
U	23F0136-04 - 1		0.0016	80	ppb	14 Jun 2023 10:28:05	Linear	HG WATER
U	23F0136-05 - 1		-0.0217	-4	ppb	14 Jun 2023 10:29:56	Linear	HG WATER
U	23F0136-06 - 1		0.0030	85	ppb	14 Jun 2023 10:31:47	Linear	HG WATER
U	23F0136-07 - 1		-0.0031	63	ppb	14 Jun 2023 10:33:38	Linear	HG WATER
U	23F0136-08 - 1		-0.0164	15	ppb	14 Jun 2023 10:35:28	Linear	HG WATER
U	23F0136-09 - 1		-0.0037	61	ppb	14 Jun 2023 10:37:19	Linear	HG WATER
U	23F0136-10 - 1		-0.0114	33	ppb	14 Jun 2023 10:39:10	Linear	HG WATER
U	23F0136-11 - 1		-0.0142	23	ppb	14 Jun 2023 10:41:01	Linear	HG WATER
C	SEQ-CCV - 1		95.2% 4.7622	17272	ppb	14 Jun 2023 10:42:52	Linear	HG WATER
C	SEQ-CCB - 1		-0.0183	8	ppb	14 Jun 2023 10:44:44	Linear	HG WATER
U	23F0136-12 - 1		-0.0064	51	ppb	14 Jun 2023 10:46:34	Linear	HG WATER
U	23F0136-13 - 1		-0.0136	25	ppb	14 Jun 2023 10:48:25	Linear	HG WATER
U	23F0136-14 - 1		0.0140	125	ppb	14 Jun 2023 10:50:17	Linear	HG WATER
U	23F0136-15 - 1		-0.0145	22	ppb	14 Jun 2023 10:52:09	Linear	HG WATER
U	23F0158-01 - 1		0.0561	277	ppb	14 Jun 2023 10:54:02	Linear	HG WATER
U	23F0158-02 - 1		-0.0100	38	ppb	14 Jun 2023 10:55:53	Linear	HG WATER
U	23F0158-03 - 1		-0.0175	11	ppb	14 Jun 2023 10:57:44	Linear	HG WATER
C	SEQ-CCV - 1		100.7% 5.0356	18259	ppb	14 Jun 2023 10:59:35	Linear	HG WATER
C	SEQ-CCB - 1		-0.0253	-17	ppb	14 Jun 2023 11:01:26	Linear	HG WATER

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.	Cup Action
1	1	B3F0386-BLK1	7470 / TCLP	1.0000	1.0000	
1	2	B3F0386-BS1	5.0 PPB	1.0000	1.0000	
1	3	B3F0386-LBK1	B3F0357	1.0000	1.0000	
1	4	23F0326-01		1.0000	1.0000	
1	5	B3F0386-MS1	23F0326-01	1.0000	1.0000	
1	6	B3F0386-MSD1	23F0326-01	1.0000	1.0000	
1	7	23F0272-01		1.0000	1.0000	
1	8	23F0136-01		1.0000	1.0000	
1	9	B3F0386-MS2	23F0136-01	1.0000	1.0000	
1	10	B3F0386-MSD2	23F0136-01	1.0000	1.0000	
1	11	23F0136-02		1.0000	1.0000	
1	12	23F0136-03		1.0000	1.0000	
1	13	23F0136-04		1.0000	1.0000	
1	14	23F0136-05		1.0000	1.0000	
1	15	23F0136-06		1.0000	1.0000	
1	16	23F0136-07		1.0000	1.0000	
1	17	23F0136-08		1.0000	1.0000	
1	18	23F0136-09		1.0000	1.0000	
1	19	23F0136-10		1.0000	1.0000	
1	20	23F0136-11		1.0000	1.0000	
1	21	23F0136-12		1.0000	1.0000	
1	22	23F0136-13		1.0000	1.0000	
1	23	23F0136-14		1.0000	1.0000	
1	24	23F0136-15		1.0000	1.0000	
1	25	23F0158-01		1.0000	1.0000	
1	26	23F0158-02		1.0000	1.0000	
1	27	23F0158-03		1.0000	1.0000	
1	28			1.0000	1.0000	
1	29			1.0000	1.0000	
1	30			1.0000	1.0000	
1	31			1.0000	1.0000	
1	32			1.0000	1.0000	
1	33			1.0000	1.0000	
1	34			1.0000	1.0000	
1	35			1.0000	1.0000	
1	36			1.0000	1.0000	
1	37			1.0000	1.0000	

Mercury in Waste Water. SW-846 # 7470 A ; US EPA # 245.1

Instrument HYDRA AA SN# HA-1005 HYDRA II AA SN# 3009

Protocol of prepartion batch # B3F0386 Time in: 10:00:00AM Time out: 1(12:00:00 PM

Date: 06/14/23 **Prepared by:** ES1 **Hot Block Temperature = 94°C**

Mercury Hot Block SC150 Serial # 2017CECW4609 Termometer #F95-616

Pipettes: #64, #Hg-1, #GB-1, #AB-1, #78

Calibration Standards	D.I. water ml.	**Hg 500 ug /L *** ml.	H2SO4 conc. ml.	HNO3 conc. ml.	10% KMnO4 ml.	5 % K2S2O8 ml.	NH2OH*HCl ml.
Calibration/Method blank	50.00	0.00	2.5	1.25	15	4.0	6.0
0.5 ug/l	49.95	0.05	2.5	1.25	15	4.0	6.0
1.0 ug/l	49.90	0.10	2.5	1.25	15	4.0	6.0
2.0 ug/l	49.80	0.20	2.5	1.25	15	4.0	6.0
5.0 ug/l/CCV	49.50	0.50	2.5	1.25	15	4.0	6.0
10.0 ug/l	49.00	1.00	2.5	1.25	15	4.0	6.0
		Hg 125 ug /L *					
0.5 ug/l (check standard)	49.80	0.20	2.5	1.25	15	4.0	6.0

QC samples	D.I. water ml	**Hg 1000 ug /l**** ml	H2SO4 conc. ml	HNO3 conc. ml	10% KMnO4 ml	5 % K2S2O8 ml	NH2OH*HCl ml
LCS/ICV 5 ug/l	49.75	0.25	2.5	1.25	15	4.0	6.0
Spike 2 ug/l	Sample	0.10	2.5	1.25	15	4.0	6.0

Extra _____mL10% KMnO4 is added to the samples and standards

Extra ____mL NH2OH*HCl is added to the samples and standards

Note: Add 0.8 ml of NH2OH*HCl per each additional 1 mL of 10% KMnO4.

Traceability

*** Hg 500 ug/l**	3050519
**** Hg 1000 ug/l**	3050521
***** Hg 125 ug/l**	3050520
SnCl2:	3050890
10% KMno4 :	3060348
NH2OH*HCl :	3060484
H2SO4conc:	3050375
K2S2O8:	3050454
HNO3 conc.:	2090624
Comments:	

Abbreviations:

t	TCLP
b/t/f1/11/27	Blank,TCLP, Fluid 1, date
b/t/s	Blank, TCLP, spike (LCS for TCLP)

Analysis Class: HG

1 - FORM I
ANALYSIS DATA SHEET

53147WW29

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01	File ID:	060923L-038
Sampled:	05/31/23 13:45	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 08:12
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

53147WW13

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02	File ID:	060923L-039
Sampled:	05/31/23 12:15	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 08:14
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

53047WW08R

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03	File ID:	060923L-040
Sampled:	05/30/23 15:00	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 08:16
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

531DUP4

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04	File ID:	060923L-041
Sampled:	05/31/23 08:45	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 08:18
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW34

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05	File ID:	060923L-042
Sampled:	06/01/23 10:41	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 08:20
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

61DUP6

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06	File ID:	061223L-015
Sampled:	06/01/23 11:00	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:00
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW04

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07	File ID:	061223L-016
Sampled:	06/01/23 12:30	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:02
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW33

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08	File ID:	061223L-017
Sampled:	06/01/23 15:25	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:04
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW46

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09	File ID:	061223L-018
Sampled:	06/01/23 14:56	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:05
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

53147WW38

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10	File ID:	061223L-019
Sampled:	05/31/23 10:11	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:07
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
				Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

531DUP6

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11	File ID:	061223L-020
Sampled:	05/31/23 11:10	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:09
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

531LHSMW50

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12	File ID:	061223L-021
Sampled:	05/31/23 15:07	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:11
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

53147WW61

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13	File ID:	061223L-026
Sampled:	05/31/23 10:35	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:20
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW31

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14	File ID:	061223L-027
Sampled:	06/01/23 10:45	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:22
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

6147WW45

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15	File ID:	061223L-028
Sampled:	06/01/23 12:26	Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:24
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0270-BLK1	File ID:	060923L-013
		Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:14
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0270-BS1	File ID:	060923L-014
		Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:16
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00512	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0270-MS1	File ID:	060923L-016
		Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:32
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00201	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0270-MS2	File ID:	060923L-028
		Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:54
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00234	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0270-MSD1	File ID:	060923L-017
		Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:33
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00208	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0270-MSD2	File ID:	060923L-029
		Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:56
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0270	Sequence:	S3F0153	Calibration:	EF30039
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00226	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0309-BLK1	File ID:	061223L-013
		Prepared:	06/09/23 12:58	Analyzed:	06/12/23 13:37
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved		0.00020	0.00040	0.00050	U

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0309-BS1	File ID:	061223L-014
		Prepared:	06/09/23 12:58	Analyzed:	06/12/23 13:39
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00499	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0309-MS1	File ID:	061223L-022
		Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:13
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00204	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0309-MSD1	File ID:	061223L-025
		Prepared:	06/09/23 12:58	Analyzed:	06/12/23 14:18
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0309	Sequence:	S3F0199	Calibration:	EF30046
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00204	0.00020	0.00040	0.00050	

INITIAL AND CONTINUING CALIBRATION CHECK

01341942

SW7470A

Laboratory:	Sterling Labs	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30039
		Sequence:	S3F0153

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0153-ICV1	Mercury, Dissolved (dissolved)	5.000	5.00	100	ug/L	+/- 10.00%
S3F0153-CCV1	Mercury, Dissolved (dissolved)	5.000	4.77	95.3	ug/L	+/- 10.00%
S3F0153-CCV2	Mercury, Dissolved (dissolved)	5.000	4.83	96.6	ug/L	+/- 10.00%
S3F0153-CCV3	Mercury, Dissolved (dissolved)	5.000	4.78	95.5	ug/L	+/- 10.00%
S3F0153-CCV4	Mercury, Dissolved (dissolved)	5.000	4.91	98.2	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

01341943

SW7470A

Laboratory:	Sterling Labs	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30046
		Sequence:	S3F0199

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0199-ICV1	Mercury, Dissolved (dissolved)	5.000	4.75	94.9	ug/L	+/- 10.00%
S3F0199-CCV1	Mercury, Dissolved (dissolved)	5.000	4.88	97.5	ug/L	+/- 10.00%
S3F0199-CCV2	Mercury, Dissolved (dissolved)	5.000	4.59	91.8	ug/L	+/- 10.00%
S3F0199-CCV3	**Mercury, Dissolved (dissolved)**	**5.000**	**4.33**	**86.7**	**ug/L**	+/- 10.00%
S3F0199-CCV4	Mercury, Dissolved (dissolved)	5.000	5.48	110	ug/L	+/- 10.00%
S3F0199-CCV5	Mercury, Dissolved (dissolved)	5.000	5.25	105	ug/L	+/- 10.00%
S3F0199-CCV6	Mercury, Dissolved (dissolved)	5.000	5.47	109	ug/L	+/- 10.00%

LOQ Check

SW7470A

Laboratory:	Sterling Labs	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B3F0270-MRL1	Mercury, Dissolved (dissolved)	0.0005000	0.00051	103	mg/L	70 - 130

LOQ Check

SW7470A

Laboratory:	Sterling Labs	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B3F0309-MRL1	Mercury, Dissolved (dissolved)	0.0005000	0.00060	121	mg/L	70 - 130

FORM 3 - Blank Summary

SW7470A

Laboratory:	Sterling Labs	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30039
Sequence:	S3F0153		

Lab Sample ID	Analyte	Found	Units	LOQ	Qual
S3F0153-ICB1	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0153-CCB1	Mercury, Dissolved (dissolved)		ug/L	0.500	U
B3F0270-BLK1	Mercury, Dissolved (dissolved)		mg/L	0.00050	U
S3F0153-CCB2	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0153-CCB3	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0153-CCB4	Mercury, Dissolved (dissolved)		ug/L	0.500	U

FORM 3 - Blank Summary

SW7470A

Laboratory:	Sterling Labs	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30046
Sequence:	S3F0199		

Lab Sample ID	Analyte	Found	Units	LOQ	Qual
S3F0199-ICB1	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0199-CCB1	Mercury, Dissolved (dissolved)		ug/L	0.500	U
B3F0309-BLK1	Mercury, Dissolved (dissolved)		mg/L	0.00050	U
S3F0199-CCB2	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0199-CCB3	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0199-CCB4	Mercury, Dissolved (dissolved)		ug/L	0.500	U

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0270	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0270-MS1
		Source Sample ID:	23E0775-22

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	ND	0.00201	101	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	0.00208	104	3.23	20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0270	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0270-MS2
		Source Sample ID:	23E0775-38

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	ND	0.00234	117	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	0.00226	113	3.70	20	75 - 125

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

531LHSMW50

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0309	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0309-MS1
		Source Sample ID:	23F0136-12

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	ND	0.00204	102	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	0.00204	102	0.245	20	75 - 125

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

01341951

SW7470A

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	245-7470_HG_PREP
Prep Batch:	B3F0270	Lab Sample ID:	B3F0270-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.005000	0.00512	102	87.6 - 112

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

01341952

SW7470A

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	245-7470_HG_PREP
Prep Batch:	B3F0309	Lab Sample ID:	B3F0309-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.005000	0.00499	99.9	87.6 - 112

* Values outside of QC limits

PREPARATION BENCH SHEET
ME

01341953

Print Date/Time: 06/09/2023

B3F0270

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY_DISSOLVED

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
B3F0270-BLK1	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0270-BS1	06/08/23 13:57	50	50	3050521		250		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0270-MRL1	06/08/23 13:57	50	50	3050520		200		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0270-MS1	06/08/23 13:57	50	50	3050521	23E0775-22	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0270-MS2	06/08/23 13:57	50	50	3050521	23E0775-38	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0270-MSD1	06/08/23 13:57	50	50	3050521	23E0775-22	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0270-MSD2	06/08/23 13:57	50	50	3050521	23E0775-38	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
23E0775-22 J	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-24 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-25 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-26 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-27 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-28 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							

PREPARATION BENCH SHEET
ME

01341954

Print Date/Time: 06/09/2023

B3F0270

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY_DISSOLVED

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-29 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-30 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-38 J	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-39 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-40 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-41 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-42 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-43 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-45 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-01 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-02 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							

PREPARATION BENCH SHEET
ME

01341955

Print Date/Time: 06/09/2023

B3F0270

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY_DISSOLVED

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-03 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-04 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-05 E	06/08/23 13:57	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							

Spiking Solution(s)

3050520	MERCURY 125 PPB ICV CHECK
3050521	MERCURY 1000 PPB LCS/MS/MSD

Reagents / Equipment

Standard	Description	LotNum
2090624	Nitric Acid HNO3 - Metals	62082
2100069	pH paper 0-14 mbd	225320a
3040514	Hydrochloric Acid HCL	23a1362009
3050121	CYLINDERS 100 ml	2211204 2202231
3050375	Sulfuric acid H2SO4	62252
3050454	5% K2S2O8	1003376829
3050724	10% HCL	23A1362009
3050828	10% KMNO4	1003366985
3050890	SNCL2	22240209
3050895	NH2OH.HCL	2LF0424

PREPARATION BENCH SHEET
ME

01341956

Print Date/Time: 06/12/2023

B3F0309

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY_DISSOLVED

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
B3F0309-BLK1	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0309-BS1	06/09/23 12:58	50	50	3050521		250		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0309-MRL1	06/09/23 12:58	50	50	3050520		200		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
B3F0309-MS1	06/09/23 12:58	50	50	3050521	23F0136-12	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94 :					**Prepared By**: ES1
B3F0309-MSD1	06/09/23 12:58	50	50	3050521	23F0136-12	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94 :					**Prepared By**: ES1
23F0136-06 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94 :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-07 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94 :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-08 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94 :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-09 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94 :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-10 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94 :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-11 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94 :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-12 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94 :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							

PREPARATION BENCH SHEET
ME

01341957

Print Date/Time: 06/12/2023

B3F0309

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY_DISSOLVED

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-13 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-14 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0136-15 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0196-01 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0196-02 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0196-03 B	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0196-04 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0196-05 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0196-06 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0196-07 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0196-08 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							

PREPARATION BENCH SHEET
ME

01341958

Print Date/Time: 06/12/2023

B3F0309

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY_DISSOLVED

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0196-09 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0196-10 E	06/09/23 12:58	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:**	**pH:** 94	:				**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							

Spiking Solution(s)

3050520	MERCURY 125 PPB ICV CHECK
3050521	MERCURY 1000 PPB LCS/MS/MSD

Reagents / Equipment

Standard	Description	LotNum
2090624	Nitric Acid HNO3 - Metals	62082
2100069	pH paper 0-14 mbd	225320a
3040514	Hydrochloric Acid HCL	23a1362009
3050121	CYLINDERS 100 ml 2202231	2211204
3050375	Sulfuric acid H2SO4	62252
3050454	5% K2S2O8	1003376829
3050724	10% HCL	23A1362009
3050828	10% KMNO4	1003366985
3050890	SNCL2	22240209
3050895	NH2OH.HCL	2LF0424

ANALYSIS SEQUENCE SUMMARY

01341959

Dissolved Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0153 Instrument: Hg Hydra II # 2
Calibration: EF30039

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check (STD # 3050553)	S3F0153-ICV1	060923L-007	06/09/23 07:03
Initial Cal Blank	S3F0153-ICB1	060923L-008	06/09/23 07:05
Calibration Check (STD # 3060344)	S3F0153-CCV1	060923L-009	06/09/23 07:07
Calibration Blank	S3F0153-CCB1	060923L-010	06/09/23 07:09
MRL Check	B3F0270-MRL1	060923L-011	06/09/23 07:11
Instrument RL Check (STD # 3050555)	S3F0153-CRL1	060923L-012	06/09/23 07:12
Blank	B3F0270-BLK1	060923L-013	06/09/23 07:14
LCS	B3F0270-BS1	060923L-014	06/09/23 07:16
Matrix Spike	B3F0270-MS1	060923L-016	06/09/23 07:32
Matrix Spike Dup	B3F0270-MSD1	060923L-017	06/09/23 07:33
Calibration Check (STD # 3060344)	S3F0153-CCV2	060923L-023	06/09/23 07:45
Calibration Blank	S3F0153-CCB2	060923L-024	06/09/23 07:46
Matrix Spike	B3F0270-MS2	060923L-028	06/09/23 07:54
Matrix Spike Dup	B3F0270-MSD2	060923L-029	06/09/23 07:56
Calibration Check (STD # 3060344)	S3F0153-CCV3	060923L-035	06/09/23 08:07
Calibration Blank	S3F0153-CCB3	060923L-036	06/09/23 08:09
53147WW29	23F0136-01	060923L-038	06/09/23 08:12
53147WW13	23F0136-02	060923L-039	06/09/23 08:14
53047WW08R	23F0136-03	060923L-040	06/09/23 08:16
531DUP4	23F0136-04	060923L-041	06/09/23 08:18
6147WW34	23F0136-05	060923L-042	06/09/23 08:20
Calibration Check (STD # 3060344)	S3F0153-CCV4	060923L-043	06/09/23 08:22
Calibration Blank	S3F0153-CCB4	060923L-044	06/09/23 08:23

ANALYSIS SEQUENCE SUMMARY

01341960

Dissolved Mercury by CVAA

Client: HDR
Project: Longhorn AAP

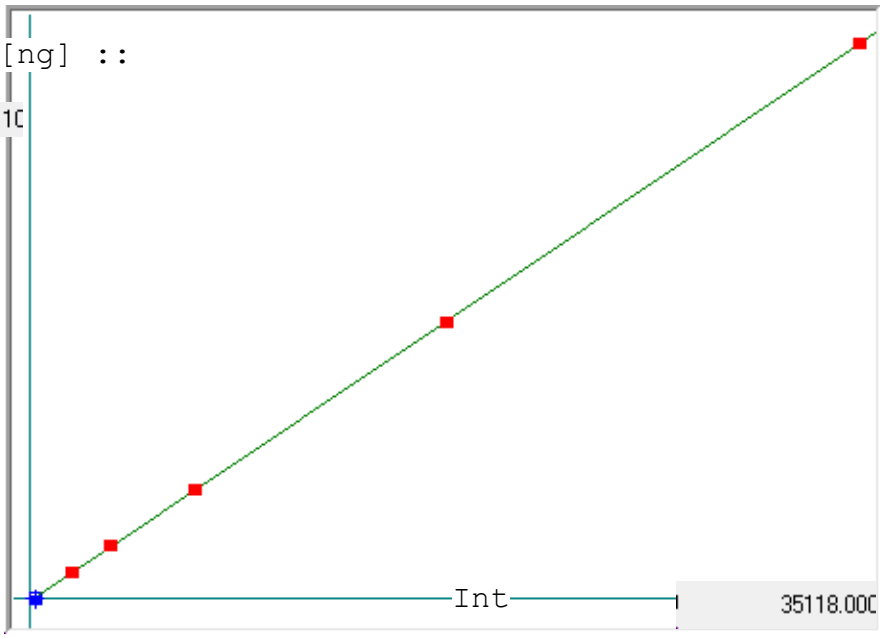
Sequence: S3F0199 Instrument: Hg Hydra II # 2
Calibration: EF30046

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check (STD # 3050553)	S3F0199-ICV1	061223L-007	06/12/23 13:26
Initial Cal Blank	S3F0199-ICB1	061223L-008	06/12/23 13:28
Calibration Check (STD # 3060344)	S3F0199-CCV1	061223L-009	06/12/23 13:30
Calibration Blank	S3F0199-CCB1	061223L-010	06/12/23 13:32
Instrument RL Check (STD # 3050555)	S3F0199-CRL1	061223L-012	06/12/23 13:35
Blank	B3F0309-BLK1	061223L-013	06/12/23 13:37
LCS	B3F0309-BS1	061223L-014	06/12/23 13:39
MRL Check	B3F0309-MRL1	061223L-015	06/12/23 14:00
61DUP6	23F0136-06	061223L-015	06/12/23 14:00
6147WW04	23F0136-07	061223L-016	06/12/23 14:02
6147WW33	23F0136-08	061223L-017	06/12/23 14:04
6147WW46	23F0136-09	061223L-018	06/12/23 14:05
53147WW38	23F0136-10	061223L-019	06/12/23 14:07
531DUP6	23F0136-11	061223L-020	06/12/23 14:09
531LHSMW50	23F0136-12	061223L-021	06/12/23 14:11
531LHSMW50	B3F0309-MS1	061223L-022	06/12/23 14:13
Calibration Check (STD # 3060344)	S3F0199-CCV2	061223L-023	06/12/23 14:15
Calibration Blank	S3F0199-CCB2	061223L-024	06/12/23 14:17
531LHSMW50	B3F0309-MSD1	061223L-025	06/12/23 14:18
53147WW61	23F0136-13	061223L-026	06/12/23 14:20
6147WW31	23F0136-14	061223L-027	06/12/23 14:22
6147WW45	23F0136-15	061223L-028	06/12/23 14:24
Calibration Check (STD # 3060344)	S3F0199-CCV3	061223L-035	06/12/23 14:37
Calibration Check (STD # 3060344)	S3F0199-CCV4	061223L-036	06/12/23 14:40
Calibration Check (STD # 3060344)	S3F0199-CCV5	061223L-037	06/12/23 14:43
Calibration Blank	S3F0199-CCB3	061223L-038	06/12/23 14:44
Calibration Check (STD # 3060344)	S3F0199-CCV6	061223L-043	06/12/23 14:57
Calibration Blank	S3F0199-CCB4	061223L-044	06/12/23 14:59

EF30039

True value for cal standard	Measured concentration of the cal std,	% Relative Error	Recovery Acceptance range		Recovery Evaluation
ppm	ppm	%	Low%	High%	
0.5	0.484	-3.20	-30	30	TRUE
1	0.962	-3.80	-30	30	TRUE
2	1.982	-0.90	-30	30	TRUE
5	5.017	0.34	-10	10	TRUE
10	9.999	-0.01	-10	10	TRUE

HG WATER



Linear

A= 0.0000e+000

B= 2.8569e-004

C= -3.3754e-002

Rho= 0.9999634

Accept= Accepted

Accepted Date=

06/09/23 07:03

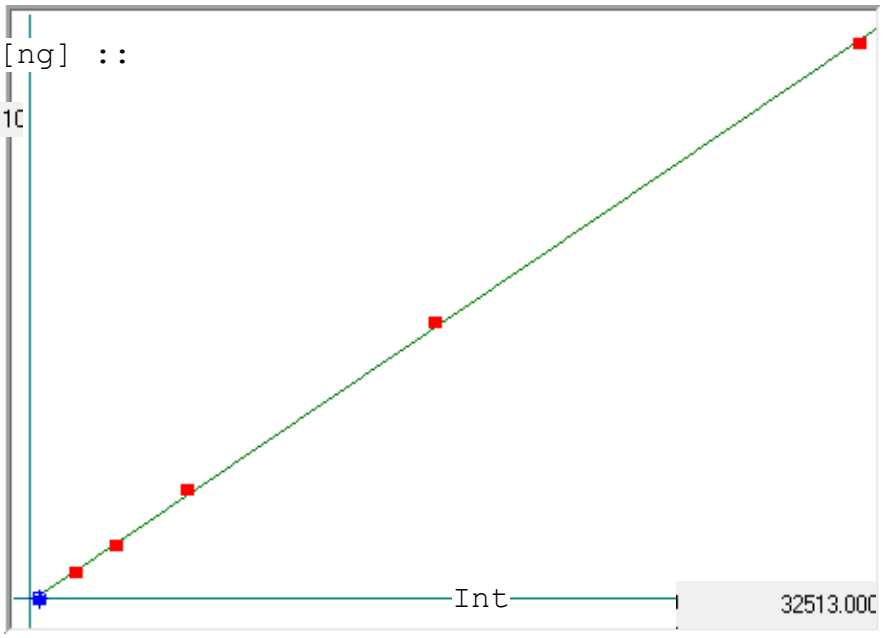
Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Blank	0.000	0.055	0.055	312	0.000	312				
0.5	0.500	0.484	-0.016	1814	0.0 %	1814				
1	1.000	0.962	-0.038	3486	0.0 %	3486				
2	2.000	1.982	-0.018	7055	0.0 %	7055				
5	5.000	5.017	0.017	17679	0.0 %	17679				
10	10.000	9.999	-0.001	35118	0.0 %	35118				

EF30046

True value for cal standard	Measured concentration of the cal std,	% Relative Error	Recovery Acceptance range		Recovery Evaluation
ppm	ppm	%	Low%	High%	
0.5	0.524	4.80	-30	30	TRUE
1	1.028	2.80	-30	30	TRUE
2	1.895	-5.25	-30	30	TRUE
5	4.901	-1.98	-10	10	TRUE
10	10.063	0.63	-10	10	TRUE

HG WATER

Linear



A= 0.0000e+000

B= 3.1095e-004

C= -4.6551e-002

Rho= 0.9997667

Accept=Accepted

Accepted Date=

06/12/23 13:26

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Blank	0.000	0.089	0.089	437	0.000	437				
0.5	0.500	0.524	0.024	1834	0.0 %	1834				
1	1.000	1.028	0.028	3455	0.0 %	3455				
2	2.000	1.895	-0.105	6245	0.0 %	6245				
5	5.000	4.901	-0.099	15910	0.0 %	15910				
10	10.000	10.063	0.063	32513	0.0 %	32513				

HYDRA II #2
B3F0270
S3F0153
RUN BY: ES1
06/09/2023

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.	Cup Action
1	1	B3F0270-BLK1	7470 DISS	1.0000	1.0000	
1	2	B3F0270-BS1	5.0 PPB	1.0000	1.0000	
1	3	23E0775-22		1.0000	1.0000	
1	4	B3F0270-MS1	23E0775-22	1.0000	1.0000	
1	5	B3F0270-MSD1	23E0775-22	1.0000	1.0000	
1	6	23E0775-24		1.0000	1.0000	
1	7	23E0775-25		1.0000	1.0000	
1	8	23E0775-26		1.0000	1.0000	
1	9	23E0775-27		1.0000	1.0000	
1	10	23E0775-28		1.0000	1.0000	
1	11	23E0775-29		1.0000	1.0000	
1	12	23E0775-30		1.0000	1.0000	
1	13	23E0775-38		1.0000	1.0000	
1	14	B3F0270-MS2	23E0775-38	1.0000	1.0000	
1	15	B3F0270-MSD2	23E0775-38	1.0000	1.0000	
1	16	23E0775-39		1.0000	1.0000	
1	17	23E0775-40		1.0000	1.0000	
1	18	23E0775-41		1.0000	1.0000	
1	19	23E0775-42		1.0000	1.0000	
1	20	23E0775-43		1.0000	1.0000	
1	21	23E0775-45	ESmith 06/09/2023	1.0000	1.0000	
1	22	~~23E0136-01~~	23F0136-01	1.0000	1.0000	
1	23	~~23E0136-02~~	23F0136-02	1.0000	1.0000	
1	24	~~23E0136-03~~	23F0136-03	1.0000	1.0000	
1	25	~~23E0136-04~~	23F0136-04	1.0000	1.0000	
1	26	~~23E0136-05~~	213F0136-05	1.0000	1.0000	
1	27			1.0000	1.0000	
1	28			1.0000	1.0000	
1	29			1.0000	1.0000	
1	30			1.0000	1.0000	
1	31			1.0000	1.0000	
1	32			1.0000	1.0000	
1	33			1.0000	1.0000	
1	34			1.0000	1.0000	
1	35			1.0000	1.0000	
1	36			1.0000	1.0000	
1	37			1.0000	1.0000	

Mercury in Waste Water. SW-846 # 7470 A ; US EPA # 245.1

Instrument HYDRA AA SN# HA-1005 HYDRA II AA SN# 3009

Protocol of prepartion batch # B3F0270 Time in: 6:00:00AM Time out: 1(8:00:00 AM

Date: 06/09/23 **Prepared by:** ES1 **Hot Block Temperature = 94°C**

Mercury Hot Block SC150 Serial # 2017CECW4609 Termometer #F95-616

Pipettes: #64, #Hg-1, #GB-1, #AB-1, #78

Calibration Standards	D.I. water ml.	**Hg 500 ug /L *** ml.	H2SO4 conc. ml.	HNO3 conc. ml.	10% KMnO4 ml.	5 % K2S2O8 ml.	NH2OH*HCl ml.
Calibration/Method blank	50.00	0.00	2.5	1.25	15	4.0	6.0
0.5 ug/l	49.95	0.05	2.5	1.25	15	4.0	6.0
1.0 ug/l	49.90	0.10	2.5	1.25	15	4.0	6.0
2.0 ug/l	49.80	0.20	2.5	1.25	15	4.0	6.0
5.0 ug/l/CCV	49.50	0.50	2.5	1.25	15	4.0	6.0
10.0 ug/l	49.00	1.00	2.5	1.25	15	4.0	6.0
		Hg 125 ug /L *					
0.5 ug/l (check standard)	49.80	0.20	2.5	1.25	15	4.0	6.0

QC samples	D.I. water ml	**Hg 1000 ug /l**** ml	H2SO4 conc. ml	HNO3 conc. ml	10% KMnO4 ml	5 % K2S2O8 ml	NH2OH*HCl ml
LCS/ICV 5 ug/l	49.75	0.25	2.5	1.25	15	4.0	6.0
Spike 2 ug/l	Sample	0.10	2.5	1.25	15	4.0	6.0

Extra _____mL10% KMnO4 is added to the samples and standards

Extra ____mL NH2OH*HCl is added to the samples and standards

Note: Add 0.8 ml of NH2OH*HCl per each additional 1 mL of 10% KMnO4.

Traceability

*** Hg 500 ug/l**	3050519
**** Hg 1000 ug/l**	3050521
***** Hg 125 ug/l**	3050520
SnCl2:	3050890
10% KMno4 :	3050828
NH2OH*HCl :	3050895
H2SO4conc:	3050375
K2S2O8:	3050454
HNO3 conc.:	2090624
Comments:	

Abbreviations:

t	TCLP
b/t/f1/11/27	Blank,TCLP, Fluid 1, date
b/t/s	Blank, TCLP, spike (LCS for TCLP)

Method: HG WATER Operator: IGORELIK Date of Analysis: 08 Jun 2023 14:02:24

01341967

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Date	Curve Type	Method
S	Blank - 1		-	312	ppb	09 Jun 2023 06:52:31	-	HG WATER
S	0.5 - 1		-	1814	ppb	09 Jun 2023 06:54:24	-	HG WATER
S	1 - 1		-	3486	ppb	09 Jun 2023 06:56:16	-	HG WATER
S	2 - 1		-	7055	ppb	09 Jun 2023 06:58:08	-	HG WATER
S	5 - 1		-	17679	ppb	09 Jun 2023 07:00:00	-	HG WATER
S	10 - 1		-	35118	ppb	09 Jun 2023 07:01:51	-	HG WATER
C	SEQ-ICV - 1		100.0% 4.9998	17619	ppb	09 Jun 2023 07:03:42	Linear	HG WATER
C	SEQ-ICB - 1		-0.0103	82	ppb	09 Jun 2023 07:05:32	Linear	HG WATER
C	SEQ-CCV - 1		95.3% 4.7670	16804	ppb	09 Jun 2023 07:07:22	Linear	HG WATER
C	SEQ-CCB - 1		-0.0038	105	ppb	09 Jun 2023 07:09:13	Linear	HG WATER
C	SEQ-MRL - 1		102.7% 0.5136	1916	ppb	09 Jun 2023 07:11:04	Linear	HG WATER
C	SEQ-CRL - 1		96.4% 0.4819	1805	ppb	09 Jun 2023 07:12:54	Linear	HG WATER
U	B3F0270-BLK1 - 1	7470 DISS	0.0502	294	ppb	09 Jun 2023 07:14:44	Linear	HG WATER
U	B3F0270-BS1 - 1	5.0 PPB	5.1241	18054	ppb	09 Jun 2023 07:16:34	Linear	HG WATER
U	23E0775-22 - 1		0.1714	718	ppb	09 Jun 2023 07:30:14	Linear	HG WATER
U	B3F0270-MS1 - 1	23E0775-22	2.0115	7159	ppb	09 Jun 2023 07:32:04	Linear	HG WATER
U	B3F0270-MSD1 - 1	23E0775-22	2.0775	7390	ppb	09 Jun 2023 07:33:55	Linear	HG WATER
U	23E0775-24 - 1		0.1734	725	ppb	09 Jun 2023 07:35:45	Linear	HG WATER
U	23E0775-25 - 1		0.1982	812	ppb	09 Jun 2023 07:37:35	Linear	HG WATER
U	23E0775-26 - 1		0.1851	766	ppb	09 Jun 2023 07:39:27	Linear	HG WATER
U	23E0775-27 - 1		0.1839	762	ppb	09 Jun 2023 07:41:18	Linear	HG WATER
U	23E0775-28 - 1		0.1694	711	ppb	09 Jun 2023 07:43:09	Linear	HG WATER
C	SEQ-CCV - 1		96.6% 4.8301	17025	ppb	09 Jun 2023 07:45:01	Linear	HG WATER
C	SEQ-CCB - 1		-0.0015	113	ppb	09 Jun 2023 07:46:53	Linear	HG WATER
U	23E0775-29 - 1		0.1665	701	ppb	09 Jun 2023 07:48:43	Linear	HG WATER
U	23E0775-30 - 1		0.1708	716	ppb	09 Jun 2023 07:50:35	Linear	HG WATER
U	23E0775-38 - 1		0.1528	653	ppb	09 Jun 2023 07:52:28	Linear	HG WATER
U	B3F0270-MS2 - 1	23E0775-38	0.1614	683	ppb	09 Jun 2023 07:54:18	Linear	HG WATER
U	B3F0270-MSD2 - 1	23E0775-38	2.2509	7997	ppb	09 Jun 2023 07:56:09	Linear	HG WATER
U	23E0775-39 - 1		2.1966	7807	ppb	09 Jun 2023 07:58:00	Linear	HG WATER
U	23E0775-40 - 1		0.1408	611	ppb	09 Jun 2023 07:59:50	Linear	HG WATER
U	23E0775-41 - 1		0.1357	593	ppb	09 Jun 2023 08:01:41	Linear	HG WATER
U	23E0775-42 - 1		0.1291	570	ppb	09 Jun 2023 08:03:32	Linear	HG WATER
U	23E0775-43 - 1		0.1451	626	ppb	09 Jun 2023 08:05:23	Linear	HG WATER
C	SEQ-CCV - 1		95.5% 4.7770	16839	ppb	09 Jun 2023 08:07:14	Linear	HG WATER
C	SEQ-CCB - 1		-0.0040	104	ppb	09 Jun 2023 08:09:06	Linear	HG WATER
U	23E0775-45 - 1		0.1382	602	ppb	09 Jun 2023 08:10:56	Linear	HG WATER
U	~~23E0136-01 - 1~~	23F0136-01	0.1291	570	ppb	09 Jun 2023 08:12:47	Linear	HG WATER
U	~~23E0136-02 - 1~~	23F0136-02	-0.0123	75	ppb	09 Jun 2023 08:14:39	Linear	HG WATER
U	~~23E0136-03 - 1~~	23F0136-03	0.1348	590	ppb	09 Jun 2023 08:16:31	Linear	HG WATER
U	~~23E0136-04 - 1~~	23F0136-04	-0.0089	87	ppb	09 Jun 2023 08:18:23	Linear	HG WATER
U	~~23E0136-05 - 1~~	23F0136-05	0.1225	547	ppb	09 Jun 2023 08:20:14	Linear	HG WATER
C	SEQ-CCV - 1	ESMITH 06/09/23	98.2% 4.9110	17308	ppb	09 Jun 2023 08:22:05	Linear	HG WATER
C	SEQ-CCB - 1		-0.0000	118	ppb	09 Jun 2023 08:23:56	Linear	HG WATER
U	B3F0270-MS2 - 1	23E0775-38	2.3415	8314	ppb	09 Jun 2023 08:50:06	Linear	HG WATER
U	B3F0270-MSD2 - 1	23E0775-38	2.2564	8016	ppb	09 Jun 2023 08:51:56	Linear	HG WATER
U	23E0775-39 - 1		0.1459	629	ppb	09 Jun 2023 08:53:47	Linear	HG WATER
C	SEQ-CCV - 1		92.7% 4.6362	16346	ppb	09 Jun 2023 08:57:47	Linear	HG WATER
C	SEQ-CCB - 1		-0.0063	96	ppb	09 Jun 2023 08:59:38	Linear	HG WATER

Report Title

Method: HG WATER Operator: IGORELIK Date of Analysis: 12 Jun 2023 13:11:10

01341968

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Date	Curve Type	Method
S	Blank - 1		-	437	ppb	12 Jun 2023 13:15:35	-	HG WATER
S	0.5 - 1		-	1834	ppb	12 Jun 2023 13:17:27	-	HG WATER
S	1 - 1		-	3455	ppb	12 Jun 2023 13:19:20	-	HG WATER
S	2 - 1		-	6245	ppb	12 Jun 2023 13:21:12	-	HG WATER
S	5 - 1		-	15910	ppb	12 Jun 2023 13:23:04	-	HG WATER
S	10 - 1		-	32513	ppb	12 Jun 2023 13:24:55	-	HG WATER
C	SEQ-ICV - 1		(L)94.9% 4.7473	15417	ppb	12 Jun 2023 13:26:46	Linear	HG WATER
C	SEQ-ICB - 1		0.0567	332	ppb	12 Jun 2023 13:28:36	Linear	HG WATER
C	SEQ-CCV - 1		97.5% 4.8773	15835	ppb	12 Jun 2023 13:30:26	Linear	HG WATER
C	SEQ-CCB - 1		0.0673	366	ppb	12 Jun 2023 13:32:17	Linear	HG WATER
C	SEQ-MRL - 1		120.6% 0.6030	2089	ppb	12 Jun 2023 13:34:08	Linear	HG WATER
C	SEQ-CRL - 1		115.9% 0.5794	2013	ppb	12 Jun 2023 13:35:58	Linear	HG WATER
U	B3F0309-BLK1 - 1	7470 DISS	0.0921	446	ppb	12 Jun 2023 13:37:48	Linear	HG WATER
U	B3F0309-BS1 - 1	5.0 PPB	4.9945	16212	ppb	12 Jun 2023 13:39:38	Linear	HG WATER
U	23F0136-06 - 1		0.0632	353	ppb	12 Jun 2023 14:00:27	Linear	HG WATER
U	23F0136-07 - 1		-0.0316	48	ppb	12 Jun 2023 14:02:18	Linear	HG WATER
U	23F0136-08 - 1		-0.0366	32	ppb	12 Jun 2023 14:04:08	Linear	HG WATER
U	23F0136-09 - 1		-0.0394	23	ppb	12 Jun 2023 14:05:58	Linear	HG WATER
U	23F0136-10 - 1		-0.0375	29	ppb	12 Jun 2023 14:07:49	Linear	HG WATER
U	23F0136-11 - 1		-0.0385	26	ppb	12 Jun 2023 14:09:40	Linear	HG WATER
U	23F0136-12 - 1		-0.0310	50	ppb	12 Jun 2023 14:11:31	Linear	HG WATER
U	B3F0309-MS1 - 1	23F0136-12	2.0427	6719	ppb	12 Jun 2023 14:13:22	Linear	HG WATER
C	SEQ-CCV - 1		91.8% 4.5921	14918	ppb	12 Jun 2023 14:15:14	Linear	HG WATER
C	SEQ-CCB - 1		0.0526	319	ppb	12 Jun 2023 14:17:06	Linear	HG WATER
U	B3F0309-MSD1 - 1	23F0136-12	2.0377	6703	ppb	12 Jun 2023 14:18:56	Linear	HG WATER
U	23F0136-13 - 1		-0.0410	18	ppb	12 Jun 2023 14:20:49	Linear	HG WATER
U	23F0136-14 - 1		-0.0207	83	ppb	12 Jun 2023 14:22:41	Linear	HG WATER
U	23F0136-15 - 1		-0.0382	27	ppb	12 Jun 2023 14:24:32	Linear	HG WATER
U	23F0196-01 - 1		-0.0403	20	ppb	12 Jun 2023 14:26:23	Linear	HG WATER
U	23F0196-02 - 1		-0.0332	43	ppb	12 Jun 2023 14:28:13	Linear	HG WATER
U	23F0196-03 - 1		-0.0366	32	ppb	12 Jun 2023 14:30:04	Linear	HG WATER
U	23F0196-04 - 1		-0.0363	33	ppb	12 Jun 2023 14:31:54	Linear	HG WATER
U	23F0196-05 - 1		-0.0332	43	ppb	12 Jun 2023 14:33:45	Linear	HG WATER
U	23F0196-06 - 1		-0.0310	50	ppb	12 Jun 2023 14:35:36	Linear	HG WATER
C	SEQ-CCV - 1		(L)86.7% 4.3328	14084	ppb	12 Jun 2023 14:37:27	Linear	HG WATER
C	SEQ-CCV - 1		109.6% 5.4777	17766	ppb	12 Jun 2023 14:40:15	Linear	HG WATER
C	SEQ-CCV - 1		105.1% 5.2532	17044	ppb	12 Jun 2023 14:43:03	Linear	HG WATER
C	SEQ-CCB - 1		0.0741	388	ppb	12 Jun 2023 14:44:54	Linear	HG WATER
U	23F0196-07 - 1		-0.0438	9	ppb	12 Jun 2023 14:46:44	Linear	HG WATER
U	23F0196-08 - 1		-0.0403	20	ppb	12 Jun 2023 14:48:36	Linear	HG WATER
U	23F0196-09 - 1		-0.0434	10	ppb	12 Jun 2023 14:50:28	Linear	HG WATER
U	23F0196-10 - 1		-0.0322	46	ppb	12 Jun 2023 14:52:20	Linear	HG WATER
C	SEQ-CCV - 1		109.5% 5.4731	17751	ppb	12 Jun 2023 14:57:53	Linear	HG WATER
C	SEQ-CCB - 1		0.0663	363	ppb	12 Jun 2023 14:59:45	Linear	HG WATER

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.	Cup Action
1	1	B3F0309-BLK1	7470 DISS	1.0000	1.0000	
1	2	B3F0309-BS1	5.0 PPB	1.0000	1.0000	
1	3	23F0136-06		1.0000	1.0000	
1	4	23F0136-07		1.0000	1.0000	
1	5	23F0136-08		1.0000	1.0000	
1	6	23F0136-09		1.0000	1.0000	
1	7	23F0136-10		1.0000	1.0000	
1	8	23F0136-11		1.0000	1.0000	
1	9	23F0136-12		1.0000	1.0000	
1	10	B3F0309-MS1	23F0136-12	1.0000	1.0000	
1	11	B3F0309-MSD1	23F0136-12	1.0000	1.0000	
1	12	23F0136-13		1.0000	1.0000	
1	13	23F0136-14		1.0000	1.0000	
1	14	23F0136-15		1.0000	1.0000	
1	15	23F0196-01		1.0000	1.0000	
1	16	23F0196-02		1.0000	1.0000	
1	17	23F0196-03		1.0000	1.0000	
1	18	23F0196-04		1.0000	1.0000	
1	19	23F0196-05		1.0000	1.0000	
1	20	23F0196-06		1.0000	1.0000	
1	21	23F0196-07		1.0000	1.0000	
1	22	23F0196-08		1.0000	1.0000	
1	23	23F0196-09		1.0000	1.0000	
1	24	23F0196-10		1.0000	1.0000	
1	25	WASTE 1		1.0000	1.0000	
1	26	WASTE 2		1.0000	1.0000	
1	27			1.0000	1.0000	
1	28			1.0000	1.0000	
1	29			1.0000	1.0000	
1	30			1.0000	1.0000	
1	31			1.0000	1.0000	
1	32			1.0000	1.0000	
1	33			1.0000	1.0000	
1	34			1.0000	1.0000	
1	35			1.0000	1.0000	
1	36			1.0000	1.0000	
1	37			1.0000	1.0000	

Mercury in Waste Water. SW-846 # 7470 A ; US EPA # 245.1

Instrument HYDRA AA SN# HA-1005 HYDRA II AA SN# 3009

Protocol of prepartion batch # B3F0309 Time in: 9:00:00AM Time out: 1(11:00:00 AM

Date: 06/12/23 **Prepared by:** ES1 **Hot Block Temperature = 94°C**

Mercury Hot Block SC150 Serial # 2017CECW4609 Termometer #F95-616

Pipettes: #64, #Hg-1, #GB-1, #AB-1, #78

Calibration Standards	D.I. water ml.	**Hg 500 ug /L *** ml.	H2SO4 conc. ml.	HNO3 conc. ml.	10% KMnO4 ml.	5 % K2S2O8 ml.	NH2OH*HCl ml.
Calibration/Method blank	50.00	0.00	2.5	1.25	15	4.0	6.0
0.5 ug/l	49.95	0.05	2.5	1.25	15	4.0	6.0
1.0 ug/l	49.90	0.10	2.5	1.25	15	4.0	6.0
2.0 ug/l	49.80	0.20	2.5	1.25	15	4.0	6.0
5.0 ug/l/CCV	49.50	0.50	2.5	1.25	15	4.0	6.0
10.0 ug/l	49.00	1.00	2.5	1.25	15	4.0	6.0
		Hg 125 ug /L *					
0.5 ug/l (check standard)	49.80	0.20	2.5	1.25	15	4.0	6.0

QC samples	D.I. water ml	**Hg 1000 ug /l**** ml	H2SO4 conc. ml	HNO3 conc. ml	10% KMnO4 ml	5 % K2S2O8 ml	NH2OH*HCl ml
LCS/ICV 5 ug/l	49.75	0.25	2.5	1.25	15	4.0	6.0
Spike 2 ug/l	Sample	0.10	2.5	1.25	15	4.0	6.0

Extra _____mL10% KMnO4 is added to the samples and standards

Extra ____mL NH2OH*HCl is added to the samples and standards

Note: Add 0.8 ml of NH2OH*HCl per each additional 1 mL of 10% KMnO4.

Traceability

*** Hg 500 ug/l**	3050519
**** Hg 1000 ug/l**	3050521
***** Hg 125 ug/l**	3050520
SnCl2:	3050890
10% KMno4 :	3050828
NH2OH*HCl :	3050895
H2SO4conc:	3050375
K2S2O8:	3050454
HNO3 conc.:	2090624
Comments:	

Abbreviations:

t	TCLP
b/t/f1/11/27	Blank,TCLP, Fluid 1, date
b/t/s	Blank, TCLP, spike (LCS for TCLP)

Analysis Class: VOA

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01	File ID:	G2230613007.D
Sampled:	05/31/23 13:45	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 11:10
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.650	2.00	5.00	U
71-55-6	1,1,1-Trichloroethane		0.877	2.00	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.621	2.00	5.00	U
79-00-5	1,1,2-Trichloroethane		0.832	2.00	5.00	U
75-34-3	1,1-Dichloroethane		0.669	2.00	5.00	U
75-35-4	1,1-Dichloroethene		0.954	2.00	5.00	U
563-58-6	1,1-Dichloropropene		0.699	2.00	5.00	U
87-61-6	1,2,3-Trichlorobenzene		1.02	2.00	5.00	U
96-18-4	1,2,3-Trichloropropane		0.913	2.00	5.00	U
120-82-1	1,2,4-Trichlorobenzene		1.02	3.00	6.00	U
95-63-6	1,2,4-Trimethylbenzene		0.661	2.00	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.30	5.00	10.0	U
106-93-4	1,2-Dibromoethane		0.531	2.00	5.00	U
95-50-1	1,2-Dichlorobenzene		0.630	2.00	5.00	U
107-06-2	1,2-Dichloroethane		1.06	3.00	6.00	U
78-87-5	1,2-Dichloropropane		1.02	3.00	6.00	U
108-67-8	1,3,5-Trimethylbenzene		0.500	2.00	5.00	U
541-73-1	1,3-Dichlorobenzene		0.724	2.00	5.00	U
142-28-9	1,3-Dichloropropane		0.680	2.00	5.00	U
106-46-7	1,4-Dichlorobenzene		0.920	2.00	5.00	U
594-20-7	2,2-Dichloropropane		0.920	2.00	5.00	U
78-93-3	2-Butanone		3.30	7.00	17.5	U
95-49-8	2-Chlorotoluene		0.733	2.00	5.00	U
591-78-6	2-Hexanone		0.716	7.00	17.5	U
106-43-4	4-Chlorotoluene		0.921	2.00	5.00	U
99-87-6	4-Isopropyltoluene		0.700	2.00	5.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01	File ID:	G2230613007.D
Sampled:	05/31/23 13:45	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 11:10
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		1.35	7.00	17.5	U
67-64-1	Acetone		5.18	20.0	40.0	U
71-43-2	Benzene		0.507	2.00	5.00	U
108-86-1	Bromobenzene		0.848	2.00	5.00	U
74-97-5	Bromochloromethane		0.669	2.00	5.00	U
75-27-4	Bromodichloromethane		0.531	2.00	5.00	U
75-25-2	Bromoform		1.03	2.00	5.00	U
74-83-9	Bromomethane		1.60	5.00	10.0	U
75-15-0	Carbon disulfide		1.40	5.00	10.0	U
56-23-5	Carbon tetrachloride		0.844	2.00	5.00	U
108-90-7	Chlorobenzene		0.650	2.00	5.00	U
75-00-3	Chloroethane		1.55	2.00	5.00	U
67-66-3	Chloroform		1.01	3.00	6.00	U
74-87-3	Chloromethane		1.92	5.00	10.0	U
156-59-2	cis-1,2-Dichloroethene		1.03	3.00	6.00	U
10061-01-5	cis-1,3-Dichloropropene		0.587	2.00	5.00	U
124-48-1	Dibromochloromethane		0.759	2.00	5.00	U
74-95-3	Dibromomethane		0.817	2.00	5.00	U
75-71-8	Dichlorodifluoromethane		1.30	5.00	10.0	U
100-41-4	Ethylbenzene		0.300	1.00	2.00	U
87-68-3	Hexachlorobutadiene		1.00	2.00	5.00	U
98-82-8	Isopropylbenzene		0.549	2.00	5.00	U
179601-23-1	m,p-Xylene		0.889	4.00	10.0	U
1634-04-4	Methyl tert-butyl ether		0.530	2.00	5.00	U
75-09-2	Methylene chloride		2.24	5.00	10.0	U
104-51-8	n-Butylbenzene		1.30	5.00	10.0	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW29

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-01	File ID:	G2230613007.D
Sampled:	05/31/23 13:45	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 11:10
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.630	2.00	5.00	U
91-20-3	Naphthalene		0.700	2.00	5.00	U
95-47-6	o-Xylene		0.416	2.00	5.00	U
135-98-8	sec-Butylbenzene		0.598	2.00	5.00	U
100-42-5	Styrene		0.453	1.00	2.00	U
98-06-6	tert-Butylbenzene		0.453	2.00	5.00	U
127-18-4	Tetrachloroethene		1.78	5.00	10.0	U
108-88-3	Toluene		0.572	2.00	5.00	U
156-60-5	trans-1,2-Dichloroethene		0.855	2.00	5.00	U
10061-02-6	trans-1,3-Dichloropropene		0.587	2.00	5.00	U
79-01-6	Trichloroethene	1.60	0.781	2.00	5.00	J, D
75-69-4	Trichlorofluoromethane		0.505	2.00	5.00	U
75-01-4	Vinyl chloride		1.29	5.00	10.0	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613007.D
Acq On : 13 Jun 2023 11:10
Operator : PO1/MP3
Sample : 23F0136-01
Misc : 10
ALS Vial : 7 Sample Multiplier: 1

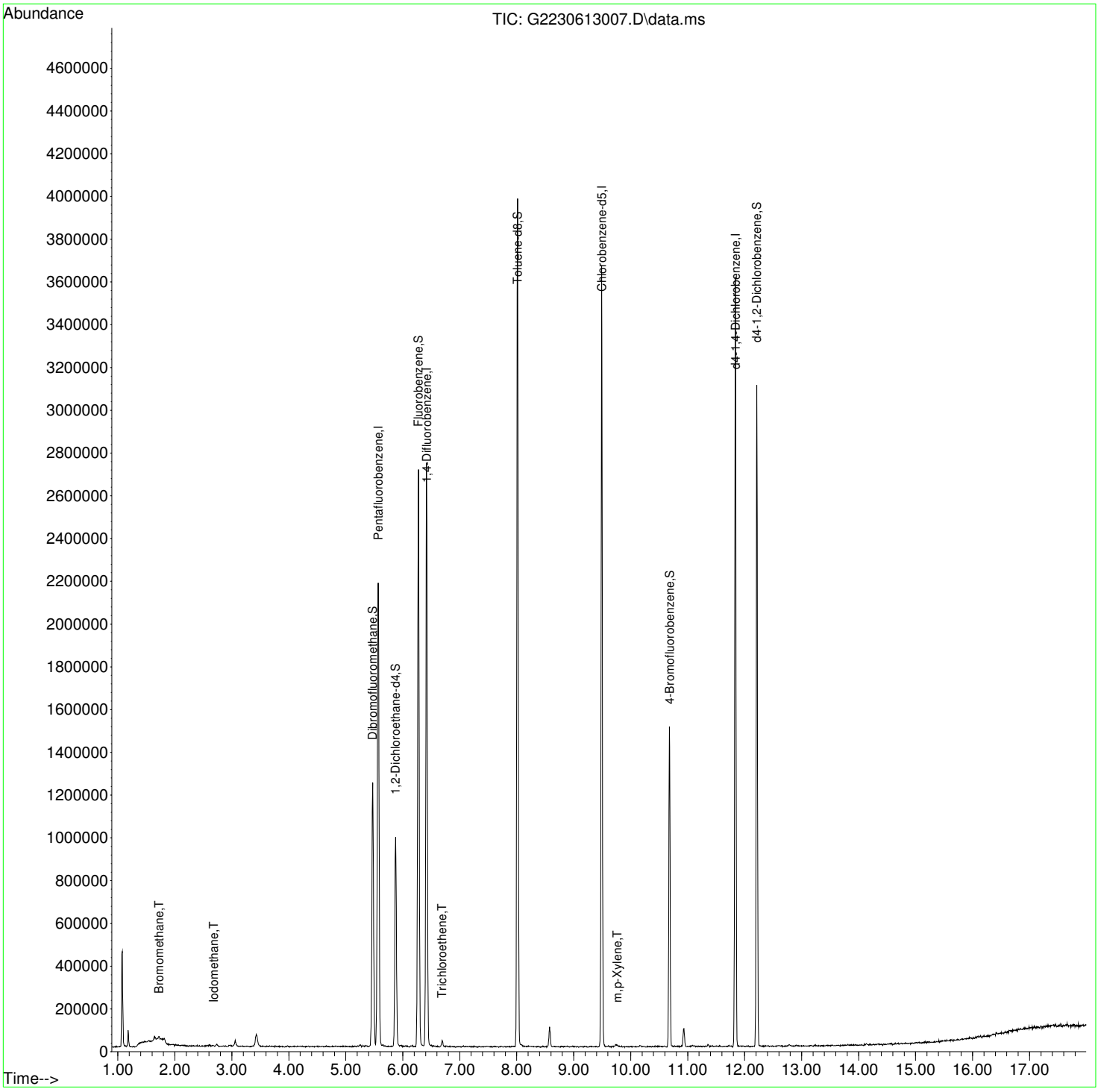
Quant Time: Jun 13 14:47:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	17344106	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	23764218	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	21155831	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9954211	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7612247	19.94	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.70%			
43) 1,2-Dichloroethane-d4	5.876	65	6897208	18.29	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.45%			
49) Fluorobenzene	6.277	96	26230858	19.37	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%			
64) Toluene-d8	8.016	98	25819816	19.36	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%			
81) 4-Bromofluorobenzene	10.684	174	4630705	9.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.50%			
97) d4-1,2-Dichlorobenzene	12.217	152	8795555	20.55	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.75%			
Target Compounds						Qvalue
5) Bromomethane	1.723	94	74305	0.07	ug/L #	71
13) Iodomethane	2.686	142	57222	0.14	ug/L #	41
18) Methylene chloride	3.059	49	108406	Below Cal		72
21) Methyl tert-butyl ether	3.432	73	754685	Below Cal		95
50) Trichloroethene	6.693	95	74705	0.16	ug/L #	71
75) m,p-Xylene	9.764	91	37863m	0.03	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613007.D
Acq On : 13 Jun 2023 11:10
Operator : PO1/MP3
Sample : 23F0136-01
Misc : 10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 13 14:47:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613007.D
Acq On : 13 Jun 2023 11:10
Operator : PO1/MP3
Sample : 23F0136-01
Misc : 10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 13 14:47:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

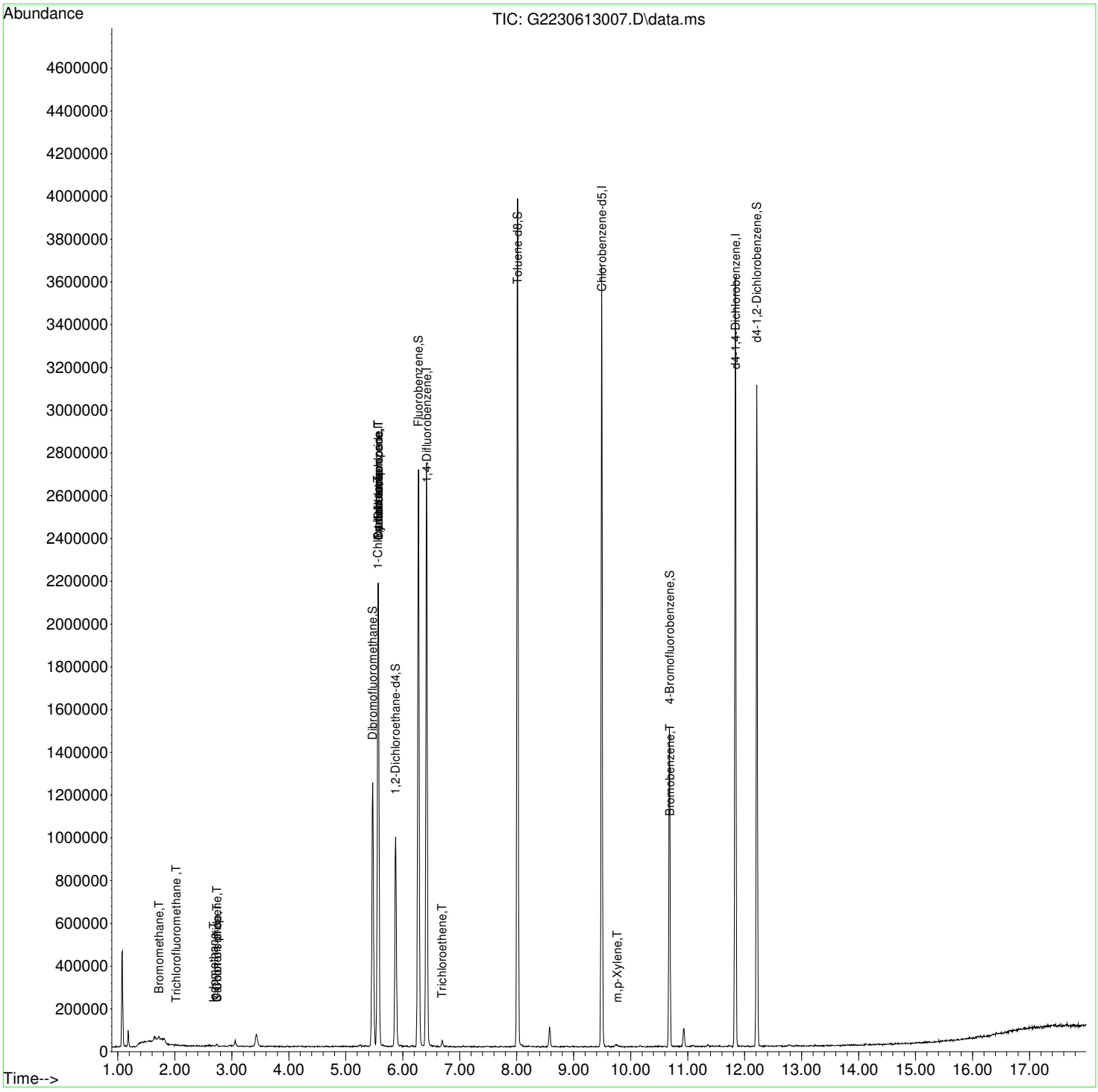
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	17344106	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	23764218	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	21155831	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9954211	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	7612247	19.94	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.70%				
43) 1,2-Dichloroethane-d4	5.876	65	6897208	18.29	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.45%				
49) Fluorobenzene	6.277	96	26230858	19.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%				
64) Toluene-d8	8.016	98	25819816	19.36	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%				
81) 4-Bromofluorobenzene	10.684	174	4630705	9.85	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.50%				
97) d4-1,2-Dichlorobenzene	12.217	152	8795555	20.55	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.75%				
Target Compounds							Qvalue
5) Bromomethane	1.723	94	74305	0.07	ug/L	#	71
7) Trichlorofluoromethane	2.021	101	1433	0.00	ug/L	#	16
9) Acrolein	2.450	56	6347	Below Cal		#	20
12) Acetone	2.602	43	71584	Below Cal		#	45
13) Iodomethane	2.686	142	57222	0.14	ug/L	#	41
14) Carbon disulfide	2.739	76	127419	0.07	ug/L	#	74
17) 3-Chloro-1-propene	2.739	76	127419	0.65	ug/L	#	53
18) Methylene chloride	3.059	49	108406	Below Cal			72
21) Methyl tert-butyl ether	3.432	73	754685	Below Cal			95
36) Tetrahydrofuran	5.250	42	44634	Below Cal		#	30
40) Cyclohexane	5.572	84	373553	0.80	ug/L	#	36
41) 1-Chlorobutane	5.566	56	232265	0.43	ug/L	#	1
42) 1,1-Dichloropropene	5.569	75	920159	2.26	ug/L	#	38
47) Carbon tetrachloride	5.571	117	1389285	3.24	ug/L	#	16
50) Trichloroethene	6.693	95	74705	0.16	ug/L	#	71
60) 4-Methyl-2-pentanone	8.016	43	85254	Below Cal		#	1
74) Ethylbenzene	9.764	91	36194	Below Cal		#	38
75) m,p-Xylene	9.764	91	36096	0.03	ug/L	#	69
82) Bromobenzene	10.692	77	37480	0.07	ug/L	#	1
99) n-Butylbenzene	12.221	91	31621	Below Cal		#	53

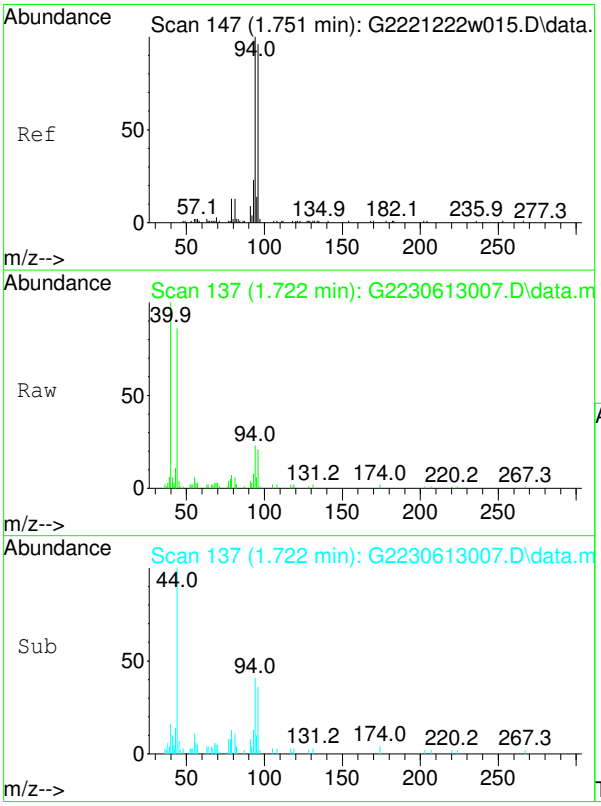
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01341978

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613007.D
Acq On : 13 Jun 2023 11:10
Operator : PO1/MP3
Sample : 23F0136-01
Misc : 10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 13 14:47:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

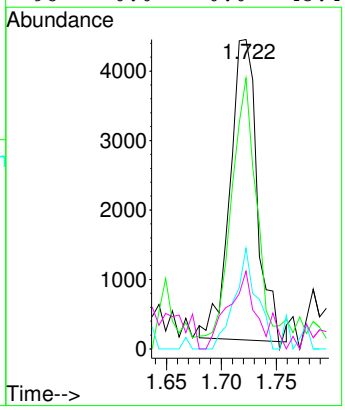


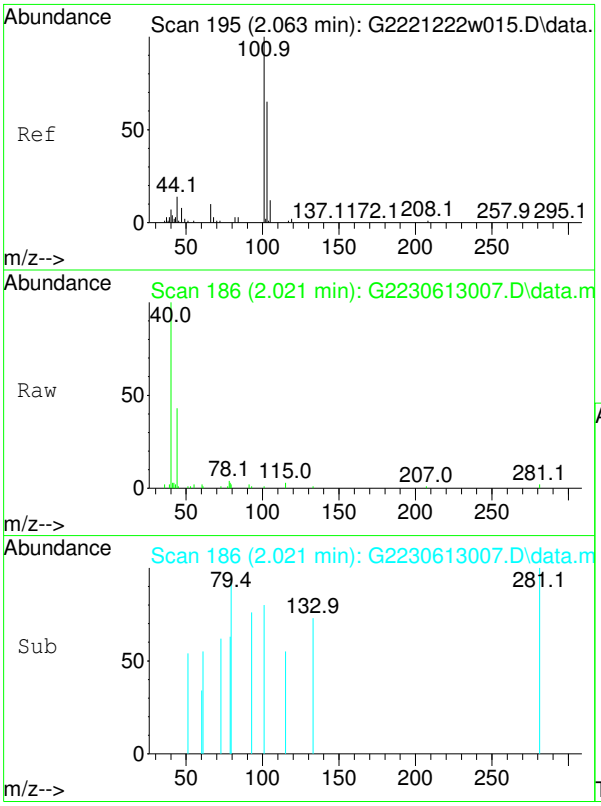


#5
Bromomethane
Concen: 0.07 ug/L
RT: 1.723 min Scan# 137
Delta R.T. 0.009 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 94 Resp: 74305

Ion	Ratio	Lower	Upper
94	100		
96	70.6	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

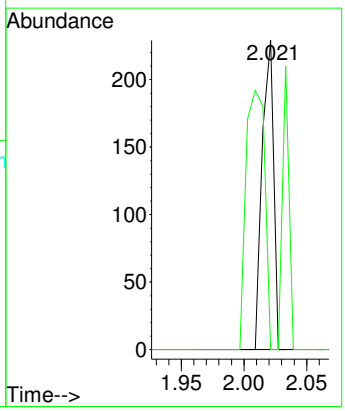


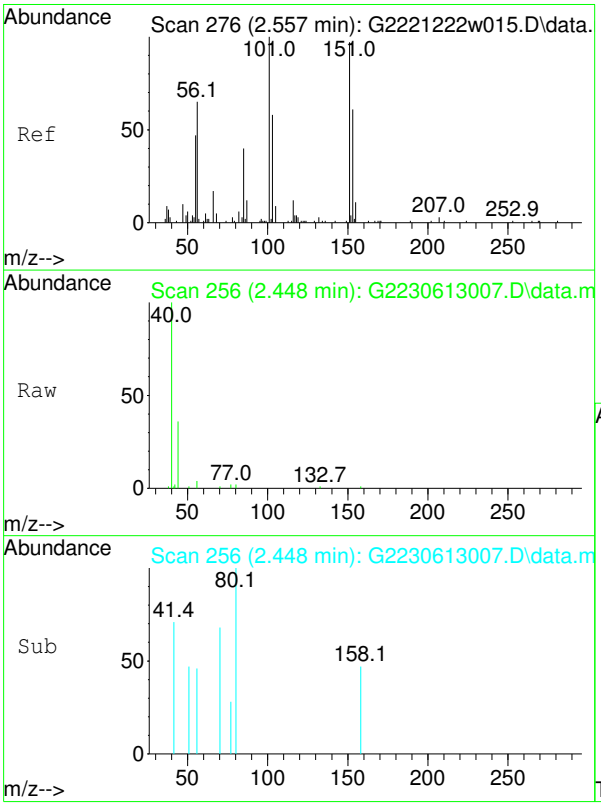


#7
Trichlorofluoromethane
Concen: 0.00 ug/L
RT: 2.021 min Scan# 186
Delta R.T. -0.009 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion:101 Resp: 1433

Ion	Ratio	Lower	Upper
101	100		
103	0.0	36.9	96.9#

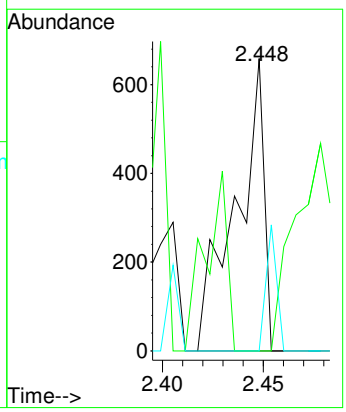


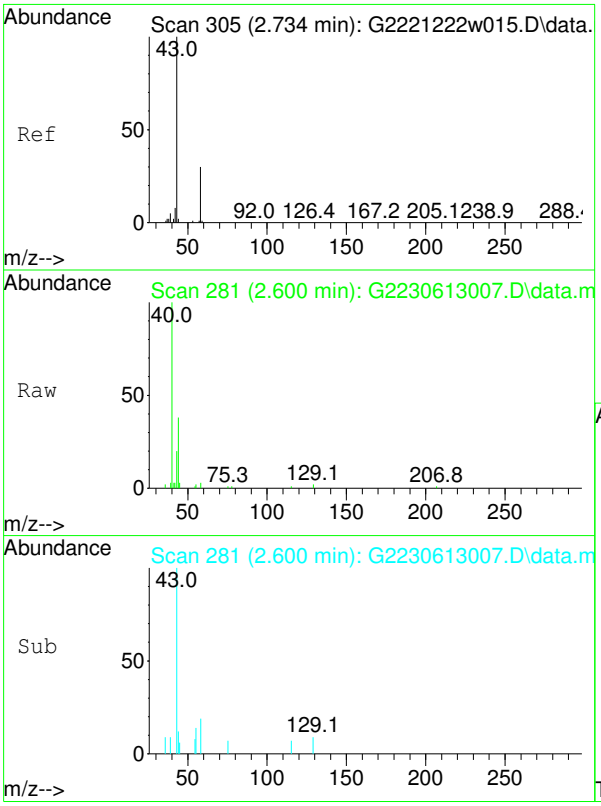


#9
Acrolein
Concen: Below Cal
RT: 2.450 min Scan# 256
Delta R.T. 0.011 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 56 Resp: 6347

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

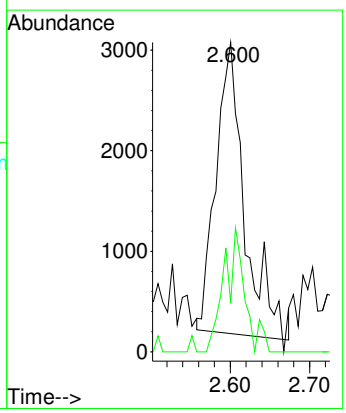


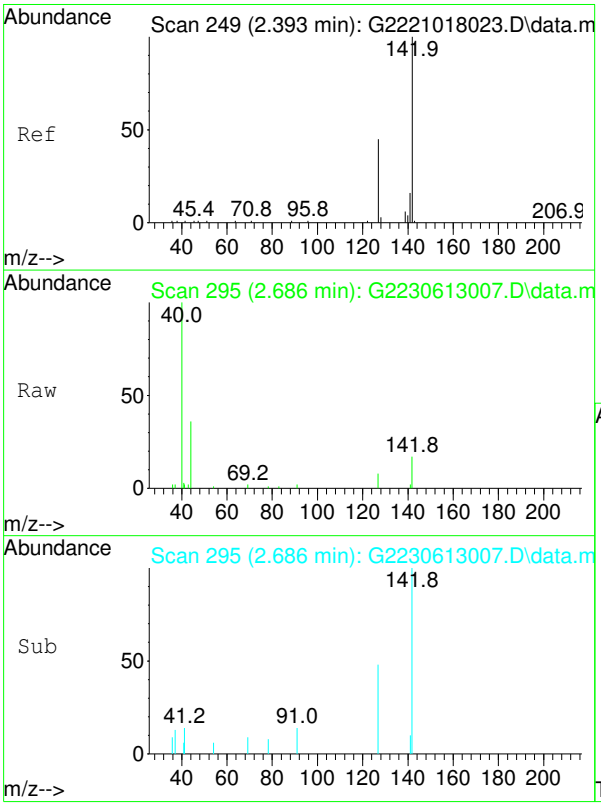


#12
Acetone
Concen: Below Cal
RT: 2.602 min Scan# 281
Delta R.T. -0.006 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 43 Resp: 71584

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

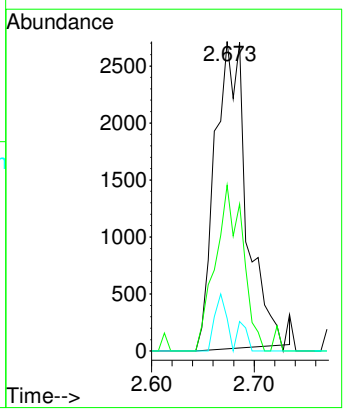


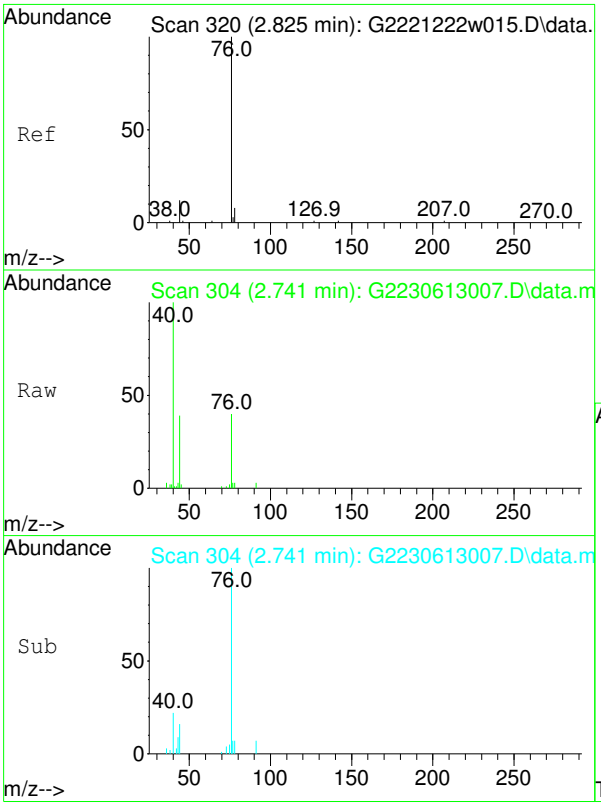


#13
Iodomethane
Concen: 0.14 ug/L
RT: 2.686 min Scan# 295
Delta R.T. 0.010 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion:142 Resp: 57222

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

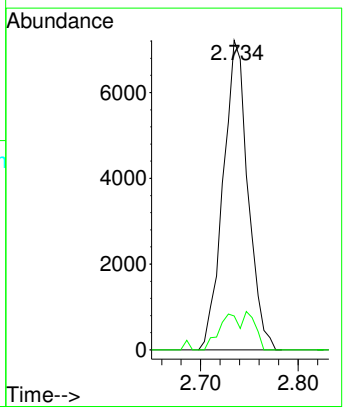


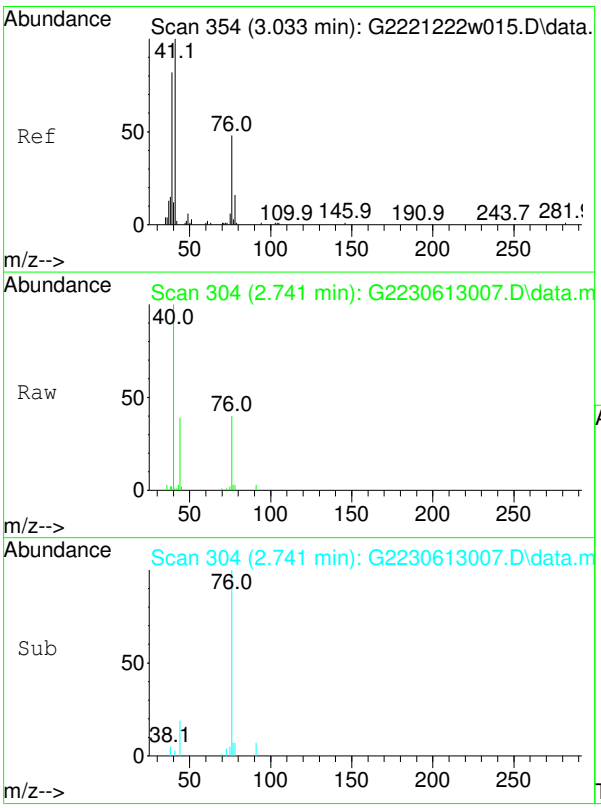


#14
Carbon disulfide
Concen: 0.07 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.000 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 76 Resp: 127419

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

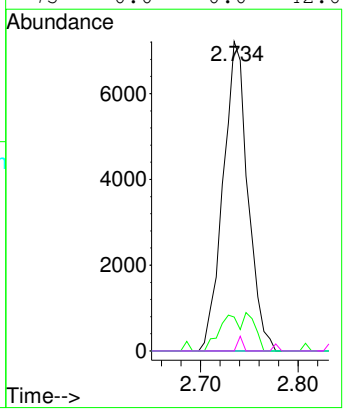


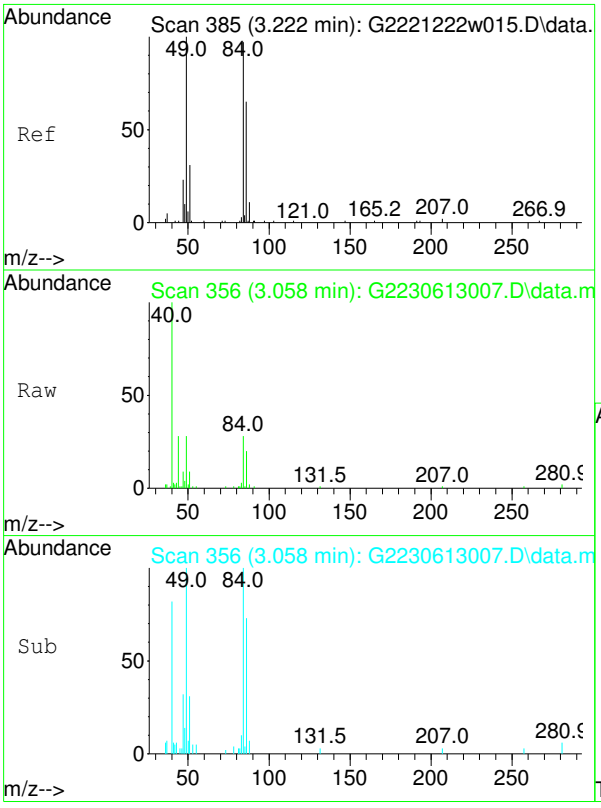


#17
3-Chloro-1-propene
Concen: 0.65 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.181 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 76 Resp: 127419

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

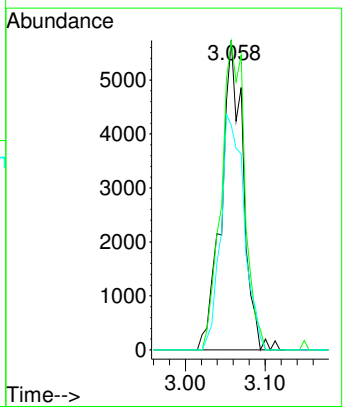


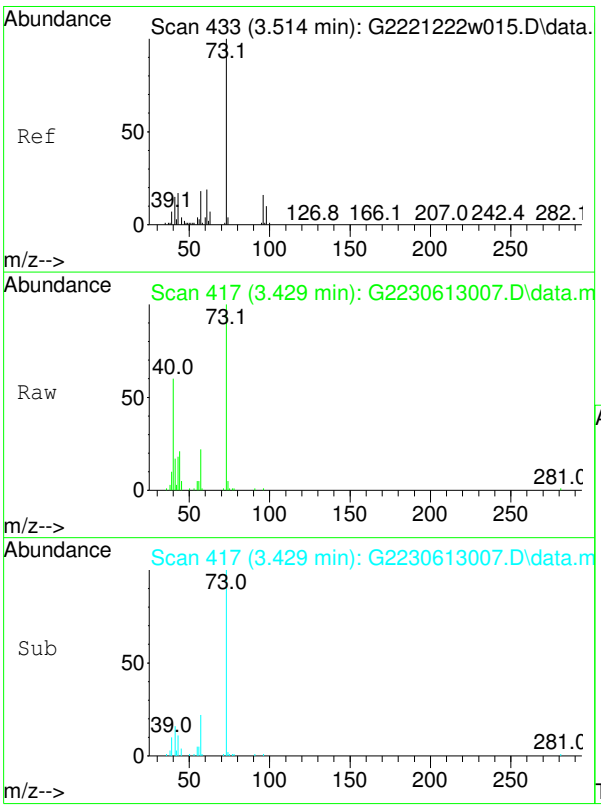


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 49 Resp: 108406

Ion	Ratio	Lower	Upper
49	100		
84	108.1	57.9	117.9
86	81.8	24.9	84.9

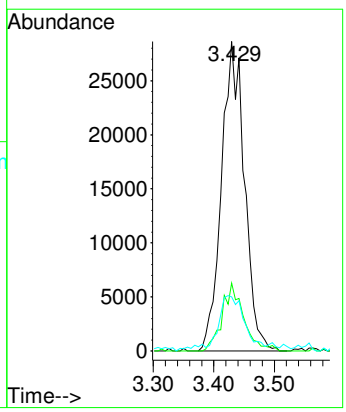


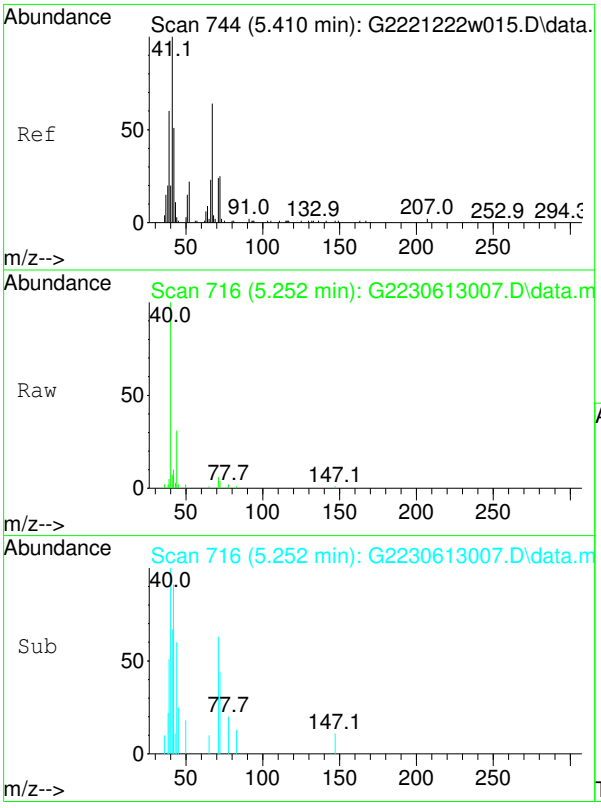


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.432 min Scan# 417
Delta R.T. -0.014 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 73 Resp: 754685

Ion	Ratio	Lower	Upper
73	100		
57	20.5	0.0	51.7
41	16.7	0.0	50.6

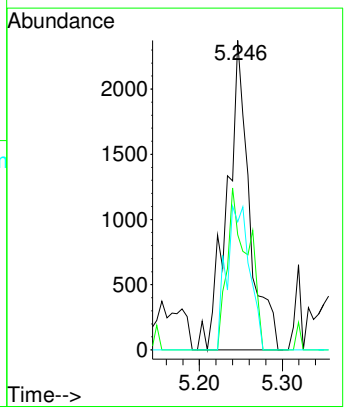


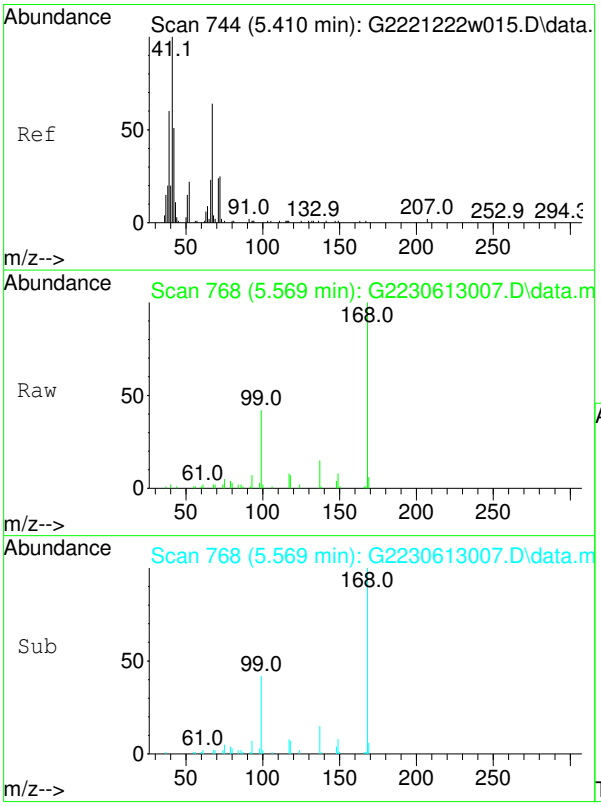


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.250 min Scan# 716
Delta R.T. -0.011 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 42 Resp: 44634

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

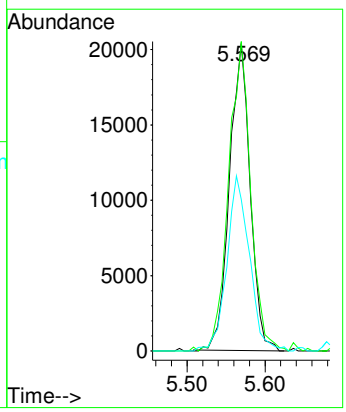


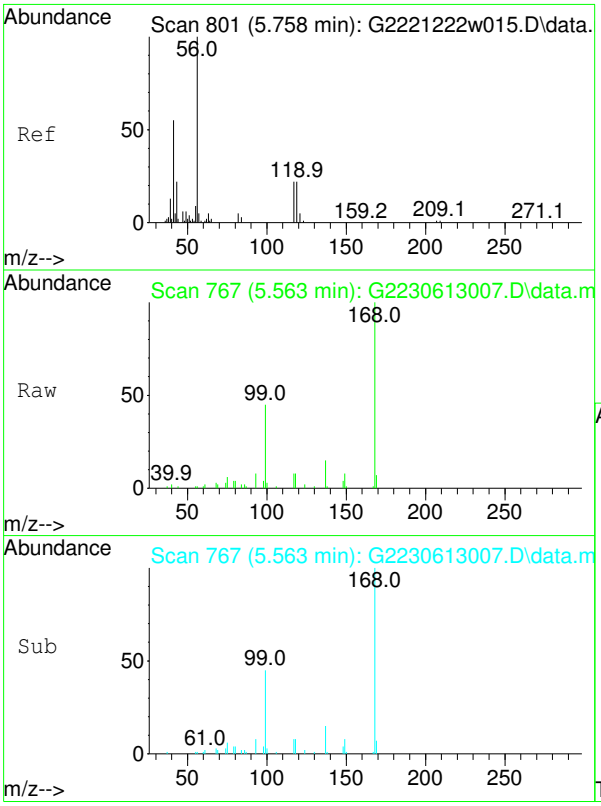


#40
Cyclohexane
Concen: 0.80 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 84 Resp: 373553

Ion	Ratio	Lower	Upper
84	100		
69	107.8	6.8	66.8#
56	62.2	79.1	139.1#

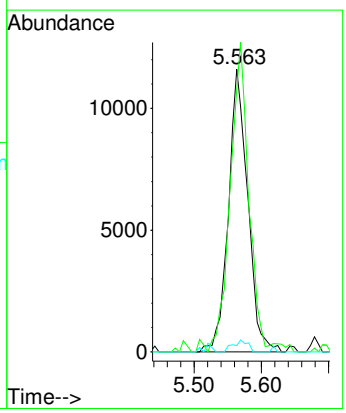


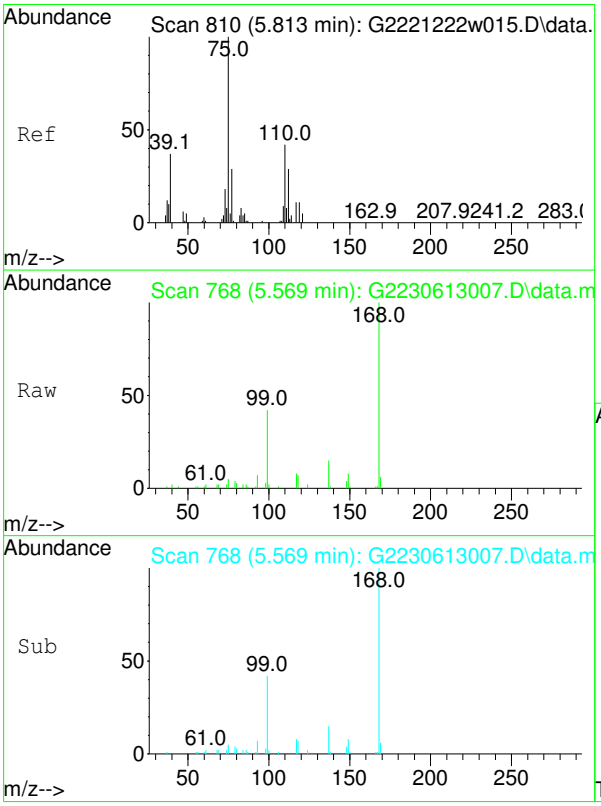


#41
1-Chlorobutane
Concen: 0.43 ug/L
RT: 5.566 min Scan# 767
Delta R.T. -0.064 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 56 Resp: 232265

Ion	Ratio	Lower	Upper
56	100		
55	101.5	0.0	41.0#
57	0.0	0.0	35.7

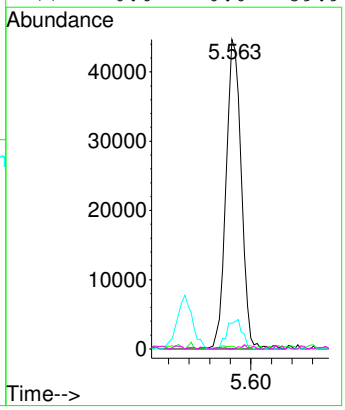


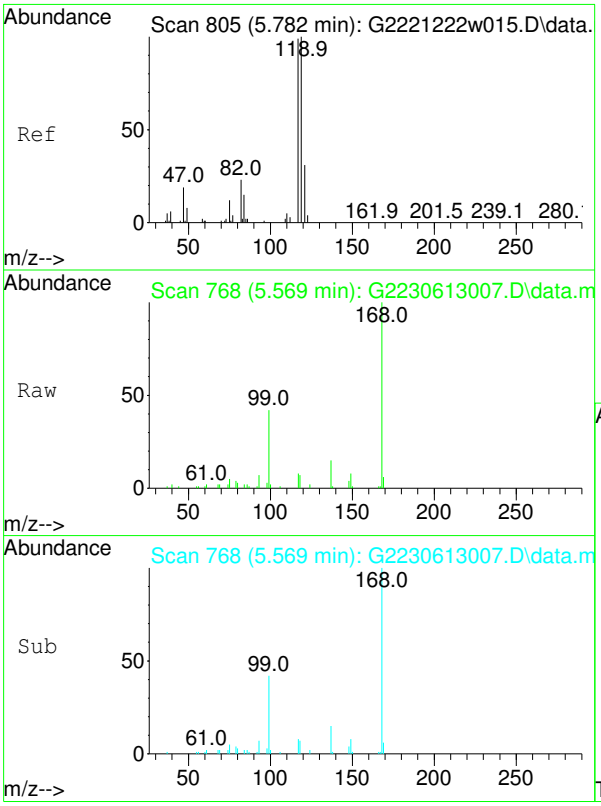


#42
1,1-Dichloropropene
Concen: 2.26 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 75 Resp: 920159

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	9.9	9.1	69.1
77	0.0	0.0	59.9

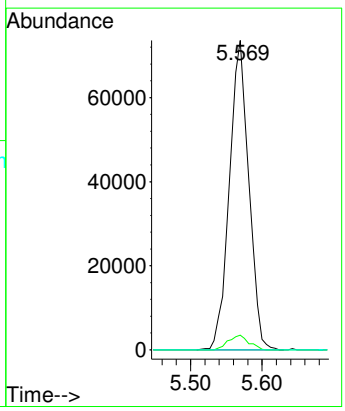


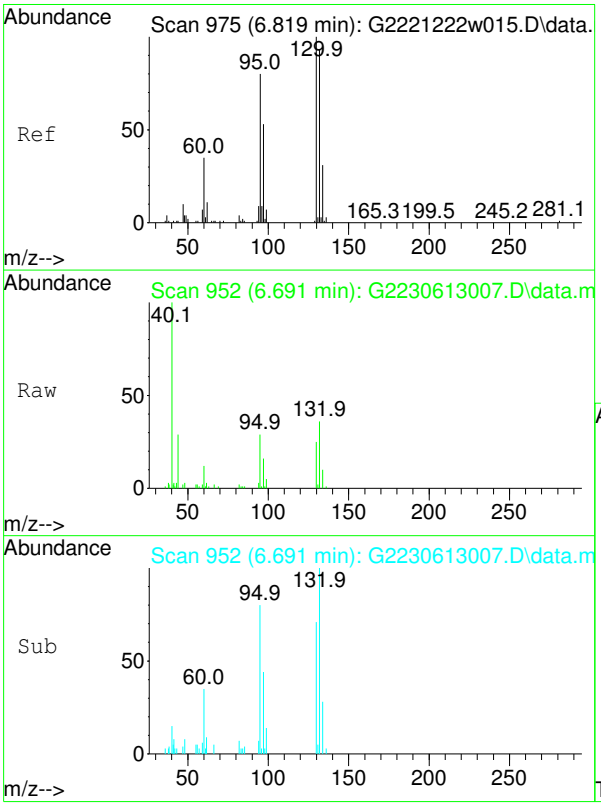


#47
Carbon tetrachloride
Concen: 3.24 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion:117 Resp: 1389285

Ion	Ratio	Lower	Upper
117	100		
119	5.1	66.4	126.4#
121	0.0	0.4	60.4#

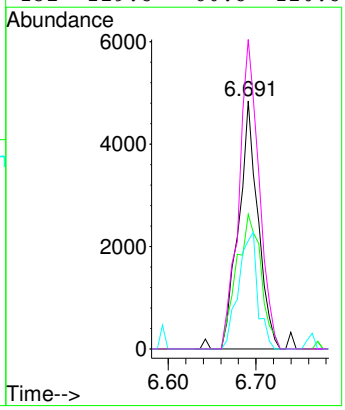


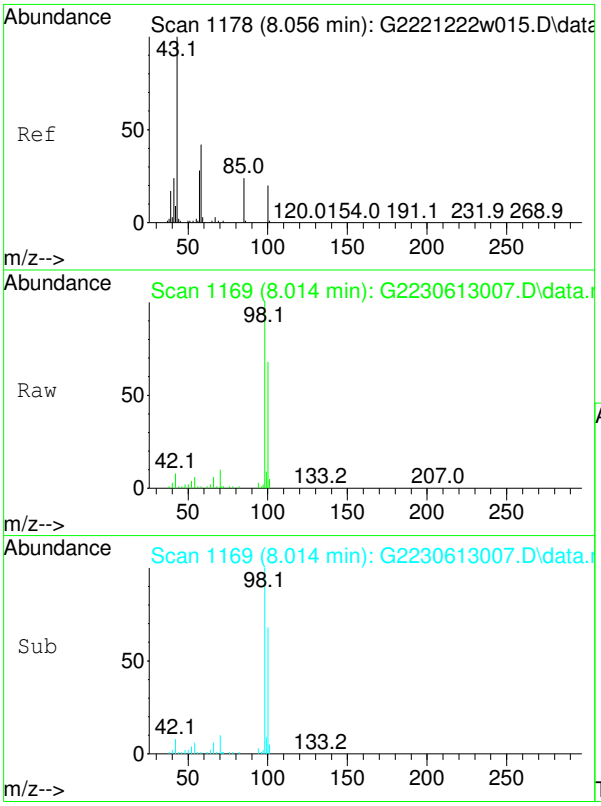


#50
Trichloroethene
Concen: 0.16 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 95 Resp: 74705

Ion	Ratio	Lower	Upper
95	100		
97	67.9	35.5	95.5
60	0.0	14.8	74.8#
132	129.5	80.5	120.5#

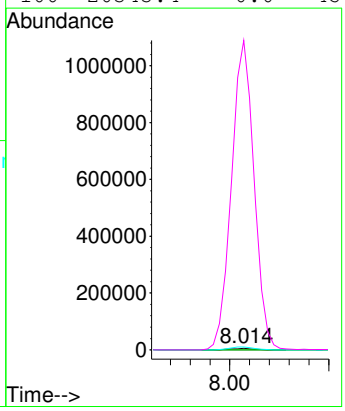


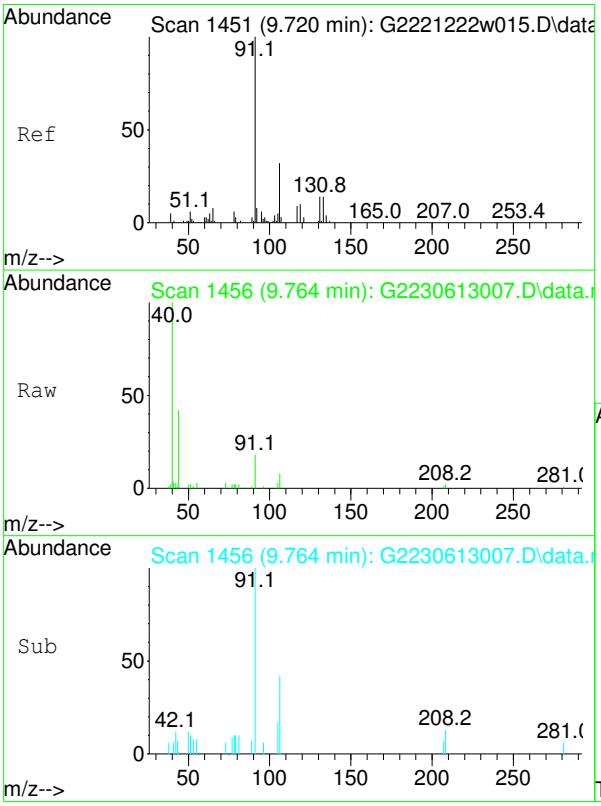


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 43 Resp: 85254

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	206.5	37.0	37.0#
100	20343.4	0.0	45.2#

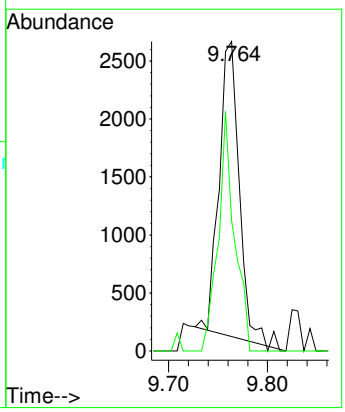


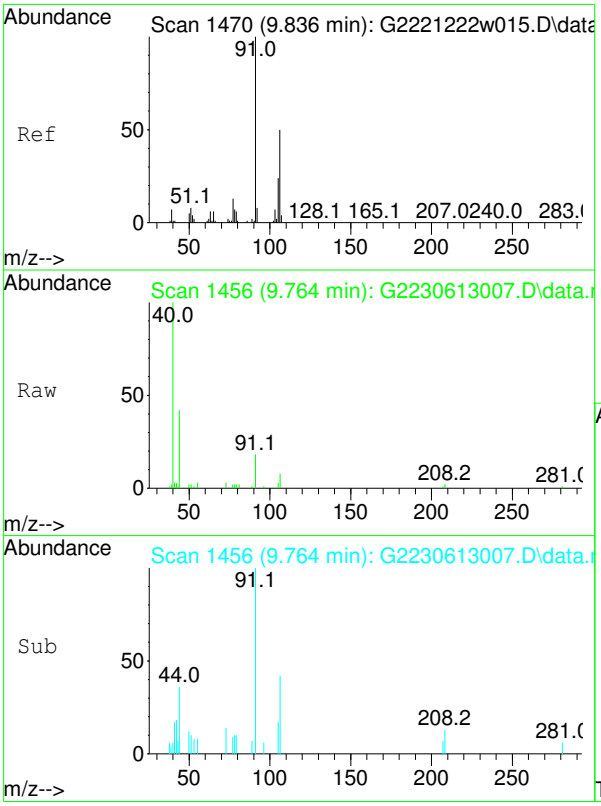


#74
Ethylbenzene
Concen: Below Cal
RT: 9.764 min Scan# 1456
Delta R.T. 0.121 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 91 Resp: 36194

Ion	Ratio	Lower	Upper
91	100		
106	64.6	0.8	60.8#

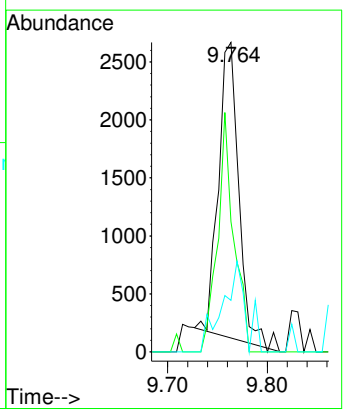


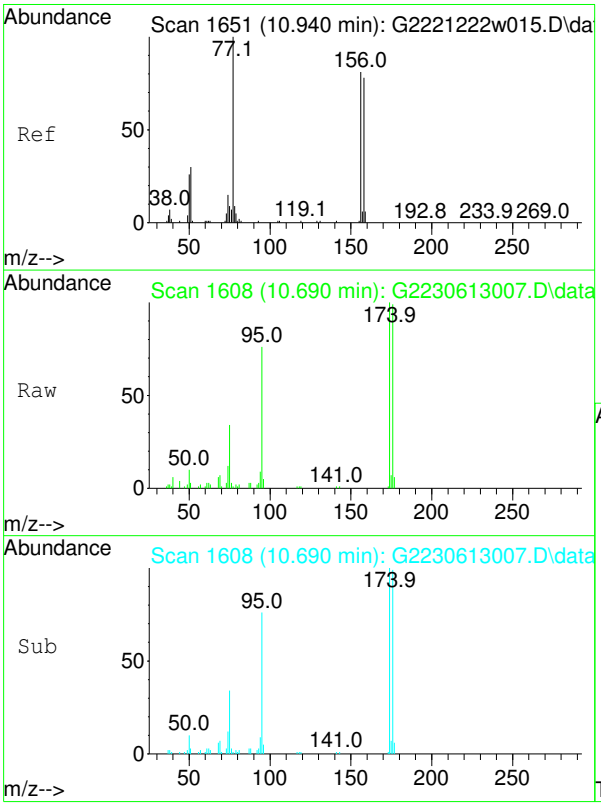


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. -0.000 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 91 Resp: 36096

Ion	Ratio	Lower	Upper
91	100		
106	64.8	19.0	79.0
105	0.0	0.0	52.7

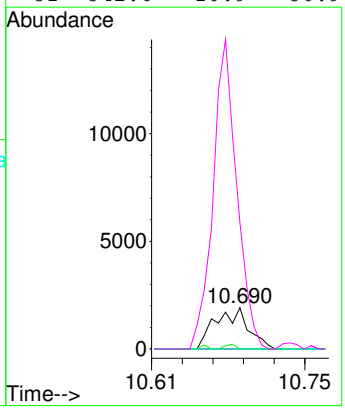


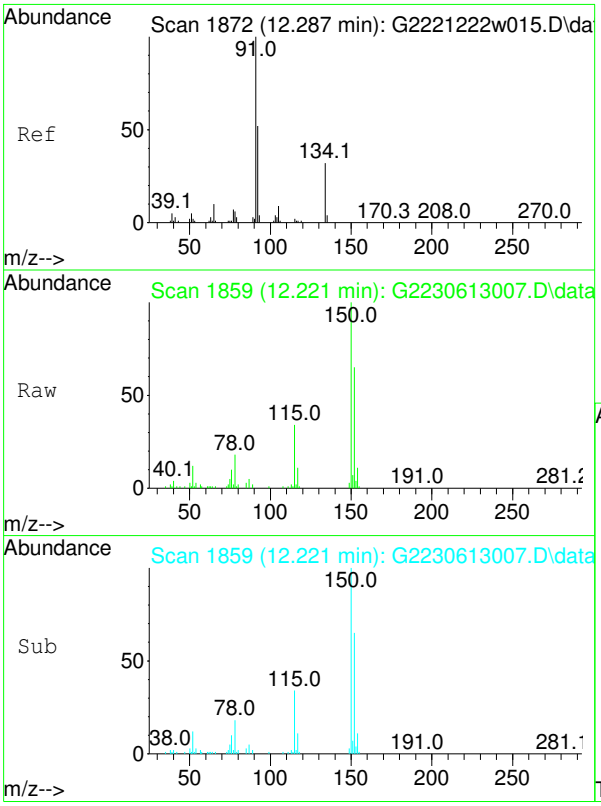


#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.692 min Scan# 1608
Delta R.T. -0.136 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

Tgt Ion: 77 Resp: 37480

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	542.6	10.9	50.9#

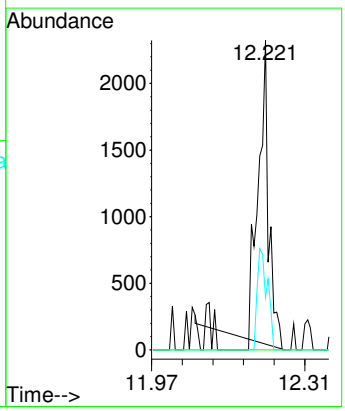




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.221 min Scan# 1859
Delta R.T. -0.010 min
Lab File: G2230613007.D
Acq: 13 Jun 2023 11:10

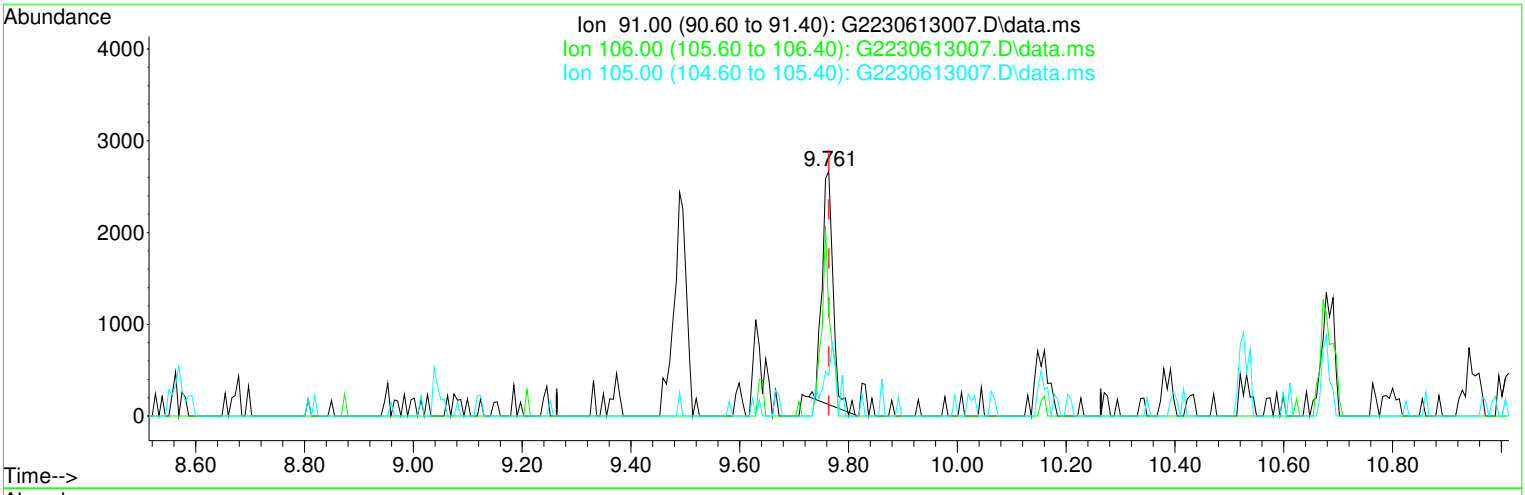
Tgt Ion: 91 Resp: 31621

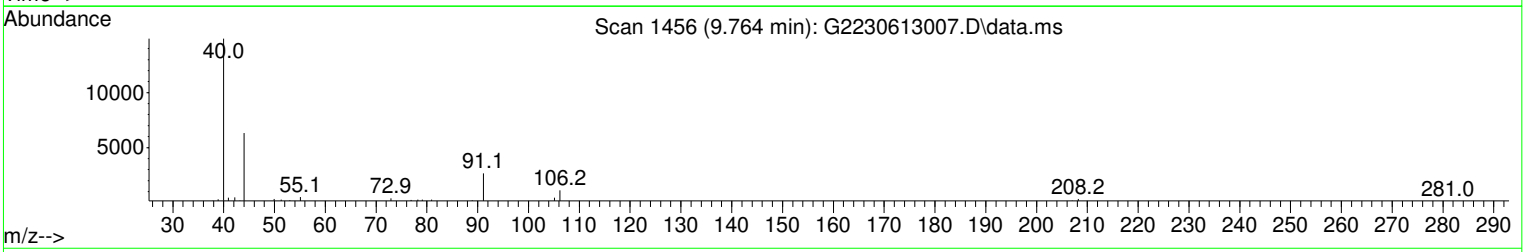
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

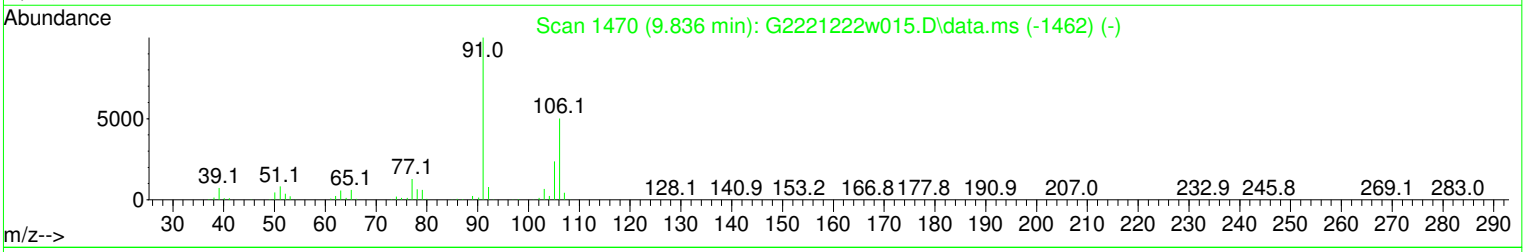


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613007.D
Acq On : 13 Jun 2023 11:10
Operator : PO1/MP3
Sample : 23F0136-01
Misc : 10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 13 14:47:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613007.D\data.ms

(75) m,p-Xylene (T)

9.764min (-0.000) 0.03 ug/L

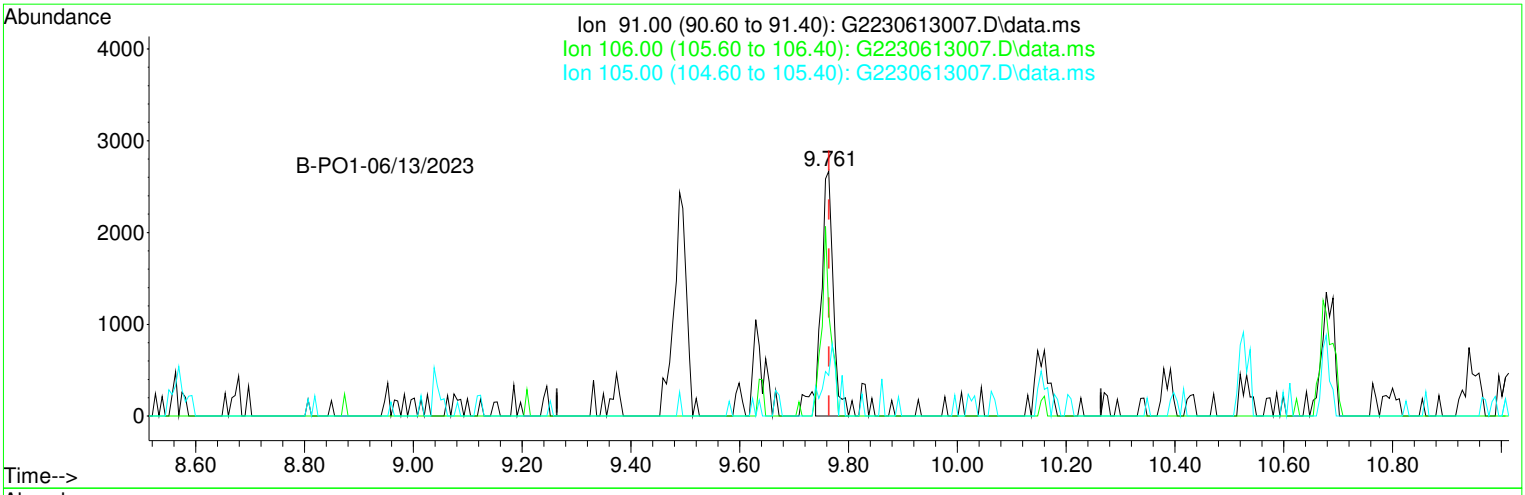
response 36096

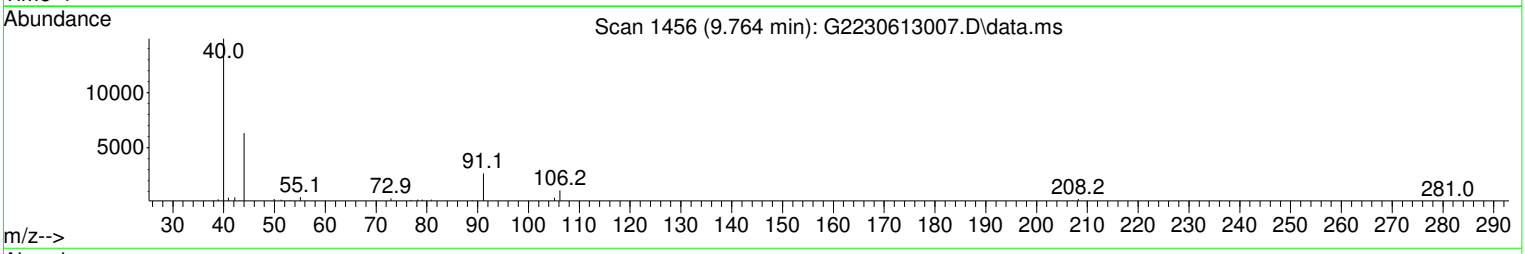
Ion	Exp%	Act%
91.00	100.00	100.00
106.00	49.00	64.81
105.00	22.70	0.00
0.00	0.00	0.00

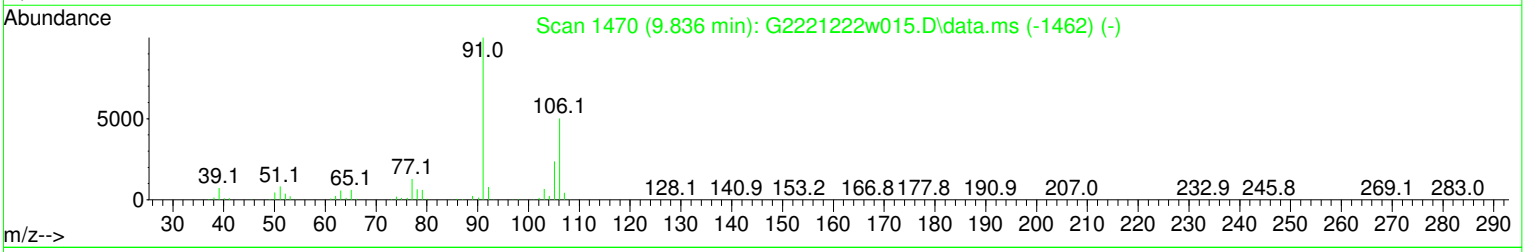
01341990

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613007.D
Acq On : 13 Jun 2023 11:10
Operator : PO1/MP3
Sample : 23F0136-01
Misc : 10
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 13 14:47:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613007.D\data.ms

(75) m,p-Xylene (T)

9.764min (-0.000) 0.03 ug/L m

response 37863

Ion	Exp%	Act%
91.00	100.00	100.00
106.00	49.00	61.78
105.00	22.70	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02	File ID:	G2230613008.D
Sampled:	05/31/23 12:15	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 11:35
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.650	2.00	5.00	U
71-55-6	1,1,1-Trichloroethane		0.877	2.00	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.621	2.00	5.00	U
79-00-5	1,1,2-Trichloroethane		0.832	2.00	5.00	U
75-34-3	1,1-Dichloroethane		0.669	2.00	5.00	U
75-35-4	1,1-Dichloroethene		0.954	2.00	5.00	U
563-58-6	1,1-Dichloropropene		0.699	2.00	5.00	U
87-61-6	1,2,3-Trichlorobenzene		1.02	2.00	5.00	U
96-18-4	1,2,3-Trichloropropane		0.913	2.00	5.00	U
120-82-1	1,2,4-Trichlorobenzene		1.02	3.00	6.00	U
95-63-6	1,2,4-Trimethylbenzene		0.661	2.00	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.30	5.00	10.0	U
106-93-4	1,2-Dibromoethane		0.531	2.00	5.00	U
95-50-1	1,2-Dichlorobenzene		0.630	2.00	5.00	U
107-06-2	1,2-Dichloroethane		1.06	3.00	6.00	U
78-87-5	1,2-Dichloropropane		1.02	3.00	6.00	U
108-67-8	1,3,5-Trimethylbenzene		0.500	2.00	5.00	U
541-73-1	1,3-Dichlorobenzene		0.724	2.00	5.00	U
142-28-9	1,3-Dichloropropane		0.680	2.00	5.00	U
106-46-7	1,4-Dichlorobenzene		0.920	2.00	5.00	U
594-20-7	2,2-Dichloropropane		0.920	2.00	5.00	U
78-93-3	2-Butanone		3.30	7.00	17.5	U
95-49-8	2-Chlorotoluene		0.733	2.00	5.00	U
591-78-6	2-Hexanone		0.716	7.00	17.5	U
106-43-4	4-Chlorotoluene		0.921	2.00	5.00	U
99-87-6	4-Isopropyltoluene		0.700	2.00	5.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02	File ID:	G2230613008.D
Sampled:	05/31/23 12:15	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 11:35
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		1.35	7.00	17.5	U
67-64-1	Acetone		5.18	20.0	40.0	U
71-43-2	Benzene		0.507	2.00	5.00	U
108-86-1	Bromobenzene		0.848	2.00	5.00	U
74-97-5	Bromochloromethane		0.669	2.00	5.00	U
75-27-4	Bromodichloromethane		0.531	2.00	5.00	U
75-25-2	Bromoform		1.03	2.00	5.00	U
74-83-9	Bromomethane		1.60	5.00	10.0	U
75-15-0	Carbon disulfide		1.40	5.00	10.0	U
56-23-5	Carbon tetrachloride		0.844	2.00	5.00	U
108-90-7	Chlorobenzene		0.650	2.00	5.00	U
75-00-3	Chloroethane		1.55	2.00	5.00	U
67-66-3	Chloroform		1.01	3.00	6.00	U
74-87-3	Chloromethane		1.92	5.00	10.0	U
156-59-2	cis-1,2-Dichloroethene	156	1.03	3.00	6.00	D
10061-01-5	cis-1,3-Dichloropropene		0.587	2.00	5.00	U
124-48-1	Dibromochloromethane		0.759	2.00	5.00	U
74-95-3	Dibromomethane		0.817	2.00	5.00	U
75-71-8	Dichlorodifluoromethane		1.30	5.00	10.0	U
100-41-4	Ethylbenzene		0.300	1.00	2.00	U
87-68-3	Hexachlorobutadiene		1.00	2.00	5.00	U
98-82-8	Isopropylbenzene		0.549	2.00	5.00	U
179601-23-1	m,p-Xylene		0.889	4.00	10.0	U
1634-04-4	Methyl tert-butyl ether		0.530	2.00	5.00	U
75-09-2	Methylene chloride		2.24	5.00	10.0	U
104-51-8	n-Butylbenzene		1.30	5.00	10.0	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW13

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-02	File ID:	G2230613008.D
Sampled:	05/31/23 12:15	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 11:35
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.630	2.00	5.00	U
91-20-3	Naphthalene		0.700	2.00	5.00	U
95-47-6	o-Xylene		0.416	2.00	5.00	U
135-98-8	sec-Butylbenzene		0.598	2.00	5.00	U
100-42-5	Styrene		0.453	1.00	2.00	U
98-06-6	tert-Butylbenzene		0.453	2.00	5.00	U
127-18-4	Tetrachloroethene		1.78	5.00	10.0	U
108-88-3	Toluene		0.572	2.00	5.00	U
156-60-5	trans-1,2-Dichloroethene	1.60	0.855	2.00	5.00	J, D
10061-02-6	trans-1,3-Dichloropropene		0.587	2.00	5.00	U
79-01-6	Trichloroethene	189	0.781	2.00	5.00	D
75-69-4	Trichlorofluoromethane		0.505	2.00	5.00	U
75-01-4	Vinyl chloride		1.29	5.00	10.0	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613008.D
Acq On : 13 Jun 2023 11:35
Operator : PO1/MP3
Sample : 23F0136-02
Misc : 10
ALS Vial : 8 Sample Multiplier: 1

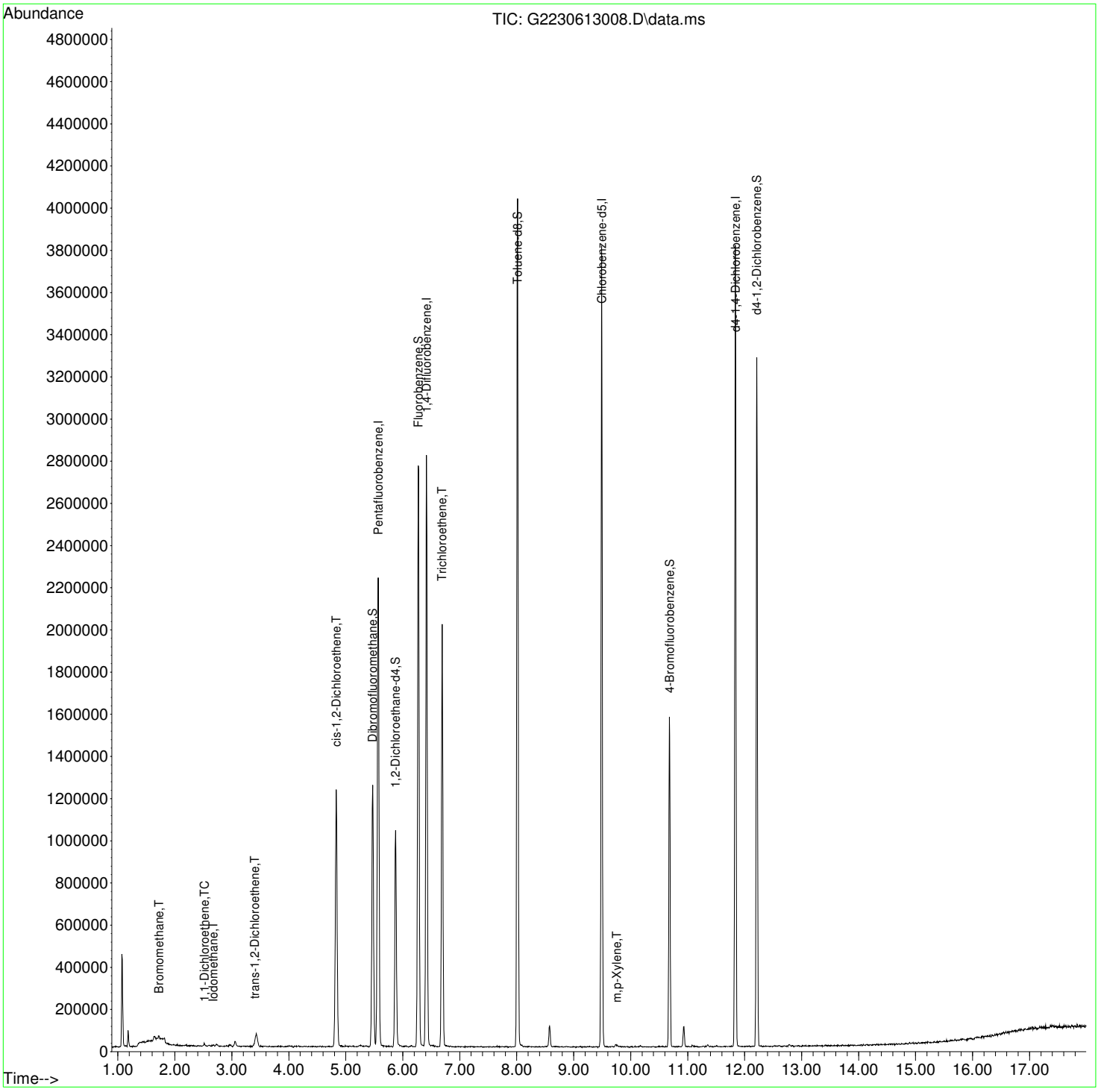
Quant Time: Jun 13 15:18:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	17717264	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.419	114	24618890	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.493	117	21940917	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10771268	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	7870345	20.19	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.95%				
43) 1,2-Dichloroethane-d4	5.877	65	7224157	18.75	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 93.75%				
49) Fluorobenzene	6.276	96	27249101	19.42	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%				
64) Toluene-d8	8.015	98	26563181	19.21	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%				
81) 4-Bromofluorobenzene	10.684	174	4877369	9.59	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.90%				
97) d4-1,2-Dichlorobenzene	12.216	152	9430755	20.36	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.80%				
Target Compounds							Qvalue
5) Bromomethane	1.720	94	94168	0.15	ug/L	#	85
10) 1,1-Dichloroethene	2.521	61	45367	0.04	ug/L	#	44
13) Iodomethane	2.671	142	54899	0.13	ug/L	#	41
18) Methylene chloride	3.063	49	122497	Below Cal			77
20) trans-1,2-Dichloroethene	3.396	61	60567	0.16	ug/L	#	70
21) Methyl tert-butyl ether	3.431	73	814549	Below Cal			96
28) cis-1,2-Dichloroethene	4.834	61	6938417	15.57	ug/L	#	73
50) Trichloroethene	6.693	95	6124800	18.87	ug/L		91
65) Toluene	8.083	91	35603	Below Cal		#	30
75) m,p-Xylene	9.760	91	38319	0.03	ug/L	#	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613008.D
Acq On : 13 Jun 2023 11:35
Operator : PO1/MP3
Sample : 23F0136-02
Misc : 10
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 13 15:18:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613008.D
Acq On : 13 Jun 2023 11:35
Operator : PO1/MP3
Sample : 23F0136-02
Misc : 10
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 13 15:18:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

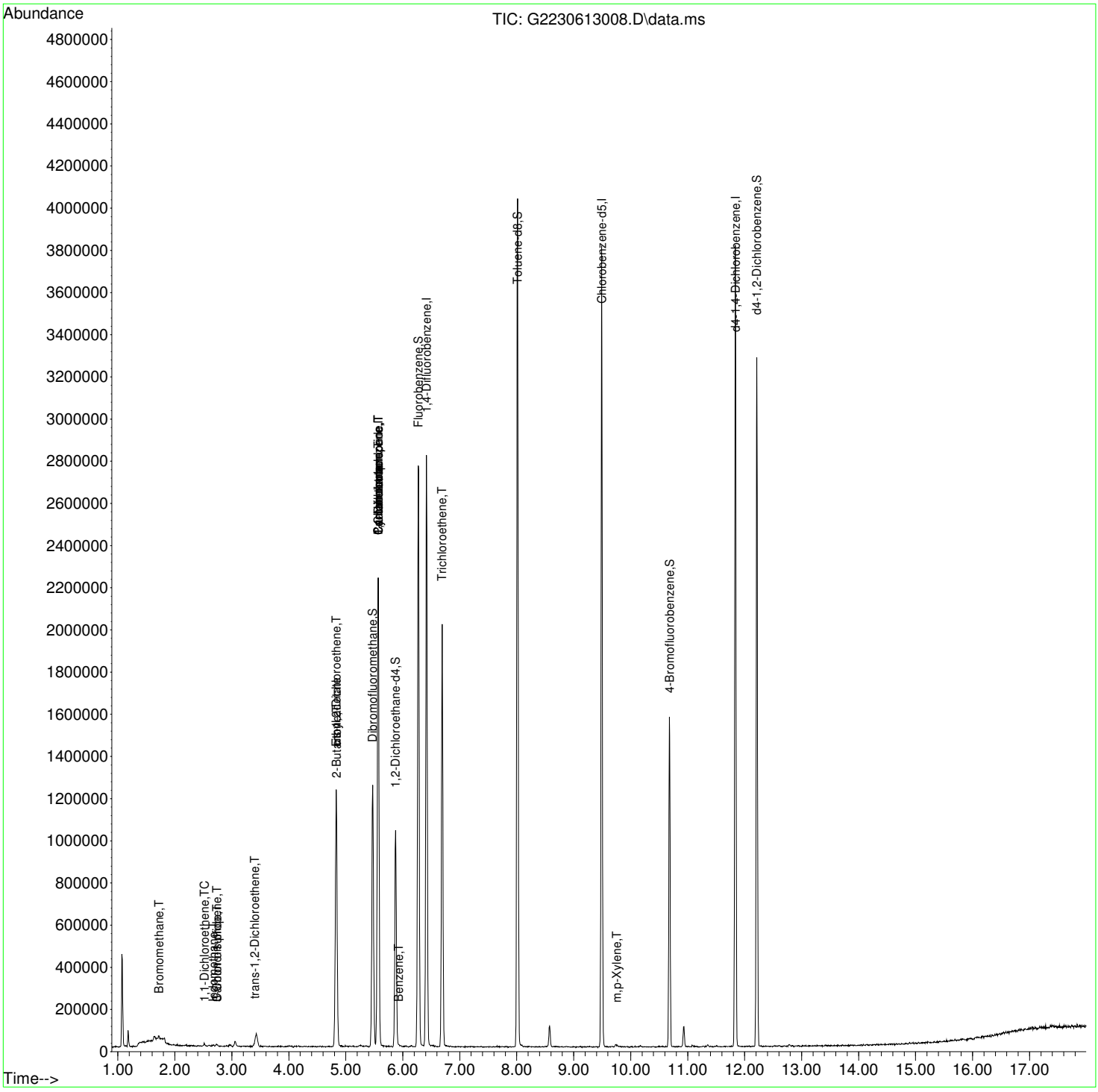
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	17717264	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.419	114	24618890	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.493	117	21940917	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10771268	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	7870345	20.19	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.95%				
43) 1,2-Dichloroethane-d4	5.877	65	7224157	18.75	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 93.75%				
49) Fluorobenzene	6.276	96	27249101	19.42	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%				
64) Toluene-d8	8.015	98	26563181	19.21	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%				
81) 4-Bromofluorobenzene	10.684	174	4877369	9.59	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.90%				
97) d4-1,2-Dichlorobenzene	12.216	152	9430755	20.36	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.80%				
Target Compounds							Qvalue
5) Bromomethane	1.720	94	94168	0.15	ug/L	#	85
10) 1,1-Dichloroethene	2.521	61	45367	0.04	ug/L	#	44
12) Acetone	2.600	43	75384	Below Cal			82
13) Iodomethane	2.671	142	54899	0.13	ug/L	#	41
14) Carbon disulfide	2.739	76	125951	0.07	ug/L	#	74
17) 3-Chloro-1-propene	2.739	76	125951	0.63	ug/L	#	53
18) Methylene chloride	3.063	49	122497	Below Cal			77
20) trans-1,2-Dichloroethene	3.396	61	60567	0.16	ug/L	#	70
21) Methyl tert-butyl ether	3.431	73	814549	Below Cal			96
28) cis-1,2-Dichloroethene	4.834	61	6938417	15.57	ug/L	#	73
29) 2-Butanone	4.836	72	57655	0.75	ug/L	#	42
31) Ethyl acetate	4.834	61	6960223	132.70	ug/L	#	45
36) Tetrahydrofuran	5.247	42	39675	Below Cal		#	30
40) Cyclohexane	5.569	84	393850	0.83	ug/L	#	34
41) 1-Chlorobutane	5.569	56	232413	0.42	ug/L	#	1
42) 1,1-Dichloropropene	5.569	75	929713	2.24	ug/L	#	38
47) Carbon tetrachloride	5.570	117	1444080	3.25	ug/L	#	16
48) Benzene	5.927	78	54464	0.04	ug/L	#	52
50) Trichloroethene	6.693	95	6124800	18.87	ug/L		91
60) 4-Methyl-2-pentanone	8.015	43	95045	Below Cal		#	1
65) Toluene	8.083	91	35603	Below Cal		#	30
74) Ethylbenzene	9.761	91	37817	Below Cal		#	44
75) m,p-Xylene	9.760	91	38319	0.03	ug/L	#	36

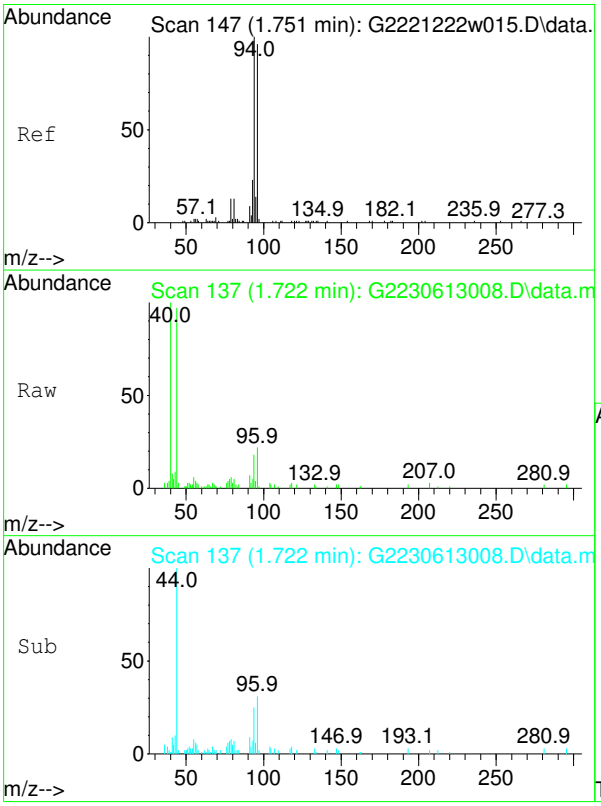
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01341997

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613008.D
Acq On : 13 Jun 2023 11:35
Operator : PO1/MP3
Sample : 23F0136-02
Misc : 10
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 13 15:18:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

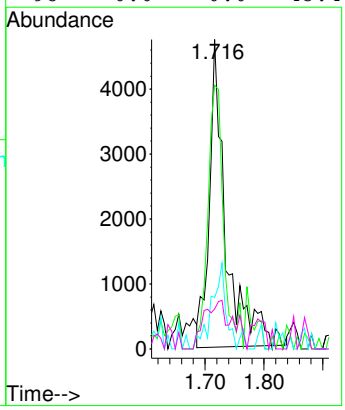


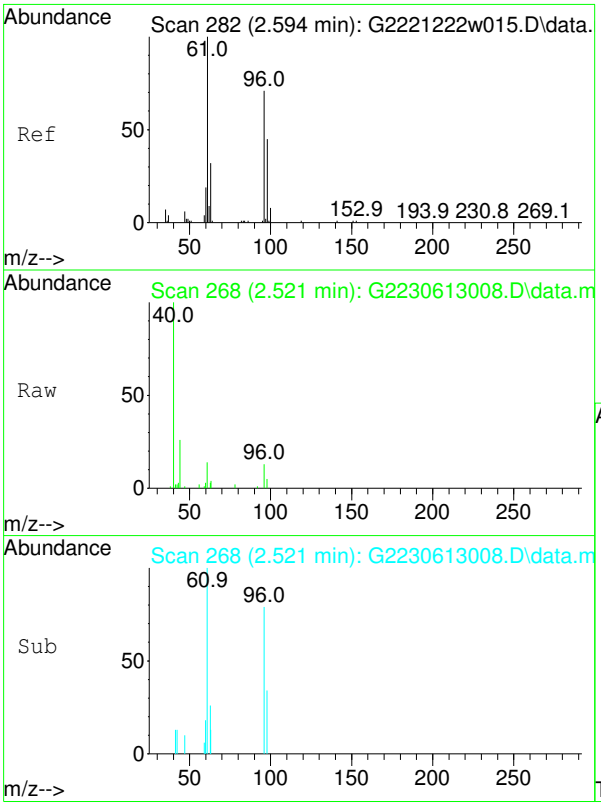


#5
Bromomethane
Concen: 0.15 ug/L
RT: 1.720 min Scan# 137
Delta R.T. 0.006 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 94 Resp: 94168

Ion	Ratio	Lower	Upper
94	100		
96	89.6	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

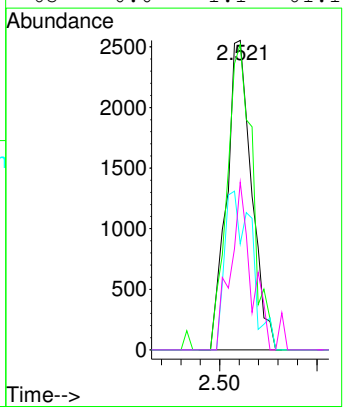


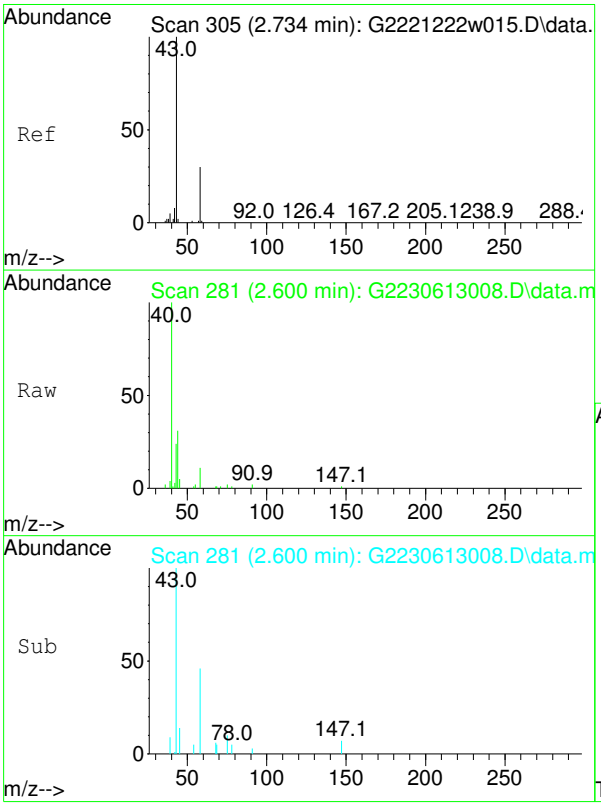


#10
1,1-Dichloroethene
Concen: 0.04 ug/L
RT: 2.521 min Scan# 268
Delta R.T. -0.002 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 61 Resp: 45367

Ion	Ratio	Lower	Upper
61	100		
96	102.0	32.7	92.7#
98	0.0	9.3	69.3#
63	0.0	1.1	61.1#

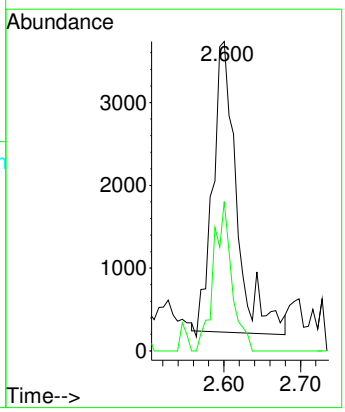


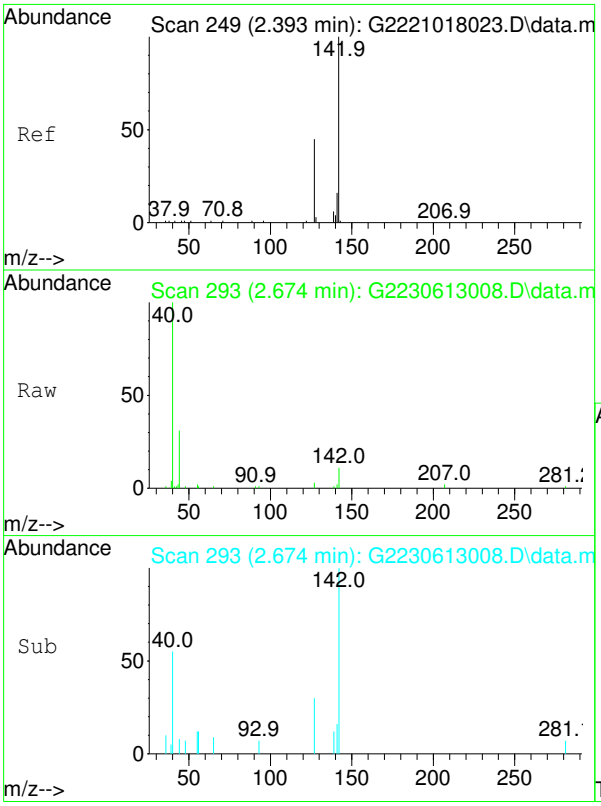


#12
Acetone
Concen: Below Cal
RT: 2.600 min Scan# 281
Delta R.T. -0.008 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 43 Resp: 75384

Ion	Ratio	Lower	Upper
43	100		
58	39.6	0.0	59.7

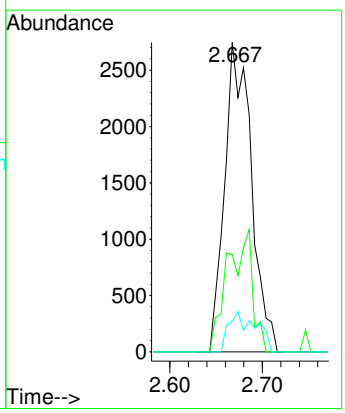


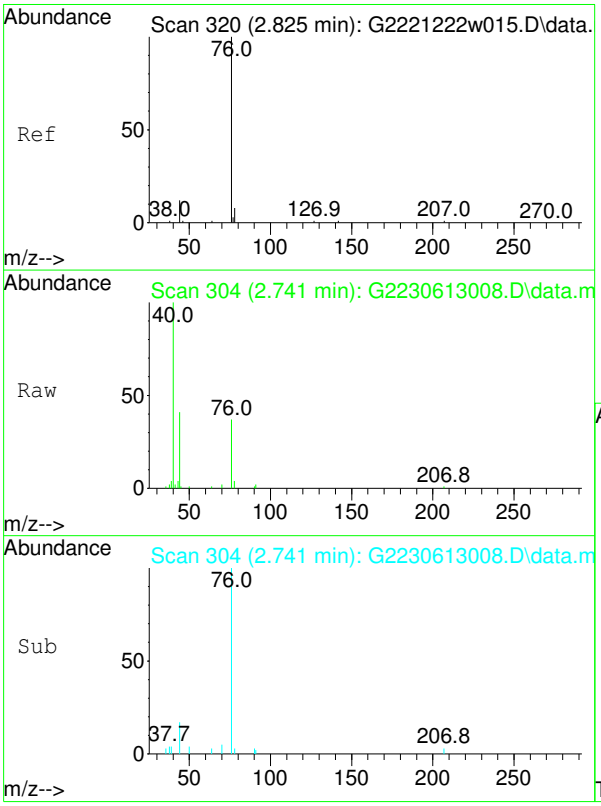


#13
Iodomethane
Concen: 0.13 ug/L
RT: 2.671 min Scan# 293
Delta R.T. -0.005 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion:142 Resp: 54899

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

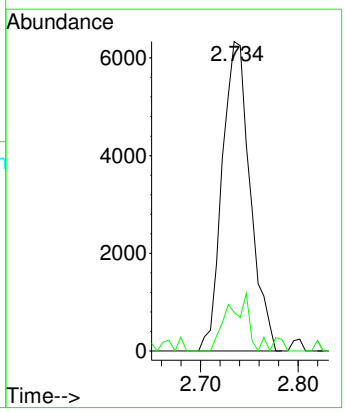


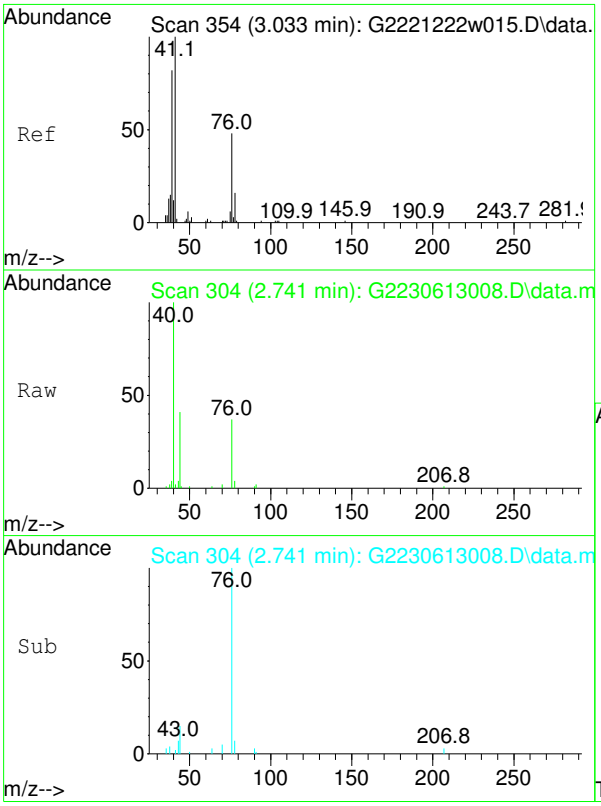


#14
Carbon disulfide
Concen: 0.07 ug/L
RT: 2.739 min Scan# 304
Delta R.T. 0.000 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 76 Resp: 125951

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

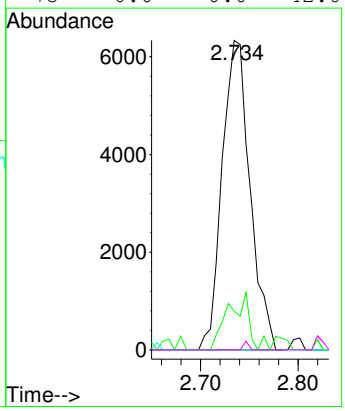


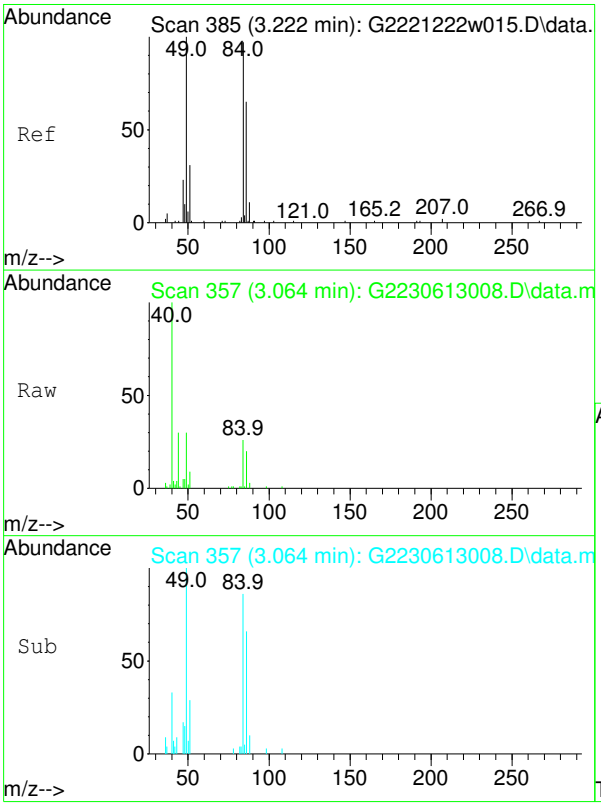


#17
3-Chloro-1-propene
Concen: 0.63 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.181 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 76 Resp: 125951

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

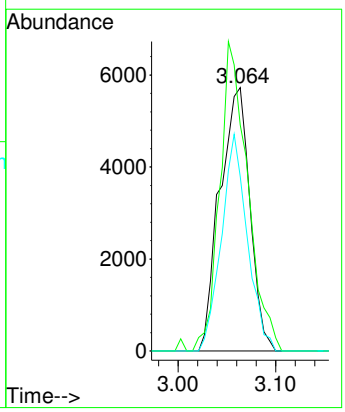


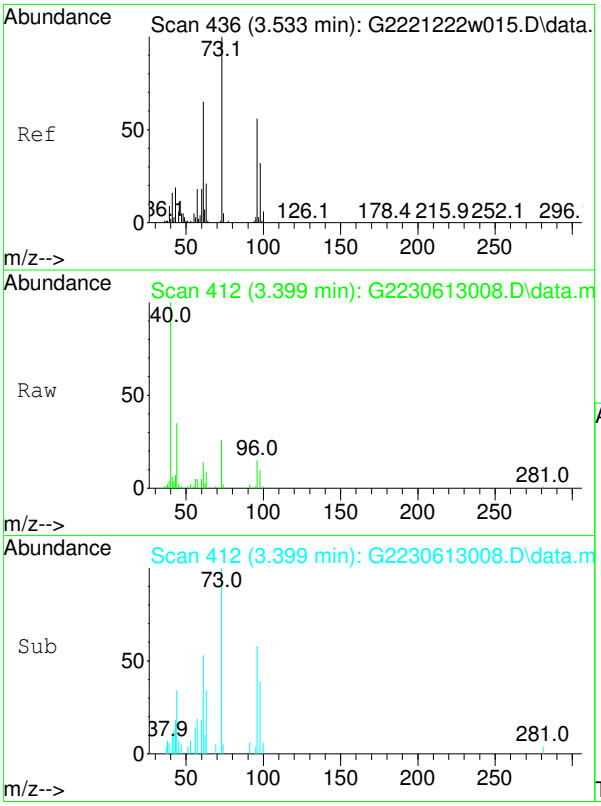


#18
Methylene chloride
Concen: Below Cal
RT: 3.063 min Scan# 357
Delta R.T. 0.001 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 49 Resp: 122497

Ion	Ratio	Lower	Upper
49	100		
84	109.3	57.9	117.9
86	71.1	24.9	84.9

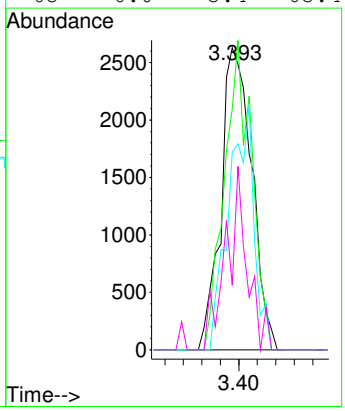


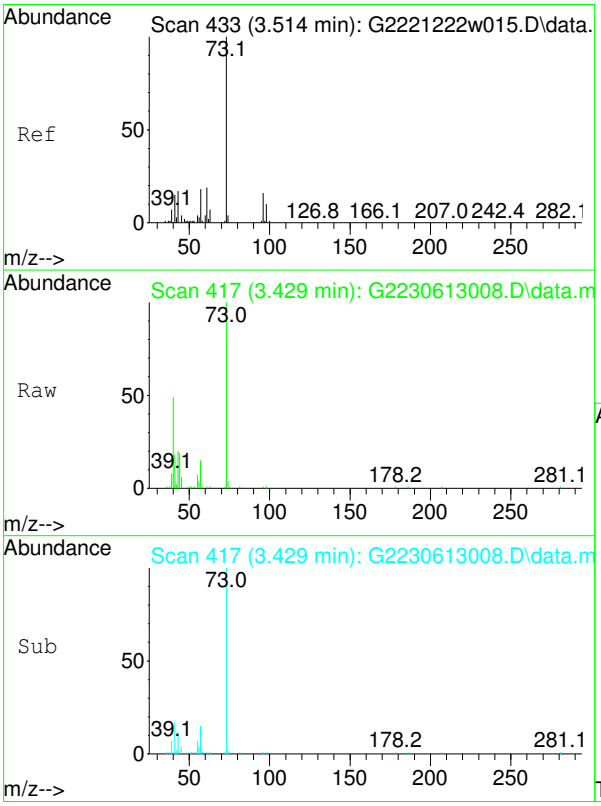


#20
trans-1,2-Dichloroethene
Concen: 0.16 ug/L
RT: 3.396 min Scan# 412
Delta R.T. -0.005 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 61 Resp: 60567

Ion	Ratio	Lower	Upper
61	100		
96	91.0	45.2	105.2
98	67.0	17.2	77.2
63	0.0	3.4	63.4#

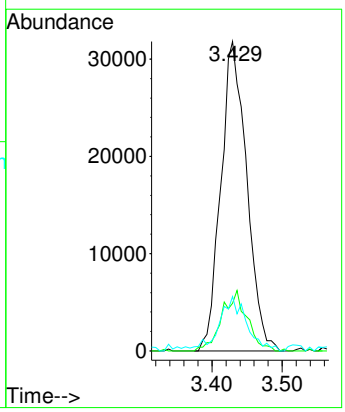


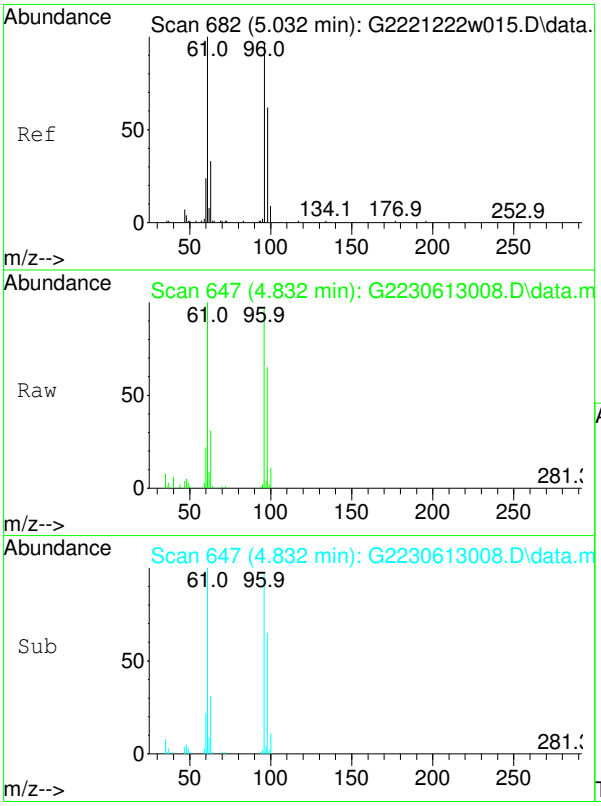


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.431 min Scan# 417
Delta R.T. -0.015 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 73 Resp: 814549

Ion	Ratio	Lower	Upper
73	100		
57	19.1	0.0	51.7
41	19.5	0.0	50.6

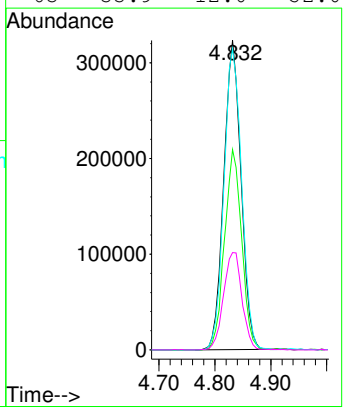


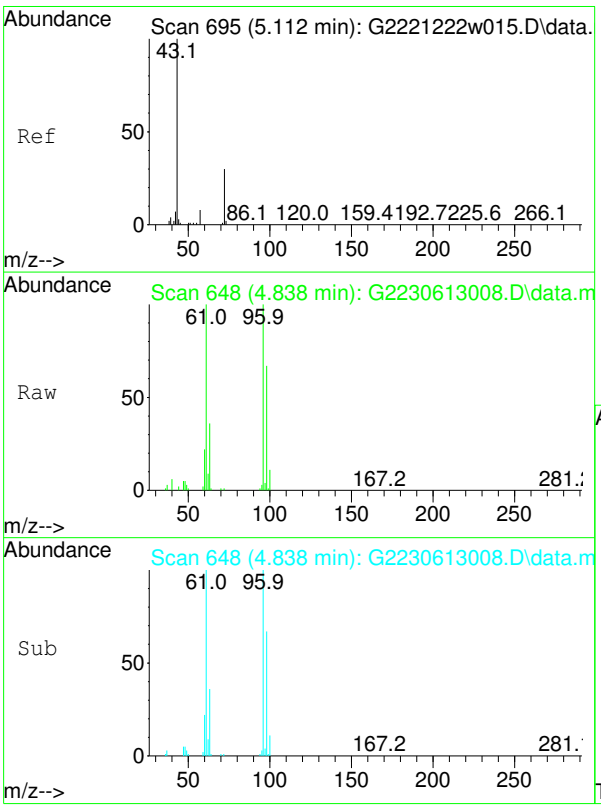


#28
cis-1,2-Dichloroethene
Concen: 15.57 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.002 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 61 Resp: 6938417

Ion	Ratio	Lower	Upper
61	100		
98	64.2	15.9	75.9
96	99.8	39.6	99.6#
63	33.9	12.0	52.0

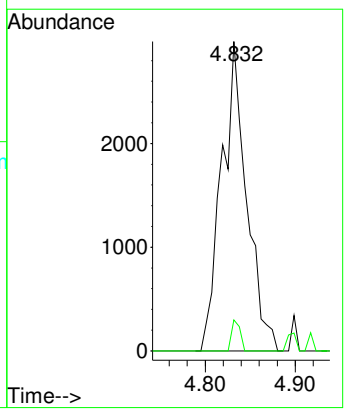


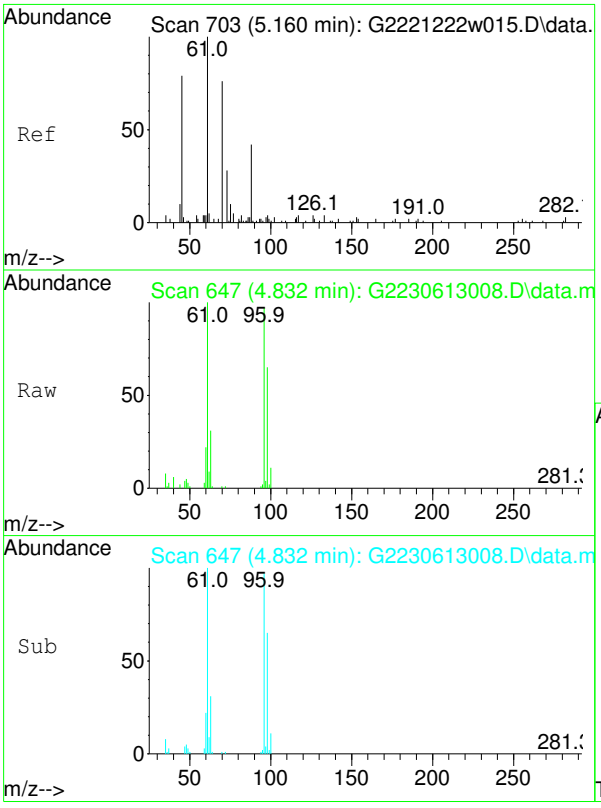


#29
2-Butanone
Concen: 0.75 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.083 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 72 Resp: 57655

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

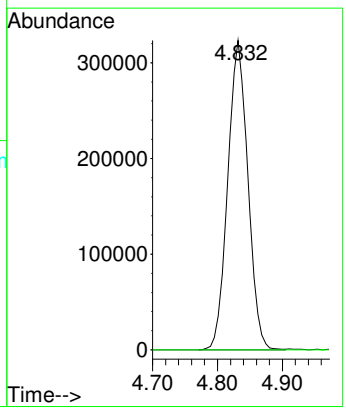


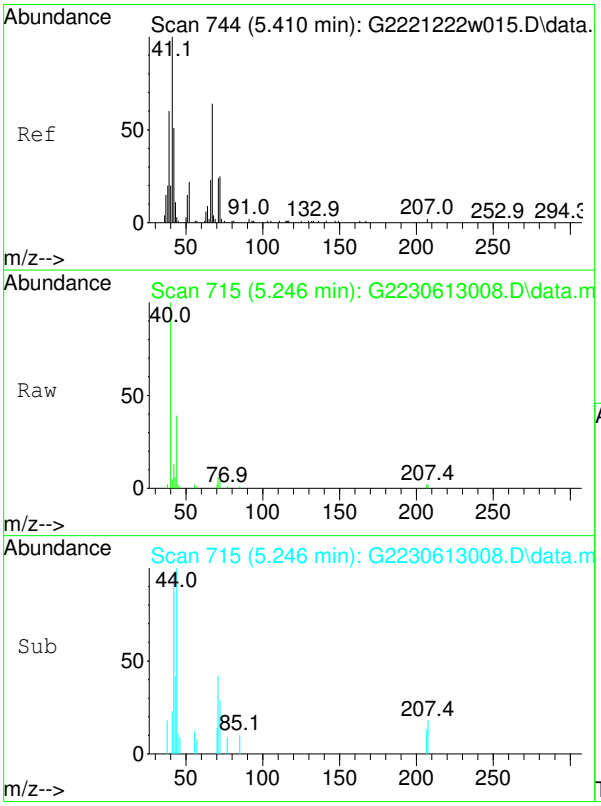


#31
Ethyl acetate
Concen: 132.70 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.188 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 61 Resp: 6960223

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

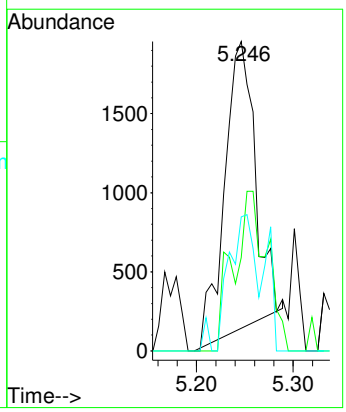


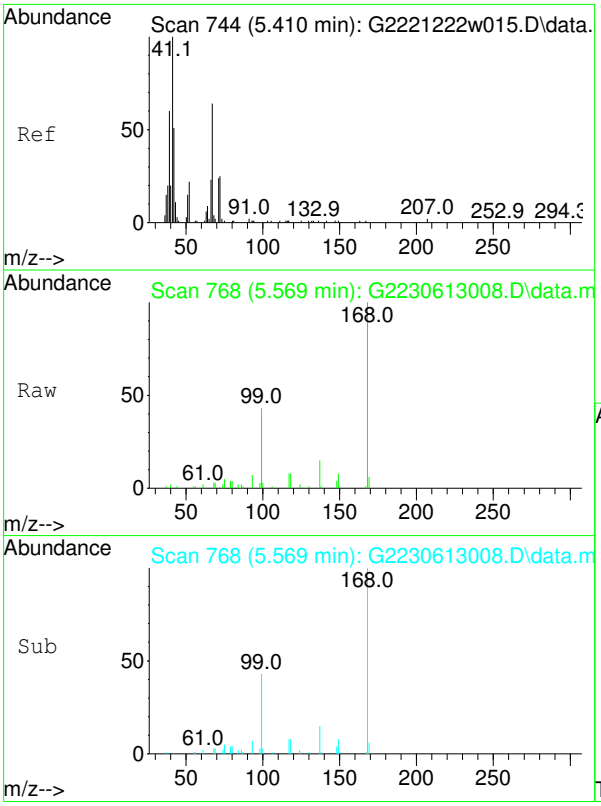


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.247 min Scan# 715
Delta R.T. -0.014 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 42 Resp: 39675

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

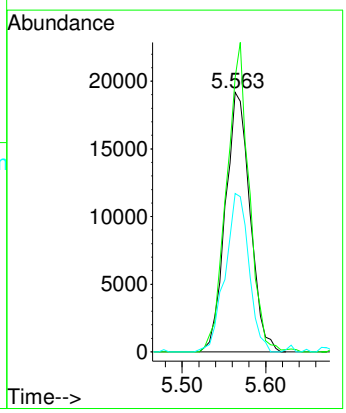


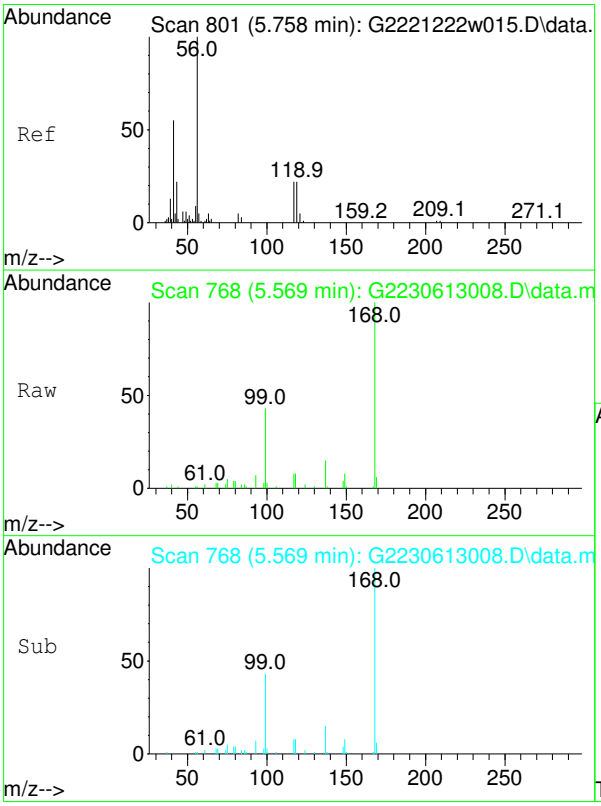


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 84 Resp: 393850

Ion	Ratio	Lower	Upper
84	100		
69	109.1	6.8	66.8#
56	59.2	79.1	139.1#

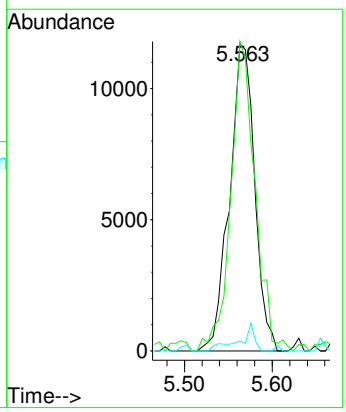


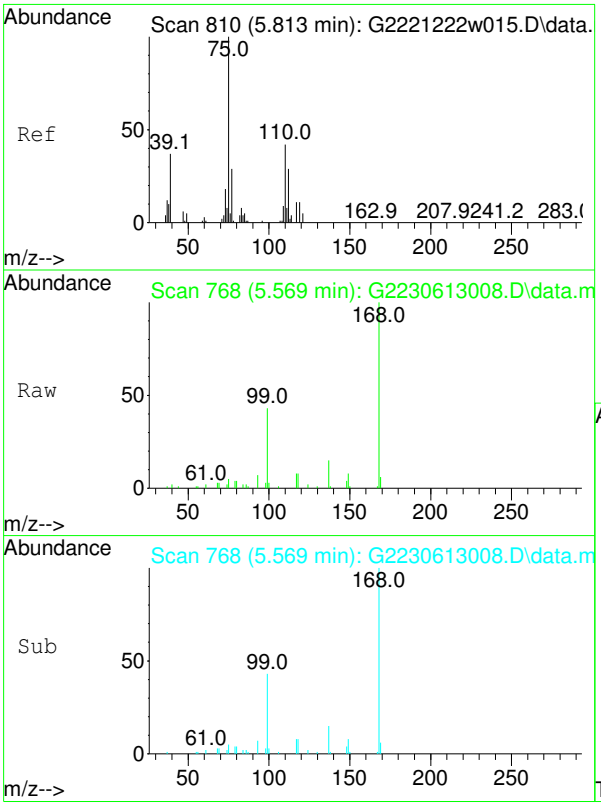


#41
1-Chlorobutane
Concen: 0.42 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 56 Resp: 232413

Ion	Ratio	Lower	Upper
56	100		
55	97.2	0.0	41.0#
57	0.0	0.0	35.7

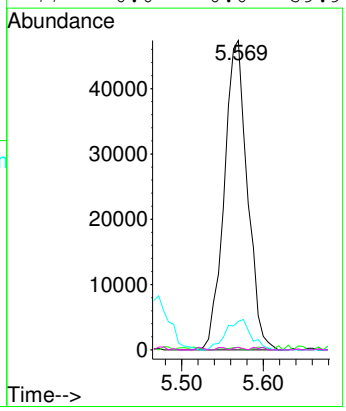


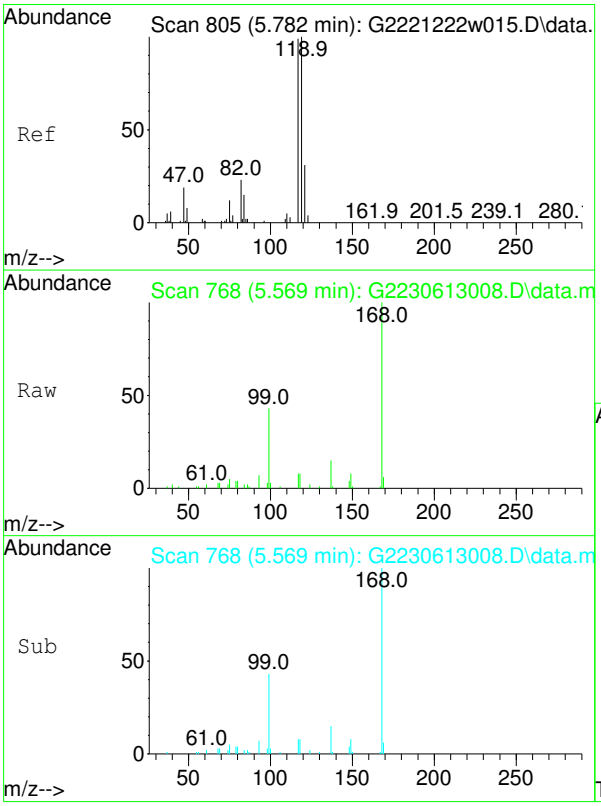


#42
1,1-Dichloropropene
Concen: 2.24 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 75 Resp: 929713

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.7	9.1	69.1
77	0.0	0.0	59.9

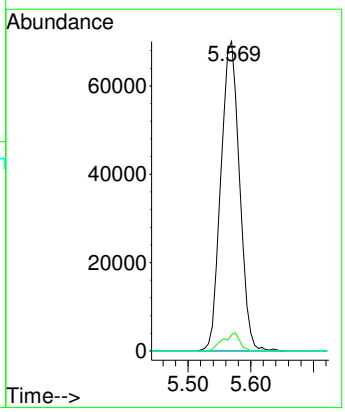


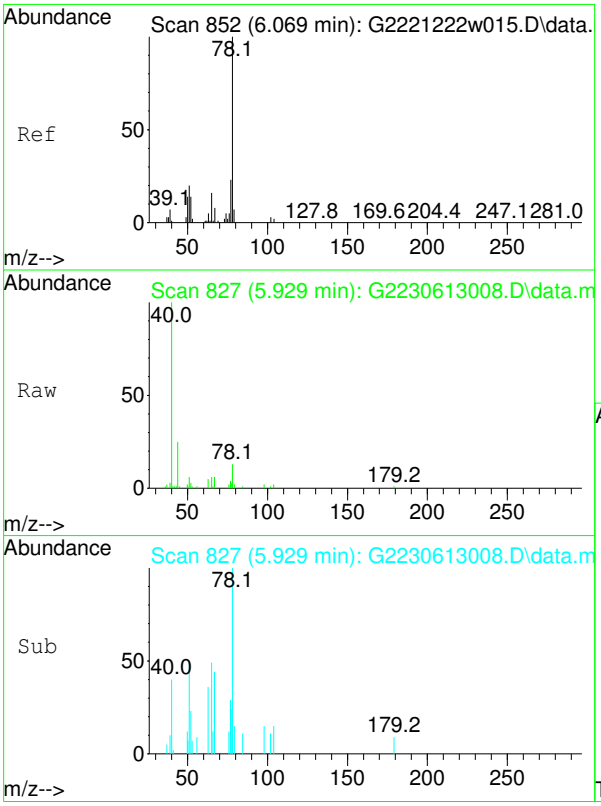


#47
Carbon tetrachloride
Concen: 3.25 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion:117 Resp: 1444080

Ion	Ratio	Lower	Upper
117	100		
119	5.2	66.4	126.4#
121	0.0	0.4	60.4#

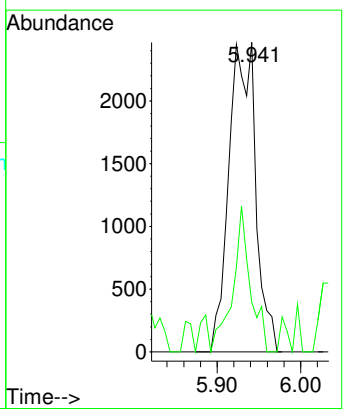


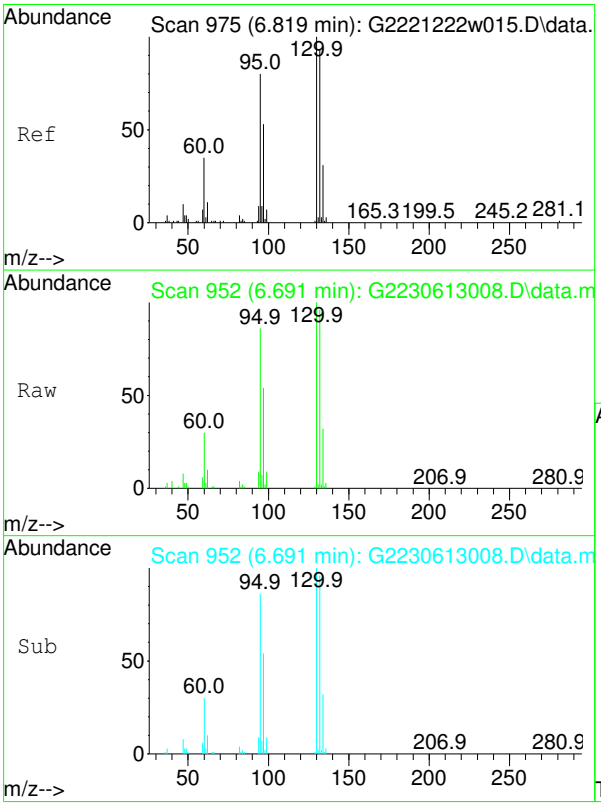


#48
Benzene
Concen: 0.04 ug/L
RT: 5.927 min Scan# 827
Delta R.T. -0.008 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 78 Resp: 54464

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

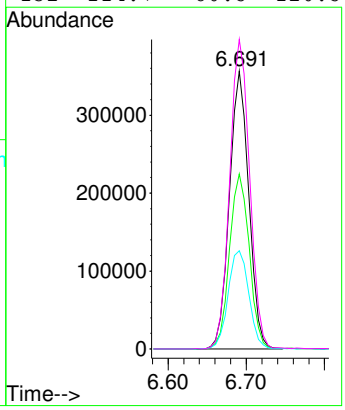


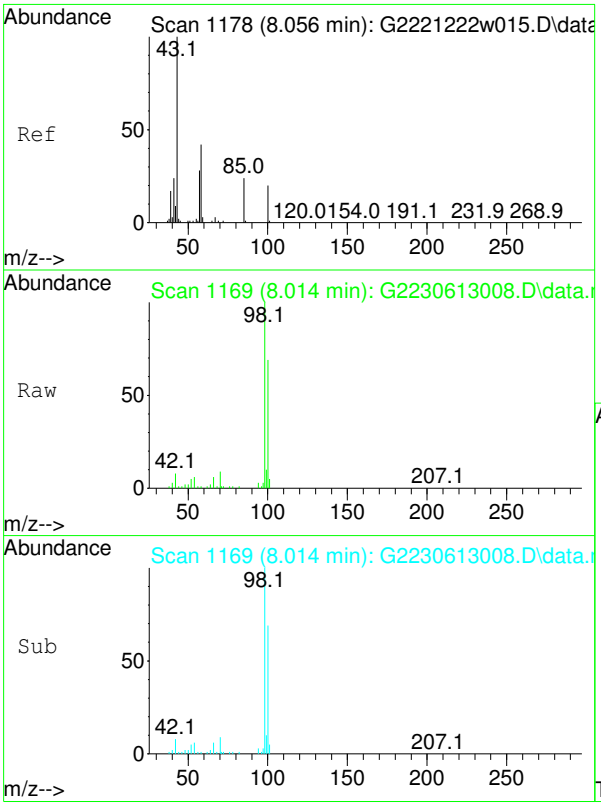


#50
Trichloroethene
Concen: 18.87 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 95 Resp: 6124800

Ion	Ratio	Lower	Upper
95	100		
97	64.2	35.5	95.5
60	38.0	14.8	74.8
132	114.7	80.5	120.5

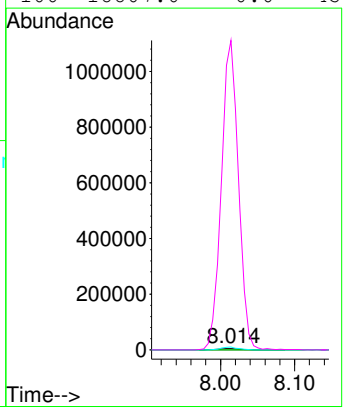


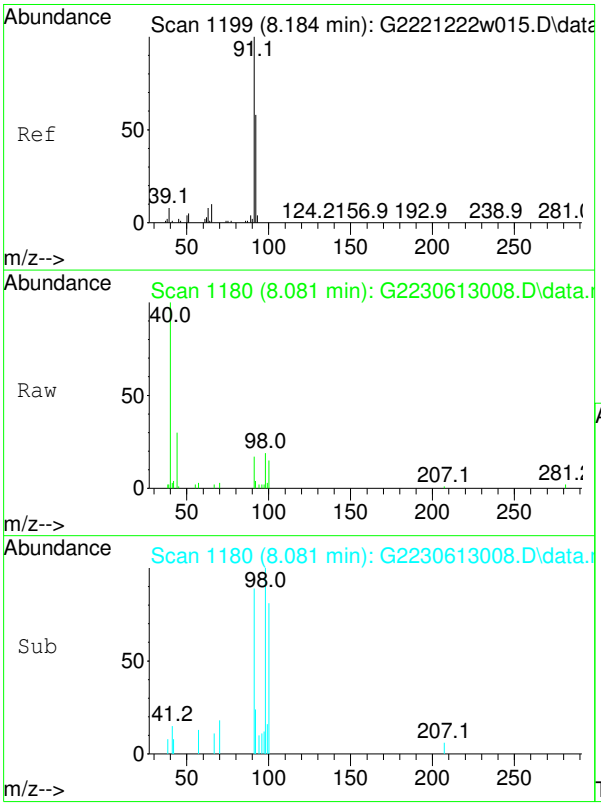


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 43 Resp: 95045

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	172.4	37.0	37.0#
100	18807.0	0.0	45.2#

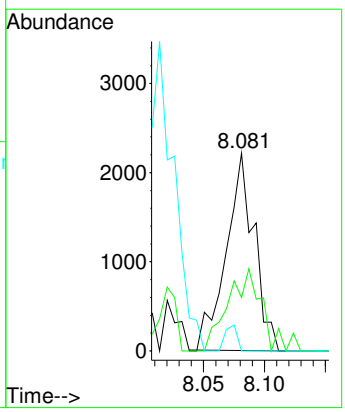


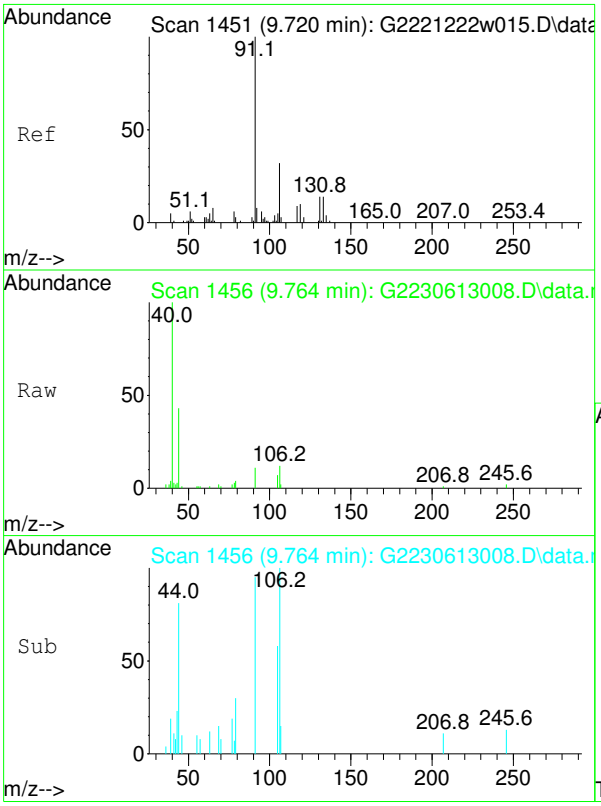


#65
Toluene
Concen: Below Cal
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 91 Resp: 35603

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

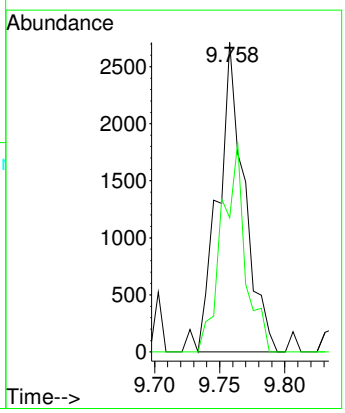


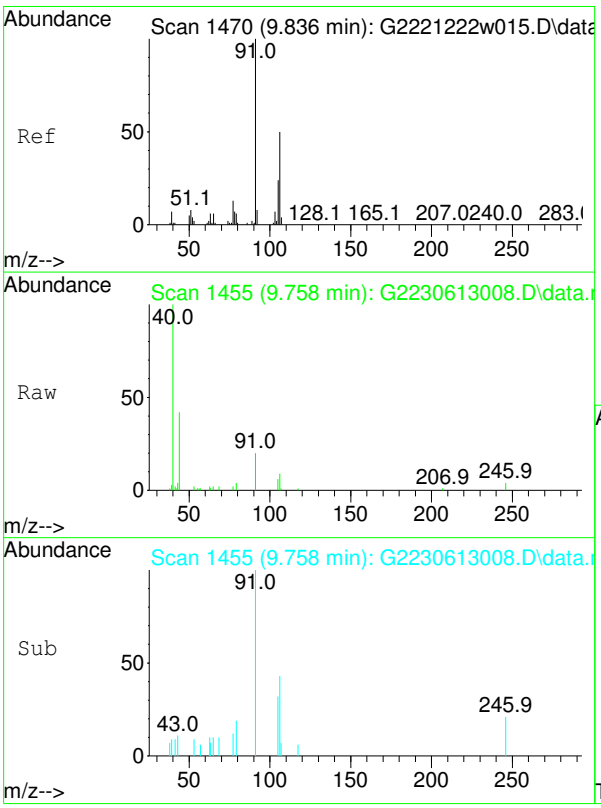


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 91 Resp: 37817

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

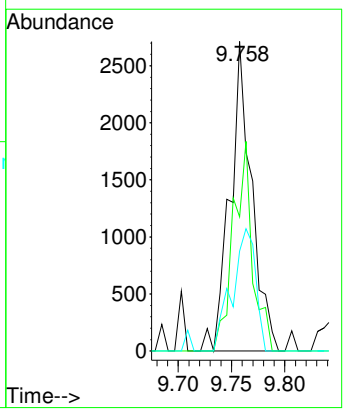




#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230613008.D
Acq: 13 Jun 2023 11:35

Tgt Ion: 91 Resp: 38319

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03	File ID:	G2230612021.D
Sampled:	05/30/23 15:00	Prepared:	06/12/23 12:00	Analyzed:	06/12/23 16:55
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.130	0.400	1.00	U
71-55-6	1,1,1-Trichloroethane		0.175	0.400	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.124	0.400	1.00	U
79-00-5	1,1,2-Trichloroethane		0.166	0.400	1.00	U
75-34-3	1,1-Dichloroethane		0.134	0.400	1.00	U
75-35-4	1,1-Dichloroethene		0.191	0.400	1.00	U
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.204	0.400	1.00	U
96-18-4	1,2,3-Trichloropropane		0.183	0.400	1.00	U
120-82-1	1,2,4-Trichlorobenzene		0.205	0.600	1.20	U
95-63-6	1,2,4-Trimethylbenzene		0.132	0.400	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.260	1.00	2.00	U
106-93-4	1,2-Dibromoethane		0.106	0.400	1.00	U
95-50-1	1,2-Dichlorobenzene		0.126	0.400	1.00	U
107-06-2	1,2-Dichloroethane		0.212	0.600	1.20	U
78-87-5	1,2-Dichloropropane		0.205	0.600	1.20	U
108-67-8	1,3,5-Trimethylbenzene		0.100	0.400	1.00	U
541-73-1	1,3-Dichlorobenzene		0.145	0.400	1.00	U
142-28-9	1,3-Dichloropropane		0.136	0.400	1.00	U
106-46-7	1,4-Dichlorobenzene		0.184	0.400	1.00	U
594-20-7	2,2-Dichloropropane		0.184	0.400	1.00	U
78-93-3	2-Butanone		0.660	1.40	3.50	U
95-49-8	2-Chlorotoluene		0.147	0.400	1.00	U
591-78-6	2-Hexanone		0.143	1.40	3.50	U
106-43-4	4-Chlorotoluene		0.184	0.400	1.00	U
99-87-6	4-Isopropyltoluene		0.140	0.400	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03	File ID:	G2230612021.D
Sampled:	05/30/23 15:00	Prepared:	06/12/23 12:00	Analyzed:	06/12/23 16:55
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.270	1.40	3.50	U
67-64-1	Acetone		1.04	4.00	8.00	U
71-43-2	Benzene		0.101	0.400	1.00	U
108-86-1	Bromobenzene		0.170	0.400	1.00	U
74-97-5	Bromochloromethane		0.134	0.400	1.00	U
75-27-4	Bromodichloromethane		0.106	0.400	1.00	U
75-25-2	Bromoform		0.206	0.400	1.00	U
74-83-9	Bromomethane		0.320	1.00	2.00	U
75-15-0	Carbon disulfide		0.280	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.169	0.400	1.00	U
108-90-7	Chlorobenzene		0.130	0.400	1.00	U
75-00-3	Chloroethane		0.311	0.400	1.00	U
67-66-3	Chloroform		0.203	0.600	1.20	U
74-87-3	Chloromethane		0.384	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.205	0.600	1.20	U
10061-01-5	cis-1,3-Dichloropropene		0.117	0.400	1.00	U
124-48-1	Dibromochloromethane		0.152	0.400	1.00	U
74-95-3	Dibromomethane		0.163	0.400	1.00	U
75-71-8	Dichlorodifluoromethane		0.259	1.00	2.00	U
100-41-4	Ethylbenzene		0.0600	0.200	0.400	U
87-68-3	Hexachlorobutadiene		0.200	0.400	1.00	U
98-82-8	Isopropylbenzene		0.110	0.400	1.00	U
179601-23-1	m,p-Xylene		0.178	0.800	2.00	U
1634-04-4	Methyl tert-butyl ether		0.106	0.400	1.00	U
75-09-2	Methylene chloride		0.447	1.00	2.00	U
104-51-8	n-Butylbenzene		0.260	1.00	2.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53047WW08R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-03	File ID:	G2230612021.D
Sampled:	05/30/23 15:00	Prepared:	06/12/23 12:00	Analyzed:	06/12/23 16:55
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.126	0.400	1.00	U
91-20-3	Naphthalene		0.140	0.400	1.00	U
95-47-6	o-Xylene		0.0832	0.400	1.00	U
135-98-8	sec-Butylbenzene		0.120	0.400	1.00	U
100-42-5	Styrene		0.0906	0.200	0.400	U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	Q, U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.171	0.400	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene	0.420	0.156	0.400	1.00	J, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride		0.258	1.00	2.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612021.D
Acq On : 12 Jun 2023 16:55
Operator : PO1/MP3
Sample : 23F0136-03
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 13 08:34:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

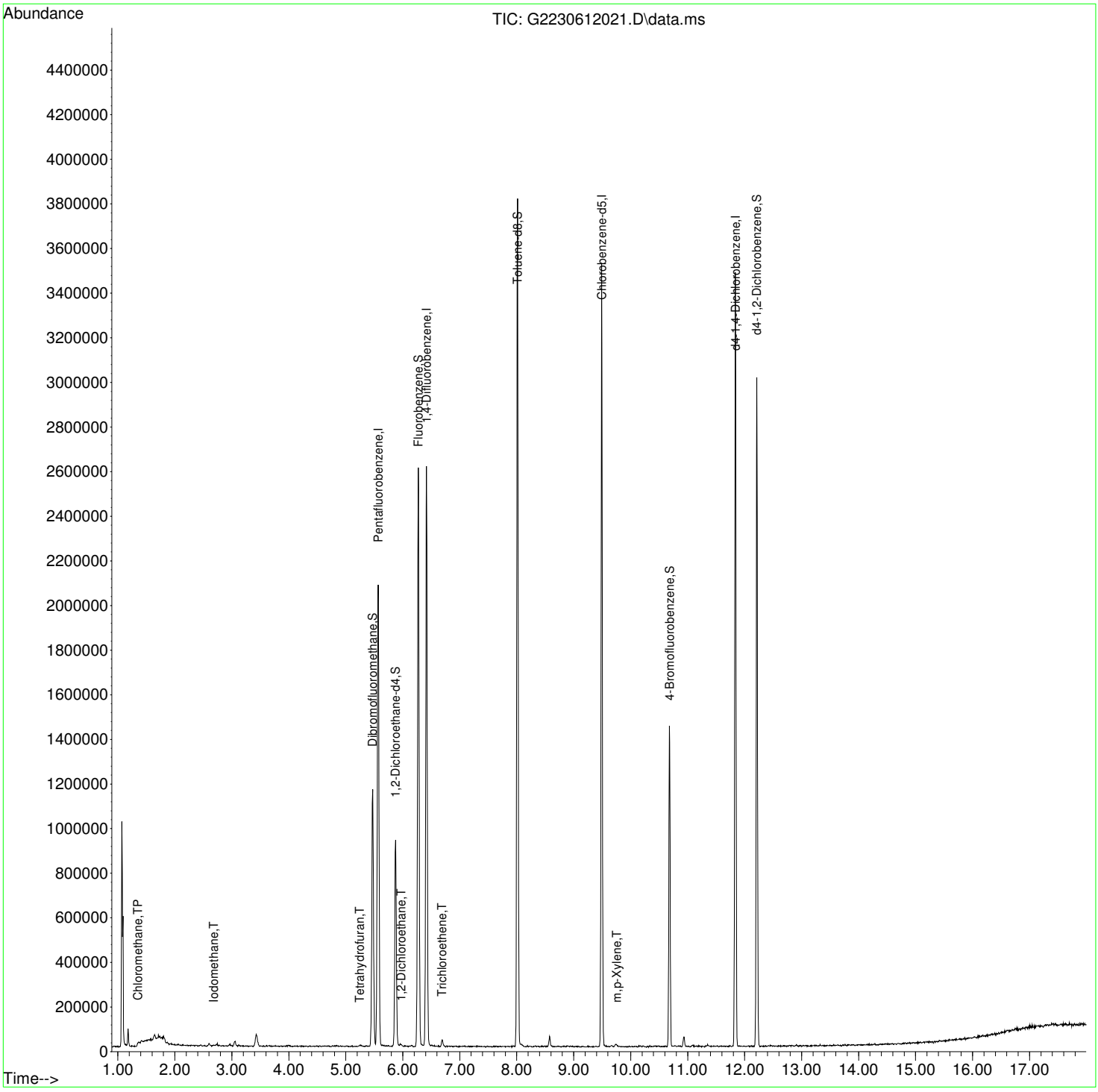
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	16502947	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	22943947	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20345896	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9813308	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7156773	19.71	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.55%			
43) 1,2-Dichloroethane-d4	5.875	65	6576665	18.32	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.60%			
49) Fluorobenzene	6.275	96	25428912	19.45	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.25%			
64) Toluene-d8	8.015	98	24974927	19.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.35%			
81) 4-Bromofluorobenzene	10.684	174	4435461	9.57	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.70%			
97) d4-1,2-Dichlorobenzene	12.216	152	8536863	20.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.15%			
Target Compounds						Qvalue
3) Chloromethane	1.352	50	34133	0.02	ug/L #	41
5) Bromomethane	1.718	94	54730	Below Cal	#	77
12) Acetone	2.599	43	99064	Below Cal		85
13) Iodomethane	2.682	142	35804	0.09	ug/L #	41
18) Methylene chloride	3.054	49	108912	Below Cal	#	74
21) Methyl tert-butyl ether	3.429	73	718186	Below Cal		95
36) Tetrahydrofuran	5.244	42	49950	0.02	ug/L #	30
44) 1,2-Dichloroethane	5.969	62	59979	0.05	ug/L #	47
50) Trichloroethene	6.690	95	86434	0.21	ug/L #	79
65) Toluene	8.083	91	22832	Below Cal	#	30
75) m,p-Xylene	9.760	91	35594	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342014

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612021.D
Acq On : 12 Jun 2023 16:55
Operator : PO1/MP3
Sample : 23F0136-03
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 13 08:34:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612021.D
Acq On : 12 Jun 2023 16:55
Operator : PO1/MP3
Sample : 23F0136-03
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 13 08:34:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

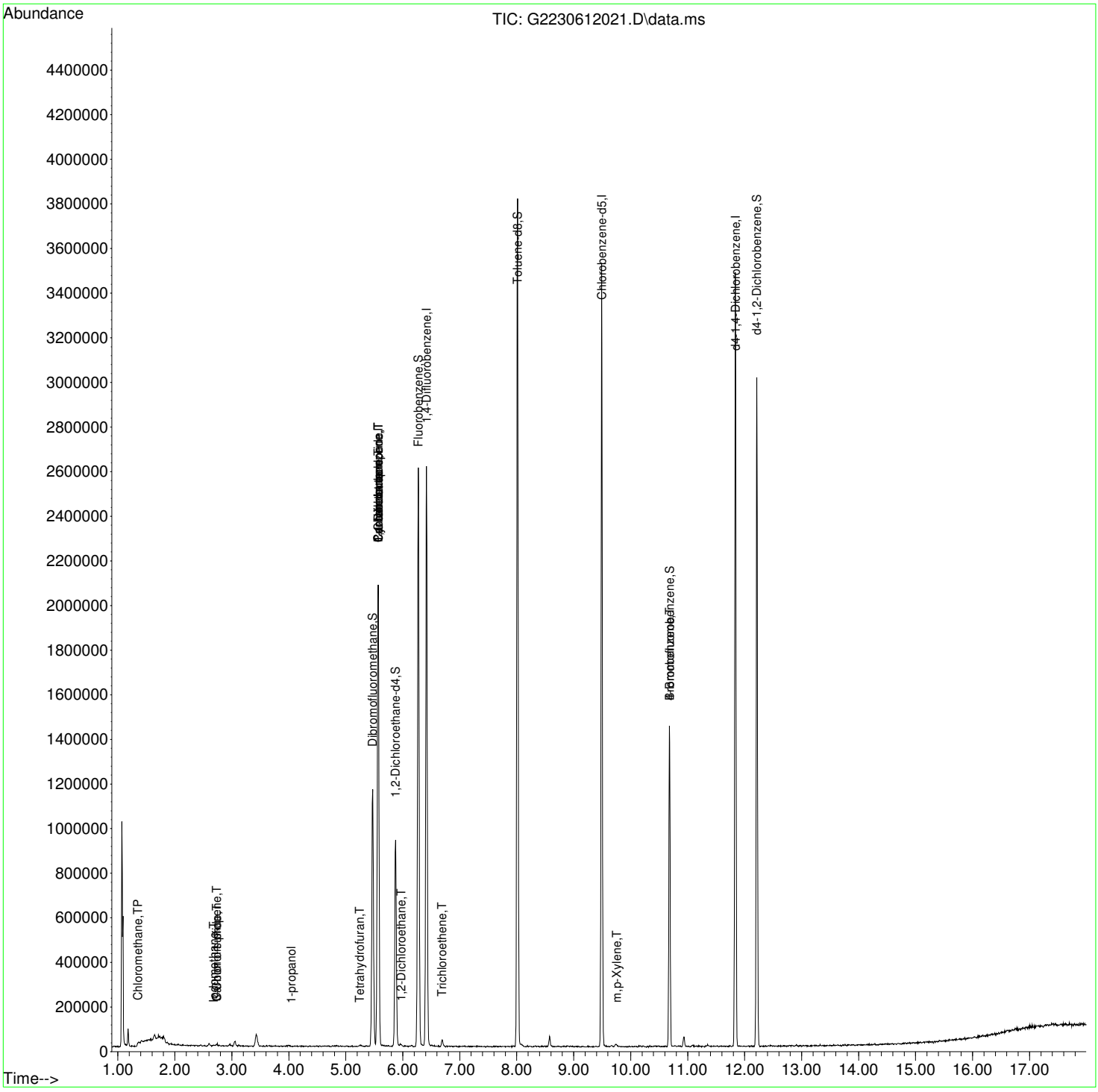
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	16502947	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	22943947	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20345896	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9813308	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7156773	19.71	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.55%			
43) 1,2-Dichloroethane-d4	5.875	65	6576665	18.32	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.60%			
49) Fluorobenzene	6.275	96	25428912	19.45	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.25%			
64) Toluene-d8	8.015	98	24974927	19.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.35%			
81) 4-Bromofluorobenzene	10.684	174	4435461	9.57	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.70%			
97) d4-1,2-Dichlorobenzene	12.216	152	8536863	20.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.15%			
Target Compounds						Qvalue
3) Chloromethane	1.352	50	34133	0.02	ug/L #	41
5) Bromomethane	1.718	94	54730	Below Cal	#	77
12) Acetone	2.599	43	99064	Below Cal		85
13) Iodomethane	2.682	142	35804	0.09	ug/L #	41
14) Carbon disulfide	2.737	76	103773	0.05	ug/L #	74
17) 3-Chloro-1-propene	2.737	76	103770	0.55	ug/L #	53
18) Methylene chloride	3.054	49	108912	Below Cal	#	74
21) Methyl tert-butyl ether	3.429	73	718186	Below Cal		95
26) 1-propanol	4.047	59	815	0.47	ug/L #	100
36) Tetrahydrofuran	5.244	42	49950	0.02	ug/L #	30
40) Cyclohexane	5.566	84	333125	0.75	ug/L #	34
41) 1-Chlorobutane	5.570	56	210876	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.568	75	873415	2.26	ug/L #	38
44) 1,2-Dichloroethane	5.969	62	59979	0.05	ug/L #	47
47) Carbon tetrachloride	5.569	117	1343528	3.25	ug/L #	17
50) Trichloroethene	6.690	95	86434	0.21	ug/L #	79
60) 4-Methyl-2-pentanone	8.017	43	87811	Below Cal	#	1
65) Toluene	8.083	91	22832	Below Cal	#	30
74) Ethylbenzene	9.761	91	37913	Below Cal	#	44
75) m,p-Xylene	9.760	91	35594	0.03	ug/L #	36
82) Bromobenzene	10.683	77	27208	0.05	ug/L #	1

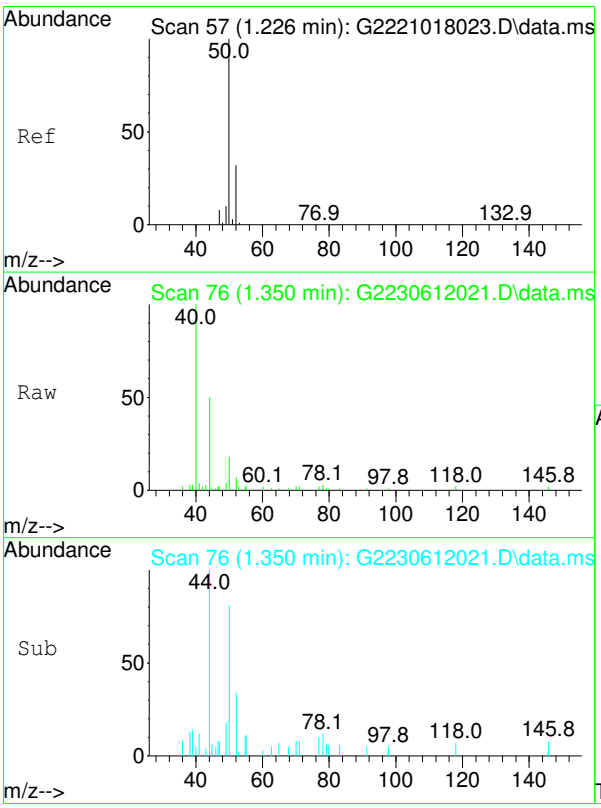
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342016

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612021.D
Acq On : 12 Jun 2023 16:55
Operator : PO1/MP3
Sample : 23F0136-03
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 13 08:34:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

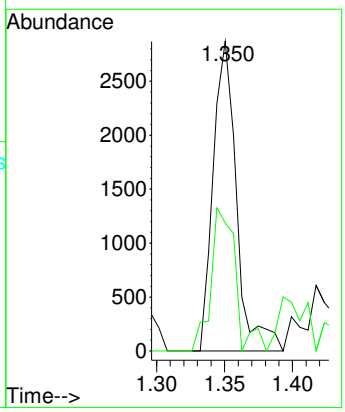


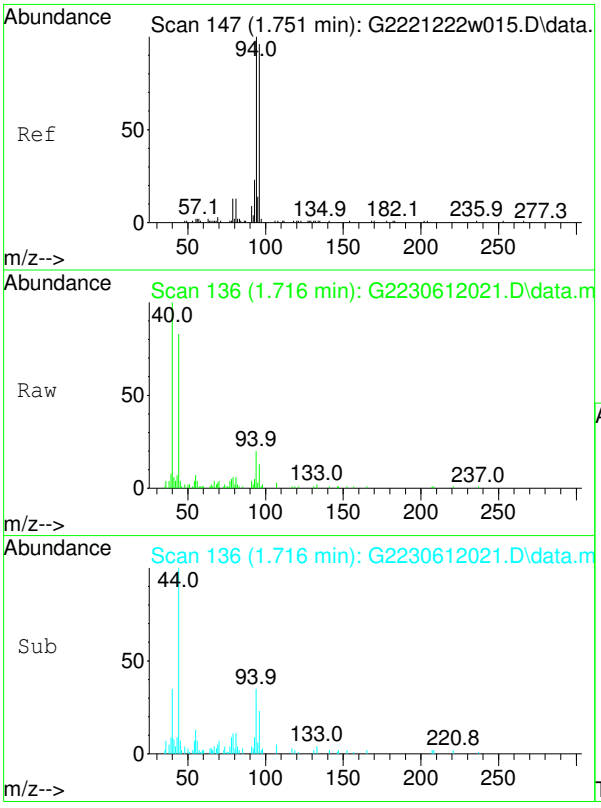


#3
Chloromethane
Concen: 0.02 ug/L
RT: 1.352 min Scan# 76
Delta R.T. -0.002 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 50 Resp: 34133

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

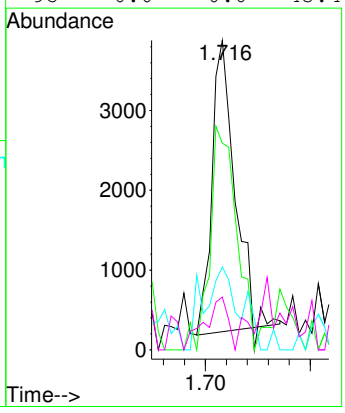


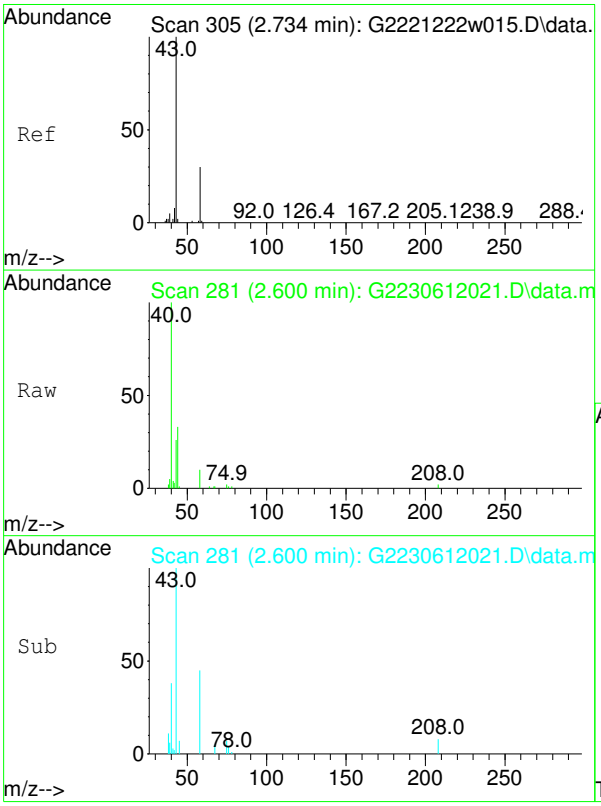


#5
Bromomethane
Concen: Below Cal
RT: 1.718 min Scan# 136
Delta R.T. 0.004 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 94 Resp: 54730

Ion	Ratio	Lower	Upper
94	100		
96	78.1	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

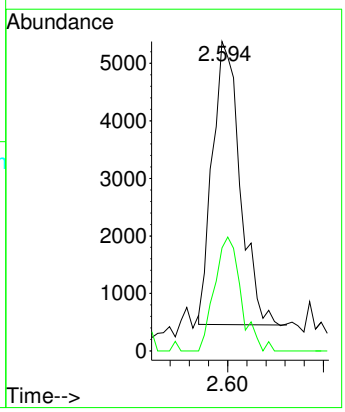


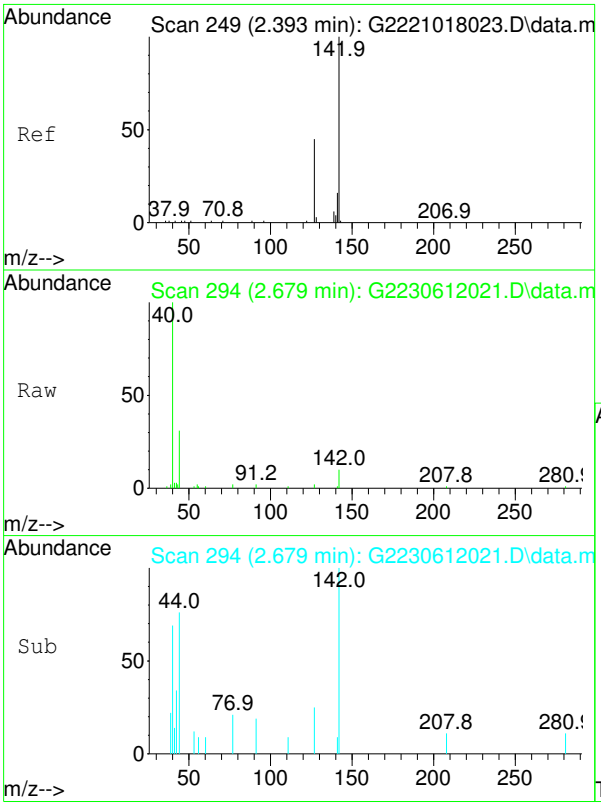


#12
Acetone
Concen: Below Cal
RT: 2.599 min Scan# 281
Delta R.T. -0.009 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 43 Resp: 99064

Ion	Ratio	Lower	Upper
43	100		
58	37.9	0.0	59.7

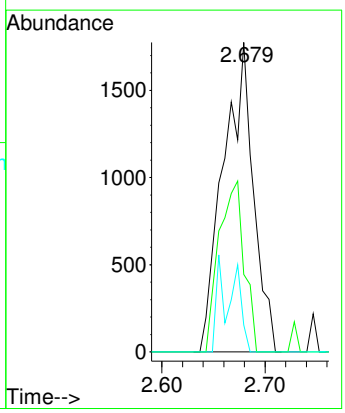


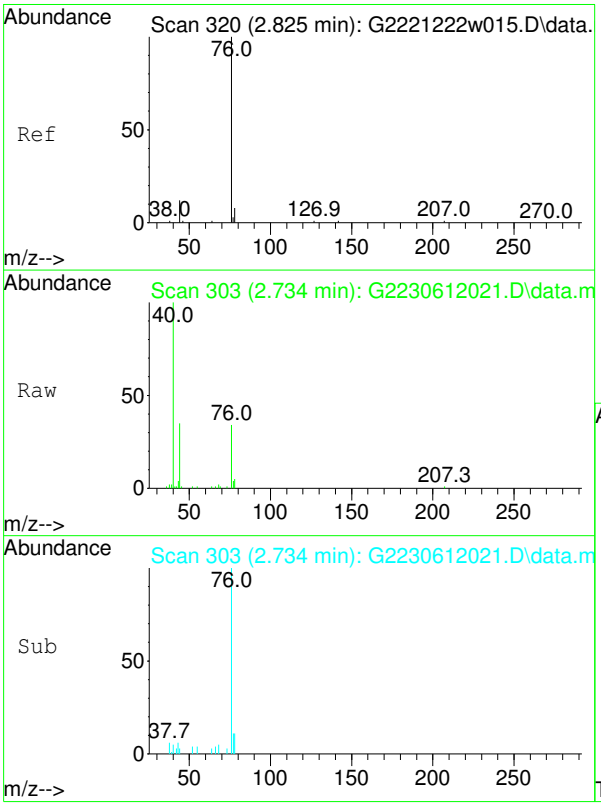


#13
Iodomethane
Concen: 0.09 ug/L
RT: 2.682 min Scan# 294
Delta R.T. 0.006 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion:142 Resp: 35804

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

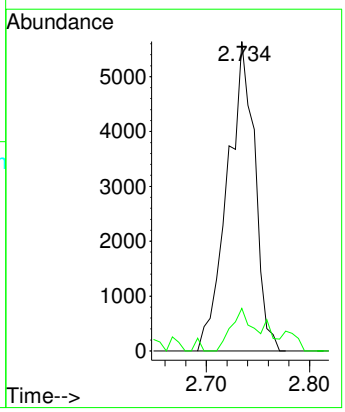


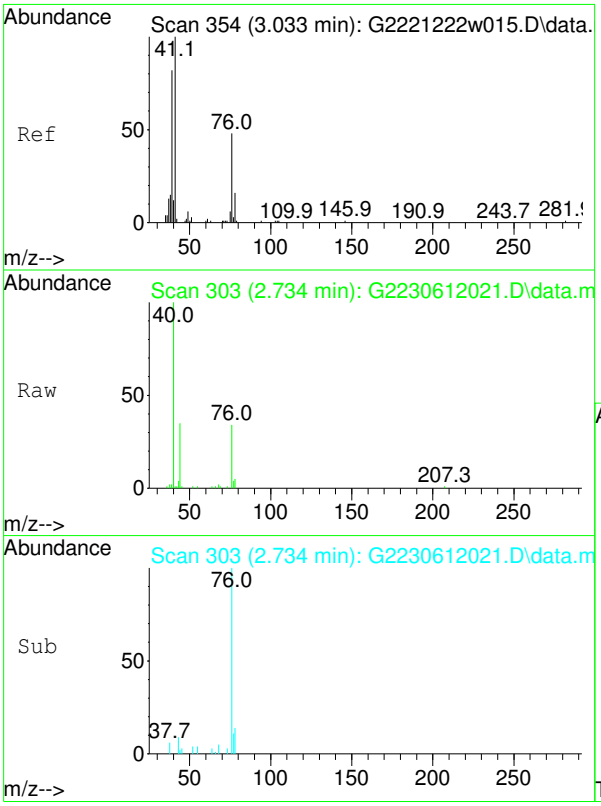


#14
Carbon disulfide
Concen: 0.05 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.002 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 76 Resp: 103773

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

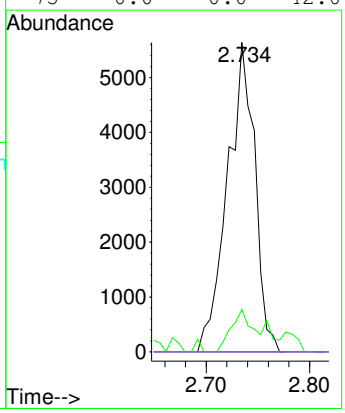


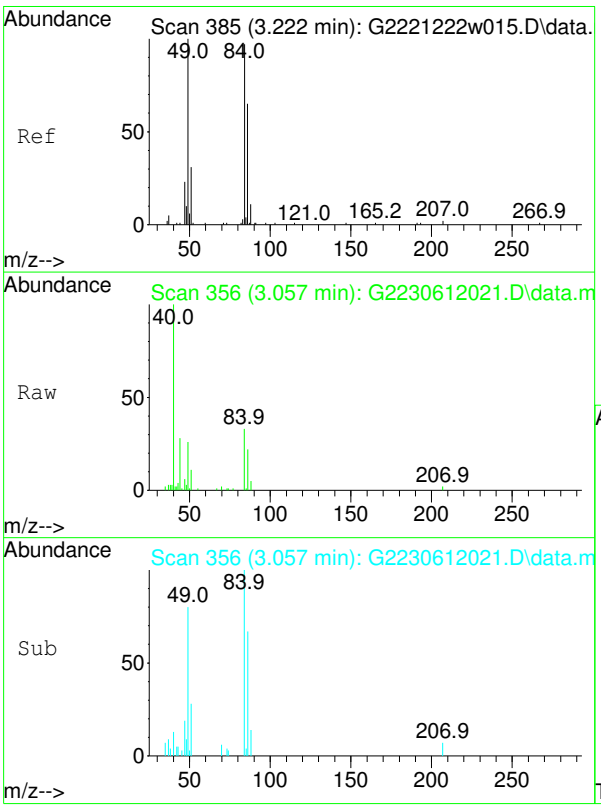


#17
3-Chloro-1-propene
Concen: 0.55 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.183 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 76 Resp: 103770

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

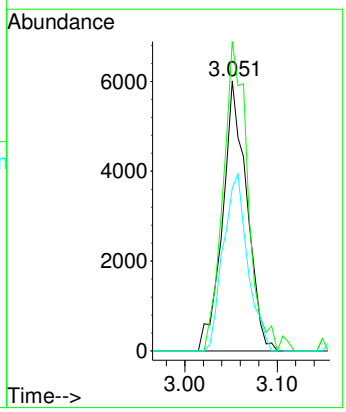


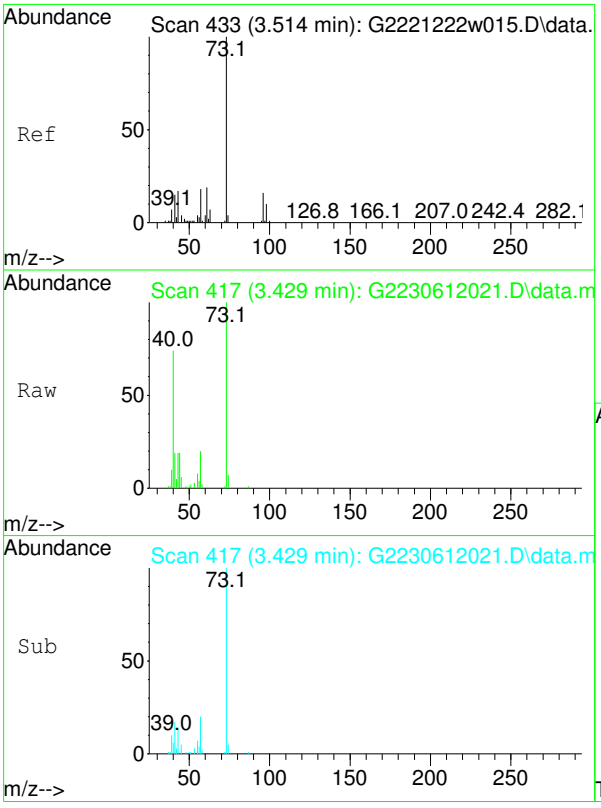


#18
Methylene chloride
Concen: Below Cal
RT: 3.054 min Scan# 356
Delta R.T. -0.008 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 49 Resp: 108912

Ion	Ratio	Lower	Upper
49	100		
84	118.4	57.9	117.9#
86	66.4	24.9	84.9

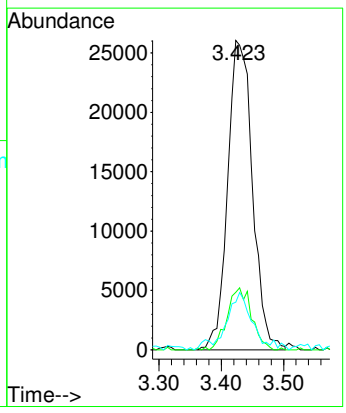


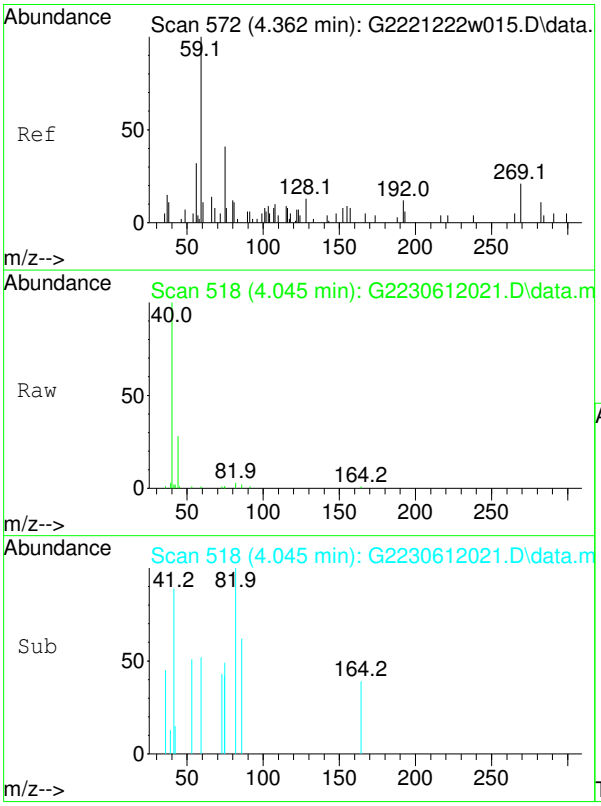


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.429 min Scan# 417
Delta R.T. -0.017 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 73 Resp: 718186

Ion	Ratio	Lower	Upper
73	100		
57	19.5	0.0	51.7
41	17.9	0.0	50.6

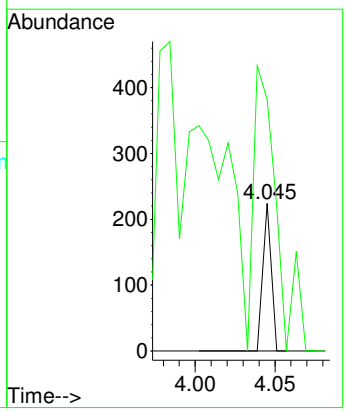


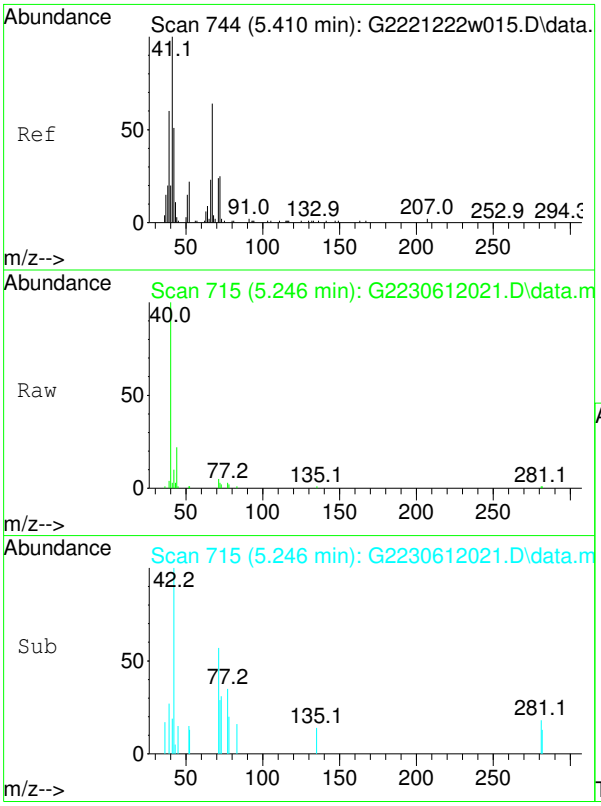


#26
1-propanol
Concen: 0.47 ug/L
RT: 4.047 min Scan# 518
Delta R.T. -0.242 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 59 Resp: 815

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

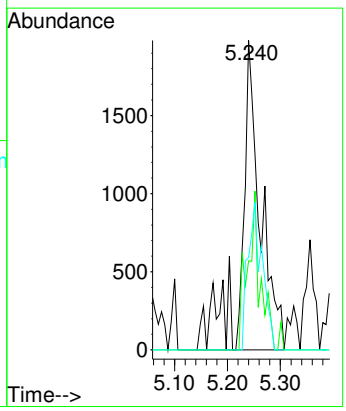


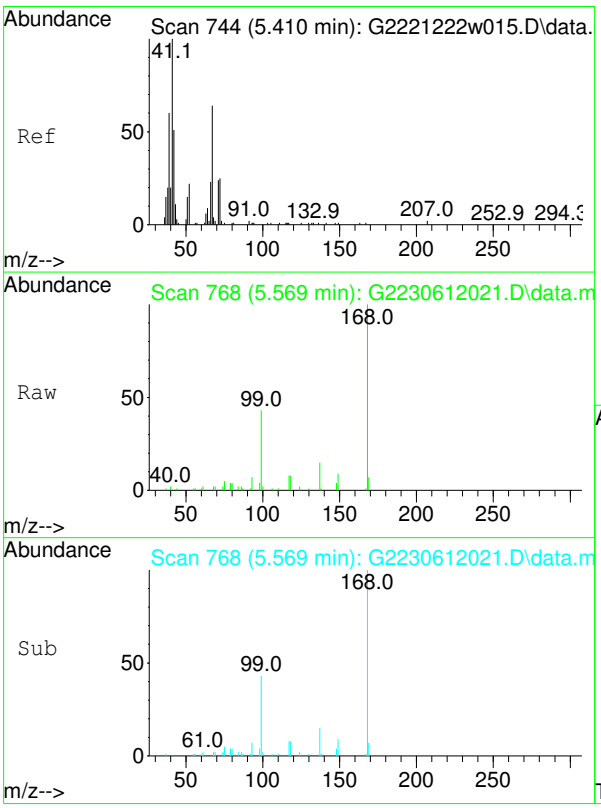


#36
Tetrahydrofuran
Concen: 0.02 ug/L
RT: 5.244 min Scan# 715
Delta R.T. -0.017 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 42 Resp: 49950

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

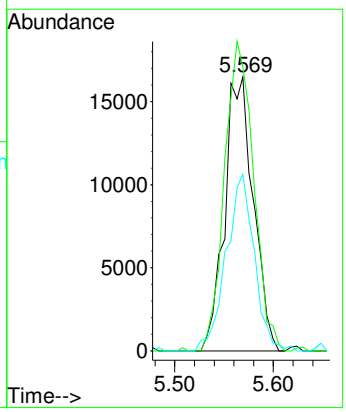


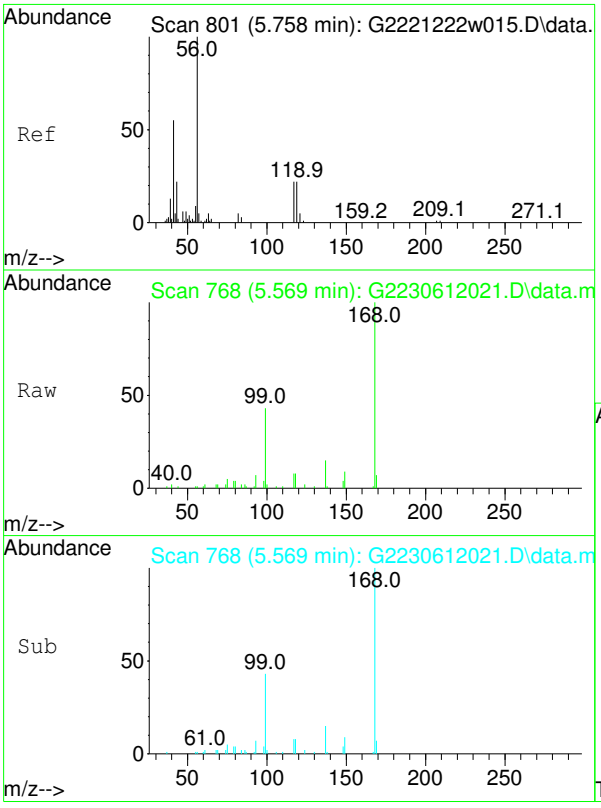


#40
Cyclohexane
Concen: 0.75 ug/L
RT: 5.566 min Scan# 768
Delta R.T. 0.032 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 84 Resp: 333125

Ion	Ratio	Lower	Upper
84	100		
69	114.7	6.8	66.8#
56	63.3	79.1	139.1#

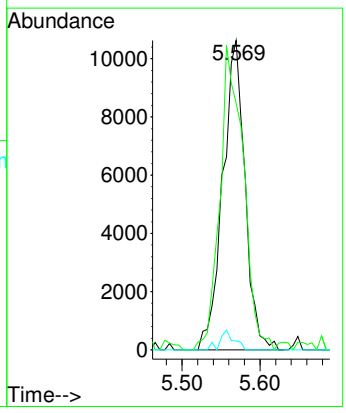


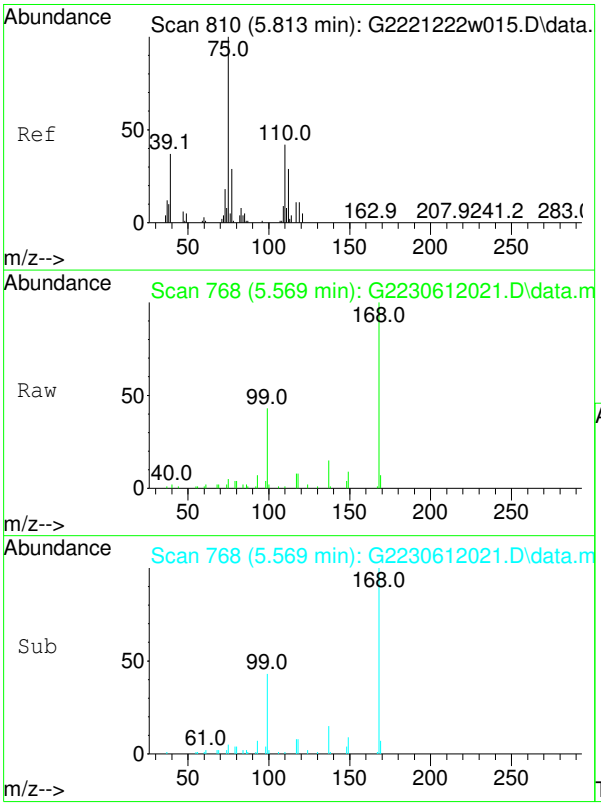


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 56 Resp: 210876

Ion	Ratio	Lower	Upper
56	100		
55	103.1	0.0	41.0#
57	0.0	0.0	35.7

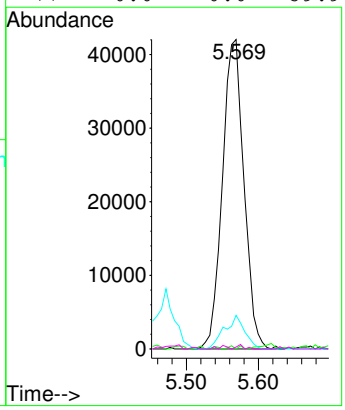


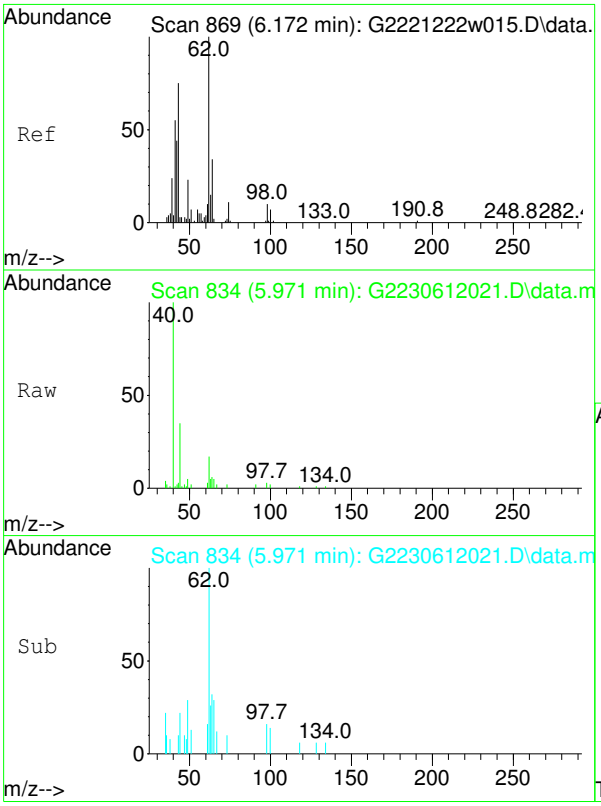


#42
1,1-Dichloropropene
Concen: 2.26 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 75 Resp: 873415

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.2	9.1	69.1
77	0.0	0.0	59.9

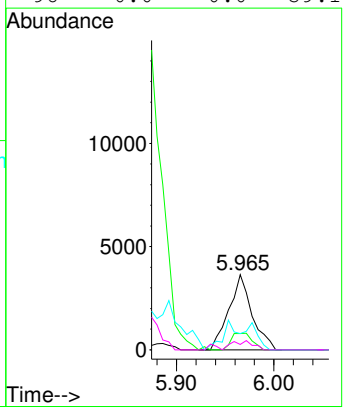


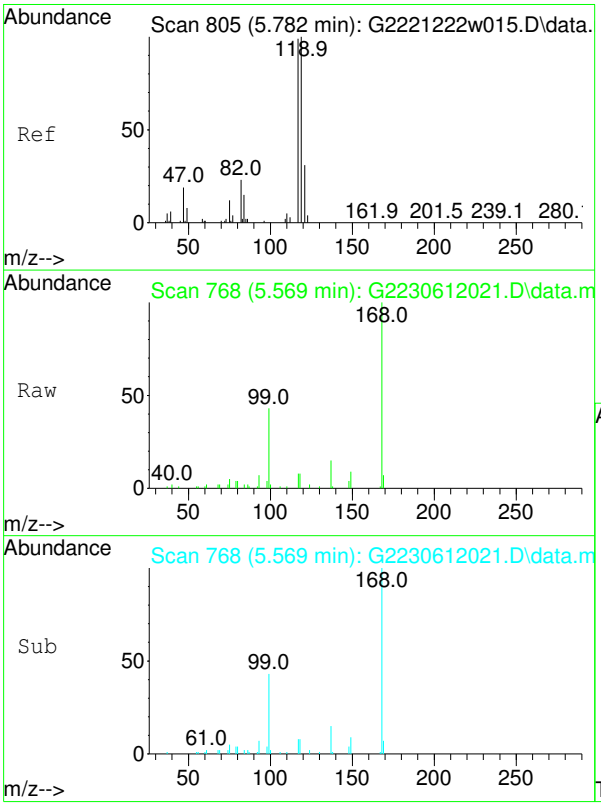


#44
1,2-Dichloroethane
Concen: 0.05 ug/L
RT: 5.969 min Scan# 834
Delta R.T. -0.002 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 62 Resp: 59979

Ion	Ratio	Lower	Upper
62	100		
49	0.0	0.2	60.2#
64	0.0	3.0	63.0#
98	0.0	0.0	39.1

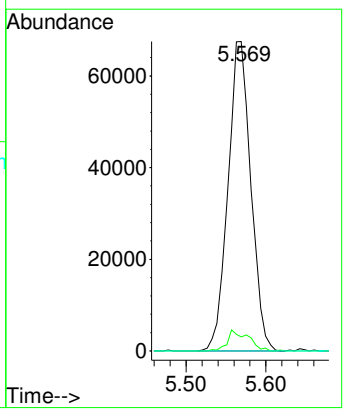


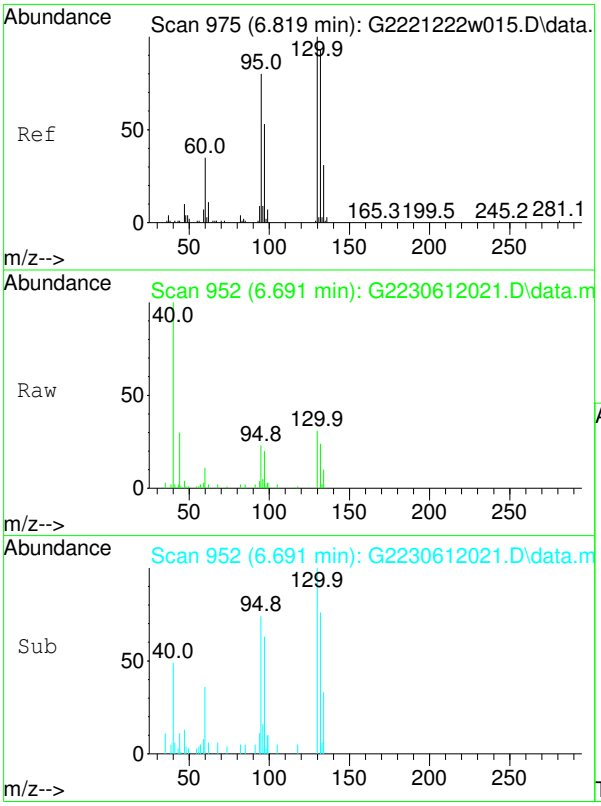


#47
Carbon tetrachloride
Concen: 3.25 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.111 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion:117 Resp: 1343528

Ion	Ratio	Lower	Upper
117	100		
119	6.2	66.4	126.4#
121	0.0	0.4	60.4#

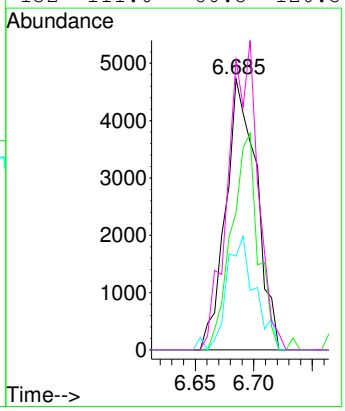


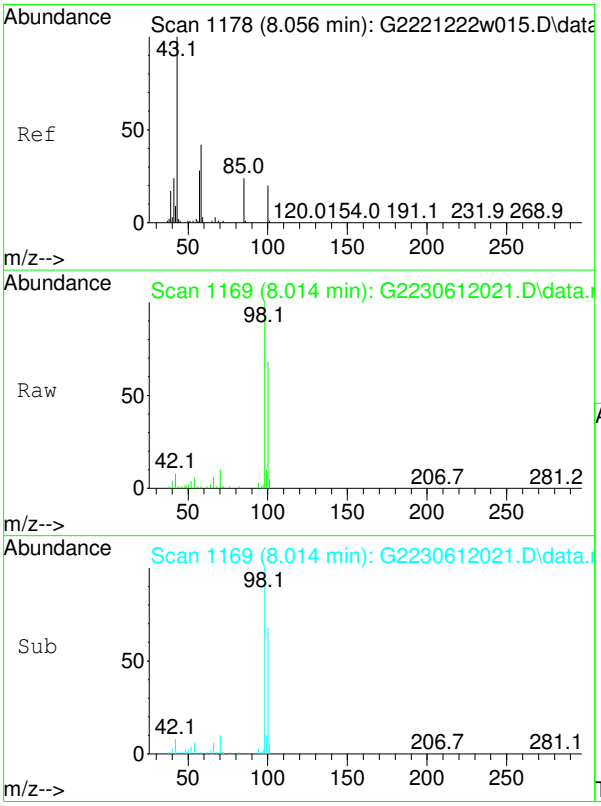


#50
Trichloroethene
Concen: 0.21 ug/L
RT: 6.690 min Scan# 952
Delta R.T. -0.006 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 95 Resp: 86434

Ion	Ratio	Lower	Upper
95	100		
97	68.8	35.5	95.5
60	0.0	14.8	74.8#
132	111.0	80.5	120.5

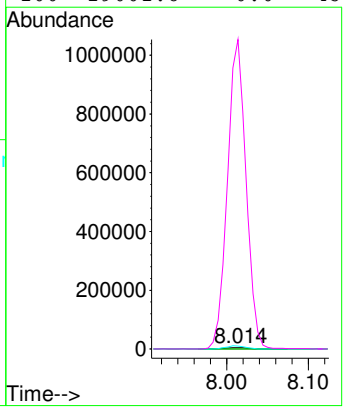


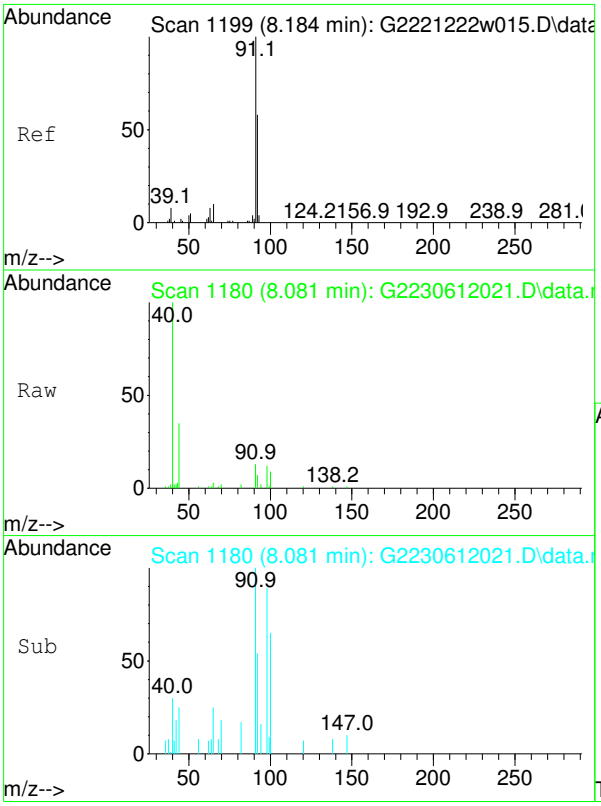


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.017 min Scan# 1169
Delta R.T. 0.073 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 43 Resp: 87811

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	202.2	37.0	37.0#
100	19001.8	0.0	45.2#

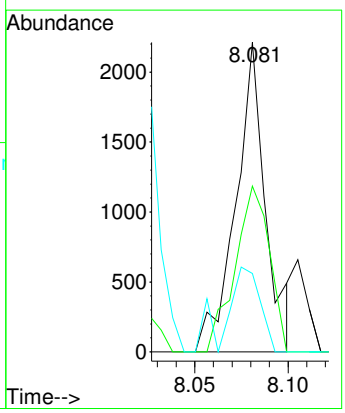


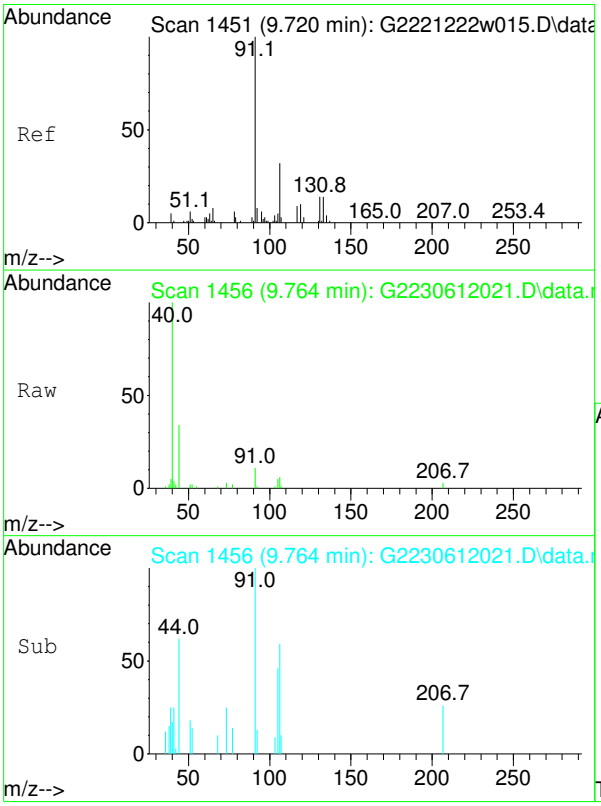


#65
Toluene
Concen: Below Cal
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 91 Resp: 22832

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

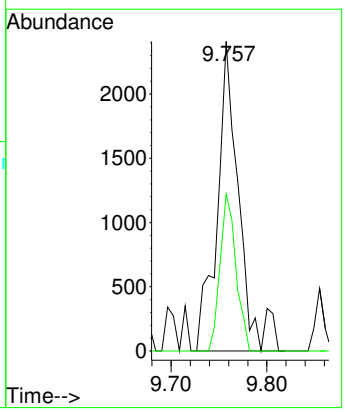


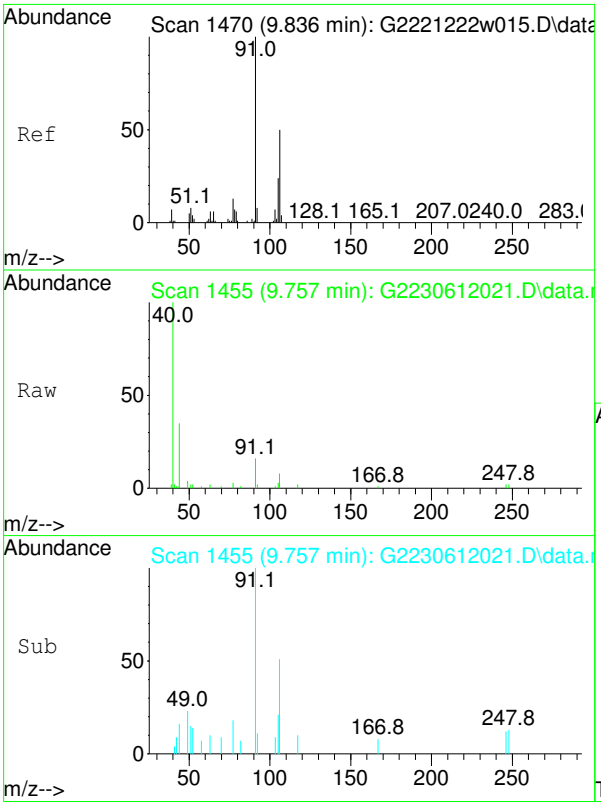


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 91 Resp: 37913

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

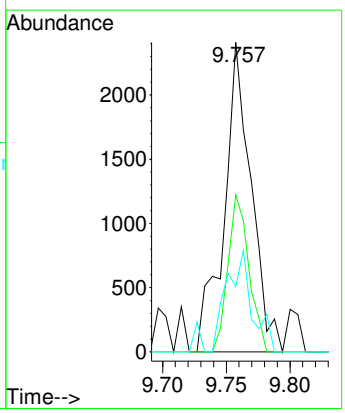


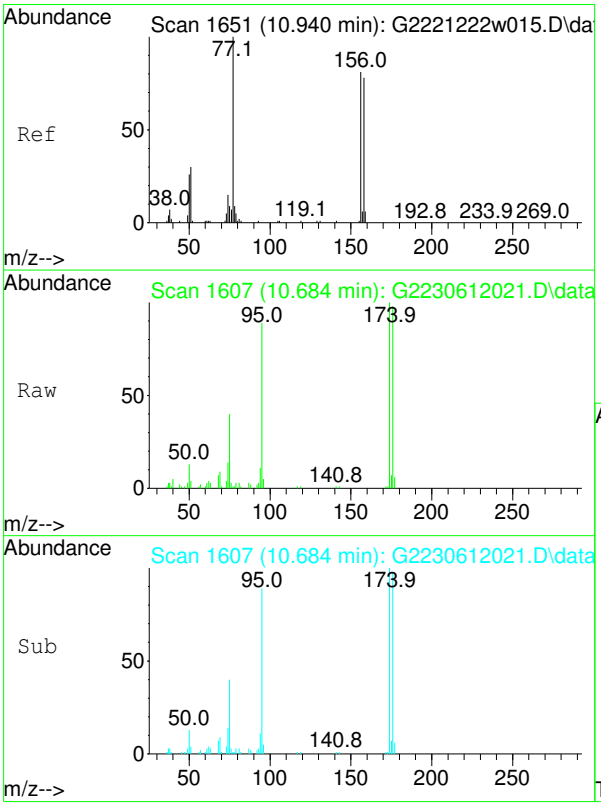


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 91 Resp: 35594

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

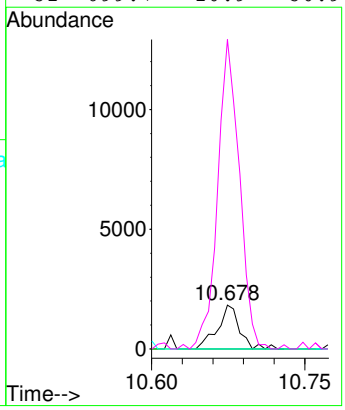




#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.683 min Scan# 1607
Delta R.T. -0.145 min
Lab File: G2230612021.D
Acq: 12 Jun 2023 16:55

Tgt Ion: 77 Resp: 27208

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	699.7	10.9	50.9#



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04	File ID:	G2230613009.D
Sampled:	05/31/23 08:45	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 12:00
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.650	2.00	5.00	U
71-55-6	1,1,1-Trichloroethane		0.877	2.00	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.621	2.00	5.00	U
79-00-5	1,1,2-Trichloroethane		0.832	2.00	5.00	U
75-34-3	1,1-Dichloroethane		0.669	2.00	5.00	U
75-35-4	1,1-Dichloroethene		0.954	2.00	5.00	U
563-58-6	1,1-Dichloropropene		0.699	2.00	5.00	U
87-61-6	1,2,3-Trichlorobenzene		1.02	2.00	5.00	U
96-18-4	1,2,3-Trichloropropane		0.913	2.00	5.00	U
120-82-1	1,2,4-Trichlorobenzene		1.02	3.00	6.00	U
95-63-6	1,2,4-Trimethylbenzene		0.661	2.00	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.30	5.00	10.0	U
106-93-4	1,2-Dibromoethane		0.531	2.00	5.00	U
95-50-1	1,2-Dichlorobenzene		0.630	2.00	5.00	U
107-06-2	1,2-Dichloroethane		1.06	3.00	6.00	U
78-87-5	1,2-Dichloropropane		1.02	3.00	6.00	U
108-67-8	1,3,5-Trimethylbenzene		0.500	2.00	5.00	U
541-73-1	1,3-Dichlorobenzene		0.724	2.00	5.00	U
142-28-9	1,3-Dichloropropane		0.680	2.00	5.00	U
106-46-7	1,4-Dichlorobenzene		0.920	2.00	5.00	U
594-20-7	2,2-Dichloropropane		0.920	2.00	5.00	U
78-93-3	2-Butanone		3.30	7.00	17.5	U
95-49-8	2-Chlorotoluene		0.733	2.00	5.00	U
591-78-6	2-Hexanone		0.716	7.00	17.5	U
106-43-4	4-Chlorotoluene		0.921	2.00	5.00	U
99-87-6	4-Isopropyltoluene		0.700	2.00	5.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04	File ID:	G2230613009.D
Sampled:	05/31/23 08:45	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 12:00
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		1.35	7.00	17.5	U
67-64-1	Acetone		5.18	20.0	40.0	U
71-43-2	Benzene		0.507	2.00	5.00	U
108-86-1	Bromobenzene		0.848	2.00	5.00	U
74-97-5	Bromochloromethane		0.669	2.00	5.00	U
75-27-4	Bromodichloromethane		0.531	2.00	5.00	U
75-25-2	Bromoform		1.03	2.00	5.00	U
74-83-9	Bromomethane		1.60	5.00	10.0	U
75-15-0	Carbon disulfide		1.40	5.00	10.0	U
56-23-5	Carbon tetrachloride		0.844	2.00	5.00	U
108-90-7	Chlorobenzene		0.650	2.00	5.00	U
75-00-3	Chloroethane		1.55	2.00	5.00	U
67-66-3	Chloroform		1.01	3.00	6.00	U
74-87-3	Chloromethane		1.92	5.00	10.0	U
156-59-2	cis-1,2-Dichloroethene	156	1.03	3.00	6.00	D
10061-01-5	cis-1,3-Dichloropropene		0.587	2.00	5.00	U
124-48-1	Dibromochloromethane		0.759	2.00	5.00	U
74-95-3	Dibromomethane		0.817	2.00	5.00	U
75-71-8	Dichlorodifluoromethane		1.30	5.00	10.0	U
100-41-4	Ethylbenzene		0.300	1.00	2.00	U
87-68-3	Hexachlorobutadiene		1.00	2.00	5.00	U
98-82-8	Isopropylbenzene		0.549	2.00	5.00	U
179601-23-1	m,p-Xylene		0.889	4.00	10.0	U
1634-04-4	Methyl tert-butyl ether		0.530	2.00	5.00	U
75-09-2	Methylene chloride		2.24	5.00	10.0	U
104-51-8	n-Butylbenzene		1.30	5.00	10.0	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

531DUP4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-04	File ID:	G2230613009.D
Sampled:	05/31/23 08:45	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 12:00
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.630	2.00	5.00	U
91-20-3	Naphthalene		0.700	2.00	5.00	U
95-47-6	o-Xylene		0.416	2.00	5.00	U
135-98-8	sec-Butylbenzene		0.598	2.00	5.00	U
100-42-5	Styrene		0.453	1.00	2.00	U
98-06-6	tert-Butylbenzene		0.453	2.00	5.00	U
127-18-4	Tetrachloroethene		1.78	5.00	10.0	U
108-88-3	Toluene		0.572	2.00	5.00	U
156-60-5	trans-1,2-Dichloroethene	1.70	0.855	2.00	5.00	J, D
10061-02-6	trans-1,3-Dichloropropene		0.587	2.00	5.00	U
79-01-6	Trichloroethene	185	0.781	2.00	5.00	D
75-69-4	Trichlorofluoromethane		0.505	2.00	5.00	U
75-01-4	Vinyl chloride		1.29	5.00	10.0	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613009.D
Acq On : 13 Jun 2023 12:00
Operator : PO1/MP3
Sample : 23F0136-04
Misc : 10
ALS Vial : 9 Sample Multiplier: 1

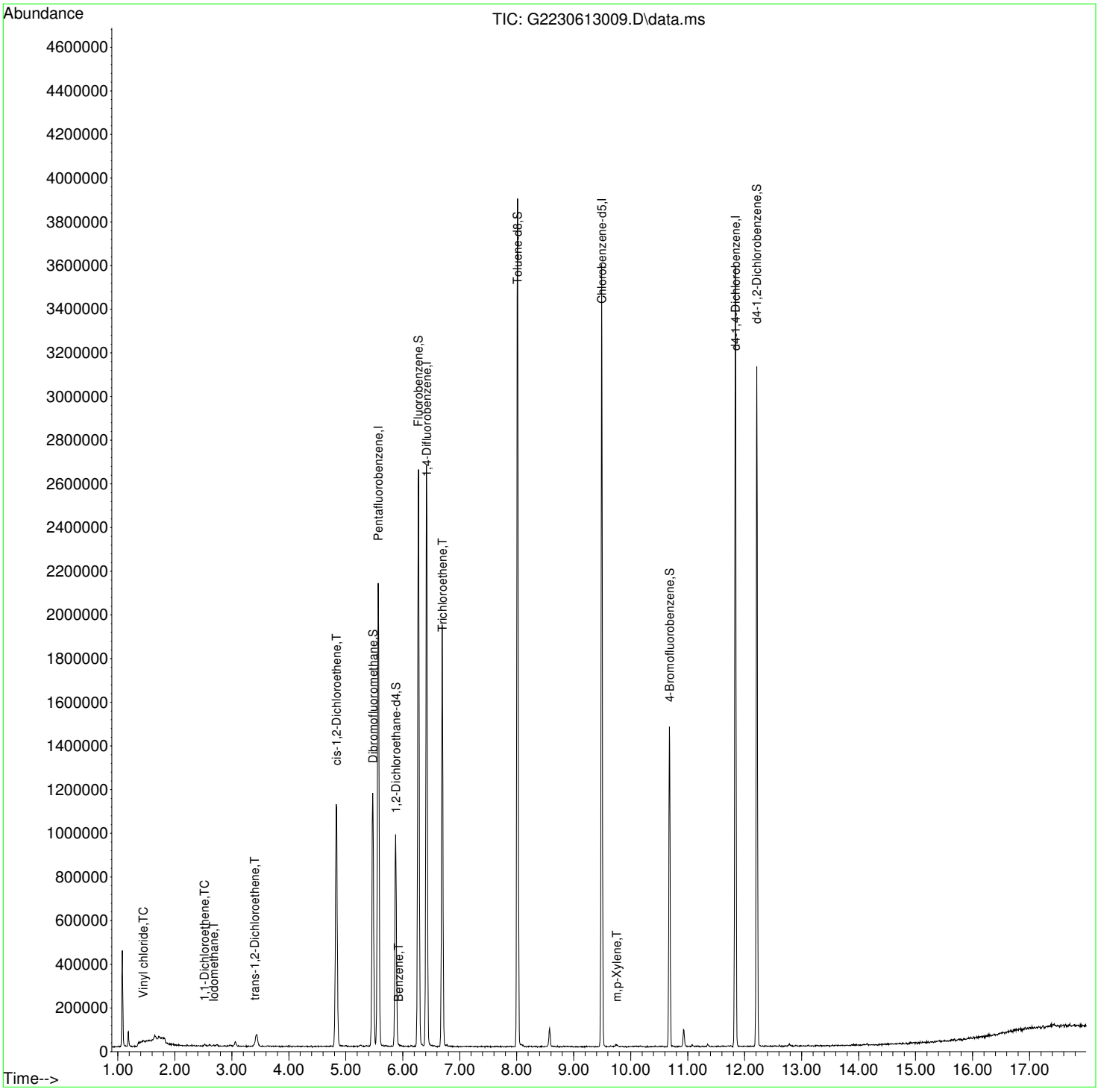
Quant Time: Jun 13 15:21:52 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	16912943	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	23209264	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.493	117	20660402	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10125159	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7312266	19.65	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%				
43) 1,2-Dichloroethane-d4	5.877	65	6734613	18.31	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.55%				
49) Fluorobenzene	6.277	96	25741849	19.46	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%				
64) Toluene-d8	8.016	98	25328104	19.45	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.25%				
81) 4-Bromofluorobenzene	10.684	174	4580260	9.58	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.80%				
97) d4-1,2-Dichlorobenzene	12.216	152	8853259	20.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.65%				
Target Compounds							Qvalue
4) Vinyl chloride	1.449	62	19138	0.06	ug/L	#	43
5) Bromomethane	1.724	94	55525	Below Cal		#	54
10) 1,1-Dichloroethene	2.520	61	39854	0.03	ug/L	#	46
13) Iodomethane	2.676	142	43903	0.11	ug/L	#	41
18) Methylene chloride	3.065	49	110215	Below Cal			71
20) trans-1,2-Dichloroethene	3.398	61	60765	0.17	ug/L	#	54
21) Methyl tert-butyl ether	3.438	73	771364	Below Cal			92
28) cis-1,2-Dichloroethene	4.836	61	6645302	15.62	ug/L		75
48) Benzene	5.930	78	47956	0.04	ug/L	#	52
50) Trichloroethene	6.694	95	5668600	18.52	ug/L		91
65) Toluene	8.082	91	37575	Below Cal		#	30
75) m,p-Xylene	9.760	91	44979	0.04	ug/L	#	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613009.D
Acq On : 13 Jun 2023 12:00
Operator : PO1/MP3
Sample : 23F0136-04
Misc : 10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 13 15:21:52 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



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Data File : G2230613009.D
Acq On : 13 Jun 2023 12:00
Operator : PO1/MP3
Sample : 23F0136-04
Misc : 10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 13 15:21:52 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

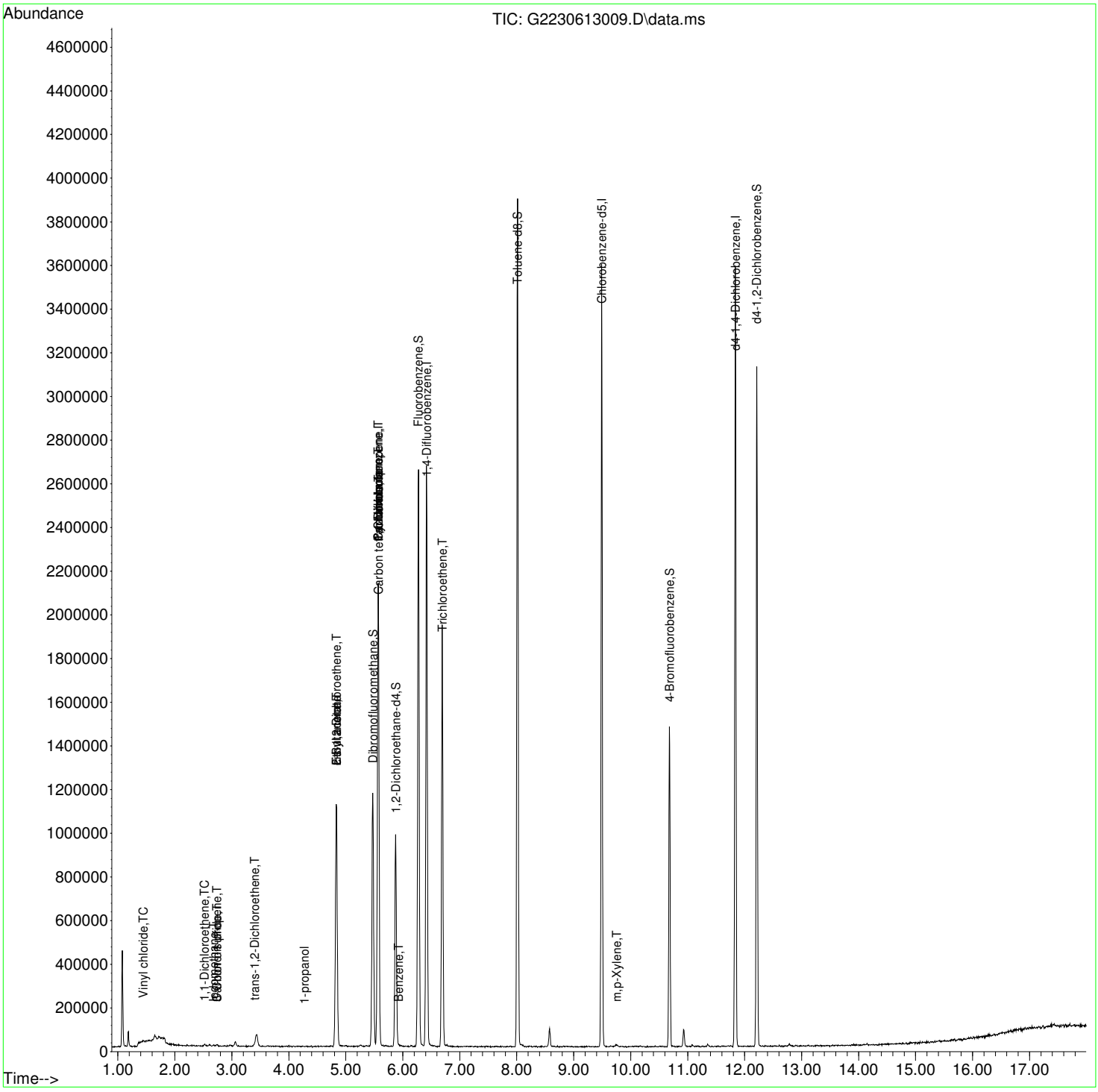
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	16912943	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	23209264	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20660402	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10125159	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7312266	19.65	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%			
43) 1,2-Dichloroethane-d4	5.877	65	6734613	18.31	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.55%			
49) Fluorobenzene	6.277	96	25741849	19.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%			
64) Toluene-d8	8.016	98	25328104	19.45	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.25%			
81) 4-Bromofluorobenzene	10.684	174	4580260	9.58	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.80%			
97) d4-1,2-Dichlorobenzene	12.216	152	8853259	20.33	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.65%			
Target Compounds						Qvalue
4) Vinyl chloride	1.449	62	19138	0.06	ug/L #	43
5) Bromomethane	1.724	94	55525	Below Cal	#	54
10) 1,1-Dichloroethene	2.520	61	39854	0.03	ug/L #	46
12) Acetone	2.603	43	64451	Below Cal	#	45
13) Iodomethane	2.676	142	43903	0.11	ug/L #	41
14) Carbon disulfide	2.741	76	118534	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.741	76	118531	0.62	ug/L #	53
18) Methylene chloride	3.065	49	110215	Below Cal		71
20) trans-1,2-Dichloroethene	3.398	61	60765	0.17	ug/L #	54
21) Methyl tert-butyl ether	3.438	73	771364	Below Cal		92
26) 1-propanol	4.279	59	1232	0.70	ug/L #	100
28) cis-1,2-Dichloroethene	4.836	61	6645302	15.62	ug/L	75
29) 2-Butanone	4.835	72	59791	0.87	ug/L #	42
31) Ethyl acetate	4.836	61	6665194	133.12	ug/L #	45
40) Cyclohexane	5.569	84	380695	0.84	ug/L #	33
41) 1-Chlorobutane	5.570	56	208927	0.40	ug/L #	1
42) 1,1-Dichloropropene	5.570	75	865645	2.18	ug/L #	38
47) Carbon tetrachloride	5.572	117	1379954	3.30	ug/L #	16
48) Benzene	5.930	78	47956	0.04	ug/L #	52
50) Trichloroethene	6.694	95	5668600	18.52	ug/L	91
60) 4-Methyl-2-pentanone	8.016	43	98240	Below Cal	#	1
65) Toluene	8.082	91	37575	Below Cal	#	30
74) Ethylbenzene	9.760	91	44315	Below Cal	#	44
75) m,p-Xylene	9.760	91	44979	0.04	ug/L #	36
99) n-Butylbenzene	12.222	91	35082	Below Cal	#	53

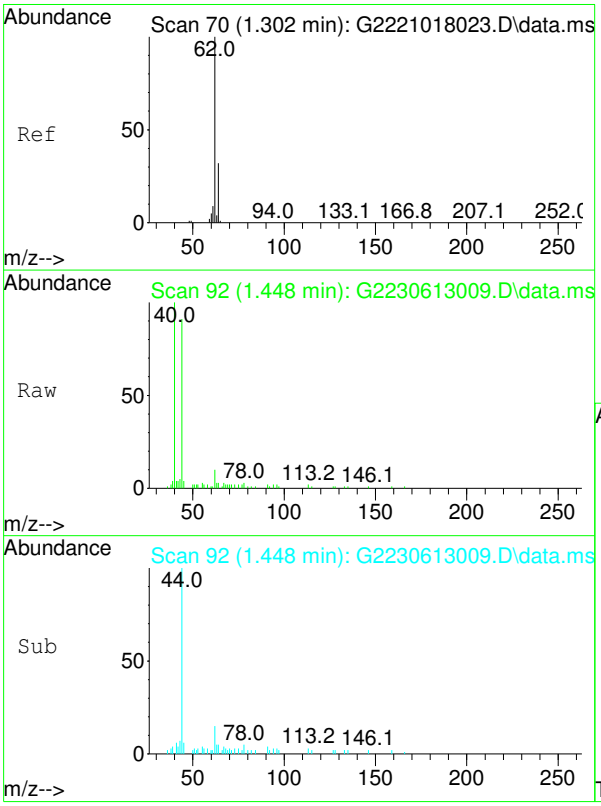
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342035

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613009.D
Acq On : 13 Jun 2023 12:00
Operator : PO1/MP3
Sample : 23F0136-04
Misc : 10
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 13 15:21:52 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

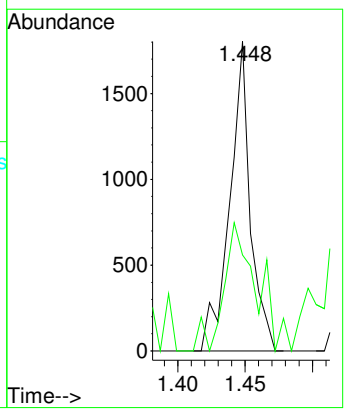


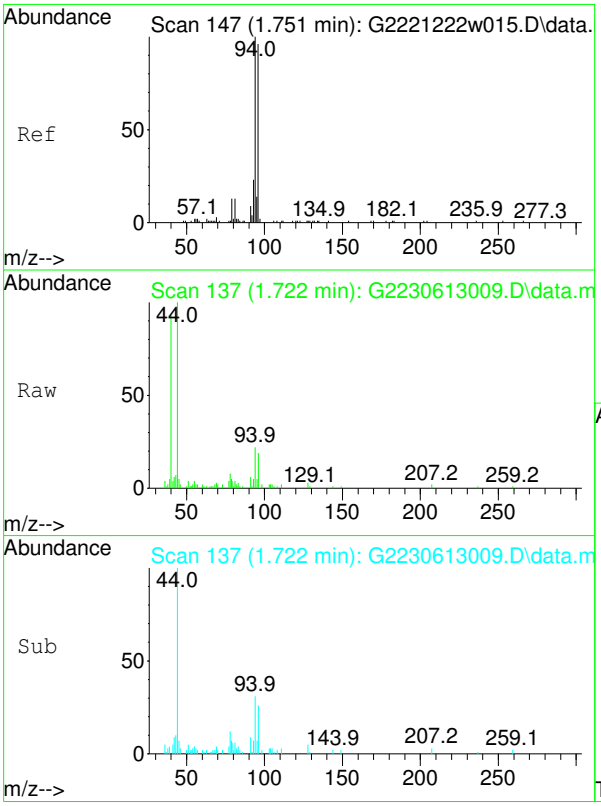


#4
Vinyl chloride
Concen: 0.06 ug/L
RT: 1.449 min Scan# 92
Delta R.T. 0.003 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 62 Resp: 19138

Ion	Ratio	Lower	Upper
62	100		
64	0.0	2.1	62.1#

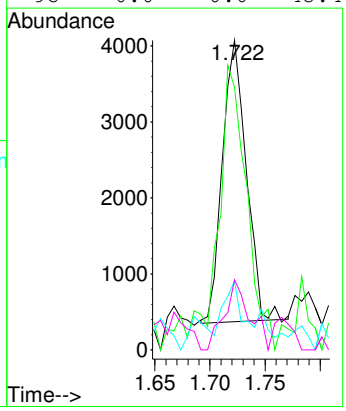


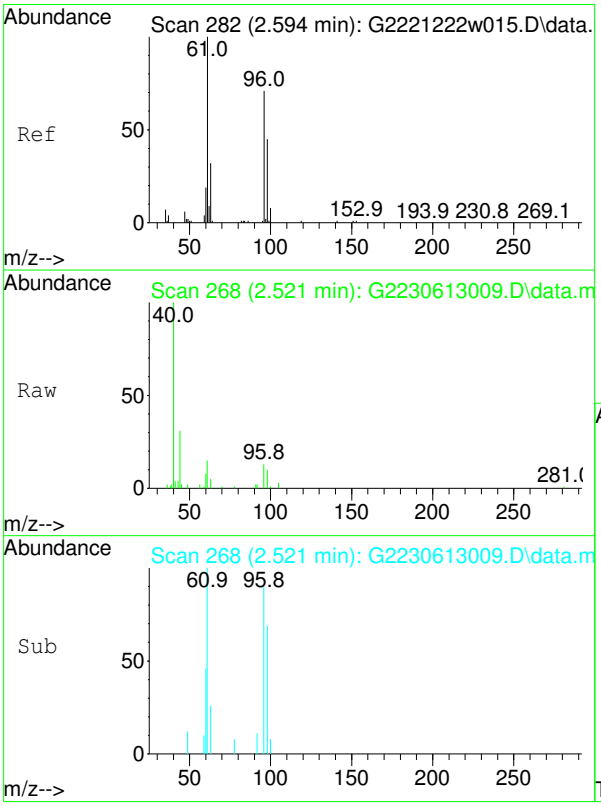


#5
Bromomethane
Concen: Below Cal
RT: 1.724 min Scan# 137
Delta R.T. 0.010 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 94 Resp: 55525

Ion	Ratio	Lower	Upper
94	100		
96	142.8	65.6	125.6#
93	0.0	0.0	49.5
95	0.0	0.0	43.4

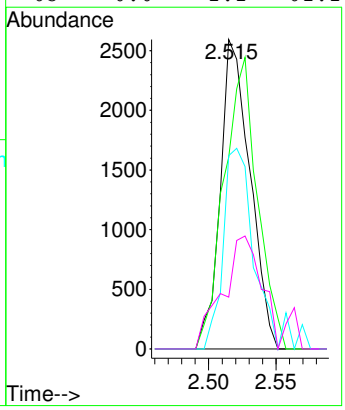


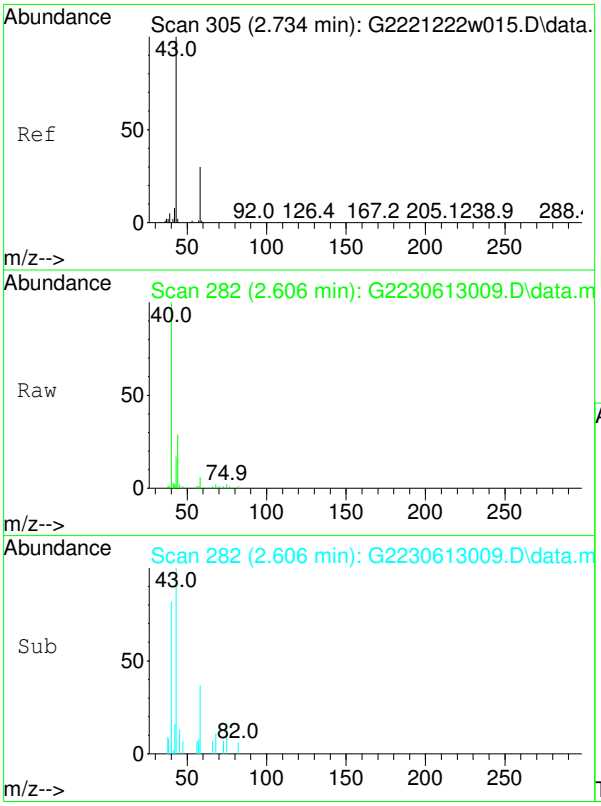


#10
1,1-Dichloroethene
Concen: 0.03 ug/L
RT: 2.520 min Scan# 268
Delta R.T. -0.003 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 61 Resp: 39854

Ion	Ratio	Lower	Upper
61	100		
96	105.4	32.7	92.7#
98	69.7	9.3	69.3#
63	0.0	1.1	61.1#

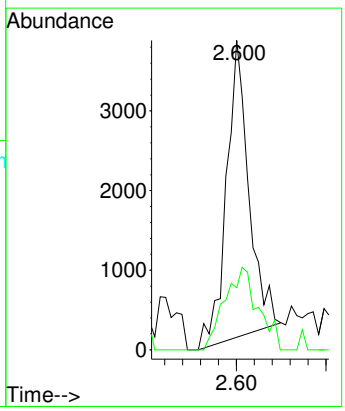


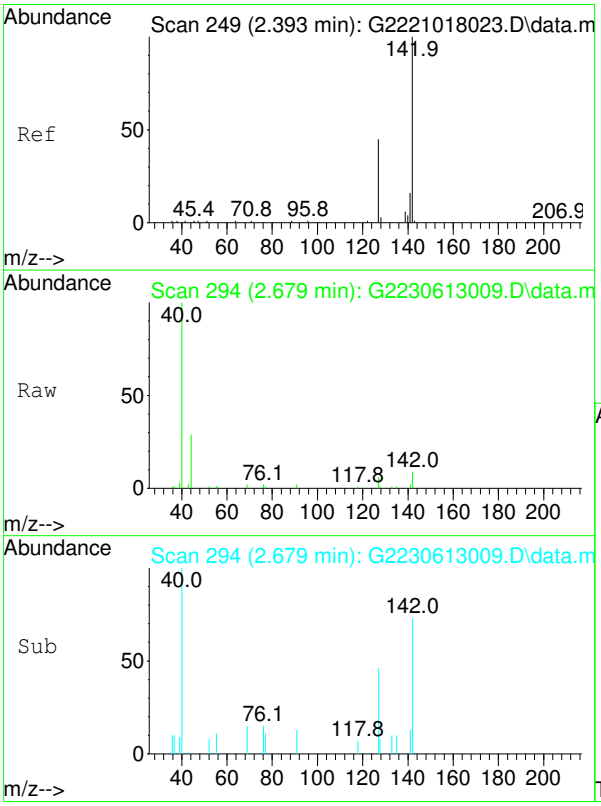


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 282
Delta R.T. -0.005 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 43 Resp: 64451

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

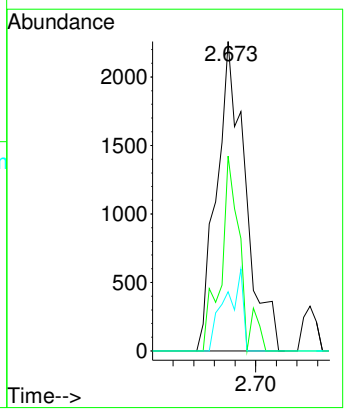


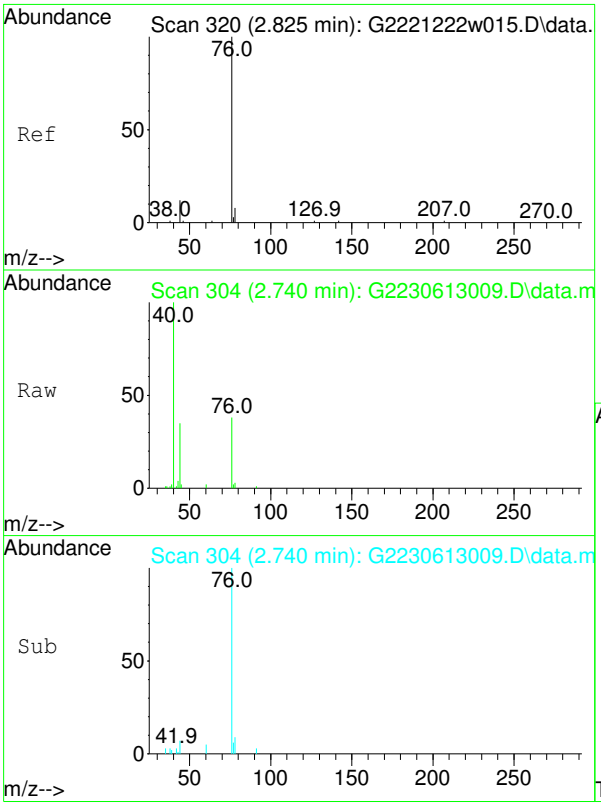


#13
Iodomethane
Concen: 0.11 ug/L
RT: 2.676 min Scan# 294
Delta R.T. 0.000 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion:142 Resp: 43903

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

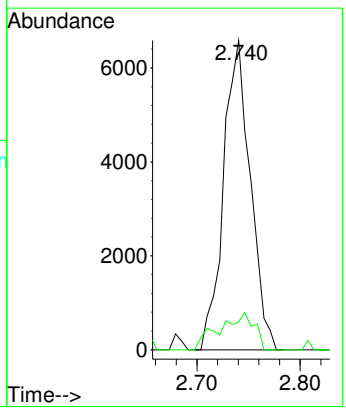


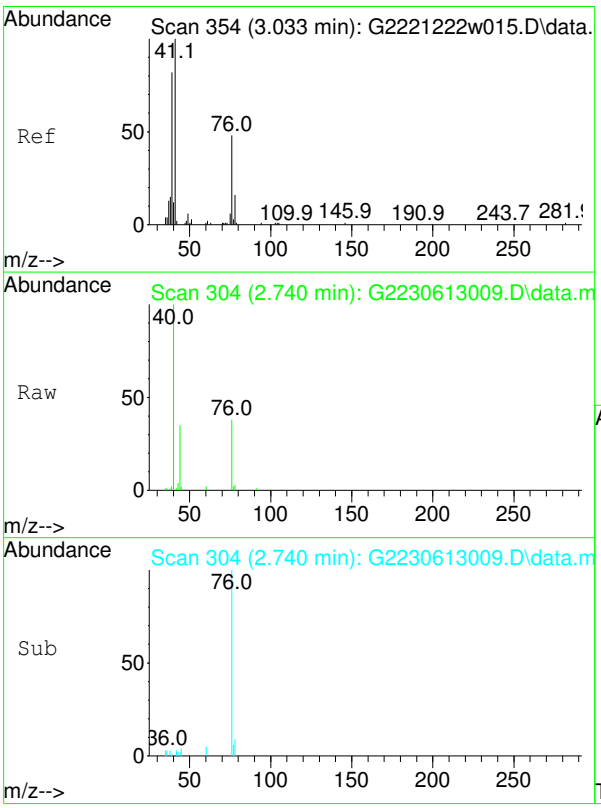


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 76 Resp: 118534

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

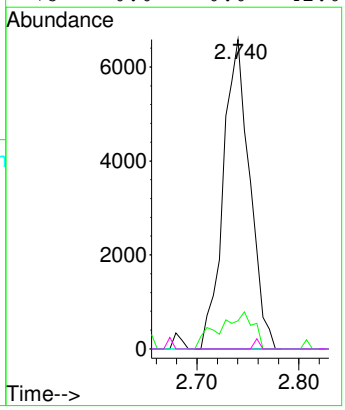


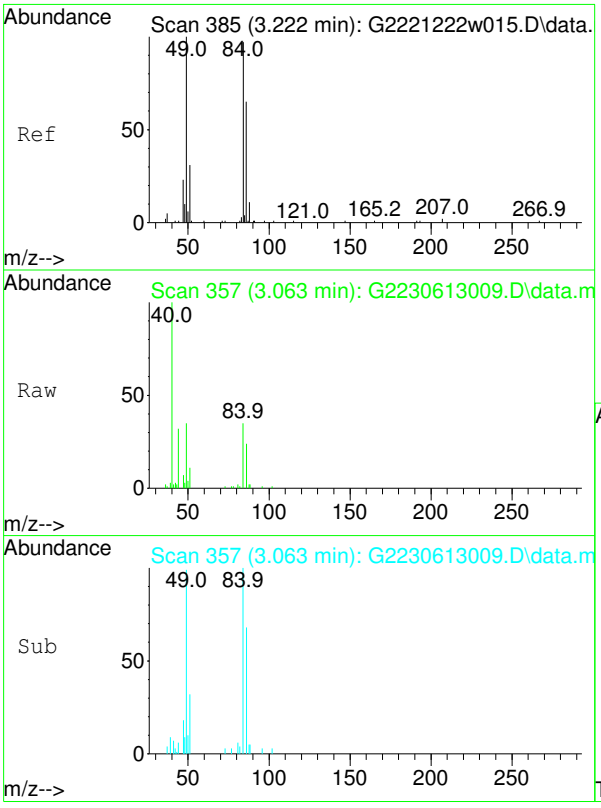


#17
3-Chloro-1-propene
Concen: 0.62 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 76 Resp: 118531

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

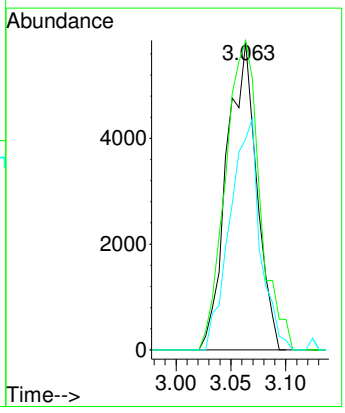


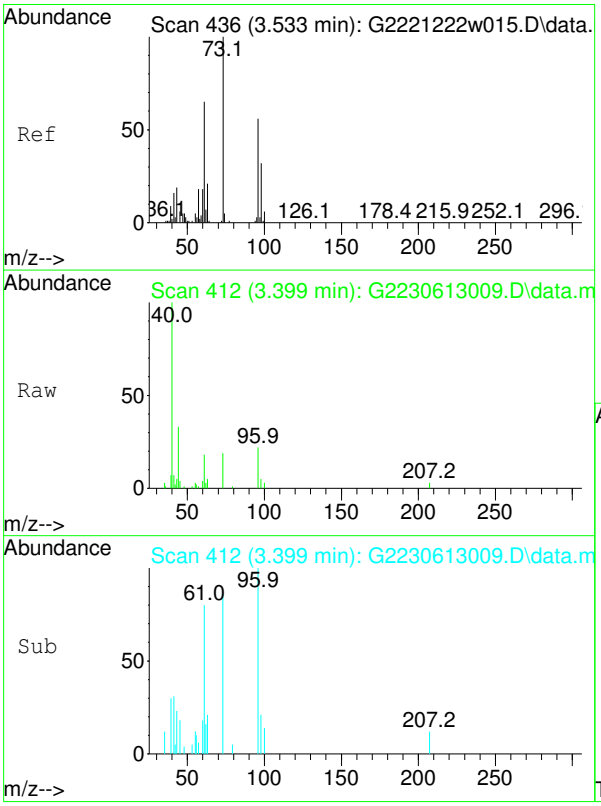


#18
Methylene chloride
Concen: Below Cal
RT: 3.065 min Scan# 357
Delta R.T. 0.003 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 49 Resp: 110215

Ion	Ratio	Lower	Upper
49	100		
84	115.5	57.9	117.9
86	75.7	24.9	84.9

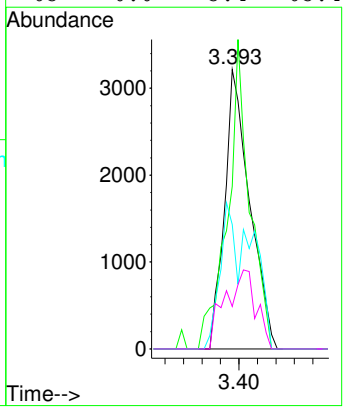


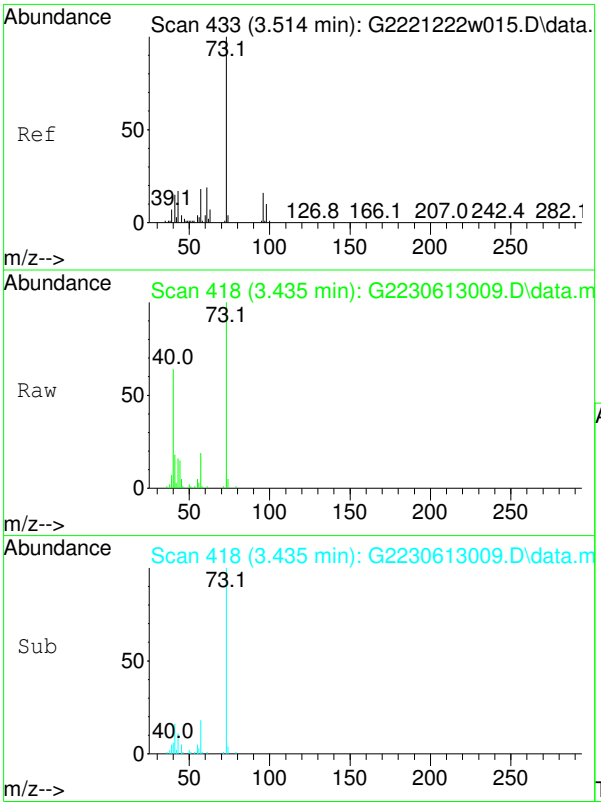


#20
trans-1,2-Dichloroethene
Concen: 0.17 ug/L
RT: 3.398 min Scan# 412
Delta R.T. -0.003 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 61 Resp: 60765

Ion	Ratio	Lower	Upper
61	100		
96	96.9	45.2	105.2
98	0.0	17.2	77.2#
63	0.0	3.4	63.4#

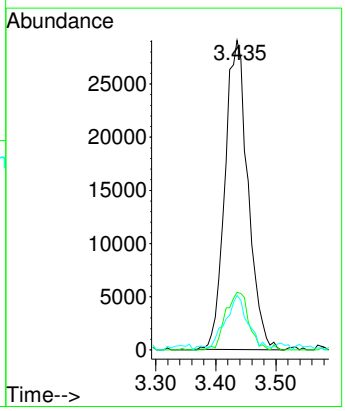


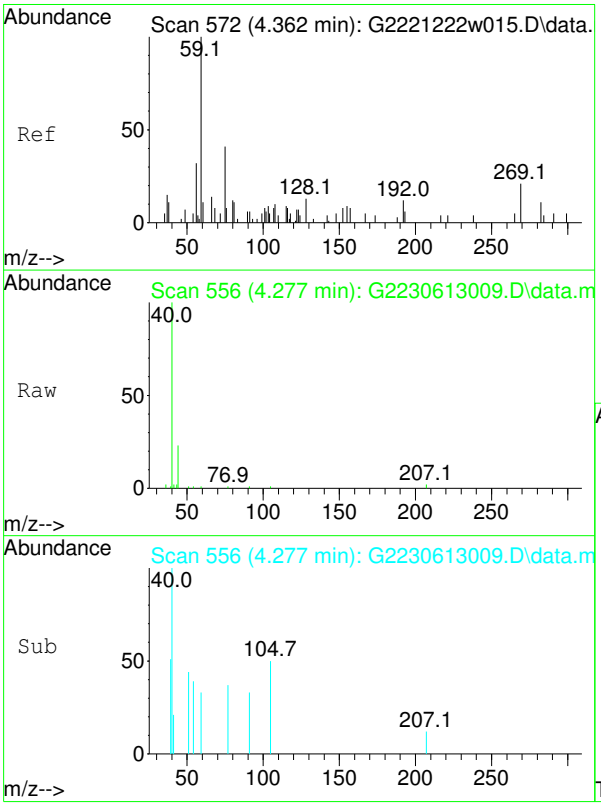


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.438 min Scan# 418
Delta R.T. -0.008 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 73 Resp: 771364

Ion	Ratio	Lower	Upper
73	100		
57	19.0	0.0	51.7
41	15.4	0.0	50.6

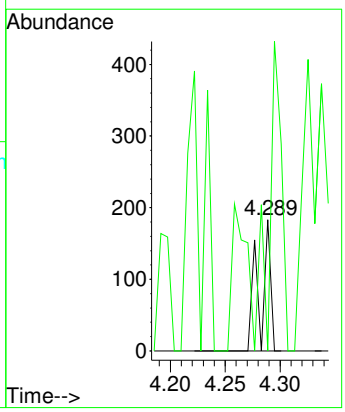


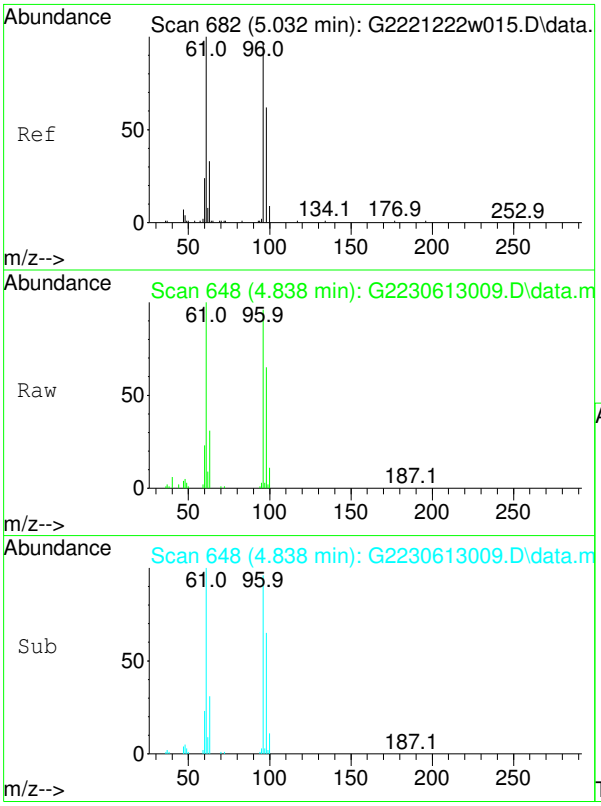


#26
1-propanol
Concen: 0.70 ug/L
RT: 4.279 min Scan# 556
Delta R.T. -0.010 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 59 Resp: 1232

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

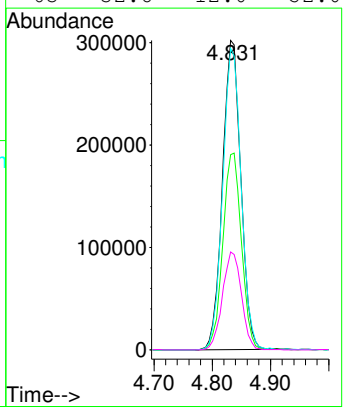


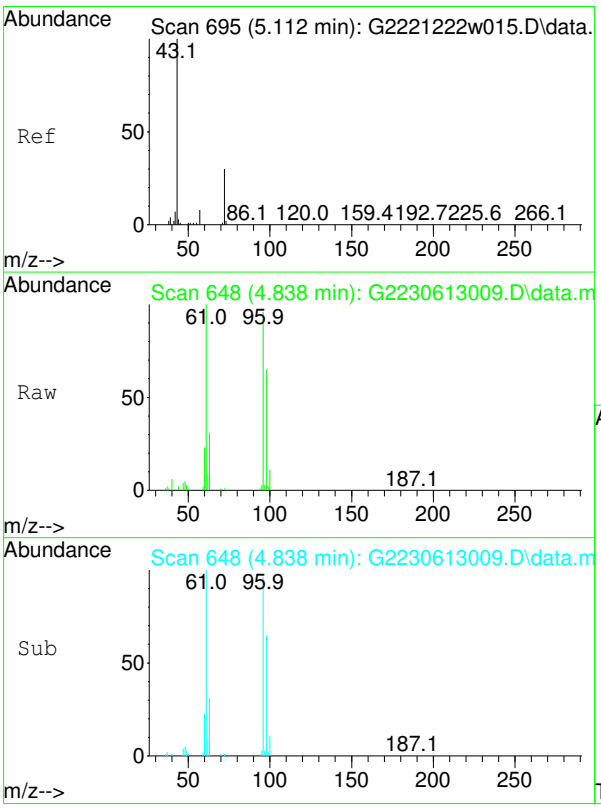


#28
cis-1,2-Dichloroethene
Concen: 15.62 ug/L
RT: 4.836 min Scan# 648
Delta R.T. 0.000 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 61 Resp: 6645302

Ion	Ratio	Lower	Upper
61	100		
98	64.1	15.9	75.9
96	97.0	39.6	99.6
63	32.8	12.0	52.0

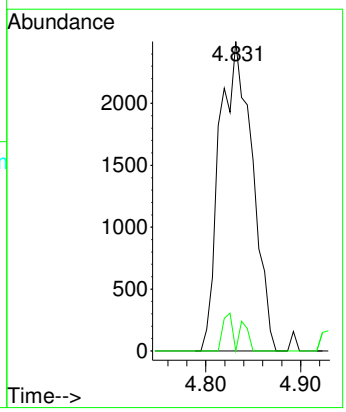


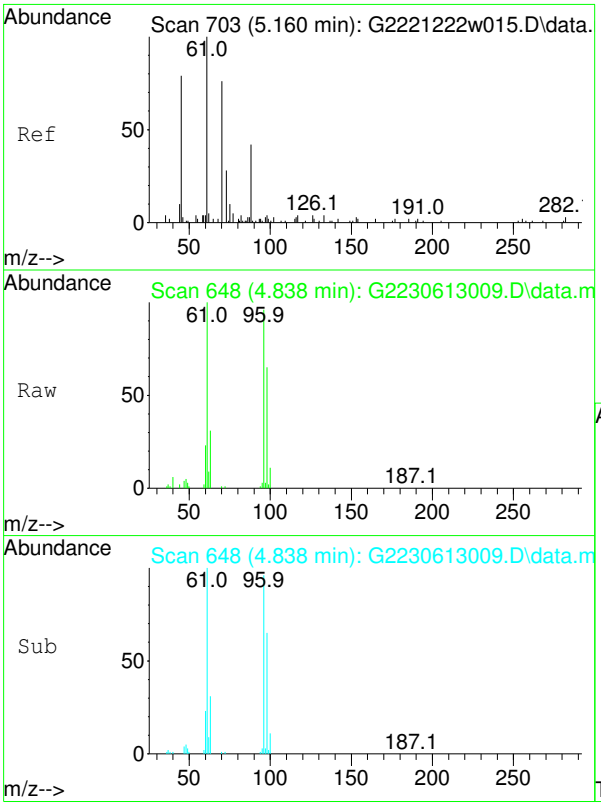


#29
2-Butanone
Concen: 0.87 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.084 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 72 Resp: 59791

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

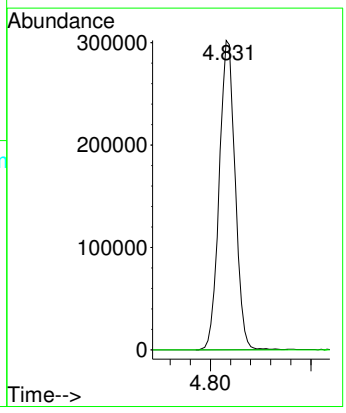


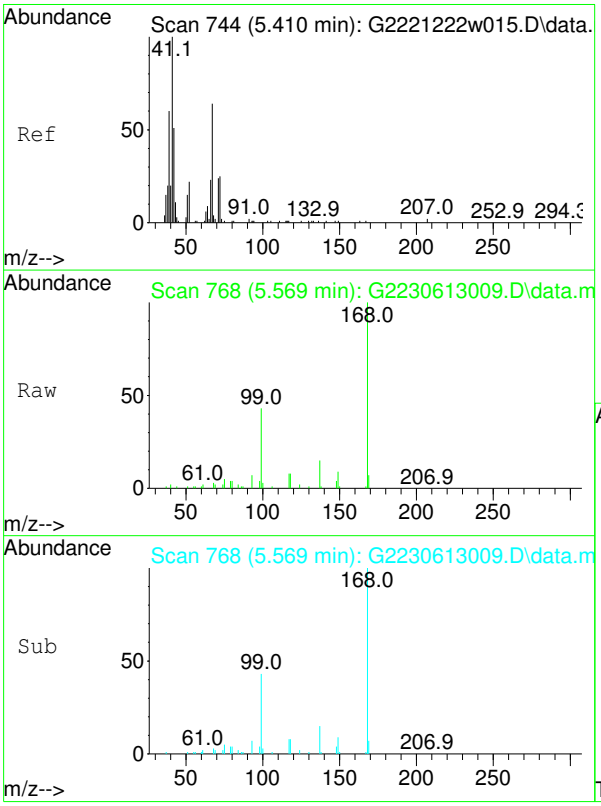


#31
Ethyl acetate
Concen: 133.12 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 61 Resp: 6665194

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

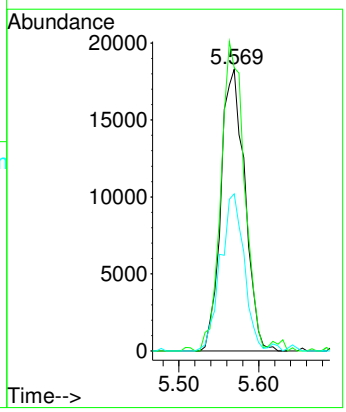


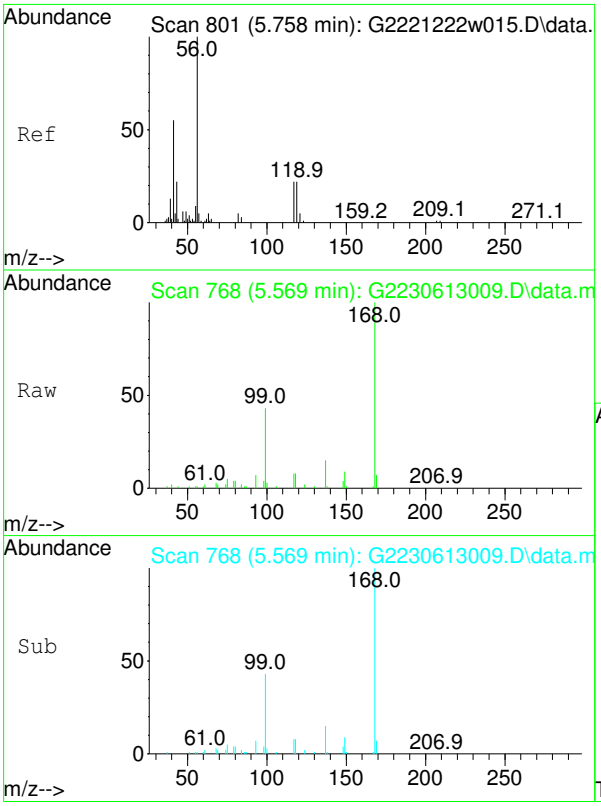


#40
Cyclohexane
Concen: 0.84 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 84 Resp: 380695

Ion	Ratio	Lower	Upper
84	100		
69	104.5	6.8	66.8#
56	54.9	79.1	139.1#

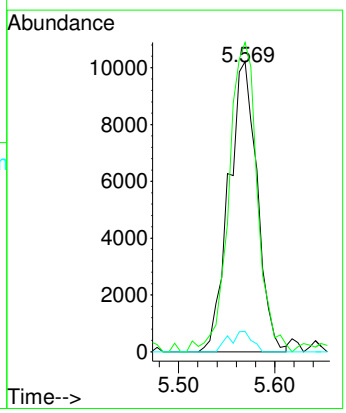


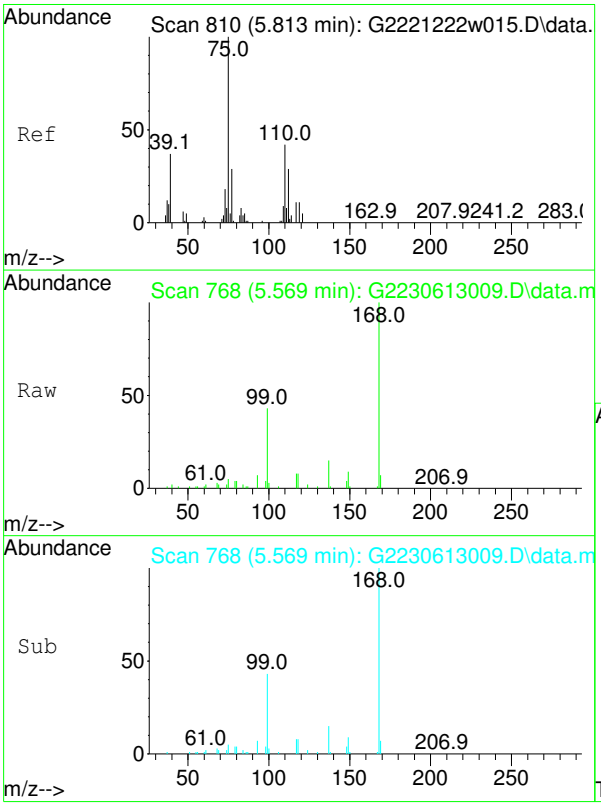


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 56 Resp: 208927

Ion	Ratio	Lower	Upper
56	100		
55	106.4	0.0	41.0#
57	0.0	0.0	35.7

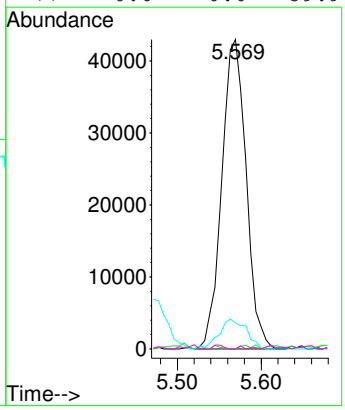


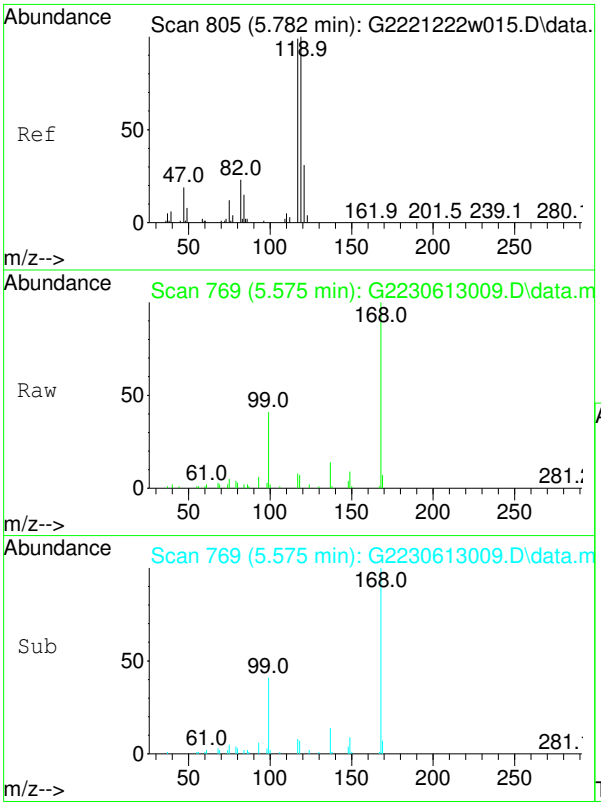


#42
1,1-Dichloropropene
Concen: 2.18 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 75 Resp: 865645

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.8	9.1	69.1
77	0.0	0.0	59.9

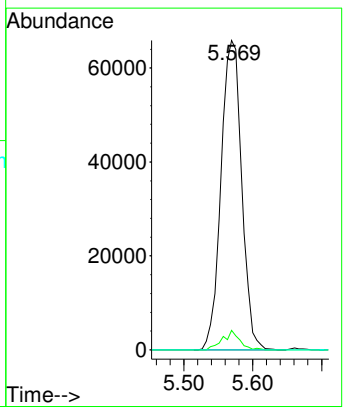


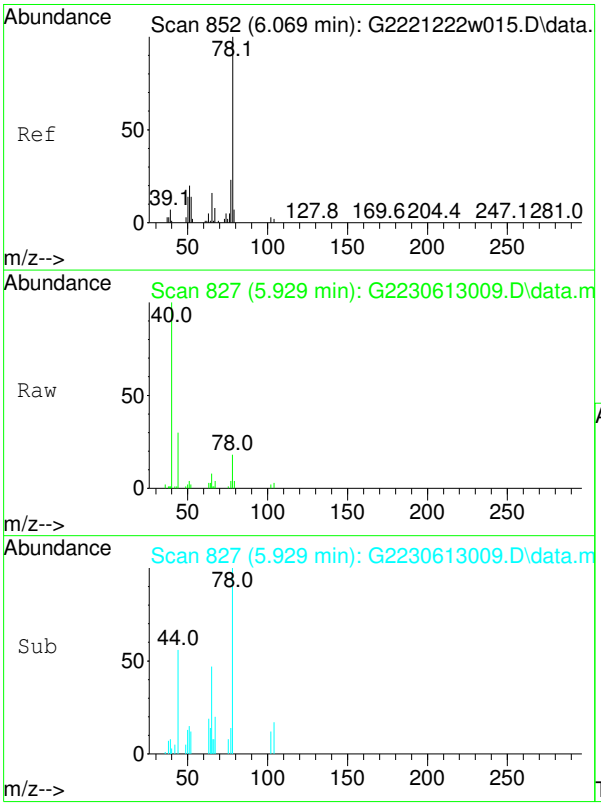


#47
Carbon tetrachloride
Concen: 3.30 ug/L
RT: 5.572 min Scan# 769
Delta R.T. -0.108 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion:117 Resp: 1379954

Ion	Ratio	Lower	Upper
117	100		
119	5.2	66.4	126.4#
121	0.0	0.4	60.4#

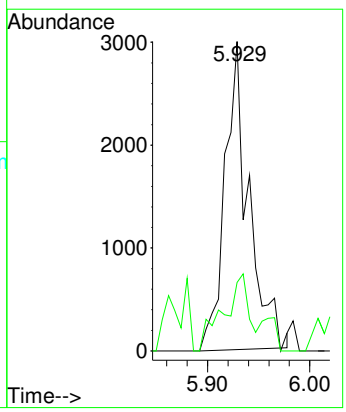


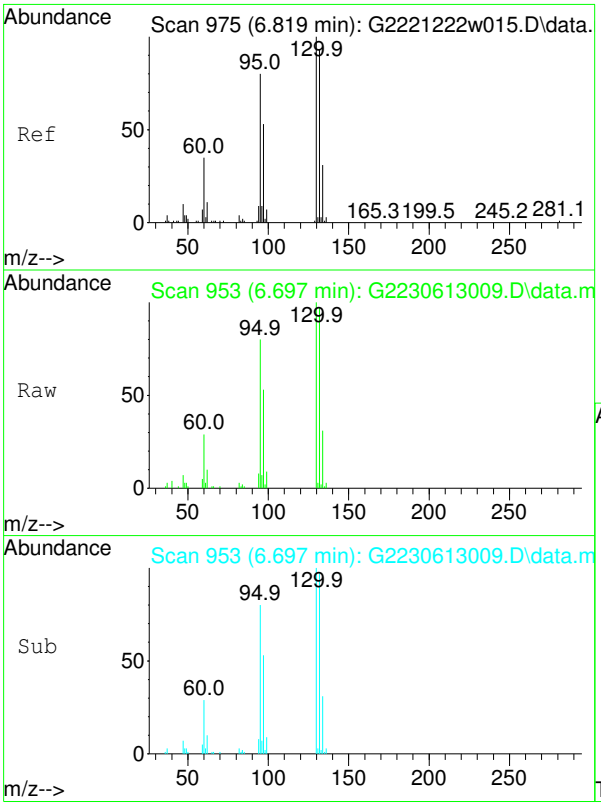


#48
Benzene
Concen: 0.04 ug/L
RT: 5.930 min Scan# 827
Delta R.T. -0.005 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 78 Resp: 47956

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

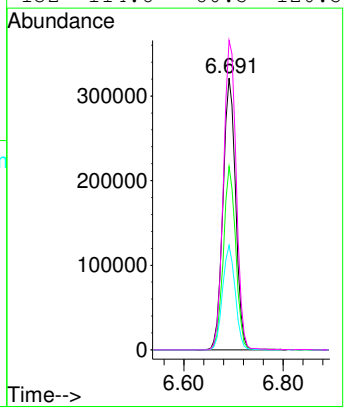


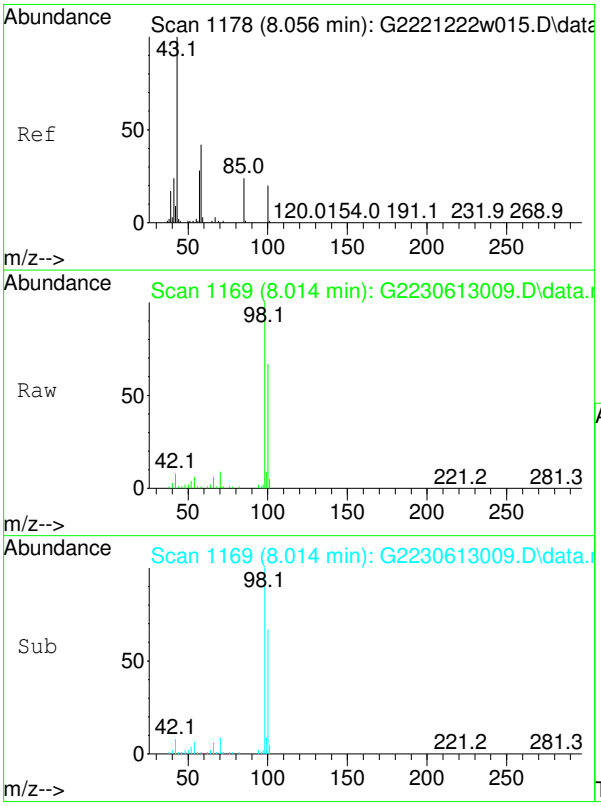


#50
Trichloroethene
Concen: 18.52 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 95 Resp: 5668600

Ion	Ratio	Lower	Upper
95	100		
97	65.5	35.5	95.5
60	38.5	14.8	74.8
132	114.8	80.5	120.5

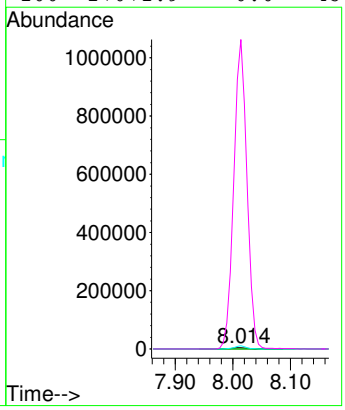


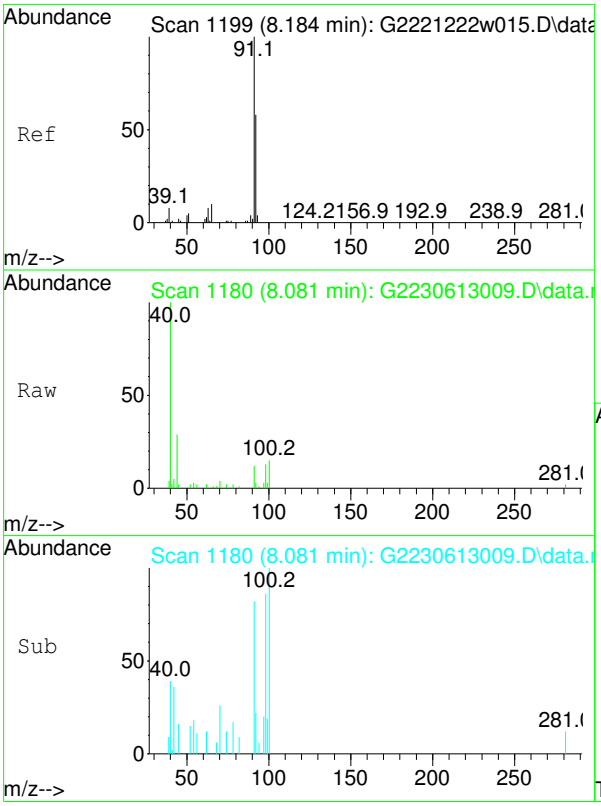


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 43 Resp: 98240

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	157.7	37.0	37.0#
100	17071.9	0.0	45.2#

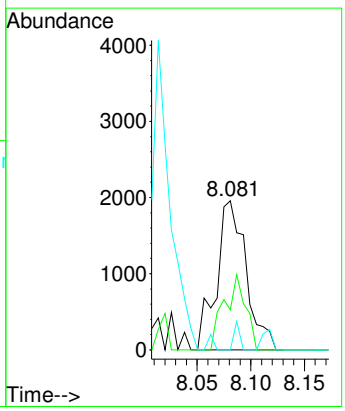


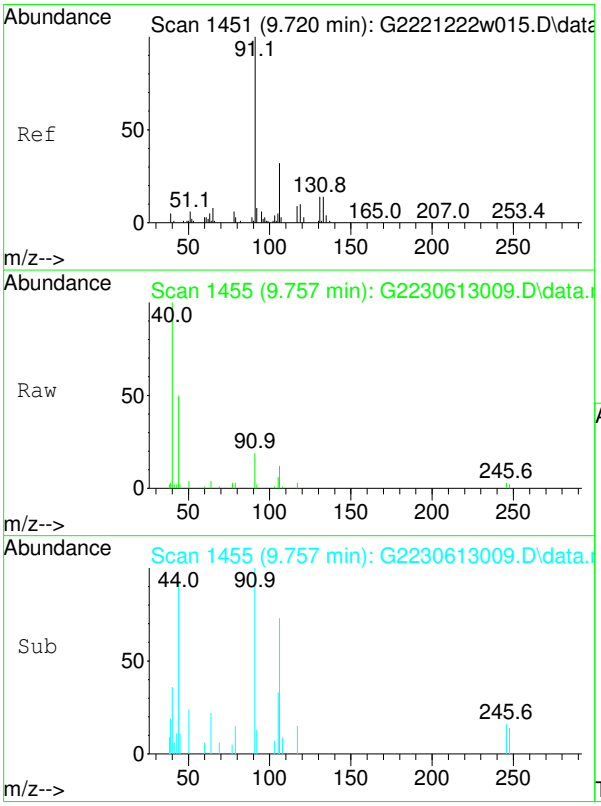


#65
Toluene
Concen: Below Cal
RT: 8.082 min Scan# 1180
Delta R.T. -0.004 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 91 Resp: 37575

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

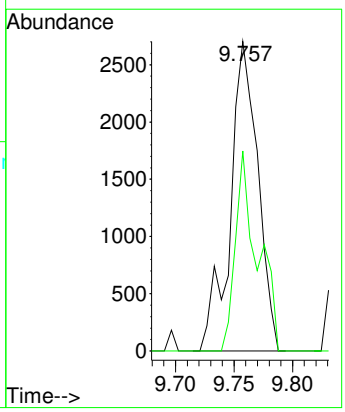


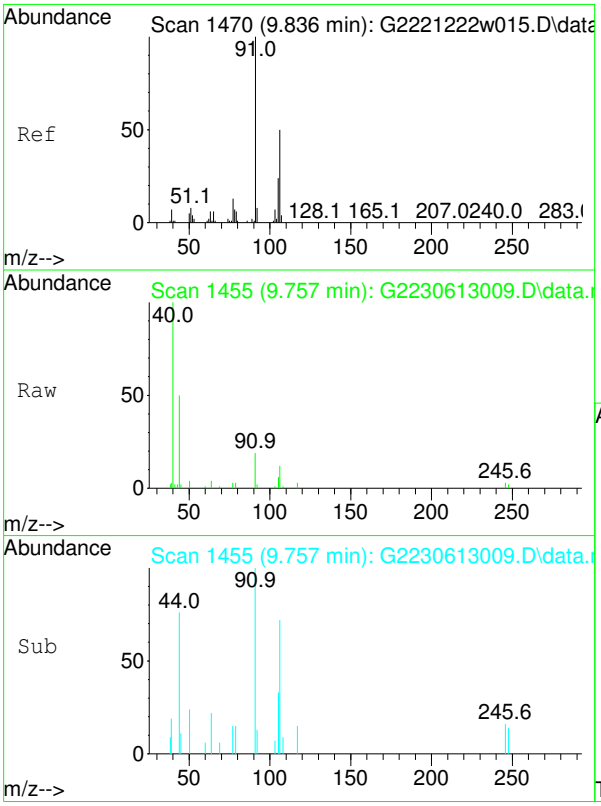


#74
Ethylbenzene
Concen: Below Cal
RT: 9.760 min Scan# 1455
Delta R.T. 0.117 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 91 Resp: 44315

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

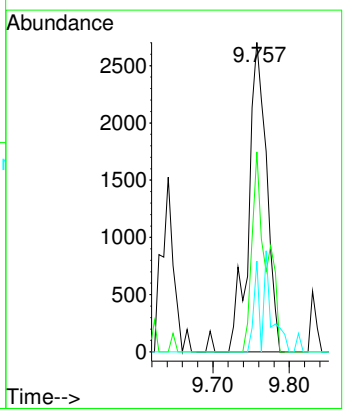


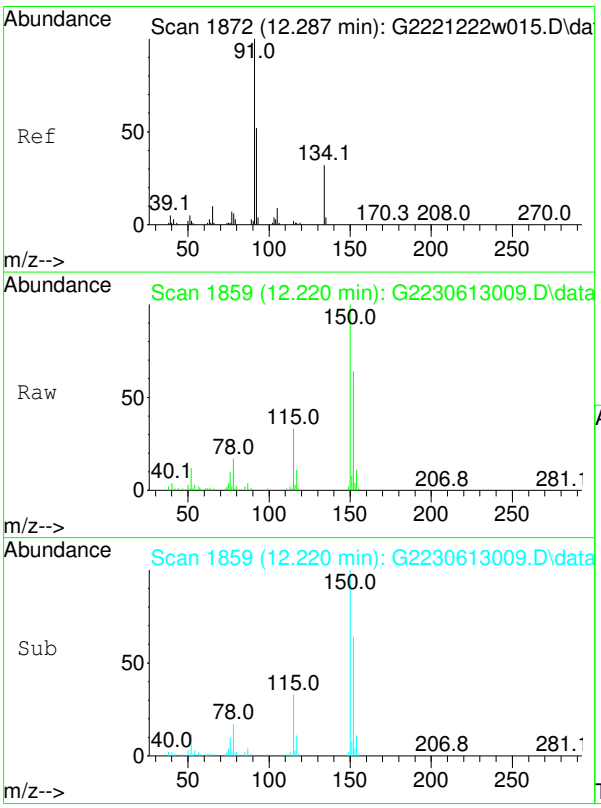


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 91 Resp: 44979

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

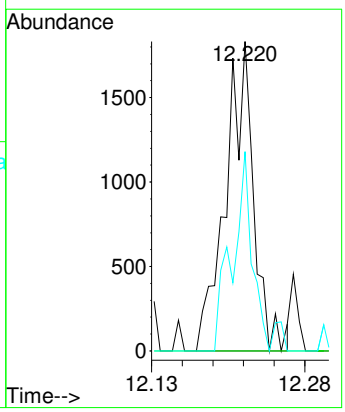




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.222 min Scan# 1859
Delta R.T. -0.009 min
Lab File: G2230613009.D
Acq: 13 Jun 2023 12:00

Tgt Ion: 91 Resp: 35082

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05	File ID:	G2230613020.D
Sampled:	06/01/23 10:41	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 16:41
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.130	0.400	1.00	U
71-55-6	1,1,1-Trichloroethane		0.175	0.400	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.124	0.400	1.00	U
79-00-5	1,1,2-Trichloroethane		0.166	0.400	1.00	U
75-34-3	1,1-Dichloroethane	0.140	0.134	0.400	1.00	J, D
75-35-4	1,1-Dichloroethene	1.40	0.191	0.400	1.00	D
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.204	0.400	1.00	U
96-18-4	1,2,3-Trichloropropane		0.183	0.400	1.00	U
120-82-1	1,2,4-Trichlorobenzene		0.205	0.600	1.20	U
95-63-6	1,2,4-Trimethylbenzene		0.132	0.400	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.260	1.00	2.00	U
106-93-4	1,2-Dibromoethane		0.106	0.400	1.00	U
95-50-1	1,2-Dichlorobenzene		0.126	0.400	1.00	U
107-06-2	1,2-Dichloroethane		0.212	0.600	1.20	U
78-87-5	1,2-Dichloropropane		0.205	0.600	1.20	U
108-67-8	1,3,5-Trimethylbenzene		0.100	0.400	1.00	U
541-73-1	1,3-Dichlorobenzene		0.145	0.400	1.00	U
142-28-9	1,3-Dichloropropane		0.136	0.400	1.00	U
106-46-7	1,4-Dichlorobenzene		0.184	0.400	1.00	U
594-20-7	2,2-Dichloropropane		0.184	0.400	1.00	U
78-93-3	2-Butanone		0.660	1.40	3.50	U
95-49-8	2-Chlorotoluene		0.147	0.400	1.00	U
591-78-6	2-Hexanone		0.143	1.40	3.50	U
106-43-4	4-Chlorotoluene		0.184	0.400	1.00	U
99-87-6	4-Isopropyltoluene		0.140	0.400	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05	File ID:	G2230613020.D
Sampled:	06/01/23 10:41	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 16:41
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.270	1.40	3.50	U
67-64-1	Acetone		1.04	4.00	8.00	U
71-43-2	Benzene		0.101	0.400	1.00	U
108-86-1	Bromobenzene		0.170	0.400	1.00	U
74-97-5	Bromochloromethane		0.134	0.400	1.00	U
75-27-4	Bromodichloromethane		0.106	0.400	1.00	U
75-25-2	Bromoform		0.206	0.400	1.00	U
74-83-9	Bromomethane		0.320	1.00	2.00	U
75-15-0	Carbon disulfide		0.280	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.169	0.400	1.00	U
108-90-7	Chlorobenzene		0.130	0.400	1.00	U
75-00-3	Chloroethane		0.311	0.400	1.00	U
67-66-3	Chloroform		0.203	0.600	1.20	U
74-87-3	Chloromethane		0.384	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene	33.4	0.205	0.600	1.20	D
10061-01-5	cis-1,3-Dichloropropene		0.117	0.400	1.00	U
124-48-1	Dibromochloromethane		0.152	0.400	1.00	U
74-95-3	Dibromomethane		0.163	0.400	1.00	U
75-71-8	Dichlorodifluoromethane		0.259	1.00	2.00	U
100-41-4	Ethylbenzene		0.0600	0.200	0.400	U
87-68-3	Hexachlorobutadiene		0.200	0.400	1.00	Q, S1, U
98-82-8	Isopropylbenzene		0.110	0.400	1.00	U
179601-23-1	m,p-Xylene		0.178	0.800	2.00	U
1634-04-4	Methyl tert-butyl ether		0.106	0.400	1.00	U
75-09-2	Methylene chloride		0.447	1.00	2.00	U
104-51-8	n-Butylbenzene		0.260	1.00	2.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW34

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-05	File ID:	G2230613020.D
Sampled:	06/01/23 10:41	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 16:41
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.126	0.400	1.00	U
91-20-3	Naphthalene		0.140	0.400	1.00	U
95-47-6	o-Xylene		0.0832	0.400	1.00	U
135-98-8	sec-Butylbenzene		0.120	0.400	1.00	U
100-42-5	Styrene		0.0906	0.200	0.400	U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	Q, S1, U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	0.400	0.171	0.400	1.00	J, D
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene	503	0.156	0.400	1.00	E, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride		0.258	1.00	2.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613020.D
Acq On : 13 Jun 2023 16:41
Operator : PO1/MP3
Sample : 23F0136-05
Misc : 2
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 14 08:55:32 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

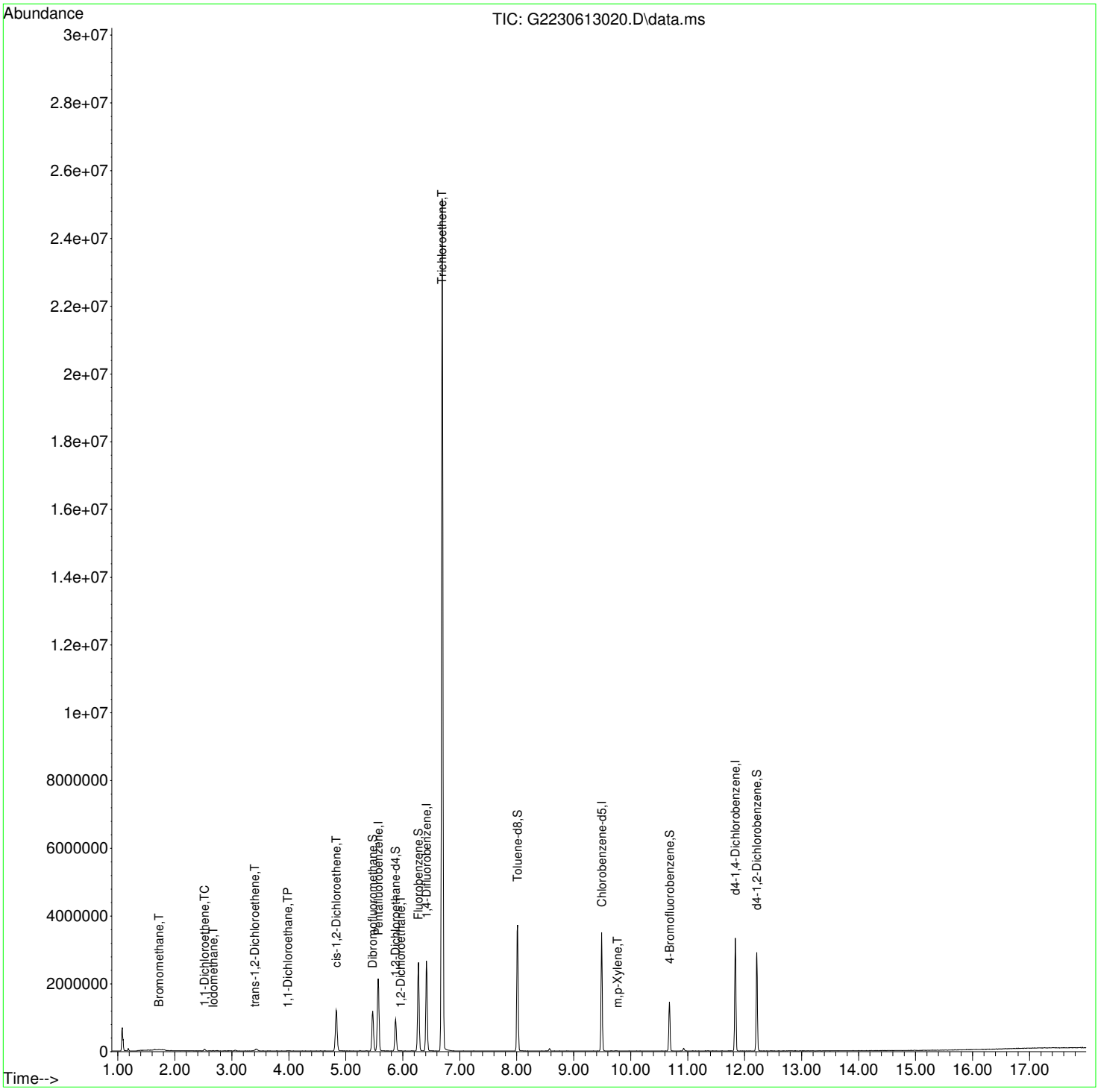
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	17034102	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23125674	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20333259	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9428957	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7312927	19.51	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.55%			
43) 1,2-Dichloroethane-d4	5.876	65	6518906	17.60	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.00%			
49) Fluorobenzene	6.277	96	25689741	19.50	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.50%			
64) Toluene-d8	8.015	98	24785401	19.34	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.70%			
81) 4-Bromofluorobenzene	10.683	174	4491033	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.90%			
97) d4-1,2-Dichlorobenzene	12.216	152	8373930	20.65	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.25%			
Target Compounds						Qvalue
3) Chloromethane	1.362	50	21726	Below Cal	#	41
5) Bromomethane	1.723	94	63420	0.03	ug/L #	87
10) 1,1-Dichloroethene	2.524	61	284631	0.70	ug/L	86
13) Iodomethane	2.675	142	59574	0.15	ug/L #	41
18) Methylene chloride	3.059	49	94418	Below Cal	#	65
20) trans-1,2-Dichloroethene	3.402	61	75647	0.20	ug/L #	71
21) Methyl tert-butyl ether	3.436	73	709278	Below Cal		95
23) 1,1-Dichloroethane	3.987	63	71869	0.07	ug/L #	51
28) cis-1,2-Dichloroethene	4.834	61	7149874	16.69	ug/L #	74
44) 1,2-Dichloroethane	5.964	62	54384	0.03	ug/L #	47
50) Trichloroethene	6.694	95	76348155	251.37	ug/L	91
75) m,p-Xylene	9.767	91	30907	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342053

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613020.D
Acq On : 13 Jun 2023 16:41
Operator : PO1/MP3
Sample : 23F0136-05
Misc : 2
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 14 08:55:32 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613020.D
Acq On : 13 Jun 2023 16:41
Operator : PO1/MP3
Sample : 23F0136-05
Misc : 2
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 14 08:55:32 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	17034102	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23125674	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20333259	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9428957	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7312927	19.51	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.55%			
43) 1,2-Dichloroethane-d4	5.876	65	6518906	17.60	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.00%			
49) Fluorobenzene	6.277	96	25689741	19.50	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.50%			
64) Toluene-d8	8.015	98	24785401	19.34	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.70%			
81) 4-Bromofluorobenzene	10.683	174	4491033	10.09	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.90%			
97) d4-1,2-Dichlorobenzene	12.216	152	8373930	20.65	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.25%			
Target Compounds						Qvalue
3) Chloromethane	1.362	50	21726	Below Cal	#	41
5) Bromomethane	1.723	94	63420	0.03	ug/L #	87
10) 1,1-Dichloroethene	2.524	61	284631	0.70	ug/L	86
12) Acetone	2.603	43	90890	Below Cal	#	45
13) Iodomethane	2.675	142	59574	0.15	ug/L #	41
14) Carbon disulfide	2.739	76	115737	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.739	76	115741	0.60	ug/L #	53
18) Methylene chloride	3.059	49	94418	Below Cal	#	65
20) trans-1,2-Dichloroethene	3.402	61	75647	0.20	ug/L #	71
21) Methyl tert-butyl ether	3.436	73	709278	Below Cal		95
23) 1,1-Dichloroethane	3.987	63	71869	0.07	ug/L #	51
26) 1-propanol	4.249	59	739	0.42	ug/L #	100
28) cis-1,2-Dichloroethene	4.834	61	7149874	16.69	ug/L #	74
29) 2-Butanone	4.838	72	56676	0.78	ug/L #	42
31) Ethyl acetate	4.835	61	7151026	141.83	ug/L #	45
40) Cyclohexane	5.568	84	384578	0.84	ug/L #	32
41) 1-Chlorobutane	5.566	56	211868	0.40	ug/L #	1
42) 1,1-Dichloropropene	5.570	75	892180	2.23	ug/L #	38
44) 1,2-Dichloroethane	5.964	62	54384	0.03	ug/L #	47
47) Carbon tetrachloride	5.571	117	1400663	3.36	ug/L #	16
50) Trichloroethene	6.694	95	76348155	251.37	ug/L	91
52) 1,2-Dichloropropane	6.696	63	216115	0.75	ug/L #	1
60) 4-Methyl-2-pentanone	8.015	43	86033	Below Cal	#	1
74) Ethylbenzene	9.767	91	30145	Below Cal	#	44
75) m,p-Xylene	9.767	91	30907	0.03	ug/L #	36
87) 2-Chlorotoluene	10.943	91	14937	0.02	ug/L #	47

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613020.D
Acq On : 13 Jun 2023 16:41
Operator : PO1/MP3
Sample : 23F0136-05
Misc : 2
ALS Vial : 20 Sample Multiplier: 1

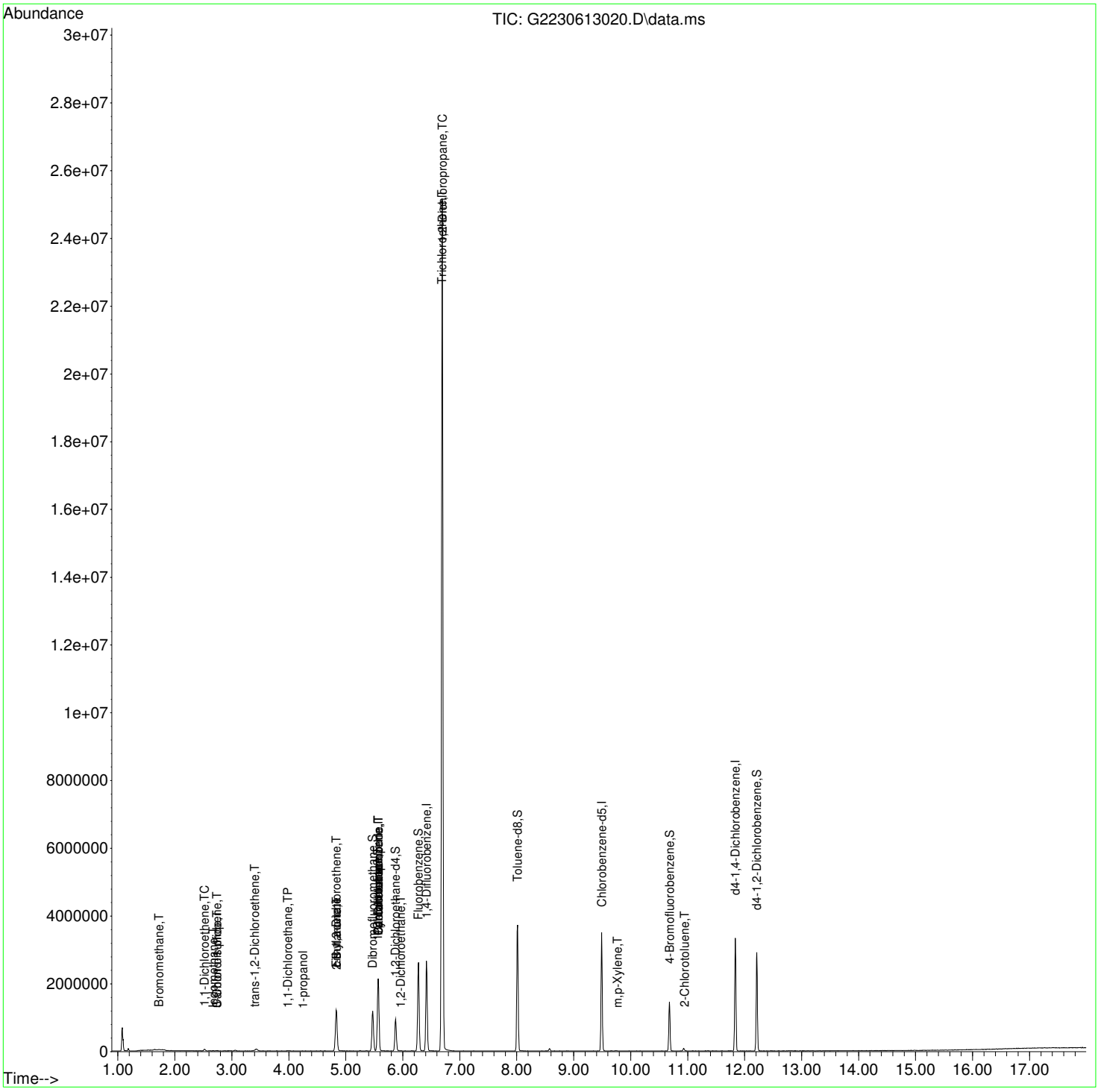
Quant Time: Jun 14 08:55:32 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

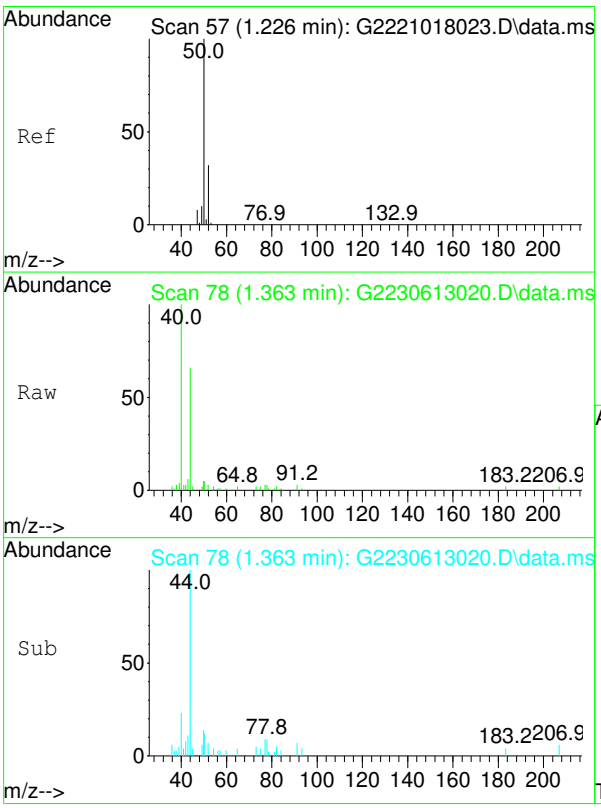
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613020.D
Acq On : 13 Jun 2023 16:41
Operator : PO1/MP3
Sample : 23F0136-05
Misc : 2
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 14 08:55:32 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

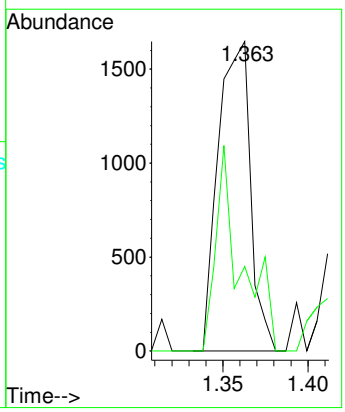


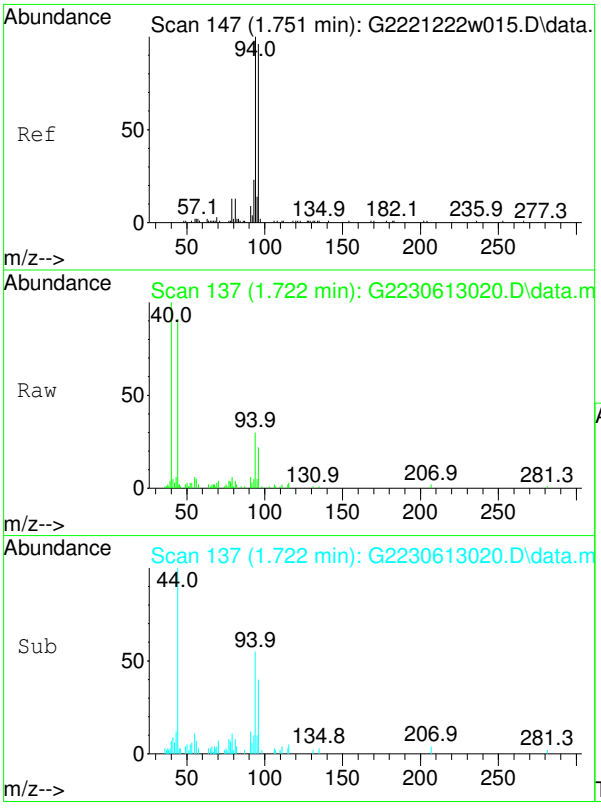


#3
Chloromethane
Concen: Below Cal
RT: 1.362 min Scan# 78
Delta R.T. 0.008 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 50 Resp: 21726

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

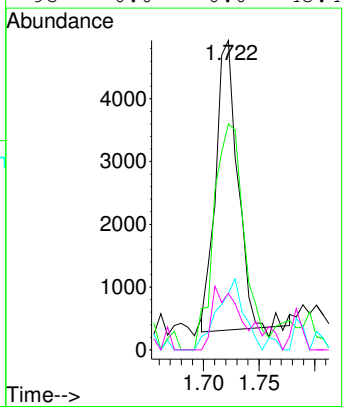


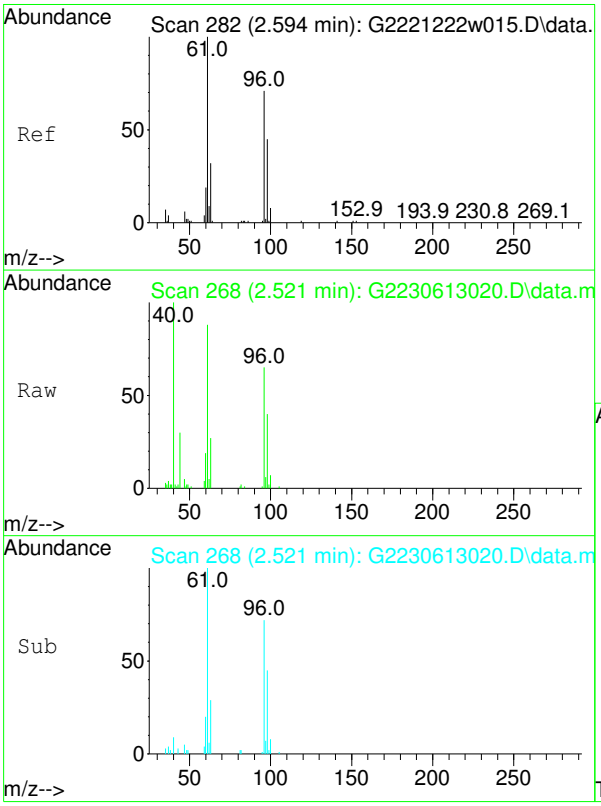


#5
Bromomethane
Concen: 0.03 ug/L
RT: 1.723 min Scan# 137
Delta R.T. 0.009 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 94 Resp: 63420

Ion	Ratio	Lower	Upper
94	100		
96	99.0	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

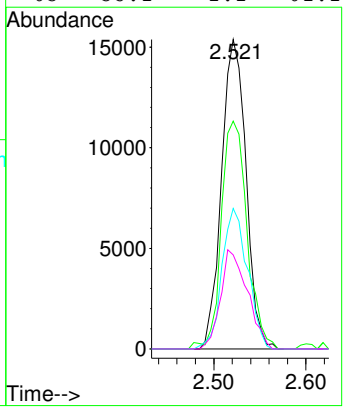


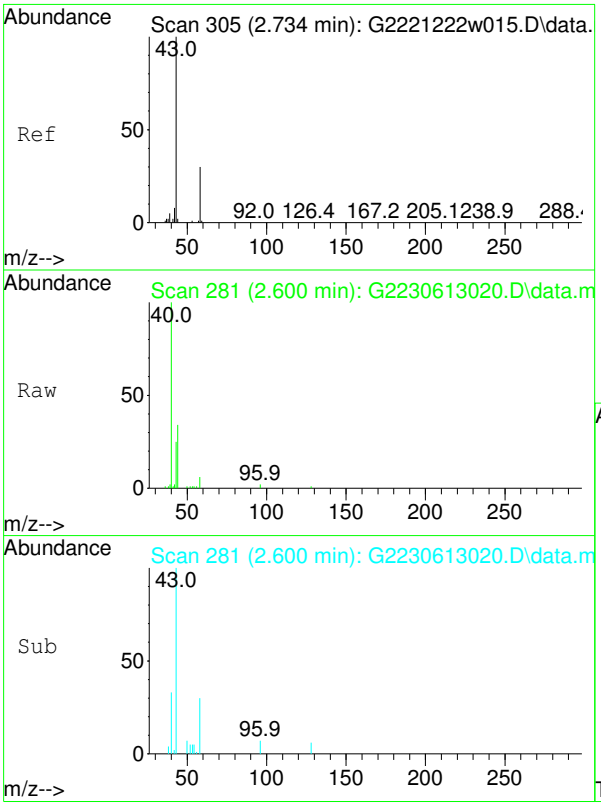


#10
1,1-Dichloroethene
Concen: 0.70 ug/L
RT: 2.524 min Scan# 268
Delta R.T. 0.001 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 61 Resp: 284631

Ion	Ratio	Lower	Upper
61	100		
96	77.2	32.7	92.7
98	47.5	9.3	69.3
63	35.1	1.1	61.1

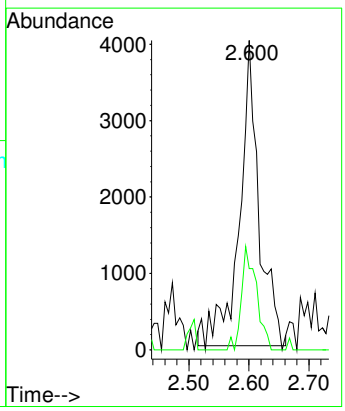


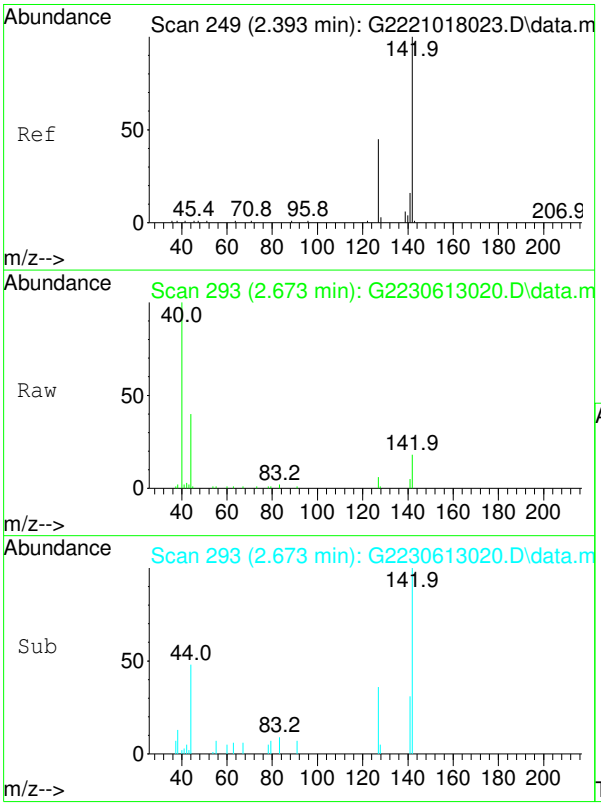


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 281
Delta R.T. -0.005 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 43 Resp: 90890

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

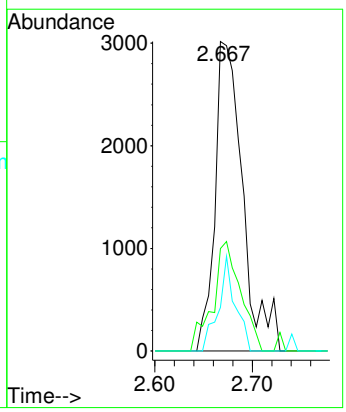


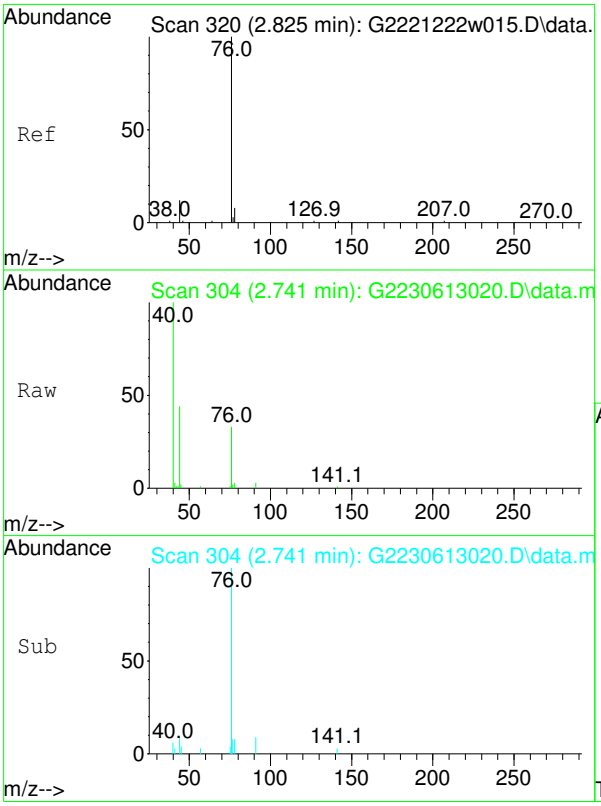


#13
Iodomethane
Concen: 0.15 ug/L
RT: 2.675 min Scan# 293
Delta R.T. -0.001 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion:142 Resp: 59574

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

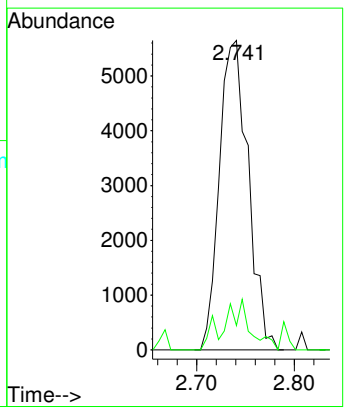


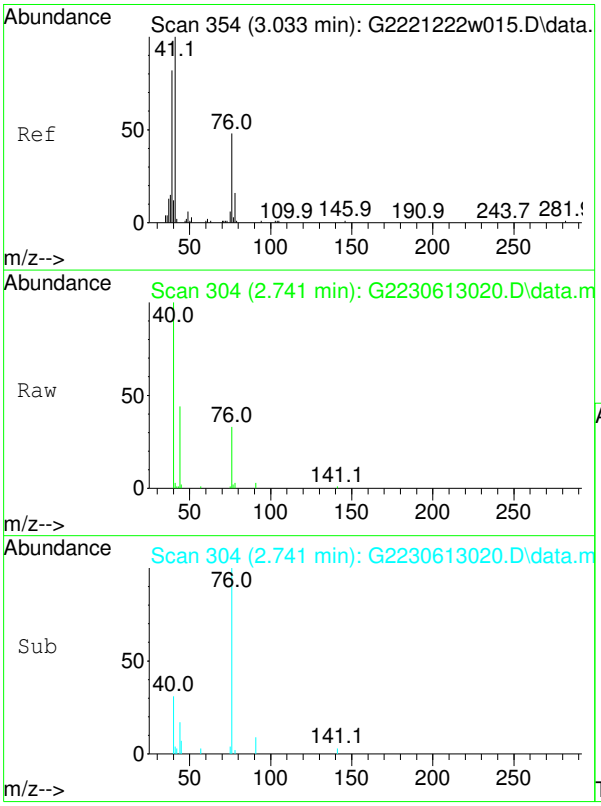


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.739 min Scan# 304
Delta R.T. 0.000 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 76 Resp: 115737

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

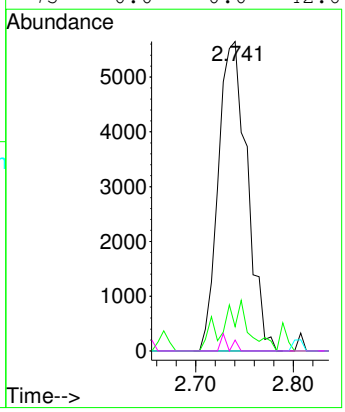


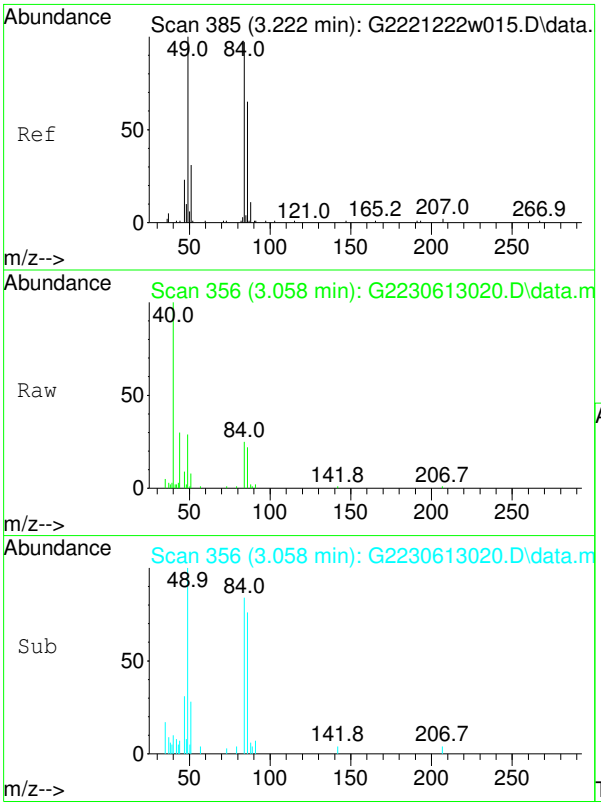


#17
3-Chloro-1-propene
Concen: 0.60 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.181 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 76 Resp: 115741

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

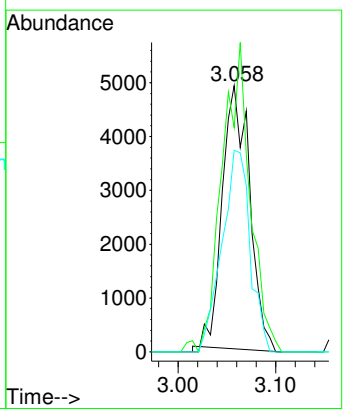


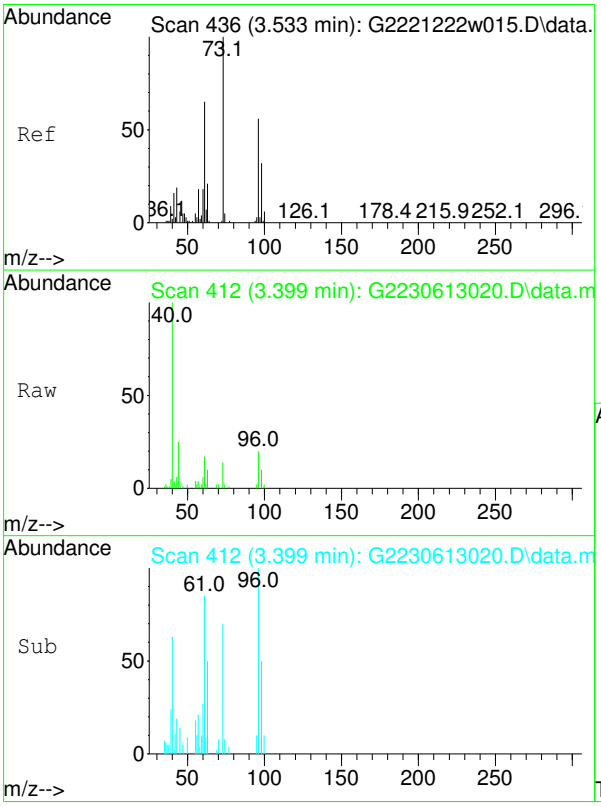


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 49 Resp: 94418

Ion	Ratio	Lower	Upper
49	100		
84	120.6	57.9	117.9#
86	79.2	24.9	84.9

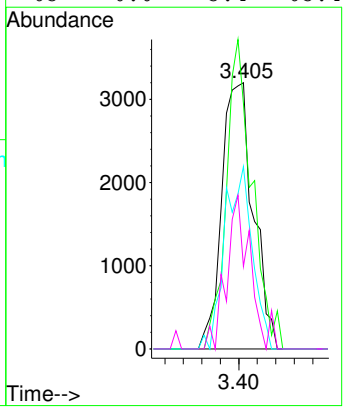


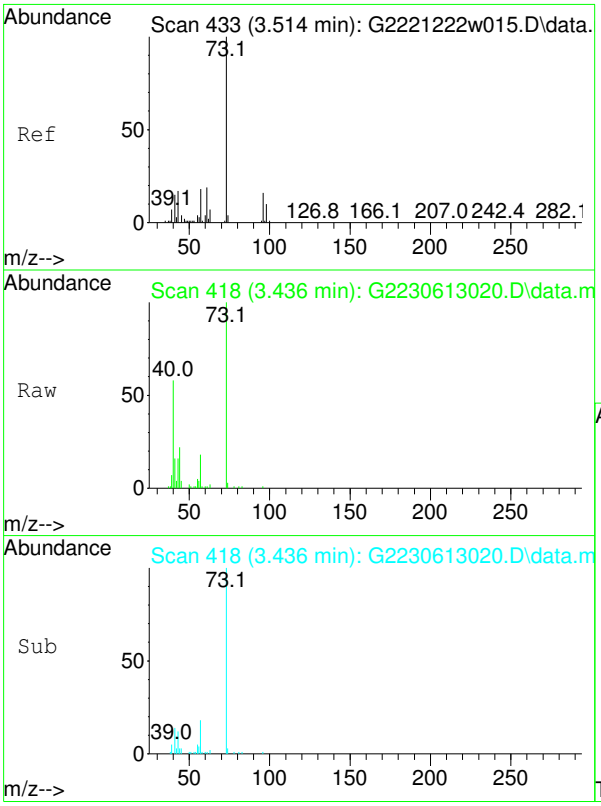


#20
trans-1,2-Dichloroethene
Concen: 0.20 ug/L
RT: 3.402 min Scan# 412
Delta R.T. 0.001 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 61 Resp: 75647

Ion	Ratio	Lower	Upper
61	100		
96	95.5	45.2	105.2
98	57.6	17.2	77.2
63	0.0	3.4	63.4#

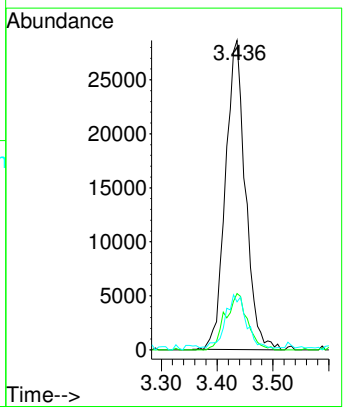


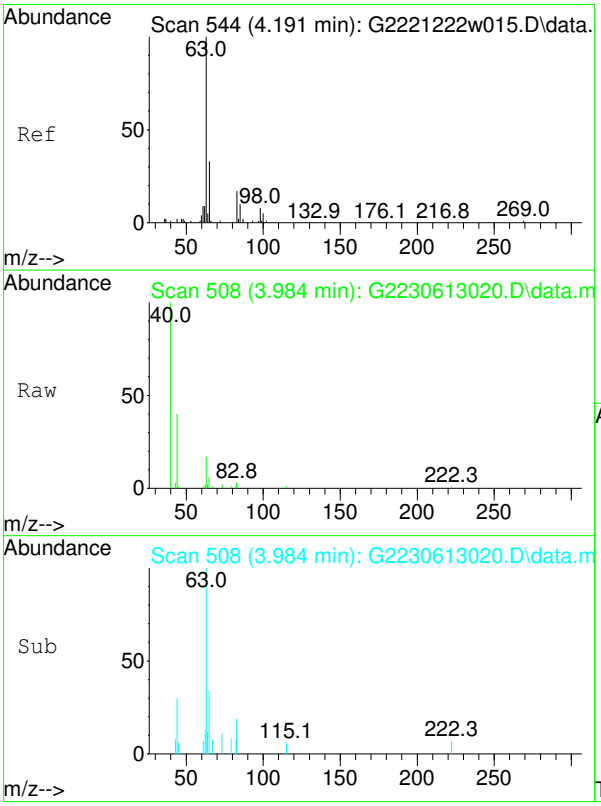


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.436 min Scan# 418
Delta R.T. -0.010 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 73 Resp: 709278

Ion	Ratio	Lower	Upper
73	100		
57	20.2	0.0	51.7
41	17.4	0.0	50.6

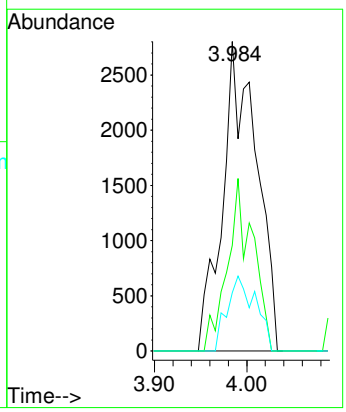


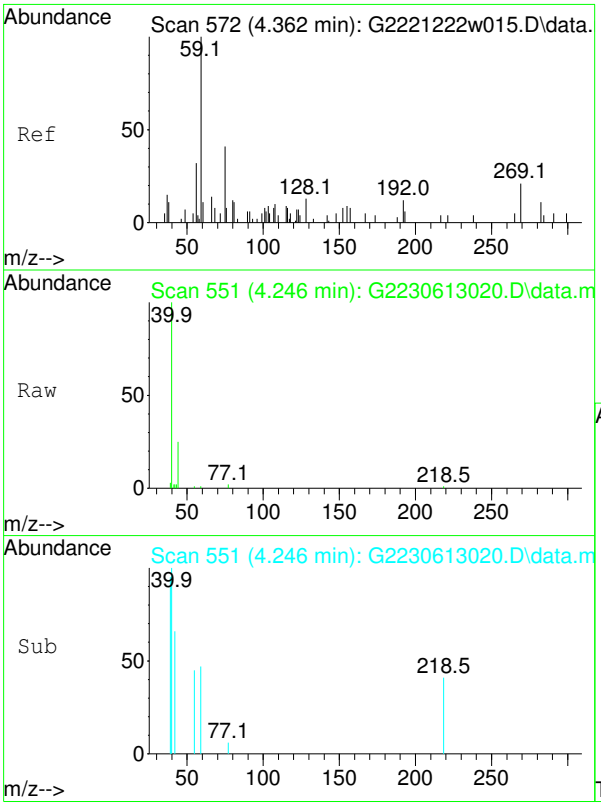


#23
1,1-Dichloroethane
Concen: 0.07 ug/L
RT: 3.987 min Scan# 508
Delta R.T. -0.011 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 63 Resp: 71869

Ion	Ratio	Lower	Upper
63	100		
65	0.0	1.1	61.1#
83	0.0	0.0	42.9

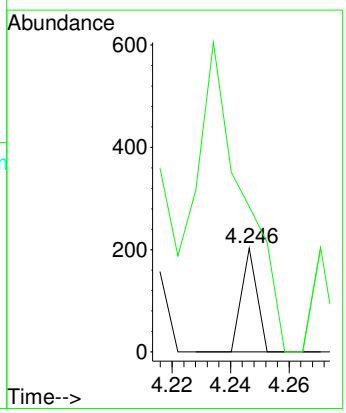


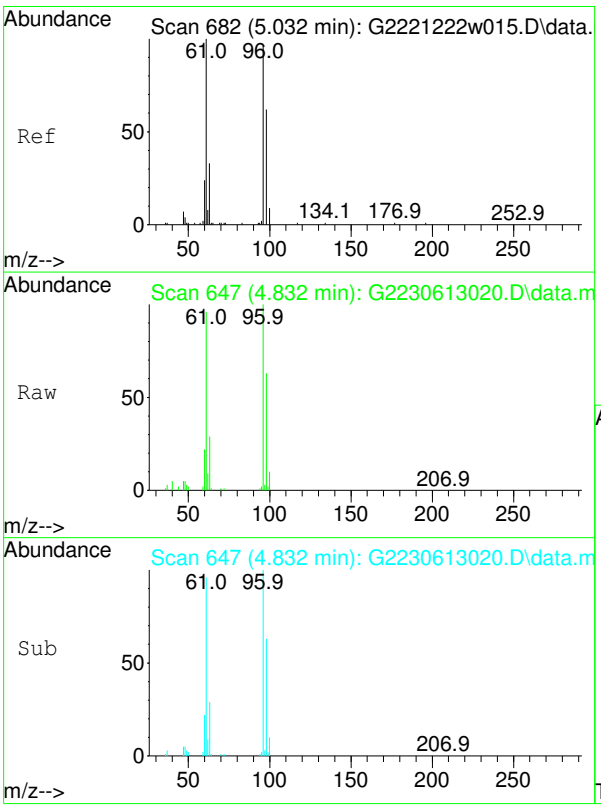


#26
1-propanol
Concen: 0.42 ug/L
RT: 4.249 min Scan# 551
Delta R.T. -0.040 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 59 Resp: 739

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

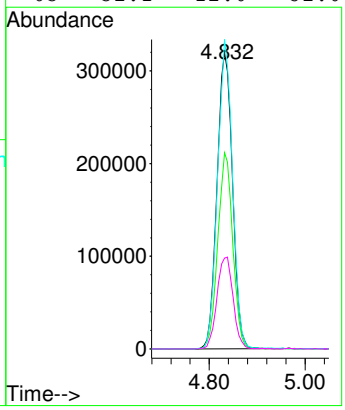


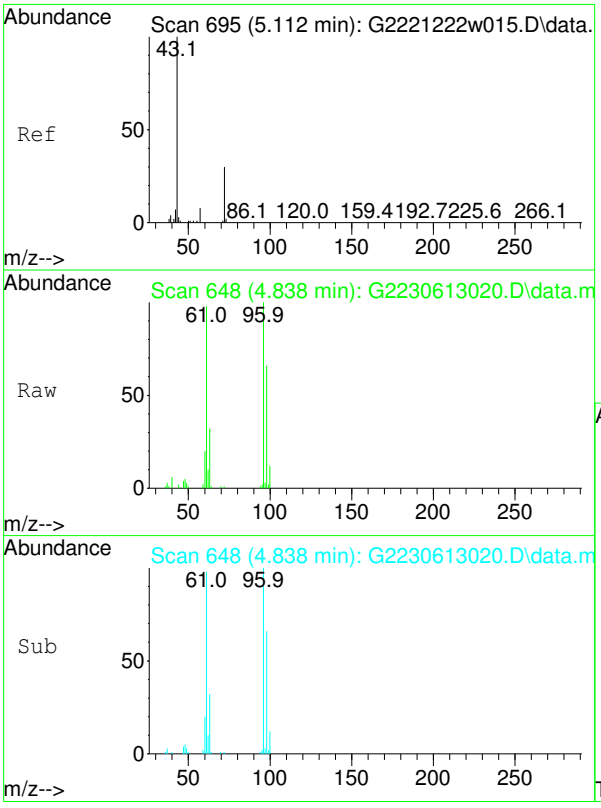


#28
cis-1,2-Dichloroethene
Concen: 16.69 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.002 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 61 Resp: 7149874

Ion	Ratio	Lower	Upper
61	100		
98	63.9	15.9	75.9
96	100.4	39.6	99.6#
63	32.1	12.0	52.0

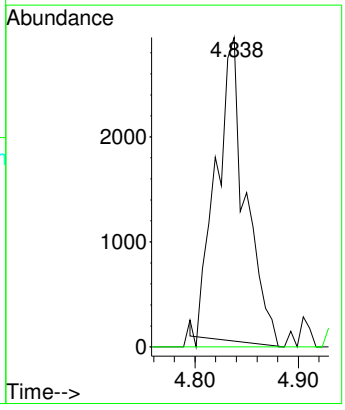


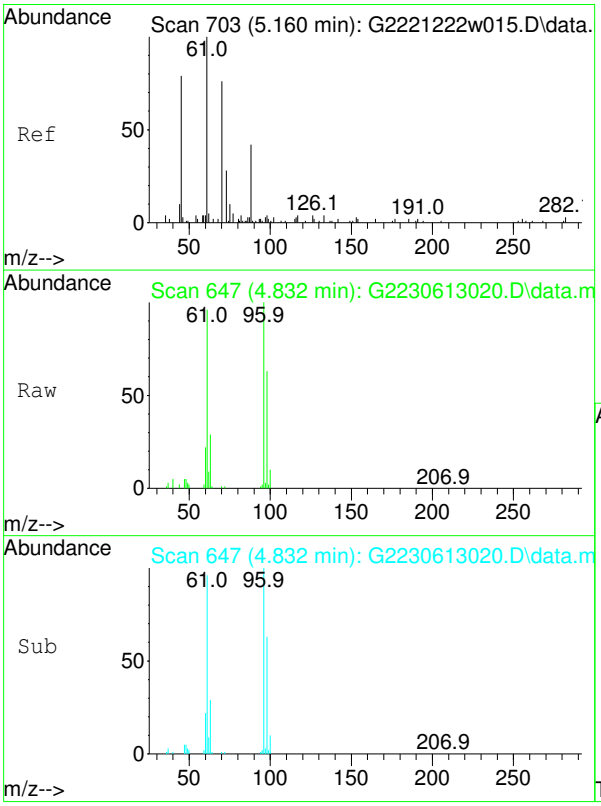


#29
2-Butanone
Concen: 0.78 ug/L
RT: 4.838 min Scan# 648
Delta R.T. -0.081 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 72 Resp: 56676

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

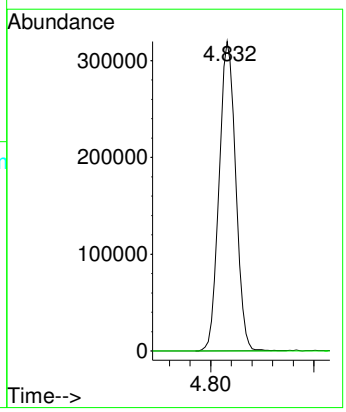


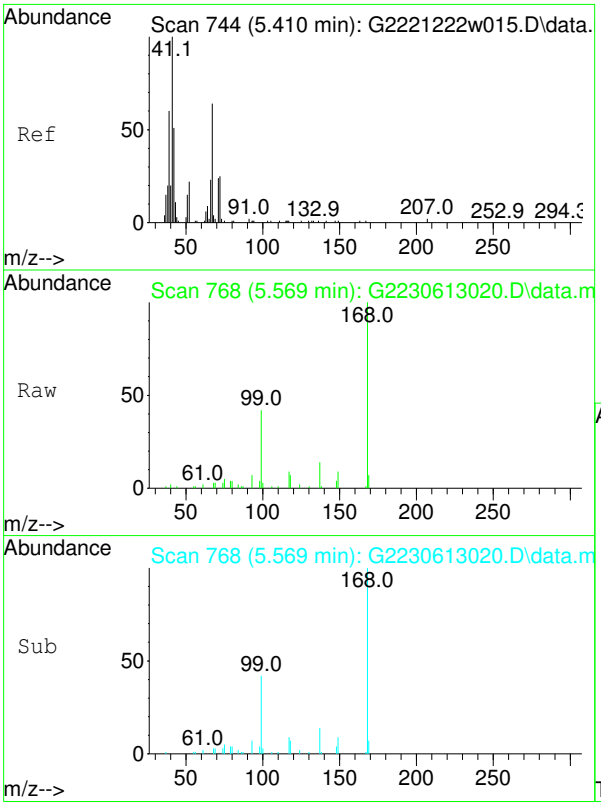


#31
Ethyl acetate
Concen: 141.83 ug/L
RT: 4.835 min Scan# 647
Delta R.T. -0.187 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 61 Resp: 7151026

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

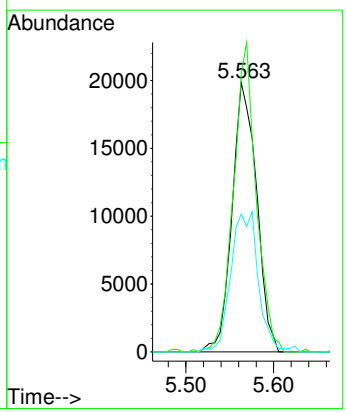


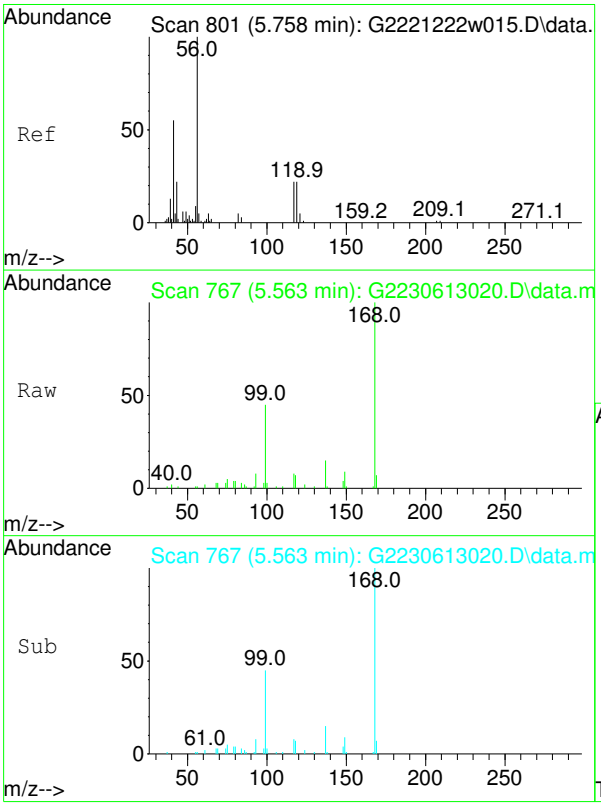


#40
Cyclohexane
Concen: 0.84 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 84 Resp: 384578

Ion	Ratio	Lower	Upper
84	100		
69	106.2	6.8	66.8#
56	55.3	79.1	139.1#

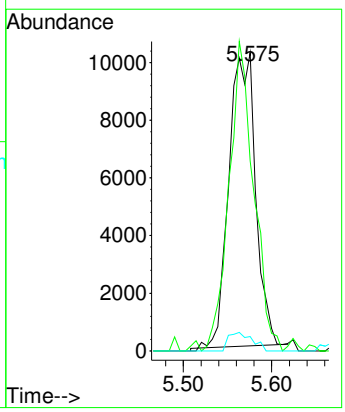


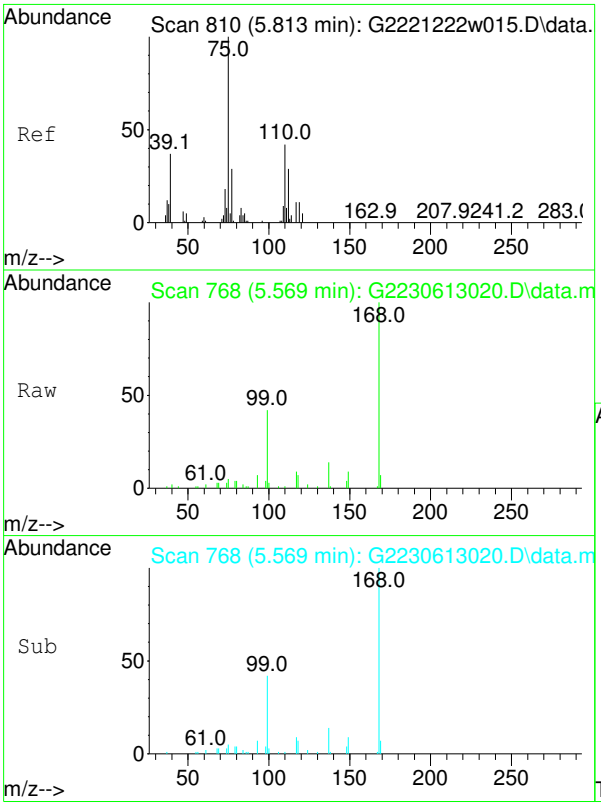


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.566 min Scan# 767
Delta R.T. -0.064 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 56 Resp: 211868

Ion	Ratio	Lower	Upper
56	100		
55	97.3	0.0	41.0#
57	0.0	0.0	35.7

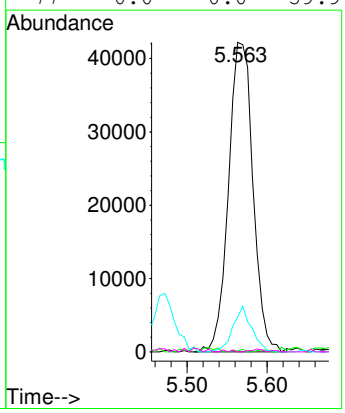


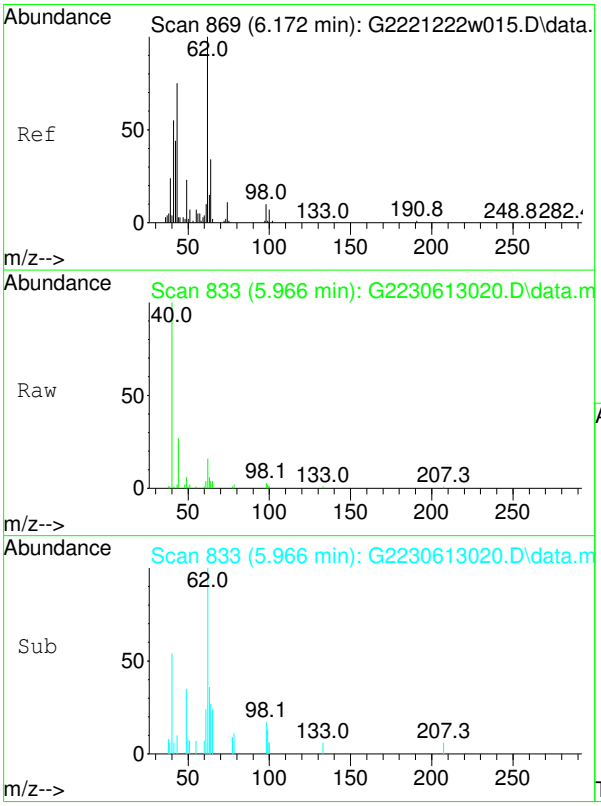


#42
1,1-Dichloropropene
Concen: 2.23 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 75 Resp: 892180

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.3	9.1	69.1
77	0.0	0.0	59.9

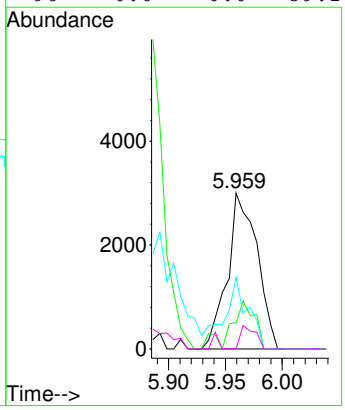


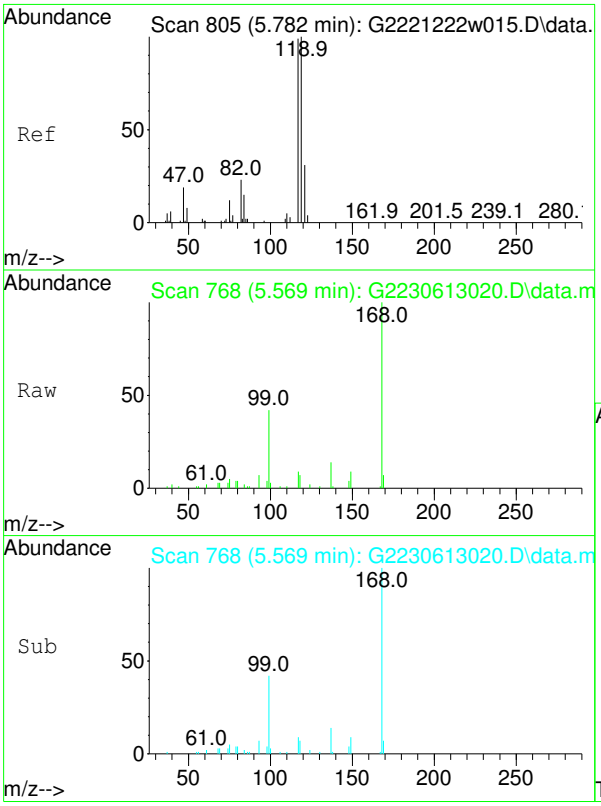


#44
1,2-Dichloroethane
Concen: 0.03 ug/L
RT: 5.964 min Scan# 833
Delta R.T. -0.007 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 62 Resp: 54384

Ion	Ratio	Lower	Upper
62	100		
49	0.0	0.2	60.2#
64	0.0	3.0	63.0#
98	0.0	0.0	39.1

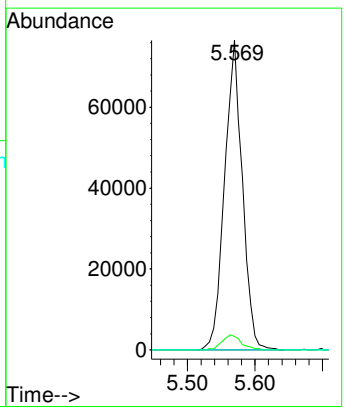


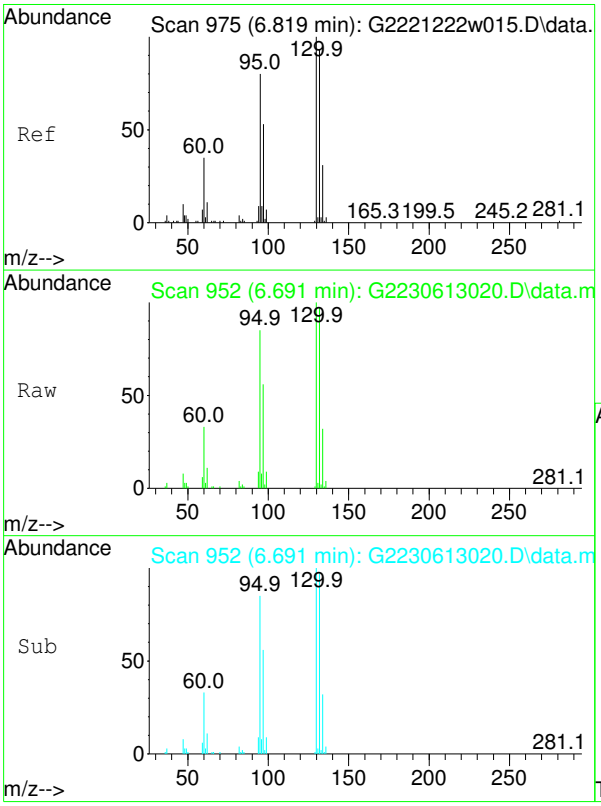


#47
Carbon tetrachloride
Concen: 3.36 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion:117 Resp: 1400663

Ion	Ratio	Lower	Upper
117	100		
119	5.3	66.4	126.4#
121	0.0	0.4	60.4#

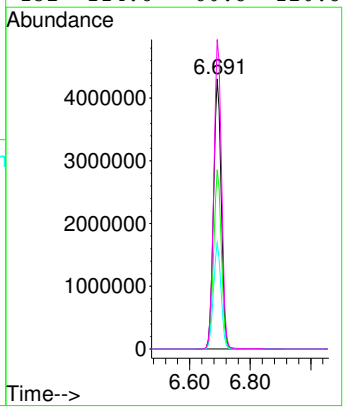


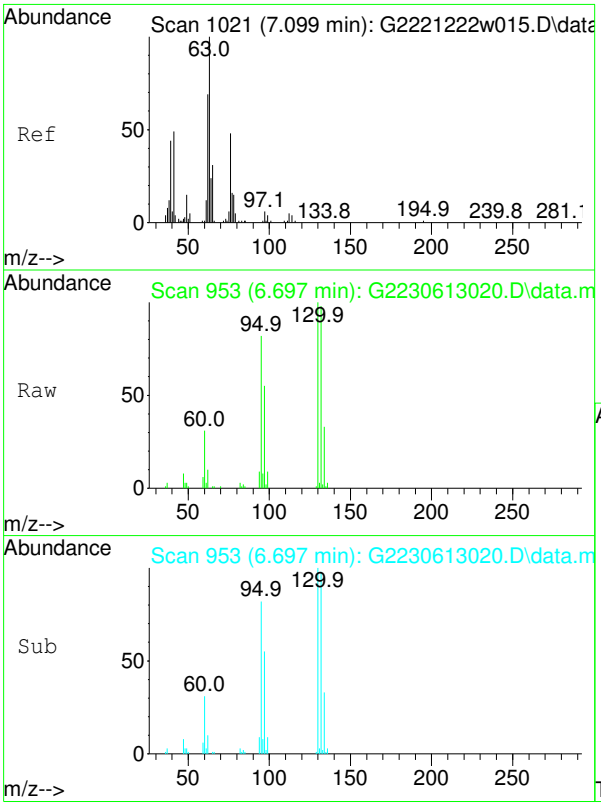


#50
Trichloroethene
Concen: 251.37 ug/L
RT: 6.694 min Scan# 952
Delta R.T. -0.002 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 95 Resp:76348155

Ion	Ratio	Lower	Upper
95	100		
97	66.0	35.5	95.5
60	38.5	14.8	74.8
132	114.8	80.5	120.5

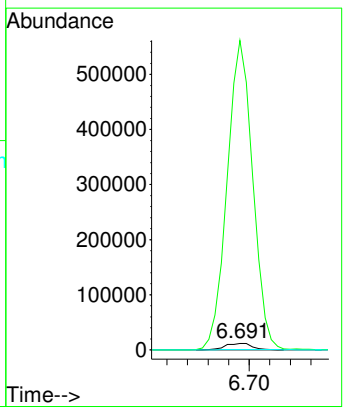


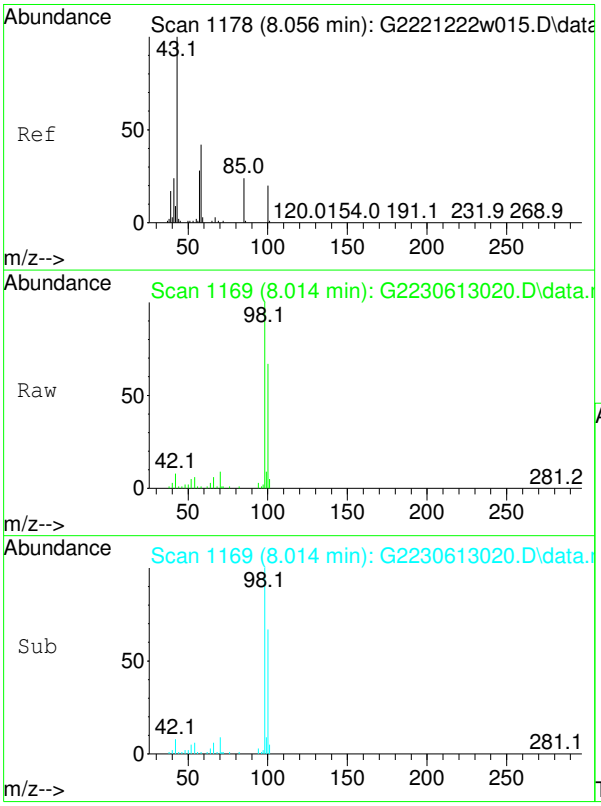


#52
1,2-Dichloropropane
Concen: 0.75 ug/L
RT: 6.696 min Scan# 953
Delta R.T. -0.250 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 63 Resp: 216115

Ion	Ratio	Lower	Upper
63	100		
62	4500.9	35.2	95.2#
76	0.0	10.7	70.7#

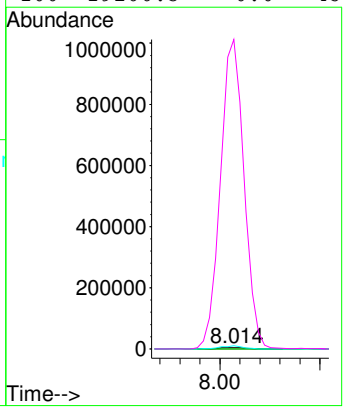


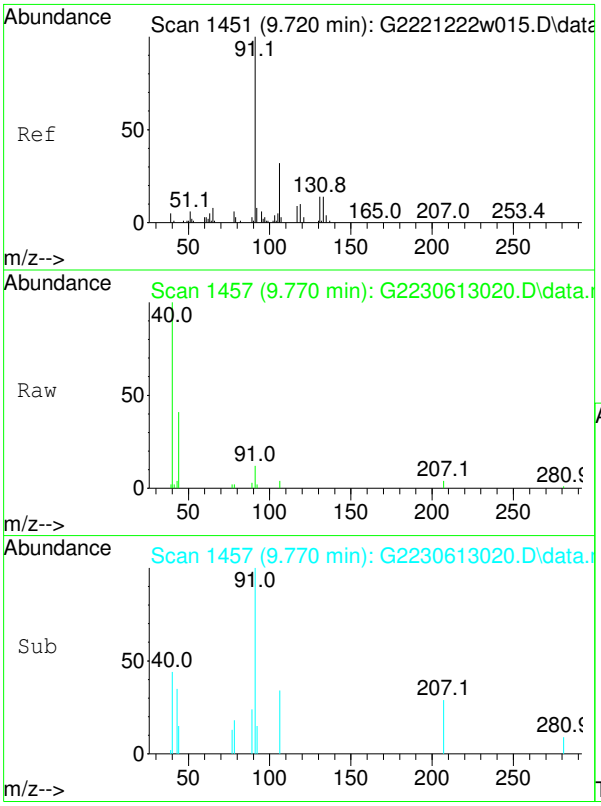


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 43 Resp: 86033

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	186.8	37.0	37.0#
100	19266.3	0.0	45.2#

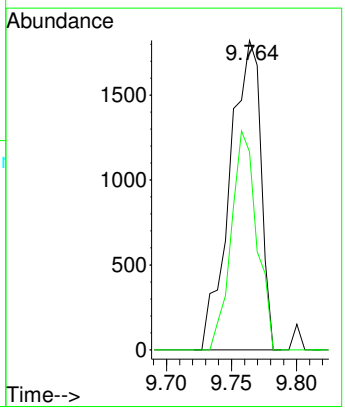


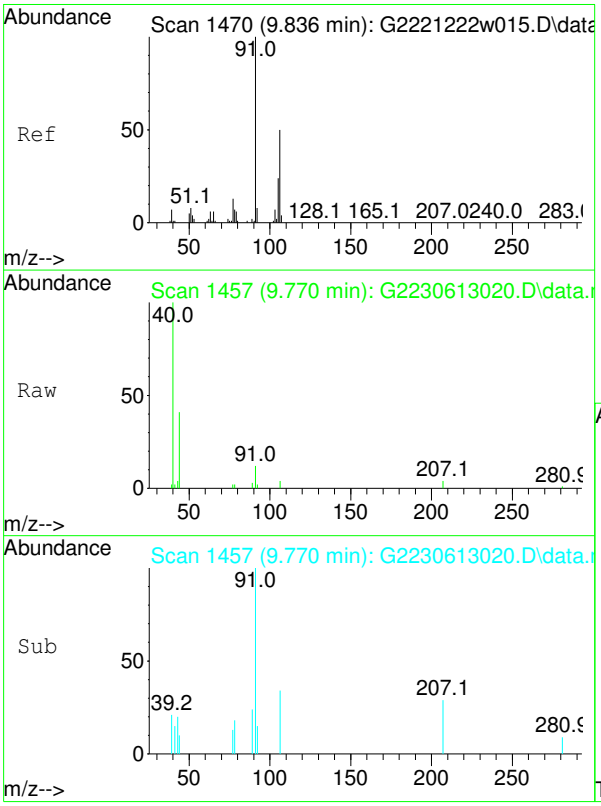


#74
Ethylbenzene
Concen: Below Cal
RT: 9.767 min Scan# 1457
Delta R.T. 0.124 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 91 Resp: 30145

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

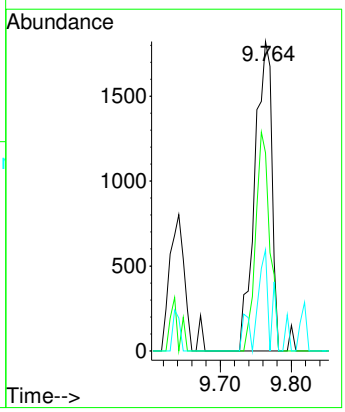


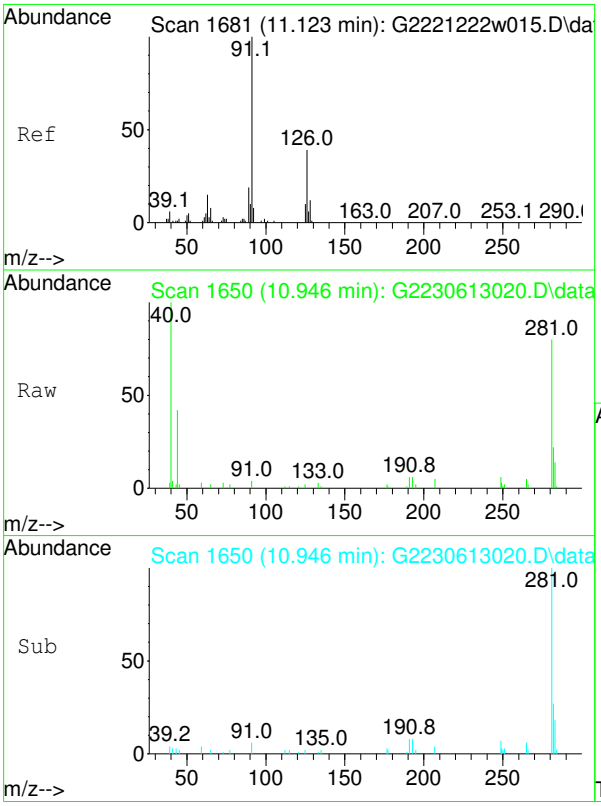


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.767 min Scan# 1457
Delta R.T. 0.003 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 91 Resp: 30907

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

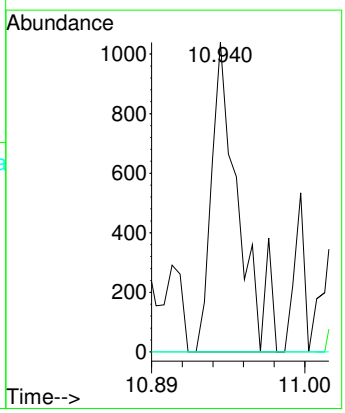




#87
2-Chlorotoluene
Concen: 0.02 ug/L
RT: 10.943 min Scan# 1650
Delta R.T. -0.085 min
Lab File: G2230613020.D
Acq: 13 Jun 2023 16:41

Tgt Ion: 91 Resp: 14937

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06	File ID:	G2230613021.D
Sampled:	06/01/23 11:00	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 17:06
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.130	0.400	1.00	U
71-55-6	1,1,1-Trichloroethane		0.175	0.400	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.124	0.400	1.00	U
79-00-5	1,1,2-Trichloroethane		0.166	0.400	1.00	U
75-34-3	1,1-Dichloroethane		0.134	0.400	1.00	U
75-35-4	1,1-Dichloroethene		0.191	0.400	1.00	U
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.204	0.400	1.00	U
96-18-4	1,2,3-Trichloropropane		0.183	0.400	1.00	U
120-82-1	1,2,4-Trichlorobenzene		0.205	0.600	1.20	U
95-63-6	1,2,4-Trimethylbenzene		0.132	0.400	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.260	1.00	2.00	U
106-93-4	1,2-Dibromoethane		0.106	0.400	1.00	U
95-50-1	1,2-Dichlorobenzene		0.126	0.400	1.00	U
107-06-2	1,2-Dichloroethane		0.212	0.600	1.20	U
78-87-5	1,2-Dichloropropane		0.205	0.600	1.20	U
108-67-8	1,3,5-Trimethylbenzene		0.100	0.400	1.00	U
541-73-1	1,3-Dichlorobenzene		0.145	0.400	1.00	U
142-28-9	1,3-Dichloropropane		0.136	0.400	1.00	U
106-46-7	1,4-Dichlorobenzene		0.184	0.400	1.00	U
594-20-7	2,2-Dichloropropane		0.184	0.400	1.00	U
78-93-3	2-Butanone		0.660	1.40	3.50	U
95-49-8	2-Chlorotoluene		0.147	0.400	1.00	U
591-78-6	2-Hexanone		0.143	1.40	3.50	U
106-43-4	4-Chlorotoluene		0.184	0.400	1.00	U
99-87-6	4-Isopropyltoluene		0.140	0.400	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06	File ID:	G2230613021.D
Sampled:	06/01/23 11:00	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 17:06
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.270	1.40	3.50	U
67-64-1	Acetone		1.04	4.00	8.00	U
71-43-2	Benzene		0.101	0.400	1.00	U
108-86-1	Bromobenzene		0.170	0.400	1.00	U
74-97-5	Bromochloromethane		0.134	0.400	1.00	U
75-27-4	Bromodichloromethane		0.106	0.400	1.00	U
75-25-2	Bromoform		0.206	0.400	1.00	U
74-83-9	Bromomethane		0.320	1.00	2.00	U
75-15-0	Carbon disulfide		0.280	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.169	0.400	1.00	U
108-90-7	Chlorobenzene		0.130	0.400	1.00	U
75-00-3	Chloroethane		0.311	0.400	1.00	U
67-66-3	Chloroform		0.203	0.600	1.20	U
74-87-3	Chloromethane		0.384	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.205	0.600	1.20	U
10061-01-5	cis-1,3-Dichloropropene		0.117	0.400	1.00	U
124-48-1	Dibromochloromethane		0.152	0.400	1.00	U
74-95-3	Dibromomethane		0.163	0.400	1.00	U
75-71-8	Dichlorodifluoromethane		0.259	1.00	2.00	U
100-41-4	Ethylbenzene		0.0600	0.200	0.400	U
87-68-3	Hexachlorobutadiene		0.200	0.400	1.00	Q, S1, U
98-82-8	Isopropylbenzene		0.110	0.400	1.00	U
179601-23-1	m,p-Xylene		0.178	0.800	2.00	U
1634-04-4	Methyl tert-butyl ether		0.106	0.400	1.00	U
75-09-2	Methylene chloride		0.447	1.00	2.00	U
104-51-8	n-Butylbenzene		0.260	1.00	2.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

61DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-06	File ID:	G2230613021.D
Sampled:	06/01/23 11:00	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 17:06
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.126	0.400	1.00	U
91-20-3	Naphthalene		0.140	0.400	1.00	U
95-47-6	o-Xylene		0.0832	0.400	1.00	U
135-98-8	sec-Butylbenzene		0.120	0.400	1.00	U
100-42-5	Styrene		0.0906	0.200	0.400	U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	Q, S1, U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.171	0.400	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene	1.24	0.156	0.400	1.00	D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride		0.258	1.00	2.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613021.D
Acq On : 13 Jun 2023 17:06
Operator : PO1/MP3
Sample : 23F0136-06
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

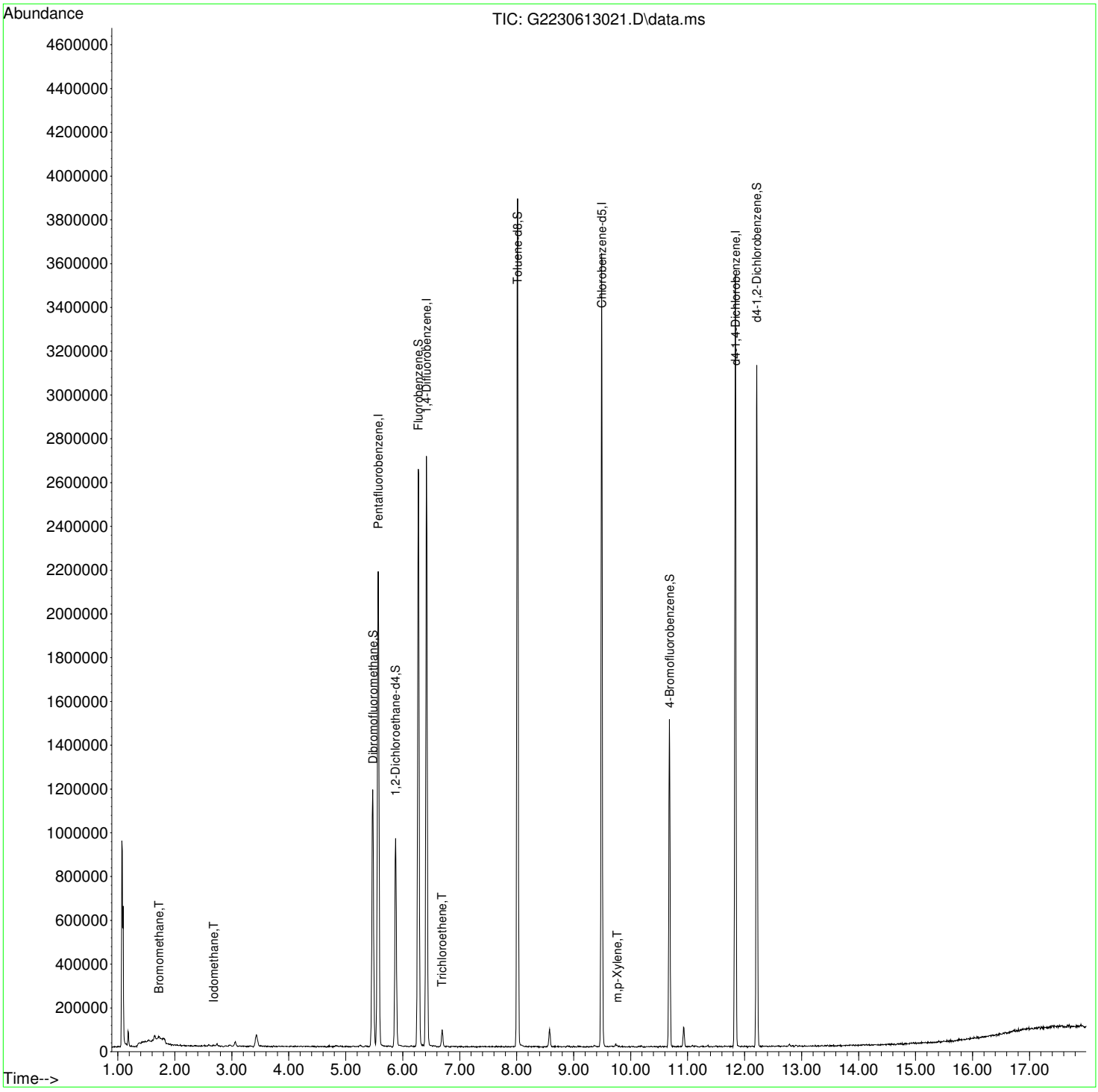
Quant Time: Jun 14 09:19:49 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17409579	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23537320	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20848227	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9991090	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7396211	19.30	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.50%			
43) 1,2-Dichloroethane-d4	5.877	65	6708157	17.72	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.60%			
49) Fluorobenzene	6.276	96	25971286	19.36	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%			
64) Toluene-d8	8.016	98	25467525	19.38	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%			
81) 4-Bromofluorobenzene	10.683	174	4627695	9.81	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%			
97) d4-1,2-Dichlorobenzene	12.216	152	8790334	20.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.30%			
Target Compounds						Qvalue
5) Bromomethane	1.723	94	81600m	0.10	ug/L	
13) Iodomethane	2.679	142	51452	0.13	ug/L #	41
18) Methylene chloride	3.061	49	104118	Below Cal	#	66
21) Methyl tert-butyl ether	3.434	73	753073	Below Cal		94
50) Trichloroethene	6.694	95	216600	0.62	ug/L #	85
65) Toluene	8.084	91	28520	Below Cal	#	30
75) m,p-Xylene	9.763	91	33894	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613021.D
Acq On : 13 Jun 2023 17:06
Operator : PO1/MP3
Sample : 23F0136-06
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 14 09:19:49 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



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Data File : G2230613021.D
Acq On : 13 Jun 2023 17:06
Operator : PO1/MP3
Sample : 23F0136-06
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

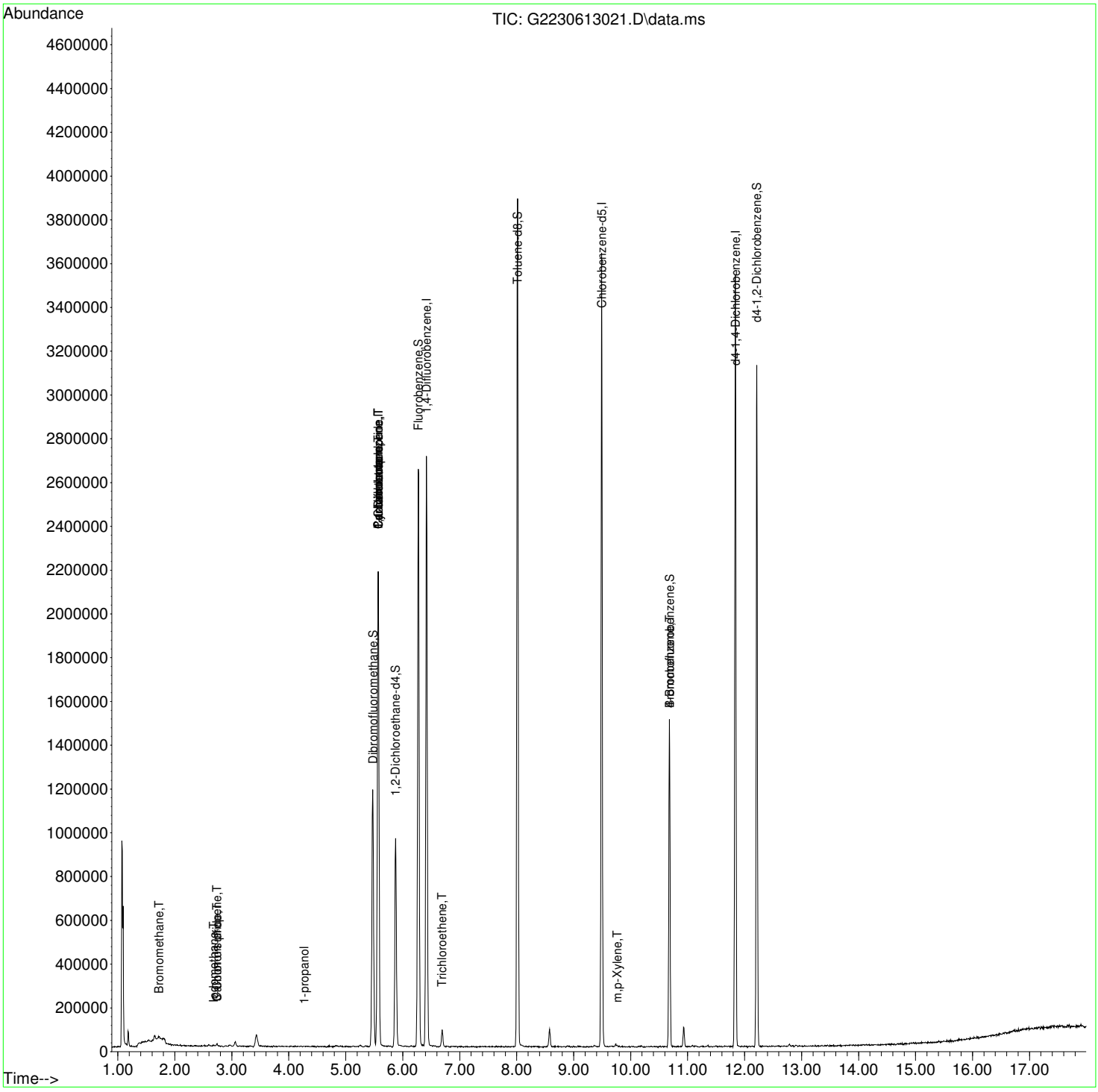
Quant Time: Jun 14 09:19:49 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

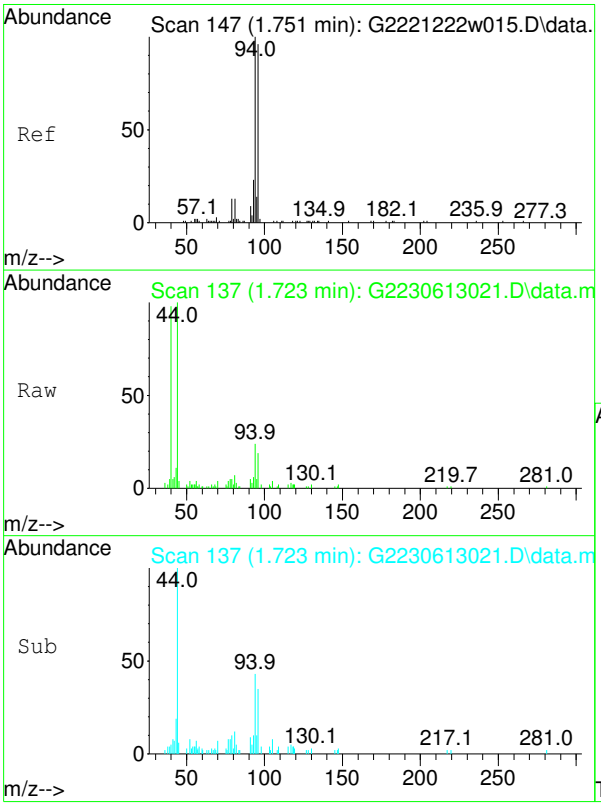
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17409579	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23537320	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20848227	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9991090	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7396211	19.30	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.50%			
43) 1,2-Dichloroethane-d4	5.877	65	6708157	17.72	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.60%			
49) Fluorobenzene	6.276	96	25971286	19.36	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%			
64) Toluene-d8	8.016	98	25467525	19.38	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%			
81) 4-Bromofluorobenzene	10.683	174	4627695	9.81	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%			
97) d4-1,2-Dichlorobenzene	12.216	152	8790334	20.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.30%			
Target Compounds						Qvalue
5) Bromomethane	1.723	94	85950	0.12	ug/L #	74
12) Acetone	2.607	43	78409	Below Cal	#	45
13) Iodomethane	2.679	142	51452	0.13	ug/L #	41
14) Carbon disulfide	2.741	76	130188	0.07	ug/L #	74
17) 3-Chloro-1-propene	2.741	76	130181	0.67	ug/L #	53
18) Methylene chloride	3.061	49	104118	Below Cal	#	66
21) Methyl tert-butyl ether	3.434	73	753073	Below Cal		94
26) 1-propanol	4.268	59	635	0.35	ug/L #	100
40) Cyclohexane	5.571	84	383357	0.82	ug/L #	33
41) 1-Chlorobutane	5.569	56	222505	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.570	75	908534	2.23	ug/L #	38
47) Carbon tetrachloride	5.571	117	1396329	3.29	ug/L #	16
50) Trichloroethene	6.694	95	216600	0.62	ug/L #	85
60) 4-Methyl-2-pentanone	8.014	43	92913	Below Cal	#	1
65) Toluene	8.084	91	28520	Below Cal	#	30
74) Ethylbenzene	9.763	91	33895	Below Cal	#	44
75) m,p-Xylene	9.763	91	33894	0.03	ug/L #	36
82) Bromobenzene	10.685	77	31164	0.06	ug/L #	1
99) n-Butylbenzene	12.218	91	32904	Below Cal	#	53

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613021.D
Acq On : 13 Jun 2023 17:06
Operator : PO1/MP3
Sample : 23F0136-06
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 14 09:19:49 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

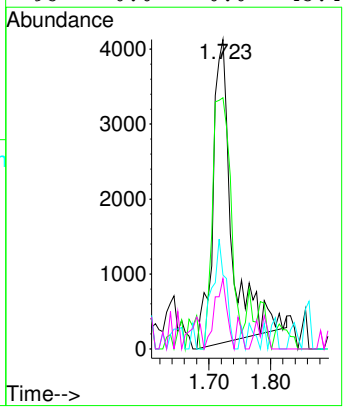


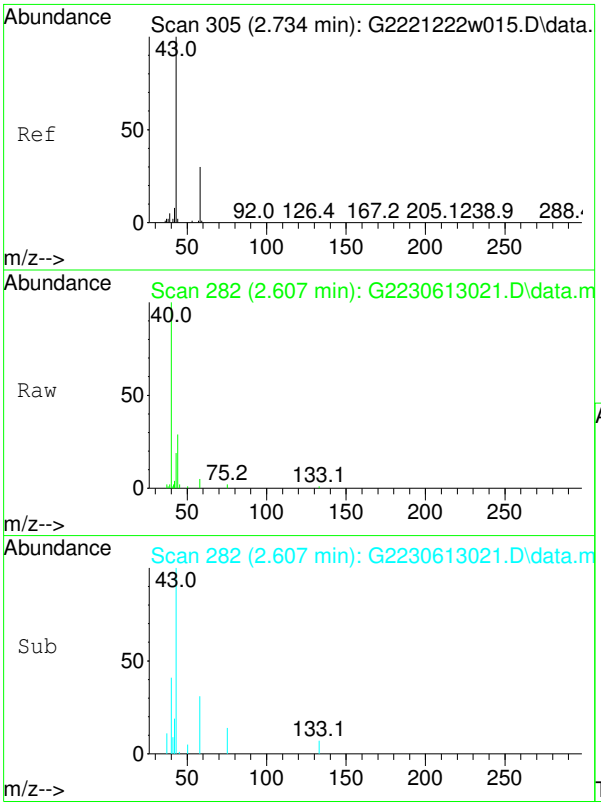


#5
Bromomethane
Concen: 0.12 ug/L
RT: 1.723 min Scan# 137
Delta R.T. 0.009 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 94 Resp: 85950

Ion	Ratio	Lower	Upper
94	100		
96	75.2	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

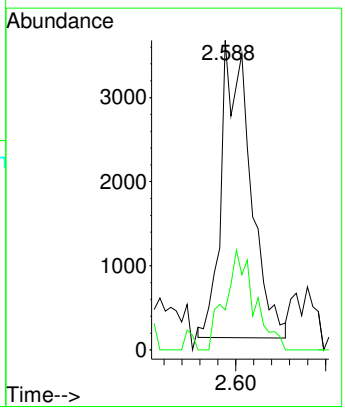


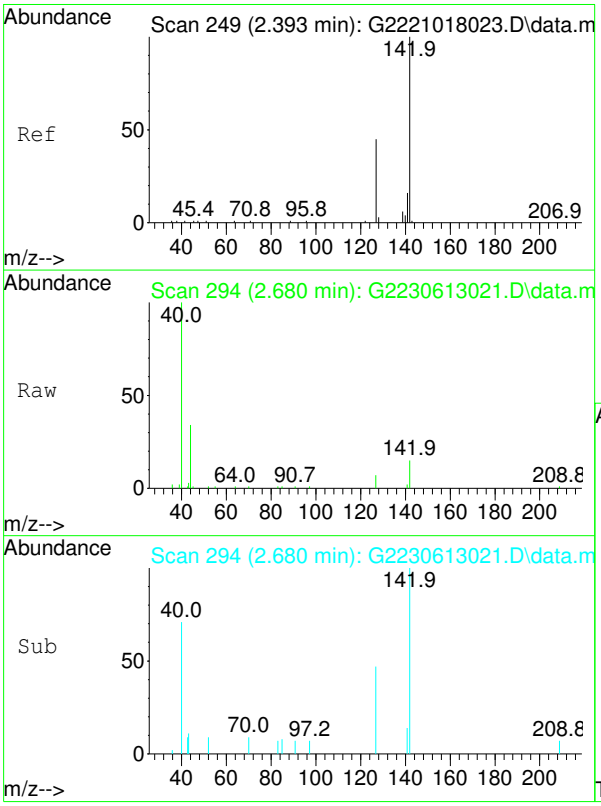


#12
Acetone
Concen: Below Cal
RT: 2.607 min Scan# 282
Delta R.T. -0.001 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 43 Resp: 78409

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

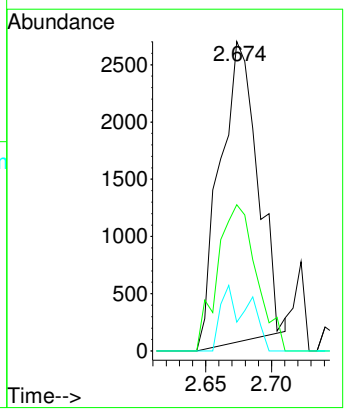


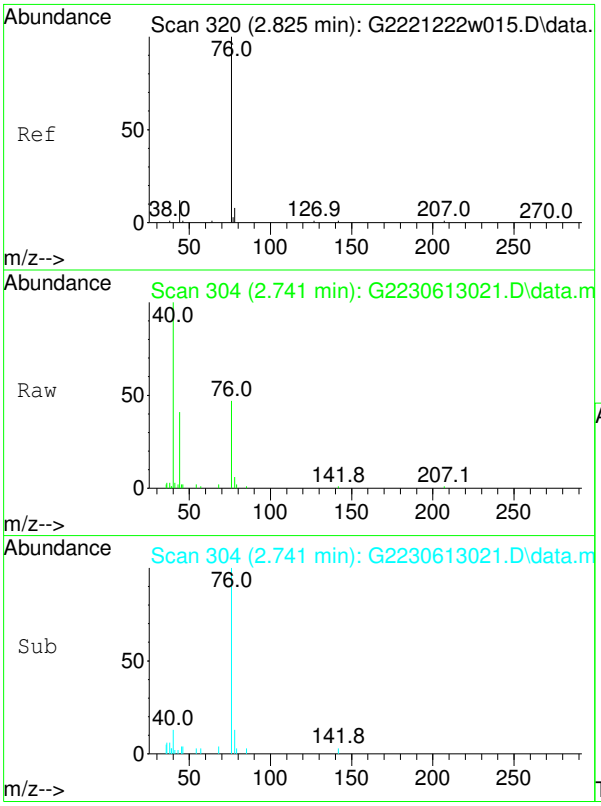


#13
Iodomethane
Concen: 0.13 ug/L
RT: 2.679 min Scan# 294
Delta R.T. 0.003 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion:142 Resp: 51452

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

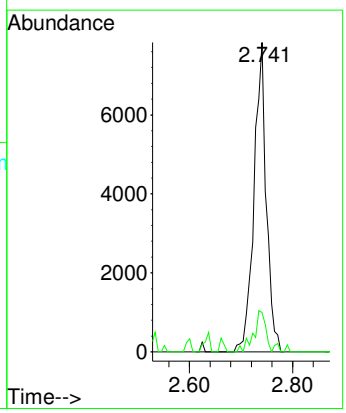


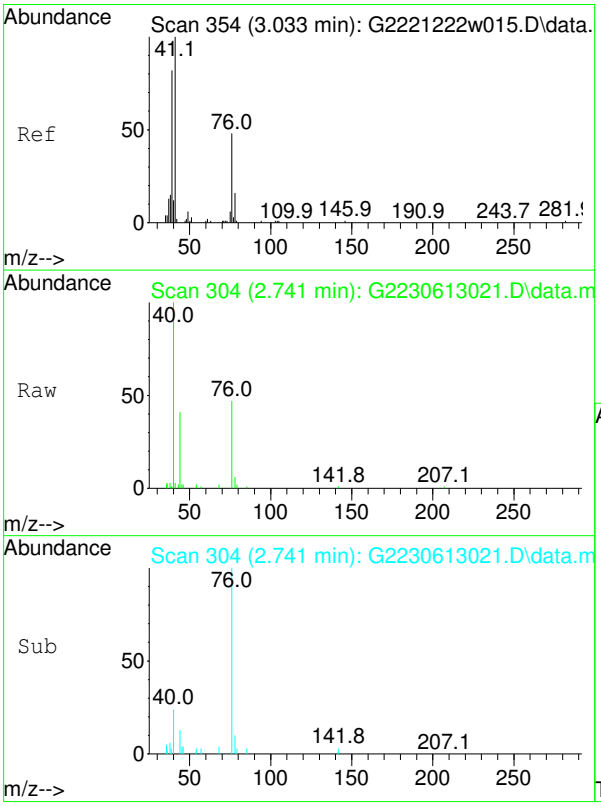


#14
Carbon disulfide
Concen: 0.07 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 76 Resp: 130188

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

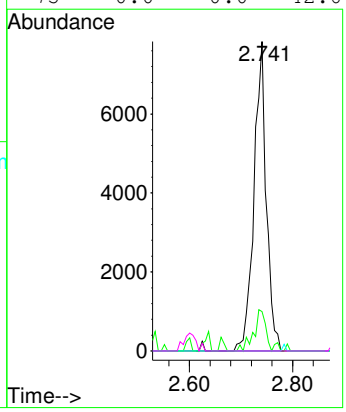


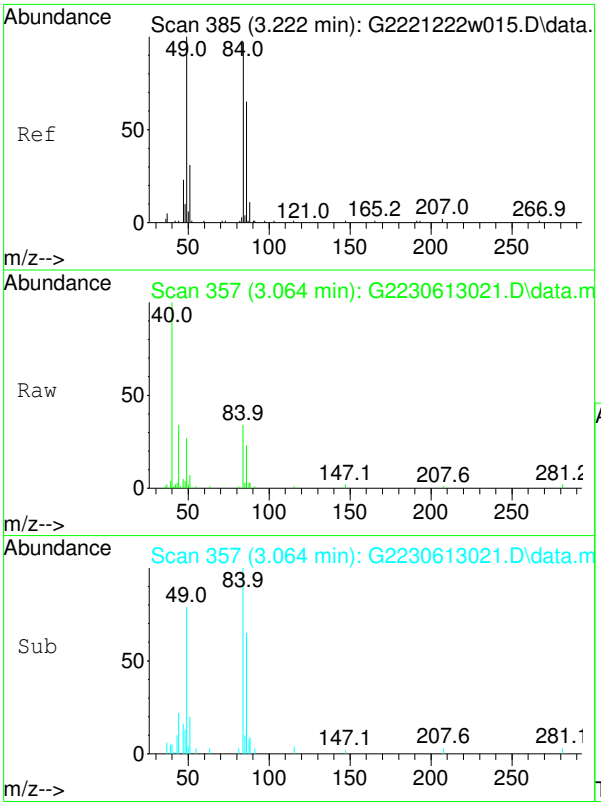


#17
3-Chloro-1-propene
Concen: 0.67 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 76 Resp: 130181

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

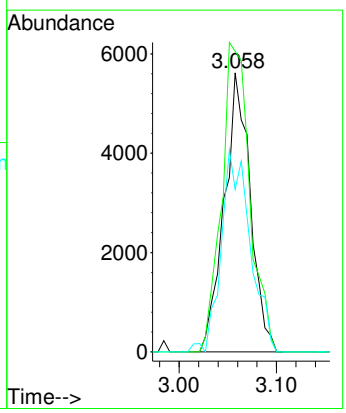


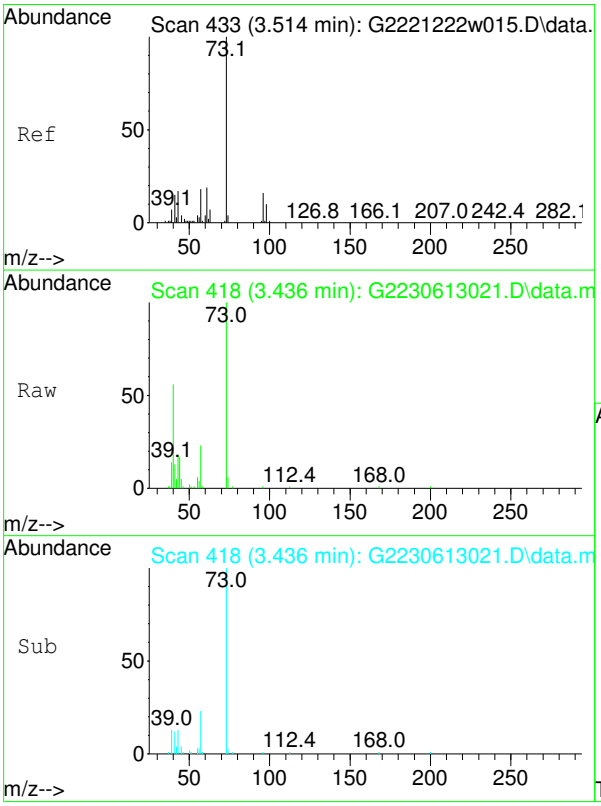


#18
Methylene chloride
Concen: Below Cal
RT: 3.061 min Scan# 357
Delta R.T. -0.001 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 49 Resp: 104118

Ion	Ratio	Lower	Upper
49	100		
84	120.5	57.9	117.9#
86	79.1	24.9	84.9

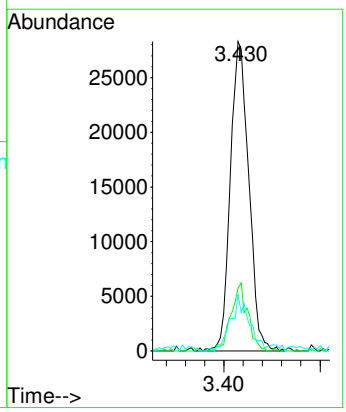


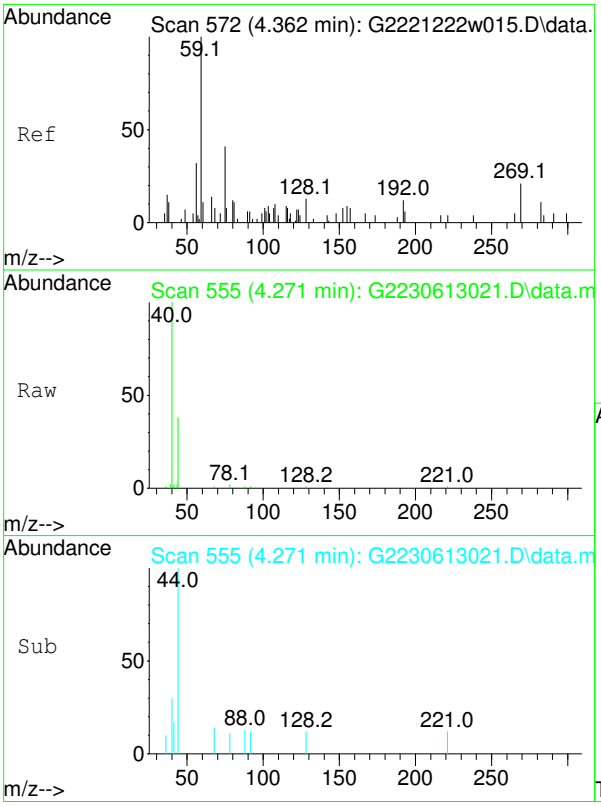


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.434 min Scan# 418
Delta R.T. -0.012 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 73 Resp: 753073

Ion	Ratio	Lower	Upper
73	100		
57	19.9	0.0	51.7
41	16.3	0.0	50.6

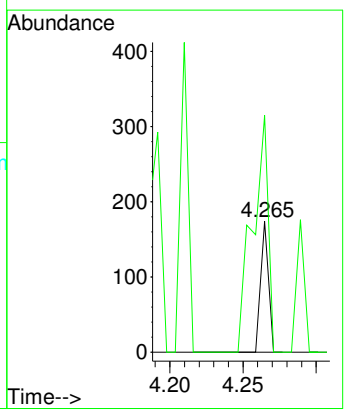


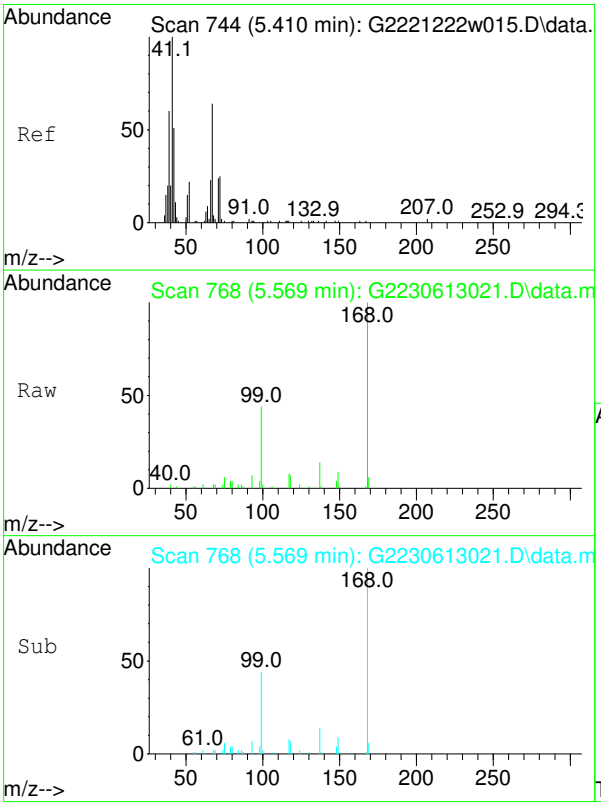


#26
1-propanol
Concen: 0.35 ug/L
RT: 4.268 min Scan# 555
Delta R.T. -0.021 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 59 Resp: 635

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

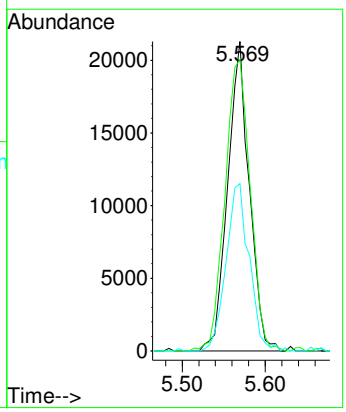


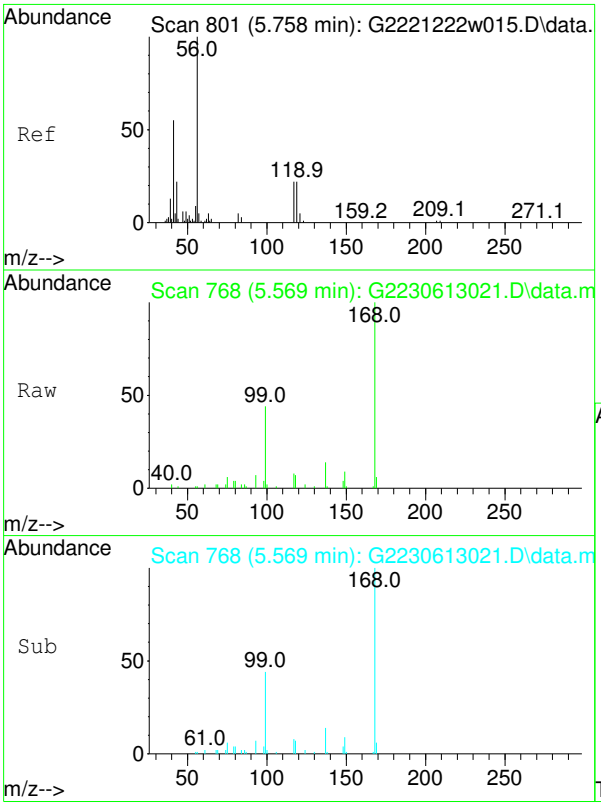


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 84 Resp: 383357

Ion	Ratio	Lower	Upper
84	100		
69	109.8	6.8	66.8#
56	58.0	79.1	139.1#

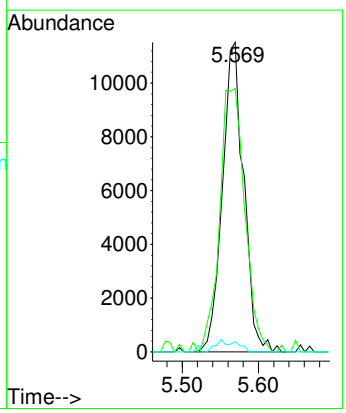


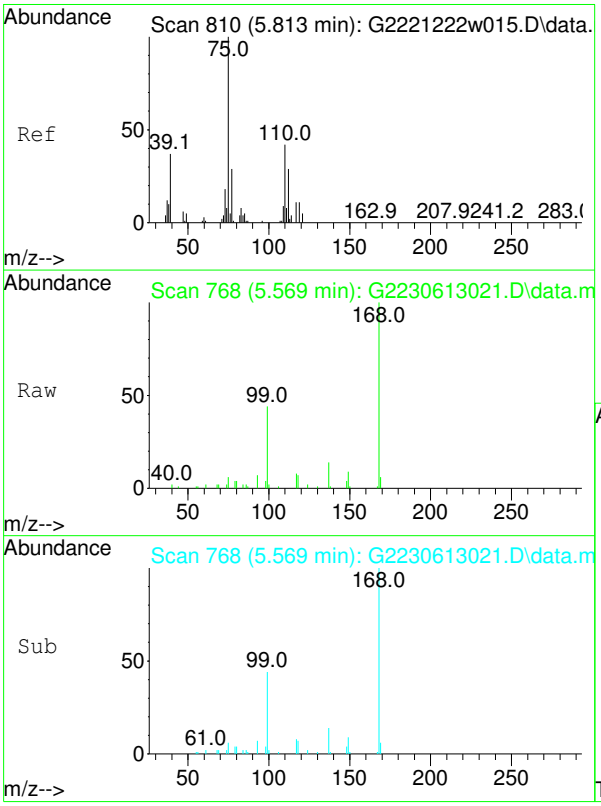


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 56 Resp: 222505

Ion	Ratio	Lower	Upper
56	100		
55	101.9	0.0	41.0#
57	0.0	0.0	35.7

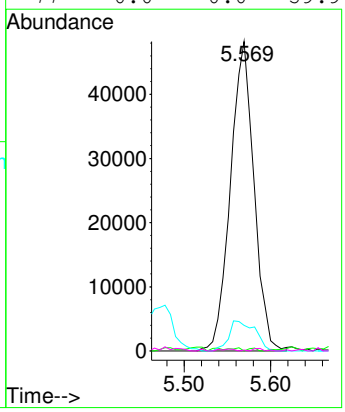


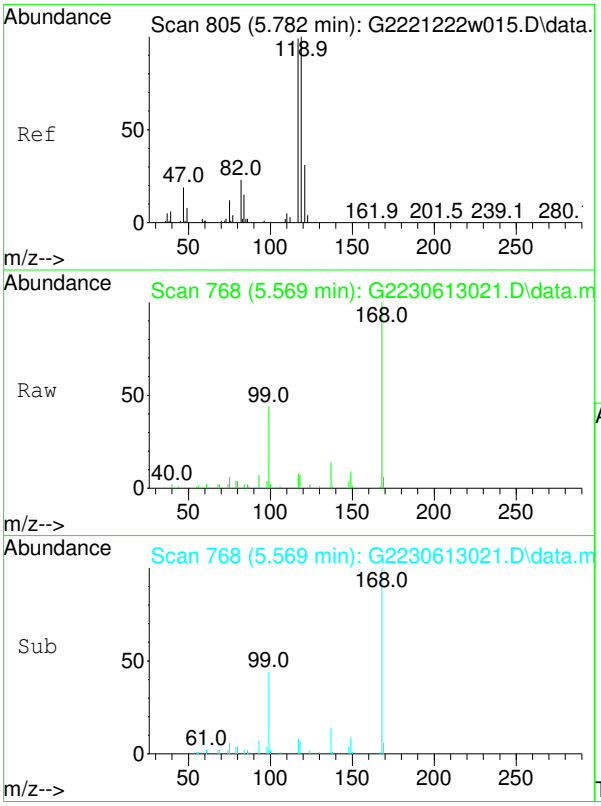


#42
1,1-Dichloropropene
Concen: 2.23 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 75 Resp: 908534

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.8	9.1	69.1
77	0.0	0.0	59.9

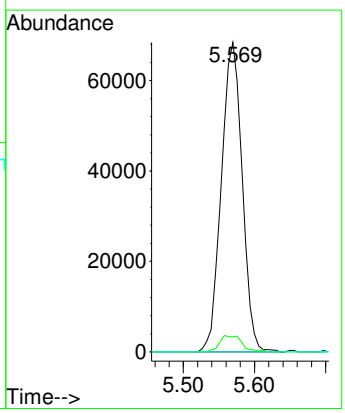


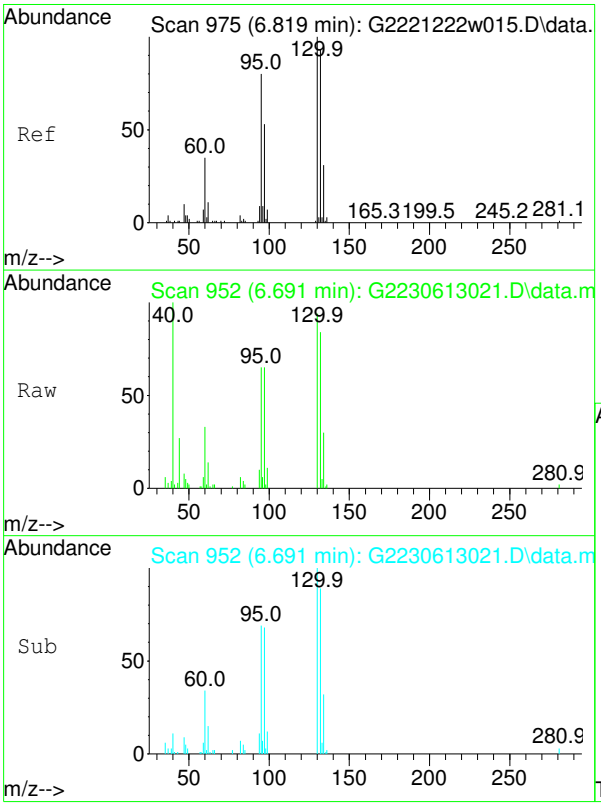


#47
Carbon tetrachloride
Concen: 3.29 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion:117 Resp: 1396329

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

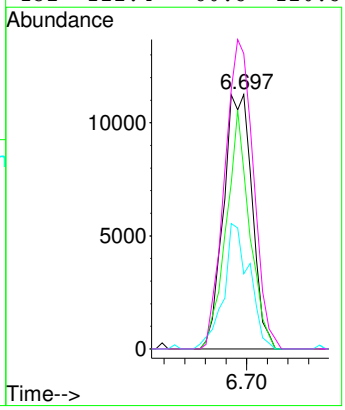


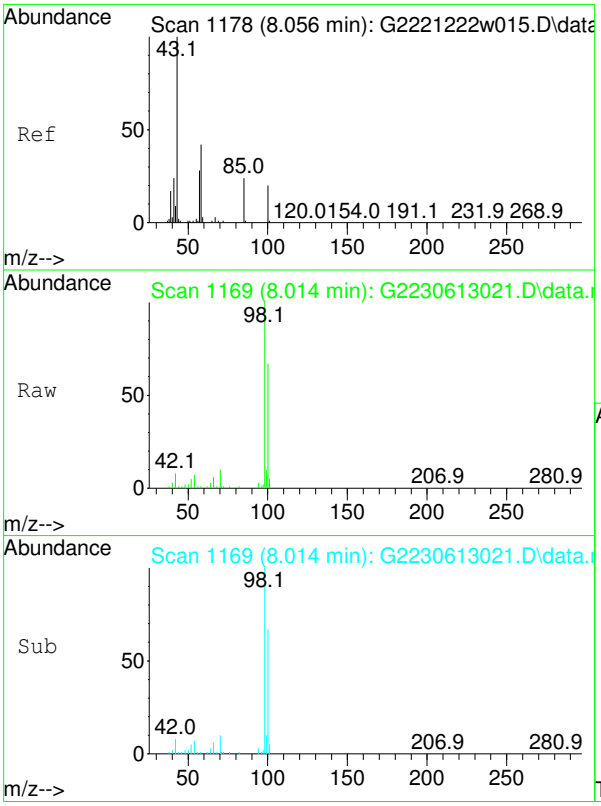


#50
Trichloroethene
Concen: 0.62 ug/L
RT: 6.694 min Scan# 952
Delta R.T. -0.002 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 95 Resp: 216600

Ion	Ratio	Lower	Upper
95	100		
97	76.6	35.5	95.5
60	44.3	14.8	74.8
132	122.4	80.5	120.5#

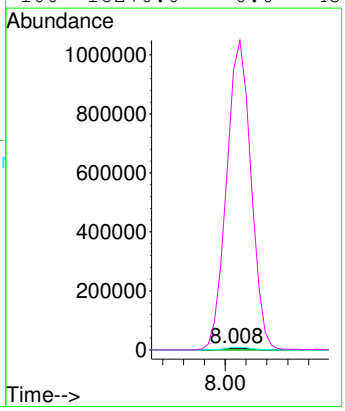


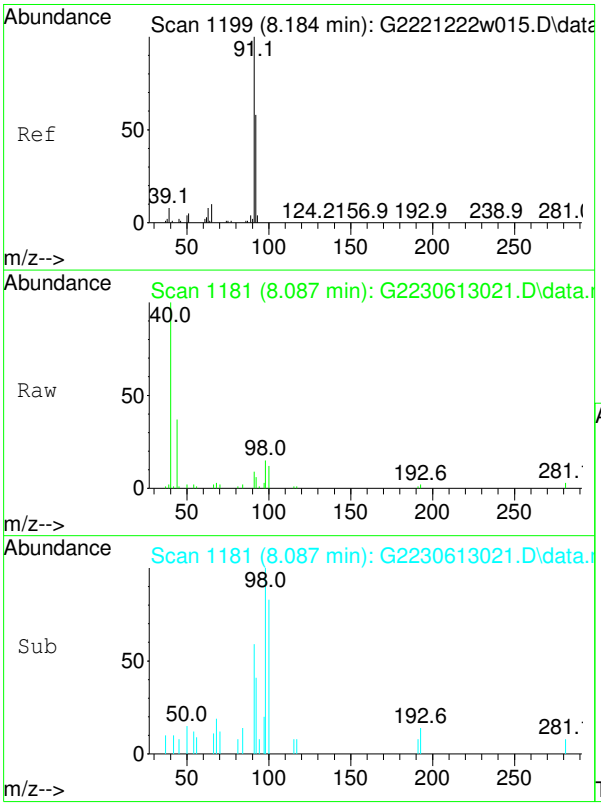


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 43 Resp: 92913

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	166.8	37.0	37.0#
100	18270.6	0.0	45.2#

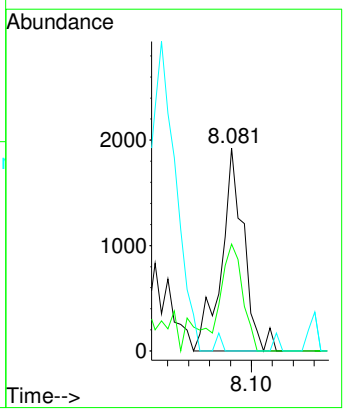


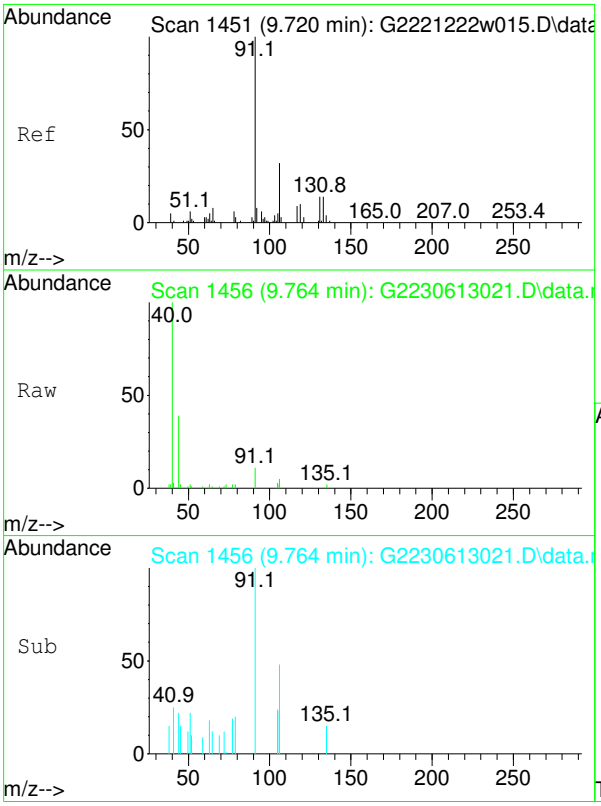


#65
Toluene
Concen: Below Cal
RT: 8.084 min Scan# 1181
Delta R.T. -0.002 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 91 Resp: 28520

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

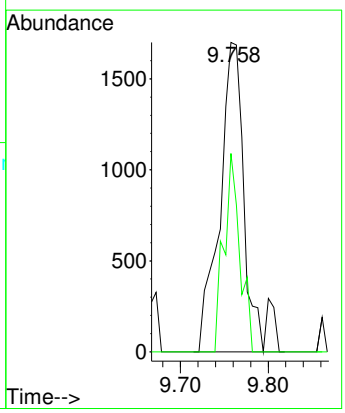


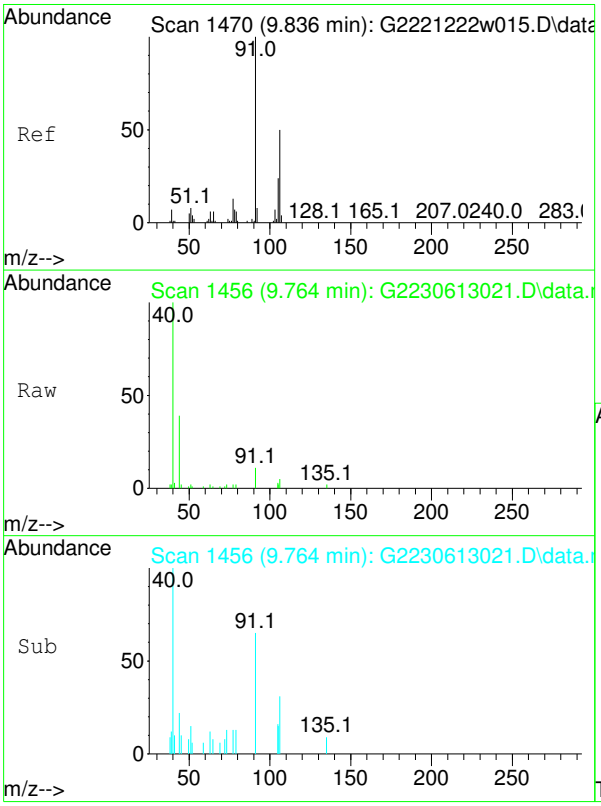


#74
Ethylbenzene
Concen: Below Cal
RT: 9.763 min Scan# 1456
Delta R.T. 0.120 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 91 Resp: 33895

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

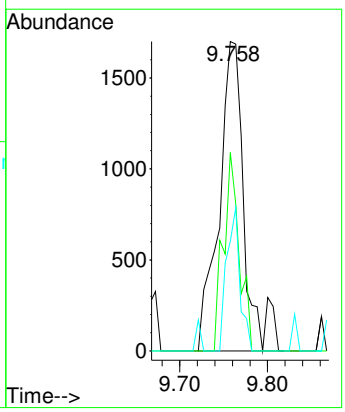


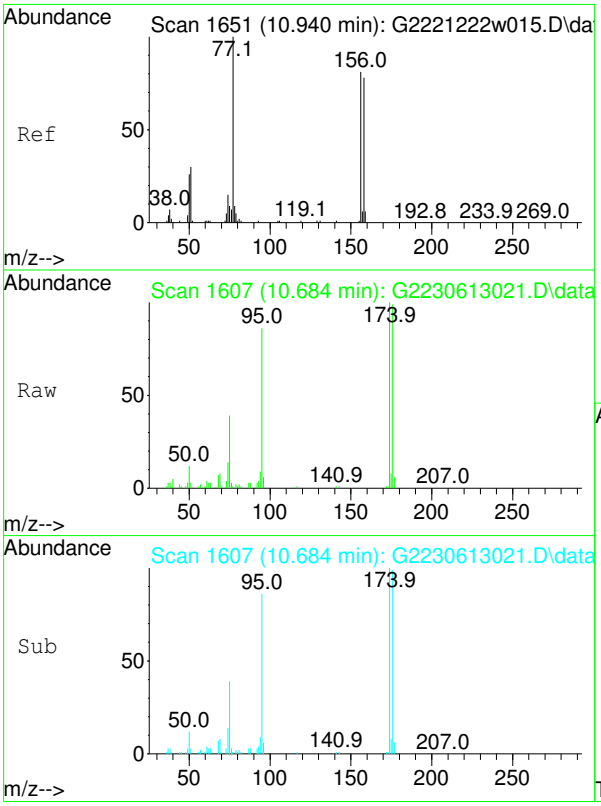


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.763 min Scan# 1456
Delta R.T. -0.001 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 91 Resp: 33894

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

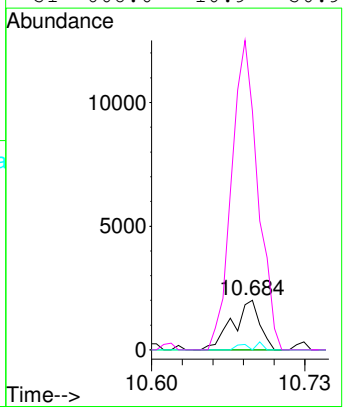


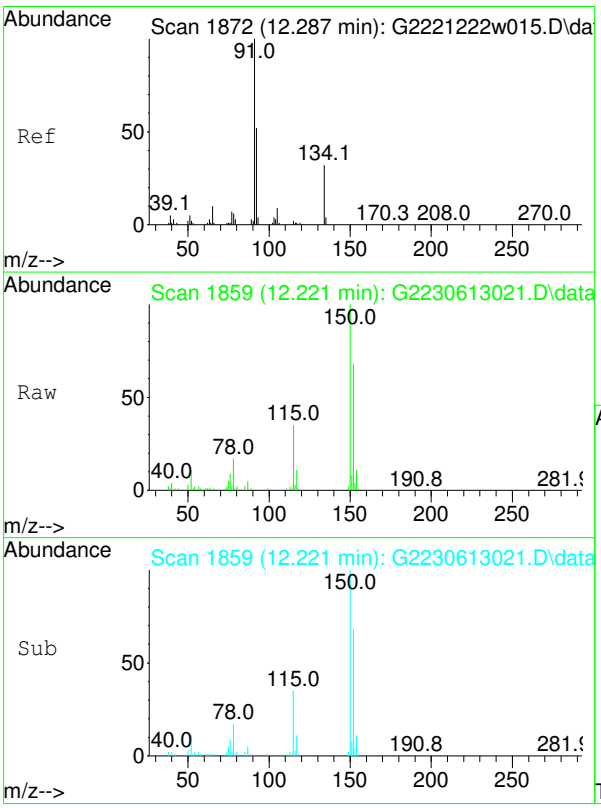


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.685 min Scan# 1607
Delta R.T. -0.143 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

Tgt Ion: 77 Resp: 31164

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	608.0	10.9	50.9#

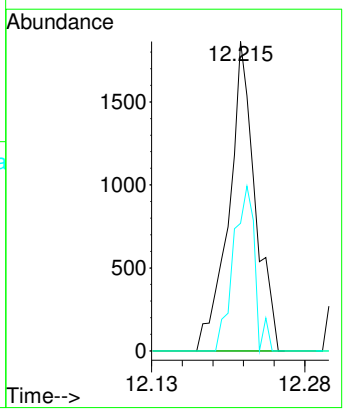




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.218 min Scan# 1859
Delta R.T. -0.013 min
Lab File: G2230613021.D
Acq: 13 Jun 2023 17:06

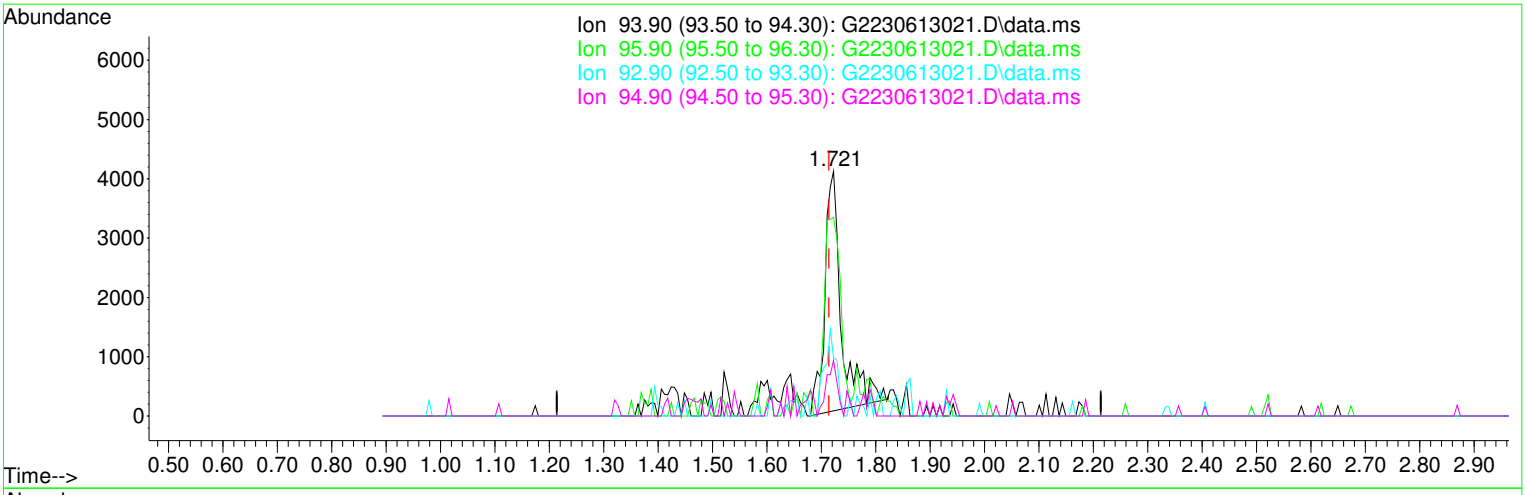
Tgt Ion: 91 Resp: 32904

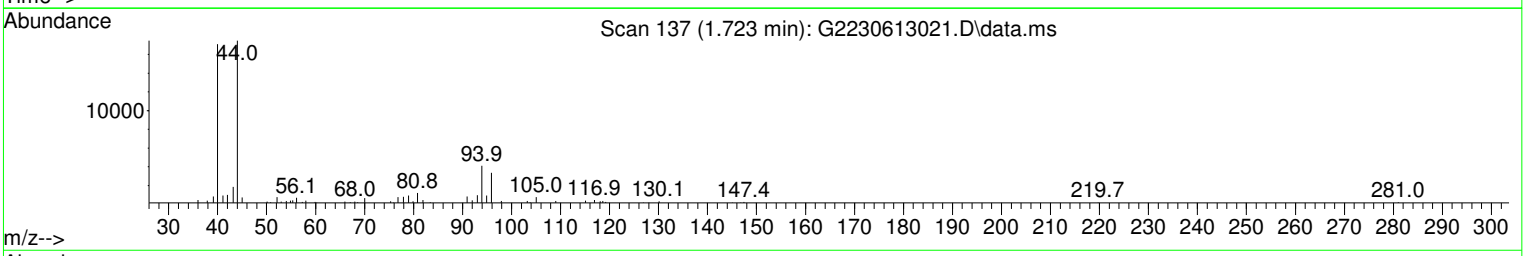
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

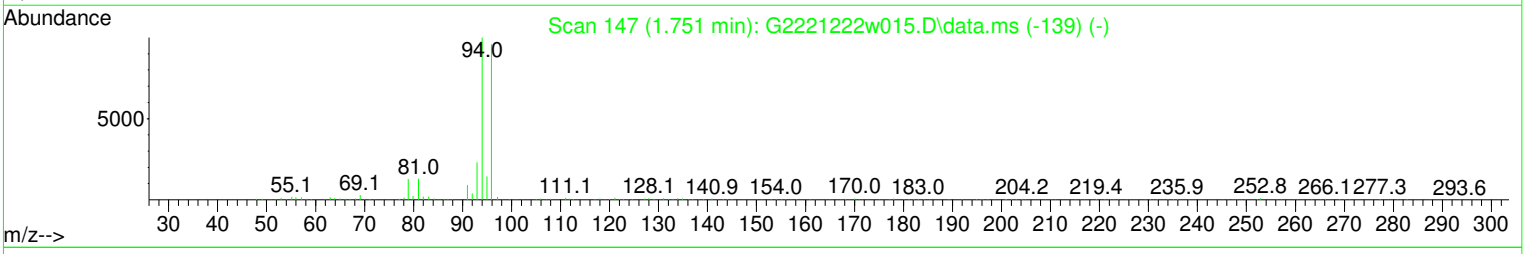


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613021.D
Acq On : 13 Jun 2023 17:06
Operator : PO1/MP3
Sample : 23F0136-06
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 14 09:19:49 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613021.D\data.ms

(5) Bromomethane (T)

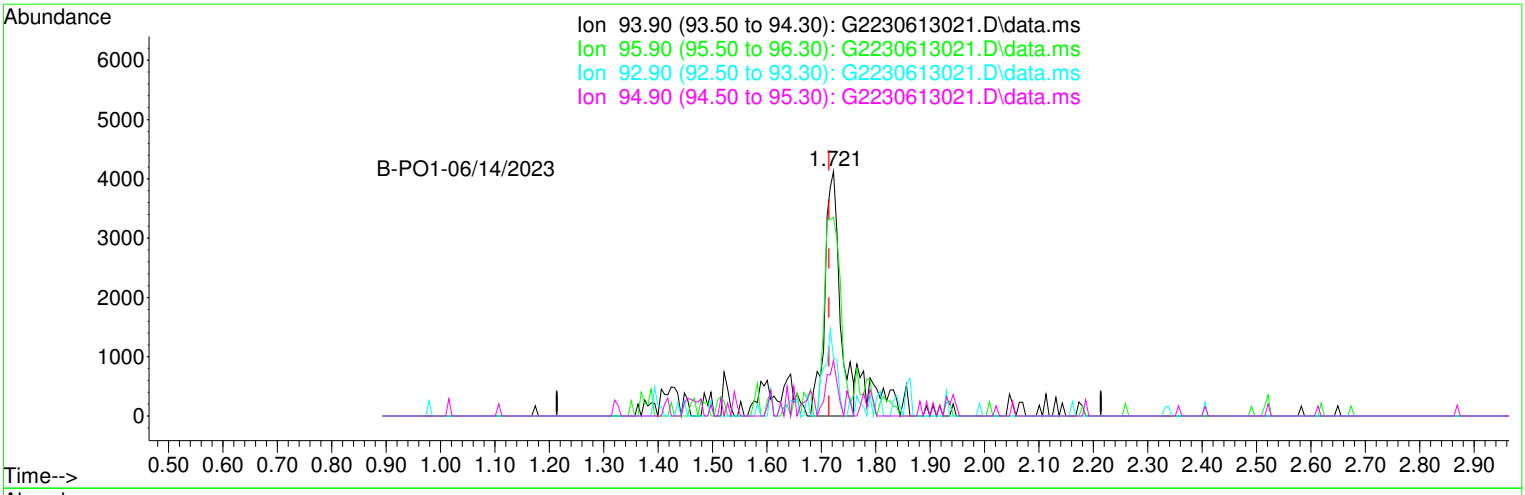
1.723min (+ 0.009) 0.12 ug/L

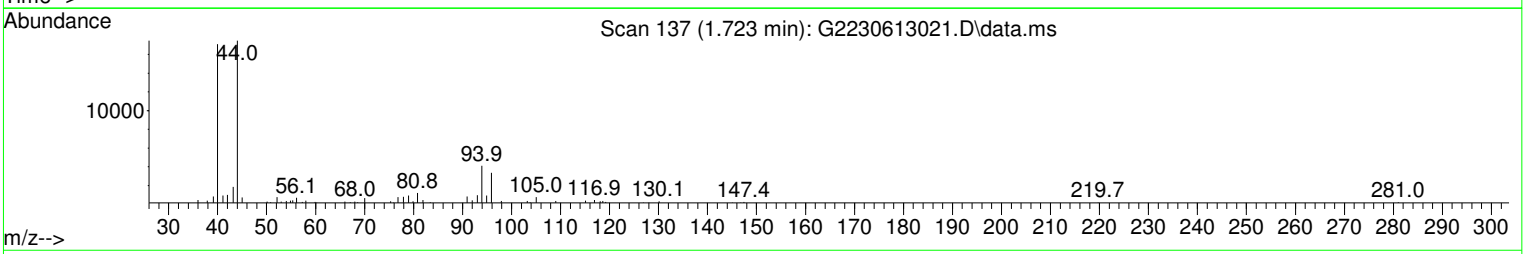
response 85950

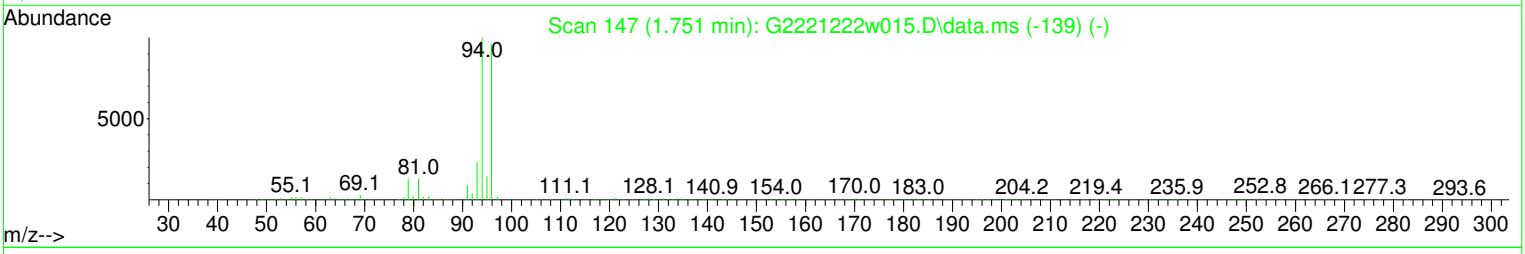
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	75.20
92.90	19.50	0.00
94.90	13.40	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613021.D
Acq On : 13 Jun 2023 17:06
Operator : PO1/MP3
Sample : 23F0136-06
Misc : 2
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 14 09:19:49 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613021.D\data.ms

(5) Bromomethane (T)

1.723min (+ 0.009) 0.10 ug/L m

response 81600

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	79.21
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07	File ID:	G2230613022.D
Sampled:	06/01/23 12:30	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 17:31
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.130	0.400	1.00	U
71-55-6	1,1,1-Trichloroethane		0.175	0.400	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.124	0.400	1.00	U
79-00-5	1,1,2-Trichloroethane		0.166	0.400	1.00	U
75-34-3	1,1-Dichloroethane		0.134	0.400	1.00	U
75-35-4	1,1-Dichloroethene		0.191	0.400	1.00	U
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.204	0.400	1.00	U
96-18-4	1,2,3-Trichloropropane		0.183	0.400	1.00	U
120-82-1	1,2,4-Trichlorobenzene		0.205	0.600	1.20	U
95-63-6	1,2,4-Trimethylbenzene		0.132	0.400	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.260	1.00	2.00	U
106-93-4	1,2-Dibromoethane		0.106	0.400	1.00	U
95-50-1	1,2-Dichlorobenzene		0.126	0.400	1.00	U
107-06-2	1,2-Dichloroethane		0.212	0.600	1.20	U
78-87-5	1,2-Dichloropropane		0.205	0.600	1.20	U
108-67-8	1,3,5-Trimethylbenzene		0.100	0.400	1.00	U
541-73-1	1,3-Dichlorobenzene		0.145	0.400	1.00	U
142-28-9	1,3-Dichloropropane		0.136	0.400	1.00	U
106-46-7	1,4-Dichlorobenzene		0.184	0.400	1.00	U
594-20-7	2,2-Dichloropropane		0.184	0.400	1.00	U
78-93-3	2-Butanone		0.660	1.40	3.50	U
95-49-8	2-Chlorotoluene		0.147	0.400	1.00	U
591-78-6	2-Hexanone		0.143	1.40	3.50	U
106-43-4	4-Chlorotoluene		0.184	0.400	1.00	U
99-87-6	4-Isopropyltoluene		0.140	0.400	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07	File ID:	G2230613022.D
Sampled:	06/01/23 12:30	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 17:31
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.270	1.40	3.50	U
67-64-1	Acetone		1.04	4.00	8.00	U
71-43-2	Benzene		0.101	0.400	1.00	U
108-86-1	Bromobenzene		0.170	0.400	1.00	U
74-97-5	Bromochloromethane		0.134	0.400	1.00	U
75-27-4	Bromodichloromethane		0.106	0.400	1.00	U
75-25-2	Bromoform		0.206	0.400	1.00	U
74-83-9	Bromomethane		0.320	1.00	2.00	U
75-15-0	Carbon disulfide		0.280	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.169	0.400	1.00	U
108-90-7	Chlorobenzene		0.130	0.400	1.00	U
75-00-3	Chloroethane		0.311	0.400	1.00	U
67-66-3	Chloroform		0.203	0.600	1.20	U
74-87-3	Chloromethane		0.384	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.205	0.600	1.20	U
10061-01-5	cis-1,3-Dichloropropene		0.117	0.400	1.00	U
124-48-1	Dibromochloromethane		0.152	0.400	1.00	U
74-95-3	Dibromomethane		0.163	0.400	1.00	U
75-71-8	Dichlorodifluoromethane		0.259	1.00	2.00	U
100-41-4	Ethylbenzene		0.0600	0.200	0.400	U
87-68-3	Hexachlorobutadiene		0.200	0.400	1.00	Q, S1, U
98-82-8	Isopropylbenzene		0.110	0.400	1.00	U
179601-23-1	m,p-Xylene		0.178	0.800	2.00	U
1634-04-4	Methyl tert-butyl ether		0.106	0.400	1.00	U
75-09-2	Methylene chloride		0.447	1.00	2.00	U
104-51-8	n-Butylbenzene		0.260	1.00	2.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW04

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-07	File ID:	G2230613022.D
Sampled:	06/01/23 12:30	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 17:31
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.126	0.400	1.00	U
91-20-3	Naphthalene		0.140	0.400	1.00	U
95-47-6	o-Xylene		0.0832	0.400	1.00	U
135-98-8	sec-Butylbenzene		0.120	0.400	1.00	U
100-42-5	Styrene		0.0906	0.200	0.400	U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	Q, S1, U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.171	0.400	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene	0.260	0.156	0.400	1.00	J, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride		0.258	1.00	2.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613022.D
Acq On : 13 Jun 2023 17:31
Operator : PO1/MP3
Sample : 23F0136-07
Misc : 2
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 14 09:37:03 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

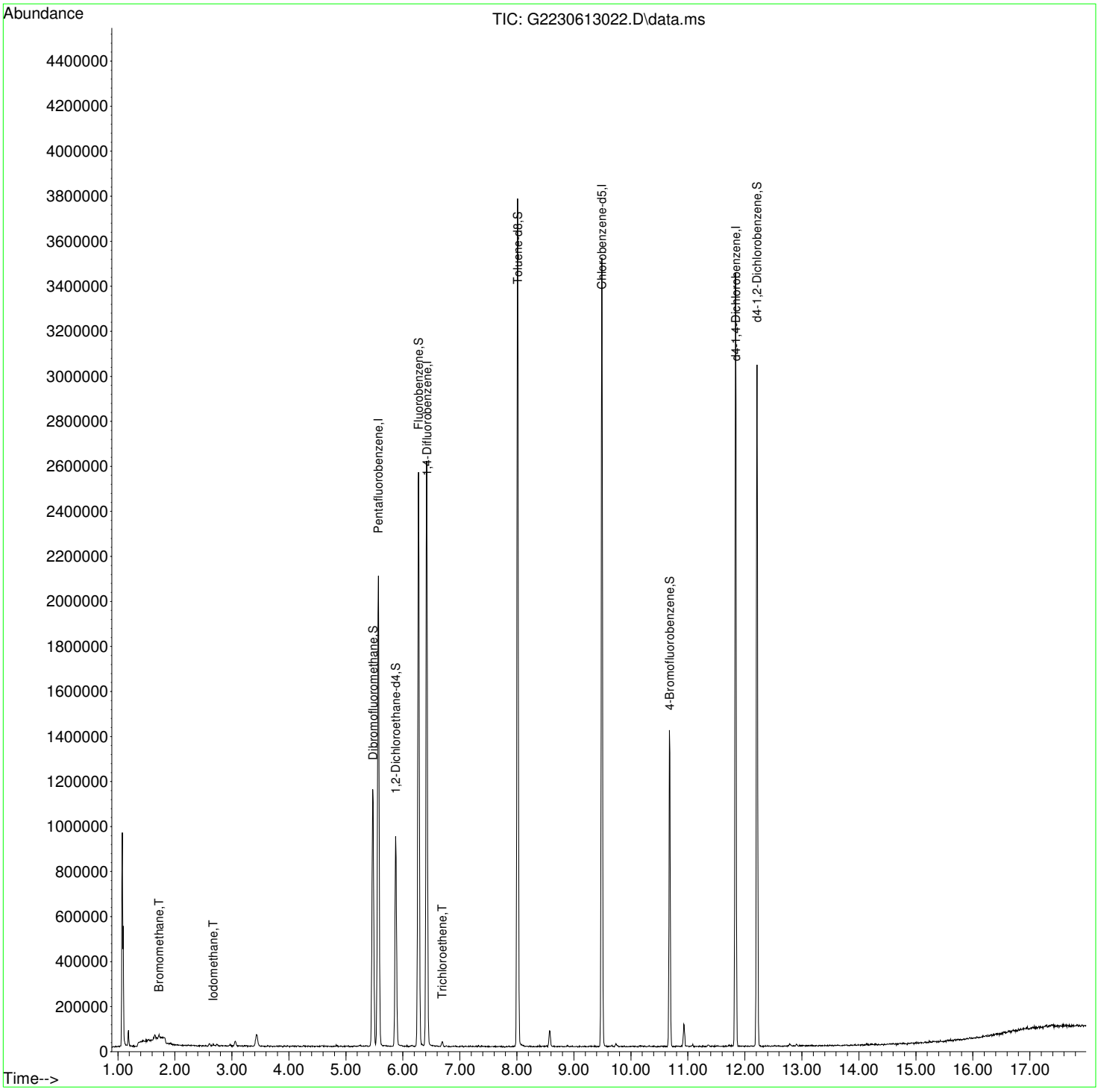
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	16797332	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	22703040	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20416259	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9655637	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	7216745	19.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%			
43) 1,2-Dichloroethane-d4	5.876	65	6598552	18.06	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.30%			
49) Fluorobenzene	6.277	96	25132020	19.43	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%			
64) Toluene-d8	8.015	98	24621434	19.13	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.65%			
81) 4-Bromofluorobenzene	10.684	174	4456188	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%			
97) d4-1,2-Dichlorobenzene	12.215	152	8520746	20.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.60%			
Target Compounds						Qvalue
3) Chloromethane	1.356	50	24052	Below Cal	#	41
5) Bromomethane	1.721	94	78924	0.10	ug/L #	86
12) Acetone	2.609	43	115075	Below Cal		84
13) Iodomethane	2.676	142	54999	0.14	ug/L #	41
18) Methylene chloride	3.061	49	97802	Below Cal		72
21) Methyl tert-butyl ether	3.435	73	701581	Below Cal		92
50) Trichloroethene	6.692	95	64233	0.13	ug/L #	77
65) Toluene	8.084	91	26700	Below Cal	#	30

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342093

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613022.D
Acq On : 13 Jun 2023 17:31
Operator : PO1/MP3
Sample : 23F0136-07
Misc : 2
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 14 09:37:03 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613022.D
Acq On : 13 Jun 2023 17:31
Operator : PO1/MP3
Sample : 23F0136-07
Misc : 2
ALS Vial : 22 Sample Multiplier: 1

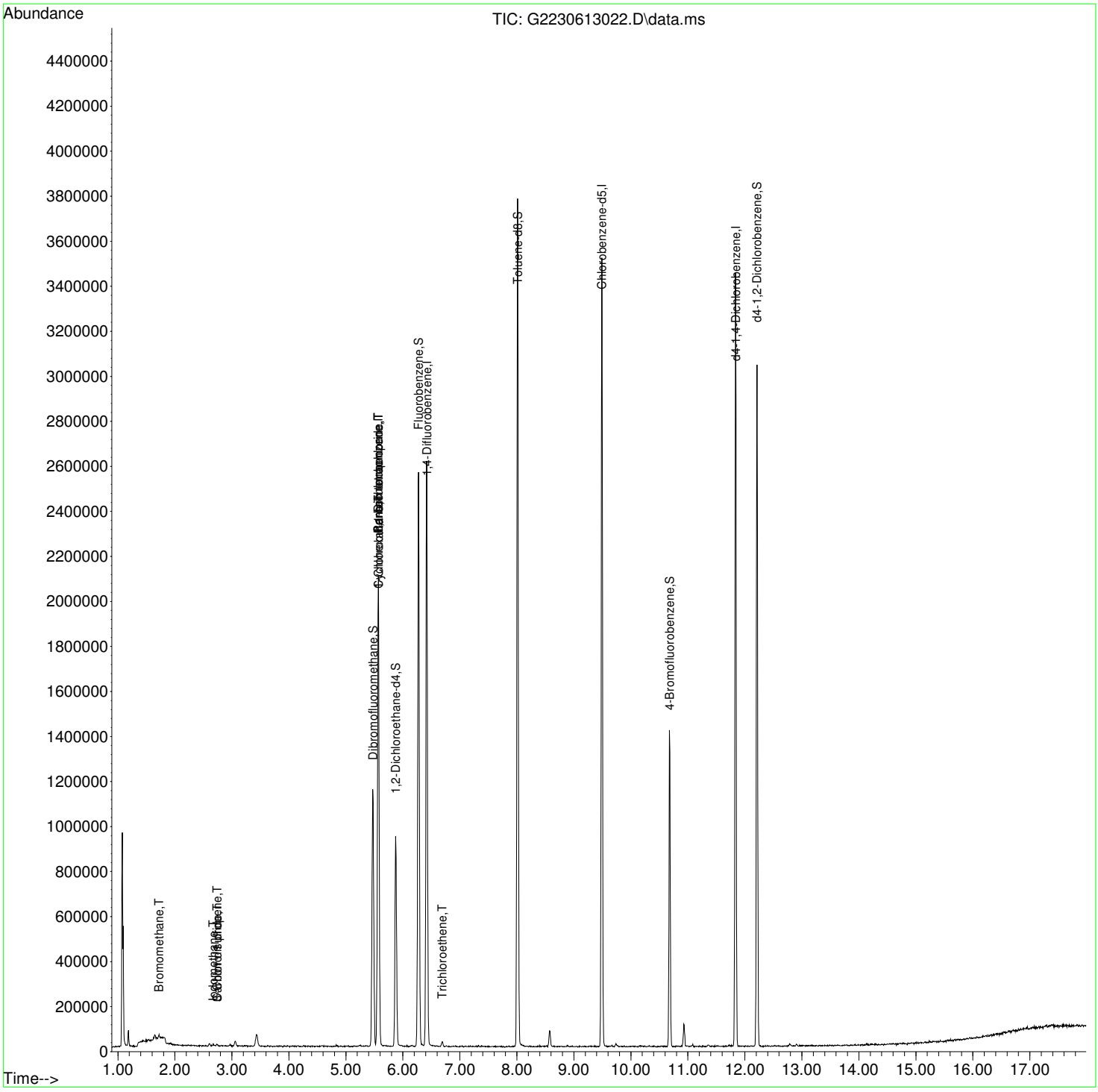
Quant Time: Jun 14 09:37:03 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

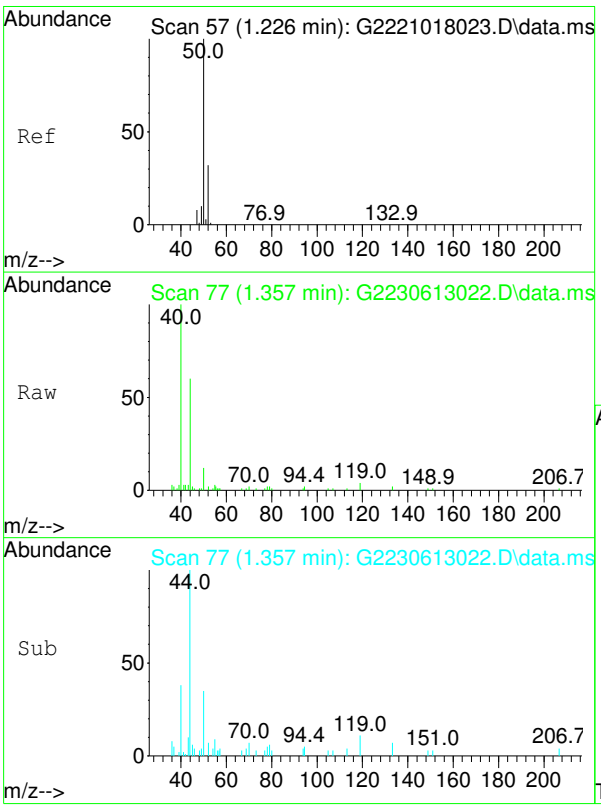
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	16797332	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	22703040	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20416259	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9655637	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	7216745	19.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%			
43) 1,2-Dichloroethane-d4	5.876	65	6598552	18.06	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.30%			
49) Fluorobenzene	6.277	96	25132020	19.43	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%			
64) Toluene-d8	8.015	98	24621434	19.13	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.65%			
81) 4-Bromofluorobenzene	10.684	174	4456188	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%			
97) d4-1,2-Dichlorobenzene	12.215	152	8520746	20.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.60%			
Target Compounds						Qvalue
3) Chloromethane	1.356	50	24052	Below Cal	#	41
5) Bromomethane	1.721	94	78924	0.10	ug/L #	86
9) Acrolein	2.450	56	4267	Below Cal	#	20
12) Acetone	2.609	43	115075	Below Cal		84
13) Iodomethane	2.676	142	54999	0.14	ug/L #	41
14) Carbon disulfide	2.740	76	103087	0.04	ug/L #	74
17) 3-Chloro-1-propene	2.740	76	103082	0.53	ug/L #	53
18) Methylene chloride	3.061	49	97802	Below Cal		72
21) Methyl tert-butyl ether	3.435	73	701581	Below Cal		92
40) Cyclohexane	5.572	84	340260	0.75	ug/L #	30
41) 1-Chlorobutane	5.572	56	201968	0.39	ug/L #	1
42) 1,1-Dichloropropene	5.569	75	899626	2.29	ug/L #	38
47) Carbon tetrachloride	5.570	117	1363308	3.33	ug/L #	17
50) Trichloroethene	6.692	95	64233	0.13	ug/L #	77
60) 4-Methyl-2-pentanone	8.014	43	85000	Below Cal	#	1
65) Toluene	8.084	91	26700	Below Cal	#	30
74) Ethylbenzene	9.492	91	48353	Below Cal	#	44

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613022.D
Acq On : 13 Jun 2023 17:31
Operator : PO1/MP3
Sample : 23F0136-07
Misc : 2
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 14 09:37:03 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

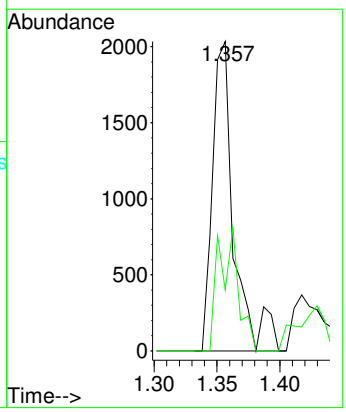


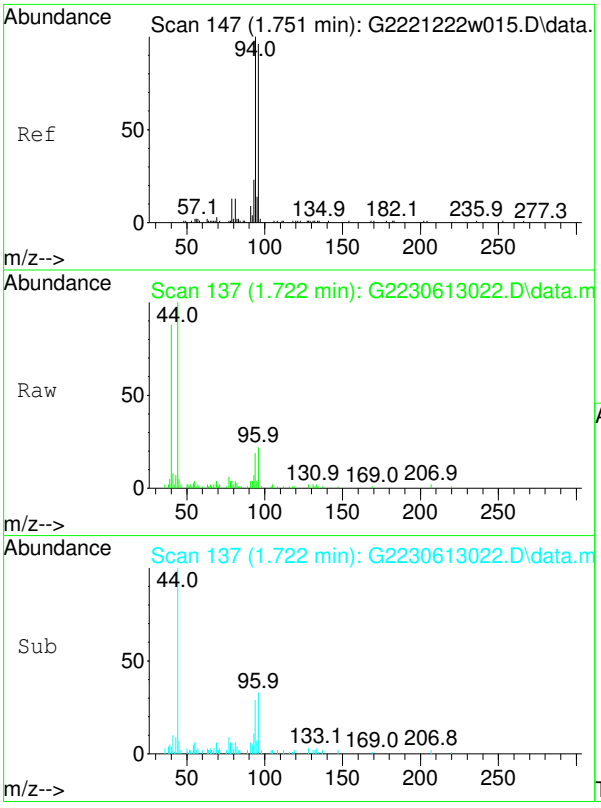


#3
Chloromethane
Concen: Below Cal
RT: 1.356 min Scan# 77
Delta R.T. 0.002 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 50 Resp: 24052

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

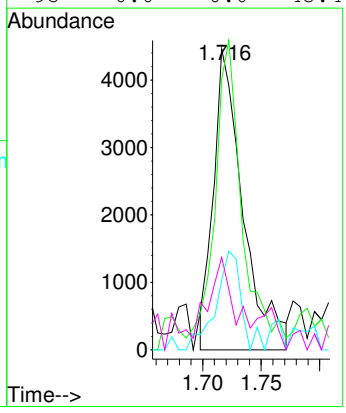


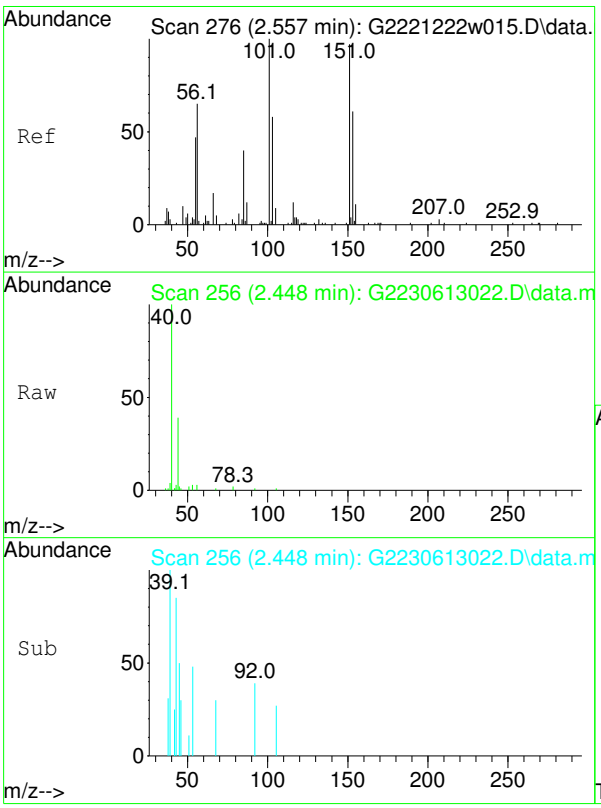


#5
Bromomethane
Concen: 0.10 ug/L
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 94 Resp: 78924

Ion	Ratio	Lower	Upper
94	100		
96	101.3	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

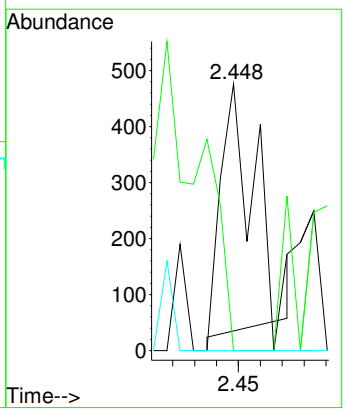


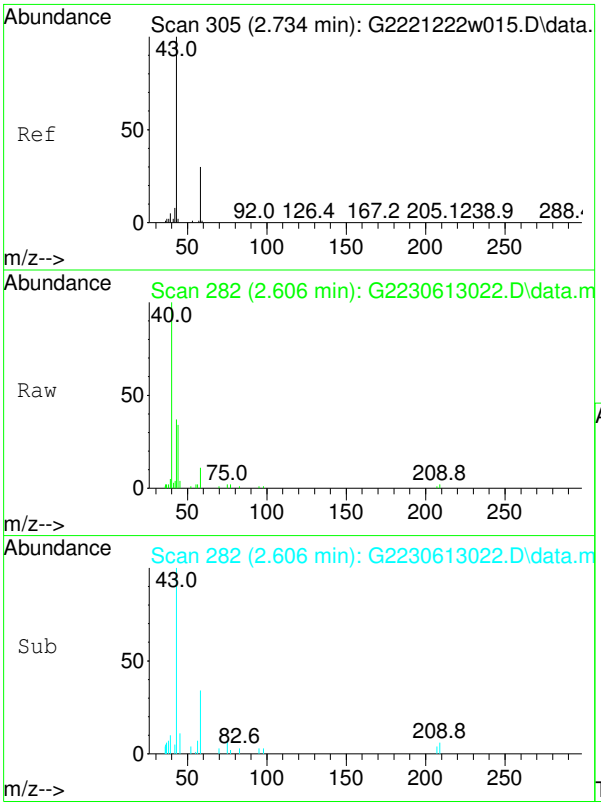


#9
Acrolein
Concen: Below Cal
RT: 2.450 min Scan# 256
Delta R.T. 0.011 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 56 Resp: 4267

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

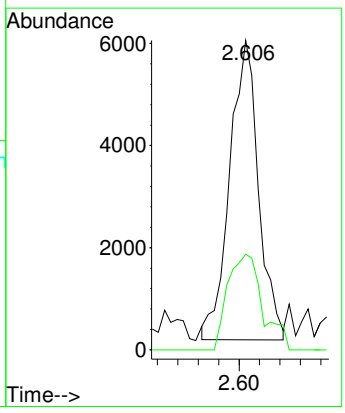


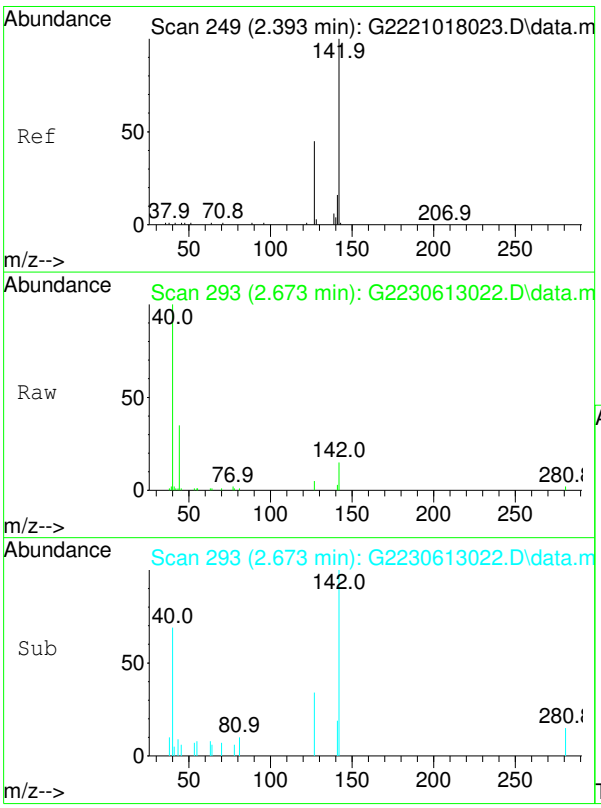


#12
Acetone
Concen: Below Cal
RT: 2.609 min Scan# 282
Delta R.T. 0.001 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 43 Resp: 115075

Ion	Ratio	Lower	Upper
43	100		
58	38.4	0.0	59.7

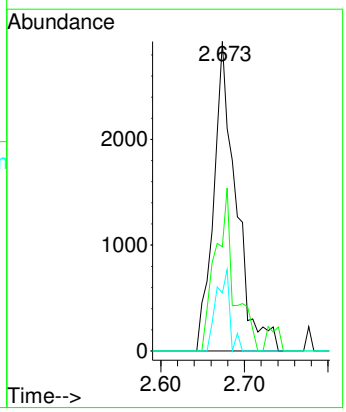


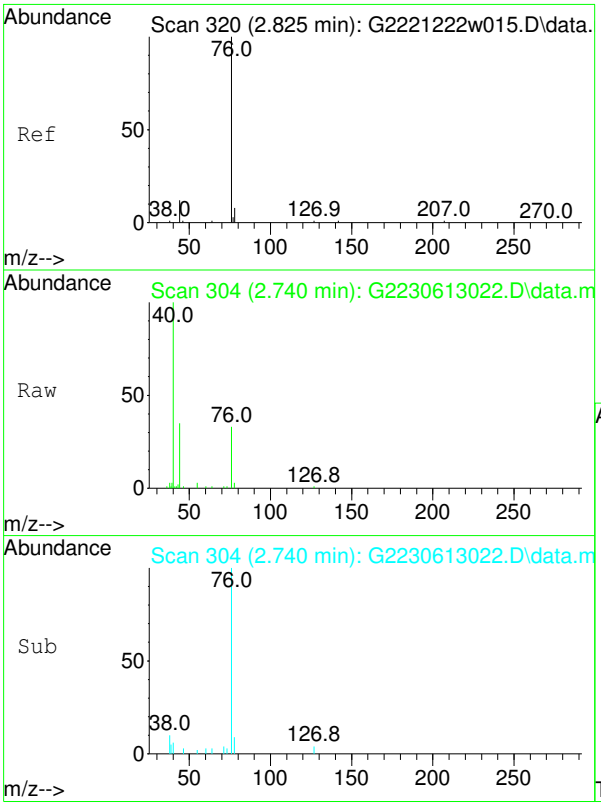


#13
Iodomethane
Concen: 0.14 ug/L
RT: 2.676 min Scan# 293
Delta R.T. 0.000 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion:142 Resp: 54999

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

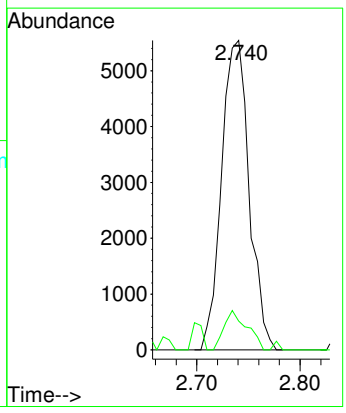


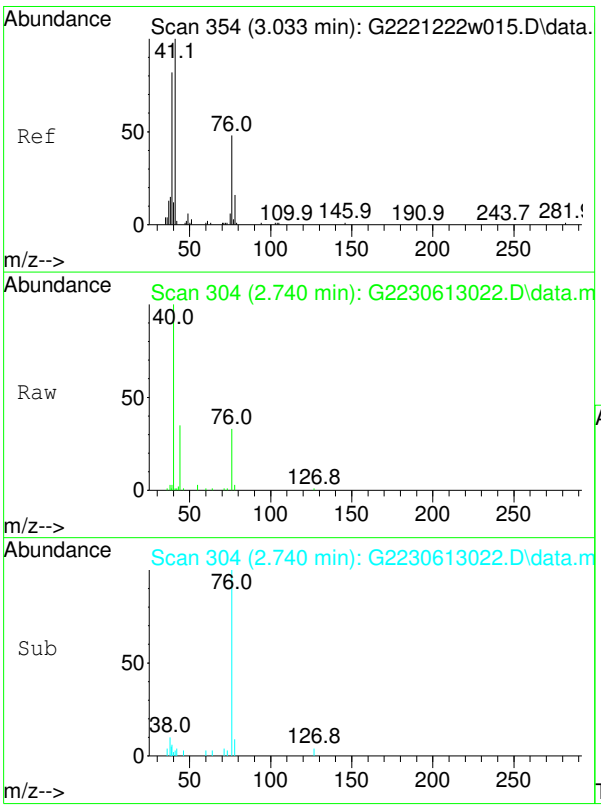


#14
Carbon disulfide
Concen: 0.04 ug/L
RT: 2.740 min Scan# 304
Delta R.T. 0.001 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 76 Resp: 103087

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

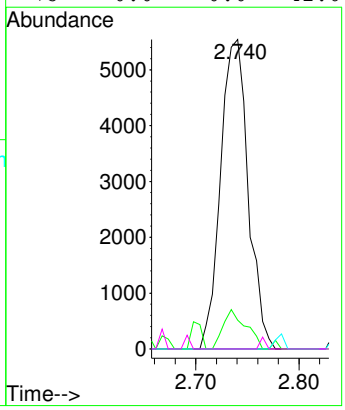


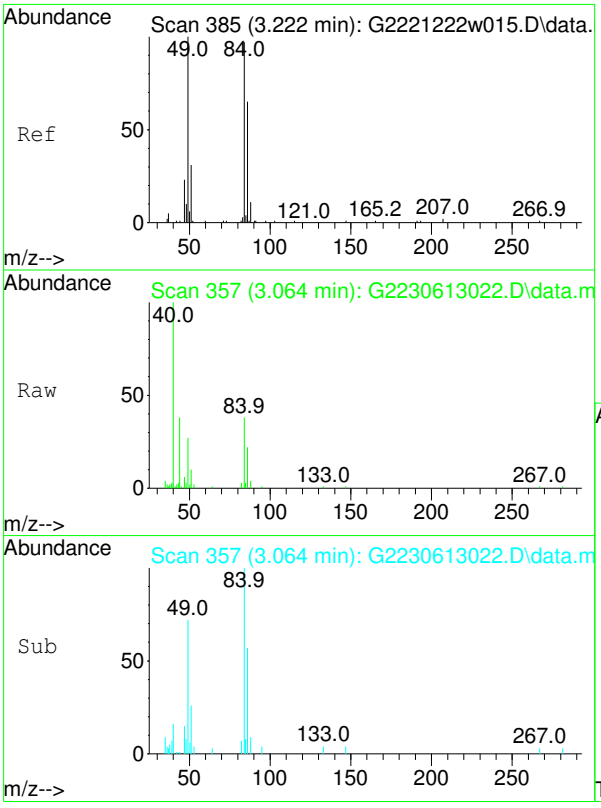


#17
3-Chloro-1-propene
Concen: 0.53 ug/L
RT: 2.740 min Scan# 304
Delta R.T. -0.180 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 76 Resp: 103082

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

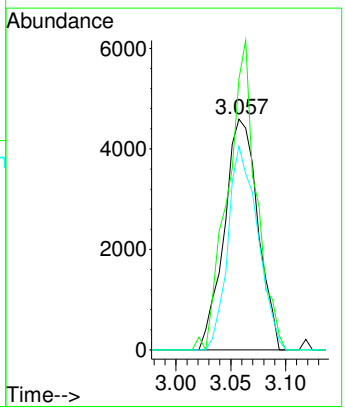


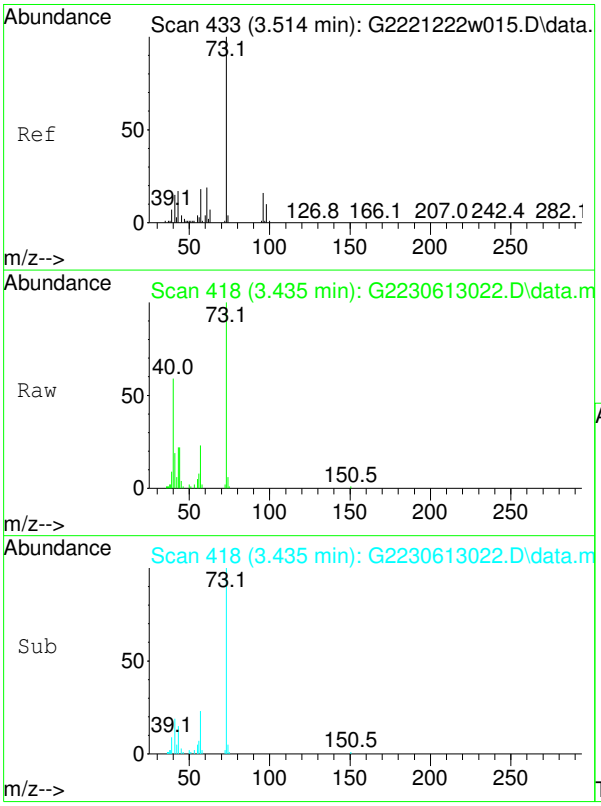


#18
Methylene chloride
Concen: Below Cal
RT: 3.061 min Scan# 357
Delta R.T. -0.001 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 49 Resp: 97802

Ion	Ratio	Lower	Upper
49	100		
84	111.8	57.9	117.9
86	78.2	24.9	84.9

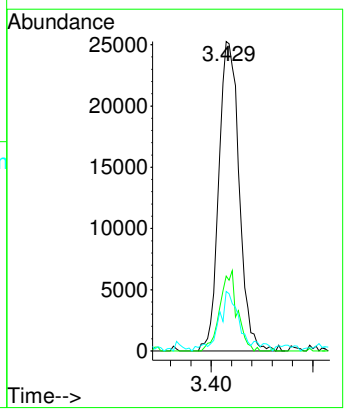


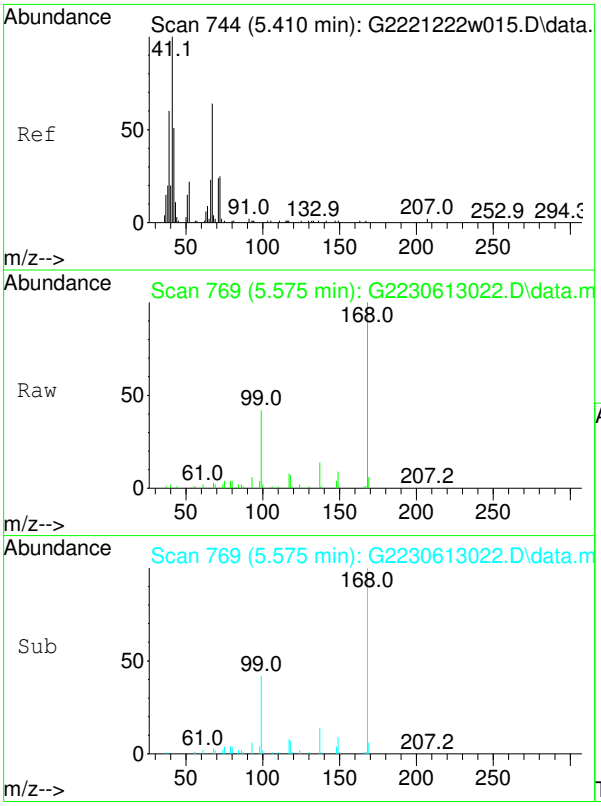


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.435 min Scan# 418
Delta R.T. -0.011 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 73 Resp: 701581

Ion	Ratio	Lower	Upper
73	100		
57	22.2	0.0	51.7
41	13.7	0.0	50.6

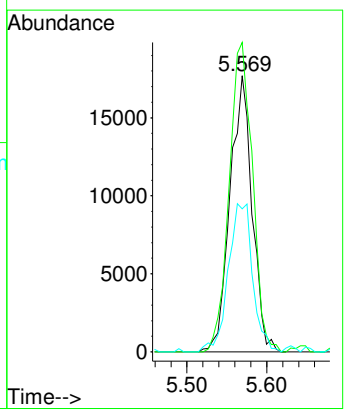


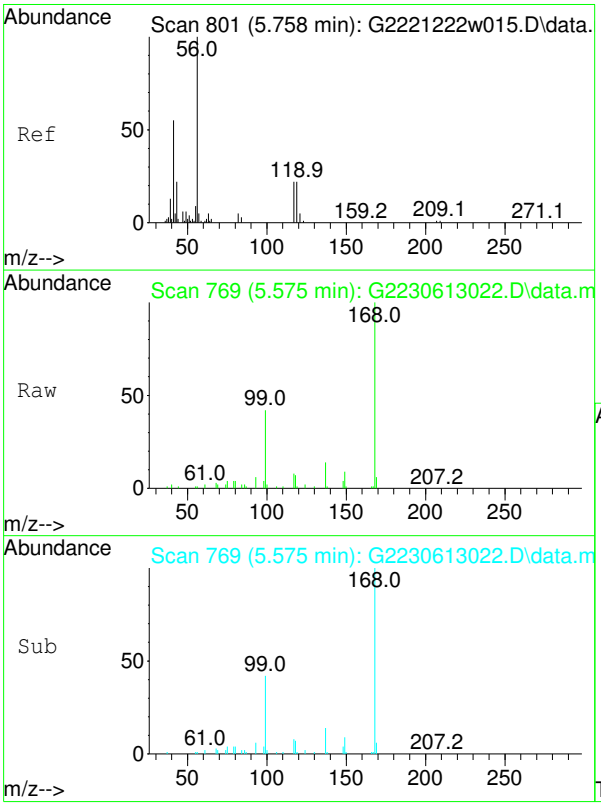


#40
Cyclohexane
Concen: 0.75 ug/L
RT: 5.572 min Scan# 769
Delta R.T. 0.038 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 84 Resp: 340260

Ion	Ratio	Lower	Upper
84	100		
69	118.1	6.8	66.8#
56	58.8	79.1	139.1#

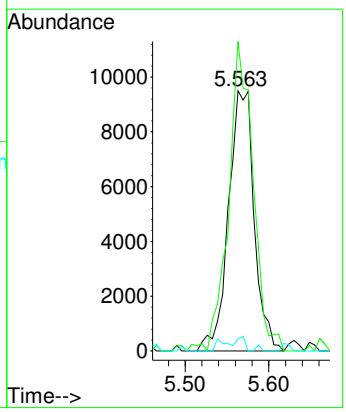


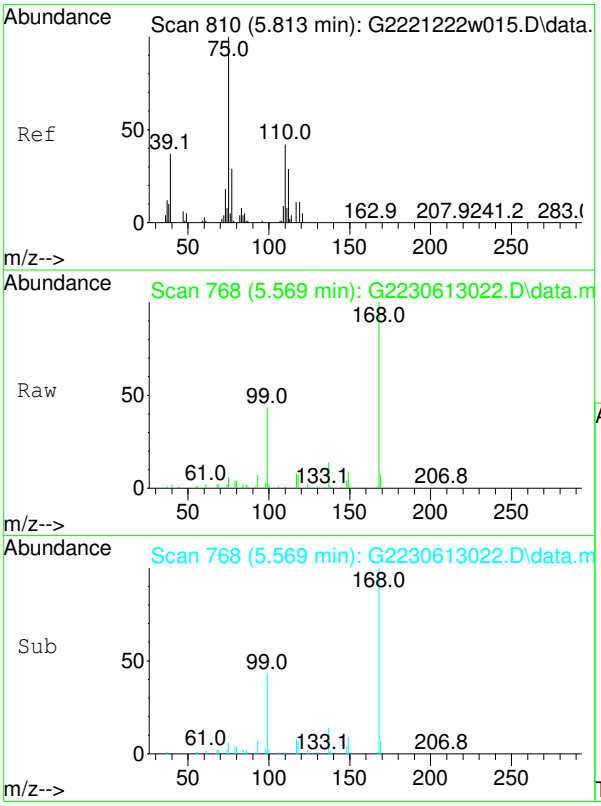


#41
1-Chlorobutane
Concen: 0.39 ug/L
RT: 5.572 min Scan# 769
Delta R.T. -0.058 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 56 Resp: 201968

Ion	Ratio	Lower	Upper
56	100		
55	114.1	0.0	41.0#
57	0.0	0.0	35.7

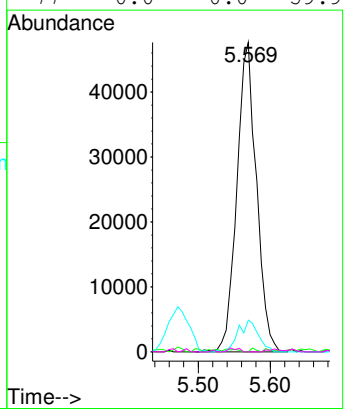


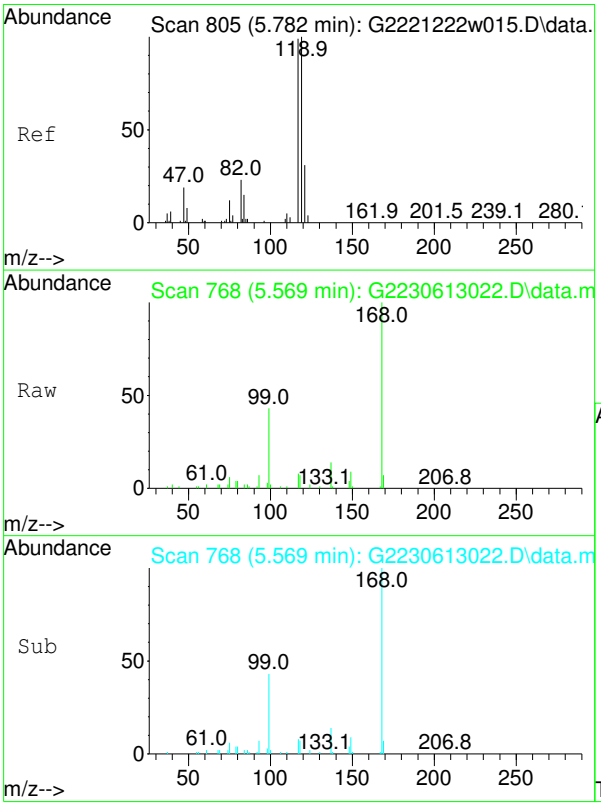


#42
1,1-Dichloropropene
Concen: 2.29 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 75 Resp: 899626

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.5	9.1	69.1
77	0.0	0.0	59.9

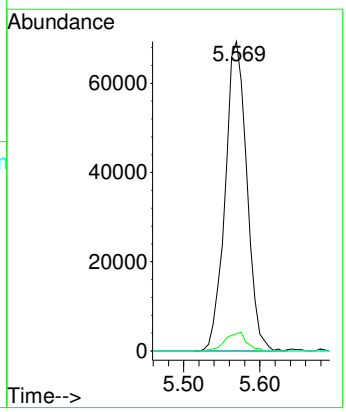


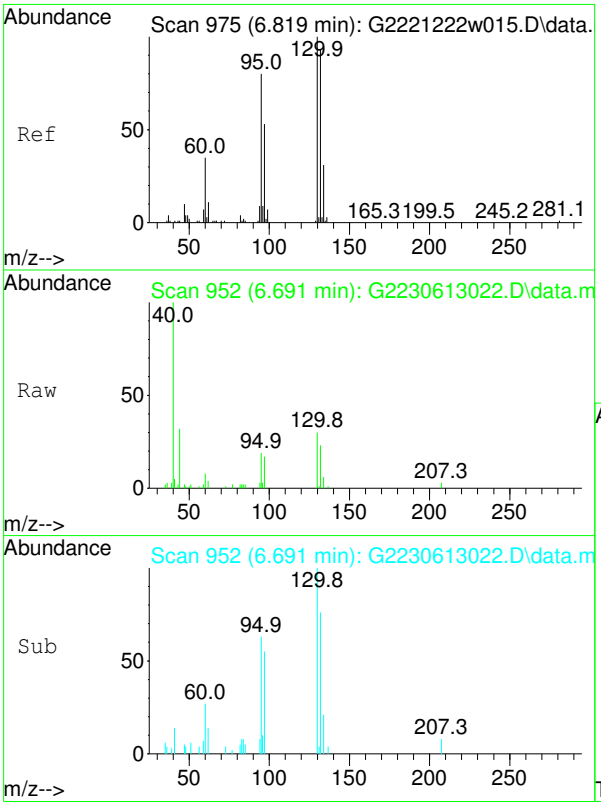


#47
Carbon tetrachloride
Concen: 3.33 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion:117 Resp: 1363308

Ion	Ratio	Lower	Upper
117	100		
119	6.1	66.4	126.4#
121	0.0	0.4	60.4#

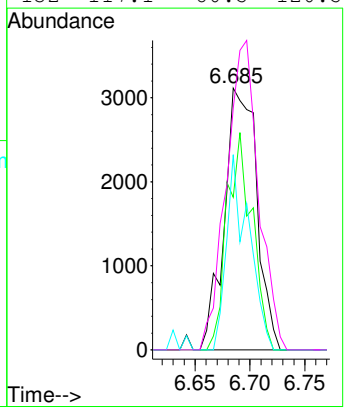


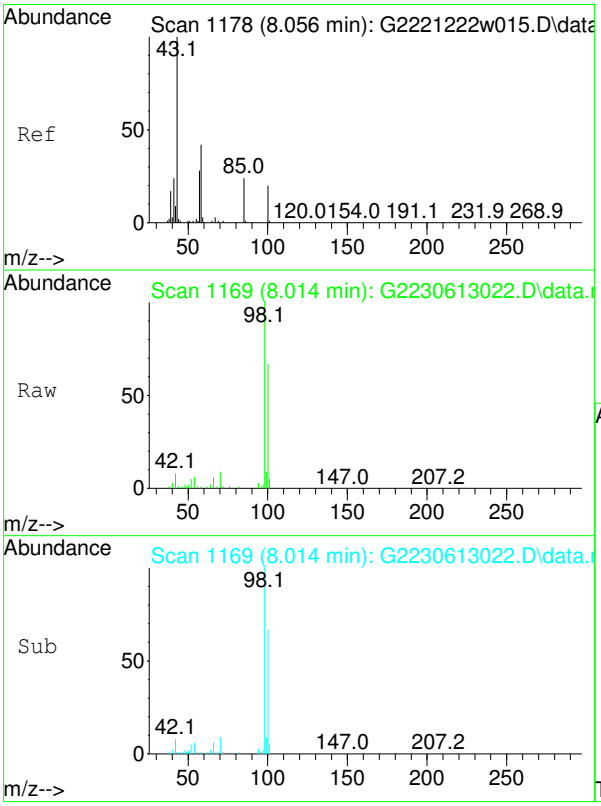


#50
Trichloroethene
Concen: 0.13 ug/L
RT: 6.692 min Scan# 952
Delta R.T. -0.004 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 95 Resp: 64233

Ion	Ratio	Lower	Upper
95	100		
97	64.7	35.5	95.5
60	0.0	14.8	74.8#
132	117.1	80.5	120.5

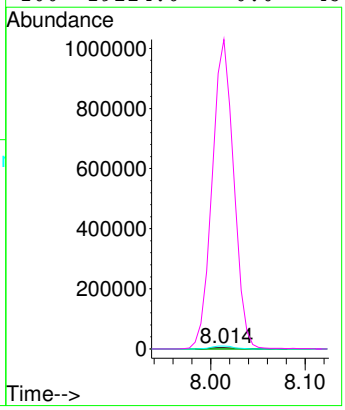


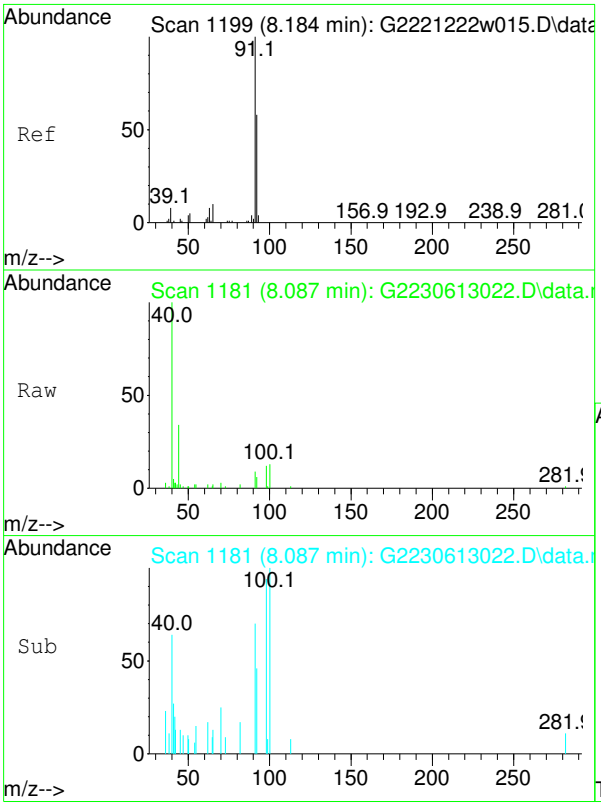


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 43 Resp: 85000

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	186.9	37.0	37.0#
100	19224.6	0.0	45.2#

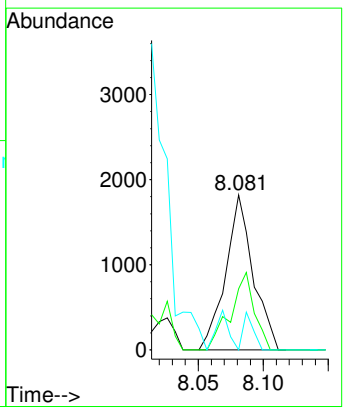


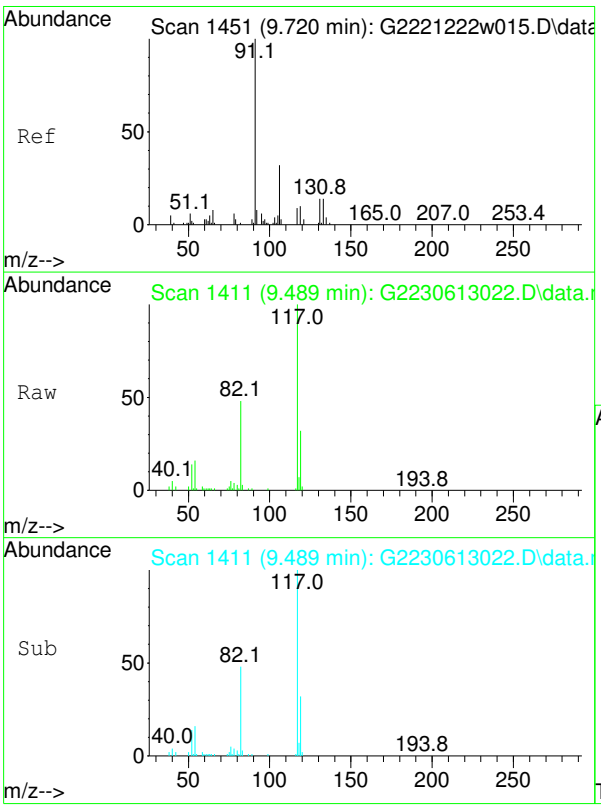


#65
Toluene
Concen: Below Cal
RT: 8.084 min Scan# 1181
Delta R.T. -0.002 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 91 Resp: 26700

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

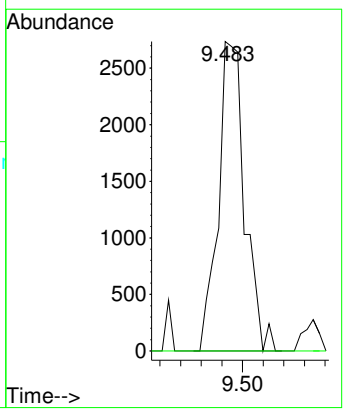




#74
Ethylbenzene
Concen: Below Cal
RT: 9.492 min Scan# 1411
Delta R.T. -0.151 min
Lab File: G2230613022.D
Acq: 13 Jun 2023 17:31

Tgt Ion: 91 Resp: 48353

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08	File ID:	G2230613023.D
Sampled:	06/01/23 15:25	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 17:56
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.130	0.400	1.00	U
71-55-6	1,1,1-Trichloroethane		0.175	0.400	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.124	0.400	1.00	U
79-00-5	1,1,2-Trichloroethane		0.166	0.400	1.00	U
75-34-3	1,1-Dichloroethane		0.134	0.400	1.00	U
75-35-4	1,1-Dichloroethene		0.191	0.400	1.00	U
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.204	0.400	1.00	U
96-18-4	1,2,3-Trichloropropane		0.183	0.400	1.00	U
120-82-1	1,2,4-Trichlorobenzene		0.205	0.600	1.20	U
95-63-6	1,2,4-Trimethylbenzene		0.132	0.400	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.260	1.00	2.00	U
106-93-4	1,2-Dibromoethane		0.106	0.400	1.00	U
95-50-1	1,2-Dichlorobenzene		0.126	0.400	1.00	U
107-06-2	1,2-Dichloroethane		0.212	0.600	1.20	U
78-87-5	1,2-Dichloropropane		0.205	0.600	1.20	U
108-67-8	1,3,5-Trimethylbenzene		0.100	0.400	1.00	U
541-73-1	1,3-Dichlorobenzene		0.145	0.400	1.00	U
142-28-9	1,3-Dichloropropane		0.136	0.400	1.00	U
106-46-7	1,4-Dichlorobenzene		0.184	0.400	1.00	U
594-20-7	2,2-Dichloropropane		0.184	0.400	1.00	U
78-93-3	2-Butanone		0.660	1.40	3.50	U
95-49-8	2-Chlorotoluene		0.147	0.400	1.00	U
591-78-6	2-Hexanone		0.143	1.40	3.50	U
106-43-4	4-Chlorotoluene		0.184	0.400	1.00	U
99-87-6	4-Isopropyltoluene		0.140	0.400	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08	File ID:	G2230613023.D
Sampled:	06/01/23 15:25	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 17:56
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.270	1.40	3.50	U
67-64-1	Acetone		1.04	4.00	8.00	U
71-43-2	Benzene		0.101	0.400	1.00	U
108-86-1	Bromobenzene		0.170	0.400	1.00	U
74-97-5	Bromochloromethane		0.134	0.400	1.00	U
75-27-4	Bromodichloromethane		0.106	0.400	1.00	U
75-25-2	Bromoform		0.206	0.400	1.00	U
74-83-9	Bromomethane		0.320	1.00	2.00	U
75-15-0	Carbon disulfide		0.280	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.169	0.400	1.00	U
108-90-7	Chlorobenzene		0.130	0.400	1.00	U
75-00-3	Chloroethane		0.311	0.400	1.00	U
67-66-3	Chloroform		0.203	0.600	1.20	U
74-87-3	Chloromethane		0.384	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene	0.220	0.205	0.600	1.20	J, D
10061-01-5	cis-1,3-Dichloropropene		0.117	0.400	1.00	U
124-48-1	Dibromochloromethane		0.152	0.400	1.00	U
74-95-3	Dibromomethane		0.163	0.400	1.00	U
75-71-8	Dichlorodifluoromethane		0.259	1.00	2.00	U
100-41-4	Ethylbenzene		0.0600	0.200	0.400	U
87-68-3	Hexachlorobutadiene		0.200	0.400	1.00	Q, S1, U
98-82-8	Isopropylbenzene		0.110	0.400	1.00	U
179601-23-1	m,p-Xylene		0.178	0.800	2.00	U
1634-04-4	Methyl tert-butyl ether		0.106	0.400	1.00	U
75-09-2	Methylene chloride		0.447	1.00	2.00	U
104-51-8	n-Butylbenzene		0.260	1.00	2.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW33

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-08	File ID:	G2230613023.D
Sampled:	06/01/23 15:25	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 17:56
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.126	0.400	1.00	U
91-20-3	Naphthalene		0.140	0.400	1.00	U
95-47-6	o-Xylene		0.0832	0.400	1.00	U
135-98-8	sec-Butylbenzene		0.120	0.400	1.00	U
100-42-5	Styrene		0.0906	0.200	0.400	U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	Q, S1, U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.171	0.400	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene	0.780	0.156	0.400	1.00	J, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride		0.258	1.00	2.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613023.D
Acq On : 13 Jun 2023 17:56
Operator : PO1/MP3
Sample : 23F0136-08
Misc : 2
ALS Vial : 23 Sample Multiplier: 1

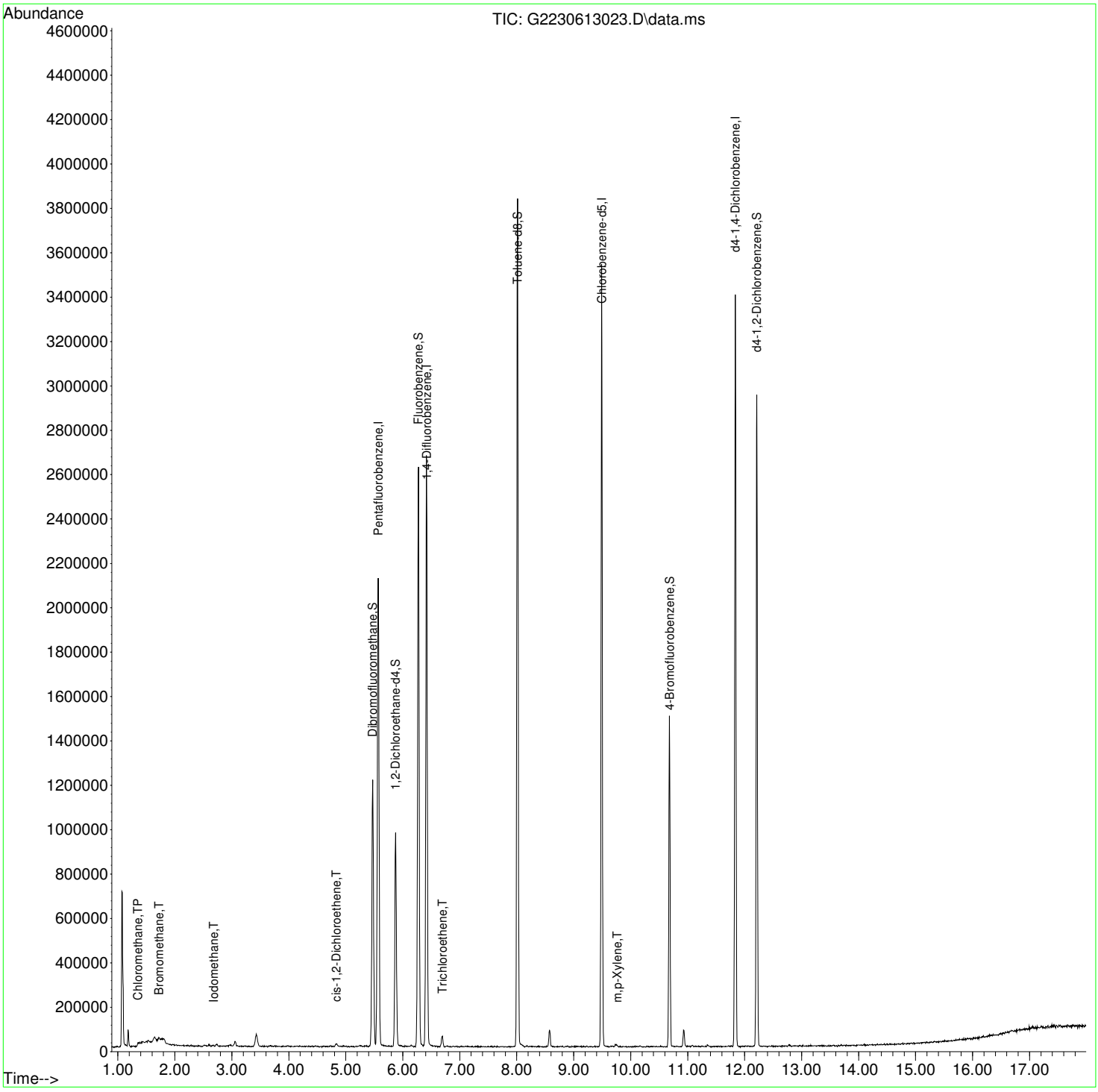
Quant Time: Jun 14 09:38:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17200385	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	23380992	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20595228	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9788185	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7439966	19.65	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%			
43) 1,2-Dichloroethane-d4	5.876	65	6752190	18.05	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.25%			
49) Fluorobenzene	6.276	96	25596069	19.21	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%			
64) Toluene-d8	8.015	98	24910090	19.19	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.95%			
81) 4-Bromofluorobenzene	10.683	174	4501277	9.74	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.40%			
97) d4-1,2-Dichlorobenzene	12.216	152	8473551	20.13	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.65%			
Target Compounds						Qvalue
3) Chloromethane	1.350	50	47697m	0.06	ug/L	
5) Bromomethane	1.721	94	69055	0.05	ug/L #	79
12) Acetone	2.598	43	78554	Below Cal	#	45
13) Iodomethane	2.680	142	50313	0.13	ug/L #	41
18) Methylene chloride	3.055	49	110551	Below Cal		90
21) Methyl tert-butyl ether	3.433	73	725693	Below Cal		96
28) cis-1,2-Dichloroethene	4.832	61	83928	0.11	ug/L #	56
50) Trichloroethene	6.696	95	145151	0.39	ug/L #	84
75) m,p-Xylene	9.763	91	28429	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613023.D
Acq On : 13 Jun 2023 17:56
Operator : PO1/MP3
Sample : 23F0136-08
Misc : 2
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 14 09:38:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613023.D
Acq On : 13 Jun 2023 17:56
Operator : PO1/MP3
Sample : 23F0136-08
Misc : 2
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 14 09:38:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

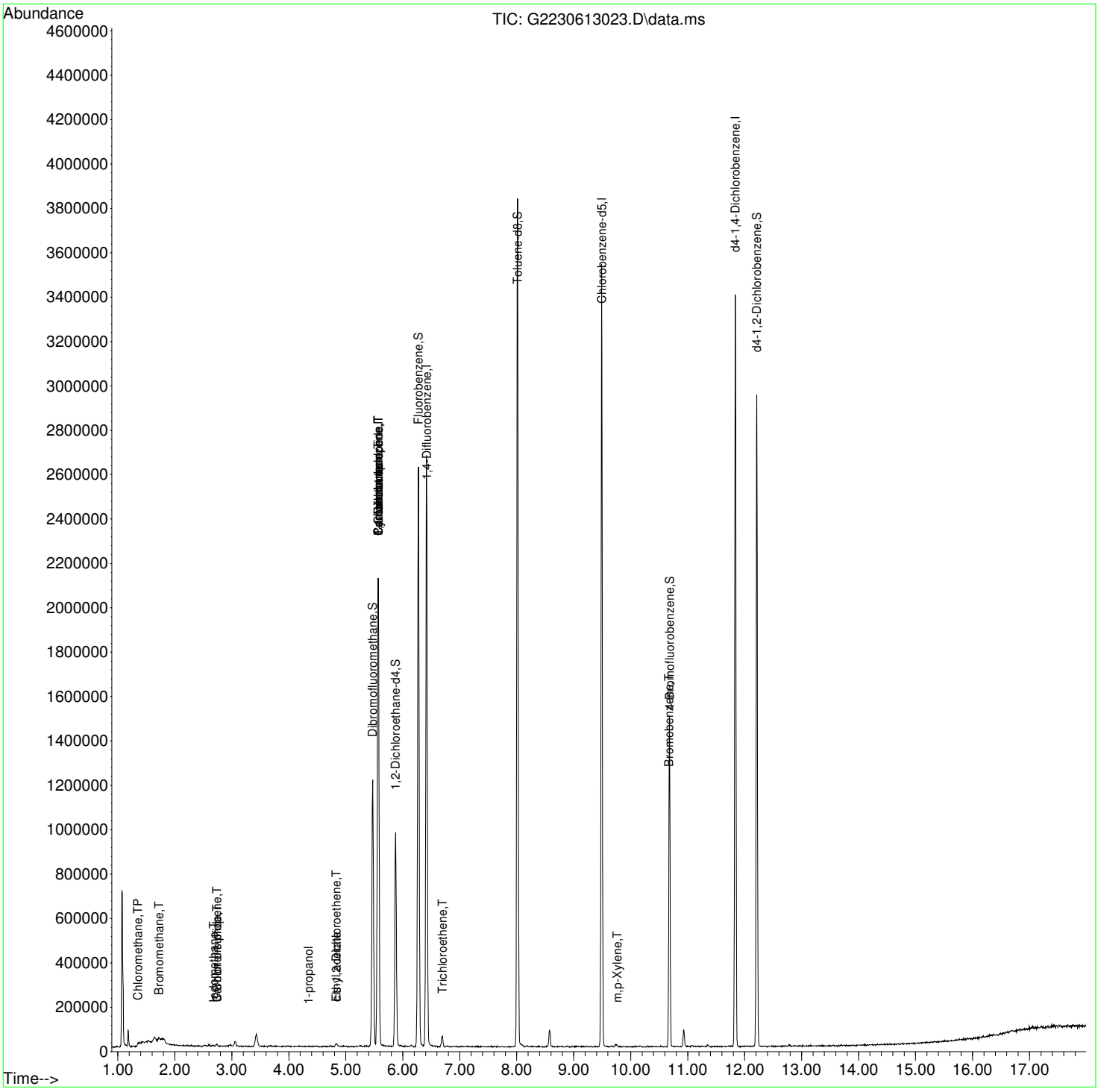
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17200385	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	23380992	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20595228	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9788185	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7439966	19.65	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%			
43) 1,2-Dichloroethane-d4	5.876	65	6752190	18.05	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.25%			
49) Fluorobenzene	6.276	96	25596069	19.21	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%			
64) Toluene-d8	8.015	98	24910090	19.19	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.95%			
81) 4-Bromofluorobenzene	10.683	174	4501277	9.74	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.40%			
97) d4-1,2-Dichlorobenzene	12.216	152	8473551	20.13	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.65%			
Target Compounds						Qvalue
3) Chloromethane	1.352	50	40816	0.04	ug/L #	41
5) Bromomethane	1.721	94	69055	0.05	ug/L #	79
12) Acetone	2.598	43	78554	Below Cal	#	45
13) Iodomethane	2.680	142	50313	0.13	ug/L #	41
14) Carbon disulfide	2.740	76	114863	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.740	76	114863	0.59	ug/L #	53
18) Methylene chloride	3.055	49	110551	Below Cal		90
21) Methyl tert-butyl ether	3.433	73	725693	Below Cal		96
26) 1-propanol	4.346	59	1509	0.84	ug/L #	100
28) cis-1,2-Dichloroethene	4.832	61	83928	0.11	ug/L #	56
31) Ethyl acetate	4.831	61	83923	1.41	ug/L #	45
40) Cyclohexane	5.568	84	364658	0.79	ug/L #	35
41) 1-Chlorobutane	5.567	56	231062	0.43	ug/L #	1
42) 1,1-Dichloropropene	5.568	75	885225	2.19	ug/L #	38
47) Carbon tetrachloride	5.569	117	1385039	3.28	ug/L #	16
50) Trichloroethene	6.696	95	145151	0.39	ug/L #	84
60) 4-Methyl-2-pentanone	8.014	43	62019	Below Cal	#	1
74) Ethylbenzene	9.763	91	27802	Below Cal	#	44
75) m,p-Xylene	9.763	91	28429	0.03	ug/L #	36
82) Bromobenzene	10.674	77	38352	0.07	ug/L #	1
99) n-Butylbenzene	12.211	91	41947	Below Cal	#	53

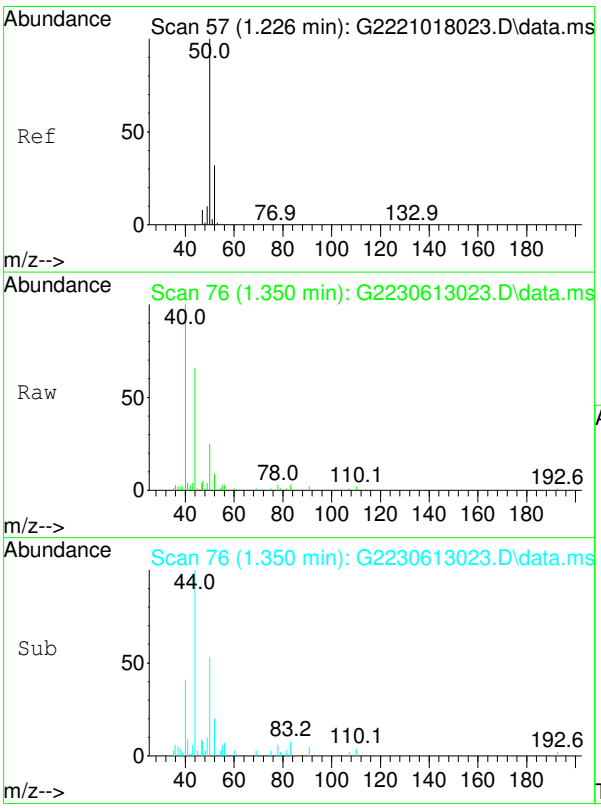
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342111

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613023.D
Acq On : 13 Jun 2023 17:56
Operator : PO1/MP3
Sample : 23F0136-08
Misc : 2
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 14 09:38:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

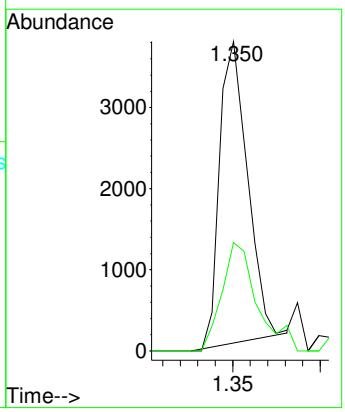


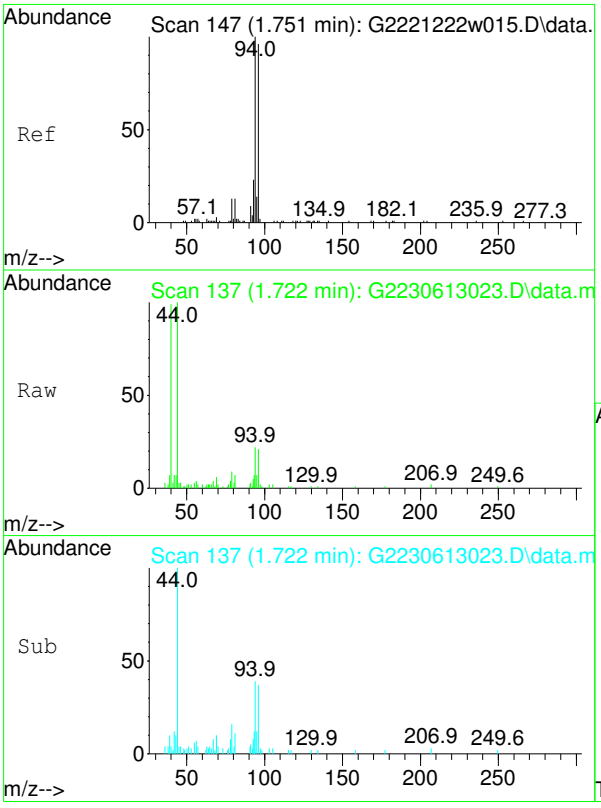


#3
Chloromethane
Concen: 0.04 ug/L
RT: 1.352 min Scan# 76
Delta R.T. -0.002 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 50 Resp: 40816

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

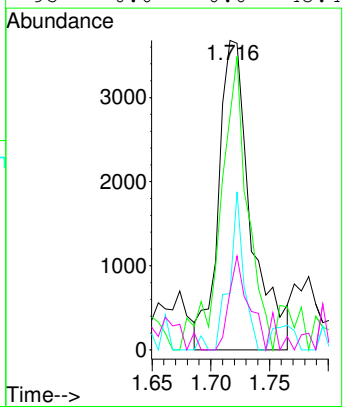


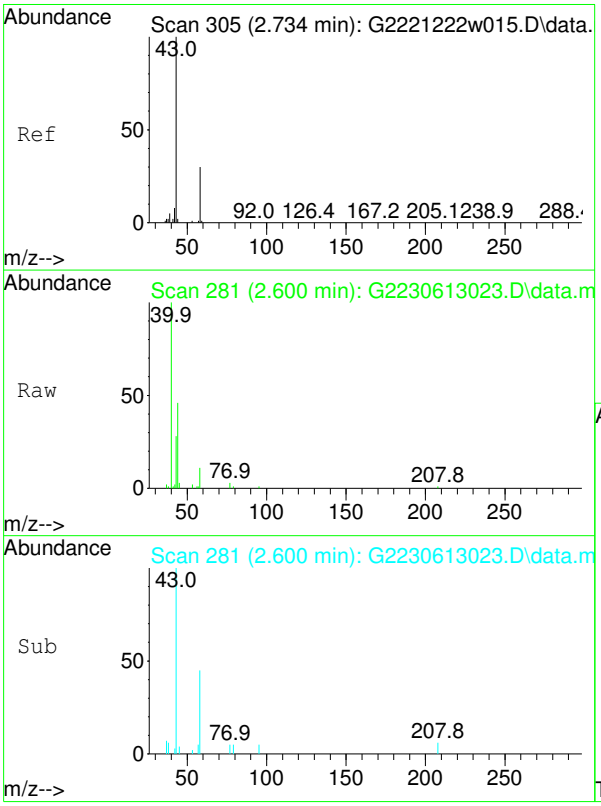


#5
Bromomethane
Concen: 0.05 ug/L
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 94 Resp: 69055

Ion	Ratio	Lower	Upper
94	100		
96	81.1	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

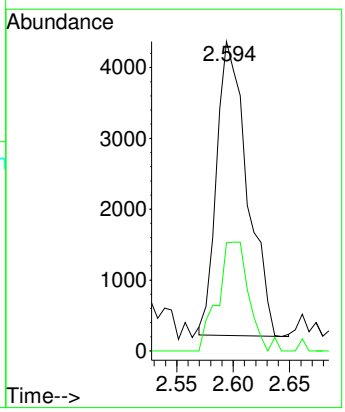


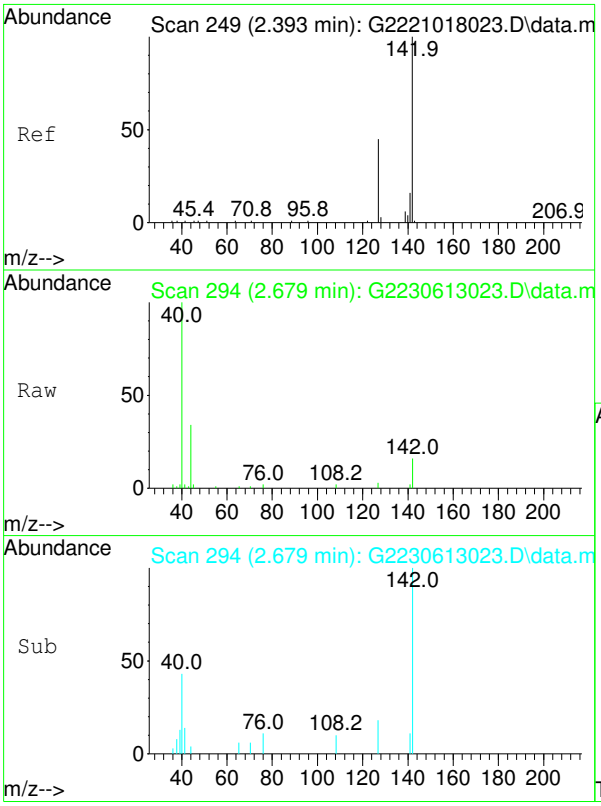


#12
Acetone
Concen: Below Cal
RT: 2.598 min Scan# 281
Delta R.T. -0.010 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 43 Resp: 78554

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

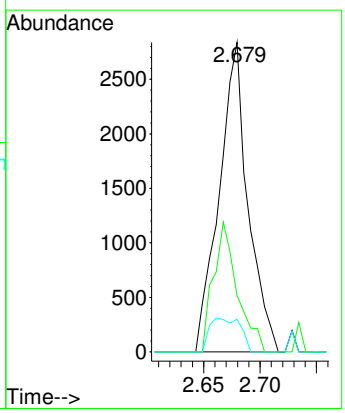


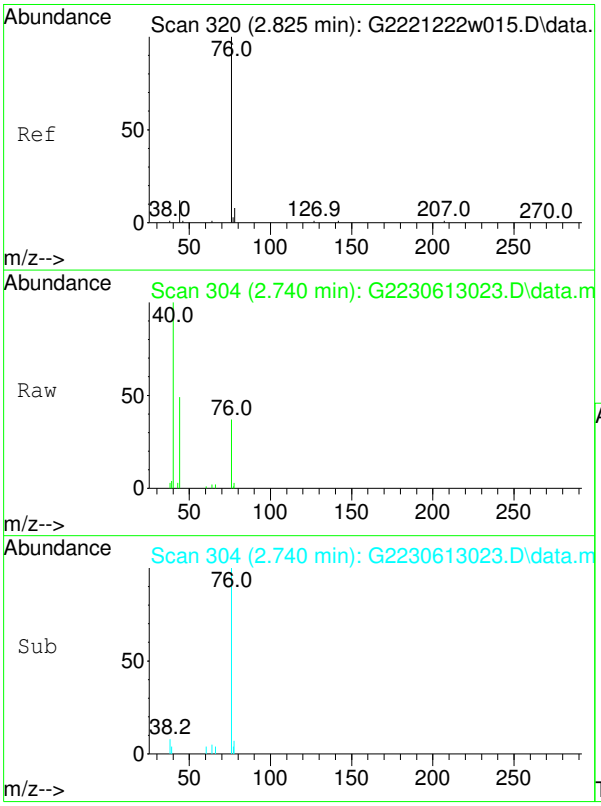


#13
Iodomethane
Concen: 0.13 ug/L
RT: 2.680 min Scan# 294
Delta R.T. 0.004 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion:142 Resp: 50313

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

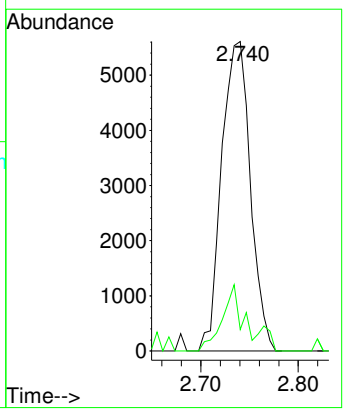


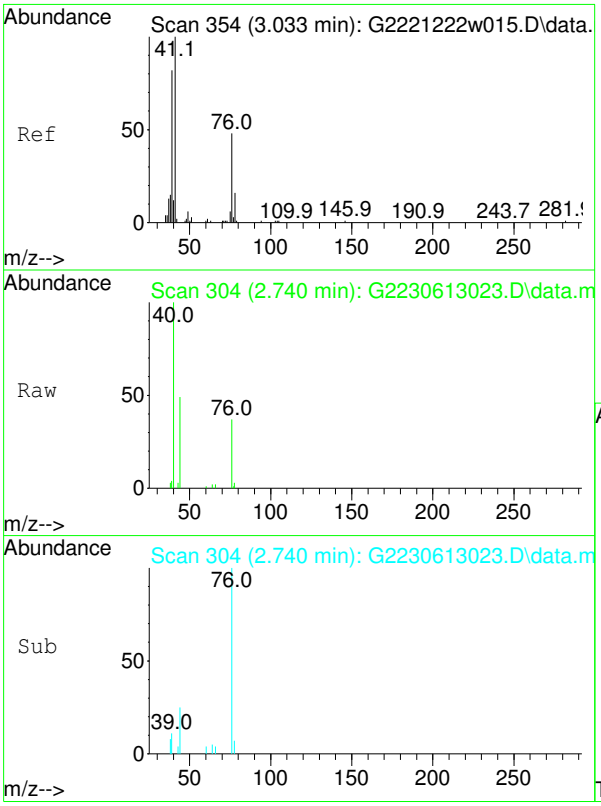


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.740 min Scan# 304
Delta R.T. 0.001 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 76 Resp: 114863

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

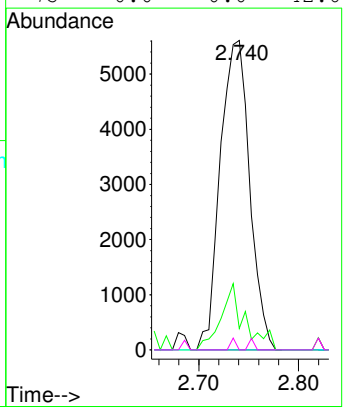


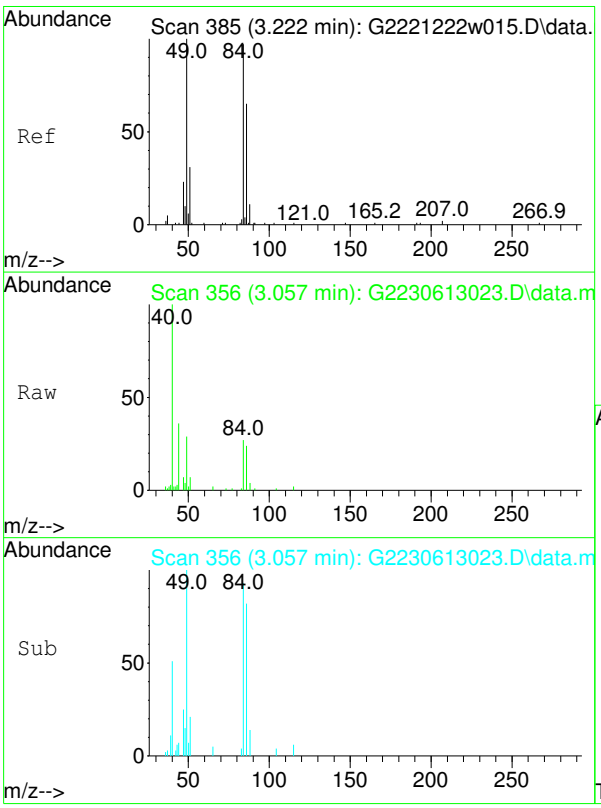


#17
3-Chloro-1-propene
Concen: 0.59 ug/L
RT: 2.740 min Scan# 304
Delta R.T. -0.180 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 76 Resp: 114863

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

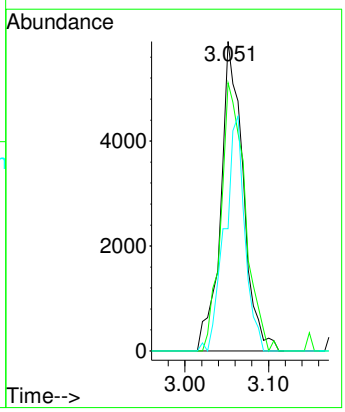


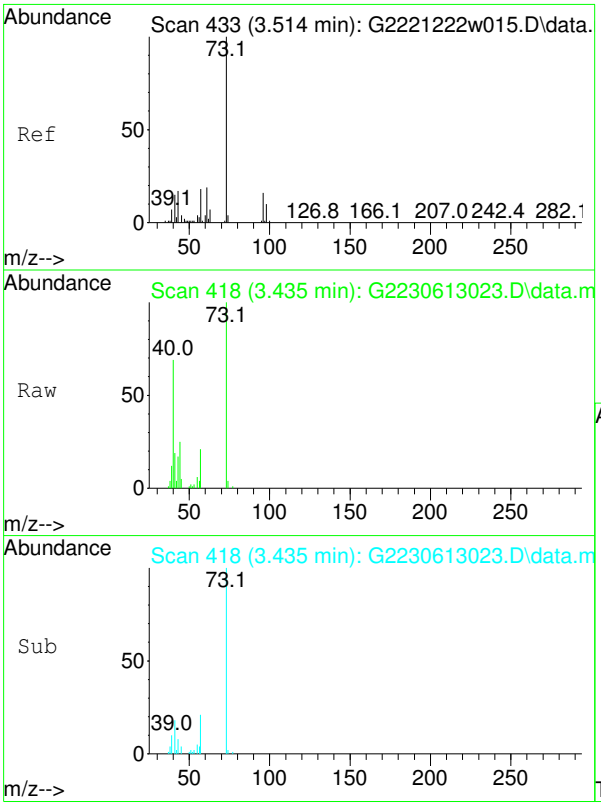


#18
Methylene chloride
Concen: Below Cal
RT: 3.055 min Scan# 356
Delta R.T. -0.007 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 49 Resp: 110551

Ion	Ratio	Lower	Upper
49	100		
84	93.3	57.9	117.9
86	66.7	24.9	84.9

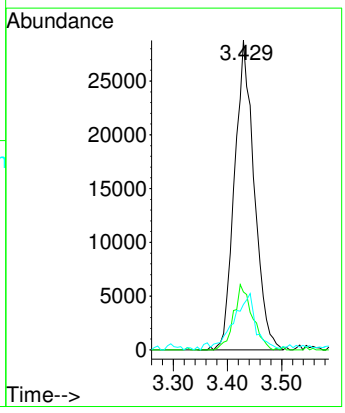


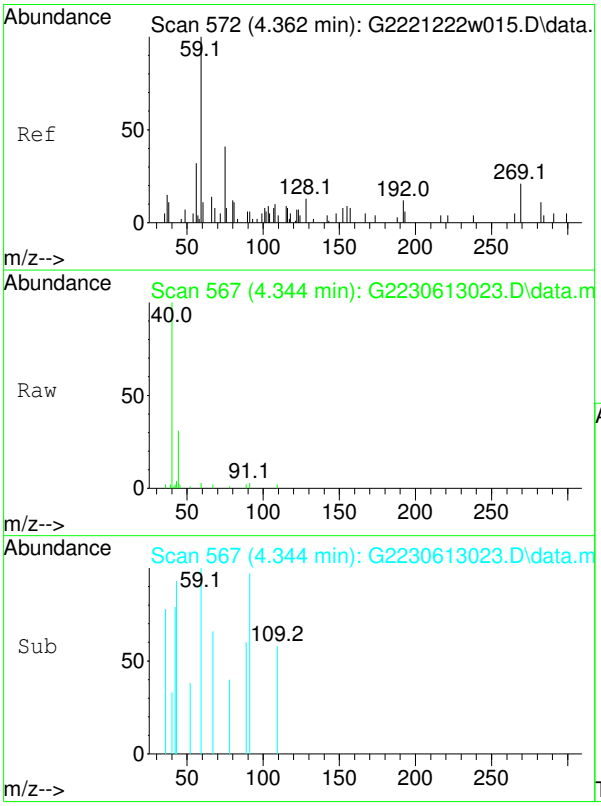


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.433 min Scan# 418
Delta R.T. -0.013 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 73 Resp: 725693

Ion	Ratio	Lower	Upper
73	100		
57	20.2	0.0	51.7
41	18.5	0.0	50.6

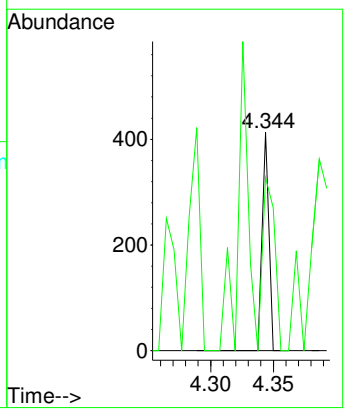


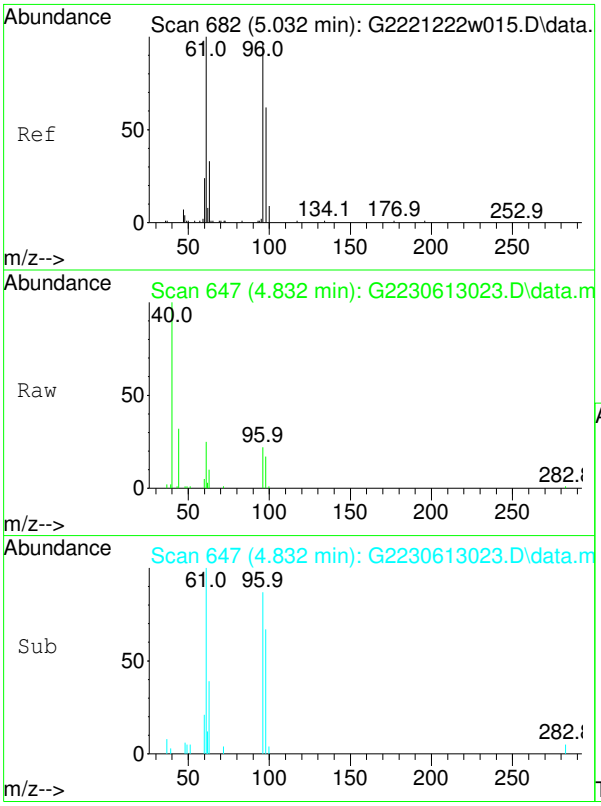


#26
1-propanol
Concen: 0.84 ug/L
RT: 4.346 min Scan# 567
Delta R.T. 0.057 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 59 Resp: 1509

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

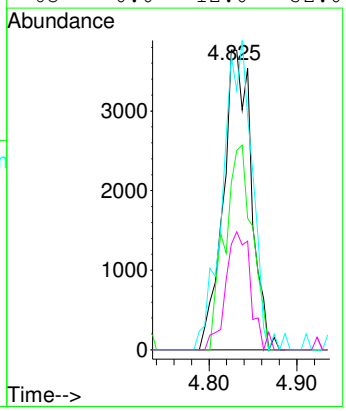


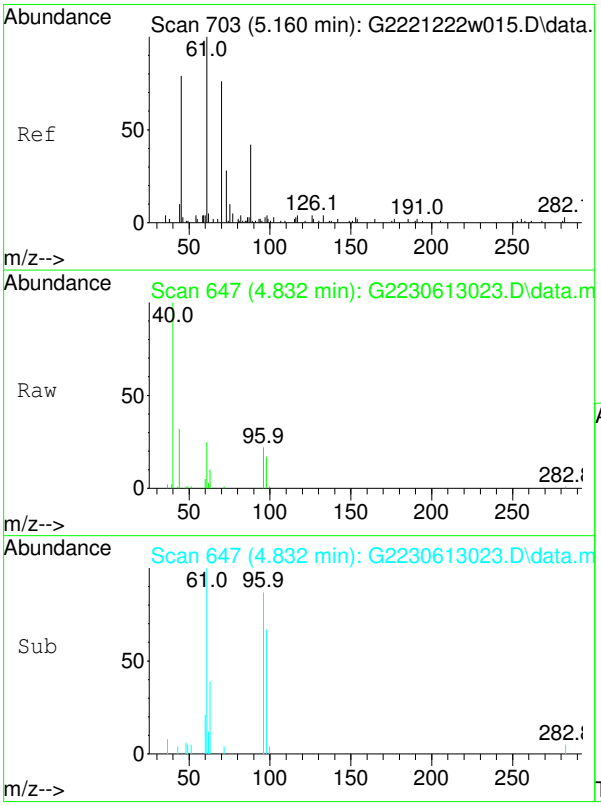


#28
cis-1,2-Dichloroethene
Concen: 0.11 ug/L
RT: 4.832 min Scan# 647
Delta R.T. -0.004 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 61 Resp: 83928

Ion	Ratio	Lower	Upper
61	100		
98	66.5	15.9	75.9
96	107.9	39.6	99.6#
63	0.0	12.0	52.0#

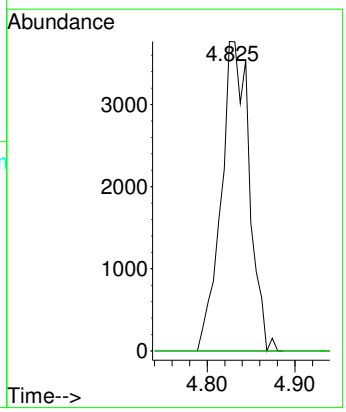


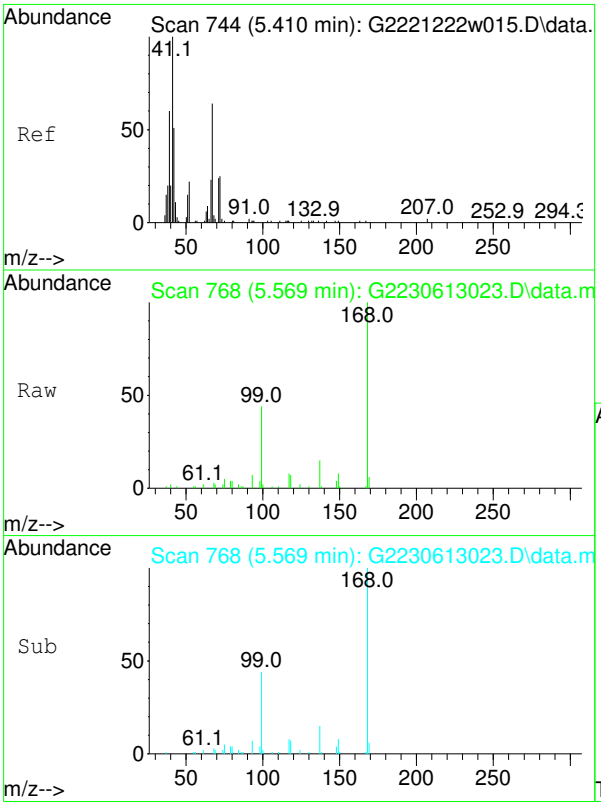


#31
Ethyl acetate
Concen: 1.41 ug/L
RT: 4.831 min Scan# 647
Delta R.T. -0.191 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 61 Resp: 83923

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

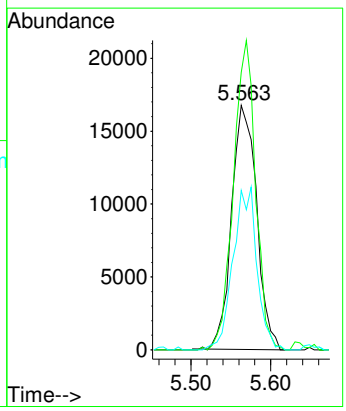


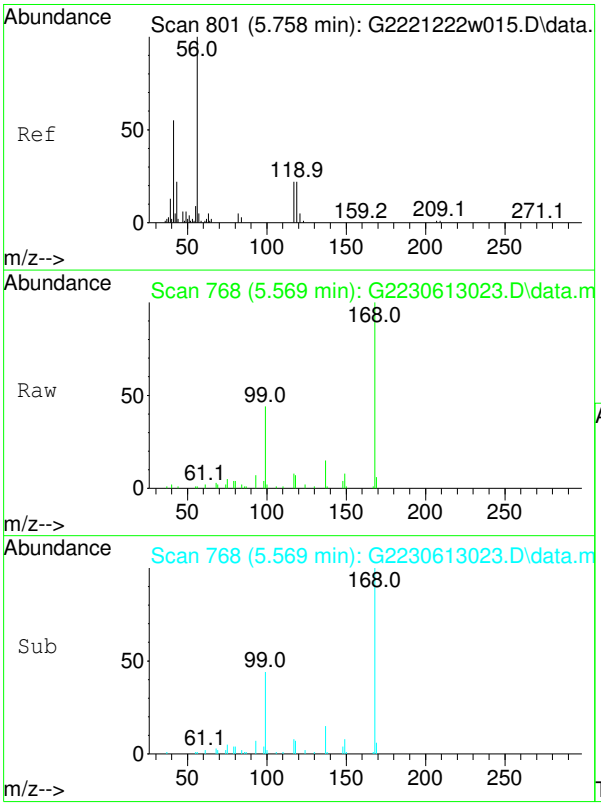


#40
Cyclohexane
Concen: 0.79 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 84 Resp: 364658

Ion	Ratio	Lower	Upper
84	100		
69	112.3	6.8	66.8#
56	63.4	79.1	139.1#

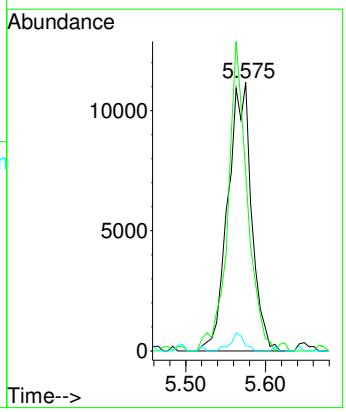


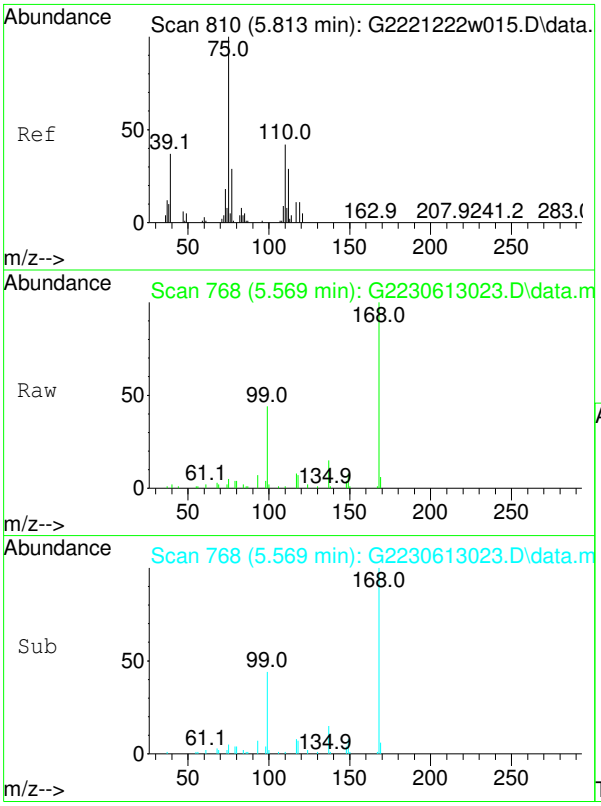


#41
1-Chlorobutane
Concen: 0.43 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 56 Resp: 231062

Ion	Ratio	Lower	Upper
56	100		
55	92.9	0.0	41.0#
57	0.0	0.0	35.7

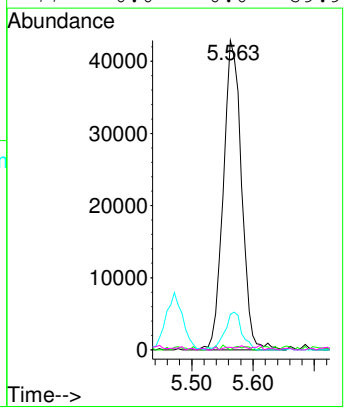


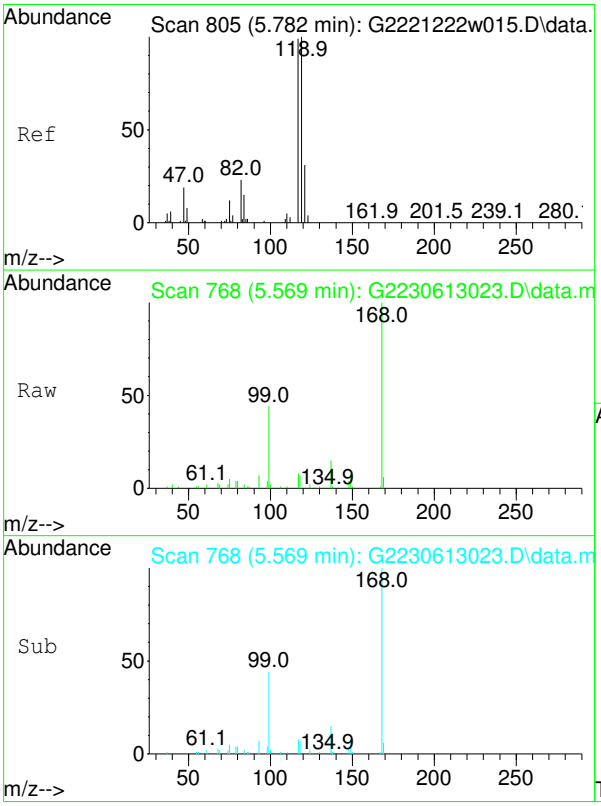


#42
1,1-Dichloropropene
Concen: 2.19 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 75 Resp: 885225

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.2	9.1	69.1
77	0.0	0.0	59.9

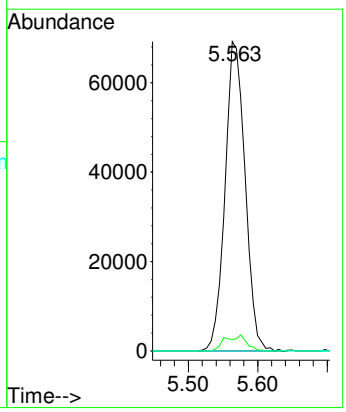


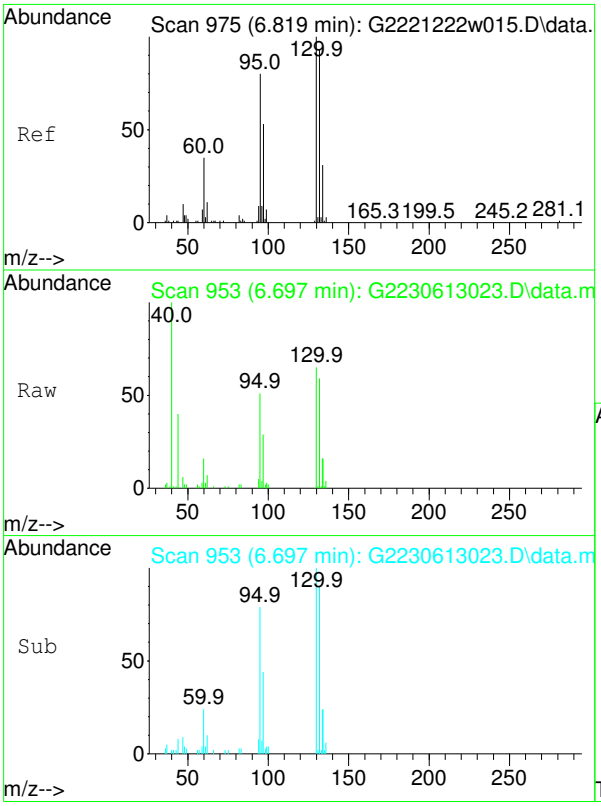


#47
Carbon tetrachloride
Concen: 3.28 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.111 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion:117 Resp: 1385039

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

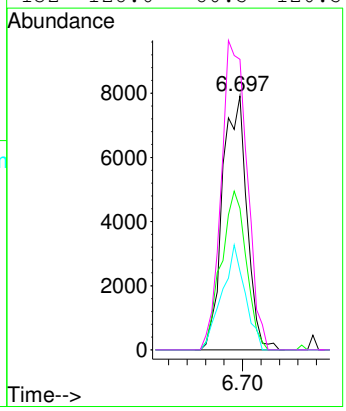


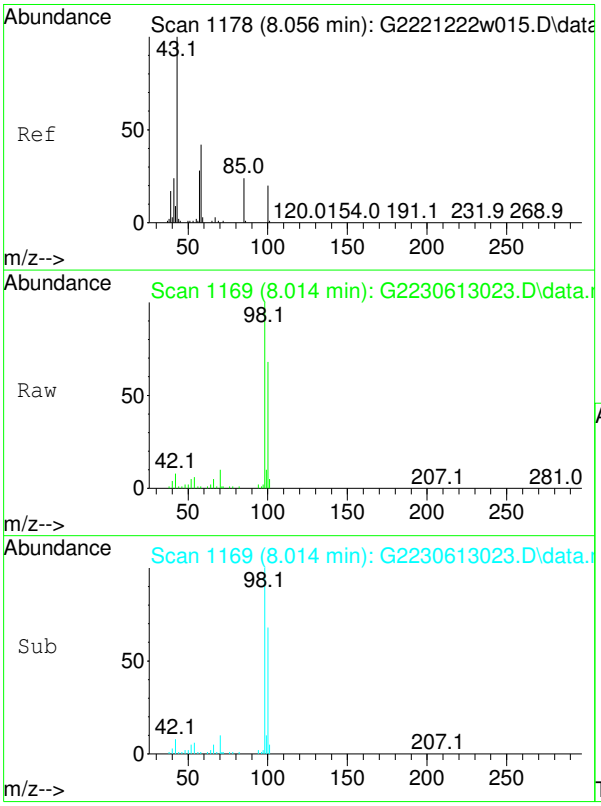


#50
Trichloroethene
Concen: 0.39 ug/L
RT: 6.696 min Scan# 953
Delta R.T. 0.000 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 95 Resp: 145151

Ion	Ratio	Lower	Upper
95	100		
97	64.3	35.5	95.5
60	39.0	14.8	74.8
132	128.6	80.5	120.5#

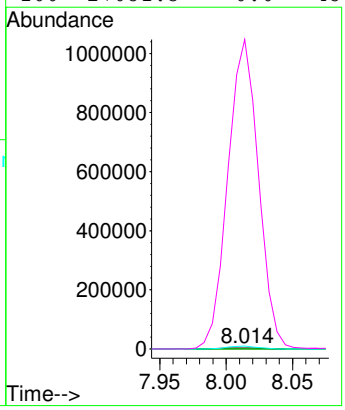


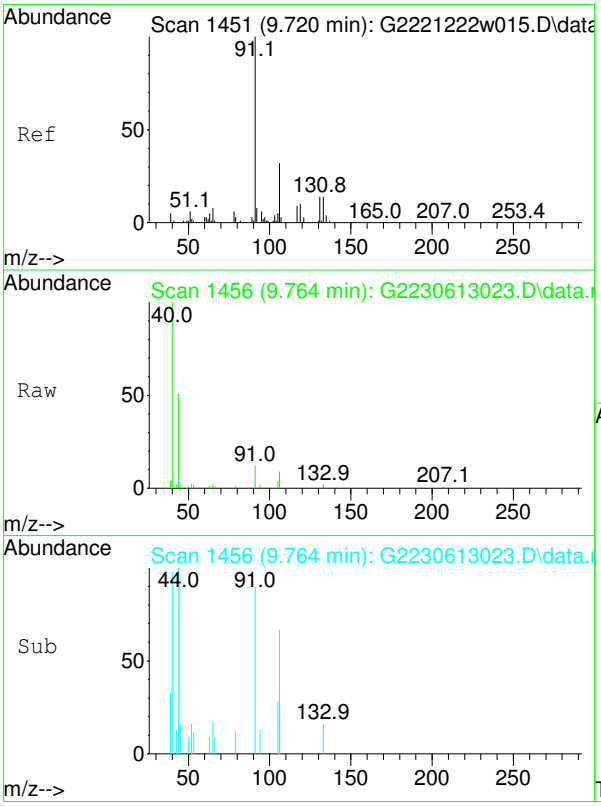


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 43 Resp: 62019

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	250.0	37.0	37.0#
100	27051.3	0.0	45.2#

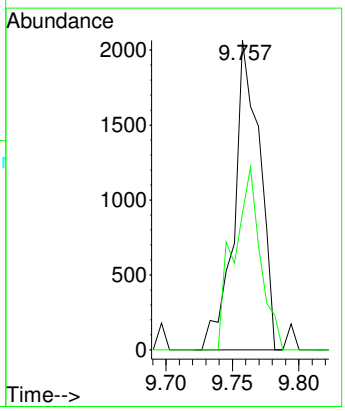


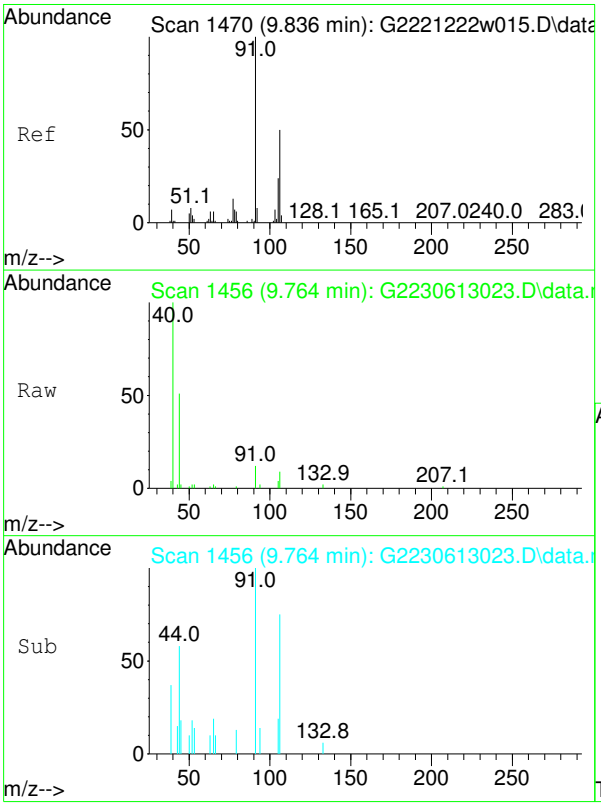


#74
Ethylbenzene
Concen: Below Cal
RT: 9.763 min Scan# 1456
Delta R.T. 0.120 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 91 Resp: 27802

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

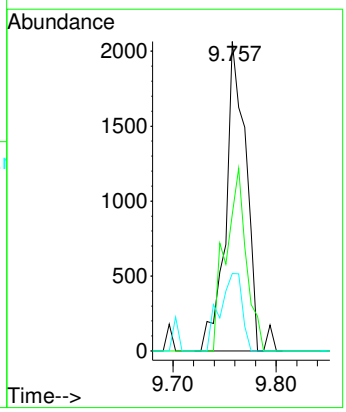


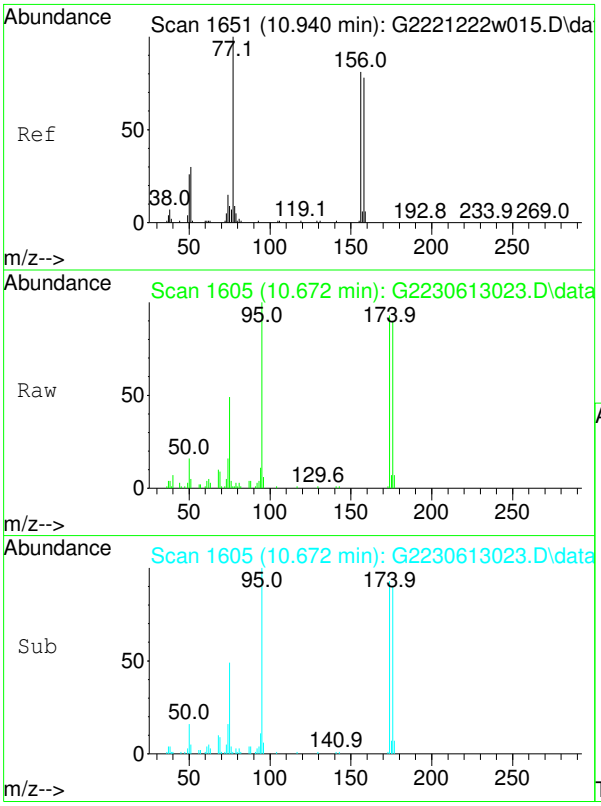


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.763 min Scan# 1456
Delta R.T. -0.001 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 91 Resp: 28429

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

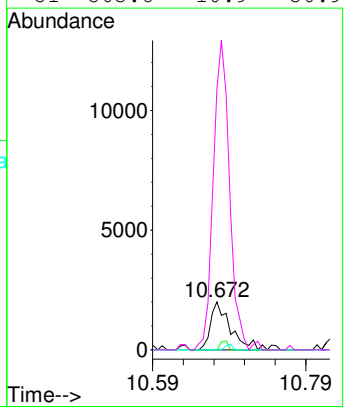


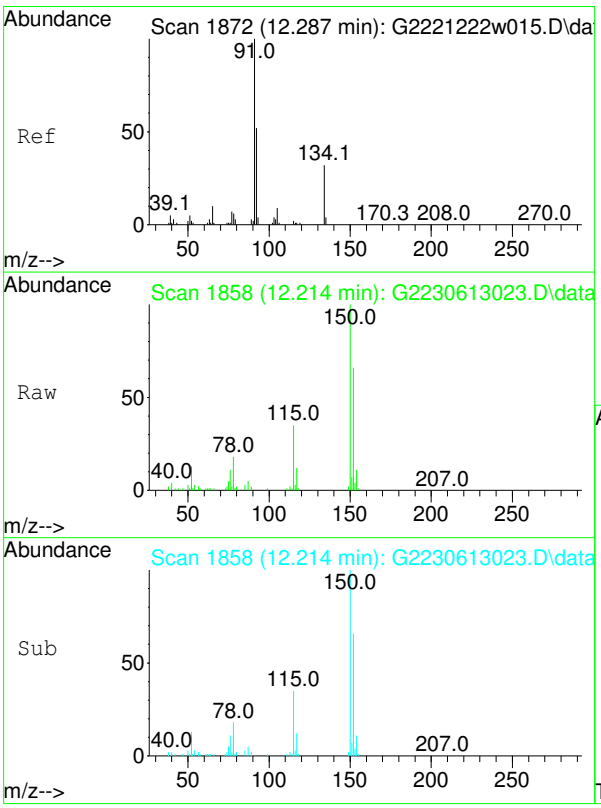


#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.674 min Scan# 1605
Delta R.T. -0.154 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

Tgt Ion: 77 Resp: 38352

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	503.8	10.9	50.9#

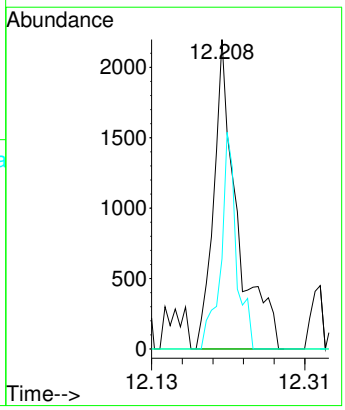




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.211 min Scan# 1858
Delta R.T. -0.020 min
Lab File: G2230613023.D
Acq: 13 Jun 2023 17:56

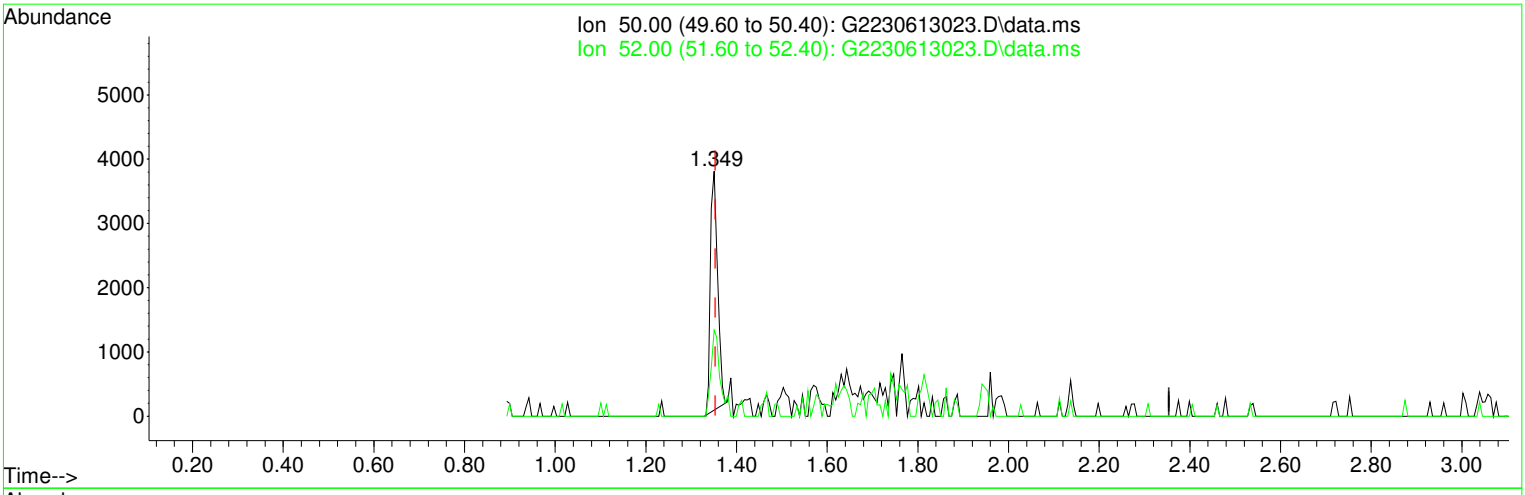
Tgt Ion: 91 Resp: 41947

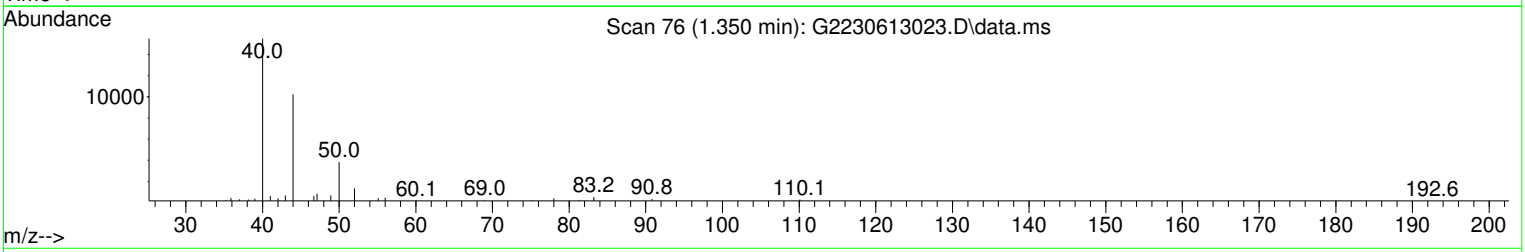
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

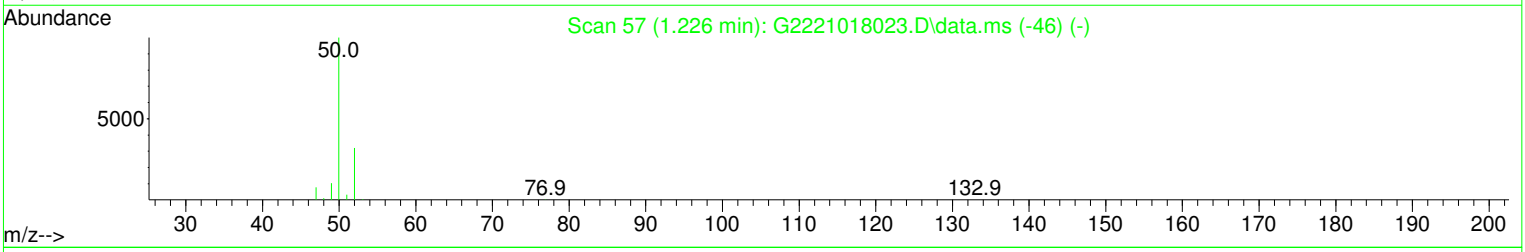


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613023.D
Acq On : 13 Jun 2023 17:56
Operator : PO1/MP3
Sample : 23F0136-08
Misc : 2
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 14 09:38:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613023.D\data.ms

(3) Chloromethane (TP)

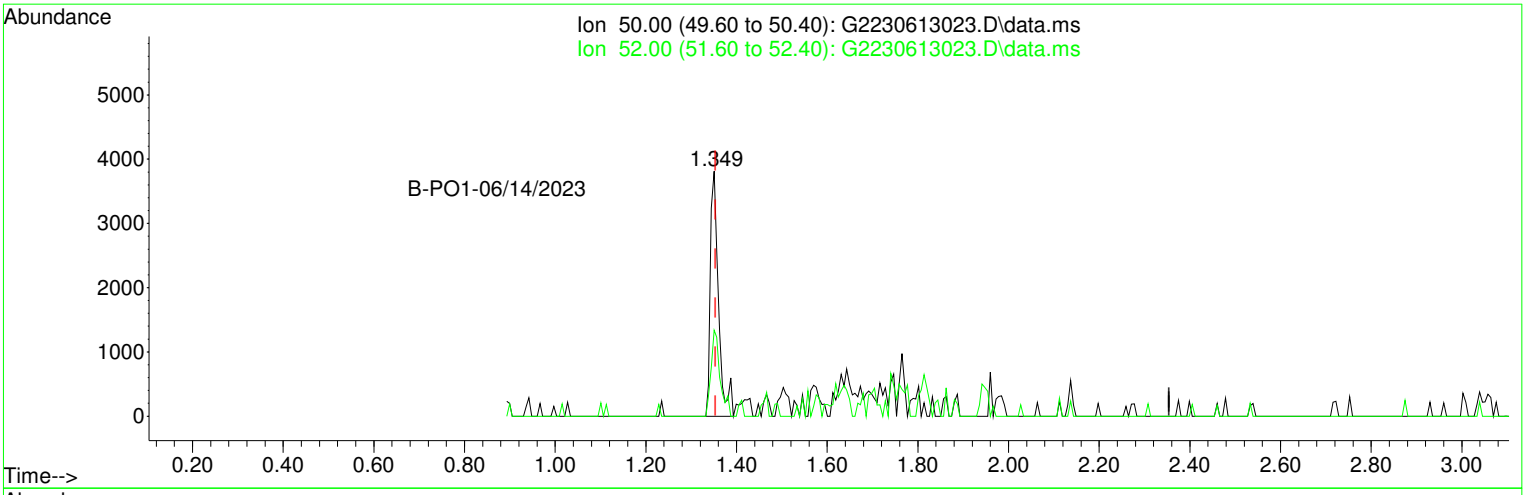
1.352min (-0.002) 0.04 ug/L

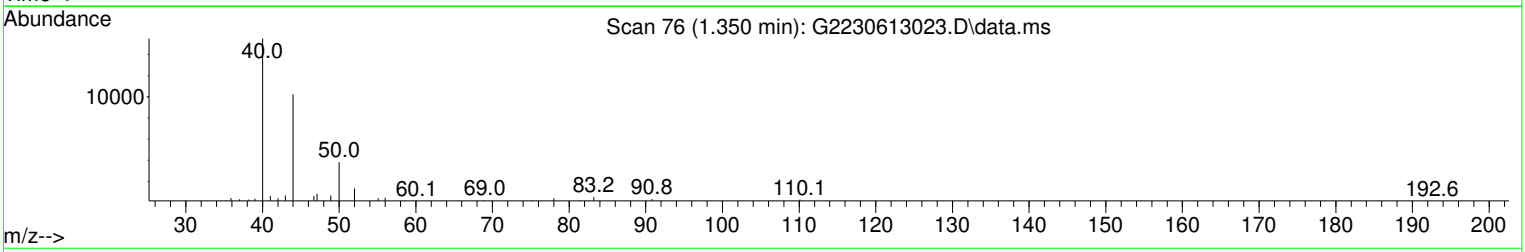
response 40816

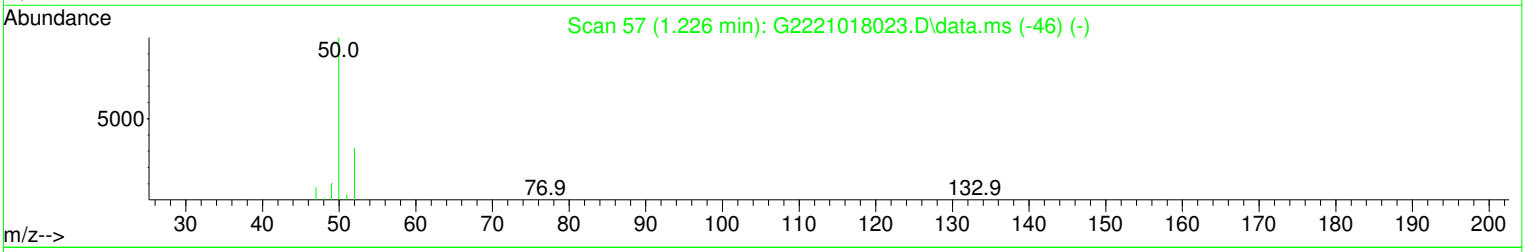
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613023.D
Acq On : 13 Jun 2023 17:56
Operator : PO1/MP3
Sample : 23F0136-08
Misc : 2
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 14 09:38:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613023.D\data.ms

(3) Chloromethane (TP)

1.350min (-0.004) 0.06 ug/L m

response 47697

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09	File ID:	G2230613024.D
Sampled:	06/01/23 14:56	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 18:21
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.130	0.400	1.00	U
71-55-6	1,1,1-Trichloroethane		0.175	0.400	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.124	0.400	1.00	U
79-00-5	1,1,2-Trichloroethane		0.166	0.400	1.00	U
75-34-3	1,1-Dichloroethane		0.134	0.400	1.00	U
75-35-4	1,1-Dichloroethene		0.191	0.400	1.00	U
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.204	0.400	1.00	U
96-18-4	1,2,3-Trichloropropane		0.183	0.400	1.00	U
120-82-1	1,2,4-Trichlorobenzene		0.205	0.600	1.20	U
95-63-6	1,2,4-Trimethylbenzene		0.132	0.400	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.260	1.00	2.00	U
106-93-4	1,2-Dibromoethane		0.106	0.400	1.00	U
95-50-1	1,2-Dichlorobenzene		0.126	0.400	1.00	U
107-06-2	1,2-Dichloroethane		0.212	0.600	1.20	U
78-87-5	1,2-Dichloropropane		0.205	0.600	1.20	U
108-67-8	1,3,5-Trimethylbenzene		0.100	0.400	1.00	U
541-73-1	1,3-Dichlorobenzene		0.145	0.400	1.00	U
142-28-9	1,3-Dichloropropane		0.136	0.400	1.00	U
106-46-7	1,4-Dichlorobenzene		0.184	0.400	1.00	U
594-20-7	2,2-Dichloropropane		0.184	0.400	1.00	U
78-93-3	2-Butanone		0.660	1.40	3.50	U
95-49-8	2-Chlorotoluene		0.147	0.400	1.00	U
591-78-6	2-Hexanone		0.143	1.40	3.50	U
106-43-4	4-Chlorotoluene		0.184	0.400	1.00	U
99-87-6	4-Isopropyltoluene		0.140	0.400	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09	File ID:	G2230613024.D
Sampled:	06/01/23 14:56	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 18:21
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.270	1.40	3.50	U
67-64-1	Acetone		1.04	4.00	8.00	U
71-43-2	Benzene		0.101	0.400	1.00	U
108-86-1	Bromobenzene		0.170	0.400	1.00	U
74-97-5	Bromochloromethane		0.134	0.400	1.00	U
75-27-4	Bromodichloromethane		0.106	0.400	1.00	U
75-25-2	Bromoform		0.206	0.400	1.00	U
74-83-9	Bromomethane		0.320	1.00	2.00	U
75-15-0	Carbon disulfide		0.280	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.169	0.400	1.00	U
108-90-7	Chlorobenzene		0.130	0.400	1.00	U
75-00-3	Chloroethane		0.311	0.400	1.00	U
67-66-3	Chloroform		0.203	0.600	1.20	U
74-87-3	Chloromethane		0.384	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.205	0.600	1.20	U
10061-01-5	cis-1,3-Dichloropropene		0.117	0.400	1.00	U
124-48-1	Dibromochloromethane		0.152	0.400	1.00	U
74-95-3	Dibromomethane		0.163	0.400	1.00	U
75-71-8	Dichlorodifluoromethane		0.259	1.00	2.00	U
100-41-4	Ethylbenzene		0.0600	0.200	0.400	U
87-68-3	Hexachlorobutadiene		0.200	0.400	1.00	Q, S1, U
98-82-8	Isopropylbenzene		0.110	0.400	1.00	U
179601-23-1	m,p-Xylene		0.178	0.800	2.00	U
1634-04-4	Methyl tert-butyl ether		0.106	0.400	1.00	U
75-09-2	Methylene chloride		0.447	1.00	2.00	U
104-51-8	n-Butylbenzene		0.260	1.00	2.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW46

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-09	File ID:	G2230613024.D
Sampled:	06/01/23 14:56	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 18:21
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.126	0.400	1.00	U
91-20-3	Naphthalene		0.140	0.400	1.00	U
95-47-6	o-Xylene		0.0832	0.400	1.00	U
135-98-8	sec-Butylbenzene		0.120	0.400	1.00	U
100-42-5	Styrene		0.0906	0.200	0.400	U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	Q, S1, U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.171	0.400	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene	0.880	0.156	0.400	1.00	J, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride		0.258	1.00	2.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613024.D
Acq On : 13 Jun 2023 18:21
Operator : PO1/MP3
Sample : 23F0136-09
Misc : 2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 14 09:41:03 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

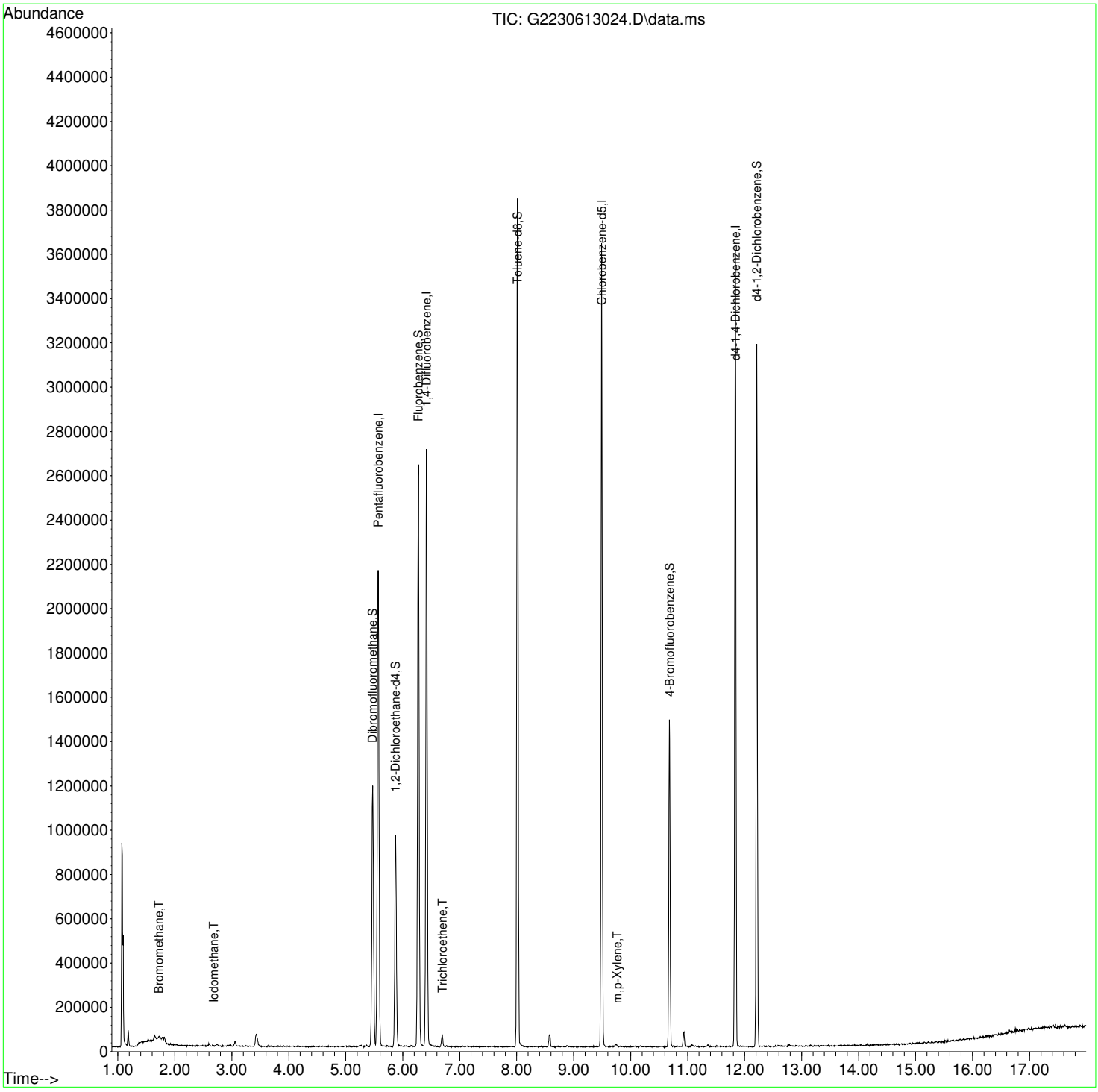
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17060211	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23384855	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20865223	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10096749	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7400175	19.71	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.55%			
43) 1,2-Dichloroethane-d4	5.876	65	6789498	18.30	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.50%			
49) Fluorobenzene	6.277	96	25768613	19.34	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.70%			
64) Toluene-d8	8.015	98	25103573	19.09	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.45%			
81) 4-Bromofluorobenzene	10.684	174	4610419	9.67	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.70%			
97) d4-1,2-Dichlorobenzene	12.217	152	8992596	20.71	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.55%			
Target Compounds						Qvalue
5) Bromomethane	1.719	94	71006	0.06	ug/L #	84
13) Iodomethane	2.683	142	42873	0.11	ug/L #	41
18) Methylene chloride	3.060	49	97651	Below Cal		69
21) Methyl tert-butyl ether	3.433	73	732416	Below Cal		93
50) Trichloroethene	6.695	95	159743	0.44	ug/L	94
75) m,p-Xylene	9.767	91	28749	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342129

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613024.D
Acq On : 13 Jun 2023 18:21
Operator : PO1/MP3
Sample : 23F0136-09
Misc : 2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 14 09:41:03 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613024.D
Acq On : 13 Jun 2023 18:21
Operator : PO1/MP3
Sample : 23F0136-09
Misc : 2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 14 09:41:03 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

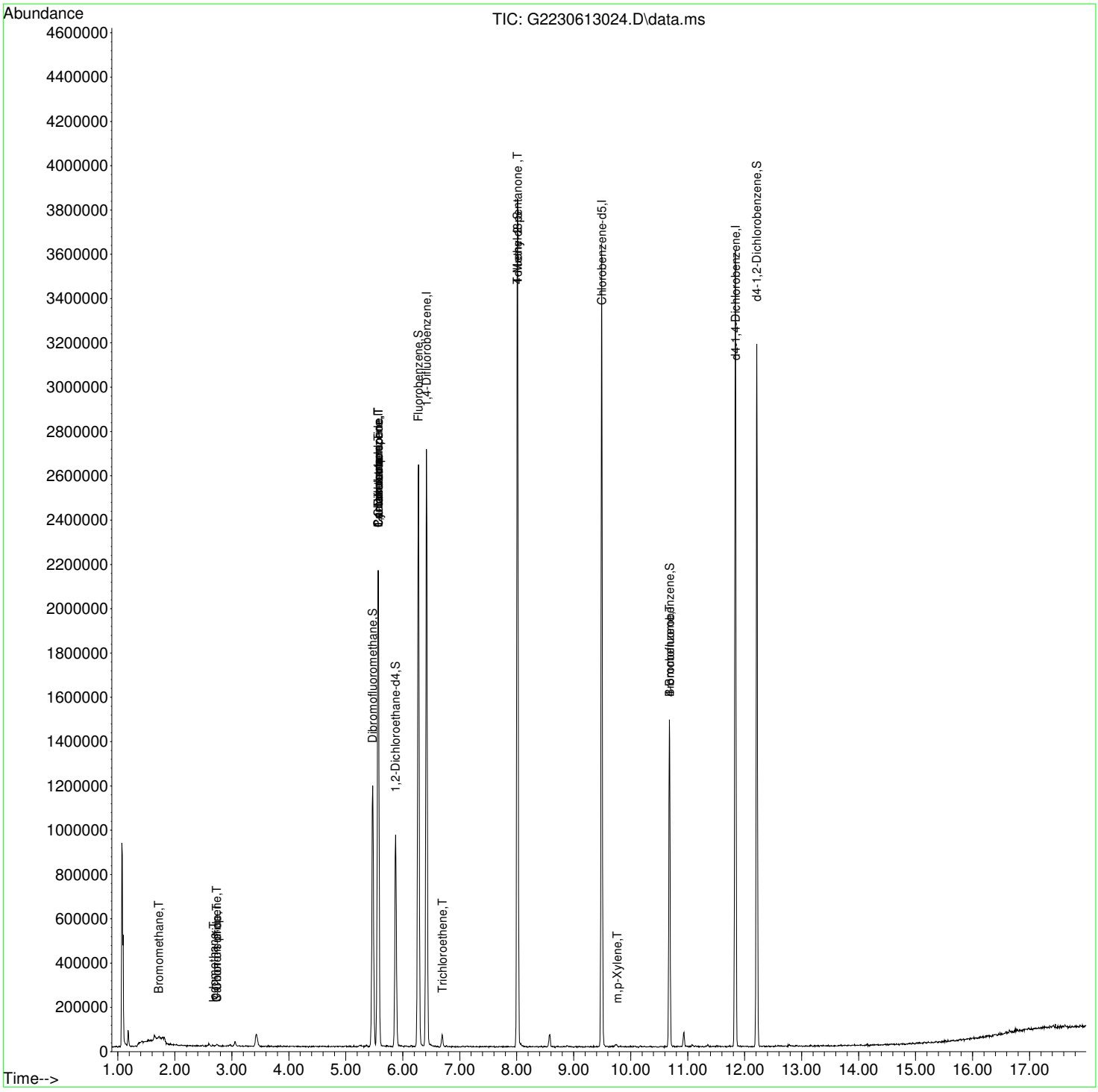
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	17060211	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.419	114	23384855	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.493	117	20865223	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10096749	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	7400175	19.71	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.55%				
43) 1,2-Dichloroethane-d4	5.876	65	6789498	18.30	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.50%				
49) Fluorobenzene	6.277	96	25768613	19.34	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.70%				
64) Toluene-d8	8.015	98	25103573	19.09	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.45%				
81) 4-Bromofluorobenzene	10.684	174	4610419	9.67	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.70%				
97) d4-1,2-Dichlorobenzene	12.217	152	8992596	20.71	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.55%				
Target Compounds							Qvalue
5) Bromomethane	1.719	94	71006	0.06	ug/L	#	84
12) Acetone	2.602	43	102441	Below Cal			79
13) Iodomethane	2.683	142	42873	0.11	ug/L	#	41
14) Carbon disulfide	2.735	76	117431	0.06	ug/L	#	74
17) 3-Chloro-1-propene	2.735	76	117429	0.61	ug/L	#	53
18) Methylene chloride	3.060	49	97651	Below Cal			69
21) Methyl tert-butyl ether	3.433	73	732416	Below Cal			93
40) Cyclohexane	5.567	84	358923	0.78	ug/L	#	35
41) 1-Chlorobutane	5.568	56	232447	0.44	ug/L	#	1
42) 1,1-Dichloropropene	5.568	75	909447	2.28	ug/L	#	38
47) Carbon tetrachloride	5.570	117	1388401	3.29	ug/L	#	16
50) Trichloroethene	6.695	95	159743	0.44	ug/L		94
60) 4-Methyl-2-pentanone	8.015	43	100843	0.00	ug/L	#	1
74) Ethylbenzene	9.767	91	28674	Below Cal		#	44
75) m,p-Xylene	9.767	91	28749	0.03	ug/L	#	36
82) Bromobenzene	10.685	77	28194	0.05	ug/L	#	1

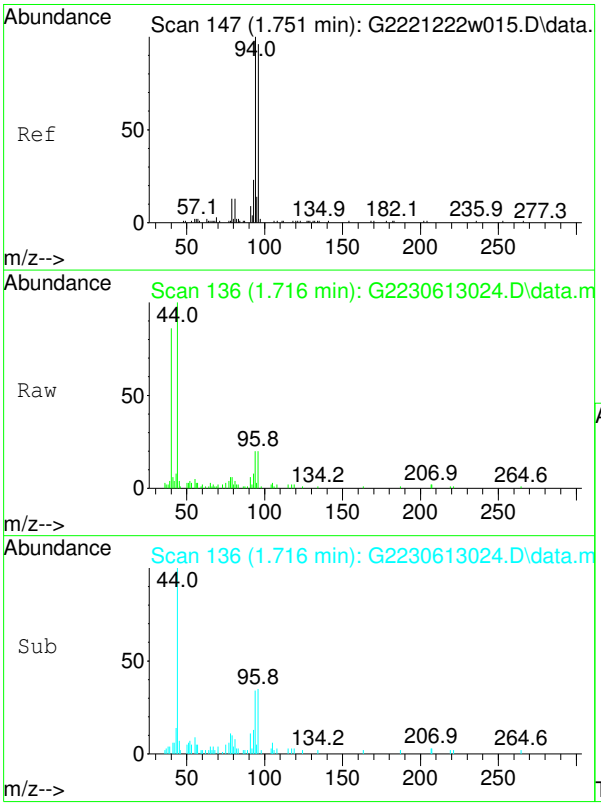
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342131

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613024.D
Acq On : 13 Jun 2023 18:21
Operator : PO1/MP3
Sample : 23F0136-09
Misc : 2
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 14 09:41:03 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

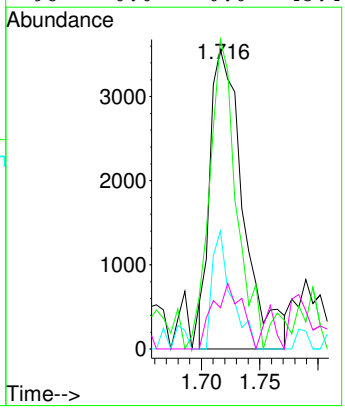


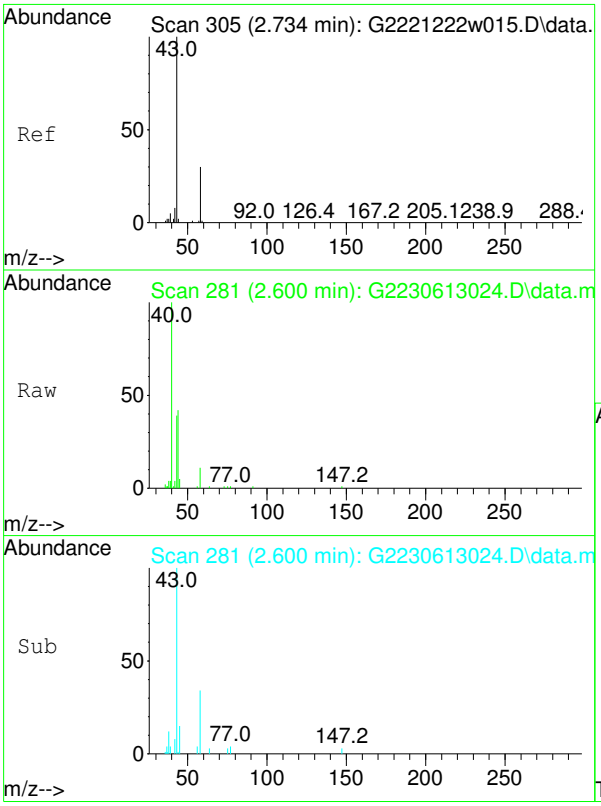


#5
Bromomethane
Concen: 0.06 ug/L
RT: 1.719 min Scan# 136
Delta R.T. 0.005 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 94 Resp: 71006

Ion	Ratio	Lower	Upper
94	100		
96	82.8	65.6	125.6
93	26.3	0.0	49.5
95	0.0	0.0	43.4

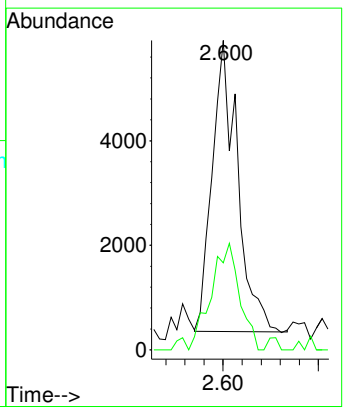


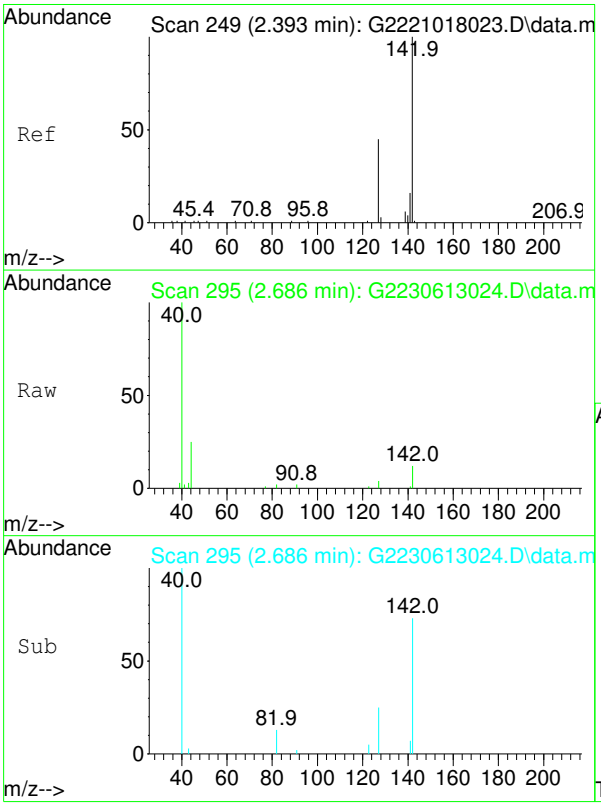


#12
Acetone
Concen: Below Cal
RT: 2.602 min Scan# 281
Delta R.T. -0.006 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 43 Resp: 102441

Ion	Ratio	Lower	Upper
43	100		
58	41.2	0.0	59.7

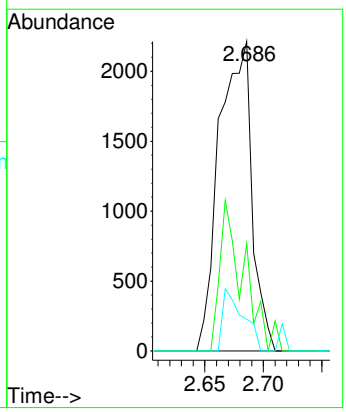


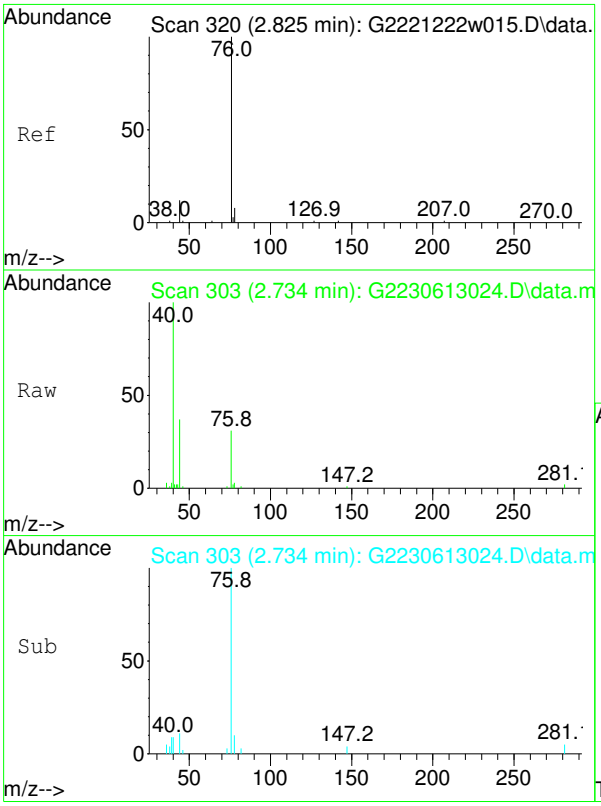


#13
Iodomethane
Concen: 0.11 ug/L
RT: 2.683 min Scan# 295
Delta R.T. 0.007 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion:142 Resp: 42873

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

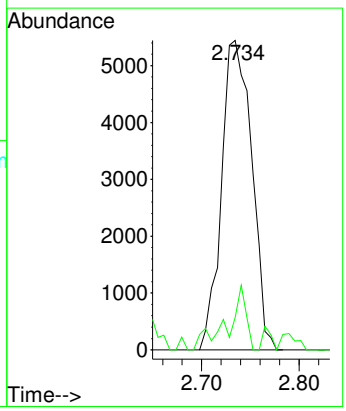


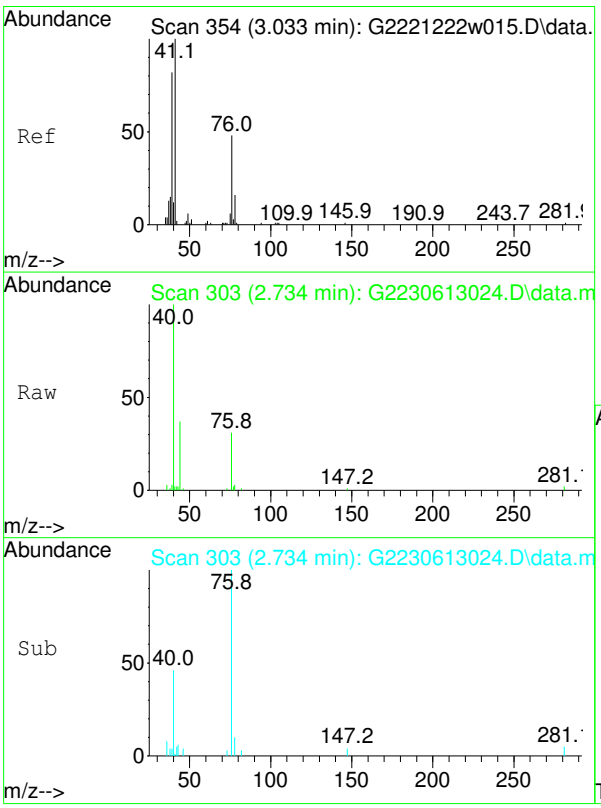


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.735 min Scan# 303
Delta R.T. -0.004 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 76 Resp: 117431

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

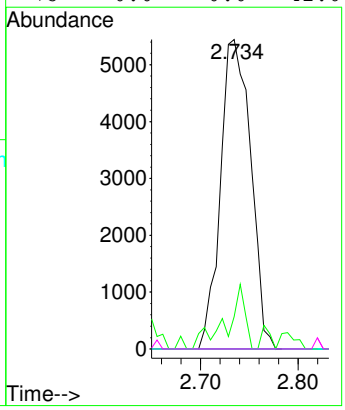


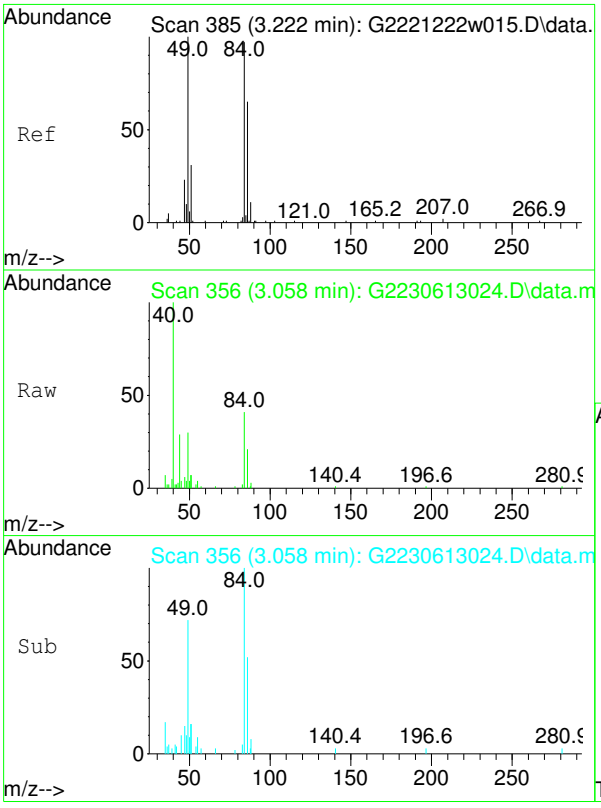


#17
3-Chloro-1-propene
Concen: 0.61 ug/L
RT: 2.735 min Scan# 303
Delta R.T. -0.185 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 76 Resp: 117429

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

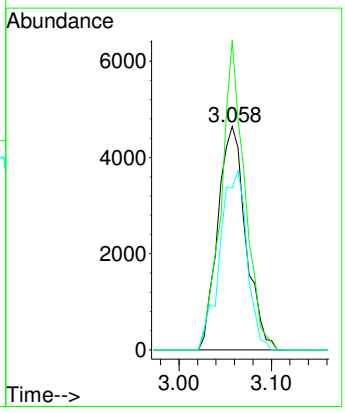


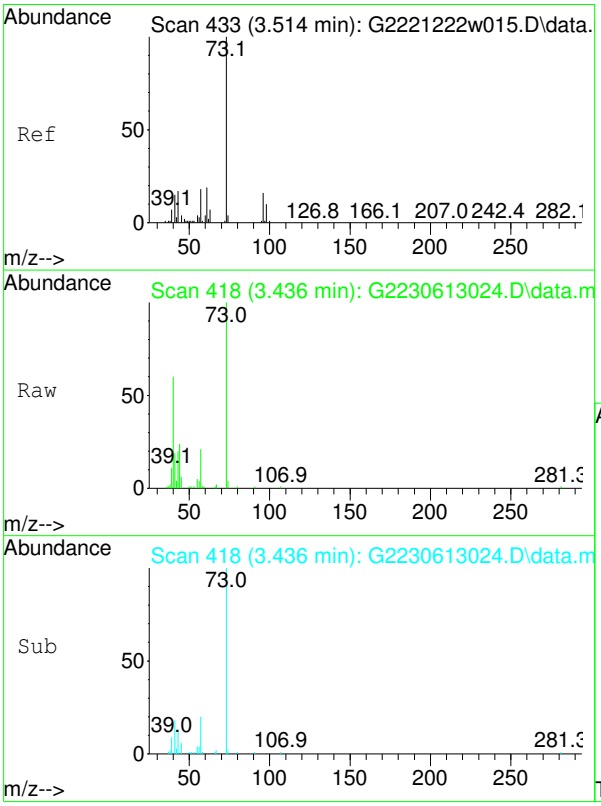


#18
Methylene chloride
Concen: Below Cal
RT: 3.060 min Scan# 356
Delta R.T. -0.002 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 49 Resp: 97651

Ion	Ratio	Lower	Upper
49	100		
84	116.4	57.9	117.9
86	77.7	24.9	84.9

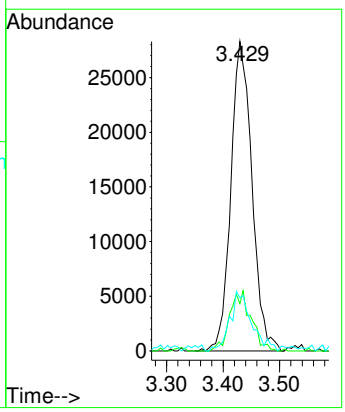


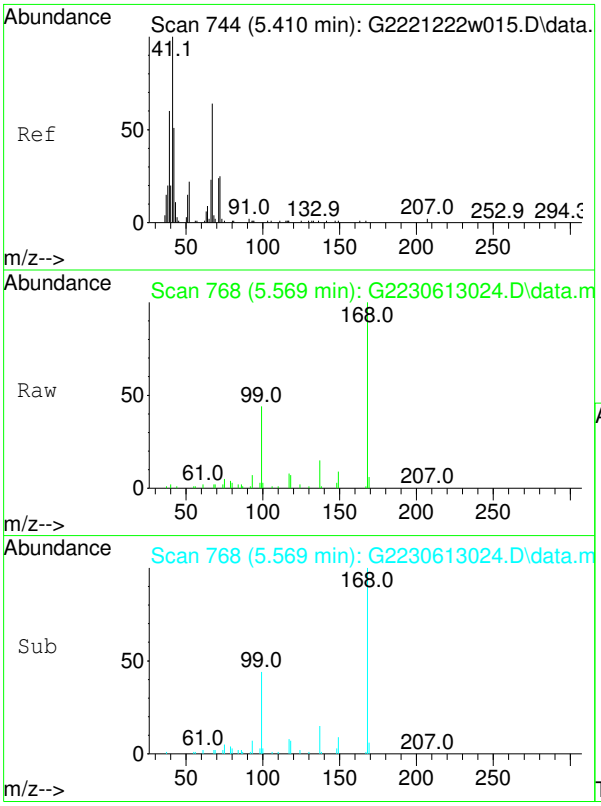


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.433 min Scan# 418
Delta R.T. -0.013 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 73 Resp: 732416

Ion	Ratio	Lower	Upper
73	100		
57	19.6	0.0	51.7
41	15.7	0.0	50.6

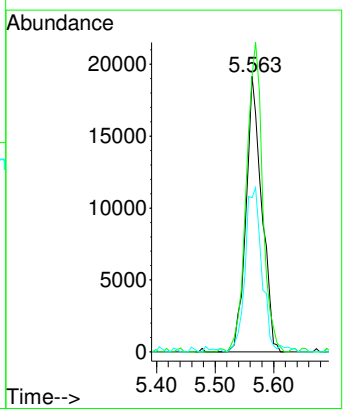


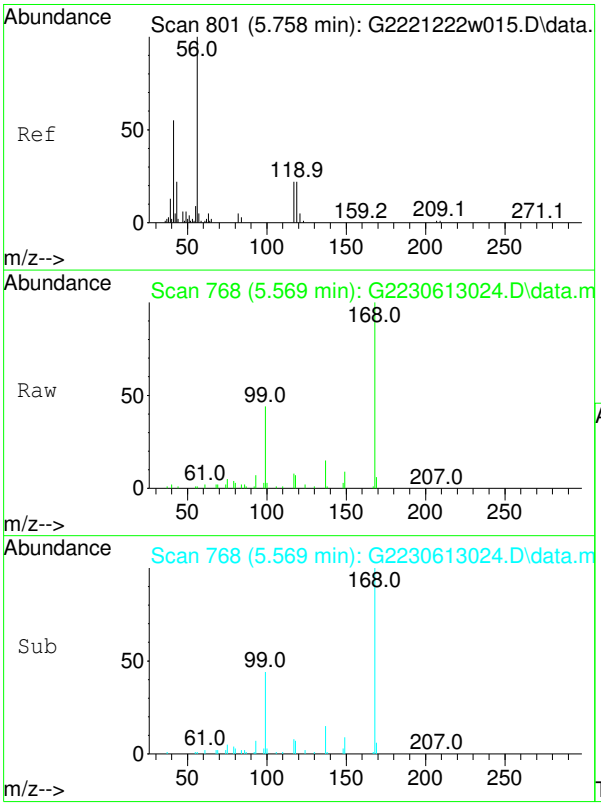


#40
Cyclohexane
Concen: 0.78 ug/L
RT: 5.567 min Scan# 768
Delta R.T. 0.033 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 84 Resp: 358923

Ion	Ratio	Lower	Upper
84	100		
69	114.5	6.8	66.8#
56	63.6	79.1	139.1#

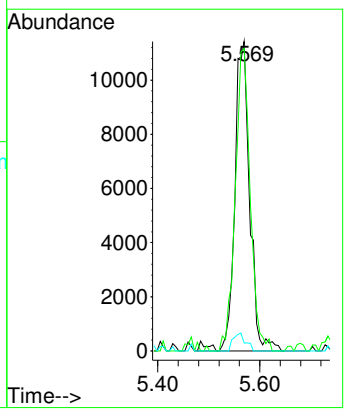


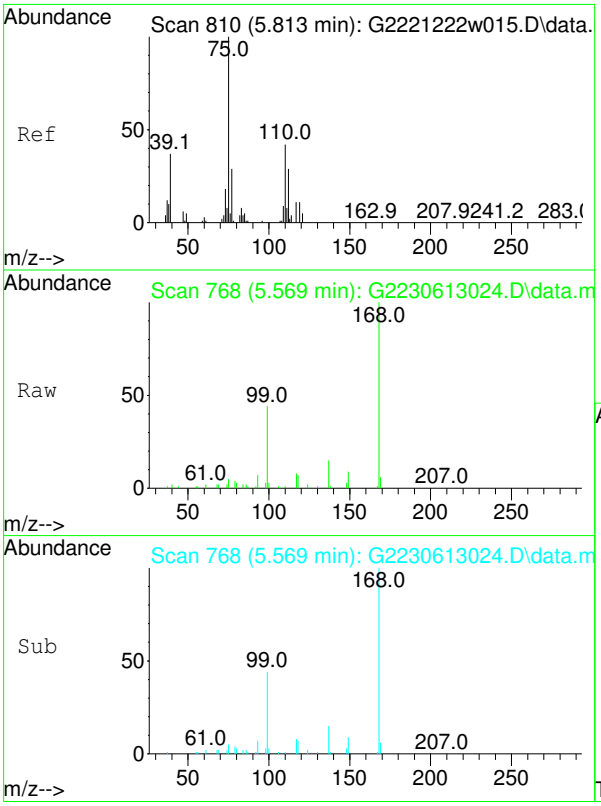


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.062 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 56 Resp: 232447

Ion	Ratio	Lower	Upper
56	100		
55	98.1	0.0	41.0#
57	0.0	0.0	35.7

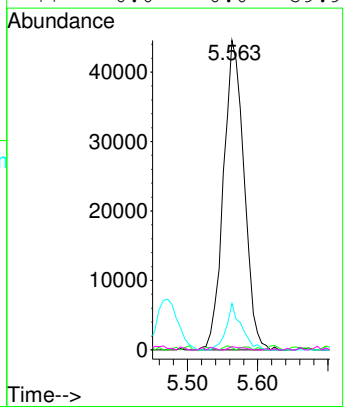


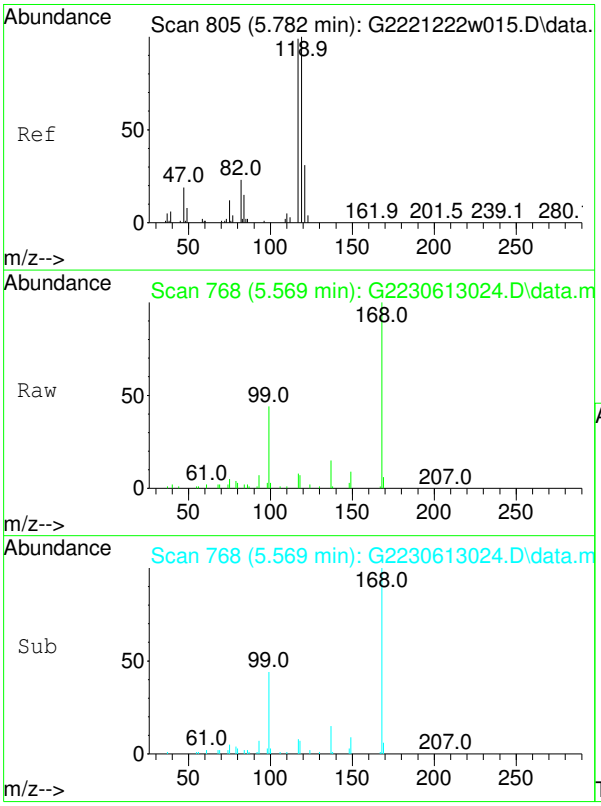


#42
1,1-Dichloropropene
Concen: 2.28 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 75 Resp: 909447

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.1	9.1	69.1
77	0.0	0.0	59.9

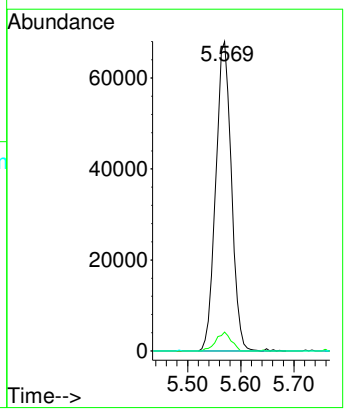


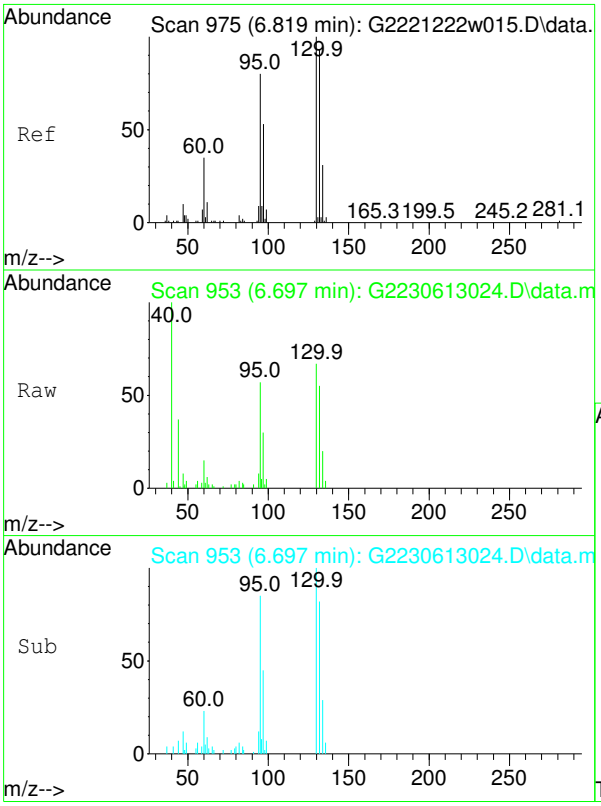


#47
Carbon tetrachloride
Concen: 3.29 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion:117 Resp: 1388401

Ion	Ratio	Lower	Upper
117	100		
119	5.9	66.4	126.4#
121	0.0	0.4	60.4#

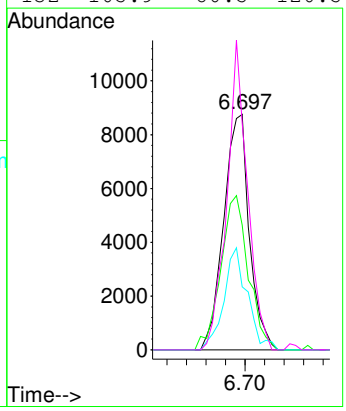


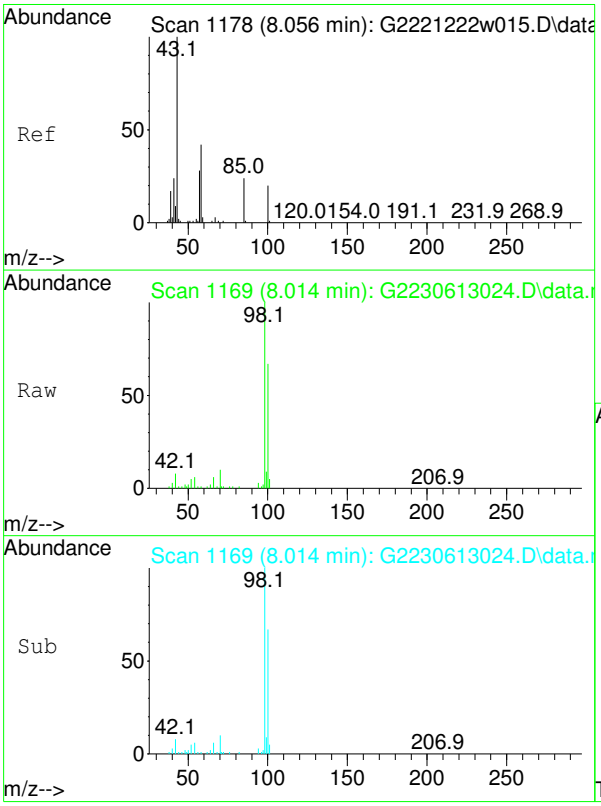


#50
Trichloroethene
Concen: 0.44 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 95 Resp: 159743

Ion	Ratio	Lower	Upper
95	100		
97	70.6	35.5	95.5
60	39.8	14.8	74.8
132	105.9	80.5	120.5

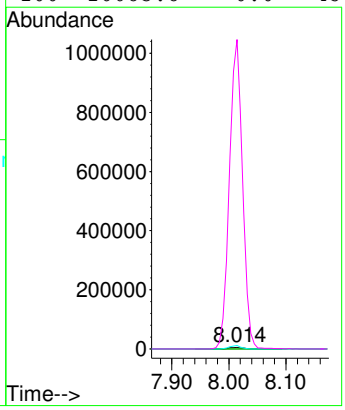


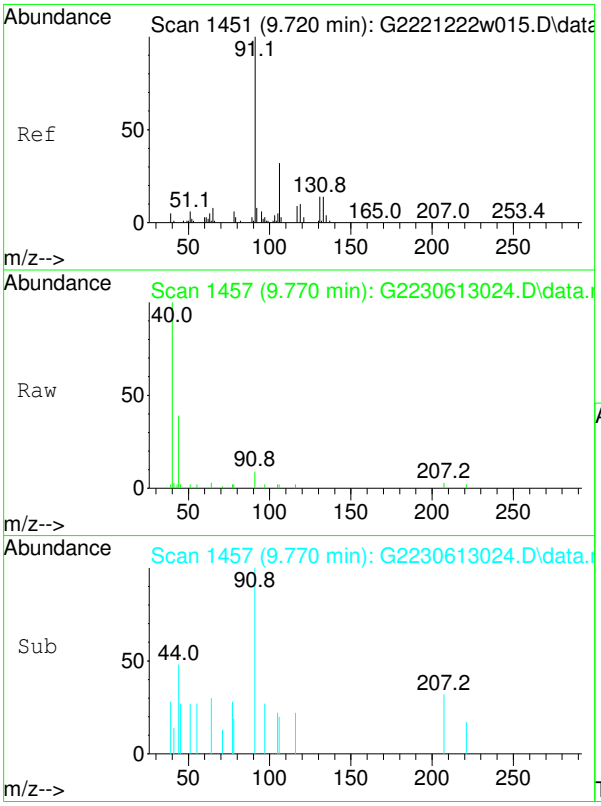


#60
4-Methyl-2-pentanone
Concen: 0.00 ug/L
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 43 Resp: 100843

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	166.8	37.0	37.0#
100	16683.8	0.0	45.2#

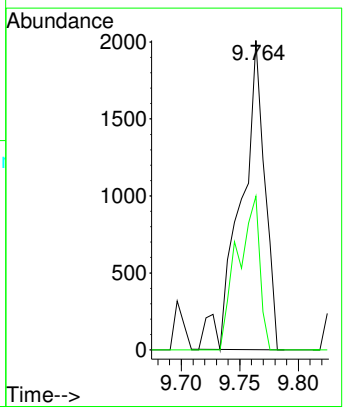


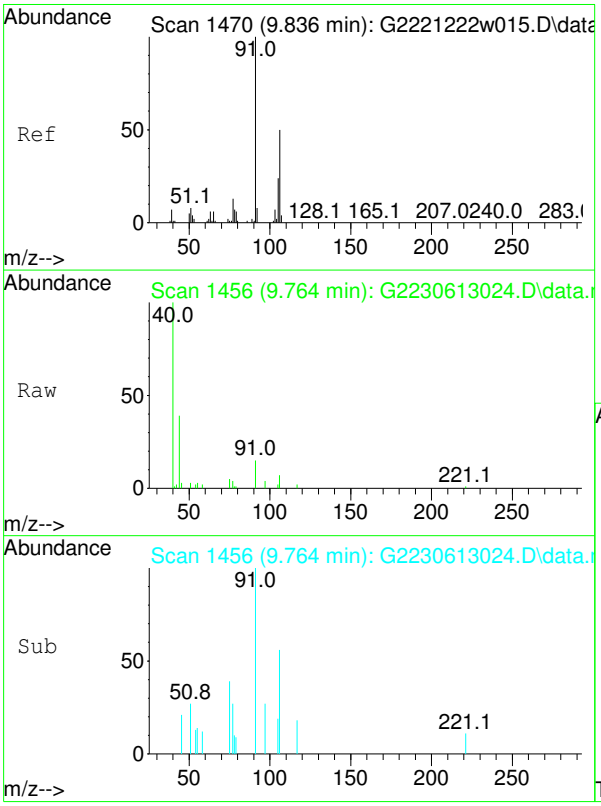


#74
Ethylbenzene
Concen: Below Cal
RT: 9.767 min Scan# 1457
Delta R.T. 0.124 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 91 Resp: 28674

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

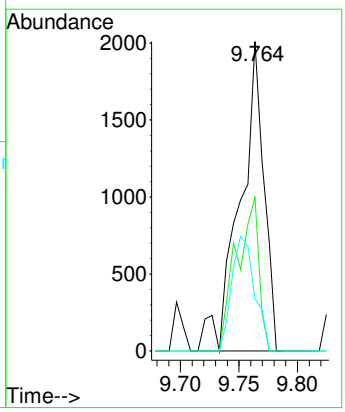


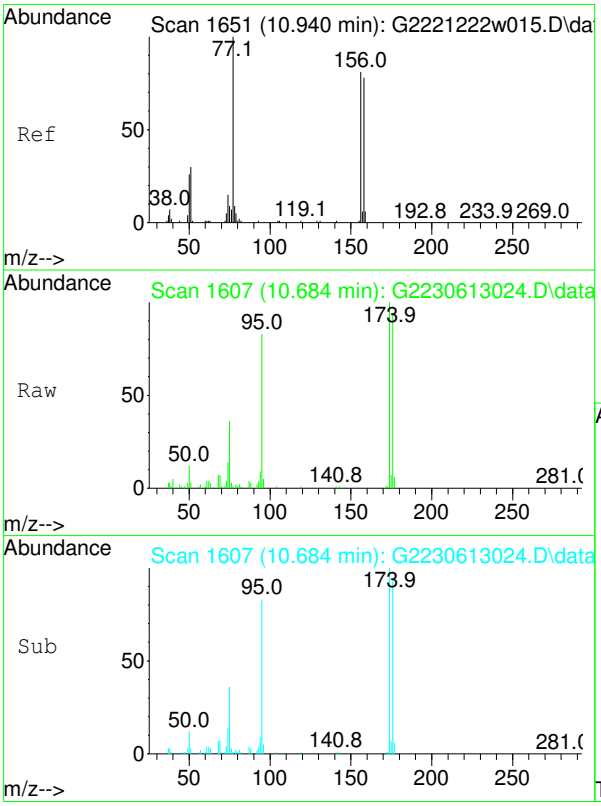


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.767 min Scan# 1456
Delta R.T. 0.003 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 91 Resp: 28749

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

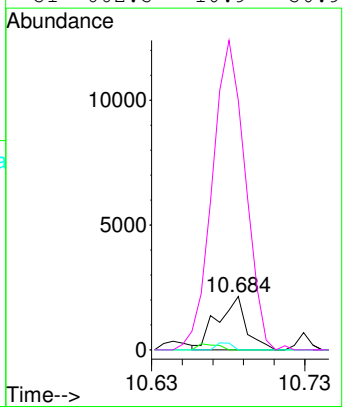




#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.685 min Scan# 1607
Delta R.T. -0.143 min
Lab File: G2230613024.D
Acq: 13 Jun 2023 18:21

Tgt Ion: 77 Resp: 28194

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	662.5	10.9	50.9#



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10	File ID:	G2230613010.D
Sampled:	05/31/23 10:11	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 12:25
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.650	2.00	5.00	U
71-55-6	1,1,1-Trichloroethane		0.877	2.00	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.621	2.00	5.00	U
79-00-5	1,1,2-Trichloroethane		0.832	2.00	5.00	U
75-34-3	1,1-Dichloroethane		0.669	2.00	5.00	U
75-35-4	1,1-Dichloroethene		0.954	2.00	5.00	U
563-58-6	1,1-Dichloropropene		0.699	2.00	5.00	U
87-61-6	1,2,3-Trichlorobenzene		1.02	2.00	5.00	U
96-18-4	1,2,3-Trichloropropane		0.913	2.00	5.00	U
120-82-1	1,2,4-Trichlorobenzene		1.02	3.00	6.00	U
95-63-6	1,2,4-Trimethylbenzene		0.661	2.00	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.30	5.00	10.0	U
106-93-4	1,2-Dibromoethane		0.531	2.00	5.00	U
95-50-1	1,2-Dichlorobenzene		0.630	2.00	5.00	U
107-06-2	1,2-Dichloroethane		1.06	3.00	6.00	U
78-87-5	1,2-Dichloropropane		1.02	3.00	6.00	U
108-67-8	1,3,5-Trimethylbenzene		0.500	2.00	5.00	U
541-73-1	1,3-Dichlorobenzene		0.724	2.00	5.00	U
142-28-9	1,3-Dichloropropane		0.680	2.00	5.00	U
106-46-7	1,4-Dichlorobenzene		0.920	2.00	5.00	U
594-20-7	2,2-Dichloropropane		0.920	2.00	5.00	U
78-93-3	2-Butanone		3.30	7.00	17.5	U
95-49-8	2-Chlorotoluene		0.733	2.00	5.00	U
591-78-6	2-Hexanone		0.716	7.00	17.5	U
106-43-4	4-Chlorotoluene		0.921	2.00	5.00	U
99-87-6	4-Isopropyltoluene		0.700	2.00	5.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10	File ID:	G2230613010.D
Sampled:	05/31/23 10:11	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 12:25
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		1.35	7.00	17.5	U
67-64-1	Acetone		5.18	20.0	40.0	U
71-43-2	Benzene		0.507	2.00	5.00	U
108-86-1	Bromobenzene		0.848	2.00	5.00	U
74-97-5	Bromochloromethane		0.669	2.00	5.00	U
75-27-4	Bromodichloromethane		0.531	2.00	5.00	U
75-25-2	Bromoform		1.03	2.00	5.00	U
74-83-9	Bromomethane		1.60	5.00	10.0	U
75-15-0	Carbon disulfide		1.40	5.00	10.0	U
56-23-5	Carbon tetrachloride		0.844	2.00	5.00	U
108-90-7	Chlorobenzene		0.650	2.00	5.00	U
75-00-3	Chloroethane		1.55	2.00	5.00	U
67-66-3	Chloroform		1.01	3.00	6.00	U
74-87-3	Chloromethane		1.92	5.00	10.0	U
156-59-2	cis-1,2-Dichloroethene		1.03	3.00	6.00	U
10061-01-5	cis-1,3-Dichloropropene		0.587	2.00	5.00	U
124-48-1	Dibromochloromethane		0.759	2.00	5.00	U
74-95-3	Dibromomethane		0.817	2.00	5.00	U
75-71-8	Dichlorodifluoromethane		1.30	5.00	10.0	U
100-41-4	Ethylbenzene		0.300	1.00	2.00	U
87-68-3	Hexachlorobutadiene		1.00	2.00	5.00	U
98-82-8	Isopropylbenzene		0.549	2.00	5.00	U
179601-23-1	m,p-Xylene		0.889	4.00	10.0	U
1634-04-4	Methyl tert-butyl ether		0.530	2.00	5.00	U
75-09-2	Methylene chloride		2.24	5.00	10.0	U
104-51-8	n-Butylbenzene		1.30	5.00	10.0	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW38

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-10	File ID:	G2230613010.D
Sampled:	05/31/23 10:11	Prepared:	06/13/23 08:00	Analyzed:	06/13/23 12:25
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0366	Sequence:	S3F0222	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.630	2.00	5.00	U
91-20-3	Naphthalene		0.700	2.00	5.00	U
95-47-6	o-Xylene		0.416	2.00	5.00	U
135-98-8	sec-Butylbenzene		0.598	2.00	5.00	U
100-42-5	Styrene		0.453	1.00	2.00	U
98-06-6	tert-Butylbenzene		0.453	2.00	5.00	U
127-18-4	Tetrachloroethene		1.78	5.00	10.0	U
108-88-3	Toluene		0.572	2.00	5.00	U
156-60-5	trans-1,2-Dichloroethene		0.855	2.00	5.00	U
10061-02-6	trans-1,3-Dichloropropene		0.587	2.00	5.00	U
79-01-6	Trichloroethene		0.781	2.00	5.00	U
75-69-4	Trichlorofluoromethane		0.505	2.00	5.00	U
75-01-4	Vinyl chloride		1.29	5.00	10.0	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613010.D
Acq On : 13 Jun 2023 12:25
Operator : PO1/MP3
Sample : 23F0136-10
Misc : 10
ALS Vial : 10 Sample Multiplier: 1

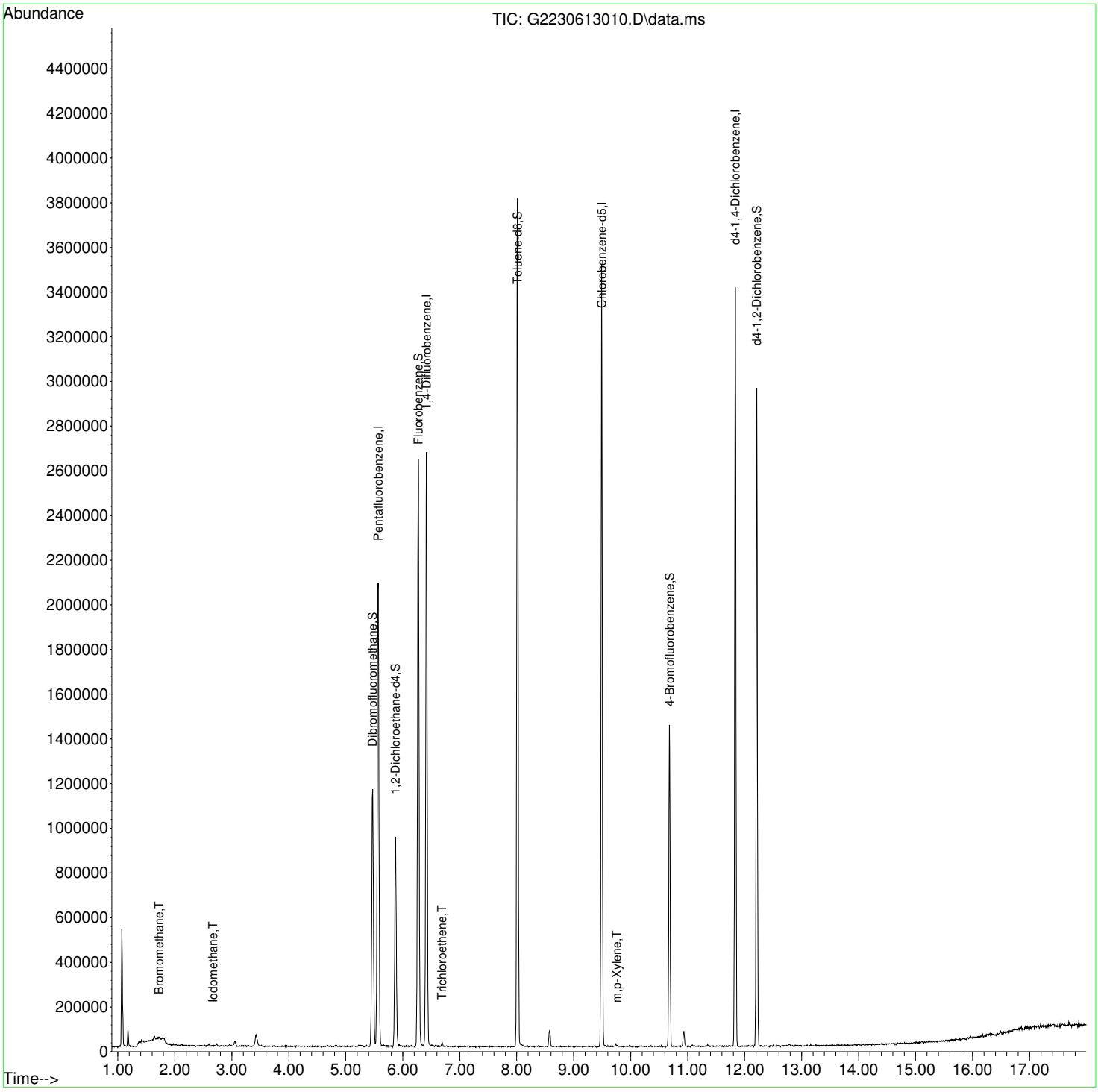
Quant Time: Jun 13 15:24:53 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	16819849	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23150488	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20379865	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9721938	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7294805	19.71	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.55%			
43) 1,2-Dichloroethane-d4	5.875	65	6582843	18.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.00%			
49) Fluorobenzene	6.275	96	25483557	19.32	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.60%			
64) Toluene-d8	8.015	98	24910900	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
81) 4-Bromofluorobenzene	10.684	174	4457685	9.71	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.10%			
97) d4-1,2-Dichlorobenzene	12.216	152	8452128	20.22	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.10%			
Target Compounds						Qvalue
5) Bromomethane	1.720	94	64062	0.03	ug/L #	69
12) Acetone	2.601	43	61492	Below Cal	#	45
13) Iodomethane	2.669	142	43291	0.11	ug/L #	41
18) Methylene chloride	3.058	49	103546	Below Cal	#	60
21) Methyl tert-butyl ether	3.427	73	686900	Below Cal		98
50) Trichloroethene	6.693	95	47003	0.07	ug/L #	77
75) m,p-Xylene	9.760	91	33695	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613010.D
Acq On : 13 Jun 2023 12:25
Operator : PO1/MP3
Sample : 23F0136-10
Misc : 10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 13 15:24:53 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613010.D
Acq On : 13 Jun 2023 12:25
Operator : PO1/MP3
Sample : 23F0136-10
Misc : 10
ALS Vial : 10 Sample Multiplier: 1

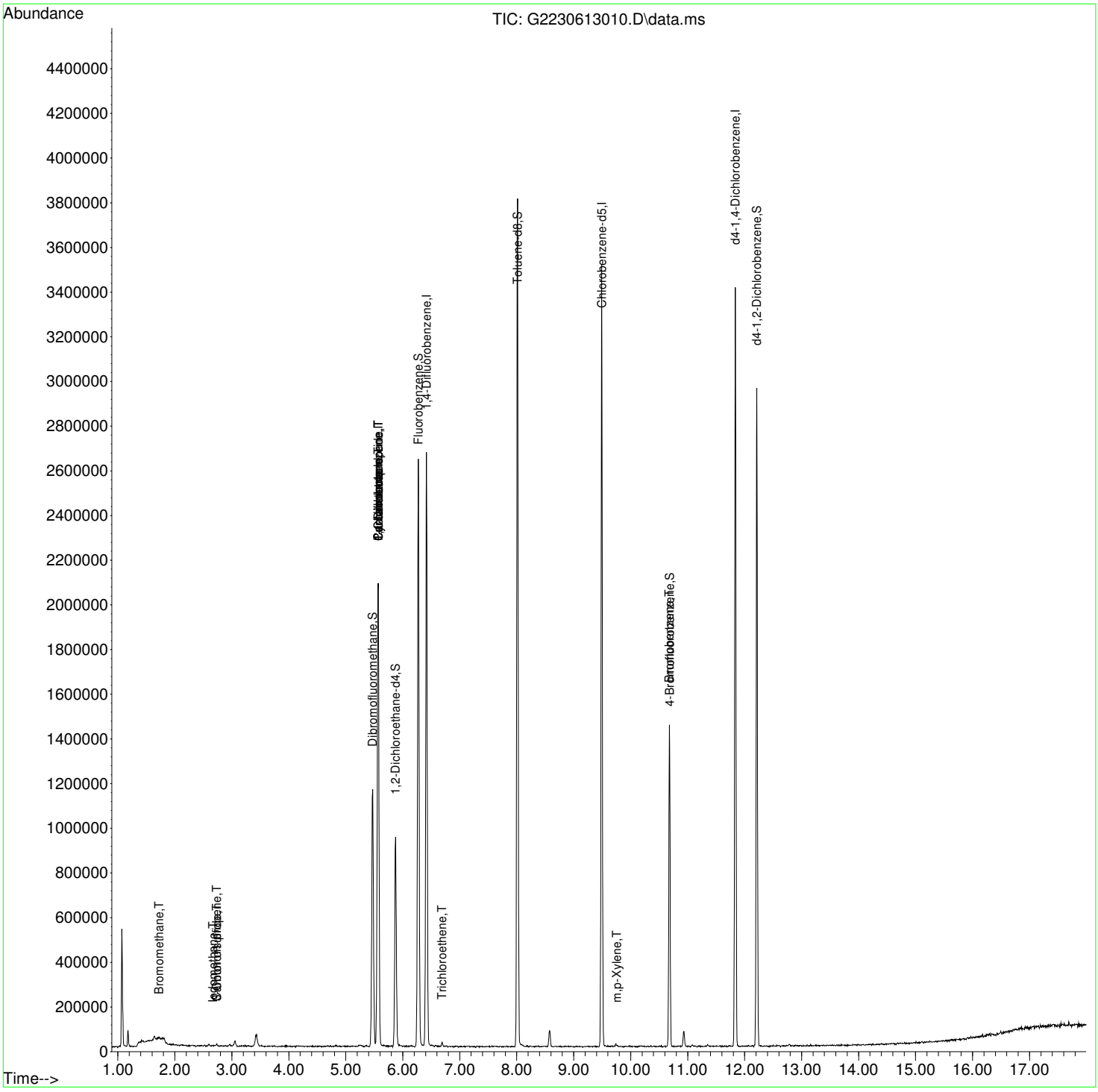
Quant Time: Jun 13 15:24:53 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

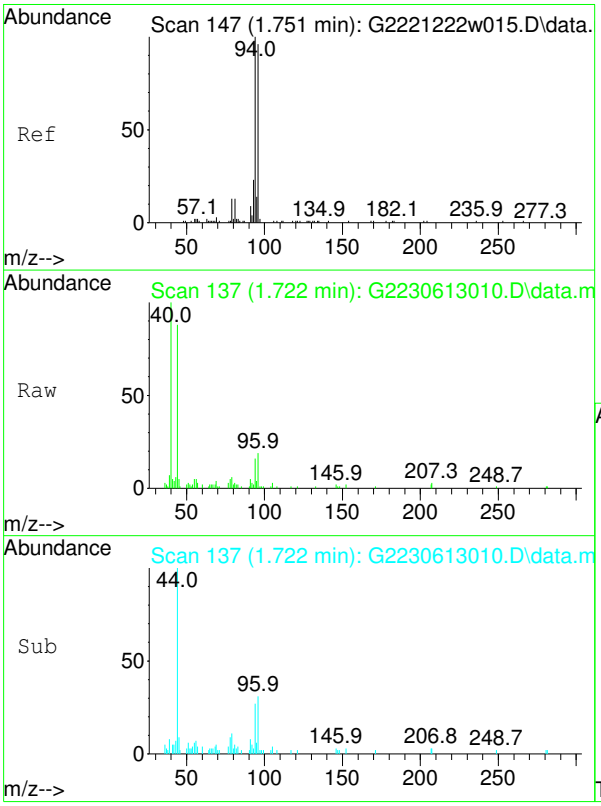
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	16819849	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23150488	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20379865	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9721938	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7294805	19.71	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.55%			
43) 1,2-Dichloroethane-d4	5.875	65	6582843	18.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.00%			
49) Fluorobenzene	6.275	96	25483557	19.32	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.60%			
64) Toluene-d8	8.015	98	24910900	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
81) 4-Bromofluorobenzene	10.684	174	4457685	9.71	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.10%			
97) d4-1,2-Dichlorobenzene	12.216	152	8452128	20.22	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.10%			
Target Compounds						Qvalue
5) Bromomethane	1.720	94	64062	0.03	ug/L #	69
9) Acrolein	2.442	56	10078	Below Cal	#	20
12) Acetone	2.601	43	61492	Below Cal	#	45
13) Iodomethane	2.669	142	43291	0.11	ug/L #	41
14) Carbon disulfide	2.735	76	115102	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.735	76	115102	0.60	ug/L #	53
18) Methylene chloride	3.058	49	103546	Below Cal	#	60
21) Methyl tert-butyl ether	3.427	73	686900	Below Cal		98
36) Tetrahydrofuran	5.253	42	34634	Below Cal	#	30
40) Cyclohexane	5.572	84	364865	0.81	ug/L #	32
41) 1-Chlorobutane	5.568	56	215834	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.567	75	873222	2.21	ug/L #	38
47) Carbon tetrachloride	5.569	117	1368740	3.28	ug/L #	16
50) Trichloroethene	6.693	95	47003	0.07	ug/L #	77
60) 4-Methyl-2-pentanone	8.013	43	84728	Below Cal	#	1
74) Ethylbenzene	9.761	91	31658	Below Cal	#	44
75) m,p-Xylene	9.760	91	33695	0.03	ug/L #	36
82) Bromobenzene	10.680	77	33658	0.06	ug/L #	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613010.D
Acq On : 13 Jun 2023 12:25
Operator : PO1/MP3
Sample : 23F0136-10
Misc : 10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 13 15:24:53 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

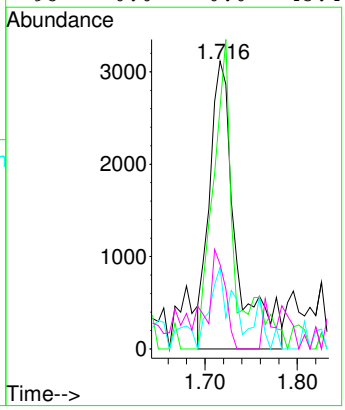


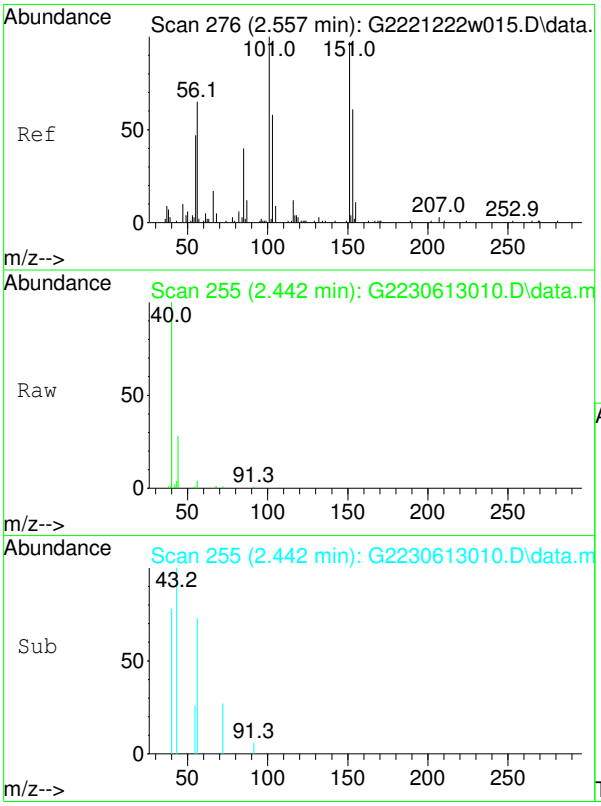


#5
Bromomethane
Concen: 0.03 ug/L
RT: 1.720 min Scan# 137
Delta R.T. 0.006 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 94 Resp: 64062

Ion	Ratio	Lower	Upper
94	100		
96	67.7	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

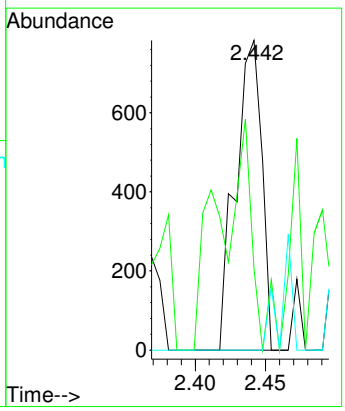


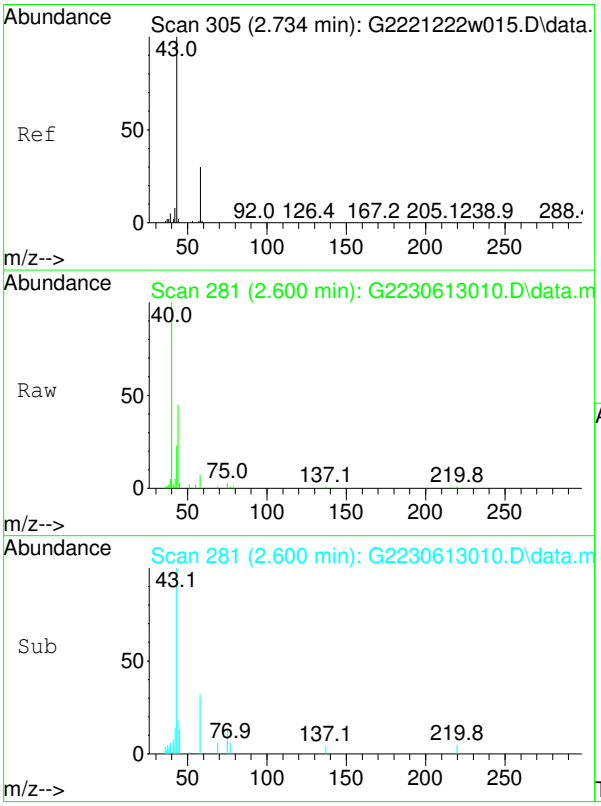


#9
Acrolein
Concen: Below Cal
RT: 2.442 min Scan# 255
Delta R.T. 0.003 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 56 Resp: 10078

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

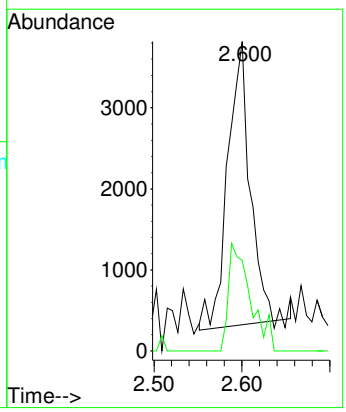


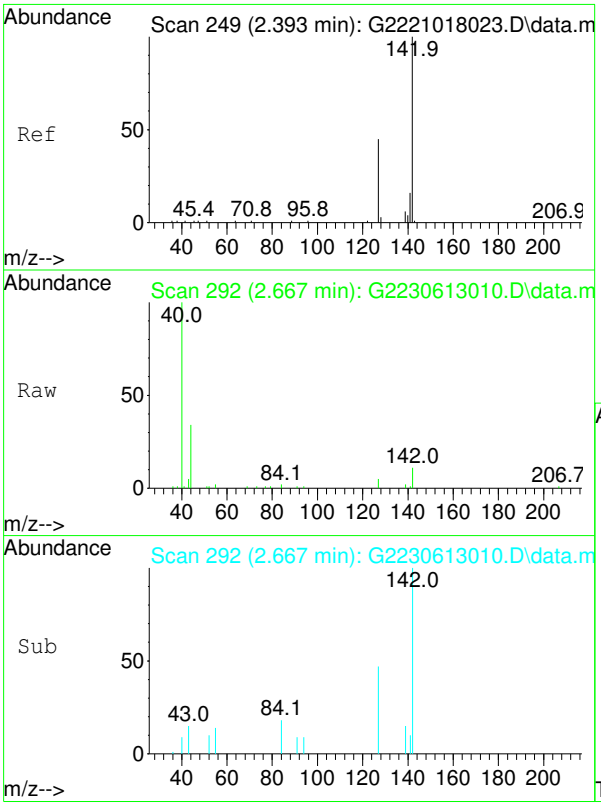


#12
Acetone
Concen: Below Cal
RT: 2.601 min Scan# 281
Delta R.T. -0.007 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 43 Resp: 61492

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

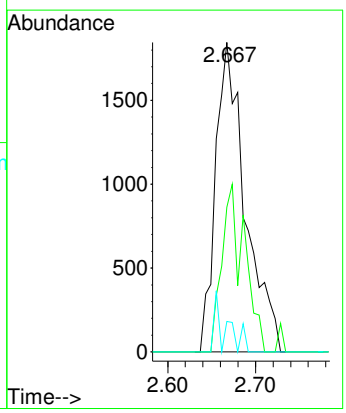


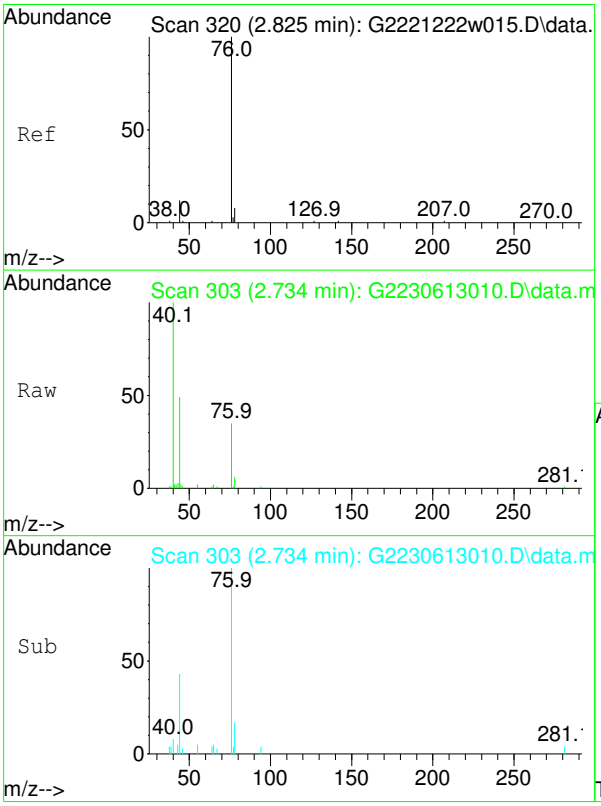


#13
Iodomethane
Concen: 0.11 ug/L
RT: 2.669 min Scan# 292
Delta R.T. -0.007 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion:142 Resp: 43291

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

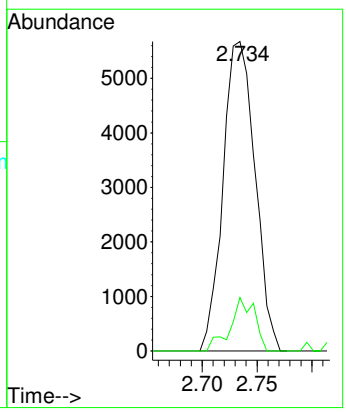


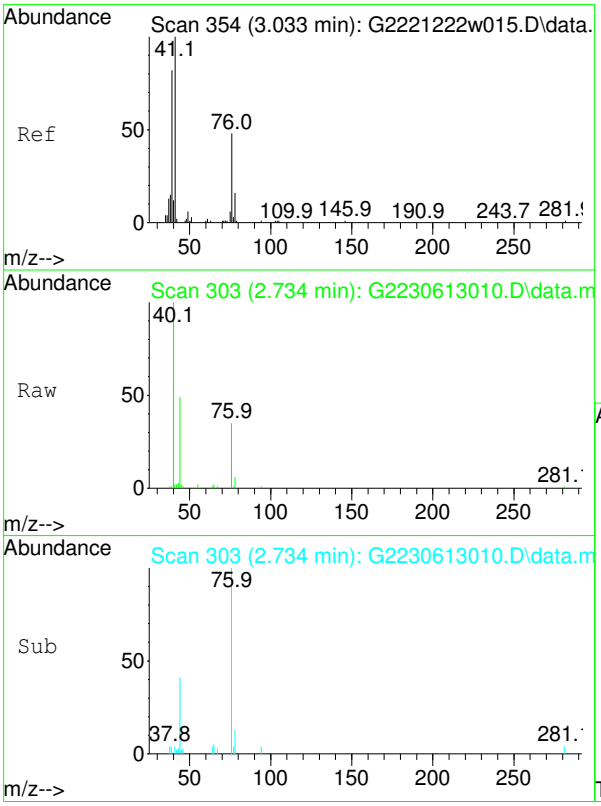


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.735 min Scan# 303
Delta R.T. -0.004 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 76 Resp: 115102

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

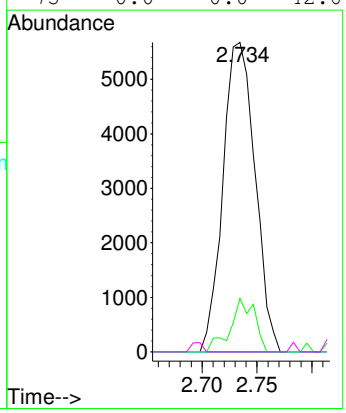


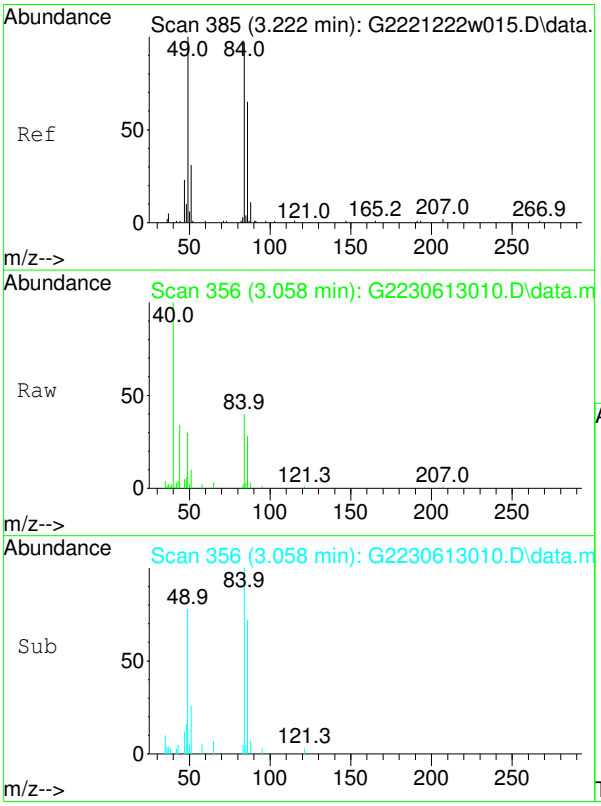


#17
3-Chloro-1-propene
Concen: 0.60 ug/L
RT: 2.735 min Scan# 303
Delta R.T. -0.185 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 76 Resp: 115102

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

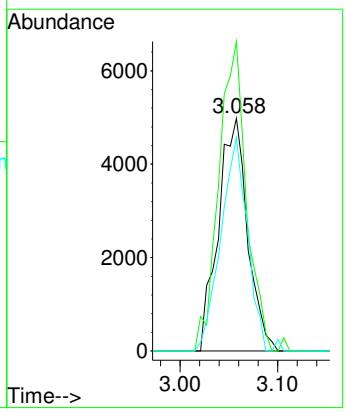


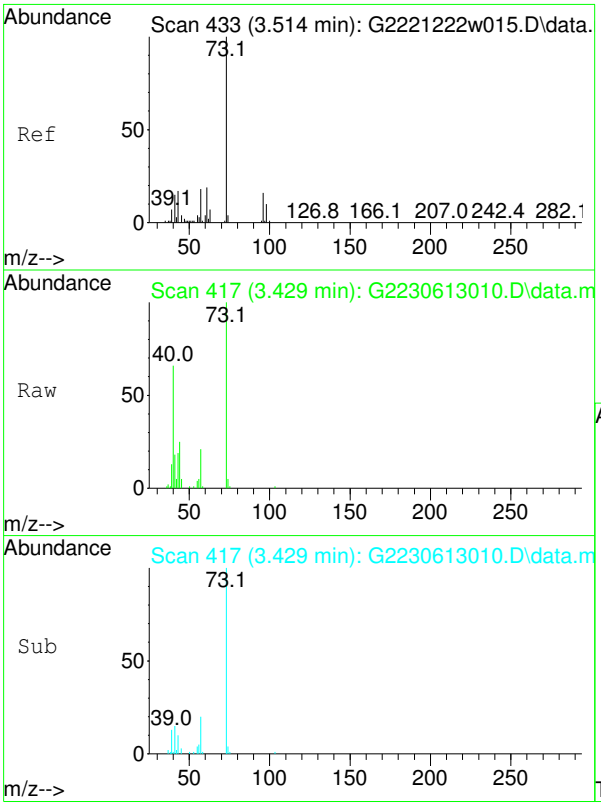


#18
Methylene chloride
Concen: Below Cal
RT: 3.058 min Scan# 356
Delta R.T. -0.004 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 49 Resp: 103546

Ion	Ratio	Lower	Upper
49	100		
84	125.5	57.9	117.9#
86	83.4	24.9	84.9

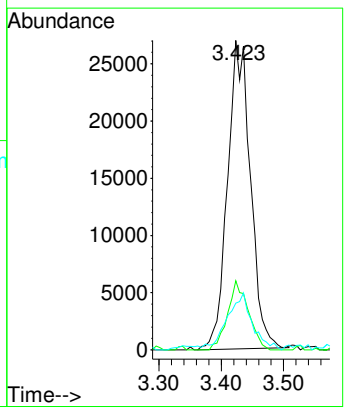


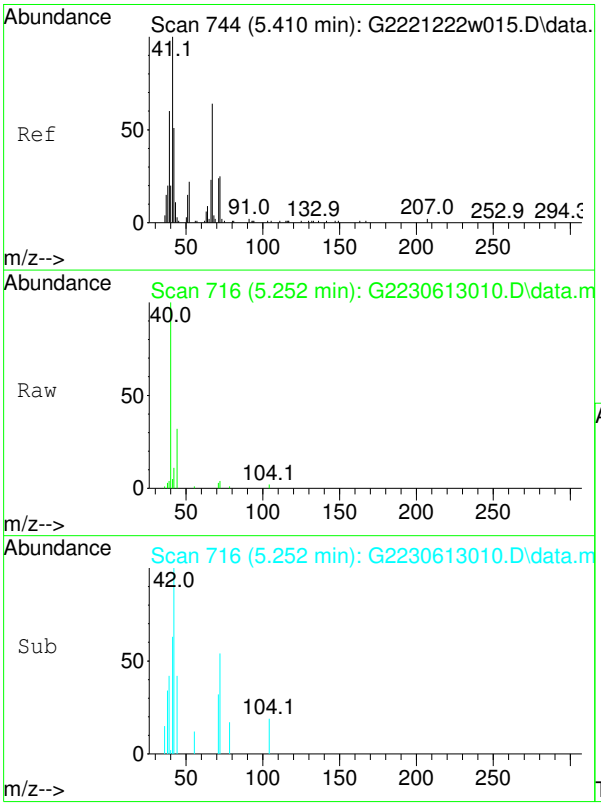


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.427 min Scan# 417
Delta R.T. -0.019 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 73 Resp: 686900

Ion	Ratio	Lower	Upper
73	100		
57	20.4	0.0	51.7
41	21.0	0.0	50.6

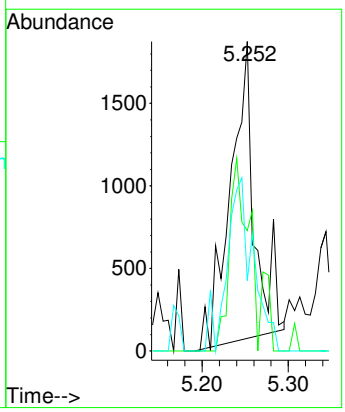


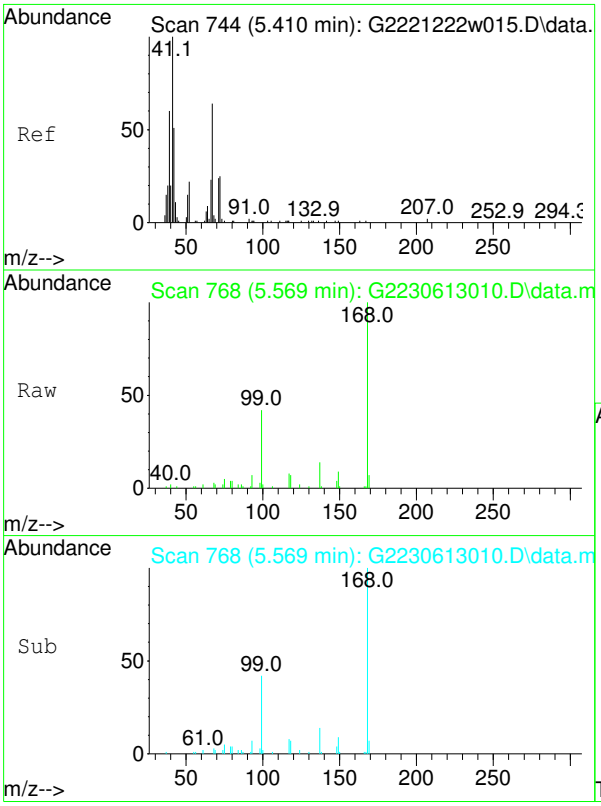


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.253 min Scan# 716
Delta R.T. -0.008 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 42 Resp: 34634

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

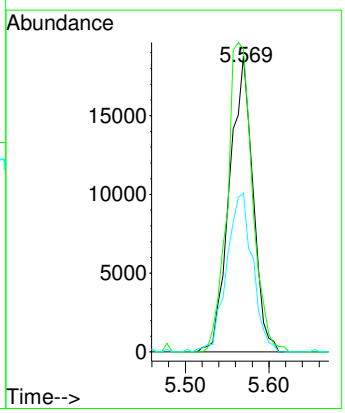


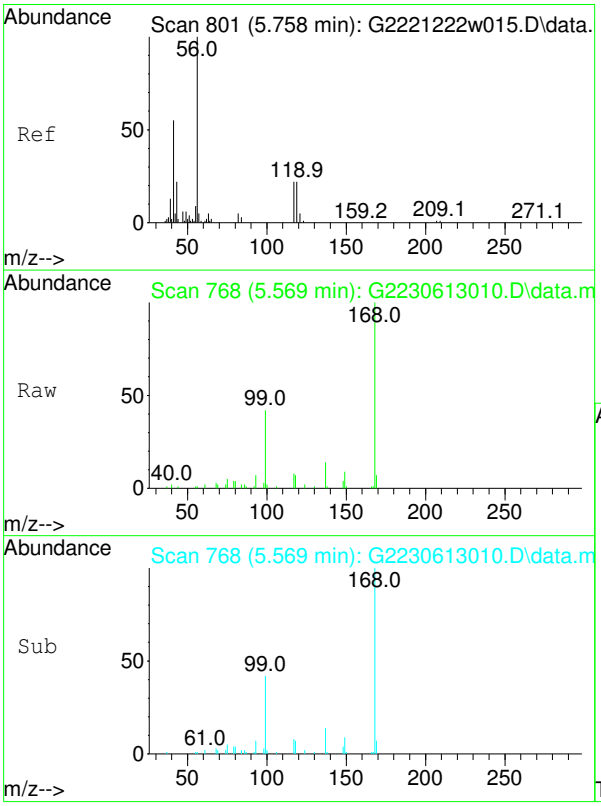


#40
Cyclohexane
Concen: 0.81 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 84 Resp: 364865

Ion	Ratio	Lower	Upper
84	100		
69	112.7	6.8	66.8#
56	59.2	79.1	139.1#

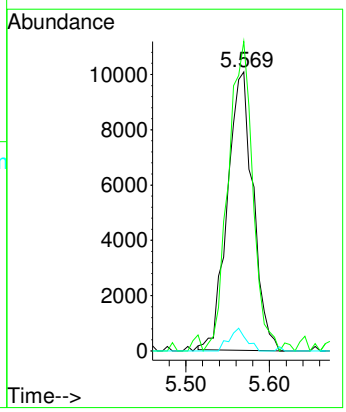


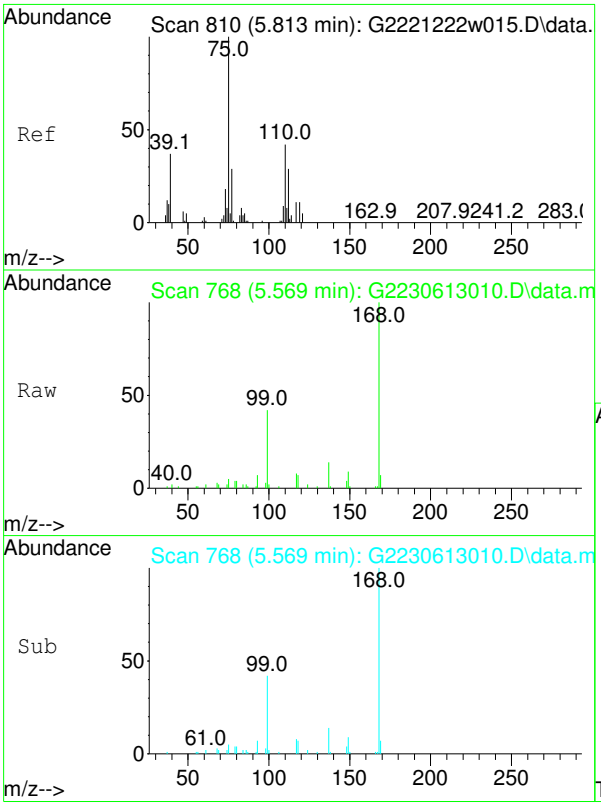


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.062 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 56 Resp: 215834

Ion	Ratio	Lower	Upper
56	100		
55	106.6	0.0	41.0#
57	0.0	0.0	35.7

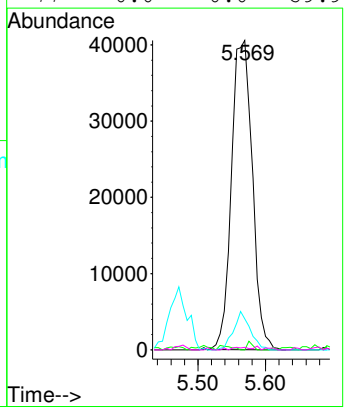


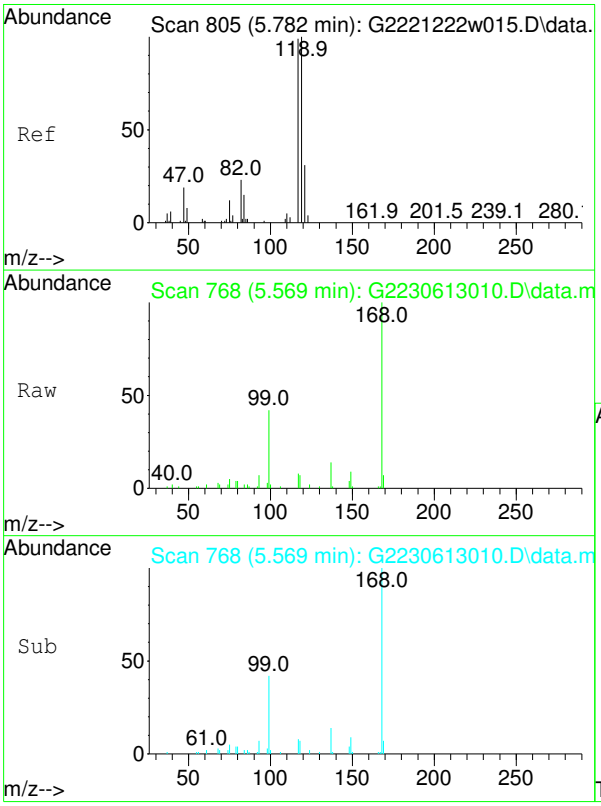


#42
1,1-Dichloropropene
Concen: 2.21 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.122 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 75 Resp: 873222

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	9.9	9.1	69.1
77	0.0	0.0	59.9

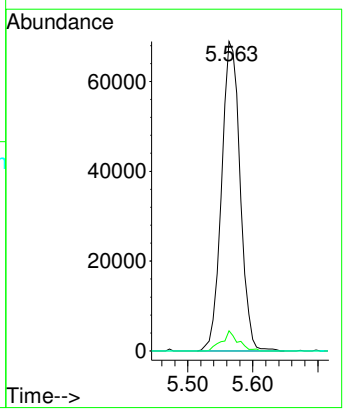


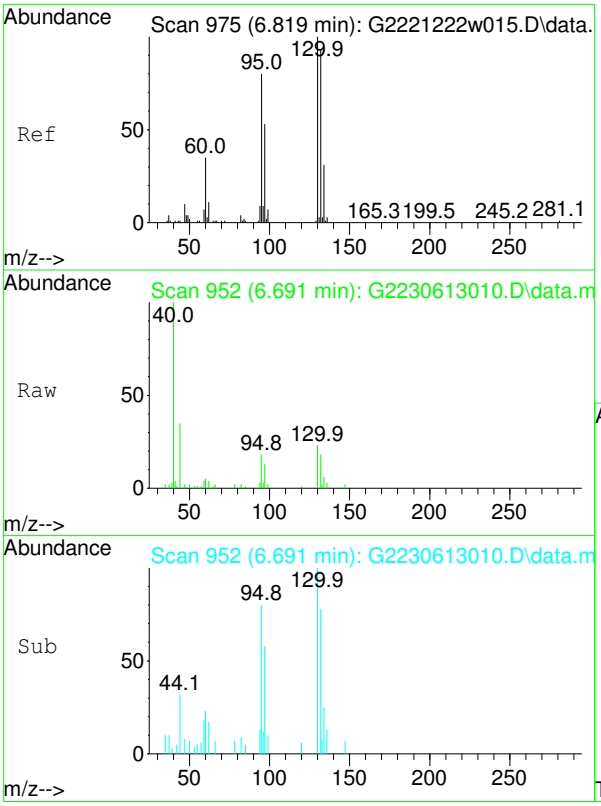


#47
Carbon tetrachloride
Concen: 3.28 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.111 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion:117 Resp: 1368740

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

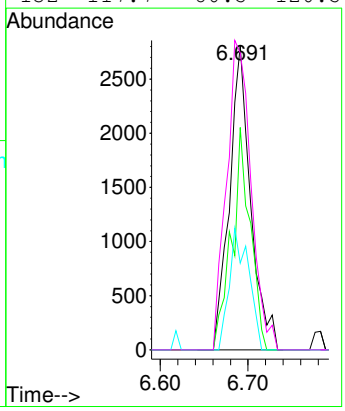


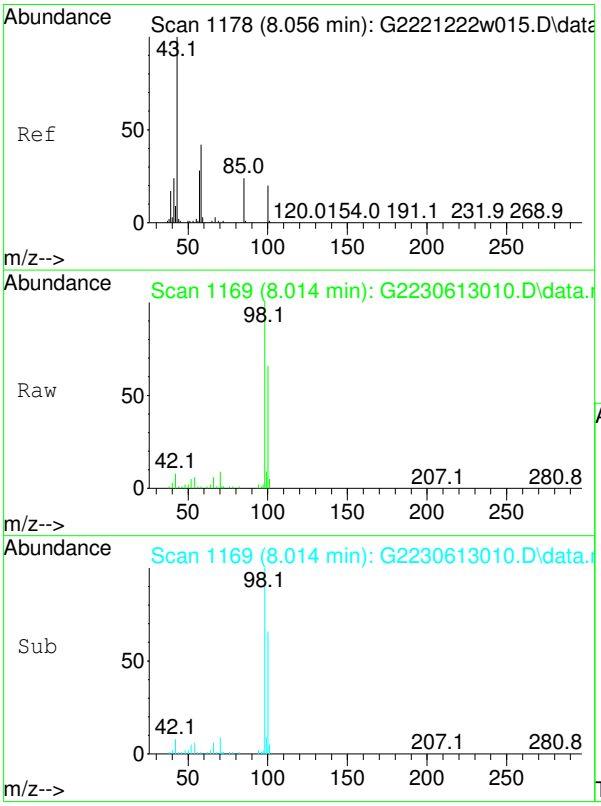


#50
Trichloroethene
Concen: 0.07 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 95 Resp: 47003

Ion	Ratio	Lower	Upper
95	100		
97	63.8	35.5	95.5
60	0.0	14.8	74.8#
132	117.7	80.5	120.5

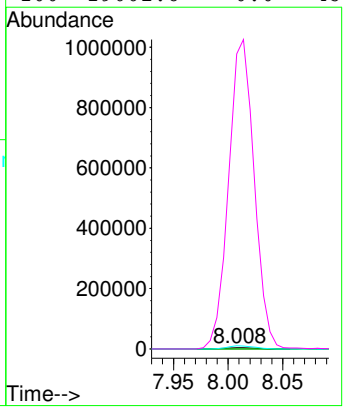


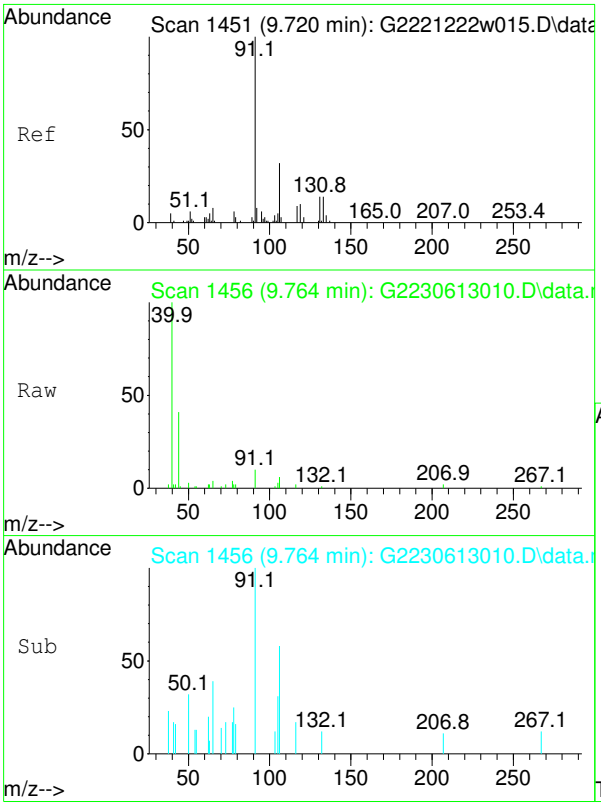


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 43 Resp: 84728

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	207.3	37.0	37.0#
100	19662.8	0.0	45.2#

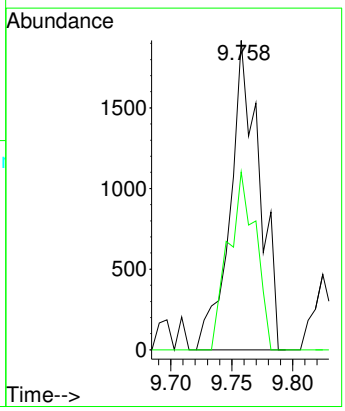


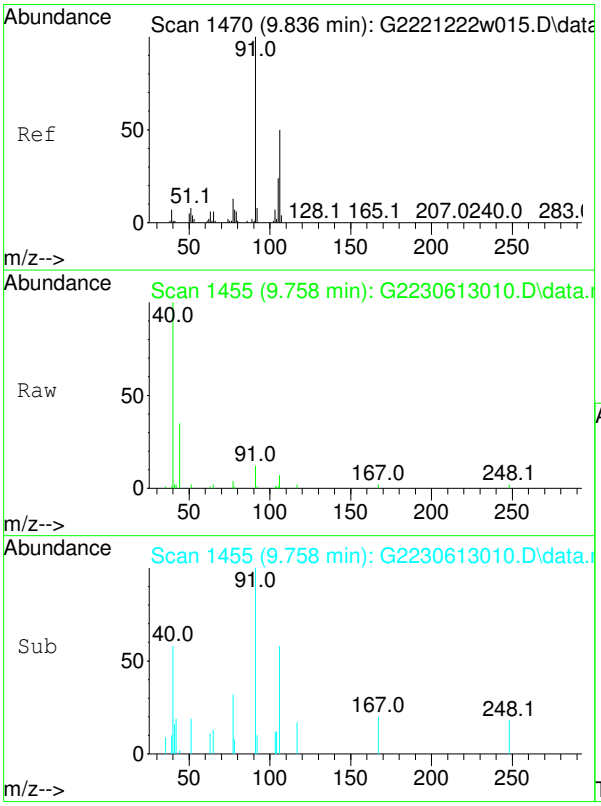


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 91 Resp: 31658

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

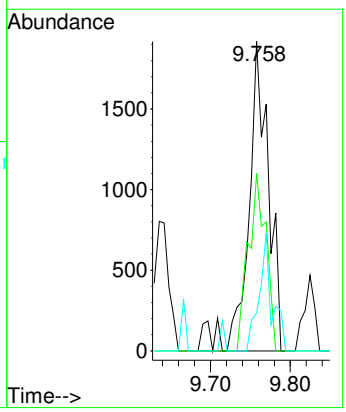


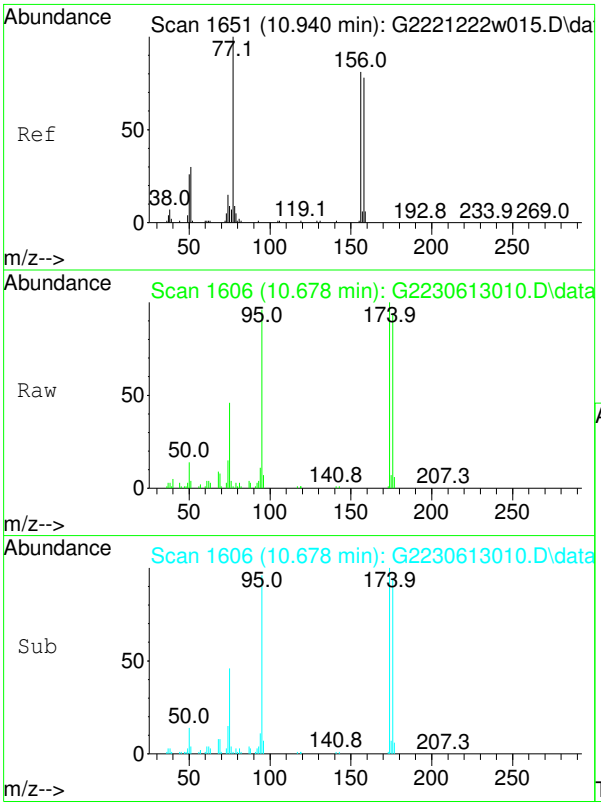


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 91 Resp: 33695

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

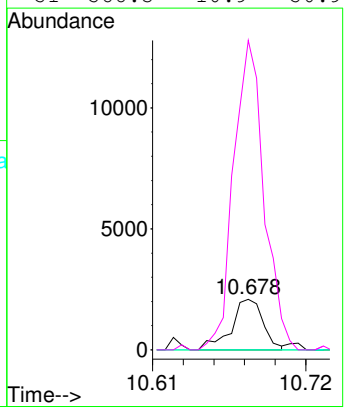




#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.680 min Scan# 1606
Delta R.T. -0.148 min
Lab File: G2230613010.D
Acq: 13 Jun 2023 12:25

Tgt Ion: 77 Resp: 33658

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	588.3	10.9	50.9#



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11	File ID:	G2230613028.D
Sampled:	05/31/23 11:10	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 20:00
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.650	2.00	5.00	U
71-55-6	1,1,1-Trichloroethane		0.877	2.00	5.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.621	2.00	5.00	U
79-00-5	1,1,2-Trichloroethane		0.832	2.00	5.00	U
75-34-3	1,1-Dichloroethane		0.669	2.00	5.00	U
75-35-4	1,1-Dichloroethene		0.954	2.00	5.00	U
563-58-6	1,1-Dichloropropene		0.699	2.00	5.00	U
87-61-6	1,2,3-Trichlorobenzene		1.02	2.00	5.00	U
96-18-4	1,2,3-Trichloropropane		0.913	2.00	5.00	U
120-82-1	1,2,4-Trichlorobenzene		1.02	3.00	6.00	U
95-63-6	1,2,4-Trimethylbenzene		0.661	2.00	5.00	U
96-12-8	1,2-Dibromo-3-chloropropane		1.30	5.00	10.0	U
106-93-4	1,2-Dibromoethane		0.531	2.00	5.00	U
95-50-1	1,2-Dichlorobenzene		0.630	2.00	5.00	U
107-06-2	1,2-Dichloroethane		1.06	3.00	6.00	U
78-87-5	1,2-Dichloropropane		1.02	3.00	6.00	U
108-67-8	1,3,5-Trimethylbenzene		0.500	2.00	5.00	U
541-73-1	1,3-Dichlorobenzene		0.724	2.00	5.00	U
142-28-9	1,3-Dichloropropane		0.680	2.00	5.00	U
106-46-7	1,4-Dichlorobenzene		0.920	2.00	5.00	U
594-20-7	2,2-Dichloropropane		0.920	2.00	5.00	U
78-93-3	2-Butanone		3.30	7.00	17.5	U
95-49-8	2-Chlorotoluene		0.733	2.00	5.00	U
591-78-6	2-Hexanone		0.716	7.00	17.5	U
106-43-4	4-Chlorotoluene		0.921	2.00	5.00	U
99-87-6	4-Isopropyltoluene		0.700	2.00	5.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11	File ID:	G2230613028.D
Sampled:	05/31/23 11:10	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 20:00
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		1.35	7.00	17.5	U
67-64-1	Acetone		5.18	20.0	40.0	U
71-43-2	Benzene		0.507	2.00	5.00	U
108-86-1	Bromobenzene		0.848	2.00	5.00	U
74-97-5	Bromochloromethane		0.669	2.00	5.00	U
75-27-4	Bromodichloromethane		0.531	2.00	5.00	U
75-25-2	Bromoform		1.03	2.00	5.00	U
74-83-9	Bromomethane		1.60	5.00	10.0	U
75-15-0	Carbon disulfide		1.40	5.00	10.0	U
56-23-5	Carbon tetrachloride		0.844	2.00	5.00	U
108-90-7	Chlorobenzene		0.650	2.00	5.00	U
75-00-3	Chloroethane		1.55	2.00	5.00	U
67-66-3	Chloroform		1.01	3.00	6.00	U
74-87-3	Chloromethane		1.92	5.00	10.0	U
156-59-2	cis-1,2-Dichloroethene		1.03	3.00	6.00	U
10061-01-5	cis-1,3-Dichloropropene		0.587	2.00	5.00	U
124-48-1	Dibromochloromethane		0.759	2.00	5.00	U
74-95-3	Dibromomethane		0.817	2.00	5.00	U
75-71-8	Dichlorodifluoromethane		1.30	5.00	10.0	U
100-41-4	Ethylbenzene		0.300	1.00	2.00	U
87-68-3	Hexachlorobutadiene		1.00	2.00	5.00	Q, S1, U
98-82-8	Isopropylbenzene		0.549	2.00	5.00	U
179601-23-1	m,p-Xylene		0.889	4.00	10.0	U
1634-04-4	Methyl tert-butyl ether		0.530	2.00	5.00	U
75-09-2	Methylene chloride		2.24	5.00	10.0	U
104-51-8	n-Butylbenzene		1.30	5.00	10.0	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

531DUP6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-11	File ID:	G2230613028.D
Sampled:	05/31/23 11:10	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 20:00
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.630	2.00	5.00	U
91-20-3	Naphthalene		0.700	2.00	5.00	U
95-47-6	o-Xylene		0.416	2.00	5.00	U
135-98-8	sec-Butylbenzene		0.598	2.00	5.00	U
100-42-5	Styrene		0.453	1.00	2.00	U
98-06-6	tert-Butylbenzene		0.453	2.00	5.00	U
127-18-4	Tetrachloroethene		1.78	5.00	10.0	Q, S1, U
108-88-3	Toluene		0.572	2.00	5.00	U
156-60-5	trans-1,2-Dichloroethene		0.855	2.00	5.00	U
10061-02-6	trans-1,3-Dichloropropene		0.587	2.00	5.00	U
79-01-6	Trichloroethene		0.781	2.00	5.00	U
75-69-4	Trichlorofluoromethane		0.505	2.00	5.00	U
75-01-4	Vinyl chloride		1.29	5.00	10.0	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613028.D
Acq On : 13 Jun 2023 20:00
Operator : PO1/MP3
Sample : 23F0136-11
Misc : 10
ALS Vial : 28 Sample Multiplier: 1

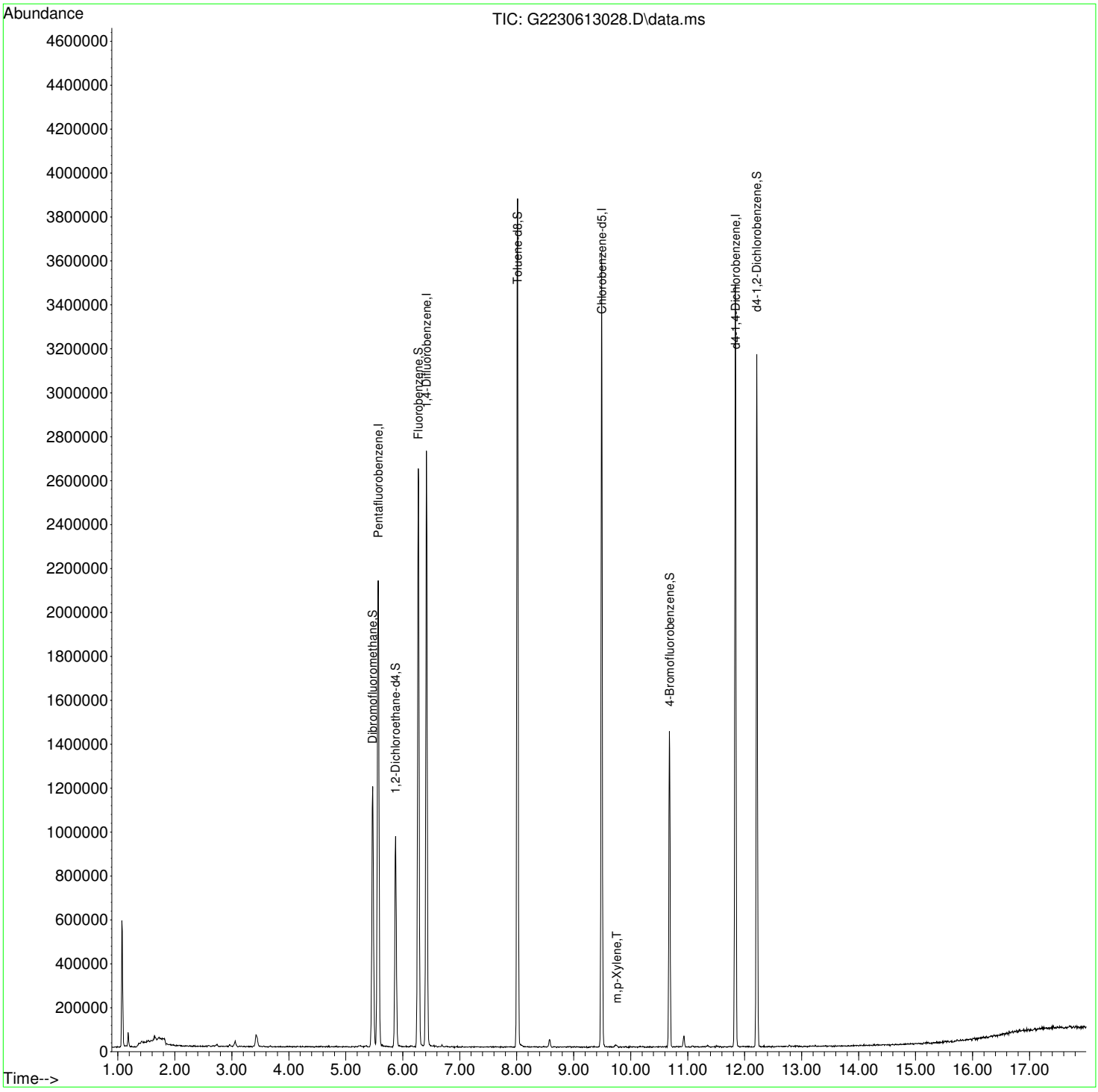
Quant Time: Jun 14 09:53:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	17244547	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23561986	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20968180	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10041952	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	7426770	19.57	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.85%			
43) 1,2-Dichloroethane-d4	5.876	65	6862517	18.30	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.50%			
49) Fluorobenzene	6.276	96	25846388	19.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%			
64) Toluene-d8	8.015	98	25255573	19.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.55%			
81) 4-Bromofluorobenzene	10.684	174	4448241	9.38	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.80%			
97) d4-1,2-Dichlorobenzene	12.217	152	8900555	20.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.05%			
Target Compounds						Qvalue
5) Bromomethane	1.721	94	54274	Below Cal	#	82
18) Methylene chloride	3.059	49	108866	Below Cal		70
21) Methyl tert-butyl ether	3.428	73	712001	Below Cal		97
75) m,p-Xylene	9.757	91	33954m	0.03	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613028.D
Acq On : 13 Jun 2023 20:00
Operator : PO1/MP3
Sample : 23F0136-11
Misc : 10
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 14 09:53:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613028.D
Acq On : 13 Jun 2023 20:00
Operator : PO1/MP3
Sample : 23F0136-11
Misc : 10
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 14 09:53:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

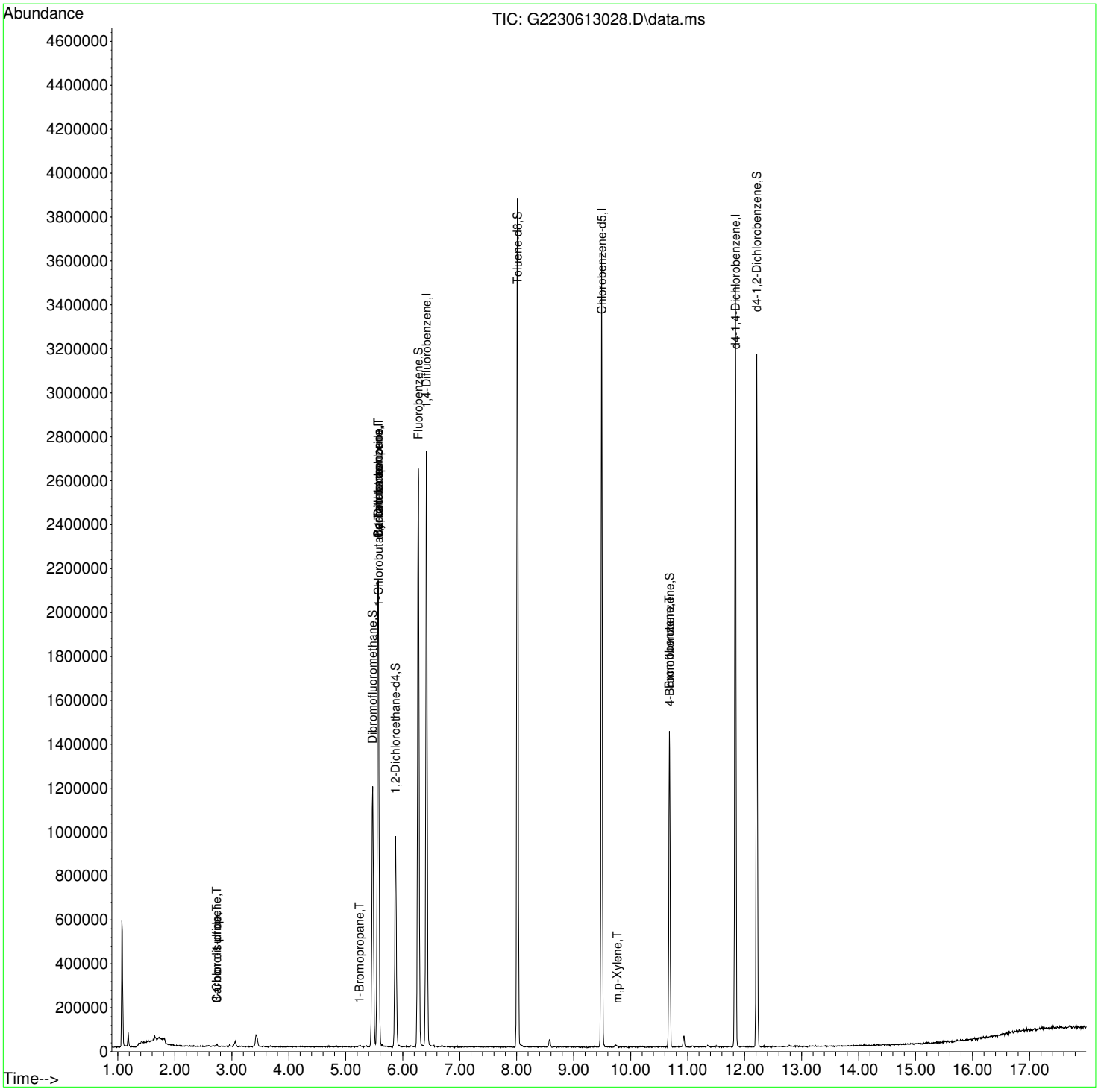
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	17244547	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23561986	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20968180	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10041952	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	7426770	19.57	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.85%			
43) 1,2-Dichloroethane-d4	5.876	65	6862517	18.30	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.50%			
49) Fluorobenzene	6.276	96	25846388	19.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%			
64) Toluene-d8	8.015	98	25255573	19.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.55%			
81) 4-Bromofluorobenzene	10.684	174	4448241	9.38	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.80%			
97) d4-1,2-Dichlorobenzene	12.217	152	8900555	20.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.05%			
Target Compounds						Qvalue
5) Bromomethane	1.721	94	54274	Below Cal	#	82
9) Acrolein	2.465	56	3256	Below Cal	#	20
12) Acetone	2.597	43	57929	Below Cal	#	45
14) Carbon disulfide	2.737	76	127443	0.07 ug/L	#	74
17) 3-Chloro-1-propene	2.737	76	127439	0.66 ug/L	#	53
18) Methylene chloride	3.059	49	108866	Below Cal		70
21) Methyl tert-butyl ether	3.428	73	712001	Below Cal		97
33) 1-Bromopropane	5.241	41	36299	0.08 ug/L	#	40
40) Cyclohexane	5.571	84	380673	0.82 ug/L	#	34
41) 1-Chlorobutane	5.574	56	228161	0.42 ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	894358	2.21 ug/L	#	38
47) Carbon tetrachloride	5.570	117	1414563	3.33 ug/L	#	16
60) 4-Methyl-2-pentanone	8.020	43	87212	Below Cal	#	1
74) Ethylbenzene	9.762	91	34400	Below Cal	#	44
75) m,p-Xylene	9.761	91	33410	0.03 ug/L	#	36
82) Bromobenzene	10.679	77	31067	0.06 ug/L	#	1
99) n-Butylbenzene	12.221	91	27481	Below Cal	#	53

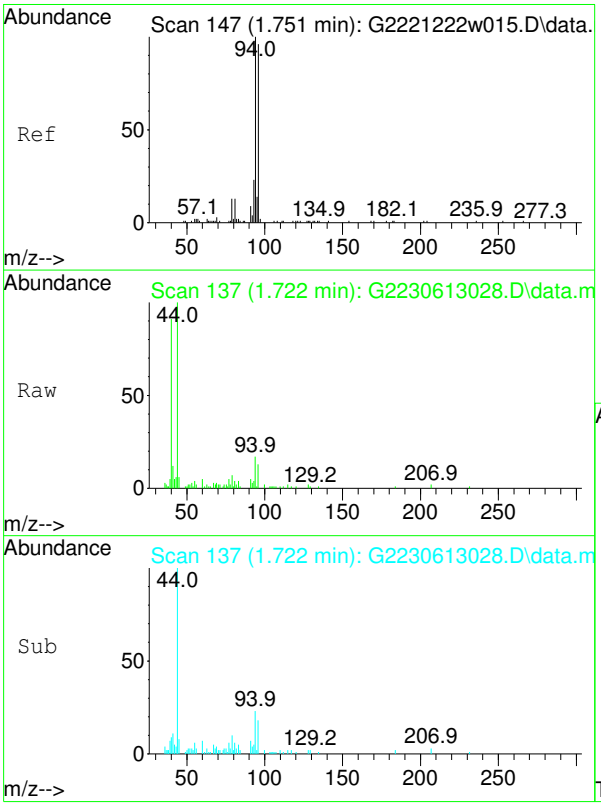
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342162

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613028.D
Acq On : 13 Jun 2023 20:00
Operator : PO1/MP3
Sample : 23F0136-11
Misc : 10
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 14 09:53:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

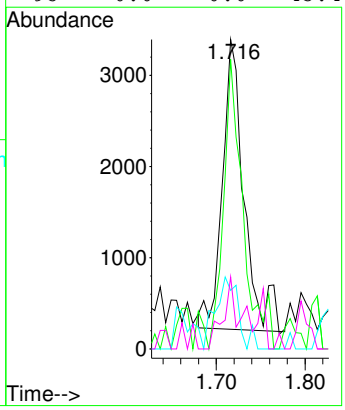


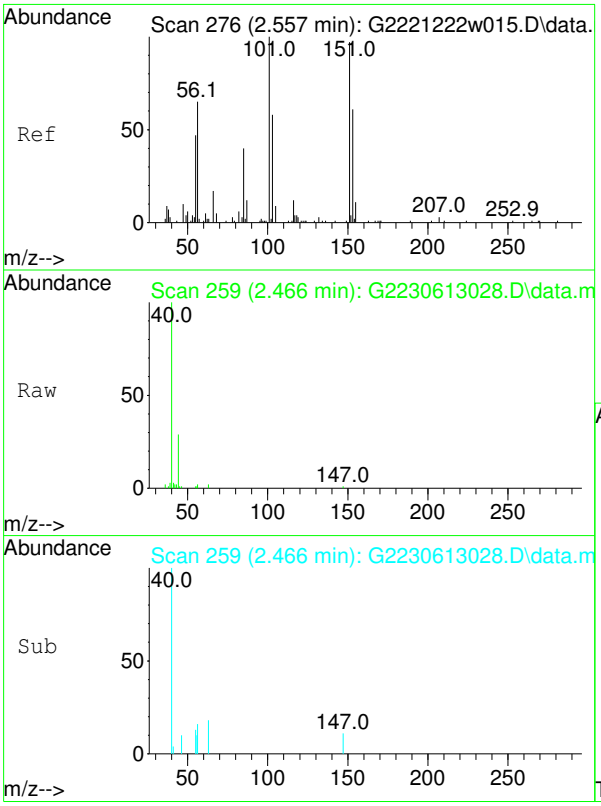


#5
Bromomethane
Concen: Below Cal
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 94 Resp: 54274

Ion	Ratio	Lower	Upper
94	100		
96	85.6	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

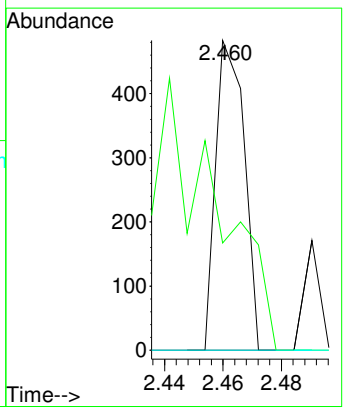


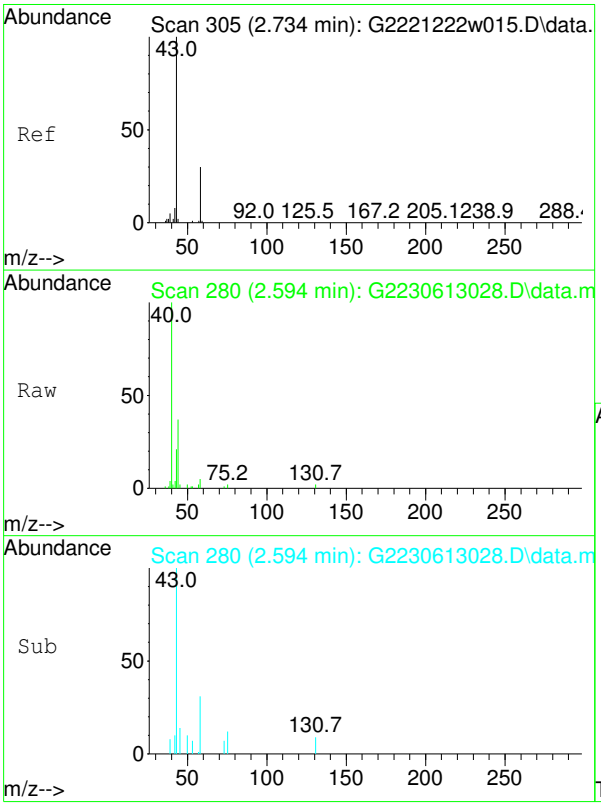


#9
Acrolein
Concen: Below Cal
RT: 2.465 min Scan# 259
Delta R.T. 0.026 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 56 Resp: 3256

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

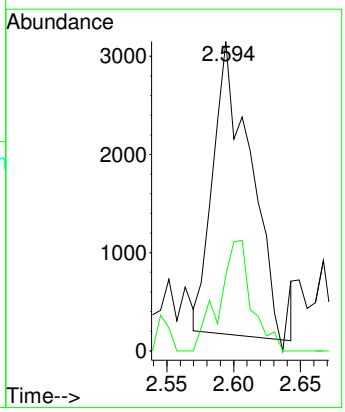


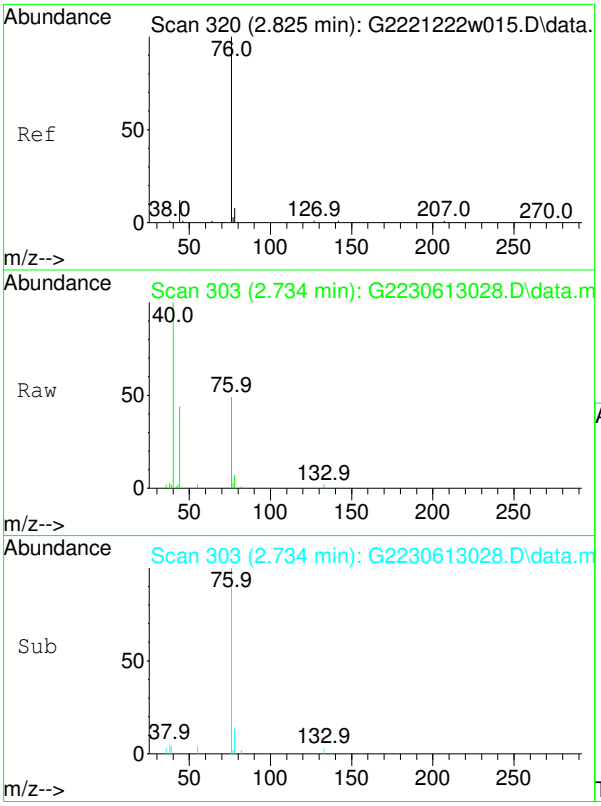


#12
Acetone
Concen: Below Cal
RT: 2.597 min Scan# 280
Delta R.T. -0.011 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 43 Resp: 57929

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

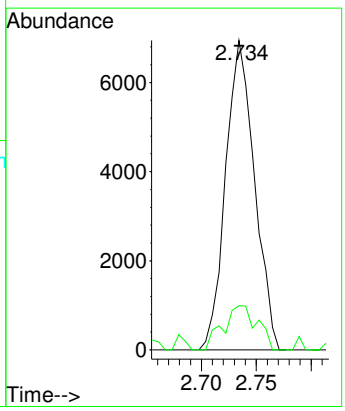


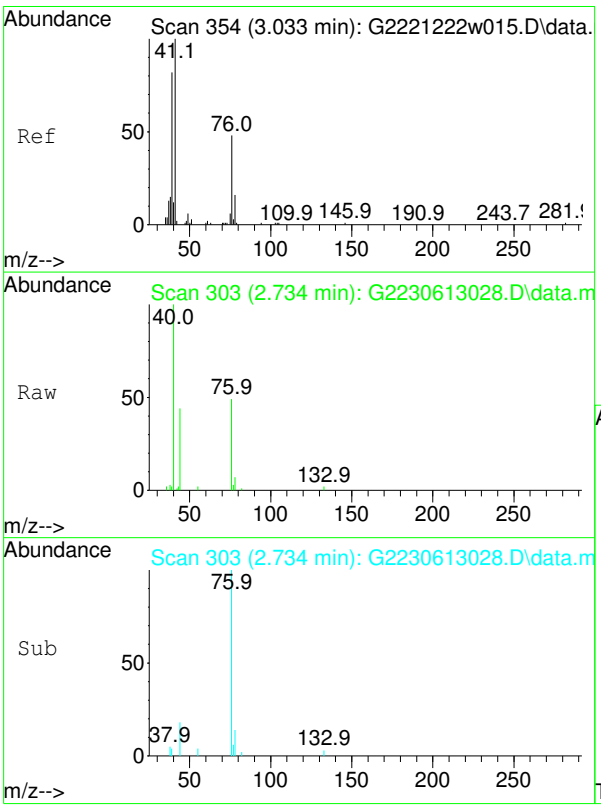


#14
Carbon disulfide
Concen: 0.07 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.002 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 76 Resp: 127443

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

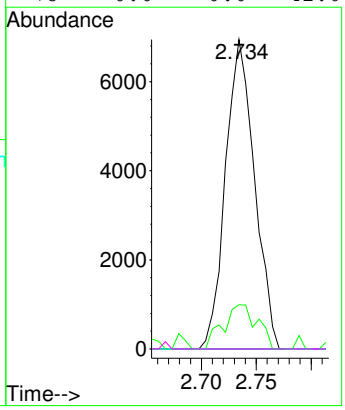


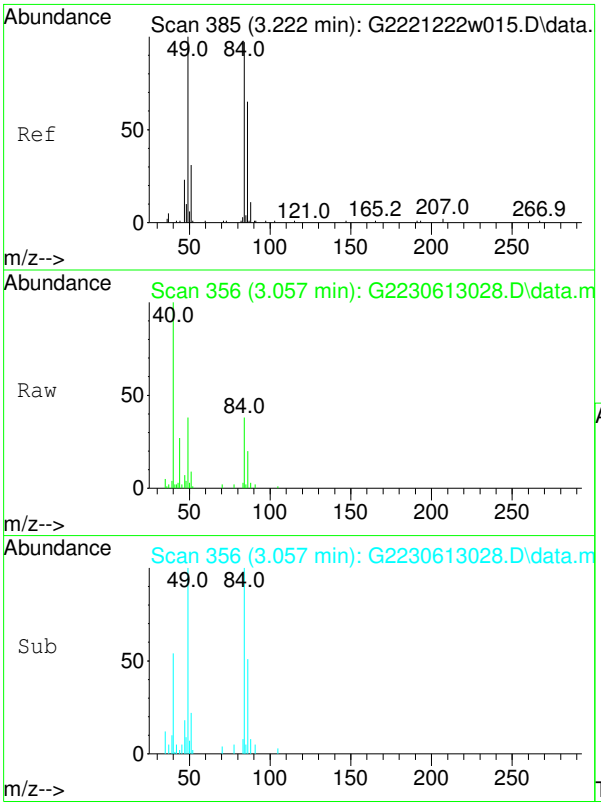


#17
3-Chloro-1-propene
Concen: 0.66 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.183 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 76 Resp: 127439

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

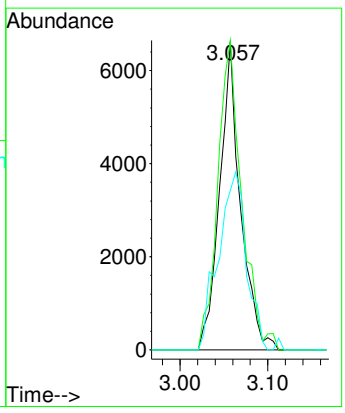


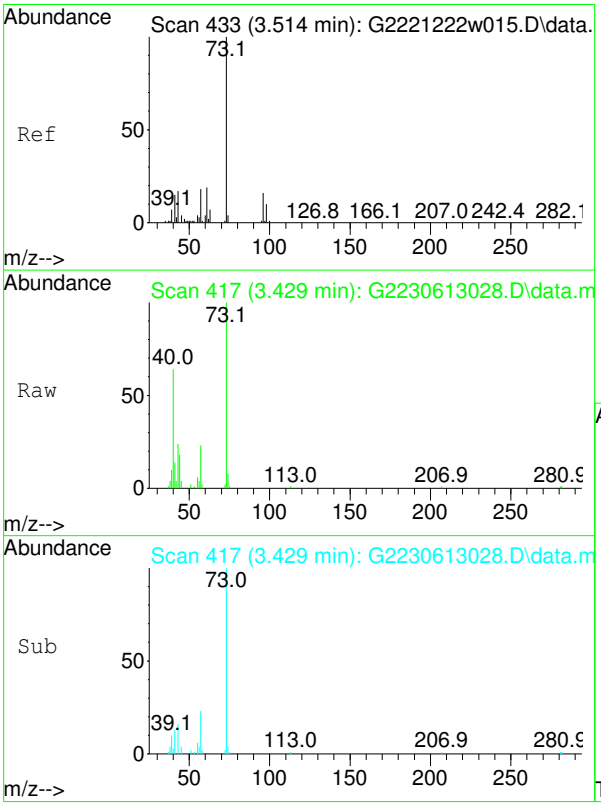


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 49 Resp: 108866

Ion	Ratio	Lower	Upper
49	100		
84	115.6	57.9	117.9
86	77.4	24.9	84.9

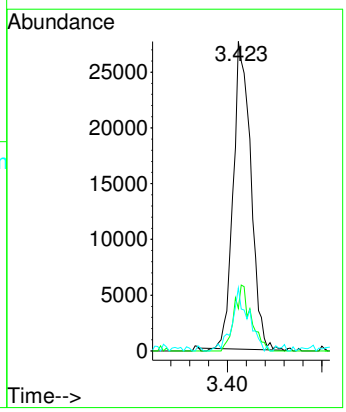


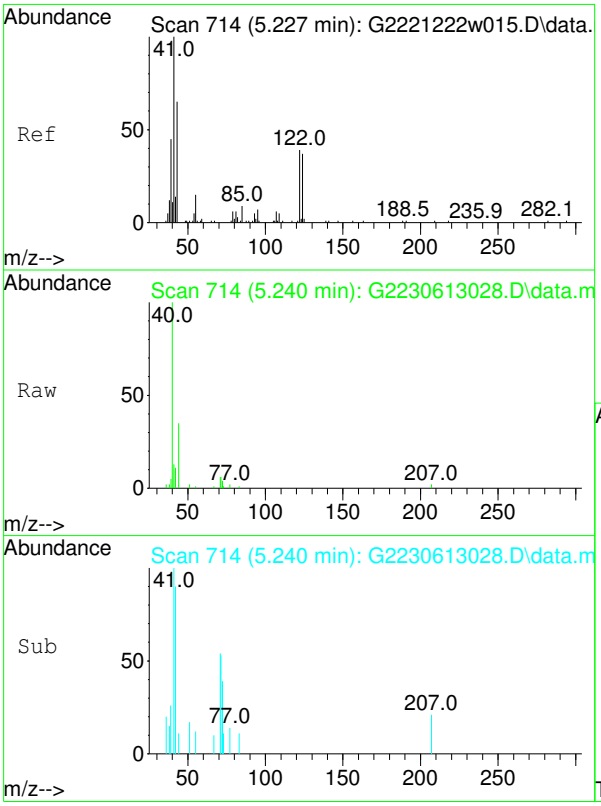


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.428 min Scan# 417
Delta R.T. -0.018 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 73 Resp: 712001

Ion	Ratio	Lower	Upper
73	100		
57	20.4	0.0	51.7
41	19.3	0.0	50.6

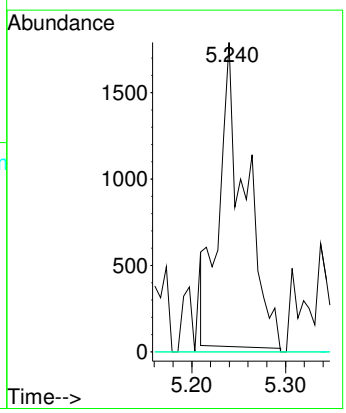


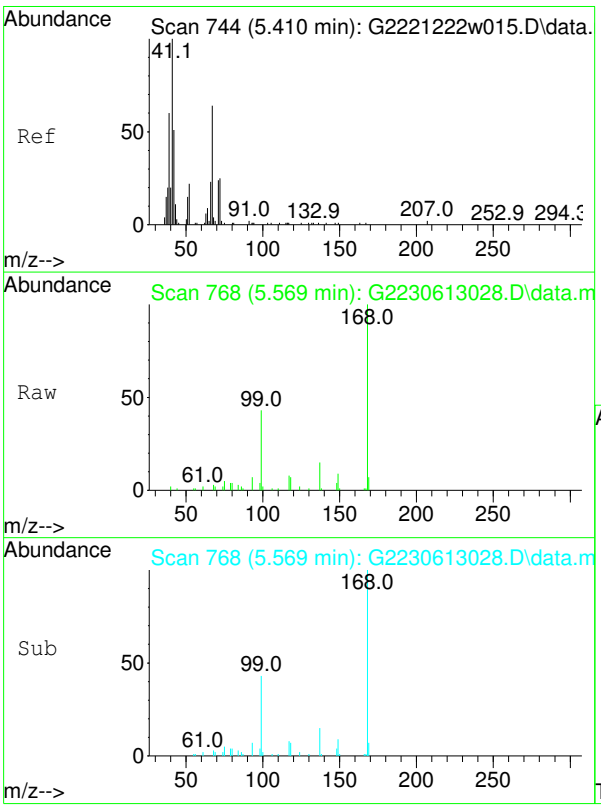


#33
1-Bromopropane
Concen: 0.08 ug/L
RT: 5.241 min Scan# 714
Delta R.T. 0.165 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 41 Resp: 36299

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

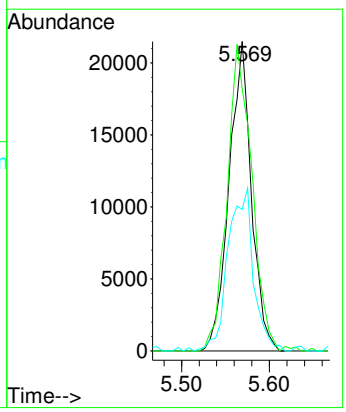


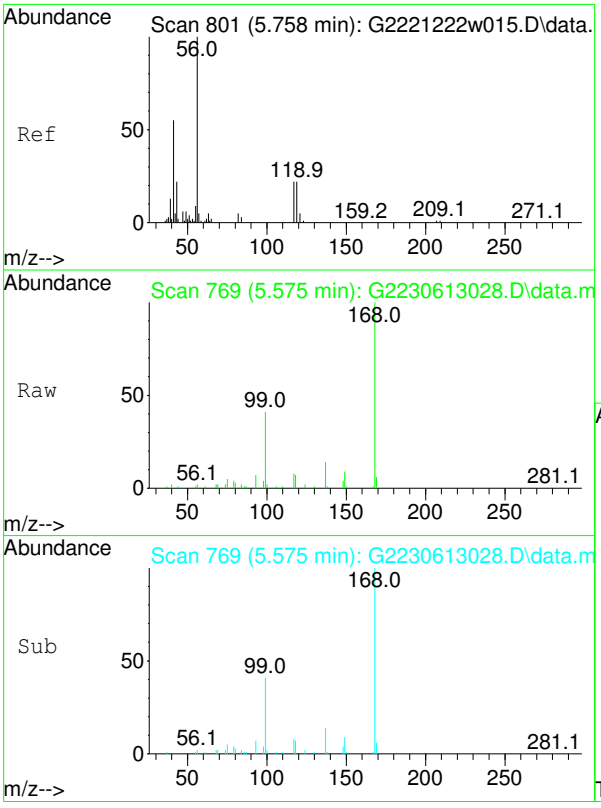


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 84 Resp: 380673

Ion	Ratio	Lower	Upper
84	100		
69	109.3	6.8	66.8#
56	59.9	79.1	139.1#

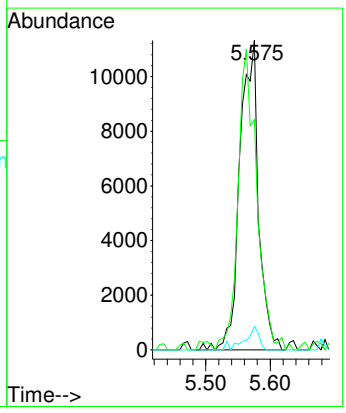


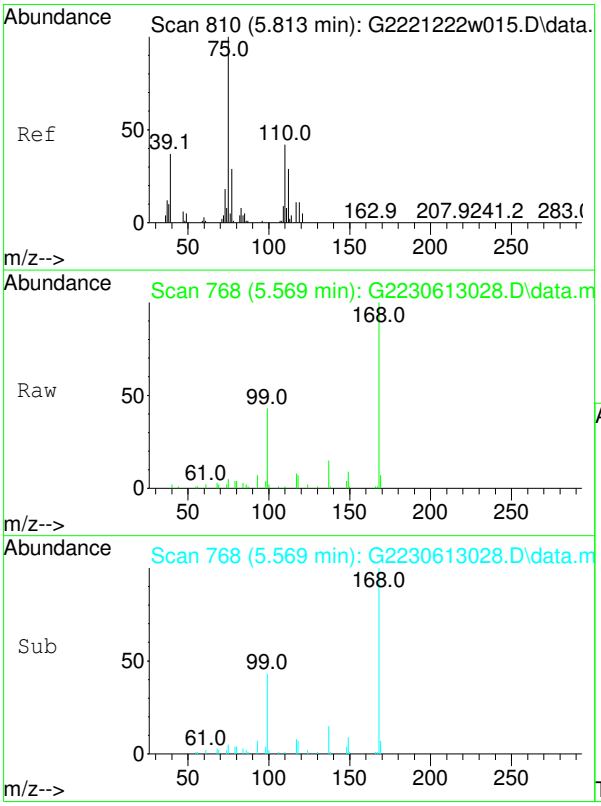


#41
1-Chlorobutane
Concen: 0.42 ug/L
RT: 5.574 min Scan# 769
Delta R.T. -0.056 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 56 Resp: 228161

Ion	Ratio	Lower	Upper
56	100		
55	95.9	0.0	41.0#
57	0.0	0.0	35.7

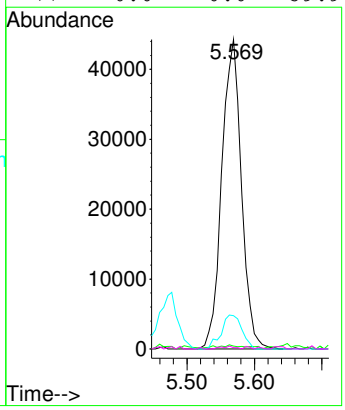


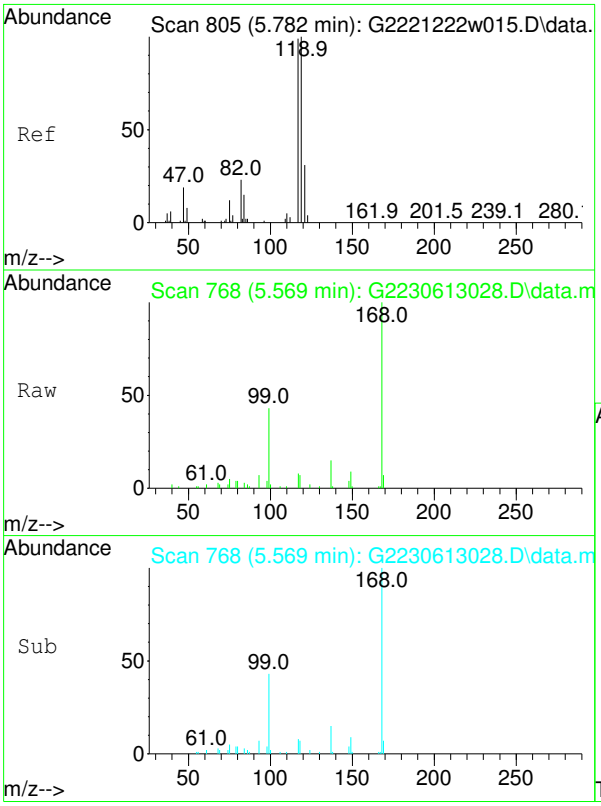


#42
1,1-Dichloropropene
Concen: 2.21 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 75 Resp: 894358

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.6	9.1	69.1
77	0.0	0.0	59.9

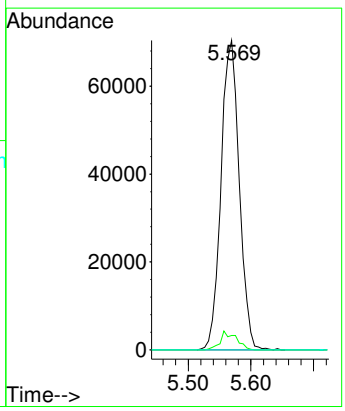


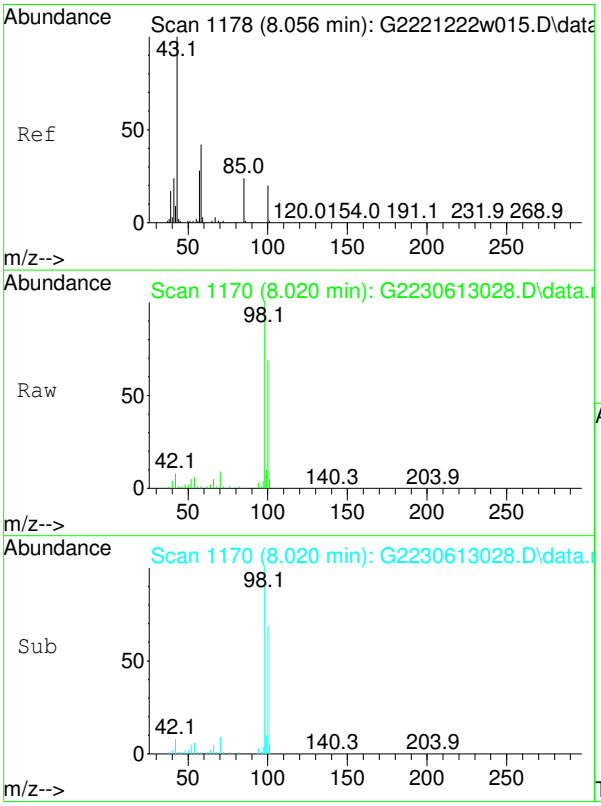


#47
Carbon tetrachloride
Concen: 3.33 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion:117 Resp: 1414563

Ion	Ratio	Lower	Upper
117	100		
119	5.4	66.4	126.4#
121	0.0	0.4	60.4#

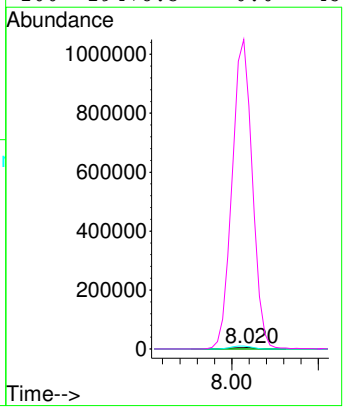


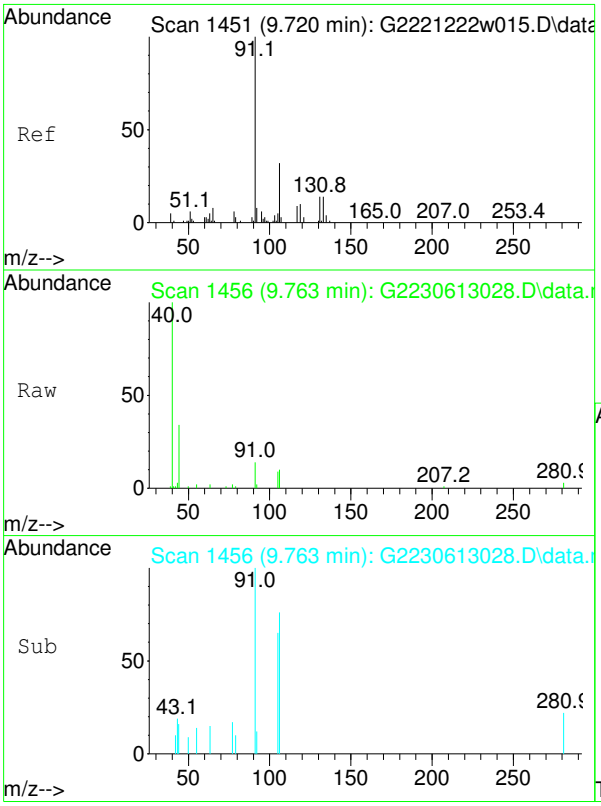


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.020 min Scan# 1170
Delta R.T. 0.076 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 43 Resp: 87212

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	199.6	37.0	37.0#
100	19478.3	0.0	45.2#

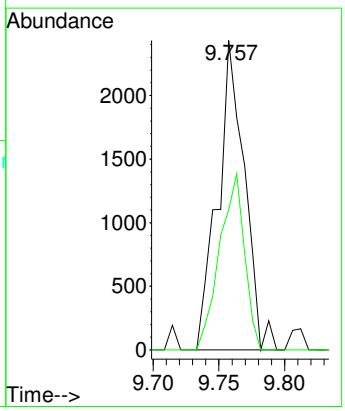


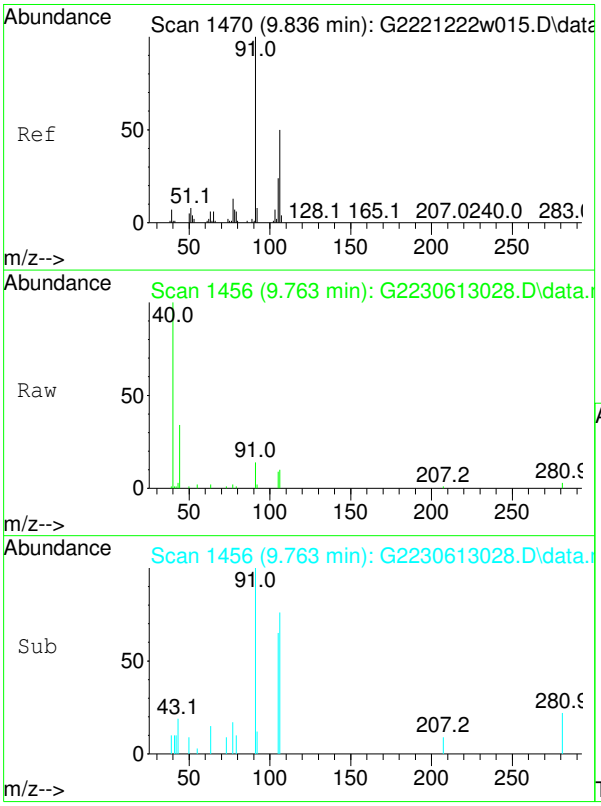


#74
Ethylbenzene
Concen: Below Cal
RT: 9.762 min Scan# 1456
Delta R.T. 0.119 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 91 Resp: 34400

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

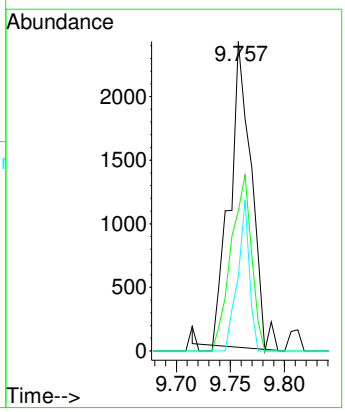


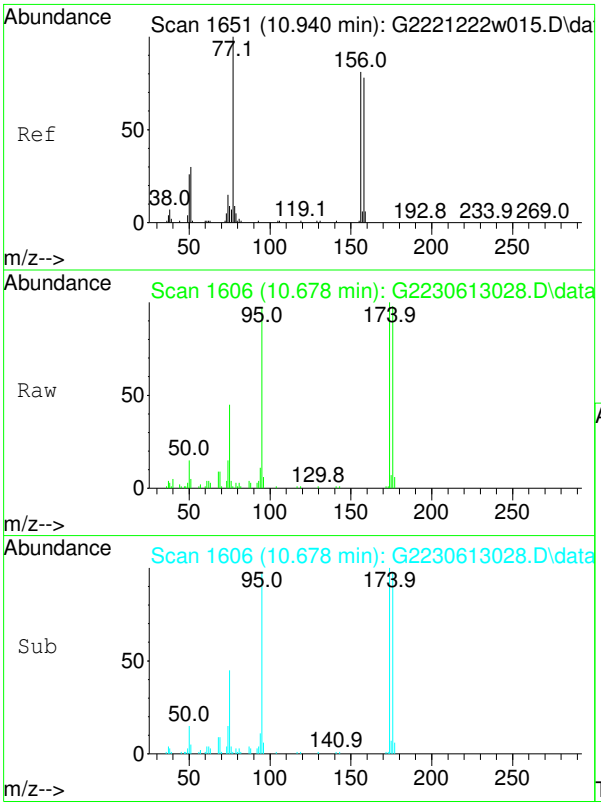


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.761 min Scan# 1456
Delta R.T. -0.003 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 91 Resp: 33410

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

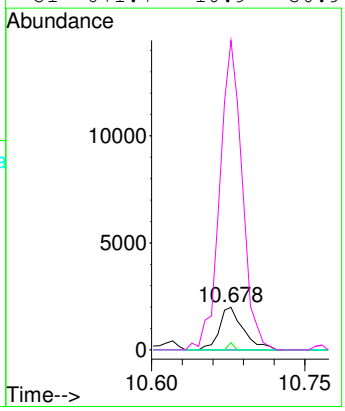


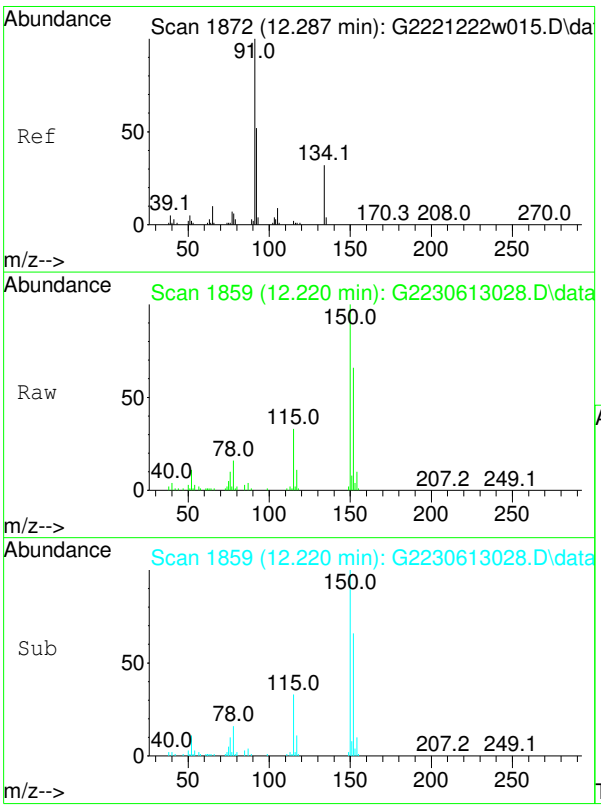


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.679 min Scan# 1606
Delta R.T. -0.149 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

Tgt Ion: 77 Resp: 31067

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	671.7	10.9	50.9#

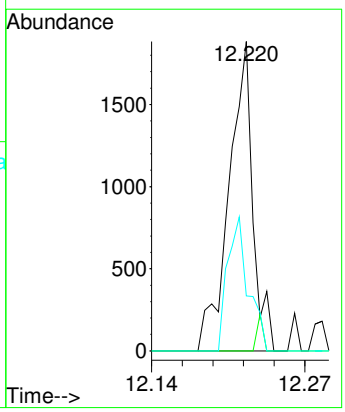




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.221 min Scan# 1859
Delta R.T. -0.010 min
Lab File: G2230613028.D
Acq: 13 Jun 2023 20:00

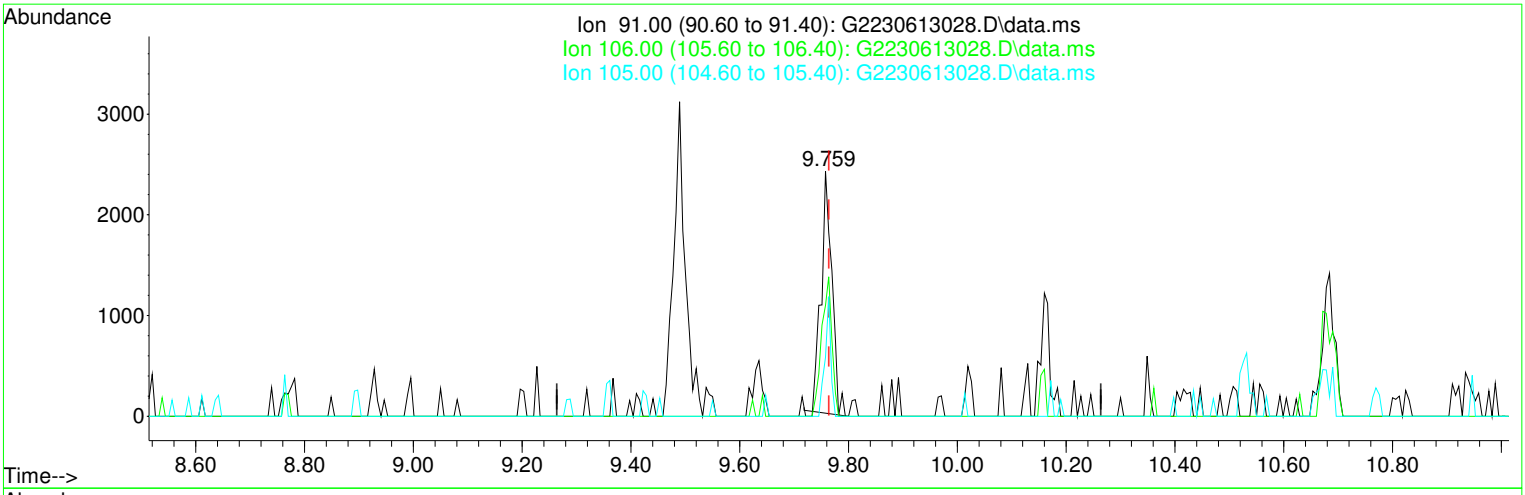
Tgt Ion: 91 Resp: 27481

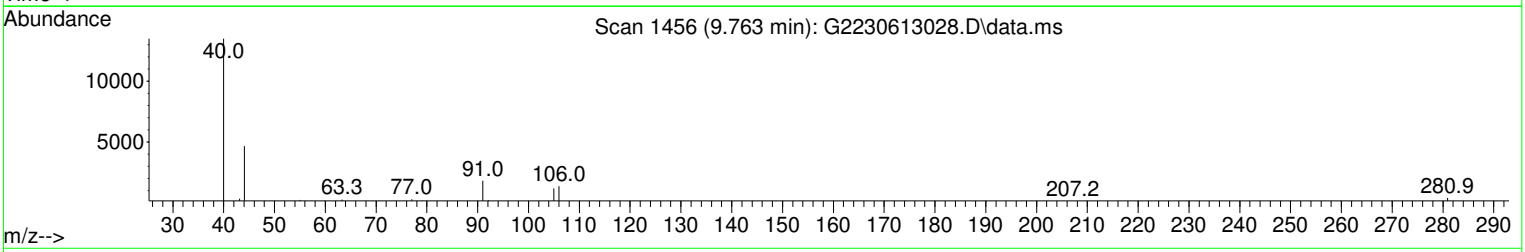
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

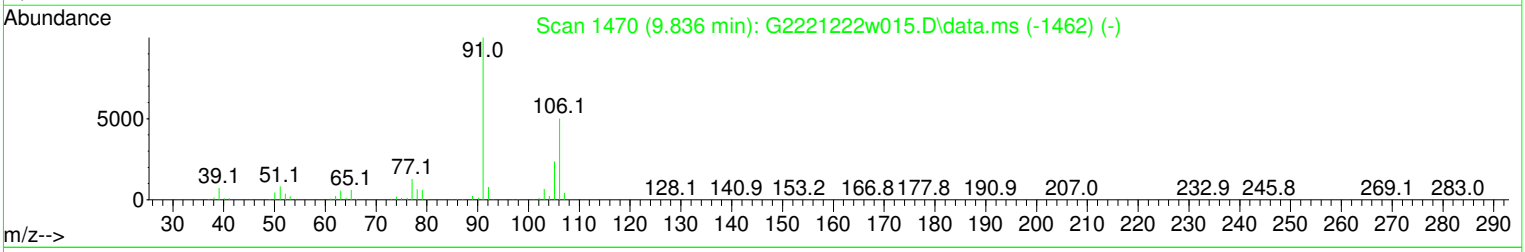


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613028.D
Acq On : 13 Jun 2023 20:00
Operator : PO1/MP3
Sample : 23F0136-11
Misc : 10
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 14 09:53:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613028.D\data.ms

(75) m,p-Xylene (T)

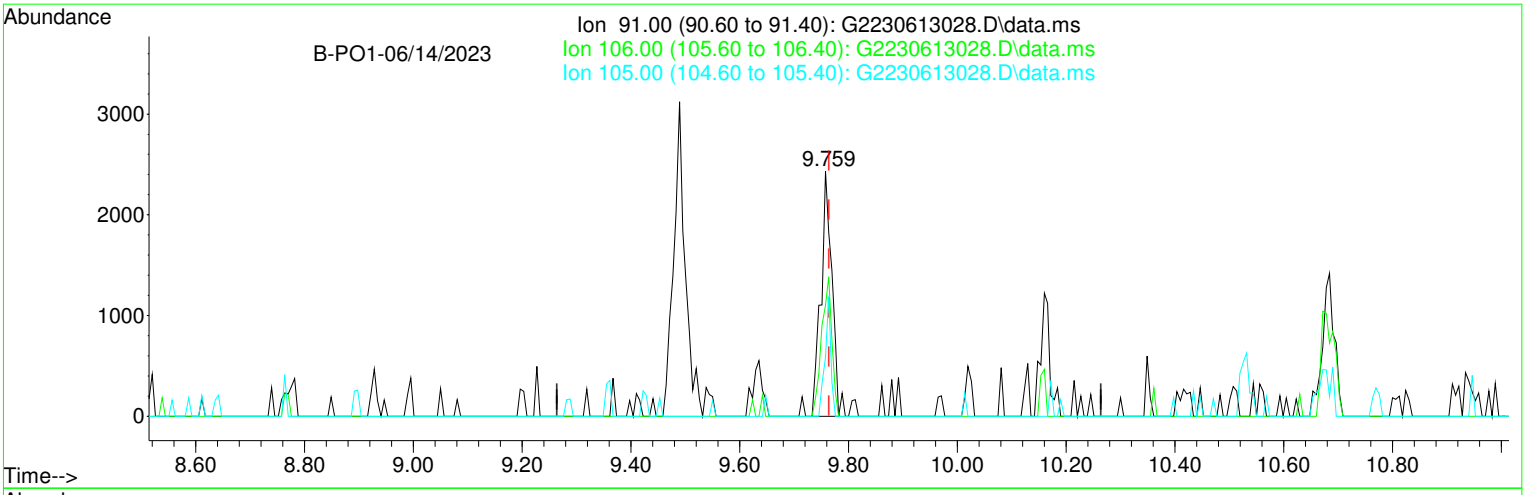
9.761min (-0.003) 0.03 ug/L

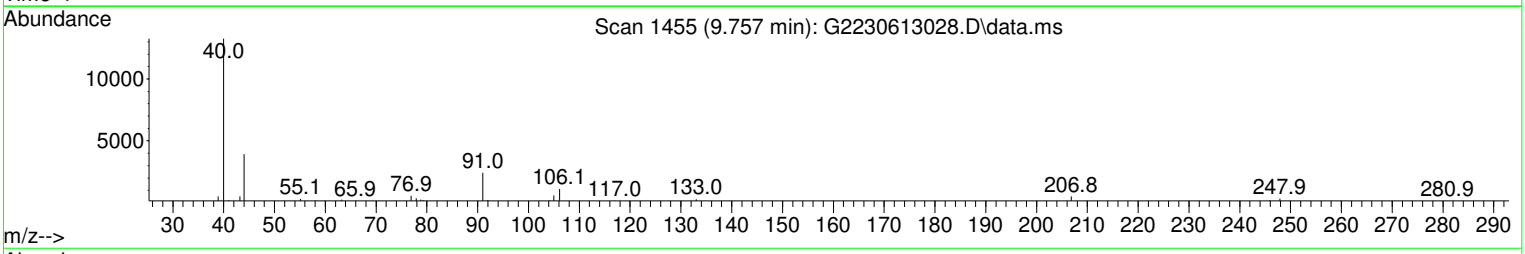
response 33410

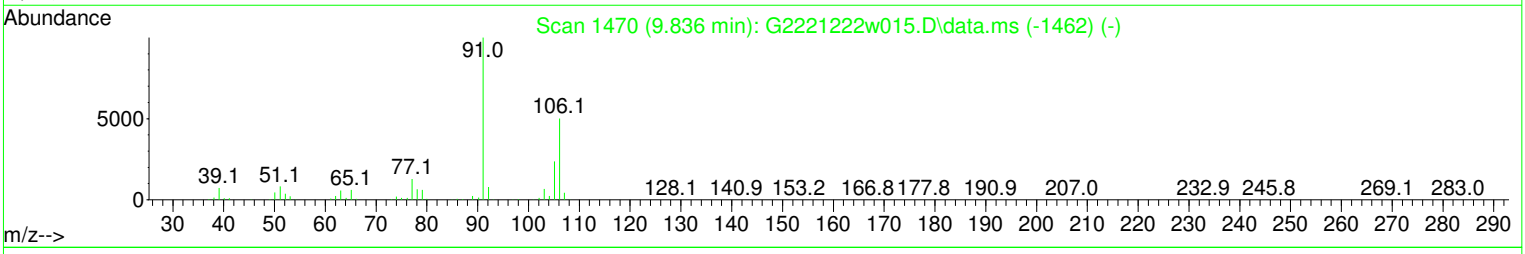
Ion	Exp%	Act%
91.00	100.00	100.00
106.00	49.00	0.00#
105.00	22.70	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613028.D
Acq On : 13 Jun 2023 20:00
Operator : PO1/MP3
Sample : 23F0136-11
Misc : 10
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 14 09:53:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613028.D\data.ms

(75) m,p-Xylene (T)

9.757min (-0.007) 0.03 ug/L m

response 33954

Ion	Exp%	Act%
91.00	100.00	100.00
106.00	49.00	0.00#
105.00	22.70	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12	File ID:	G2230613025.D
Sampled:	05/31/23 15:07	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 18:45
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.130	0.400	1.00	U
71-55-6	1,1,1-Trichloroethane		0.175	0.400	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.124	0.400	1.00	U
79-00-5	1,1,2-Trichloroethane		0.166	0.400	1.00	U
75-34-3	1,1-Dichloroethane		0.134	0.400	1.00	U
75-35-4	1,1-Dichloroethene		0.191	0.400	1.00	U
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.204	0.400	1.00	U
96-18-4	1,2,3-Trichloropropane		0.183	0.400	1.00	U
120-82-1	1,2,4-Trichlorobenzene		0.205	0.600	1.20	U
95-63-6	1,2,4-Trimethylbenzene		0.132	0.400	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.260	1.00	2.00	U
106-93-4	1,2-Dibromoethane		0.106	0.400	1.00	U
95-50-1	1,2-Dichlorobenzene		0.126	0.400	1.00	U
107-06-2	1,2-Dichloroethane		0.212	0.600	1.20	U
78-87-5	1,2-Dichloropropane		0.205	0.600	1.20	U
108-67-8	1,3,5-Trimethylbenzene		0.100	0.400	1.00	U
541-73-1	1,3-Dichlorobenzene		0.145	0.400	1.00	U
142-28-9	1,3-Dichloropropane		0.136	0.400	1.00	U
106-46-7	1,4-Dichlorobenzene		0.184	0.400	1.00	U
594-20-7	2,2-Dichloropropane		0.184	0.400	1.00	U
78-93-3	2-Butanone		0.660	1.40	3.50	U
95-49-8	2-Chlorotoluene		0.147	0.400	1.00	U
591-78-6	2-Hexanone		0.143	1.40	3.50	U
106-43-4	4-Chlorotoluene		0.184	0.400	1.00	U
99-87-6	4-Isopropyltoluene		0.140	0.400	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12	File ID:	G2230613025.D
Sampled:	05/31/23 15:07	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 18:45
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.270	1.40	3.50	U
67-64-1	Acetone		1.04	4.00	8.00	U
71-43-2	Benzene		0.101	0.400	1.00	U
108-86-1	Bromobenzene		0.170	0.400	1.00	U
74-97-5	Bromochloromethane		0.134	0.400	1.00	U
75-27-4	Bromodichloromethane		0.106	0.400	1.00	U
75-25-2	Bromoform		0.206	0.400	1.00	U
74-83-9	Bromomethane		0.320	1.00	2.00	U
75-15-0	Carbon disulfide		0.280	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.169	0.400	1.00	U
108-90-7	Chlorobenzene		0.130	0.400	1.00	U
75-00-3	Chloroethane		0.311	0.400	1.00	U
67-66-3	Chloroform		0.203	0.600	1.20	U
74-87-3	Chloromethane		0.384	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.205	0.600	1.20	U
10061-01-5	cis-1,3-Dichloropropene		0.117	0.400	1.00	U
124-48-1	Dibromochloromethane		0.152	0.400	1.00	U
74-95-3	Dibromomethane		0.163	0.400	1.00	U
75-71-8	Dichlorodifluoromethane		0.259	1.00	2.00	U
100-41-4	Ethylbenzene		0.0600	0.200	0.400	U
87-68-3	Hexachlorobutadiene		0.200	0.400	1.00	Q, S1, U
98-82-8	Isopropylbenzene		0.110	0.400	1.00	U
179601-23-1	m,p-Xylene		0.178	0.800	2.00	U
1634-04-4	Methyl tert-butyl ether		0.106	0.400	1.00	U
75-09-2	Methylene chloride		0.447	1.00	2.00	U
104-51-8	n-Butylbenzene		0.260	1.00	2.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

531LHSMW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-12	File ID:	G2230613025.D
Sampled:	05/31/23 15:07	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 18:45
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.126	0.400	1.00	U
91-20-3	Naphthalene		0.140	0.400	1.00	U
95-47-6	o-Xylene		0.0832	0.400	1.00	U
135-98-8	sec-Butylbenzene		0.120	0.400	1.00	U
100-42-5	Styrene		0.0906	0.200	0.400	U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	Q, S1, U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.171	0.400	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene		0.156	0.400	1.00	U
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride		0.258	1.00	2.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613025.D
Acq On : 13 Jun 2023 18:45
Operator : PO1/MP3
Sample : 23F0136-12
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

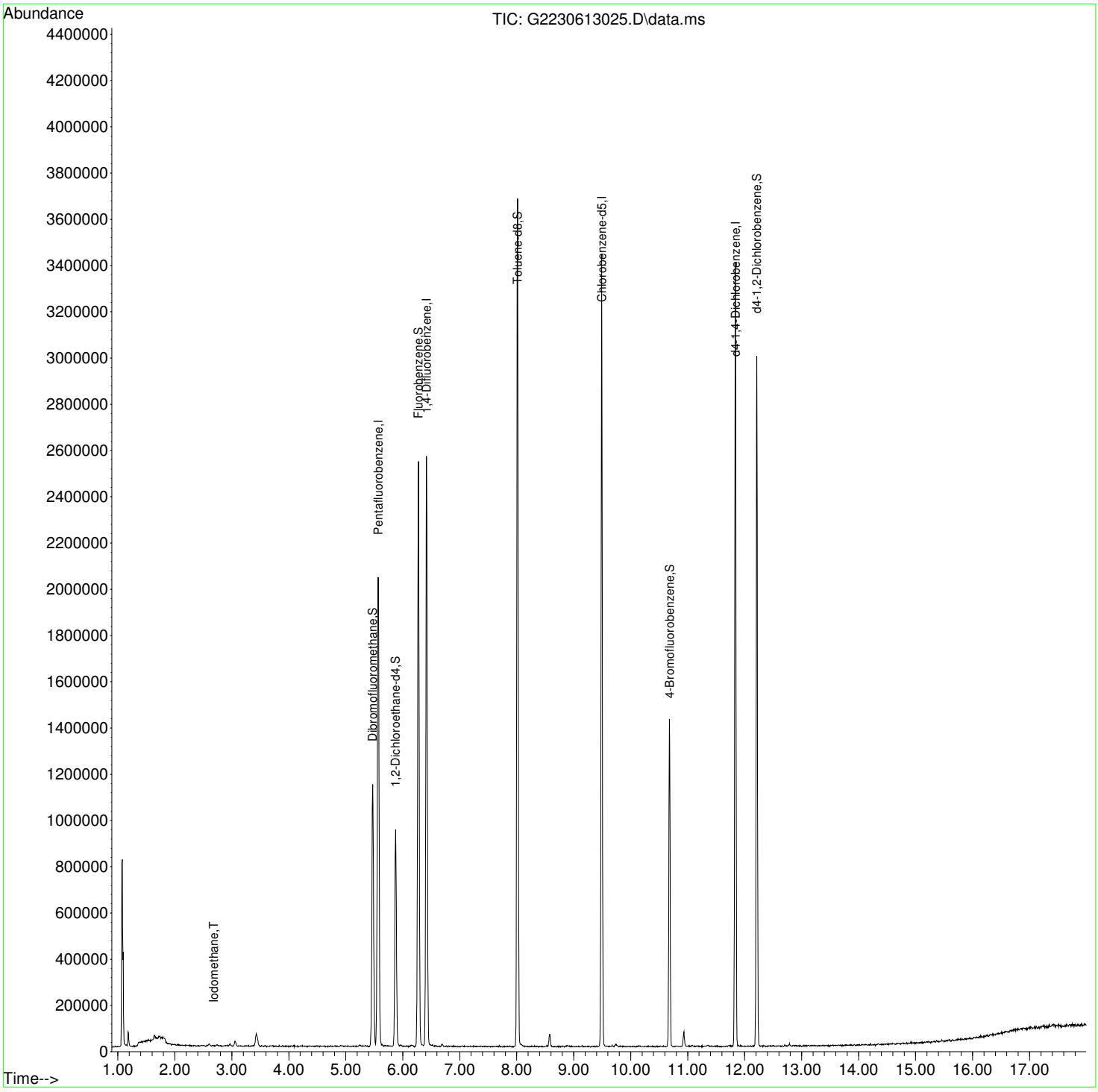
Quant Time: Jun 14 09:42:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	16505861	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	22332831	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	19907997	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9536464	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7113176	19.58	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.90%			
43) 1,2-Dichloroethane-d4	5.876	65	6549967	18.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.25%			
49) Fluorobenzene	6.277	96	24704584	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
64) Toluene-d8	8.015	98	24092271	19.20	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.00%			
81) 4-Bromofluorobenzene	10.683	174	4405912	9.78	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.80%			
97) d4-1,2-Dichlorobenzene	12.216	152	8452208	20.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.05%			
Target Compounds						Qvalue
5) Bromomethane	1.724	94	54205	Below Cal	#	81
12) Acetone	2.603	43	92057	Below Cal		89
13) Iodomethane	2.678	142	42307	0.11	ug/L #	41
18) Methylene chloride	3.061	49	110144	Below Cal		82
21) Methyl tert-butyl ether	3.431	73	722140	Below Cal		92
36) Tetrahydrofuran	5.249	42	40015	Below Cal	#	30

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613025.D
Acq On : 13 Jun 2023 18:45
Operator : PO1/MP3
Sample : 23F0136-12
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 14 09:42:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



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Data File : G2230613025.D
Acq On : 13 Jun 2023 18:45
Operator : PO1/MP3
Sample : 23F0136-12
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 14 09:42:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

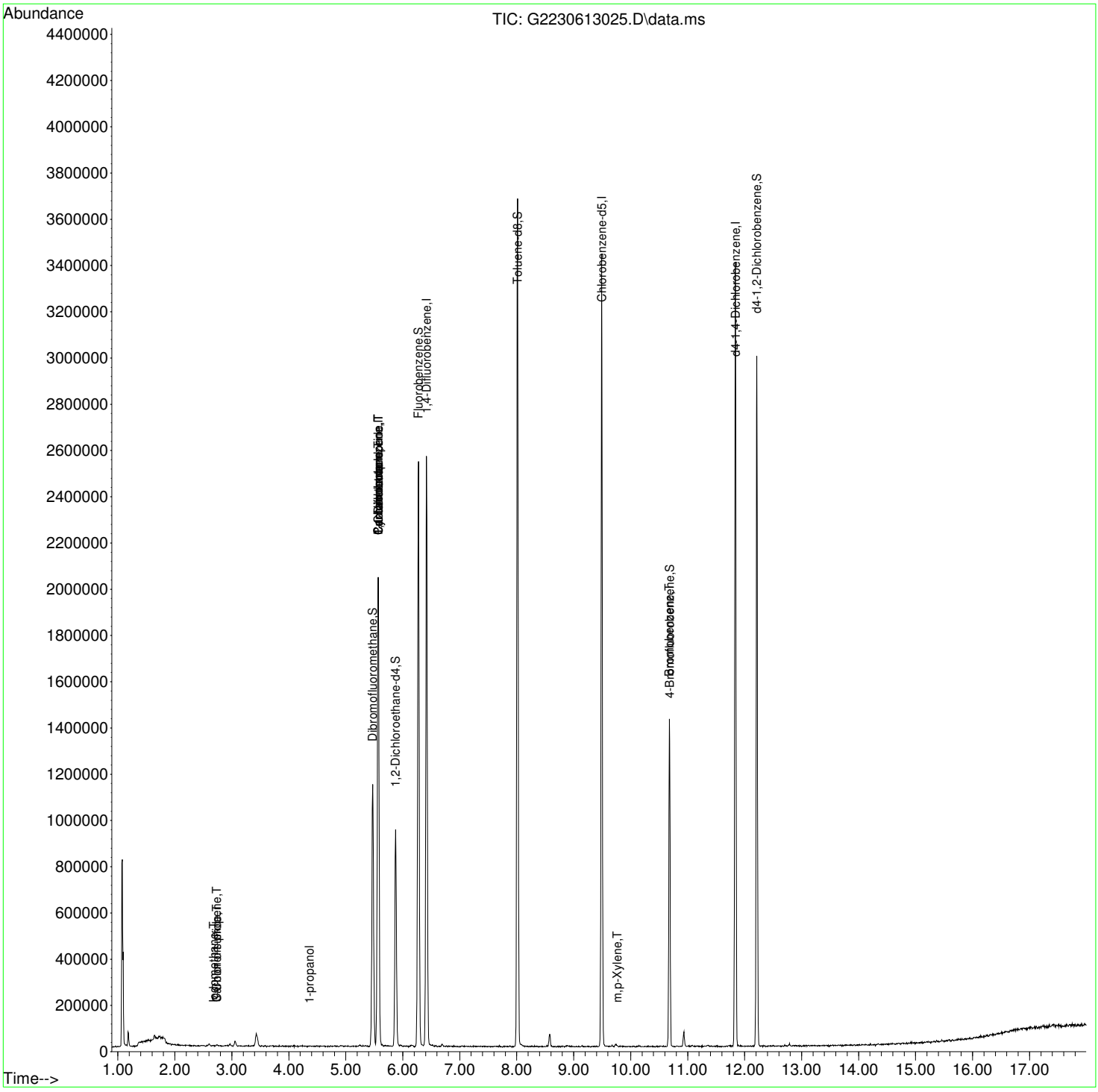
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	16505861	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	22332831	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	19907997	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9536464	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7113176	19.58	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.90%			
43) 1,2-Dichloroethane-d4	5.876	65	6549967	18.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.25%			
49) Fluorobenzene	6.277	96	24704584	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
64) Toluene-d8	8.015	98	24092271	19.20	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.00%			
81) 4-Bromofluorobenzene	10.683	174	4405912	9.78	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.80%			
97) d4-1,2-Dichlorobenzene	12.216	152	8452208	20.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.05%			
Target Compounds						Qvalue
5) Bromomethane	1.724	94	54205	Below Cal	#	81
12) Acetone	2.603	43	92057	Below Cal		89
13) Iodomethane	2.678	142	42307	0.11	ug/L #	41
14) Carbon disulfide	2.735	76	98277	0.04	ug/L #	74
17) 3-Chloro-1-propene	2.735	76	98277	0.51	ug/L #	53
18) Methylene chloride	3.061	49	110144	Below Cal		82
21) Methyl tert-butyl ether	3.431	73	722140	Below Cal		92
26) 1-propanol	4.364	59	671	0.39	ug/L #	100
36) Tetrahydrofuran	5.249	42	40015	Below Cal	#	30
40) Cyclohexane	5.571	84	352853	0.80	ug/L #	35
41) 1-Chlorobutane	5.566	56	229665	0.45	ug/L #	1
42) 1,1-Dichloropropene	5.568	75	867584	2.24	ug/L #	37
47) Carbon tetrachloride	5.570	117	1326164	3.29	ug/L #	16
60) 4-Methyl-2-pentanone	8.013	43	77256	Below Cal	#	1
74) Ethylbenzene	9.764	91	36262	Below Cal	#	44
75) m,p-Xylene	9.764	91	36263	0.03	ug/L #	36
82) Bromobenzene	10.681	77	33660	0.07	ug/L #	1

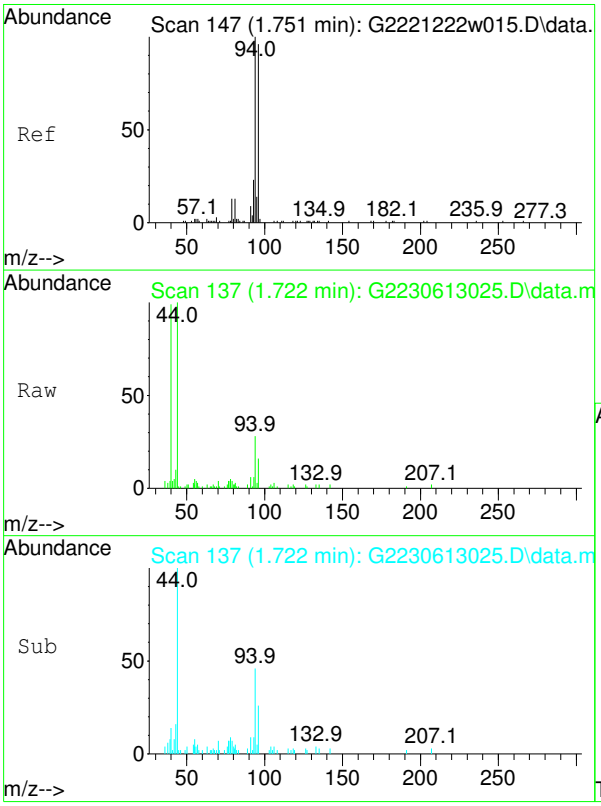
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342180

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613025.D
Acq On : 13 Jun 2023 18:45
Operator : PO1/MP3
Sample : 23F0136-12
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 14 09:42:47 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

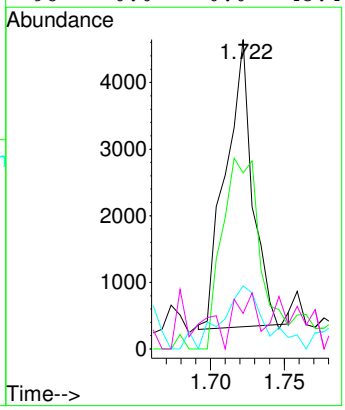


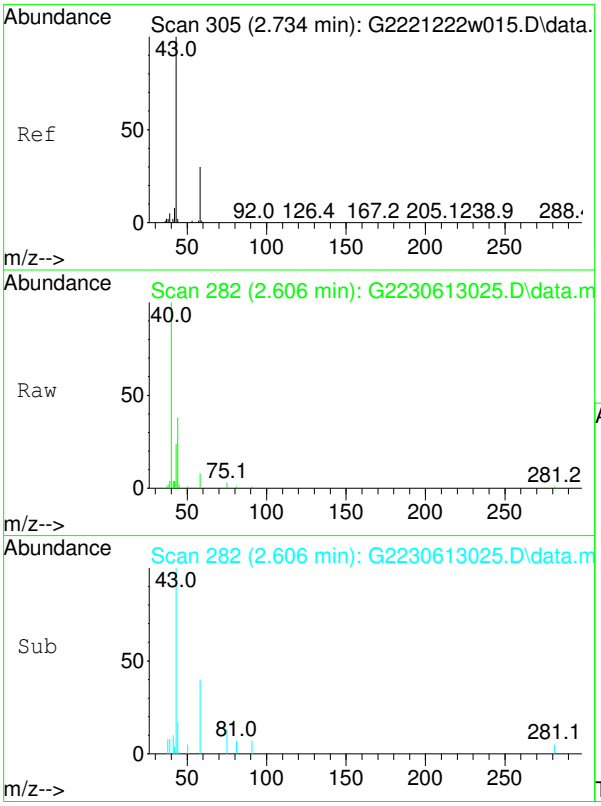


#5
Bromomethane
Concen: Below Cal
RT: 1.724 min Scan# 137
Delta R.T. 0.010 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 94 Resp: 54205

Ion	Ratio	Lower	Upper
94	100		
96	108.0	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

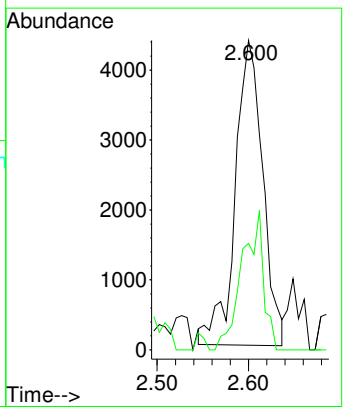


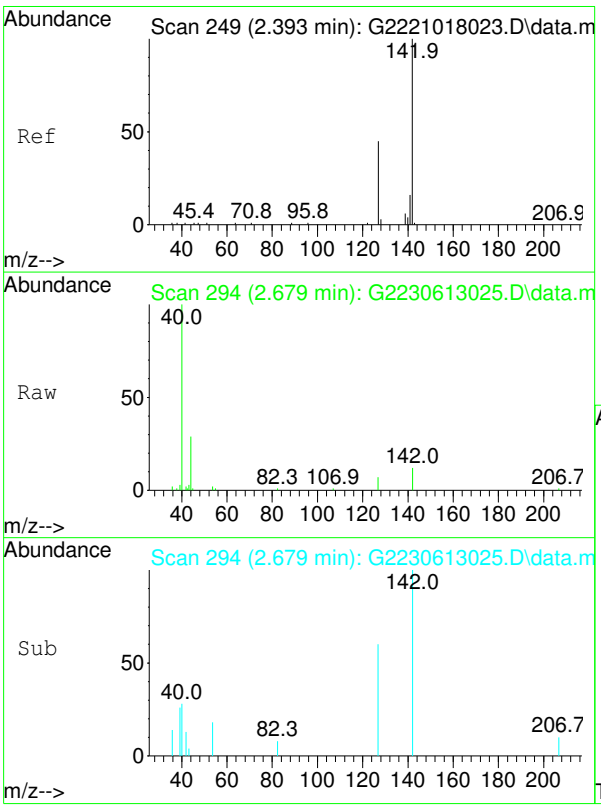


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 282
Delta R.T. -0.005 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 43 Resp: 92057

Ion	Ratio	Lower	Upper
43	100		
58	35.6	0.0	59.7

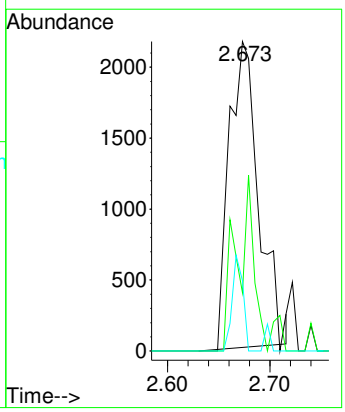


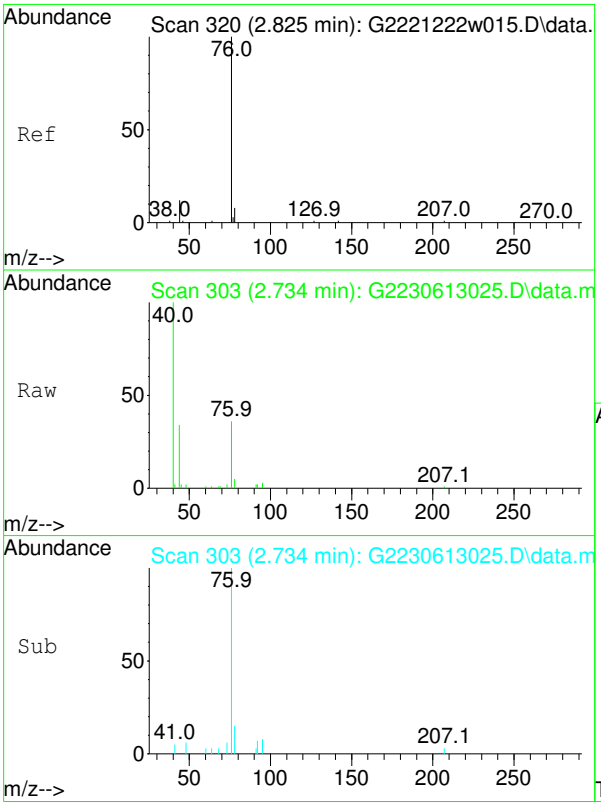


#13
Iodomethane
Concen: 0.11 ug/L
RT: 2.678 min Scan# 294
Delta R.T. 0.002 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion:142 Resp: 42307

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

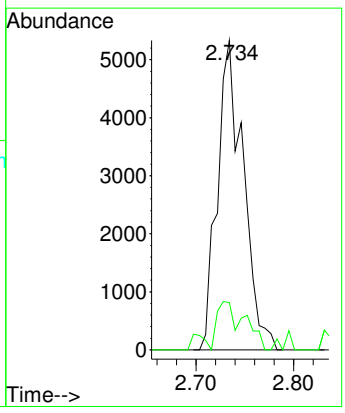


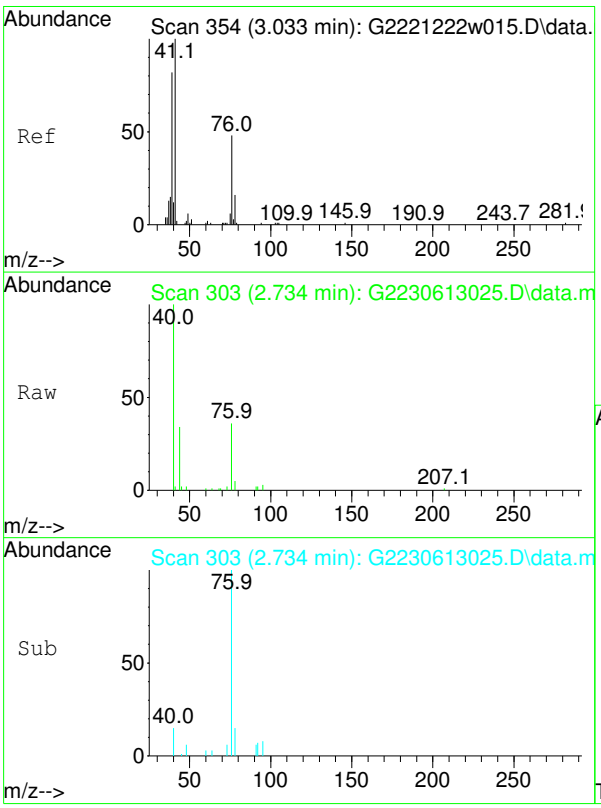


#14
Carbon disulfide
Concen: 0.04 ug/L
RT: 2.735 min Scan# 303
Delta R.T. -0.004 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 76 Resp: 98277

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

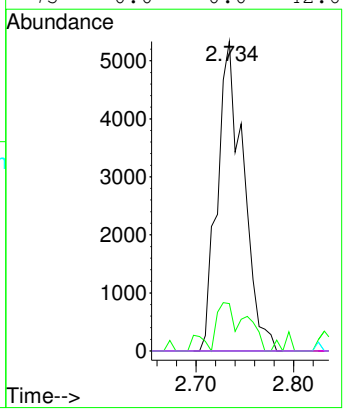


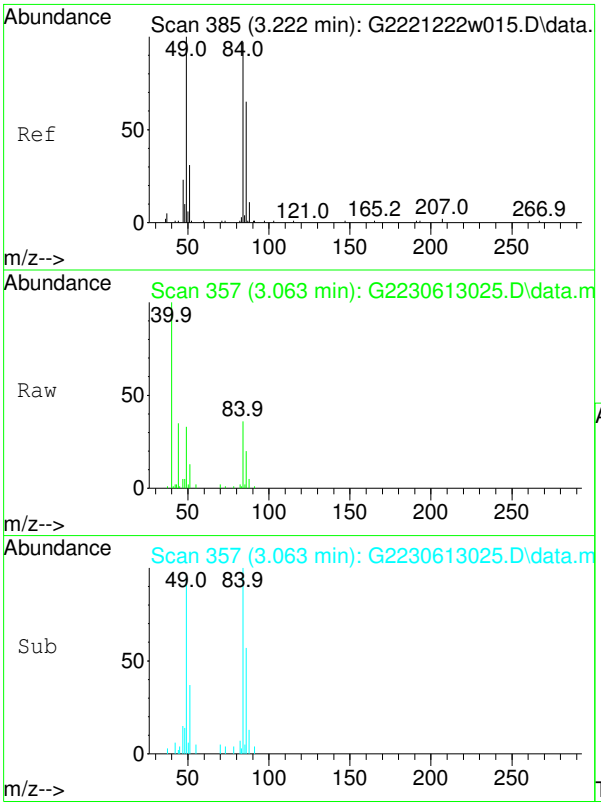


#17
3-Chloro-1-propene
Concen: 0.51 ug/L
RT: 2.735 min Scan# 303
Delta R.T. -0.185 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 76 Resp: 98277

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

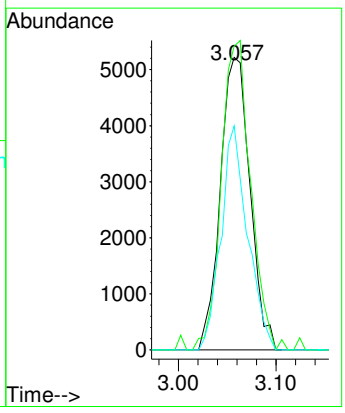


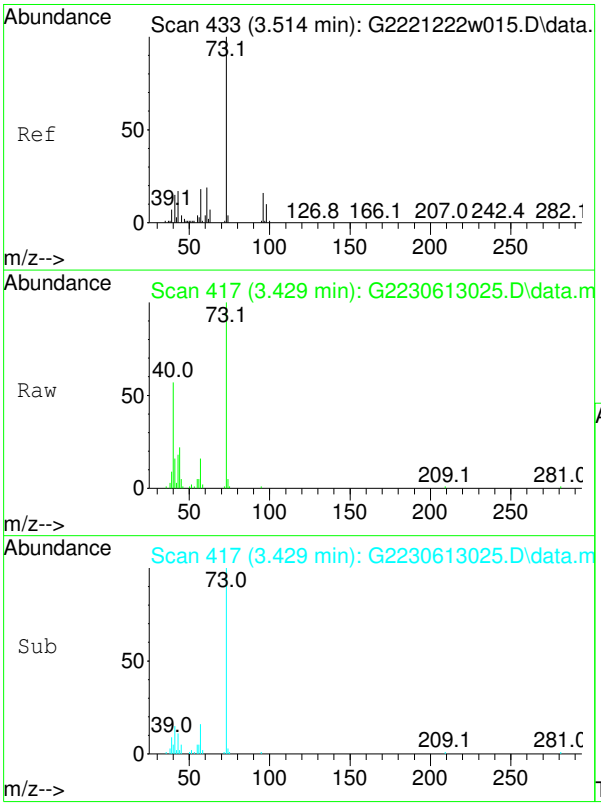


#18
Methylene chloride
Concen: Below Cal
RT: 3.061 min Scan# 357
Delta R.T. -0.001 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 49 Resp: 110144

Ion	Ratio	Lower	Upper
49	100		
84	104.5	57.9	117.9
86	68.7	24.9	84.9

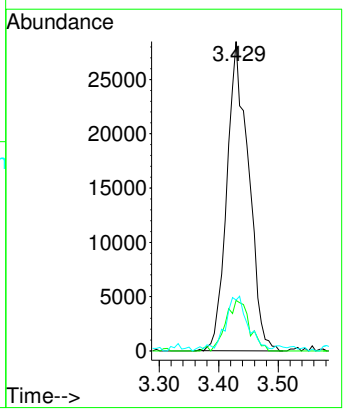


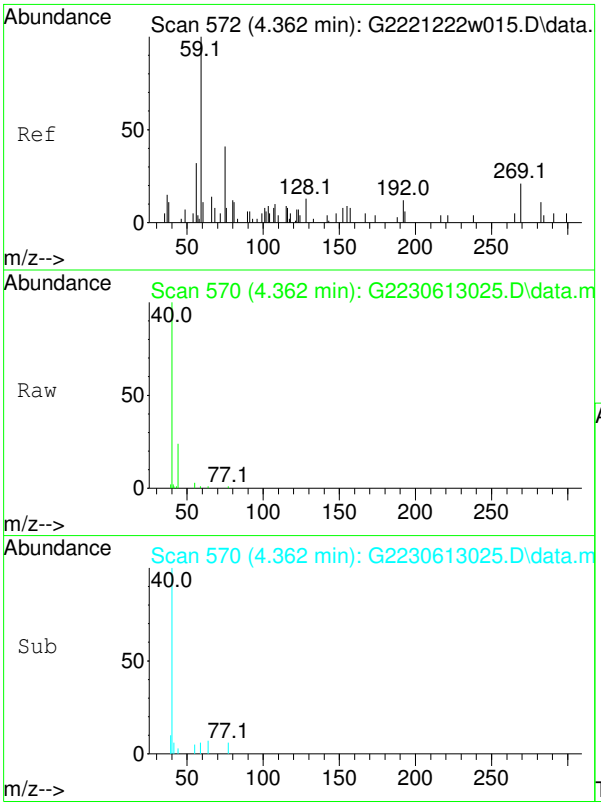


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.431 min Scan# 417
Delta R.T. -0.015 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 73 Resp: 722140

Ion	Ratio	Lower	Upper
73	100		
57	18.0	0.0	51.7
41	17.0	0.0	50.6

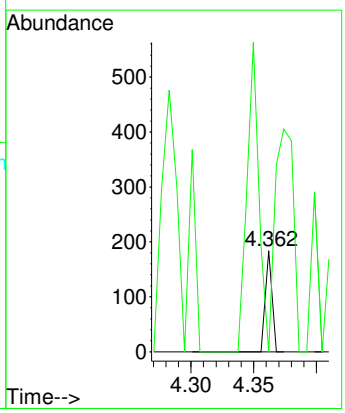


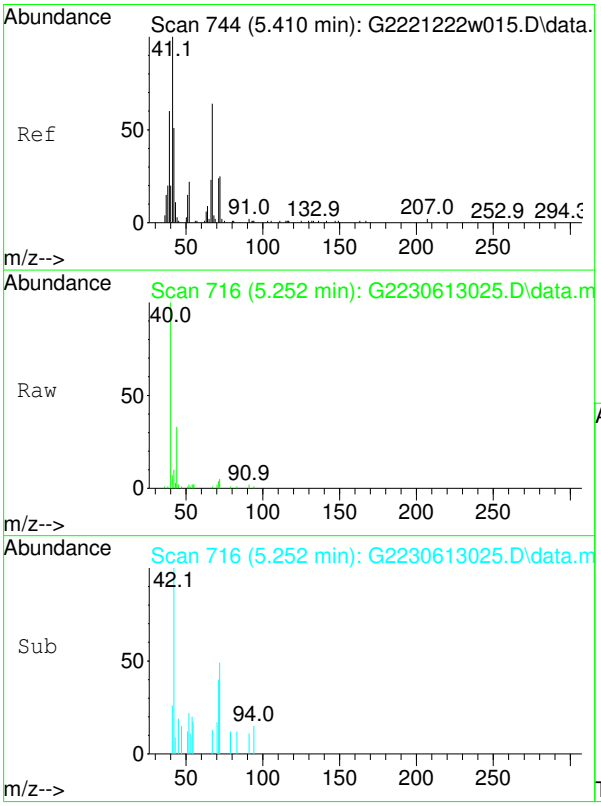


#26
1-propanol
Concen: 0.39 ug/L
RT: 4.364 min Scan# 570
Delta R.T. 0.075 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 59 Resp: 671

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

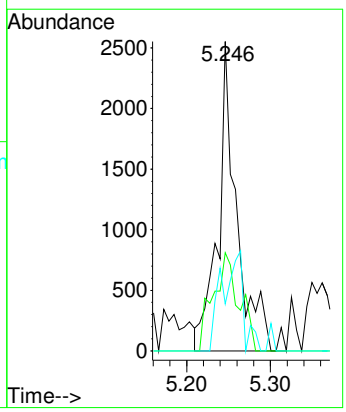


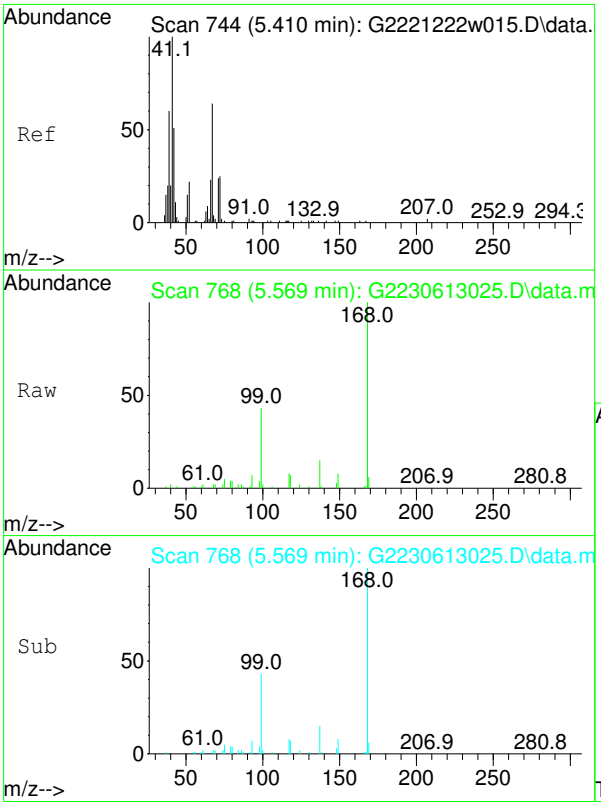


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.249 min Scan# 716
Delta R.T. -0.012 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 42 Resp: 40015

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

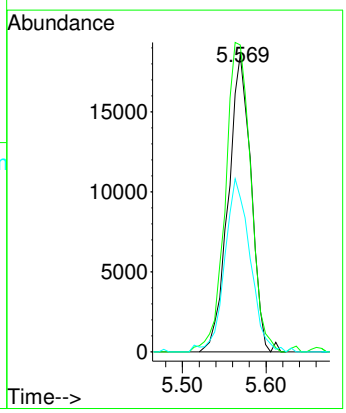


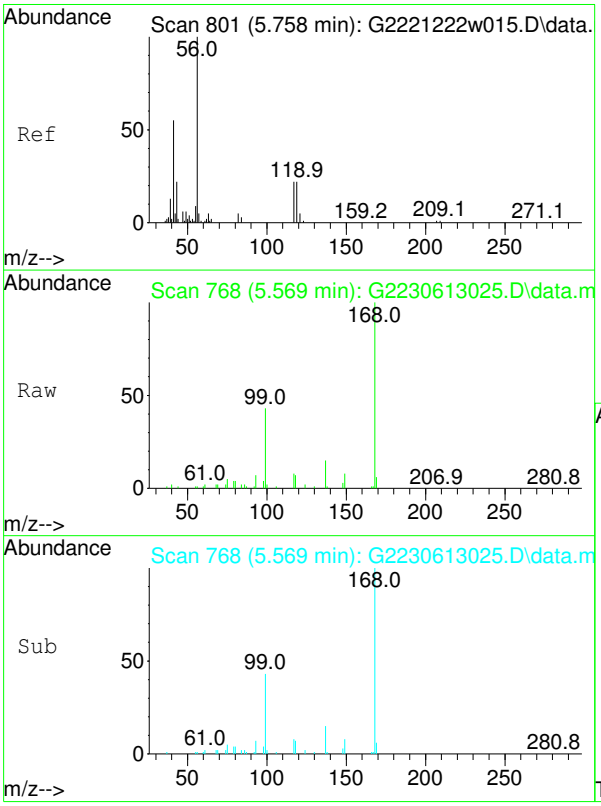


#40
Cyclohexane
Concen: 0.80 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 84 Resp: 352853

Ion	Ratio	Lower	Upper
84	100		
69	116.2	6.8	66.8#
56	65.3	79.1	139.1#

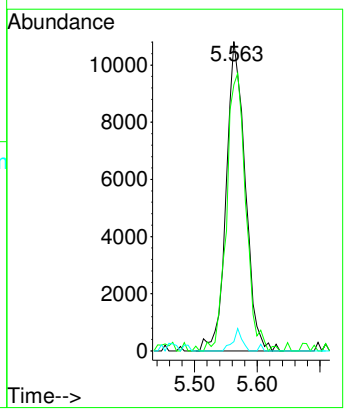


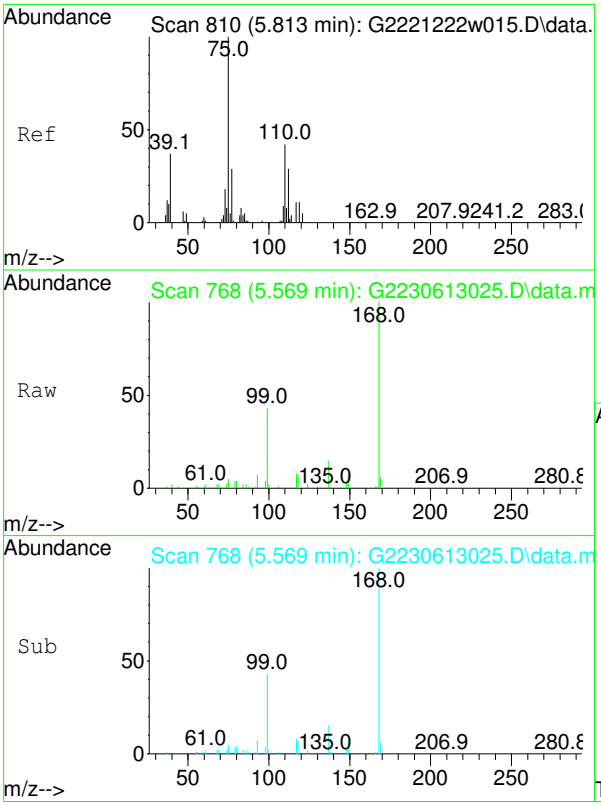


#41
1-Chlorobutane
Concen: 0.45 ug/L
RT: 5.566 min Scan# 768
Delta R.T. -0.064 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 56 Resp: 229665

Ion	Ratio	Lower	Upper
56	100		
55	89.9	0.0	41.0#
57	0.0	0.0	35.7

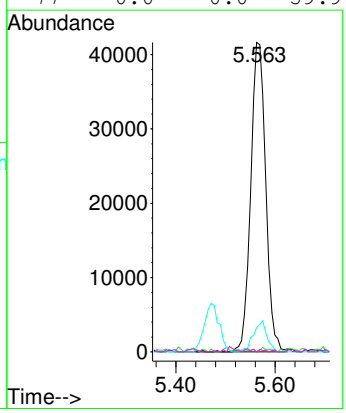


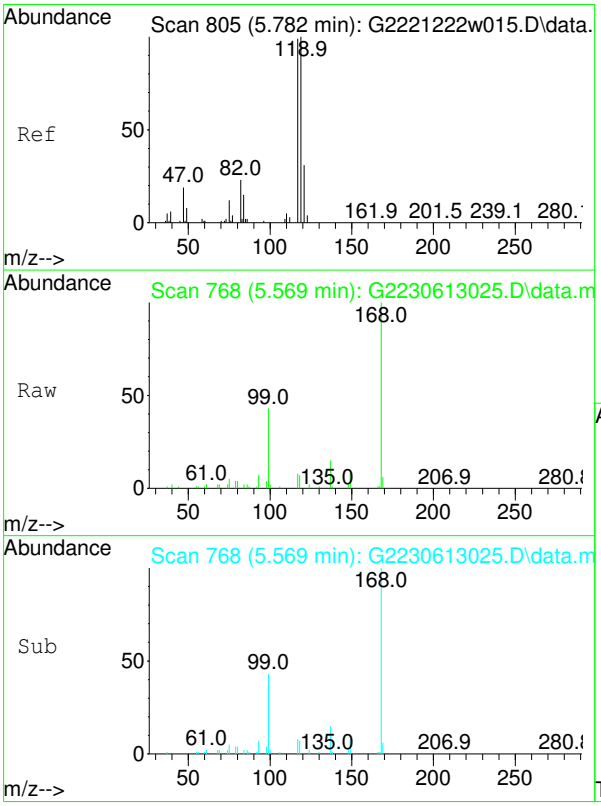


#42
1,1-Dichloropropene
Concen: 2.24 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 75 Resp: 867584

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	8.9	9.1	69.1#
77	0.0	0.0	59.9

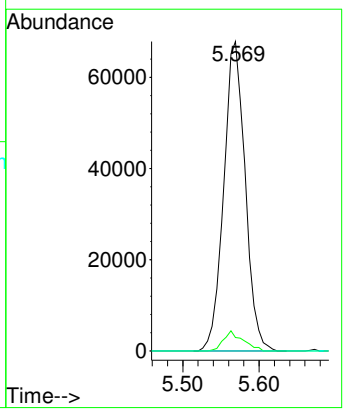


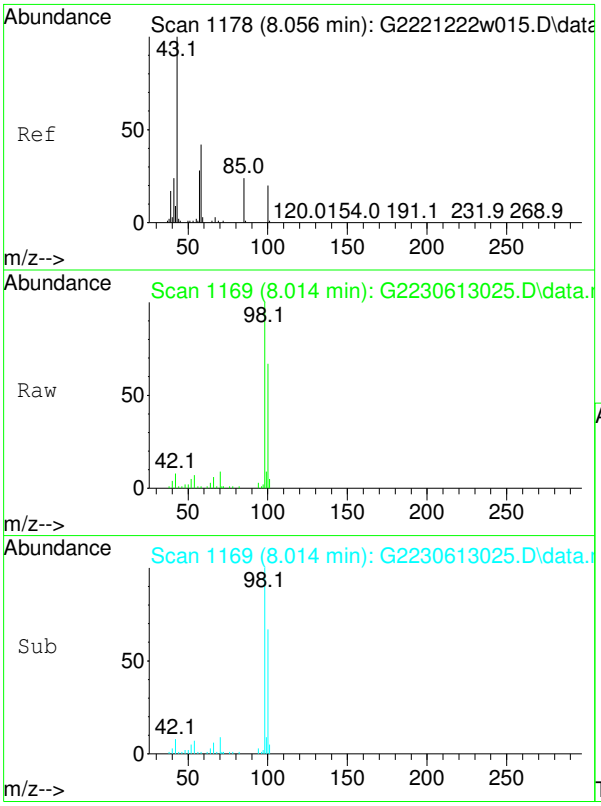


#47
Carbon tetrachloride
Concen: 3.29 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion:117 Resp: 1326164

Ion	Ratio	Lower	Upper
117	100		
119	5.9	66.4	126.4#
121	0.0	0.4	60.4#

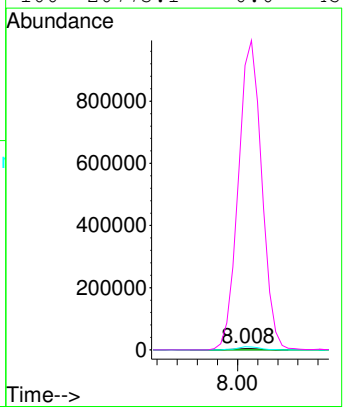


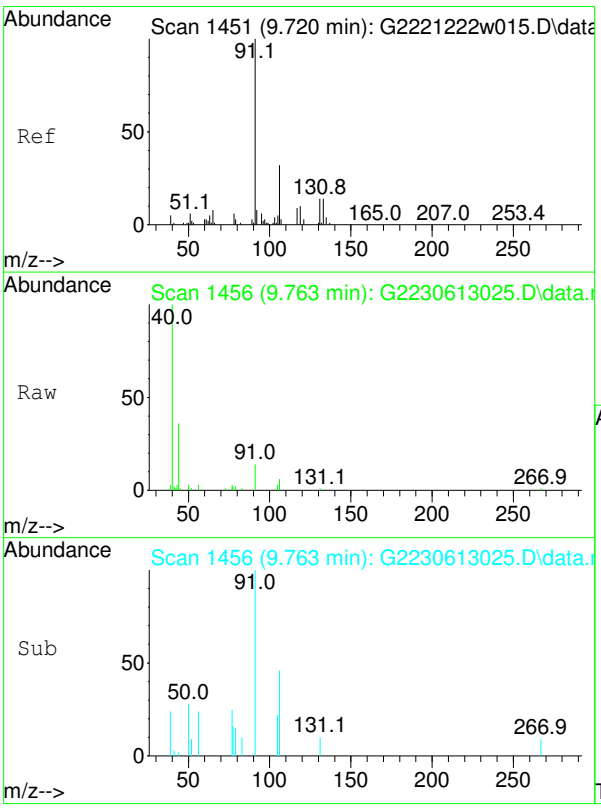


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 43 Resp: 77256

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	211.9	37.0	37.0#
100	20773.1	0.0	45.2#

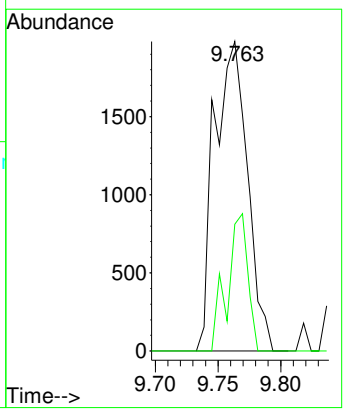


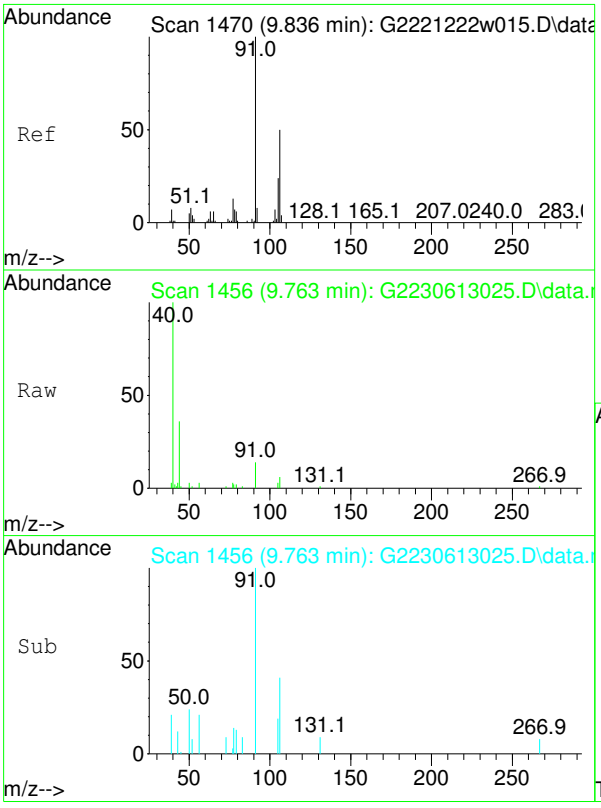


#74
Ethylbenzene
Concen: Below Cal
RT: 9.764 min Scan# 1456
Delta R.T. 0.121 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 91 Resp: 36262

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

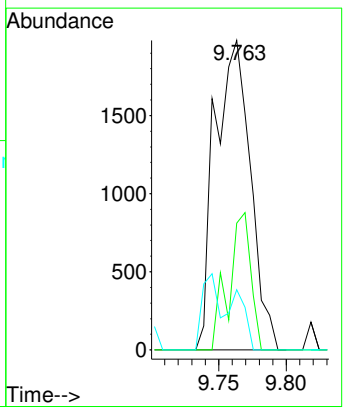


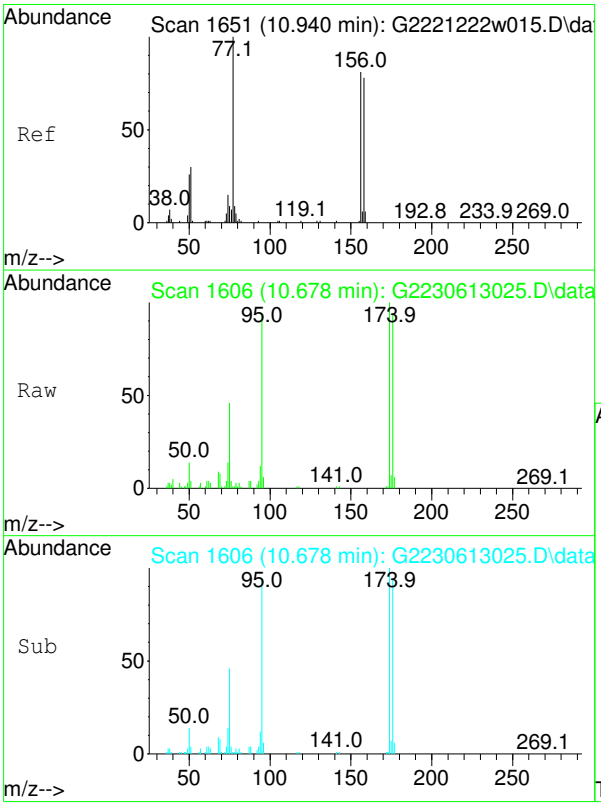


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. 0.000 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 91 Resp: 36263

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

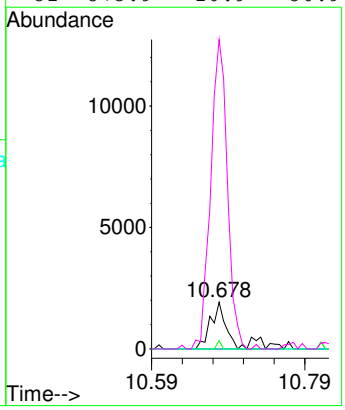




#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.681 min Scan# 1606
Delta R.T. -0.147 min
Lab File: G2230613025.D
Acq: 13 Jun 2023 18:45

Tgt Ion: 77 Resp: 33660

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	573.9	10.9	50.9#



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13	File ID:	G2230613026.D
Sampled:	05/31/23 10:35	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 19:10
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.130	0.400	1.00	U
71-55-6	1,1,1-Trichloroethane		0.175	0.400	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.124	0.400	1.00	U
79-00-5	1,1,2-Trichloroethane		0.166	0.400	1.00	U
75-34-3	1,1-Dichloroethane		0.134	0.400	1.00	U
75-35-4	1,1-Dichloroethene		0.191	0.400	1.00	U
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.204	0.400	1.00	U
96-18-4	1,2,3-Trichloropropane		0.183	0.400	1.00	U
120-82-1	1,2,4-Trichlorobenzene		0.205	0.600	1.20	U
95-63-6	1,2,4-Trimethylbenzene		0.132	0.400	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.260	1.00	2.00	U
106-93-4	1,2-Dibromoethane		0.106	0.400	1.00	U
95-50-1	1,2-Dichlorobenzene		0.126	0.400	1.00	U
107-06-2	1,2-Dichloroethane		0.212	0.600	1.20	U
78-87-5	1,2-Dichloropropane		0.205	0.600	1.20	U
108-67-8	1,3,5-Trimethylbenzene		0.100	0.400	1.00	U
541-73-1	1,3-Dichlorobenzene		0.145	0.400	1.00	U
142-28-9	1,3-Dichloropropane		0.136	0.400	1.00	U
106-46-7	1,4-Dichlorobenzene		0.184	0.400	1.00	U
594-20-7	2,2-Dichloropropane		0.184	0.400	1.00	U
78-93-3	2-Butanone		0.660	1.40	3.50	U
95-49-8	2-Chlorotoluene		0.147	0.400	1.00	U
591-78-6	2-Hexanone		0.143	1.40	3.50	U
106-43-4	4-Chlorotoluene		0.184	0.400	1.00	U
99-87-6	4-Isopropyltoluene		0.140	0.400	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13	File ID:	G2230613026.D
Sampled:	05/31/23 10:35	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 19:10
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.270	1.40	3.50	U
67-64-1	Acetone		1.04	4.00	8.00	U
71-43-2	Benzene		0.101	0.400	1.00	U
108-86-1	Bromobenzene		0.170	0.400	1.00	U
74-97-5	Bromochloromethane		0.134	0.400	1.00	U
75-27-4	Bromodichloromethane		0.106	0.400	1.00	U
75-25-2	Bromoform		0.206	0.400	1.00	U
74-83-9	Bromomethane		0.320	1.00	2.00	U
75-15-0	Carbon disulfide		0.280	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.169	0.400	1.00	U
108-90-7	Chlorobenzene		0.130	0.400	1.00	U
75-00-3	Chloroethane		0.311	0.400	1.00	U
67-66-3	Chloroform		0.203	0.600	1.20	U
74-87-3	Chloromethane		0.384	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.205	0.600	1.20	U
10061-01-5	cis-1,3-Dichloropropene		0.117	0.400	1.00	U
124-48-1	Dibromochloromethane		0.152	0.400	1.00	U
74-95-3	Dibromomethane		0.163	0.400	1.00	U
75-71-8	Dichlorodifluoromethane		0.259	1.00	2.00	U
100-41-4	Ethylbenzene		0.0600	0.200	0.400	U
87-68-3	Hexachlorobutadiene		0.200	0.400	1.00	Q, S1, U
98-82-8	Isopropylbenzene		0.110	0.400	1.00	U
179601-23-1	m,p-Xylene		0.178	0.800	2.00	U
1634-04-4	Methyl tert-butyl ether		0.106	0.400	1.00	U
75-09-2	Methylene chloride		0.447	1.00	2.00	U
104-51-8	n-Butylbenzene		0.260	1.00	2.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

53147WW61

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-13	File ID:	G2230613026.D
Sampled:	05/31/23 10:35	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 19:10
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.126	0.400	1.00	U
91-20-3	Naphthalene		0.140	0.400	1.00	U
95-47-6	o-Xylene		0.0832	0.400	1.00	U
135-98-8	sec-Butylbenzene		0.120	0.400	1.00	U
100-42-5	Styrene		0.0906	0.200	0.400	U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	Q, S1, U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.171	0.400	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene	0.180	0.156	0.400	1.00	J, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride		0.258	1.00	2.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613026.D
Acq On : 13 Jun 2023 19:10
Operator : PO1/MP3
Sample : 23F0136-13
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 14 09:44:22 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

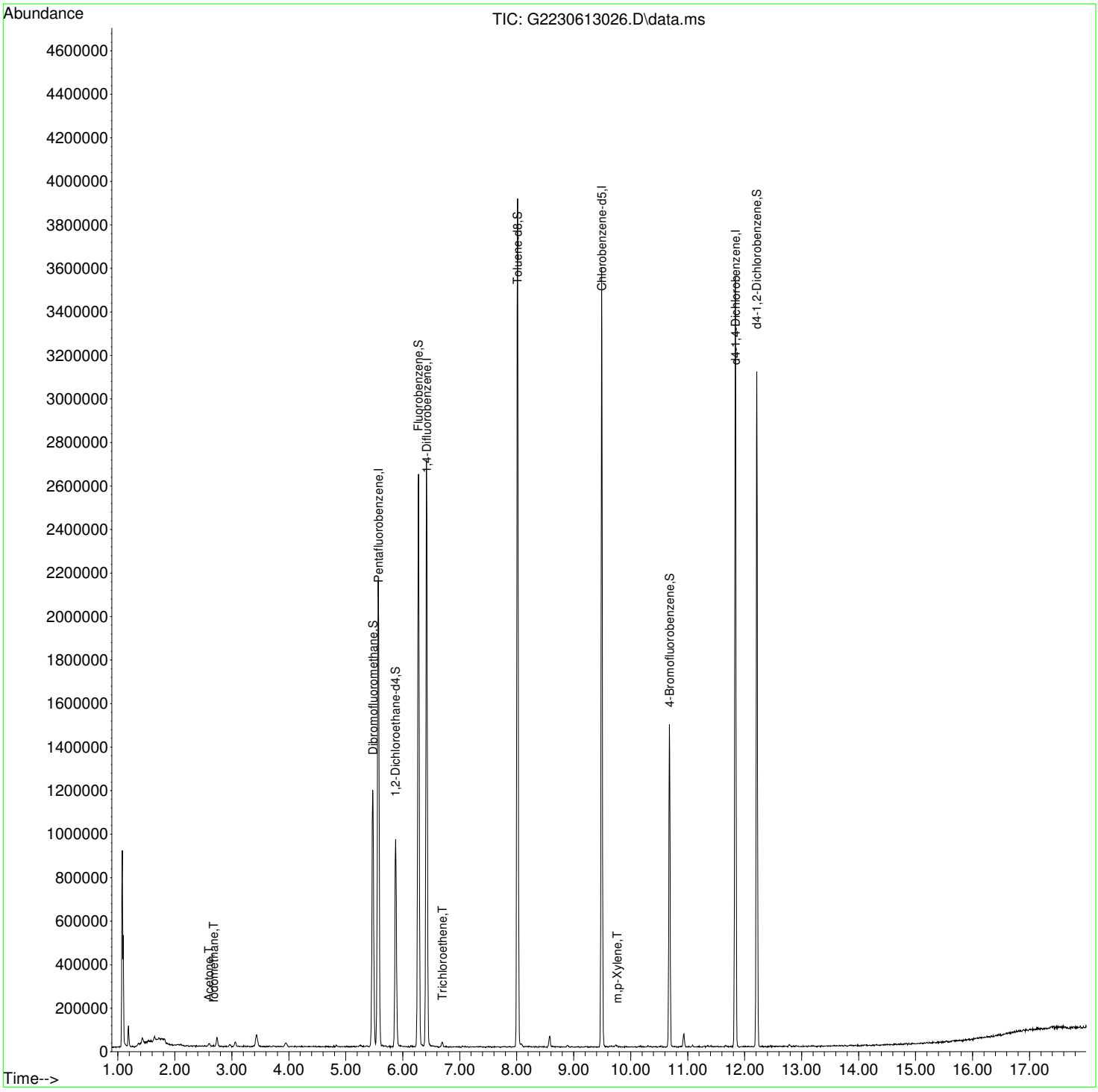
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	17227323	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	23321950	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	20784729	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9869571	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	7480762	19.73	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.65%			
43) 1,2-Dichloroethane-d4	5.877	65	6786895	18.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.55%			
49) Fluorobenzene	6.277	96	25731721	19.36	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%			
64) Toluene-d8	8.016	98	25091979	19.15	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.75%			
81) 4-Bromofluorobenzene	10.683	174	4552398	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%			
97) d4-1,2-Dichlorobenzene	12.216	152	8788506	20.71	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.55%			
Target Compounds						Qvalue
3) Chloromethane	1.357	50	26393	Below Cal	#	41
5) Bromomethane	1.724	94	55010	Below Cal	#	83
12) Acetone	2.599	43	166391	0.40	ug/L	93
13) Iodomethane	2.682	142	39988	0.10	ug/L #	41
18) Methylene chloride	3.062	49	99403	Below Cal	#	61
21) Methyl tert-butyl ether	3.436	73	708316	Below Cal		95
50) Trichloroethene	6.697	95	53513	0.09	ug/L #	80
65) Toluene	8.087	91	53664	Below Cal	#	30
75) m,p-Xylene	9.764	91	37235m	0.03	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342194

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613026.D
Acq On : 13 Jun 2023 19:10
Operator : PO1/MP3
Sample : 23F0136-13
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 14 09:44:22 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613026.D
Acq On : 13 Jun 2023 19:10
Operator : PO1/MP3
Sample : 23F0136-13
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

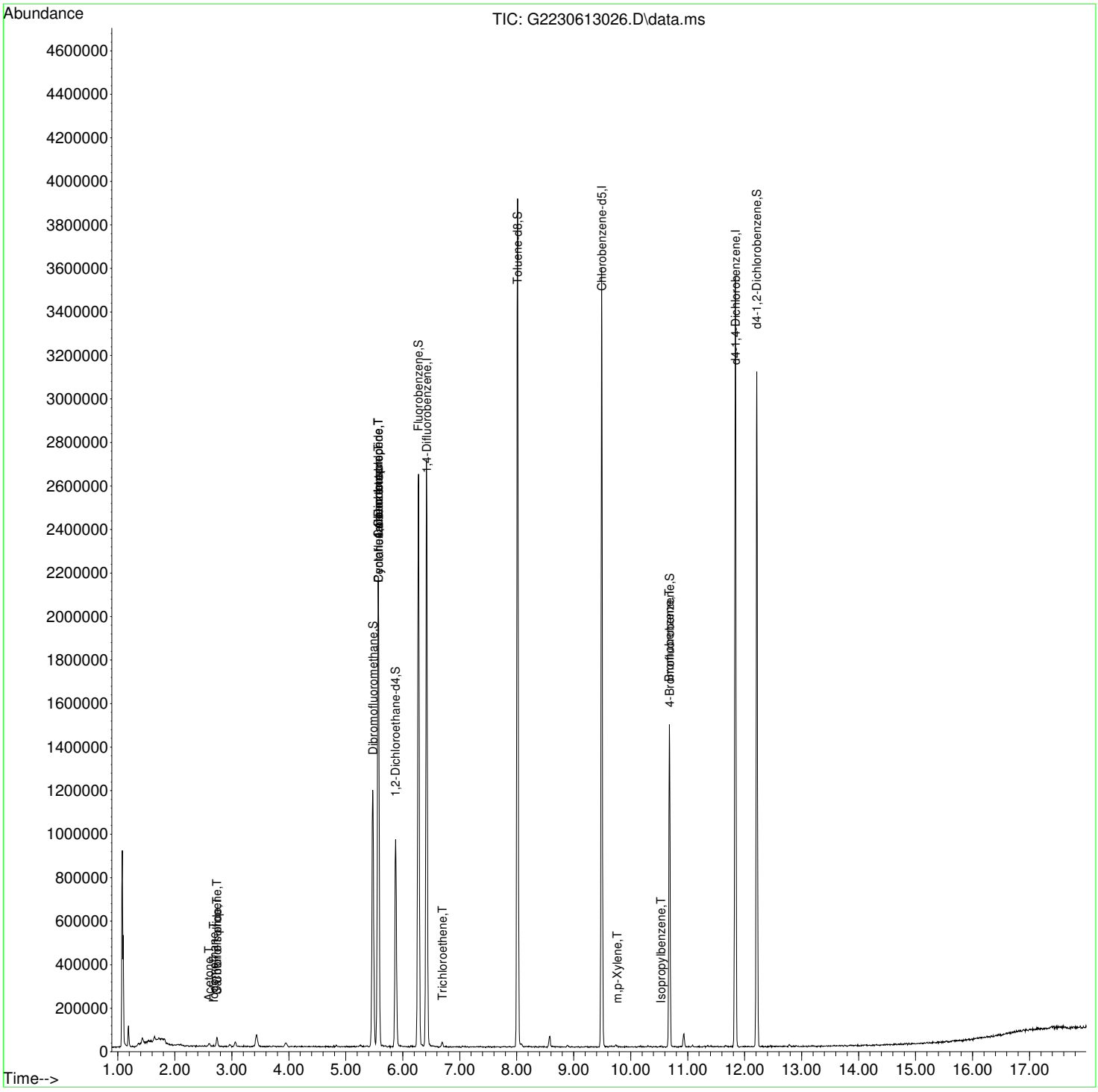
Quant Time: Jun 14 09:44:22 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

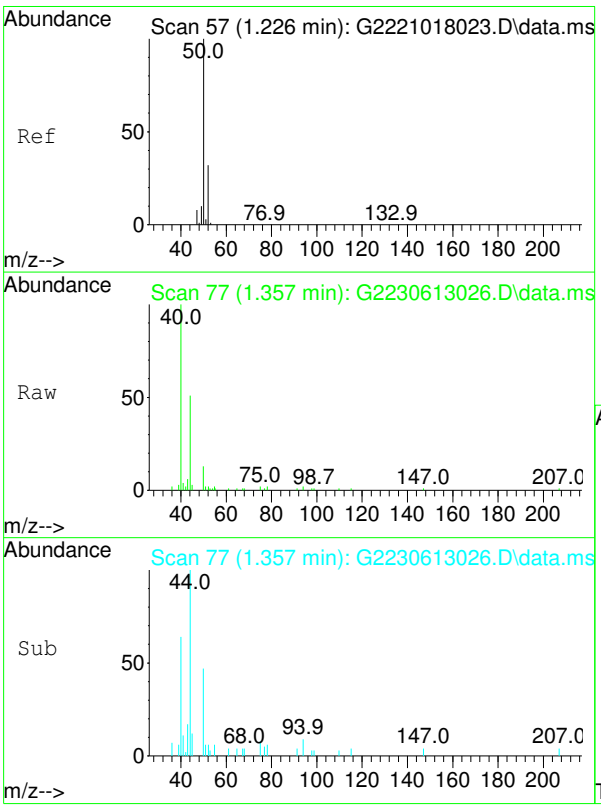
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	17227323	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	23321950	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	20784729	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9869571	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	7480762	19.73	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.65%			
43) 1,2-Dichloroethane-d4	5.877	65	6786895	18.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.55%			
49) Fluorobenzene	6.277	96	25731721	19.36	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%			
64) Toluene-d8	8.016	98	25091979	19.15	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.75%			
81) 4-Bromofluorobenzene	10.683	174	4552398	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%			
97) d4-1,2-Dichlorobenzene	12.216	152	8788506	20.71	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.55%			
Target Compounds						Qvalue
3) Chloromethane	1.357	50	26393	Below Cal	#	41
5) Bromomethane	1.724	94	55010	Below Cal	#	83
12) Acetone	2.599	43	166391	0.40	ug/L	93
13) Iodomethane	2.682	142	39988	0.10	ug/L #	41
14) Carbon disulfide	2.741	76	607617	0.71	ug/L	95
17) 3-Chloro-1-propene	2.741	76	607612	3.44	ug/L #	65
18) Methylene chloride	3.062	49	99403	Below Cal	#	61
21) Methyl tert-butyl ether	3.436	73	708316	Below Cal		95
40) Cyclohexane	5.574	84	383656	0.83	ug/L #	31
41) 1-Chlorobutane	5.570	56	217604	0.40	ug/L #	1
42) 1,1-Dichloropropene	5.571	75	874317	2.16	ug/L #	38
47) Carbon tetrachloride	5.570	117	1383063	3.29	ug/L #	16
50) Trichloroethene	6.697	95	53513	0.09	ug/L #	80
60) 4-Methyl-2-pentanone	8.015	43	81058	Below Cal	#	1
65) Toluene	8.087	91	53664	Below Cal	#	30
74) Ethylbenzene	9.765	91	31476	Below Cal	#	44
75) m,p-Xylene	9.765	91	31573	0.03	ug/L #	36
80) Isopropylbenzene	10.529	105	20069	0.01	ug/L #	58
82) Bromobenzene	10.679	77	30202	0.06	ug/L #	1

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613026.D
Acq On : 13 Jun 2023 19:10
Operator : PO1/MP3
Sample : 23F0136-13
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 14 09:44:22 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

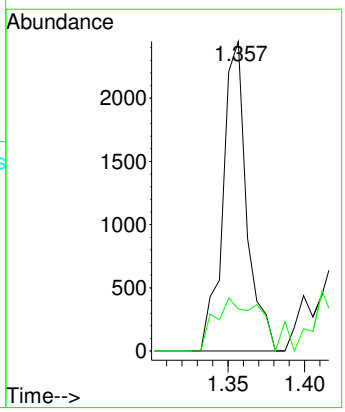


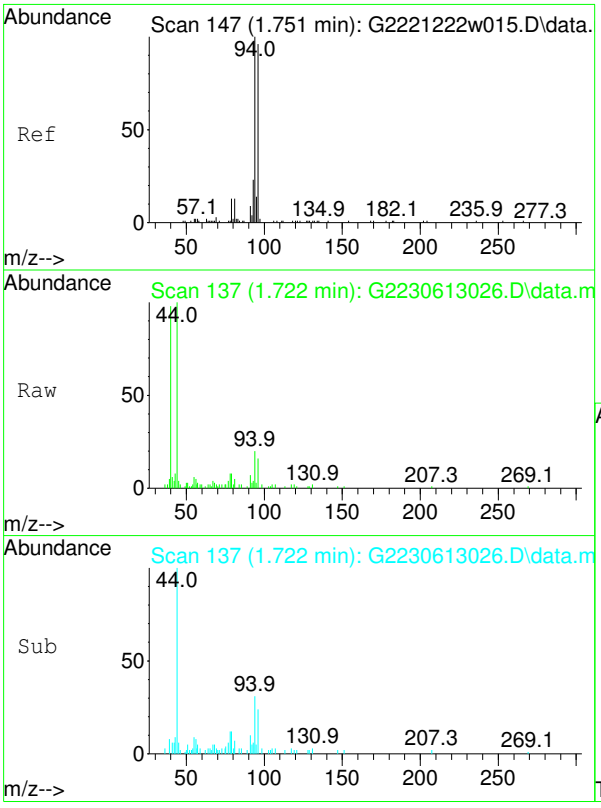


#3
Chloromethane
Concen: Below Cal
RT: 1.357 min Scan# 77
Delta R.T. 0.003 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 50 Resp: 26393

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

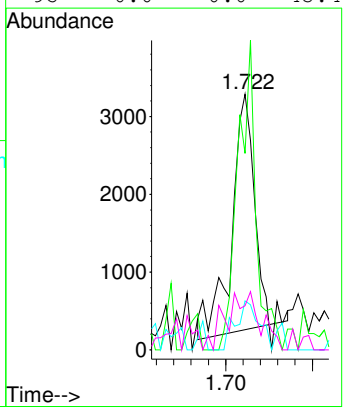


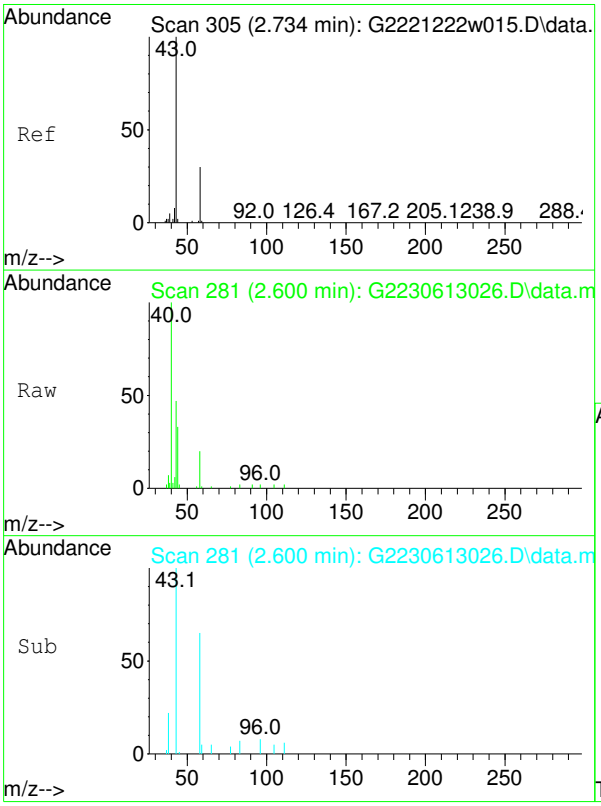


#5
Bromomethane
Concen: Below Cal
RT: 1.724 min Scan# 137
Delta R.T. 0.010 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 94 Resp: 55010

Ion	Ratio	Lower	Upper
94	100		
96	105.3	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

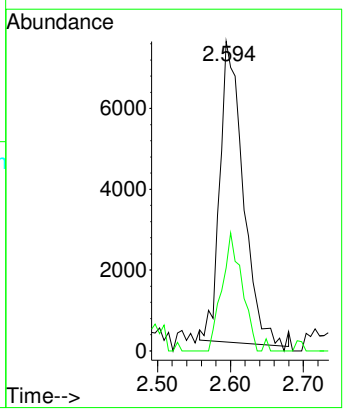


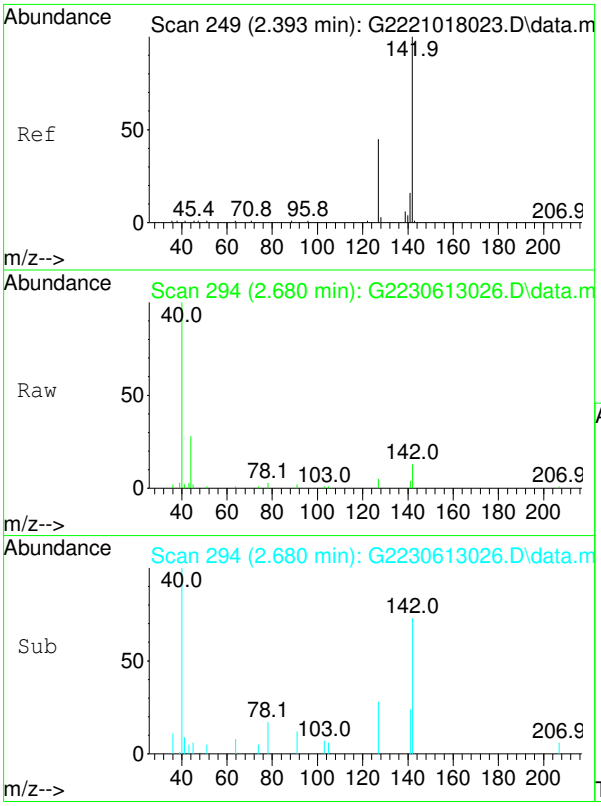


#12
Acetone
Concen: 0.40 ug/L
RT: 2.599 min Scan# 281
Delta R.T. -0.009 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 43 Resp: 166391

Ion	Ratio	Lower	Upper
43	100		
58	33.5	0.0	59.7

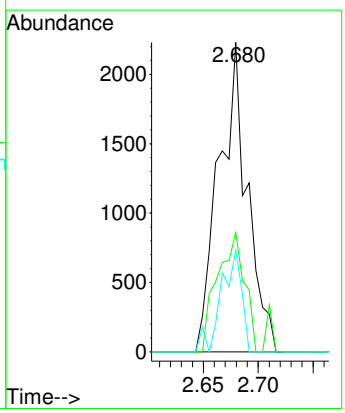


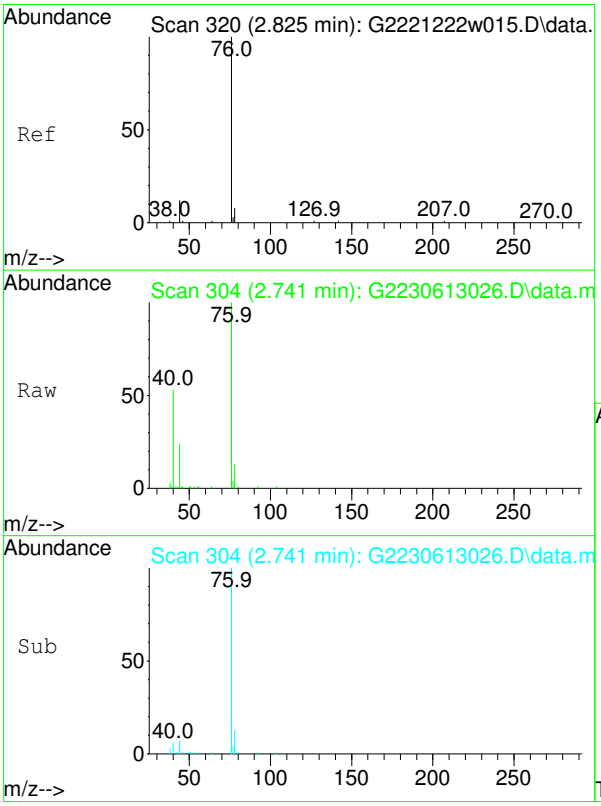


#13
Iodomethane
Concen: 0.10 ug/L
RT: 2.682 min Scan# 294
Delta R.T. 0.006 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion:142 Resp: 39988

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

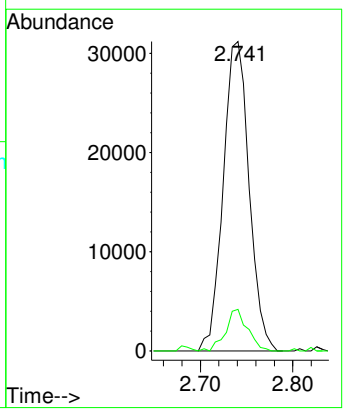


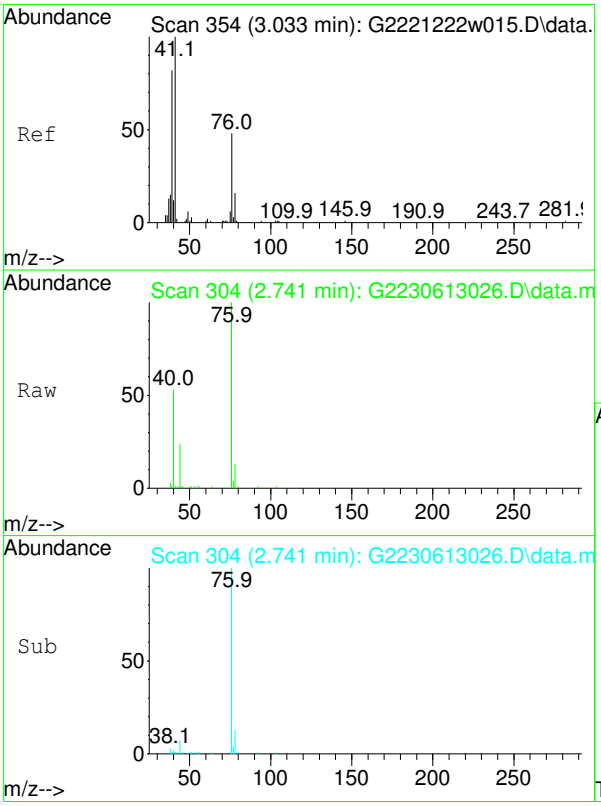


#14
Carbon disulfide
Concen: 0.71 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 76 Resp: 607617

Ion	Ratio	Lower	Upper
76	100		
78	11.2	0.0	39.3

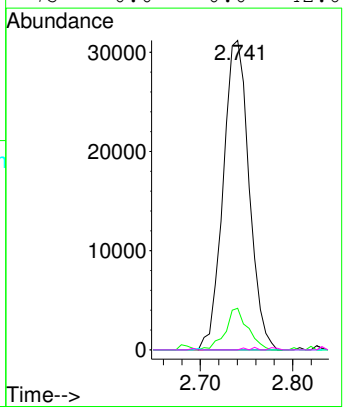


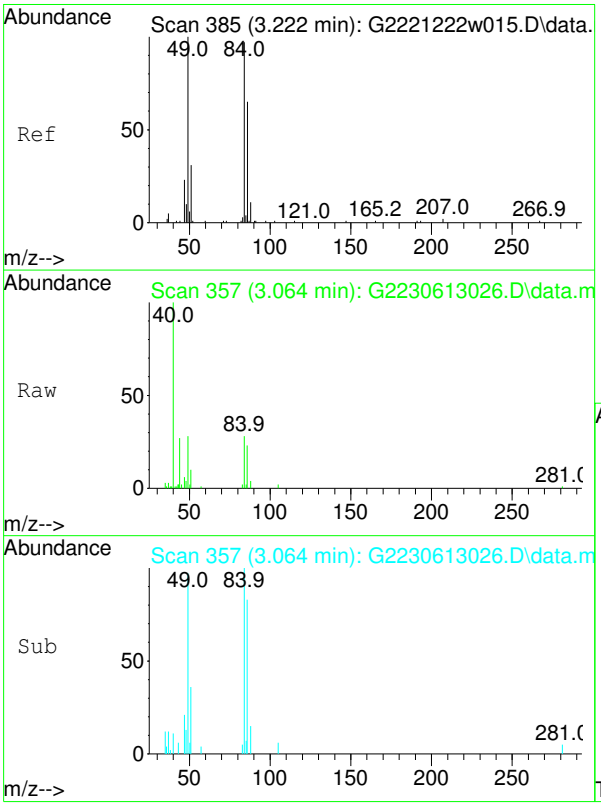


#17
3-Chloro-1-propene
Concen: 3.44 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 76 Resp: 607612

Ion	Ratio	Lower	Upper
76	100		
78	11.6	2.4	62.4
49	0.0	0.0	43.0
75	0.0	0.0	42.6

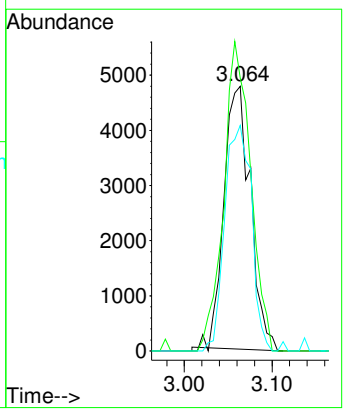


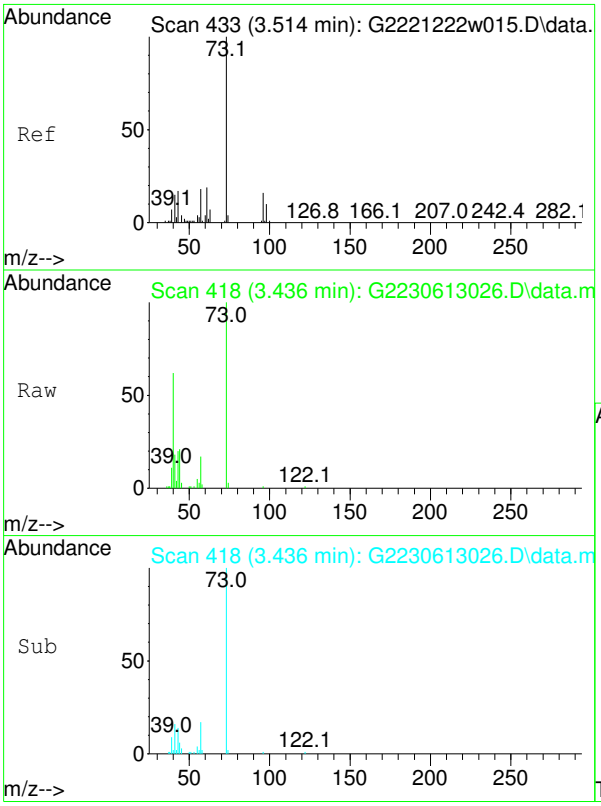


#18
Methylene chloride
Concen: Below Cal
RT: 3.062 min Scan# 357
Delta R.T. 0.000 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 49 Resp: 99403

Ion	Ratio	Lower	Upper
49	100		
84	121.2	57.9	117.9#
86	87.1	24.9	84.9#

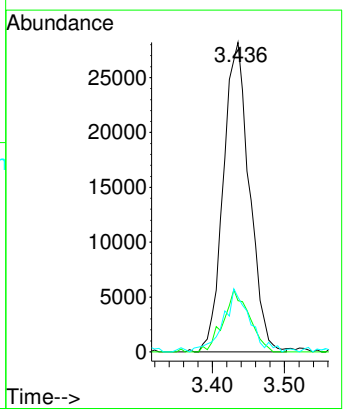


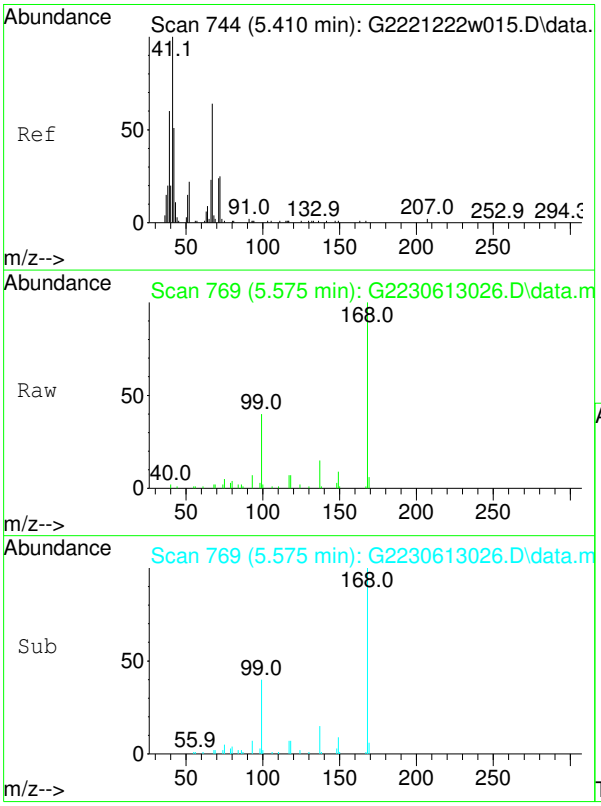


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.436 min Scan# 418
Delta R.T. -0.010 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 73 Resp: 708316

Ion	Ratio	Lower	Upper
73	100		
57	20.1	0.0	51.7
41	17.1	0.0	50.6

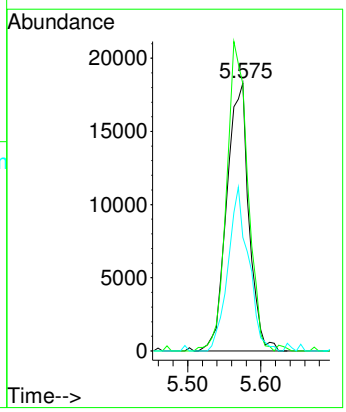


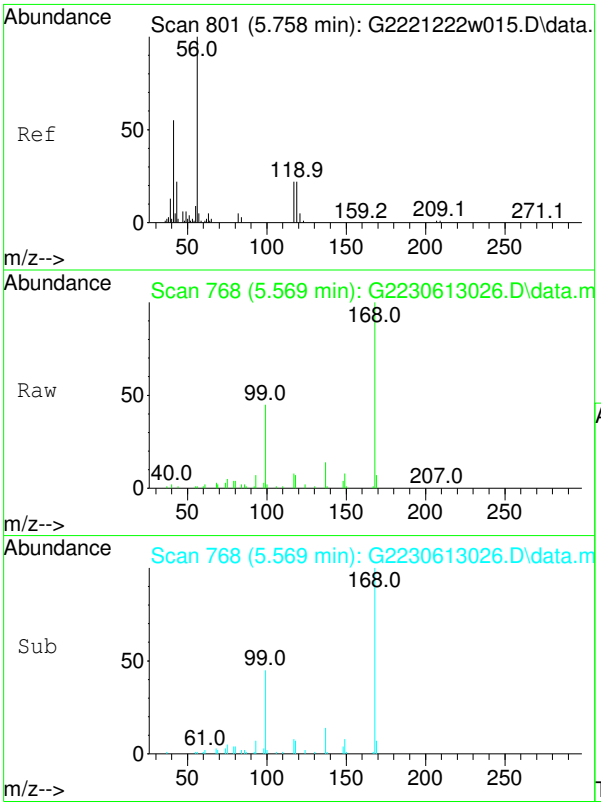


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.574 min Scan# 769
Delta R.T. 0.040 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 84 Resp: 383656

Ion	Ratio	Lower	Upper
84	100		
69	110.6	6.8	66.8#
56	56.8	79.1	139.1#

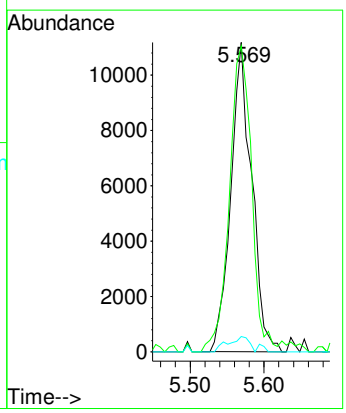


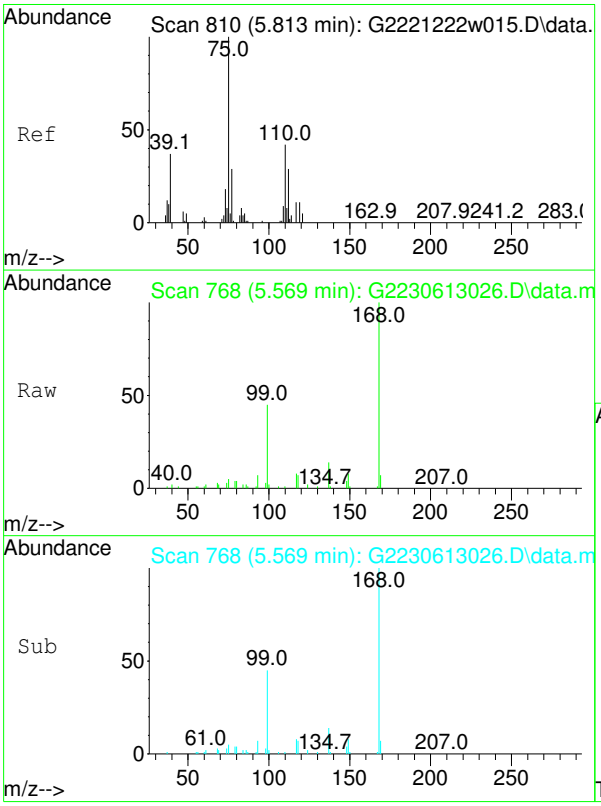


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 56 Resp: 217604

Ion	Ratio	Lower	Upper
56	100		
55	107.7	0.0	41.0#
57	0.0	0.0	35.7

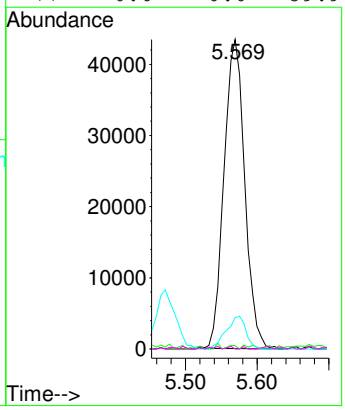


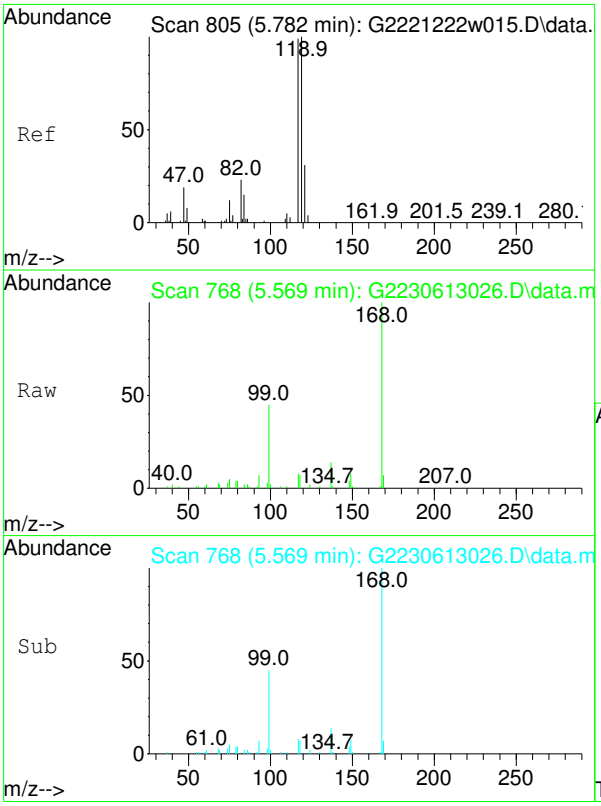


#42
1,1-Dichloropropene
Concen: 2.16 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 75 Resp: 874317

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.0	9.1	69.1
77	0.0	0.0	59.9

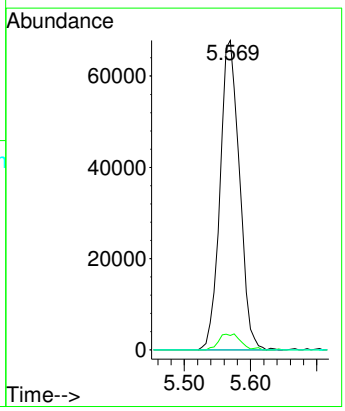


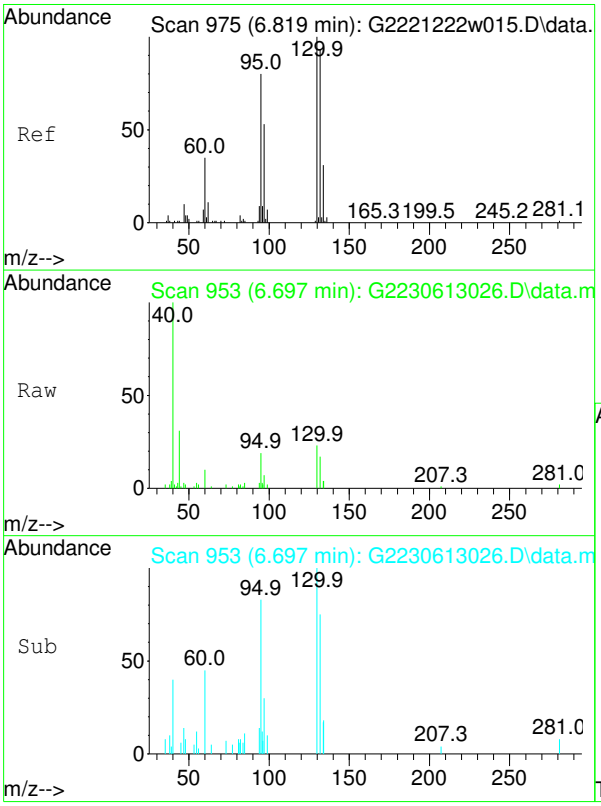


#47
Carbon tetrachloride
Concen: 3.29 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion:117 Resp: 1383063

Ion	Ratio	Lower	Upper
117	100		
119	5.3	66.4	126.4#
121	0.0	0.4	60.4#

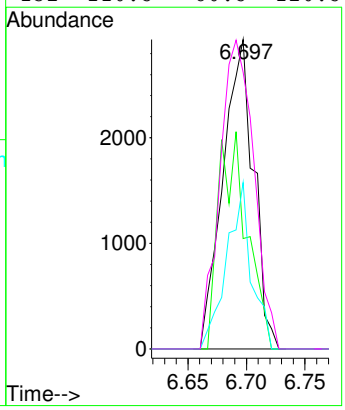


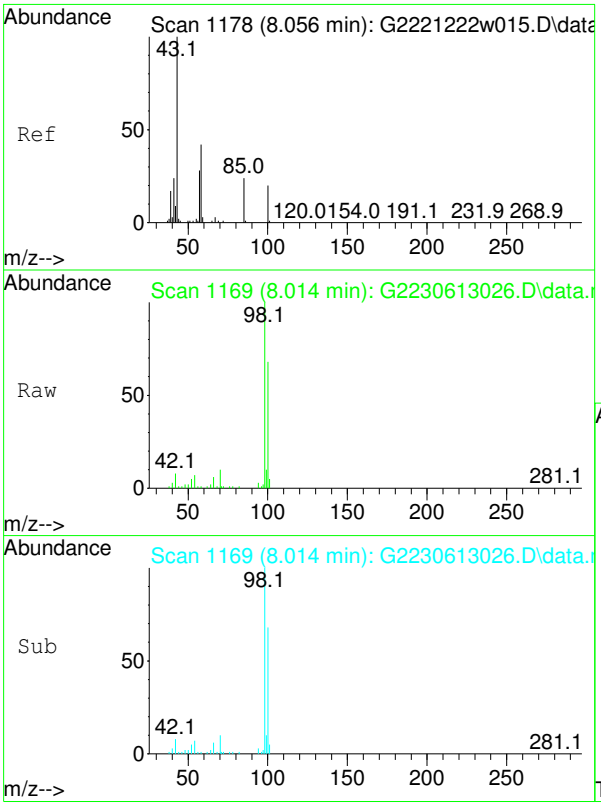


#50
Trichloroethene
Concen: 0.09 ug/L
RT: 6.697 min Scan# 953
Delta R.T. 0.001 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 95 Resp: 53513

Ion	Ratio	Lower	Upper
95	100		
97	65.1	35.5	95.5
60	0.0	14.8	74.8#
132	110.5	80.5	120.5

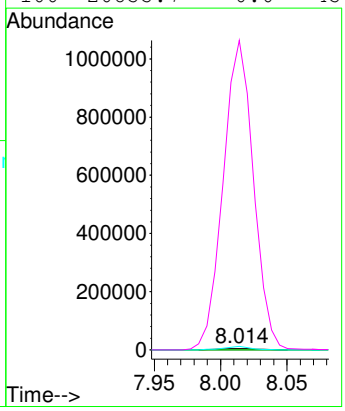


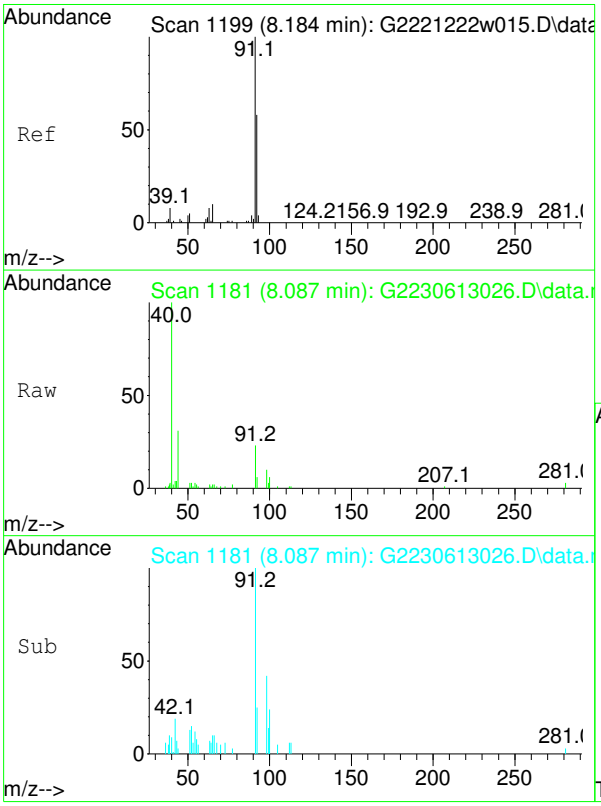


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 43 Resp: 81058

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	196.2	37.0	37.0#
100	20855.7	0.0	45.2#

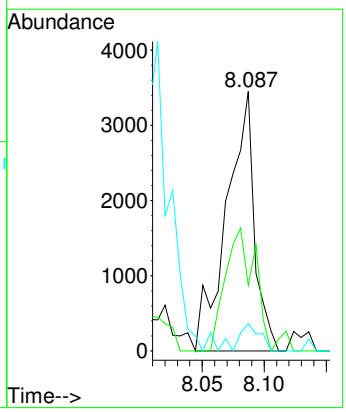


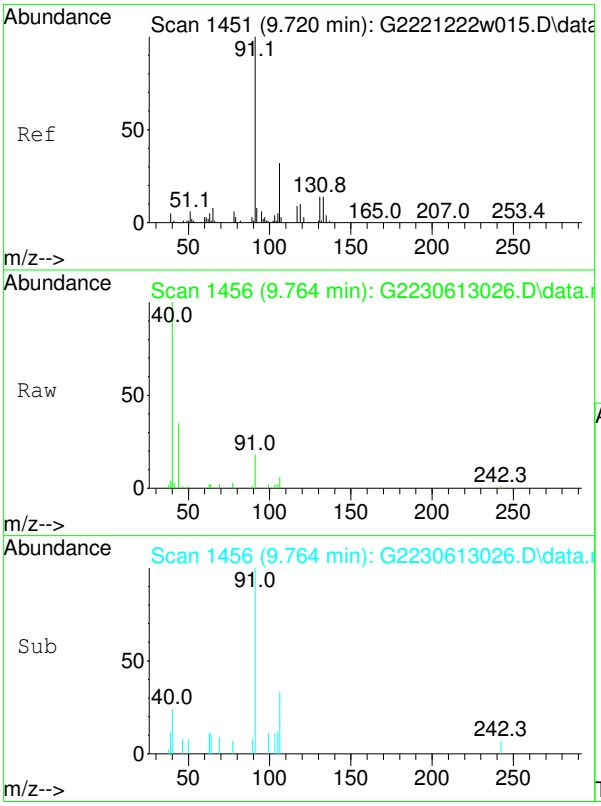


#65
Toluene
Concen: Below Cal
RT: 8.087 min Scan# 1181
Delta R.T. 0.001 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 91 Resp: 53664

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

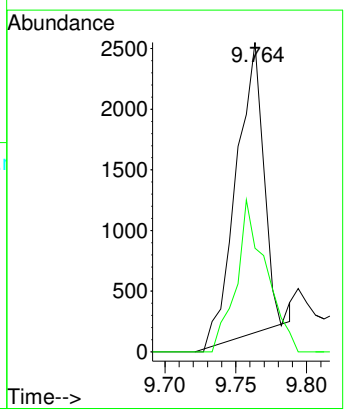


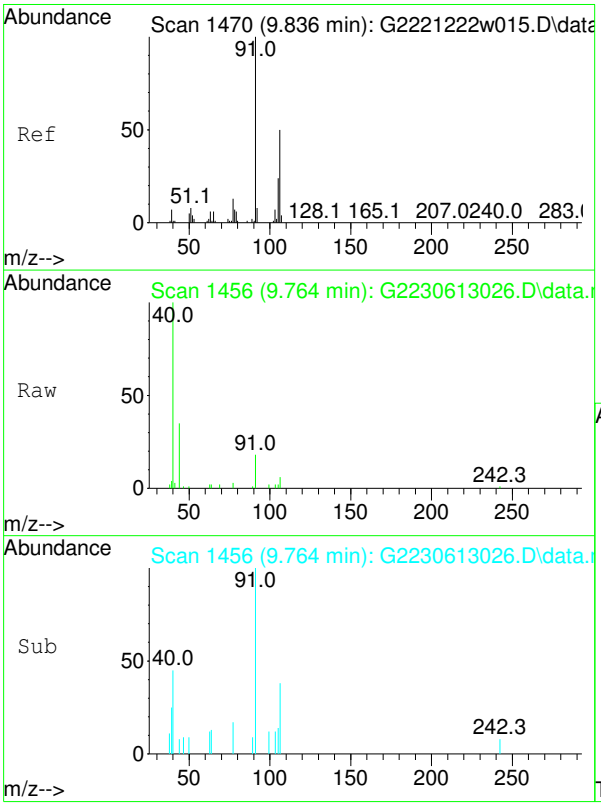


#74
Ethylbenzene
Concen: Below Cal
RT: 9.765 min Scan# 1456
Delta R.T. 0.122 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 91 Resp: 31476

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

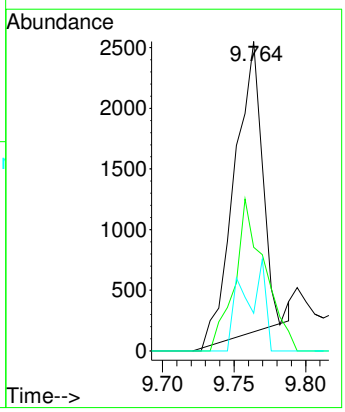


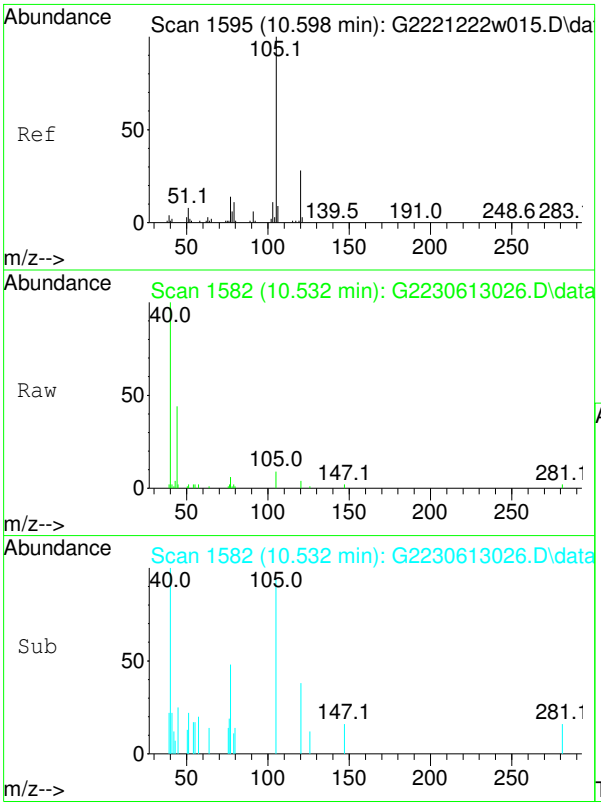


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.765 min Scan# 1456
Delta R.T. 0.001 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion: 91 Resp: 31573

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

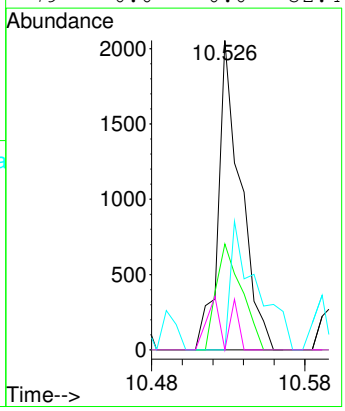


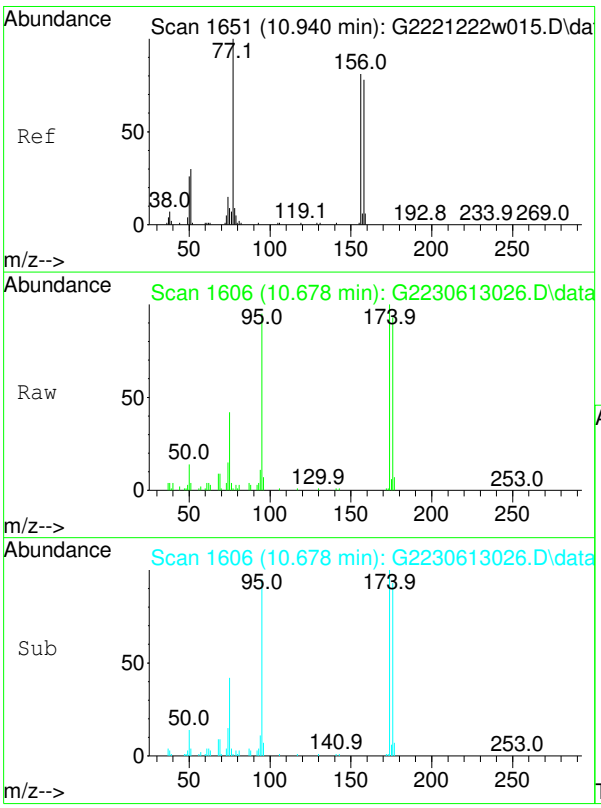


#80
Isopropylbenzene
Concen: 0.01 ug/L
RT: 10.529 min Scan# 1582
Delta R.T. -0.008 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

Tgt Ion:105 Resp: 20069

Ion	Ratio	Lower	Upper
105	100		
120	0.0	6.1	46.1#
77	0.0	0.0	34.9
79	0.0	0.0	32.4

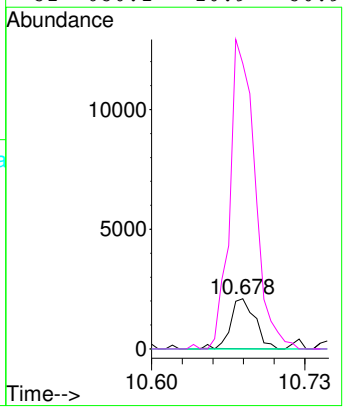




#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.679 min Scan# 1606
Delta R.T. -0.149 min
Lab File: G2230613026.D
Acq: 13 Jun 2023 19:10

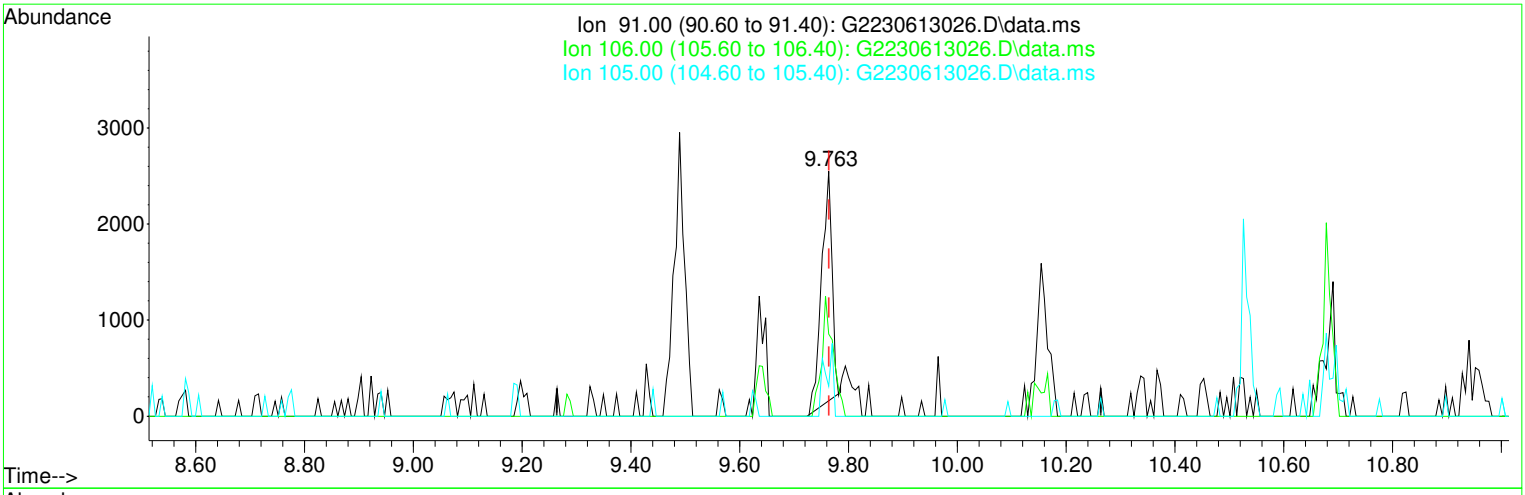
Tgt Ion: 77 Resp: 30202

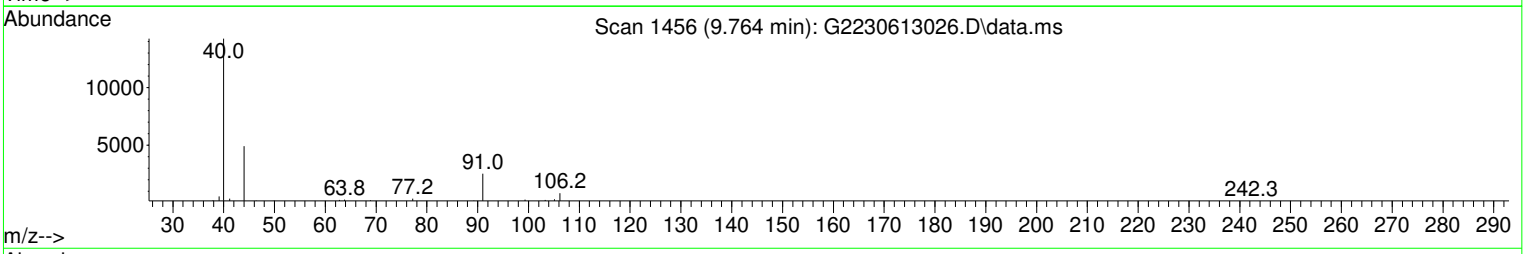
Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	650.1	10.9	50.9#

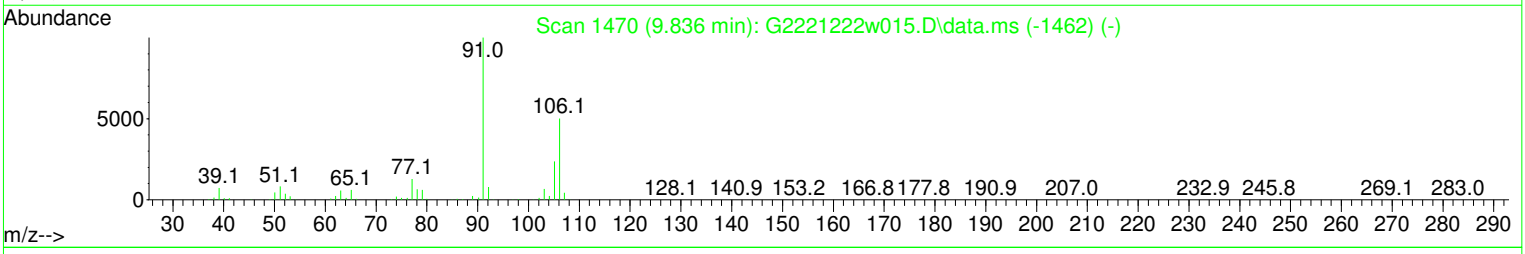


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613026.D
Acq On : 13 Jun 2023 19:10
Operator : PO1/MP3
Sample : 23F0136-13
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 14 09:44:22 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613026.D\data.ms

(75) m,p-Xylene (T)

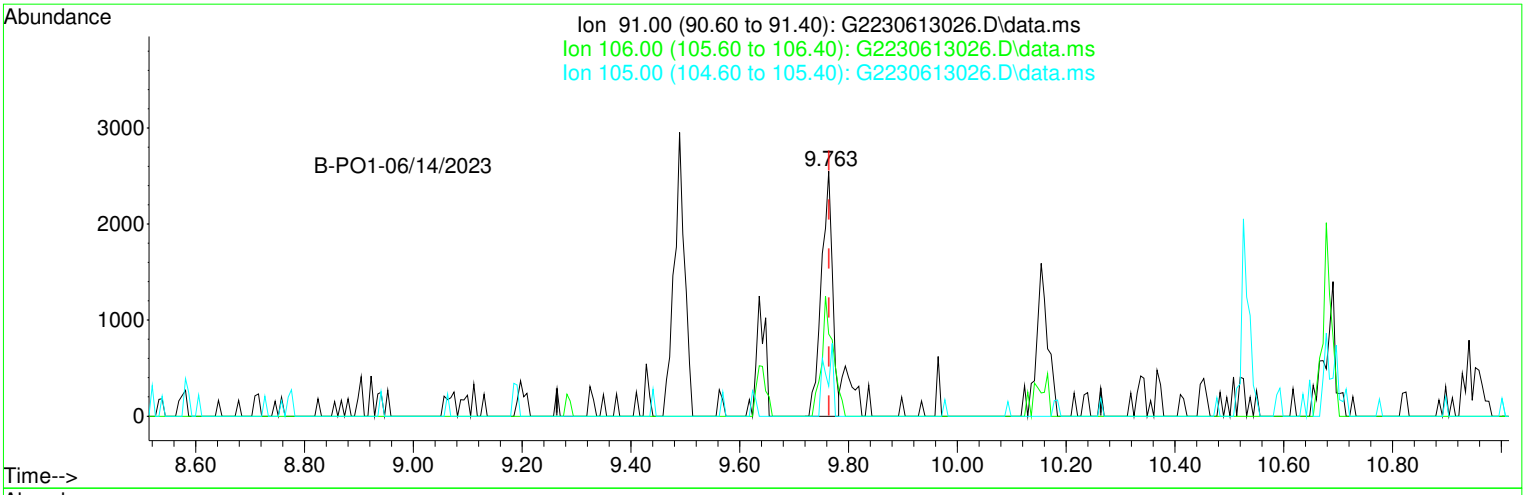
9.765min (+ 0.001) 0.03 ug/L

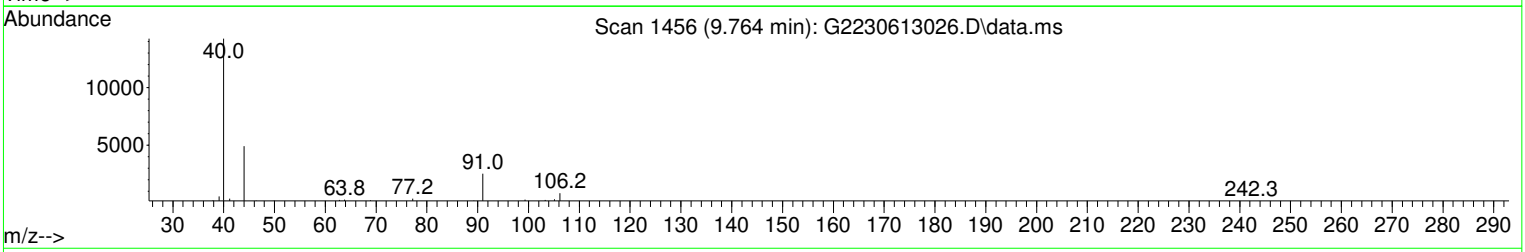
response 31573

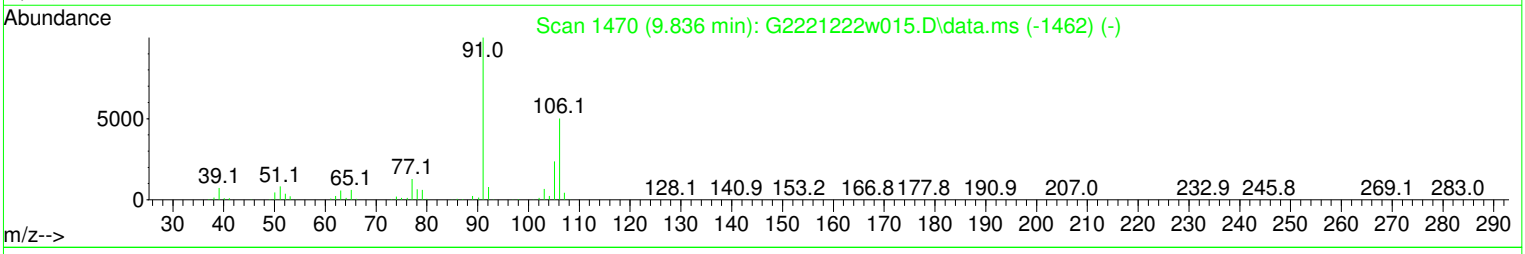
Ion	Exp%	Act%
91.00	100.00	100.00
106.00	49.00	0.00#
105.00	22.70	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613026.D
Acq On : 13 Jun 2023 19:10
Operator : PO1/MP3
Sample : 23F0136-13
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 14 09:44:22 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613026.D\data.ms

(75) m,p-Xylene (T)

9.764min (-0.000) 0.03 ug/L m

response 37235

Ion	Exp%	Act%
91.00	100.00	100.00
106.00	49.00	0.00#
105.00	22.70	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14	File ID:	G2230613027.D
Sampled:	06/01/23 10:45	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 19:35
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.130	0.400	1.00	U
71-55-6	1,1,1-Trichloroethane		0.175	0.400	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.124	0.400	1.00	U
79-00-5	1,1,2-Trichloroethane		0.166	0.400	1.00	U
75-34-3	1,1-Dichloroethane		0.134	0.400	1.00	U
75-35-4	1,1-Dichloroethene		0.191	0.400	1.00	U
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.204	0.400	1.00	U
96-18-4	1,2,3-Trichloropropane		0.183	0.400	1.00	U
120-82-1	1,2,4-Trichlorobenzene		0.205	0.600	1.20	U
95-63-6	1,2,4-Trimethylbenzene		0.132	0.400	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.260	1.00	2.00	U
106-93-4	1,2-Dibromoethane		0.106	0.400	1.00	U
95-50-1	1,2-Dichlorobenzene		0.126	0.400	1.00	U
107-06-2	1,2-Dichloroethane		0.212	0.600	1.20	U
78-87-5	1,2-Dichloropropane		0.205	0.600	1.20	U
108-67-8	1,3,5-Trimethylbenzene		0.100	0.400	1.00	U
541-73-1	1,3-Dichlorobenzene		0.145	0.400	1.00	U
142-28-9	1,3-Dichloropropane		0.136	0.400	1.00	U
106-46-7	1,4-Dichlorobenzene		0.184	0.400	1.00	U
594-20-7	2,2-Dichloropropane		0.184	0.400	1.00	U
78-93-3	2-Butanone		0.660	1.40	3.50	U
95-49-8	2-Chlorotoluene		0.147	0.400	1.00	U
591-78-6	2-Hexanone		0.143	1.40	3.50	U
106-43-4	4-Chlorotoluene		0.184	0.400	1.00	U
99-87-6	4-Isopropyltoluene		0.140	0.400	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14	File ID:	G2230613027.D
Sampled:	06/01/23 10:45	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 19:35
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.270	1.40	3.50	U
67-64-1	Acetone		1.04	4.00	8.00	U
71-43-2	Benzene		0.101	0.400	1.00	U
108-86-1	Bromobenzene		0.170	0.400	1.00	U
74-97-5	Bromochloromethane		0.134	0.400	1.00	U
75-27-4	Bromodichloromethane		0.106	0.400	1.00	U
75-25-2	Bromoform		0.206	0.400	1.00	U
74-83-9	Bromomethane		0.320	1.00	2.00	U
75-15-0	Carbon disulfide		0.280	1.00	2.00	U
56-23-5	Carbon tetrachloride		0.169	0.400	1.00	U
108-90-7	Chlorobenzene		0.130	0.400	1.00	U
75-00-3	Chloroethane		0.311	0.400	1.00	U
67-66-3	Chloroform		0.203	0.600	1.20	U
74-87-3	Chloromethane		0.384	1.00	2.00	U
156-59-2	cis-1,2-Dichloroethene		0.205	0.600	1.20	U
10061-01-5	cis-1,3-Dichloropropene		0.117	0.400	1.00	U
124-48-1	Dibromochloromethane		0.152	0.400	1.00	U
74-95-3	Dibromomethane		0.163	0.400	1.00	U
75-71-8	Dichlorodifluoromethane		0.259	1.00	2.00	U
100-41-4	Ethylbenzene		0.0600	0.200	0.400	U
87-68-3	Hexachlorobutadiene		0.200	0.400	1.00	Q, S1, U
98-82-8	Isopropylbenzene		0.110	0.400	1.00	U
179601-23-1	m,p-Xylene		0.178	0.800	2.00	U
1634-04-4	Methyl tert-butyl ether		0.106	0.400	1.00	U
75-09-2	Methylene chloride		0.447	1.00	2.00	U
104-51-8	n-Butylbenzene		0.260	1.00	2.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW31

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-14	File ID:	G2230613027.D
Sampled:	06/01/23 10:45	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 19:35
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.126	0.400	1.00	U
91-20-3	Naphthalene		0.140	0.400	1.00	U
95-47-6	o-Xylene		0.0832	0.400	1.00	U
135-98-8	sec-Butylbenzene		0.120	0.400	1.00	U
100-42-5	Styrene		0.0906	0.200	0.400	U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	Q, S1, U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.171	0.400	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene	0.960	0.156	0.400	1.00	J, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride		0.258	1.00	2.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613027.D
Acq On : 13 Jun 2023 19:35
Operator : PO1/MP3
Sample : 23F0136-14
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

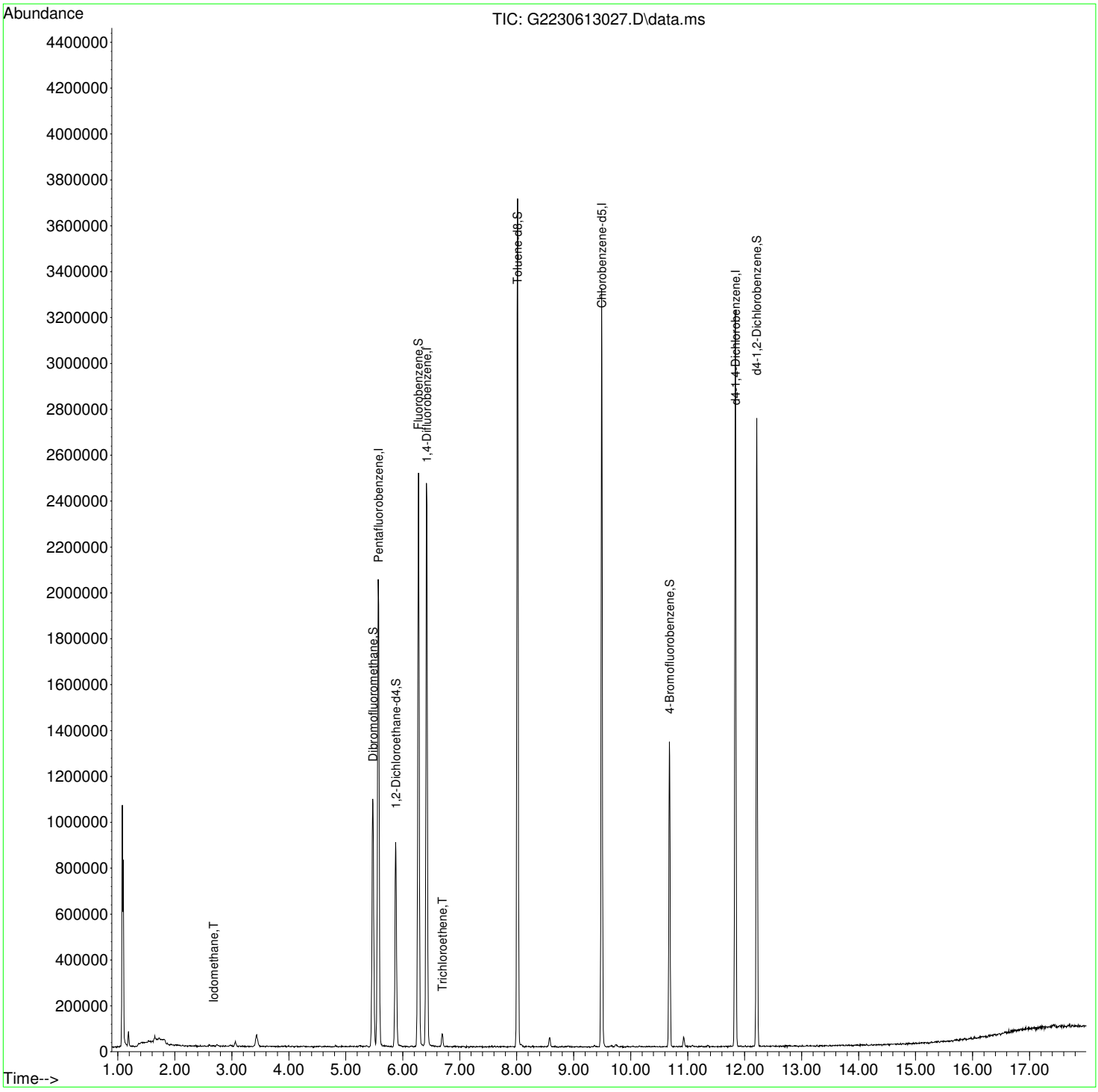
Quant Time: Jun 14 09:50:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	16302420	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	21921695	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	19488487	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	8994328	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	6901676	19.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.20%			
43) 1,2-Dichloroethane-d4	5.878	65	6190075	17.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.30%			
49) Fluorobenzene	6.278	96	23996332	19.21	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%			
64) Toluene-d8	8.016	98	23544949	19.17	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.85%			
81) 4-Bromofluorobenzene	10.684	174	4184999	9.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.50%			
97) d4-1,2-Dichlorobenzene	12.216	152	7813160	20.20	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.00%			
Target Compounds						Qvalue
5) Bromomethane	1.722	94	42561m	Below Cal		
13) Iodomethane	2.683	142	33548	0.09	ug/L #	41
18) Methylene chloride	3.065	49	90088	Below Cal		71
21) Methyl tert-butyl ether	3.437	73	666856	Below Cal		90
50) Trichloroethene	6.694	95	160185	0.48	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613027.D
Acq On : 13 Jun 2023 19:35
Operator : PO1/MP3
Sample : 23F0136-14
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 14 09:50:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



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Data File : G2230613027.D
Acq On : 13 Jun 2023 19:35
Operator : PO1/MP3
Sample : 23F0136-14
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 14 09:50:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

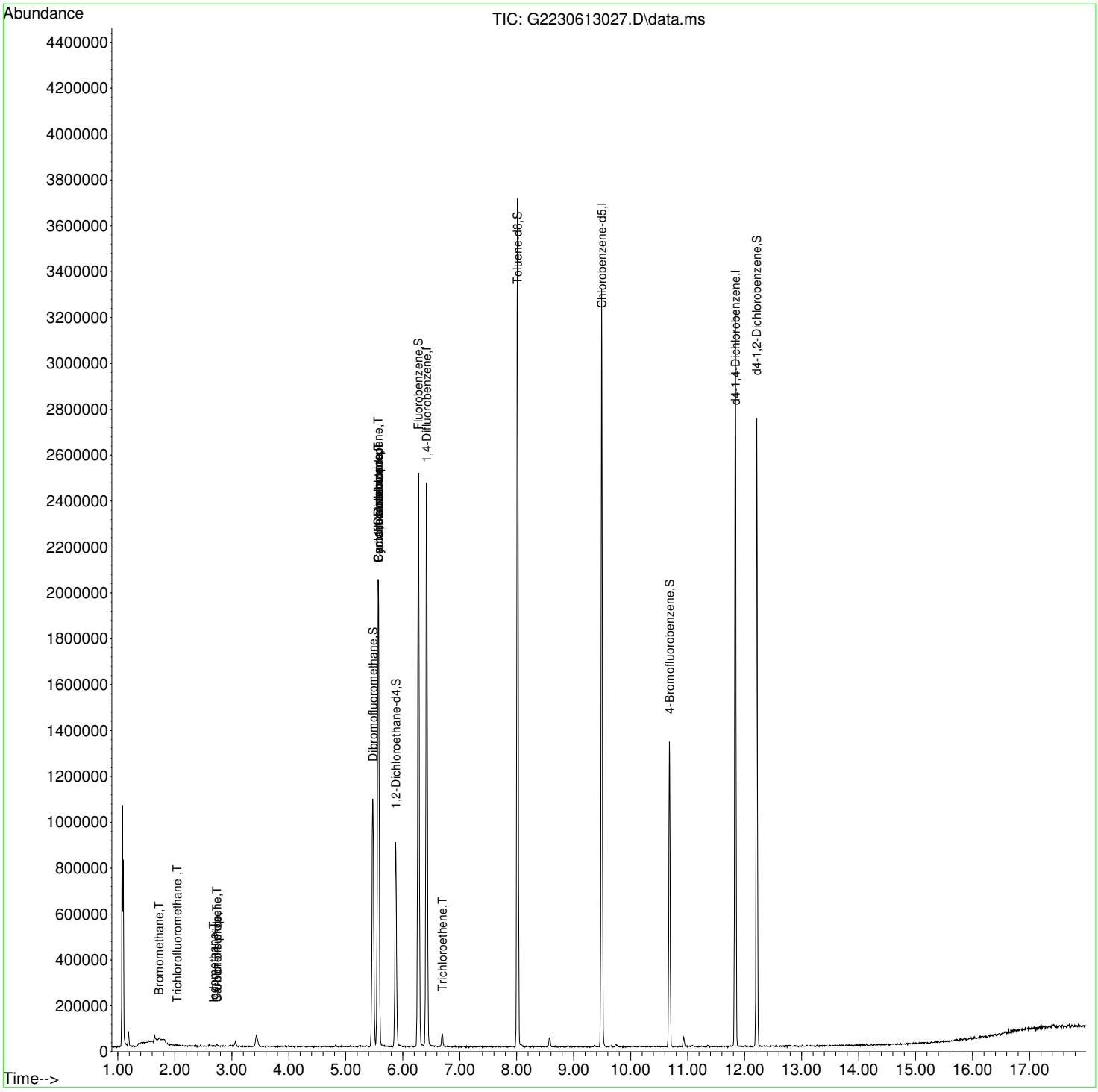
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.573	168	16302420	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	21921695	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.493	117	19488487	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	8994328	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	6901676	19.24	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.20%				
43) 1,2-Dichloroethane-d4	5.878	65	6190075	17.46	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.30%				
49) Fluorobenzene	6.278	96	23996332	19.21	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%				
64) Toluene-d8	8.016	98	23544949	19.17	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.85%				
81) 4-Bromofluorobenzene	10.684	174	4184999	9.85	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.50%				
97) d4-1,2-Dichlorobenzene	12.216	152	7813160	20.20	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.00%				
Target Compounds							Qvalue
5) Bromomethane	1.724	94	58796	0.02	ug/L	#	82
7) Trichlorofluoromethane	2.042	101	756	0.00	ug/L	#	16
9) Acrolein	2.332	56	4308	Below Cal		#	20
12) Acetone	2.604	43	82046	Below Cal		#	45
13) Iodomethane	2.683	142	33548	0.09	ug/L	#	41
14) Carbon disulfide	2.741	76	105370	0.05	ug/L	#	74
17) 3-Chloro-1-propene	2.741	76	105365	0.56	ug/L	#	53
18) Methylene chloride	3.065	49	90088	Below Cal			71
21) Methyl tert-butyl ether	3.437	73	666856	Below Cal			90
36) Tetrahydrofuran	5.250	42	33662	Below Cal		#	30
40) Cyclohexane	5.576	84	357857	0.82	ug/L	#	30
41) 1-Chlorobutane	5.571	56	194052	0.38	ug/L	#	1
42) 1,1-Dichloropropene	5.571	75	876478	2.30	ug/L	#	35
47) Carbon tetrachloride	5.573	117	1341363	3.39	ug/L	#	16
50) Trichloroethene	6.694	95	160185	0.48	ug/L		93
60) 4-Methyl-2-pentanone	8.015	43	73849	Below Cal		#	1
74) Ethylbenzene	9.492	91	41426	Below Cal		#	44

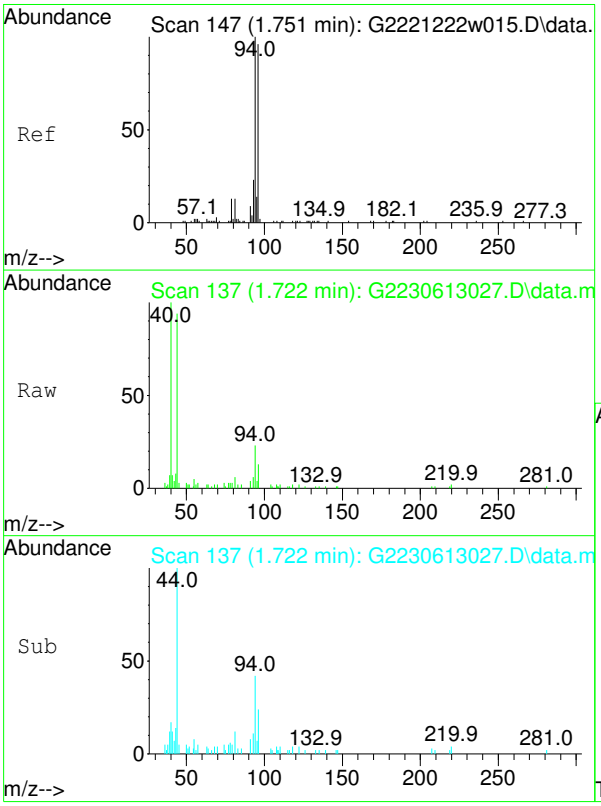
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342215

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613027.D
Acq On : 13 Jun 2023 19:35
Operator : PO1/MP3
Sample : 23F0136-14
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 14 09:50:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

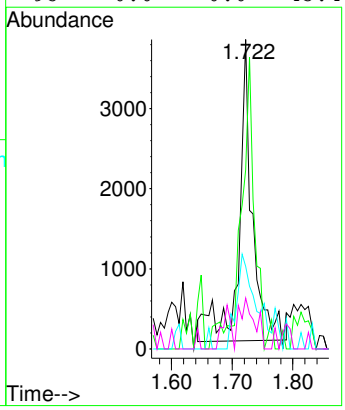


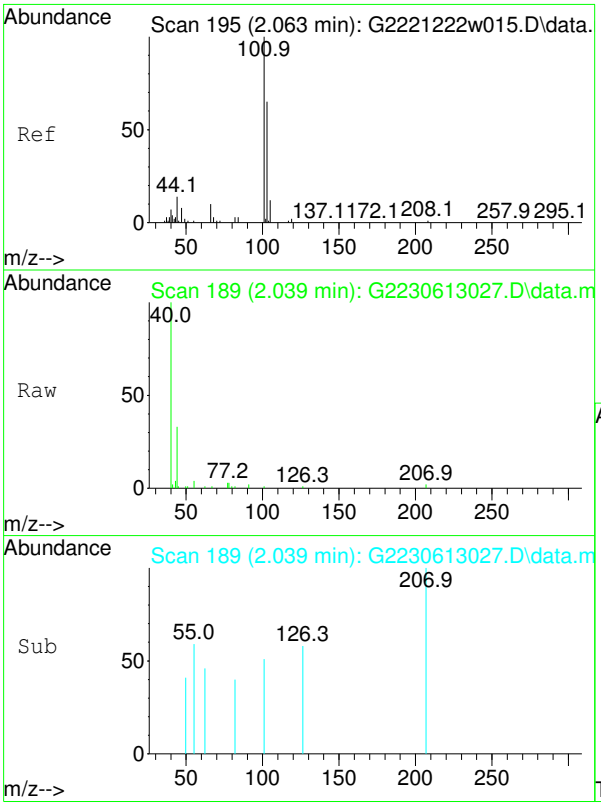


#5
Bromomethane
Concen: 0.02 ug/L
RT: 1.724 min Scan# 137
Delta R.T. 0.010 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 94 Resp: 58796

Ion	Ratio	Lower	Upper
94	100		
96	90.8	65.6	125.6
93	51.1	0.0	49.5#
95	0.0	0.0	43.4

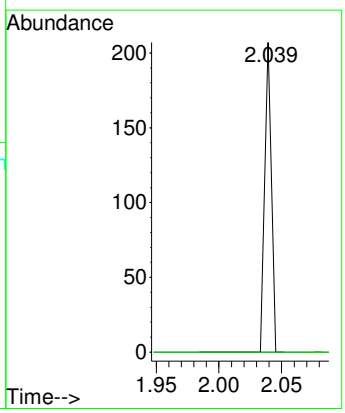


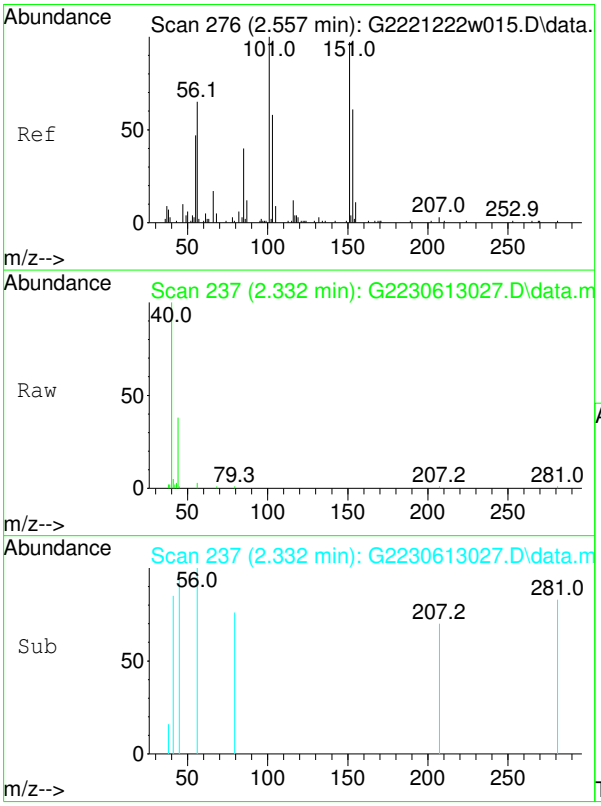


#7
Trichlorofluoromethane
Concen: 0.00 ug/L
RT: 2.042 min Scan# 189
Delta R.T. 0.012 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion:101 Resp: 756

Ion	Ratio	Lower	Upper
101	100		
103	0.0	36.9	96.9#

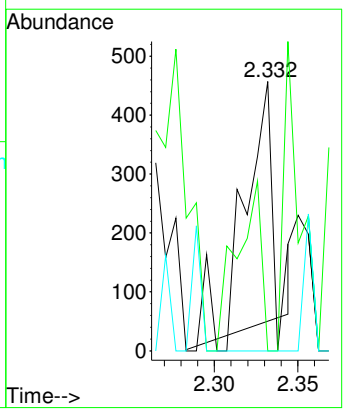


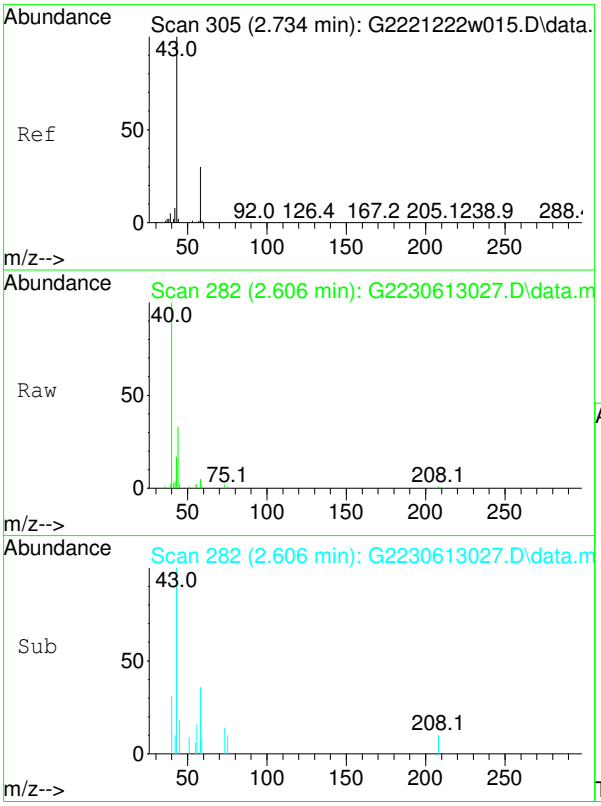


#9
Acrolein
Concen: Below Cal
RT: 2.332 min Scan# 237
Delta R.T. -0.107 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 56 Resp: 4308

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

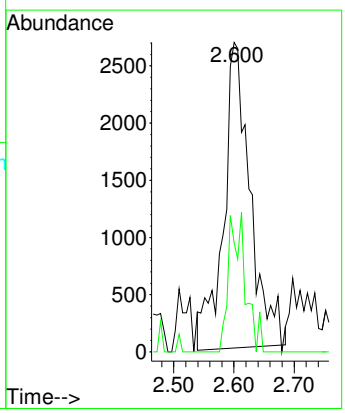


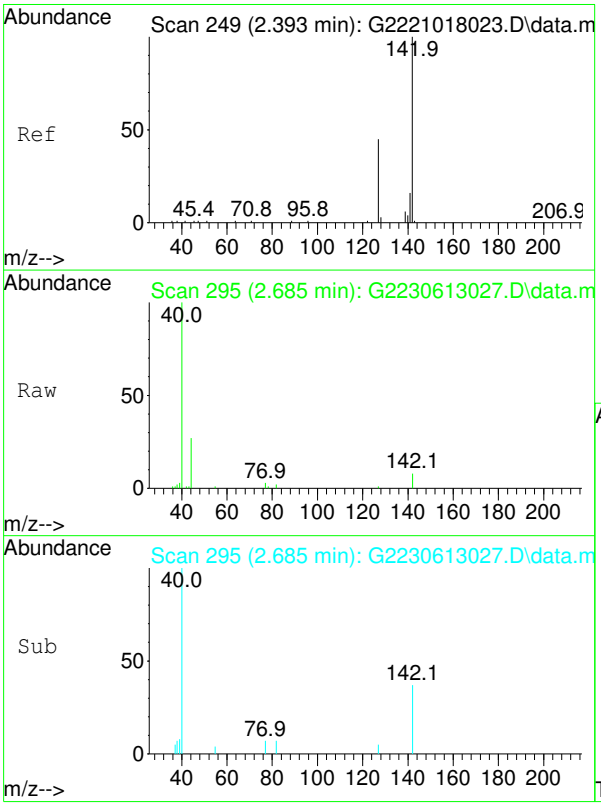


#12
Acetone
Concen: Below Cal
RT: 2.604 min Scan# 282
Delta R.T. -0.004 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 43 Resp: 82046

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

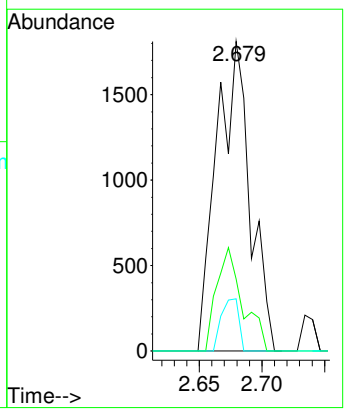


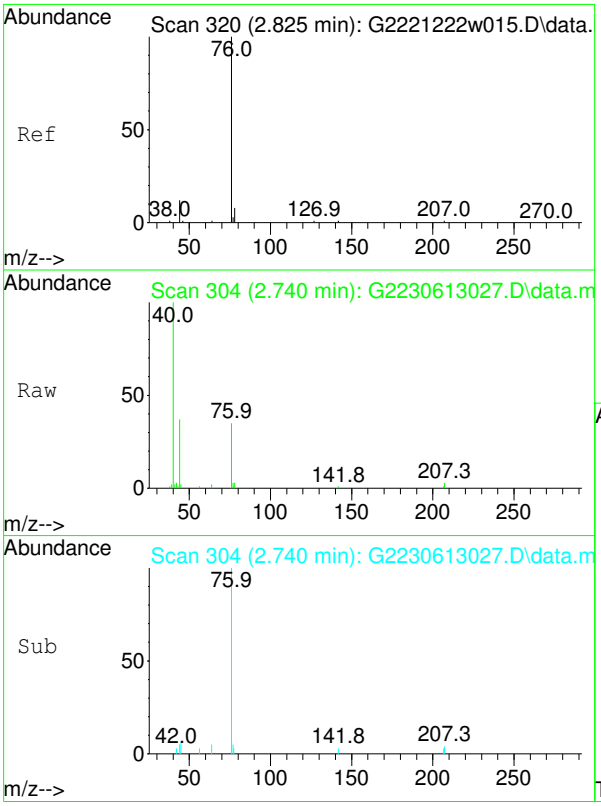


#13
Iodomethane
Concen: 0.09 ug/L
RT: 2.683 min Scan# 295
Delta R.T. 0.007 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion:142 Resp: 33548

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

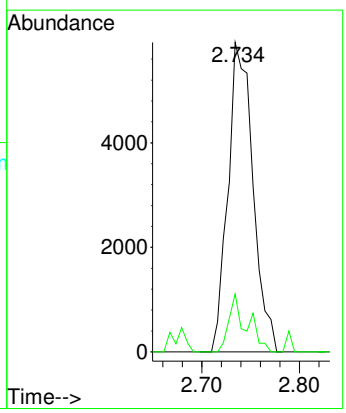


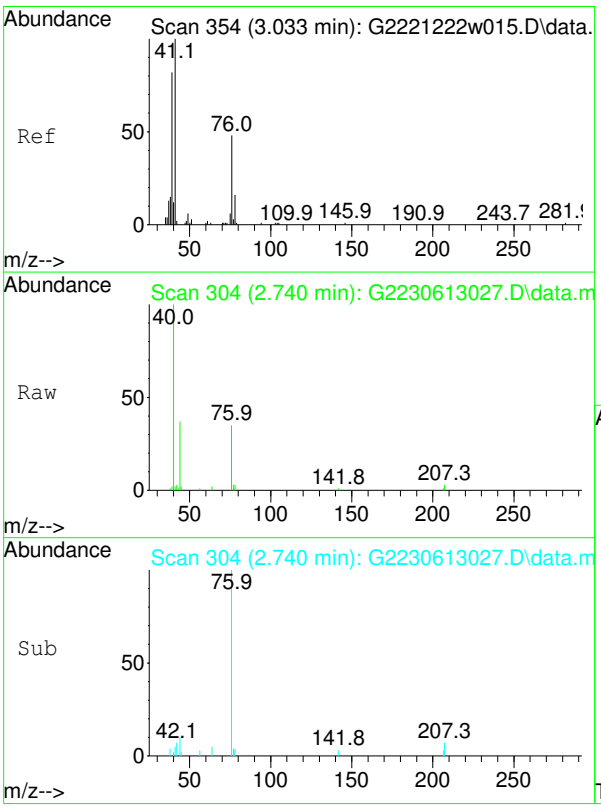


#14
Carbon disulfide
Concen: 0.05 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 76 Resp: 105370

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

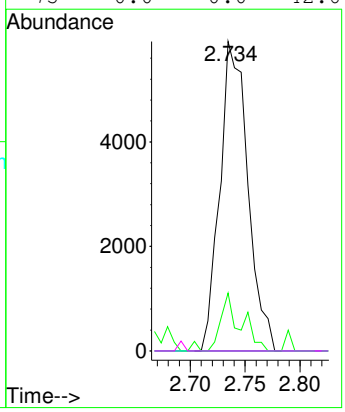


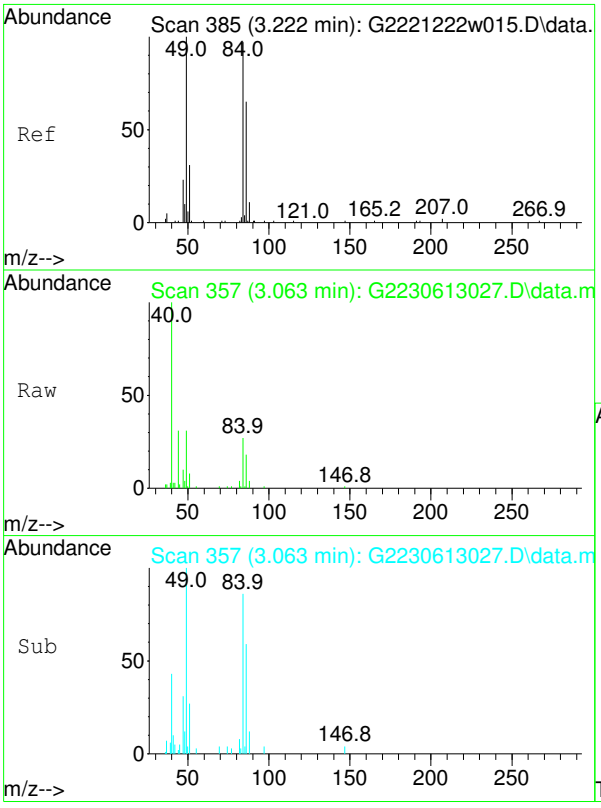


#17
3-Chloro-1-propene
Concen: 0.56 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 76 Resp: 105365

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

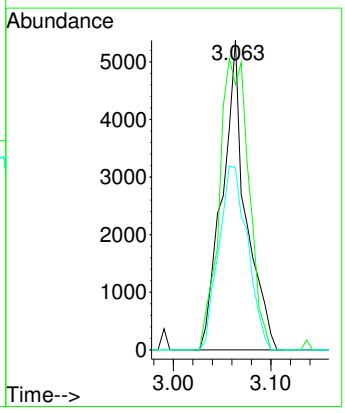


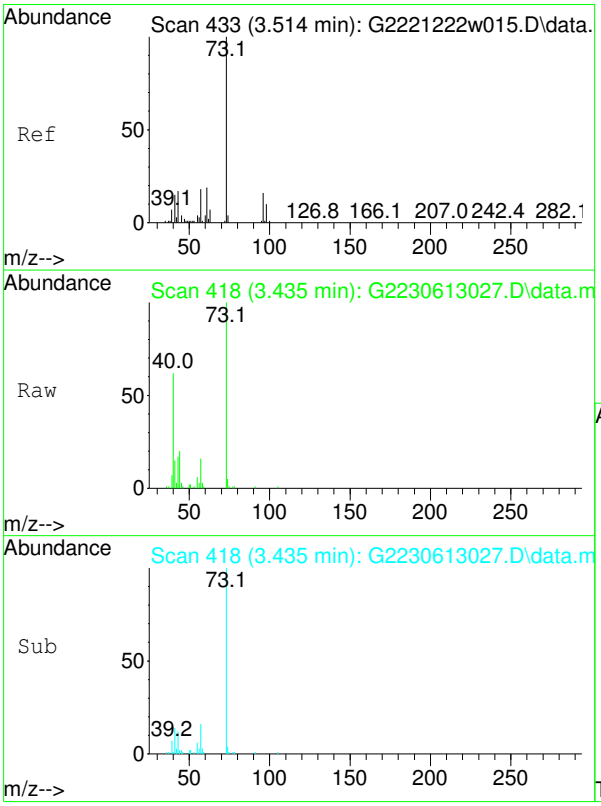


#18
Methylene chloride
Concen: Below Cal
RT: 3.065 min Scan# 357
Delta R.T. 0.003 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 49 Resp: 90088

Ion	Ratio	Lower	Upper
49	100		
84	117.7	57.9	117.9
86	72.6	24.9	84.9

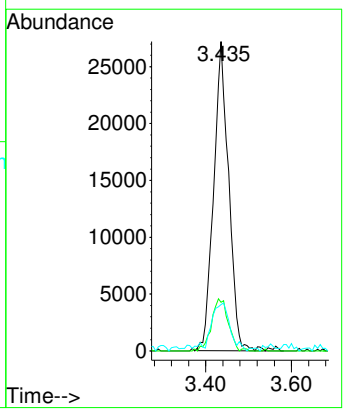


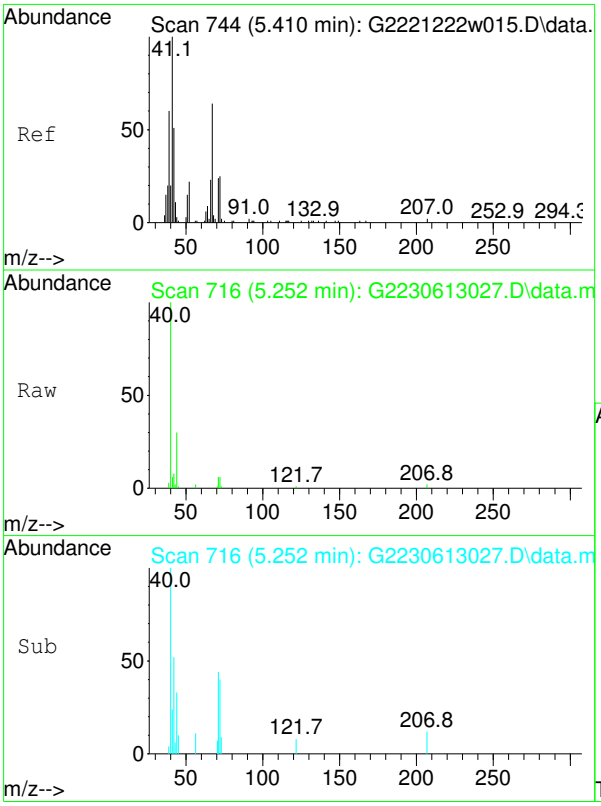


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 73 Resp: 666856

Ion	Ratio	Lower	Upper
73	100		
57	18.4	0.0	51.7
41	14.4	0.0	50.6

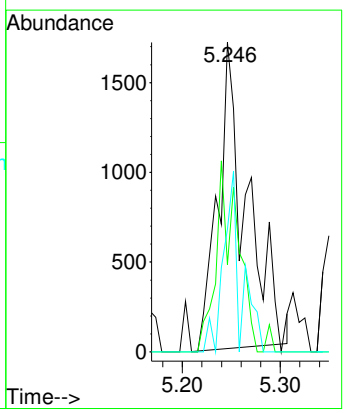


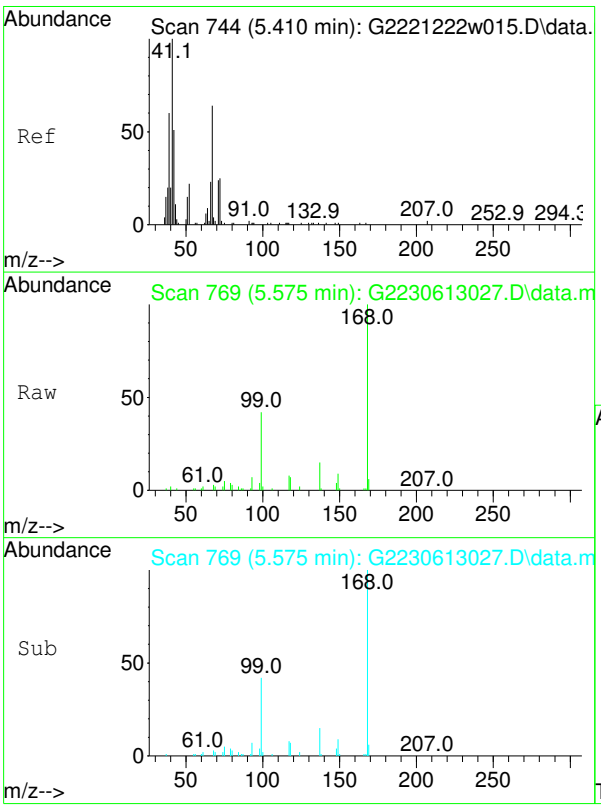


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.250 min Scan# 716
Delta R.T. -0.011 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 42 Resp: 33662

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

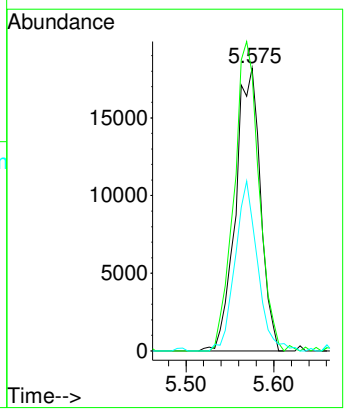


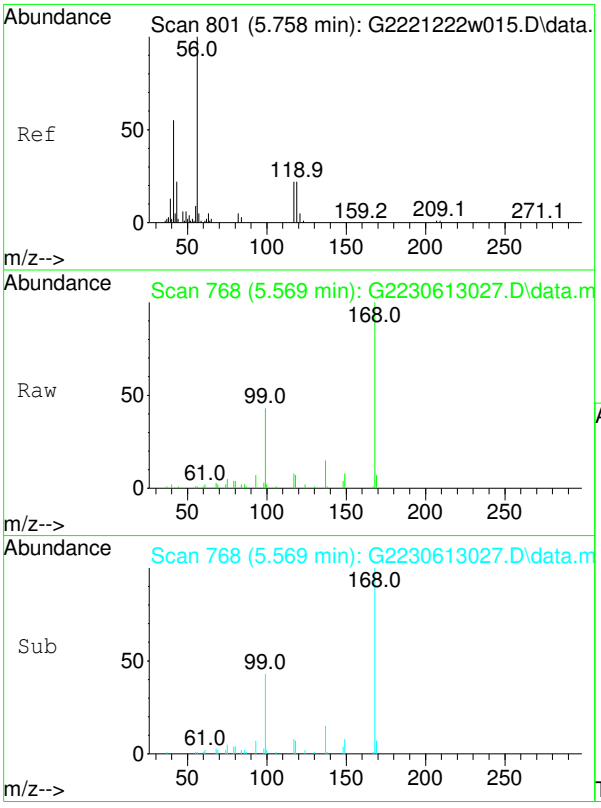


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.576 min Scan# 769
Delta R.T. 0.042 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 84 Resp: 357857

Ion	Ratio	Lower	Upper
84	100		
69	110.2	6.8	66.8#
56	54.4	79.1	139.1#

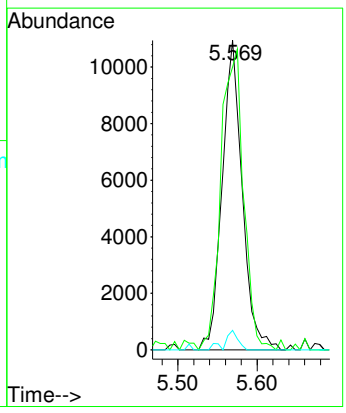


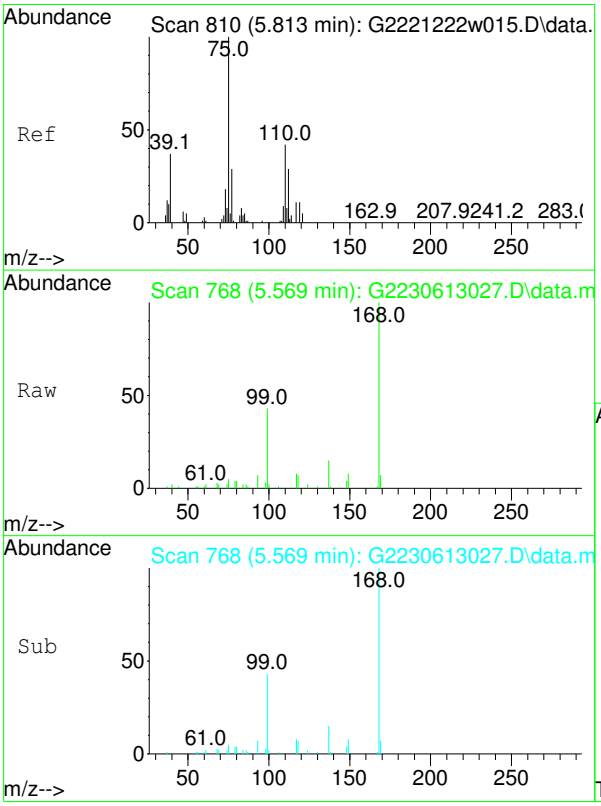


#41
1-Chlorobutane
Concen: 0.38 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.059 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 56 Resp: 194052

Ion	Ratio	Lower	Upper
56	100		
55	108.7	0.0	41.0#
57	0.0	0.0	35.7

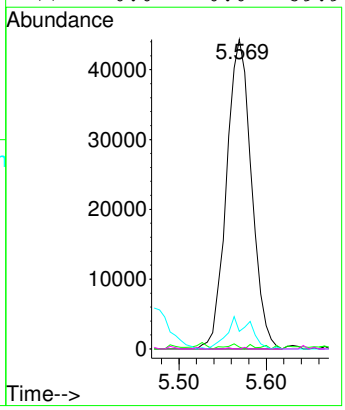


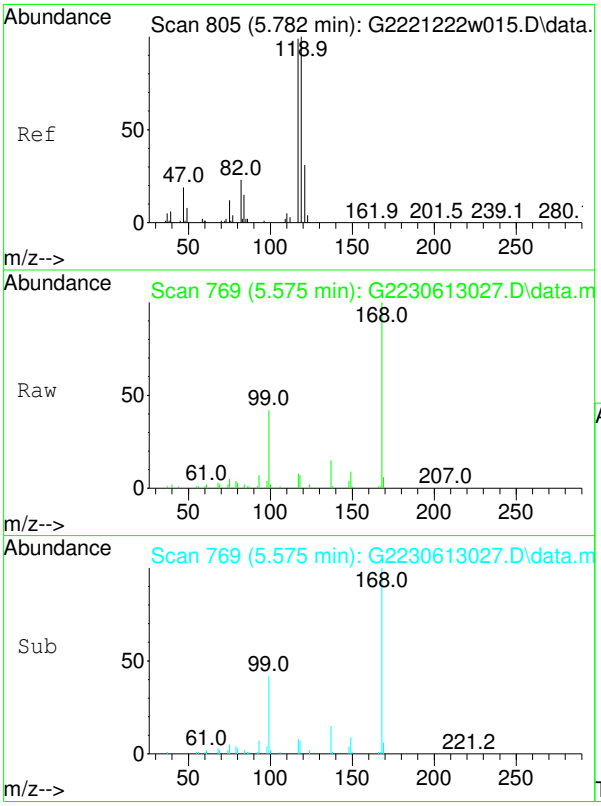


#42
1,1-Dichloropropene
Concen: 2.30 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 75 Resp: 876478

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	5.1	9.1	69.1#
77	0.0	0.0	59.9

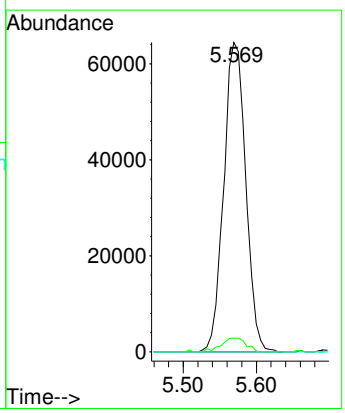


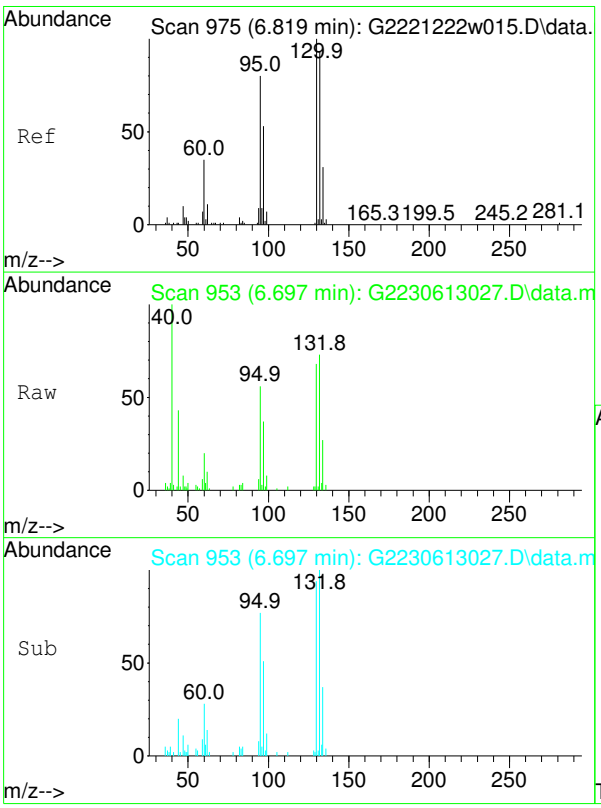


#47
Carbon tetrachloride
Concen: 3.39 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.107 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion:117 Resp: 1341363

Ion	Ratio	Lower	Upper
117	100		
119	4.9	66.4	126.4#
121	0.0	0.4	60.4#

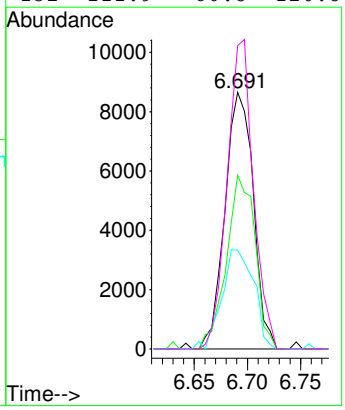


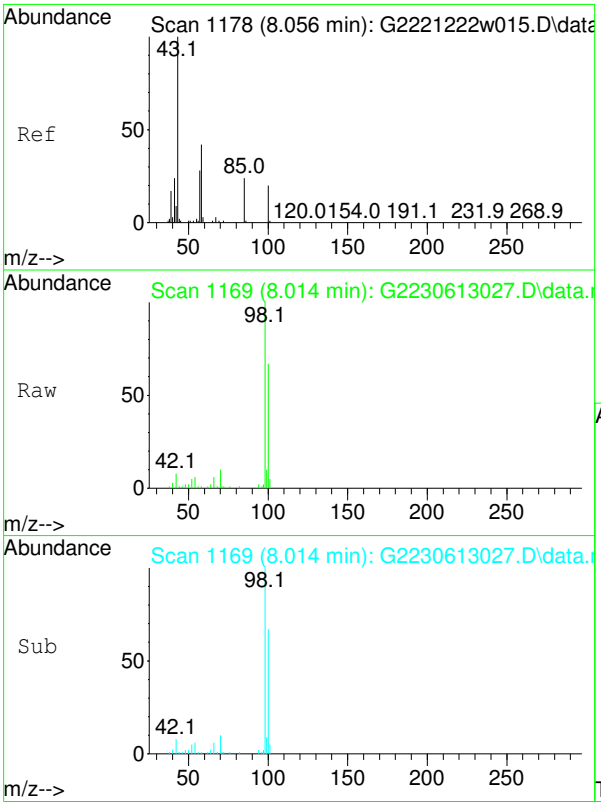


#50
Trichloroethene
Concen: 0.48 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 95 Resp: 160185

Ion	Ratio	Lower	Upper
95	100		
97	68.6	35.5	95.5
60	43.7	14.8	74.8
132	111.9	80.5	120.5

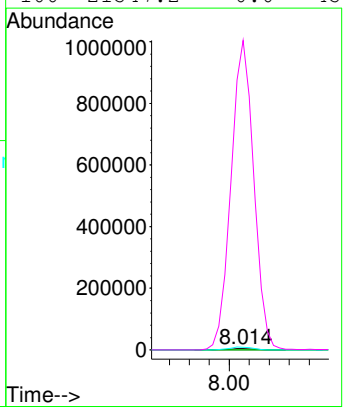


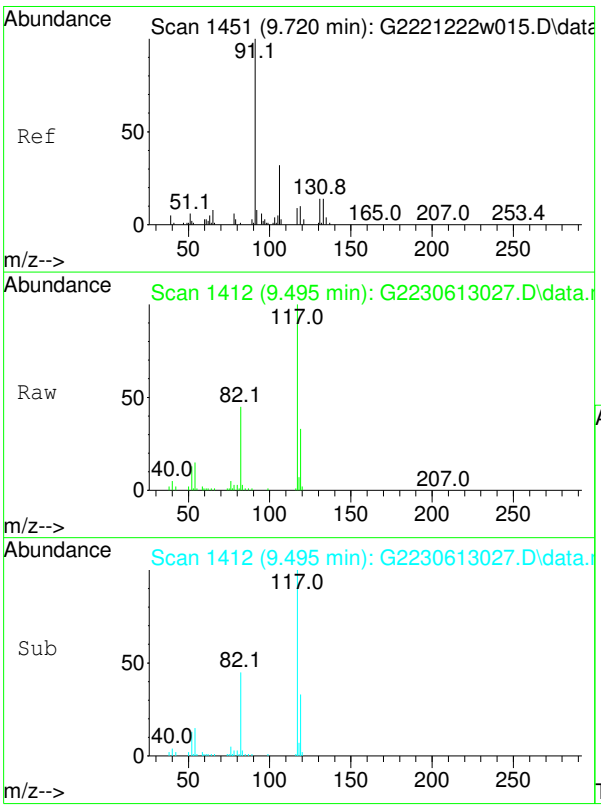


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

Tgt Ion: 43 Resp: 73849

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	201.9	37.0	37.0#
100	21547.2	0.0	45.2#

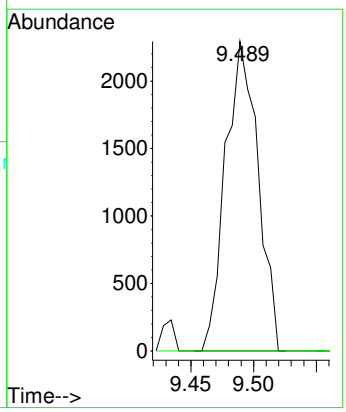




#74
Ethylbenzene
Concen: Below Cal
RT: 9.492 min Scan# 1412
Delta R.T. -0.151 min
Lab File: G2230613027.D
Acq: 13 Jun 2023 19:35

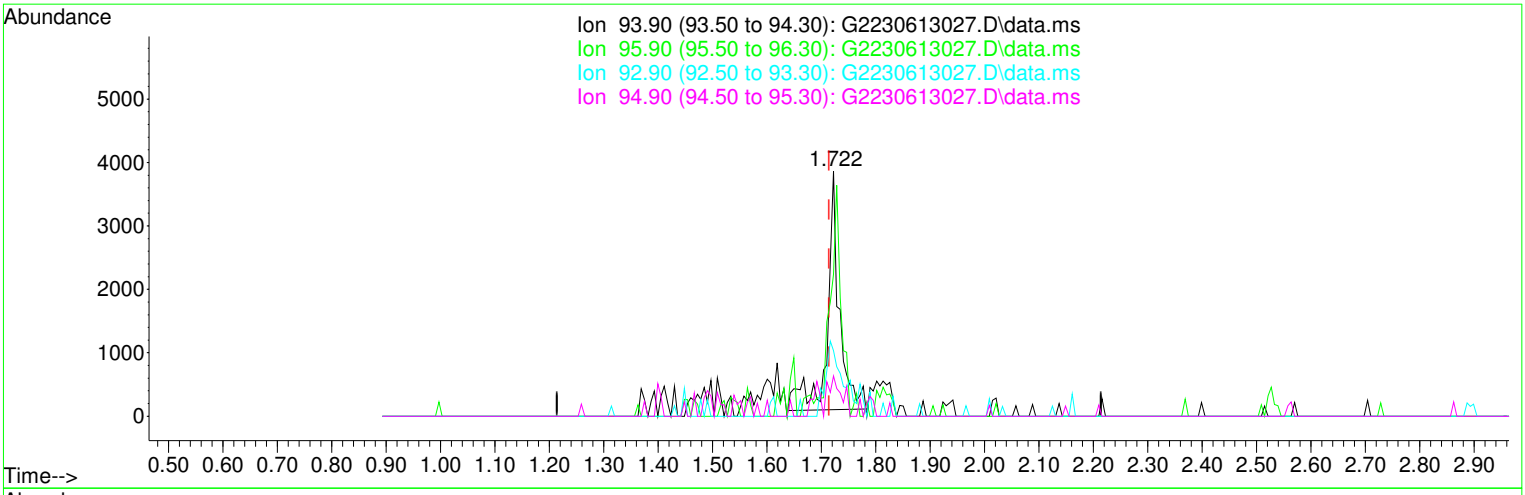
Tgt Ion: 91 Resp: 41426

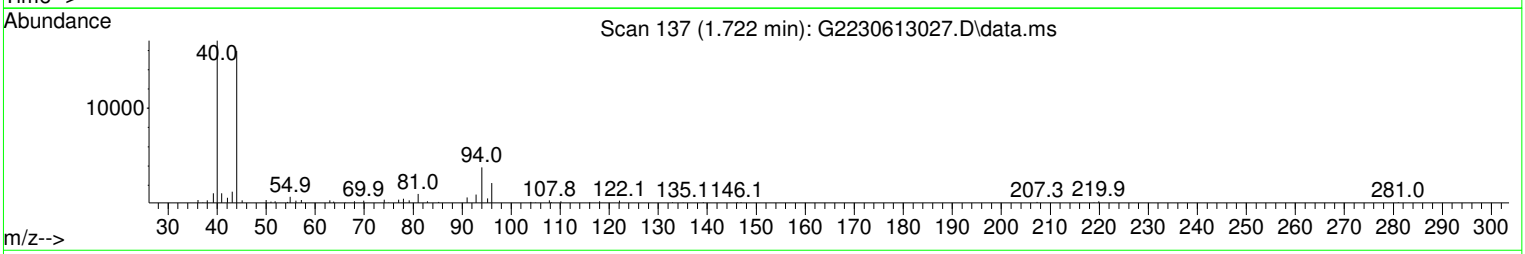
Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

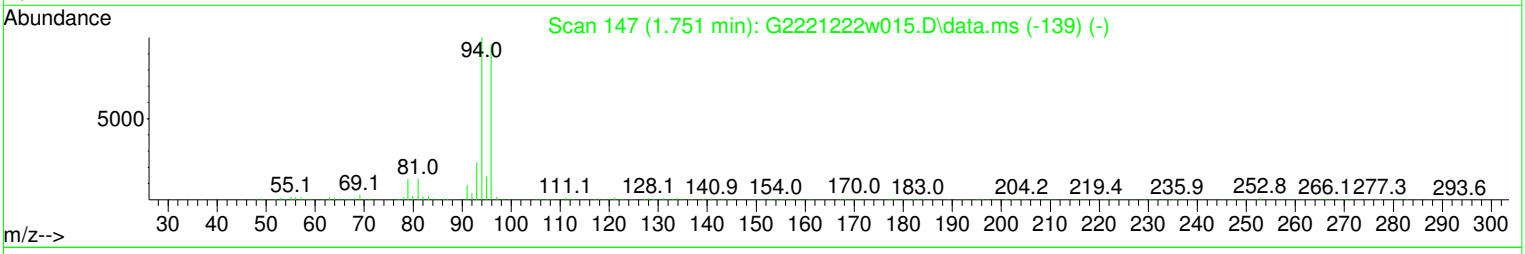


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613027.D
Acq On : 13 Jun 2023 19:35
Operator : PO1/MP3
Sample : 23F0136-14
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 14 09:50:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613027.D\data.ms

(5) Bromomethane (T)

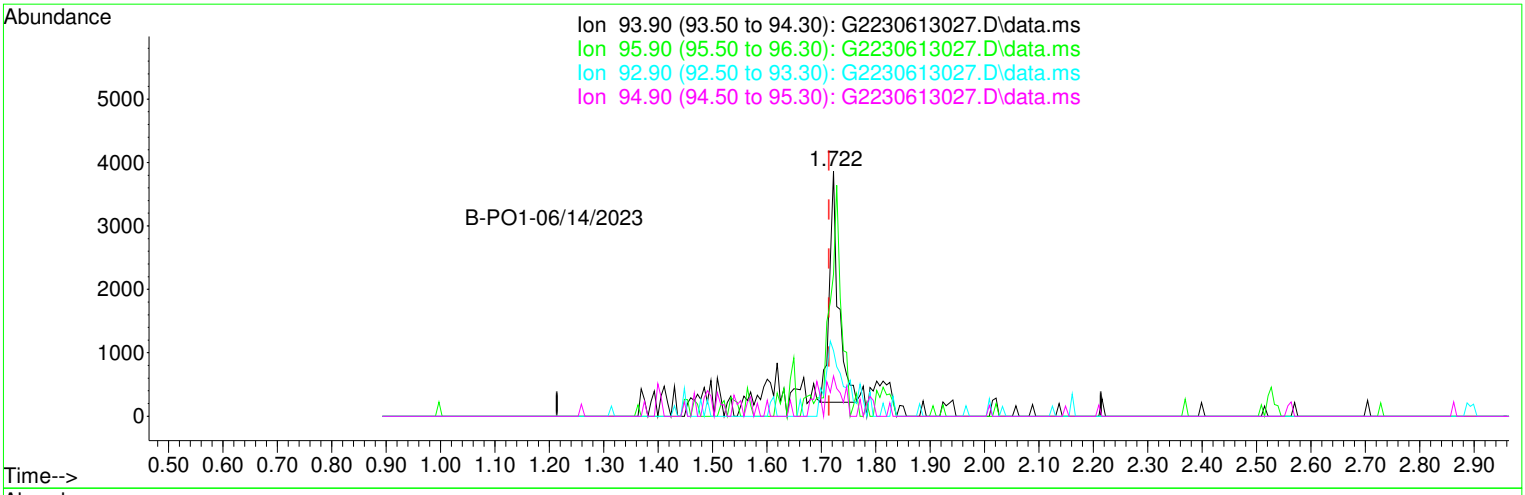
1.724min (+ 0.010) 0.02 ug/L

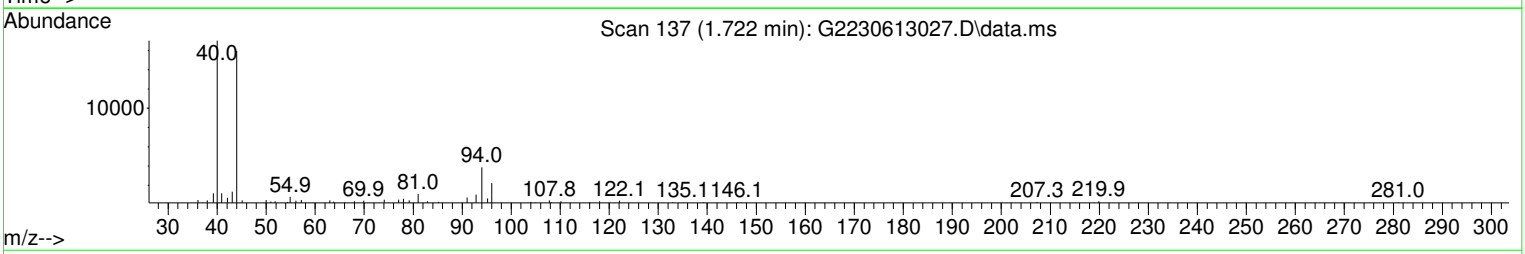
response 58796

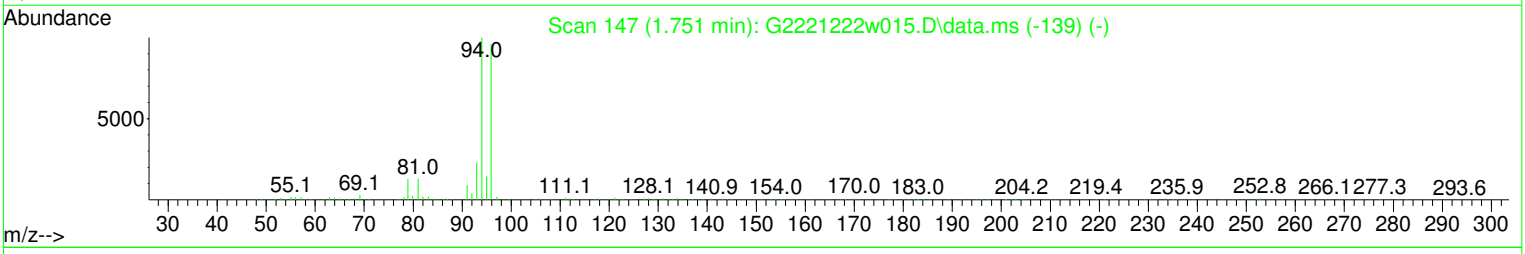
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	90.78
92.90	19.50	51.12#
94.90	13.40	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613027.D
Acq On : 13 Jun 2023 19:35
Operator : PO1/MP3
Sample : 23F0136-14
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 14 09:50:16 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613027.D\data.ms

(5) Bromomethane (T)

1.722min (+ 0.008) -0.06 ug/L m

response 42561

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	125.41
92.90	19.50	70.62#
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15	File ID:	G2230613029.D
Sampled:	06/01/23 12:26	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 20:25
		Preparation:	5030_W	Dilution:	100
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		6.50	20.0	50.0	U
71-55-6	1,1,1-Trichloroethane		8.77	20.0	50.0	U
79-34-5	1,1,2,2-Tetrachloroethane		6.21	20.0	50.0	U
79-00-5	1,1,2-Trichloroethane		8.32	20.0	50.0	U
75-34-3	1,1-Dichloroethane		6.69	20.0	50.0	U
75-35-4	1,1-Dichloroethene		9.54	20.0	50.0	U
563-58-6	1,1-Dichloropropene		6.99	20.0	50.0	U
87-61-6	1,2,3-Trichlorobenzene		10.2	20.0	50.0	U
96-18-4	1,2,3-Trichloropropane		9.13	20.0	50.0	U
120-82-1	1,2,4-Trichlorobenzene		10.2	30.0	60.0	U
95-63-6	1,2,4-Trimethylbenzene		6.61	20.0	50.0	U
96-12-8	1,2-Dibromo-3-chloropropane		13.0	50.0	100	U
106-93-4	1,2-Dibromoethane		5.31	20.0	50.0	U
95-50-1	1,2-Dichlorobenzene		6.30	20.0	50.0	U
107-06-2	1,2-Dichloroethane		10.6	30.0	60.0	U
78-87-5	1,2-Dichloropropane		10.2	30.0	60.0	U
108-67-8	1,3,5-Trimethylbenzene		5.00	20.0	50.0	U
541-73-1	1,3-Dichlorobenzene		7.24	20.0	50.0	U
142-28-9	1,3-Dichloropropane		6.80	20.0	50.0	U
106-46-7	1,4-Dichlorobenzene		9.20	20.0	50.0	U
594-20-7	2,2-Dichloropropane		9.20	20.0	50.0	U
78-93-3	2-Butanone		33.0	70.0	175	U
95-49-8	2-Chlorotoluene		7.33	20.0	50.0	U
591-78-6	2-Hexanone		7.16	70.0	175	U
106-43-4	4-Chlorotoluene		9.21	20.0	50.0	U
99-87-6	4-Isopropyltoluene		7.00	20.0	50.0	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15	File ID:	G2230613029.D
Sampled:	06/01/23 12:26	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 20:25
		Preparation:	5030_W	Dilution:	100
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		13.5	70.0	175	U
67-64-1	Acetone		51.8	200	400	U
71-43-2	Benzene		5.07	20.0	50.0	U
108-86-1	Bromobenzene		8.48	20.0	50.0	U
74-97-5	Bromochloromethane		6.69	20.0	50.0	U
75-27-4	Bromodichloromethane		5.31	20.0	50.0	U
75-25-2	Bromoform		10.3	20.0	50.0	U
74-83-9	Bromomethane		16.0	50.0	100	U
75-15-0	Carbon disulfide		14.0	50.0	100	U
56-23-5	Carbon tetrachloride		8.44	20.0	50.0	U
108-90-7	Chlorobenzene		6.50	20.0	50.0	U
75-00-3	Chloroethane		15.5	20.0	50.0	U
67-66-3	Chloroform		10.1	30.0	60.0	U
74-87-3	Chloromethane		19.2	50.0	100	U
156-59-2	cis-1,2-Dichloroethene	24.0	10.3	30.0	60.0	J, D
10061-01-5	cis-1,3-Dichloropropene		5.87	20.0	50.0	U
124-48-1	Dibromochloromethane		7.59	20.0	50.0	U
74-95-3	Dibromomethane		8.17	20.0	50.0	U
75-71-8	Dichlorodifluoromethane		13.0	50.0	100	U
100-41-4	Ethylbenzene		3.00	10.0	20.0	U
87-68-3	Hexachlorobutadiene		10.0	20.0	50.0	Q, S1, U
98-82-8	Isopropylbenzene		5.49	20.0	50.0	U
179601-23-1	m,p-Xylene		8.89	40.0	100	U
1634-04-4	Methyl tert-butyl ether		5.30	20.0	50.0	U
75-09-2	Methylene chloride		22.4	50.0	100	U
104-51-8	n-Butylbenzene		13.0	50.0	100	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

6147WW45

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-15	File ID:	G2230613029.D
Sampled:	06/01/23 12:26	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 20:25
		Preparation:	5030_W	Dilution:	100
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		6.30	20.0	50.0	U
91-20-3	Naphthalene		7.00	20.0	50.0	U
95-47-6	o-Xylene		4.16	20.0	50.0	U
135-98-8	sec-Butylbenzene		5.98	20.0	50.0	U
100-42-5	Styrene		4.53	10.0	20.0	U
98-06-6	tert-Butylbenzene		4.53	20.0	50.0	U
127-18-4	Tetrachloroethene		17.8	50.0	100	Q, S1, U
108-88-3	Toluene		5.72	20.0	50.0	U
156-60-5	trans-1,2-Dichloroethene		8.55	20.0	50.0	U
10061-02-6	trans-1,3-Dichloropropene		5.87	20.0	50.0	U
79-01-6	Trichloroethene	3700	7.81	20.0	50.0	E, D
75-69-4	Trichlorofluoromethane		5.05	20.0	50.0	U
75-01-4	Vinyl chloride		12.9	50.0	100	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613029.D
Acq On : 13 Jun 2023 20:25
Operator : PO1/MP3
Sample : 23F0136-15
Misc : 100
ALS Vial : 29 Sample Multiplier: 1

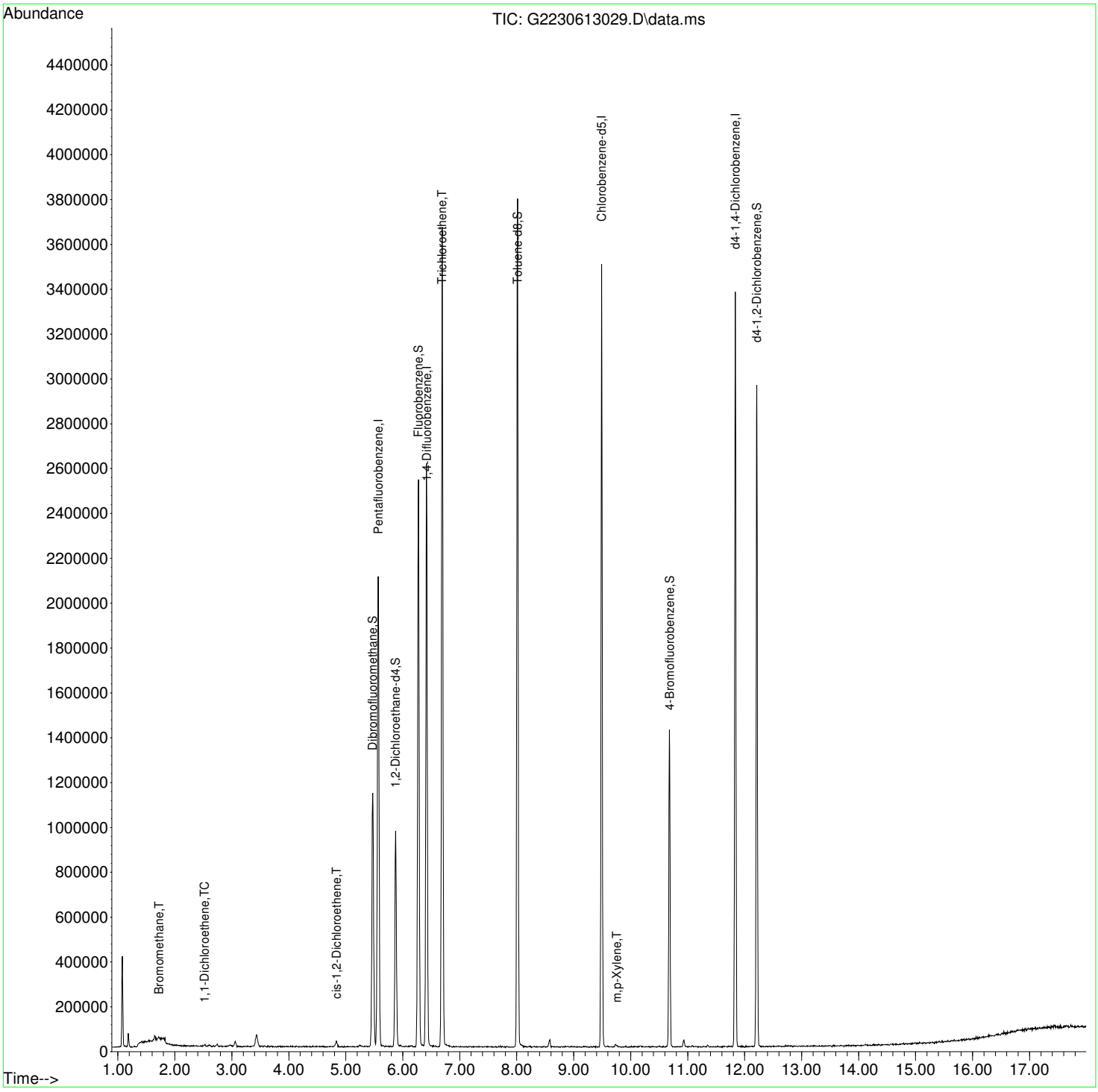
Quant Time: Jun 14 09:57:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	16848327	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	22737600	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.492	117	20189908	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9569875	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7281112	19.64	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.20%			
43) 1,2-Dichloroethane-d4	5.877	65	6645956	18.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.70%			
49) Fluorobenzene	6.277	96	25038652	19.33	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%			
64) Toluene-d8	8.015	98	24472570	19.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%			
81) 4-Bromofluorobenzene	10.683	174	4395382	9.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%			
97) d4-1,2-Dichlorobenzene	12.216	152	8615819	20.93	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.65%			
Target Compounds						Qvalue
5) Bromomethane	1.724	94	71512	0.07	ug/L #	74
10) 1,1-Dichloroethene	2.523	61	38942	0.03	ug/L #	30
18) Methylene chloride	3.062	49	107407	Below Cal		73
21) Methyl tert-butyl ether	3.434	73	720832	Below Cal		97
28) cis-1,2-Dichloroethene	4.839	61	135718	0.24	ug/L	73
50) Trichloroethene	6.693	95	11073315	37.01	ug/L	90
75) m,p-Xylene	9.760	91	27984	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613029.D
Acq On : 13 Jun 2023 20:25
Operator : PO1/MP3
Sample : 23F0136-15
Misc : 100
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 14 09:57:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613029.D
Acq On : 13 Jun 2023 20:25
Operator : PO1/MP3
Sample : 23F0136-15
Misc : 100
ALS Vial : 29 Sample Multiplier: 1

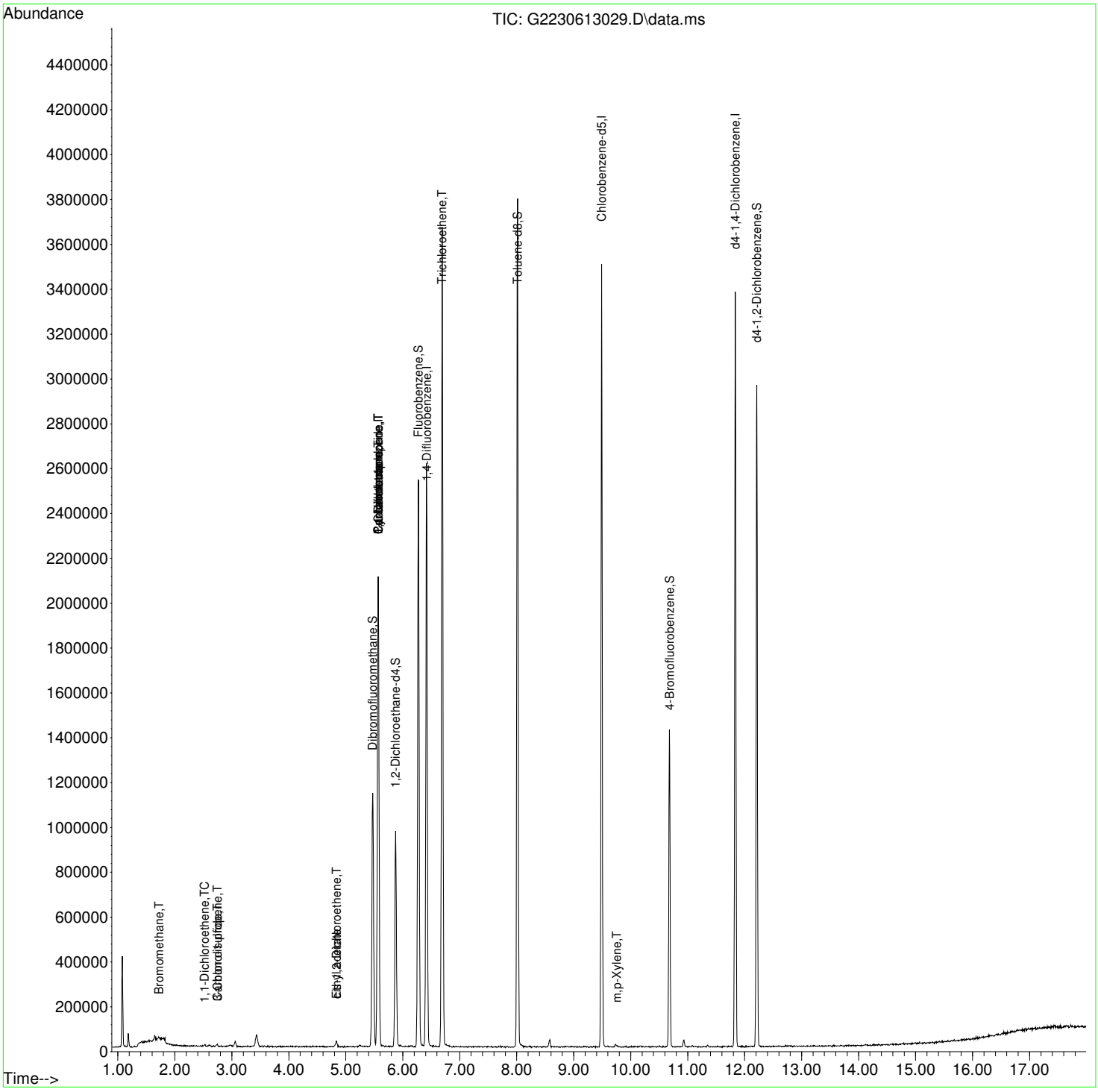
Quant Time: Jun 14 09:57:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

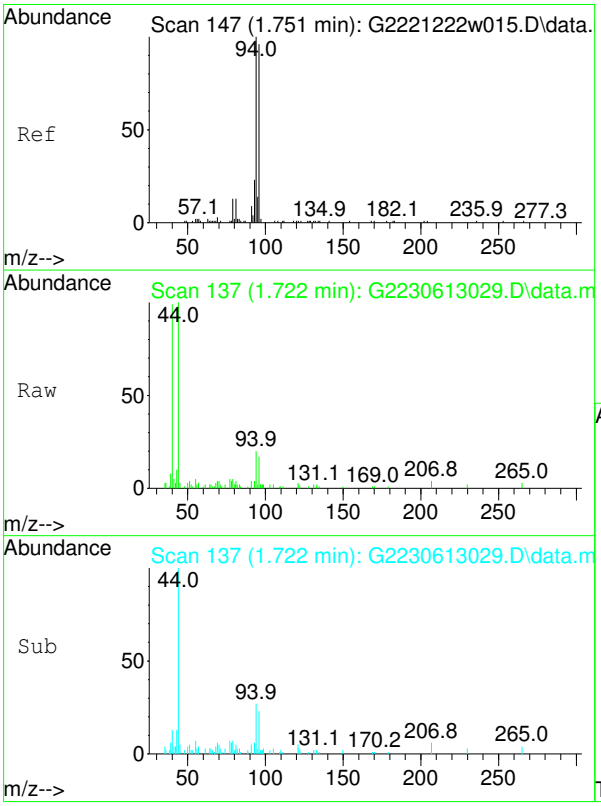
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	16848327	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	22737600	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.492	117	20189908	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9569875	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7281112	19.64	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.20%				
43) 1,2-Dichloroethane-d4	5.877	65	6645956	18.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.70%				
49) Fluorobenzene	6.277	96	25038652	19.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%				
64) Toluene-d8	8.015	98	24472570	19.23	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%				
81) 4-Bromofluorobenzene	10.683	174	4395382	9.73	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%				
97) d4-1,2-Dichlorobenzene	12.216	152	8615819	20.93	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.65%				
Target Compounds							Qvalue
5) Bromomethane	1.724	94	71512	0.07	ug/L	#	74
10) 1,1-Dichloroethene	2.523	61	38942	0.03	ug/L	#	30
12) Acetone	2.597	43	62778	Below Cal		#	45
14) Carbon disulfide	2.746	76	124609	0.07	ug/L	#	74
17) 3-Chloro-1-propene	2.746	76	124609	0.66	ug/L	#	53
18) Methylene chloride	3.062	49	107407	Below Cal			73
21) Methyl tert-butyl ether	3.434	73	720832	Below Cal			97
28) cis-1,2-Dichloroethene	4.839	61	135718	0.24	ug/L		73
31) Ethyl acetate	4.839	61	135714	2.49	ug/L	#	45
36) Tetrahydrofuran	5.243	42	35931	Below Cal		#	30
40) Cyclohexane	5.572	84	369768	0.82	ug/L	#	32
41) 1-Chlorobutane	5.567	56	220542	0.42	ug/L	#	1
42) 1,1-Dichloropropene	5.569	75	853039	2.16	ug/L	#	38
47) Carbon tetrachloride	5.570	117	1337306	3.26	ug/L	#	16
50) Trichloroethene	6.693	95	11073315	37.01	ug/L		90
60) 4-Methyl-2-pentanone	8.012	43	95597	Below Cal		#	1
74) Ethylbenzene	9.760	91	27886	Below Cal		#	44
75) m,p-Xylene	9.760	91	27984	0.03	ug/L	#	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613029.D
Acq On : 13 Jun 2023 20:25
Operator : PO1/MP3
Sample : 23F0136-15
Misc : 100
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 14 09:57:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

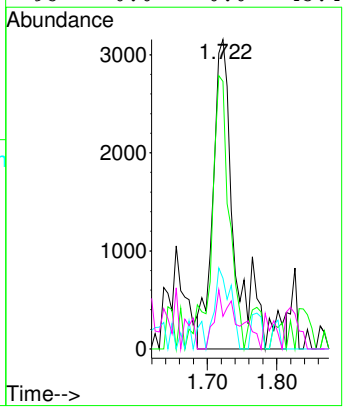


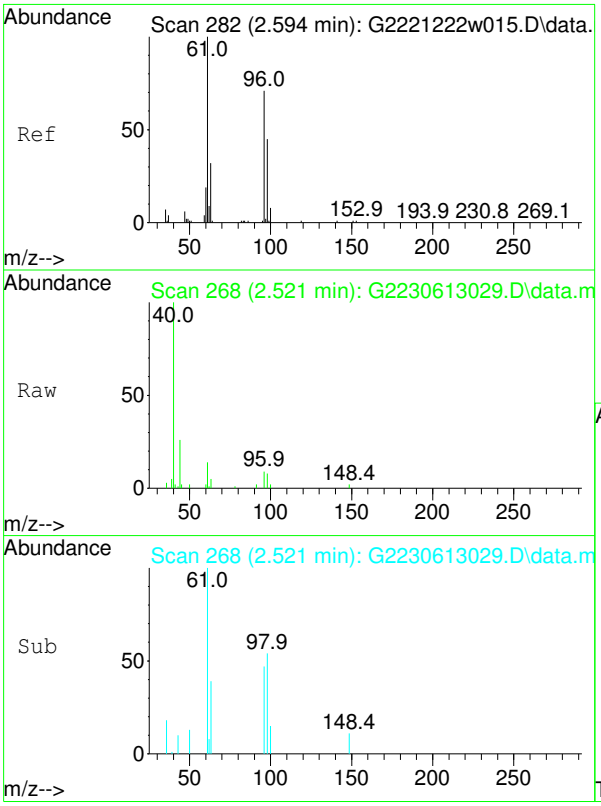


#5
Bromomethane
Concen: 0.07 ug/L
RT: 1.724 min Scan# 137
Delta R.T. 0.010 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 94 Resp: 71512

Ion	Ratio	Lower	Upper
94	100		
96	75.1	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

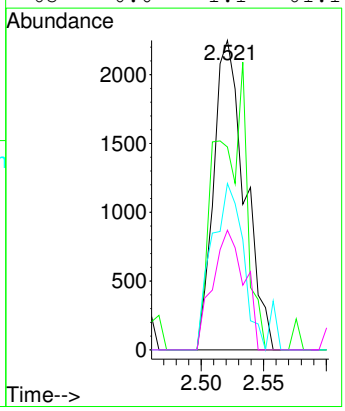


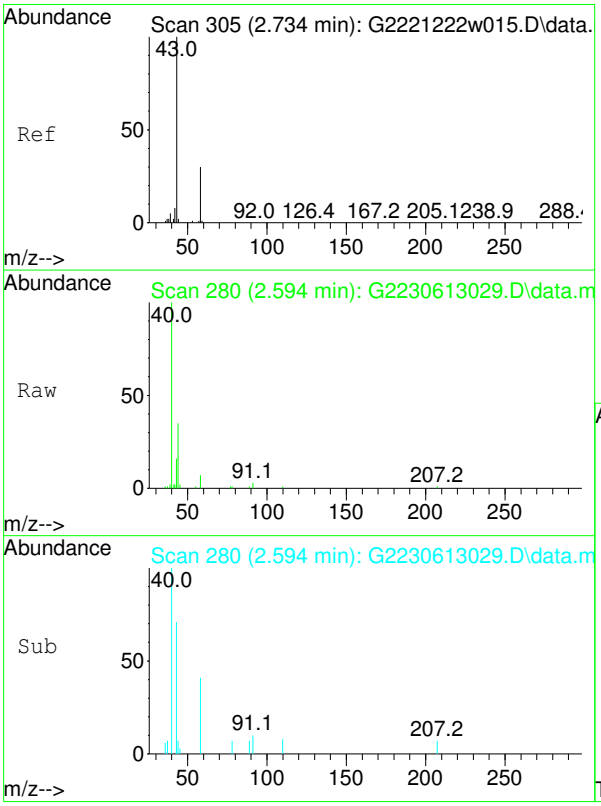


#10
1,1-Dichloroethene
Concen: 0.03 ug/L
RT: 2.523 min Scan# 268
Delta R.T. -0.000 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 61 Resp: 38942

Ion	Ratio	Lower	Upper
61	100		
96	0.0	32.7	92.7#
98	0.0	9.3	69.3#
63	0.0	1.1	61.1#

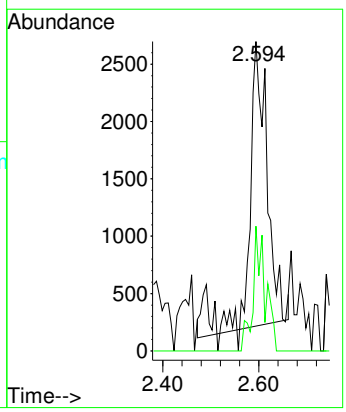


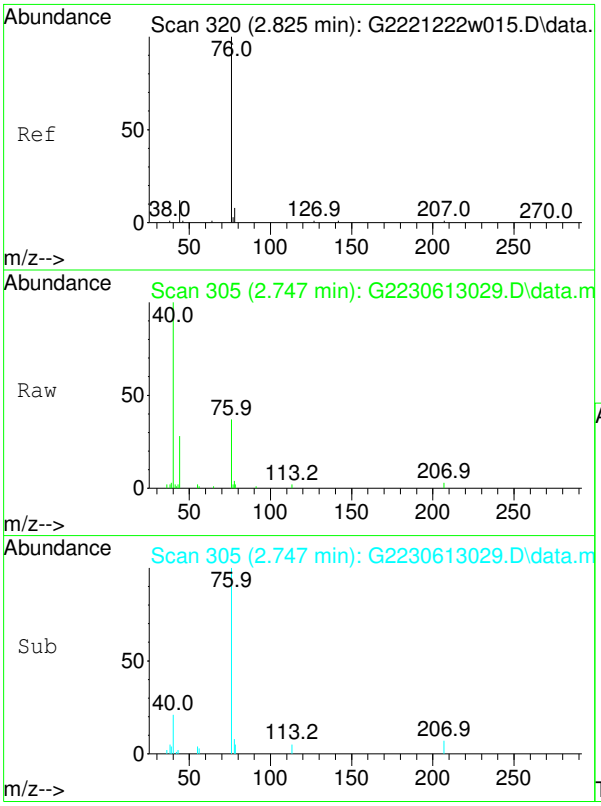


#12
Acetone
Concen: Below Cal
RT: 2.597 min Scan# 280
Delta R.T. -0.011 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 43 Resp: 62778

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

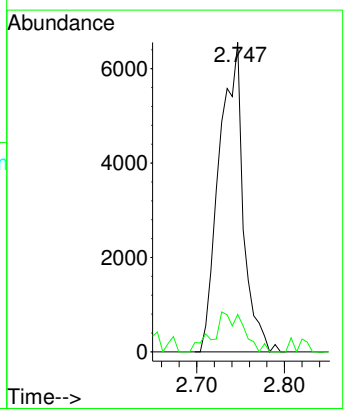


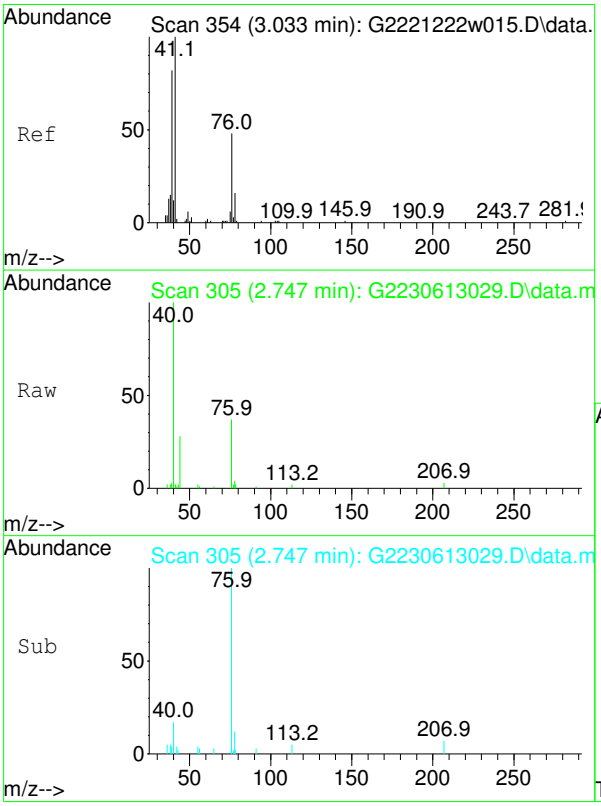


#14
Carbon disulfide
Concen: 0.07 ug/L
RT: 2.746 min Scan# 305
Delta R.T. 0.007 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 76 Resp: 124609

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

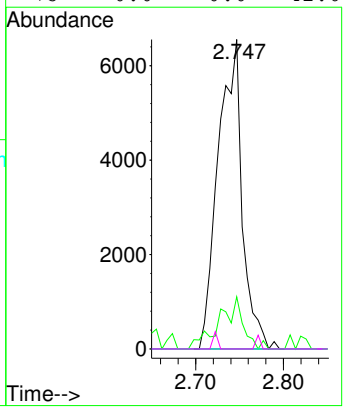


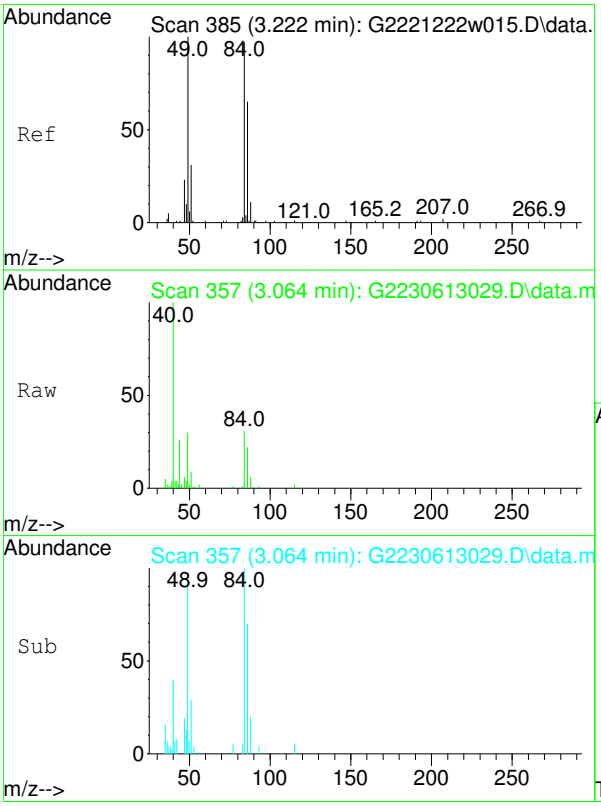


#17
3-Chloro-1-propene
Concen: 0.66 ug/L
RT: 2.746 min Scan# 305
Delta R.T. -0.174 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 76 Resp: 124609

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

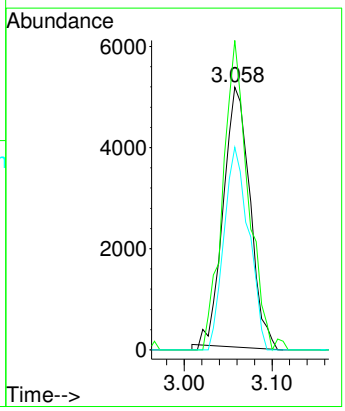


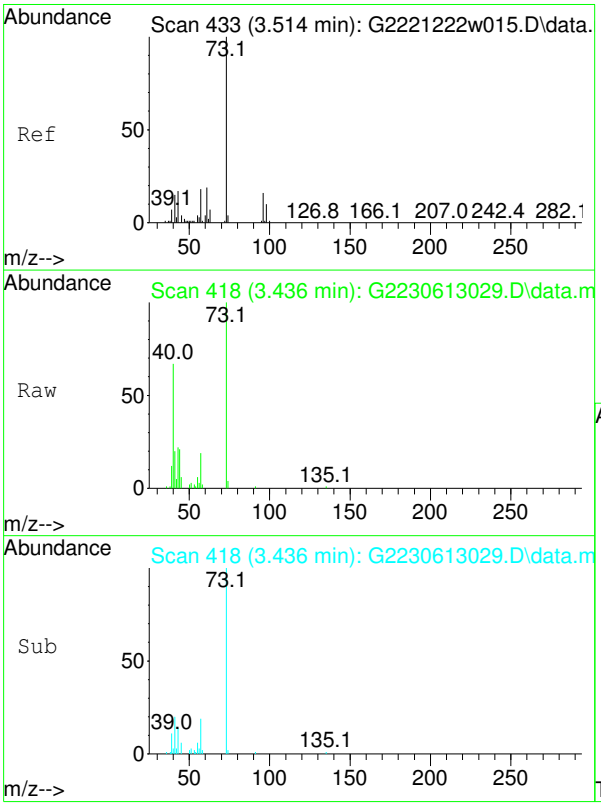


#18
Methylene chloride
Concen: Below Cal
RT: 3.062 min Scan# 357
Delta R.T. -0.000 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 49 Resp: 107407

Ion	Ratio	Lower	Upper
49	100		
84	114.6	57.9	117.9
86	73.0	24.9	84.9

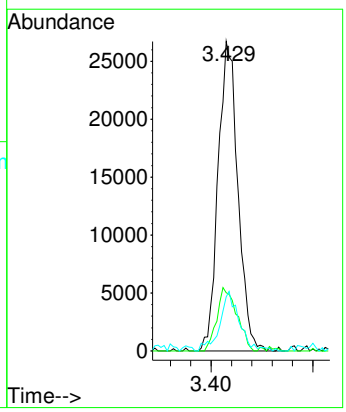


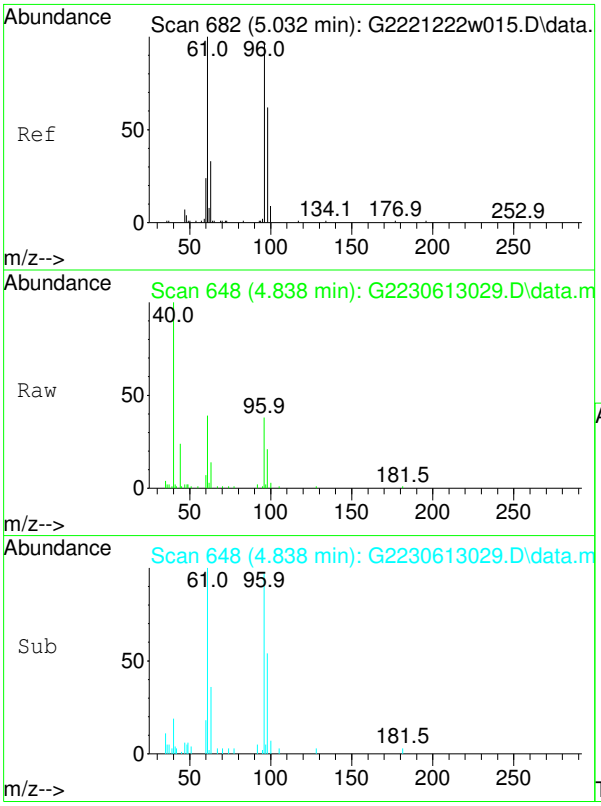


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.434 min Scan# 418
Delta R.T. -0.012 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 73 Resp: 720832

Ion	Ratio	Lower	Upper
73	100		
57	20.7	0.0	51.7
41	18.9	0.0	50.6

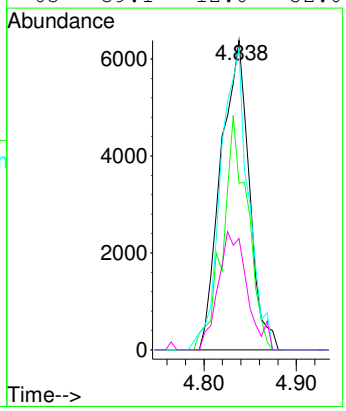


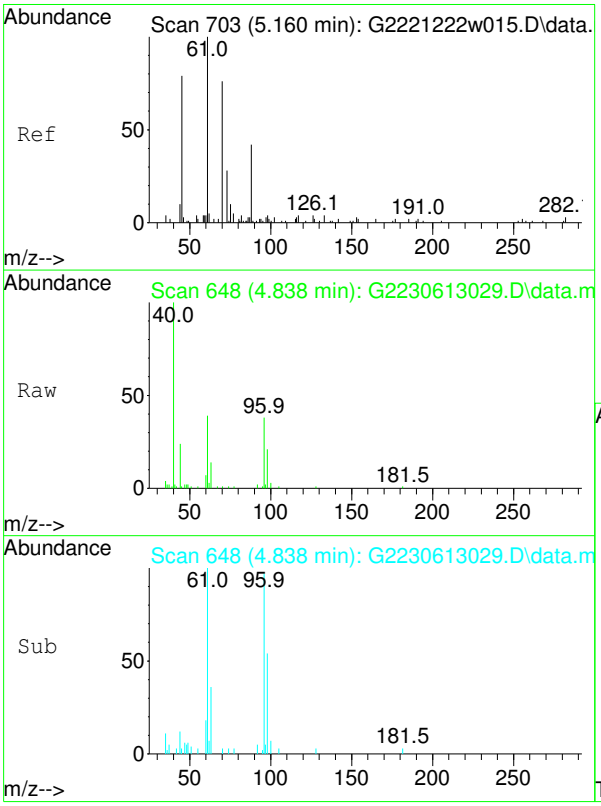


#28
cis-1,2-Dichloroethene
Concen: 0.24 ug/L
RT: 4.839 min Scan# 648
Delta R.T. 0.003 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 61 Resp: 135718

Ion	Ratio	Lower	Upper
61	100		
98	67.0	15.9	75.9
96	94.9	39.6	99.6
63	39.1	12.0	52.0

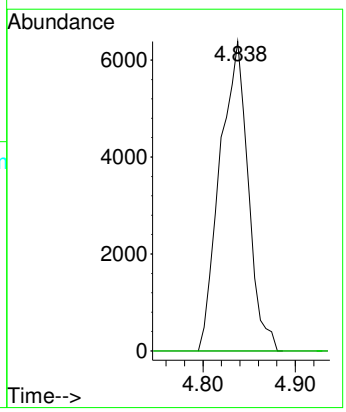


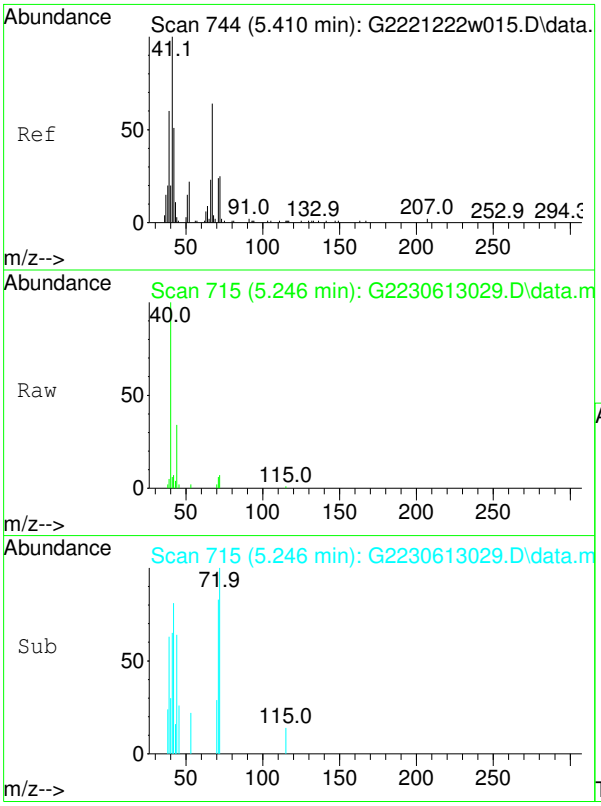


#31
Ethyl acetate
Concen: 2.49 ug/L
RT: 4.839 min Scan# 648
Delta R.T. -0.183 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 61 Resp: 135714

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

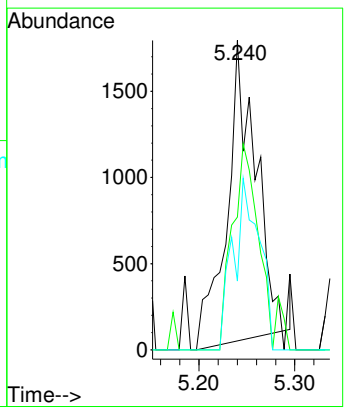


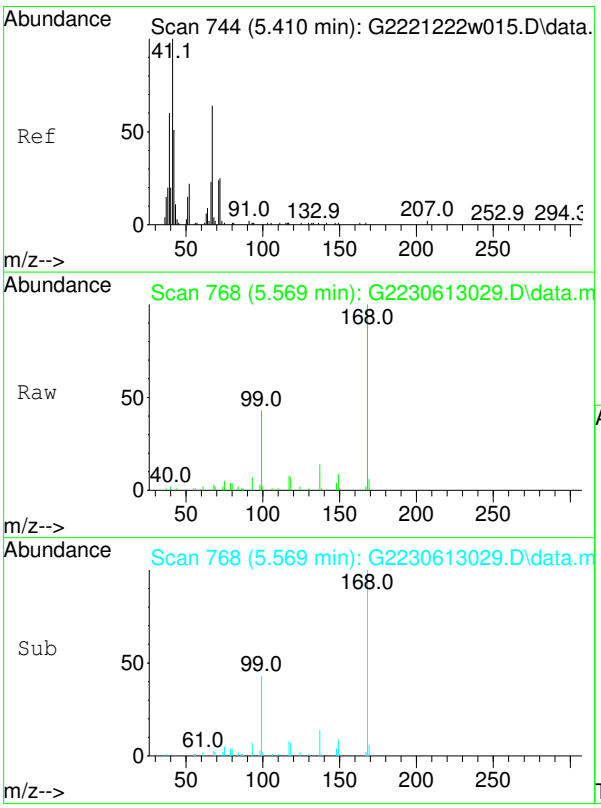


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.243 min Scan# 715
Delta R.T. -0.018 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 42 Resp: 35931

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

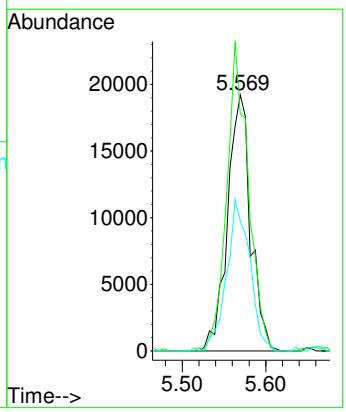


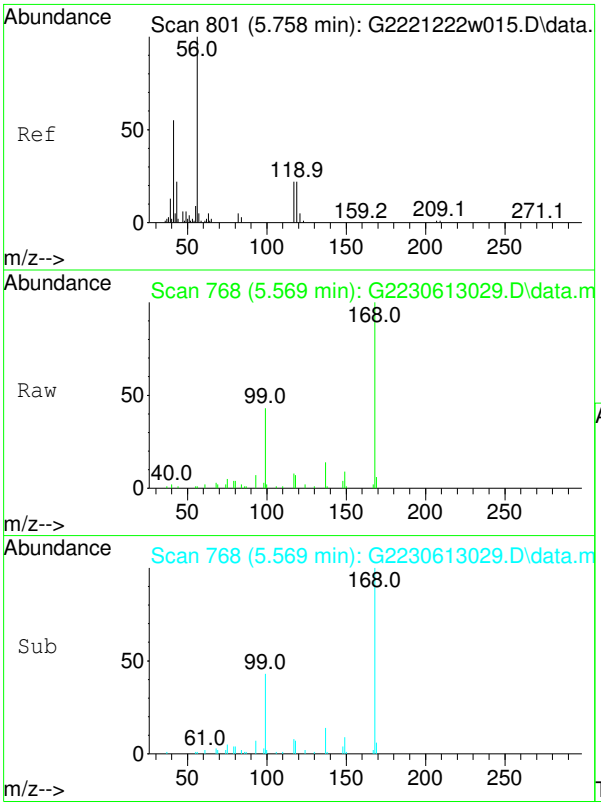


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 84 Resp: 369768

Ion	Ratio	Lower	Upper
84	100		
69	112.3	6.8	66.8#
56	59.1	79.1	139.1#

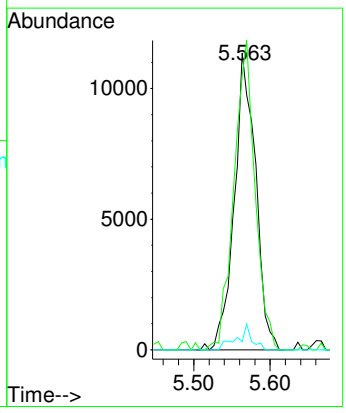


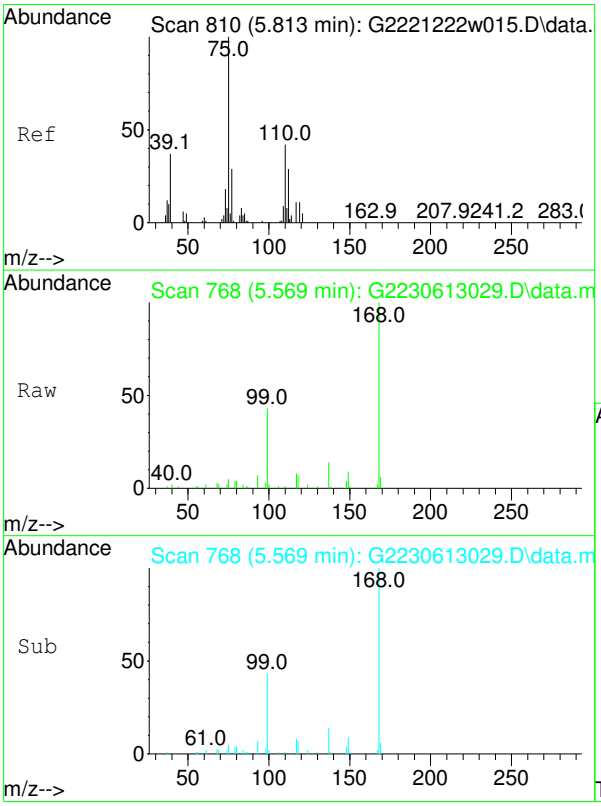


#41
1-Chlorobutane
Concen: 0.42 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 56 Resp: 220542

Ion	Ratio	Lower	Upper
56	100		
55	103.4	0.0	41.0#
57	0.0	0.0	35.7

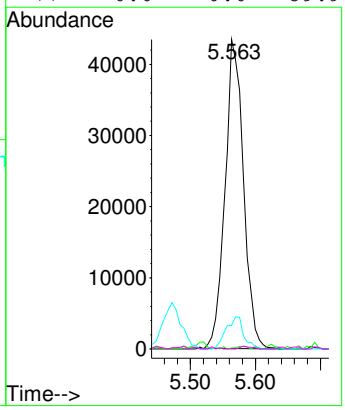


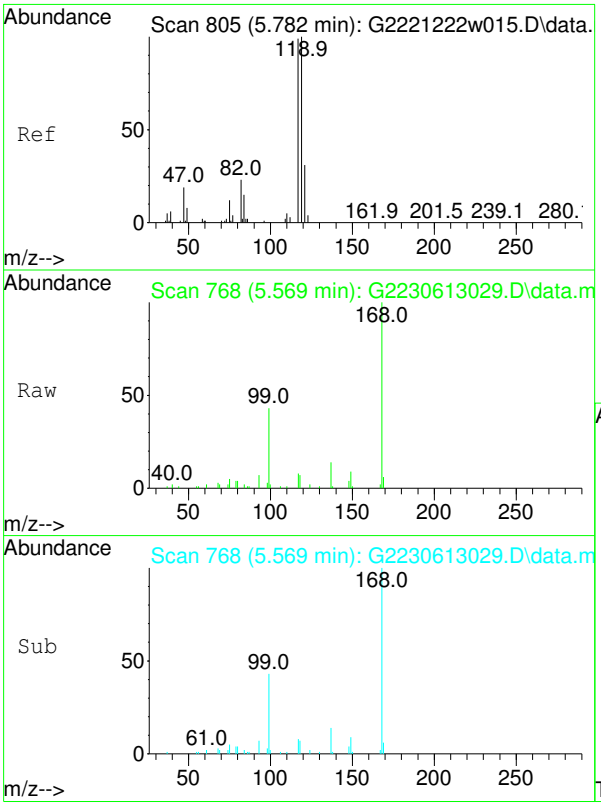


#42
1,1-Dichloropropene
Concen: 2.16 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 75 Resp: 853039

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	9.9	9.1	69.1
77	0.0	0.0	59.9

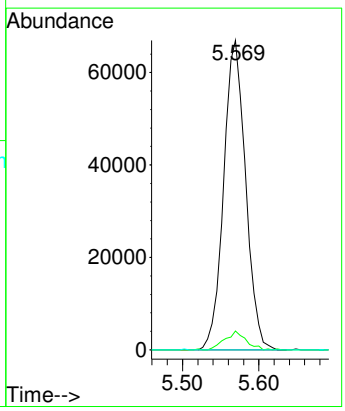


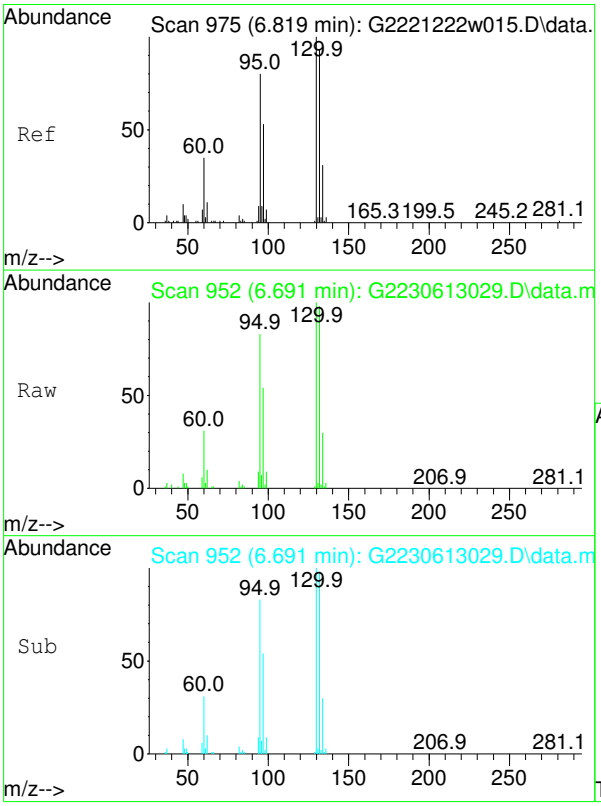


#47
Carbon tetrachloride
Concen: 3.26 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion:117 Resp: 1337306

Ion	Ratio	Lower	Upper
117	100		
119	5.7	66.4	126.4#
121	0.0	0.4	60.4#

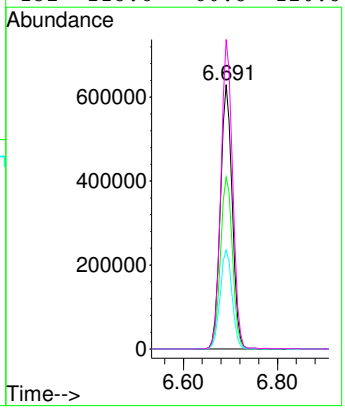


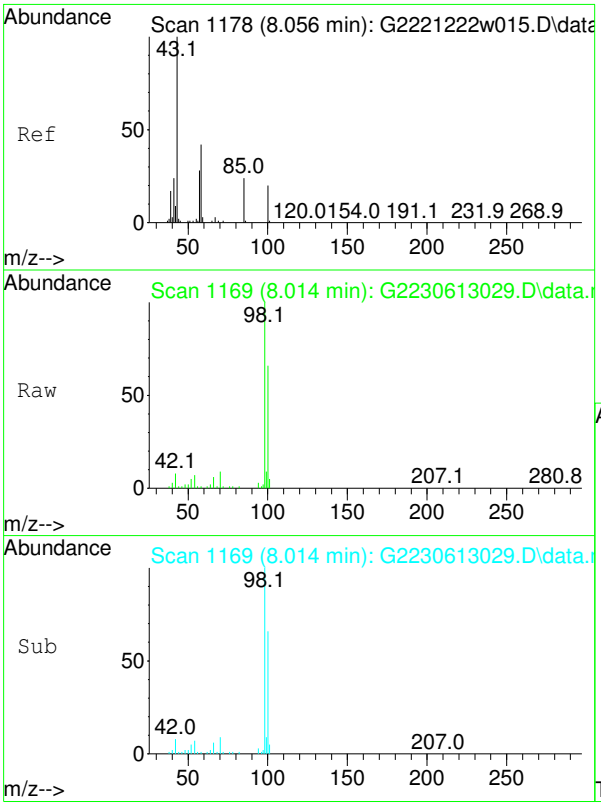


#50
Trichloroethene
Concen: 37.01 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 95 Resp:11073315

Ion	Ratio	Lower	Upper
95	100		
97	66.2	35.5	95.5
60	37.8	14.8	74.8
132	115.8	80.5	120.5

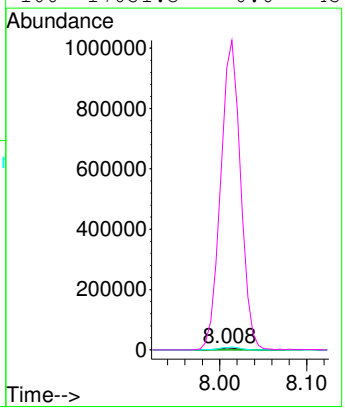


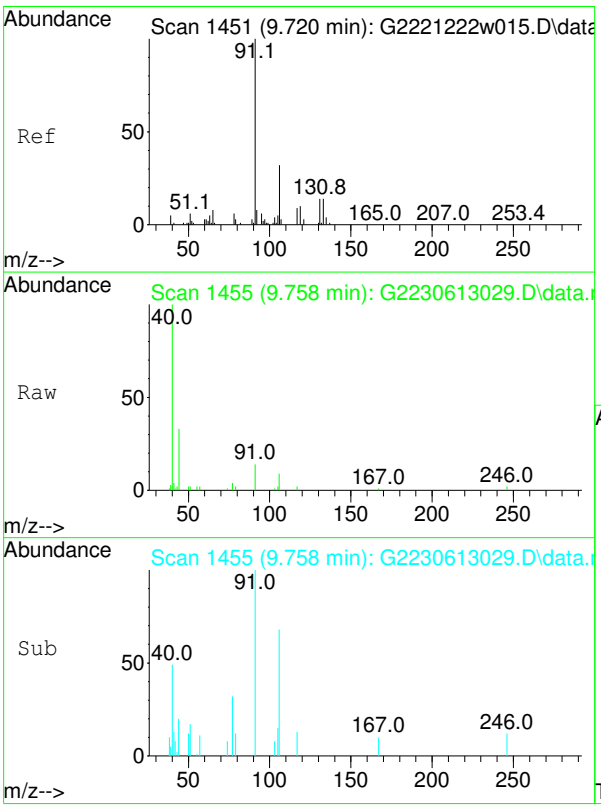


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 43 Resp: 95597

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	160.4	37.0	37.0#
100	17051.3	0.0	45.2#

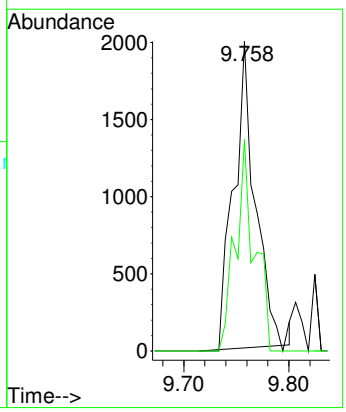


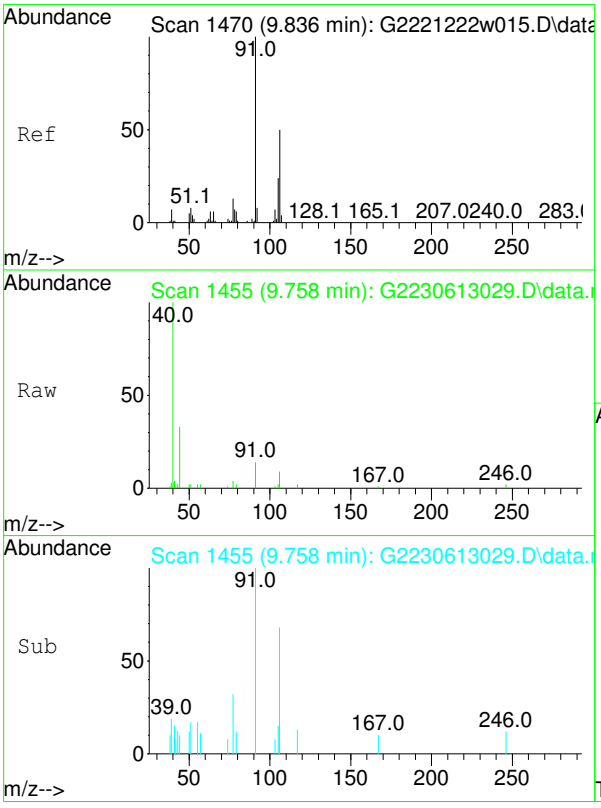


#74
Ethylbenzene
Concen: Below Cal
RT: 9.760 min Scan# 1455
Delta R.T. 0.117 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 91 Resp: 27886

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

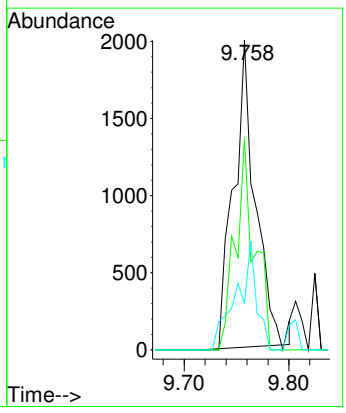




#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230613029.D
Acq: 13 Jun 2023 20:25

Tgt Ion: 91 Resp: 27984

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

61Trip2

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-16	File ID:	G2230613030.D
Sampled:	06/01/23 17:50	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 20:50
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.0650	0.200	0.500	U
71-55-6	1,1,1-Trichloroethane		0.0877	0.200	0.500	U
79-34-5	1,1,2,2-Tetrachloroethane		0.0621	0.200	0.500	U
79-00-5	1,1,2-Trichloroethane		0.0832	0.200	0.500	U
75-34-3	1,1-Dichloroethane		0.0669	0.200	0.500	U
75-35-4	1,1-Dichloroethene		0.0954	0.200	0.500	U
563-58-6	1,1-Dichloropropene		0.0699	0.200	0.500	U
87-61-6	1,2,3-Trichlorobenzene		0.102	0.200	0.500	U
96-18-4	1,2,3-Trichloropropane		0.0913	0.200	0.500	U
120-82-1	1,2,4-Trichlorobenzene		0.102	0.300	0.600	U
95-63-6	1,2,4-Trimethylbenzene		0.0661	0.200	0.500	U
96-12-8	1,2-Dibromo-3-chloropropane		0.130	0.500	1.00	U
106-93-4	1,2-Dibromoethane		0.0531	0.200	0.500	U
95-50-1	1,2-Dichlorobenzene		0.0630	0.200	0.500	U
107-06-2	1,2-Dichloroethane		0.106	0.300	0.600	U
78-87-5	1,2-Dichloropropane		0.102	0.300	0.600	U
108-67-8	1,3,5-Trimethylbenzene		0.0500	0.200	0.500	U
541-73-1	1,3-Dichlorobenzene		0.0724	0.200	0.500	U
142-28-9	1,3-Dichloropropane		0.0680	0.200	0.500	U
106-46-7	1,4-Dichlorobenzene		0.0920	0.200	0.500	U
594-20-7	2,2-Dichloropropane		0.0920	0.200	0.500	U
78-93-3	2-Butanone		0.330	0.700	1.75	U
95-49-8	2-Chlorotoluene		0.0733	0.200	0.500	U
591-78-6	2-Hexanone		0.0716	0.700	1.75	U
106-43-4	4-Chlorotoluene		0.0921	0.200	0.500	U
99-87-6	4-Isopropyltoluene		0.0700	0.200	0.500	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

61Trip2

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-16	File ID:	G2230613030.D
Sampled:	06/01/23 17:50	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 20:50
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.135	0.700	1.75	U
67-64-1	Acetone		0.518	2.00	4.00	U
71-43-2	Benzene		0.0507	0.200	0.500	U
108-86-1	Bromobenzene		0.0848	0.200	0.500	U
74-97-5	Bromochloromethane		0.0669	0.200	0.500	U
75-27-4	Bromodichloromethane		0.0531	0.200	0.500	U
75-25-2	Bromoform		0.103	0.200	0.500	U
74-83-9	Bromomethane		0.160	0.500	1.00	U
75-15-0	Carbon disulfide		0.140	0.500	1.00	U
56-23-5	Carbon tetrachloride		0.0844	0.200	0.500	U
108-90-7	Chlorobenzene		0.0650	0.200	0.500	U
75-00-3	Chloroethane		0.155	0.200	0.500	U
67-66-3	Chloroform		0.101	0.300	0.600	U
74-87-3	Chloromethane		0.192	0.500	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.103	0.300	0.600	U
10061-01-5	cis-1,3-Dichloropropene		0.0587	0.200	0.500	U
124-48-1	Dibromochloromethane		0.0759	0.200	0.500	U
74-95-3	Dibromomethane		0.0817	0.200	0.500	U
75-71-8	Dichlorodifluoromethane		0.130	0.500	1.00	U
100-41-4	Ethylbenzene		0.0300	0.100	0.200	U
87-68-3	Hexachlorobutadiene		0.100	0.200	0.500	Q, S1, U
98-82-8	Isopropylbenzene		0.0549	0.200	0.500	U
179601-23-1	m,p-Xylene		0.0889	0.400	1.00	U
1634-04-4	Methyl tert-butyl ether		0.0530	0.200	0.500	U
75-09-2	Methylene chloride		0.224	0.500	1.00	U
104-51-8	n-Butylbenzene		0.130	0.500	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

61Trip2

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23F0136-16	File ID:	G2230613030.D
Sampled:	06/01/23 17:50	Prepared:	06/13/23 12:15	Analyzed:	06/13/23 20:50
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.0630	0.200	0.500	U
91-20-3	Naphthalene		0.0700	0.200	0.500	U
95-47-6	o-Xylene		0.0416	0.200	0.500	U
135-98-8	sec-Butylbenzene		0.0598	0.200	0.500	U
100-42-5	Styrene		0.0453	0.100	0.200	U
98-06-6	tert-Butylbenzene		0.0453	0.200	0.500	U
127-18-4	Tetrachloroethene		0.178	0.500	1.00	U
108-88-3	Toluene		0.0572	0.200	0.500	U
156-60-5	trans-1,2-Dichloroethene		0.0855	0.200	0.500	U
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	Trichloroethene	0.120	0.0781	0.200	0.500	J
75-69-4	Trichlorofluoromethane		0.0505	0.200	0.500	U
75-01-4	Vinyl chloride		0.129	0.500	1.00	U

Italicized = secondary result

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613030.D
Acq On : 13 Jun 2023 20:50
Operator : PO1/MP3
Sample : 23F0136-16
Misc :
ALS Vial : 30 Sample Multiplier: 1

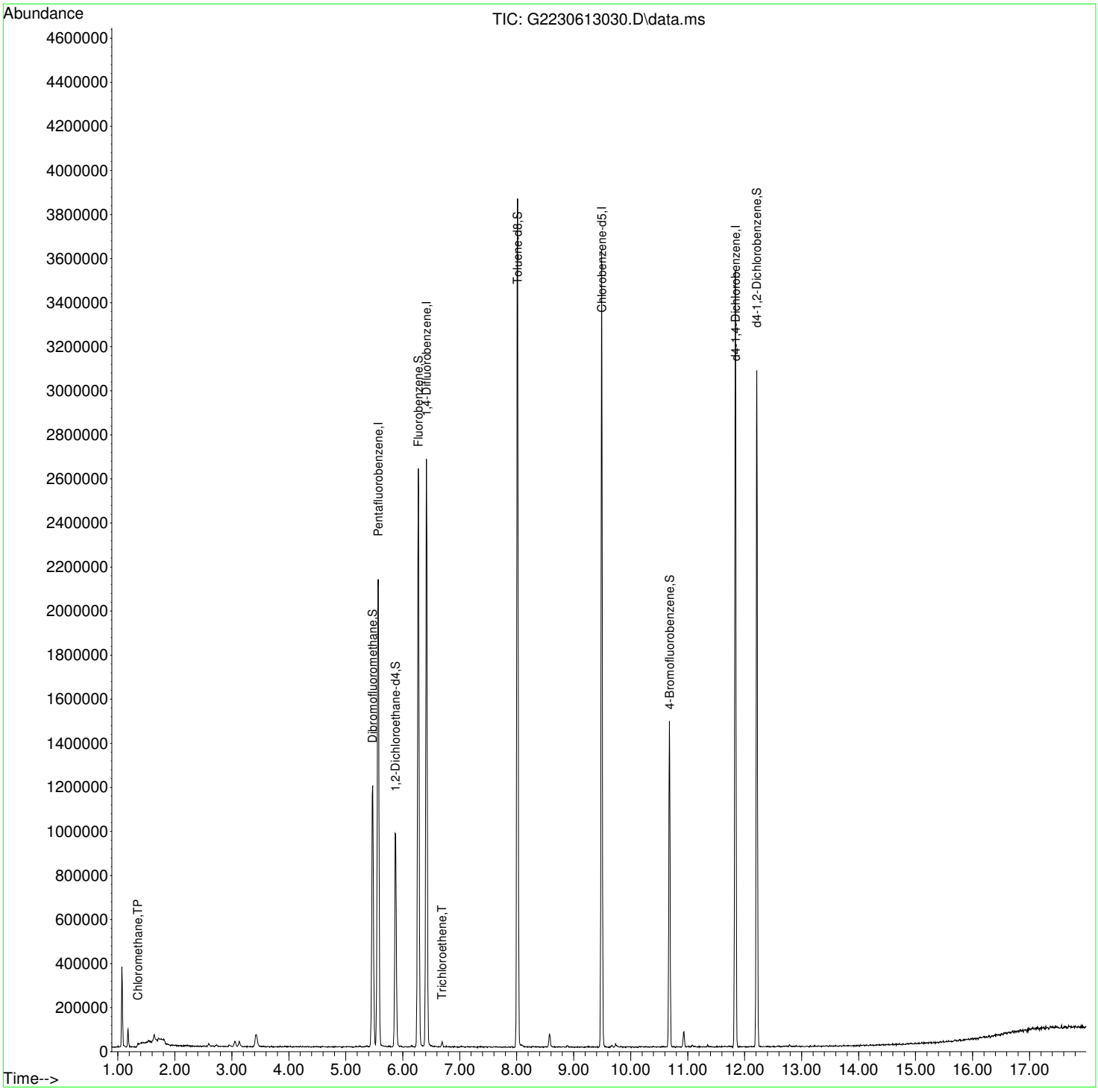
Quant Time: Jun 14 09:59:42 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	17233520	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23333029	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20930528	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9884681	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7533265	19.86	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.30%			
43) 1,2-Dichloroethane-d4	5.874	65	7036285	18.77	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 93.85%			
49) Fluorobenzene	6.275	96	25576367	19.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.20%			
64) Toluene-d8	8.015	98	25395461	19.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%			
81) 4-Bromofluorobenzene	10.683	174	4589945	9.83	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.30%			
97) d4-1,2-Dichlorobenzene	12.216	152	8816639	20.74	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.70%			
Target Compounds						Qvalue
3) Chloromethane	1.353	50	42093	0.04	ug/L #	41
5) Bromomethane	1.719	94	56133	Below Cal	#	74
18) Methylene chloride	3.053	49	122800	Below Cal		74
21) Methyl tert-butyl ether	3.428	73	769315	Below Cal		95
50) Trichloroethene	6.692	95	61529	0.12	ug/L #	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613030.D
Acq On : 13 Jun 2023 20:50
Operator : PO1/MP3
Sample : 23F0136-16
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 14 09:59:42 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613030.D
Acq On : 13 Jun 2023 20:50
Operator : PO1/MP3
Sample : 23F0136-16
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 14 09:59:42 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

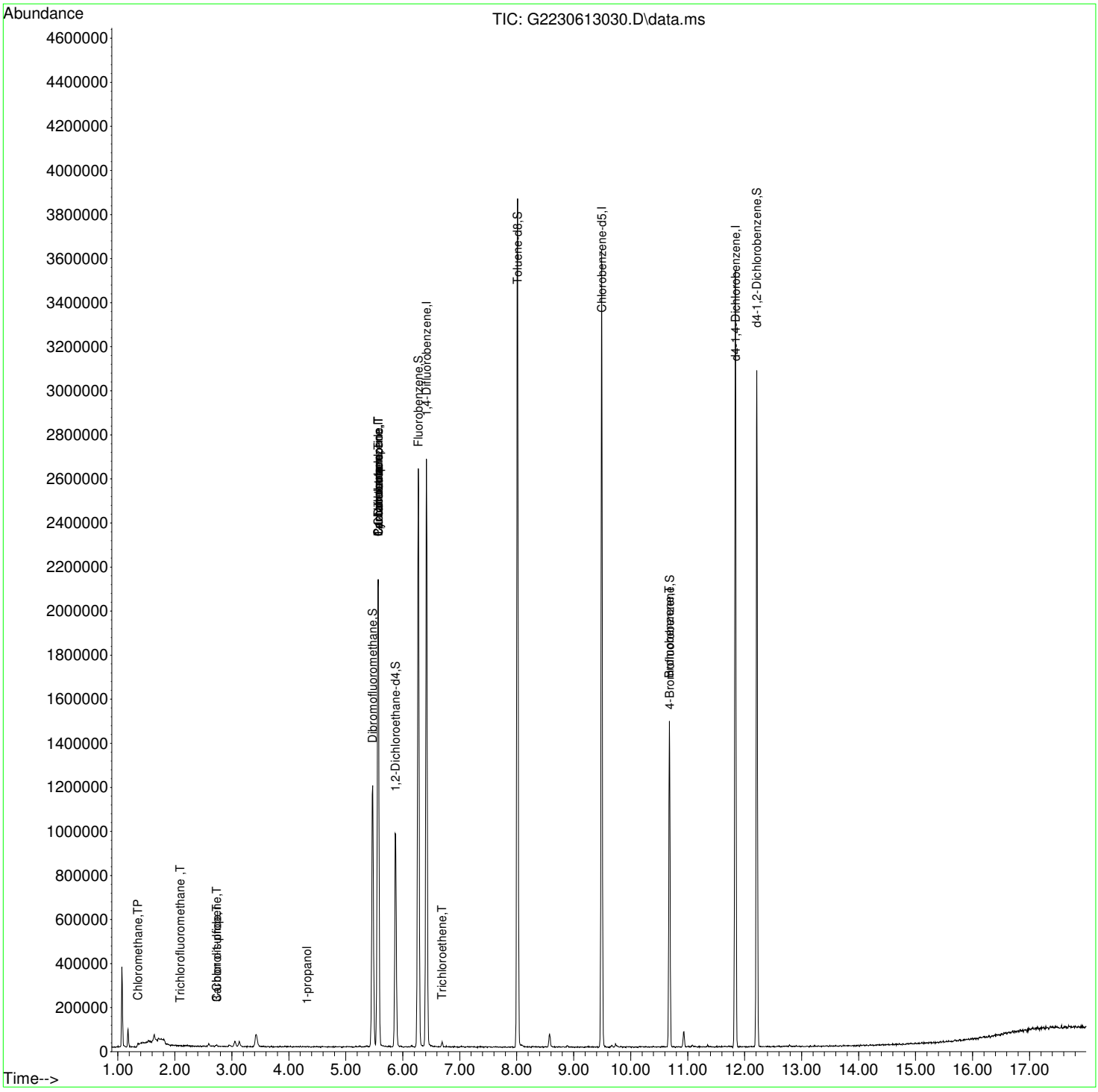
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	17233520	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23333029	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20930528	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9884681	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7533265	19.86	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.30%			
43) 1,2-Dichloroethane-d4	5.874	65	7036285	18.77	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 93.85%			
49) Fluorobenzene	6.275	96	25576367	19.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.20%			
64) Toluene-d8	8.015	98	25395461	19.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%			
81) 4-Bromofluorobenzene	10.683	174	4589945	9.83	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.30%			
97) d4-1,2-Dichlorobenzene	12.216	152	8816639	20.74	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.70%			
Target Compounds						Qvalue
3) Chloromethane	1.353	50	42093	0.04	ug/L #	41
5) Bromomethane	1.719	94	56133	Below Cal	#	74
7) Trichlorofluoromethane	2.097	101	838	0.00	ug/L #	16
8) Ethyl ether	2.359	59	741	Below Cal	#	13
12) Acetone	2.597	43	128716	Below Cal		84
14) Carbon disulfide	2.734	76	91315	0.02	ug/L #	74
16) acetonitrile	3.134	41	57878	Below Cal	#	13
17) 3-Chloro-1-propene	2.734	76	92082	0.45	ug/L #	53
18) Methylene chloride	3.053	49	122800	Below Cal		74
21) Methyl tert-butyl ether	3.428	73	769315	Below Cal		95
26) 1-propanol	4.320	59	1520	0.85	ug/L #	100
40) Cyclohexane	5.568	84	332174	0.72	ug/L #	34
41) 1-Chlorobutane	5.570	56	236370	0.44	ug/L #	1
42) 1,1-Dichloropropene	5.568	75	909996	2.25	ug/L #	38
47) Carbon tetrachloride	5.570	117	1386692	3.29	ug/L #	16
50) Trichloroethene	6.692	95	61529	0.12	ug/L #	81
60) 4-Methyl-2-pentanone	8.017	43	77586	Below Cal	#	1
74) Ethylbenzene	9.494	91	39552	Below Cal	#	44
82) Bromobenzene	10.681	77	26247	0.05	ug/L #	1
99) n-Butylbenzene	12.213	91	34531	Below Cal	#	53

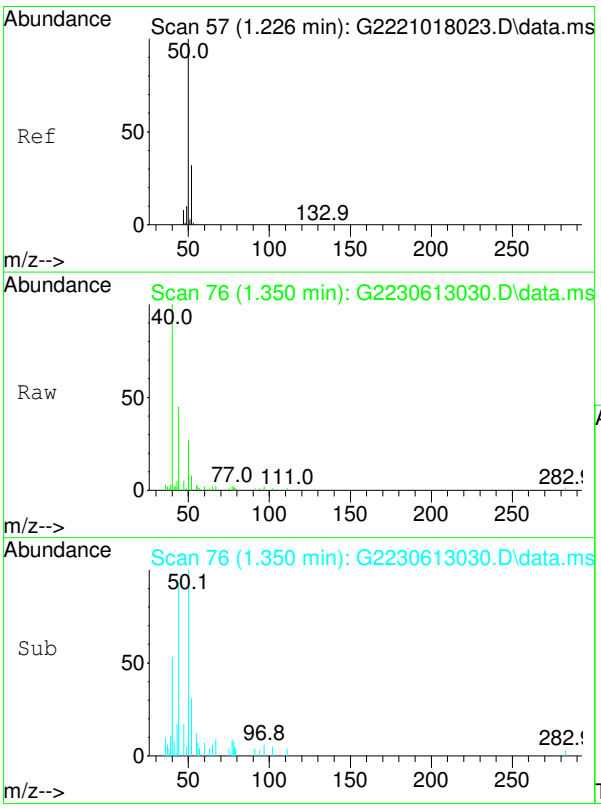
(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342249

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613030.D
Acq On : 13 Jun 2023 20:50
Operator : PO1/MP3
Sample : 23F0136-16
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Jun 14 09:59:42 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

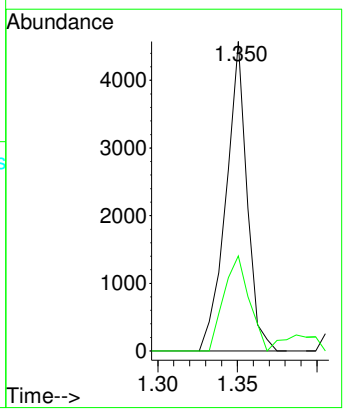


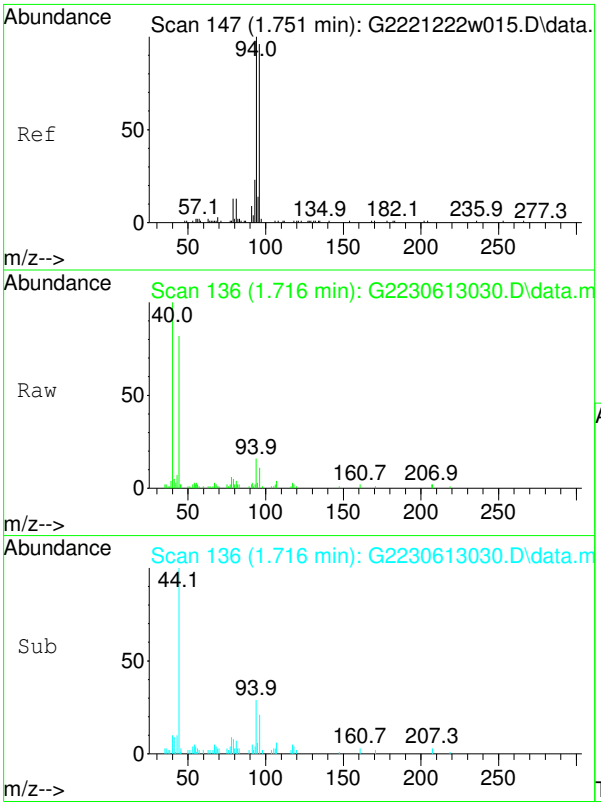


#3
Chloromethane
Concen: 0.04 ug/L
RT: 1.353 min Scan# 76
Delta R.T. -0.001 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 50 Resp: 42093

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

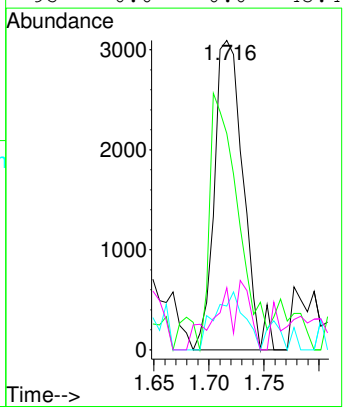


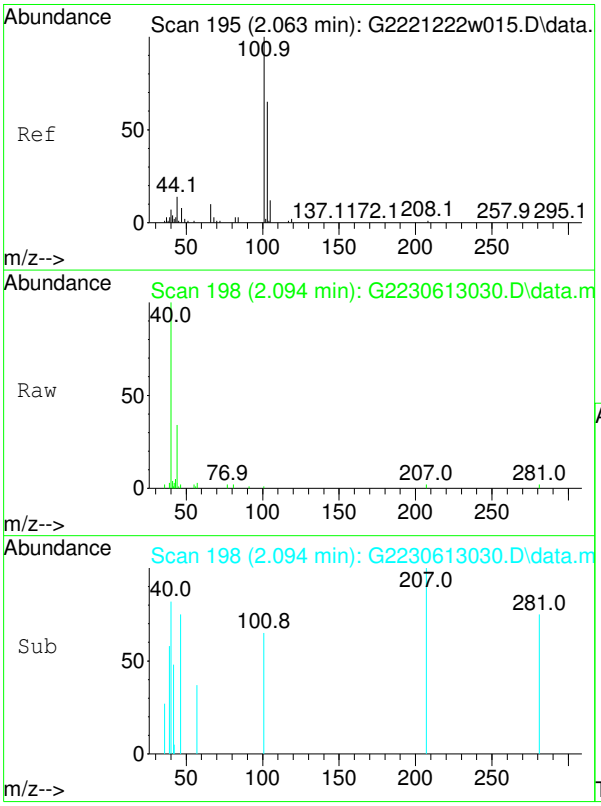


#5
Bromomethane
Concen: Below Cal
RT: 1.719 min Scan# 136
Delta R.T. 0.005 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 94 Resp: 56133

Ion	Ratio	Lower	Upper
94	100		
96	74.0	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

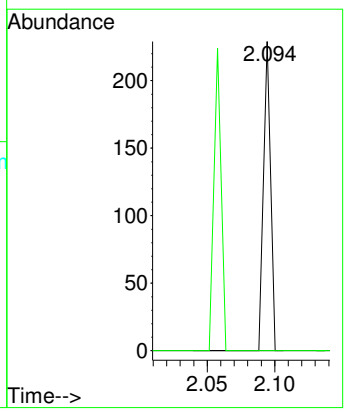


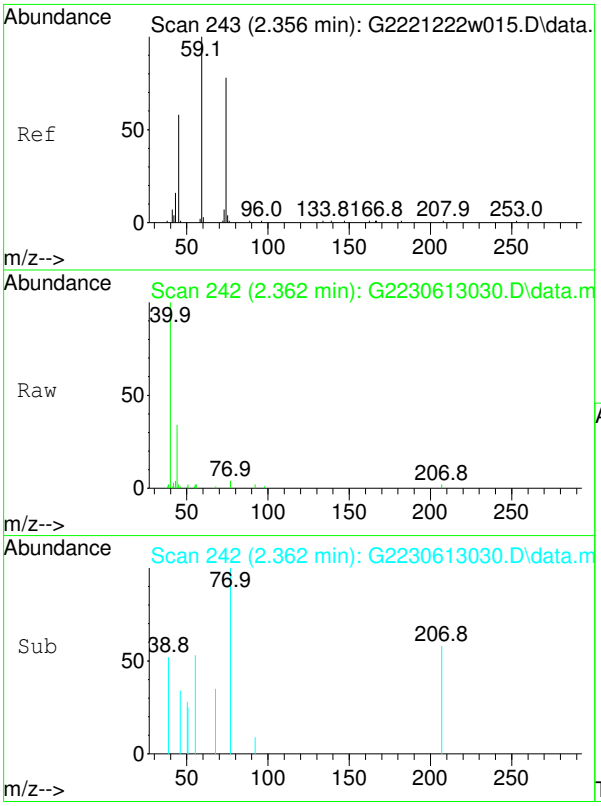


#7
Trichlorofluoromethane
Concen: 0.00 ug/L
RT: 2.097 min Scan# 198
Delta R.T. 0.067 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion:101 Resp: 838

Ion	Ratio	Lower	Upper
101	100		
103	0.0	36.9	96.9#

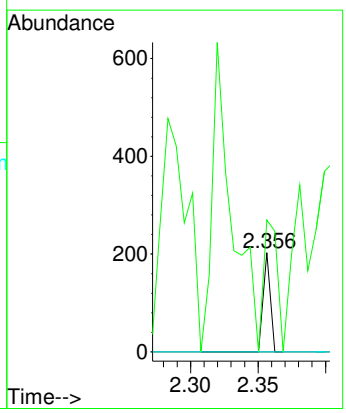


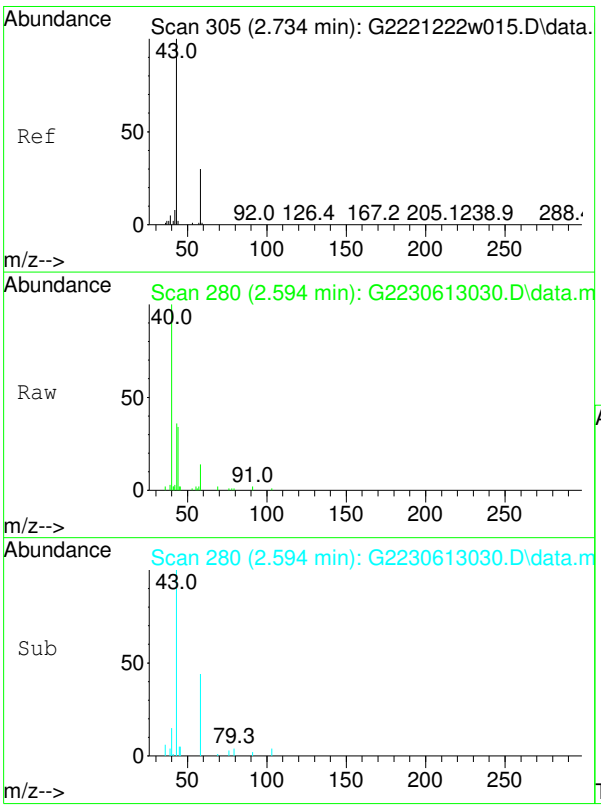


#8
Ethyl ether
Concen: Below Cal
RT: 2.359 min Scan# 242
Delta R.T. 0.041 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 59 Resp: 741

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

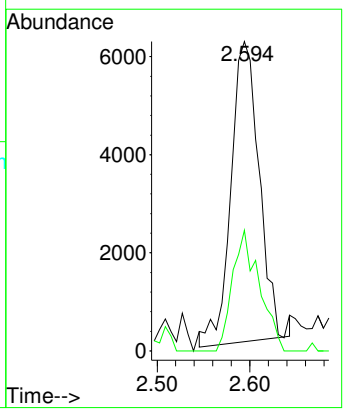


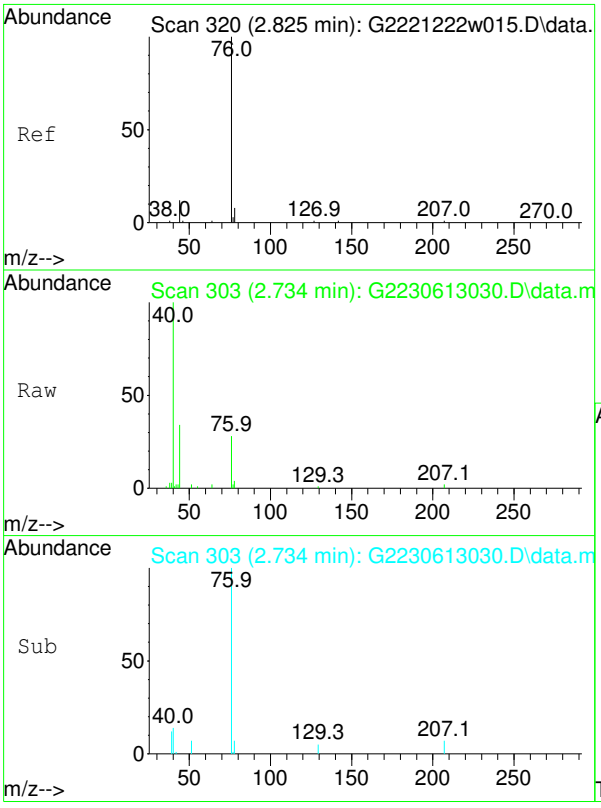


#12
Acetone
Concen: Below Cal
RT: 2.597 min Scan# 280
Delta R.T. -0.011 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 43 Resp: 128716

Ion	Ratio	Lower	Upper
43	100		
58	38.5	0.0	59.7

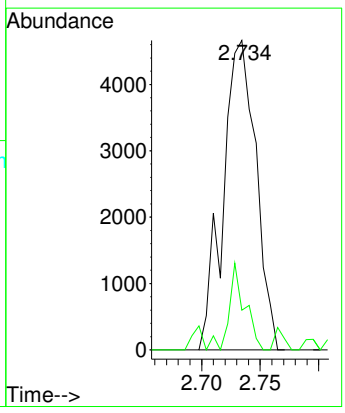


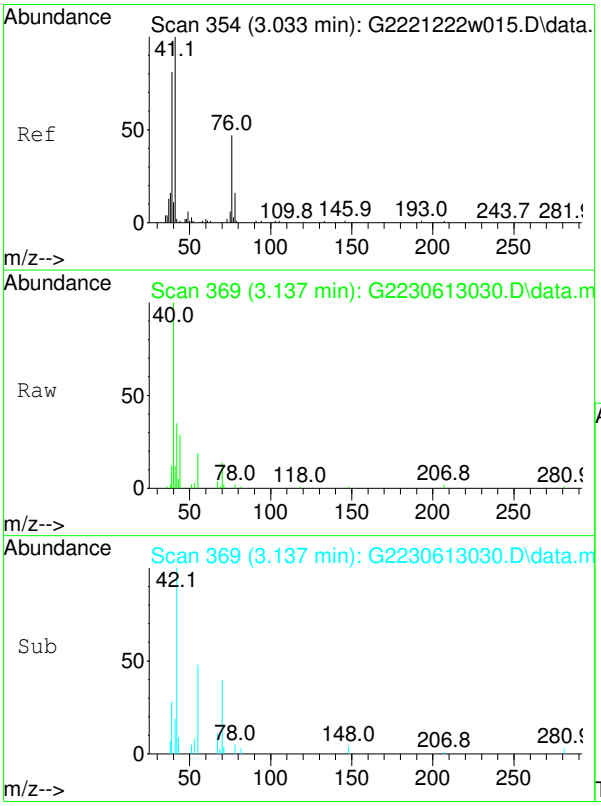


#14
Carbon disulfide
Concen: 0.02 ug/L
RT: 2.734 min Scan# 303
Delta R.T. -0.005 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 76 Resp: 91315

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

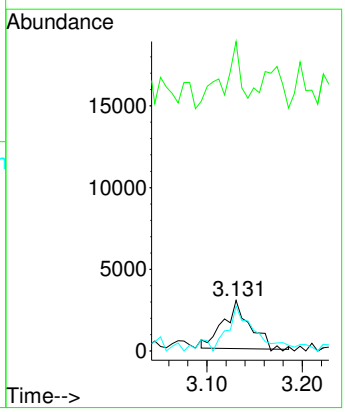


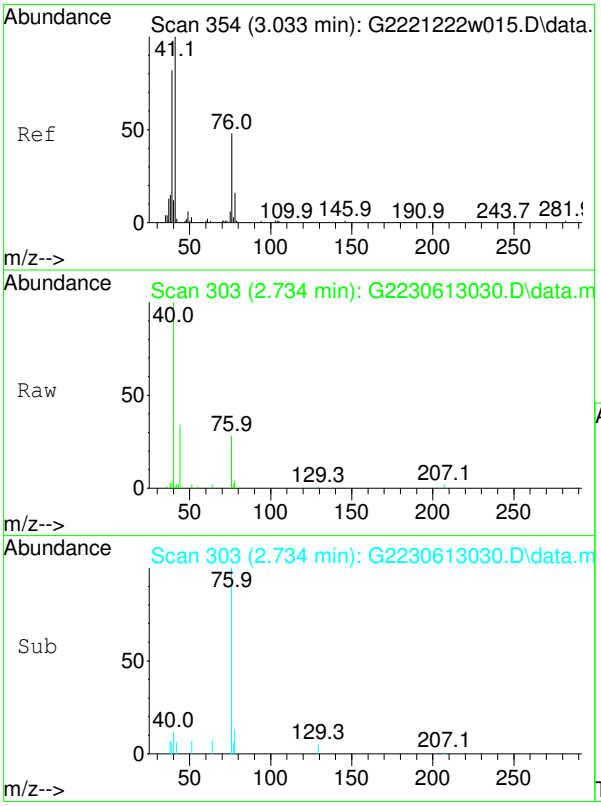


#16
acetonitrile
Concen: Below Cal
RT: 3.134 min Scan# 369
Delta R.T. 0.216 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 41 Resp: 57878

Ion	Ratio	Lower	Upper
41	100		
40	160.6	0.0	54.0#
39	63.0	27.5	87.5

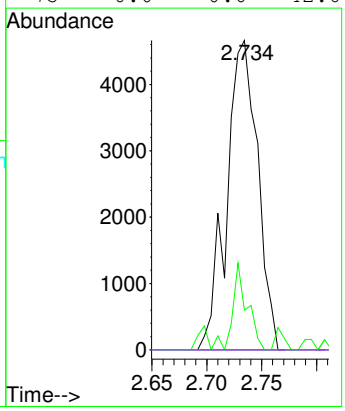


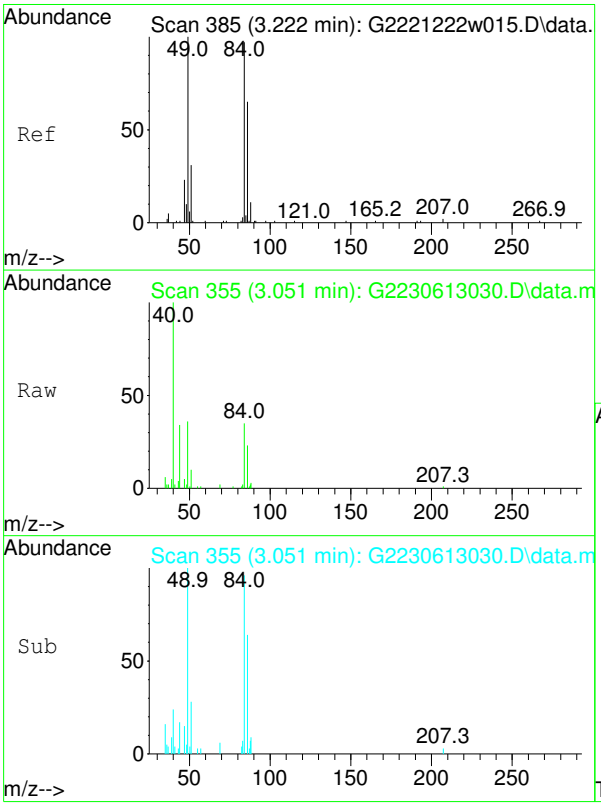


#17
3-Chloro-1-propene
Concen: 0.45 ug/L
RT: 2.734 min Scan# 303
Delta R.T. -0.186 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 76 Resp: 92082

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

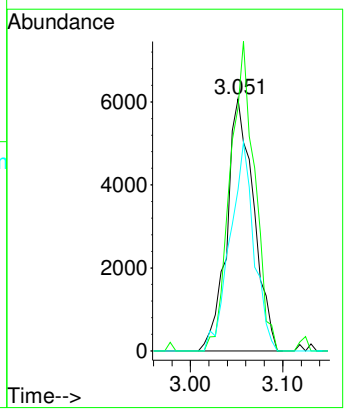


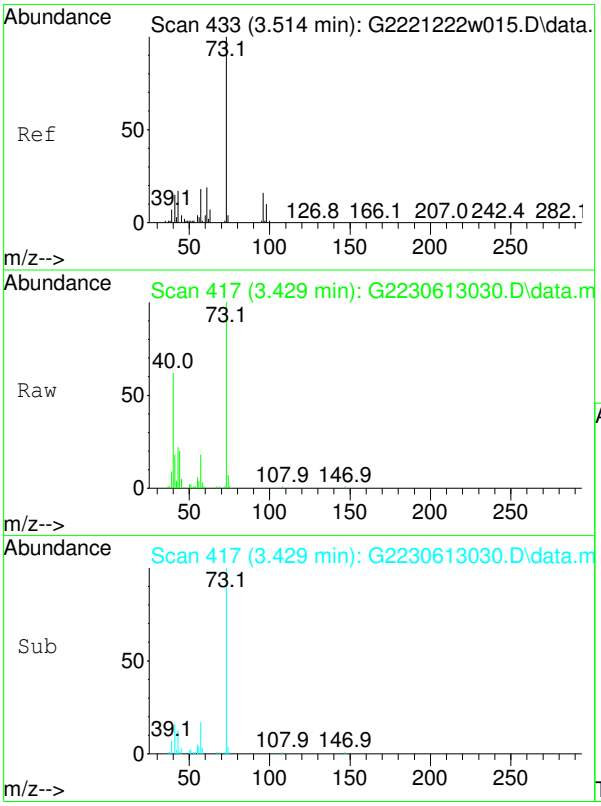


#18
Methylene chloride
Concen: Below Cal
RT: 3.053 min Scan# 355
Delta R.T. -0.009 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 49 Resp: 122800

Ion	Ratio	Lower	Upper
49	100		
84	111.4	57.9	117.9
86	74.3	24.9	84.9

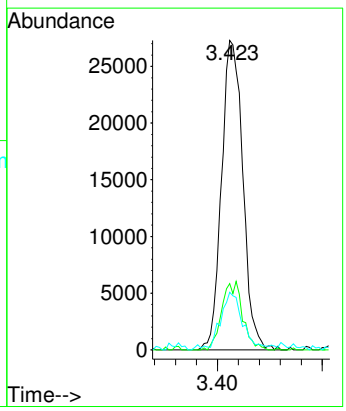


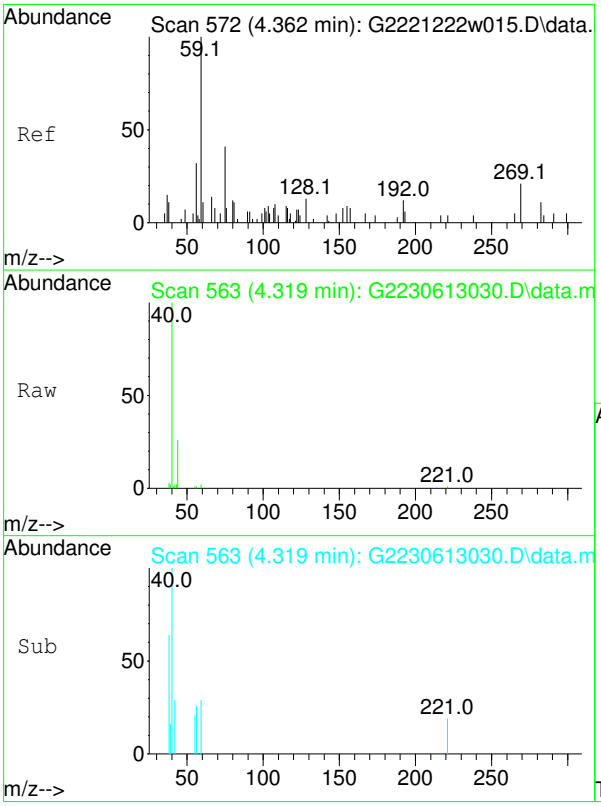


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.428 min Scan# 417
Delta R.T. -0.018 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 73 Resp: 769315

Ion	Ratio	Lower	Upper
73	100		
57	21.3	0.0	51.7
41	16.5	0.0	50.6

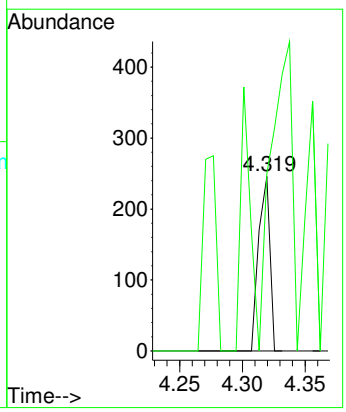


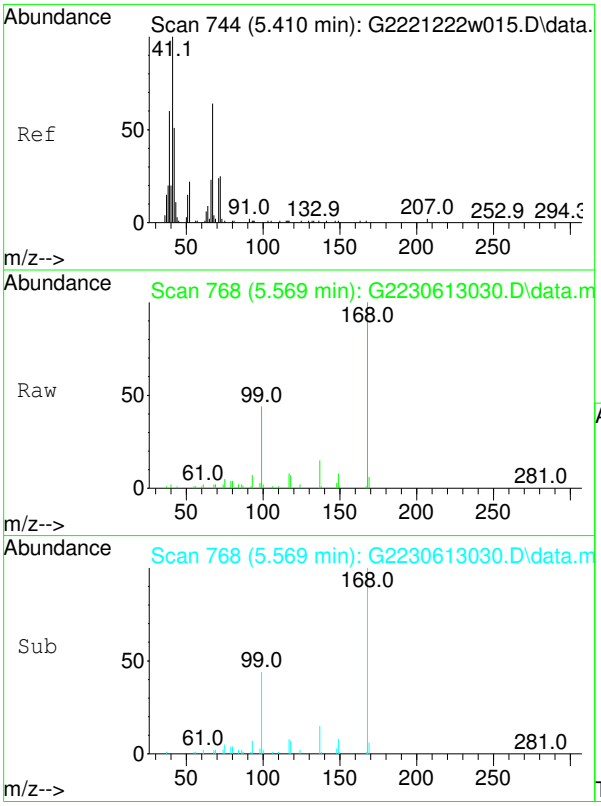


#26
1-propanol
Concen: 0.85 ug/L
RT: 4.320 min Scan# 563
Delta R.T. 0.031 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 59 Resp: 1520

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

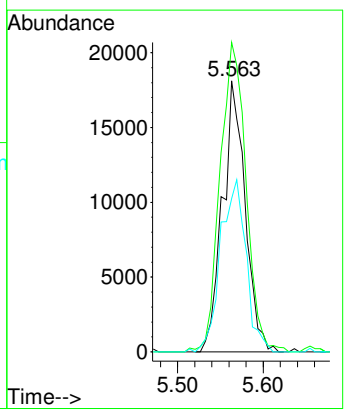


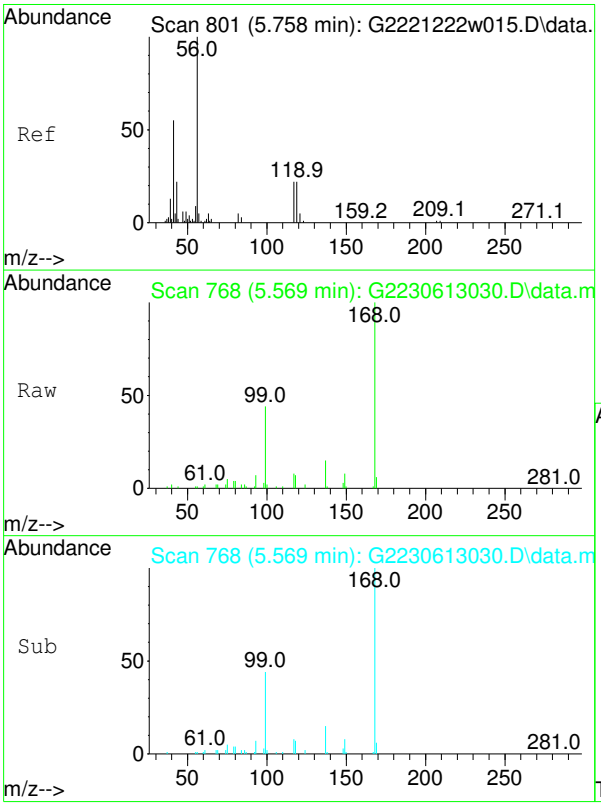


#40
Cyclohexane
Concen: 0.72 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 84 Resp: 332174

Ion	Ratio	Lower	Upper
84	100		
69	128.6	6.8	66.8#
56	71.2	79.1	139.1#

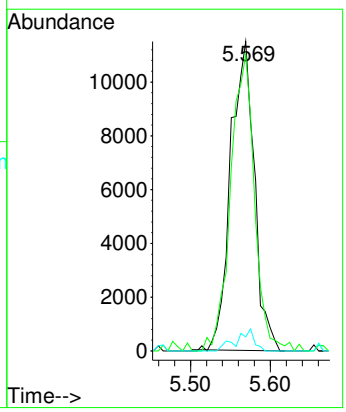


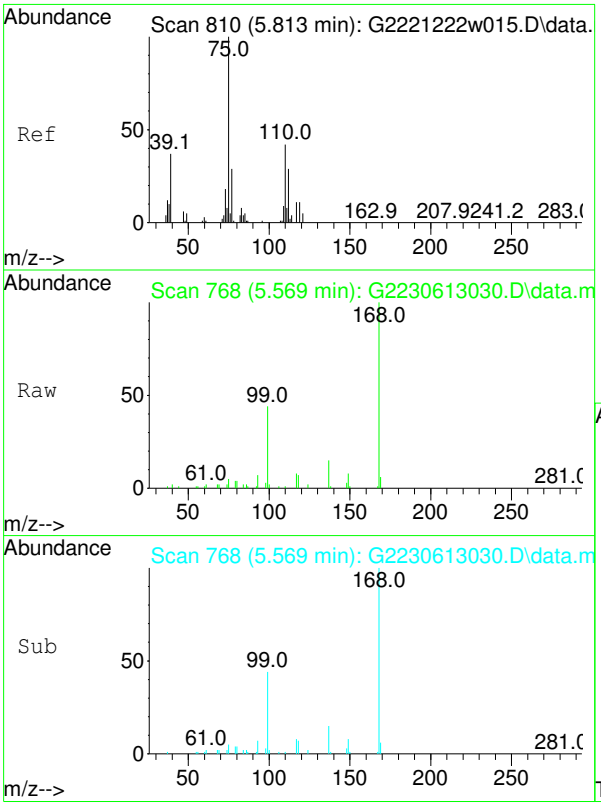


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 56 Resp: 236370

Ion	Ratio	Lower	Upper
56	100		
55	95.4	0.0	41.0#
57	0.0	0.0	35.7

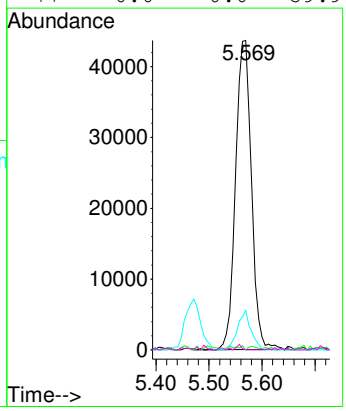


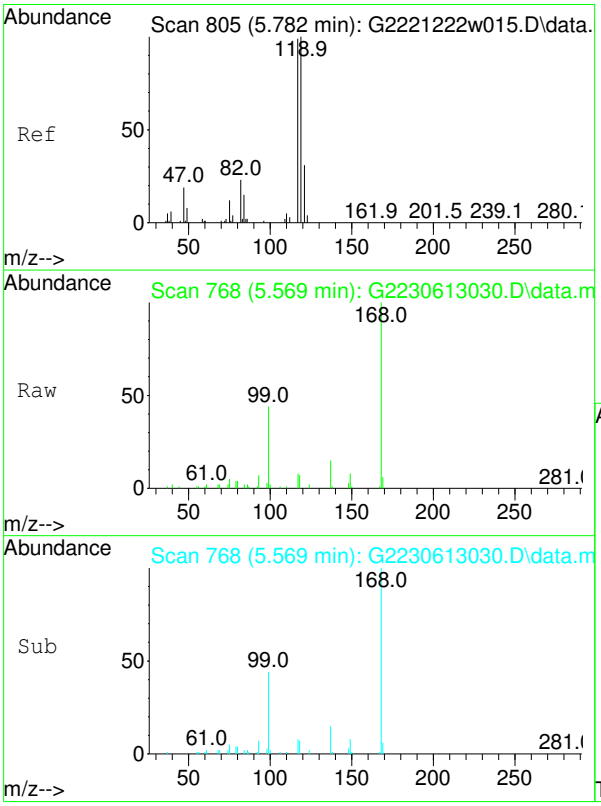


#42
1,1-Dichloropropene
Concen: 2.25 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 75 Resp: 909996

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.8	9.1	69.1
77	0.0	0.0	59.9

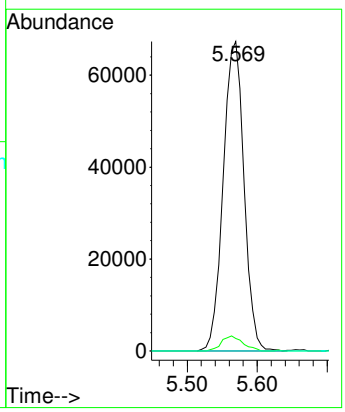


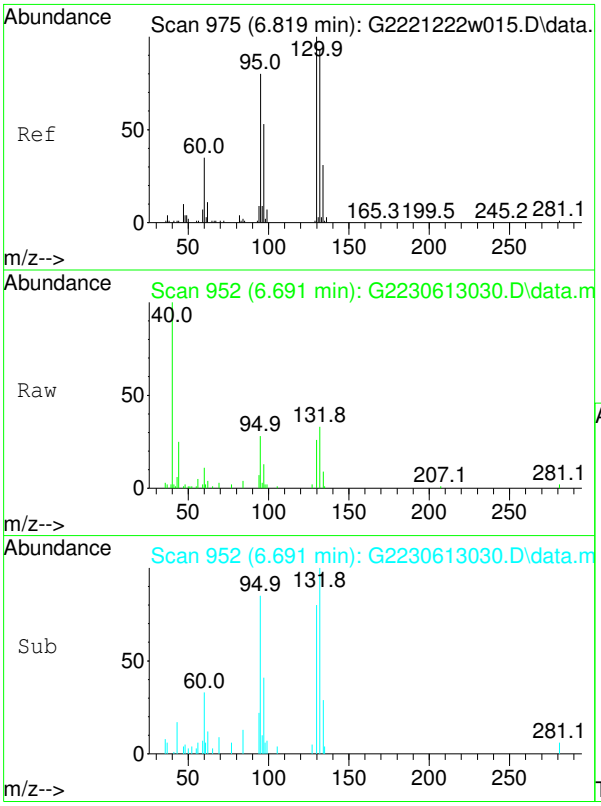


#47
Carbon tetrachloride
Concen: 3.29 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion:117 Resp: 1386692

Ion	Ratio	Lower	Upper
117	100		
119	5.1	66.4	126.4#
121	0.0	0.4	60.4#

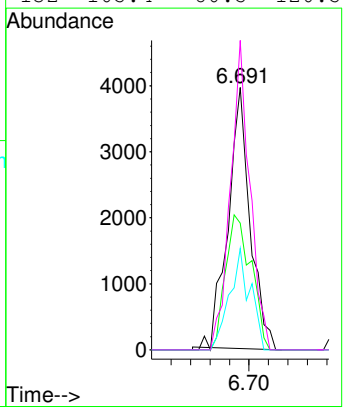


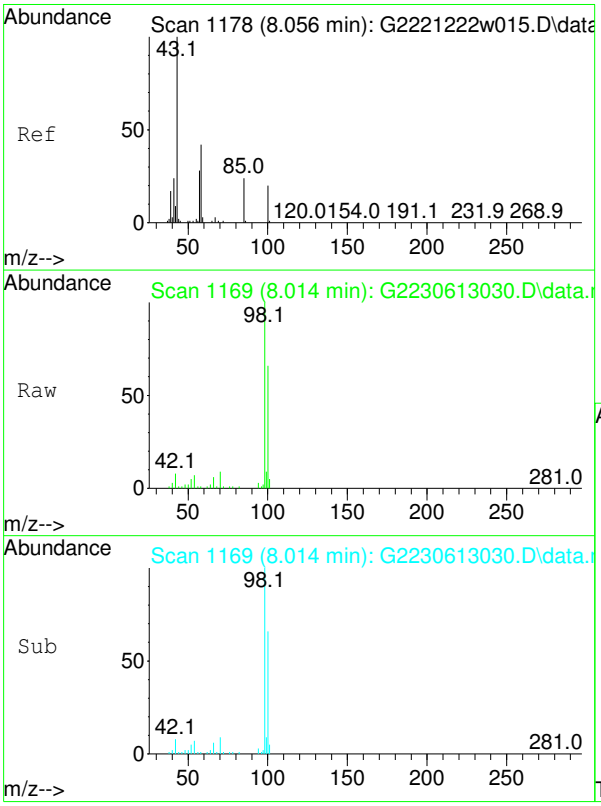


#50
Trichloroethene
Concen: 0.12 ug/L
RT: 6.692 min Scan# 952
Delta R.T. -0.004 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 95 Resp: 61529

Ion	Ratio	Lower	Upper
95	100		
97	60.4	35.5	95.5
60	0.0	14.8	74.8#
132	105.4	80.5	120.5

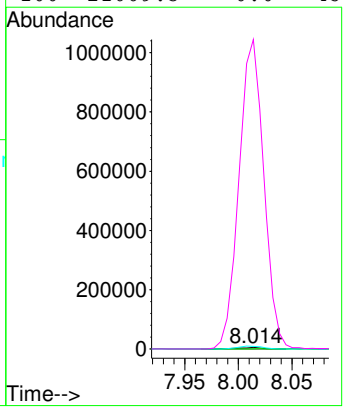


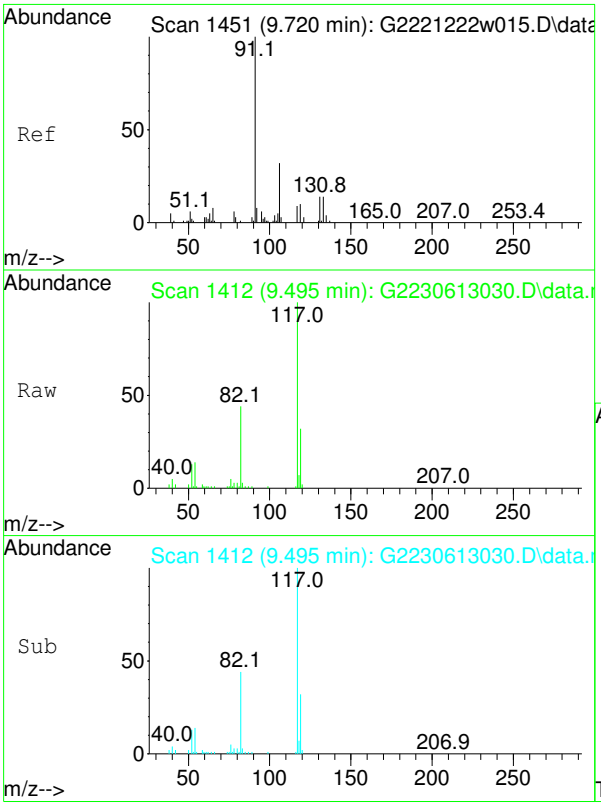


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.017 min Scan# 1169
Delta R.T. 0.073 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 43 Resp: 77586

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	210.7	37.0	37.0#
100	21669.3	0.0	45.2#

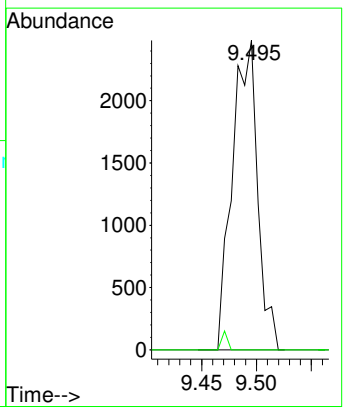


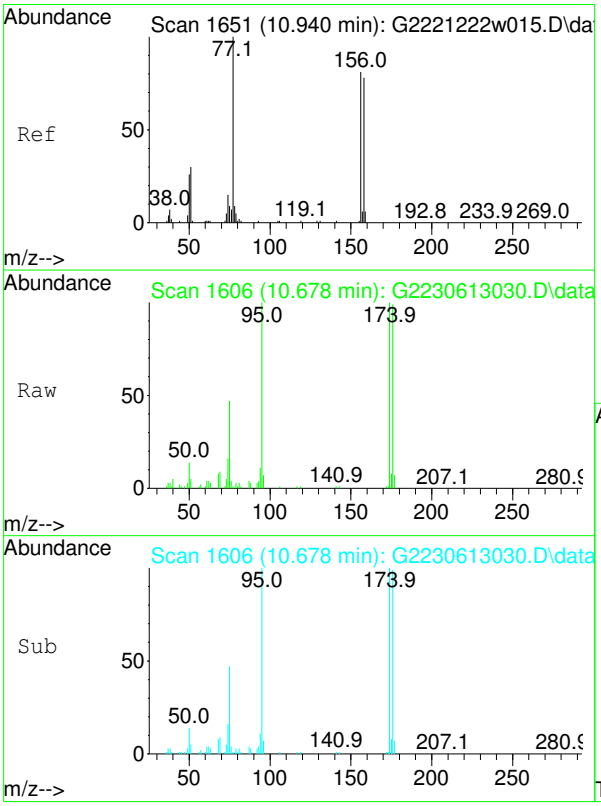


#74
Ethylbenzene
Concen: Below Cal
RT: 9.494 min Scan# 1412
Delta R.T. -0.149 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 91 Resp: 39552

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

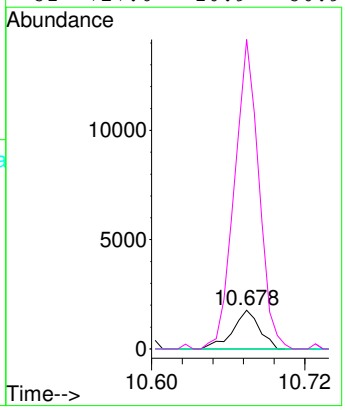


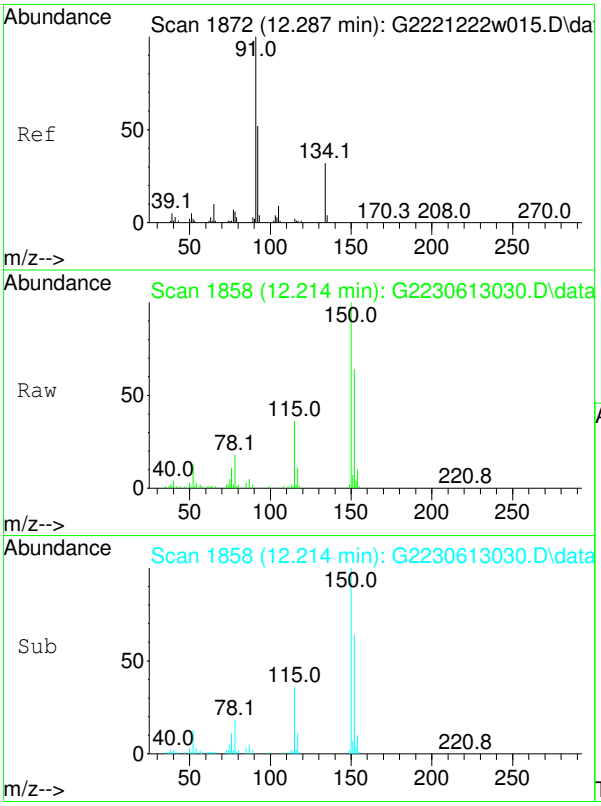


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.681 min Scan# 1606
Delta R.T. -0.147 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 77 Resp: 26247

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	727.6	10.9	50.9#

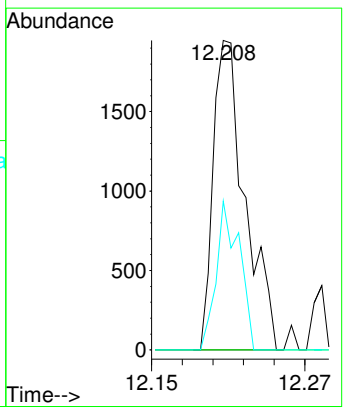




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.213 min Scan# 1858
Delta R.T. -0.018 min
Lab File: G2230613030.D
Acq: 13 Jun 2023 20:50

Tgt Ion: 91 Resp: 34531

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6



1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-BLK1	File ID:	G2230612008.D
		Prepared:	06/12/23 08:20	Analyzed:	06/12/23 11:32
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.0650	0.200	0.500	U
71-55-6	1,1,1-Trichloroethane		0.0877	0.200	0.500	U
79-34-5	1,1,2,2-Tetrachloroethane		0.0621	0.200	0.500	U
79-00-5	1,1,2-Trichloroethane		0.0832	0.200	0.500	U
75-34-3	1,1-Dichloroethane		0.0669	0.200	0.500	U
75-35-4	1,1-Dichloroethene		0.0954	0.200	0.500	U
563-58-6	1,1-Dichloropropene		0.0699	0.200	0.500	U
87-61-6	1,2,3-Trichlorobenzene		0.102	0.200	0.500	U
96-18-4	1,2,3-Trichloropropane		0.0913	0.200	0.500	U
120-82-1	1,2,4-Trichlorobenzene		0.102	0.300	0.600	U
95-63-6	1,2,4-Trimethylbenzene		0.0661	0.200	0.500	U
96-12-8	1,2-Dibromo-3-chloropropane		0.130	0.500	1.00	U
106-93-4	1,2-Dibromoethane		0.0531	0.200	0.500	U
95-50-1	1,2-Dichlorobenzene		0.0630	0.200	0.500	U
107-06-2	1,2-Dichloroethane		0.106	0.300	0.600	U
78-87-5	1,2-Dichloropropane		0.102	0.300	0.600	U
108-67-8	1,3,5-Trimethylbenzene		0.0500	0.200	0.500	U
541-73-1	1,3-Dichlorobenzene		0.0724	0.200	0.500	U
142-28-9	1,3-Dichloropropane		0.0680	0.200	0.500	U
106-46-7	1,4-Dichlorobenzene		0.0920	0.200	0.500	U
594-20-7	2,2-Dichloropropane		0.0920	0.200	0.500	U
78-93-3	2-Butanone		0.330	0.700	1.75	U
95-49-8	2-Chlorotoluene		0.0733	0.200	0.500	U
591-78-6	2-Hexanone		0.0716	0.700	1.75	U
106-43-4	4-Chlorotoluene		0.0921	0.200	0.500	U
99-87-6	4-Isopropyltoluene		0.0700	0.200	0.500	U

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-BLK1	File ID:	G2230612008.D
		Prepared:	06/12/23 08:20	Analyzed:	06/12/23 11:32
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.135	0.700	1.75	U
67-64-1	Acetone		0.518	2.00	4.00	U
71-43-2	Benzene		0.0507	0.200	0.500	U
108-86-1	Bromobenzene		0.0848	0.200	0.500	U
74-97-5	Bromochloromethane		0.0669	0.200	0.500	U
75-27-4	Bromodichloromethane		0.0531	0.200	0.500	U
75-25-2	Bromoform		0.103	0.200	0.500	U
74-83-9	Bromomethane		0.160	0.500	1.00	U
75-15-0	Carbon disulfide		0.140	0.500	1.00	U
56-23-5	Carbon tetrachloride		0.0844	0.200	0.500	U
108-90-7	Chlorobenzene		0.0650	0.200	0.500	U
75-00-3	Chloroethane		0.155	0.200	0.500	U
67-66-3	Chloroform		0.101	0.300	0.600	U
74-87-3	Chloromethane		0.192	0.500	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.103	0.300	0.600	U
10061-01-5	cis-1,3-Dichloropropene		0.0587	0.200	0.500	U
124-48-1	Dibromochloromethane		0.0759	0.200	0.500	U
74-95-3	Dibromomethane		0.0817	0.200	0.500	U
75-71-8	Dichlorodifluoromethane		0.130	0.500	1.00	U
100-41-4	Ethylbenzene		0.0300	0.100	0.200	U
87-68-3	Hexachlorobutadiene		0.100	0.200	0.500	U
98-82-8	Isopropylbenzene		0.0549	0.200	0.500	U
179601-23-1	m,p-Xylene		0.0889	0.400	1.00	U
1634-04-4	Methyl tert-butyl ether		0.0530	0.200	0.500	U
75-09-2	Methylene chloride		0.224	0.500	1.00	U
104-51-8	n-Butylbenzene		0.130	0.500	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-BLK1	File ID:	G2230612008.D
		Prepared:	06/12/23 08:20	Analyzed:	06/12/23 11:32
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.0630	0.200	0.500	U
91-20-3	Naphthalene		0.0700	0.200	0.500	U
95-47-6	o-Xylene		0.0416	0.200	0.500	U
135-98-8	sec-Butylbenzene		0.0598	0.200	0.500	U
100-42-5	Styrene		0.0453	0.100	0.200	U
98-06-6	tert-Butylbenzene		0.0453	0.200	0.500	U
127-18-4	Tetrachloroethene		0.178	0.500	1.00	U
108-88-3	Toluene		0.0572	0.200	0.500	U
156-60-5	trans-1,2-Dichloroethene		0.0855	0.200	0.500	U
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	Trichloroethene		0.0781	0.200	0.500	U
75-69-4	Trichlorofluoromethane		0.0505	0.200	0.500	U
75-01-4	Vinyl chloride		0.129	0.500	1.00	U

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612008.D
Acq On : 12 Jun 2023 11:32
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 8 Sample Multiplier: 1

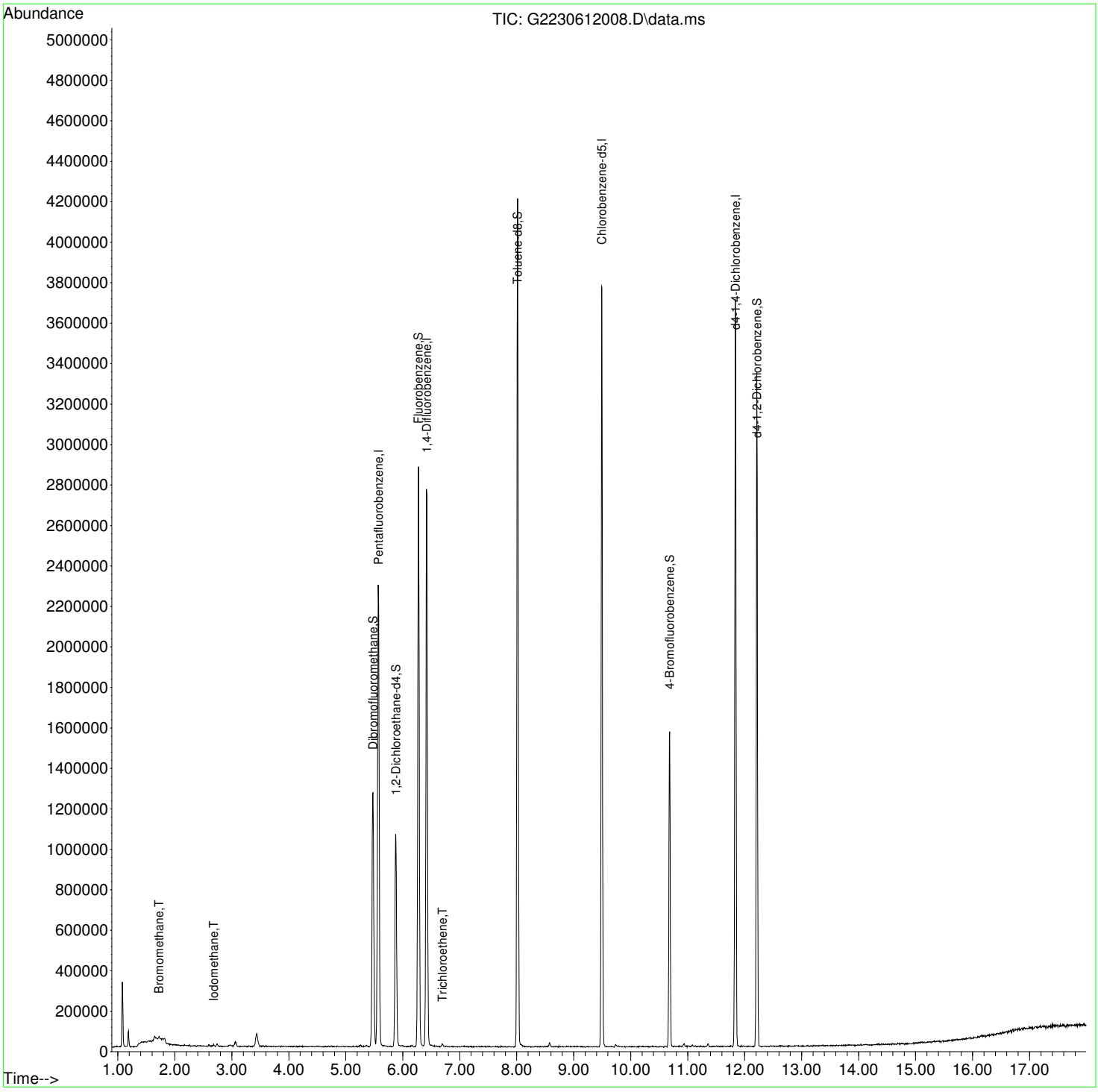
Quant Time: Jun 12 17:10:40 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.574	168	18274562	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.422	114	24921712	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	22374338	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10604176	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.477	111	8071927	20.07	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.35%			
43) 1,2-Dichloroethane-d4	5.879	65	7520136	18.92	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.60%			
49) Fluorobenzene	6.279	96	27500234	19.37	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%			
64) Toluene-d8	8.017	98	27030418	19.17	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.85%			
81) 4-Bromofluorobenzene	10.685	174	4962905	9.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.10%			
97) d4-1,2-Dichlorobenzene	12.218	152	9279391	20.35	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.75%			
Target Compounds						Qvalue
5) Bromomethane	1.722	94	80222m	0.08	ug/L	
13) Iodomethane	2.679	142	80094m	0.19	ug/L	
18) Methylene chloride	3.067	49	117472	Below Cal		80
21) Methyl tert-butyl ether	3.440	73	838654	Below Cal		97
50) Trichloroethene	6.695	95	33360	0.02	ug/L #	50

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612008.D
Acq On : 12 Jun 2023 11:32
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 17:10:40 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



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Data File : G2230612008.D
Acq On : 12 Jun 2023 11:32
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 8 Sample Multiplier: 1

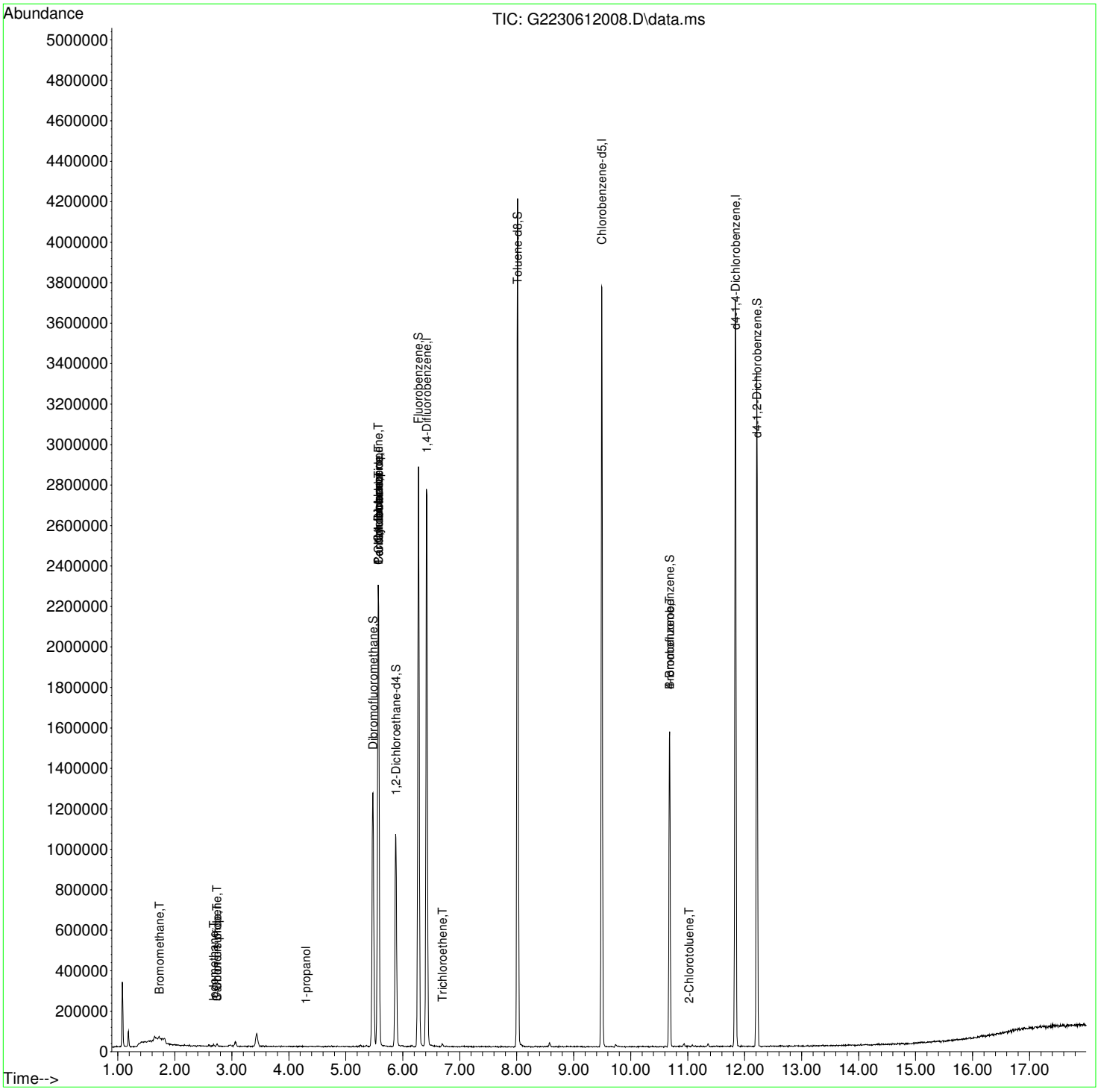
Quant Time: Jun 12 17:10:40 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

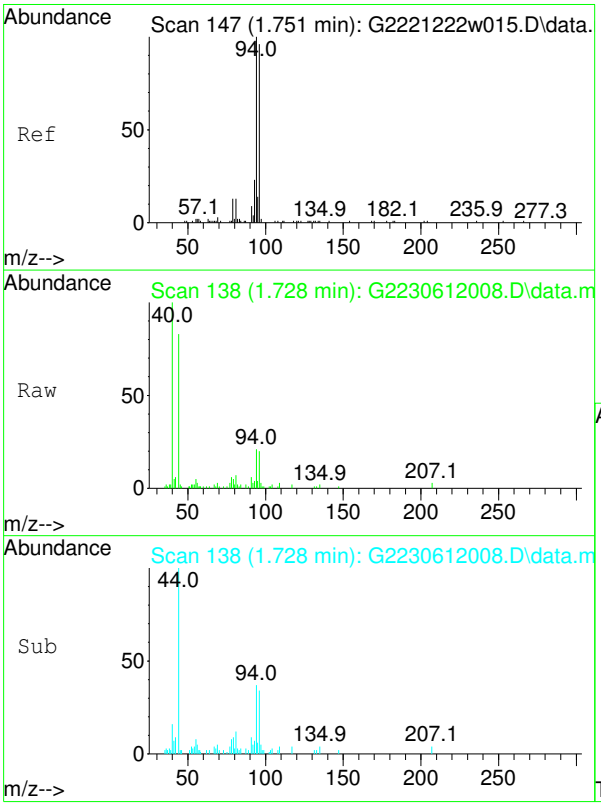
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.574	168	18274562	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.422	114	24921712	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	22374338	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10604176	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.477	111	8071927	20.07	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.35%			
43) 1,2-Dichloroethane-d4	5.879	65	7520136	18.92	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.60%			
49) Fluorobenzene	6.279	96	27500234	19.37	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%			
64) Toluene-d8	8.017	98	27030418	19.17	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.85%			
81) 4-Bromofluorobenzene	10.685	174	4962905	9.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.10%			
97) d4-1,2-Dichlorobenzene	12.218	152	9279391	20.35	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.75%			
Target Compounds						Qvalue
5) Bromomethane	1.726	94	82128	0.09	ug/L #	87
12) Acetone	2.607	43	67564	Below Cal	#	45
13) Iodomethane	2.682	142	76381	0.18	ug/L #	41
14) Carbon disulfide	2.742	76	123439	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.742	76	123429	0.59	ug/L #	53
18) Methylene chloride	3.067	49	117472	Below Cal		80
21) Methyl tert-butyl ether	3.440	73	838654	Below Cal		97
26) 1-propanol	4.304	59	633	0.33	ug/L #	100
36) Tetrahydrofuran	5.252	42	43321	Below Cal	#	30
40) Cyclohexane	5.572	84	392596	0.80	ug/L #	34
41) 1-Chlorobutane	5.574	56	248461	0.44	ug/L #	1
42) 1,1-Dichloropropene	5.572	75	954685	2.23	ug/L #	38
47) Carbon tetrachloride	5.573	117	1469225	3.27	ug/L #	16
50) Trichloroethene	6.695	95	33360	0.02	ug/L #	50
60) 4-Methyl-2-pentanone	8.017	43	84816	Below Cal	#	1
74) Ethylbenzene	9.492	91	43147	Below Cal	#	44
82) Bromobenzene	10.685	77	40350	0.07	ug/L #	1
87) 2-Chlorotoluene	11.024	91	17989	0.02	ug/L #	47
99) n-Butylbenzene	12.221	91	40757	Below Cal	#	53

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612008.D
Acq On : 12 Jun 2023 11:32
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 17:10:40 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

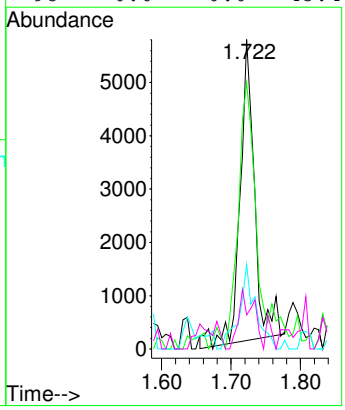


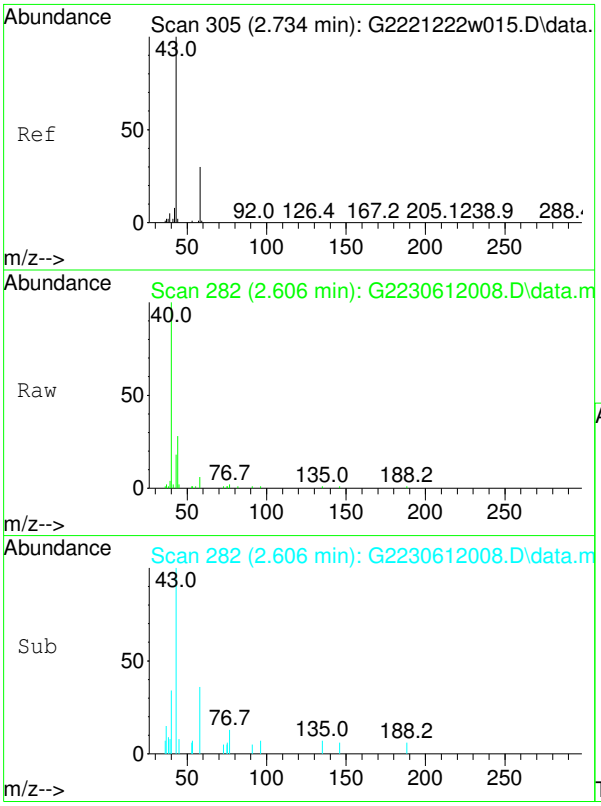


#5
Bromomethane
Concen: 0.09 ug/L
RT: 1.726 min Scan# 138
Delta R.T. 0.012 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 94 Resp: 82128

Ion	Ratio	Lower	Upper
94	100		
96	102.0	65.6	125.6
93	31.9	0.0	49.5
95	0.0	0.0	43.4

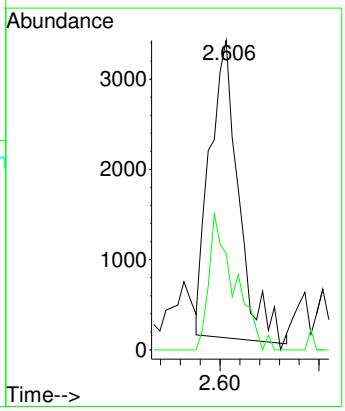


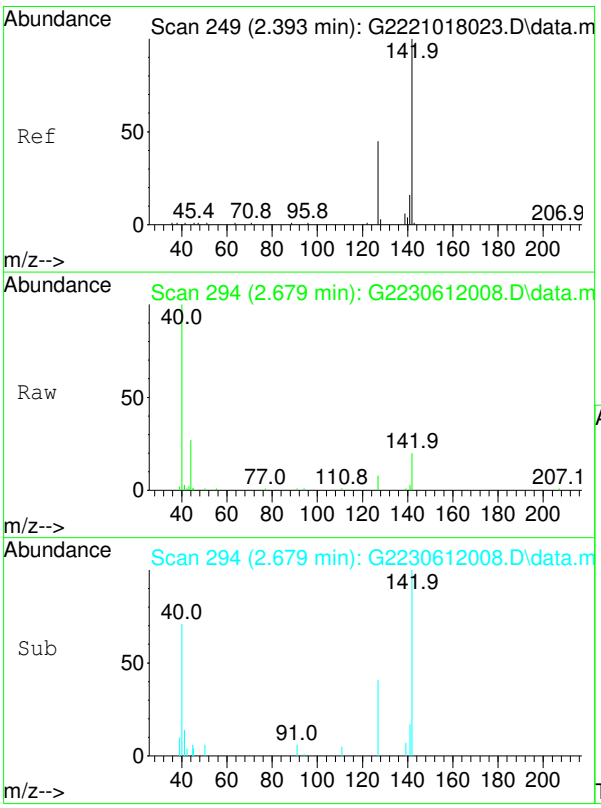


#12
Acetone
Concen: Below Cal
RT: 2.607 min Scan# 282
Delta R.T. -0.001 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 43 Resp: 67564

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

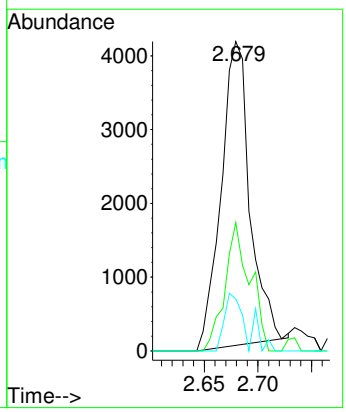


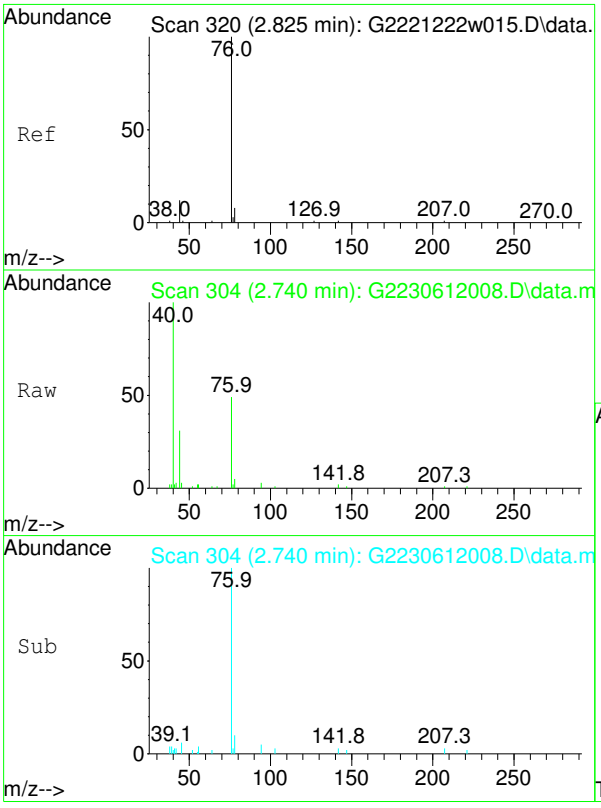


#13
Iodomethane
Concen: 0.18 ug/L
RT: 2.682 min Scan# 294
Delta R.T. 0.006 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion:142 Resp: 76381

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

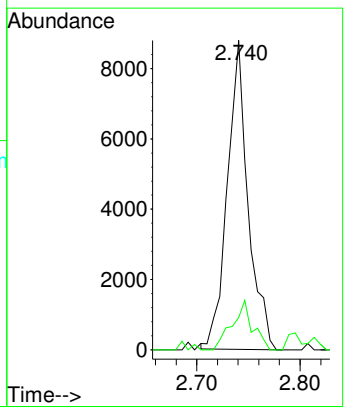


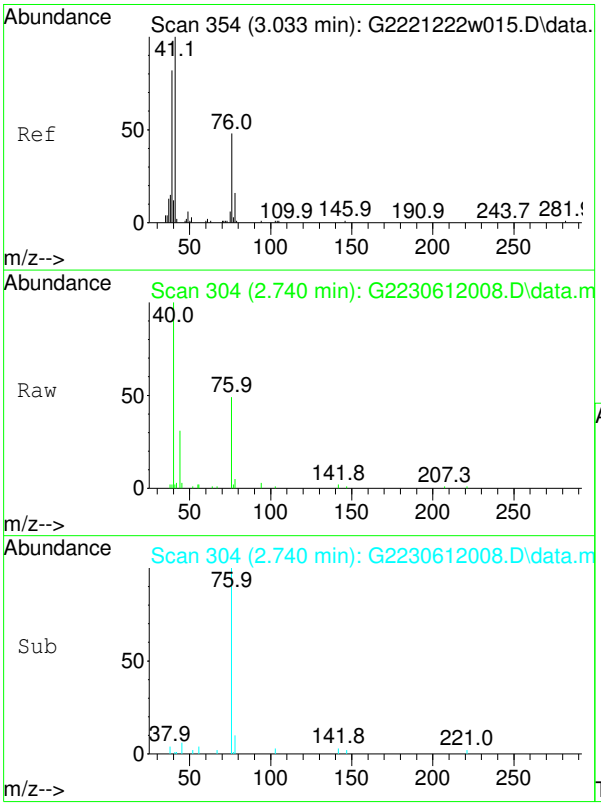


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.742 min Scan# 304
Delta R.T. 0.003 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 76 Resp: 123439

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

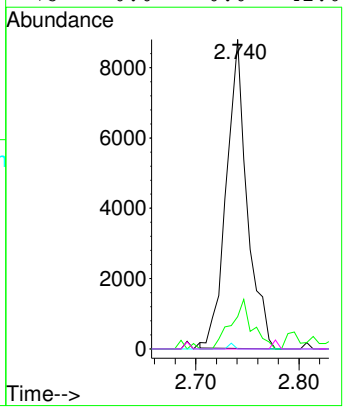


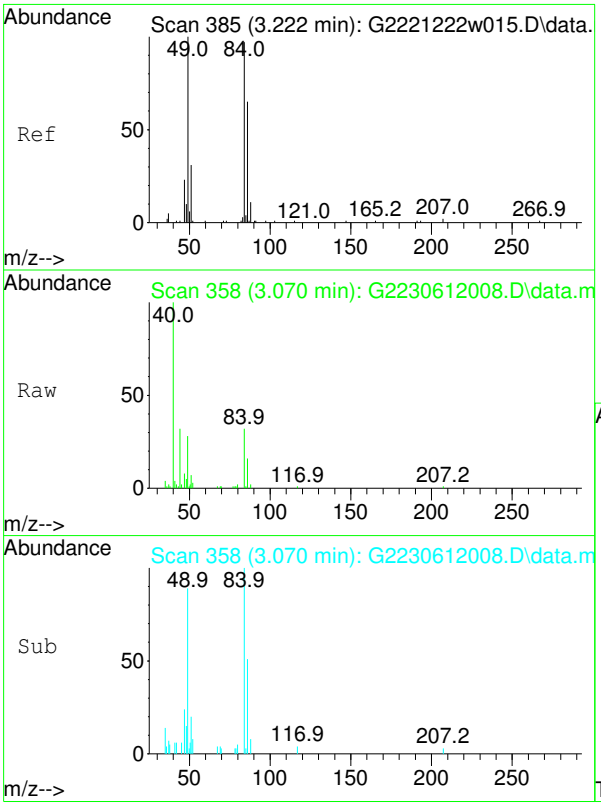


#17
3-Chloro-1-propene
Concen: 0.59 ug/L
RT: 2.742 min Scan# 304
Delta R.T. -0.178 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 76 Resp: 123429

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

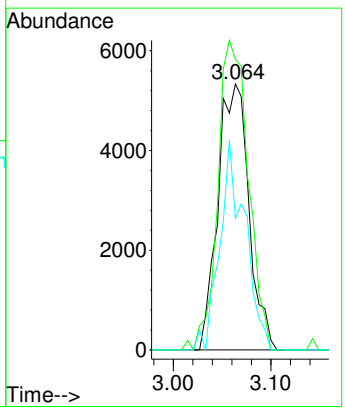


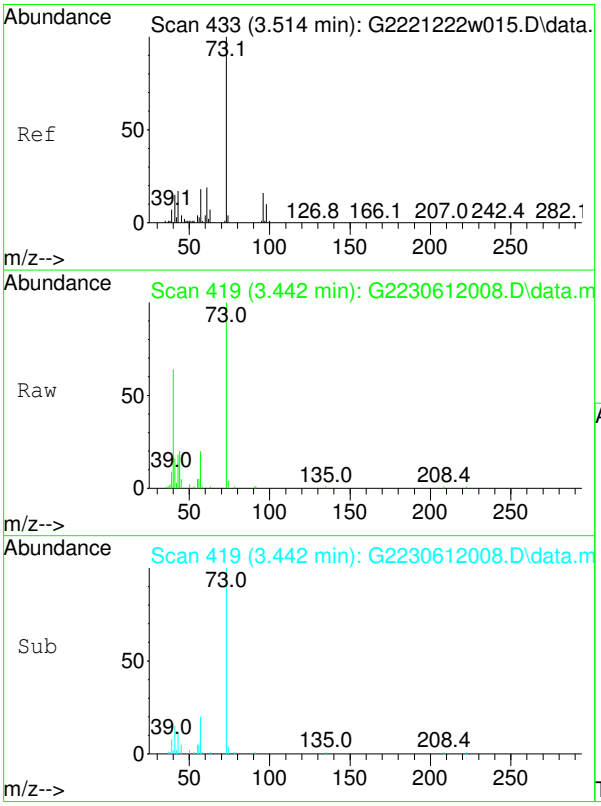


#18
Methylene chloride
Concen: Below Cal
RT: 3.067 min Scan# 358
Delta R.T. 0.005 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 49 Resp: 117472

Ion	Ratio	Lower	Upper
49	100		
84	113.2	57.9	117.9
86	61.7	24.9	84.9

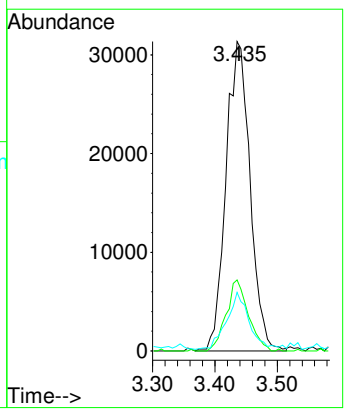


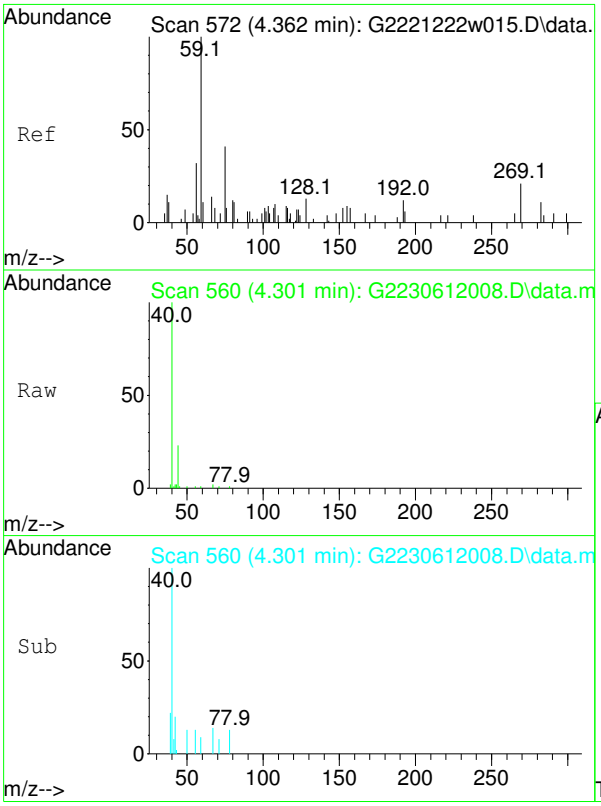


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.440 min Scan# 419
Delta R.T. -0.006 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 73 Resp: 838654

Ion	Ratio	Lower	Upper
73	100		
57	21.1	0.0	51.7
41	17.9	0.0	50.6

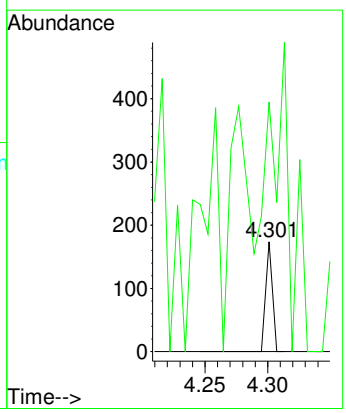


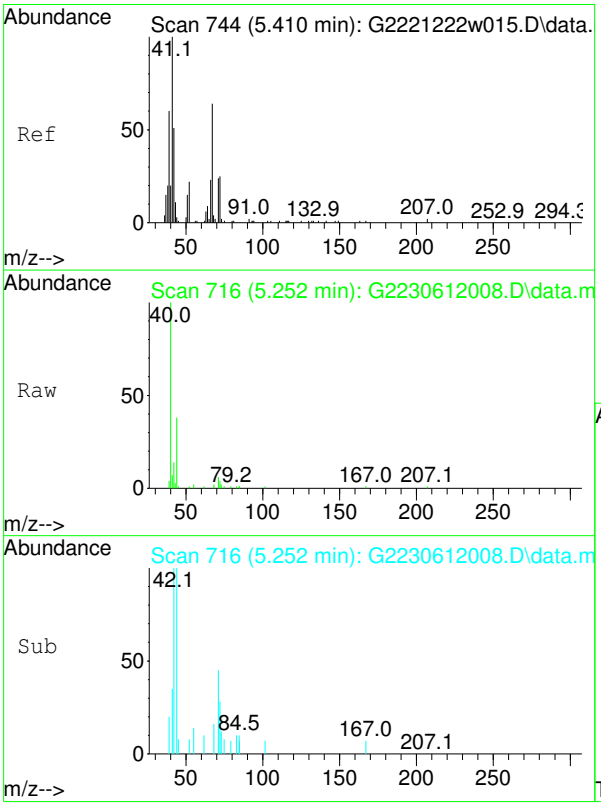


#26
1-propanol
Concen: 0.33 ug/L
RT: 4.304 min Scan# 560
Delta R.T. 0.015 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 59 Resp: 633

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

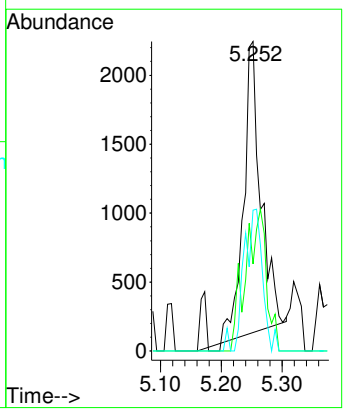


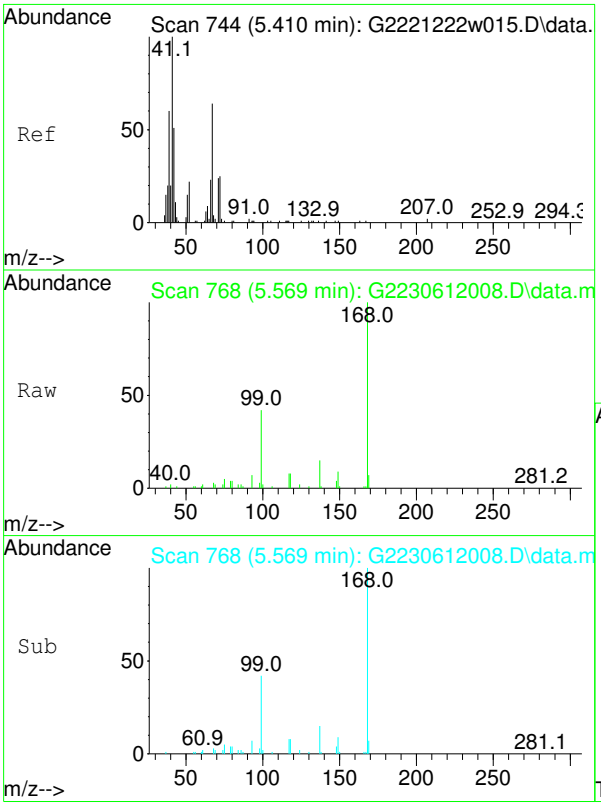


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.252 min Scan# 716
Delta R.T. -0.009 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 42 Resp: 43321

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

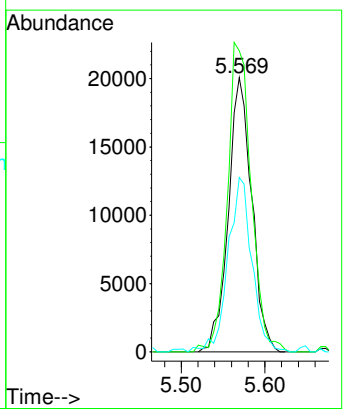


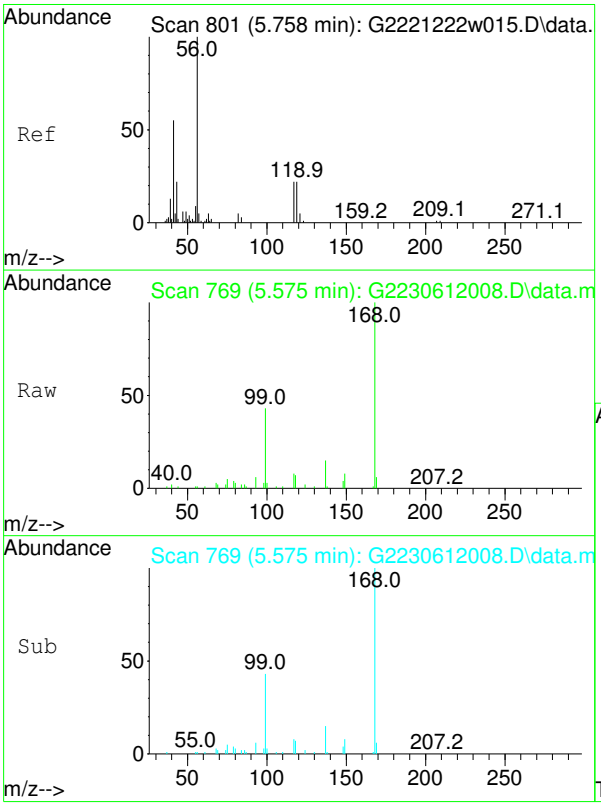


#40
Cyclohexane
Concen: 0.80 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 84 Resp: 392596

Ion	Ratio	Lower	Upper
84	100		
69	114.9	6.8	66.8#
56	63.3	79.1	139.1#

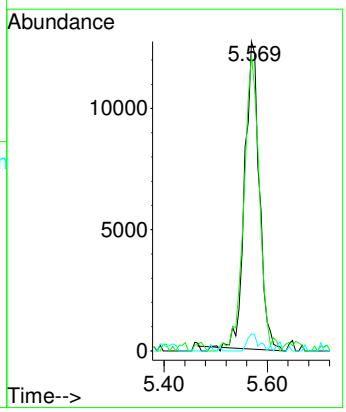


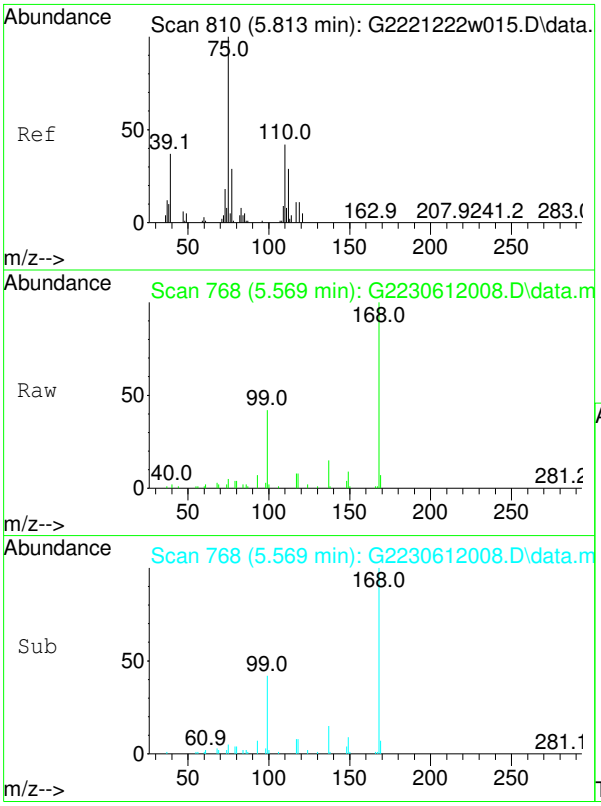


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.574 min Scan# 769
Delta R.T. -0.056 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 56 Resp: 248461

Ion	Ratio	Lower	Upper
56	100		
55	102.4	0.0	41.0#
57	0.0	0.0	35.7

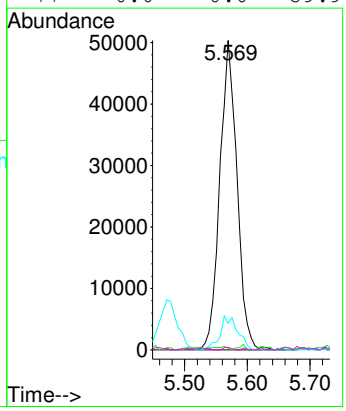


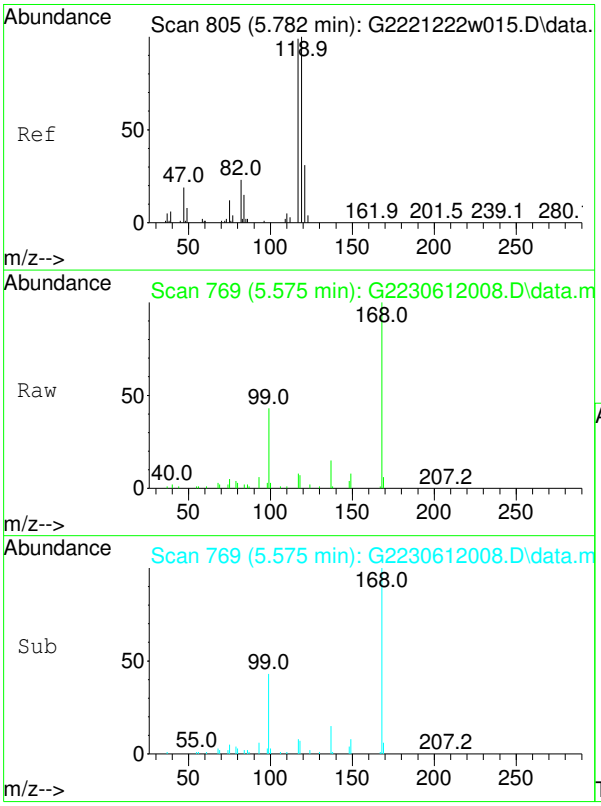


#42
1,1-Dichloropropene
Concen: 2.23 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.117 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 75 Resp: 954685

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.3	9.1	69.1
77	0.0	0.0	59.9

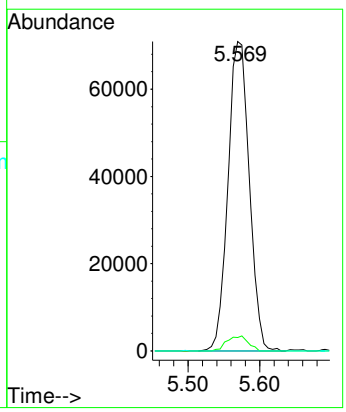


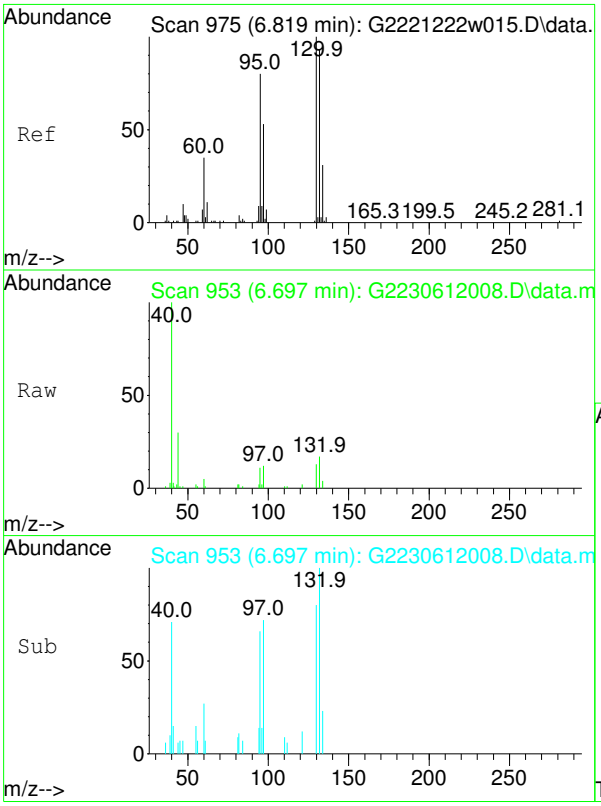


#47
Carbon tetrachloride
Concen: 3.27 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.107 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion:117 Resp: 1469225

Ion	Ratio	Lower	Upper
117	100		
119	4.9	66.4	126.4#
121	0.0	0.4	60.4#

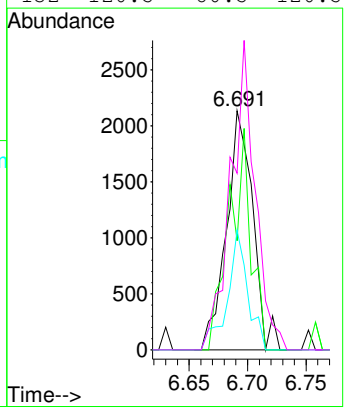


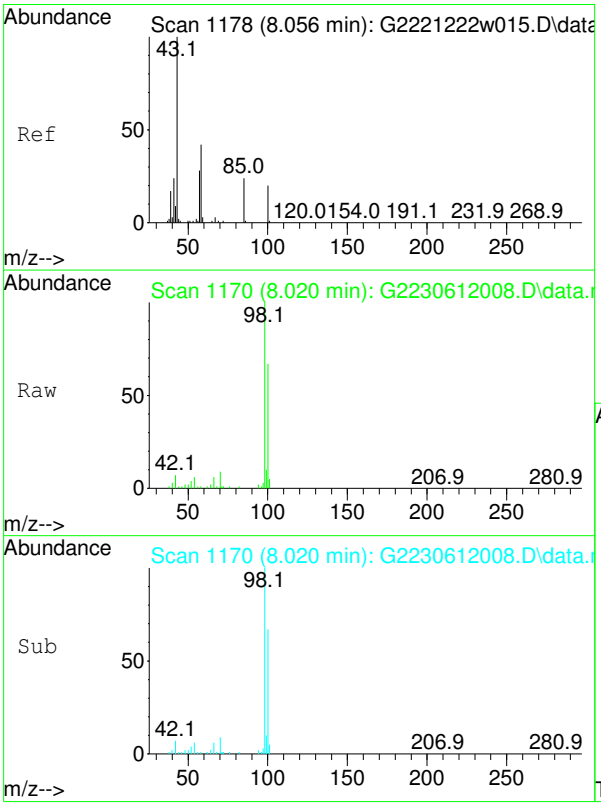


#50
Trichloroethene
Concen: 0.02 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 95 Resp: 33360

Ion	Ratio	Lower	Upper
95	100		
97	0.0	35.5	95.5#
60	0.0	14.8	74.8#
132	120.5	80.5	120.5#

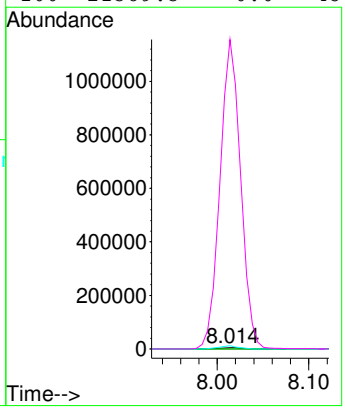


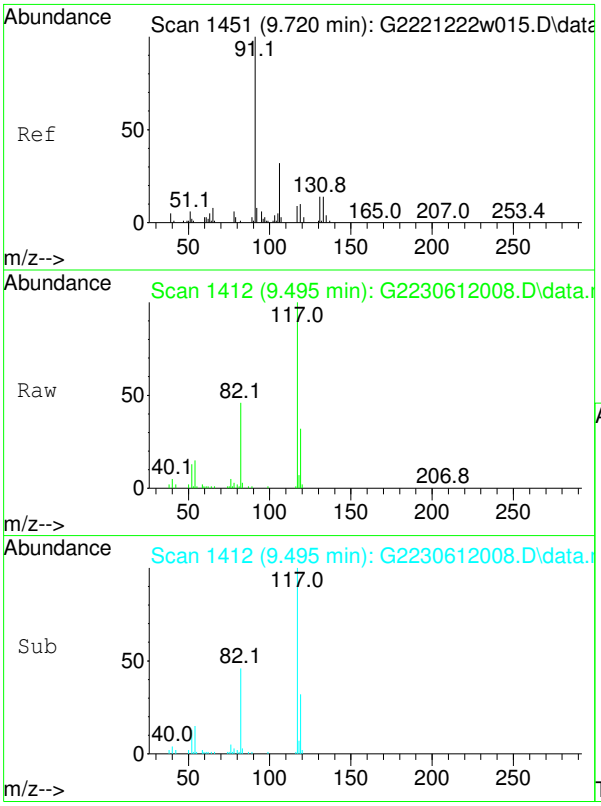


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.017 min Scan# 1170
Delta R.T. 0.073 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 43 Resp: 84816

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	201.6	37.0	37.0#
100	21389.3	0.0	45.2#

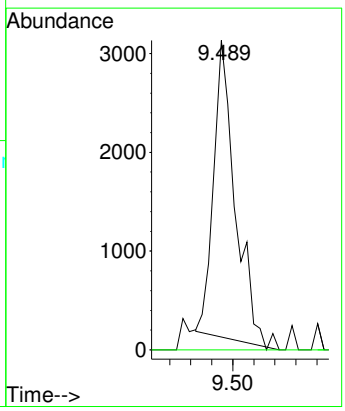


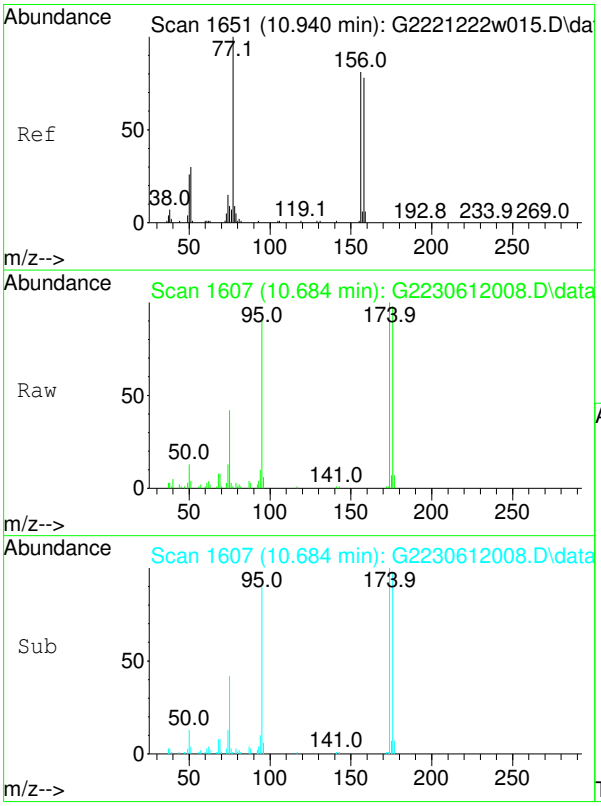


#74
Ethylbenzene
Concen: Below Cal
RT: 9.492 min Scan# 1412
Delta R.T. -0.151 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 91 Resp: 43147

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

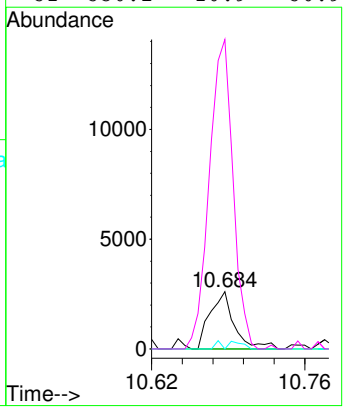


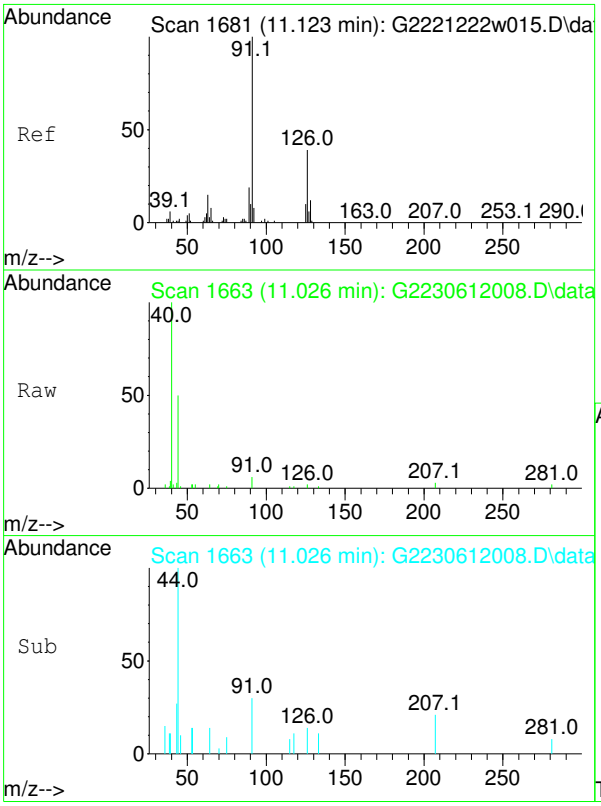


#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.685 min Scan# 1607
Delta R.T. -0.143 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 77 Resp: 40350

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	530.2	10.9	50.9#

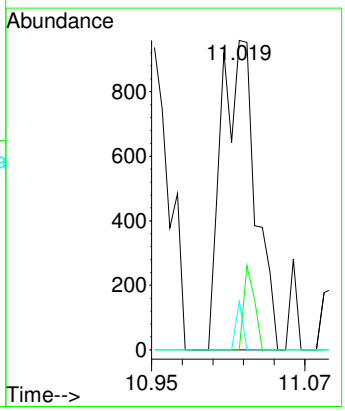


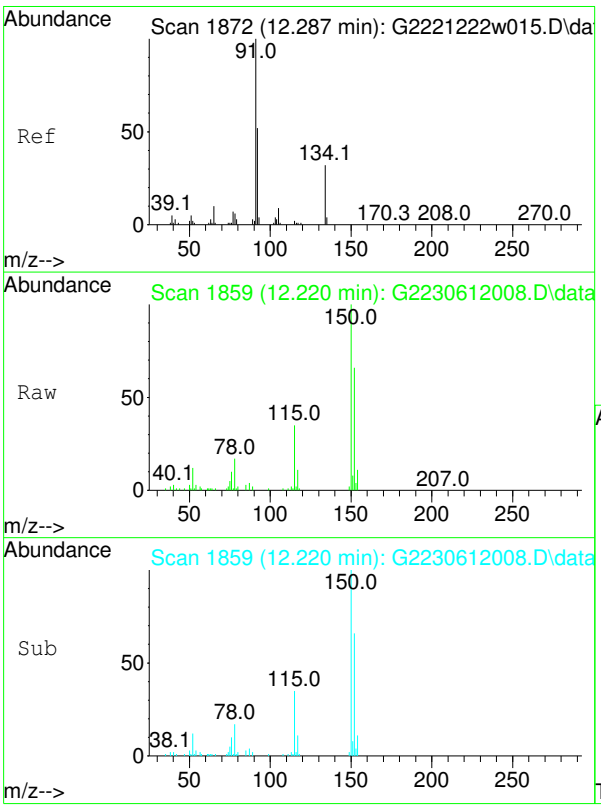


#87
2-Chlorotoluene
Concen: 0.02 ug/L
RT: 11.024 min Scan# 1663
Delta R.T. -0.004 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

Tgt Ion: 91 Resp: 17989

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

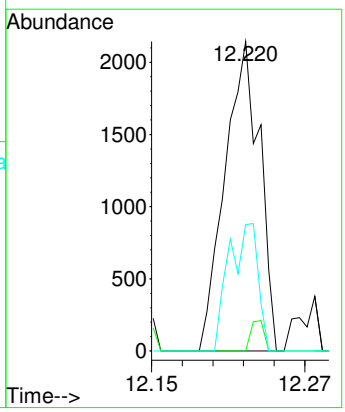




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.221 min Scan# 1859
Delta R.T. -0.010 min
Lab File: G2230612008.D
Acq: 12 Jun 2023 11:32

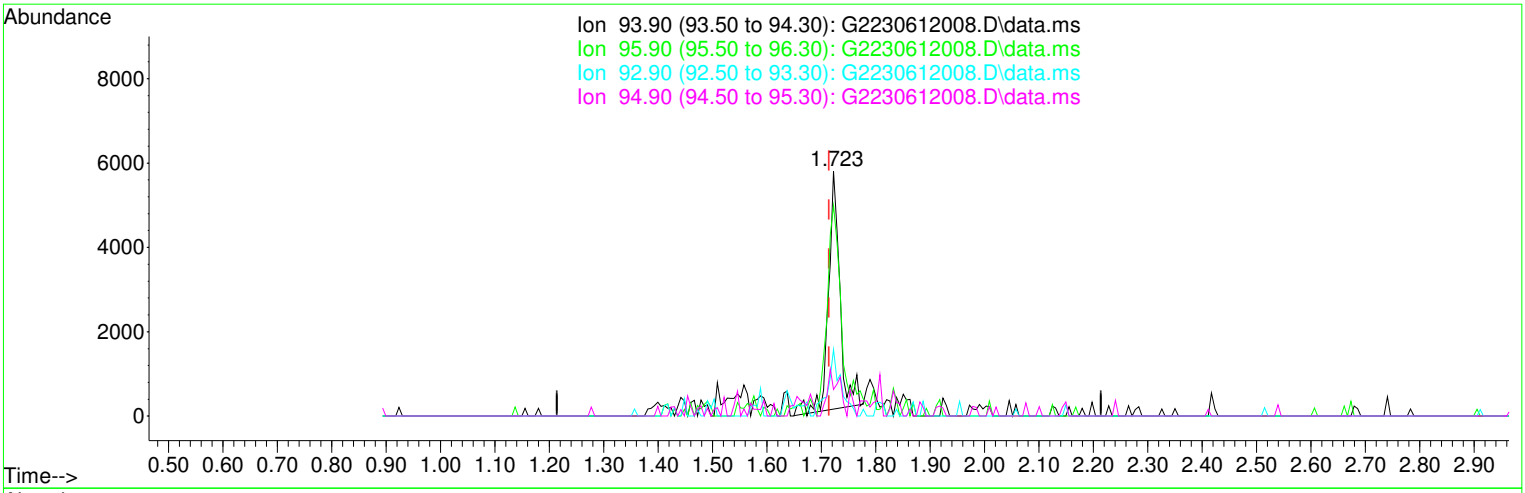
Tgt Ion: 91 Resp: 40757

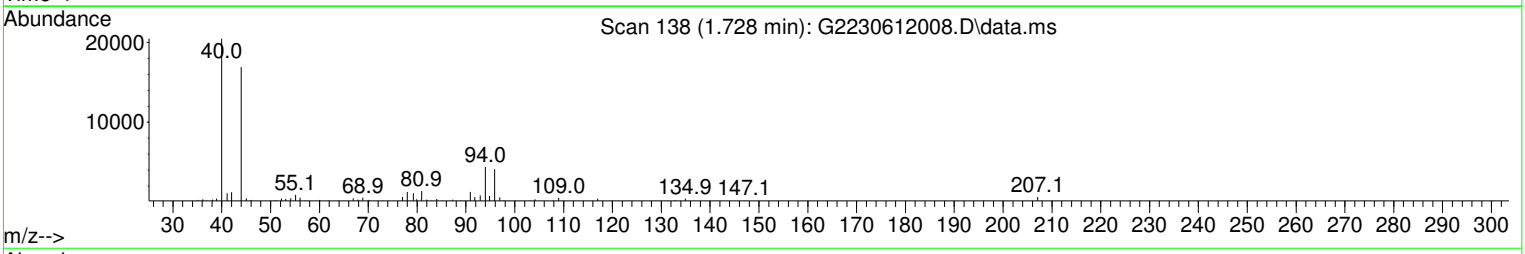
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

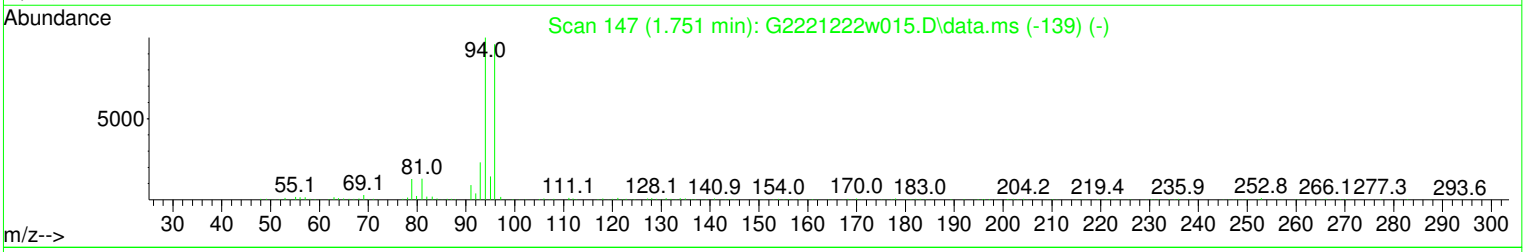


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612008.D
Acq On : 12 Jun 2023 11:32
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 17:10:40 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612008.D\data.ms

(5) Bromomethane (T)

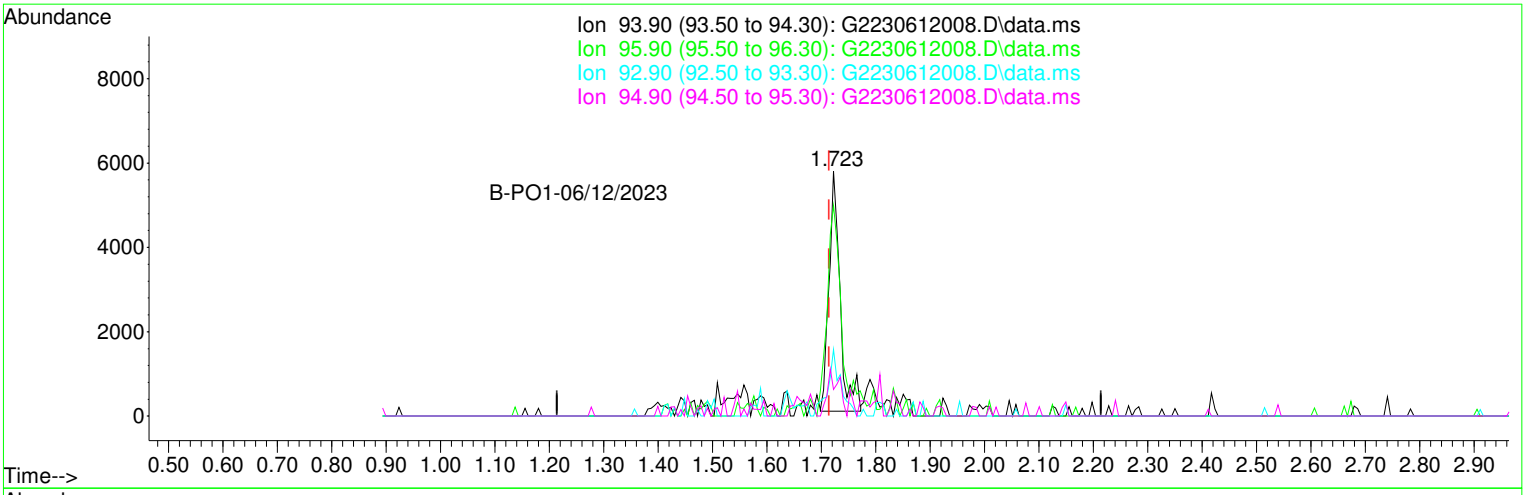
1.726min (+ 0.012) 0.09 ug/L

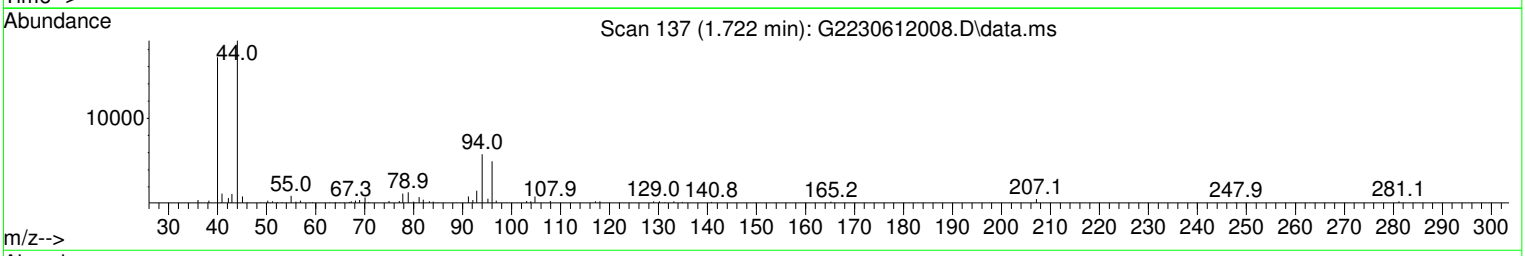
response 82128

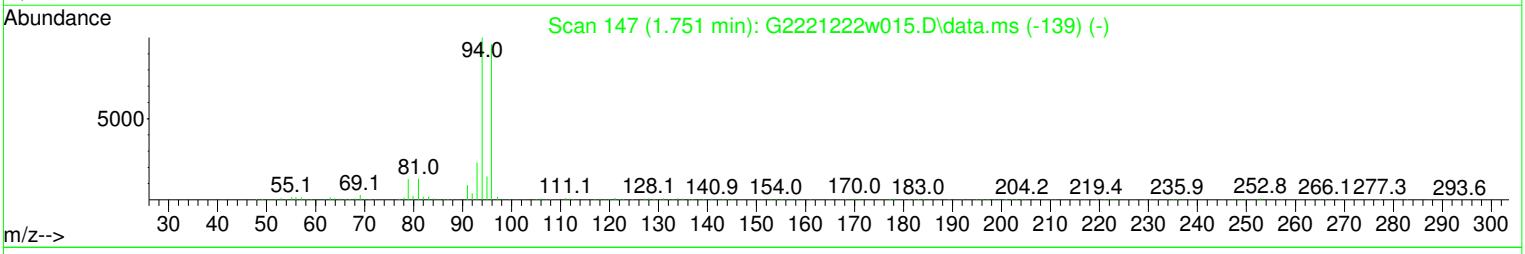
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	102.03
92.90	19.50	31.87
94.90	13.40	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612008.D
Acq On : 12 Jun 2023 11:32
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 17:10:40 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612008.D\data.ms

(5) Bromomethane (T)

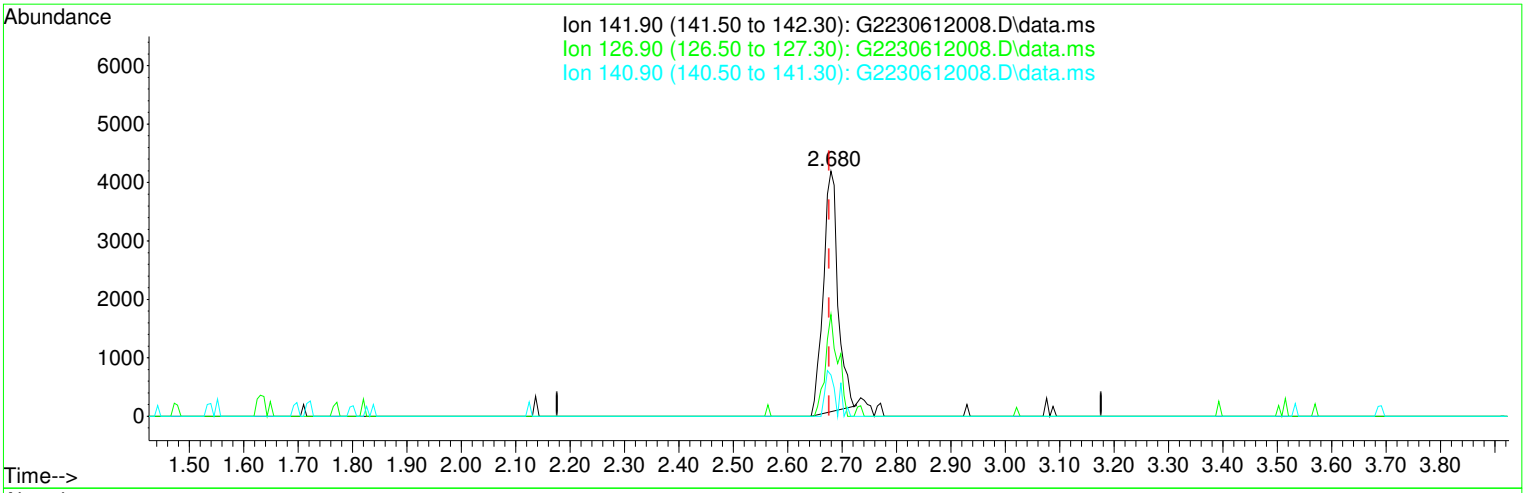
1.722min (+ 0.008) 0.08 ug/L m

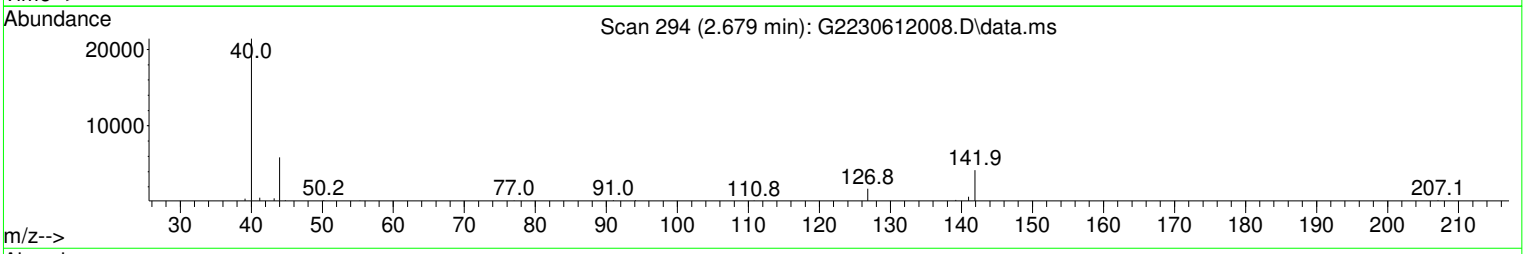
response 80222

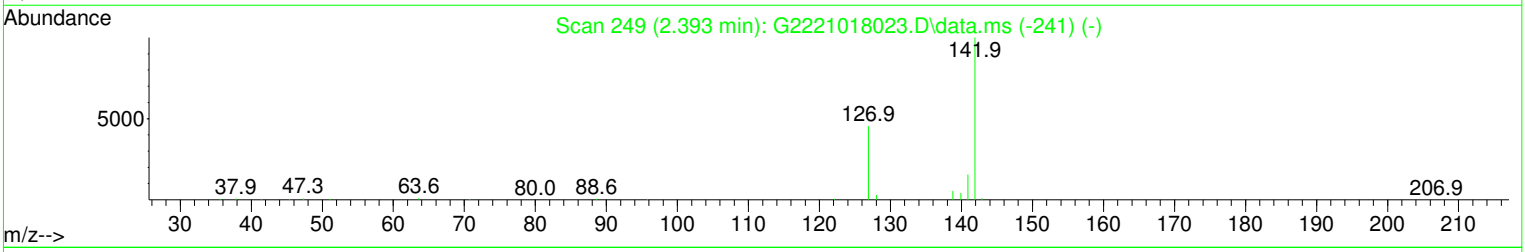
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	104.45
92.90	19.50	32.63
94.90	13.40	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612008.D
Acq On : 12 Jun 2023 11:32
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 17:10:40 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612008.D\data.ms

(13) Iodomethane (T)

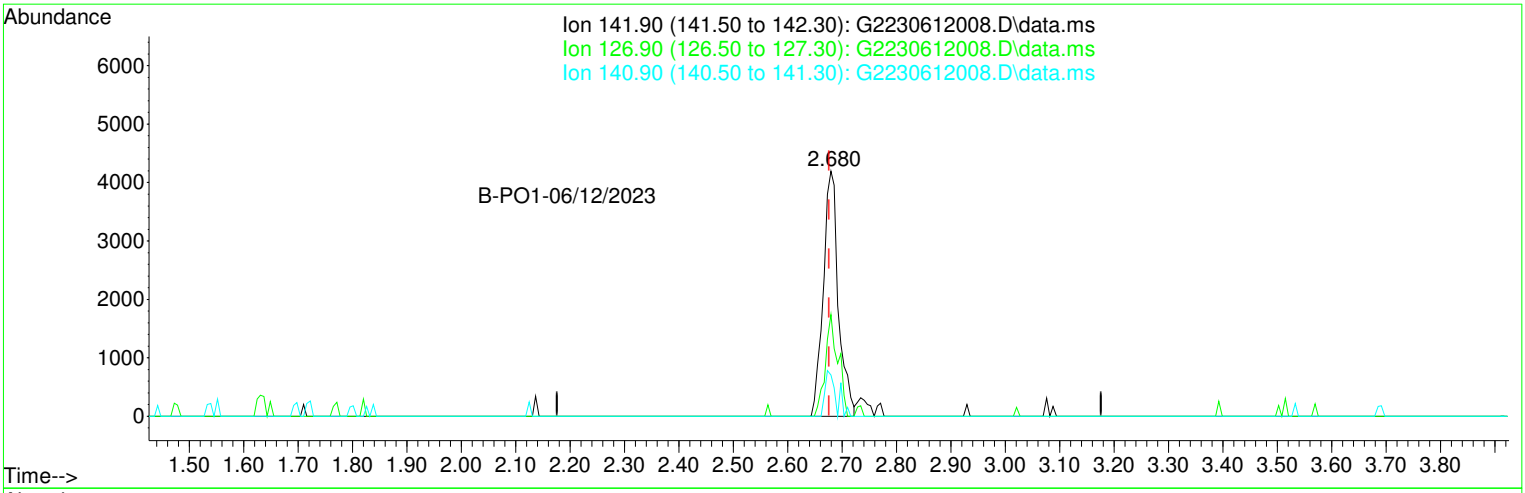
2.682min (+ 0.006) 0.18 ug/L

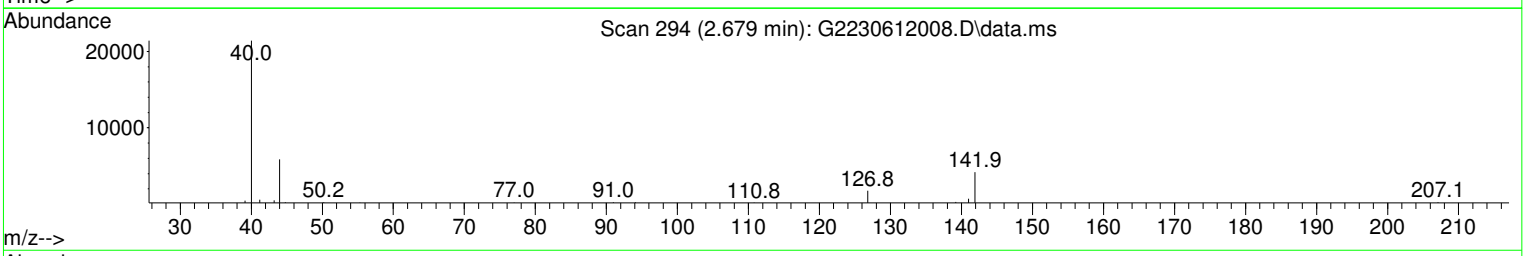
response 76381

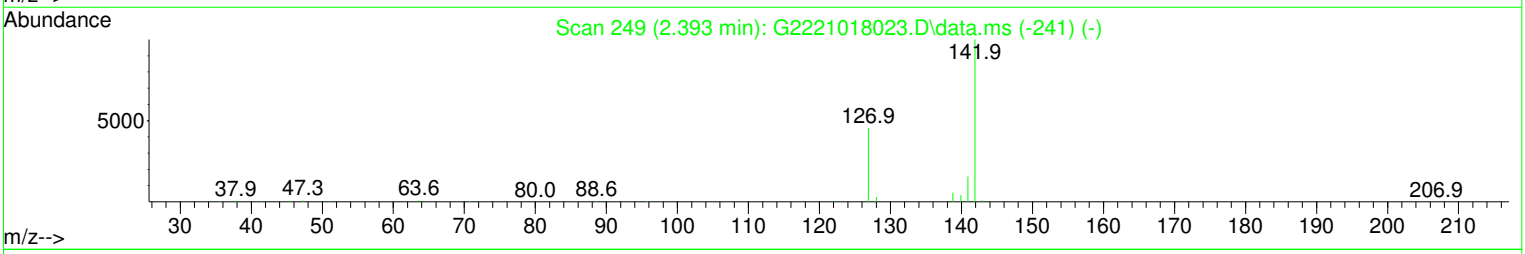
Ion	Exp%	Act%
141.90	100.00	100.00
126.90	43.30	0.00#
140.90	15.30	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612008.D
Acq On : 12 Jun 2023 11:32
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 12 17:10:40 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612008.D\data.ms

(13) Iodomethane (T)

2.679min (+ 0.003) 0.19 ug/L m

response 80094

Ion	Exp%	Act%
141.90	100.00	100.00
126.90	43.30	0.00#
140.90	15.30	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-BS1	File ID:	G2230612005.D
		Prepared:	06/12/23 08:20	Analyzed:	06/12/23 10:18
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane	14.7	0.0650	0.200	0.500	
71-55-6	1,1,1-Trichloroethane	14.0	0.0877	0.200	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	13.5	0.0621	0.200	0.500	
79-00-5	1,1,2-Trichloroethane	14.4	0.0832	0.200	0.500	
75-34-3	1,1-Dichloroethane	13.3	0.0669	0.200	0.500	
75-35-4	1,1-Dichloroethene	12.7	0.0954	0.200	0.500	
563-58-6	1,1-Dichloropropene	14.0	0.0699	0.200	0.500	
87-61-6	1,2,3-Trichlorobenzene	13.9	0.102	0.200	0.500	
96-18-4	1,2,3-Trichloropropane	13.9	0.0913	0.200	0.500	
120-82-1	1,2,4-Trichlorobenzene	14.0	0.102	0.300	0.600	
95-63-6	1,2,4-Trimethylbenzene	13.3	0.0661	0.200	0.500	
96-12-8	1,2-Dibromo-3-chloropropane	14.7	0.130	0.500	1.00	
106-93-4	1,2-Dibromoethane	14.0	0.0531	0.200	0.500	
95-50-1	1,2-Dichlorobenzene	15.2	0.0630	0.200	0.500	
107-06-2	1,2-Dichloroethane	13.9	0.106	0.300	0.600	
78-87-5	1,2-Dichloropropane	13.9	0.102	0.300	0.600	
108-67-8	1,3,5-Trimethylbenzene	13.6	0.0500	0.200	0.500	
541-73-1	1,3-Dichlorobenzene	14.5	0.0724	0.200	0.500	
142-28-9	1,3-Dichloropropane	14.0	0.0680	0.200	0.500	
106-46-7	1,4-Dichlorobenzene	14.8	0.0920	0.200	0.500	
594-20-7	2,2-Dichloropropane	13.3	0.0920	0.200	0.500	
78-93-3	2-Butanone	51.7	0.330	0.700	1.75	
95-49-8	2-Chlorotoluene	13.4	0.0733	0.200	0.500	
591-78-6	2-Hexanone	46.4	0.0716	0.700	1.75	
106-43-4	4-Chlorotoluene	13.6	0.0921	0.200	0.500	
99-87-6	4-Isopropyltoluene	13.7	0.0700	0.200	0.500	

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-BS1	File ID:	G2230612005.D
		Prepared:	06/12/23 08:20	Analyzed:	06/12/23 10:18
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone	44.9	0.135	0.700	1.75	
67-64-1	Acetone	51.7	0.518	2.00	4.00	
71-43-2	Benzene	13.7	0.0507	0.200	0.500	
108-86-1	Bromobenzene	13.0	0.0848	0.200	0.500	
74-97-5	Bromochloromethane	13.9	0.0669	0.200	0.500	
75-27-4	Bromodichloromethane	15.2	0.0531	0.200	0.500	
75-25-2	Bromoform	14.5	0.103	0.200	0.500	
74-83-9	Bromomethane	16.7	0.160	0.500	1.00	
75-15-0	Carbon disulfide	13.4	0.140	0.500	1.00	
56-23-5	Carbon tetrachloride	15.0	0.0844	0.200	0.500	
108-90-7	Chlorobenzene	14.6	0.0650	0.200	0.500	
75-00-3	Chloroethane	14.0	0.155	0.200	0.500	
67-66-3	Chloroform	13.6	0.101	0.300	0.600	
74-87-3	Chloromethane	13.6	0.192	0.500	1.00	
156-59-2	cis-1,2-Dichloroethene	13.3	0.103	0.300	0.600	
10061-01-5	cis-1,3-Dichloropropene	13.6	0.0587	0.200	0.500	
124-48-1	Dibromochloromethane	15.3	0.0759	0.200	0.500	
74-95-3	Dibromomethane	15.2	0.0817	0.200	0.500	
75-71-8	Dichlorodifluoromethane	12.7	0.130	0.500	1.00	
100-41-4	Ethylbenzene	14.6	0.0300	0.100	0.200	
87-68-3	Hexachlorobutadiene	15.7	0.100	0.200	0.500	
98-82-8	Isopropylbenzene	13.5	0.0549	0.200	0.500	
179601-23-1	m,p-Xylene	28.1	0.0889	0.400	1.00	
1634-04-4	Methyl tert-butyl ether	13.1	0.0530	0.200	0.500	
75-09-2	Methylene chloride	13.1	0.224	0.500	1.00	
104-51-8	n-Butylbenzene	14.0	0.130	0.500	1.00	

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-BS1	File ID:	G2230612005.D
		Prepared:	06/12/23 08:20	Analyzed:	06/12/23 10:18
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene	13.6	0.0630	0.200	0.500	
91-20-3	Naphthalene	13.5	0.0700	0.200	0.500	
95-47-6	o-Xylene	13.3	0.0416	0.200	0.500	
135-98-8	sec-Butylbenzene	13.7	0.0598	0.200	0.500	
100-42-5	Styrene	13.9	0.0453	0.100	0.200	
98-06-6	tert-Butylbenzene	14.0	0.0453	0.200	0.500	
127-18-4	Tetrachloroethene	15.5	0.178	0.500	1.00	
108-88-3	Toluene	14.9	0.0572	0.200	0.500	
156-60-5	trans-1,2-Dichloroethene	12.6	0.0855	0.200	0.500	
10061-02-6	trans-1,3-Dichloropropene	13.2	0.0587	0.200	0.500	
79-01-6	Trichloroethene	15.0	0.0781	0.200	0.500	
75-69-4	Trichlorofluoromethane	14.5	0.0505	0.200	0.500	
75-01-4	Vinyl chloride	12.9	0.129	0.500	1.00	

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612005.D
Acq On : 12 Jun 2023 10:18
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 10:50:20 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	18400838	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	25000981	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22079539	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10423002	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7947736	19.63	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.15%			
43) 1,2-Dichloroethane-d4	5.876	65	7237136	18.08	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.40%			
49) Fluorobenzene	6.276	96	27990435	19.65	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%			
64) Toluene-d8	8.016	98	27251923	19.58	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.90%			
81) 4-Bromofluorobenzene	10.685	174	4977679	10.11	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.10%			
97) d4-1,2-Dichlorobenzene	12.217	152	8854972	19.75	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.75%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.211	85	4749558	12.67	ug/L	99
3) Chloromethane	1.352	50	4137771	13.65	ug/L	100
4) Vinyl chloride	1.444	62	4655989	12.87	ug/L	98
5) Bromomethane	1.715	94	3886156	16.70	ug/L	99
6) Chloroethane	1.803	64	3080090	13.99	ug/L	95
7) Trichlorofluoromethane	2.028	101	8048629	14.52	ug/L	97
8) Ethyl ether	2.310	59	3149499	12.90	ug/L	86
9) Acrolein	2.433	56	1942655	39.45	ug/L	95
10) 1,1-Dichloroethene	2.521	61	5004033	12.70	ug/L	85
11) 1,1,2-Trichloro-1,2,2-...	2.531	101	4096250	13.60	ug/L	95
12) Acetone	2.597	43	4366908	51.66	ug/L	89
13) Iodomethane	2.673	142	5421766	12.66	ug/L	93
14) Carbon disulfide	2.737	76	10811237	13.39	ug/L	100
15) Isopropanol	2.775	45	1184086	80.18	ug/L	99
16) acetonitrile	2.915	41	5288240	30.72	ug/L	86
17) 3-Chloro-1-propene	2.917	76	2486045	13.40	ug/L	97
18) Methylene chloride	3.059	49	4438151	13.14	ug/L	76
19) Acrylonitrile	3.379	53	1750092	12.51	ug/L	97
20) trans-1,2-Dichloroethene	3.399	61	5006498	12.55	ug/L	84
21) Methyl tert-butyl ether	3.431	73	14390370	13.11	ug/L	92
22) Hexane	3.789	57	4118677	13.15	ug/L	95
23) 1,1-Dichloroethane	3.995	63	6821229	13.31	ug/L	95
24) Vinyl acetate	4.122	43	7695976	12.30	ug/L	91
25) 2-Chloro-1,3-butadiene	4.132	53	5169793	12.39	ug/L	82
27) 2,2-Dichloropropane	4.823	77	6812916	13.32	ug/L	93
28) cis-1,2-Dichloroethene	4.833	61	6154507	13.28	ug/L	85
29) 2-Butanone	4.901	72	2377809	51.73	ug/L	93
30) Propionitrile	4.972	54	627455m	14.22	ug/L	

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612005.D
Acq On : 12 Jun 2023 10:18
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 10:50:20 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.006	61	694363	12.53	ug/L		77
32) Methylacrylate	5.035	55	4185892	12.01	ug/L		92
33) 1-Bromopropane	5.074	41	2362653	12.55	ug/L		66
34) Bromochloromethane	5.146	130	3788043	13.86	ug/L		98
35) Methacrylonitrile	5.166	67	2276685	13.51	ug/L		88
36) Tetrahydrofuran	5.240	42	1132062	11.68	ug/L		76
37) Chloroform	5.273	83	8213271	13.59	ug/L		100
39) 1,1,1-Trichloroethane	5.477	97	7752764	13.96	ug/L		96
40) Cyclohexane	5.531	84	6806273	13.77	ug/L		81
41) 1-Chlorobutane	5.627	56	7234789	12.61	ug/L		97
42) 1,1-Dichloropropene	5.687	75	5846138	13.96	ug/L		91
44) 1,2-Dichloroethane	5.967	62	5936626	13.94	ug/L		98
47) Carbon tetrachloride	5.678	117	6766427	15.00	ug/L		98
48) Benzene	5.932	78	17200142	13.73	ug/L		100
50) Trichloroethene	6.694	95	4967191	15.05	ug/L		90
52) 1,2-Dichloropropane	6.943	63	3925425	13.86	ug/L		89
53) Dibromomethane	7.069	174	4527546	15.21	ug/L	#	90
54) Methyl methacrylate	7.124	69	3755179	12.84	ug/L		90
55) 1,4-dioxane	7.124	88	413745m	140.42	ug/L		
56) Bromodichloromethane	7.257	83	6672338	15.19	ug/L		99
57) 2-Nitropropane	7.521	43	1575709	12.46	ug/L		96
58) 2-Chloroethyl vinyl ether	7.611	63	2953589	12.18	ug/L		98
59) cis-1,3-Dichloropropene	7.743	75	7529585	13.60	ug/L		95
60) 4-Methyl-2-pentanone	7.934	43	15262368	44.91	ug/L	#	88
61) trans-1,3-Dichloropropene	8.332	75	7015465	13.25	ug/L		88
62) 1,1,2-Trichloroethane	8.517	97	4743310	14.36	ug/L		93
65) Toluene	8.084	91	20157066	14.86	ug/L		97
66) Ethylmethacrylate	8.454	69	6560542	13.45	ug/L		86
67) Tetrachloroethene	8.646	166	6651650	15.54	ug/L		95
68) 1,3-Dichloropropane	8.685	76	7239639	14.01	ug/L		86
69) 2-Hexanone	8.800	43	10204211	46.40	ug/L		87
70) Dibromochloromethane	8.910	129	6258437	15.27	ug/L		99
71) 1,2-Dibromoethane	9.016	107	5266248	14.05	ug/L		98
72) Chlorobenzene	9.522	112	14100652	14.56	ug/L		92
73) 1,1,1,2-Tetrachloroethane	9.612	131	5561445	14.67	ug/L		98
74) Ethylbenzene	9.642	91	21518034	14.61	ug/L		96
75) m,p-Xylene	9.762	91	33256844	28.14	ug/L		95
76) Styrene	10.175	104	14435776	13.86	ug/L		93
77) Bromoform	10.353	173	5002898	14.54	ug/L		97
79) o-Xylene	10.159	91	17108316	13.34	ug/L		96
80) Isopropylbenzene	10.535	105	20196859	13.49	ug/L		96
82) Bromobenzene	10.826	77	7344428	13.00	ug/L		81
83) 1,1,2,2-Tetrachloroethane	10.841	83	6103744	13.47	ug/L		99
84) 1,2,3-Trichloropropane	10.879	110	2178934	13.88	ug/L		95
85) trans-1,4-Dichloro-2-b...	10.899	53	1468801	12.09	ug/L		71
86) n-Propylbenzene	10.947	91	22747798	13.64	ug/L		96
87) 2-Chlorotoluene	11.026	91	13434949	13.41	ug/L		95
88) 4-Chlorotoluene	11.136	91	15492501	13.64	ug/L		93
89) 1,3,5-Trimethylbenzene	11.128	105	15752964	13.56	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612005.D
Acq On : 12 Jun 2023 10:18
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

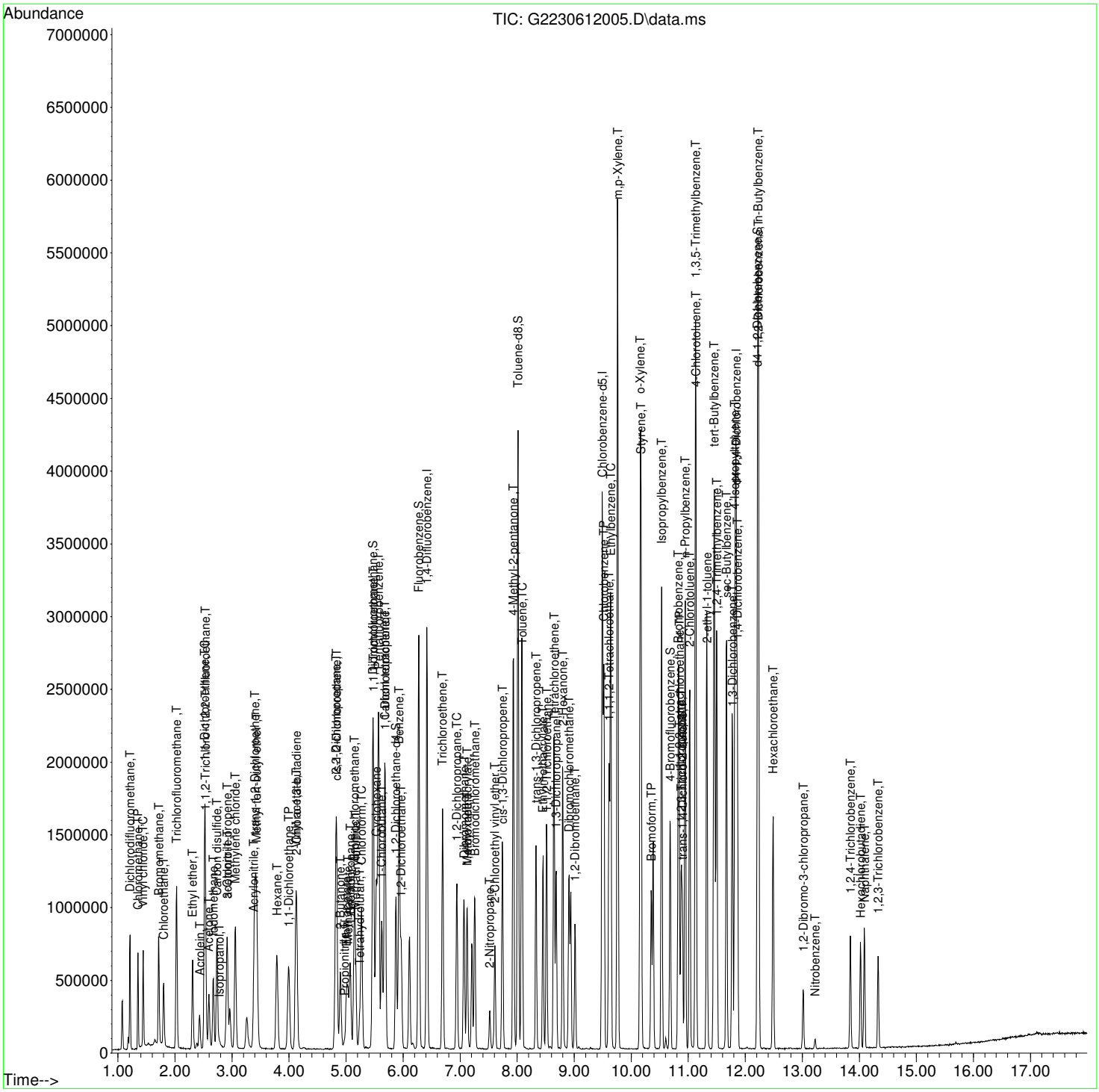
Quant Time: Jun 12 10:50:20 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.328	105	18160367	12.84	ug/L	97
91) tert-Butylbenzene	11.453	119	17501878	14.05	ug/L	88
92) 1,2,4-Trimethylbenzene	11.500	105	15496213	13.34	ug/L	92
93) sec-Butylbenzene	11.672	105	19424420	13.68	ug/L	97
94) 1,3-Dichlorobenzene	11.773	146	10003405	14.47	ug/L	98
95) 4-Isopropyltoluene	11.820	119	16079480	13.68	ug/L	98
96) 1,4-Dichlorobenzene	11.863	146	9960371	14.82	ug/L	98
98) 1,2-Dichlorobenzene	12.236	146	9047425	15.20	ug/L	98
99) n-Butylbenzene	12.230	91	11856300	14.00	ug/L	92
100) Hexachloroethane	12.490	201	3188410	14.76	ug/L	97
101) 1,2-Dibromo-3-chloropr...	13.018	157	1323999	14.71	ug/L	97
102) Nitrobenzene	13.226	77	290171	9.79	ug/L	88
103) 1,2,4-Trichlorobenzene	13.845	180	2615349	13.98	ug/L	98
104) Hexachlorobutadiene	14.023	225	1442719	15.67	ug/L	97
105) Naphthalene	14.090	128	6580916	13.52	ug/L	99
106) 1,2,3-Trichlorobenzene	14.332	180	2090658	13.91	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612005.D
Acq On : 12 Jun 2023 10:18
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

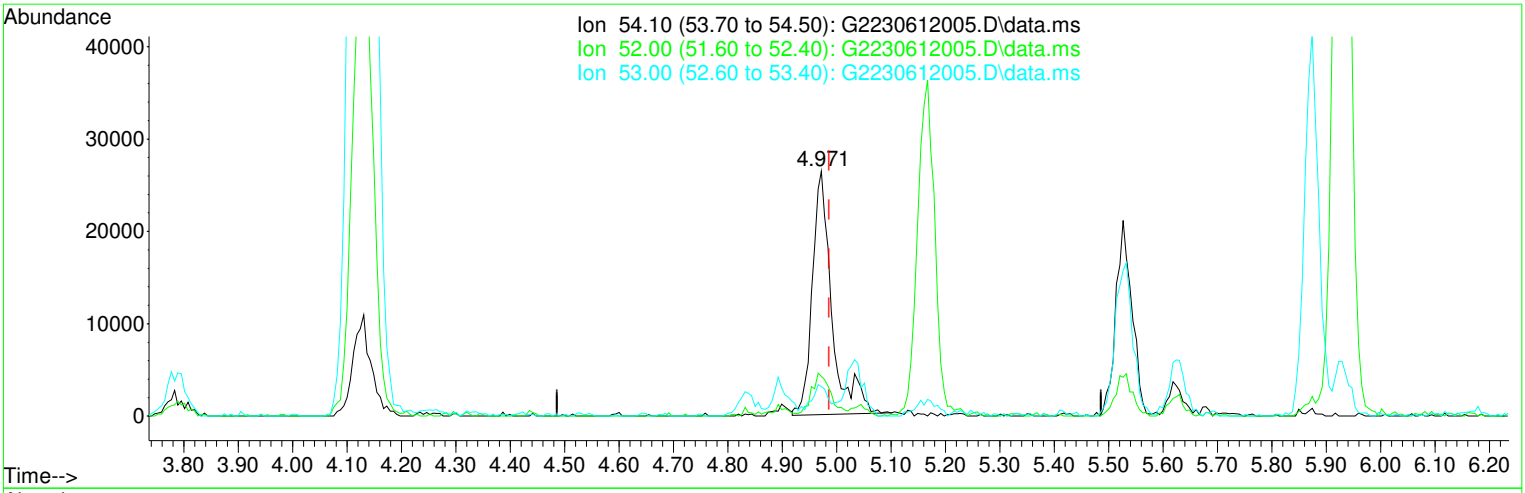
Quant Time: Jun 12 10:50:20 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

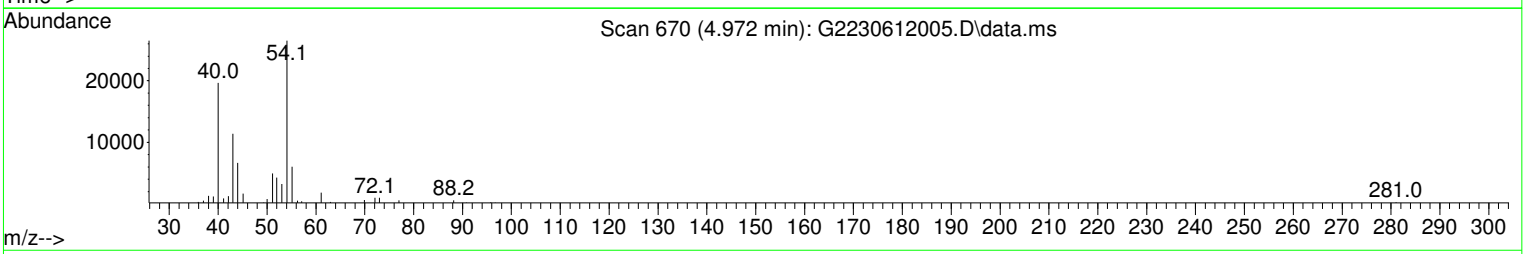


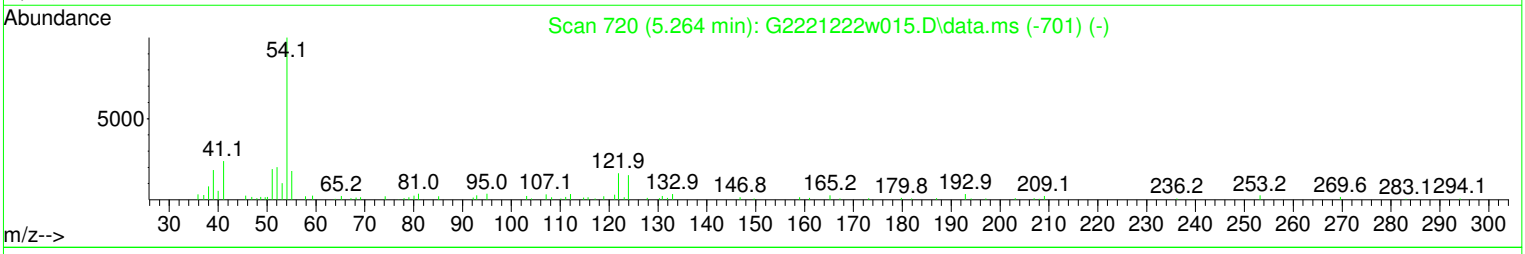
01342288

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612005.D
Acq On : 12 Jun 2023 10:18
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 10:50:20 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612005.D\data.ms

(30) Propionitrile (T)

4.973min (-0.013) 15.01 ug/L

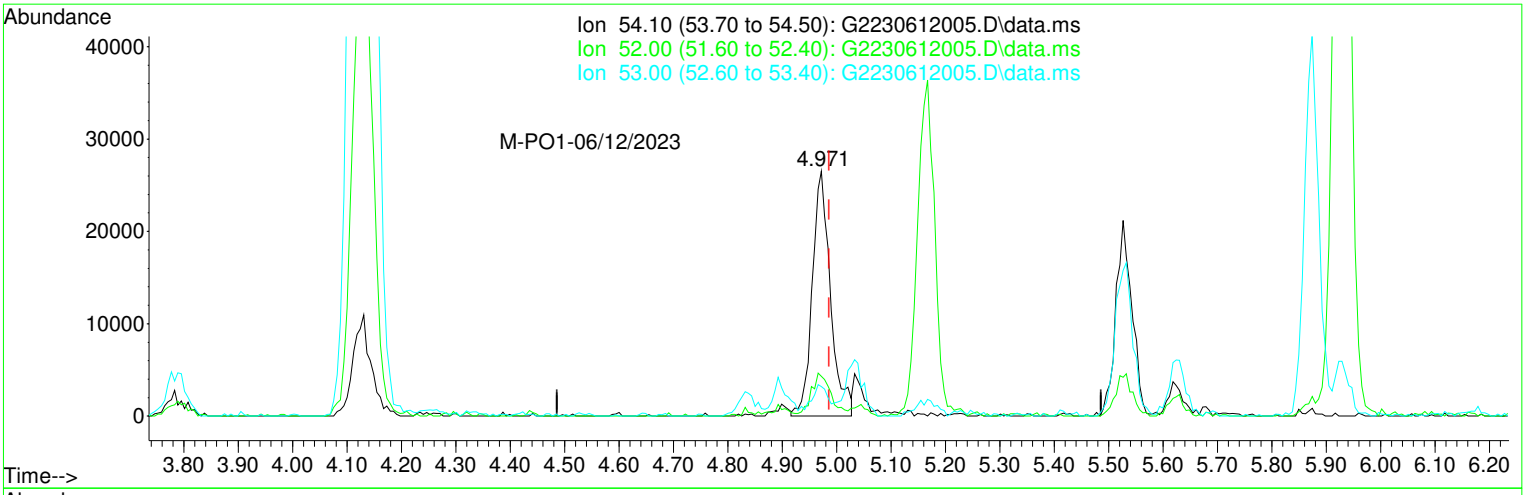
response 661606

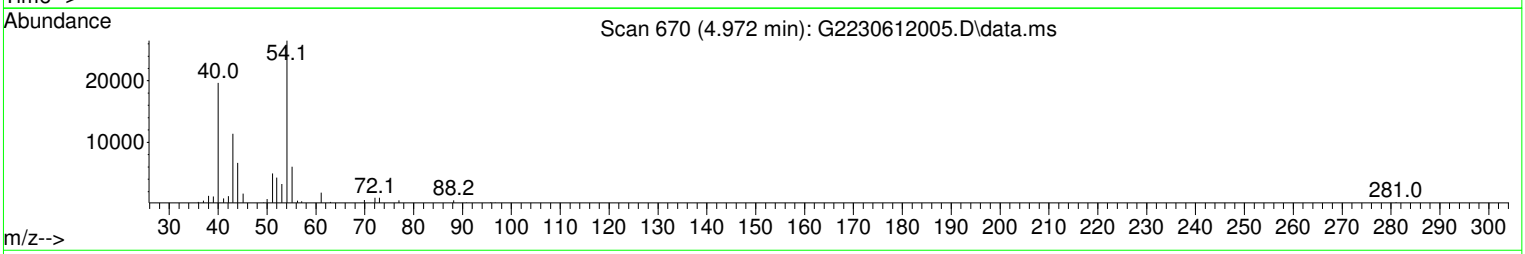
Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	17.57
53.00	12.00	10.47
0.00	0.00	0.00

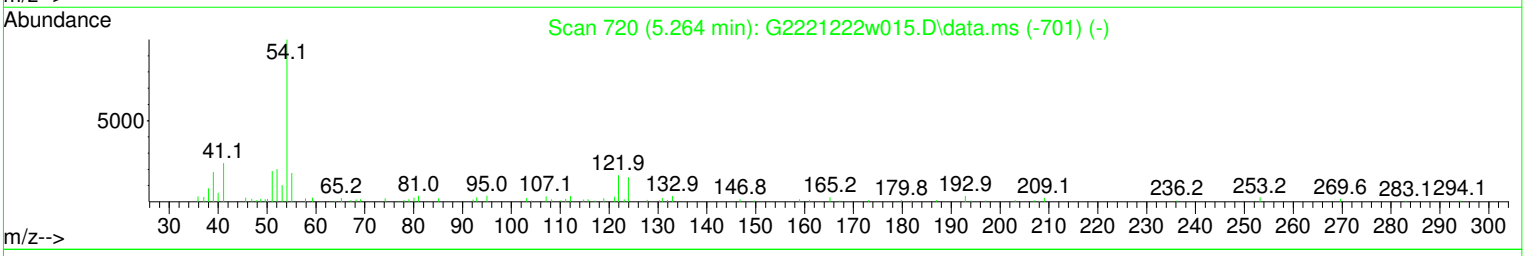
01342289

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612005.D
Acq On : 12 Jun 2023 10:18
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 10:50:20 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612005.D\data.ms

(30) Propionitrile (T)

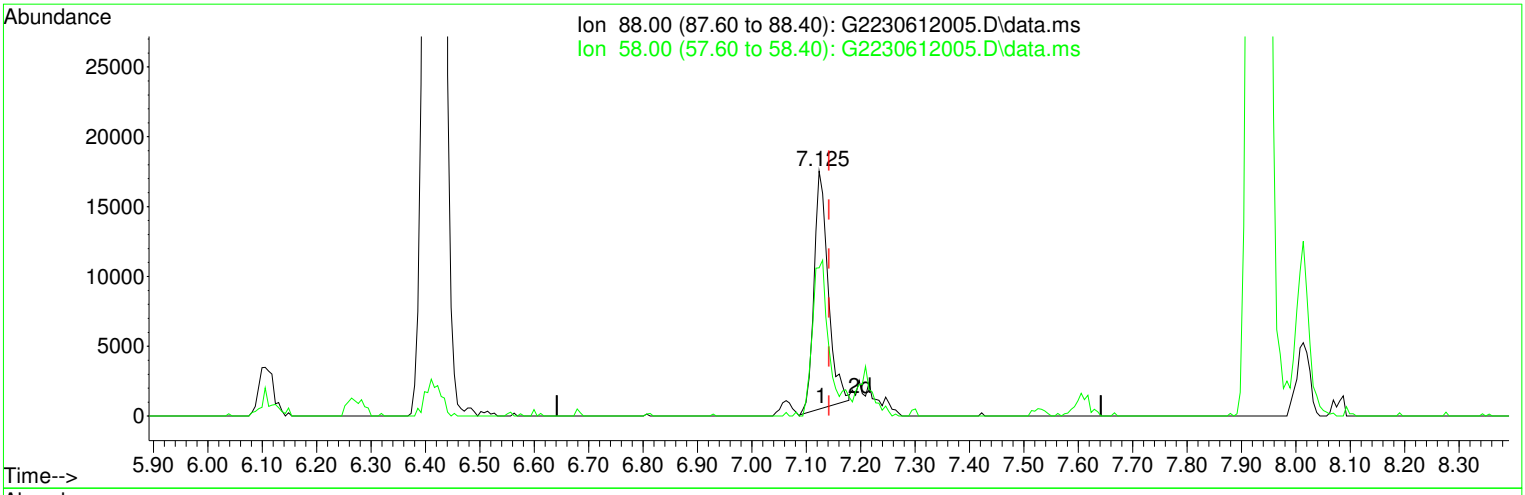
4.972min (-0.014) 14.22 ug/L m

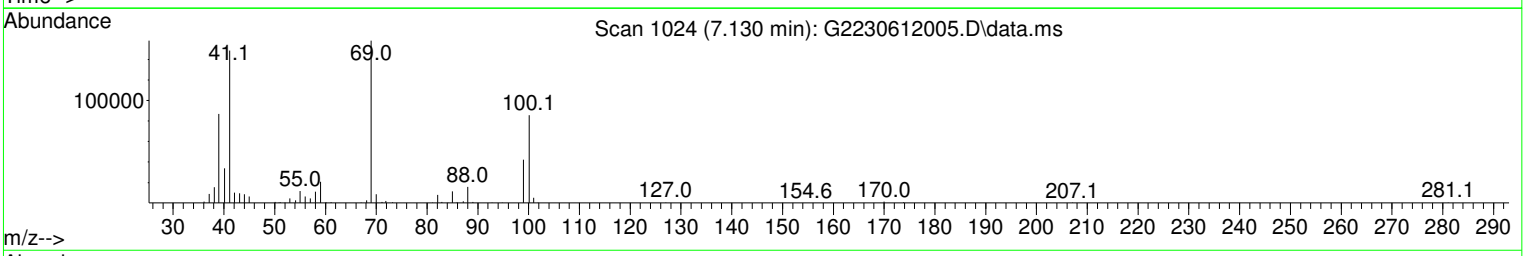
response 627455

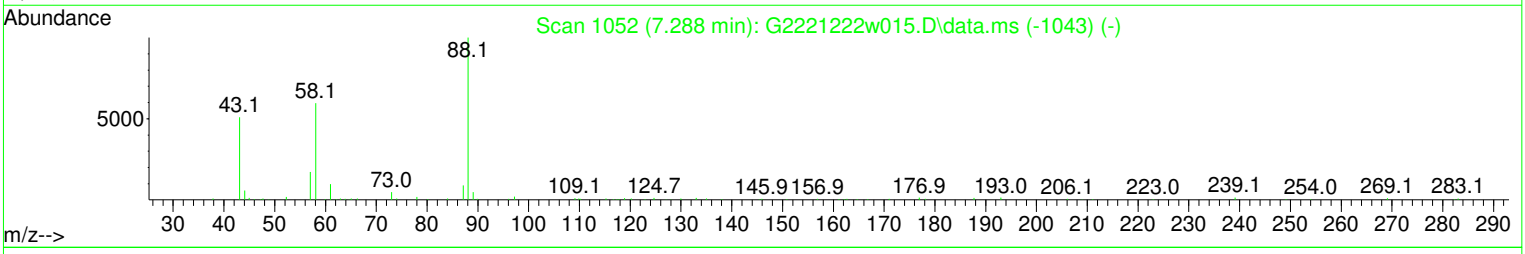
Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	18.52
53.00	12.00	11.04
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612005.D
Acq On : 12 Jun 2023 10:18
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 10:50:20 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612005.D\data.ms

(55) 1,4-dioxane (T)

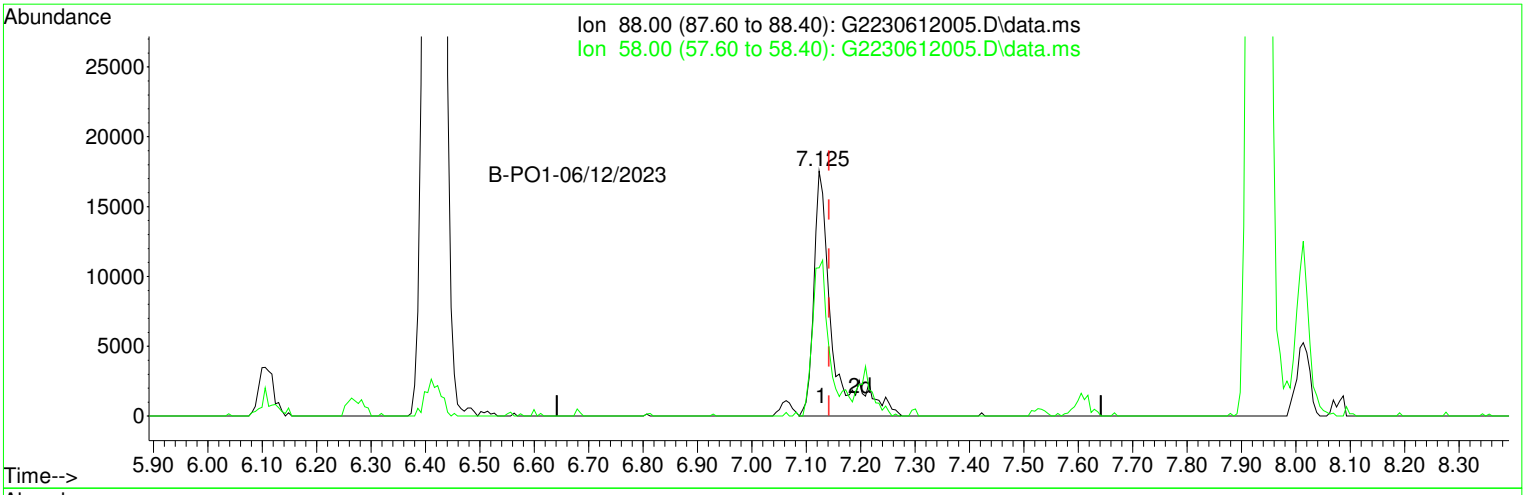
7.128min (-0.014) 103.45 ug/L

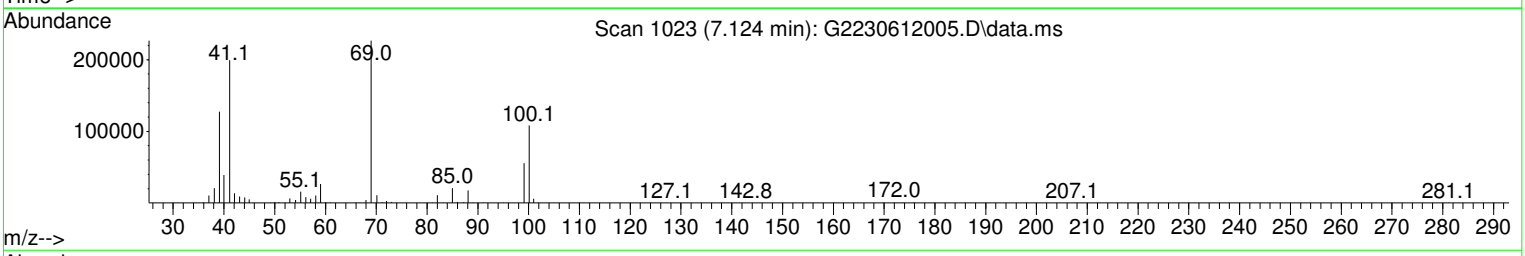
response 304805

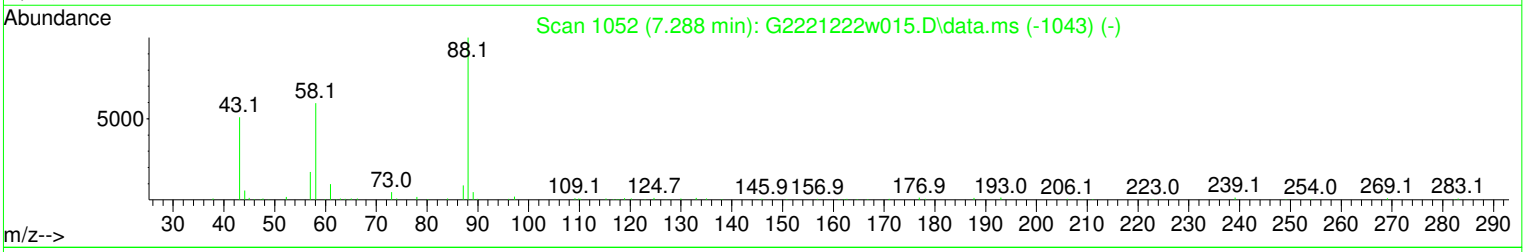
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	71.80
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612005.D
Acq On : 12 Jun 2023 10:18
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 12 10:50:20 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612005.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 140.42 ug/L m

response 413745

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	52.90
0.00	0.00	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-MS1	File ID:	G2230612009.D
		Prepared:	06/12/23 11:15	Analyzed:	06/12/23 11:56
		Preparation:	5030_W	Dilution:	2
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane	32.2	0.130	0.400	1.00	D
71-55-6	1,1,1-Trichloroethane	32.3	0.175	0.400	1.00	D
79-34-5	1,1,2,2-Tetrachloroethane	29.0	0.124	0.400	1.00	D
79-00-5	1,1,2-Trichloroethane	31.6	0.166	0.400	1.00	D
75-34-3	1,1-Dichloroethane	33.7	0.134	0.400	1.00	D
75-35-4	1,1-Dichloroethene	47.6	0.191	0.400	1.00	D
563-58-6	1,1-Dichloropropene	32.9	0.140	0.400	1.00	D
87-61-6	1,2,3-Trichlorobenzene	30.0	0.204	0.400	1.00	D
96-18-4	1,2,3-Trichloropropane	29.3	0.183	0.400	1.00	D
120-82-1	1,2,4-Trichlorobenzene	32.1	0.205	0.600	1.20	D
95-63-6	1,2,4-Trimethylbenzene	29.9	0.132	0.400	1.00	D
96-12-8	1,2-Dibromo-3-chloropropane	29.6	0.260	1.00	2.00	D
106-93-4	1,2-Dibromoethane	30.0	0.106	0.400	1.00	D
95-50-1	1,2-Dichlorobenzene	33.4	0.126	0.400	1.00	D
107-06-2	1,2-Dichloroethane	31.5	0.212	0.600	1.20	D
78-87-5	1,2-Dichloropropane	30.4	0.205	0.600	1.20	D
108-67-8	1,3,5-Trimethylbenzene	30.3	0.100	0.400	1.00	D
541-73-1	1,3-Dichlorobenzene	32.4	0.145	0.400	1.00	D
142-28-9	1,3-Dichloropropane	30.3	0.136	0.400	1.00	D
106-46-7	1,4-Dichlorobenzene	33.3	0.184	0.400	1.00	D
594-20-7	2,2-Dichloropropane	31.1	0.184	0.400	1.00	D
78-93-3	2-Butanone	91.5	0.660	1.40	3.50	D
95-49-8	2-Chlorotoluene	29.8	0.147	0.400	1.00	D
591-78-6	2-Hexanone	86.3	0.143	1.40	3.50	D
106-43-4	4-Chlorotoluene	30.9	0.184	0.400	1.00	D
99-87-6	4-Isopropyltoluene	31.4	0.140	0.400	1.00	D

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-MS1	File ID:	G2230612009.D
		Prepared:	06/12/23 11:15	Analyzed:	06/12/23 11:56
		Preparation:	5030_W	Dilution:	2
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone	88.5	0.270	1.40	3.50	D
67-64-1	Acetone	87.9	1.04	4.00	8.00	D
71-43-2	Benzene	30.4	0.101	0.400	1.00	D
108-86-1	Bromobenzene	29.0	0.170	0.400	1.00	D
74-97-5	Bromochloromethane	30.5	0.134	0.400	1.00	D
75-27-4	Bromodichloromethane	32.5	0.106	0.400	1.00	D
75-25-2	Bromoform	31.5	0.206	0.400	1.00	D
74-83-9	Bromomethane	36.0	0.320	1.00	2.00	D
75-15-0	Carbon disulfide	30.7	0.280	1.00	2.00	D
56-23-5	Carbon tetrachloride	33.3	0.169	0.400	1.00	D
108-90-7	Chlorobenzene	32.2	0.130	0.400	1.00	D
75-00-3	Chloroethane	31.4	0.311	0.400	1.00	D
67-66-3	Chloroform	30.1	0.203	0.600	1.20	D
74-87-3	Chloromethane	29.6	0.384	1.00	2.00	D
156-59-2	cis-1,2-Dichloroethene	540	0.205	0.600	1.20	S, D, E
10061-01-5	cis-1,3-Dichloropropene	29.4	0.117	0.400	1.00	D
124-48-1	Dibromochloromethane	33.0	0.152	0.400	1.00	D
74-95-3	Dibromomethane	33.2	0.163	0.400	1.00	D
75-71-8	Dichlorodifluoromethane	30.5	0.259	1.00	2.00	D
100-41-4	Ethylbenzene	33.0	0.0600	0.200	0.400	D
87-68-3	Hexachlorobutadiene	36.8	0.200	0.400	1.00	D
98-82-8	Isopropylbenzene	30.6	0.110	0.400	1.00	D
179601-23-1	m,p-Xylene	63.6	0.178	0.800	2.00	D
1634-04-4	Methyl tert-butyl ether	27.9	0.106	0.400	1.00	D
75-09-2	Methylene chloride	29.6	0.447	1.00	2.00	D
104-51-8	n-Butylbenzene	32.0	0.260	1.00	2.00	D

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-MS1	File ID:	G2230612009.D
		Prepared:	06/12/23 11:15	Analyzed:	06/12/23 11:56
		Preparation:	5030_W	Dilution:	2
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene	31.1	0.126	0.400	1.00	D
91-20-3	Naphthalene	29.0	0.140	0.400	1.00	D
95-47-6	o-Xylene	29.5	0.0832	0.400	1.00	D
135-98-8	sec-Butylbenzene	31.2	0.120	0.400	1.00	D
100-42-5	Styrene	30.8	0.0906	0.200	0.400	D
98-06-6	tert-Butylbenzene	31.8	0.0906	0.400	1.00	D
127-18-4	Tetrachloroethene	35.9	0.357	1.00	2.00	D
108-88-3	Toluene	33.5	0.114	0.400	1.00	D
156-60-5	trans-1,2-Dichloroethene	34.2	0.171	0.400	1.00	D
10061-02-6	trans-1,3-Dichloropropene	29.4	0.117	0.400	1.00	D
79-01-6	Trichloroethene	1890	0.156	0.400	1.00	S, E, D
75-69-4	Trichlorofluoromethane	34.7	0.101	0.400	1.00	D
75-01-4	Vinyl chloride	43.3	0.258	1.00	2.00	D

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612009.D
Acq On : 12 Jun 2023 11:56
Operator : PO1/MP3
Sample : BATCH-MS1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 12 17:14:11 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	17826920	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	24379541	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	21597660	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10138115	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7583347	19.33	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%			
43) 1,2-Dichloroethane-d4	5.876	65	6886362	17.76	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.80%			
49) Fluorobenzene	6.277	96	26878688	19.35	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.75%			
64) Toluene-d8	8.016	98	26733367	19.64	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.20%			
81) 4-Bromofluorobenzene	10.685	174	4847383	10.13	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%			
97) d4-1,2-Dichlorobenzene	12.217	152	8714816	19.99	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.95%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.212	85	5549107	15.27	ug/L	99
3) Chloromethane	1.353	50	4341477	14.79	ug/L	100
4) Vinyl chloride	1.444	62	7580511	21.64	ug/L	98
5) Bromomethane	1.716	94	4051113	17.99	ug/L	97
6) Chloroethane	1.803	64	3346704	15.69	ug/L	97
7) Trichlorofluoromethane	2.028	101	9304998	17.33	ug/L	98
8) Ethyl ether	2.312	59	3320383	14.05	ug/L	87
9) Acrolein	2.433	56	1894186	39.71	ug/L	95
10) 1,1-Dichloroethene	2.521	61	9063455	23.81	ug/L	87
11) 1,1,2-Trichloro-1,2,2-...	2.532	101	4805794	16.46	ug/L	94
12) Acetone	2.599	43	3620540	43.95	ug/L	91
13) Iodomethane	2.674	142	5750128	13.85	ug/L	95
14) Carbon disulfide	2.737	76	11990318	15.34	ug/L	99
15) Isopropanol	2.782	45	1010638	70.64	ug/L	98
16) acetonitrile	2.916	41	5643147	33.89	ug/L	85
17) 3-Chloro-1-propene	2.917	76	2702961	15.04	ug/L	97
18) Methylene chloride	3.059	49	4780154	14.78	ug/L	78
19) Acrylonitrile	3.380	53	1645094	12.14	ug/L	96
20) trans-1,2-Dichloroethene	3.400	61	6601951	17.09	ug/L	85
21) Methyl tert-butyl ether	3.432	73	14797813	13.97	ug/L	93
22) Hexane	3.788	57	4914922	16.22	ug/L	94
23) 1,1-Dichloroethane	3.994	63	8353345	16.85	ug/L	95
24) Vinyl acetate	4.122	43	7719865	12.74	ug/L	92
25) 2-Chloro-1,3-butadiene	4.131	53	5914469	14.63	ug/L	84
27) 2,2-Dichloropropane	4.825	77	7712599	15.56	ug/L #	68
28) cis-1,2-Dichloroethene	4.834	61	120355084	269.75	ug/L	73
29) 2-Butanone	4.903	72	2040007	45.74	ug/L	90
30) Propionitrile	4.975	54	554974	12.96	ug/L	95

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612009.D
Acq On : 12 Jun 2023 11:56
Operator : PO1/MP3
Sample : BATCH-MS1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 12 17:14:11 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
31) Ethyl acetate	5.008	61	750346	14.01 ug/L	93
32) Methylacrylate	5.035	55	4100634	12.15 ug/L	91
33) 1-Bromopropane	5.073	41	2532947	13.90 ug/L	64
34) Bromochloromethane	5.146	130	4034452	15.24 ug/L	99
35) Methacrylonitrile	5.169	67	2196817	13.45 ug/L	91
36) Tetrahydrofuran	5.239	42	1121721	11.96 ug/L	79
37) Chloroform	5.273	83	8805044	15.04 ug/L	100
39) 1,1,1-Trichloroethane	5.477	97	8682325	16.13 ug/L	95
40) Cyclohexane	5.532	84	7753457	16.19 ug/L	82
41) 1-Chlorobutane	5.627	56	8179881	14.71 ug/L	97
42) 1,1-Dichloropropene	5.687	75	6661115	16.44 ug/L	90
44) 1,2-Dichloroethane	5.968	62	6495188	15.75 ug/L	98
47) Carbon tetrachloride	5.678	117	7317973	16.63 ug/L	99
48) Benzene	5.933	78	18571957	15.20 ug/L	99
50) Trichloroethene	6.715	95	303061893	946.70 ug/L #	77
52) 1,2-Dichloropropane	6.943	63	4192092	15.18 ug/L	90
53) Dibromomethane	7.070	174	4825380	16.62 ug/L #	91
54) Methyl methacrylate	7.124	69	3729510	13.08 ug/L	89
55) 1,4-dioxane	7.130	88	397545m	138.36 ug/L	
56) Bromodichloromethane	7.258	83	6951041	16.23 ug/L	99
57) 2-Nitropropane	7.521	43	1515230	12.29 ug/L	95
58) 2-Chloroethyl vinyl ether	7.613	63	194526	0.82 ug/L	100
59) cis-1,3-Dichloropropene	7.743	75	7948561	14.72 ug/L	95
60) 4-Methyl-2-pentanone	7.935	43	14661146	44.23 ug/L #	88
61) trans-1,3-Dichloropropene	8.332	75	7587834	14.70 ug/L	90
62) 1,1,2-Trichloroethane	8.517	97	5082223	15.78 ug/L	93
65) Toluene	8.084	91	22202695	16.75 ug/L	97
66) Ethylmethacrylate	8.455	69	6656363	13.95 ug/L	86
67) Tetrachloroethene	8.647	166	7496961	17.93 ug/L	94
68) 1,3-Dichloropropane	8.685	76	7649888	15.14 ug/L	86
69) 2-Hexanone	8.799	43	9284312	43.13 ug/L	88
70) Dibromochloromethane	8.910	129	6604802	16.48 ug/L	99
71) 1,2-Dibromoethane	9.017	107	5504375	15.02 ug/L	96
72) Chlorobenzene	9.522	112	15276339	16.12 ug/L	92
73) 1,1,1,2-Tetrachloroethane	9.612	131	5962183	16.08 ug/L	97
74) Ethylbenzene	9.642	91	23746931	16.49 ug/L	95
75) m,p-Xylene	9.762	91	36775903	31.81 ug/L	94
76) Styrene	10.175	104	15691196	15.41 ug/L	92
77) Bromoform	10.353	173	5301355	15.75 ug/L	97
79) o-Xylene	10.159	91	18427250	14.77 ug/L	95
80) Isopropylbenzene	10.535	105	22304822	15.31 ug/L	96
82) Bromobenzene	10.826	77	7957153	14.49 ug/L	80
83) 1,1,2,2-Tetrachloroethane	10.841	83	6383851	14.49 ug/L	98
84) 1,2,3-Trichloropropane	10.880	110	2234171	14.63 ug/L	97
85) trans-1,4-Dichloro-2-b...	10.900	53	1506925	12.76 ug/L	72
86) n-Propylbenzene	10.947	91	25217155	15.55 ug/L	95
87) 2-Chlorotoluene	11.026	91	14503993	14.88 ug/L	93
88) 4-Chlorotoluene	11.136	91	17077278	15.46 ug/L	93
89) 1,3,5-Trimethylbenzene	11.128	105	17139521	15.17 ug/L	94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612009.D
Acq On : 12 Jun 2023 11:56
Operator : PO1/MP3
Sample : BATCH-MS1
Misc :
ALS Vial : 9 Sample Multiplier: 1

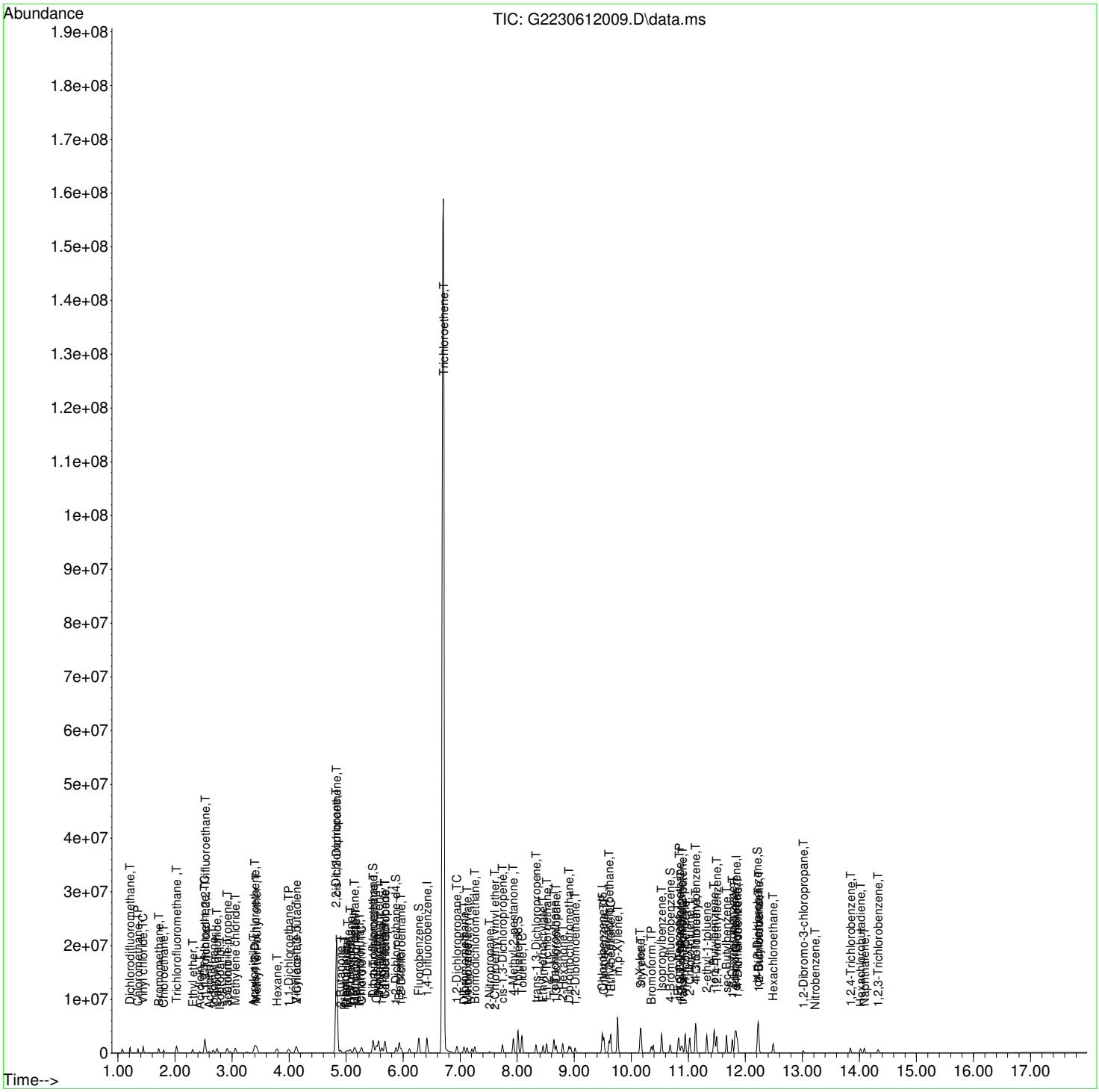
Quant Time: Jun 12 17:14:11 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.327	105	19696111	14.32	ug/L	98
91) tert-Butylbenzene	11.454	119	19279692	15.91	ug/L	89
92) 1,2,4-Trimethylbenzene	11.501	105	16888696	14.95	ug/L	92
93) sec-Butylbenzene	11.672	105	21579227	15.62	ug/L	96
94) 1,3-Dichlorobenzene	11.774	146	10876466	16.18	ug/L	98
95) 4-Isopropyltoluene	11.821	119	17934390	15.69	ug/L	97
96) 1,4-Dichlorobenzene	11.864	146	10877139	16.64	ug/L	98
98) 1,2-Dichlorobenzene	12.236	146	9675527	16.72	ug/L	98
99) n-Butylbenzene	12.231	91	13155070	15.98	ug/L	92
100) Hexachloroethane	12.490	201	3474737	16.53	ug/L	98
101) 1,2-Dibromo-3-chloropr...	13.017	157	1293607	14.78	ug/L	97
102) Nitrobenzene	13.223	77	293870	10.23	ug/L	90
103) 1,2,4-Trichlorobenzene	13.846	180	2917540	16.04	ug/L	97
104) Hexachlorobutadiene	14.023	225	1646317	18.40	ug/L	97
105) Naphthalene	14.089	128	6855581	14.49	ug/L	99
106) 1,2,3-Trichlorobenzene	14.332	180	2189739	14.98	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

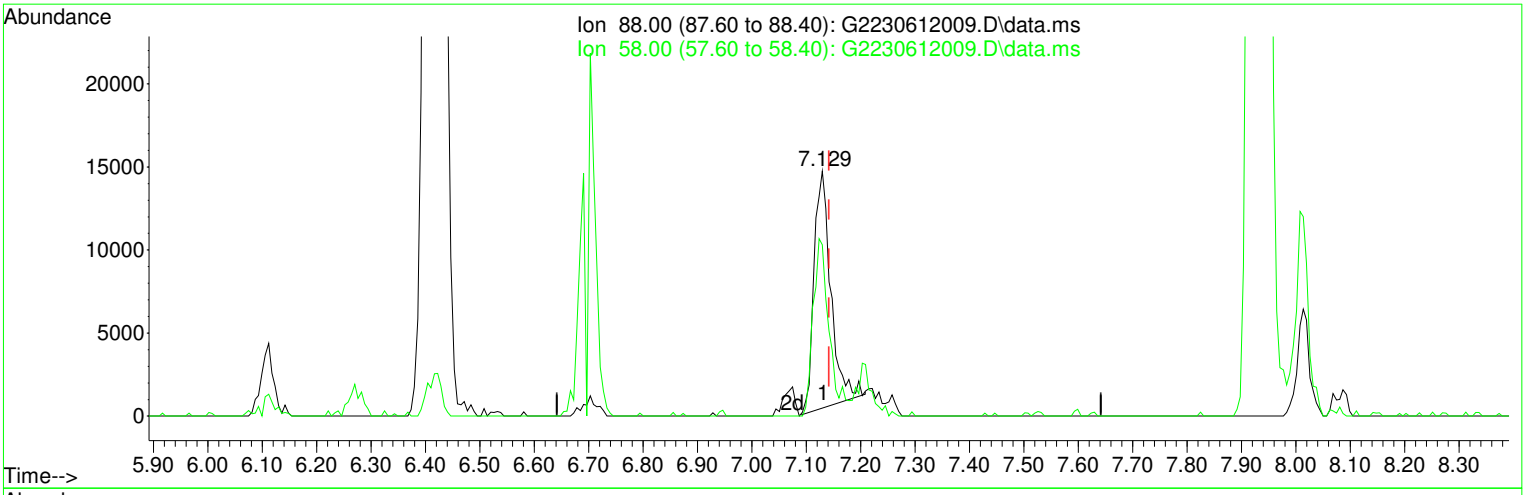
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612009.D
Acq On : 12 Jun 2023 11:56
Operator : PO1/MP3
Sample : BATCH-MS1
Misc :
ALS Vial : 9 Sample Multiplier: 1

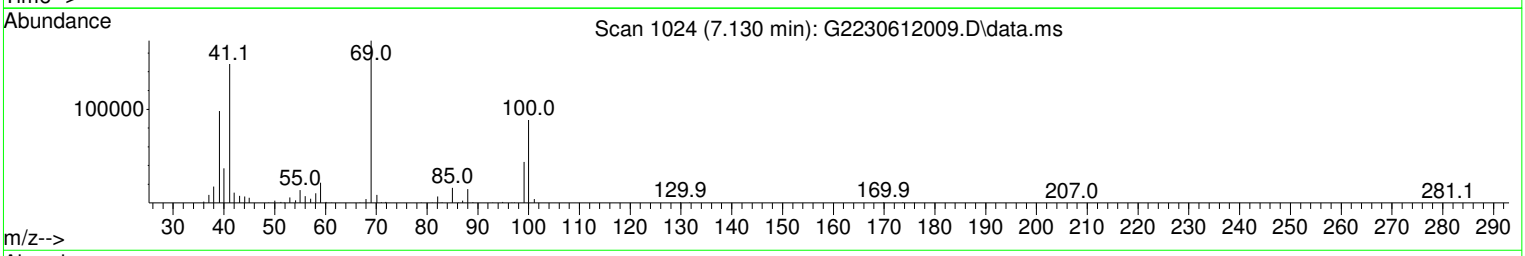
Quant Time: Jun 12 17:14:11 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

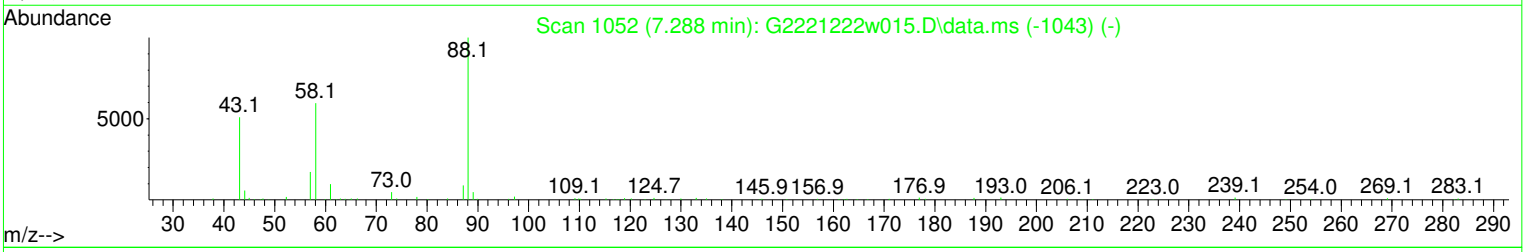


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612009.D
Acq On : 12 Jun 2023 11:56
Operator : PO1/MP3
Sample : BATCH-MS1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 12 17:14:11 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612009.D\data.ms

(55) 1,4-dioxane (T)

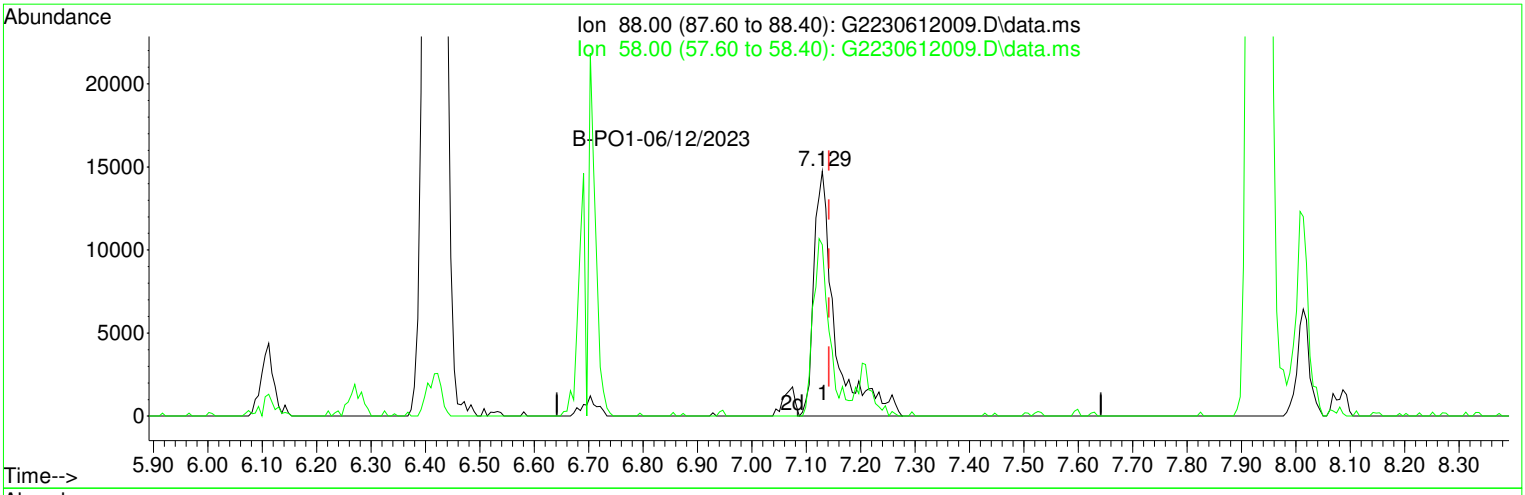
7.132min (-0.010) 105.67 ug/L

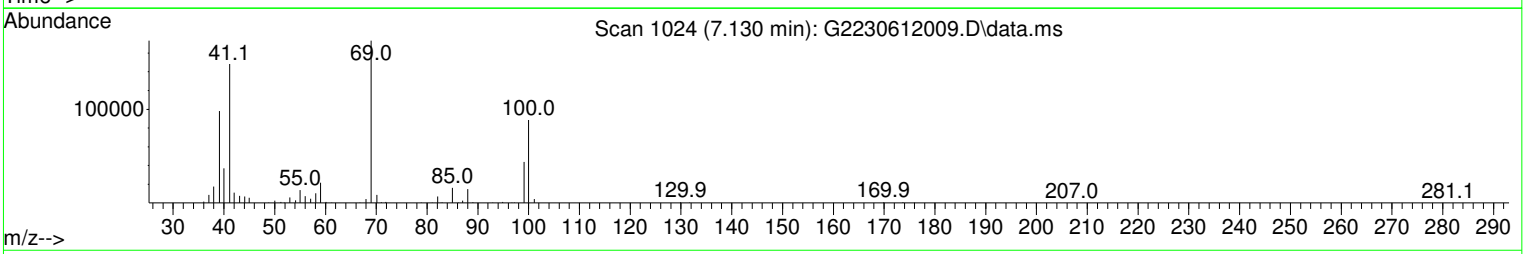
response 303622

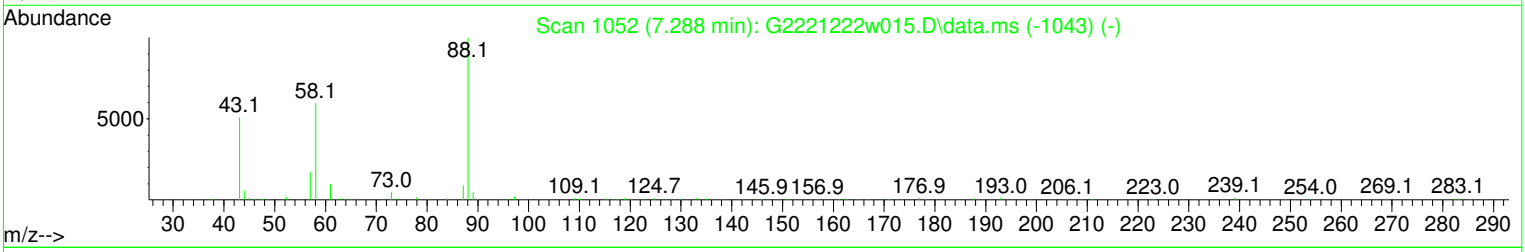
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	72.16
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612009.D
Acq On : 12 Jun 2023 11:56
Operator : PO1/MP3
Sample : BATCH-MS1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 12 17:14:11 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612009.D\data.ms

(55) 1,4-dioxane (T)

7.130min (-0.012) 138.36 ug/L m

response 397545

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	55.11
0.00	0.00	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-MSD1	File ID:	G2230612010.D
		Prepared:	06/12/23 11:15	Analyzed:	06/12/23 12:21
		Preparation:	5030_W	Dilution:	2
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane	30.5	0.130	0.400	1.00	D
71-55-6	1,1,1-Trichloroethane	30.9	0.175	0.400	1.00	D
79-34-5	1,1,2,2-Tetrachloroethane	27.6	0.124	0.400	1.00	D
79-00-5	1,1,2-Trichloroethane	29.7	0.166	0.400	1.00	D
75-34-3	1,1-Dichloroethane	32.5	0.134	0.400	1.00	D
75-35-4	1,1-Dichloroethene	45.3	0.191	0.400	1.00	D
563-58-6	1,1-Dichloropropene	31.2	0.140	0.400	1.00	D
87-61-6	1,2,3-Trichlorobenzene	28.7	0.204	0.400	1.00	D
96-18-4	1,2,3-Trichloropropane	28.1	0.183	0.400	1.00	D
120-82-1	1,2,4-Trichlorobenzene	29.1	0.205	0.600	1.20	D
95-63-6	1,2,4-Trimethylbenzene	28.2	0.132	0.400	1.00	D
96-12-8	1,2-Dibromo-3-chloropropane	28.2	0.260	1.00	2.00	D
106-93-4	1,2-Dibromoethane	28.5	0.106	0.400	1.00	D
95-50-1	1,2-Dichlorobenzene	32.3	0.126	0.400	1.00	D
107-06-2	1,2-Dichloroethane	30.0	0.212	0.600	1.20	D
78-87-5	1,2-Dichloropropane	28.6	0.205	0.600	1.20	D
108-67-8	1,3,5-Trimethylbenzene	29.0	0.100	0.400	1.00	D
541-73-1	1,3-Dichlorobenzene	31.1	0.145	0.400	1.00	D
142-28-9	1,3-Dichloropropane	28.8	0.136	0.400	1.00	D
106-46-7	1,4-Dichlorobenzene	31.6	0.184	0.400	1.00	D
594-20-7	2,2-Dichloropropane	29.8	0.184	0.400	1.00	D
78-93-3	2-Butanone	87.3	0.660	1.40	3.50	D
95-49-8	2-Chlorotoluene	28.6	0.147	0.400	1.00	D
591-78-6	2-Hexanone	82.4	0.143	1.40	3.50	D
106-43-4	4-Chlorotoluene	29.3	0.184	0.400	1.00	D
99-87-6	4-Isopropyltoluene	29.6	0.140	0.400	1.00	D

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-MSD1	File ID:	G2230612010.D
		Prepared:	06/12/23 11:15	Analyzed:	06/12/23 12:21
		Preparation:	5030_W	Dilution:	2
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone	85.1	0.270	1.40	3.50	D
67-64-1	Acetone	83.4	1.04	4.00	8.00	D
71-43-2	Benzene	29.2	0.101	0.400	1.00	D
108-86-1	Bromobenzene	27.4	0.170	0.400	1.00	D
74-97-5	Bromochloromethane	29.3	0.134	0.400	1.00	D
75-27-4	Bromodichloromethane	31.2	0.106	0.400	1.00	D
75-25-2	Bromoform	29.4	0.206	0.400	1.00	D
74-83-9	Bromomethane	35.5	0.320	1.00	2.00	D
75-15-0	Carbon disulfide	30.1	0.280	1.00	2.00	D
56-23-5	Carbon tetrachloride	31.8	0.169	0.400	1.00	D
108-90-7	Chlorobenzene	30.5	0.130	0.400	1.00	D
75-00-3	Chloroethane	28.9	0.311	0.400	1.00	D
67-66-3	Chloroform	29.2	0.203	0.600	1.20	D
74-87-3	Chloromethane	28.9	0.384	1.00	2.00	D
156-59-2	cis-1,2-Dichloroethene	519	0.205	0.600	1.20	S, D, E
10061-01-5	cis-1,3-Dichloropropene	28.5	0.117	0.400	1.00	D
124-48-1	Dibromochloromethane	31.4	0.152	0.400	1.00	D
74-95-3	Dibromomethane	31.1	0.163	0.400	1.00	D
75-71-8	Dichlorodifluoromethane	29.7	0.259	1.00	2.00	D
100-41-4	Ethylbenzene	31.0	0.0600	0.200	0.400	D
87-68-3	Hexachlorobutadiene	32.2	0.200	0.400	1.00	D
98-82-8	Isopropylbenzene	29.3	0.110	0.400	1.00	D
179601-23-1	m,p-Xylene	59.9	0.178	0.800	2.00	D
1634-04-4	Methyl tert-butyl ether	26.9	0.106	0.400	1.00	D
75-09-2	Methylene chloride	27.9	0.447	1.00	2.00	D
104-51-8	n-Butylbenzene	29.7	0.260	1.00	2.00	D

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0366-MSD1	File ID:	G2230612010.D
		Prepared:	06/12/23 11:15	Analyzed:	06/12/23 12:21
		Preparation:	5030_W	Dilution:	2
Batch:	B3F0366	Sequence:	S3F0209	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene	29.7	0.126	0.400	1.00	D
91-20-3	Naphthalene	26.7	0.140	0.400	1.00	D
95-47-6	o-Xylene	28.5	0.0832	0.400	1.00	D
135-98-8	sec-Butylbenzene	29.7	0.120	0.400	1.00	D
100-42-5	Styrene	29.2	0.0906	0.200	0.400	D
98-06-6	tert-Butylbenzene	30.0	0.0906	0.400	1.00	D
127-18-4	Tetrachloroethene	33.6	0.357	1.00	2.00	D
108-88-3	Toluene	31.8	0.114	0.400	1.00	D
156-60-5	trans-1,2-Dichloroethene	32.8	0.171	0.400	1.00	D
10061-02-6	trans-1,3-Dichloropropene	28.4	0.117	0.400	1.00	D
79-01-6	Trichloroethene	1840	0.156	0.400	1.00	S, D, E
75-69-4	Trichlorofluoromethane	33.4	0.101	0.400	1.00	D
75-01-4	Vinyl chloride	41.3	0.258	1.00	2.00	D

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612010.D
Acq On : 12 Jun 2023 12:21
Operator : PO1/MP3
Sample : BATCH-MSD1
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 17:16:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	18364942	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	25212747	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	22407360	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10317441	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7861626	19.45	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.25%			
43) 1,2-Dichloroethane-d4	5.875	65	7181822	17.98	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.90%			
49) Fluorobenzene	6.276	96	27982934	19.48	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%			
64) Toluene-d8	8.015	98	27610527	19.55	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.75%			
81) 4-Bromofluorobenzene	10.684	174	4907326	10.07	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.70%			
97) d4-1,2-Dichlorobenzene	12.217	152	8772715	19.77	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.85%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	5561013	14.86	ug/L	99
3) Chloromethane	1.349	50	4371840	14.45	ug/L	100
4) Vinyl chloride	1.441	62	7453269	20.65	ug/L	99
5) Bromomethane	1.713	94	4117509	17.74	ug/L	98
6) Chloroethane	1.801	64	3177100	14.46	ug/L	97
7) Trichlorofluoromethane	2.026	101	9235492	16.69	ug/L	97
8) Ethyl ether	2.308	59	3240497	13.30	ug/L	86
9) Acrolein	2.431	56	1929031	39.25	ug/L	92
10) 1,1-Dichloroethene	2.519	61	8882220	22.65	ug/L	86
11) 1,1,2-Trichloro-1,2,2-...	2.530	101	4792109	15.94	ug/L	96
12) Acetone	2.595	43	3547700	41.72	ug/L	92
13) Iodomethane	2.670	142	5827781	13.63	ug/L	95
14) Carbon disulfide	2.734	76	12102811	15.03	ug/L	100
15) Isopropanol	2.778	45	1155031	78.37	ug/L	96
16) acetonitrile	2.912	41	5603664	32.65	ug/L	85
17) 3-Chloro-1-propene	2.914	76	2733462	14.77	ug/L	98
18) Methylene chloride	3.056	49	4677751	13.96	ug/L	77
19) Acrylonitrile	3.378	53	1667034	11.94	ug/L	95
20) trans-1,2-Dichloroethene	3.396	61	6519221	16.38	ug/L	85
21) Methyl tert-butyl ether	3.427	73	14738218	13.47	ug/L	92
22) Hexane	3.785	57	4719297	15.11	ug/L	95
23) 1,1-Dichloroethane	3.991	63	8312490	16.27	ug/L	97
24) Vinyl acetate	4.120	43	7621148	12.21	ug/L	91
25) 2-Chloro-1,3-butadiene	4.128	53	5761935	13.84	ug/L	83
27) 2,2-Dichloropropane	4.821	77	7603123	14.89	ug/L #	68
28) cis-1,2-Dichloroethene	4.832	61	119249756	259.44	ug/L	73
29) 2-Butanone	4.902	72	2006087	43.64	ug/L	92
30) Propionitrile	4.970	54	551318	12.49	ug/L	92

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612010.D
Acq On : 12 Jun 2023 12:21
Operator : PO1/MP3
Sample : BATCH-MSD1
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 17:16:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
31) Ethyl acetate	5.009	61	904126	16.42 ug/L	99
32) Methylacrylate	5.032	55	4055961	11.66 ug/L	92
33) 1-Bromopropane	5.071	41	2533641	13.50 ug/L	65
34) Bromochloromethane	5.144	130	4000245	14.67 ug/L	99
35) Methacrylonitrile	5.167	67	2096581	12.45 ug/L	92
36) Tetrahydrofuran	5.241	42	1090242	11.25 ug/L	79
37) Chloroform	5.271	83	8809584	14.60 ug/L	100
39) 1,1,1-Trichloroethane	5.474	97	8556656	15.43 ug/L	95
40) Cyclohexane	5.531	84	7739939	15.69 ug/L	80
41) 1-Chlorobutane	5.626	56	8047908	14.05 ug/L	99
42) 1,1-Dichloropropene	5.685	75	6510337	15.59 ug/L	91
44) 1,2-Dichloroethane	5.966	62	6376856	15.01 ug/L	98
47) Carbon tetrachloride	5.676	117	7240466	15.91 ug/L	99
48) Benzene	5.931	78	18467415	14.62 ug/L	100
50) Trichloroethene	6.709	95	305193318	921.85 ug/L #	78
52) 1,2-Dichloropropane	6.943	63	4089375	14.32 ug/L	89
53) Dibromomethane	7.068	174	4668866	15.55 ug/L #	92
54) Methyl methacrylate	7.123	69	3658020	12.40 ug/L	89
55) 1,4-dioxane	7.124	88	397527m	133.78 ug/L	
56) Bromodichloromethane	7.257	83	6904189	15.59 ug/L	99
57) 2-Nitropropane	7.519	43	1516840	11.89 ug/L	94
59) cis-1,3-Dichloropropene	7.743	75	7956413	14.25 ug/L	96
60) 4-Methyl-2-pentanone	7.934	43	14587322	42.54 ug/L #	88
61) trans-1,3-Dichloropropene	8.332	75	7583083	14.20 ug/L	90
62) 1,1,2-Trichloroethane	8.516	97	4943673	14.84 ug/L	94
65) Toluene	8.084	91	21880447	15.90 ug/L	98
66) Ethylmethacrylate	8.454	69	6534936	13.20 ug/L	87
67) Tetrachloroethene	8.645	166	7282783	16.78 ug/L	96
68) 1,3-Dichloropropane	8.684	76	7541161	14.38 ug/L	87
69) 2-Hexanone	8.799	43	9203955	41.20 ug/L	87
70) Dibromochloromethane	8.910	129	6536527	15.72 ug/L	98
71) 1,2-Dibromoethane	9.016	107	5416430	14.24 ug/L	98
72) Chlorobenzene	9.522	112	14978167	15.24 ug/L	92
73) 1,1,1,2-Tetrachloroethane	9.612	131	5876473	15.27 ug/L	96
74) Ethylbenzene	9.641	91	23190435	15.52 ug/L	94
75) m,p-Xylene	9.762	91	35920282	29.95 ug/L	94
76) Styrene	10.175	104	15404439	14.58 ug/L	93
77) Bromoform	10.352	173	5126837	14.68 ug/L	97
79) o-Xylene	10.159	91	18075823	14.24 ug/L	95
80) Isopropylbenzene	10.534	105	21696726	14.64 ug/L	96
82) Bromobenzene	10.826	77	7660894	13.70 ug/L #	79
83) 1,1,2,2-Tetrachloroethane	10.841	83	6187778	13.80 ug/L	98
84) 1,2,3-Trichloropropane	10.879	110	2180644	14.03 ug/L	97
85) trans-1,4-Dichloro-2-b...	10.899	53	1432335	11.92 ug/L	68
86) n-Propylbenzene	10.948	91	24489502	14.84 ug/L	96
87) 2-Chlorotoluene	11.026	91	14187802	14.30 ug/L	94
88) 4-Chlorotoluene	11.136	91	16445760	14.63 ug/L	92
89) 1,3,5-Trimethylbenzene	11.127	105	16646615	14.48 ug/L	95
90) 2-ethyl-1-toluene	11.327	105	19134630	13.67 ug/L	98

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612010.D
Acq On : 12 Jun 2023 12:21
Operator : PO1/MP3
Sample : BATCH-MSD1
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 17:16:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

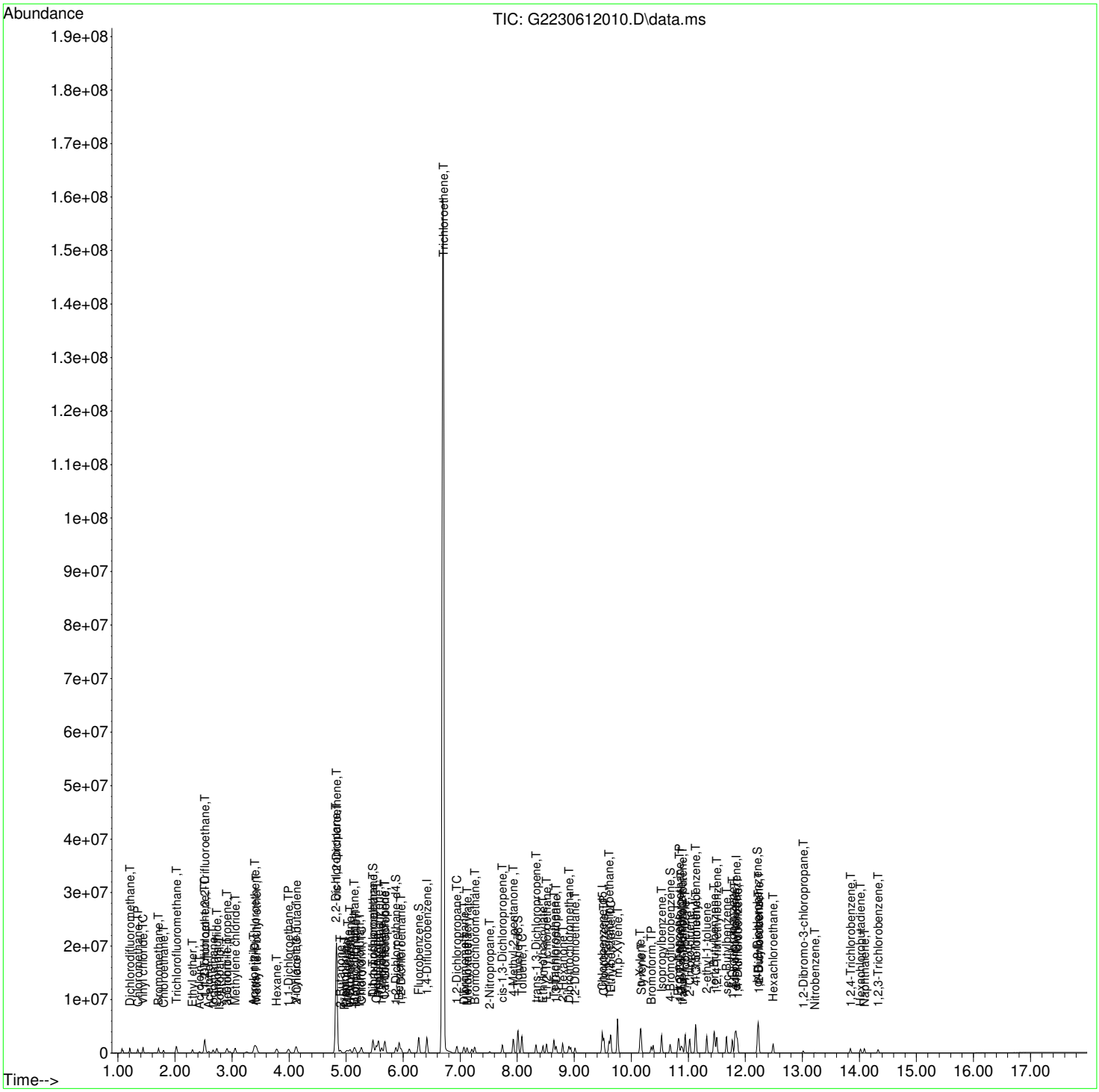
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) tert-Butylbenzene	11.453	119	18493476	14.99	ug/L	89
92) 1,2,4-Trimethylbenzene	11.501	105	16211711	14.10	ug/L	92
93) sec-Butylbenzene	11.672	105	20910695	14.87	ug/L	97
94) 1,3-Dichlorobenzene	11.774	146	10654564	15.57	ug/L	98
95) 4-Isopropyltoluene	11.821	119	17231454	14.81	ug/L	97
96) 1,4-Dichlorobenzene	11.864	146	10509967	15.80	ug/L	97
98) 1,2-Dichlorobenzene	12.236	146	9504283	16.14	ug/L	97
99) n-Butylbenzene	12.230	91	12454934	14.86	ug/L	91
100) Hexachloroethane	12.490	201	3320953	15.53	ug/L	99
101) 1,2-Dibromo-3-chloropr...	13.018	157	1255953	14.09	ug/L	99
102) Nitrobenzene	13.223	77	261457	8.85	ug/L	90
103) 1,2,4-Trichlorobenzene	13.846	180	2697738	14.57	ug/L	97
104) Hexachlorobutadiene	14.022	225	1469208	16.12	ug/L	97
105) Naphthalene	14.089	128	6425130	13.33	ug/L	100
106) 1,2,3-Trichlorobenzene	14.331	180	2135496	14.36	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342307

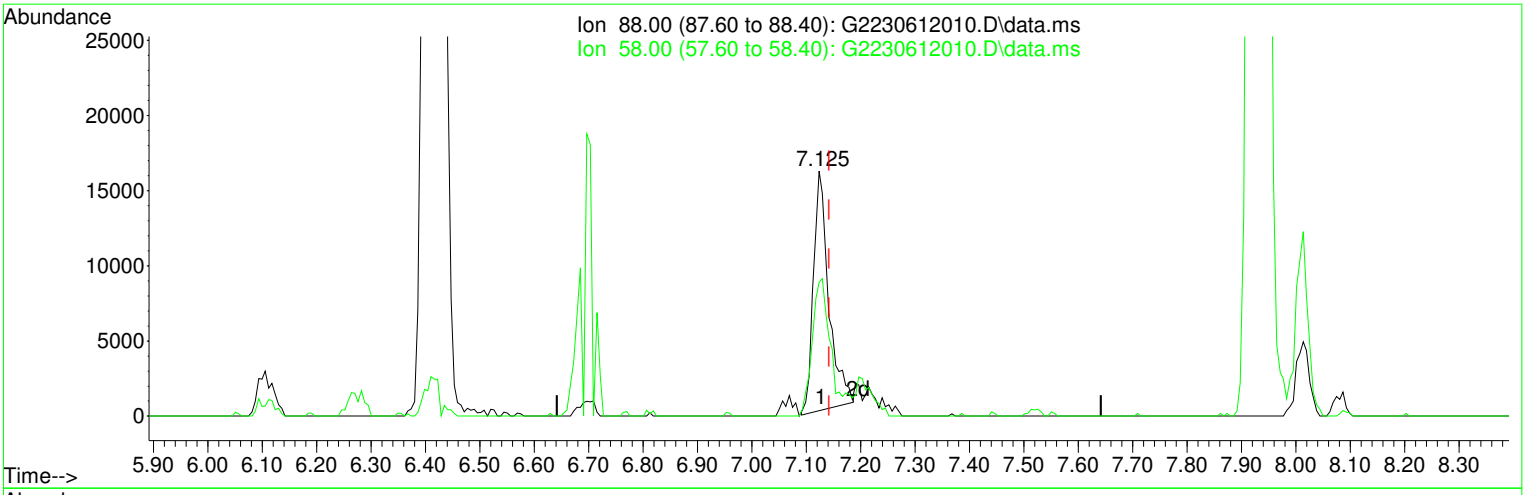
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612010.D
Acq On : 12 Jun 2023 12:21
Operator : PO1/MP3
Sample : BATCH-MSD1
Misc :
ALS Vial : 10 Sample Multiplier: 1

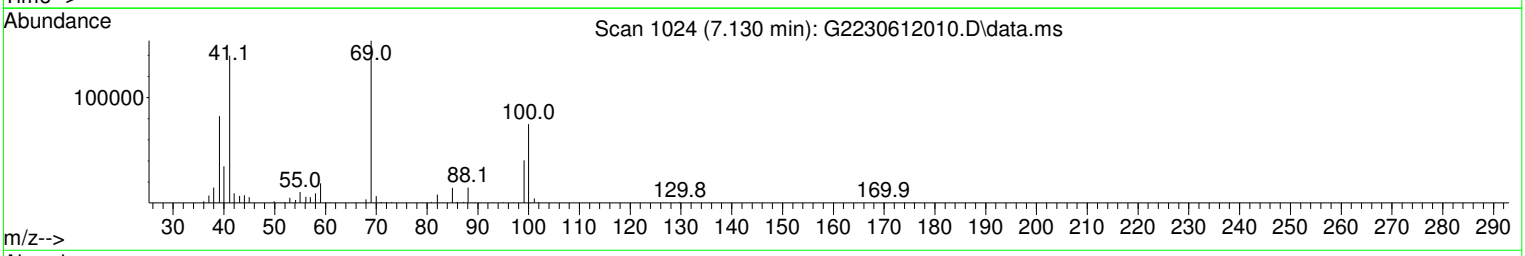
Quant Time: Jun 12 17:16:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

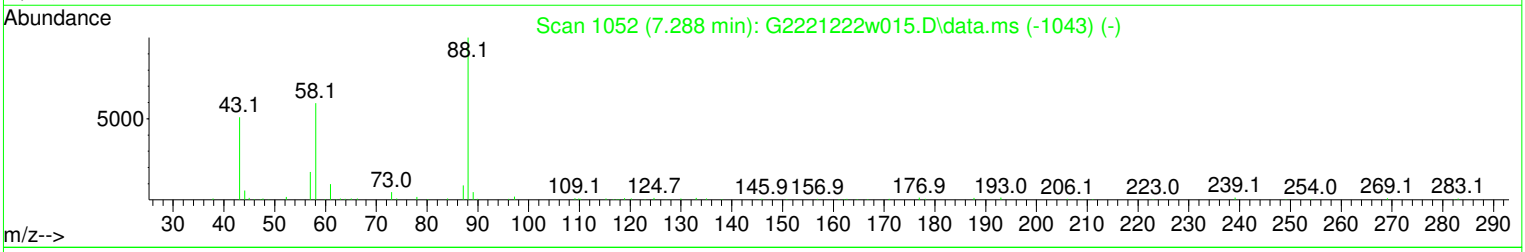


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612010.D
Acq On : 12 Jun 2023 12:21
Operator : PO1/MP3
Sample : BATCH-MSD1
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 17:16:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612010.D\data.ms

(55) 1,4-dioxane (T)

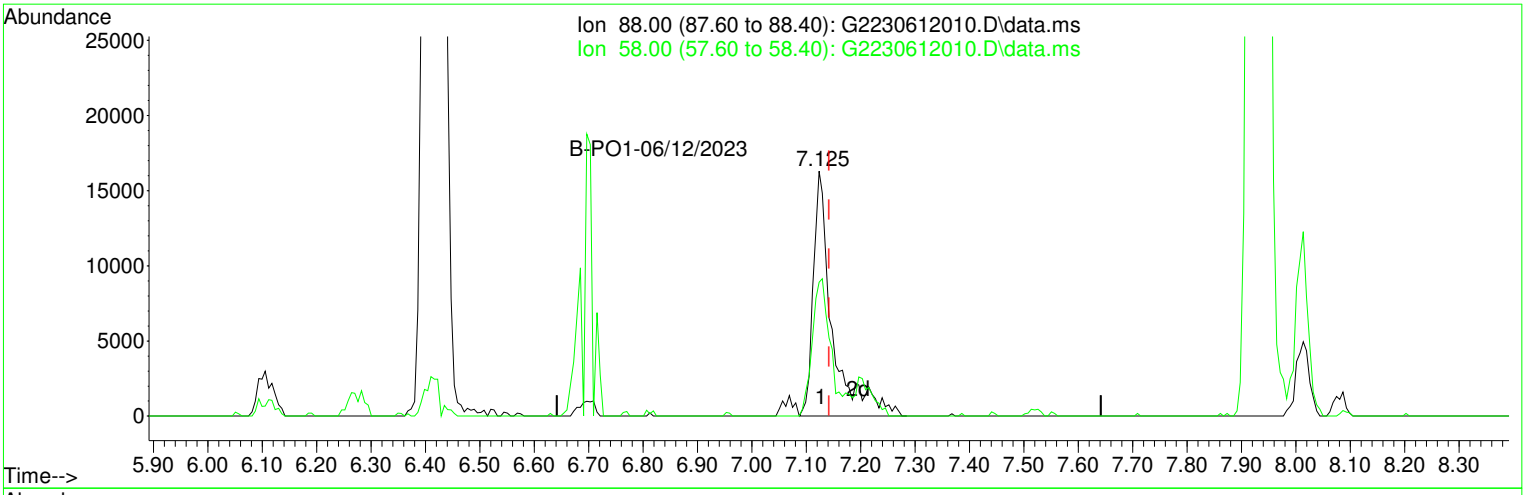
7.128min (-0.014) 104.09 ug/L

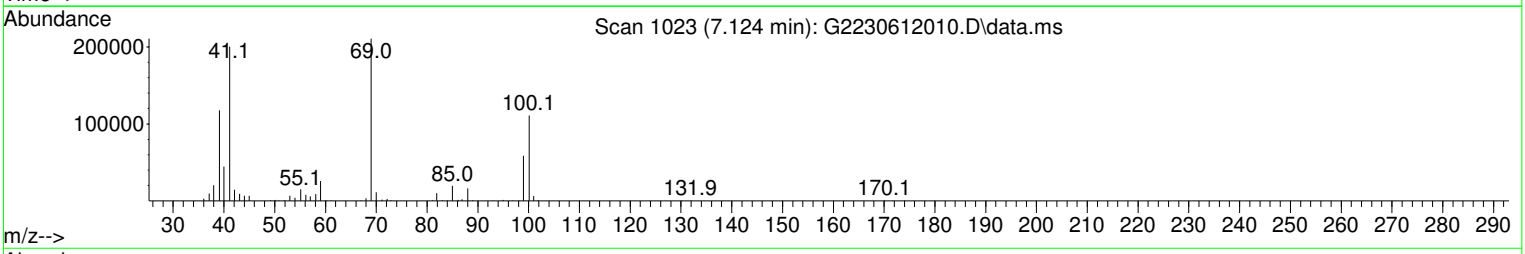
response 309287

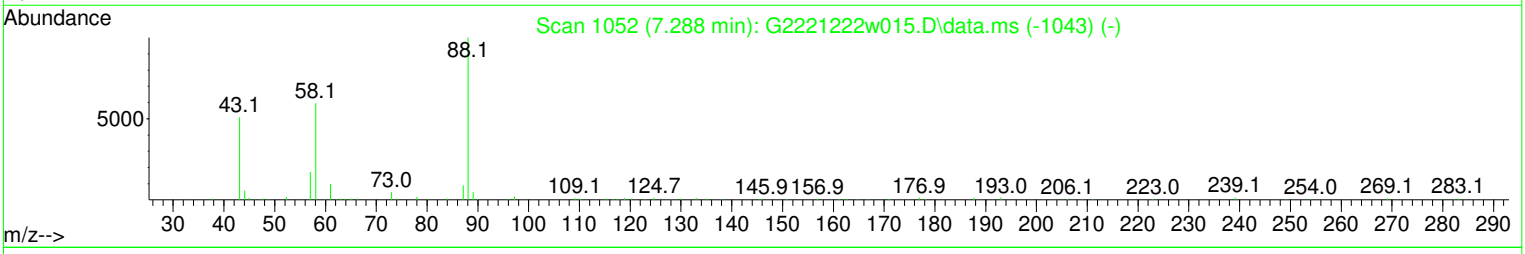
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	71.38
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612010.D
Acq On : 12 Jun 2023 12:21
Operator : PO1/MP3
Sample : BATCH-MSD1
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 12 17:16:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612010.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 133.78 ug/L m

response 397527

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	55.53
0.00	0.00	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0409-BLK1	File ID:	G2230613019.D
		Prepared:	06/13/23 09:00	Analyzed:	06/13/23 16:16
		Preparation:	5030_W	Dilution:	1

Batch: B3F0409 Sequence: S3F0236 Calibration: EE30097 Instrument: G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		0.0650	0.200	0.500	U
71-55-6	1,1,1-Trichloroethane		0.0877	0.200	0.500	U
79-34-5	1,1,2,2-Tetrachloroethane		0.0621	0.200	0.500	U
79-00-5	1,1,2-Trichloroethane		0.0832	0.200	0.500	U
75-34-3	1,1-Dichloroethane		0.0669	0.200	0.500	U
75-35-4	1,1-Dichloroethene		0.0954	0.200	0.500	U
563-58-6	1,1-Dichloropropene		0.0699	0.200	0.500	U
87-61-6	1,2,3-Trichlorobenzene		0.102	0.200	0.500	U
96-18-4	1,2,3-Trichloropropane		0.0913	0.200	0.500	U
120-82-1	1,2,4-Trichlorobenzene		0.102	0.300	0.600	U
95-63-6	1,2,4-Trimethylbenzene		0.0661	0.200	0.500	U
96-12-8	1,2-Dibromo-3-chloropropane		0.130	0.500	1.00	U
106-93-4	1,2-Dibromoethane		0.0531	0.200	0.500	U
95-50-1	1,2-Dichlorobenzene		0.0630	0.200	0.500	U
107-06-2	1,2-Dichloroethane		0.106	0.300	0.600	U
78-87-5	1,2-Dichloropropane		0.102	0.300	0.600	U
108-67-8	1,3,5-Trimethylbenzene		0.0500	0.200	0.500	U
541-73-1	1,3-Dichlorobenzene		0.0724	0.200	0.500	U
142-28-9	1,3-Dichloropropane		0.0680	0.200	0.500	U
106-46-7	1,4-Dichlorobenzene		0.0920	0.200	0.500	U
594-20-7	2,2-Dichloropropane		0.0920	0.200	0.500	U
78-93-3	2-Butanone		0.330	0.700	1.75	U
95-49-8	2-Chlorotoluene		0.0733	0.200	0.500	U
591-78-6	2-Hexanone		0.0716	0.700	1.75	U
106-43-4	4-Chlorotoluene		0.0921	0.200	0.500	U
99-87-6	4-Isopropyltoluene		0.0700	0.200	0.500	U

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0409-BLK1	File ID:	G2230613019.D
		Prepared:	06/13/23 09:00	Analyzed:	06/13/23 16:16
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		0.135	0.700	1.75	U
67-64-1	Acetone		0.518	2.00	4.00	U
71-43-2	Benzene		0.0507	0.200	0.500	U
108-86-1	Bromobenzene		0.0848	0.200	0.500	U
74-97-5	Bromochloromethane		0.0669	0.200	0.500	U
75-27-4	Bromodichloromethane		0.0531	0.200	0.500	U
75-25-2	Bromoform		0.103	0.200	0.500	U
74-83-9	Bromomethane		0.160	0.500	1.00	U
75-15-0	Carbon disulfide		0.140	0.500	1.00	U
56-23-5	Carbon tetrachloride		0.0844	0.200	0.500	U
108-90-7	Chlorobenzene		0.0650	0.200	0.500	U
75-00-3	Chloroethane		0.155	0.200	0.500	U
67-66-3	Chloroform		0.101	0.300	0.600	U
74-87-3	Chloromethane		0.192	0.500	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.103	0.300	0.600	U
10061-01-5	cis-1,3-Dichloropropene		0.0587	0.200	0.500	U
124-48-1	Dibromochloromethane		0.0759	0.200	0.500	U
74-95-3	Dibromomethane		0.0817	0.200	0.500	U
75-71-8	Dichlorodifluoromethane		0.130	0.500	1.00	U
100-41-4	Ethylbenzene		0.0300	0.100	0.200	U
87-68-3	Hexachlorobutadiene		0.100	0.200	0.500	U
98-82-8	Isopropylbenzene		0.0549	0.200	0.500	U
179601-23-1	m,p-Xylene		0.0889	0.400	1.00	U
1634-04-4	Methyl tert-butyl ether		0.0530	0.200	0.500	U
75-09-2	Methylene chloride		0.224	0.500	1.00	U
104-51-8	n-Butylbenzene		0.130	0.500	1.00	U

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0409-BLK1	File ID:	G2230613019.D
		Prepared:	06/13/23 09:00	Analyzed:	06/13/23 16:16
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		0.0630	0.200	0.500	U
91-20-3	Naphthalene		0.0700	0.200	0.500	U
95-47-6	o-Xylene		0.0416	0.200	0.500	U
135-98-8	sec-Butylbenzene		0.0598	0.200	0.500	U
100-42-5	Styrene		0.0453	0.100	0.200	U
98-06-6	tert-Butylbenzene		0.0453	0.200	0.500	U
127-18-4	Tetrachloroethene		0.178	0.500	1.00	U
108-88-3	Toluene		0.0572	0.200	0.500	U
156-60-5	trans-1,2-Dichloroethene		0.0855	0.200	0.500	U
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	Trichloroethene		0.0781	0.200	0.500	U
75-69-4	Trichlorofluoromethane		0.0505	0.200	0.500	U
75-01-4	Vinyl chloride		0.129	0.500	1.00	U

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613019.D
Acq On : 13 Jun 2023 16:16
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 19 Sample Multiplier: 1

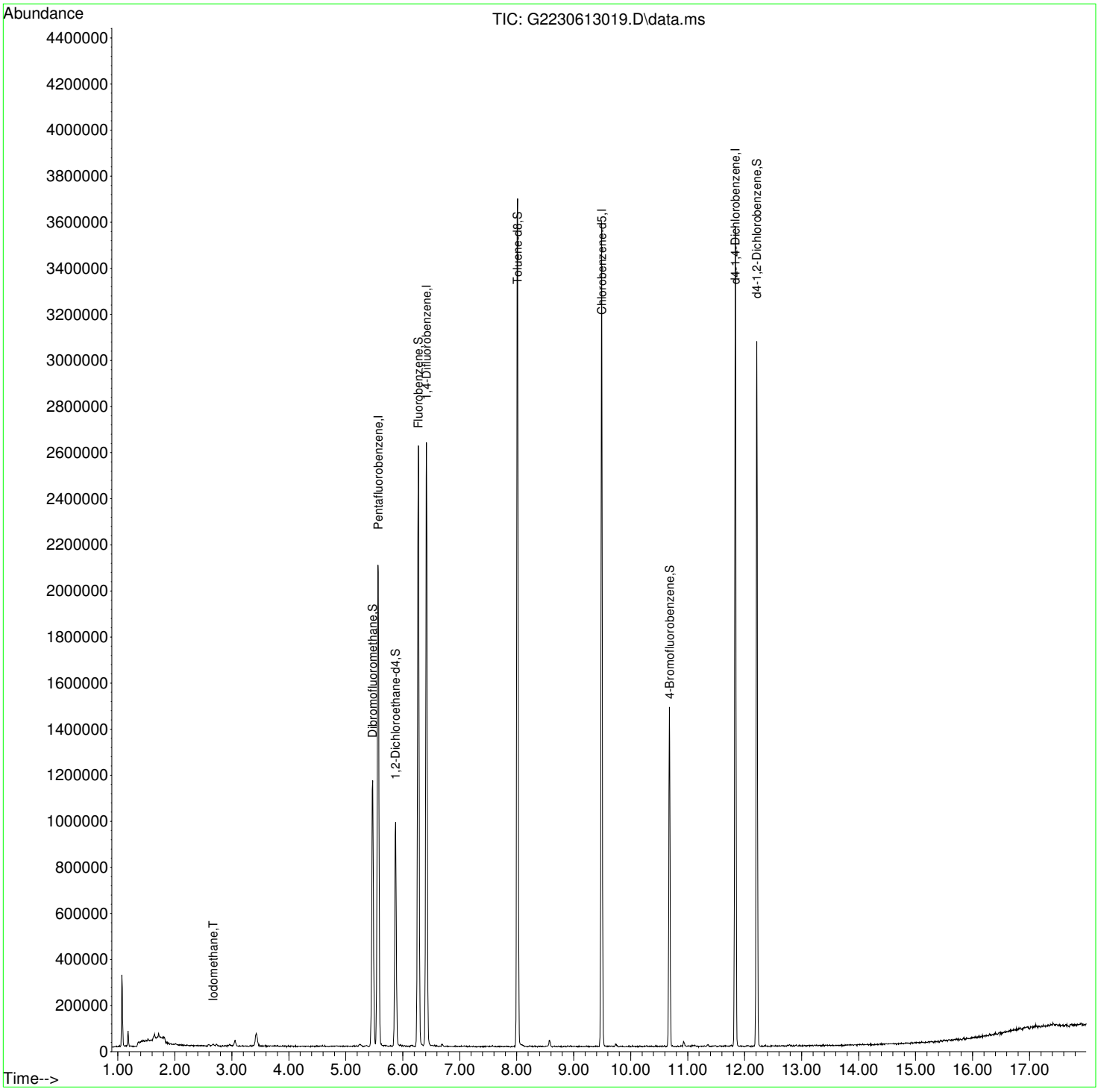
Quant Time: Jun 14 08:51:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.569	168	16955703	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.418	114	22912347	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.492	117	20582257	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9846488	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7261468	19.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%			
43) 1,2-Dichloroethane-d4	5.874	65	6656783	18.05	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.25%			
49) Fluorobenzene	6.275	96	25416065	19.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.35%			
64) Toluene-d8	8.014	98	24641701	18.99	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.95%			
81) 4-Bromofluorobenzene	10.683	174	4498528	9.68	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.80%			
97) d4-1,2-Dichlorobenzene	12.216	152	8689734	20.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.60%			
Target Compounds						Qvalue
13) Iodomethane	2.673	142	80862	0.20	ug/L #	41
18) Methylene chloride	3.053	49	128878	Below Cal		81
21) Methyl tert-butyl ether	3.430	73	740434	Below Cal		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613019.D
Acq On : 13 Jun 2023 16:16
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 14 08:51:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613019.D
Acq On : 13 Jun 2023 16:16
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 19 Sample Multiplier: 1

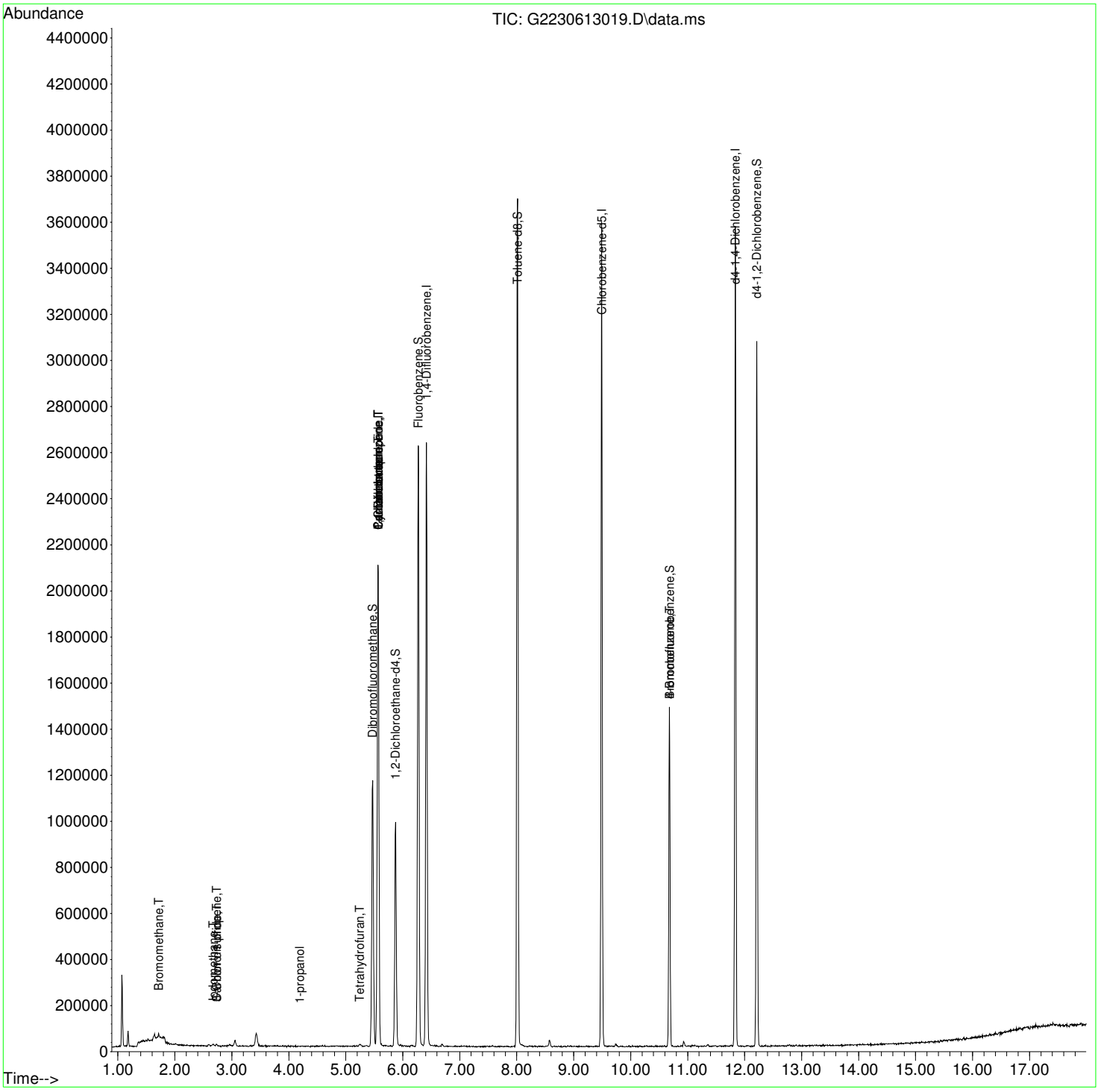
Quant Time: Jun 14 08:51:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

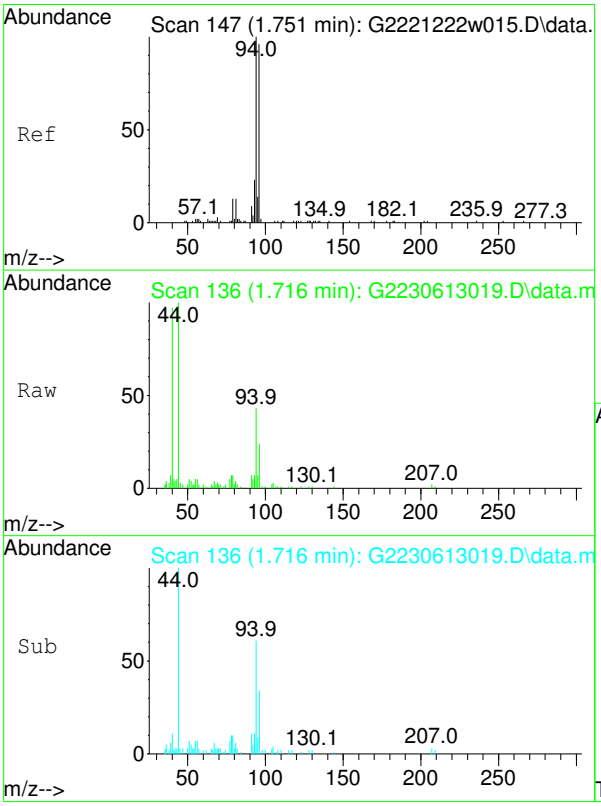
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.569	168	16955703	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.418	114	22912347	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.492	117	20582257	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9846488	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7261468	19.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%			
43) 1,2-Dichloroethane-d4	5.874	65	6656783	18.05	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.25%			
49) Fluorobenzene	6.275	96	25416065	19.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.35%			
64) Toluene-d8	8.014	98	24641701	18.99	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.95%			
81) 4-Bromofluorobenzene	10.683	174	4498528	9.68	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.80%			
97) d4-1,2-Dichlorobenzene	12.216	152	8689734	20.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.60%			
Target Compounds						Qvalue
5) Bromomethane	1.719	94	98496	0.19	ug/L #	88
8) Ethyl ether	2.536	59	748	Below Cal	#	13
12) Acetone	2.601	43	64414	Below Cal	#	45
13) Iodomethane	2.673	142	80862	0.20	ug/L #	41
14) Carbon disulfide	2.733	76	113340	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.733	76	113345	0.59	ug/L #	53
18) Methylene chloride	3.053	49	128878	Below Cal		81
21) Methyl tert-butyl ether	3.430	73	740434	Below Cal		93
26) 1-propanol	4.194	59	665	0.38	ug/L #	100
36) Tetrahydrofuran	5.248	42	57638	0.10	ug/L #	59
40) Cyclohexane	5.569	84	376899	0.83	ug/L #	36
41) 1-Chlorobutane	5.569	56	231343	0.44	ug/L #	1
42) 1,1-Dichloropropene	5.567	75	859702	2.16	ug/L #	35
47) Carbon tetrachloride	5.568	117	1335933	3.23	ug/L #	16
60) 4-Methyl-2-pentanone	8.016	43	80157	Below Cal	#	1
74) Ethylbenzene	9.496	91	45306	Below Cal	#	44
82) Bromobenzene	10.683	77	32488	0.06	ug/L #	1
99) n-Butylbenzene	12.217	91	39667	Below Cal	#	53

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613019.D
Acq On : 13 Jun 2023 16:16
Operator : PO1/MP3
Sample : BATCH-BLK1
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 14 08:51:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

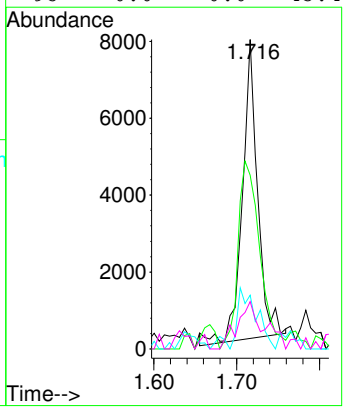


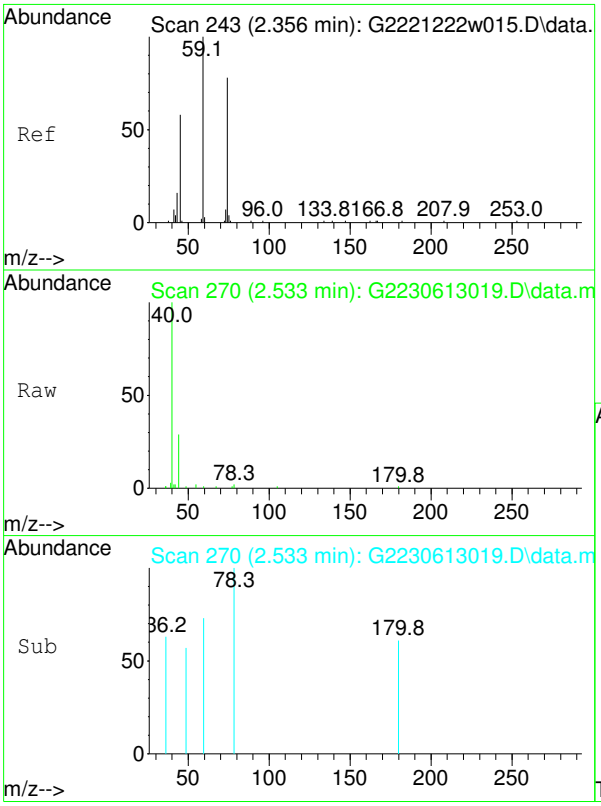


#5
Bromomethane
Concen: 0.19 ug/L
RT: 1.719 min Scan# 136
Delta R.T. 0.005 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 94 Resp: 98496

Ion	Ratio	Lower	Upper
94	100		
96	90.4	65.6	125.6
93	31.7	0.0	49.5
95	0.0	0.0	43.4

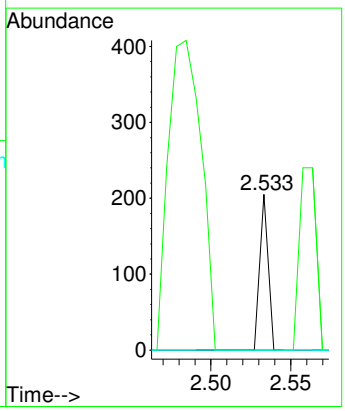


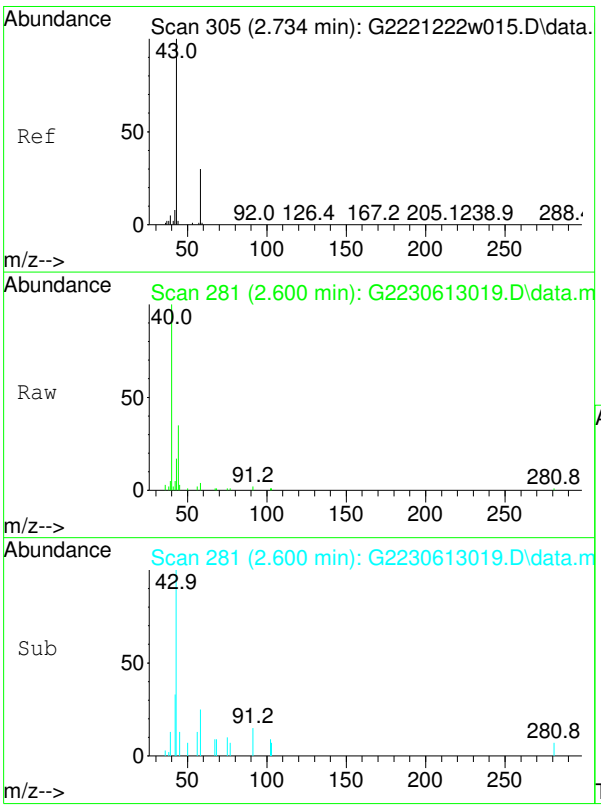


#8
Ethyl ether
Concen: Below Cal
RT: 2.536 min Scan# 270
Delta R.T. 0.218 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 59 Resp: 748

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

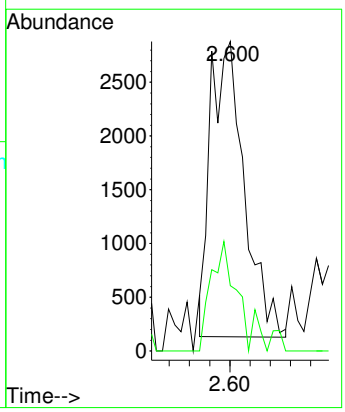


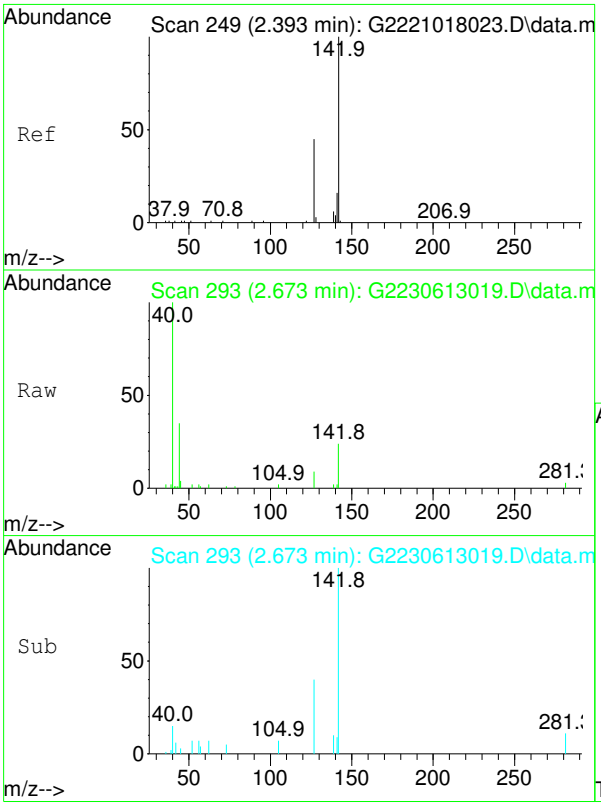


#12
Acetone
Concen: Below Cal
RT: 2.601 min Scan# 281
Delta R.T. -0.007 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 43 Resp: 64414

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

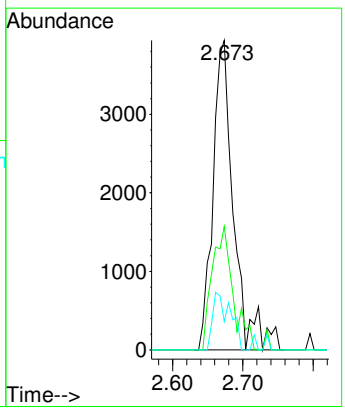


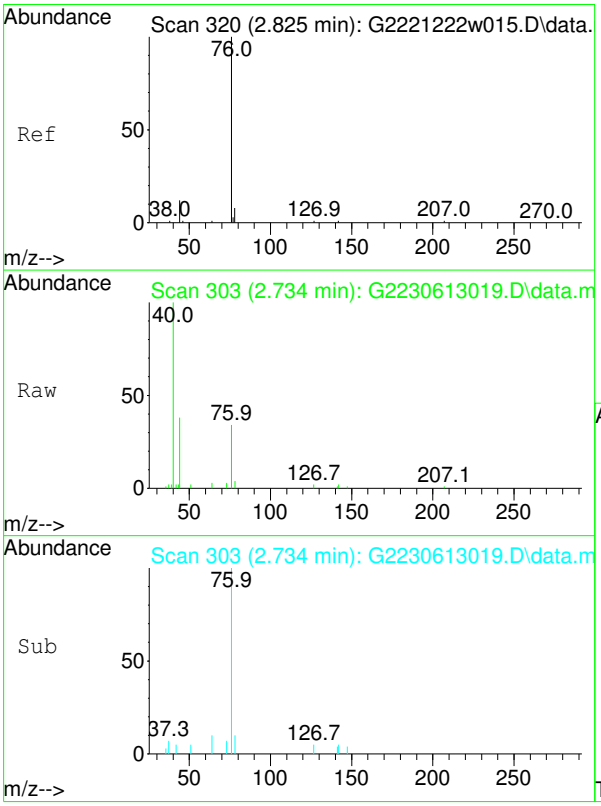


#13
Iodomethane
Concen: 0.20 ug/L
RT: 2.673 min Scan# 293
Delta R.T. -0.003 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion:142 Resp: 80862

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

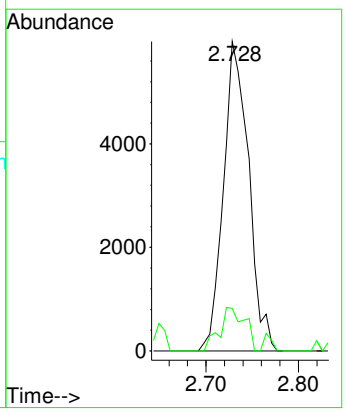


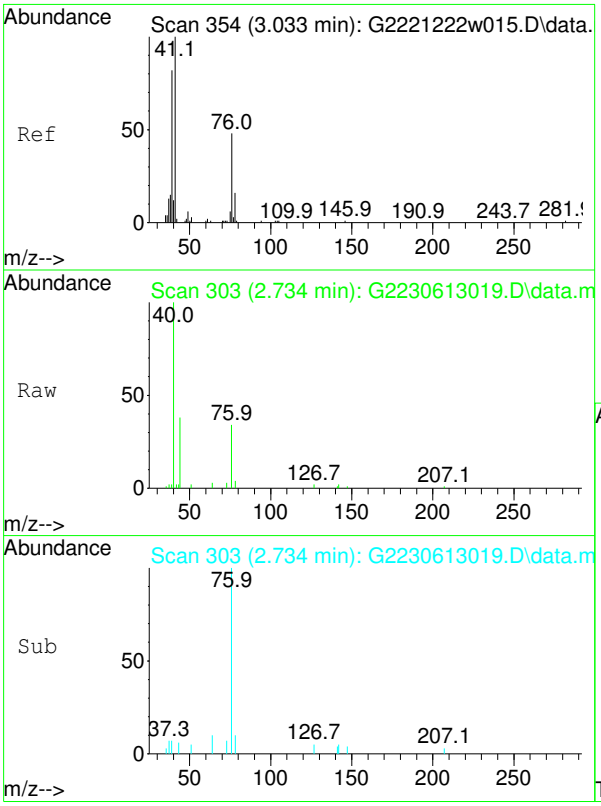


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.733 min Scan# 303
Delta R.T. -0.006 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 76 Resp: 113340

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

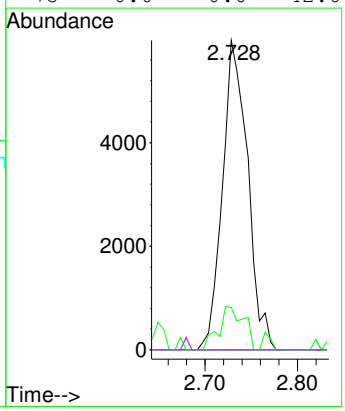


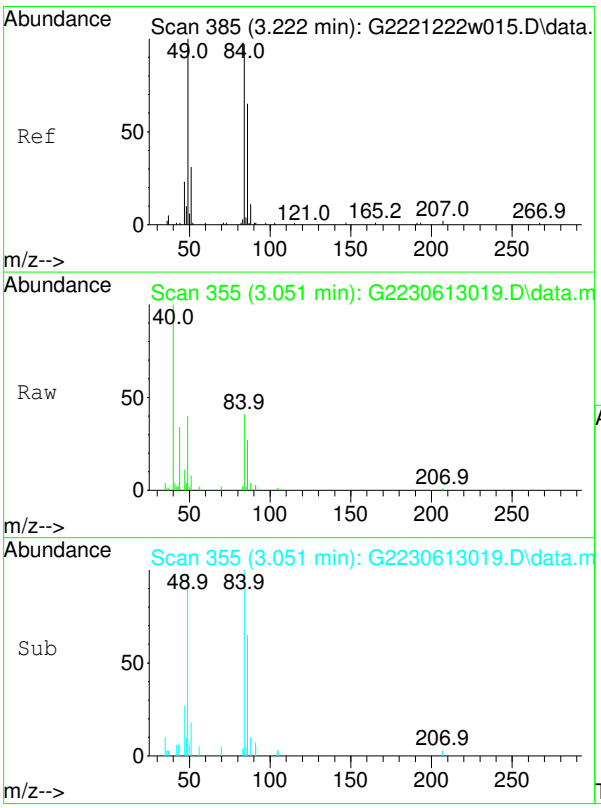


#17
3-Chloro-1-propene
Concen: 0.59 ug/L
RT: 2.733 min Scan# 303
Delta R.T. -0.187 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 76 Resp: 113345

Ion	Ratio	Lower	Upper
76	100		
78	0.0	2.4	62.4#
49	0.0	0.0	43.0
75	0.0	0.0	42.6

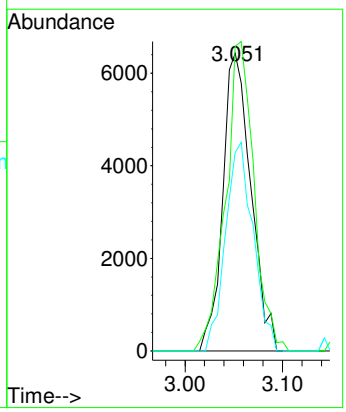


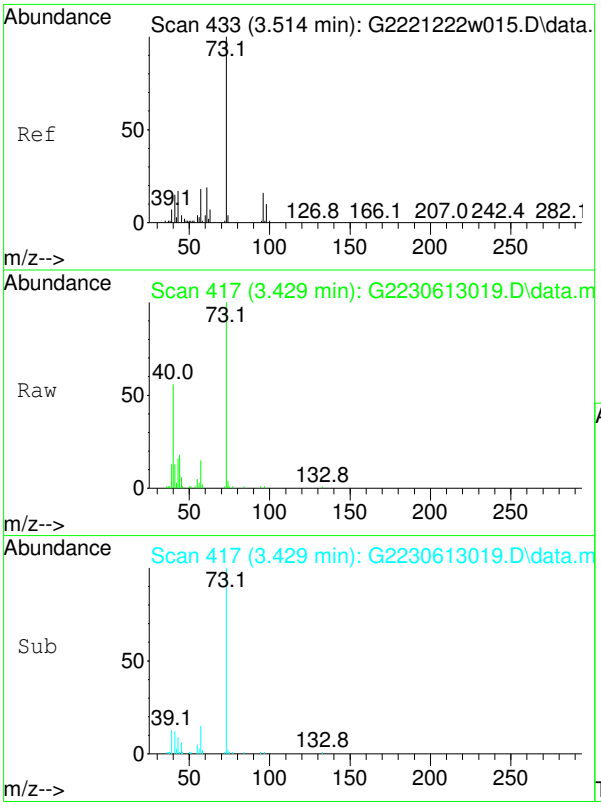


#18
Methylene chloride
Concen: Below Cal
RT: 3.053 min Scan# 355
Delta R.T. -0.009 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 49 Resp: 128878

Ion	Ratio	Lower	Upper
49	100		
84	104.9	57.9	117.9
86	68.7	24.9	84.9

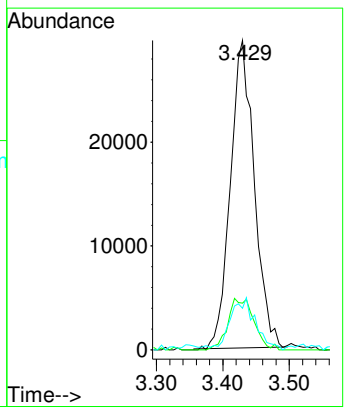


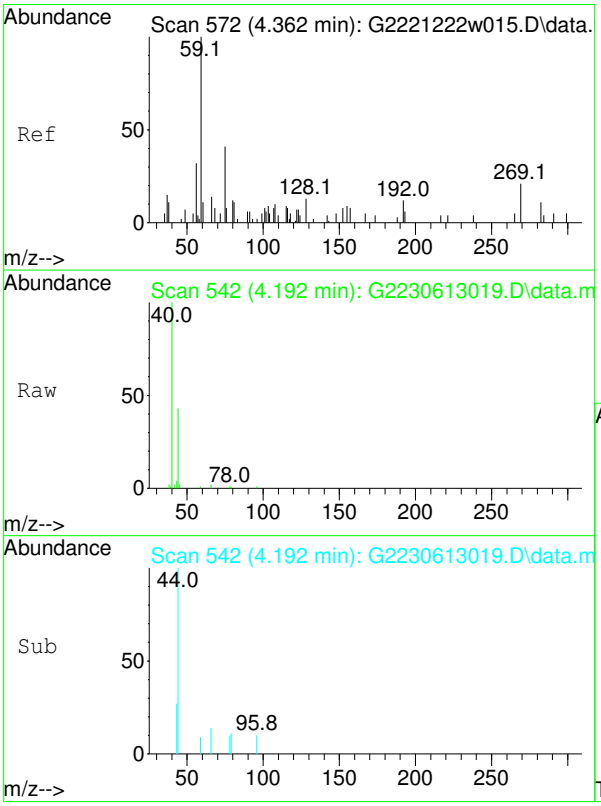


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.430 min Scan# 417
Delta R.T. -0.016 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 73 Resp: 740434

Ion	Ratio	Lower	Upper
73	100		
57	17.8	0.0	51.7
41	17.7	0.0	50.6

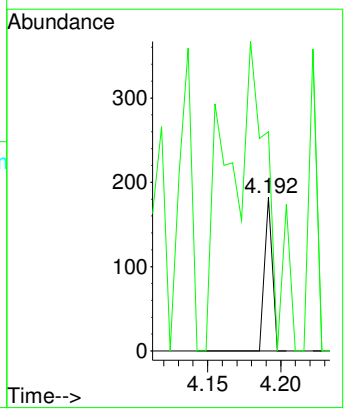


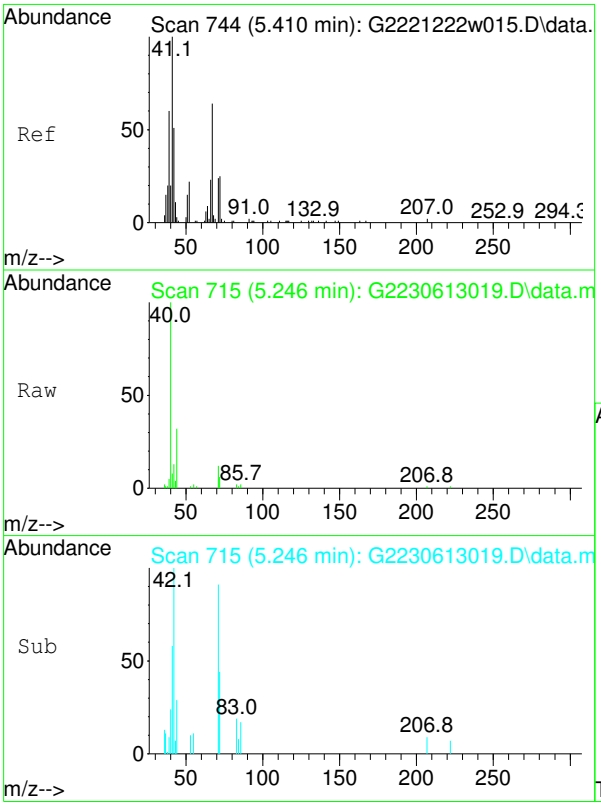


#26
1-propanol
Concen: 0.38 ug/L
RT: 4.194 min Scan# 542
Delta R.T. -0.095 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 59 Resp: 665

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

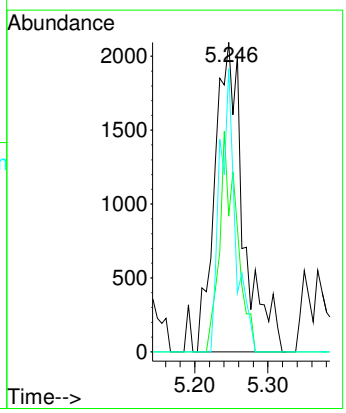


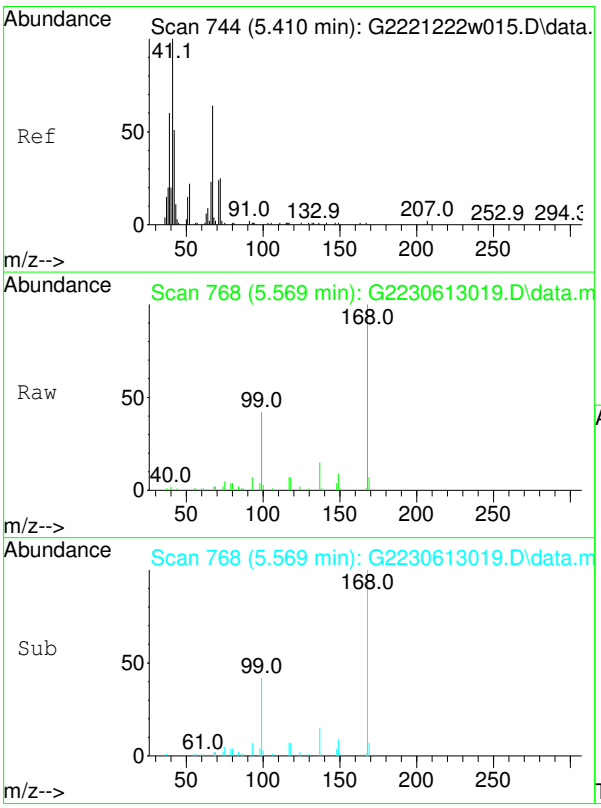


#36
Tetrahydrofuran
Concen: 0.10 ug/L
RT: 5.248 min Scan# 715
Delta R.T. -0.013 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 42 Resp: 57638

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	49.1	14.7	74.7

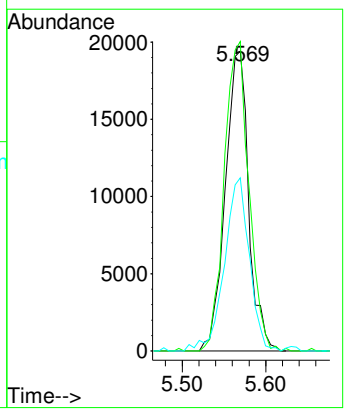


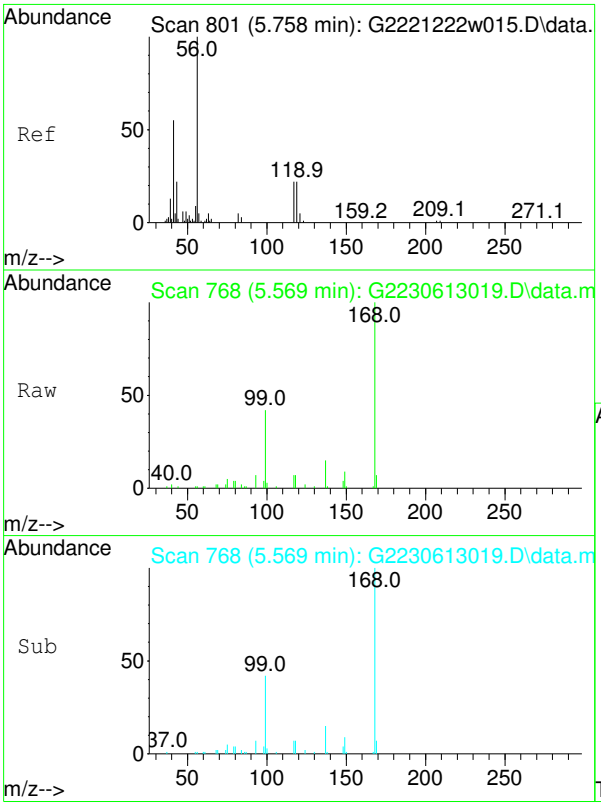


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 84 Resp: 376899

Ion	Ratio	Lower	Upper
84	100		
69	108.7	6.8	66.8#
56	61.4	79.1	139.1#

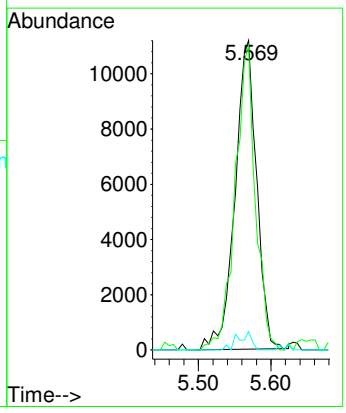


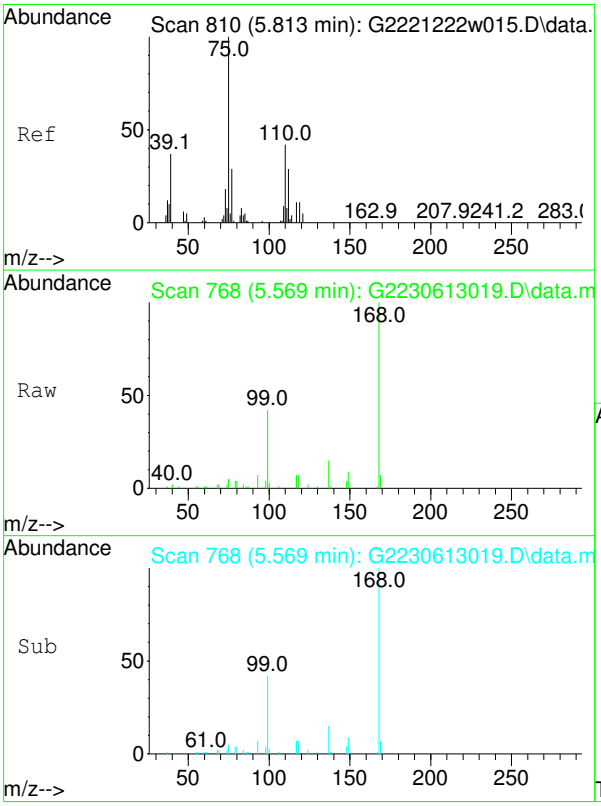


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 56 Resp: 231343

Ion	Ratio	Lower	Upper
56	100		
55	93.2	0.0	41.0#
57	0.0	0.0	35.7

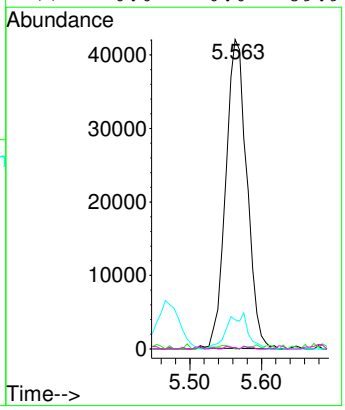


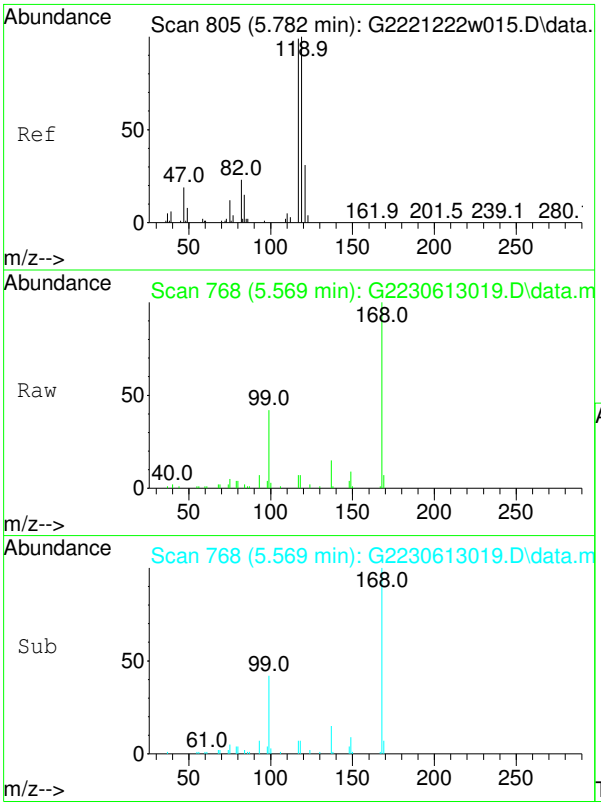


#42
1,1-Dichloropropene
Concen: 2.16 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.122 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 75 Resp: 859702

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	5.8	9.1	69.1#
77	0.0	0.0	59.9

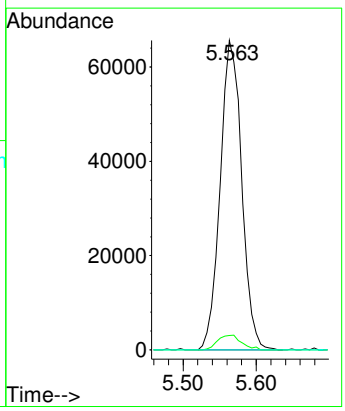


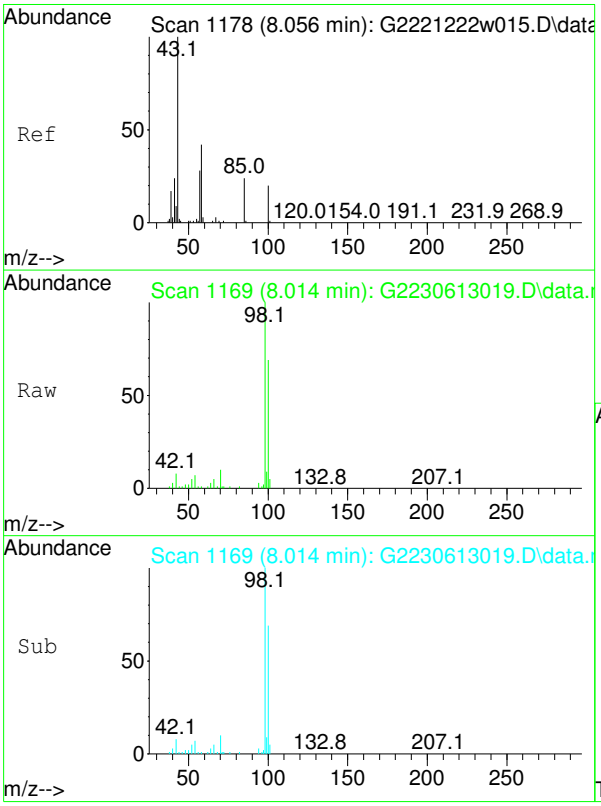


#47
Carbon tetrachloride
Concen: 3.23 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.112 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion:117 Resp: 1335933

Ion	Ratio	Lower	Upper
117	100		
119	5.3	66.4	126.4#
121	0.0	0.4	60.4#

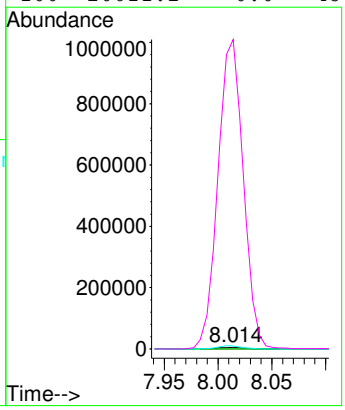


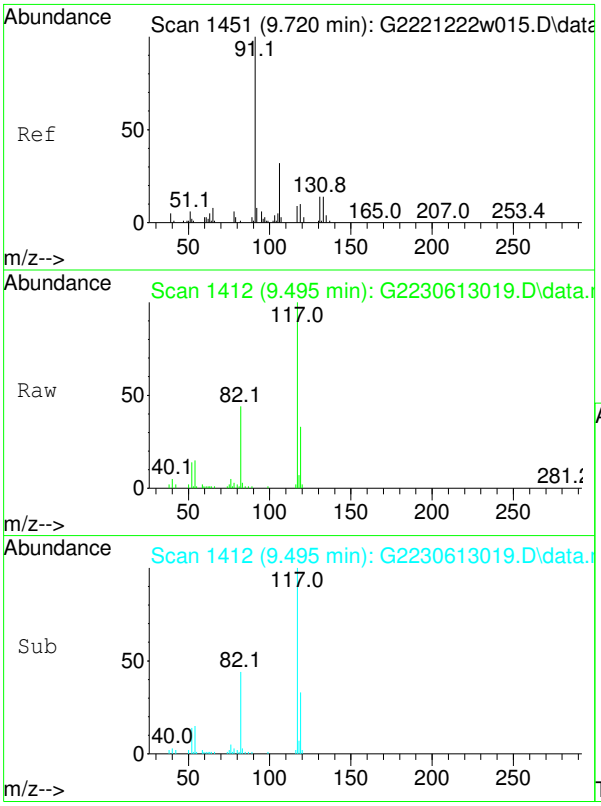


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 43 Resp: 80157

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	201.0	37.0	37.0#
100	20611.2	0.0	45.2#

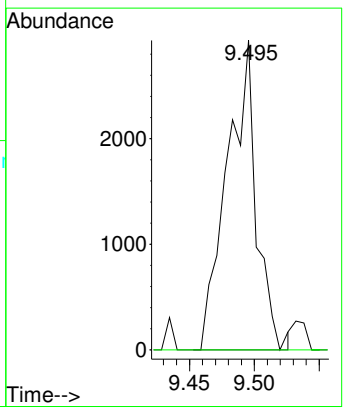


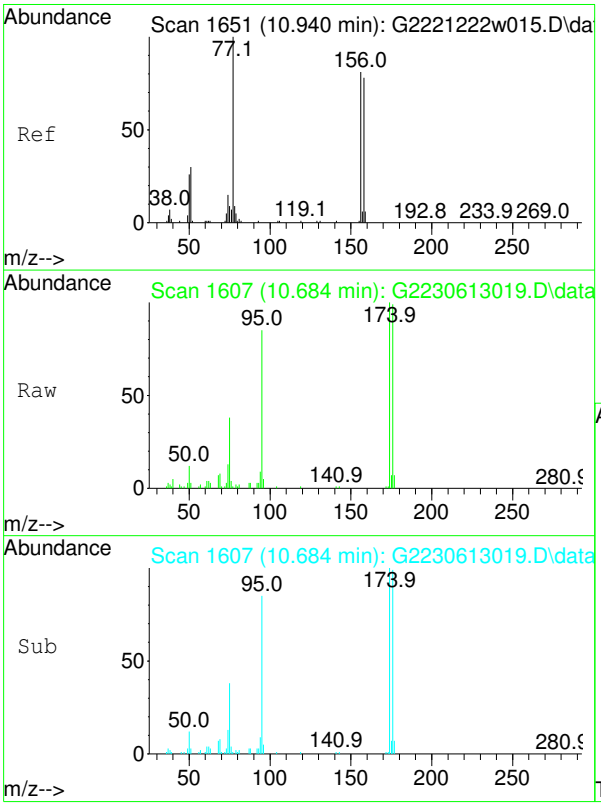


#74
Ethylbenzene
Concen: Below Cal
RT: 9.496 min Scan# 1412
Delta R.T. -0.147 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 91 Resp: 45306

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

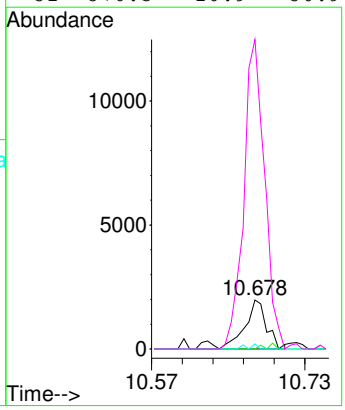


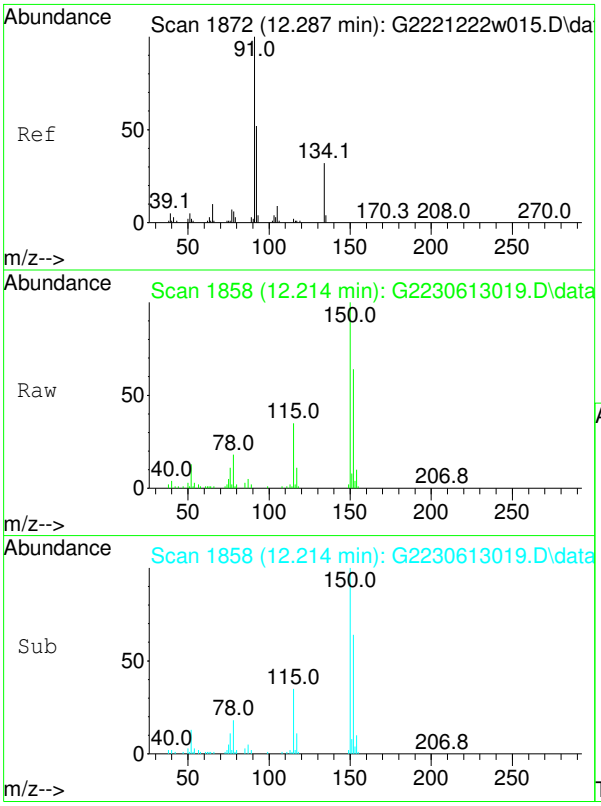


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.683 min Scan# 1607
Delta R.T. -0.145 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 77 Resp: 32488

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	570.3	10.9	50.9#

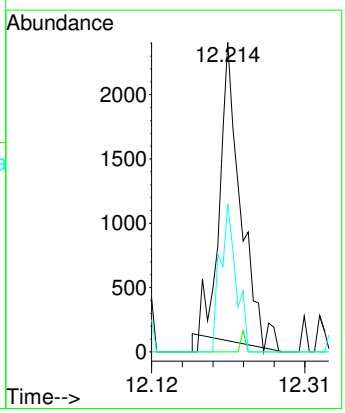




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.217 min Scan# 1858
Delta R.T. -0.014 min
Lab File: G2230613019.D
Acq: 13 Jun 2023 16:16

Tgt Ion: 91 Resp: 39667

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6



1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0409-BS1	File ID:	G2230613016.D
		Prepared:	06/13/23 09:00	Analyzed:	06/13/23 14:53
		Preparation:	5030_W	Dilution:	1

Batch: B3F0409 Sequence: S3F0236 Calibration: EE30097 Instrument: G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane	15.2	0.0650	0.200	0.500	
71-55-6	1,1,1-Trichloroethane	14.8	0.0877	0.200	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	13.5	0.0621	0.200	0.500	
79-00-5	1,1,2-Trichloroethane	14.9	0.0832	0.200	0.500	
75-34-3	1,1-Dichloroethane	13.9	0.0669	0.200	0.500	
75-35-4	1,1-Dichloroethene	13.4	0.0954	0.200	0.500	
563-58-6	1,1-Dichloropropene	14.6	0.0699	0.200	0.500	
87-61-6	1,2,3-Trichlorobenzene	14.3	0.102	0.200	0.500	
96-18-4	1,2,3-Trichloropropane	14.1	0.0913	0.200	0.500	
120-82-1	1,2,4-Trichlorobenzene	15.1	0.102	0.300	0.600	
95-63-6	1,2,4-Trimethylbenzene	13.6	0.0661	0.200	0.500	
96-12-8	1,2-Dibromo-3-chloropropane	15.6	0.130	0.500	1.00	
106-93-4	1,2-Dibromoethane	14.6	0.0531	0.200	0.500	
95-50-1	1,2-Dichlorobenzene	15.5	0.0630	0.200	0.500	
107-06-2	1,2-Dichloroethane	14.4	0.106	0.300	0.600	
78-87-5	1,2-Dichloropropane	14.4	0.102	0.300	0.600	
108-67-8	1,3,5-Trimethylbenzene	13.6	0.0500	0.200	0.500	
541-73-1	1,3-Dichlorobenzene	14.8	0.0724	0.200	0.500	
142-28-9	1,3-Dichloropropane	14.5	0.0680	0.200	0.500	
106-46-7	1,4-Dichlorobenzene	15.4	0.0920	0.200	0.500	
594-20-7	2,2-Dichloropropane	13.5	0.0920	0.200	0.500	
78-93-3	2-Butanone	53.0	0.330	0.700	1.75	
95-49-8	2-Chlorotoluene	13.5	0.0733	0.200	0.500	
591-78-6	2-Hexanone	48.0	0.0716	0.700	1.75	
106-43-4	4-Chlorotoluene	13.8	0.0921	0.200	0.500	
99-87-6	4-Isopropyltoluene	14.2	0.0700	0.200	0.500	

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0409-BS1	File ID:	G2230613016.D
		Prepared:	06/13/23 09:00	Analyzed:	06/13/23 14:53
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone	46.7	0.135	0.700	1.75	
67-64-1	Acetone	55.3	0.518	2.00	4.00	
71-43-2	Benzene	14.2	0.0507	0.200	0.500	
108-86-1	Bromobenzene	13.2	0.0848	0.200	0.500	
74-97-5	Bromochloromethane	14.6	0.0669	0.200	0.500	
75-27-4	Bromodichloromethane	15.8	0.0531	0.200	0.500	
75-25-2	Bromoform	15.1	0.103	0.200	0.500	
74-83-9	Bromomethane	16.9	0.160	0.500	1.00	
75-15-0	Carbon disulfide	14.0	0.140	0.500	1.00	
56-23-5	Carbon tetrachloride	15.8	0.0844	0.200	0.500	
108-90-7	Chlorobenzene	15.0	0.0650	0.200	0.500	
75-00-3	Chloroethane	14.5	0.155	0.200	0.500	
67-66-3	Chloroform	14.2	0.101	0.300	0.600	
74-87-3	Chloromethane	13.6	0.192	0.500	1.00	
156-59-2	cis-1,2-Dichloroethene	13.8	0.103	0.300	0.600	
10061-01-5	cis-1,3-Dichloropropene	14.0	0.0587	0.200	0.500	
124-48-1	Dibromochloromethane	15.8	0.0759	0.200	0.500	
74-95-3	Dibromomethane	16.1	0.0817	0.200	0.500	
75-71-8	Dichlorodifluoromethane	13.8	0.130	0.500	1.00	
100-41-4	Ethylbenzene	15.2	0.0300	0.100	0.200	
87-68-3	Hexachlorobutadiene	17.0	0.100	0.200	0.500	
98-82-8	Isopropylbenzene	13.5	0.0549	0.200	0.500	
179601-23-1	m,p-Xylene	29.1	0.0889	0.400	1.00	
1634-04-4	Methyl tert-butyl ether	13.7	0.0530	0.200	0.500	
75-09-2	Methylene chloride	13.9	0.224	0.500	1.00	
104-51-8	n-Butylbenzene	14.2	0.130	0.500	1.00	

1 - FORM I
ANALYSIS DATA SHEET

LCS

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0409-BS1	File ID:	G2230613016.D
		Prepared:	06/13/23 09:00	Analyzed:	06/13/23 14:53
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene	13.8	0.0630	0.200	0.500	
91-20-3	Naphthalene	14.0	0.0700	0.200	0.500	
95-47-6	o-Xylene	13.2	0.0416	0.200	0.500	
135-98-8	sec-Butylbenzene	13.9	0.0598	0.200	0.500	
100-42-5	Styrene	14.4	0.0453	0.100	0.200	
98-06-6	tert-Butylbenzene	13.6	0.0453	0.200	0.500	
127-18-4	Tetrachloroethene	20.2	0.178	0.500	1.00	S
108-88-3	Toluene	15.4	0.0572	0.200	0.500	
156-60-5	trans-1,2-Dichloroethene	13.1	0.0855	0.200	0.500	
10061-02-6	trans-1,3-Dichloropropene	13.8	0.0587	0.200	0.500	
79-01-6	Trichloroethene	15.9	0.0781	0.200	0.500	
75-69-4	Trichlorofluoromethane	16.0	0.0505	0.200	0.500	
75-01-4	Vinyl chloride	13.4	0.129	0.500	1.00	

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613016.D
Acq On : 13 Jun 2023 14:53
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 14 08:47:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	17306451	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	23542010	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	20881744	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10174918	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7463057	19.59	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%			
43) 1,2-Dichloroethane-d4	5.877	65	6709995	17.83	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.15%			
49) Fluorobenzene	6.277	96	26039671	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
64) Toluene-d8	8.016	98	25657546	19.49	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%			
81) 4-Bromofluorobenzene	10.684	174	4733138	9.85	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.50%			
97) d4-1,2-Dichlorobenzene	12.216	152	8682707	19.84	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.215	85	4875702	13.82	ug/L	96
3) Chloromethane	1.355	50	3890343	13.64	ug/L	100
4) Vinyl chloride	1.447	62	4550036	13.38	ug/L	98
5) Bromomethane	1.718	94	3706461	16.93	ug/L	98
6) Chloroethane	1.806	64	3001104	14.49	ug/L	97
7) Trichlorofluoromethane	2.032	101	8335685	15.99	ug/L	97
8) Ethyl ether	2.313	59	3028815	13.19	ug/L	85
9) Acrolein	2.435	56	1811627	39.12	ug/L	94
10) 1,1-Dichloroethene	2.524	61	4963833	13.40	ug/L	85
11) 1,1,2-Trichloro-1,2,2-...	2.535	101	4126165	14.56	ug/L	95
12) Acetone	2.600	43	4387853	55.31	ug/L	92
13) Iodomethane	2.676	142	5460068	13.55	ug/L	96
14) Carbon disulfide	2.740	76	10589331	13.95	ug/L	100
15) Isopropanol	2.785	45	935684	67.37	ug/L	84
16) acetonitrile	2.918	41	4994182	30.85	ug/L	87
17) 3-Chloro-1-propene	2.919	76	2355503	13.50	ug/L	96
18) Methylene chloride	3.063	49	4384018	13.87	ug/L	75
19) Acrylonitrile	3.383	53	1688599	12.83	ug/L	97
20) trans-1,2-Dichloroethene	3.402	61	4900820	13.07	ug/L	86
21) Methyl tert-butyl ether	3.432	73	14110027	13.70	ug/L	92
22) Hexane	3.793	57	4026293	13.67	ug/L	93
23) 1,1-Dichloroethane	3.997	63	6687512	13.88	ug/L	95
24) Vinyl acetate	4.124	43	7076486	12.03	ug/L	90
25) 2-Chloro-1,3-butadiene	4.133	53	5092278	12.98	ug/L	83
27) 2,2-Dichloropropane	4.826	77	6481964	13.47	ug/L	92
28) cis-1,2-Dichloroethene	4.835	61	6000588	13.77	ug/L	86
29) 2-Butanone	4.902	72	2288726	52.95	ug/L	92
30) Propionitrile	4.974	54	560058	13.48	ug/L	93

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613016.D
Acq On : 13 Jun 2023 14:53
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 14 08:47:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.008	61	711148	13.67	ug/L		84
32) Methylacrylate	5.036	55	4208739	12.84	ug/L		93
33) 1-Bromopropane	5.075	41	2237190	12.64	ug/L		61
34) Bromochloromethane	5.148	130	3752228	14.60	ug/L		99
35) Methacrylonitrile	5.168	67	2172712	13.71	ug/L		91
36) Tetrahydrofuran	5.242	42	1154962	12.72	ug/L		80
37) Chloroform	5.275	83	8094847	14.24	ug/L		99
39) 1,1,1-Trichloroethane	5.478	97	7720977	14.78	ug/L		95
40) Cyclohexane	5.533	84	6695454	14.40	ug/L		80
41) 1-Chlorobutane	5.629	56	7178868	13.30	ug/L		98
42) 1,1-Dichloropropene	5.687	75	5734878	14.57	ug/L		91
44) 1,2-Dichloroethane	5.969	62	5783251	14.44	ug/L		98
47) Carbon tetrachloride	5.679	117	6694829	15.76	ug/L		99
48) Benzene	5.934	78	16789541	14.23	ug/L		100
50) Trichloroethene	6.695	95	4940883	15.90	ug/L		90
52) 1,2-Dichloropropane	6.943	63	3848105	14.43	ug/L		89
53) Dibromomethane	7.070	174	4520297	16.12	ug/L	#	91
54) Methyl methacrylate	7.124	69	3656189	13.28	ug/L		90
55) 1,4-dioxane	7.124	88	416478m	150.11	ug/L		
56) Bromodichloromethane	7.257	83	6540930	15.81	ug/L		99
57) 2-Nitropropane	7.520	43	1564553	13.15	ug/L		93
58) 2-Chloroethyl vinyl ether	7.611	63	2902730	12.71	ug/L		99
59) cis-1,3-Dichloropropene	7.743	75	7313087	14.03	ug/L		95
60) 4-Methyl-2-pentanone	7.934	43	14932360	46.67	ug/L	#	88
61) trans-1,3-Dichloropropene	8.332	75	6872876	13.79	ug/L		88
62) 1,1,2-Trichloroethane	8.516	97	4628986	14.88	ug/L		94
65) Toluene	8.085	91	19696715	15.36	ug/L		98
66) Ethylmethacrylate	8.454	69	6249489	13.54	ug/L		86
67) Tetrachloroethene	8.647	166	8149547	20.17	ug/L		95
68) 1,3-Dichloropropane	8.684	76	7102849	14.54	ug/L		86
69) 2-Hexanone	8.799	43	9986513	48.02	ug/L		87
70) Dibromochloromethane	8.910	129	6133494	15.83	ug/L		99
71) 1,2-Dibromoethane	9.016	107	5166995	14.58	ug/L		99
72) Chlorobenzene	9.522	112	13782398	15.04	ug/L		93
73) 1,1,1,2-Tetrachloroethane	9.612	131	5451746	15.20	ug/L		97
74) Ethylbenzene	9.641	91	21146223	15.18	ug/L		96
75) m,p-Xylene	9.762	91	32566979	29.13	ug/L		94
76) Styrene	10.174	104	14187630	14.41	ug/L		92
77) Bromoform	10.352	173	4916614	15.11	ug/L		97
79) o-Xylene	10.159	91	16590542	13.25	ug/L		95
80) Isopropylbenzene	10.534	105	19747769	13.51	ug/L		96
82) Bromobenzene	10.825	77	7293017	13.23	ug/L		80
83) 1,1,2,2-Tetrachloroethane	10.840	83	5973993	13.51	ug/L		98
84) 1,2,3-Trichloropropane	10.879	110	2160078	14.09	ug/L		97
85) trans-1,4-Dichloro-2-b...	10.899	53	1445302	12.19	ug/L		74
86) n-Propylbenzene	10.947	91	22409357	13.77	ug/L		95
87) 2-Chlorotoluene	11.025	91	13224552	13.52	ug/L		94
88) 4-Chlorotoluene	11.135	91	15322158	13.82	ug/L		93
89) 1,3,5-Trimethylbenzene	11.127	105	15480185	13.65	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613016.D
Acq On : 13 Jun 2023 14:53
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 14 08:47:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

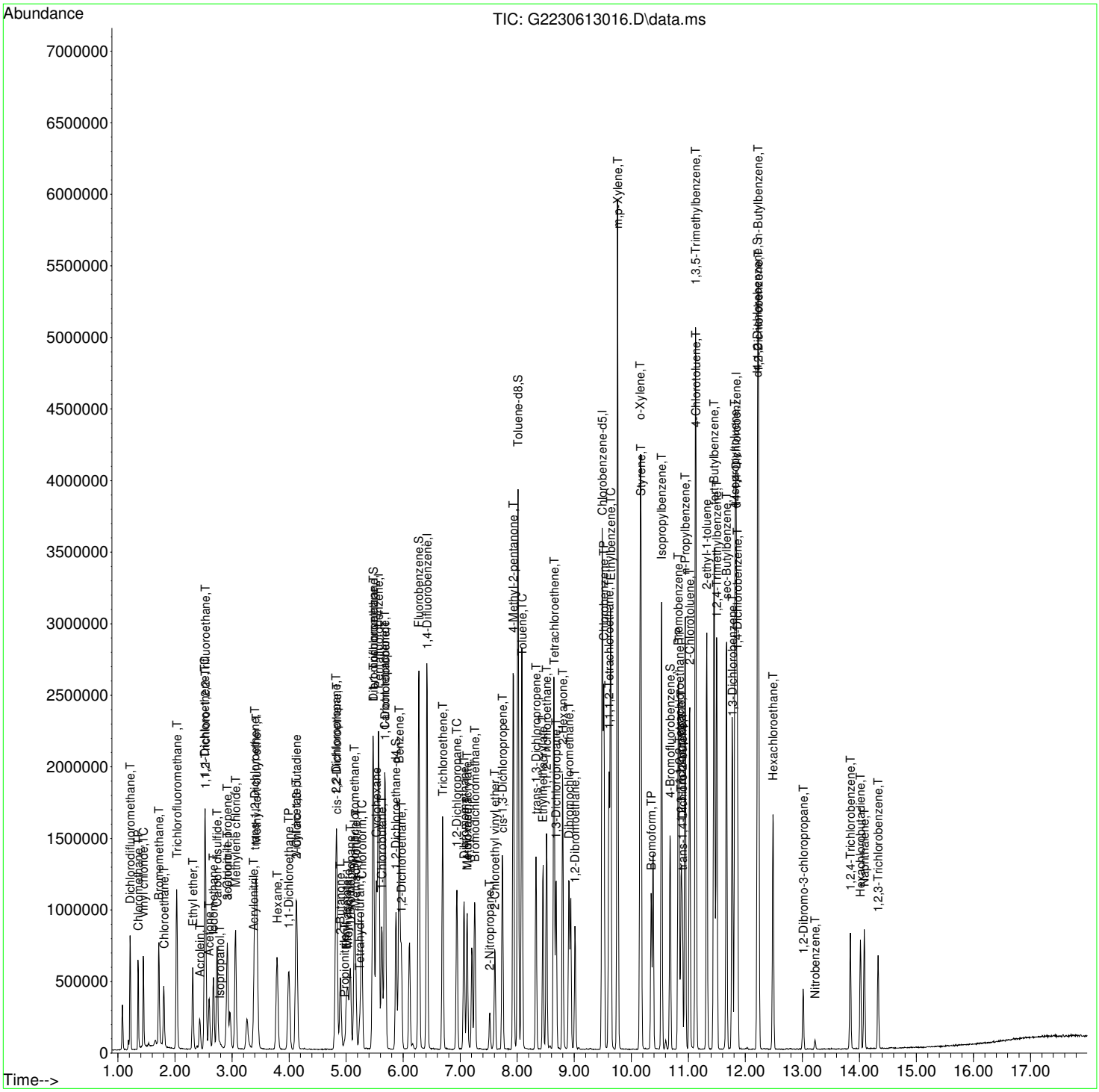
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.327	105	17866530	12.94	ug/L	98
91) tert-Butylbenzene	11.453	119	16488168	13.56	ug/L	90
92) 1,2,4-Trimethylbenzene	11.500	105	15477686	13.65	ug/L	92
93) sec-Butylbenzene	11.672	105	19308236	13.93	ug/L	96
94) 1,3-Dichlorobenzene	11.773	146	10002993	14.83	ug/L	97
95) 4-Isopropyltoluene	11.820	119	16327661	14.23	ug/L	98
96) 1,4-Dichlorobenzene	11.864	146	10124483	15.43	ug/L	97
98) 1,2-Dichlorobenzene	12.235	146	8998388	15.49	ug/L	97
99) n-Butylbenzene	12.229	91	11717604	14.18	ug/L	91
100) Hexachloroethane	12.488	201	3193320	15.14	ug/L	98
101) 1,2-Dibromo-3-chloropr...	13.017	157	1371607	15.62	ug/L	99
102) Nitrobenzene	13.224	77	267981	9.23	ug/L	92
103) 1,2,4-Trichlorobenzene	13.844	180	2762356	15.13	ug/L	97
104) Hexachlorobutadiene	14.022	225	1530368	17.03	ug/L	98
105) Naphthalene	14.089	128	6654662	14.01	ug/L	99
106) 1,2,3-Trichlorobenzene	14.332	180	2093618	14.27	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342332

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613016.D
Acq On : 13 Jun 2023 14:53
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 14 08:47:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



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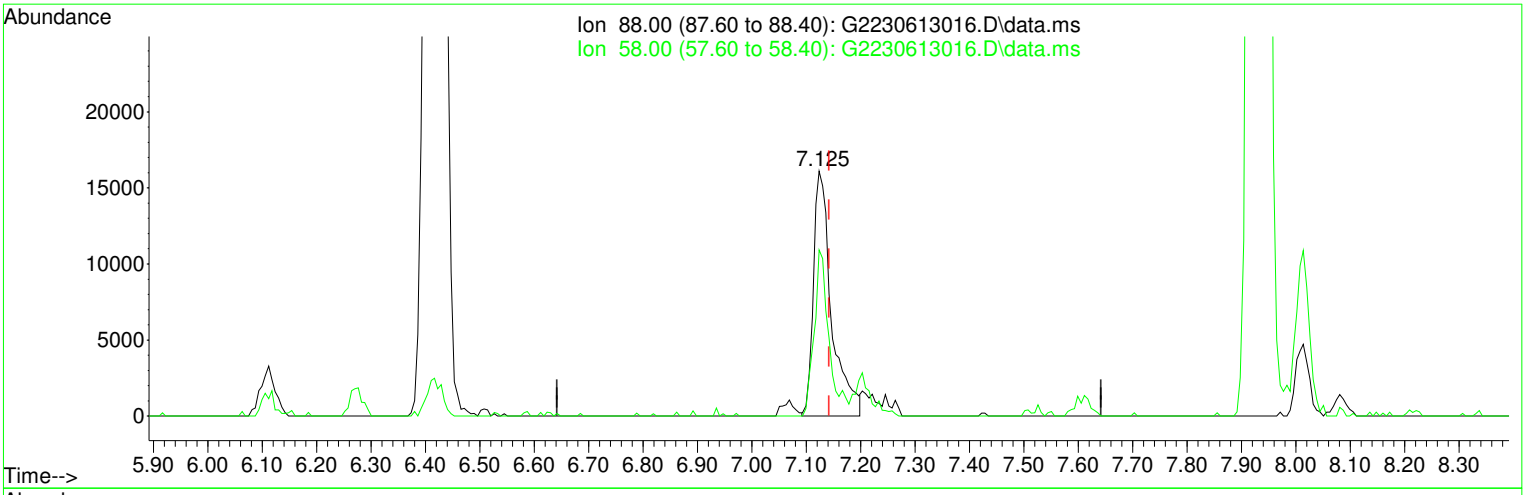
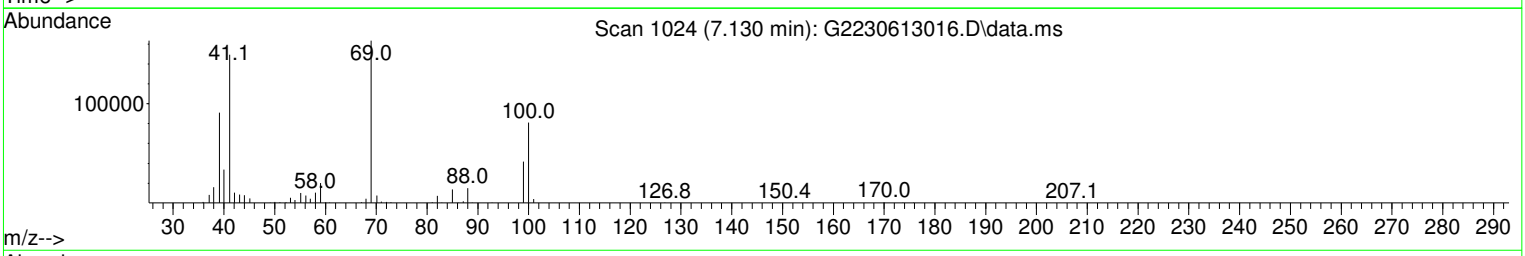
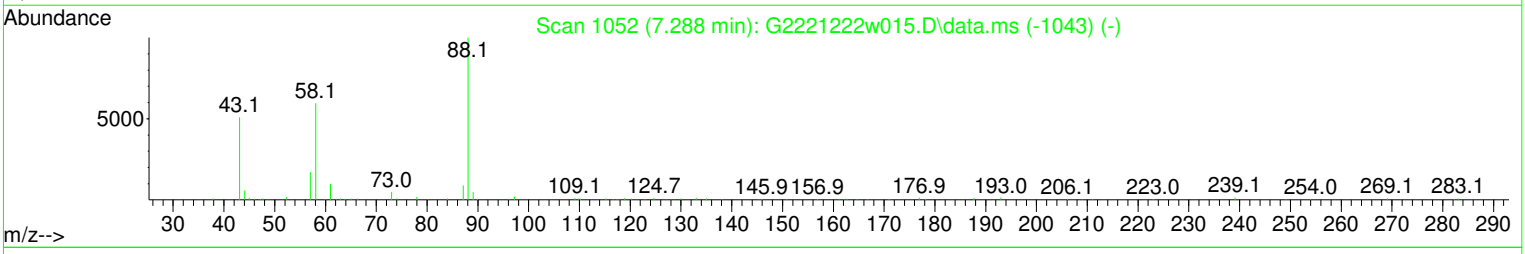
Data File : G2230613016.D
Acq On : 13 Jun 2023 14:53
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 14 08:47:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613016.D\data.ms

(55) 1,4-dioxane (T)

7.128min (-0.014) 133.10 ug/L

response 369284

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	55.84
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613016.D
Acq On : 13 Jun 2023 14:53
Operator : PO1/MP3
Sample : BATCH-BS1
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 14 08:47:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
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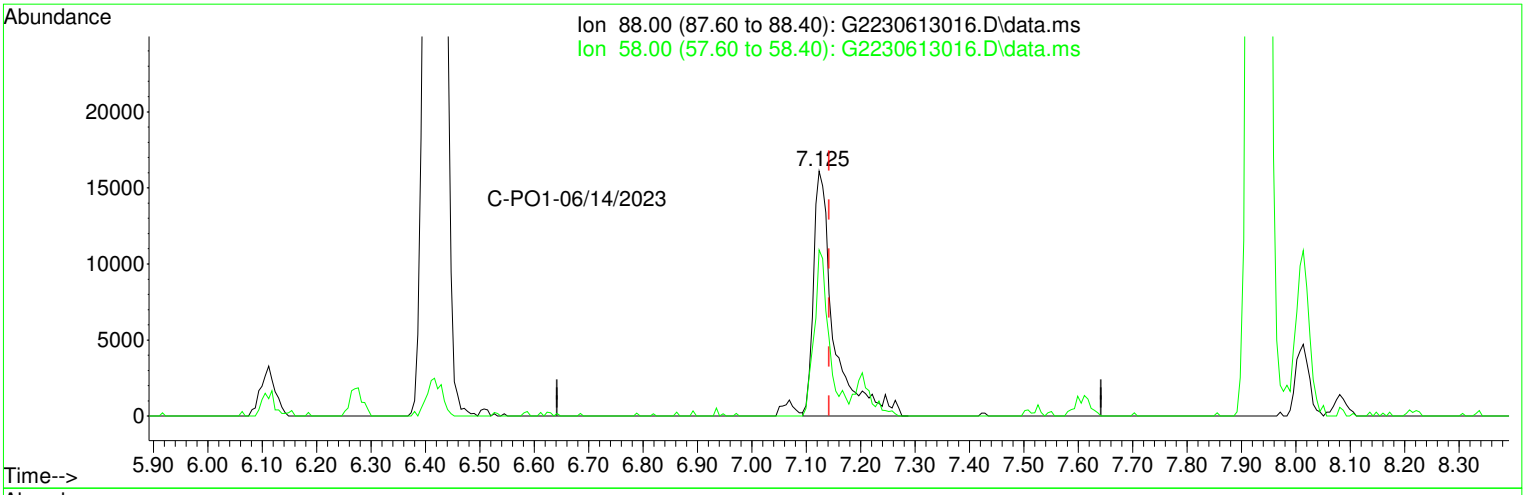
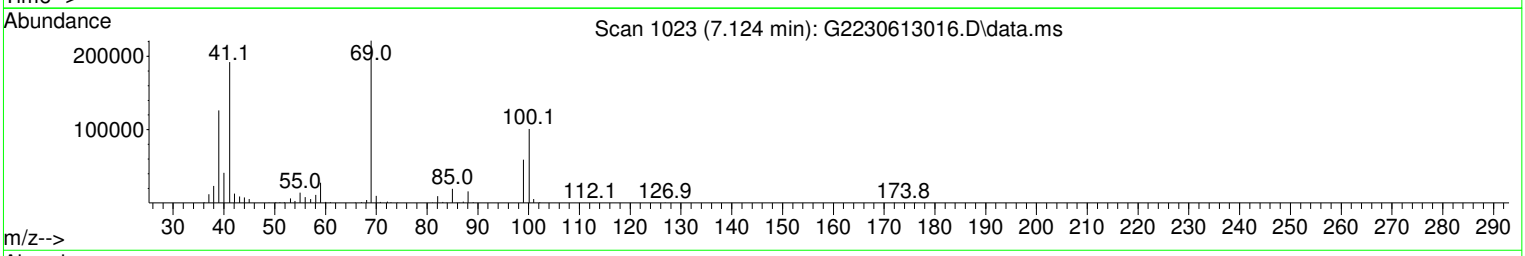
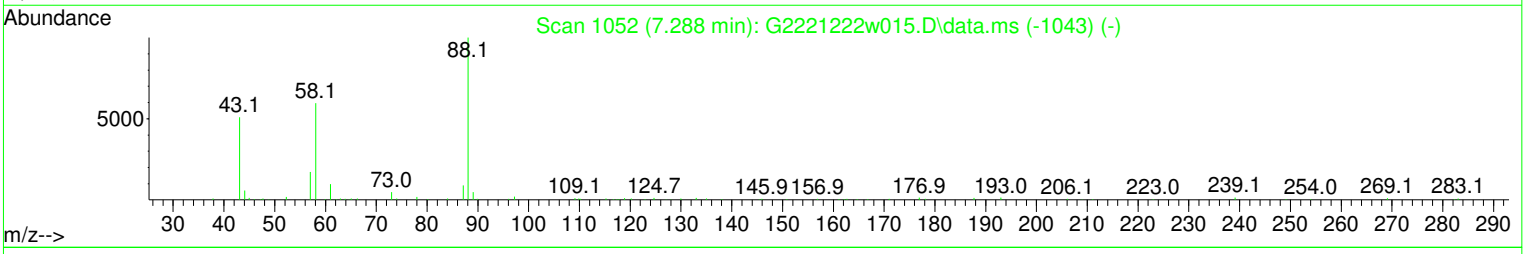






TIC: G2230613016.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 150.11 ug/L m

response 416478

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	49.51
0.00	0.00	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

LCS Dup

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0409-BSD1	File ID:	G2230613017.D
		Prepared:	06/13/23 09:00	Analyzed:	06/13/23 15:26
		Preparation:	5030_W	Dilution:	1

Batch: B3F0409 Sequence: S3F0236 Calibration: EE30097 Instrument: G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane	14.2	0.0650	0.200	0.500	
71-55-6	1,1,1-Trichloroethane	13.8	0.0877	0.200	0.500	
79-34-5	1,1,2,2-Tetrachloroethane	13.0	0.0621	0.200	0.500	
79-00-5	1,1,2-Trichloroethane	13.8	0.0832	0.200	0.500	
75-34-3	1,1-Dichloroethane	13.1	0.0669	0.200	0.500	
75-35-4	1,1-Dichloroethene	12.4	0.0954	0.200	0.500	
563-58-6	1,1-Dichloropropene	13.4	0.0699	0.200	0.500	
87-61-6	1,2,3-Trichlorobenzene	13.5	0.102	0.200	0.500	
96-18-4	1,2,3-Trichloropropane	13.2	0.0913	0.200	0.500	
120-82-1	1,2,4-Trichlorobenzene	13.9	0.102	0.300	0.600	
95-63-6	1,2,4-Trimethylbenzene	13.2	0.0661	0.200	0.500	
96-12-8	1,2-Dibromo-3-chloropropane	13.4	0.130	0.500	1.00	
106-93-4	1,2-Dibromoethane	13.3	0.0531	0.200	0.500	
95-50-1	1,2-Dichlorobenzene	14.8	0.0630	0.200	0.500	
107-06-2	1,2-Dichloroethane	13.5	0.106	0.300	0.600	
78-87-5	1,2-Dichloropropane	13.7	0.102	0.300	0.600	
108-67-8	1,3,5-Trimethylbenzene	13.2	0.0500	0.200	0.500	
541-73-1	1,3-Dichlorobenzene	14.2	0.0724	0.200	0.500	
142-28-9	1,3-Dichloropropane	13.4	0.0680	0.200	0.500	
106-46-7	1,4-Dichlorobenzene	14.7	0.0920	0.200	0.500	
594-20-7	2,2-Dichloropropane	12.9	0.0920	0.200	0.500	
78-93-3	2-Butanone	44.2	0.330	0.700	1.75	
95-49-8	2-Chlorotoluene	13.2	0.0733	0.200	0.500	
591-78-6	2-Hexanone	39.6	0.0716	0.700	1.75	
106-43-4	4-Chlorotoluene	13.4	0.0921	0.200	0.500	
99-87-6	4-Isopropyltoluene	13.5	0.0700	0.200	0.500	

1 - FORM I
ANALYSIS DATA SHEET

LCS Dup

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0409-BSD1	File ID:	G2230613017.D
		Prepared:	06/13/23 09:00	Analyzed:	06/13/23 15:26
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone	41.4	0.135	0.700	1.75	
67-64-1	Acetone	42.3	0.518	2.00	4.00	P
71-43-2	Benzene	13.4	0.0507	0.200	0.500	
108-86-1	Bromobenzene	12.7	0.0848	0.200	0.500	
74-97-5	Bromochloromethane	13.6	0.0669	0.200	0.500	
75-27-4	Bromodichloromethane	14.7	0.0531	0.200	0.500	
75-25-2	Bromoform	13.7	0.103	0.200	0.500	
74-83-9	Bromomethane	15.7	0.160	0.500	1.00	
75-15-0	Carbon disulfide	13.2	0.140	0.500	1.00	
56-23-5	Carbon tetrachloride	14.7	0.0844	0.200	0.500	
108-90-7	Chlorobenzene	14.0	0.0650	0.200	0.500	
75-00-3	Chloroethane	13.1	0.155	0.200	0.500	
67-66-3	Chloroform	13.4	0.101	0.300	0.600	
74-87-3	Chloromethane	12.5	0.192	0.500	1.00	
156-59-2	cis-1,2-Dichloroethene	12.7	0.103	0.300	0.600	
10061-01-5	cis-1,3-Dichloropropene	13.3	0.0587	0.200	0.500	
124-48-1	Dibromochloromethane	14.7	0.0759	0.200	0.500	
74-95-3	Dibromomethane	14.9	0.0817	0.200	0.500	
75-71-8	Dichlorodifluoromethane	11.5	0.130	0.500	1.00	
100-41-4	Ethylbenzene	14.0	0.0300	0.100	0.200	
87-68-3	Hexachlorobutadiene	14.9	0.100	0.200	0.500	
98-82-8	Isopropylbenzene	13.2	0.0549	0.200	0.500	
179601-23-1	m,p-Xylene	26.8	0.0889	0.400	1.00	
1634-04-4	Methyl tert-butyl ether	12.7	0.0530	0.200	0.500	
75-09-2	Methylene chloride	13.0	0.224	0.500	1.00	
104-51-8	n-Butylbenzene	13.5	0.130	0.500	1.00	

1 - FORM I
ANALYSIS DATA SHEET

LCS Dup

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23F0136
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0409-BSD1	File ID:	G2230613017.D
		Prepared:	06/13/23 09:00	Analyzed:	06/13/23 15:26
		Preparation:	5030_W	Dilution:	1
Batch:	B3F0409	Sequence:	S3F0236	Calibration:	EE30097
Instrument:	G2				

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene	13.3	0.0630	0.200	0.500	
91-20-3	Naphthalene	12.6	0.0700	0.200	0.500	
95-47-6	o-Xylene	13.1	0.0416	0.200	0.500	
135-98-8	sec-Butylbenzene	13.4	0.0598	0.200	0.500	
100-42-5	Styrene	13.4	0.0453	0.100	0.200	
98-06-6	tert-Butylbenzene	13.7	0.0453	0.200	0.500	
127-18-4	Tetrachloroethene	15.4	0.178	0.500	1.00	P
108-88-3	Toluene	14.4	0.0572	0.200	0.500	
156-60-5	trans-1,2-Dichloroethene	12.4	0.0855	0.200	0.500	
10061-02-6	trans-1,3-Dichloropropene	12.9	0.0587	0.200	0.500	
79-01-6	Trichloroethene	14.9	0.0781	0.200	0.500	
75-69-4	Trichlorofluoromethane	13.8	0.0505	0.200	0.500	
75-01-4	Vinyl chloride	12.3	0.129	0.500	1.00	

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613017.D
Acq On : 13 Jun 2023 15:26
Operator : PO1/MP3
Sample : BATCH-BSD1
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 14 08:49:45 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	17998325	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.417	114	24449194	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.492	117	21839467	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.838	152	9953547	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.471	111	7769792	19.62	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.10%			
43) 1,2-Dichloroethane-d4	5.874	65	7090261	18.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.55%			
49) Fluorobenzene	6.274	96	27024593	19.40	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.00%			
64) Toluene-d8	8.013	98	26877505	19.53	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.65%			
81) 4-Bromofluorobenzene	10.682	174	4863538	10.35	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.50%			
97) d4-1,2-Dichlorobenzene	12.215	152	8611515	20.12	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.216	85	4221798	11.51	ug/L	99
3) Chloromethane	1.356	50	3698457	12.46	ug/L	99
4) Vinyl chloride	1.448	62	4361421	12.33	ug/L	98
5) Bromomethane	1.719	94	3577441	15.70	ug/L	99
6) Chloroethane	1.807	64	2818597	13.09	ug/L	97
7) Trichlorofluoromethane	2.032	101	7485932	13.81	ug/L	97
8) Ethyl ether	2.312	59	3064779	12.84	ug/L	84
9) Acrolein	2.435	56	1721305	35.69	ug/L	97
10) 1,1-Dichloroethene	2.523	61	4760114	12.35	ug/L	84
11) 1,1,2-Trichloro-1,2,2-...	2.533	101	3857505	13.09	ug/L	94
12) Acetone	2.598	43	3522147	42.29	ug/L	90
13) Iodomethane	2.675	142	5279090	12.60	ug/L	95
14) Carbon disulfide	2.739	76	10441487	13.22	ug/L	100
15) Isopropanol	2.782	45	945021	65.42	ug/L	94
16) acetonitrile	2.916	41	4996158	29.65	ug/L	86
17) 3-Chloro-1-propene	2.919	76	2394040	13.19	ug/L	98
18) Methylene chloride	3.060	49	4311917	13.04	ug/L	75
19) Acrylonitrile	3.381	53	1627281	11.89	ug/L	93
20) trans-1,2-Dichloroethene	3.400	61	4825492	12.37	ug/L	85
21) Methyl tert-butyl ether	3.430	73	13661941	12.69	ug/L	92
22) Hexane	3.790	57	3844166	12.55	ug/L	94
23) 1,1-Dichloroethane	3.993	63	6556473	13.08	ug/L	96
24) Vinyl acetate	4.120	43	7030058	11.49	ug/L	91
25) 2-Chloro-1,3-butadiene	4.129	53	4909420	12.03	ug/L	83
27) 2,2-Dichloropropane	4.822	77	6465877	12.92	ug/L	92
28) cis-1,2-Dichloroethene	4.831	61	5756933	12.70	ug/L	85
29) 2-Butanone	4.898	72	1989552	44.17	ug/L	92
30) Propionitrile	4.969	54	531063	12.27	ug/L	97

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613017.D
Acq On : 13 Jun 2023 15:26
Operator : PO1/MP3
Sample : BATCH-BSD1
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 14 08:49:45 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.005	61	633770	11.68	ug/L		82
32) Methylacrylate	5.032	55	3928786	11.53	ug/L		91
33) 1-Bromopropane	5.072	41	2223321	12.07	ug/L		63
34) Bromochloromethane	5.145	130	3634756	13.60	ug/L		99
35) Methacrylonitrile	5.164	67	2037541	12.35	ug/L		90
36) Tetrahydrofuran	5.237	42	1012735	10.63	ug/L		74
37) Chloroform	5.271	83	7938801	13.43	ug/L		98
39) 1,1,1-Trichloroethane	5.475	97	7520692	13.84	ug/L		96
40) Cyclohexane	5.530	84	6410834	13.26	ug/L		81
41) 1-Chlorobutane	5.625	56	6974296	12.42	ug/L		97
42) 1,1-Dichloropropene	5.685	75	5507711	13.45	ug/L		91
44) 1,2-Dichloroethane	5.966	62	5631334	13.51	ug/L		98
47) Carbon tetrachloride	5.675	117	6471459	14.67	ug/L		99
48) Benzene	5.931	78	16471269	13.44	ug/L		100
50) Trichloroethene	6.691	95	4799312	14.87	ug/L		91
52) 1,2-Dichloropropane	6.941	63	3804499	13.73	ug/L		91
53) Dibromomethane	7.067	174	4333551	14.88	ug/L	#	91
54) Methyl methacrylate	7.120	69	3357816	11.74	ug/L		89
55) 1,4-dioxane	7.124	88	376151m	130.54	ug/L		
56) Bromodichloromethane	7.255	83	6316134	14.70	ug/L		99
57) 2-Nitropropane	7.518	43	1406894	11.37	ug/L		94
58) 2-Chloroethyl vinyl ether	7.608	63	2709356	11.43	ug/L		99
59) cis-1,3-Dichloropropene	7.740	75	7185394	13.27	ug/L		95
60) 4-Methyl-2-pentanone	7.931	43	13762249	41.38	ug/L	#	88
61) trans-1,3-Dichloropropene	8.330	75	6694256	12.93	ug/L		89
62) 1,1,2-Trichloroethane	8.514	97	4445083	13.76	ug/L		94
65) Toluene	8.082	91	19269707	14.36	ug/L		97
66) Ethylmethacrylate	8.451	69	5878306	12.17	ug/L		87
67) Tetrachloroethene	8.644	166	6499786	15.36	ug/L		94
68) 1,3-Dichloropropane	8.682	76	6850324	13.40	ug/L		86
69) 2-Hexanone	8.796	43	8633257	39.64	ug/L		87
70) Dibromochloromethane	8.908	129	5961258	14.70	ug/L		99
71) 1,2-Dibromoethane	9.014	107	4941683	13.33	ug/L		98
72) Chlorobenzene	9.520	112	13461141	14.05	ug/L		92
73) 1,1,1,2-Tetrachloroethane	9.610	131	5317919	14.18	ug/L		97
74) Ethylbenzene	9.639	91	20433370	14.02	ug/L		95
75) m,p-Xylene	9.760	91	31297273	26.77	ug/L		93
76) Styrene	10.173	104	13791509	13.39	ug/L		92
77) Bromoform	10.351	173	4648944	13.66	ug/L		97
79) o-Xylene	10.156	91	16023776	13.09	ug/L		96
80) Isopropylbenzene	10.532	105	18828528	13.17	ug/L		96
82) Bromobenzene	10.823	77	6845940	12.69	ug/L	#	79
83) 1,1,2,2-Tetrachloroethane	10.838	83	5641530	13.04	ug/L		98
84) 1,2,3-Trichloropropane	10.877	110	1974675	13.16	ug/L		94
85) trans-1,4-Dichloro-2-b...	10.896	53	1305293	11.26	ug/L		72
86) n-Propylbenzene	10.945	91	21230489	13.33	ug/L		95
87) 2-Chlorotoluene	11.024	91	12631876	13.20	ug/L		94
88) 4-Chlorotoluene	11.133	91	14562326	13.43	ug/L		92
89) 1,3,5-Trimethylbenzene	11.125	105	14631786	13.19	ug/L		93

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613017.D
Acq On : 13 Jun 2023 15:26
Operator : PO1/MP3
Sample : BATCH-BSD1
Misc :
ALS Vial : 17 Sample Multiplier: 1

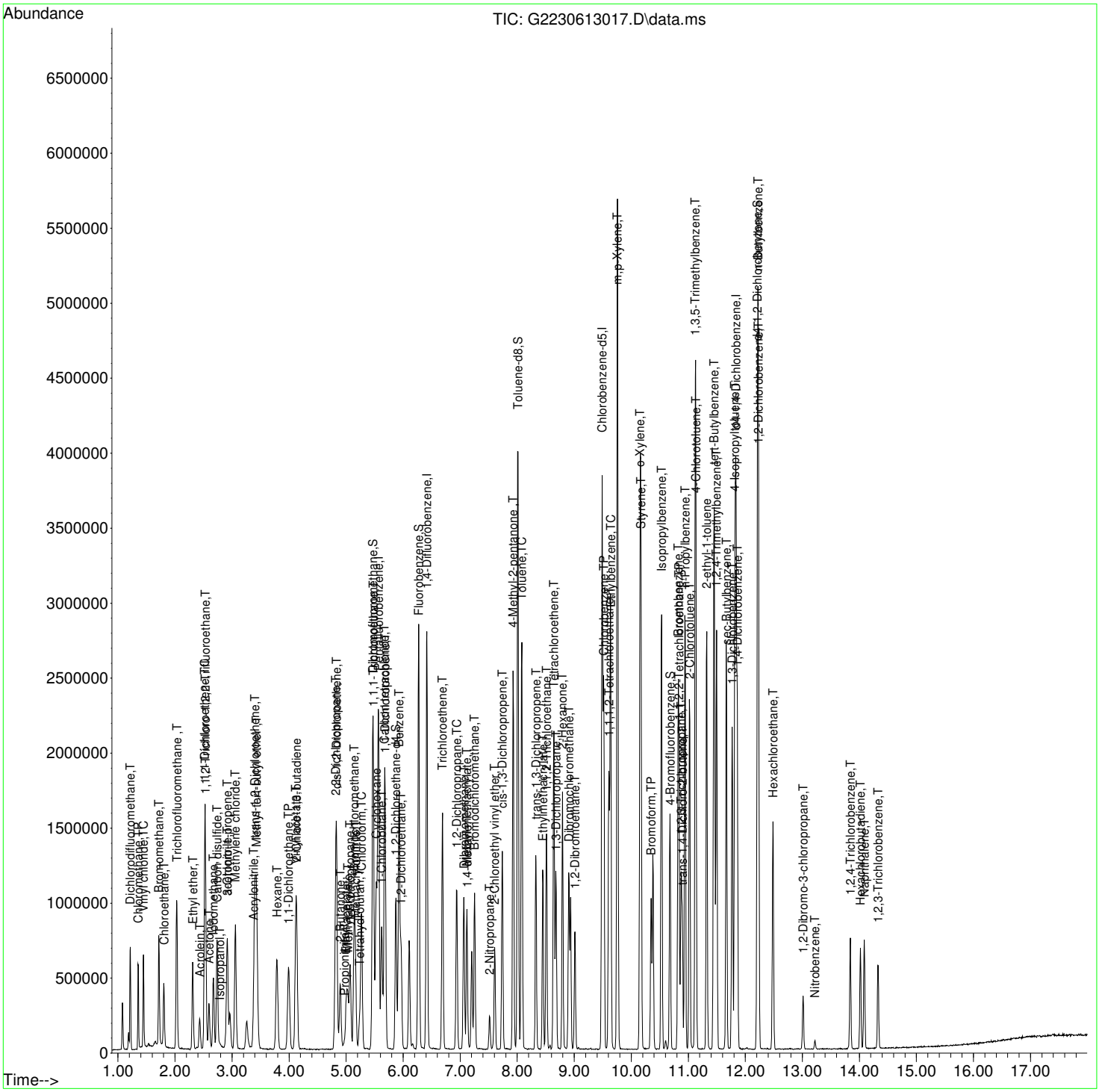
Quant Time: Jun 14 08:49:45 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.325	105	16962095	12.56	ug/L	97
91) tert-Butylbenzene	11.451	119	16317755	13.71	ug/L	88
92) 1,2,4-Trimethylbenzene	11.498	105	14666323	13.22	ug/L	93
93) sec-Butylbenzene	11.669	105	18213446	13.43	ug/L	97
94) 1,3-Dichlorobenzene	11.772	146	9348755	14.16	ug/L	97
95) 4-Isopropyltoluene	11.819	119	15141317	13.49	ug/L	97
96) 1,4-Dichlorobenzene	11.862	146	9435142	14.70	ug/L	97
98) 1,2-Dichlorobenzene	12.234	146	8407030	14.79	ug/L	97
99) n-Butylbenzene	12.228	91	10908564	13.49	ug/L	92
100) Hexachloroethane	12.487	201	3024663	14.66	ug/L	96
101) 1,2-Dibromo-3-chloropr...	13.015	157	1156248	13.44	ug/L	96
102) Nitrobenzene	13.222	77	265860	9.37	ug/L	90
103) 1,2,4-Trichlorobenzene	13.843	180	2487751	13.93	ug/L	97
104) Hexachlorobutadiene	14.020	225	1314273	14.94	ug/L	94
105) Naphthalene	14.087	128	5878227	12.64	ug/L	99
106) 1,2,3-Trichlorobenzene	14.330	180	1939623	13.52	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

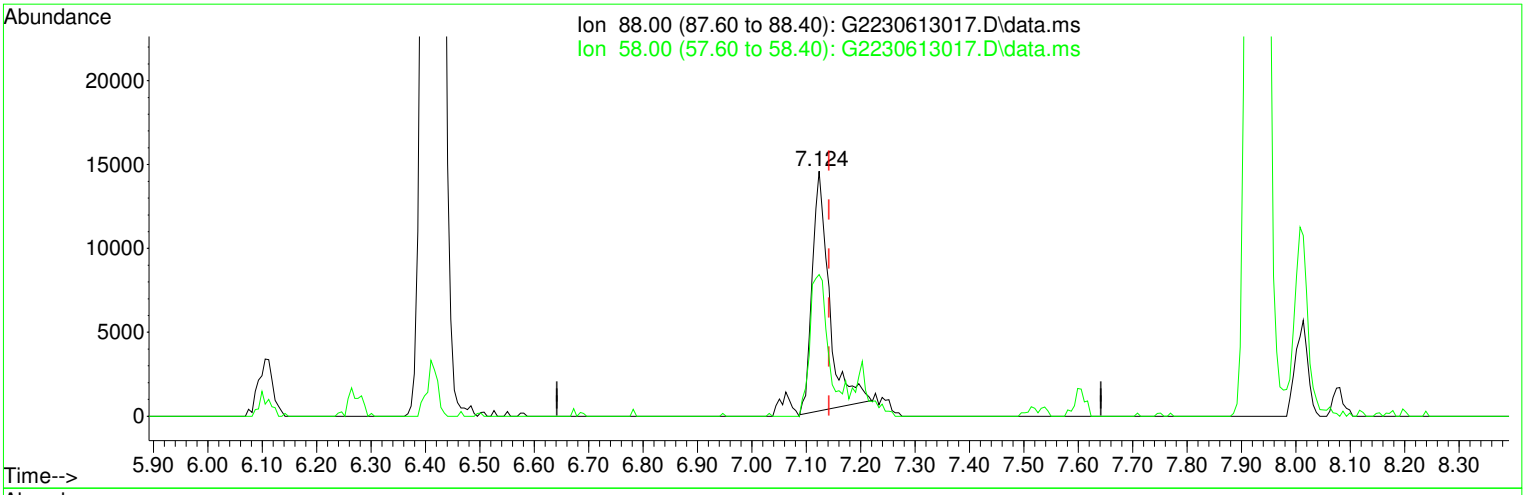
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613017.D
Acq On : 13 Jun 2023 15:26
Operator : PO1/MP3
Sample : BATCH-BSD1
Misc :
ALS Vial : 17 Sample Multiplier: 1

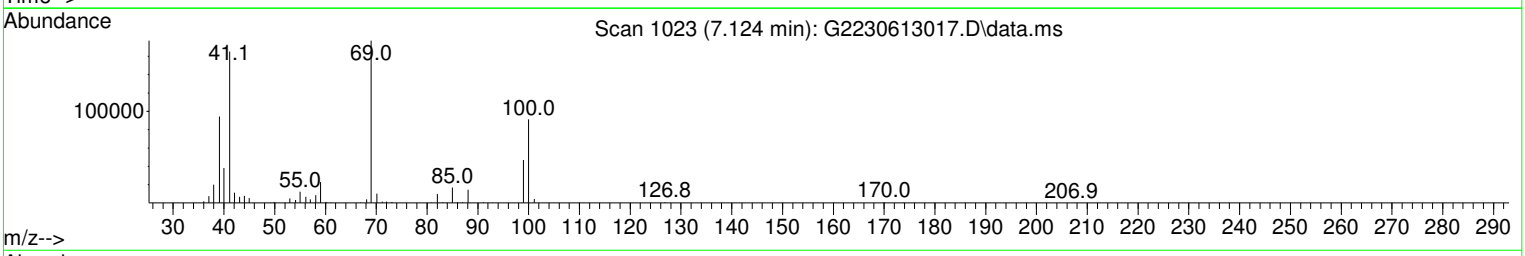
Quant Time: Jun 14 08:49:45 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

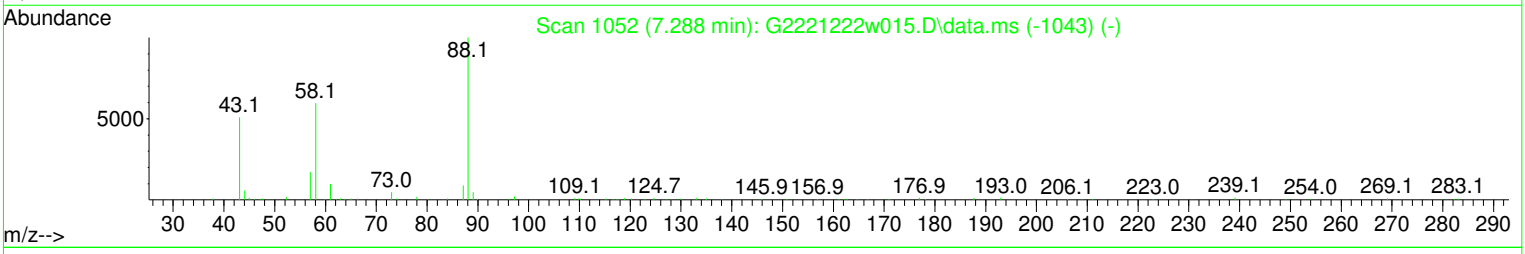


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613017.D
Acq On : 13 Jun 2023 15:26
Operator : PO1/MP3
Sample : BATCH-BSD1
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 14 08:49:45 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613017.D\data.ms

(55) 1,4-dioxane (T)

7.126min (-0.016) 107.86 ug/L

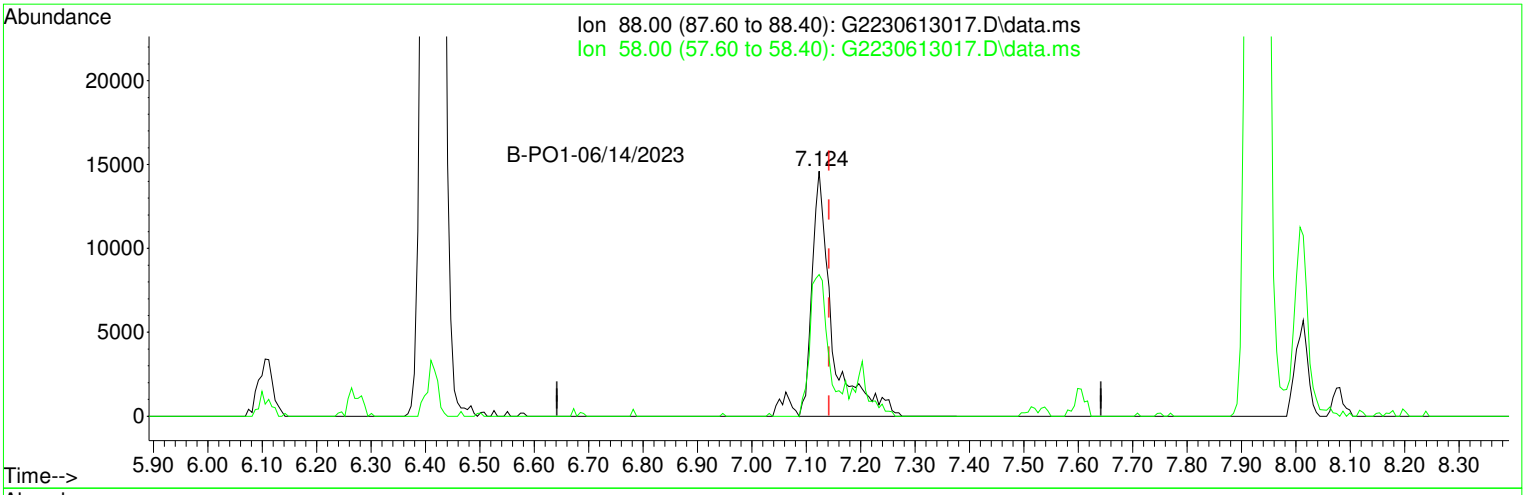
response 310792

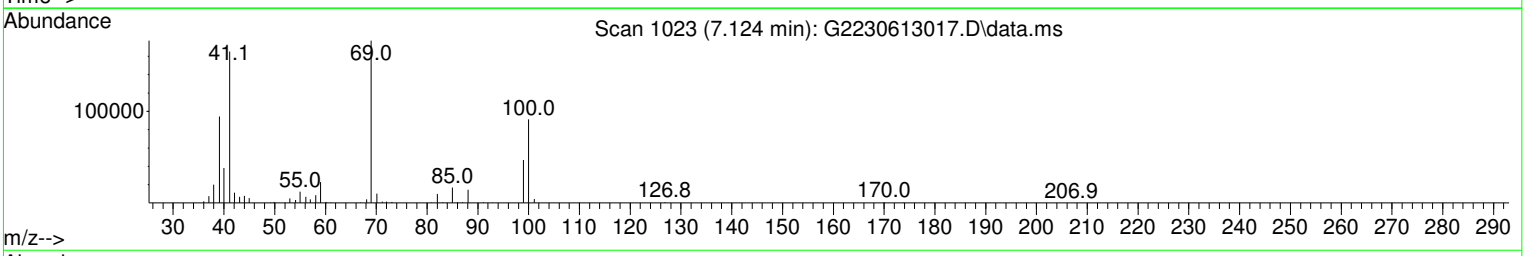
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	61.52
0.00	0.00	0.00
0.00	0.00	0.00

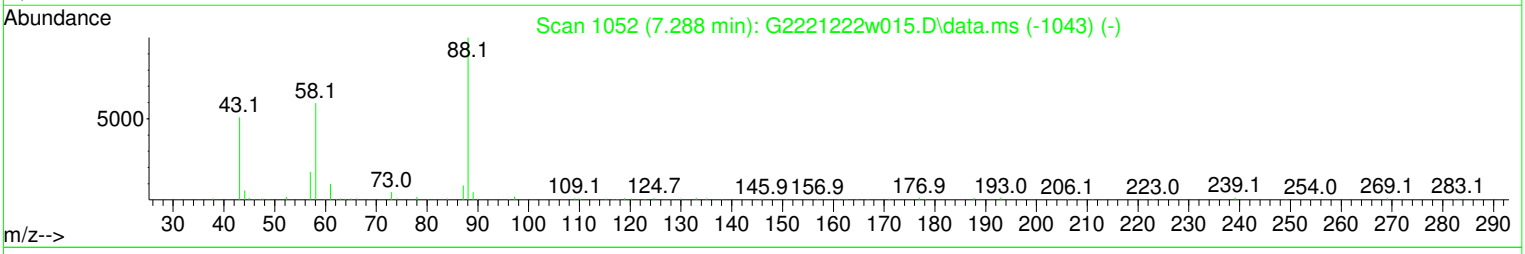
01342343

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613017.D
Acq On : 13 Jun 2023 15:26
Operator : PO1/MP3
Sample : BATCH-BSD1
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 14 08:49:45 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613017.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 130.54 ug/L m

response 376151

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	50.83
0.00	0.00	0.00
0.00	0.00	0.00

SURROGATE SUMMARY SHEET

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
LCS (B3F0366-BS1) ug/L		Lab File ID: G2230612005.D		Analyzed: 06/12/23 10:18
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	90	81 - 118	
Fluorobenzene	20.00	98	80 - 116	
Toluene-d8	20.00	98	89 - 112	
4-Bromofluorobenzene	10.00	101	85 - 114	
1,2-Dichlorobenzene-d4	20.00	99	87 - 138	
Blank (B3F0366-BLK1) ug/L		Lab File ID: G2230612008.D		Analyzed: 06/12/23 11:32
Dibromofluoromethane	20.00	100	80 - 119	
1,2-Dichloroethane-d4	20.00	95	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	99	85 - 114	
1,2-Dichlorobenzene-d4	20.00	102	87 - 138	
Matrix Spike (B3F0366-MS1) ug/L		Lab File ID: G2230612009.D		Analyzed: 06/12/23 11:56
Dibromofluoromethane	20.00	97	80 - 119	
1,2-Dichloroethane-d4	20.00	89	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	98	89 - 112	
4-Bromofluorobenzene	10.00	101	85 - 114	
1,2-Dichlorobenzene-d4	20.00	100	87 - 138	
Matrix Spike Dup (B3F0366-MSD1) ug/L		Lab File ID: G2230612010.D		Analyzed: 06/12/23 12:21
Dibromofluoromethane	20.00	97	80 - 119	
1,2-Dichloroethane-d4	20.00	90	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	98	89 - 112	
4-Bromofluorobenzene	10.00	101	85 - 114	
1,2-Dichlorobenzene-d4	20.00	99	87 - 138	
53047WW08R (23F0136-03) ug/L		Lab File ID: G2230612021.D		Analyzed: 06/12/23 16:55
Dibromofluoromethane	20.00	99	80 - 119	
1,2-Dichloroethane-d4	20.00	92	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	97	89 - 112	
4-Bromofluorobenzene	10.00	96	85 - 114	
1,2-Dichlorobenzene-d4	20.00	101	87 - 138	
53147WW29 (23F0136-01) ug/L		Lab File ID: G2230613007.D		Analyzed: 06/13/23 11:10
Dibromofluoromethane	20.00	100	80 - 119	
1,2-Dichloroethane-d4	20.00	91	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	97	89 - 112	
4-Bromofluorobenzene	10.00	98	85 - 114	
1,2-Dichlorobenzene-d4	20.00	103	87 - 138	

SURROGATE SUMMARY SHEET

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
53147WW13 (23F0136-02) ug/L		Lab File ID: G2230613008.D		Analyzed: 06/13/23 11:35
Dibromofluoromethane	20.00	101	80 - 119	
1,2-Dichloroethane-d4	20.00	94	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	96	85 - 114	
1,2-Dichlorobenzene-d4	20.00	102	87 - 138	
531DUP4 (23F0136-04) ug/L		Lab File ID: G2230613009.D		Analyzed: 06/13/23 12:00
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	92	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	97	89 - 112	
4-Bromofluorobenzene	10.00	96	85 - 114	
1,2-Dichlorobenzene-d4	20.00	102	87 - 138	
53147WW38 (23F0136-10) ug/L		Lab File ID: G2230613010.D		Analyzed: 06/13/23 12:25
Dibromofluoromethane	20.00	99	80 - 119	
1,2-Dichloroethane-d4	20.00	90	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	97	89 - 112	
4-Bromofluorobenzene	10.00	97	85 - 114	
1,2-Dichlorobenzene-d4	20.00	101	87 - 138	

SURROGATE SUMMARY SHEET

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
LCS (B3F0409-BS1) ug/L		Lab File ID: G2230613016.D		Analyzed: 06/13/23 14:53
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	89	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	97	89 - 112	
4-Bromofluorobenzene	10.00	98	85 - 114	
1,2-Dichlorobenzene-d4	20.00	99	87 - 138	
LCS Dup (B3F0409-BSD1) ug/L		Lab File ID: G2230613017.D		Analyzed: 06/13/23 15:26
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	91	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	98	89 - 112	
4-Bromofluorobenzene	10.00	104	85 - 114	
1,2-Dichlorobenzene-d4	20.00	101	87 - 138	
Blank (B3F0409-BLK1) ug/L		Lab File ID: G2230613019.D		Analyzed: 06/13/23 16:16
Dibromofluoromethane	20.00	97	80 - 119	
1,2-Dichloroethane-d4	20.00	90	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	95	89 - 112	
4-Bromofluorobenzene	10.00	97	85 - 114	
1,2-Dichlorobenzene-d4	20.00	103	87 - 138	
6147WW34 (23F0136-05) ug/L		Lab File ID: G2230613020.D		Analyzed: 06/13/23 16:41
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	88	81 - 118	
Fluorobenzene	20.00	98	80 - 116	
Toluene-d8	20.00	97	89 - 112	
4-Bromofluorobenzene	10.00	101	85 - 114	
1,2-Dichlorobenzene-d4	20.00	103	87 - 138	
61DUP6 (23F0136-06) ug/L		Lab File ID: G2230613021.D		Analyzed: 06/13/23 17:06
Dibromofluoromethane	20.00	96	80 - 119	
1,2-Dichloroethane-d4	20.00	89	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	97	89 - 112	
4-Bromofluorobenzene	10.00	98	85 - 114	
1,2-Dichlorobenzene-d4	20.00	102	87 - 138	
6147WW04 (23F0136-07) ug/L		Lab File ID: G2230613022.D		Analyzed: 06/13/23 17:31
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	90	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	98	85 - 114	
1,2-Dichlorobenzene-d4	20.00	103	87 - 138	

SURROGATE SUMMARY SHEET

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
6147WW33 (23F0136-08) ug/L		Lab File ID: G2230613023.D		Analyzed: 06/13/23 17:56
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	90	81 - 118	
Fluorobenzene	20.00	96	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	97	85 - 114	
1,2-Dichlorobenzene-d4	20.00	101	87 - 138	
6147WW46 (23F0136-09) ug/L		Lab File ID: G2230613024.D		Analyzed: 06/13/23 18:21
Dibromofluoromethane	20.00	99	80 - 119	
1,2-Dichloroethane-d4	20.00	92	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	95	89 - 112	
4-Bromofluorobenzene	10.00	97	85 - 114	
1,2-Dichlorobenzene-d4	20.00	104	87 - 138	
531LHSMW50 (23F0136-12) ug/L		Lab File ID: G2230613025.D		Analyzed: 06/13/23 18:45
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	91	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	98	85 - 114	
1,2-Dichlorobenzene-d4	20.00	103	87 - 138	
53147WW61 (23F0136-13) ug/L		Lab File ID: G2230613026.D		Analyzed: 06/13/23 19:10
Dibromofluoromethane	20.00	99	80 - 119	
1,2-Dichloroethane-d4	20.00	91	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	98	85 - 114	
1,2-Dichlorobenzene-d4	20.00	104	87 - 138	
6147WW31 (23F0136-14) ug/L		Lab File ID: G2230613027.D		Analyzed: 06/13/23 19:35
Dibromofluoromethane	20.00	96	80 - 119	
1,2-Dichloroethane-d4	20.00	87	81 - 118	
Fluorobenzene	20.00	96	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	98	85 - 114	
1,2-Dichlorobenzene-d4	20.00	101	87 - 138	
531DUP6 (23F0136-11) ug/L		Lab File ID: G2230613028.D		Analyzed: 06/13/23 20:00
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	92	81 - 118	
Fluorobenzene	20.00	96	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	94	85 - 114	
1,2-Dichlorobenzene-d4	20.00	103	87 - 138	

SURROGATE SUMMARY SHEET

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
6147WW45 (23F0136-15) ug/L		Lab File ID: G2230613029.D		Analyzed: 06/13/23 20:25
Dibromofluoromethane	20.00	98	80 - 119	
1,2-Dichloroethane-d4	20.00	91	81 - 118	
Fluorobenzene	20.00	97	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	97	85 - 114	
1,2-Dichlorobenzene-d4	20.00	105	87 - 138	
61Trip2 (23F0136-16) ug/L		Lab File ID: G2230613030.D		Analyzed: 06/13/23 20:50
Dibromofluoromethane	20.00	99	80 - 119	
1,2-Dichloroethane-d4	20.00	94	81 - 118	
Fluorobenzene	20.00	96	80 - 116	
Toluene-d8	20.00	96	89 - 112	
4-Bromofluorobenzene	10.00	98	85 - 114	
1,2-Dichlorobenzene-d4	20.00	104	87 - 138	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

01342349

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW8260B/D
Prep Batch:	B3F0366	Prep Method:	5030_W
Percent Solids:		Laboratory ID:	B3F0366-MS1
		Source Sample ID:	23E0775-38

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	30.00	ND	32.2	107	78 - 124
1,1,1-Trichloroethane	30.00	ND	32.3	108	74 - 131
1,1,2,2-Tetrachloroethane	30.00	ND	29.0	97	71 - 121
1,1,2-Trichloroethane	30.00	0.620	31.6	103	80 - 119
1,1-Dichloroethane	30.00	3.62	33.7	100	77 - 125
1,1-Dichloroethene	30.00	19.7	47.6	93	71 - 131
1,1-Dichloropropene	30.00	ND	32.9	110	79 - 125
1,2,3-Trichlorobenzene	30.00	ND	30.0	100	69 - 129
1,2,3-Trichloropropane	30.00	ND	29.3	98	73 - 122
1,2,4-Trichlorobenzene	30.00	ND	32.1	107	69 - 130
1,2,4-Trimethylbenzene	30.00	ND	29.9	100	76 - 124
1,2-Dibromo-3-chloropropane	30.00	ND	29.6	99	62 - 128
1,2-Dibromoethane	30.00	ND	30.0	100	77 - 121
1,2-Dichlorobenzene	30.00	ND	33.4	111	80 - 119
1,2-Dichloroethane	30.00	1.26	31.5	101	73 - 128
1,2-Dichloropropane	30.00	ND	30.4	101	78 - 122
1,3,5-Trimethylbenzene	30.00	ND	30.3	101	75 - 124
1,3-Dichlorobenzene	30.00	ND	32.4	108	80 - 119
1,3-Dichloropropane	30.00	ND	30.3	101	80 - 119
1,4-Dichlorobenzene	30.00	ND	33.3	111	79 - 118
2,2-Dichloropropane	30.00	ND	31.1	104	60 - 139
2-Butanone	105.0	ND	91.5	87	56 - 143
2-Chlorotoluene	30.00	ND	29.8	99	79 - 122
2-Hexanone	105.0	ND	86.3	82	57 - 139
4-Chlorotoluene	30.00	ND	30.9	103	78 - 122
4-Isopropyltoluene	30.00	ND	31.4	105	77 - 127
4-Methyl-2-pentanone	105.0	ND	88.5	84	67 - 130
Acetone	105.0	ND	87.9	84	39 - 160
Benzene	30.00	ND	30.4	101	79 - 120

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

01342350

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW8260B/D
Prep Batch:	B3F0366	Prep Method:	5030_W
Percent Solids:		Laboratory ID:	B3F0366-MS1
		Source Sample ID:	23E0775-38

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.		QC LIMITS REC.
Bromobenzene	30.00	ND	29.0	97		80 - 120
Bromochloromethane	30.00	ND	30.5	102		78 - 123
Bromodichloromethane	30.00	ND	32.5	108		79 - 125
Bromoform	30.00	ND	31.5	105		66 - 130
Bromomethane	30.00	ND	36.0	120		53 - 141
Carbon disulfide	30.00	ND	30.7	102		64 - 133
Carbon tetrachloride	30.00	ND	33.3	111		72 - 136
Chlorobenzene	30.00	ND	32.2	107		82 - 118
Chloroethane	30.00	ND	31.4	105		60 - 138
Chloroform	30.00	ND	30.1	100		79 - 124
Chloromethane	30.00	ND	29.6	99		50 - 139
cis-1,2-Dichloroethene	30.00	531	540	27	*	78 - 123
cis-1,3-Dichloropropene	30.00	ND	29.4	98		75 - 124
Dibromochloromethane	30.00	ND	33.0	110		74 - 126
Dibromomethane	30.00	ND	33.2	111		79 - 123
Dichlorodifluoromethane	30.00	ND	30.5	102		32 - 152
Ethylbenzene	30.00	ND	33.0	110		79 - 121
Hexachlorobutadiene	30.00	ND	36.8	123		66 - 134
Isopropylbenzene	30.00	ND	30.6	102		72 - 131
m,p-Xylene	60.00	ND	63.6	106		80 - 121
Methyl tert-butyl ether	30.00	ND	27.9	93		71 - 124
Methylene chloride	30.00	ND	29.6	99		74 - 124
n-Butylbenzene	30.00	ND	32.0	107		75 - 128
n-Propylbenzene	30.00	ND	31.1	104		76 - 126
Naphthalene	30.00	ND	29.0	97		61 - 128
o-Xylene	30.00	ND	29.5	98		78 - 122
sec-Butylbenzene	30.00	ND	31.2	104		77 - 126
Styrene	30.00	ND	30.8	103		78 - 123
tert-Butylbenzene	30.00	ND	31.8	106		78 - 124
Tetrachloroethene	30.00	ND	35.9	120		74 - 129

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW8260B/D
Prep Batch:	B3F0366	Prep Method:	5030_W
Percent Solids:		Laboratory ID:	B3F0366-MS1
		Source Sample ID:	23E0775-38

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.		QC LIMITS REC.
Toluene	30.00	0.220	33.5	111		80 - 121
trans-1,2-Dichloroethene	30.00	5.80	34.2	95		75 - 124
trans-1,3-Dichloropropene	30.00	ND	29.4	98		73 - 127
Trichloroethene	30.00	1890	1890	10	*	79 - 123
Trichlorofluoromethane	30.00	ND	34.7	116		65 - 141
Vinyl chloride	30.00	15.1	43.3	94		58 - 137

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

01342352

Matrix Spike Dup

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW8260B/D
Prep Batch:	B3F0366	Prep Method:	5030_W
Percent Solids:		Laboratory ID:	B3F0366-MSD1
		Source Sample ID:	23E0775-38

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	30.00	30.5	102	5	20	78 - 124
1,1,1-Trichloroethane	30.00	30.9	103	4	20	74 - 131
1,1,2,2-Tetrachloroethane	30.00	27.6	92	5	20	71 - 121
1,1,2-Trichloroethane	30.00	29.7	97	6	20	80 - 119
1,1-Dichloroethane	30.00	32.5	96	4	20	77 - 125
1,1-Dichloroethene	30.00	45.3	85	5	20	71 - 131
1,1-Dichloropropene	30.00	31.2	104	5	20	79 - 125
1,2,3-Trichlorobenzene	30.00	28.7	96	4	20	69 - 129
1,2,3-Trichloropropane	30.00	28.1	94	4	20	73 - 122
1,2,4-Trichlorobenzene	30.00	29.1	97	10	20	69 - 130
1,2,4-Trimethylbenzene	30.00	28.2	94	6	20	76 - 124
1,2-Dibromo-3-chloropropane	30.00	28.2	94	5	20	62 - 128
1,2-Dibromoethane	30.00	28.5	95	5	20	77 - 121
1,2-Dichlorobenzene	30.00	32.3	108	4	20	80 - 119
1,2-Dichloroethane	30.00	30.0	96	5	20	73 - 128
1,2-Dichloropropane	30.00	28.6	95	6	20	78 - 122
1,3,5-Trimethylbenzene	30.00	29.0	97	5	20	75 - 124
1,3-Dichlorobenzene	30.00	31.1	104	4	20	80 - 119
1,3-Dichloropropane	30.00	28.8	96	5	20	80 - 119
1,4-Dichlorobenzene	30.00	31.6	105	5	20	79 - 118
2,2-Dichloropropane	30.00	29.8	99	4	20	60 - 139
2-Butanone	105.0	87.3	83	5	20	56 - 143
2-Chlorotoluene	30.00	28.6	95	4	20	79 - 122
2-Hexanone	105.0	82.4	78	5	20	57 - 139
4-Chlorotoluene	30.00	29.3	98	6	20	78 - 122
4-Isopropyltoluene	30.00	29.6	99	6	20	77 - 127
4-Methyl-2-pentanone	105.0	85.1	81	4	20	67 - 130
Acetone	105.0	83.4	79	5	20	39 - 160
Benzene	30.00	29.2	97	4	20	79 - 120

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

01342353

Matrix Spike Dup

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW8260B/D
Prep Batch:	B3F0366	Prep Method:	5030_W
Percent Solids:		Laboratory ID:	B3F0366-MSD1
		Source Sample ID:	23E0775-38

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #		% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	30.00	27.4	91		6	20	80 - 120
Bromochloromethane	30.00	29.3	98		4	20	78 - 123
Bromodichloromethane	30.00	31.2	104		4	20	79 - 125
Bromoform	30.00	29.4	98		7	20	66 - 130
Bromomethane	30.00	35.5	118		1	20	53 - 141
Carbon disulfide	30.00	30.1	100		2	20	64 - 133
Carbon tetrachloride	30.00	31.8	106		4	20	72 - 136
Chlorobenzene	30.00	30.5	102		6	20	82 - 118
Chloroethane	30.00	28.9	96		8	20	60 - 138
Chloroform	30.00	29.2	97		3	20	79 - 124
Chloromethane	30.00	28.9	96		2	20	50 - 139
cis-1,2-Dichloroethene	30.00	519	-42	*	4	20	78 - 123
cis-1,3-Dichloropropene	30.00	28.5	95		3	20	75 - 124
Dibromochloromethane	30.00	31.4	105		5	20	74 - 126
Dibromomethane	30.00	31.1	104		7	20	79 - 123
Dichlorodifluoromethane	30.00	29.7	99		3	20	32 - 152
Ethylbenzene	30.00	31.0	103		6	20	79 - 121
Hexachlorobutadiene	30.00	32.2	107		13	20	66 - 134
Isopropylbenzene	30.00	29.3	98		4	20	72 - 131
m,p-Xylene	60.00	59.9	100		6	20	80 - 121
Methyl tert-butyl ether	30.00	26.9	90		4	20	71 - 124
Methylene chloride	30.00	27.9	93		6	20	74 - 124
n-Butylbenzene	30.00	29.7	99		7	20	75 - 128
n-Propylbenzene	30.00	29.7	99		5	20	76 - 126
Naphthalene	30.00	26.7	89		8	20	61 - 128
o-Xylene	30.00	28.5	95		4	20	78 - 122
sec-Butylbenzene	30.00	29.7	99		5	20	77 - 126
Styrene	30.00	29.2	97		6	20	78 - 123
tert-Butylbenzene	30.00	30.0	100		6	20	78 - 124

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spike Dup

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Analysis Method:	SW8260B/D
Prep Batch:	B3F0366	Prep Method:	5030_W
Percent Solids:		Laboratory ID:	B3F0366-MSD1
		Source Sample ID:	23E0775-38

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #		% RPD	QC LIMITS RPD	QC LIMITS REC.
Tetrachloroethene	30.00	33.6	112		7	20	74 - 129
Toluene	30.00	31.8	105		5	20	80 - 121
trans-1,2-Dichloroethene	30.00	32.8	90		4	20	75 - 124
trans-1,3-Dichloropropene	30.00	28.4	95		3	20	73 - 127
Trichloroethene	30.00	1840	-156	*	3	20	79 - 123
Trichlorofluoromethane	30.00	33.4	111		4	20	65 - 141
Vinyl chloride	30.00	41.3	87		5	20	58 - 137

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW8260B/D

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	5030_W
Prep Batch:	B3F0366	Lab Sample ID:	B3F0366-BS1

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	15.00	14.7	98	78 - 124
1,1,1-Trichloroethane	15.00	14.0	93	74 - 131
1,1,2,2-Tetrachloroethane	15.00	13.5	90	71 - 121
1,1,2-Trichloroethane	15.00	14.4	96	80 - 119
1,1-Dichloroethane	15.00	13.3	89	77 - 125
1,1-Dichloroethene	15.00	12.7	85	71 - 131
1,1-Dichloropropene	15.00	14.0	93	79 - 125
1,2,3-Trichlorobenzene	15.00	13.9	93	69 - 129
1,2,3-Trichloropropane	15.00	13.9	93	73 - 122
1,2,4-Trichlorobenzene	15.00	14.0	93	69 - 130
1,2,4-Trimethylbenzene	15.00	13.3	89	76 - 124
1,2-Dibromo-3-chloropropane	15.00	14.7	98	62 - 128
1,2-Dibromoethane	15.00	14.0	94	77 - 121
1,2-Dichlorobenzene	15.00	15.2	101	80 - 119
1,2-Dichloroethane	15.00	13.9	93	73 - 128
1,2-Dichloropropane	15.00	13.9	92	78 - 122
1,3,5-Trimethylbenzene	15.00	13.6	90	75 - 124
1,3-Dichlorobenzene	15.00	14.5	96	80 - 119
1,3-Dichloropropane	15.00	14.0	93	80 - 119
1,4-Dichlorobenzene	15.00	14.8	99	79 - 118
2,2-Dichloropropane	15.00	13.3	89	60 - 139
2-Butanone	52.50	51.7	99	56 - 143
2-Chlorotoluene	15.00	13.4	89	79 - 122
2-Hexanone	52.50	46.4	88	57 - 139
4-Chlorotoluene	15.00	13.6	91	78 - 122
4-Isopropyltoluene	15.00	13.7	91	77 - 127
4-Methyl-2-pentanone	52.50	44.9	86	67 - 130
Acetone	52.50	51.7	98	39 - 160
Benzene	15.00	13.7	92	79 - 120
Bromobenzene	15.00	13.0	87	80 - 120
Bromochloromethane	15.00	13.9	92	78 - 123
Bromodichloromethane	15.00	15.2	101	79 - 125
Bromoform	15.00	14.5	97	66 - 130
Bromomethane	15.00	16.7	111	53 - 141
Carbon disulfide	15.00	13.4	89	64 - 133
Carbon tetrachloride	15.00	15.0	100	72 - 136
Chlorobenzene	15.00	14.6	97	82 - 118

LCS / LCS DUPLICATE RECOVERY

SW8260B/D

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	5030_W
Prep Batch:	B3F0366	Lab Sample ID:	B3F0366-BS1

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
Chloroethane	15.00	14.0	93	60 - 138
Chloroform	15.00	13.6	91	79 - 124
Chloromethane	15.00	13.6	91	50 - 139
cis-1,2-Dichloroethene	15.00	13.3	89	78 - 123
cis-1,3-Dichloropropene	15.00	13.6	91	75 - 124
Dibromochloromethane	15.00	15.3	102	74 - 126
Dibromomethane	15.00	15.2	101	79 - 123
Dichlorodifluoromethane	15.00	12.7	84	32 - 152
Ethylbenzene	15.00	14.6	97	79 - 121
Hexachlorobutadiene	15.00	15.7	104	66 - 134
Isopropylbenzene	15.00	13.5	90	72 - 131
m,p-Xylene	30.00	28.1	94	80 - 121
Methyl tert-butyl ether	15.00	13.1	87	71 - 124
Methylene chloride	15.00	13.1	88	74 - 124
n-Butylbenzene	15.00	14.0	93	75 - 128
n-Propylbenzene	15.00	13.6	91	76 - 126
Naphthalene	15.00	13.5	90	61 - 128
o-Xylene	15.00	13.3	89	78 - 122
sec-Butylbenzene	15.00	13.7	91	77 - 126
Styrene	15.00	13.9	92	78 - 123
tert-Butylbenzene	15.00	14.0	94	78 - 124
Tetrachloroethene	15.00	15.5	104	74 - 129
Toluene	15.00	14.9	99	80 - 121
trans-1,2-Dichloroethene	15.00	12.6	84	75 - 124
trans-1,3-Dichloropropene	15.00	13.2	88	73 - 127
Trichloroethene	15.00	15.0	100	79 - 123
Trichlorofluoromethane	15.00	14.5	97	65 - 141
Vinyl chloride	15.00	12.9	86	58 - 137

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW8260B/D

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	5030_W
Prep Batch:	B3F0409	Lab Sample ID:	B3F0409-BS1

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	15.00	15.2	101	78 - 124
1,1,1-Trichloroethane	15.00	14.8	99	74 - 131
1,1,2,2-Tetrachloroethane	15.00	13.5	90	71 - 121
1,1,2-Trichloroethane	15.00	14.9	99	80 - 119
1,1-Dichloroethane	15.00	13.9	93	77 - 125
1,1-Dichloroethene	15.00	13.4	89	71 - 131
1,1-Dichloropropene	15.00	14.6	97	79 - 125
1,2,3-Trichlorobenzene	15.00	14.3	95	69 - 129
1,2,3-Trichloropropane	15.00	14.1	94	73 - 122
1,2,4-Trichlorobenzene	15.00	15.1	101	69 - 130
1,2,4-Trimethylbenzene	15.00	13.6	91	76 - 124
1,2-Dibromo-3-chloropropane	15.00	15.6	104	62 - 128
1,2-Dibromoethane	15.00	14.6	97	77 - 121
1,2-Dichlorobenzene	15.00	15.5	103	80 - 119
1,2-Dichloroethane	15.00	14.4	96	73 - 128
1,2-Dichloropropane	15.00	14.4	96	78 - 122
1,3,5-Trimethylbenzene	15.00	13.6	91	75 - 124
1,3-Dichlorobenzene	15.00	14.8	99	80 - 119
1,3-Dichloropropane	15.00	14.5	97	80 - 119
1,4-Dichlorobenzene	15.00	15.4	103	79 - 118
2,2-Dichloropropane	15.00	13.5	90	60 - 139
2-Butanone	52.50	53.0	101	56 - 143
2-Chlorotoluene	15.00	13.5	90	79 - 122
2-Hexanone	52.50	48.0	91	57 - 139
4-Chlorotoluene	15.00	13.8	92	78 - 122
4-Isopropyltoluene	15.00	14.2	95	77 - 127
4-Methyl-2-pentanone	52.50	46.7	89	67 - 130
Acetone	52.50	55.3	105	39 - 160
Benzene	15.00	14.2	95	79 - 120
Bromobenzene	15.00	13.2	88	80 - 120
Bromochloromethane	15.00	14.6	97	78 - 123
Bromodichloromethane	15.00	15.8	105	79 - 125
Bromoform	15.00	15.1	101	66 - 130
Bromomethane	15.00	16.9	113	53 - 141
Carbon disulfide	15.00	14.0	93	64 - 133
Carbon tetrachloride	15.00	15.8	105	72 - 136
Chlorobenzene	15.00	15.0	100	82 - 118

LCS / LCS DUPLICATE RECOVERY

01342358

SW8260B/D

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	5030_W
Prep Batch:	B3F0409	Lab Sample ID:	B3F0409-BS1

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.		QC LIMITS REC.
Chloroethane	15.00	14.5	97		60 - 138
Chloroform	15.00	14.2	95		79 - 124
Chloromethane	15.00	13.6	91		50 - 139
cis-1,2-Dichloroethene	15.00	13.8	92		78 - 123
cis-1,3-Dichloropropene	15.00	14.0	94		75 - 124
Dibromochloromethane	15.00	15.8	106		74 - 126
Dibromomethane	15.00	16.1	107		79 - 123
Dichlorodifluoromethane	15.00	13.8	92		32 - 152
Ethylbenzene	15.00	15.2	101		79 - 121
Hexachlorobutadiene	15.00	17.0	114		66 - 134
Isopropylbenzene	15.00	13.5	90		72 - 131
m,p-Xylene	30.00	29.1	97		80 - 121
Methyl tert-butyl ether	15.00	13.7	91		71 - 124
Methylene chloride	15.00	13.9	92		74 - 124
n-Butylbenzene	15.00	14.2	95		75 - 128
n-Propylbenzene	15.00	13.8	92		76 - 126
Naphthalene	15.00	14.0	93		61 - 128
o-Xylene	15.00	13.2	88		78 - 122
sec-Butylbenzene	15.00	13.9	93		77 - 126
Styrene	15.00	14.4	96		78 - 123
tert-Butylbenzene	15.00	13.6	90		78 - 124
Tetrachloroethene	15.00	20.2	134	*	74 - 129
Toluene	15.00	15.4	102		80 - 121
trans-1,2-Dichloroethene	15.00	13.1	87		75 - 124
trans-1,3-Dichloropropene	15.00	13.8	92		73 - 127
Trichloroethene	15.00	15.9	106		79 - 123
Trichlorofluoromethane	15.00	16.0	107		65 - 141
Vinyl chloride	15.00	13.4	89		58 - 137

ANALYTE	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	15.00	14.2	95	7	20	78 - 124
1,1,1-Trichloroethane	15.00	13.8	92	7	20	74 - 131
1,1,2,2-Tetrachloroethane	15.00	13.0	87	4	20	71 - 121
1,1,2-Trichloroethane	15.00	13.8	92	8	20	80 - 119
1,1-Dichloroethane	15.00	13.1	87	6	20	77 - 125

LCS / LCS DUPLICATE RECOVERY

SW8260B/D

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	5030_W
Prep Batch:	B3F0409	Lab Sample ID:	B3F0409-BSD1

ANALYTE	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #		QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	15.00	12.4	82	8		20	71 - 131
1,1-Dichloropropene	15.00	13.4	90	8		20	79 - 125
1,2,3-Trichlorobenzene	15.00	13.5	90	5		20	69 - 129
1,2,3-Trichloropropane	15.00	13.2	88	7		20	73 - 122
1,2,4-Trichlorobenzene	15.00	13.9	93	8		20	69 - 130
1,2,4-Trimethylbenzene	15.00	13.2	88	3		20	76 - 124
1,2-Dibromo-3-chloropropane	15.00	13.4	90	15		20	62 - 128
1,2-Dibromoethane	15.00	13.3	89	9		20	77 - 121
1,2-Dichlorobenzene	15.00	14.8	99	5		20	80 - 119
1,2-Dichloroethane	15.00	13.5	90	7		20	73 - 128
1,2-Dichloropropane	15.00	13.7	92	5		20	78 - 122
1,3,5-Trimethylbenzene	15.00	13.2	88	3		20	75 - 124
1,3-Dichlorobenzene	15.00	14.2	94	5		20	80 - 119
1,3-Dichloropropane	15.00	13.4	89	8		20	80 - 119
1,4-Dichlorobenzene	15.00	14.7	98	5		20	79 - 118
2,2-Dichloropropane	15.00	12.9	86	4		20	60 - 139
2-Butanone	52.50	44.2	84	18		20	56 - 143
2-Chlorotoluene	15.00	13.2	88	2		20	79 - 122
2-Hexanone	52.50	39.6	76	19		20	57 - 139
4-Chlorotoluene	15.00	13.4	90	3		20	78 - 122
4-Isopropyltoluene	15.00	13.5	90	5		20	77 - 127
4-Methyl-2-pentanone	52.50	41.4	79	12		20	67 - 130
Acetone	52.50	42.3	81	27	*	20	39 - 160
Benzene	15.00	13.4	90	6		20	79 - 120
Bromobenzene	15.00	12.7	85	4		20	80 - 120
Bromochloromethane	15.00	13.6	91	7		20	78 - 123
Bromodichloromethane	15.00	14.7	98	7		20	79 - 125
Bromoform	15.00	13.7	91	10		20	66 - 130
Bromomethane	15.00	15.7	105	8		20	53 - 141
Carbon disulfide	15.00	13.2	88	5		20	64 - 133
Carbon tetrachloride	15.00	14.7	98	7		20	72 - 136
Chlorobenzene	15.00	14.0	94	7		20	82 - 118
Chloroethane	15.00	13.1	87	10		20	60 - 138
Chloroform	15.00	13.4	90	6		20	79 - 124
Chloromethane	15.00	12.5	83	9		20	50 - 139
cis-1,2-Dichloroethene	15.00	12.7	85	8		20	78 - 123
cis-1,3-Dichloropropene	15.00	13.3	88	6		20	75 - 124

LCS / LCS DUPLICATE RECOVERY

SW8260B/D

Client: HDR
Project: Longhorn AAP
SDG: 23F0136

Matrix:	Water	Prep Method:	5030_W
Prep Batch:	B3F0409	Lab Sample ID:	B3F0409-BSD1

ANALYTE	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC. #	% RPD #		QC LIMITS RPD	QC LIMITS REC.
Dibromochloromethane	15.00	14.7	98	7		20	74 - 126
Dibromomethane	15.00	14.9	99	8		20	79 - 123
Dichlorodifluoromethane	15.00	11.5	77	18		20	32 - 152
Ethylbenzene	15.00	14.0	93	8		20	79 - 121
Hexachlorobutadiene	15.00	14.9	100	13		20	66 - 134
Isopropylbenzene	15.00	13.2	88	3		20	72 - 131
m,p-Xylene	30.00	26.8	89	8		20	80 - 121
Methyl tert-butyl ether	15.00	12.7	85	8		20	71 - 124
Methylene chloride	15.00	13.0	87	6		20	74 - 124
n-Butylbenzene	15.00	13.5	90	5		20	75 - 128
n-Propylbenzene	15.00	13.3	89	3		20	76 - 126
Naphthalene	15.00	12.6	84	10		20	61 - 128
o-Xylene	15.00	13.1	87	1		20	78 - 122
sec-Butylbenzene	15.00	13.4	90	4		20	77 - 126
Styrene	15.00	13.4	89	7		20	78 - 123
tert-Butylbenzene	15.00	13.7	91	1		20	78 - 124
Tetrachloroethene	15.00	15.4	102	27	*	20	74 - 129
Toluene	15.00	14.4	96	7		20	80 - 121
trans-1,2-Dichloroethene	15.00	12.4	82	6		20	75 - 124
trans-1,3-Dichloropropene	15.00	12.9	86	6		20	73 - 127
Trichloroethene	15.00	14.9	99	7		20	79 - 123
Trichlorofluoromethane	15.00	13.8	92	15		20	65 - 141
Vinyl chloride	15.00	12.3	82	8		20	58 - 137

* Values outside of QC limits

4 - FORM IV
METHOD BLANK SUMMARY

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Blank ID:	B3F0366-BLK1	Batch:	B3F0366

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
53147WW38	23F0136-10	G2230613010.D	12:25
531DUP4	23F0136-04	G2230613009.D	12:00
53147WW13	23F0136-02	G2230613008.D	11:35
53147WW29	23F0136-01	G2230613007.D	11:10
53047WW08R	23F0136-03	G2230612021.D	16:55
Matrix Spike Dup	B3F0366-MSD1	G2230612010.D	12:21
Matrix Spike	B3F0366-MS1	G2230612009.D	11:56
LCS	B3F0366-BS1	G2230612005.D	10:18

4 - FORM IV
METHOD BLANK SUMMARY

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	Work Order:	23F0136
Client:	HDR	Project:	Longhorn AAP
Blank ID:	B3F0409-BLK1	Batch:	B3F0409

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
61Trip2	23F0136-16	G2230613030.D	20:50
6147WW45	23F0136-15	G2230613029.D	20:25
6147WW31	23F0136-14	G2230613027.D	19:35
53147WW61	23F0136-13	G2230613026.D	19:10
531LHSMW50	23F0136-12	G2230613025.D	18:45
531DUP6	23F0136-11	G2230613028.D	20:00
6147WW46	23F0136-09	G2230613024.D	18:21
6147WW33	23F0136-08	G2230613023.D	17:56
6147WW04	23F0136-07	G2230613022.D	17:31
61DUP6	23F0136-06	G2230613021.D	17:06
6147WW34	23F0136-05	G2230613020.D	16:41
LCS Dup	B3F0409-BSD1	G2230613017.D	15:26
LCS	B3F0409-BS1	G2230613016.D	14:53

5 - FORM V
INSTRUMENT PERFORMANCE CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Lab File ID:	G2230524004.D	Injection Date:	05/24/23
Instrument ID:	G2	Injection Time:	16:45
Sequence:	S3E0428	Lab Sample ID:	S3E0428-TUN1

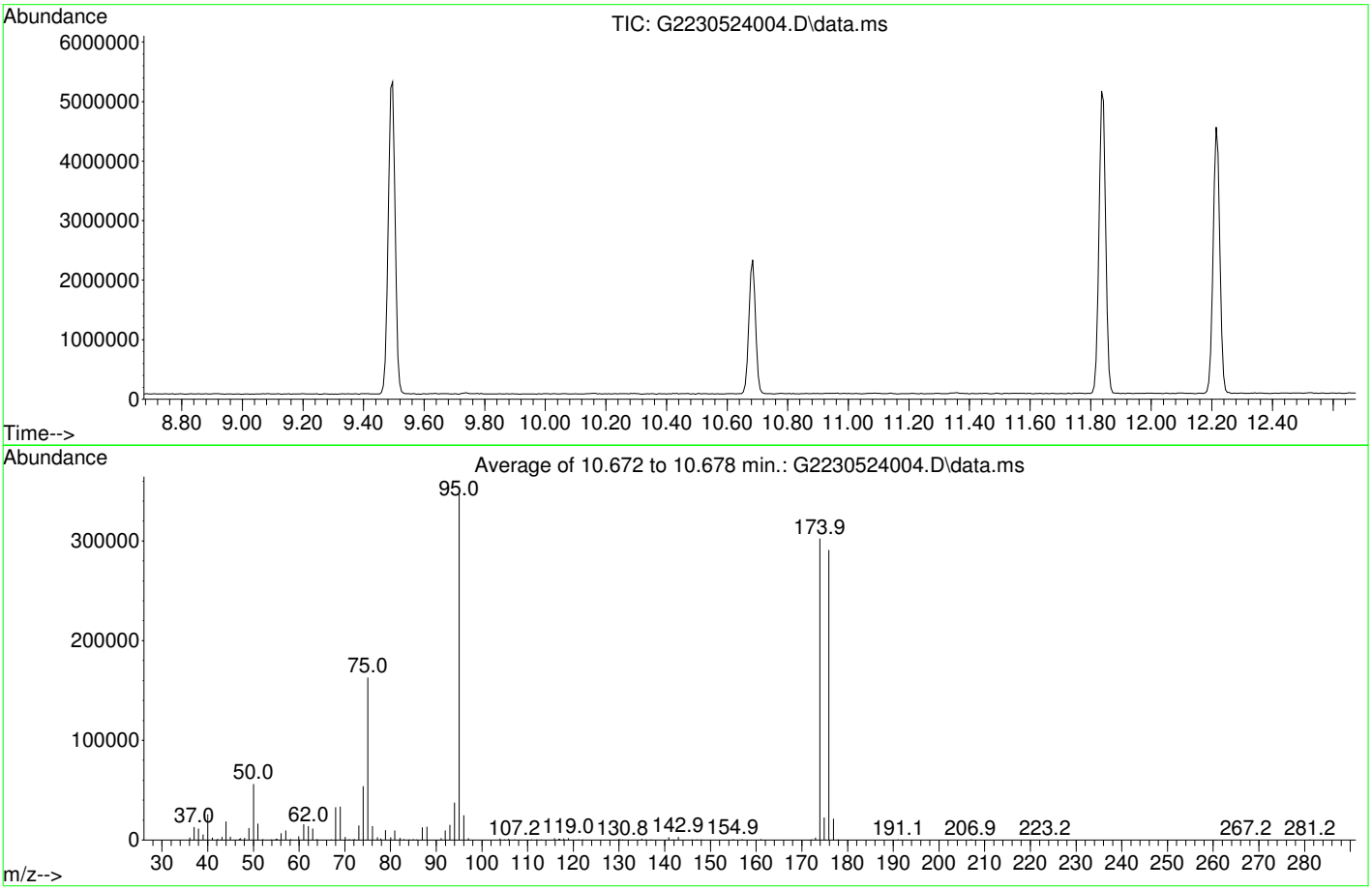
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
50	15 - 40% of 95	16.2	PASS
75	30 - 60% of 95	47	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	7.16	PASS
173	Less than 2% of 174	0.804	PASS
174	50 - 100% of 95	87.1	PASS
175	5 - 9% of 174	7.47	PASS
176	95 - 101% of 174	96.2	PASS
177	5 - 9% of 176	7.32	PASS

Client ID	Sample ID	File ID	Date Analyzed	Time Analyzed
Cal Standard	S3E0428-CAL1	G2230524005.D	05/24/2023	17:09:00
Cal Standard	S3E0428-CAL2	G2230524006.D	05/24/2023	17:33:00
Cal Standard	S3E0428-CAL3	G2230524007.D	05/24/2023	17:57:00
Cal Standard	S3E0428-CAL4	G2230524008.D	05/24/2023	18:22:00
Cal Standard	S3E0428-CAL5	G2230524009.D	05/24/2023	18:46:00
Cal Standard	S3E0428-CAL6	G2230524010.D	05/24/2023	19:10:00
Cal Standard	S3E0428-CAL7	G2230524011.D	05/24/2023	19:34:00
Cal Standard	S3E0428-CAL8	G2230524012.D	05/24/2023	19:58:00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524004.D
Acq On : 24 May 2023 16:45
Operator : PO1
Sample : SEQ-TUN1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e

Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Title : 8260B Calibration
Last Update : Thu May 25 10:19:42 2023



Spectrum Information: Average of 10.672 to 10.678 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.2	56220	PASS
75	95	30	60	47.0	163052	PASS
95	95	100	100	100.0	347168	PASS
96	95	5	9	7.2	24852	PASS
173	174	0.00	2	0.8	2432	PASS
174	95	50	100	87.1	302432	PASS
175	174	5	9	7.5	22584	PASS
176	174	95	101	96.2	291072	PASS
177	176	5	9	7.3	21318	PASS

5 - FORM V
INSTRUMENT PERFORMANCE CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Lab File ID:	G2230525004.D	Injection Date:	05/25/23
Instrument ID:	G2	Injection Time:	13:24
Sequence:	S3E0429	Lab Sample ID:	S3E0429-TUN1

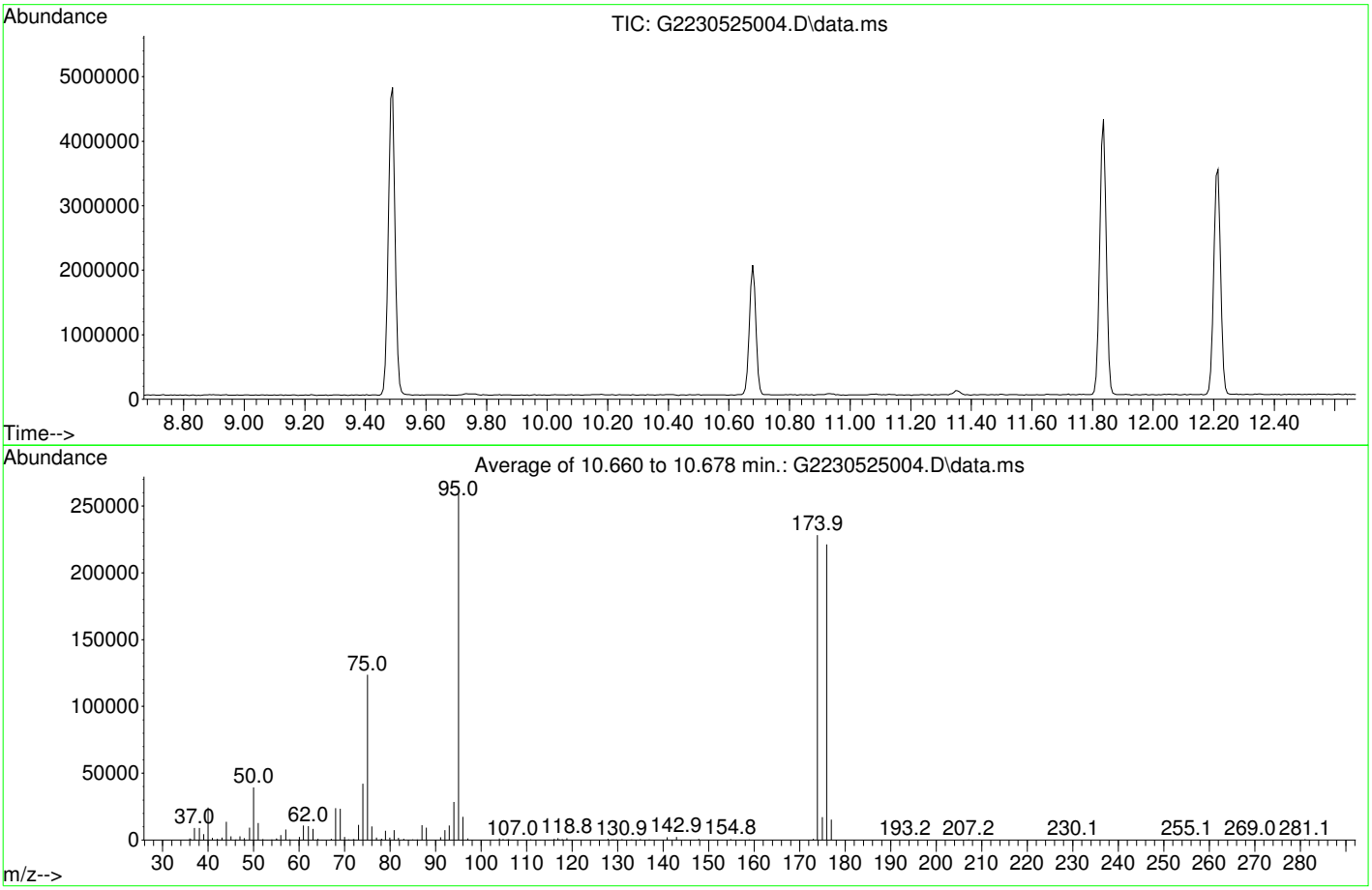
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
50	15 - 40% of 95	15.2	PASS
75	30 - 60% of 95	47.8	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.73	PASS
173	Less than 2% of 174	0.427	PASS
174	50 - 100% of 95	88.1	PASS
175	5 - 9% of 174	7.56	PASS
176	95 - 101% of 174	96.9	PASS
177	5 - 9% of 176	6.97	PASS

Client ID	Sample ID	File ID	Date Analyzed	Time Analyzed
SEQ-CAL9	S3E0429-CAL1	G2230525005.D	05/25/2023	13:48:00
SEQ-CALA	S3E0429-CAL2	G2230525006.D	05/25/2023	14:12:00
Initial Cal Check	S3E0429-ICV1	G2230525008.D	05/25/2023	15:01:00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525004.D
Acq On : 25 May 2023 13:24
Operator : PO1
Sample : SEQ-TUN1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Integration File: events.e

Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Title : 8260B Calibration
Last Update : Thu May 25 15:53:31 2023



Spectrum Information: Average of 10.660 to 10.678 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	39436	PASS
75	95	30	60	47.8	123708	PASS
95	95	100	100	100.0	259044	PASS
96	95	5	9	6.7	17433	PASS
173	174	0.00	2	0.4	974	PASS
174	95	50	100	88.1	228316	PASS
175	174	5	9	7.6	17257	PASS
176	174	95	101	96.9	221184	PASS
177	176	5	9	7.0	15418	PASS

5 - FORM V
INSTRUMENT PERFORMANCE CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Lab File ID:	G2230612002.D	Injection Date:	06/12/23
Instrument ID:	G2	Injection Time:	09:04
Sequence:	S3F0209	Lab Sample ID:	S3F0209-TUN1

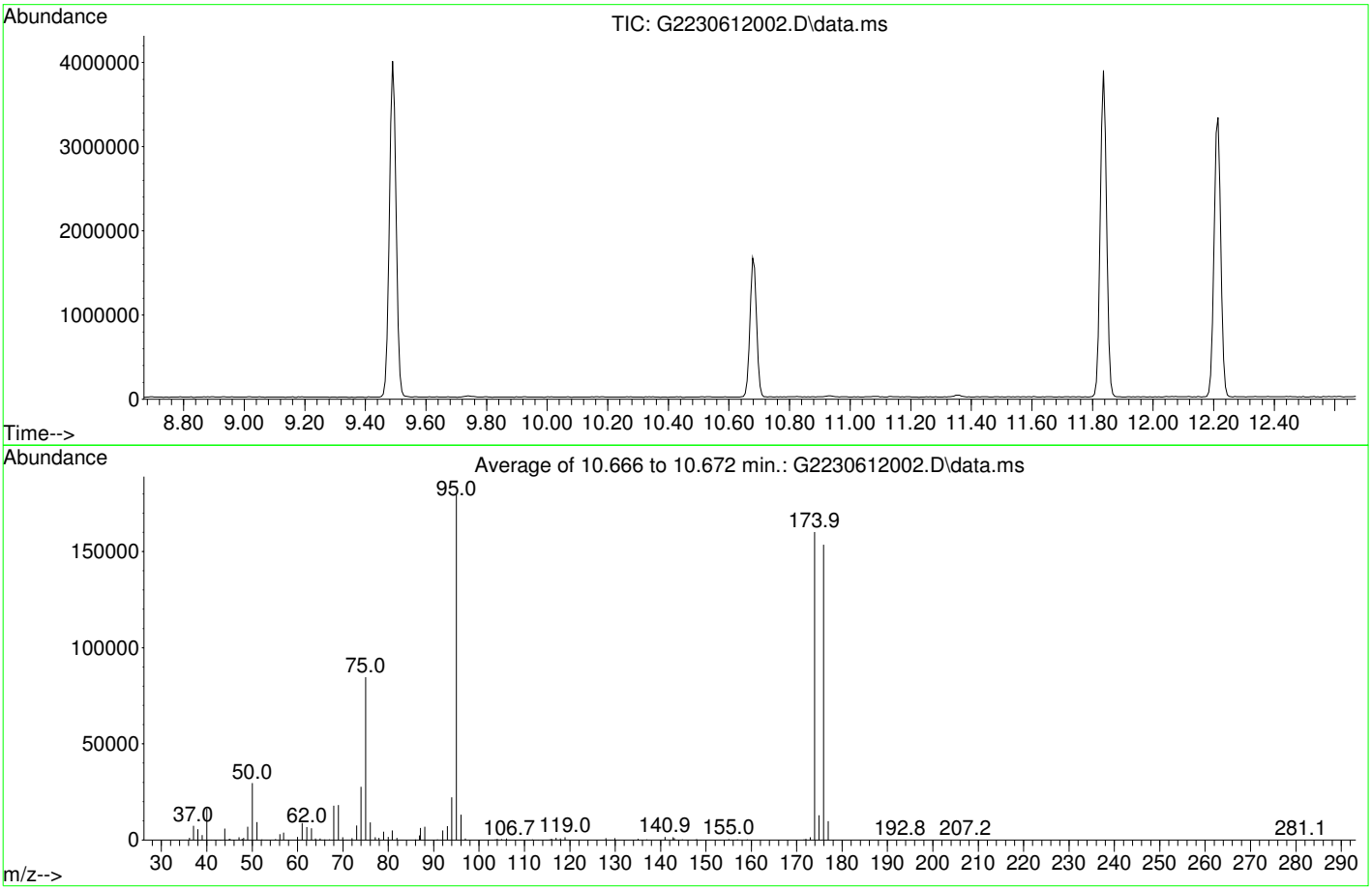
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
50	15 - 40% of 95	16.4	PASS
75	30 - 60% of 95	47.1	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	7.34	PASS
173	Less than 2% of 174	0.941	PASS
174	50 - 100% of 95	89	PASS
175	5 - 9% of 174	8.06	PASS
176	95 - 101% of 174	95.9	PASS
177	5 - 9% of 176	6.37	PASS

Client ID	Sample ID	File ID	Date Analyzed	Time Analyzed
	S3F0209-CCV1	G2230612004.D	06/12/2023	9:53:00
LCS	B3F0366-BS1	G2230612005.D	06/12/2023	10:18:00
Blank	B3F0366-BLK1	G2230612008.D	06/12/2023	11:32:00
Matrix Spike	B3F0366-MS1	G2230612009.D	06/12/2023	11:56:00
Matrix Spike Dup	B3F0366-MSD1	G2230612010.D	06/12/2023	12:21:00
53047WW08R	23F0136-03	G2230612021.D	06/12/2023	16:55:00
High Cal Check	S3F0209-HCV1	G2230612026.D	06/12/2023	18:58:00
High Cal Check	S3F0209-HCV2	G2230612027.D	06/12/2023	19:22:00
High Cal Check	S3F0209-HCV3	G2230612028.D	06/12/2023	19:47:00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612002.D
Acq On : 12 Jun 2023 09:04
Operator : PO1/MP3
Sample : SEQ-TUN1
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Title : 8260B Calibration
Last Update : Thu May 25 16:51:34 2023



Spectrum Information: Average of 10.666 to 10.672 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	29572	PASS
75	95	30	60	47.1	84676	PASS
95	95	100	100	100.0	179940	PASS
96	95	5	9	7.3	13208	PASS
173	174	0.00	2	0.9	1507	PASS
174	95	50	100	89.0	160116	PASS
175	174	5	9	8.1	12899	PASS
176	174	95	101	95.9	153572	PASS
177	176	5	9	6.4	9775	PASS

5 - FORM V
INSTRUMENT PERFORMANCE CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Lab File ID:	G2230613003.D	Injection Date:	06/13/23
Instrument ID:	G2	Injection Time:	09:30
Sequence:	S3F0222	Lab Sample ID:	S3F0222-TUN1

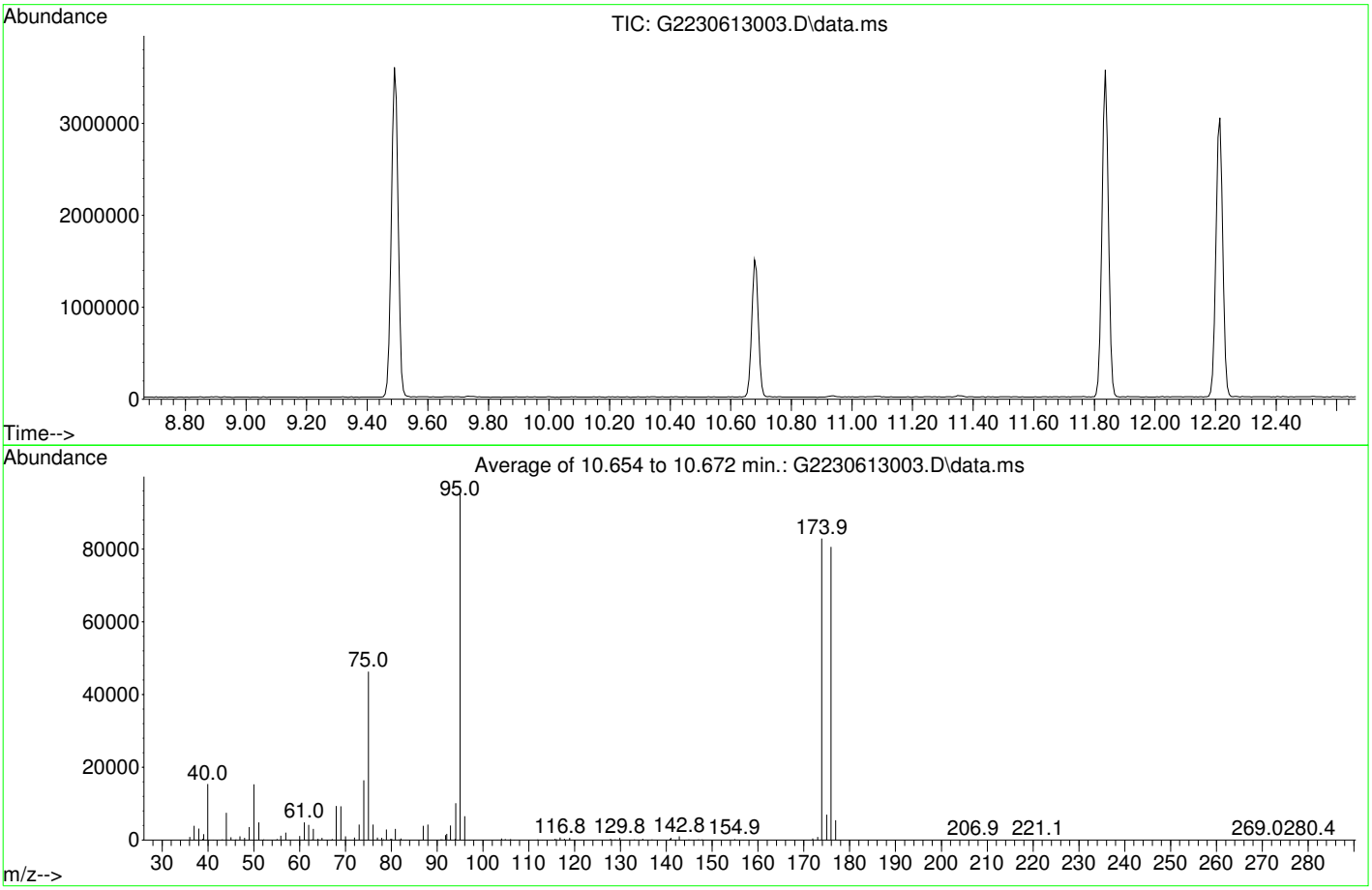
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
50	15 - 40% of 95	16.1	PASS
75	30 - 60% of 95	48.6	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.86	PASS
173	Less than 2% of 174	0.996	PASS
174	50 - 100% of 95	87.1	PASS
175	5 - 9% of 174	8.42	PASS
176	95 - 101% of 174	97.2	PASS
177	5 - 9% of 176	6.72	PASS

Client ID	Sample ID	File ID	Date Analyzed	Time Analyzed
Calibration Check	S3F0222-CCV1	G2230613004.D	06/13/2023	9:55:00
53147WW29	23F0136-01	G2230613007.D	06/13/2023	11:10:00
53147WW13	23F0136-02	G2230613008.D	06/13/2023	11:35:00
531DUP4	23F0136-04	G2230613009.D	06/13/2023	12:00:00
53147WW38	23F0136-10	G2230613010.D	06/13/2023	12:25:00
High Cal Check	S3F0222-HCV1	G2230613011.D	06/13/2023	12:50:00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613003.D
Acq On : 13 Jun 2023 09:30
Operator : PO1/MP3
Sample : SEQ-TUN1
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e

Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Title : 8260B Calibration
Last Update : Thu May 25 16:51:34 2023



Spectrum Information: Average of 10.654 to 10.672 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	15340	PASS
75	95	30	60	48.6	46242	PASS
95	95	100	100	100.0	95120	PASS
96	95	5	9	6.9	6523	PASS
173	174	0.00	2	1.0	825	PASS
174	95	50	100	87.1	82850	PASS
175	174	5	9	8.4	6973	PASS
176	174	95	101	97.2	80566	PASS
177	176	5	9	6.7	5416	PASS

5 - FORM V
INSTRUMENT PERFORMANCE CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Lab File ID:	G2230613014.D	Injection Date:	06/13/23
Instrument ID:	G2	Injection Time:	14:04
Sequence:	S3F0236	Lab Sample ID:	S3F0236-TUN1

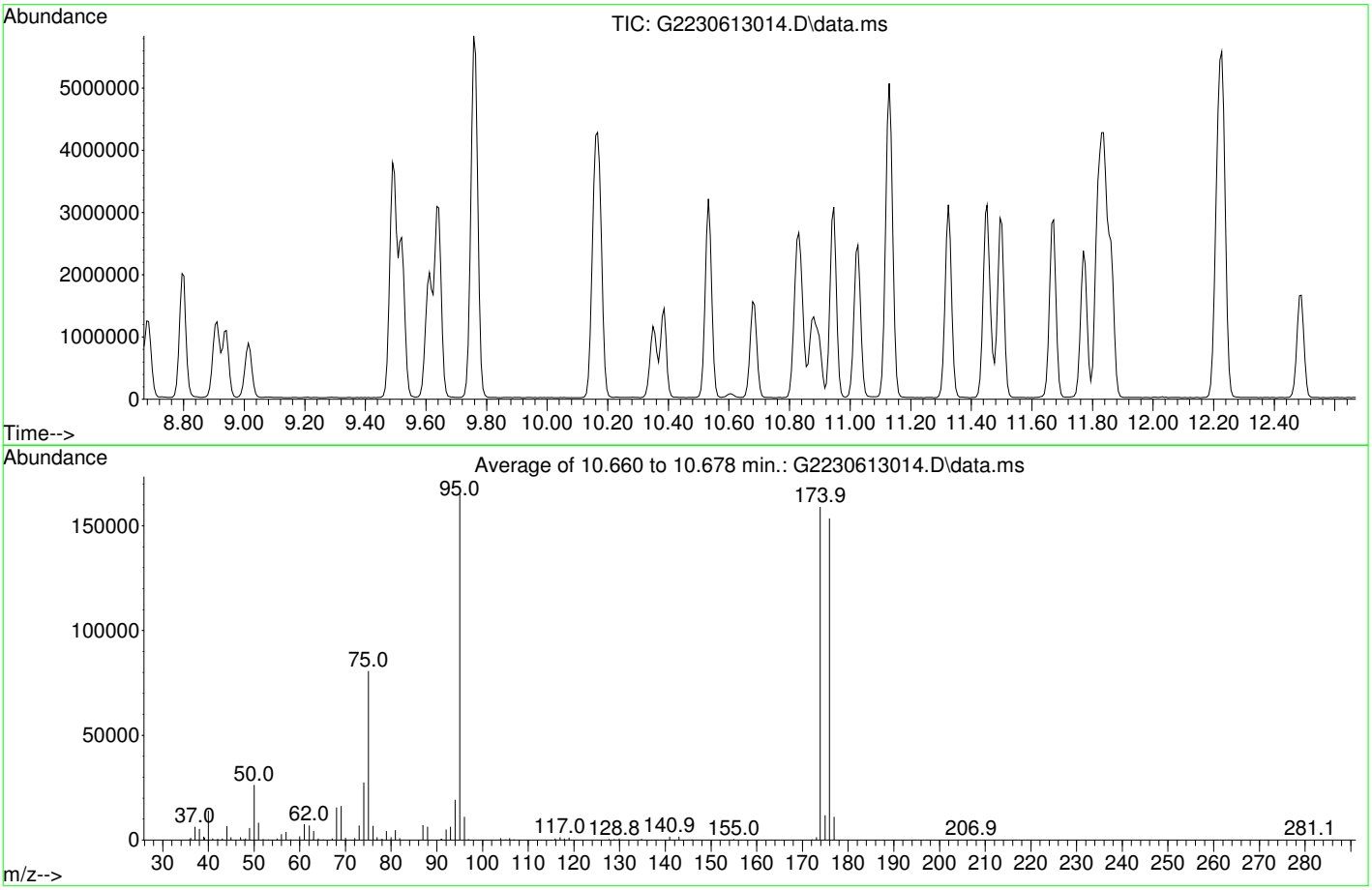
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	PASS/FAIL
50	15 - 40% of 95	15.9	PASS
75	30 - 60% of 95	48.8	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.68	PASS
173	Less than 2% of 174	0.874	PASS
174	50 - 100% of 95	96.2	PASS
175	5 - 9% of 174	7.47	PASS
176	95 - 101% of 174	96.6	PASS
177	5 - 9% of 176	7.18	PASS

Client ID	Sample ID	File ID	Date Analyzed	Time Analyzed
	S3F0236-CCV1	G2230613015.D	06/13/2023	14:29:00
LCS	B3F0409-BS1	G2230613016.D	06/13/2023	14:53:00
LCS Dup	B3F0409-BSD1	G2230613017.D	06/13/2023	15:26:00
Blank	B3F0409-BLK1	G2230613019.D	06/13/2023	16:16:00
6147WW34	23F0136-05	G2230613020.D	06/13/2023	16:41:00
61DUP6	23F0136-06	G2230613021.D	06/13/2023	17:06:00
6147WW04	23F0136-07	G2230613022.D	06/13/2023	17:31:00
6147WW33	23F0136-08	G2230613023.D	06/13/2023	17:56:00
6147WW46	23F0136-09	G2230613024.D	06/13/2023	18:21:00
531LHSMW50	23F0136-12	G2230613025.D	06/13/2023	18:45:00
53147WW61	23F0136-13	G2230613026.D	06/13/2023	19:10:00
6147WW31	23F0136-14	G2230613027.D	06/13/2023	19:35:00
531DUP6	23F0136-11	G2230613028.D	06/13/2023	20:00:00
6147WW45	23F0136-15	G2230613029.D	06/13/2023	20:25:00
61Trip2	23F0136-16	G2230613030.D	06/13/2023	20:50:00
High Cal Check	S3F0236-HCV1	G2230613037.D	06/13/2023	23:42:00
High Cal Check	S3F0236-HCV2	G2230613038.D	06/14/2023	0:07:00
High Cal Check	S3F0236-HCV3	G2230613039.D	06/14/2023	0:31:00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613014.D
Acq On : 13 Jun 2023 14:04
Operator : PO1/MP3
Sample : SEQ-TUN1
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e

Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Title : 8260B Calibration
Last Update : Thu May 25 16:51:34 2023



Spectrum Information: Average of 10.660 to 10.678 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.9	26264	PASS
75	95	30	60	48.8	80672	PASS
95	95	100	100	100.0	165250	PASS
96	95	5	9	6.7	11033	PASS
173	174	0.00	2	0.9	1390	PASS
174	95	50	100	96.2	158994	PASS
175	174	5	9	7.5	11879	PASS
176	174	95	101	96.6	153614	PASS
177	176	5	9	7.2	11033	PASS

6 - FORM VI

01342378

INITIAL CALIBRATION DATA SHEET

SW8260B/D

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Calibration: EE30097

Instrument: G2

Calibration Date: 5/24/2023 1:00:54PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
1,1,1,2-Tetrachloroethane	0.2	0.3581356	0.5	0.3858481	1	0.3602054	2	0.3636168	5	0.3195019	10	0.3287639
1,1,1-Trichloroethane	0.2	0.6714798	0.5	0.6985764	1	0.6230597	2	0.6333208	5	0.5586263	10	0.5593087
1,1,2,2-Tetrachloroethane	0.2	0.8470064	0.5	0.9647343	1	0.99033	2	0.8813175	5	0.7958467	10	0.8188133
1,1,2-Trichloro-1,2,2-Trifluoroeth	0.2	0.4049113	0.5	0.3796747	1	0.2929596	2	0.3415367	5	0.3029143	10	0.2976362
1,1,2-Trichloroethane	0.2	0.2873522	0.5	0.3151418	1	0.2794718	2	0.2670818	5	0.241348	10	0.2503436
1,1-Dichloroethane	0.2	0.7254857	0.5	0.6523123	1	0.6323436	2	0.603672	5	0.5522968	10	0.5599407
1,1-Dichloroethene	0.2	0.5417679	0.5	0.5383049	1	0.4645478	2	0.4664756	5	0.4250411	10	0.4189638
1,1-Dichloropropene	0.2	0.5953645	0.5	0.5461463	1	0.4938026	2	0.5122666	5	0.4332443	10	0.4483727
1,2,3-Trichlorobenzene	0.2	0.3029487	0.5	0.310841	1	0.3207101	2	0.3211484	5	0.2592978	10	0.2708672
1,2,3-Trichloropropane	0.2	0.4380568	0.5	0.4084882	1	0.345764	2	0.3421127	5	0.2886587	10	0.2907692
1,2,4-Trichlorobenzene	0.2	0.3586562	0.5	0.3981395	1	0.4123848	2	0.3880182	5	0.3231857	10	0.3581615
1,2,4-Trimethylbenzene	0.2	2.486058	0.5	2.533289	1	2.337965	2	2.300875	5	2.072068	10	2.087482
1,2-Dibromo-3-chloropropane	0.2	0.206581	0.5	0.1925978	1	0.2243729	2	0.2102235	5	0.1744373	10	0.1932497
1,2-Dibromoethane	0.2	0.3958937	0.5	0.3770785	1	0.3627208	2	0.3555519	5	0.3057881	10	0.3160249
1,2-Dichlorobenzene	0.2	1.320268	0.5	1.303943	1	1.324195	2	1.254777	5	1.115666	10	1.13992
1,2-Dichloroethane	0.2	0.6058152	0.5	0.5864665	1	0.5239123	2	0.5239267	5	0.4717342	10	0.4730922
1,2-Dichloropropane	0.2	0.266435	0.5	0.2798619	1	0.2591731	2	0.2499525	5	0.221074	10	0.2289106
1,3,5-Trimethylbenzene	0.2	2.426048	0.5	2.438042	1	2.362966	2	2.326273	5	2.036698	10	2.097186
1,3-Dichlorobenzene	0.2	1.420855	0.5	1.447019	1	1.442766	2	1.36313	5	1.219158	10	1.259101
1,3-Dichloropropane	0.2	0.5305095	0.5	0.5394412	1	0.5552758	2	0.505359	5	0.4544446	10	0.469532
1,4-Dioxane	2		5		10	2.726891E-03	20	2.594547E-03	50	2.333581E-03	100	2.421761E-03
1,4-Dichlorobenzene	0.2	1.388254	0.5	1.389299	1	1.385416	2	1.353403	5	1.191378	10	1.221544
1-Butanol	2		5		10	8.095983E-03	20	8.026551E-03	50	5.687616E-03	100	6.861377E-03
1-Propanol	2		5		10		20		50	2.342093E-03	100	2.030342E-03
2,2-Dichloropropane	0.2	0.6040747	0.5	0.6248628	1	0.6098687	2	0.5730346	5	0.5093378	10	0.5081643
2-Butanone	0.7	8.281434E-02	1.75	5.993206E-02	3.5	6.618436E-02	7	5.645747E-02	17.5	5.020629E-02	35	5.145356E-02
2-Chloroethyl vinyl ether	0.2	0.2317956	0.5	0.2076949	1	0.2213486	2	0.1907279	5	0.1608234	10	0.178278
2-Chlorotoluene	0.2	2.017892	0.5	2.149192	1	1.982665	2	2.012089	5	1.77679	10	1.791827
2-Hexanone	0.7	0.225825	1.75	0.2370008	3.5	0.2520308	7	0.2299966	17.5	0.1963938	35	0.2058782
4-Chlorotoluene	0.2	2.32937	0.5	2.318981	1	2.260369	2	2.253114	5	2.010914	10	2.055098
4-Isopropyltoluene	0.2	2.388847	0.5	2.401003	1	2.420861	2	2.316555	5	2.12286	10	2.168298

6 - FORM VI

01342379

INITIAL CALIBRATION DATA SHEET

SW8260B/D

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Calibration: EE30097

Instrument: G2

Calibration Date: 5/24/2023 1:00:54PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
4-Methyl-2-pentanone	0.7	0.3359565	1.75	0.3145117	3.5	0.3347694	7	0.3065724	17.5	0.263585	35	0.2822768
Acetone	0.7	0.2870964	1.75	0.1816311	3.5	0.1494085	7	0.1193188	17.5	9.689579E-02	35	9.695988E-02
Acetonitrile	0.5		1.25	0.2649204	2.5	0.2229569	5	0.2098485	12.5	0.1862969	25	0.1856522
Acrolein	0.5		1.25	7.739452E-02	2.5	5.876077E-02	5	6.074003E-02	12.5	0.0526869	25	5.555354E-02
Acrylonitrile	0.2	0.1433416	0.5	0.1651238	1	0.1785738	2	0.167399	5	0.1481112	10	0.1500985
Benzene	0.2	1.11754	0.5	1.145184	1	1.04805	2	1.041494	5	0.9223053	10	0.949501
Bromobenzene	0.2	1.200235	0.5	1.193307	1	1.111287	2	1.115411	5	0.9946147	10	0.9986193
Bromochloromethane	0.2	0.3380705	0.5	0.3402629	1	0.3100668	2	0.3085591	5	0.273419	10	0.2785478
Bromodichloromethane	0.2	0.4169639	0.5	0.3896904	1	0.397208	2	0.4107761	5	0.3408729	10	0.3470955
Bromoform	0.2	0.3155098	0.5	0.3492395	1	0.349122	2	0.3244173	5	0.2799342	10	0.3029189
Bromomethane	0.2	0.5678231	0.5	0.4050404	1	0.3424239	2	0.3072018	5	0.2432783	10	0.2151892
Carbon disulfide	0.2	1.128994	0.5	1.138078	1	0.979273	2	0.9868793	5	0.8600965	10	0.8690915
Carbon tetrachloride	0.2	0.3908851	0.5	0.3858918	1	0.350485	2	0.3760025	5	0.3366869	10	0.3447393
Chlorobenzene	0.2	0.9466566	0.5	1.022664	1	0.9195812	2	0.9139018	5	0.7991272	10	0.8304369
Chloroethane	0.2	0.2530105	0.5	0.2629065	1	0.2902844	2	0.2386694	5	0.2039156	10	0.2189574
Chloroform	0.2	0.7028915	0.5	0.7286826	1	0.7138543	2	0.6729865	5	0.6125384	10	0.6256179
Chloromethane	0.2	0.4499248	0.5	0.4098383	1	0.4198693	2	0.3547858	5	0.3062154	10	0.3111271
cis-1,2-Dichloroethene	0.2	0.6529109	0.5	0.6014552	1	0.5637903	2	0.5545411	5	0.4953256	10	0.499738
cis-1,3-Dichloropropene	0.2	0.4744589	0.5	0.4969547	1	0.4638492	2	0.458332	5	0.4094385	10	0.4227711
Cyclohexane	0.2	0.6206131	0.5	0.4869323	1	0.5036307	2	0.5679021	5	0.5706731	10	0.5255139
Dibromochloromethane	0.2	0.4663799	0.5	0.4155519	1	0.4293308	2	0.4023359	5	0.3547112	10	0.3667488
Dibromomethane	0.2	0.2599663	0.5	0.256825	1	0.2463597	2	0.2481517	5	0.2248301	10	0.229216
Dichlorodifluoromethane	0.2	0.4515779	0.5	0.4737883	1	0.4743194	2	0.408288	5	0.3581545	10	0.3562857
Ethylbenzene	0.2	1.579872	0.5	1.588339	1	1.48904	2	1.468425	5	1.291302	10	1.32542
Ethyl ether	0.2	0.3047156	0.5	0.3255024	1	0.317341	2	0.297217	5	0.2641274	10	0.2657119
Hexachlorobutadiene	0.2	0.2562047	0.5	0.2135492	1	0.2052246	2	0.2107028	5	0.1661805	10	0.183114
Hexachloroethane	0.2	0.4330019	0.5	0.4451845	1	0.4354866	2	0.4275364	5	0.3815825	10	0.3974231
Hexane	0.2	0.5020194	0.5	0.4343298	1	0.3190474	2	0.3742333	5	0.3189872	10	0.3161373
Isobutanol	2		5	1.632729E-02	10	1.513549E-02	20	1.397563E-02	50	1.349705E-02	100	1.237341E-02
Isopropanol	2		5		10	2.031994E-02	20	1.717066E-02	50	0.01438	100	0.0164382
Isopropylbenzene	0.2	3.217188	0.5	3.124245	1	2.897744	2	2.905937	5	2.663519	10	2.636794

6 - FORM VI

01342380

INITIAL CALIBRATION DATA SHEET

SW8260B/D

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Calibration: EE30097

Instrument: G2

Calibration Date: 5/24/2023 1:00:54PM

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
m,p-Xylene	0.4	1.168169	1	1.194365	2	1.15499	4	1.146141	10	0.986136	20	1.018312
Methyl tert-butyl ether	0.2	6.2355	0.5	3.311554	1	2.32365	2	1.733387	5	1.294762	10	1.235893
Methylene chloride	0.2	~~2.889255~~	0.5	~~1.15816~~	1	0.8630258	2	0.6825805	5	0.4448692	10	0.4112875
n-Butylbenzene	0.2	2.094759	0.5	1.932414	1	1.870953	2	1.82417	5	1.587872	10	1.634649
n-Propylbenzene	0.2	3.563366	0.5	3.566645	1	3.187185	2	3.282684	5	2.936538	10	2.964655
Naphthalene	0.2	1.213459	0.5	1.162619	1	1.275186	2	1.130877	5	0.9246166	10	0.9766803
o-Xylene	0.2	2.692832	0.5	2.668849	1	2.55371	2	2.493438	5	2.285629	10	2.267192
sec-Butylbenzene	0.2	2.964871	0.5	3.017674	1	2.778352	2	2.848336	5	2.544162	10	2.54422
Styrene	0.2	1.098726	0.5	1.049539	1	0.9771588	2	0.9929332	5	0.8646377	10	0.8904722
tert-Butylbenzene	0.2	2.744306	0.5	2.521163	1	2.42973	2	2.488758	5	2.106766	10	2.248043
Tetrachloroethene	0.2	0.4606659	0.5	0.6021357	1	0.415543	2	0.4148088	5	0.455735	10	0.3701087
Tetrahydrofuran	0.2	~~0.2610928~~	0.5	0.2216019	1	0.1560981	2	0.1260098	5	0.1047923	10	0.1112233
Toluene	0.2	1.510031	0.5	1.507234	1	1.390956	2	1.354054	5	1.19346	10	1.217782
trans-1,2-Dichloroethene	0.2	0.4913978	0.5	0.4960733	1	0.4730678	2	0.4428924	5	0.3916462	10	0.4051107
trans-1,3-Dichloropropene	0.2	0.4844776	0.5	0.4558332	1	0.4620611	2	0.4419272	5	0.3846404	10	0.3973563
Trichloroethene	0.2	0.3342364	0.5	0.3222068	1	0.2972074	2	0.2914104	5	0.2594414	10	0.2573127
Trichlorofluoromethane	0.2	0.6524262	0.5	0.6451945	1	0.7004871	2	0.6004703	5	0.5096656	10	0.5385262
Vinyl acetate	0.2	0.7589717	0.5	0.6607313	1	0.7057294	2	0.6868042	5	0.6058205	10	0.6771529
Vinyl chloride	0.2	0.4405867	0.5	0.4328703	1	0.4443605	2	0.3914205	5	0.3405654	10	0.3565298
Xylenes, Total	0.6	1.192321	1.5	1.218186	3	1.176678	6	1.157354	15	1.00542	30	1.037045
1,2-Dichloroethene, Total	0.4	0.5721544	1	0.5487642	2	0.518429	4	0.4987168	10	0.4434859	20	0.4524243
1,3-Dichloropropene, Total	0.4	0.4794683	1	0.476394	2	0.4629551	4	0.4501296	10	0.3970394	20	0.4100637
Dibromofluoromethane	20	0.4369441	20	0.4381279	20	0.4433601	20	0.4412121	20	0.4414151	20	0.4485563
1,2-Dichloroethane-d4	20	0.4356614	20	0.4339657	20	0.4363573	20	0.4383219	20	0.4388346	20	0.4434164
Fluorobenzene	20	1.131285	20	1.144428	20	1.136739	20	1.140729	20	1.13953	20	1.143425
Toluene-d8	20	1.2529	20	1.27678	20	1.260418	20	1.267786	20	1.253089	20	1.256174
4-Bromofluorobenzene	10	0.9310802	10	0.9220044	10	0.9251503	10	0.9124534	10	0.9329093	10	0.934728
1,2-Dichlorobenzene-d4	20	0.8553083	20	0.8655983	20	0.8758636	20	0.8727067	20	0.864487	20	0.8681487

6 - FORM VI

01342381

INITIAL CALIBRATION DATA SHEET (Continued)

SW8260B/D

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Calibration: EE30097

Instrument: G2

Calibration Date: 5/24/2023 1:00:54PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
1,1,1,2-Tetrachloroethane	15	0.3325154	20	0.3166119	25	0.3288039	30	0.3403357				
1,1,1-Trichloroethane	15	0.5898587	20	0.5673427	25	0.5542291	30	0.5824283				
1,1,2,2-Tetrachloroethane	15	0.8292592	20	0.8275261	25	0.8780105	30	0.8606559				
1,1,2-Trichloro-1,2,2-Trifluoroeth	15	0.3195072	20	0.3036257	25	0.3127337	30	0.319153				
1,1,2-Trichloroethane	15	0.256509	20	0.2459271	25	0.2444638	30	0.2549168				
1,1-Dichloroethane	15	0.5760483	20	0.5564951	25	0.5342331	30	0.5609608				
1,1-Dichloroethene	15	0.4380278	20	0.4256099	25	0.4156166	30	0.4346609				
1,1-Dichloropropene	15	0.4657054	20	0.4520407	25	0.4457322	30	0.4605515				
1,2,3-Trichlorobenzene	15	0.2896037	20	0.2591423	25	0.2701666	30	0.2785794				
1,2,3-Trichloropropane	15	0.2940716	20	0.2881999	25	0.3109573	30	0.3070414				
1,2,4-Trichlorobenzene	15	0.3672769	20	0.3128008	25	0.3207442	30	0.3495461				
1,2,4-Trimethylbenzene	15	2.125858	20	2.068927	25	2.122497	30	2.157254				
1,2-Dibromo-3-chloropropane	15	0.187208	20	0.1575837	25	0.1594393	30	0.1763523				
1,2-Dibromoethane	15	0.3247455	20	0.3066369	25	0.3195991	30	0.3306279				
1,2-Dichlorobenzene	15	1.165708	20	1.097444	25	1.122484	30	1.170433				
1,2-Dichloroethane	15	0.4774924	20	0.4591831	25	0.4455601	30	0.4622925				
1,2-Dichloropropane	15	0.2342484	20	0.2232905	25	0.2193803	30	0.2287292				
1,3,5-Trimethylbenzene	15	2.128013	20	2.100607	25	2.167312	30	2.200662				
1,3-Dichlorobenzene	15	1.274375	20	1.238989	25	1.279937	30	1.317105				
1,3-Dichloropropane	15	0.4779421	20	0.4522305	25	0.4585463	30	0.4784381				
1,4-Dioxane	150	2.338922E-03	200	2.066409E-03	250	2.160766E-03	300	2.213545E-03				
1,4-Dichlorobenzene	15	1.251116	20	1.192278	25	1.243539	30	1.277486				
1-Butanol	150	6.510928E-03	200	5.904811E-03	250	5.191738E-03	300	5.598362E-03				
1-Propanol	150	2.238033E-03	200	1.77626E-03	250	1.973673E-03	300	2.12558E-03				
2,2-Dichloropropane	15	0.5251214	20	0.5120633	25	0.5359409	30	0.5570256				
2-Butanone	52.5	5.216453E-02	70	4.846093E-02	87.5	4.710997E-02	105	5.104841E-02				
2-Chloroethyl vinyl ether	15	0.189961	20	0.1794896	25	0.1883938	30	0.1910041				
2-Chlorotoluene	15	1.84444	20	1.834386	25	1.929898	30	1.891869				
2-Hexanone	52.5	0.2060667	70	0.1876891	87.5	0.1943696	105	0.2022334				
4-Chlorotoluene	15	2.113551	20	2.088147	25	2.191439	30	2.173882				
4-Isopropyltoluene	15	2.203541	20	2.111558	25	2.174422	30	2.240869				

6 - FORM VI

01342382

INITIAL CALIBRATION DATA SHEET (Continued)

SW8260B/D

Client: HDR

SDG: 23F0136

Project: Longhorn AAP

Calibration: EE30097

Instrument: G2

Calibration Date: 5/24/2023 1:00:54PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
4-Methyl-2-pentanone	52.5	0.2819214	70	0.262483	87.5	0.2622003	105	0.2748351				
Acetone	52.5	9.480281E-02	70	8.938955E-02	87.5	8.691926E-02	105	9.109845E-02				
Acetonitrile	37.5	0.1923502	50	0.1865223	62.5	0.1802285	75	0.1874498				
Acrolein	37.5	5.507868E-02	50	5.237685E-02	62.5	5.158504E-02	75	5.427644E-02				
Acrylonitrile	15	0.149781	20	0.1426589	25	0.1340608	30	0.1416782				
Benzene	15	0.9649439	20	0.9361097	25	0.9361219	30	0.9603559				
Bromobenzene	15	1.036998	20	1.043107	25	1.07267	30	1.070271				
Bromochloromethane	15	0.2907848	20	0.279698	25	0.2711473	30	0.279327				
Bromodichloromethane	15	0.3567401	20	0.3469857	25	0.3449669	30	0.3559908				
Bromoform	15	0.3051982	20	0.2846233	25	0.2954841	30	0.3108533				
Bromomethane	15	0.2458826	20	0.2483125	25	0.260944	30	0.2639354				
Carbon disulfide	15	0.9016756	20	0.8845974	25	0.8451698	30	0.8828204				
Carbon tetrachloride	15	0.3570443	20	0.347369	25	0.3524483	30	0.3673706				
Chlorobenzene	15	0.8444551	20	0.804991	25	0.8297859	30	0.8624242				
Chloroethane	15	0.2368308	20	0.225953	25	0.2309487	30	0.2320939				
Chloroform	15	0.6445981	20	0.6276587	25	0.6086532	30	0.6318383				
Chloromethane	15	0.3450953	20	0.3325804	25	0.3234341	30	0.330584				
cis-1,2-Dichloroethene	15	0.523698	20	0.4975314	25	0.4909072	30	0.5053574				
cis-1,3-Dichloropropene	15	0.4339581	20	0.4148634	25	0.4210186	30	0.4331181				
Cyclohexane	15	0.5477602	20	0.5136579	25	0.5057579	30	0.5298687				
Dibromochloromethane	15	0.3742309	20	0.35886	25	0.3682396	30	0.3815497				
Dibromomethane	15	0.2356693	20	0.2220503	25	0.2227743	30	0.2358187				
Dichlorodifluoromethane	15	0.3946357	20	0.3826067	25	0.3896399	30	0.3865486				
Ethylbenzene	15	1.366001	20	1.289874	25	1.311623	30	1.364344				
Ethyl ether	15	0.2723053	20	0.2643567	25	0.2568471	30	0.2656054				
Hexachlorobutadiene	15	0.1885109	20	0.1615924	25	0.1687925	30	0.1848729				
Hexachloroethane	15	0.4084506	20	0.3888143	25	0.4067104	30	0.4216298				
Hexane	15	0.3404406	20	0.3286091	25	0.3428235	30	0.3552206				
Isobutanol	150	1.252547E-02	200	1.192588E-02	250	1.055183E-02	300	0.0113926				
Isopropanol	150	1.621515E-02	200	1.439277E-02	250	1.408635E-02	300	1.540312E-02				
Isopropylbenzene	15	2.738173	20	2.760124	25	2.931152	30	2.858971				

6 - FORM VI
INITIAL CALIBRATION DATA SHEET (Continued)

SW8260B/D

Client: HDR SDG: 23F0136

Project: Longhorn AAP

Calibration: EE30097 Instrument: G2

Calibration Date: 5/24/2023 1:00:54PM

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
m,p-Xylene	30	1.040913	40	0.9780072	50	0.9925752	60	1.026809				
Methyl tert-butyl ether	15	1.226174	20	1.162434	25	1.109959	30	1.154973				
Methylene chloride	15	0.392354	20	0.3428851	25	0.3234496	30	0.341198				
n-Butylbenzene	15	1.654917	20	1.556031	25	1.586897	30	1.67069				
n-Propylbenzene	15	3.038514	20	3.060475	25	3.211311	30	3.187957				
Naphthalene	15	1.001447	20	0.8679077	25	0.8860025	30	0.9494236				
o-Xylene	15	2.337989	20	2.378278	25	2.492927	30	2.433826				
sec-Butylbenzene	15	2.635266	20	2.565742	25	2.663161	30	2.692333				
Styrene	15	0.9174934	20	0.8555601	25	0.8704257	30	0.9147931				
tert-Butylbenzene	15	2.319665	20	2.279937	25	2.387185	30	2.382016				
Tetrachloroethene	15	0.3816889	20	0.3764826	25	0.3811738	30	0.3955235				
Tetrahydrofuran	15	0.1149196	20	0.1007926	25	9.602485E-02	30	0.1040078				
Toluene	15	1.245389	20	1.189963	25	1.215927	30	1.253672				
trans-1,2-Dichloroethene	15	0.420477	20	0.407524	25	0.39675	30	0.4095922				
trans-1,3-Dichloropropene	15	0.4140236	20	0.3890022	25	0.3948514	30	0.4104575				
Trichloroethene	15	0.2675363	20	0.2590597	25	0.2590002	30	0.2703235				
Trichlorofluoromethane	15	0.5885336	20	0.5712762	25	0.6103822	30	0.6081919				
Vinyl acetate	15	0.7034323	20	0.6624869	25	0.6520354	30	0.6856169				
Vinyl chloride	15	0.3876069	20	0.3743368	25	0.3762659	30	0.3861395				
Xylenes, Total	45	1.059222	60	0.9959061	75	1.008458	90	1.047547				
1,2-Dichloroethene, Total	30	0.4720875	40	0.4525279	50	0.4438286	60	0.4574747				
1,3-Dichloropropene, Total	30	0.4239907	40	0.4019328	50	0.407935	60	0.4217879				
Dibromofluoromethane	20	0.4442057	20	0.4481741	20	0.4296556	20	0.42978				
1,2-Dichloroethane-d4	20	0.4421667	20	0.4399393	20	0.4209905	20	0.420009				
Fluorobenzene	20	1.144738	20	1.138753	20	1.142007	20	1.134796				
Toluene-d8	20	1.270448	20	1.249455	20	1.267442	20	1.251623				
4-Bromofluorobenzene	10	0.9301694	10	0.9665329	10	1.01376	10	0.9752663				
1,2-Dichlorobenzene-d4	20	0.861512	20	0.8441646	20	0.8434719	20	0.8500327				

6 - FORM VI
INITIAL CALIBRATION DATA SHEET (Continued)

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Calibration:	EE30097	Instrument:	G2
		Calibration Date:	5/24/2023 1:00:54PM

COMPOUND	Cal Type	Mean RF	RF RSD	Linear r	Quad COD	Weighting	LIMIT	Q
1,1,1,2-Tetrachloroethane	AVG	0.3434339	6.5				15	
1,1,1-Trichloroethane	AVG	0.603823	8.4				15	
1,1,2,2-Tetrachloroethane	AVG	0.86935	7.3				SPCC (0.3)	
1,1,2-Trichloro-1,2,2-Trifluoroethane	AVG	0.3274653	11.4				15	
1,1,2-Trichloroethane	AVG	0.2642556	8.9				15	
1,1-Dichloroethane	LRI1	0.5953788	9.9	0.999		*1/X*	SPCC (0.1)	
1,1-Dichloroethene	LRI1	0.4569016	10.3	0.999		*1/X*	CCC (30)	
1,1-Dichloropropene	LRI1	0.4853227	10.7	0.999		*1/X*	0.99	
1,2,3-Trichlorobenzene	AVG	0.2883305	8.4				15	
1,2,3-Trichloropropane	LRI1	0.331412	16.0	0.998		*1/X*	0.99	
1,2,4-Trichlorobenzene	AVG	0.3588914	9.4				15	
1,2,4-Trimethylbenzene	AVG	2.229227	7.8				15	
1,2-Dibromo-3-chloropropane	LRI1	0.1882045	11.6	0.990		*1/X*	0.99	
1,2-Dibromoethane	AVG	0.3394667	9.2				15	
1,2-Dichlorobenzene	LRI1	1.201484	7.5	0.999		*1/X*	0.99	
1,2-Dichloroethane	LRI1	0.5029475	11.1	0.999		*1/X*	0.99	
1,2-Dichloropropane	LRI1	0.2411055	8.8	0.999		*1/X*	CCC (30)	
1,3,5-Trimethylbenzene	AVG	2.228381	6.6				15	
1,3-Dichlorobenzene	AVG	1.326244	6.5				15	
1,3-Dichloropropane	LRI1	0.4921719	7.7	0.999		*1/X*	0.99	
1,4-Dioxane	AVG	2.357053E-03	9.4				15	
1,4-Dichlorobenzene	AVG	1.289371	6.4				15	
1-Butanol	QRI1	6.484671E-03	17.0		0.990	*1/X*	0.99	
1-Propanol	AVG	2.080997E-03	9.7				15	
2,2-Dichloropropane	AVG	0.5559494	8.0				15	
2-Butanone	LRI1	5.658319E-02	19.2	0.997		*1/X*	0.99	
2-Chloroethyl vinyl ether	AVG	0.1939517	10.9				15	
2-Chlorotoluene	AVG	1.923105	6.1				15	
2-Hexanone	LRI1	0.2137484	9.9	0.998		*1/X*	0.99	
4-Chlorotoluene	AVG	2.179486	5.1				15	
4-Isopropyltoluene	AVG	2.254881	5.2				15	

6 - FORM VI
INITIAL CALIBRATION DATA SHEET (Continued)

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Calibration:	EE30097	Instrument:	G2
		Calibration Date:	5/24/2023 1:00:54PM

COMPOUND	Cal Type	Mean RF	RF RSD	Linear r	Quad COD	Weighting	LIMIT	Q
4-Methyl-2-pentanone	LRI1	0.2919112	9.9	0.998		*1/X*	0.99	
Acetone	LRI1	0.1293521	49.1	0.998		*1/X*	0.99	
Acetonitrile	LRI1	0.2018029	13.6	0.999		*1/X*	0.99	
Acrolein	LRI1	5.760586E-02	13.9	0.998		*1/X*	0.99	
Acrylonitrile	AVG	0.1520827	9.1				15	
Benzene	AVG	1.002161	8.0				15	
Bromobenzene	AVG	1.083652	6.6				15	
Bromochloromethane	AVG	0.2969883	8.8				15	
Bromodichloromethane	LRI1	0.370729	8.0	0.999		*1/X*	0.99	
Bromoform	AVG	0.3117301	7.6				SPCC (0.1)	
Bromomethane	LRI1	0.3100031	34.4	0.995		*1/X*	0.99	
Carbon disulfide	LRI1	0.9476676	11.5	0.999		*1/X*	0.99	
Carbon tetrachloride	AVG	0.3608923	5.1				15	
Chlorobenzene	AVG	0.8774024	8.2				SPCC (0.3)	
Chloroethane	AVG	0.239357	10.2				15	
Chloroform	AVG	0.656932	6.7				CCC (30)	
Chloromethane	LRI1	0.3583454	14.0	0.999		*1/X*	SPCC (0.1)	
cis-1,2-Dichloroethene	LRI1	0.5385255	10.1	0.999		*1/X*	0.99	
cis-1,3-Dichloropropene	AVG	0.4428763	6.5				15	
Cyclohexane	AVG	0.537231	7.5				15	
Dibromochloromethane	LRI1	0.3917939	9.2	0.999		*1/X*	0.99	
Dibromomethane	AVG	0.2381661	5.9				15	
Dichlorodifluoromethane	AVG	0.4075845	10.8				15	
Ethylbenzene	LRI1	1.407424	8.2	0.999		*1/X*	CCC (30)	
Ethyl ether	LRI1	0.283373	8.9	0.999		*1/X*	0.99	
Hexachlorobutadiene	LRI1	0.1938745	14.7	0.993		*1/X*	0.99	
Hexachloroethane	AVG	0.414582	5.1				15	
Hexane	LRI1	0.3631848	16.6	0.997		*1/X*	0.99	
Isobutanol	LRI1	1.307829E-02	14.1	0.992		*1/X*	0.99	
Isopropanol	AVG	1.605077E-02	12.8				15	
Isopropylbenzene	AVG	2.873385	6.5				15	

6 - FORM VI
INITIAL CALIBRATION DATA SHEET (Continued)

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Calibration:	EE30097	Instrument:	G2
		Calibration Date:	5/24/2023 1:00:54PM

COMPOUND	Cal Type	Mean RF	RF RSD	Linear r	Quad COD	Weighting	LIMIT	Q
m,p-Xylene	AVG	1.070642	7.9				15	
Methyl tert-butyl ether	LRI1	2.078829	78.0	0.999		*1/X*	0.99	
Methylene chloride	LRI1	0.4752062	40.8	0.992		*1/X*	0.99	
n-Butylbenzene	LRI1	1.741335	10.3	0.998		*1/X*	0.99	
n-Propylbenzene	AVG	3.199933	6.9				15	
Naphthalene	LRI1	1.038822	14.0	0.995		*1/X*	0.99	
o-Xylene	AVG	2.460467	6.0				15	
sec-Butylbenzene	AVG	2.725412	6.3				15	
Styrene	AVG	0.9431739	8.8				15	
tert-Butylbenzene	AVG	2.390757	7.3				15	
Tetrachloroethene	LRI1	0.4253866	16.4	0.998		*1/X*	0.99	
Tetrahydrofuran	LRI1	0.1261634	31.8	0.994		*1/X*	0.99	
Toluene	LRI1	1.307847	9.5	0.999		*1/X*	CCC (30)	
trans-1,2-Dichloroethene	AVG	0.4334531	9.2				15	
trans-1,3-Dichloropropene	AVG	0.423463	8.3				15	
Trichloroethene	LRI1	0.2817735	10.0	0.999		*1/X*	0.99	
Trichlorofluoromethane	AVG	0.6025154	9.2				15	
Vinyl acetate	AVG	0.6798782	5.9				15	
Vinyl chloride	AVG	0.3930682	9.0				CCC (30)	
Xylenes, Total	AVG	1.089814	7.9				15	
1,2-Dichloroethene, Total	AVG	0.4859893	9.6				15	
1,3-Dichloropropene, Total	AVG	0.4331696	7.2				15	
Dibromofluoromethane	AVG	0.4401431	1.5				15	
1,2-Dichloroethane-d4	AVG	0.4349663	1.9				15	
Fluorobenzene	AVG	1.139643	0.4				15	
Toluene-d8	AVG	1.260611	0.7				15	
4-Bromofluorobenzene	AVG	0.9444054	3.3				15	
1,2-Dichlorobenzene-d4	AVG	0.8601294	1.3				15	

Cal Types

AVG = Average Response Factor
LRI = Linear Regression through the intercept
QRI = Quadratic through the intercept
LR0 = Linear Regression forced through zero.
LRI1 = Linear Regression forced through the intercept with 1/x weighting (first order)
LRI2 = Linear Regression forced through the intercept with 1/x squared weighting (second order)
LRI01 = Linear Regression forced through zero with 1/x weighting (first order)
LRI02 = Linear Regression forced through zero with 1/x-squared weighting (second order)
QR0 = Quadratic forced through zero
QRI1 = Quadratic through the intercept weighted by 1/X
QRI2 = Quadratic through the intercept weighted by 1/X^2
QRI01 = Quadratic forced through zero weighted by 1/X
QRI02 = Quadratic forced through zero weighted by 1/X^2

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.575	168	25165759	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.422	114	35803095	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.496	117	31431671	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.842	152	14480996	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.477	111	10996032	19.71	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.55%				
43) 1,2-Dichloroethane-d4	5.880	65	10963745	19.87	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.35%				
49) Fluorobenzene	6.279	96	40503506	19.82	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.10%				
64) Toluene-d8	8.018	98	39380726	19.87	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.35%				
81) 4-Bromofluorobenzene	10.686	174	6741486	9.89	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%				
97) d4-1,2-Dichlorobenzene	12.219	152	12385722	19.76	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.80%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.213	85	113643	0.22	ug/L		88
3) Chloromethane	1.355	50	113227	0.26	ug/L		99
4) Vinyl chloride	1.446	62	110877	0.23	ug/L		93
5) Bromomethane	1.722	94	142897	0.41	ug/L		91
6) Chloroethane	1.802	64	63672m	0.21	ug/L		
7) Trichlorofluoromethane	2.031	101	164188	0.22	ug/L		93
8) Ethyl ether	2.320	59	76684m	0.21	ug/L		
10) 1,1-Dichloroethene	2.525	61	136340	0.24	ug/L		91
11) 1,1,2-Trichloro-1,2,2-...	2.532	101	101899	0.25	ug/L		94
12) Acetone	2.612	43	252875m	1.75	ug/L		
13) Iodomethane	2.682	142	134588	0.23	ug/L	#	88
14) Carbon disulfide	2.741	76	284120	0.24	ug/L		93
17) 3-Chloro-1-propene	2.909	76	64671	0.24	ug/L	#	53
18) Methylene chloride	3.062	49	727103	1.03	ug/L		86
19) Acrylonitrile	3.387	53	36073m	0.18	ug/L		
20) trans-1,2-Dichloroethene	3.397	61	123664	0.23	ug/L		94
21) Methyl tert-butyl ether	3.451	73	1569211	0.76	ug/L		96
22) Hexane	3.789	57	126337m	0.29	ug/L		
23) 1,1-Dichloroethane	4.000	63	182574	0.25	ug/L	#	78
24) Vinyl acetate	4.138	43	191001	0.23	ug/L	#	73
25) 2-Chloro-1,3-butadiene	4.130	53	127506m	0.22	ug/L		
27) 2,2-Dichloropropane	4.826	77	152020	0.22	ug/L		85
28) cis-1,2-Dichloroethene	4.833	61	164310	0.24	ug/L		91
29) 2-Butanone	4.918	72	72943	1.06	ug/L		93
31) Ethyl acetate	5.027	61	28891m	0.34	ug/L		
32) Methylacrylate	5.052	55	94205	0.19	ug/L	#	65
33) 1-Bromopropane	5.063	41	68663m	0.24	ug/L		
34) Bromochloromethane	5.149	130	85078m	0.23	ug/L		

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) Methacrylonitrile	5.173	67	70945m	0.29	ug/L		
36) Tetrahydrofuran	5.277	42	65706m	0.41	ug/L		
37) Chloroform	5.273	83	176888	0.21	ug/L	#	90
39) 1,1,1-Trichloroethane	5.477	97	168983	0.22	ug/L	#	92
40) Cyclohexane	5.545	84	156182m	0.23	ug/L		
41) 1-Chlorobutane	5.633	56	157805	0.20	ug/L	#	75
42) 1,1-Dichloropropene	5.691	75	149828	0.25	ug/L		84
44) 1,2-Dichloroethane	5.965	62	152458m	0.24	ug/L		
47) Carbon tetrachloride	5.686	117	139949	0.22	ug/L		96
48) Benzene	5.934	78	400114	0.22	ug/L		95
50) Trichloroethene	6.693	95	119667	0.24	ug/L	#	81
52) 1,2-Dichloropropane	6.947	63	95392	0.22	ug/L		85
53) Dibromomethane	7.072	174	93076	0.22	ug/L	#	92
54) Methyl methacrylate	7.131	69	87161	0.21	ug/L	#	65
56) Bromodichloromethane	7.258	83	149286	0.22	ug/L		95
57) 2-Nitropropane	7.526	43	52634m	0.26	ug/L		
58) 2-Chloroethyl vinyl ether	7.612	63	82990	0.24	ug/L		92
59) cis-1,3-Dichloropropene	7.742	75	169871	0.21	ug/L		79
60) 4-Methyl-2-pentanone	7.947	43	420990	0.81	ug/L	#	89
61) trans-1,3-Dichloropropene	8.331	75	173458m	0.23	ug/L		
62) 1,1,2-Trichloroethane	8.517	97	102881	0.22	ug/L		98
65) Toluene	8.087	91	474628	0.23	ug/L		96
66) Ethylmethacrylate	8.465	69	172278	0.23	ug/L		87
67) Tetrachloroethene	8.646	166	144795	0.20	ug/L		98
68) 1,3-Dichloropropane	8.688	76	166748	0.21	ug/L		94
69) 2-Hexanone	8.812	43	248432	0.73	ug/L		84
70) Dibromochloromethane	8.914	129	146591	0.24	ug/L		84
71) 1,2-Dibromoethane	9.019	107	124436	0.24	ug/L		97
72) Chlorobenzene	9.525	112	297550	0.22	ug/L	#	21
73) 1,1,1,2-Tetrachloroethane	9.614	131	112568	0.21	ug/L		94
74) Ethylbenzene	9.643	91	496580	0.22	ug/L		95
75) m,p-Xylene	9.764	91	734350	0.44	ug/L		93
76) Styrene	10.175	104	345348	0.23	ug/L		97
77) Bromoform	10.354	173	99170	0.20	ug/L	#	83
79) o-Xylene	10.161	91	389949	0.22	ug/L		94
80) Isopropylbenzene	10.536	105	465881	0.23	ug/L		98
82) Bromobenzene	10.827	77	173806	0.22	ug/L		93
83) 1,1,2,2-Tetrachloroethane	10.843	83	122655m	0.19	ug/L		
84) 1,2,3-Trichloropropane	10.883	110	63435	0.27	ug/L		90
85) trans-1,4-Dichloro-2-b...	10.895	53	33235	0.20	ug/L	#	52
86) n-Propylbenzene	10.948	91	516011	0.22	ug/L		97
87) 2-Chlorotoluene	11.029	91	292211	0.21	ug/L		89
88) 4-Chlorotoluene	11.138	91	337316	0.21	ug/L	#	89
89) 1,3,5-Trimethylbenzene	11.130	105	351316	0.22	ug/L		92
90) 2-ethyl-1-toluene	11.329	105	435076	0.22	ug/L		100
91) tert-Butylbenzene	11.455	119	397403	0.24	ug/L		90
92) 1,2,4-Trimethylbenzene	11.501	105	360006	0.22	ug/L		95
93) sec-Butylbenzene	11.674	105	429343	0.22	ug/L		88
94) 1,3-Dichlorobenzene	11.772	146	205754	0.21	ug/L		95

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G

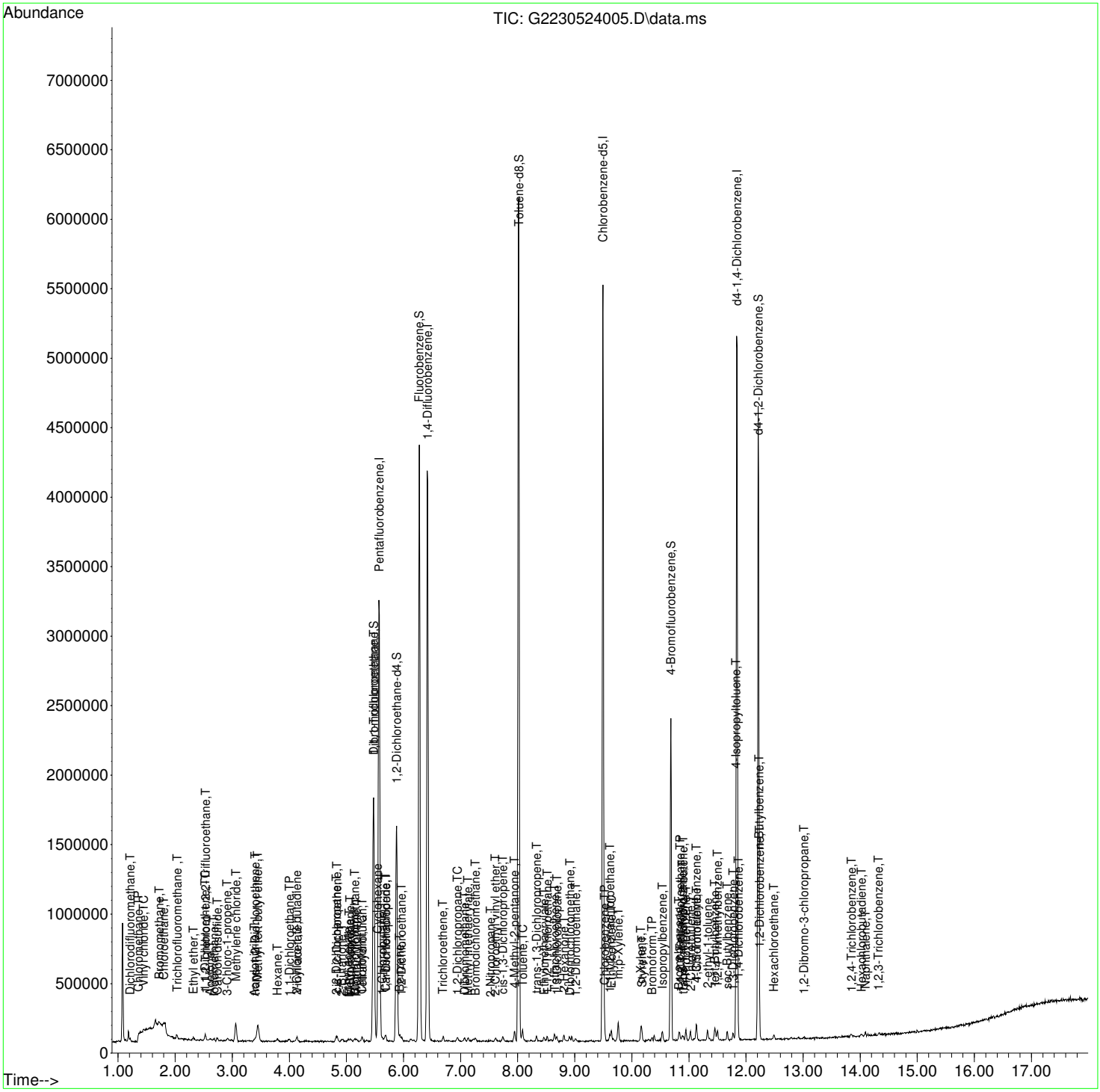
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95) 4-Isopropyltoluene	11.823	119	345929	0.21 ug/L	75
96) 1,4-Dichlorobenzene	11.865	146	201033	0.22 ug/L #	38
98) 1,2-Dichlorobenzene	12.238	146	191188	0.22 ug/L #	31
99) n-Butylbenzene	12.231	91	303342	0.24 ug/L #	90
100) Hexachloroethane	12.488	201	62703	0.21 ug/L	89
101) 1,2-Dibromo-3-chloropr...	13.013	157	29915m	0.22 ug/L	
103) 1,2,4-Trichlorobenzene	13.847	180	51937	0.20 ug/L #	71
104) Hexachlorobutadiene	14.023	225	37101	0.27 ug/L #	24
105) Naphthalene	14.092	128	175721	0.23 ug/L #	75
106) 1,2,3-Trichlorobenzene	14.324	180	43870m	0.21 ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342391

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
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Quant Title : 8260B Calibration
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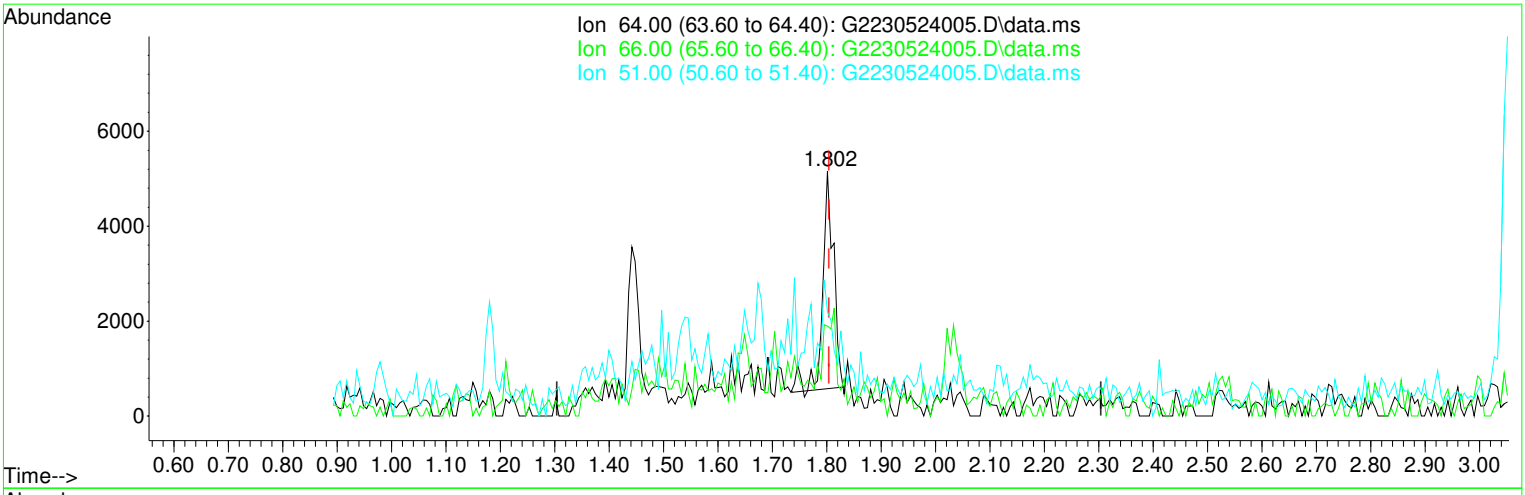

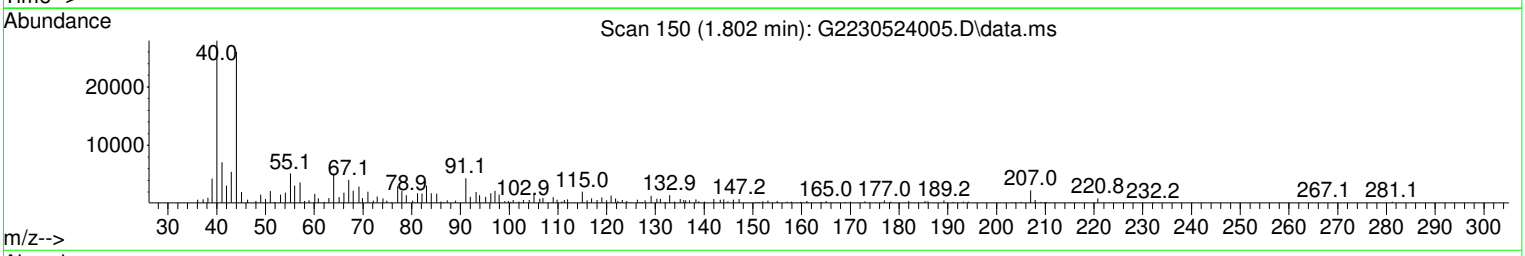

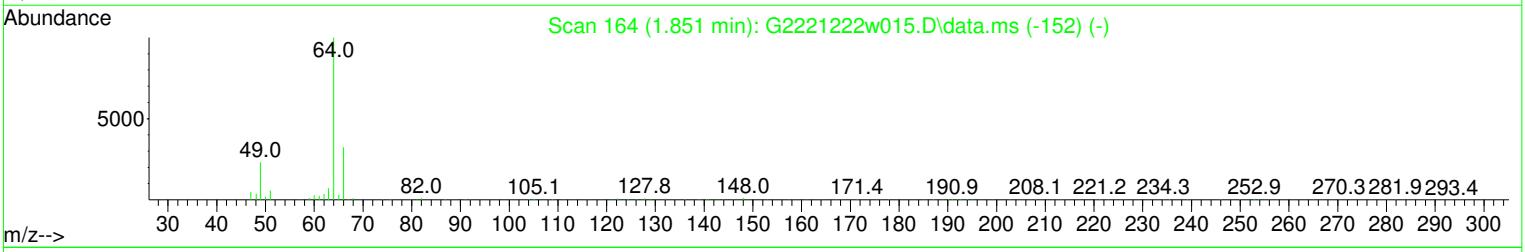

TIC: G2230524005.D\data.ms

(6) Chloroethane (T)

1.804min (+ 0.000) 0.21 ug/L

response 63679

Ion	Exp%	Act%
64.00	100.00	100.00
66.00	34.30	0.00#
51.00	8.60	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
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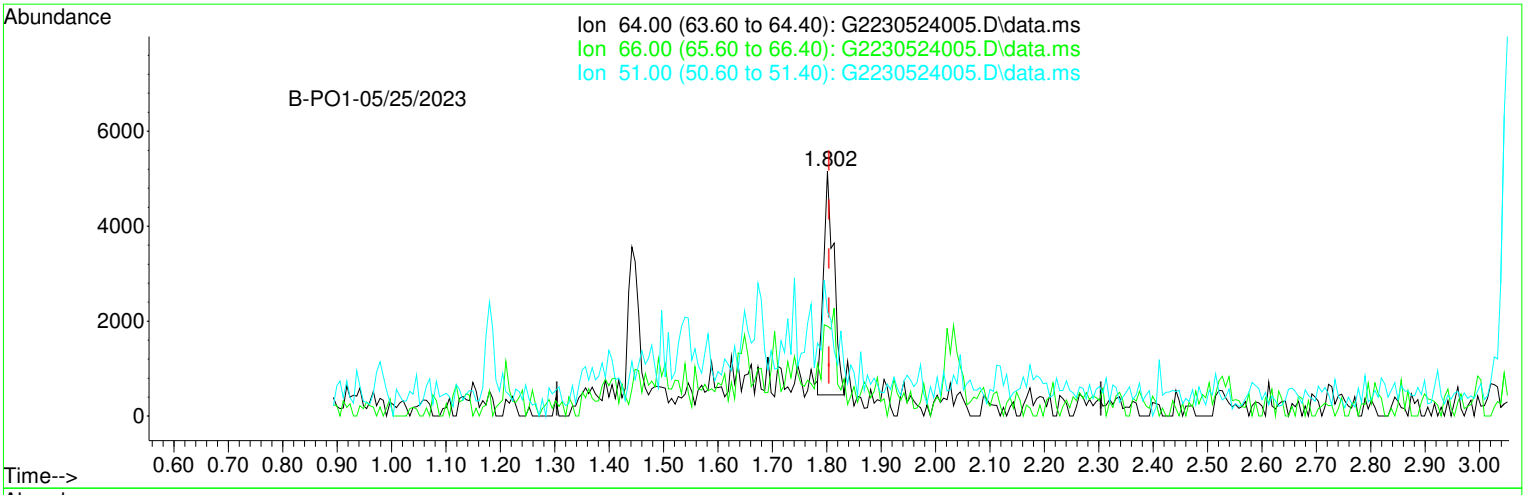
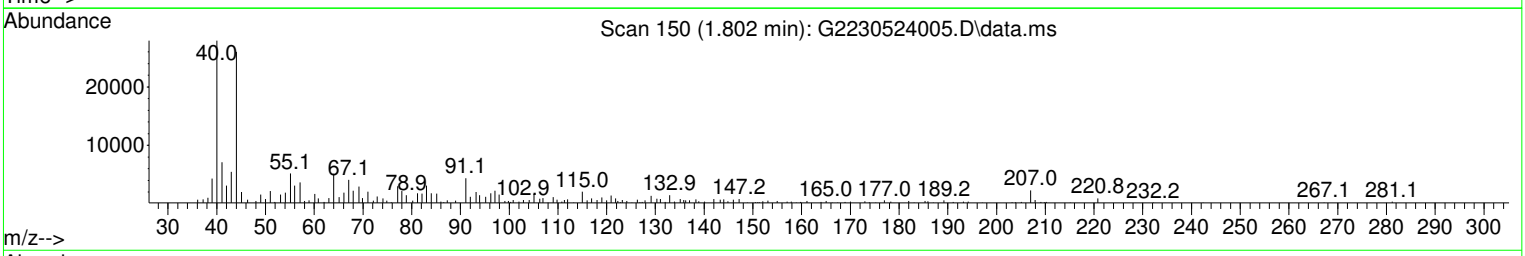
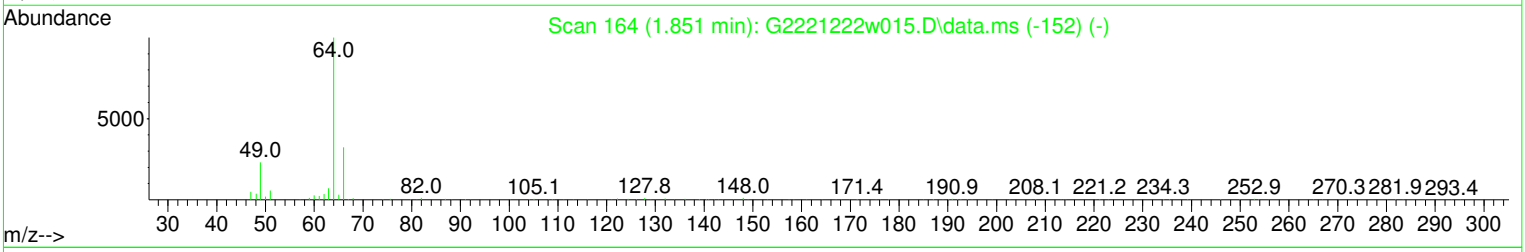
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(6) Chloroethane (T)

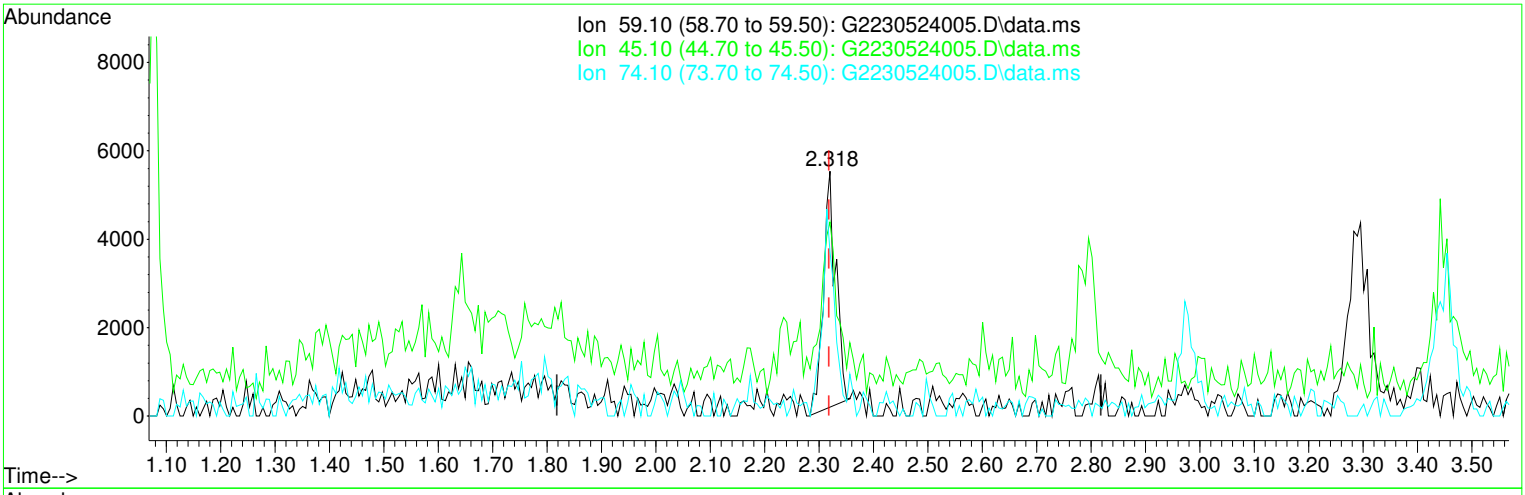
1.802min (-0.003) 0.21 ug/L m

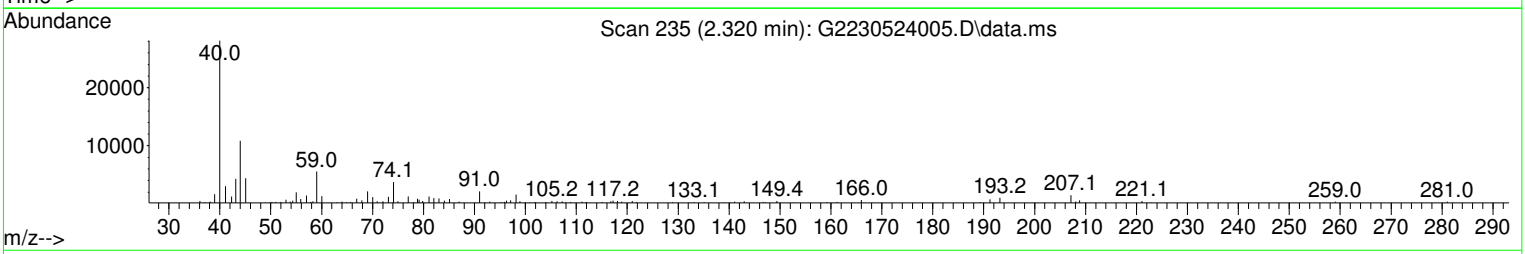
response 63672

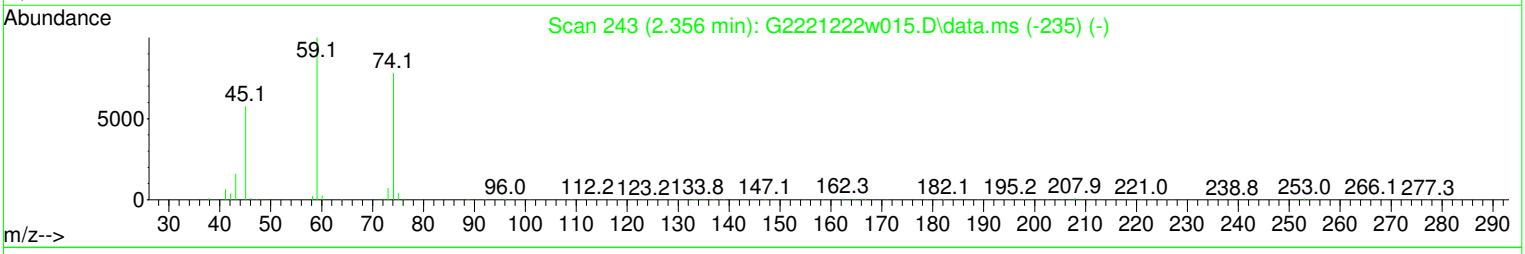
Ion	Exp%	Act%
64.00	100.00	100.00
66.00	34.30	0.00#
51.00	8.60	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(8) Ethyl ether (T)

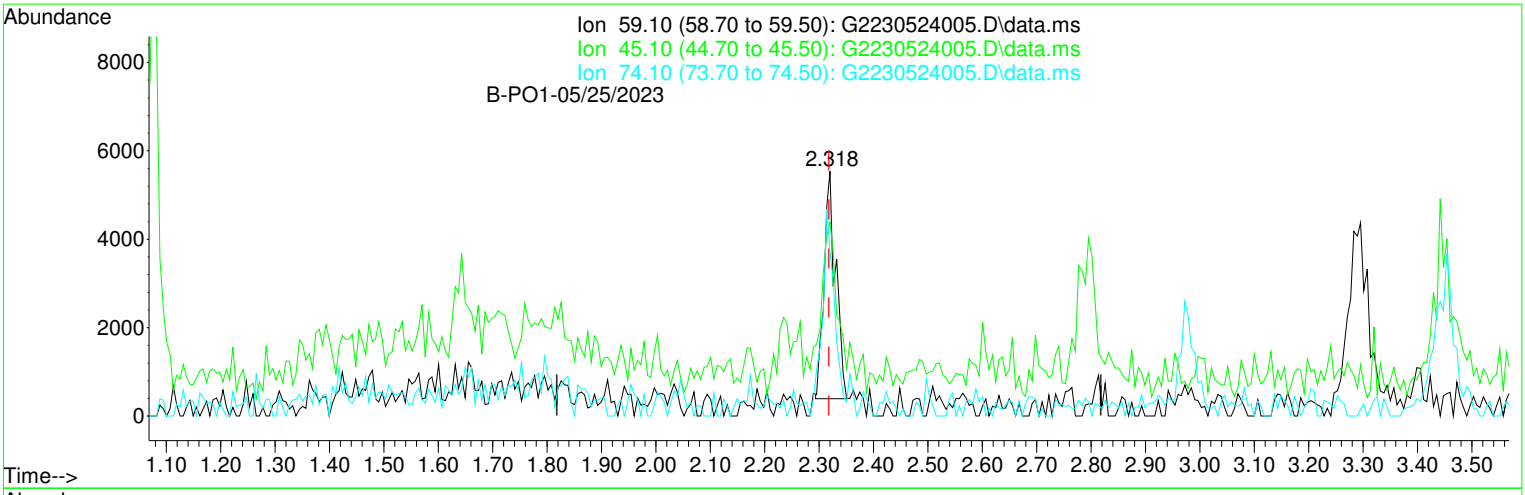
2.320min (+ 0.002) 0.23 ug/L

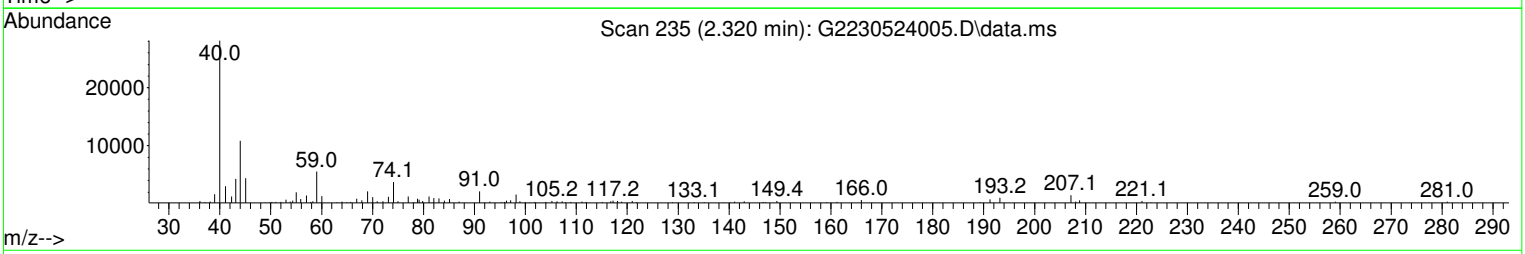
response 84134

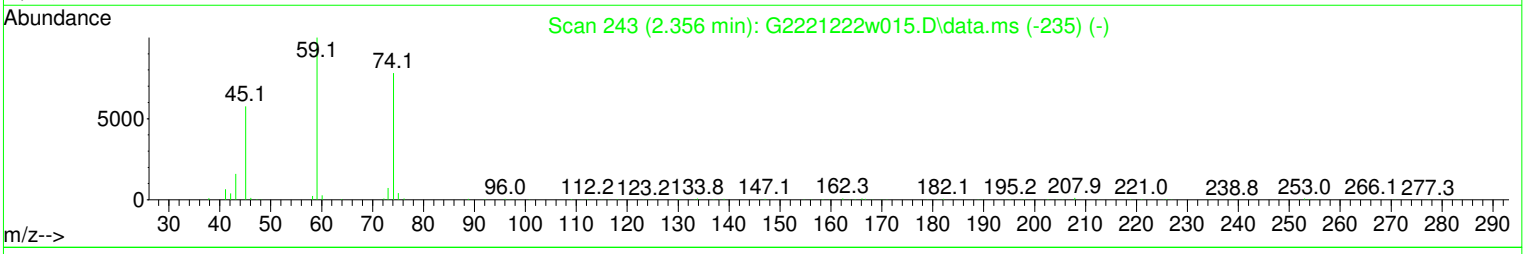
Ion	Exp%	Act%
59.10	100.00	100.00
45.10	71.50	79.34
74.10	73.40	76.52
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(8) Ethyl ether (T)

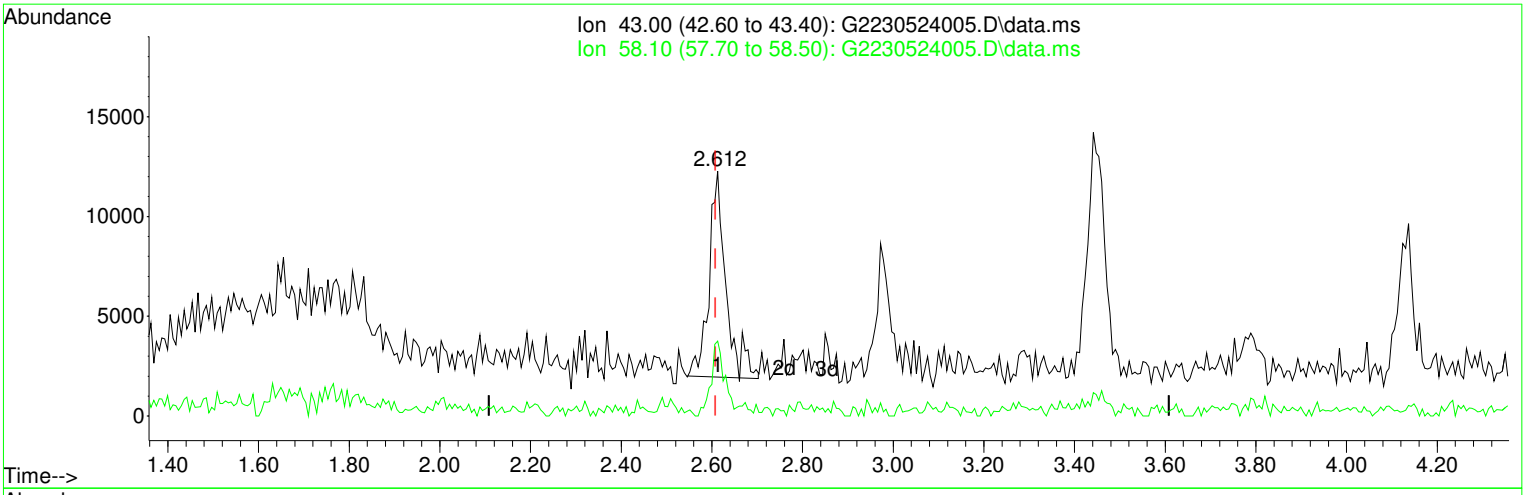
2.320min (+ 0.002) 0.21 ug/L m

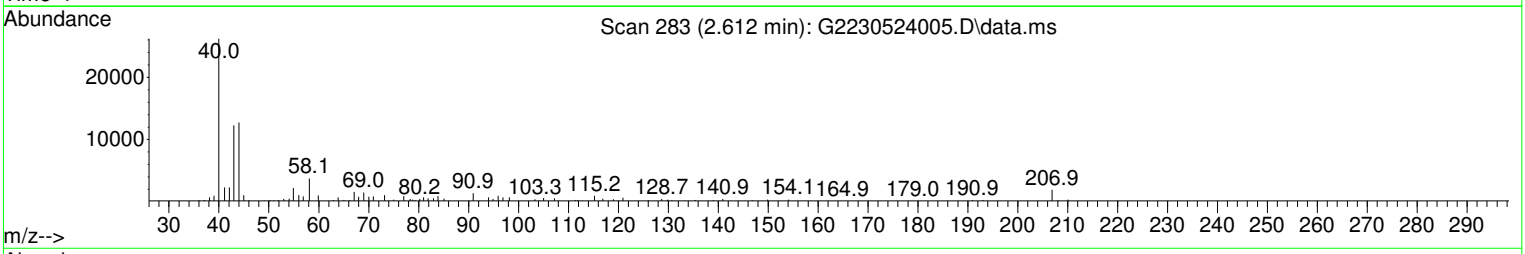
response 76684

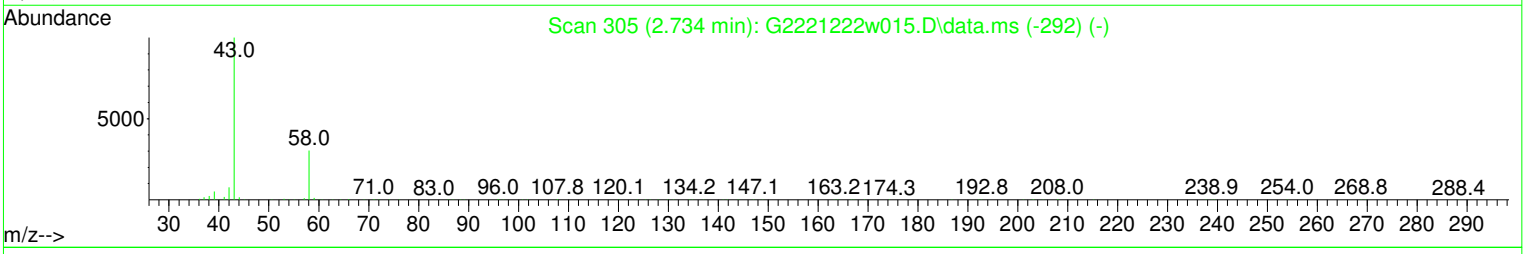
Ion	Exp%	Act%
59.10	100.00	100.00
45.10	71.50	87.05
74.10	73.40	83.95
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(12) Acetone (T)

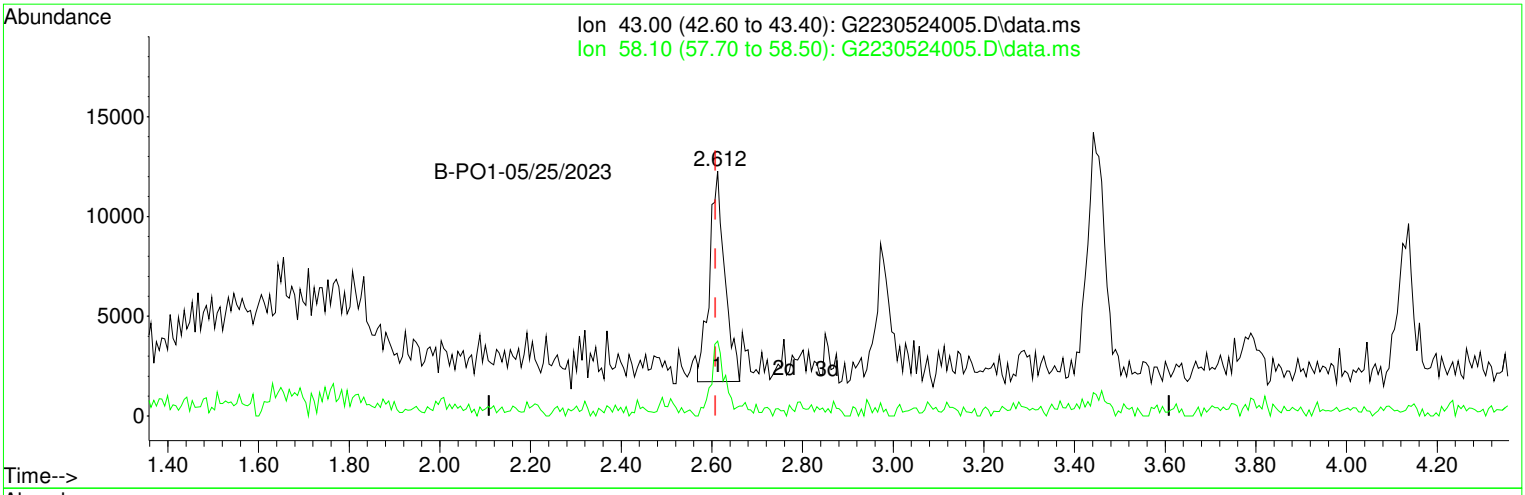
2.613min (+ 0.005) 1.84 ug/L

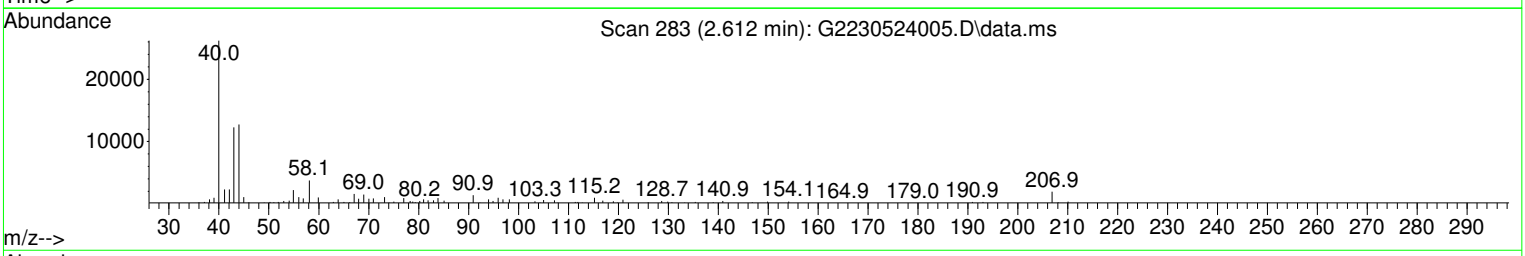
response 265498

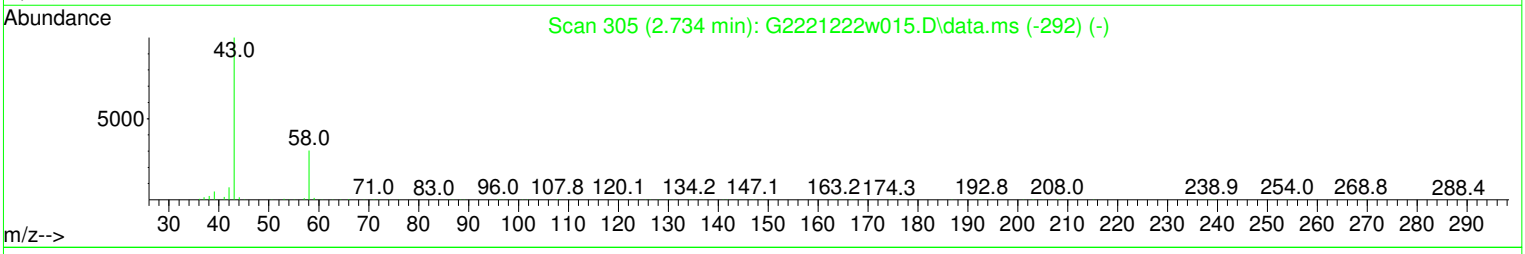
Ion	Exp%	Act%
43.00	100.00	100.00
58.10	29.70	25.80
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(12) Acetone (T)

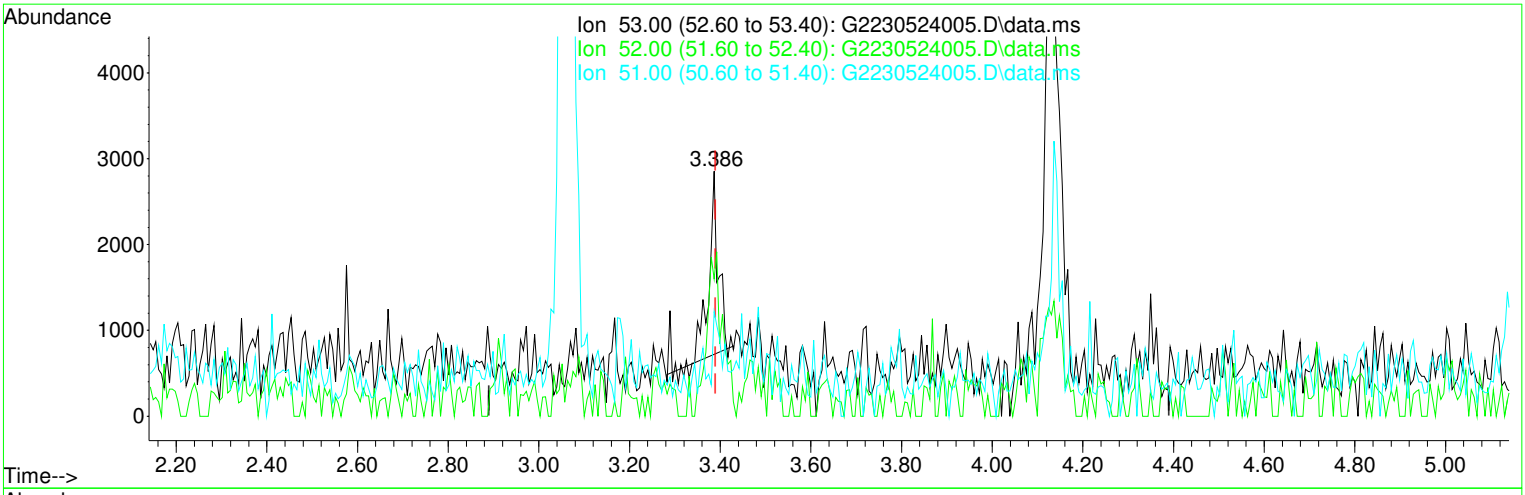
2.612min (+ 0.004) 1.75 ug/L m

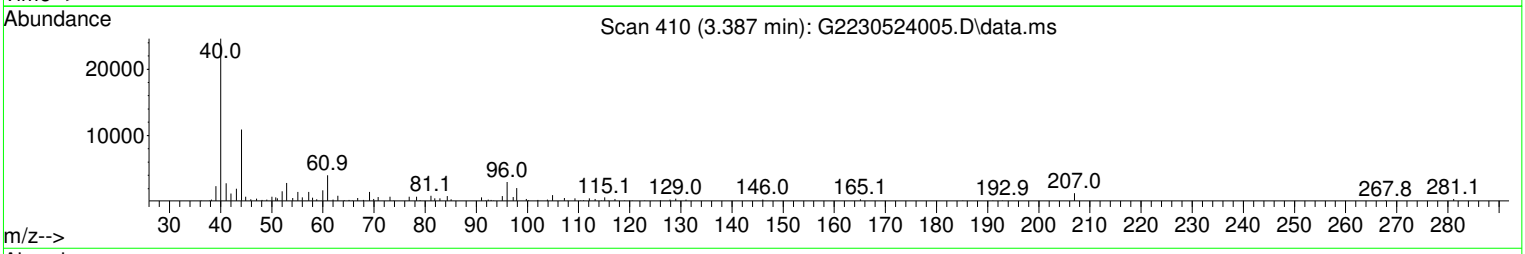
response 252875

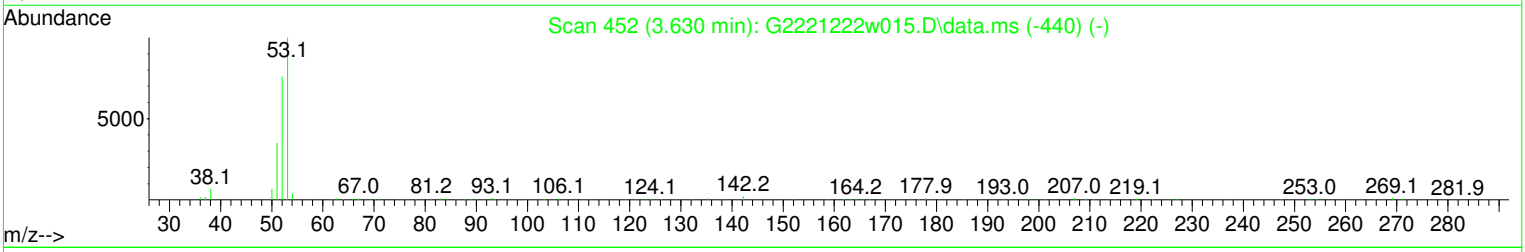
Ion	Exp%	Act%
43.00	100.00	100.00
58.10	29.70	27.09
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(19) Acrylonitrile (T)

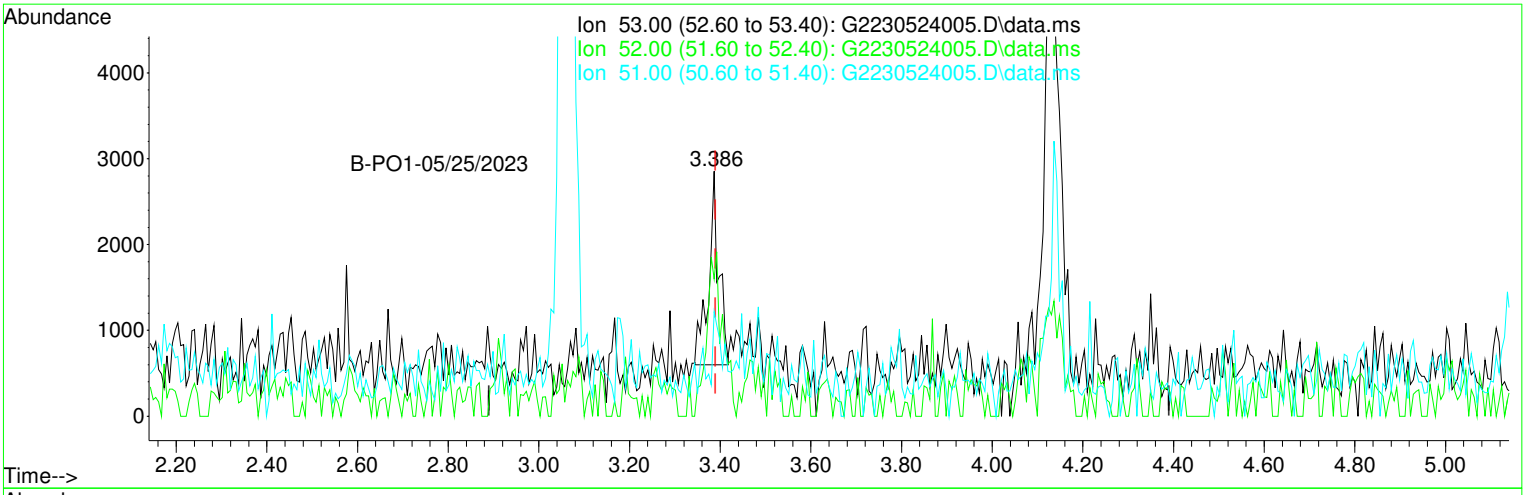
3.389min (-0.001) 0.16 ug/L

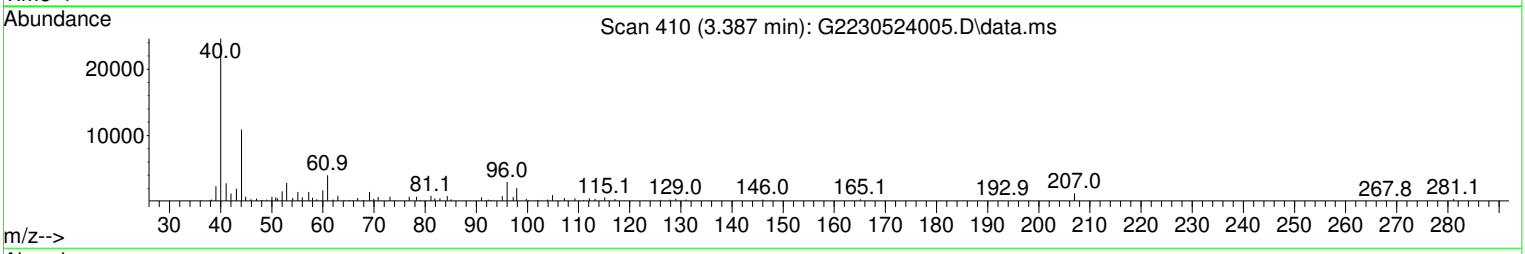
response 32273

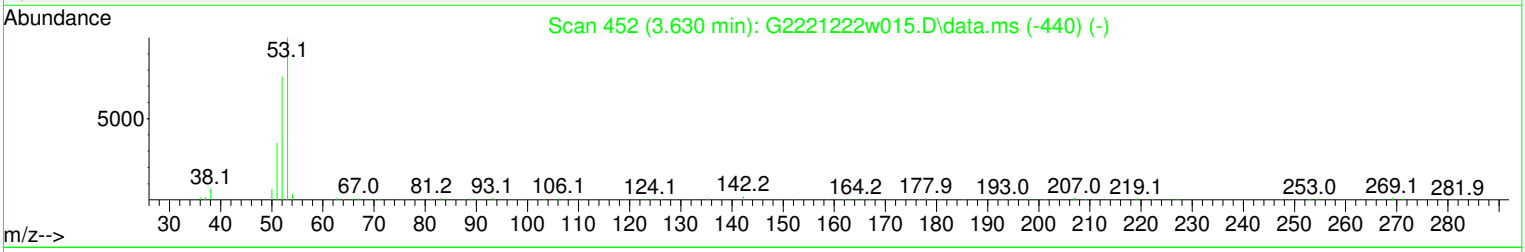
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	82.20	131.23#
51.00	38.40	0.00#
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(19) Acrylonitrile (T)

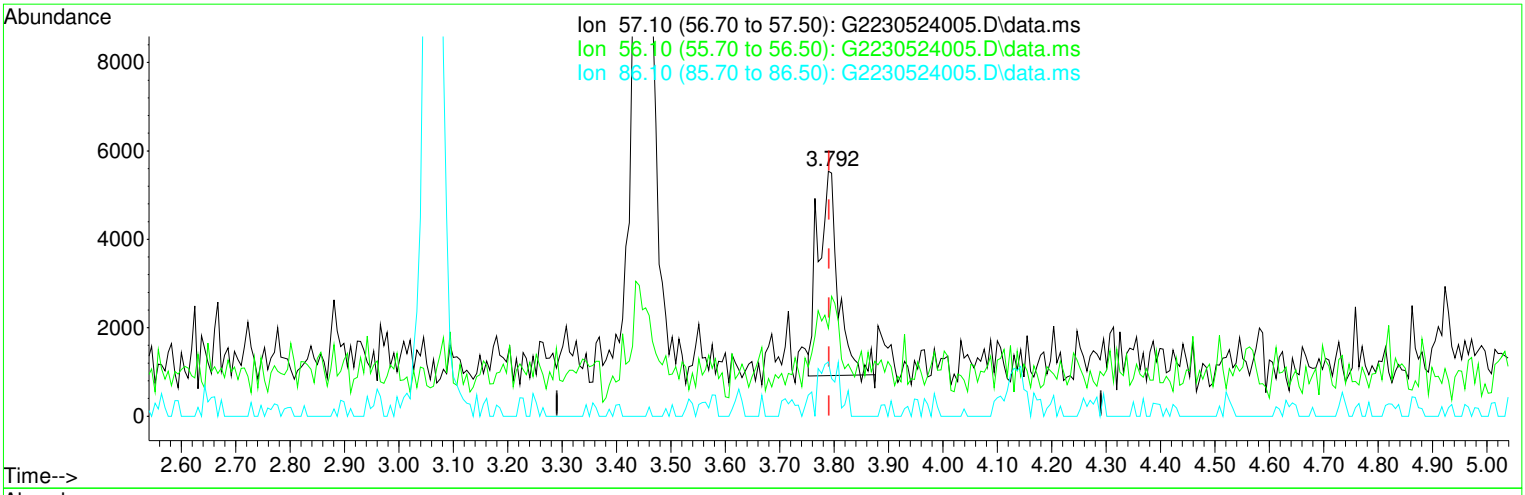
3.387min (-0.003) 0.18 ug/L m

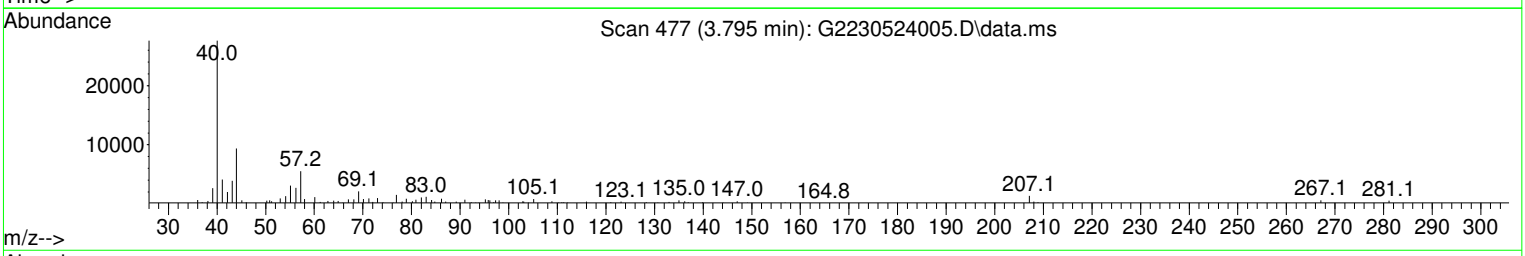
response 36073

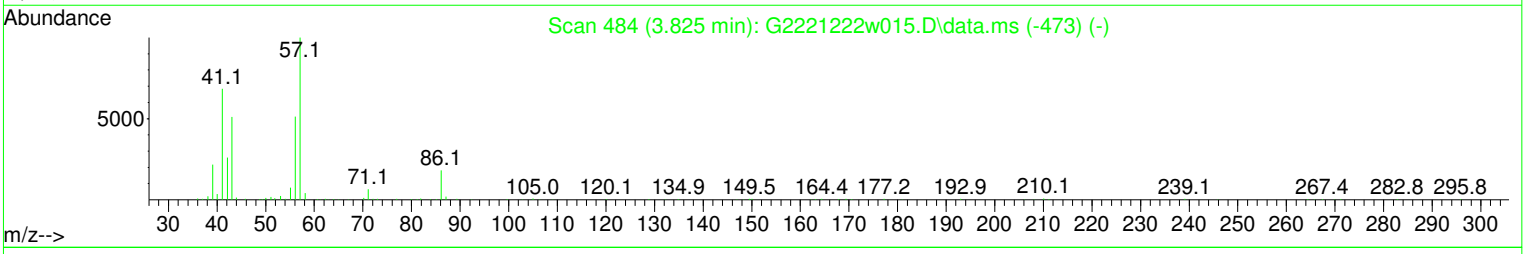
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	82.20	117.41#
51.00	38.40	0.00#
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(22) Hexane (T)

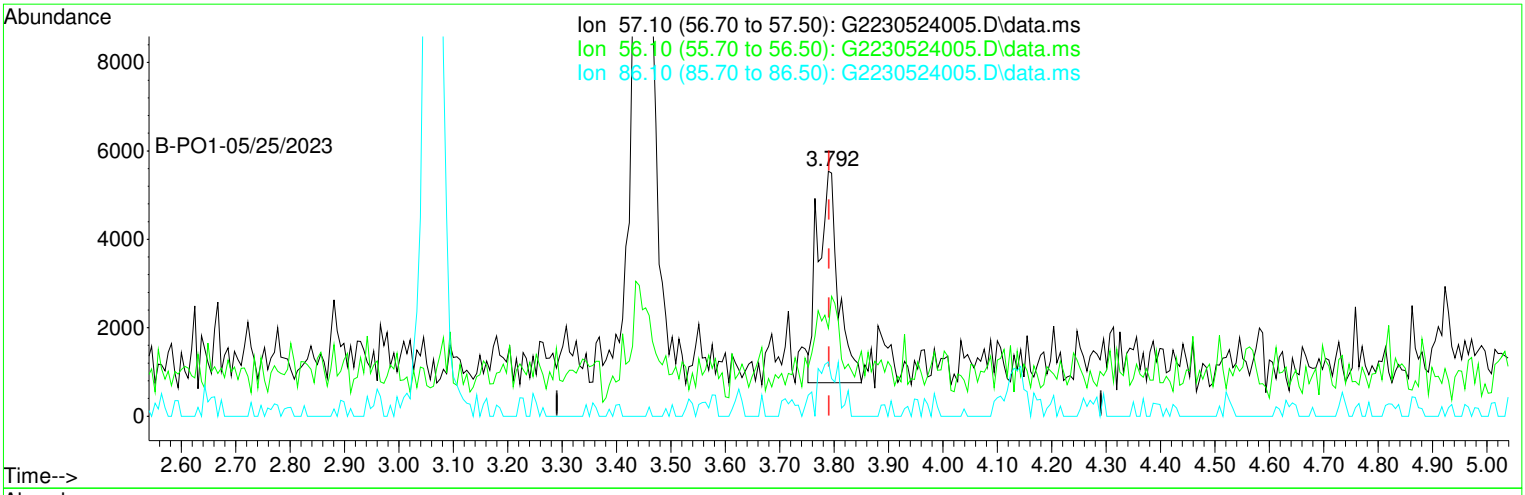
3.794min (+ 0.003) 0.27 ug/L

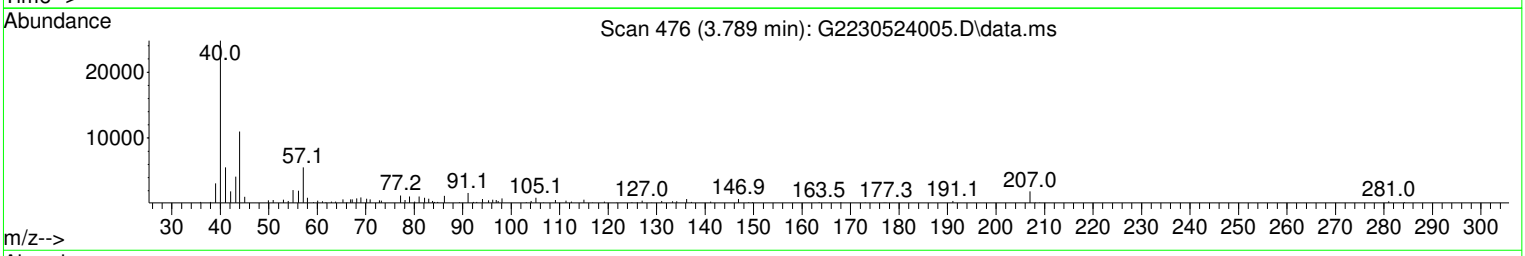
response 118693

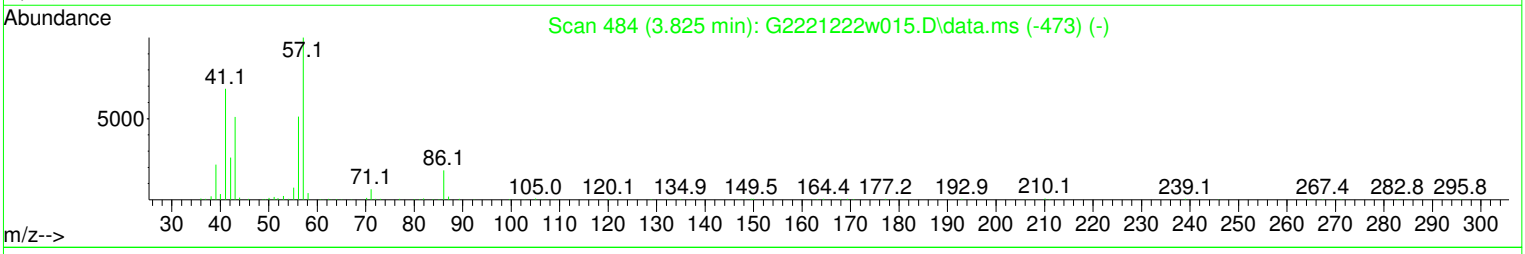
Ion	Exp%	Act%
57.10	100.00	100.00
56.10	50.40	40.10
86.10	18.10	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(22) Hexane (T)

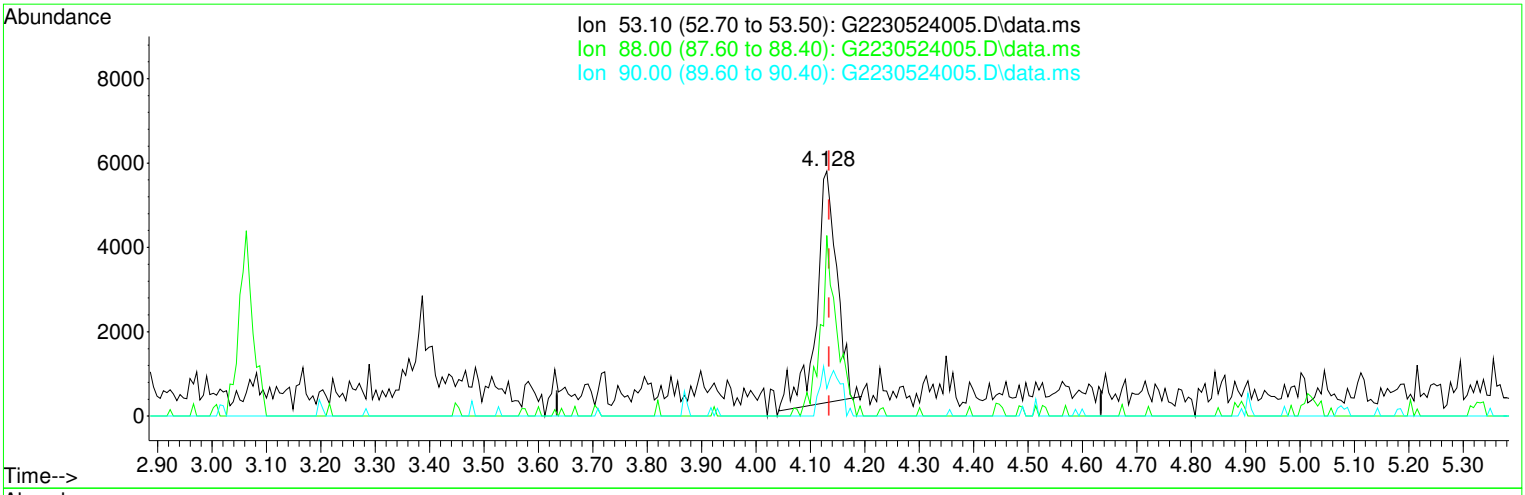
3.789min (-0.001) 0.29 ug/L m

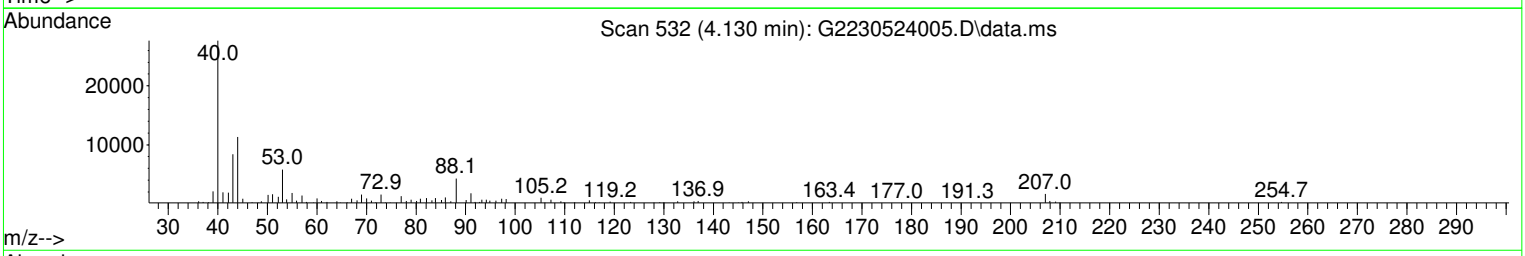
response 126337

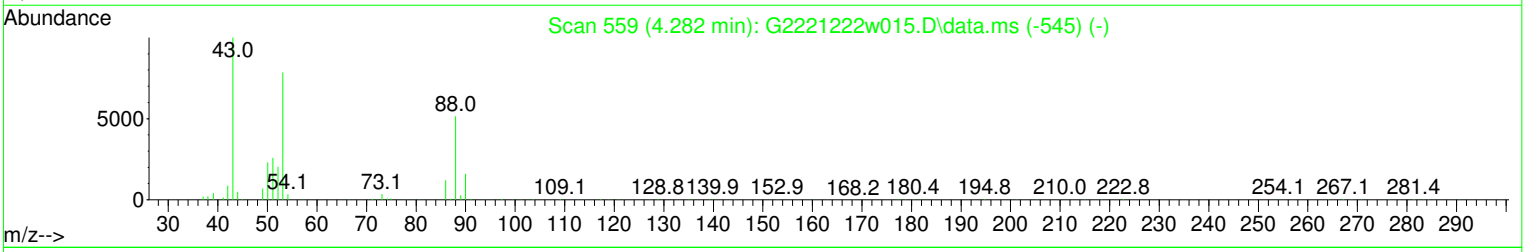
Ion	Exp%	Act%
57.10	100.00	100.00
56.10	50.40	37.67
86.10	18.10	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(25) 2-Chloro-1,3-butadiene

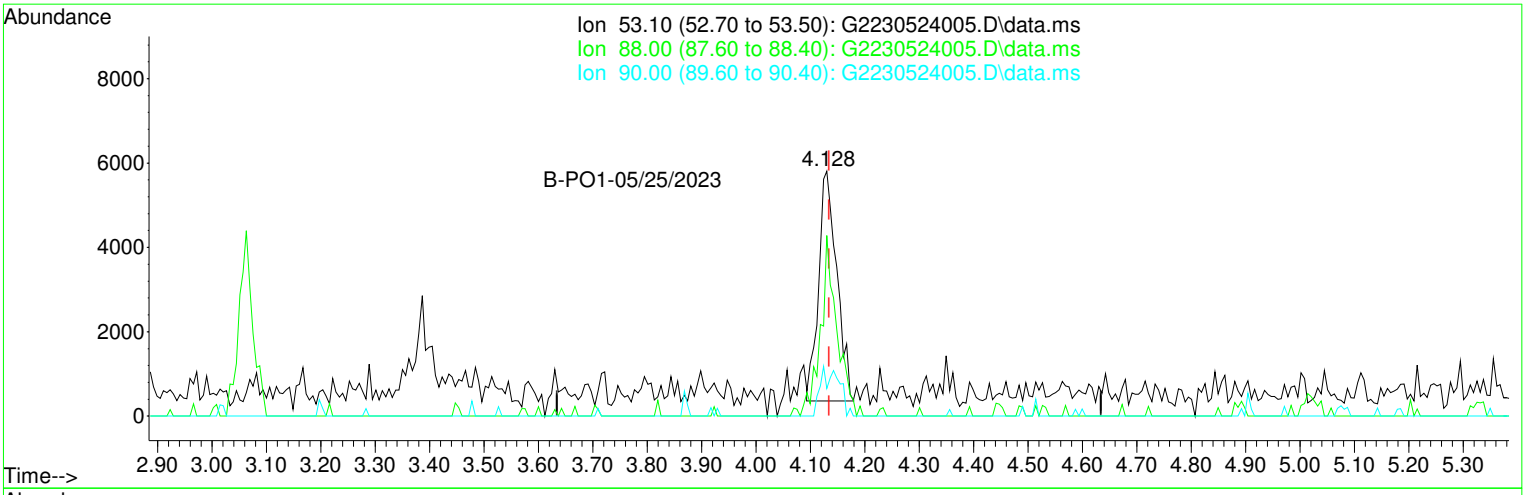
4.131min (-0.003) 0.25 ug/L

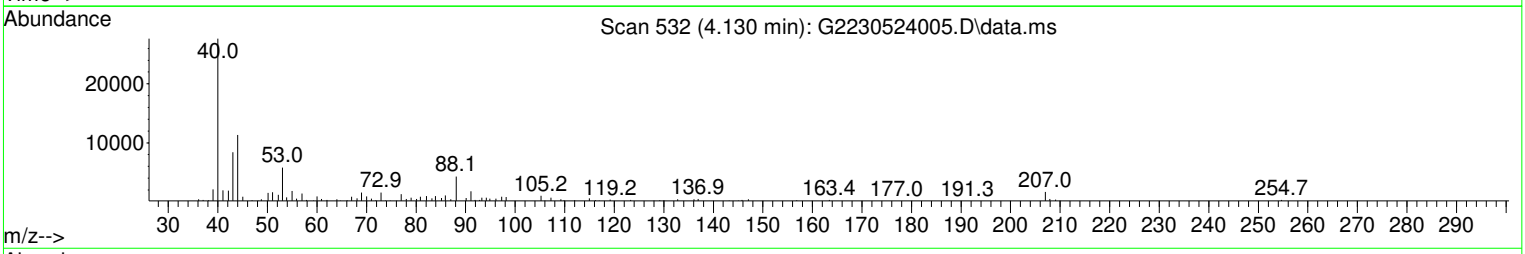
response 144251

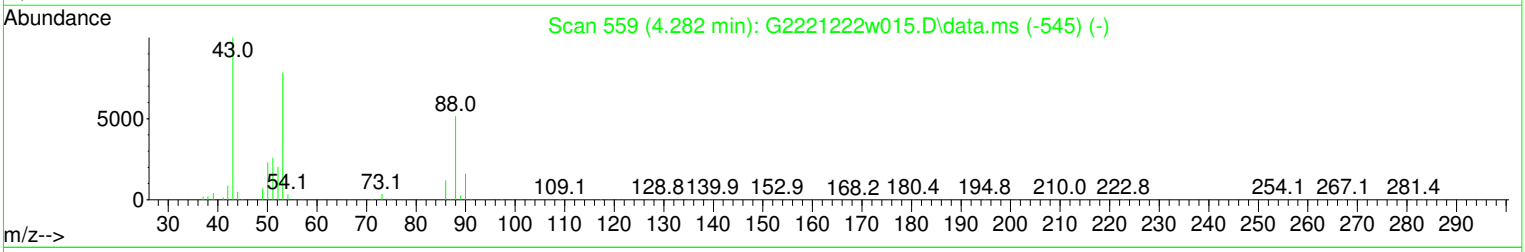
Ion	Exp%	Act%
53.10	100.00	100.00
88.00	59.00	63.65
90.00	18.70	19.36
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(25) 2-Chloro-1,3-butadiene

4.130min (-0.004) 0.22 ug/L m

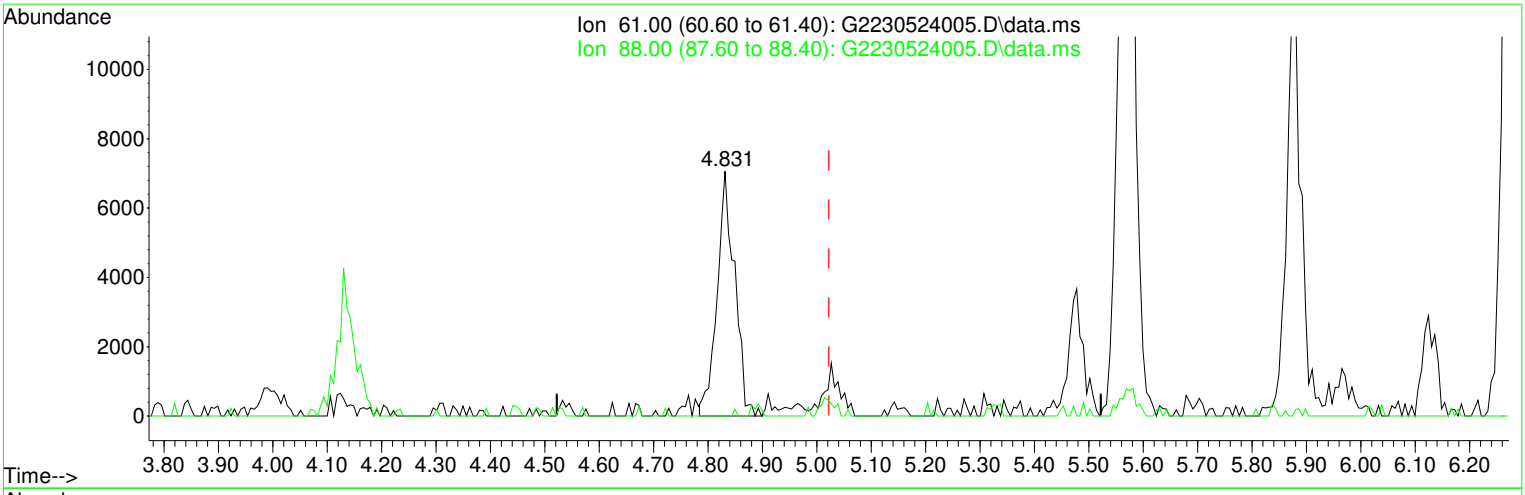
response 127506

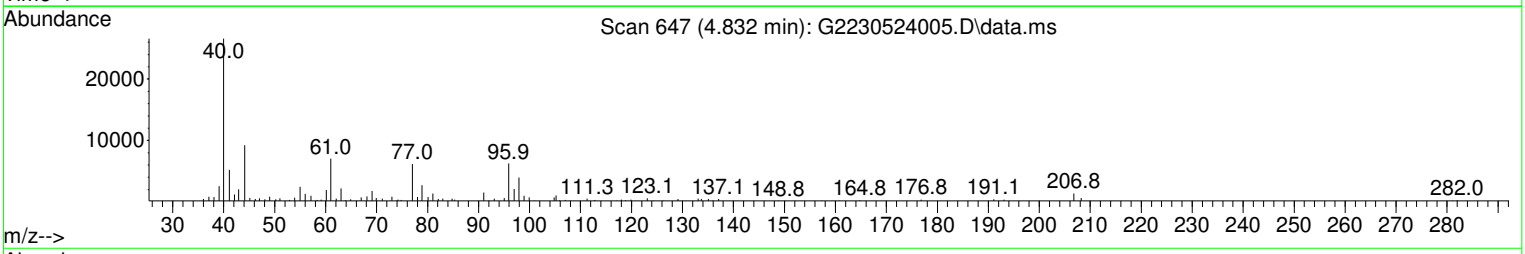
Ion	Exp%	Act%
53.10	100.00	100.00
88.00	59.00	72.01
90.00	18.70	21.90
0.00	0.00	0.00

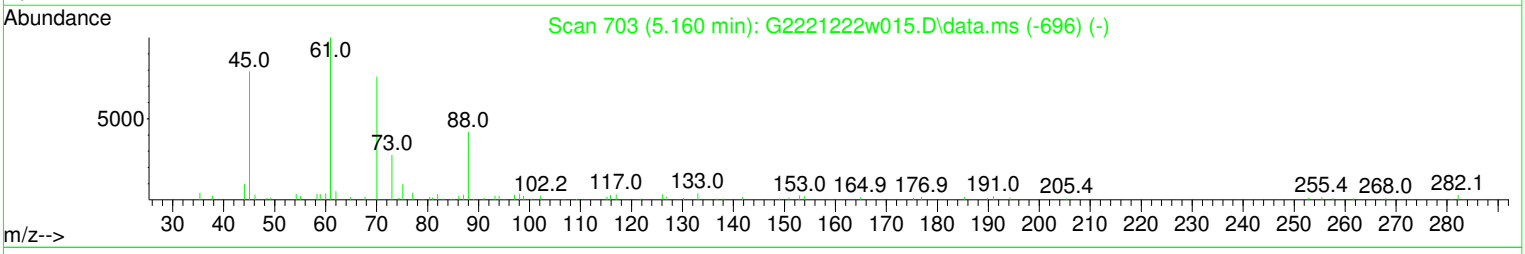
01342404

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(31) Ethyl acetate

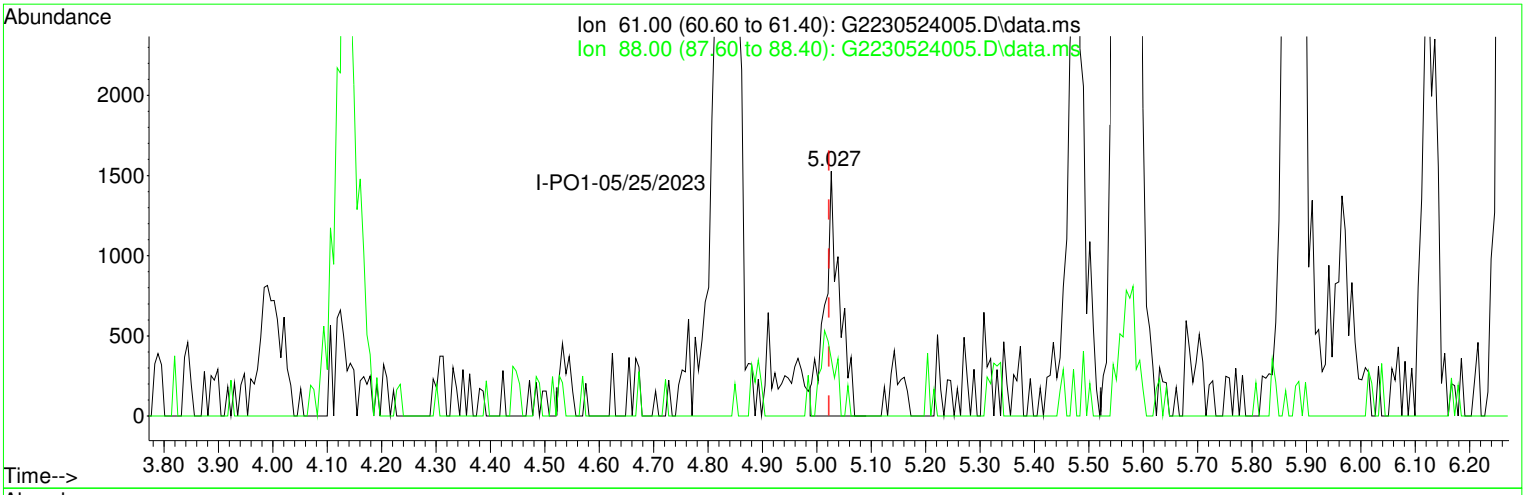
4.834min (-0.189) 1.87 ug/L

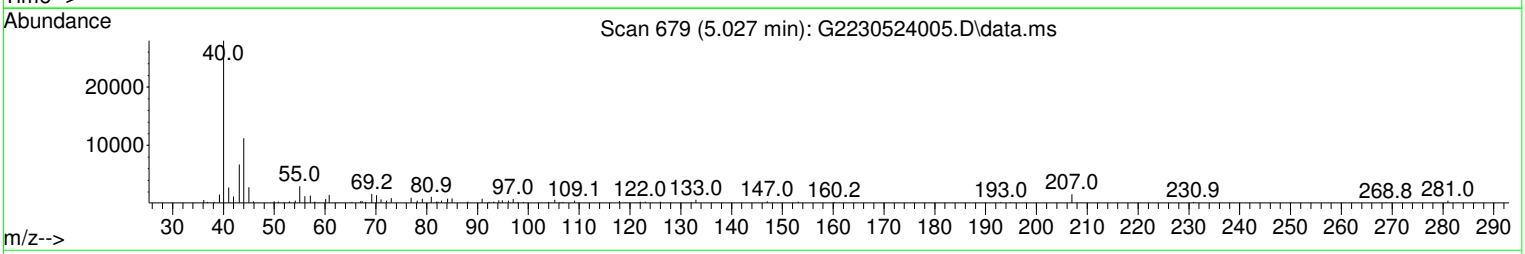
response 159612

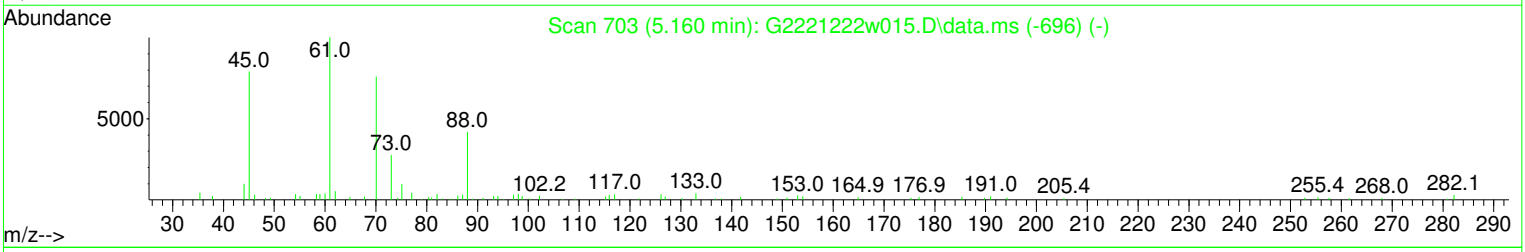
Ion	Exp%	Act%
61.00	100.00	100.00
88.00	30.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(31) Ethyl acetate

5.027min (+ 0.004) 0.34 ug/L m

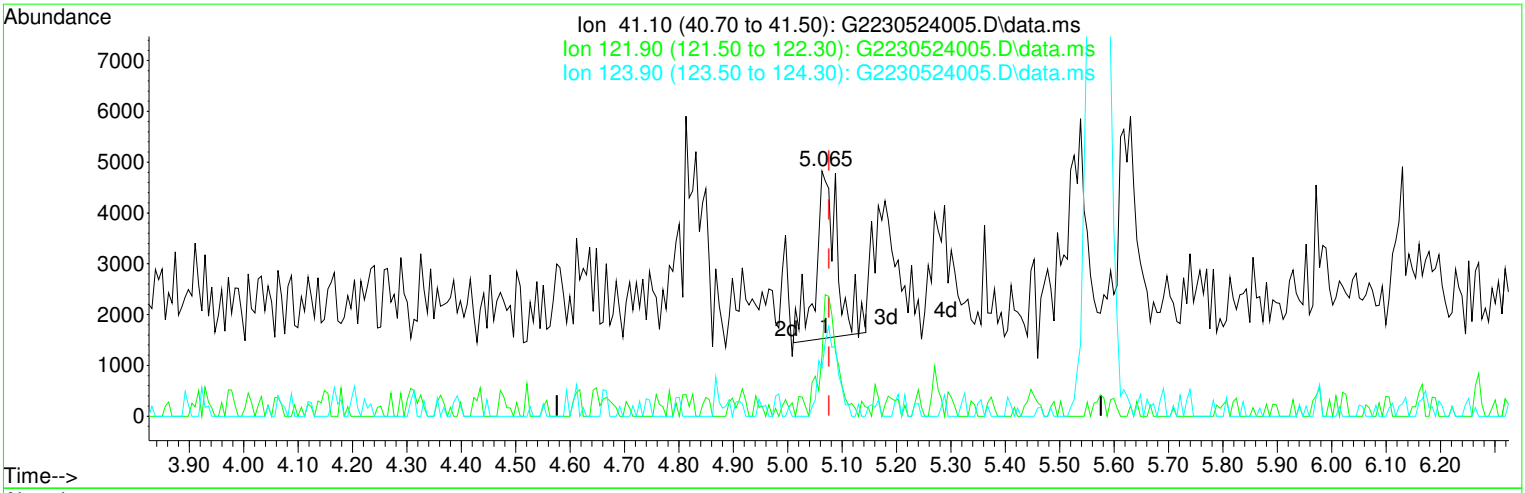
response 28891

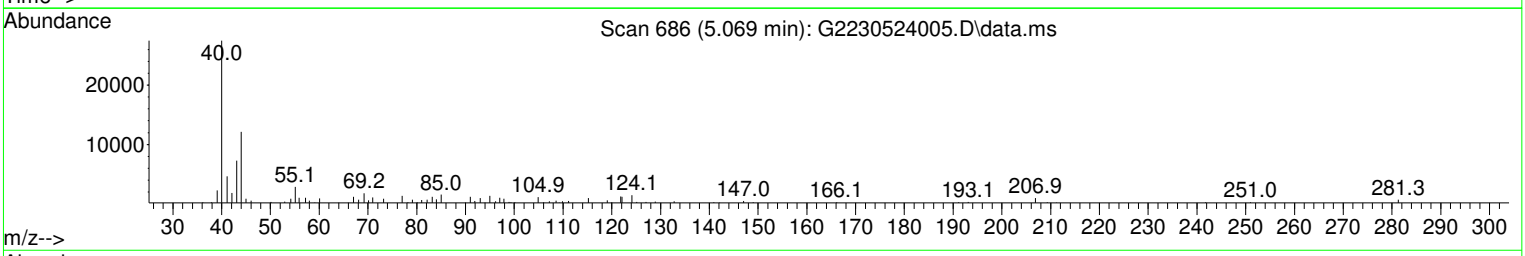
Ion	Exp%	Act%
61.00	100.00	100.00
88.00	30.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

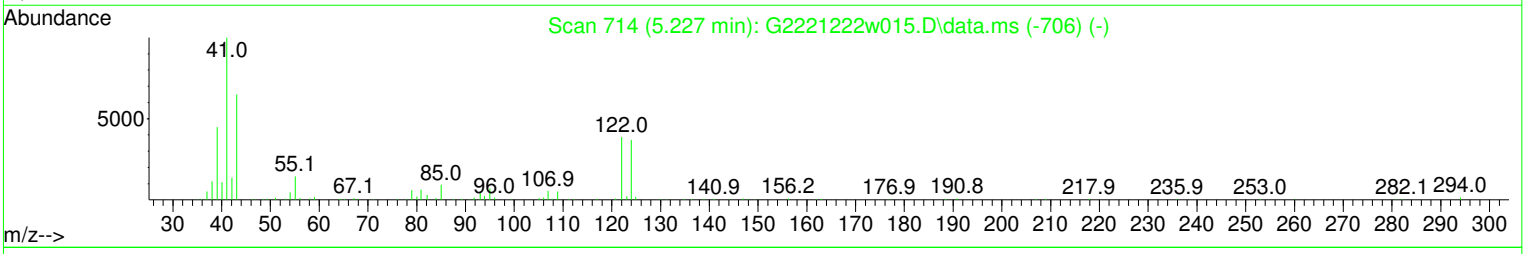
01342406

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(33) 1-Bromopropane (T)

5.069min (-0.007) 0.32 ug/L

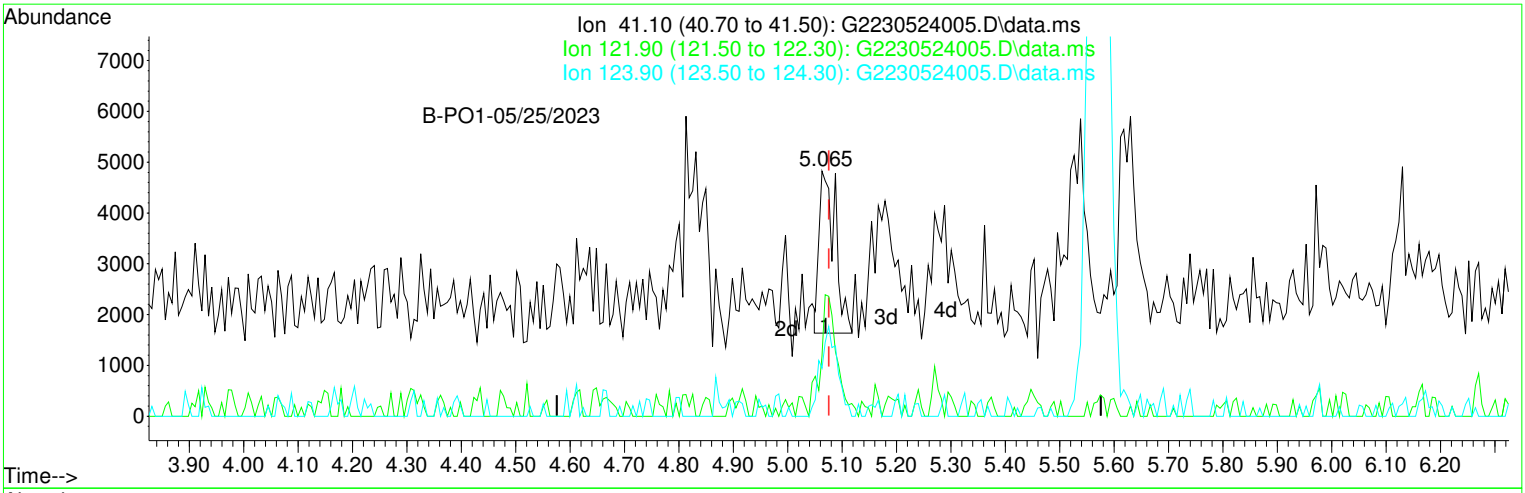
response 90110

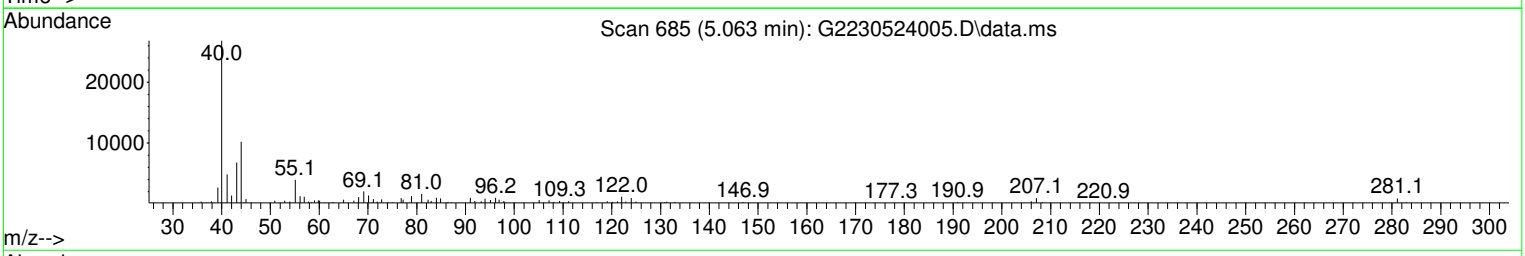
Ion	Exp%	Act%
41.10	100.00	100.00
121.90	35.60	47.56
123.90	33.80	42.91
0.00	0.00	0.00

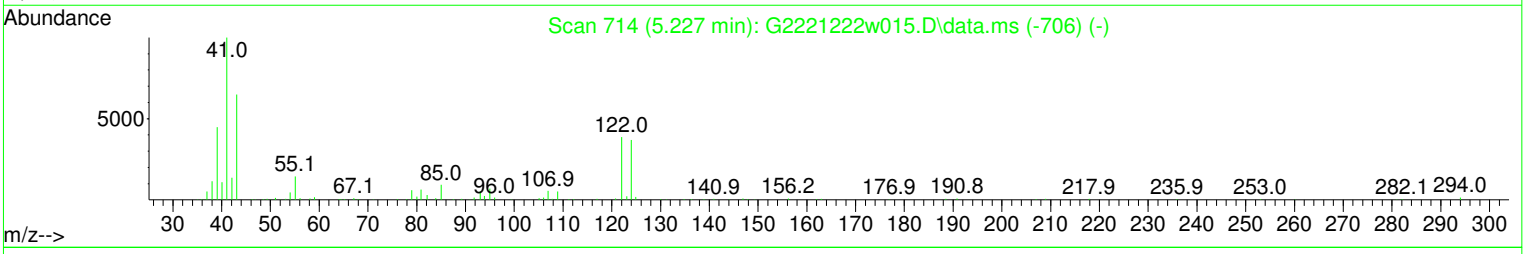
01342407

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(33) 1-Bromopropane (T)

5.063min (-0.013) 0.24 ug/L m

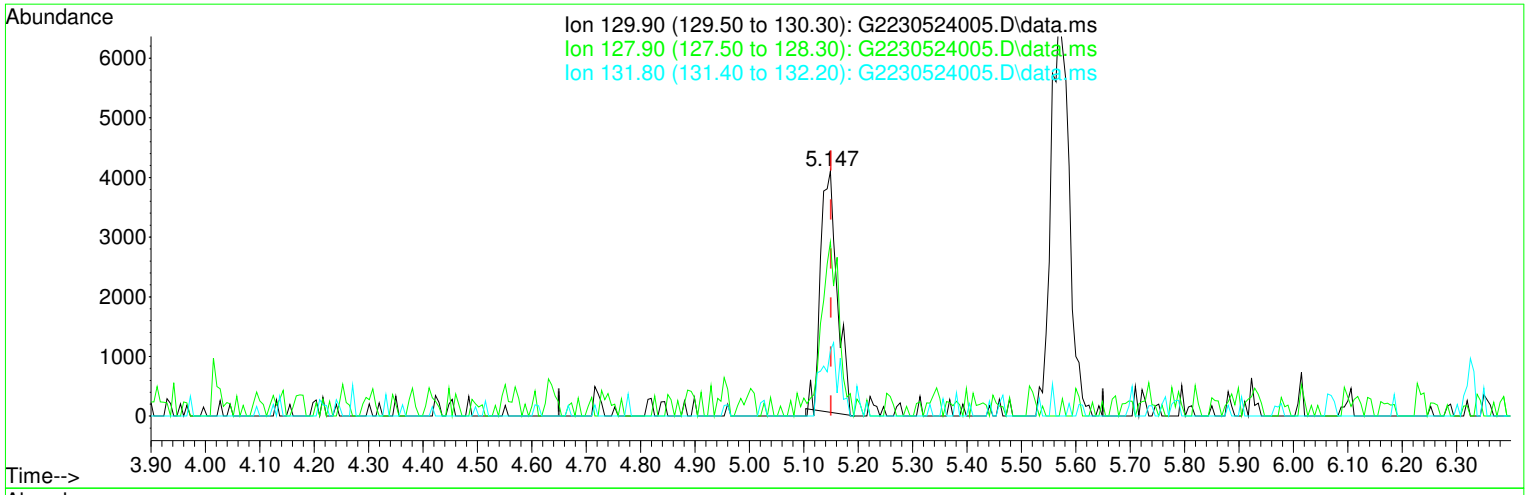
response 68663

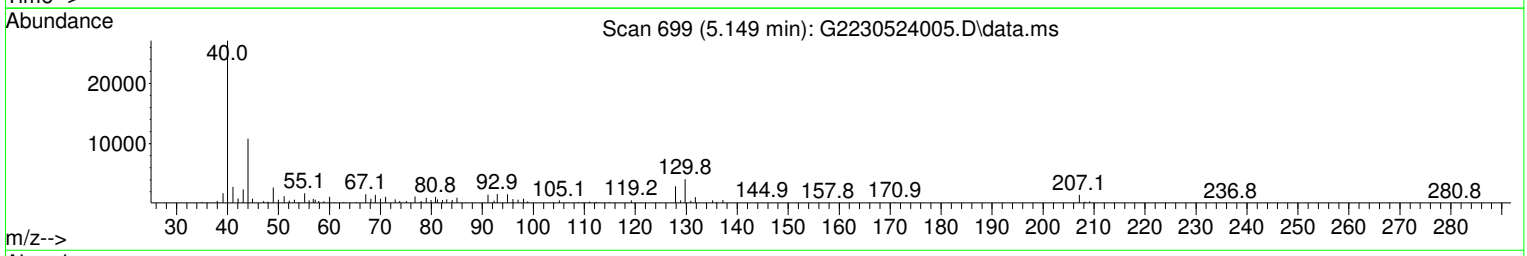
Ion	Exp%	Act%
41.10	100.00	100.00
121.90	35.60	62.41
123.90	33.80	56.31
0.00	0.00	0.00

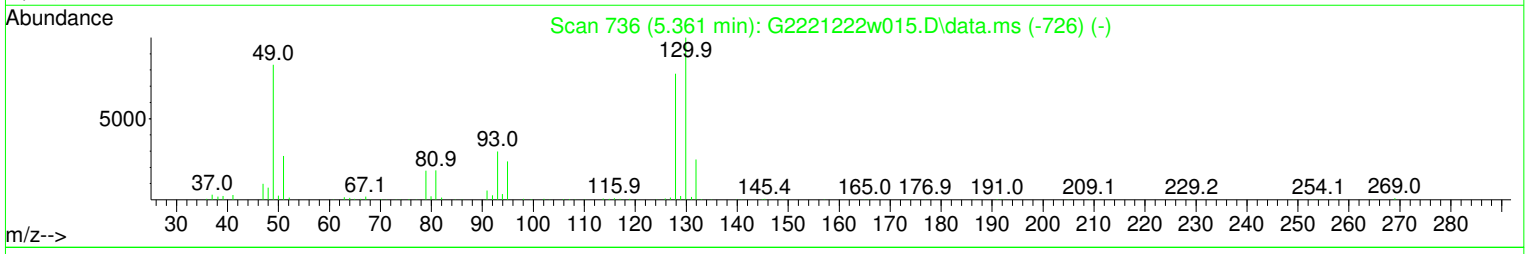
01342408

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(34) Bromochloromethane (T)

5.148min (-0.002) 0.23 ug/L

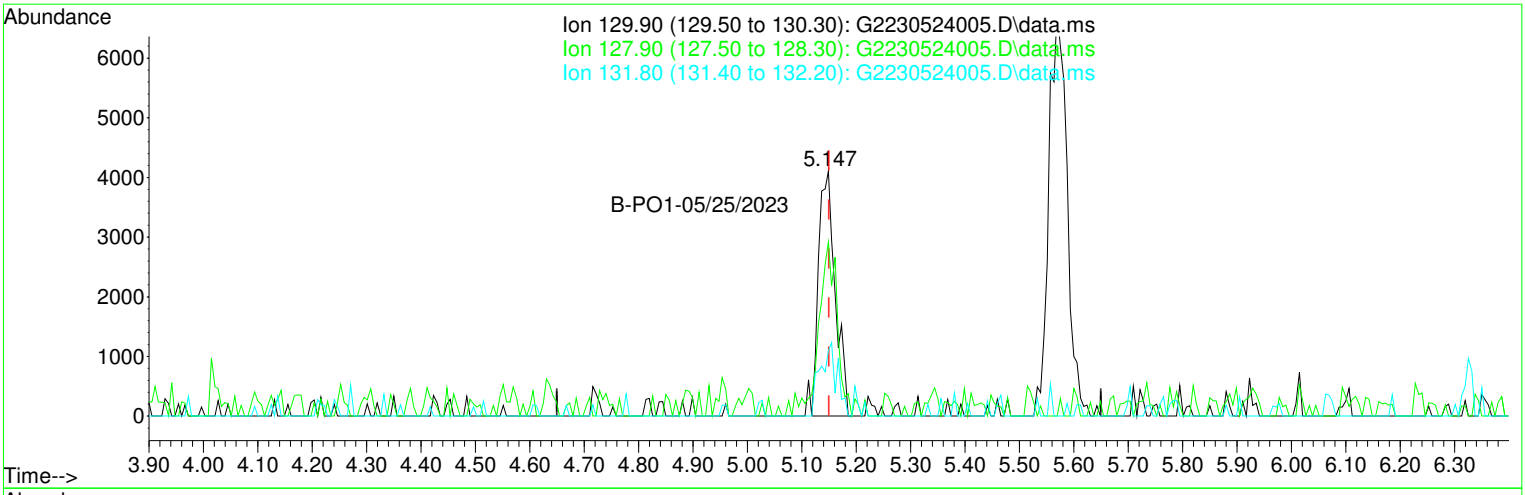
response 85081

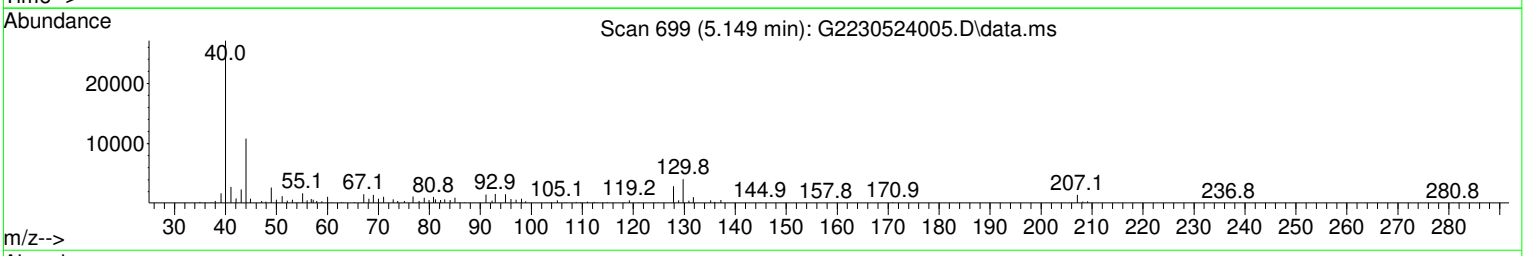
Ion	Exp%	Act%
129.90	100.00	100.00
127.90	76.00	85.78
131.80	24.10	0.00
0.00	0.00	0.00

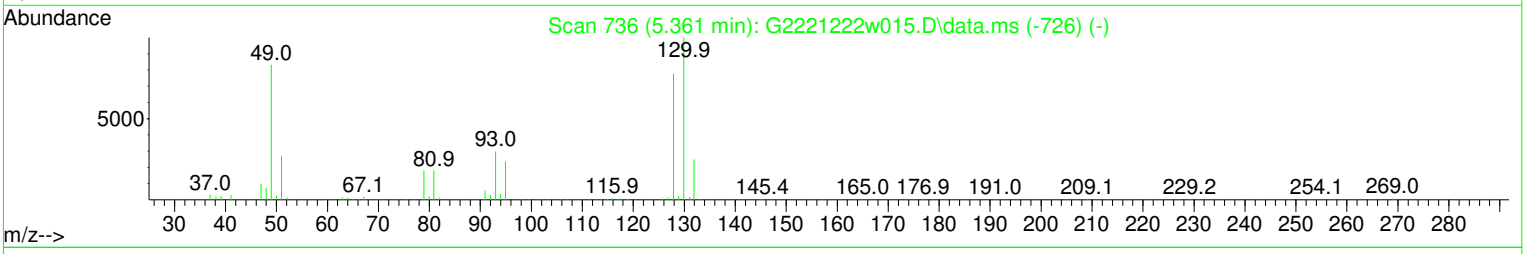
01342409

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(34) Bromochloromethane (T)

5.149min (-0.001) 0.23 ug/L m

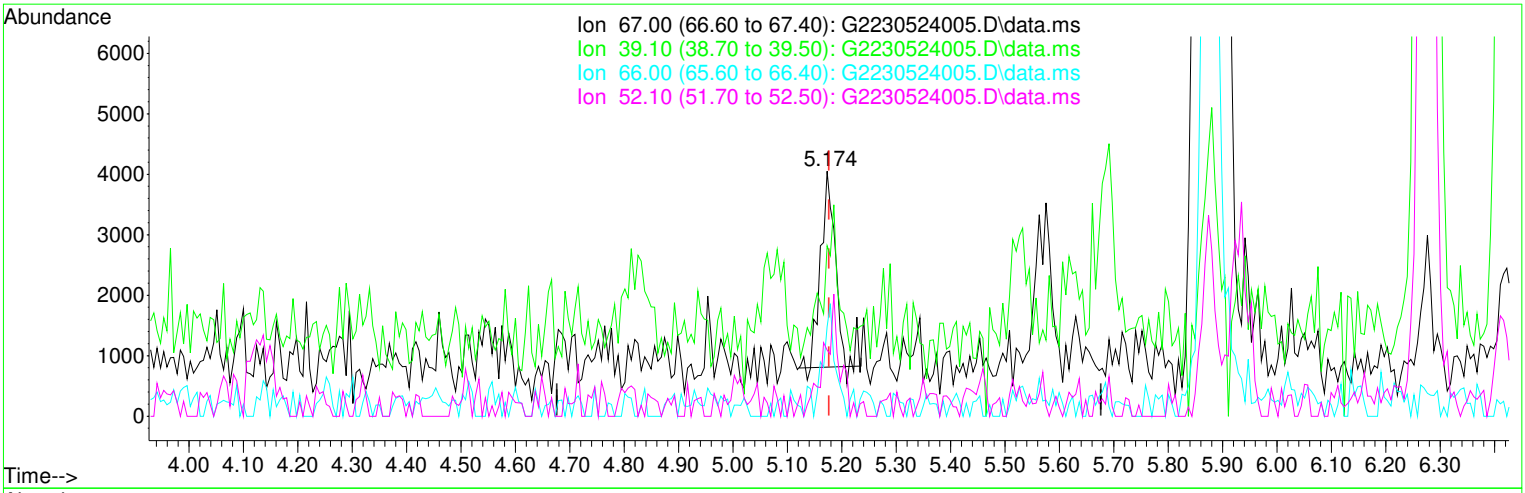
response 85078

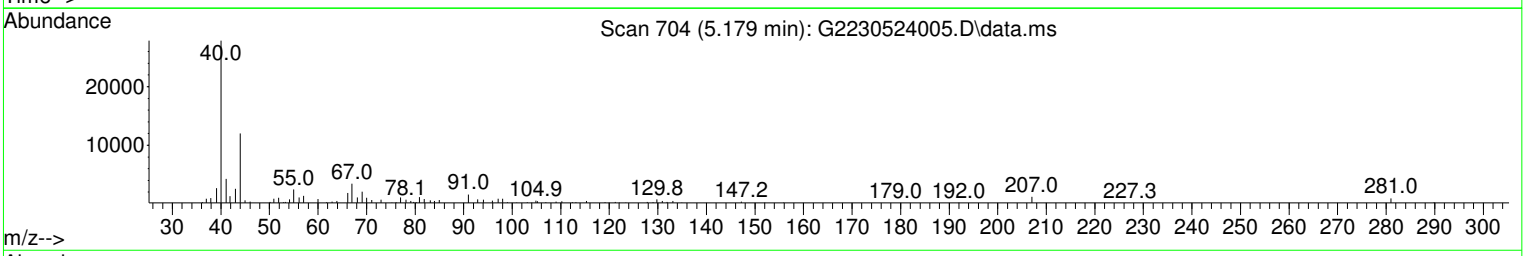
Ion	Exp%	Act%
129.90	100.00	100.00
127.90	76.00	85.78
131.80	24.10	0.00
0.00	0.00	0.00

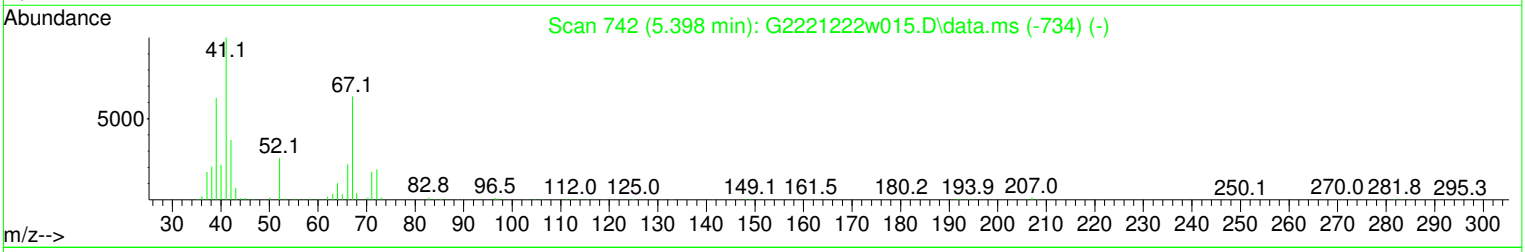
01342410

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(35) Methacrylonitrile (T)

5.176min (-0.000) 0.24 ug/L

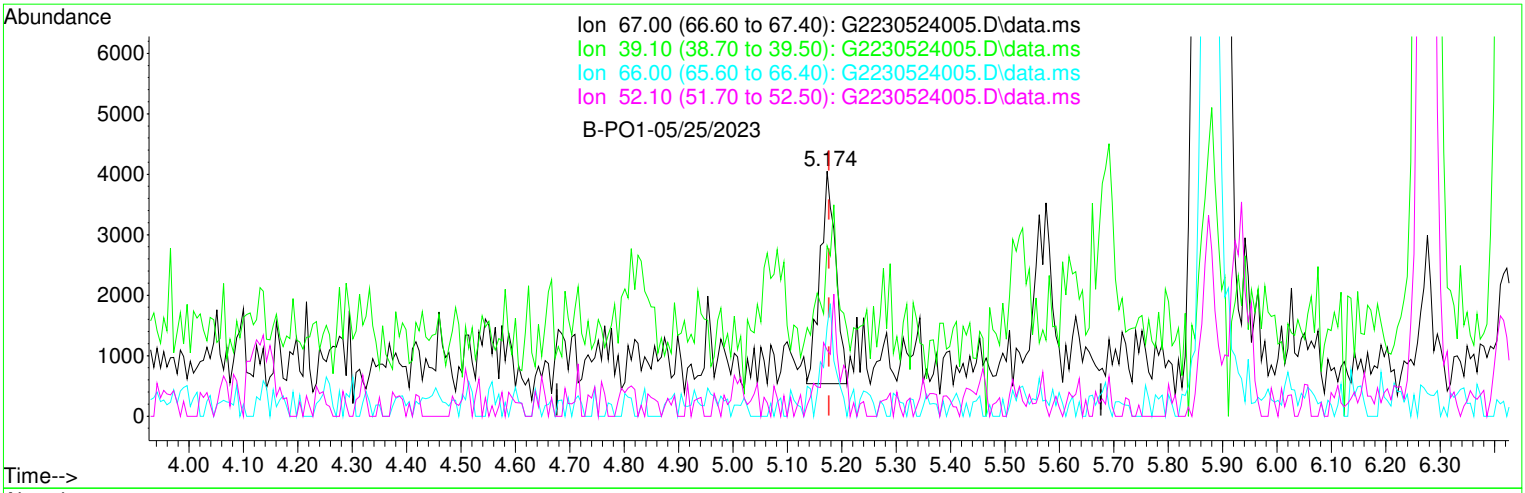
response 60757

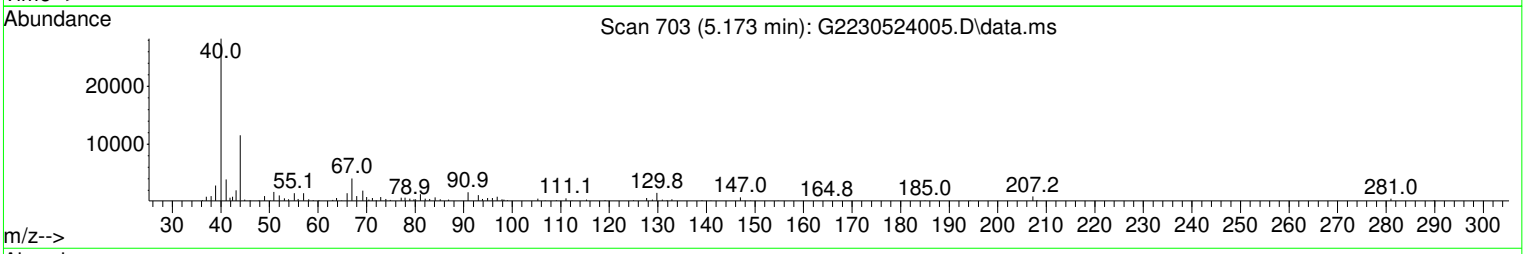
Ion	Exp%	Act%
67.00	100.00	100.00
39.10	72.40	50.71
66.00	35.80	0.00#
52.10	41.40	59.90

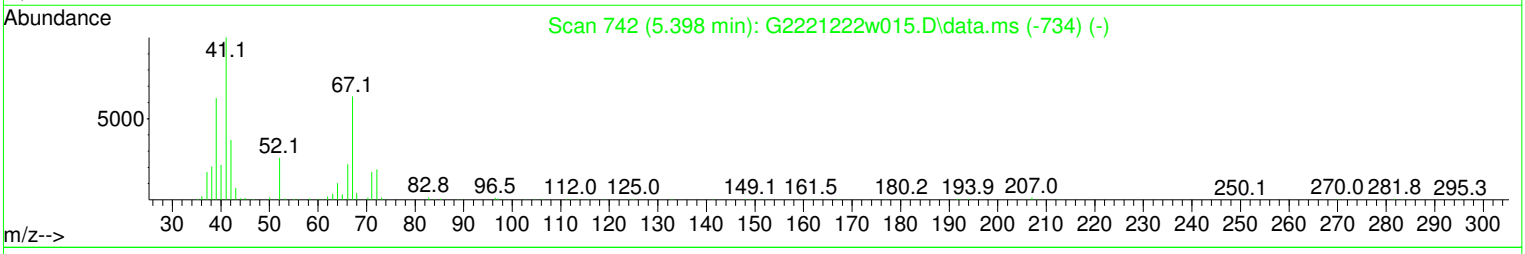
01342411

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(35) Methacrylonitrile (T)

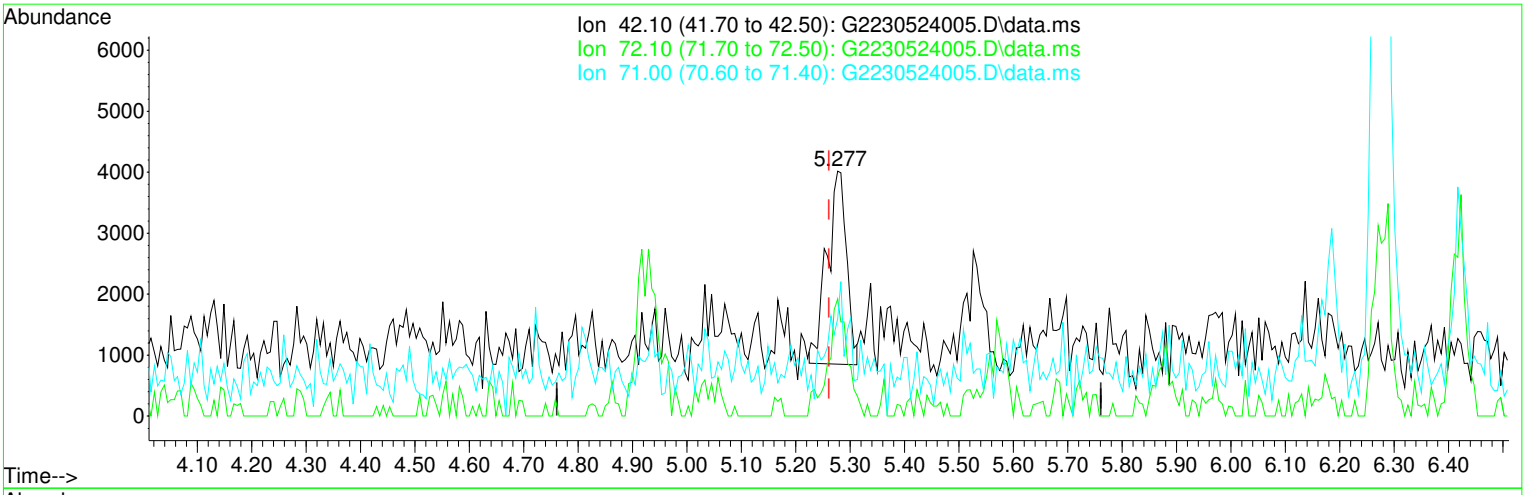
5.173min (-0.004) 0.29 ug/L m

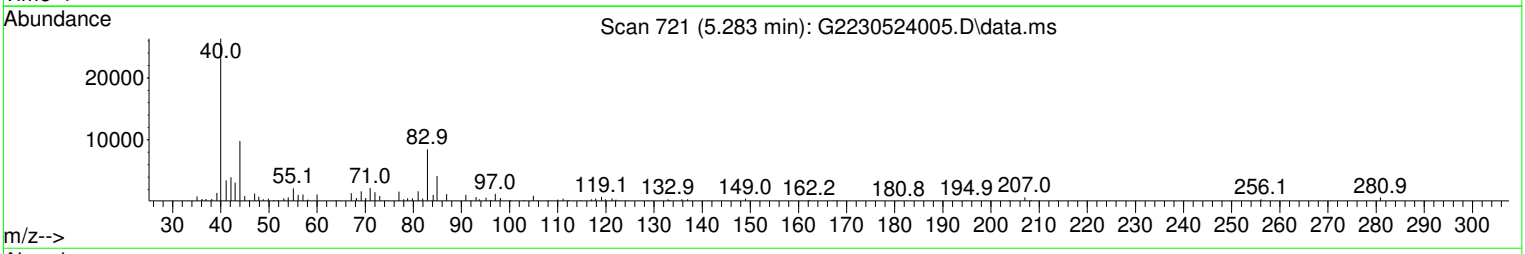
response 70945

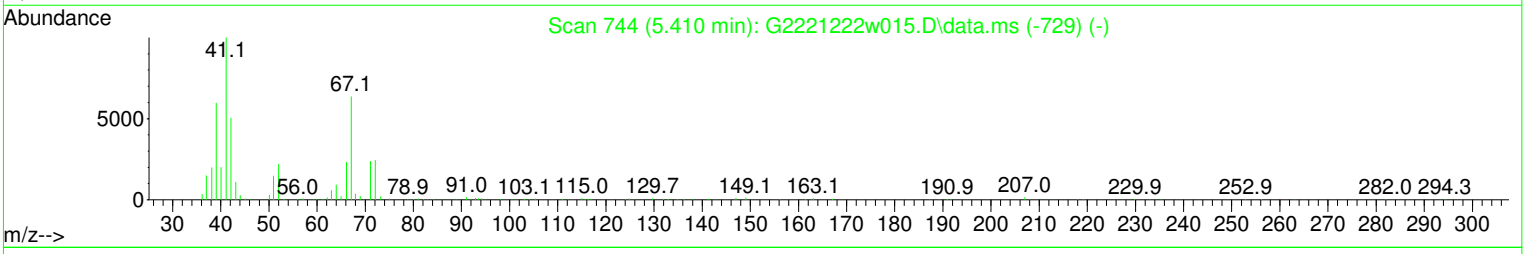
Ion	Exp%	Act%
67.00	100.00	100.00
39.10	72.40	43.43
66.00	35.80	0.00#
52.10	41.40	51.30

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(36) Tetrahydrofuran (T)

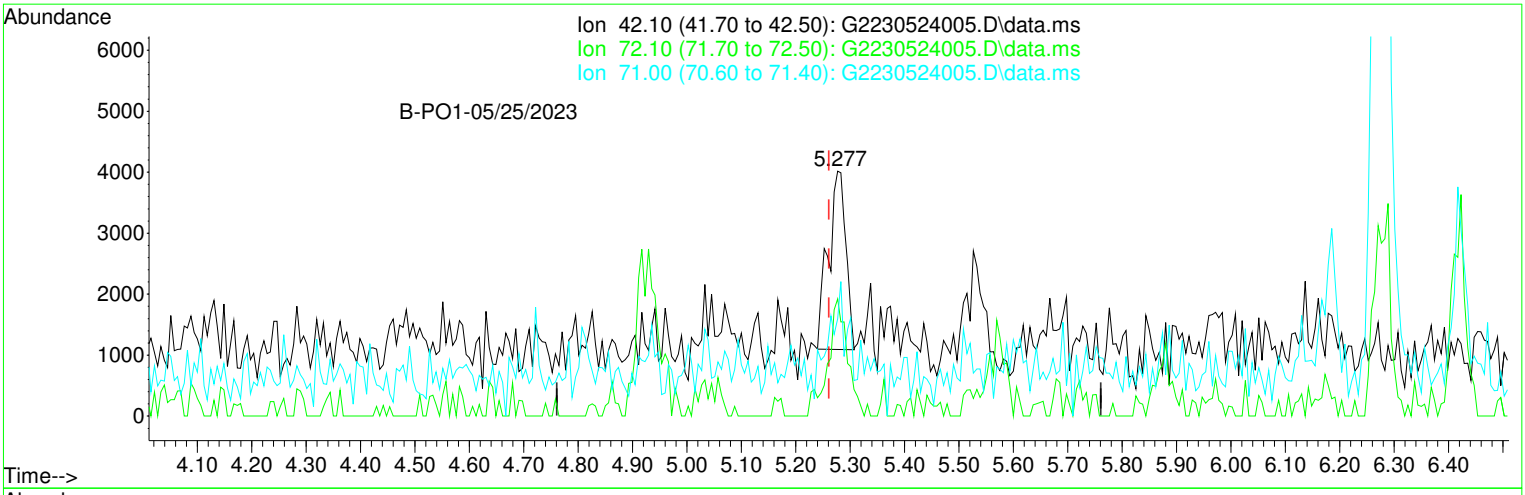
5.281min (+ 0.020) 0.48 ug/L

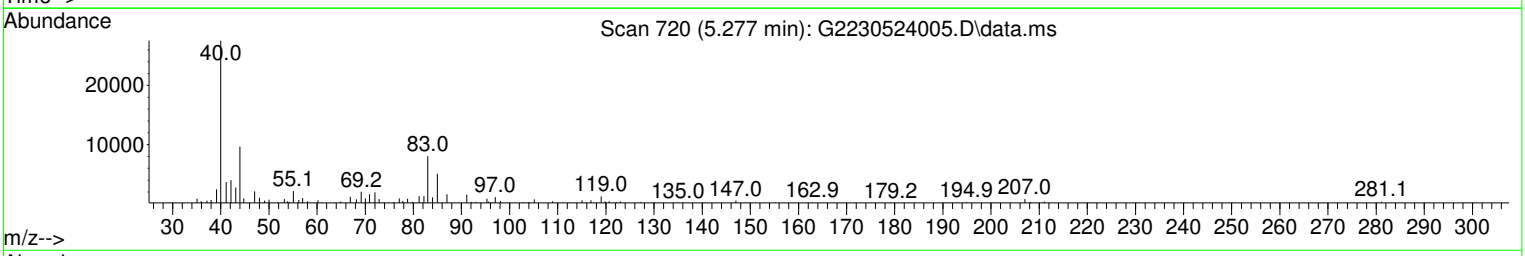
response 78502

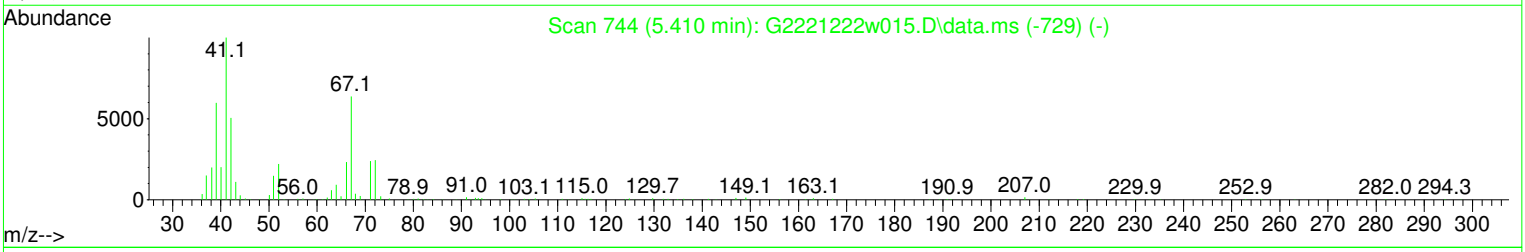
Ion	Exp%	Act%
42.10	100.00	100.00
72.10	48.80	62.45
71.00	44.70	57.84
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(36) Tetrahydrofuran (T)

5.277min (+ 0.016) 0.41 ug/L m

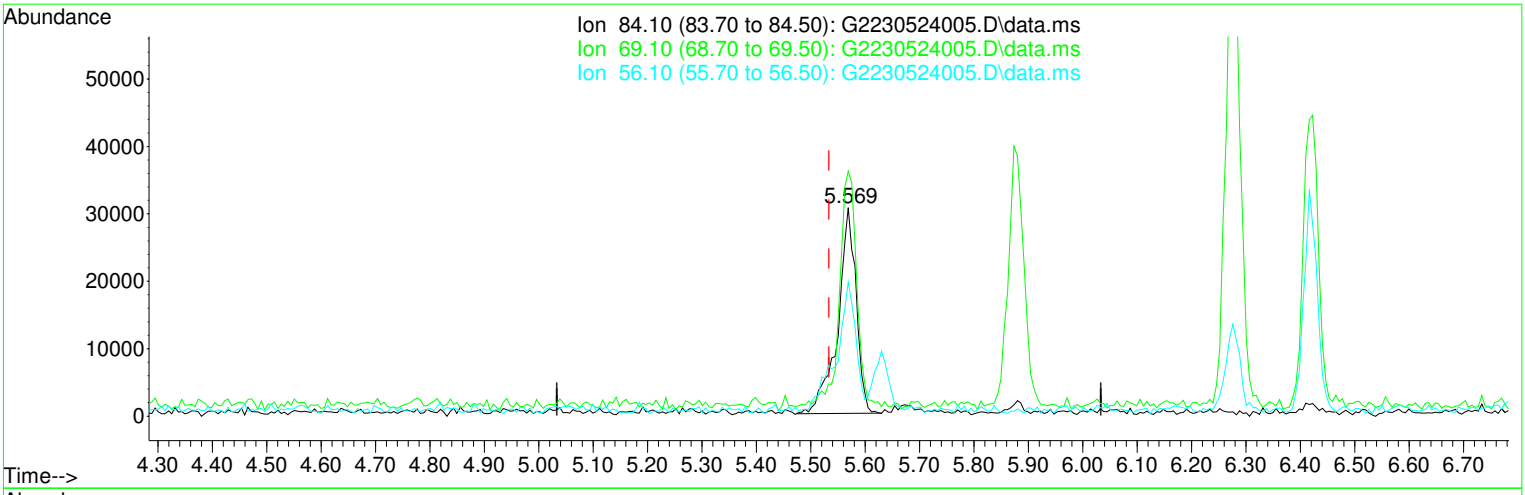
response 65706

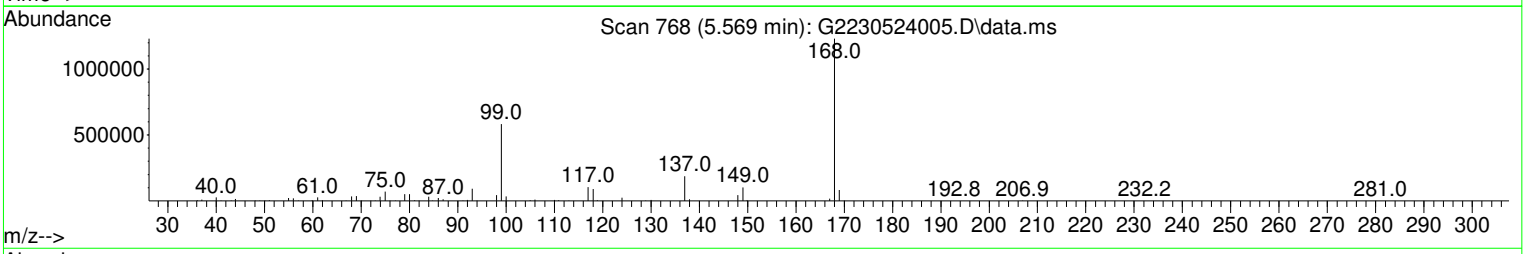
Ion	Exp%	Act%
42.10	100.00	100.00
72.10	48.80	74.61
71.00	44.70	69.10
0.00	0.00	0.00

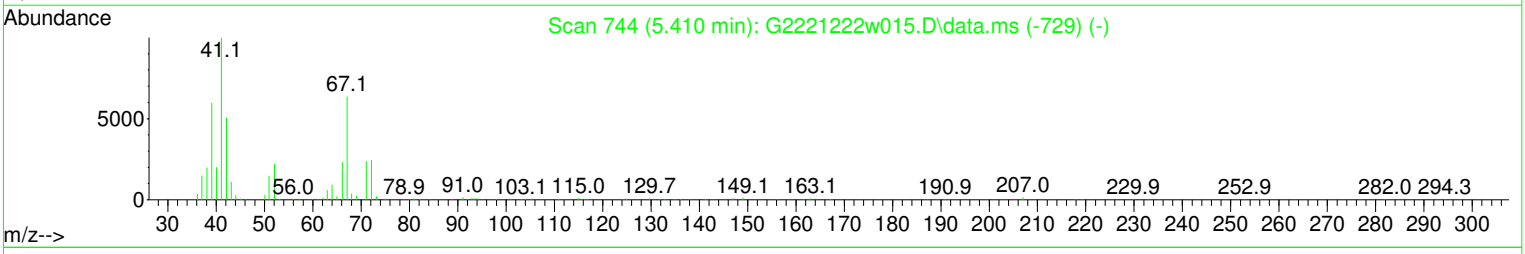
01342414

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(40) Cyclohexane

5.572min (+ 0.038) 1.06 ug/L

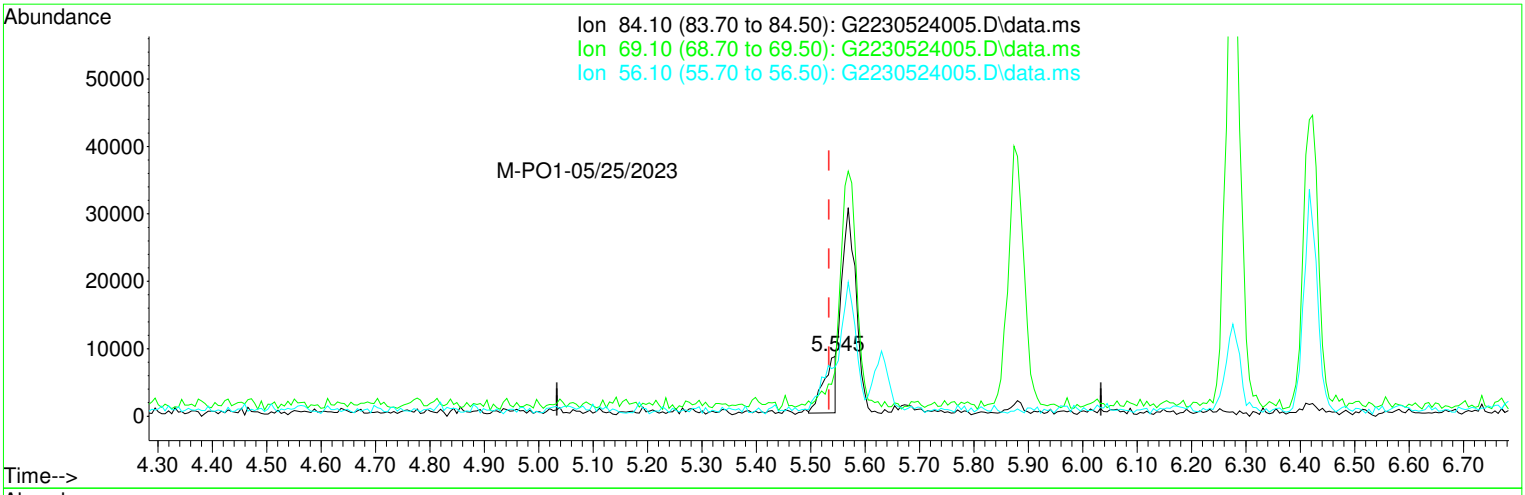
response 712017

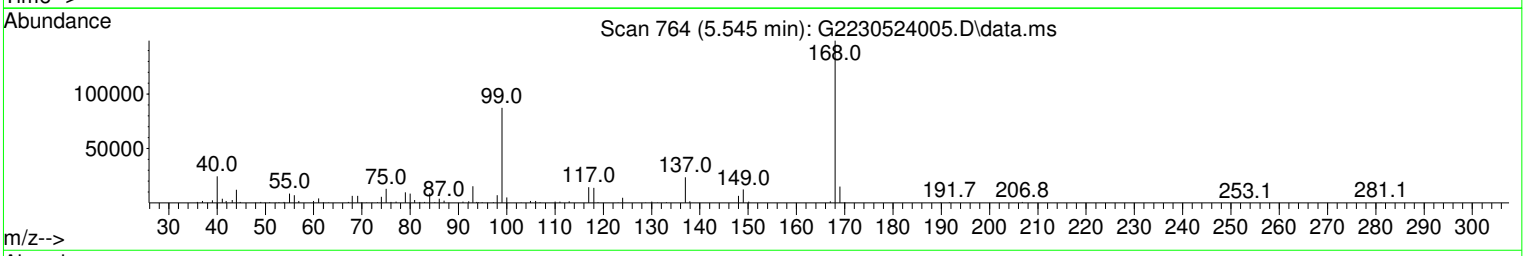
Ion	Exp%	Act%
84.10	100.00	100.00
69.10	36.80	108.00#
56.10	109.10	66.31#
0.00	0.00	0.00

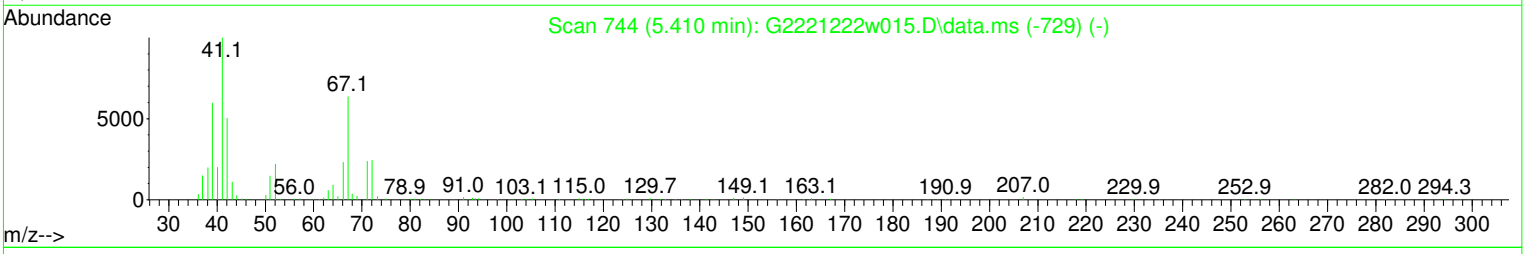
01342415

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(40) Cyclohexane

5.545min (+ 0.011) 0.23 ug/L m

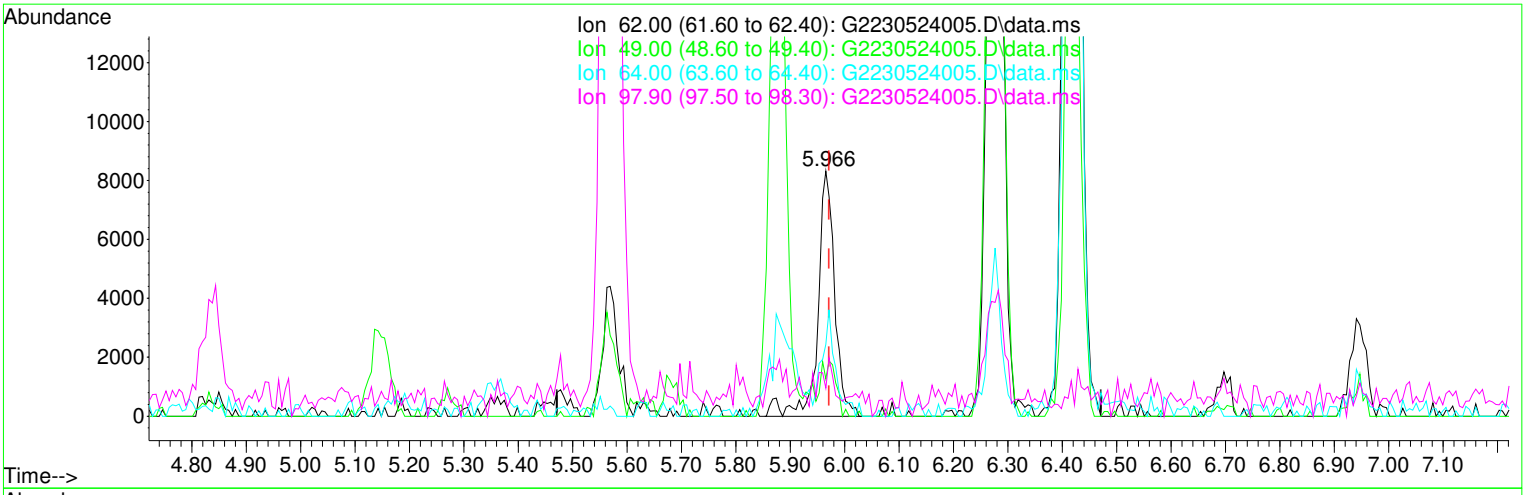
response 156182

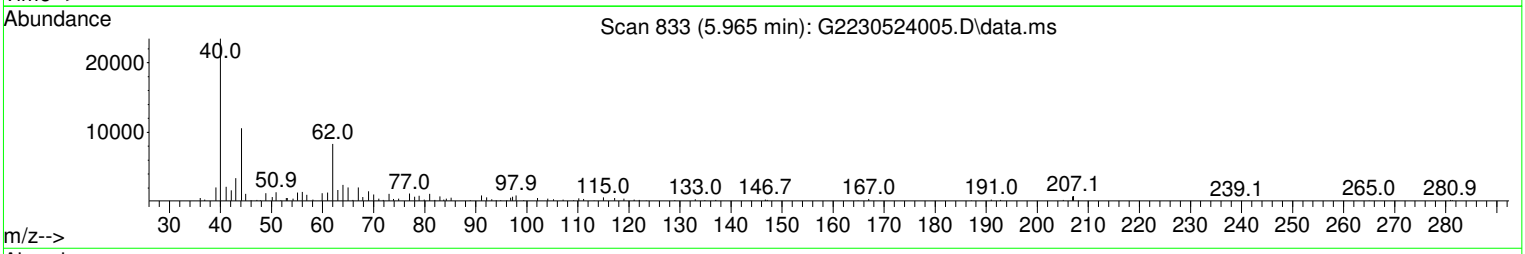
Ion	Exp%	Act%
84.10	100.00	100.00
69.10	36.80	492.38#
56.10	109.10	302.29#
0.00	0.00	0.00

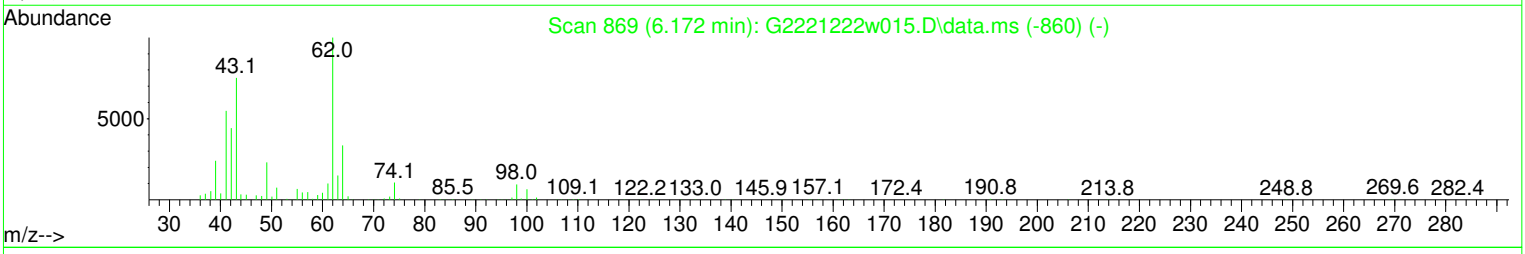
01342416

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(44) 1,2-Dichloroethane (T)

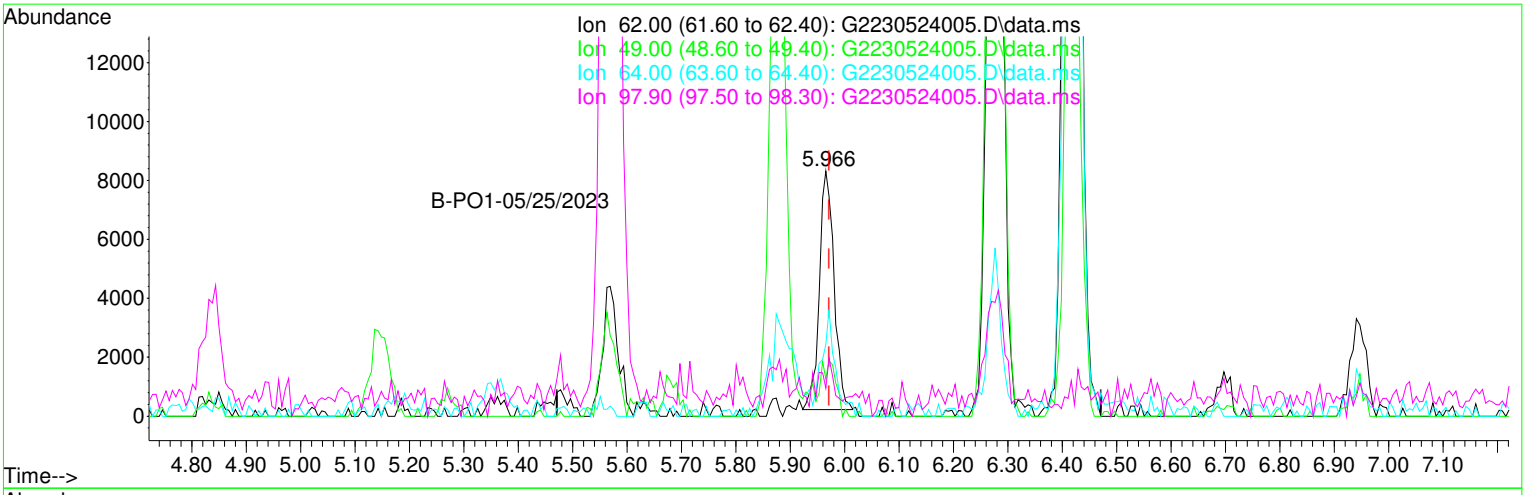
5.968min (-0.003) 0.28 ug/L

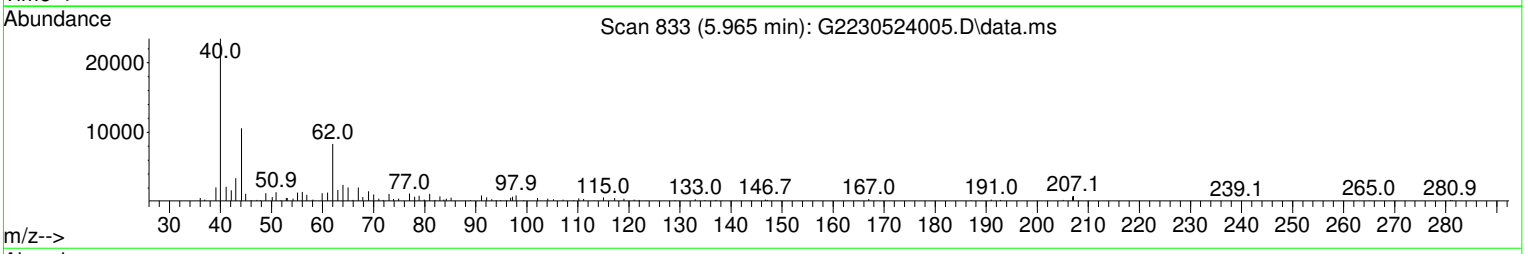
response 179449

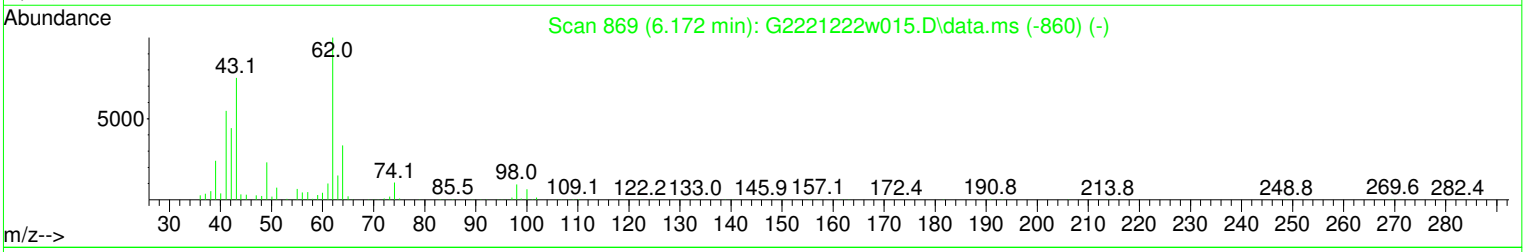
Ion	Exp%	Act%
62.00	100.00	100.00
49.00	30.20	19.89
64.00	33.00	35.44
97.90	9.10	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(44) 1,2-Dichloroethane (T)

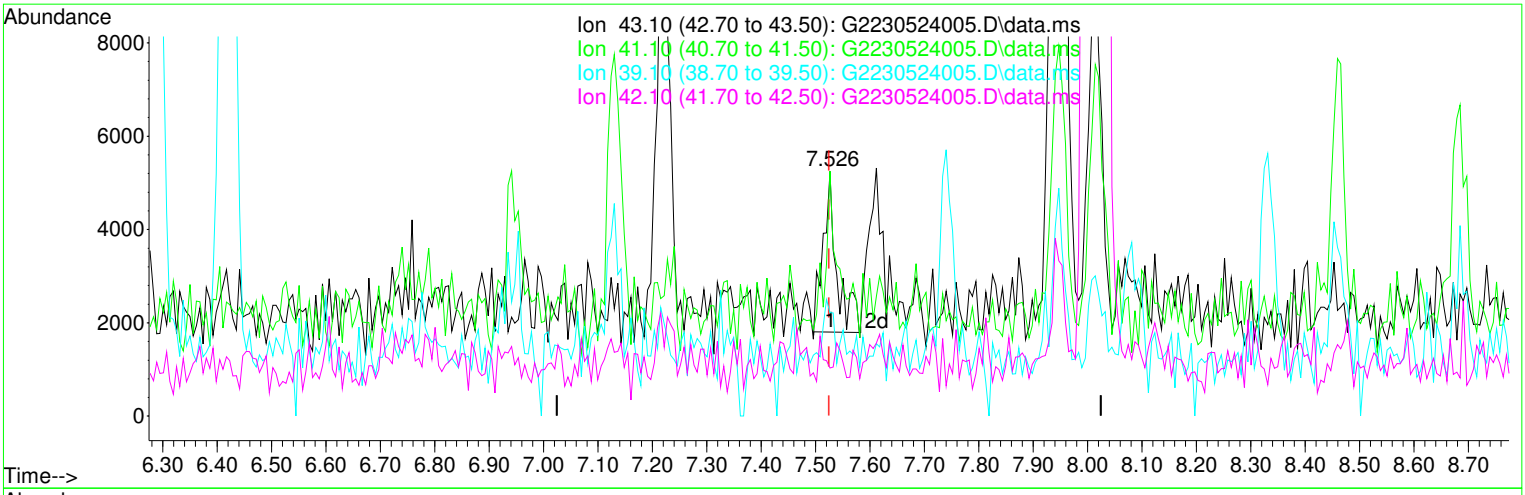
5.965min (-0.006) 0.24 ug/L m

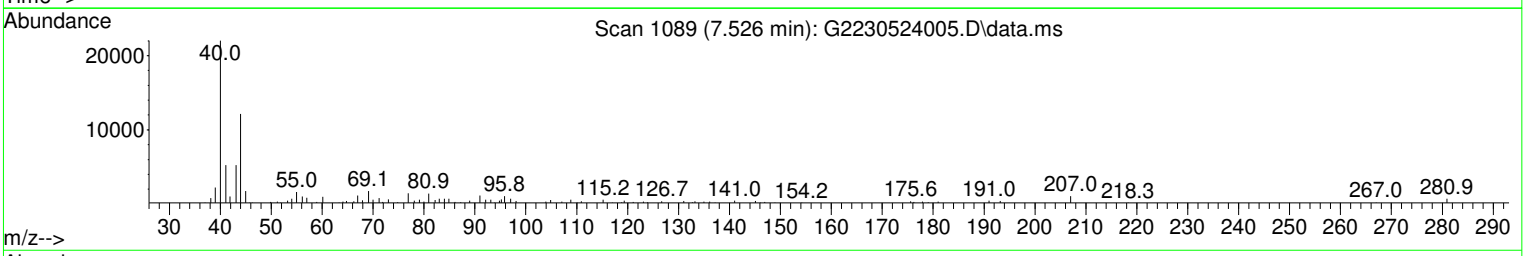
response 152458

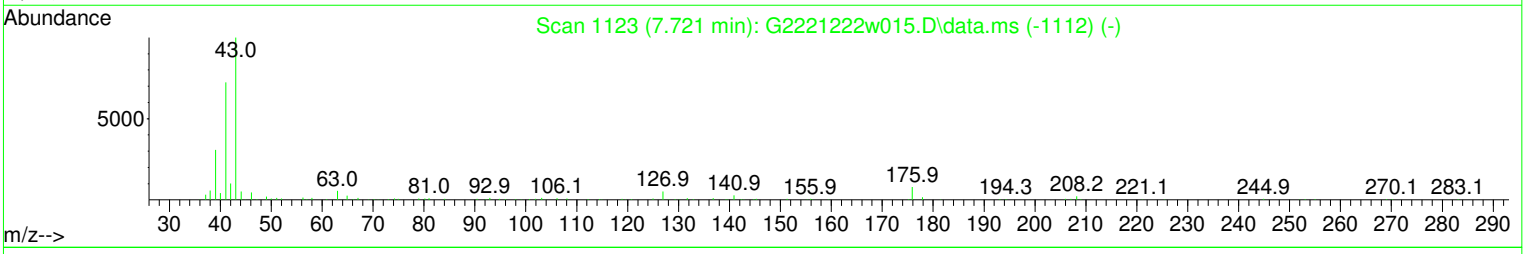
Ion	Exp%	Act%
62.00	100.00	100.00
49.00	30.20	23.42
64.00	33.00	41.72
97.90	9.10	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(57) 2-Nitropropane (T)

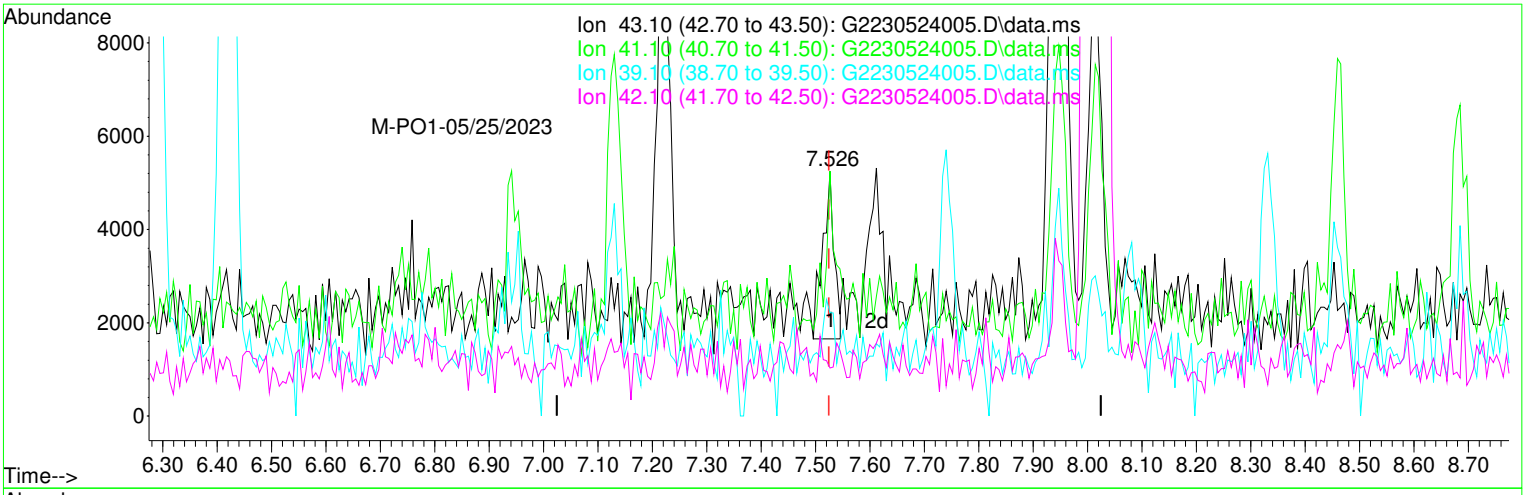
7.528min (+ 0.003) 0.30 ug/L

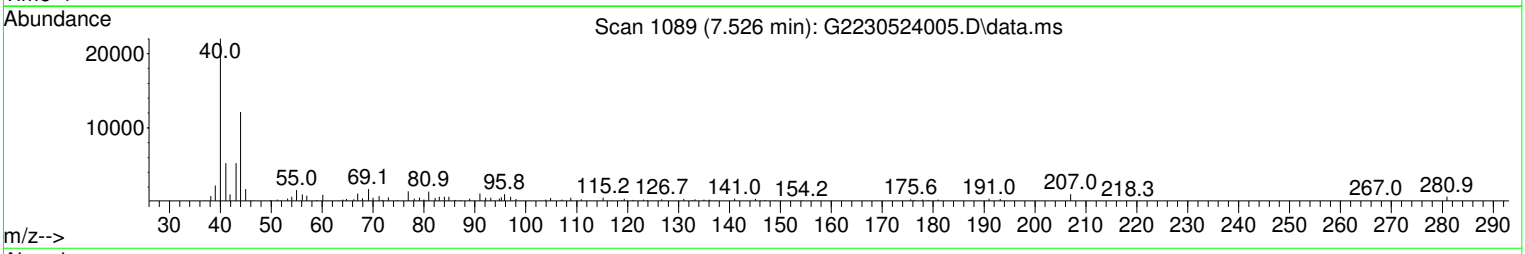
response 61326

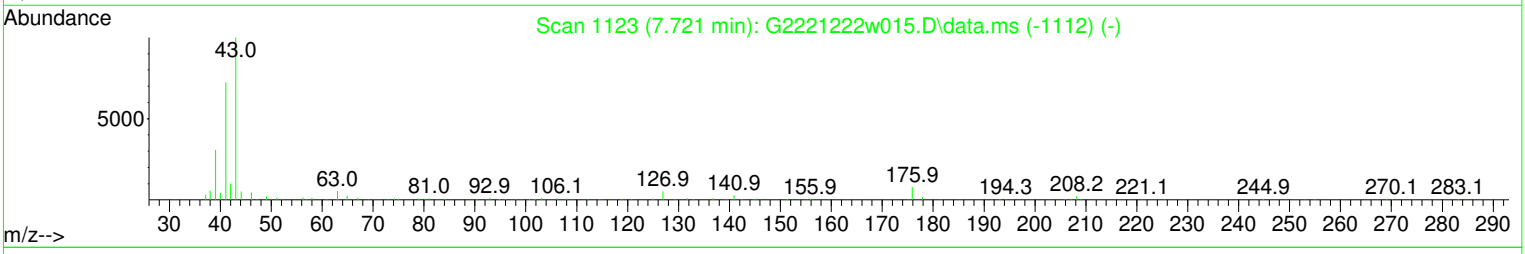
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	88.20	78.82
39.10	33.10	65.49#
42.10	18.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(57) 2-Nitropropane (T)

7.526min (+ 0.002) 0.26 ug/L m

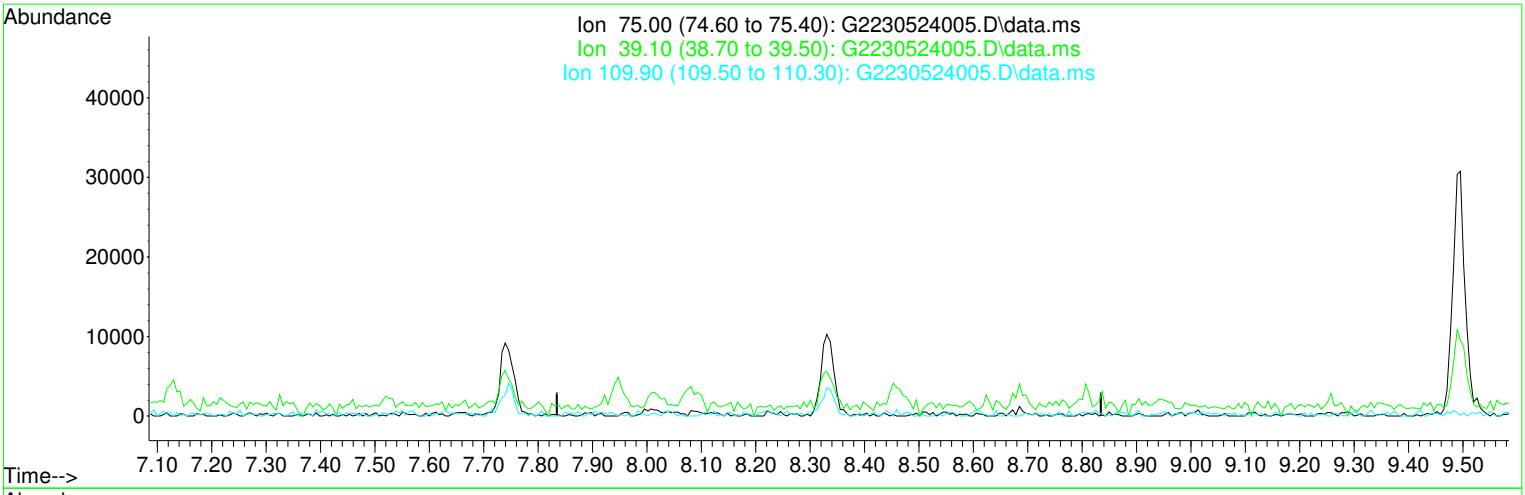
response 52634

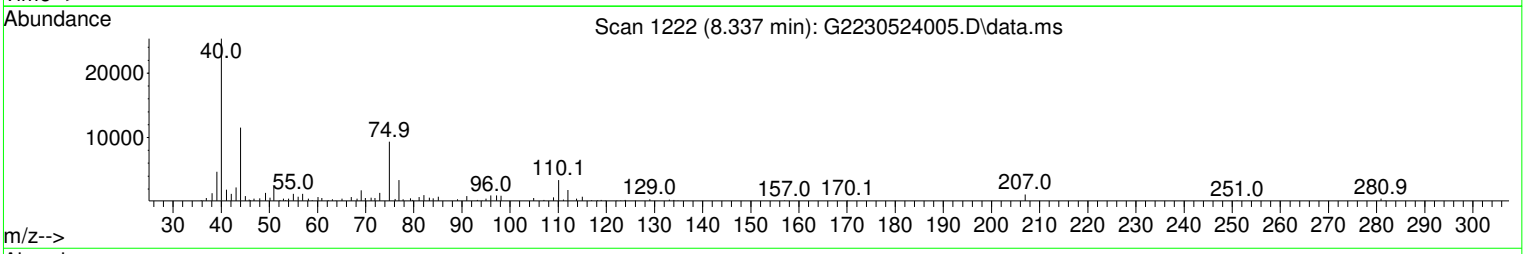
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	88.20	91.84
39.10	33.10	76.31#
42.10	18.00	0.00

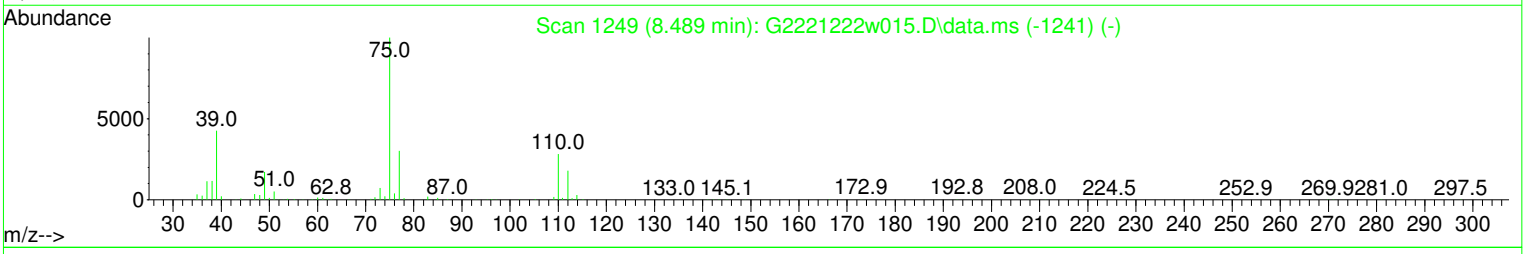
01342420

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(61) trans-1,3-Dichloropropene (T)

8.335min (-8.335) 0.00 ug/L

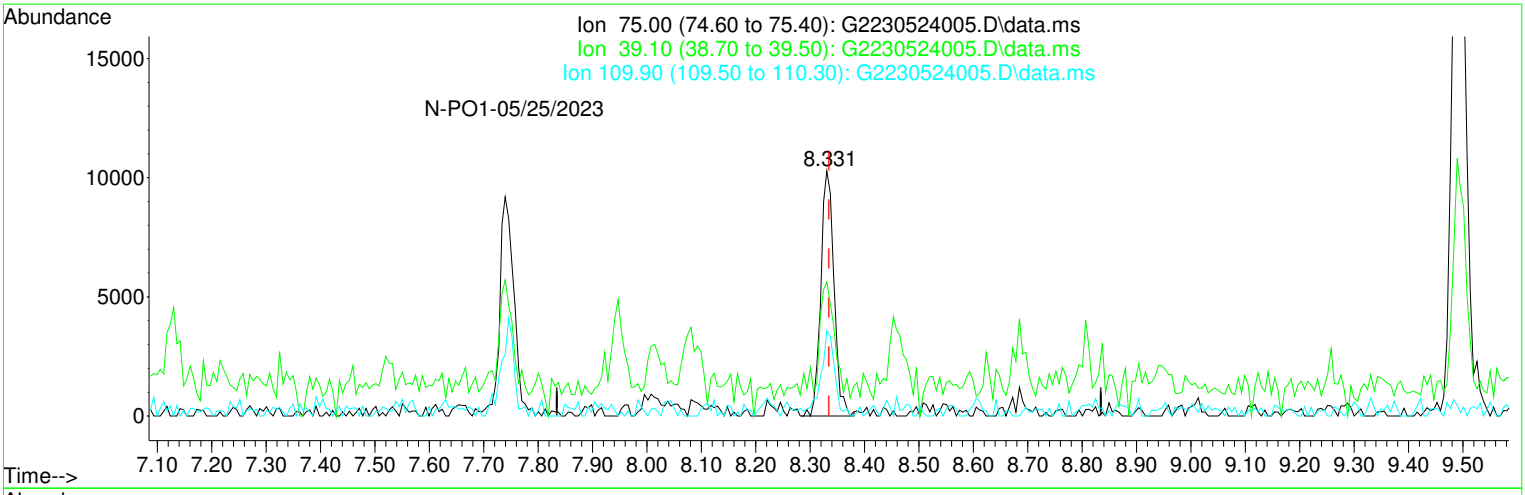
response 0

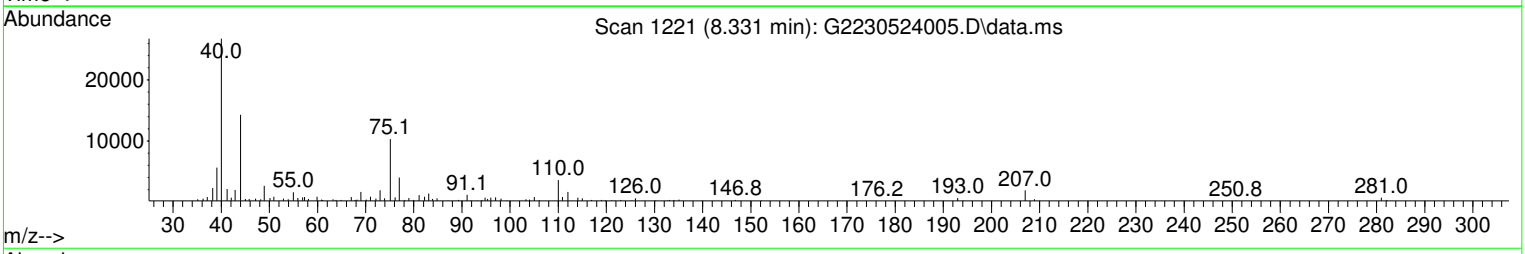
Ion	Exp%	Act%
75.00	100.00	0.00
39.10	45.00	0.00#
109.90	25.10	0.00
0.00	0.00	0.00

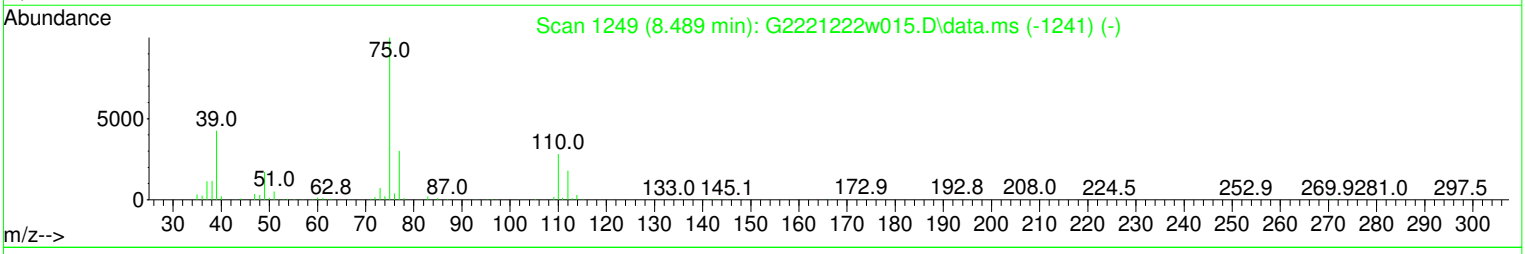
01342421

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(61) trans-1,3-Dichloropropene (T)

8.331min (-0.004) 0.23 ug/L m

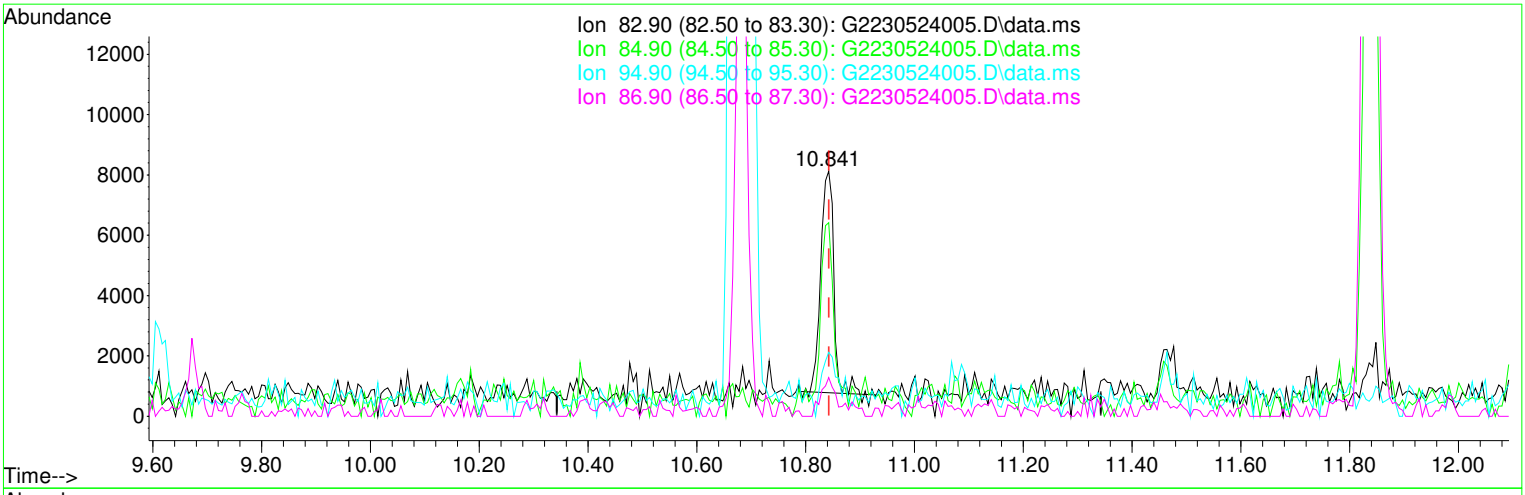
response 173458

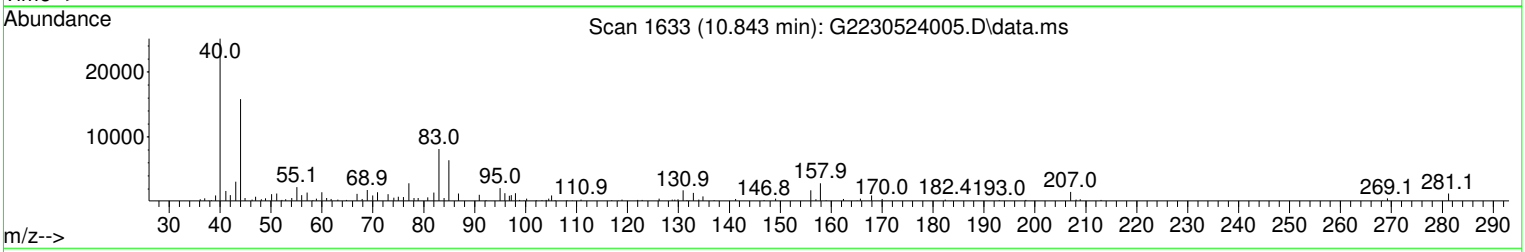
Ion	Exp%	Act%
75.00	100.00	100.00
39.10	45.00	0.00#
109.90	25.10	0.00
0.00	0.00	0.00

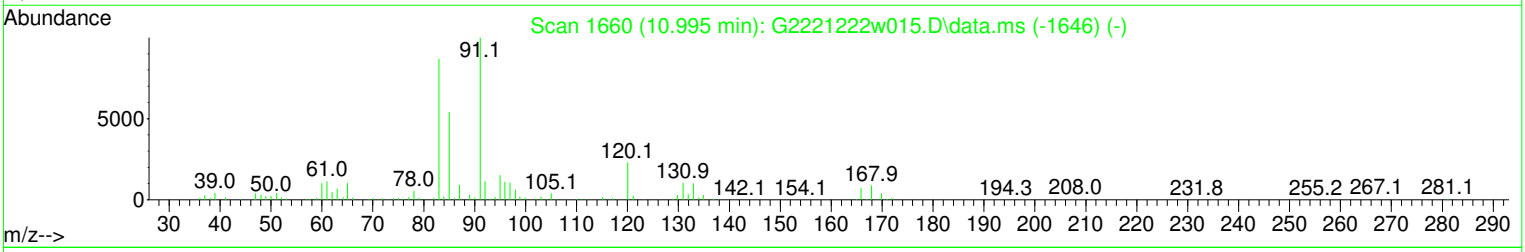
01342422

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(83) 1,1,2,2-Tetrachloroethane (TP)

10.843min (+ 0.000) 0.19 ug/L

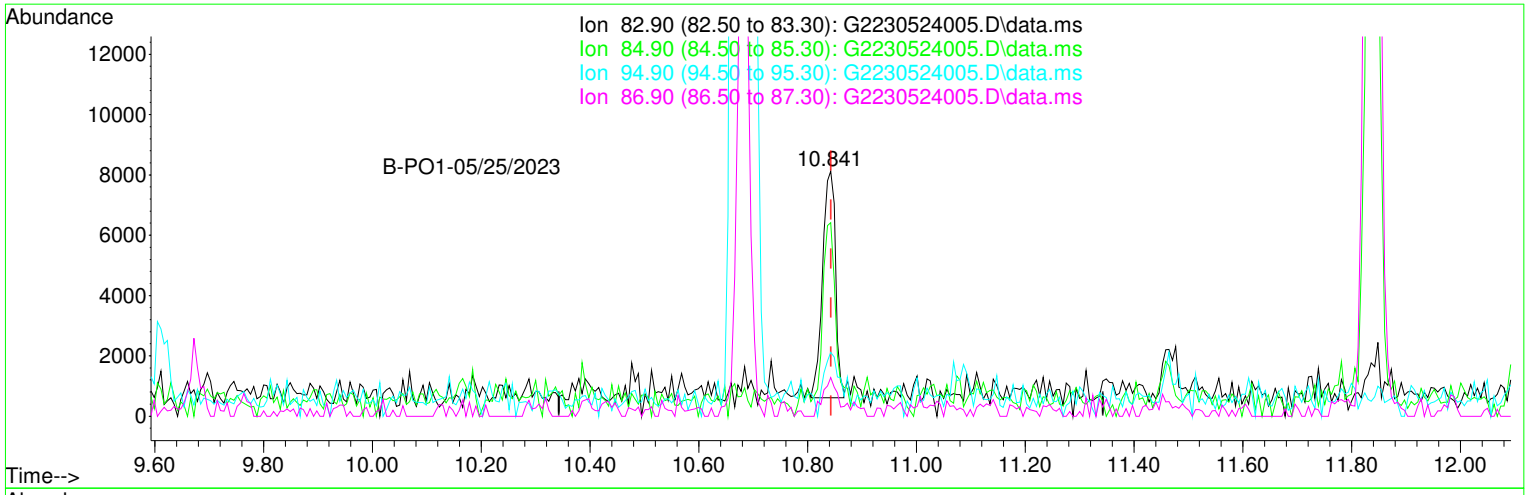
response 120657

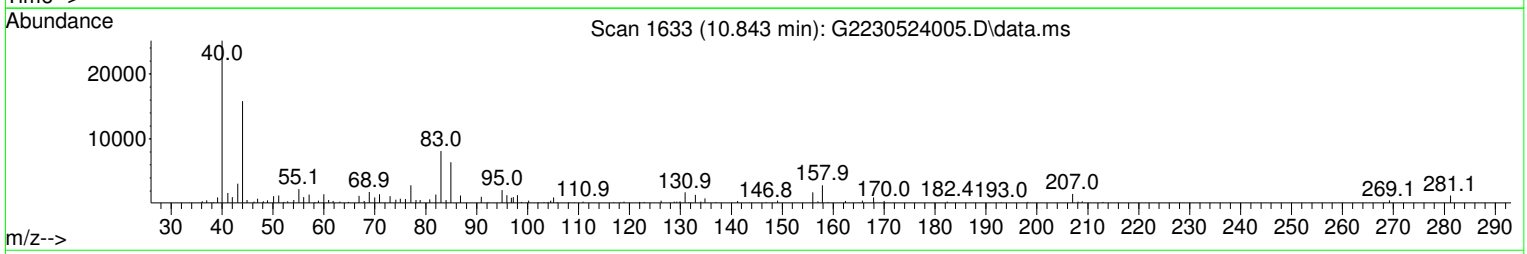
Ion	Exp%	Act%
82.90	100.00	100.00
84.90	66.30	93.96
94.90	17.20	27.36
86.90	10.50	0.00

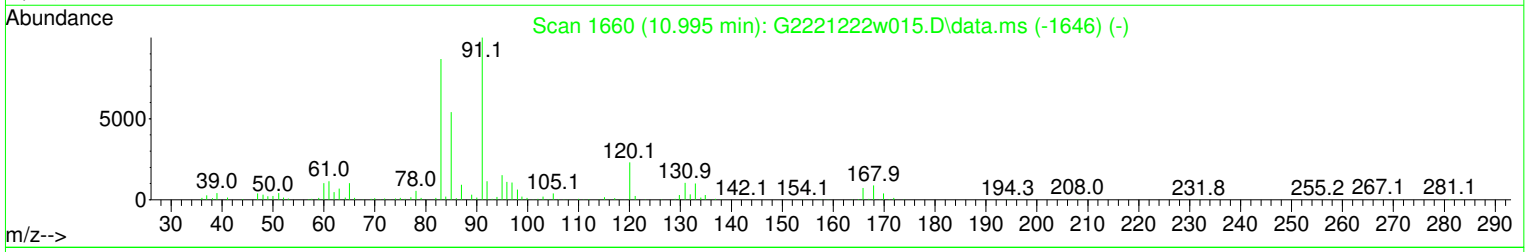
01342423

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(83) 1,1,2,2-Tetrachloroethane (TP)

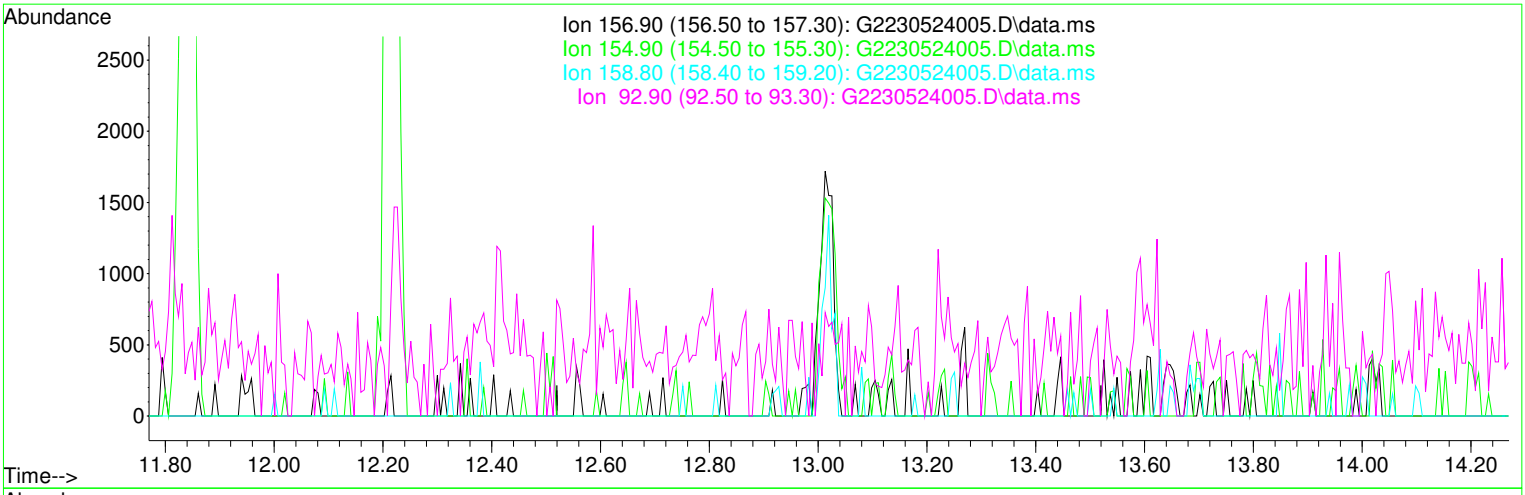
10.843min (-0.000) 0.19 ug/L m

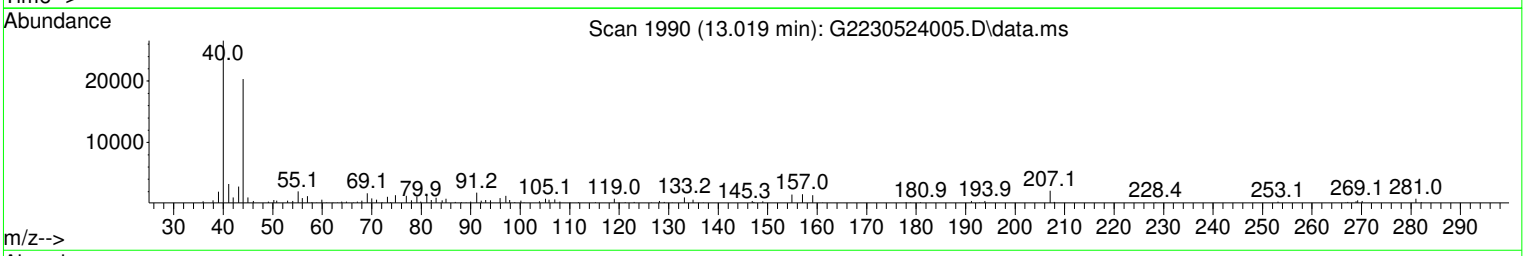
response 122655

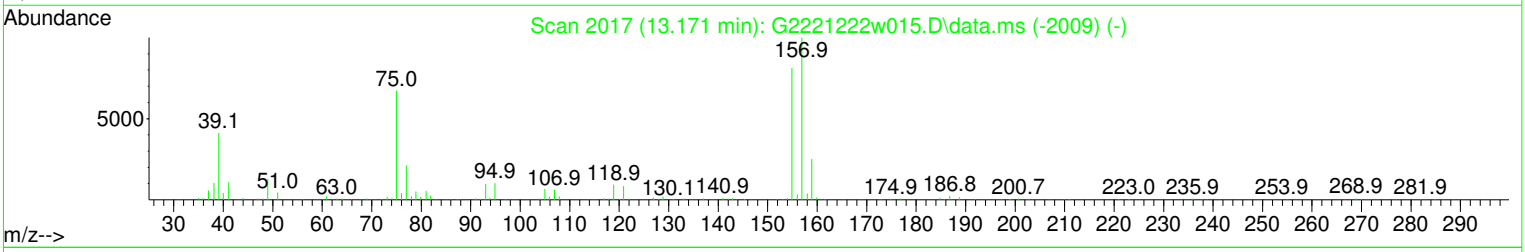
Ion	Exp%	Act%
82.90	100.00	100.00
84.90	66.30	92.43
94.90	17.20	26.92
86.90	10.50	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(101) 1,2-Dibromo-3-chloropropane (T)

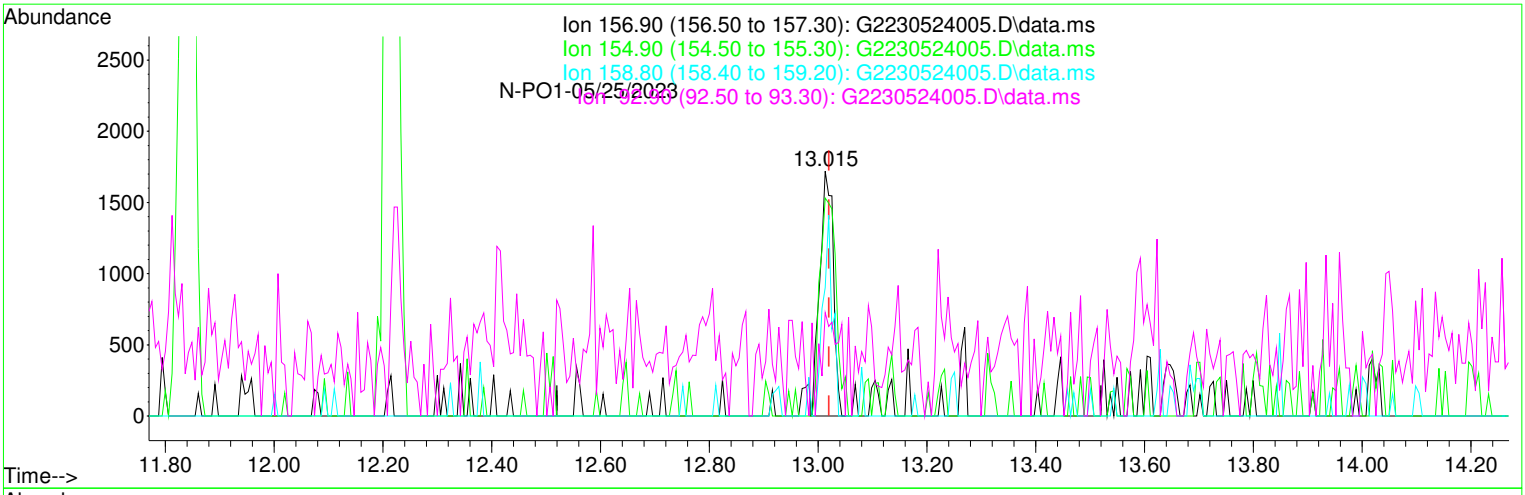
13.020min (-13.020) 0.00 ug/L

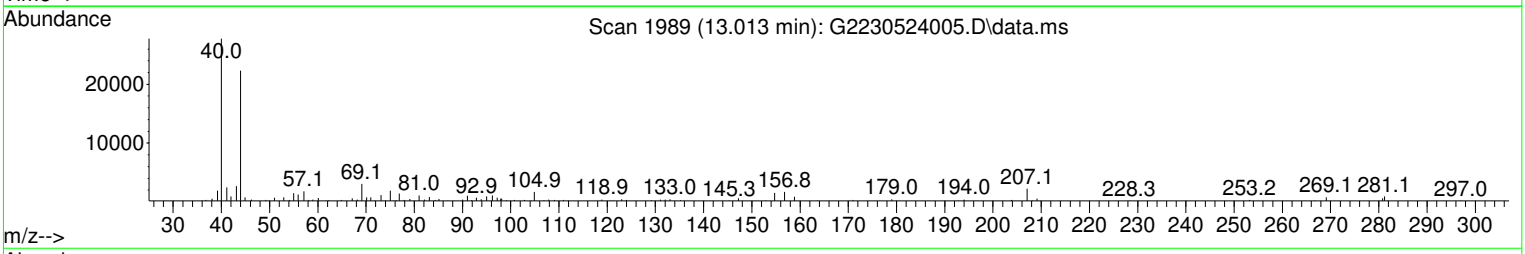
response 0

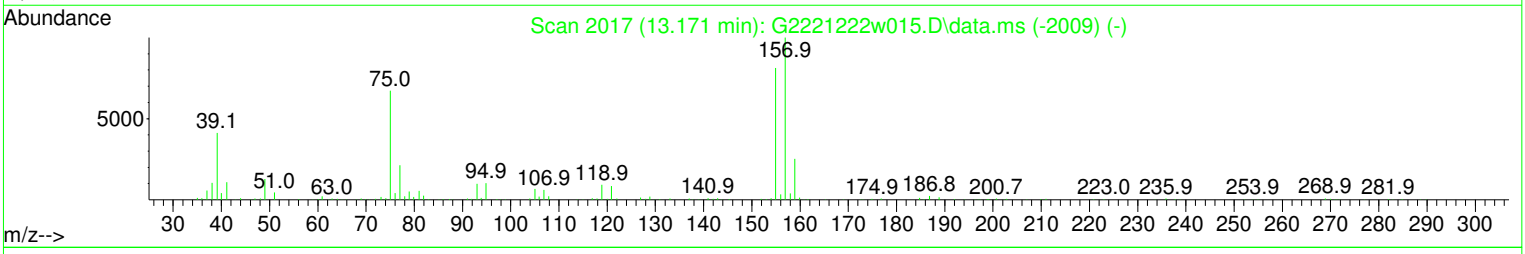
Ion	Exp%	Act%
156.90	100.00	0.00
154.90	76.00	0.00#
158.80	22.60	0.00
92.90	10.90	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(101) 1,2-Dibromo-3-chloropropane (T)

13.013min (-0.007) 0.22 ug/L m

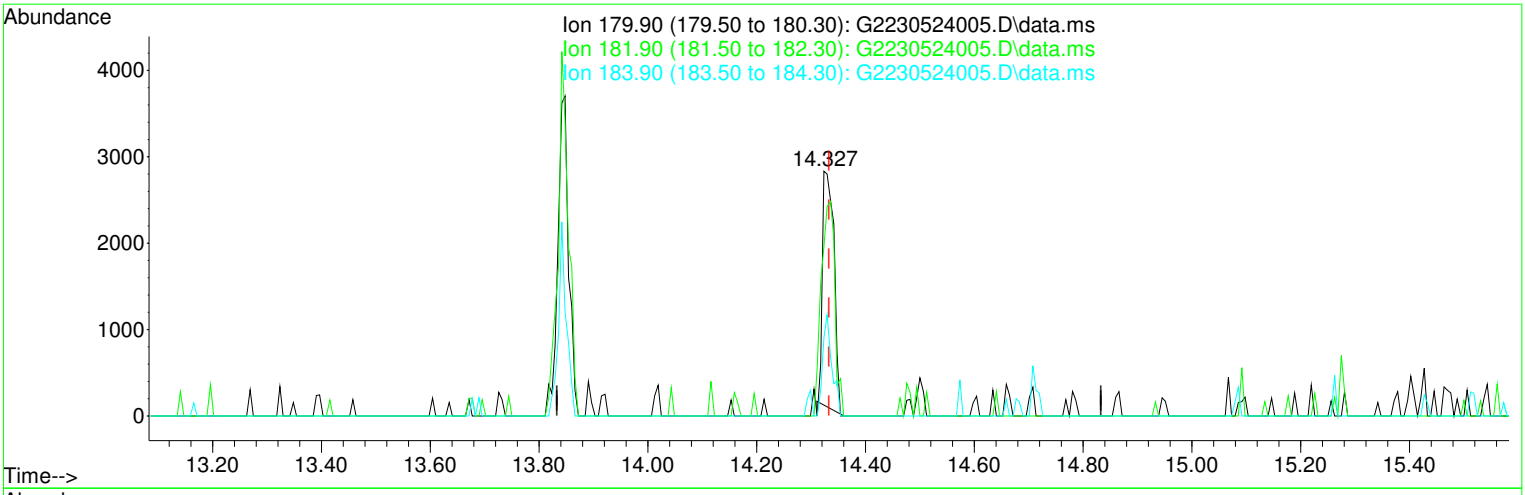
response 29915

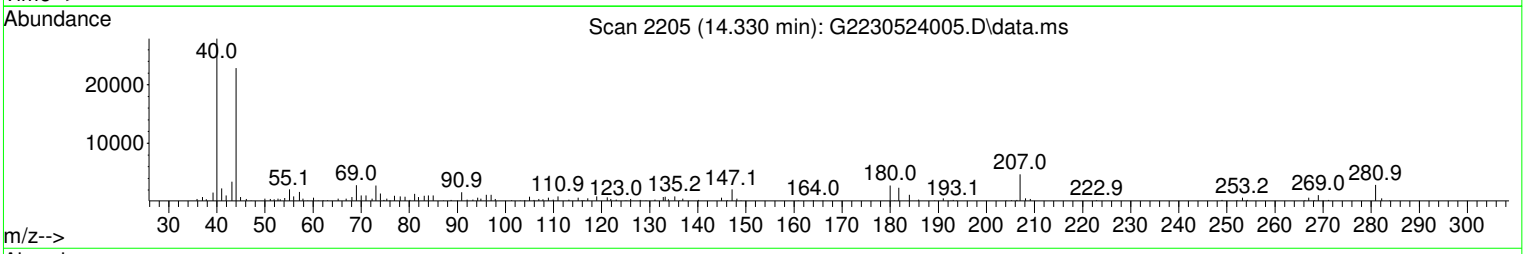
Ion	Exp%	Act%
156.90	100.00	100.00
154.90	76.00	0.00#
158.80	22.60	0.00
92.90	10.90	0.00

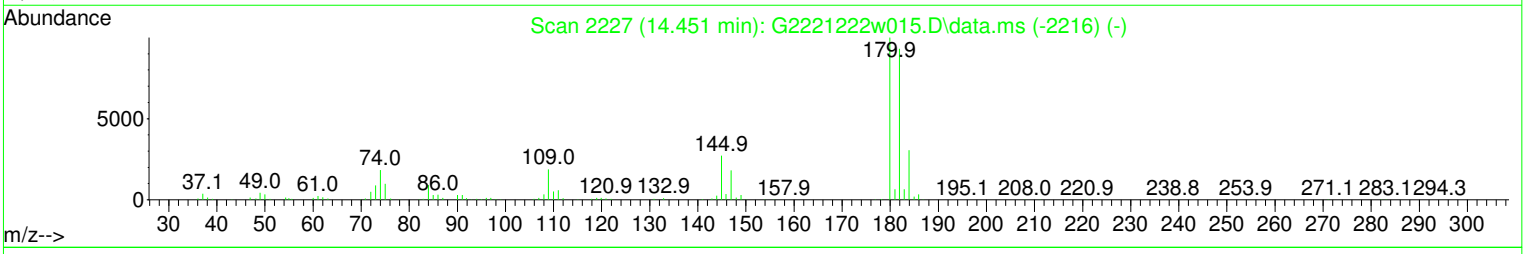
01342426

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(106) 1,2,3-Trichlorobenzene (T)

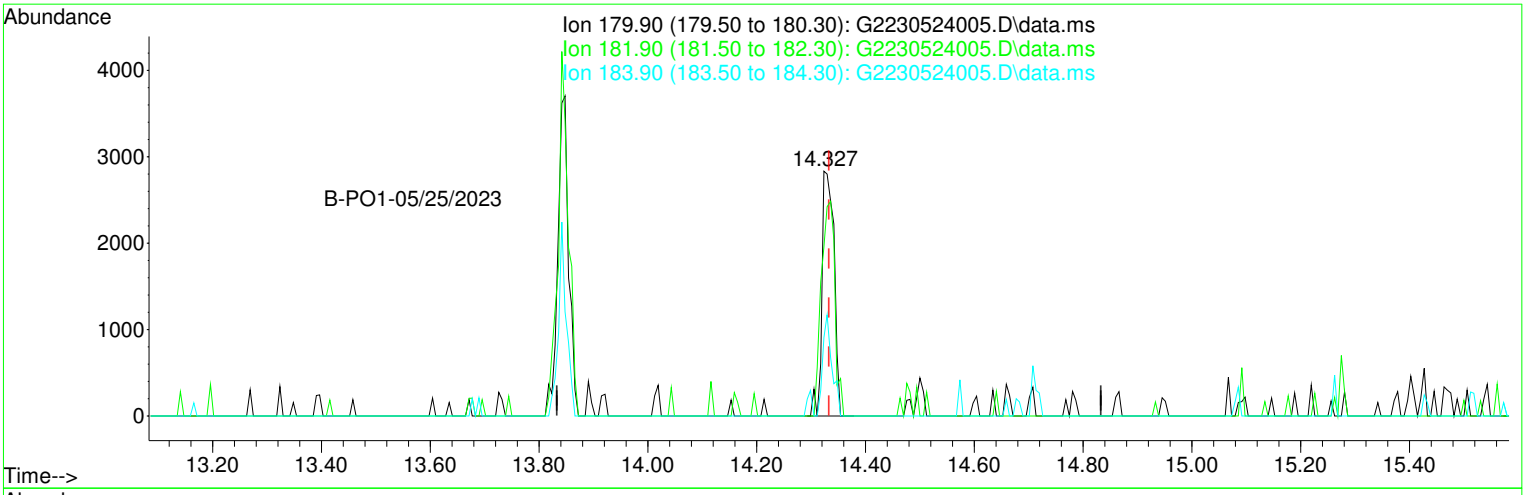
14.331min (-0.002) 0.19 ug/L

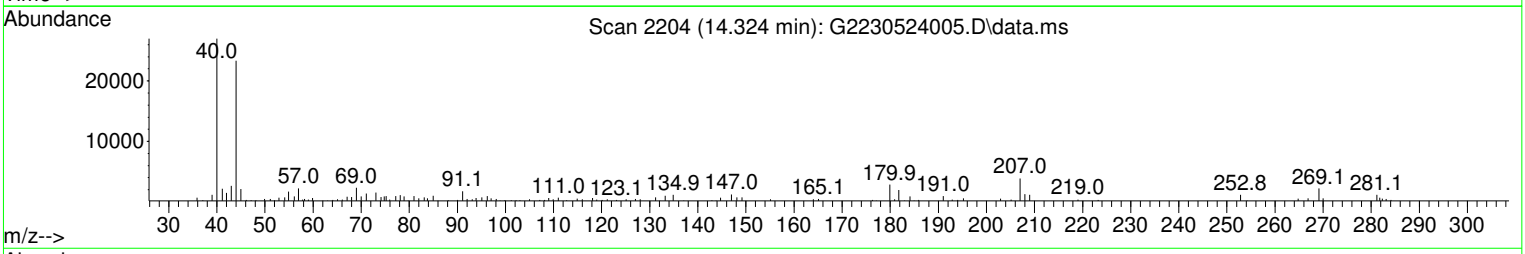
response 40411

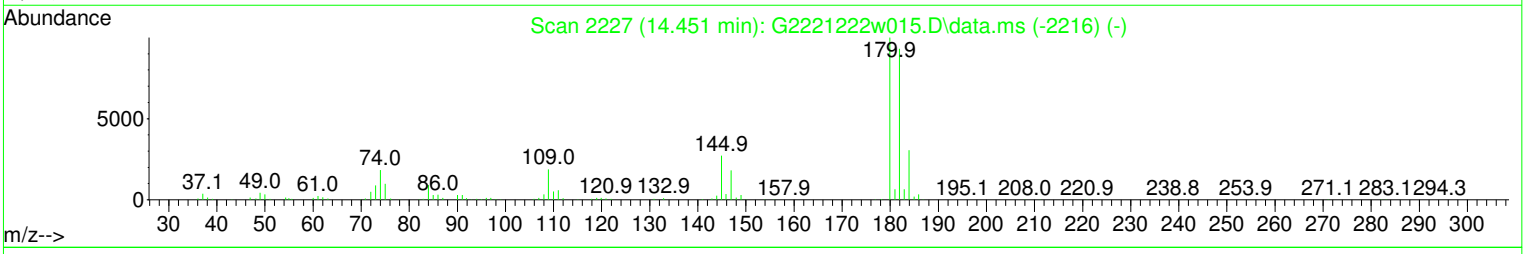
Ion	Exp%	Act%
179.90	100.00	100.00
181.90	91.80	106.96
183.90	30.70	0.00#
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524005.D
Acq On : 24 May 2023 17:09
Operator : PO1
Sample : SEQ-CAL1@@0.2
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 09:29:01 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 09:28:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524005.D\data.ms

(106) 1,2,3-Trichlorobenzene (T)

14.324min (-0.009) 0.21 ug/L m

response 43870

Ion	Exp%	Act%
179.90	100.00	100.00
181.90	91.80	98.53
183.90	30.70	0.00#
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.575	168	25760793	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.423	114	36161116	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.496	117	31554280	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.843	152	14966108	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.478	111	11286521	19.74	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.70%			
43) 1,2-Dichloroethane-d4	5.881	65	11179295	19.77	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.85%			
49) Fluorobenzene	6.280	96	41383797	20.06	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.30%			
64) Toluene-d8	8.018	98	40287889	20.28	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.40%			
81) 4-Bromofluorobenzene	10.687	174	6899410	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%			
97) d4-1,2-Dichlorobenzene	12.219	152	12954640	20.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.210	85	305129m	0.60	ug/L	
3) Chloromethane	1.357	50	263944m	0.60	ug/L	
4) Vinyl chloride	1.447	62	278777	0.56	ug/L	84
5) Bromomethane	1.722	94	260854	0.77	ug/L	97
6) Chloroethane	1.802	64	169317m	0.56	ug/L	
7) Trichlorofluoromethane	2.035	101	415518	0.55	ug/L	95
8) Ethyl ether	2.322	59	209630	0.58	ug/L	87
9) Acrolein	2.448	56	124609m	1.74	ug/L	
10) 1,1-Dichloroethene	2.525	61	346679	0.61	ug/L	94
11) 1,1,2-Trichloro-1,2,2-...	2.541	101	244518	0.60	ug/L	97
12) Acetone	2.611	43	409409	2.98	ug/L	91
13) Iodomethane	2.679	142	314411	0.52	ug/L	94
14) Carbon disulfide	2.739	76	732945	0.62	ug/L	90
16) acetonitrile	2.919	41	426535	1.67	ug/L	83
17) 3-Chloro-1-propene	2.916	76	160733	0.60	ug/L #	83
18) Methylene chloride	3.065	49	745878	1.20	ug/L	86
19) Acrylonitrile	3.391	53	106343	0.53	ug/L	79
20) trans-1,2-Dichloroethene	3.402	61	319481	0.58	ug/L	94
21) Methyl tert-butyl ether	3.450	73	2132706	1.16	ug/L	98
22) Hexane	3.791	57	279717	0.64	ug/L	91
23) 1,1-Dichloroethane	3.998	63	420102	0.56	ug/L	96
24) Vinyl acetate	4.138	43	425524	0.50	ug/L	88
25) 2-Chloro-1,3-butadiene	4.133	53	327845	0.57	ug/L	85
27) 2,2-Dichloropropane	4.833	77	402424	0.58	ug/L	79
28) cis-1,2-Dichloroethene	4.837	61	387349	0.57	ug/L	94
29) 2-Butanone	4.927	72	135091	1.94	ug/L	74
30) Propionitrile	4.994	54	41849	0.63	ug/L #	63
31) Ethyl acetate	5.020	61	63318m	0.77	ug/L	

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Methylacrylate	5.054	55	279666	0.57	ug/L	#	88
33) 1-Bromopropane	5.078	41	193733	0.70	ug/L		90
34) Bromochloromethane	5.152	130	219136	0.58	ug/L		97
35) Methacrylonitrile	5.181	67	136220	0.54	ug/L		82
36) Tetrahydrofuran	5.277	42	142716	0.95	ug/L		99
37) Chloroform	5.274	83	469286	0.56	ug/L		93
39) 1,1,1-Trichloroethane	5.482	97	449897	0.59	ug/L		96
40) Cyclohexane	5.537	84	313594	0.45	ug/L	#	7
41) 1-Chlorobutane	5.631	56	463062	0.58	ug/L		98
42) 1,1-Dichloropropene	5.692	75	351729	0.58	ug/L		96
44) 1,2-Dichloroethane	5.973	62	377696	0.60	ug/L		97
45) Isobutanol	5.971	43	105151	6.17	ug/L		93
47) Carbon tetrachloride	5.680	117	348857	0.54	ug/L		98
48) Benzene	5.936	78	1035278	0.58	ug/L		99
50) Trichloroethene	6.697	95	291284	0.58	ug/L		91
52) 1,2-Dichloropropane	6.947	63	253003	0.59	ug/L		88
53) Dibromomethane	7.075	174	232177	0.54	ug/L	#	94
54) Methyl methacrylate	7.133	69	249308	0.60	ug/L		87
56) Bromodichloromethane	7.261	83	352291	0.53	ug/L		93
57) 2-Nitropropane	7.527	43	143008	0.73	ug/L	#	77
58) 2-Chloroethyl vinyl ether	7.613	63	187762	0.55	ug/L		96
59) cis-1,3-Dichloropropene	7.744	75	449261	0.57	ug/L		94
60) 4-Methyl-2-pentanone	7.947	43	995146	1.91	ug/L	#	86
61) trans-1,3-Dichloropropene	8.337	75	412086m	0.55	ug/L		
62) 1,1,2-Trichloroethane	8.519	97	284897	0.61	ug/L		96
65) Toluene	8.086	91	1188992	0.59	ug/L		100
66) Ethylmethacrylate	8.462	69	426930	0.58	ug/L		90
67) Tetrachloroethene	8.649	166	474999	0.68	ug/L		98
68) 1,3-Dichloropropane	8.688	76	425542	0.55	ug/L		92
69) 2-Hexanone	8.813	43	654359	1.94	ug/L		88
70) Dibromochloromethane	8.912	129	327811	0.54	ug/L		99
71) 1,2-Dibromoethane	9.019	107	297461	0.57	ug/L		99
72) Chlorobenzene	9.524	112	806736	0.59	ug/L		84
73) 1,1,1,2-Tetrachloroethane	9.613	131	304379	0.57	ug/L		97
74) Ethylbenzene	9.643	91	1252972	0.57	ug/L		93
75) m,p-Xylene	9.764	91	1884366	1.13	ug/L		94
76) Styrene	10.178	104	827936	0.57	ug/L		98
77) Bromoform	10.356	173	275500	0.56	ug/L		96
79) o-Xylene	10.161	91	998557	0.55	ug/L		97
80) Isopropylbenzene	10.537	105	1168945	0.55	ug/L		98
82) Bromobenzene	10.828	77	446479	0.56	ug/L		95
83) 1,1,2,2-Tetrachloroethane	10.842	83	360958	0.56	ug/L		88
84) 1,2,3-Trichloropropane	10.883	110	152837	0.66	ug/L		97
85) trans-1,4-Dichloro-2-b...	10.901	53	107418	0.63	ug/L		50
86) n-Propylbenzene	10.949	91	1334470	0.57	ug/L		93
87) 2-Chlorotoluene	11.028	91	804126	0.57	ug/L		99
88) 4-Chlorotoluene	11.139	91	867653	0.54	ug/L		95
89) 1,3,5-Trimethylbenzene	11.130	105	912200	0.55	ug/L		98
90) 2-ethyl-1-toluene	11.329	105	1106829	0.55	ug/L		97

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G

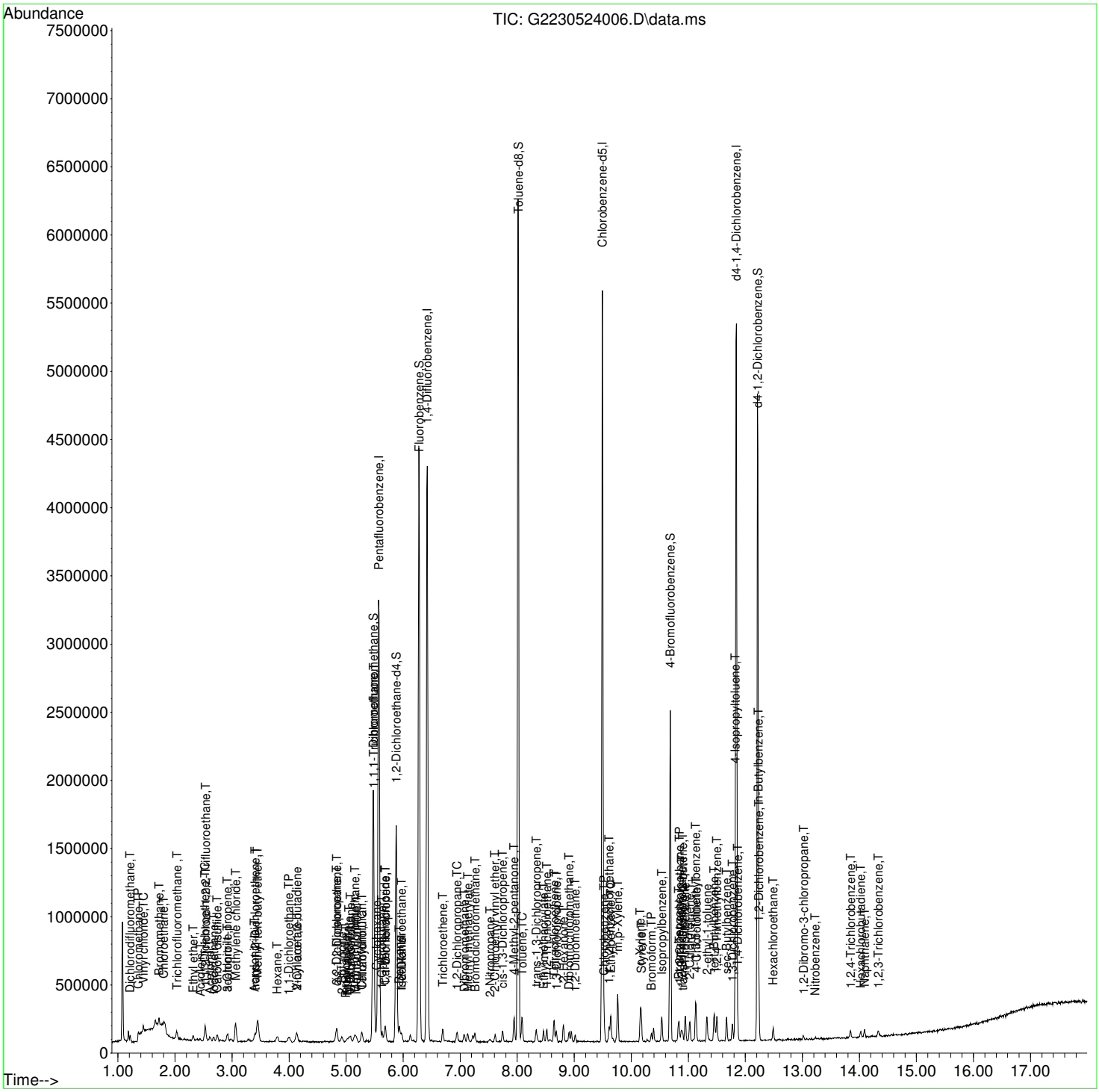
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91) tert-Butylbenzene	11.455	119	943300	0.55	ug/L		93
92) 1,2,4-Trimethylbenzene	11.503	105	947837	0.58	ug/L		96
93) sec-Butylbenzene	11.674	105	1129071	0.56	ug/L		96
94) 1,3-Dichlorobenzene	11.775	146	541406	0.55	ug/L		99
95) 4-Isopropyltoluene	11.823	119	898342	0.53	ug/L		87
96) 1,4-Dichlorobenzene	11.866	146	519810	0.54	ug/L	#	71
98) 1,2-Dichlorobenzene	12.237	146	487874	0.55	ug/L	#	79
99) n-Butylbenzene	12.233	91	723018	0.57	ug/L		89
100) Hexachloroethane	12.491	201	166567	0.54	ug/L		96
101) 1,2-Dibromo-3-chloropr...	13.022	157	72061	0.51	ug/L	#	76
102) Nitrobenzene	13.227	77	23685	0.51	ug/L	#	32
103) 1,2,4-Trichlorobenzene	13.848	180	148965	0.55	ug/L		94
104) Hexachlorobutadiene	14.026	225	79900	0.57	ug/L		90
105) Naphthalene	14.091	128	434997	0.57	ug/L		94
106) 1,2,3-Trichlorobenzene	14.335	180	116302	0.54	ug/L		87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342431

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

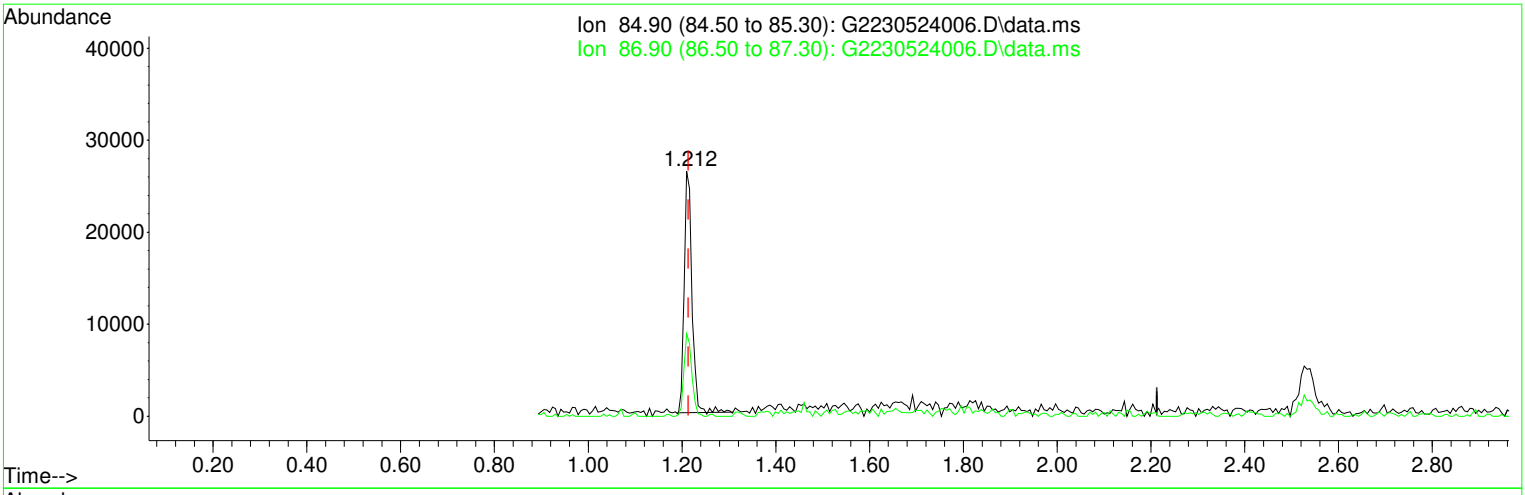
Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G

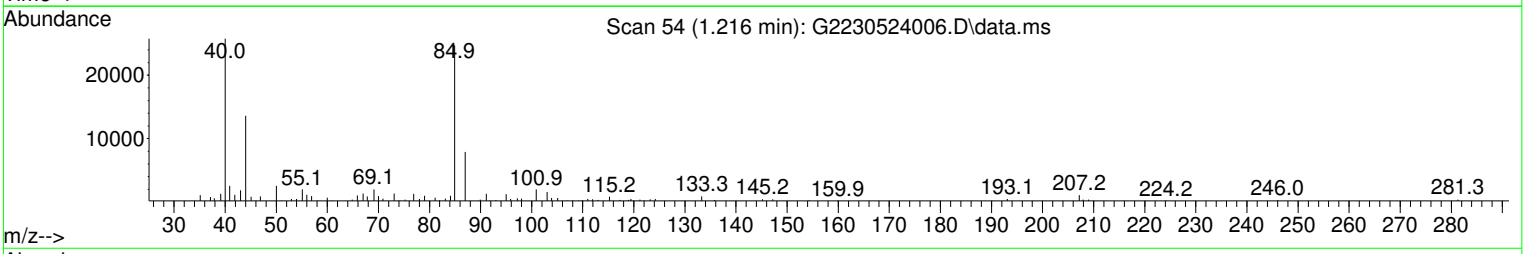


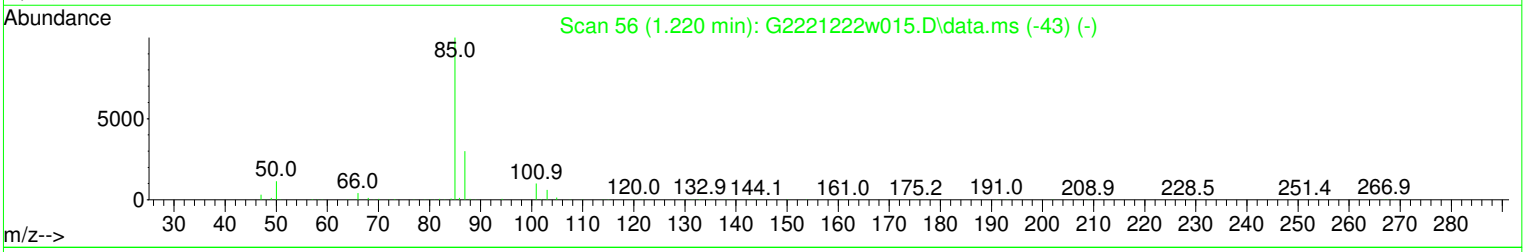
01342432

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(2) Dichlorodifluoromethane (T)

1.215min (+ 0.002) 0.60 ug/L

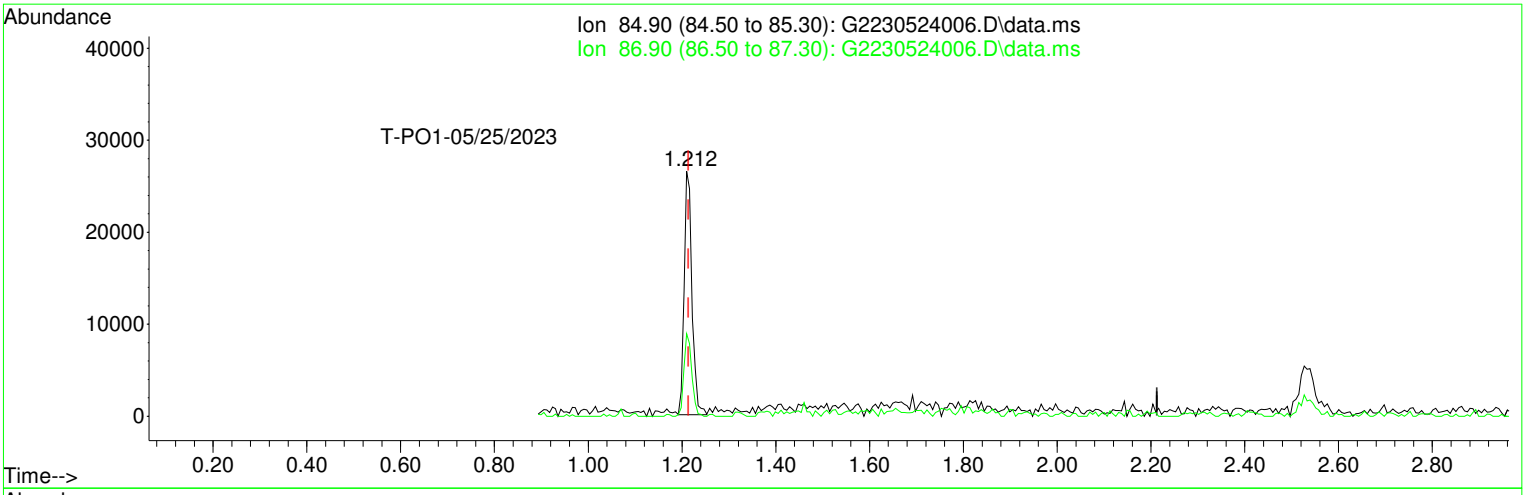
response 307682

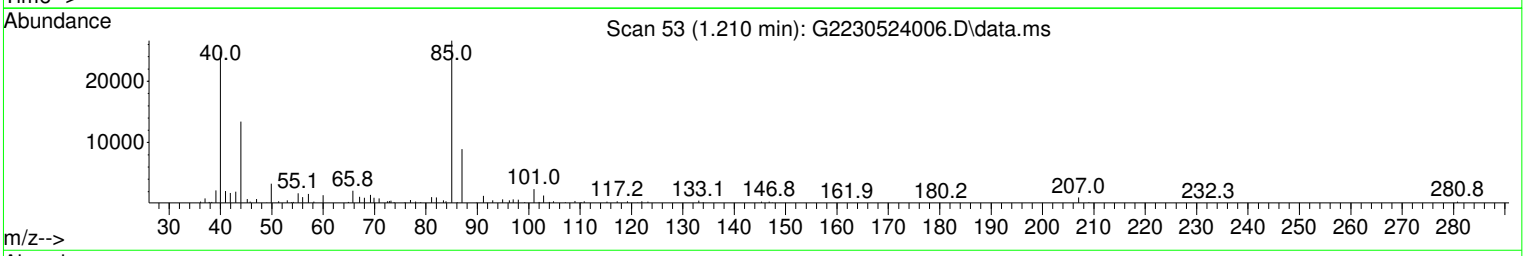
Ion	Exp%	Act%
84.90	100.00	100.00
86.90	32.30	34.57
0.00	0.00	0.00
0.00	0.00	0.00

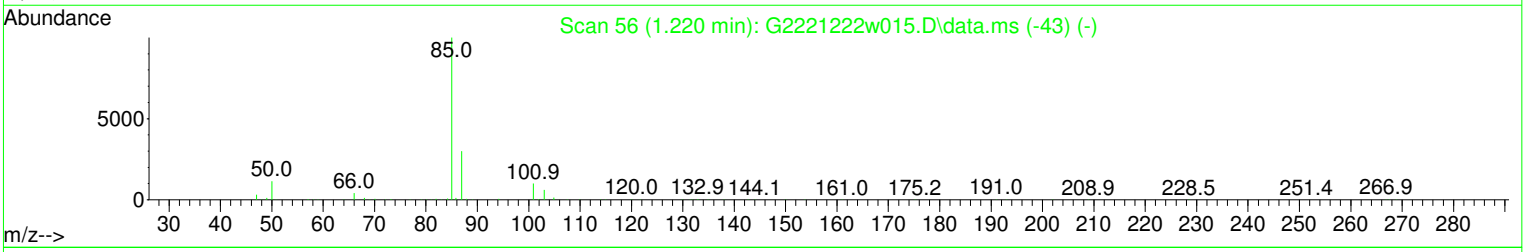
01342433

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(2) Dichlorodifluoromethane (T)

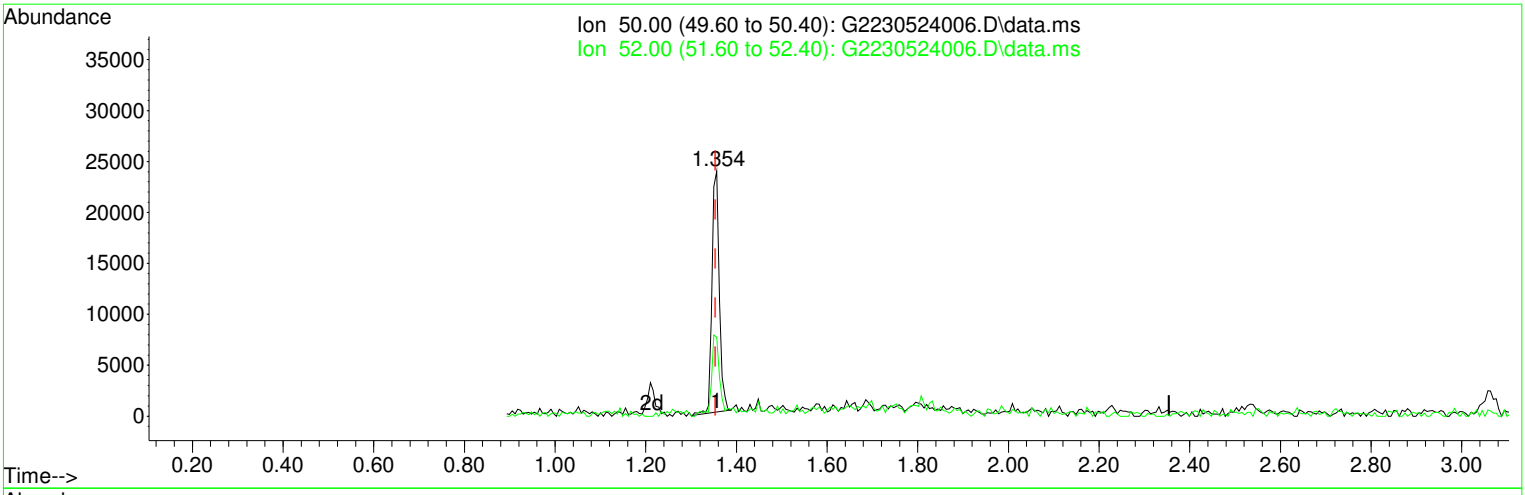
1.210min (-0.003) 0.60 ug/L m

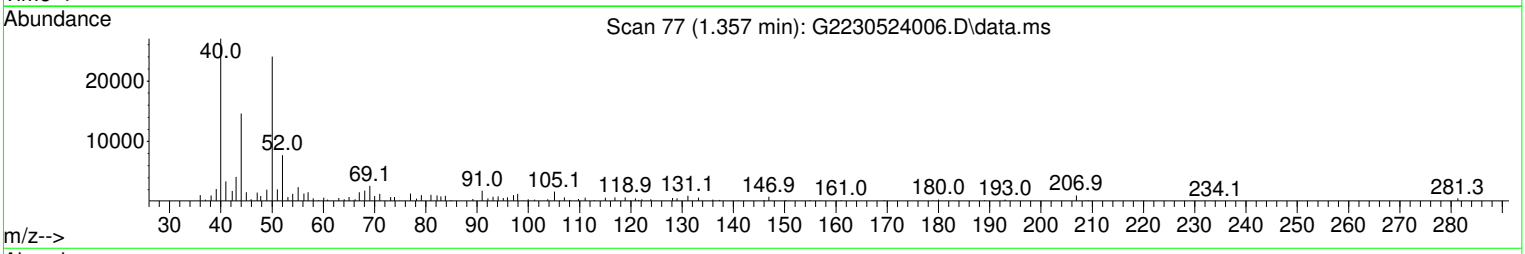
response 305129

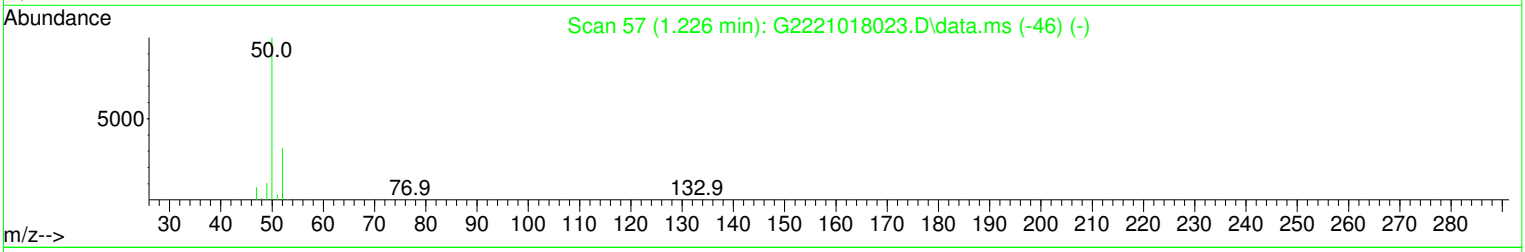
Ion	Exp%	Act%
84.90	100.00	100.00
86.90	32.30	34.86
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(3) Chloromethane (TP)

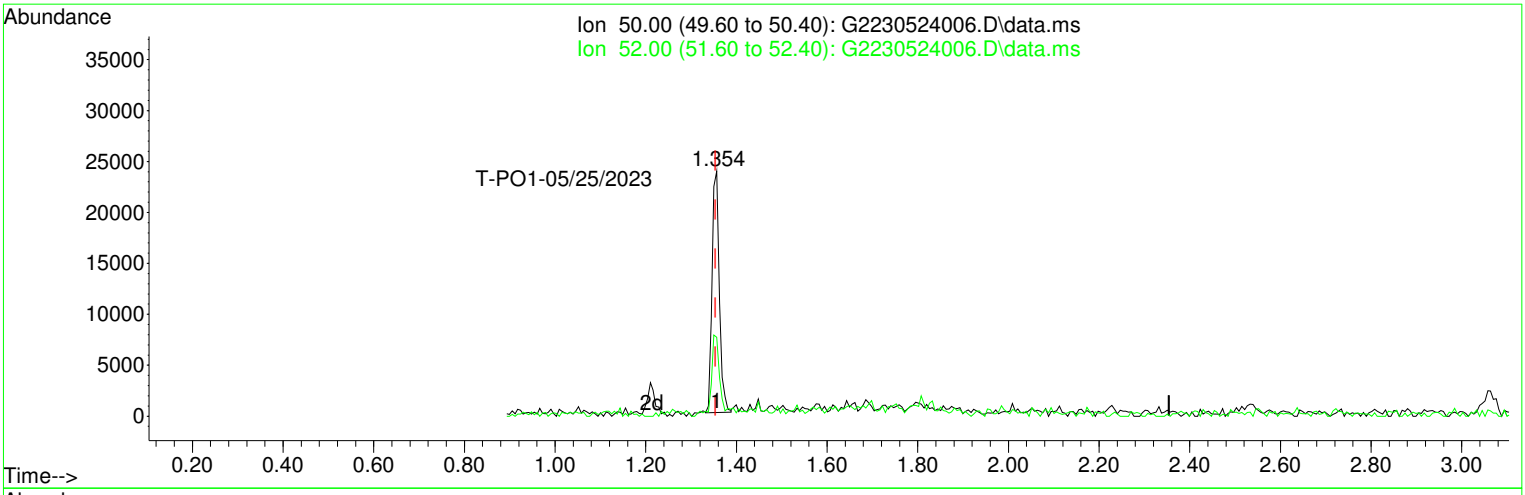
1.357min (+ 0.002) 0.60 ug/L

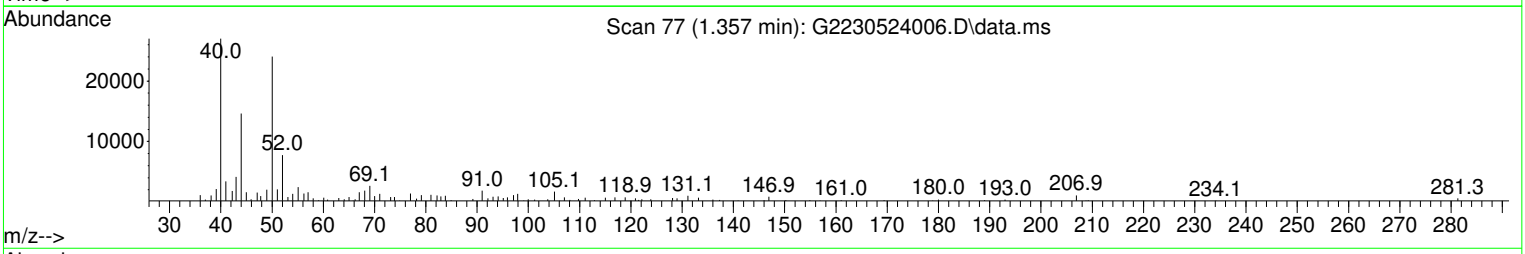
response 263514

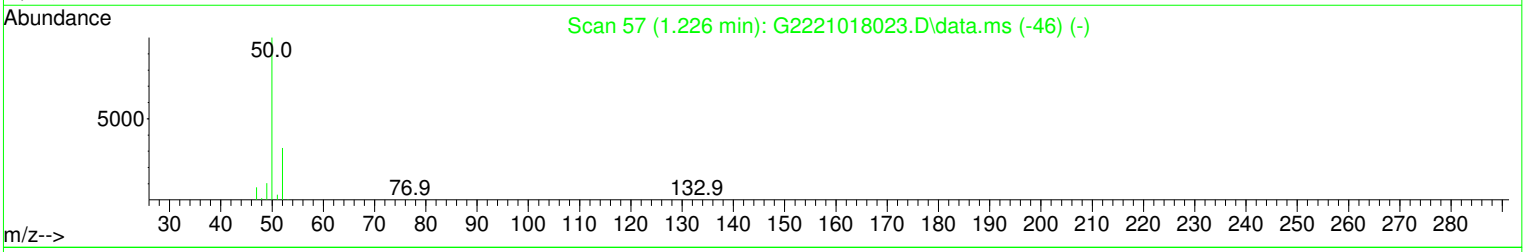
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.20	35.73
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(3) Chloromethane (TP)

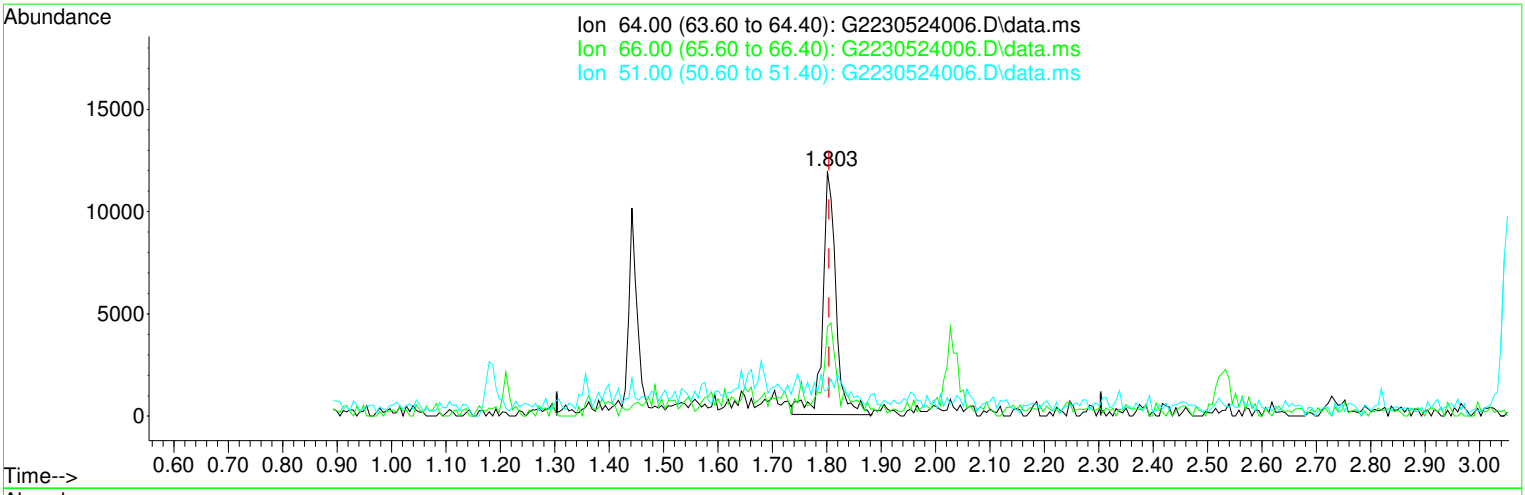
1.357min (+ 0.002) 0.60 ug/L m

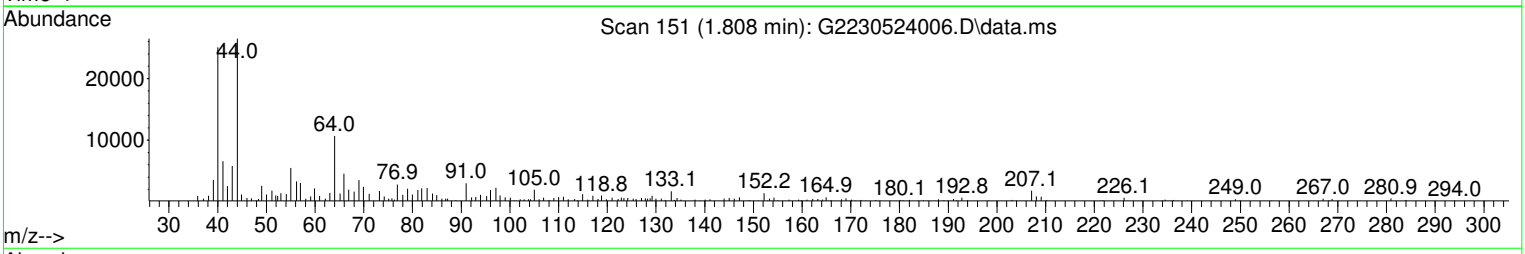
response 263944

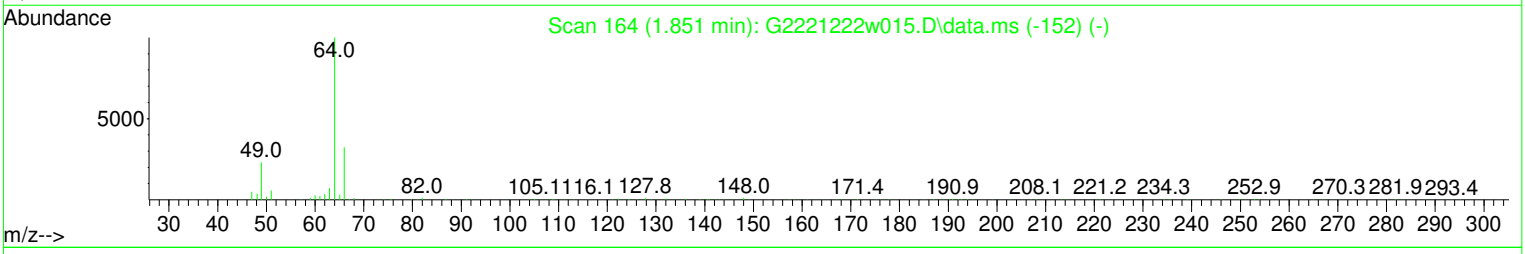
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.20	35.67
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(6) Chloroethane (T)

1.807min (+ 0.002) 0.67 ug/L

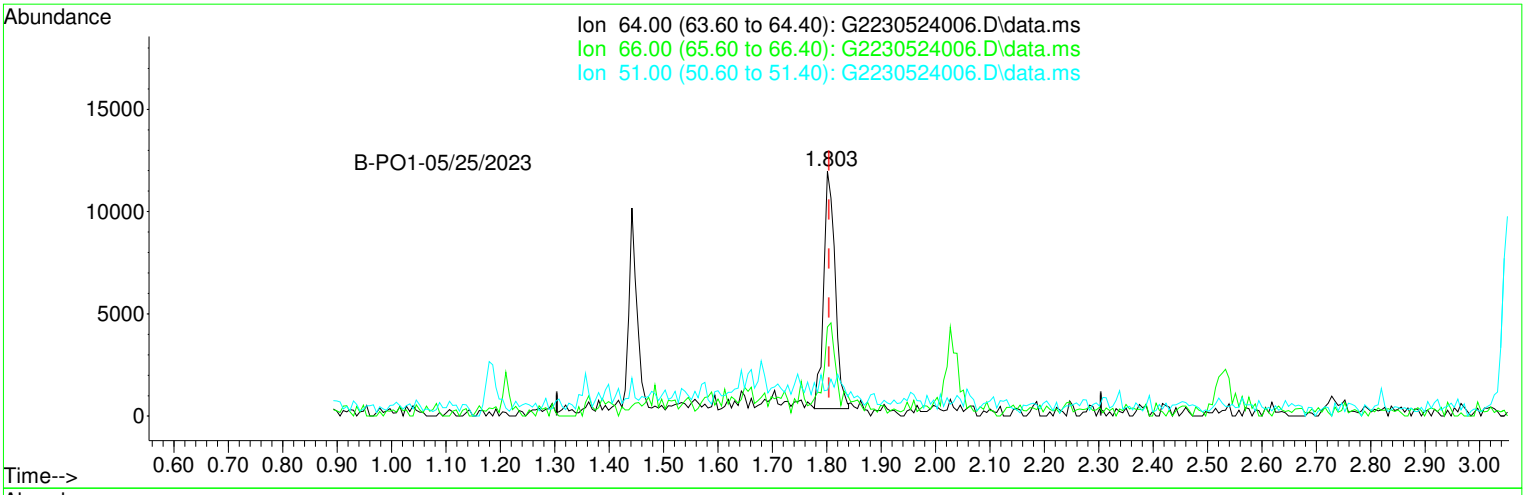
response 202190

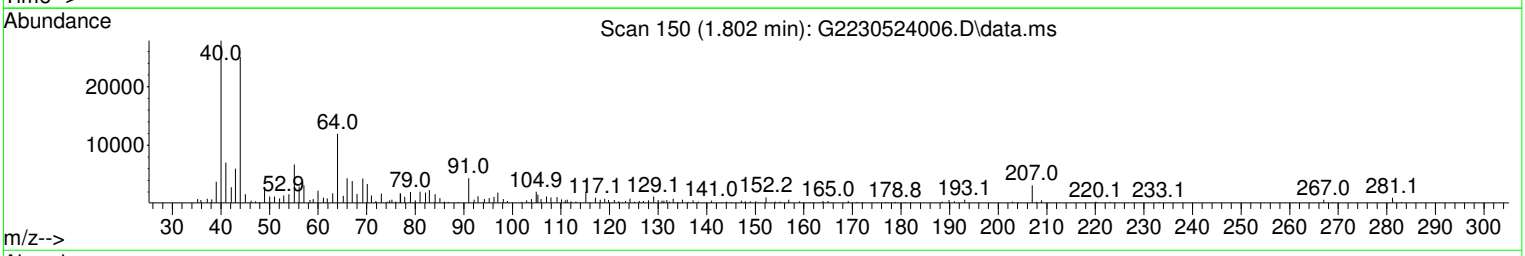
Ion	Exp%	Act%
64.00	100.00	100.00
66.00	34.30	23.82
51.00	8.60	0.00
0.00	0.00	0.00

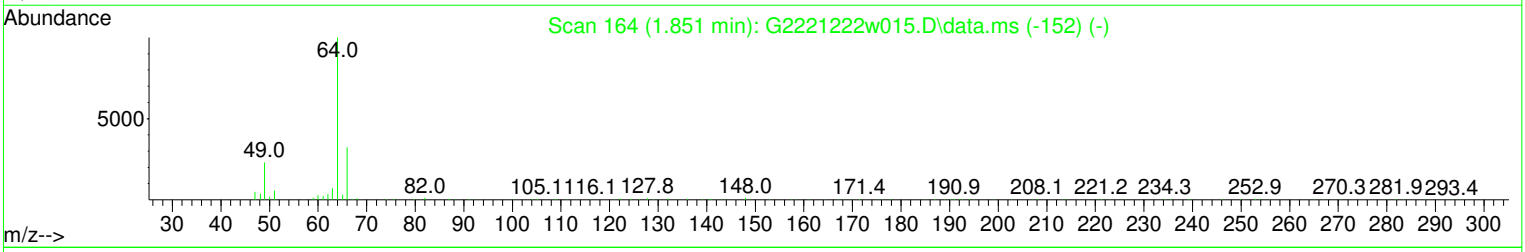
01342437

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(6) Chloroethane (T)

1.802min (-0.003) 0.56 ug/L m

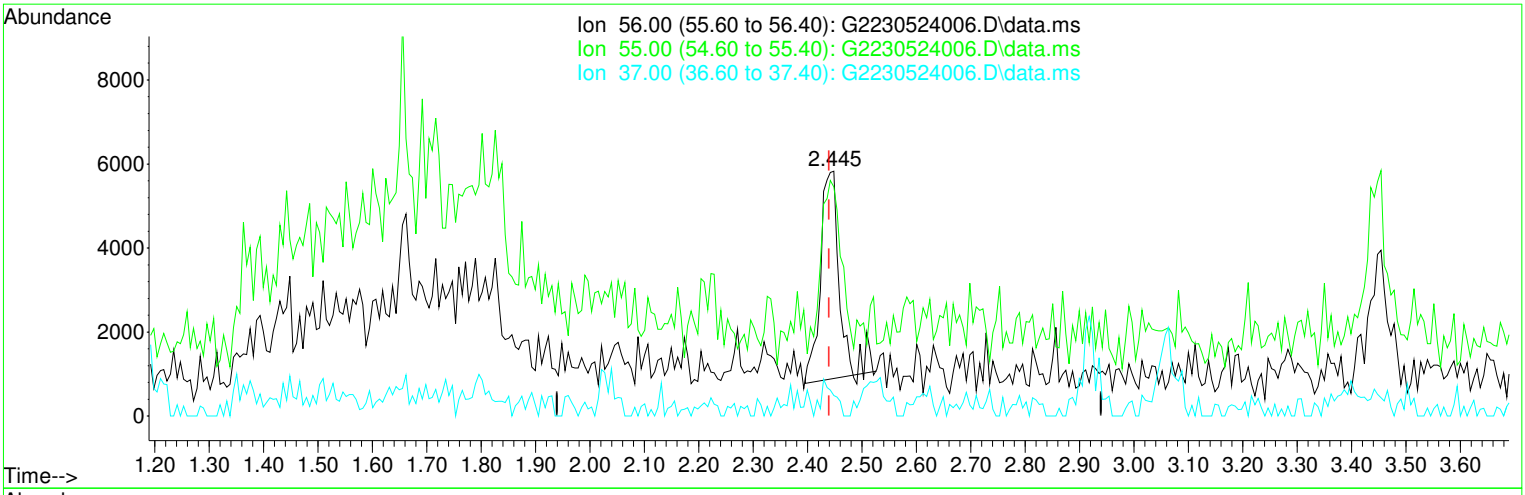
response 169317

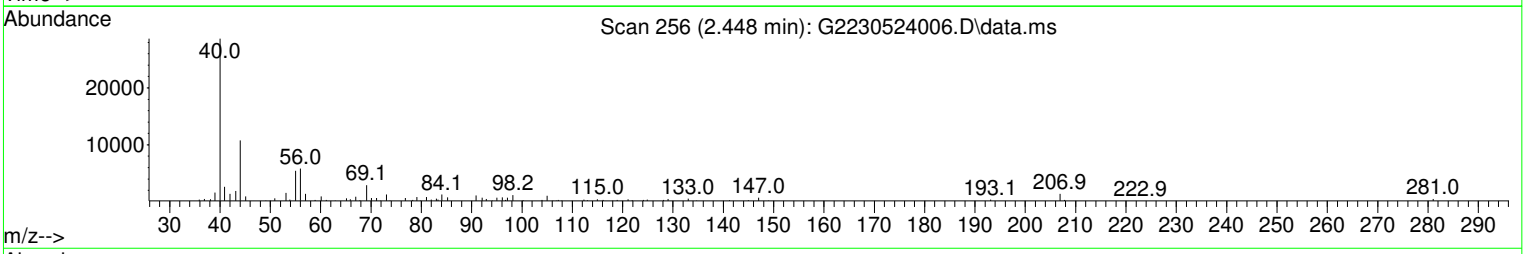
Ion	Exp%	Act%
64.00	100.00	100.00
66.00	34.30	28.44
51.00	8.60	0.00
0.00	0.00	0.00

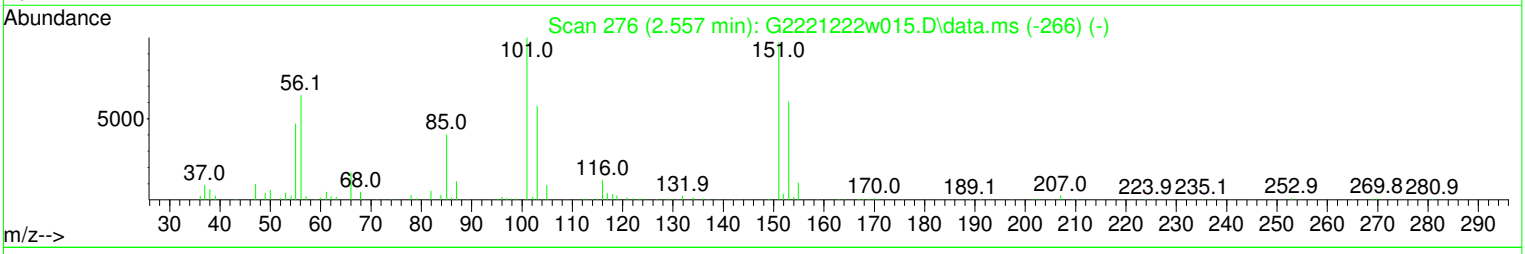
01342438

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(9) Acrolein (T)

2.445min (+ 0.006) 1.66 ug/L

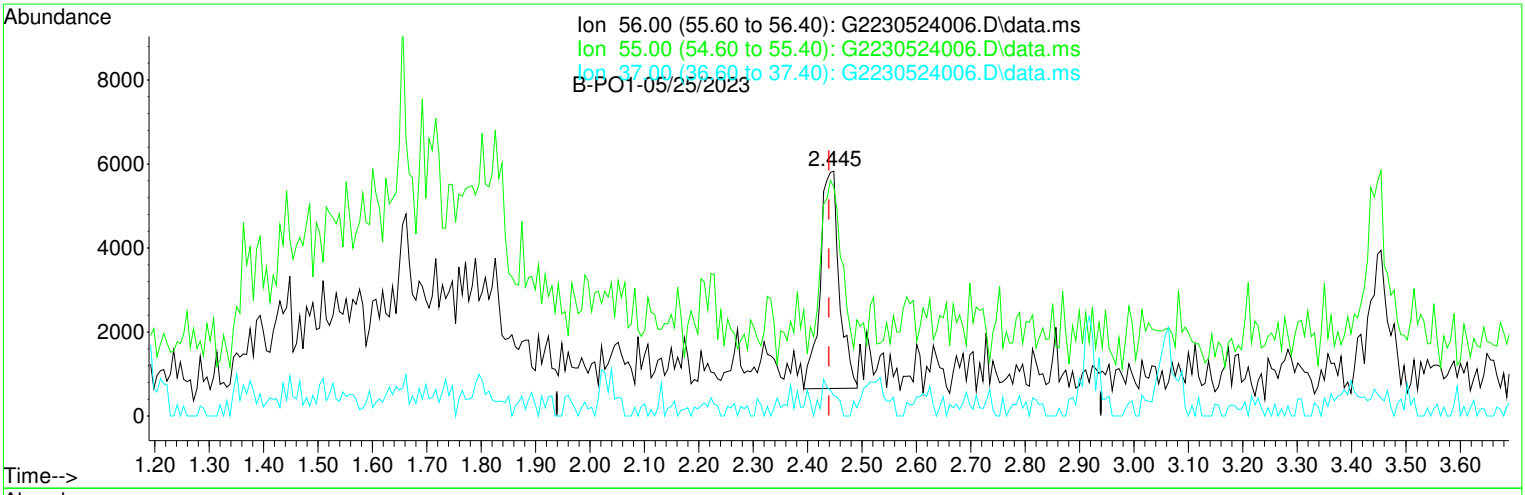
response 119118

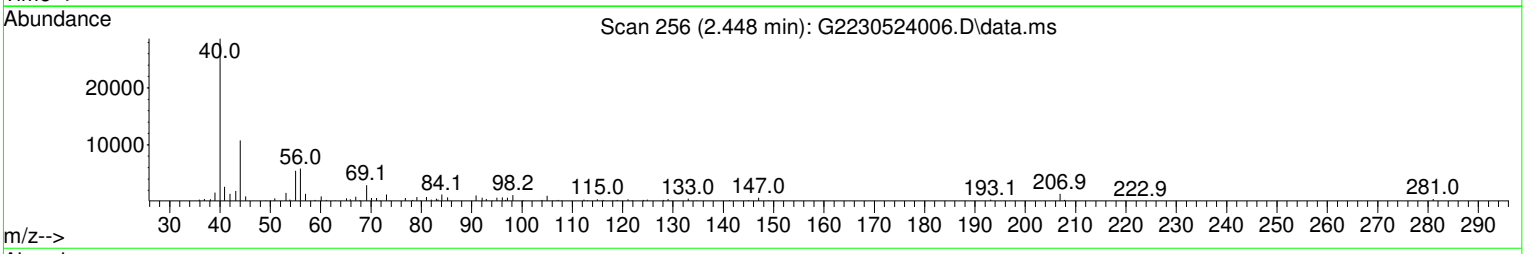
Ion	Exp%	Act%
56.00	100.00	100.00
55.00	73.50	80.32
37.00	10.50	0.00
0.00	0.00	0.00

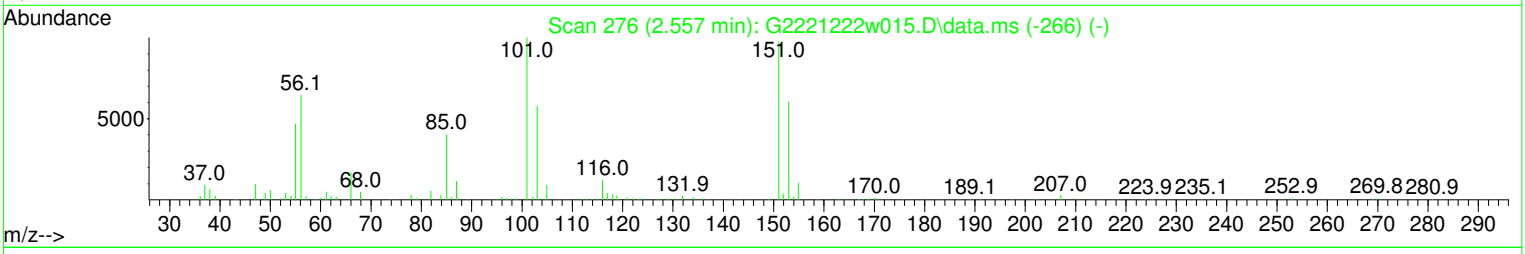
01342439

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(9) Acrolein (T)

2.448min (+ 0.009) 1.74 ug/L m

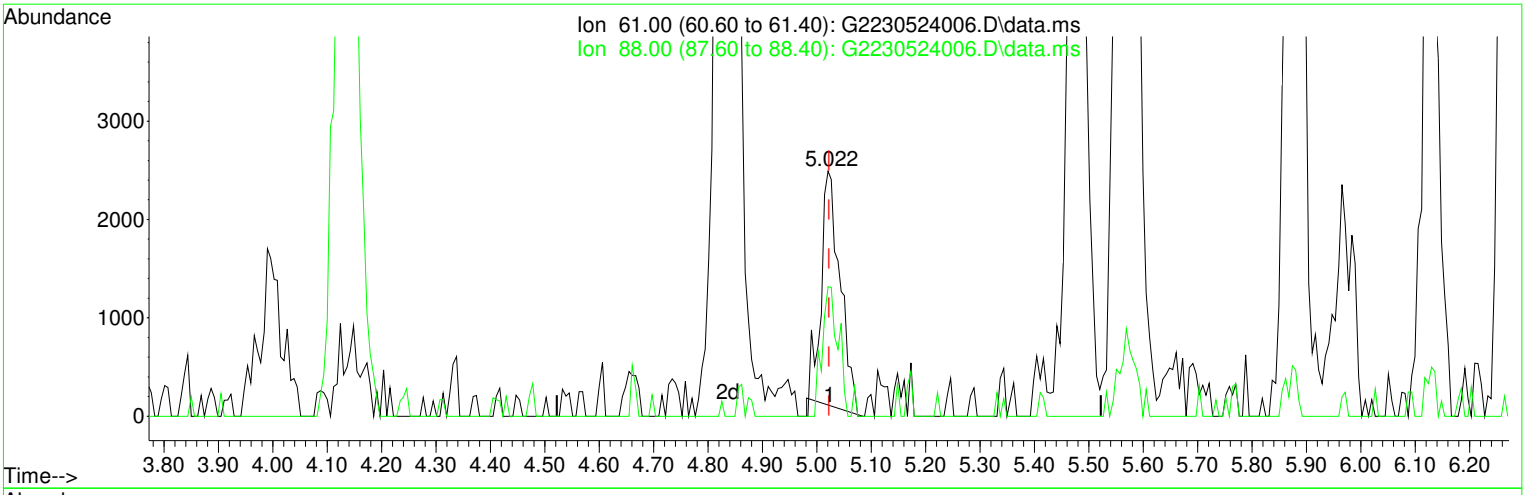
response 124609

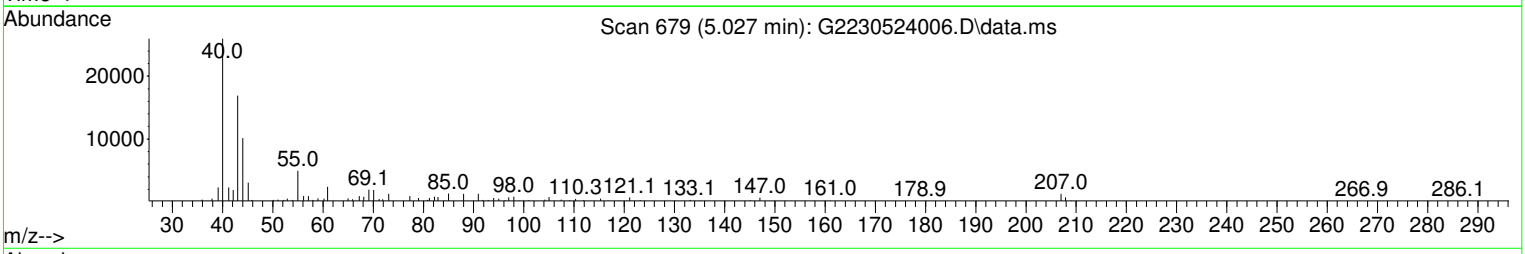
Ion	Exp%	Act%
56.00	100.00	100.00
55.00	73.50	76.78
37.00	10.50	0.00
0.00	0.00	0.00

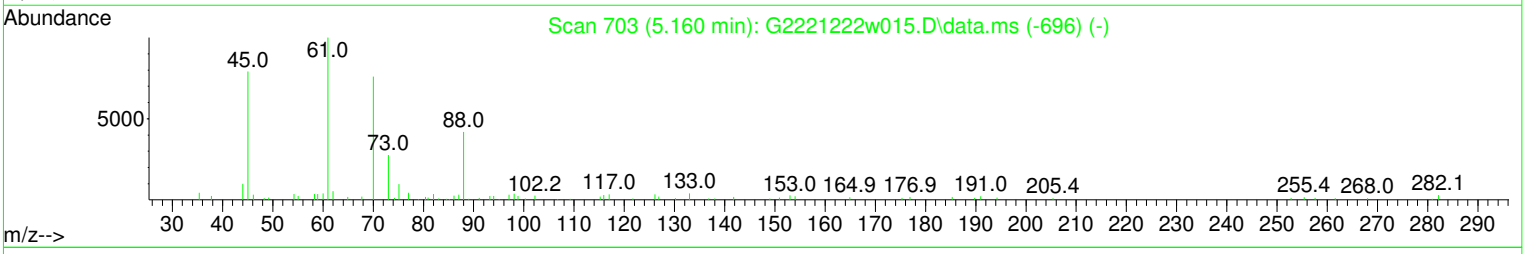
01342440

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(31) Ethyl acetate

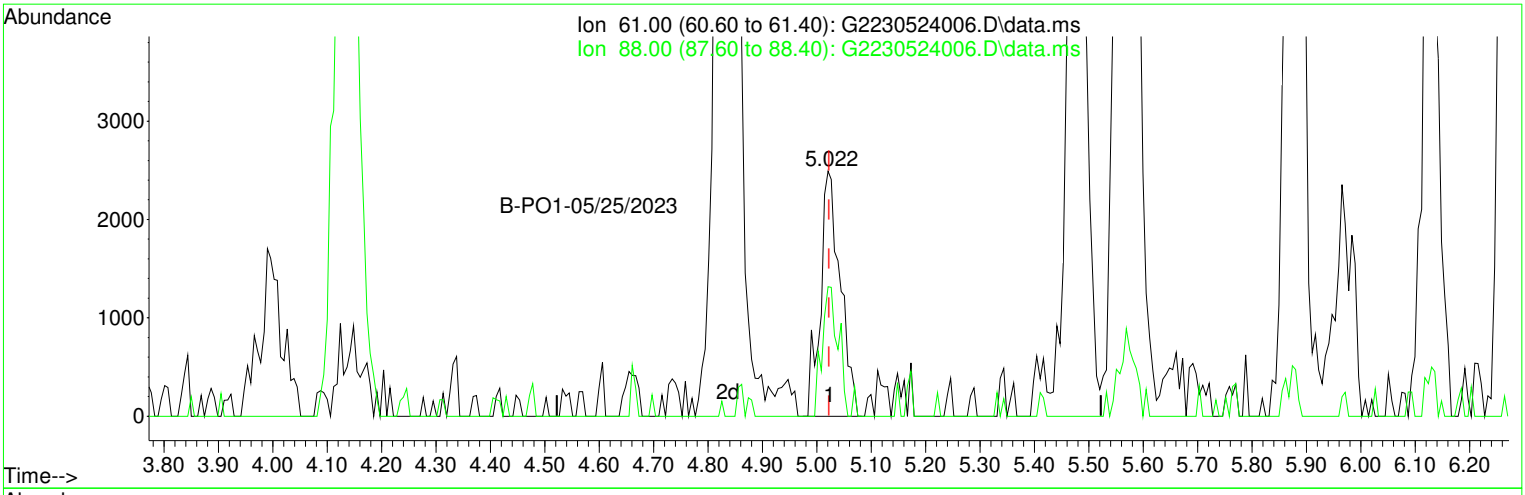
5.024min (+ 0.002) 0.69 ug/L

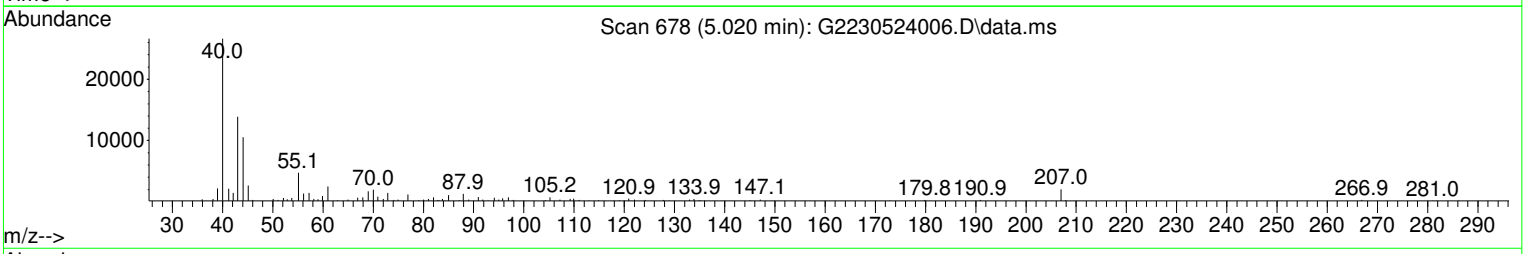
response 56740

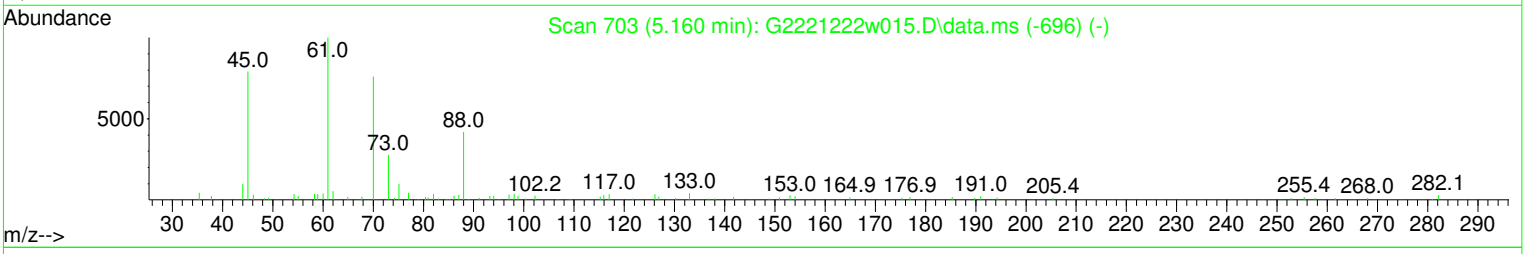
Ion	Exp%	Act%
61.00	100.00	100.00
88.00	30.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(31) Ethyl acetate

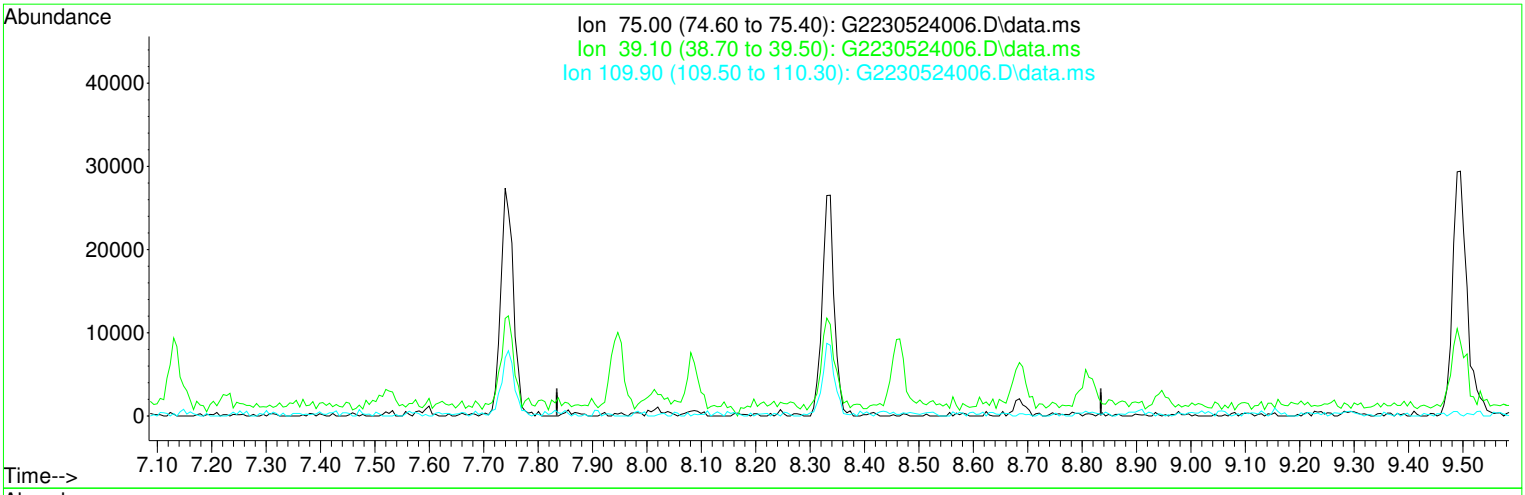
5.020min (-0.002) 0.77 ug/L m

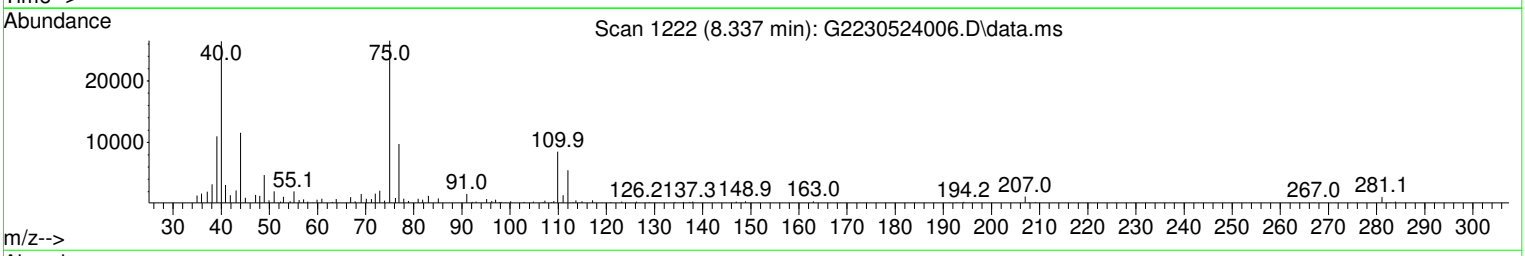
response 63318

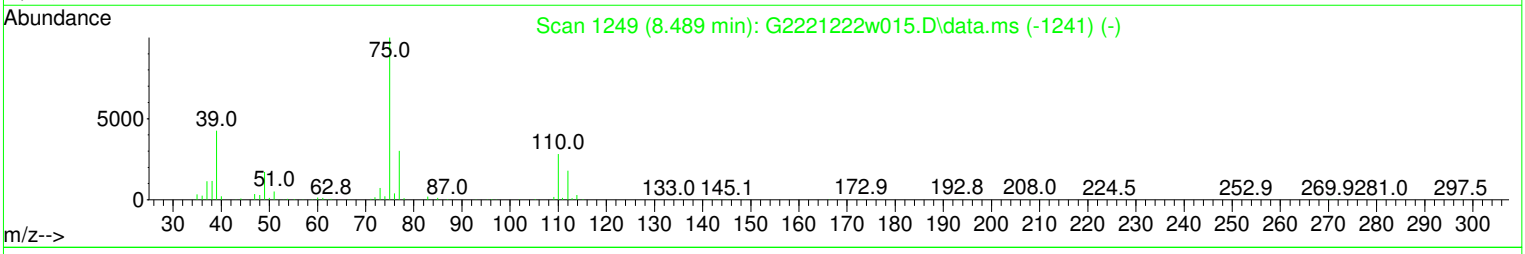
Ion	Exp%	Act%
61.00	100.00	100.00
88.00	30.10	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(61) trans-1,3-Dichloropropene (T)

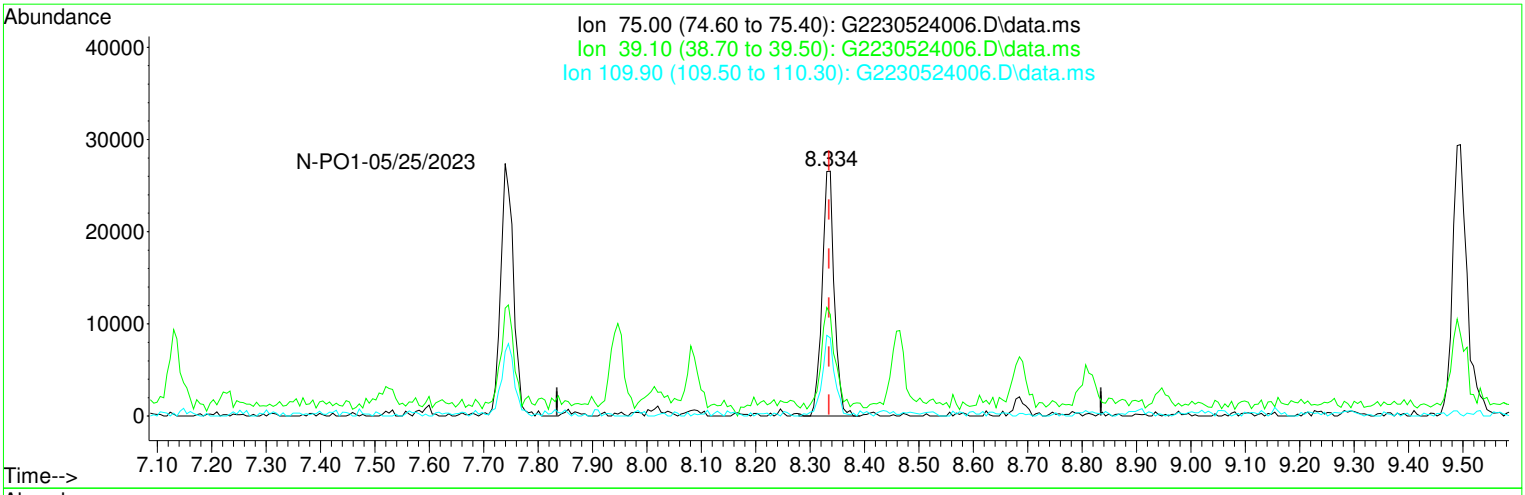
8.335min (-8.335) 0.00 ug/L

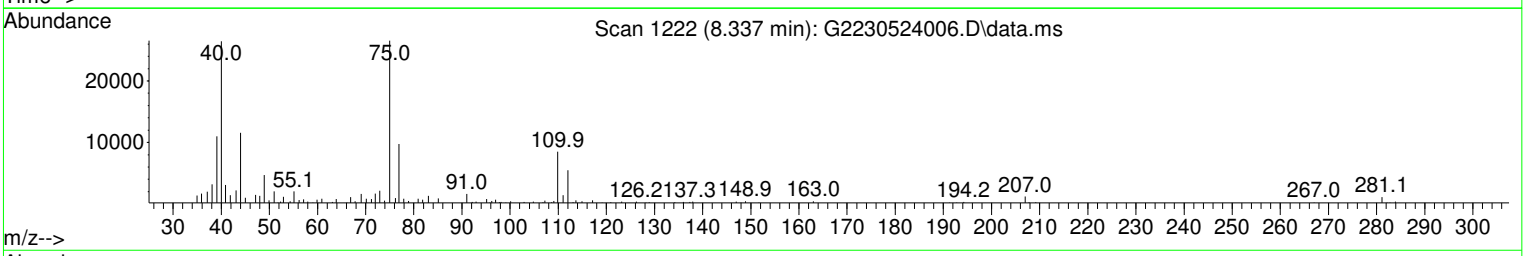
response 0

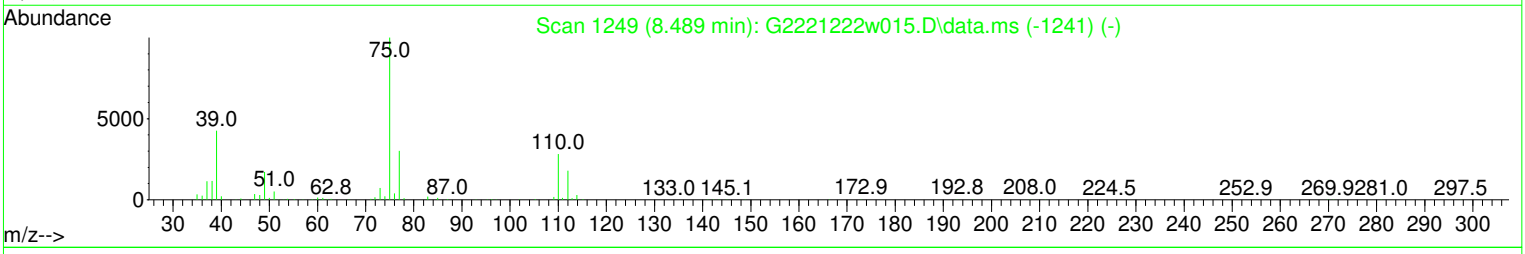
Ion	Exp%	Act%
75.00	100.00	0.00
39.10	45.00	0.00#
109.90	25.10	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524006.D
Acq On : 24 May 2023 17:33
Operator : PO1
Sample : SEQ-CAL2@@0.5
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 08:55:58 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:55:46 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524006.D\data.ms

(61) trans-1,3-Dichloropropene (T)

8.337min (+ 0.002) 0.55 ug/L m

response 412086

Ion	Exp%	Act%
75.00	100.00	100.00
39.10	45.00	0.00#
109.90	25.10	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	24401446	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	34785400	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	30580660	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.842	152	14610136	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	10818625	19.97	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.85%			
43) 1,2-Dichloroethane-d4	5.877	65	10647753	19.86	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.30%			
49) Fluorobenzene	6.277	96	39541939	19.91	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.55%			
64) Toluene-d8	8.016	98	38544409	20.02	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.10%			
81) 4-Bromofluorobenzene	10.686	174	6758288	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%			
97) d4-1,2-Dichlorobenzene	12.219	152	12796487	20.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.35%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	578704	1.23	ug/L	94
3) Chloromethane	1.350	50	512271	1.26	ug/L	93
4) Vinyl chloride	1.441	62	542152	1.18	ug/L	98
5) Bromomethane	1.713	94	417782	1.36	ug/L	96
6) Chloroethane	1.802	64	354168	1.27	ug/L	86
7) Trichlorofluoromethane	2.026	101	854645	1.22	ug/L	95
8) Ethyl ether	2.315	59	387179	1.15	ug/L	94
9) Acrolein	2.436	56	179231	2.66	ug/L #	89
10) 1,1-Dichloroethene	2.518	61	566782	1.05	ug/L	87
11) 1,1,2-Trichloro-1,2,2-...	2.529	101	357432	0.92	ug/L	91
12) Acetone	2.608	43	638012	5.20	ug/L	96
13) Iodomethane	2.671	142	539313	0.93	ug/L	99
14) Carbon disulfide	2.733	76	1194784	1.07	ug/L	95
15) Isopropanol	2.795	45	247918m	12.77	ug/L	
16) acetonitrile	2.911	41	680059	2.87	ug/L	84
17) 3-Chloro-1-propene	2.919	76	269278	1.07	ug/L	92
18) Methylene chloride	3.057	49	1052954	2.01	ug/L	85
19) Acrylonitrile	3.384	53	217873	1.17	ug/L	88
20) trans-1,2-Dichloroethene	3.398	61	577177	1.13	ug/L	93
21) Methyl tert-butyl ether	3.447	73	2835021	1.79	ug/L	96
22) Hexane	3.788	57	389261	0.93	ug/L	95
23) 1,1-Dichloroethane	3.996	63	771505	1.10	ug/L	89
24) Vinyl acetate	4.131	43	861041	1.07	ug/L	90
25) 2-Chloro-1,3-butadiene	4.130	53	573510	1.05	ug/L	87
27) 2,2-Dichloropropane	4.822	77	744084	1.15	ug/L	95
28) cis-1,2-Dichloroethene	4.833	61	687865	1.09	ug/L	87
29) 2-Butanone	4.930	72	282624	4.44	ug/L	82
30) Propionitrile	4.986	54	69361	1.12	ug/L #	63

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.026	61	86766	1.12	ug/L	#	45
32) Methylacrylate	5.047	55	482551	1.05	ug/L	#	86
33) 1-Bromopropane	5.071	41	271405	1.04	ug/L		74
34) Bromochloromethane	5.145	130	378304	1.07	ug/L		96
35) Methacrylonitrile	5.177	67	261930	1.11	ug/L		90
36) Tetrahydrofuran	5.264	42	190451	1.40	ug/L		84
37) Chloroform	5.274	83	870954	1.10	ug/L		97
39) 1,1,1-Trichloroethane	5.477	97	760178	1.05	ug/L		97
40) Cyclohexane	5.534	84	614466	0.92	ug/L	#	72
41) 1-Chlorobutane	5.630	56	811059	1.07	ug/L		95
42) 1,1-Dichloropropene	5.685	75	602475	1.05	ug/L		93
44) 1,2-Dichloroethane	5.969	62	639211	1.08	ug/L		94
45) Isobutanol	5.975	43	184664	11.68	ug/L		90
47) Carbon tetrachloride	5.678	117	609588	0.97	ug/L		97
48) Benzene	5.934	78	1822842	1.07	ug/L		97
50) Trichloroethene	6.693	95	516924	1.09	ug/L		92
51) 1-Butanol	6.758	56	140811m	12.48	ug/L		
52) 1,2-Dichloropropane	6.945	63	450772	1.11	ug/L		89
53) Dibromomethane	7.070	174	428486	1.05	ug/L	#	97
54) Methyl methacrylate	7.133	69	425627	1.07	ug/L		89
55) 1,4-dioxane	7.157	88	47428	11.65	ug/L	#	23
56) Bromodichloromethane	7.258	83	690852	1.09	ug/L		95
57) 2-Nitropropane	7.524	43	218603	1.19	ug/L	#	89
58) 2-Chloroethyl vinyl ether	7.613	63	384985	1.21	ug/L		88
59) cis-1,3-Dichloropropene	7.743	75	806759	1.07	ug/L		94
60) 4-Methyl-2-pentanone	7.946	43	2037890	4.16	ug/L	#	88
61) trans-1,3-Dichloropropene	8.331	75	803649m	1.12	ug/L		
62) 1,1,2-Trichloroethane	8.519	97	486077	1.09	ug/L		96
65) Toluene	8.085	91	2126818	1.11	ug/L		99
66) Ethylmethacrylate	8.461	69	817998	1.18	ug/L		88
67) Tetrachloroethene	8.648	166	635379	0.92	ug/L		93
68) 1,3-Dichloropropane	8.687	76	849035	1.16	ug/L		91
69) 2-Hexanone	8.810	43	1348772	4.25	ug/L		91
70) Dibromochloromethane	8.912	129	656461	1.14	ug/L		96
71) 1,2-Dibromoethane	9.019	107	554612	1.11	ug/L		100
72) Chlorobenzene	9.523	112	1406070	1.08	ug/L		90
73) 1,1,1,2-Tetrachloroethane	9.614	131	550766	1.07	ug/L		95
74) Ethylbenzene	9.642	91	2276792	1.09	ug/L		98
75) m,p-Xylene	9.763	91	3532035	2.21	ug/L		97
76) Styrene	10.176	104	1494108	1.07	ug/L		96
77) Bromoform	10.355	173	533819	1.15	ug/L		98
79) o-Xylene	10.160	91	1865503	1.06	ug/L		99
80) Isopropylbenzene	10.536	105	2116822	1.03	ug/L		97
82) Bromobenzene	10.828	77	811803	1.05	ug/L		88
83) 1,1,2,2-Tetrachloroethane	10.842	83	723443	1.17	ug/L		96
84) 1,2,3-Trichloropropane	10.881	110	252583	1.13	ug/L		95
85) trans-1,4-Dichloro-2-b...	10.903	53	180246	1.10	ug/L		65
86) n-Propylbenzene	10.949	91	2328261	1.02	ug/L		94
87) 2-Chlorotoluene	11.027	91	1448351	1.05	ug/L		95

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
88) 4-Chlorotoluene	11.137	91	1651215	1.05	ug/L		94
89) 1,3,5-Trimethylbenzene	11.129	105	1726163	1.08	ug/L		96
90) 2-ethyl-1-toluene	11.329	105	2135617	1.11	ug/L		99
91) tert-Butylbenzene	11.454	119	1774935	1.06	ug/L		91
92) 1,2,4-Trimethylbenzene	11.503	105	1707900	1.08	ug/L		93
93) sec-Butylbenzene	11.673	105	2029606	1.04	ug/L		98
94) 1,3-Dichlorobenzene	11.776	146	1053951	1.11	ug/L		100
95) 4-Isopropyltoluene	11.822	119	1768456	1.09	ug/L		96
96) 1,4-Dichlorobenzene	11.865	146	1012056	1.10	ug/L		88
98) 1,2-Dichlorobenzene	12.238	146	967334	1.13	ug/L		92
99) n-Butylbenzene	12.232	91	1366744	1.12	ug/L		93
100) Hexachloroethane	12.492	201	318126	1.06	ug/L		98
101) 1,2-Dibromo-3-chloropr...	13.019	157	163906	1.22	ug/L	#	96
102) Nitrobenzene	13.220	77	64552m	1.50	ug/L		
103) 1,2,4-Trichlorobenzene	13.848	180	301250	1.17	ug/L		94
104) Hexachlorobutadiene	14.025	225	149918	1.11	ug/L		89
105) Naphthalene	14.092	128	931532	1.30	ug/L		97
106) 1,2,3-Trichlorobenzene	14.334	180	234281	1.14	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
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Quant Time: May 25 08:49:07 2023
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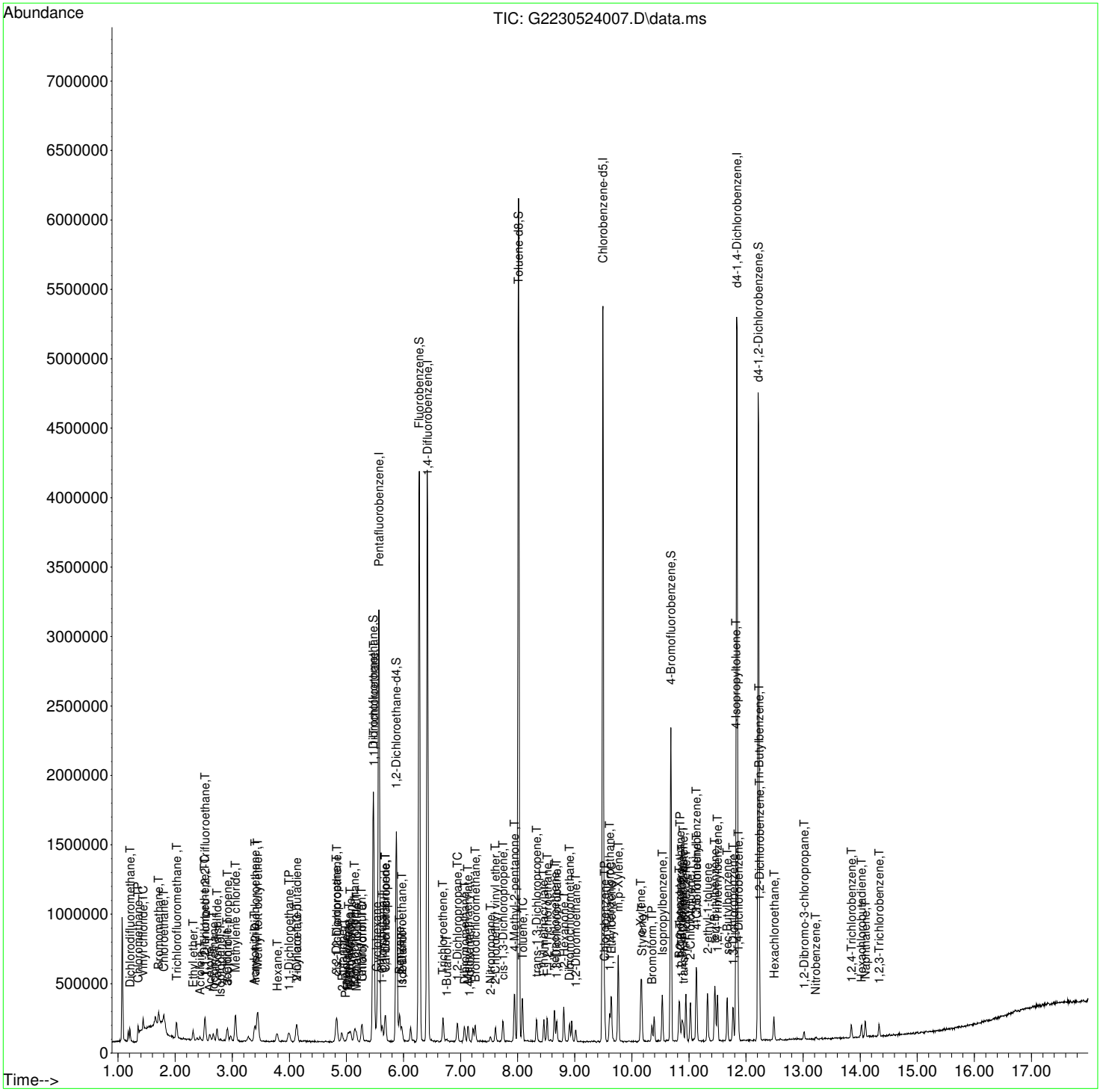
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G



Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
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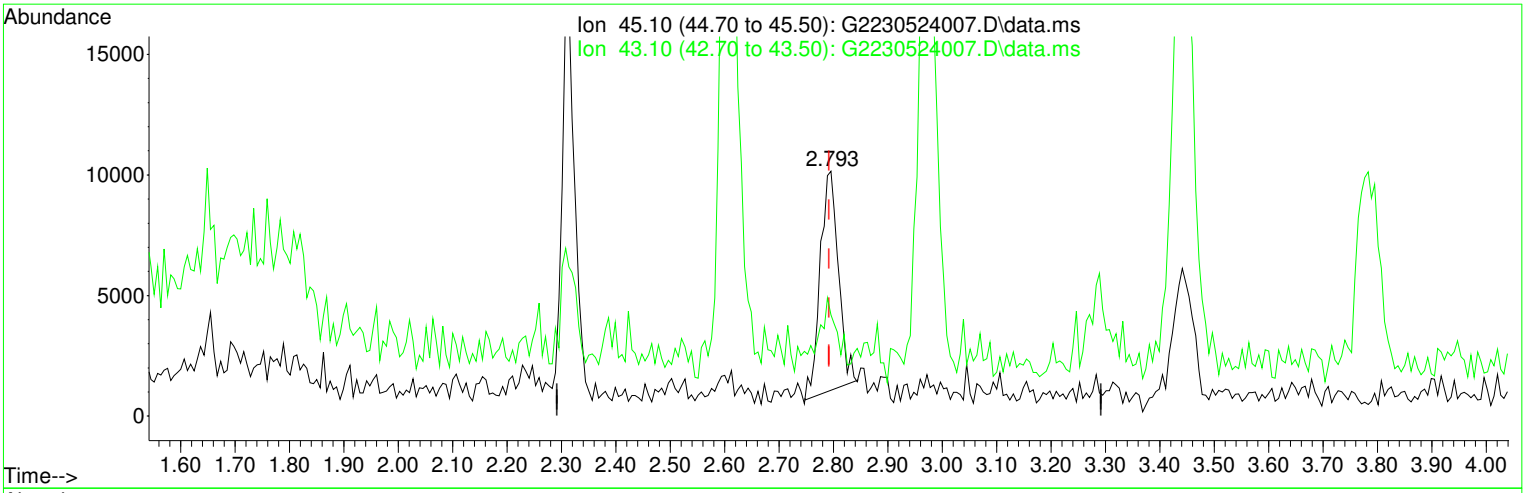
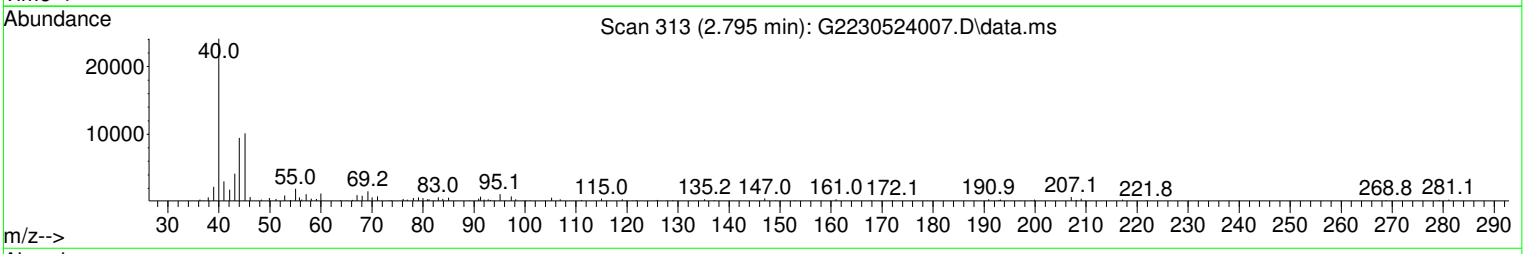
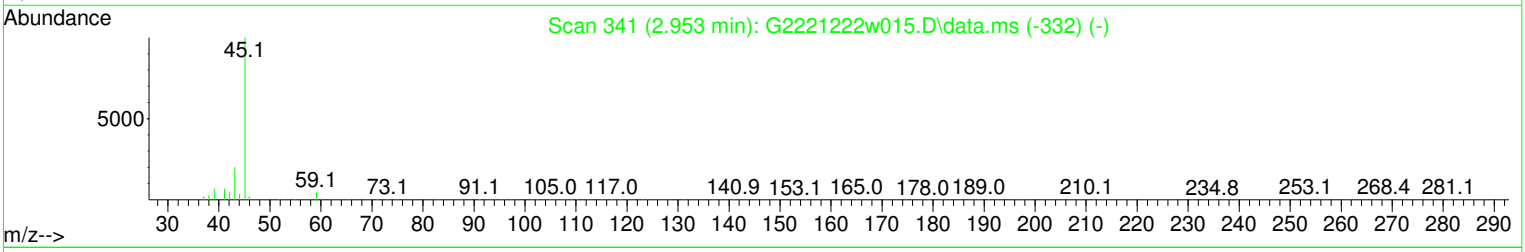






TIC: G2230524007.D\data.ms

(15) Isopropanol (T)

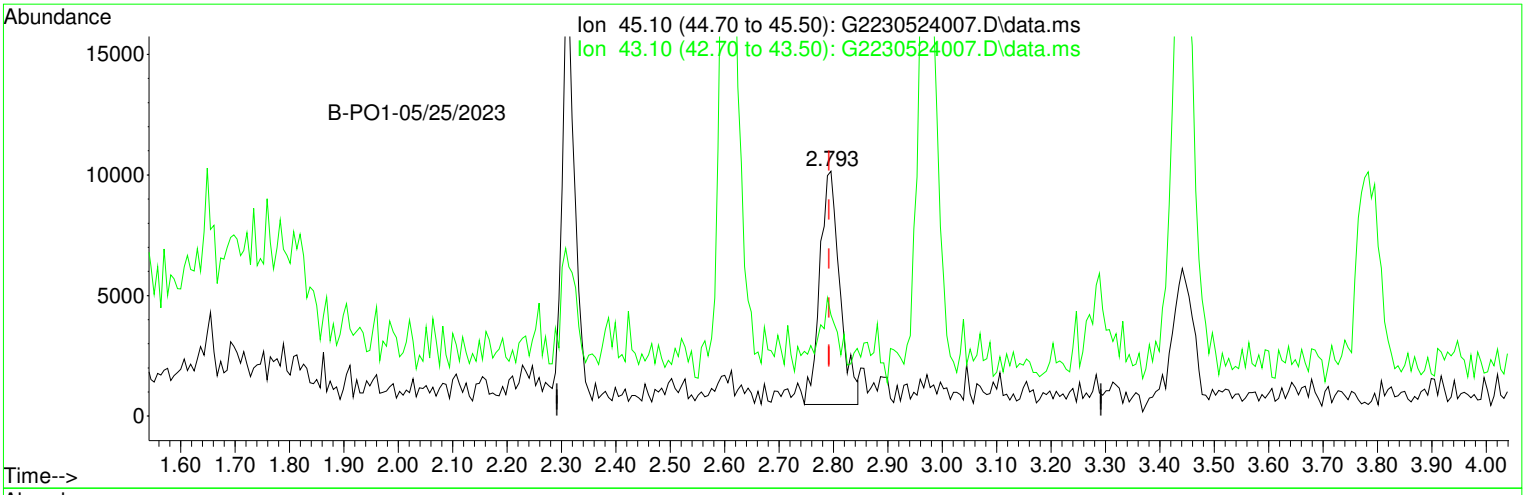
2.795min (+ 0.004) 10.81 ug/L

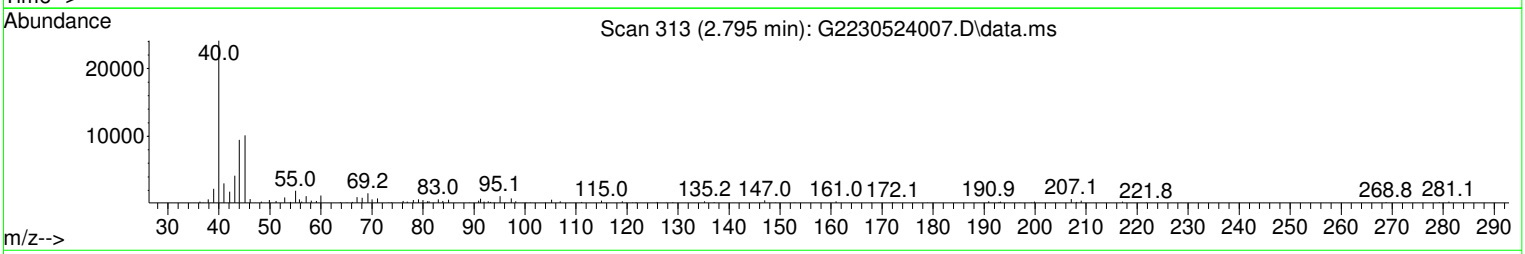
response 209801

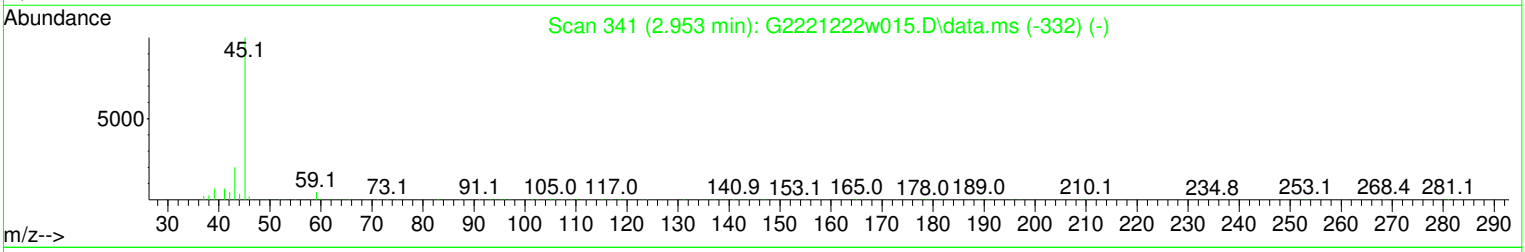
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	20.30	45.81
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524007.D\data.ms

(15) Isopropanol (T)

2.795min (+ 0.003) 12.77 ug/L m

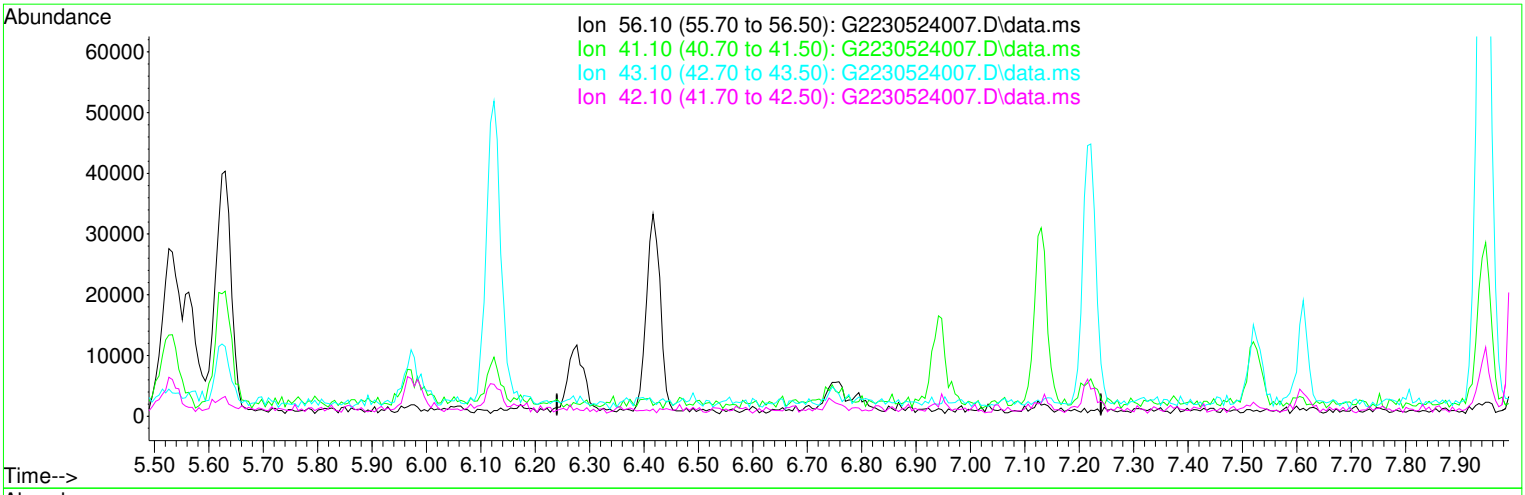
response 247918

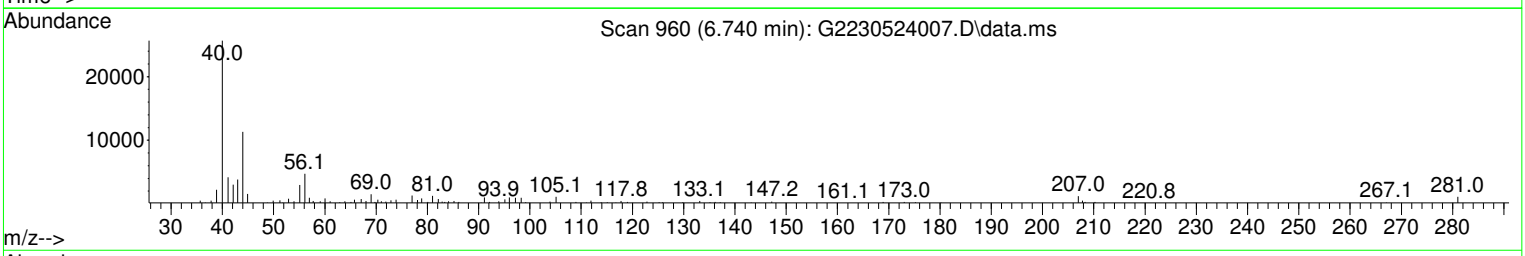
Ion	Exp%	Act%
45.10	100.00	100.00
43.10	20.30	38.76
0.00	0.00	0.00
0.00	0.00	0.00

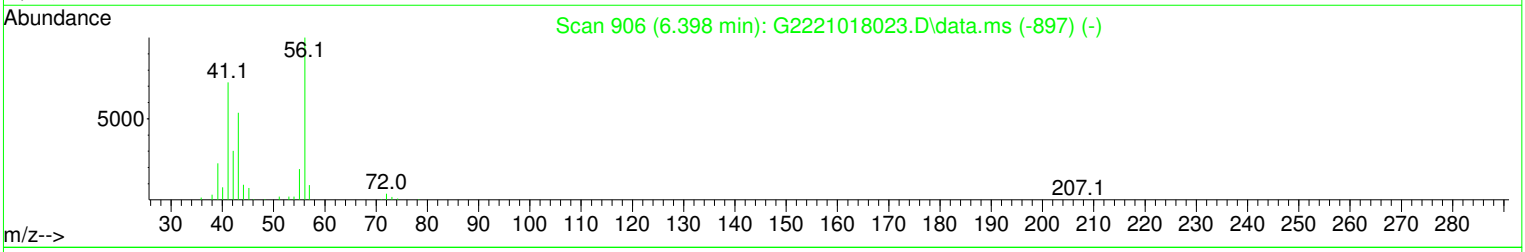
01342450

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524007.D\data.ms

(51) 1-Butanol (T)

6.740min (-6.740) 0.00 ug/L

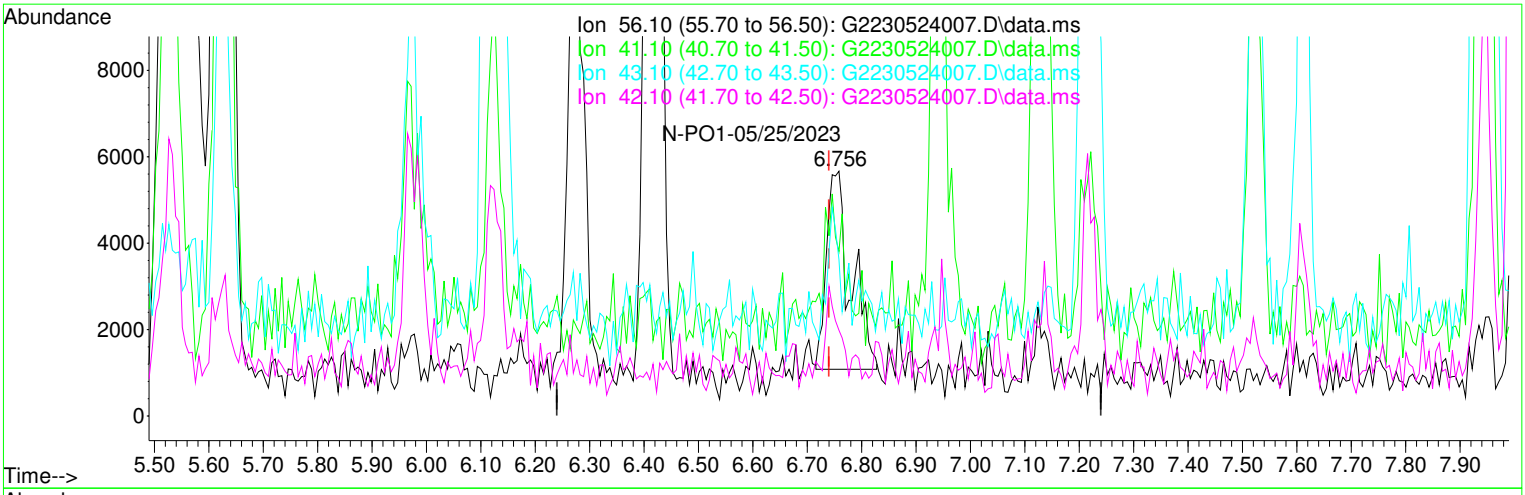
response 0

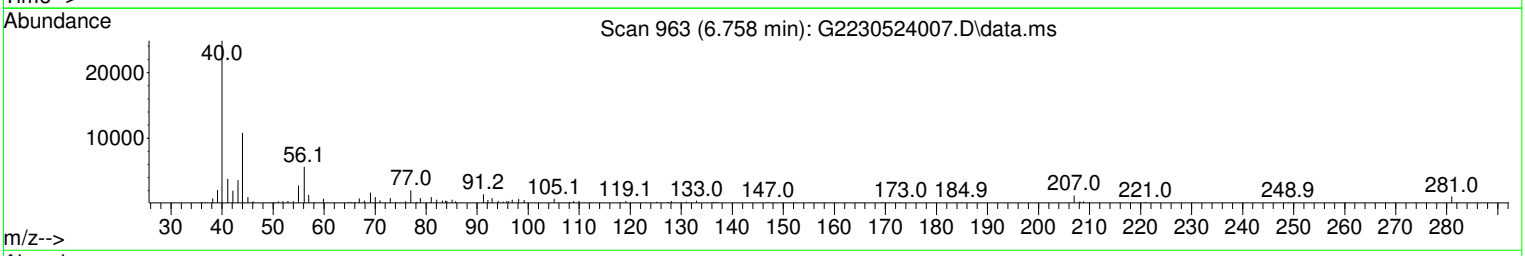
Ion	Exp%	Act%
56.10	100.00	0.00
41.10	69.10	0.00#
43.10	53.20	0.00#
42.10	27.70	0.00

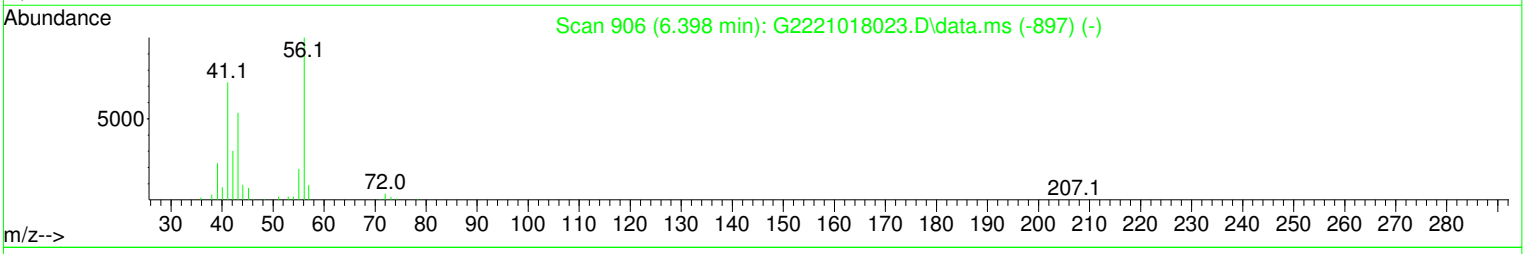
01342451

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524007.D\data.ms

(51) 1-Butanol (T)

6.758min (+ 0.018) 12.48 ug/L m

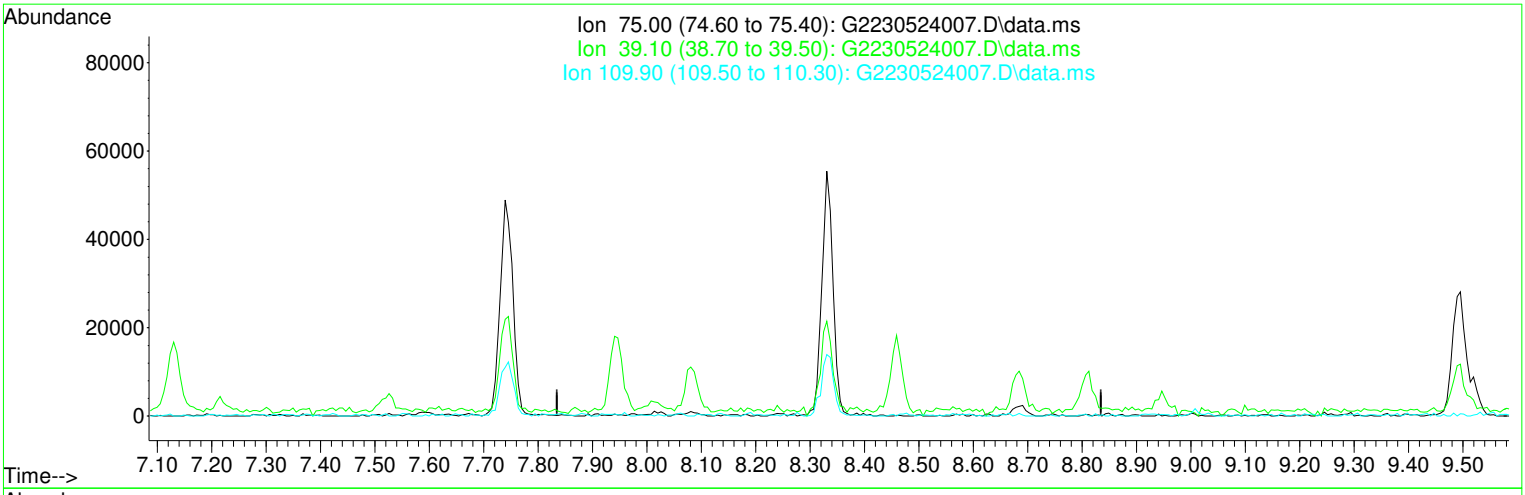
response 140811

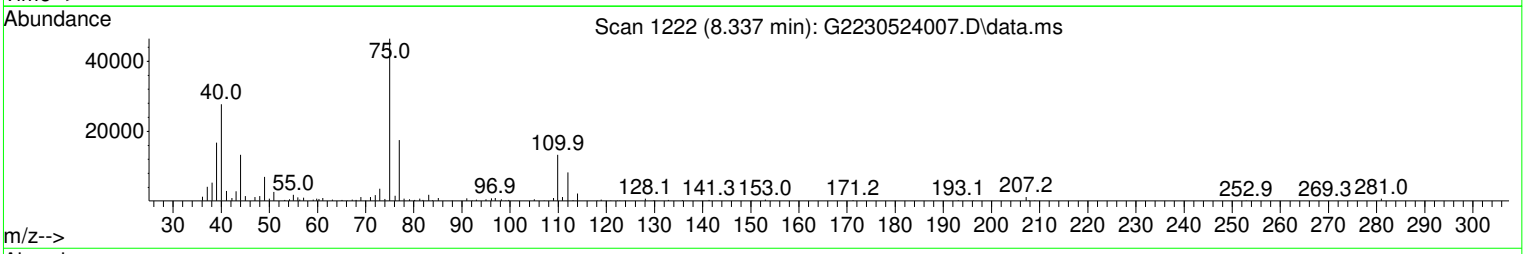
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	0.00#
43.10	53.20	0.00#
42.10	27.70	0.00

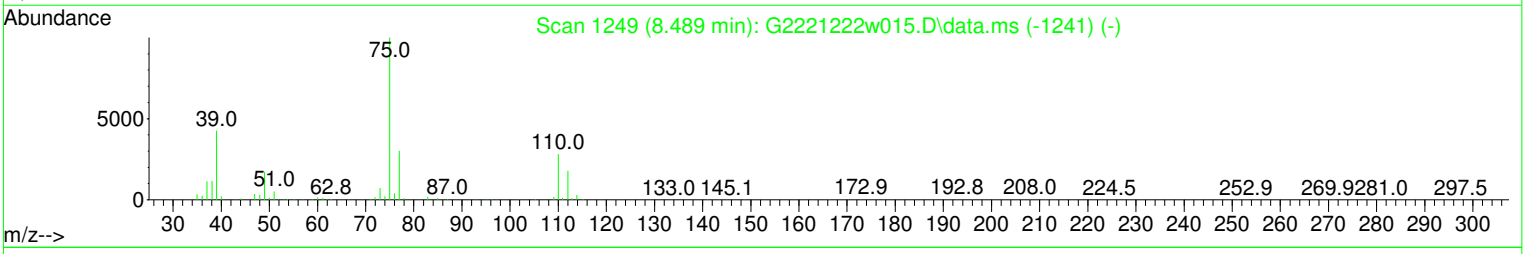
01342452

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524007.D\data.ms

(61) trans-1,3-Dichloropropene (T)

8.335min (-8.335) 0.00 ug/L

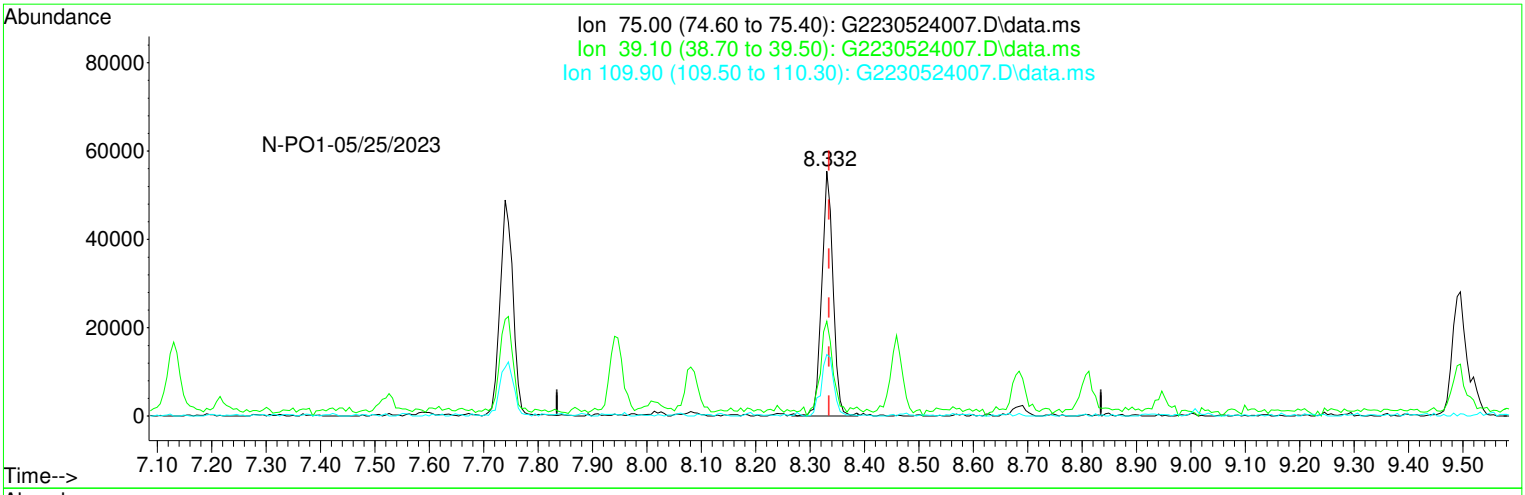
response 0

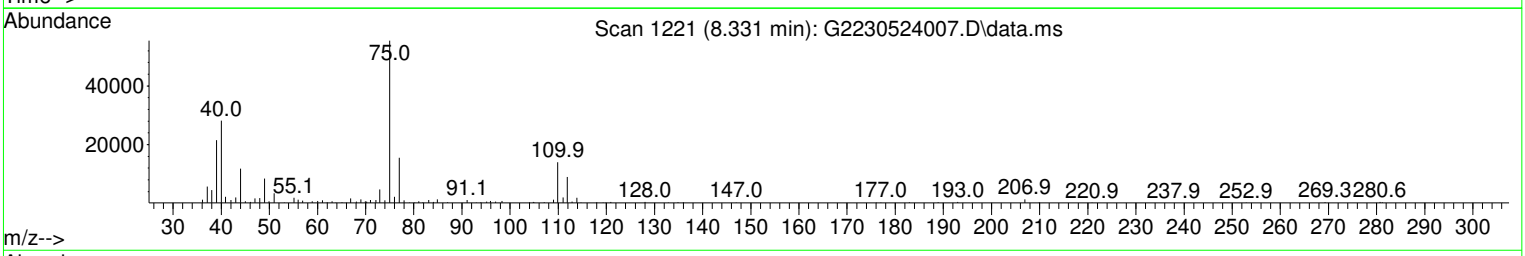
Ion	Exp%	Act%
75.00	100.00	0.00
39.10	45.00	0.00#
109.90	25.10	0.00
0.00	0.00	0.00

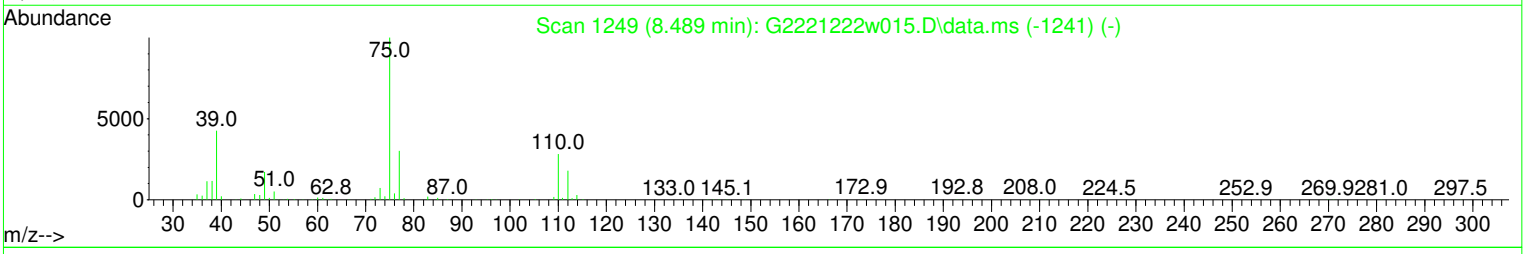
01342453

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524007.D\data.ms

(61) trans-1,3-Dichloropropene (T)

8.331min (-0.004) 1.12 ug/L m

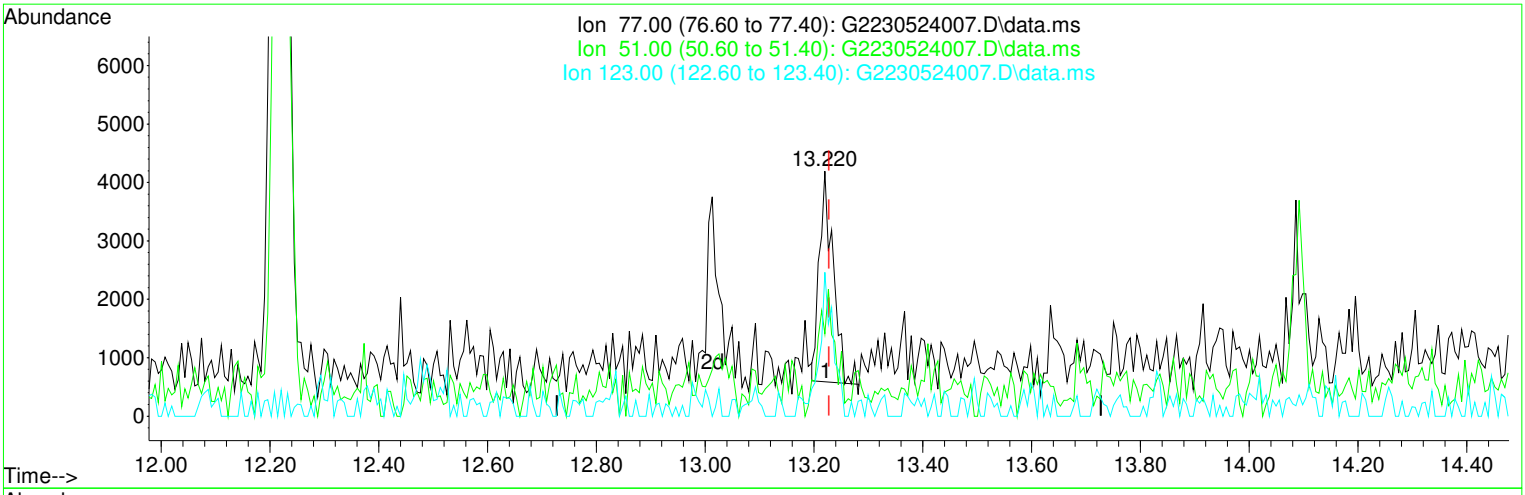
response 803649

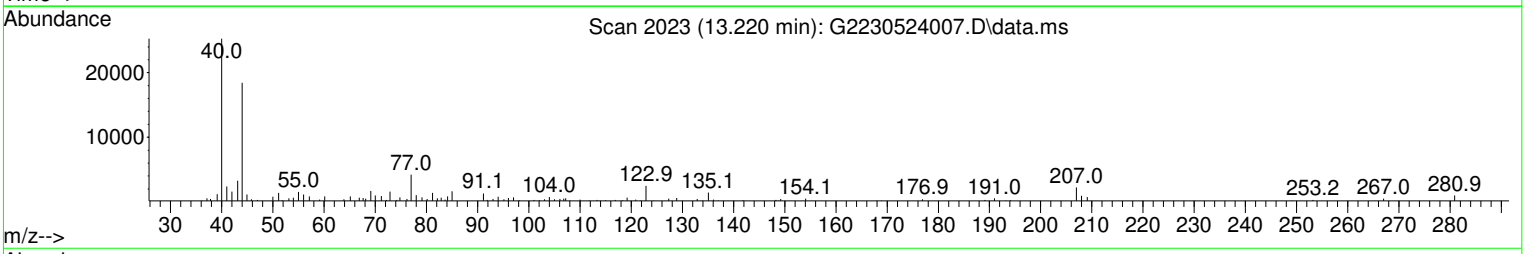
Ion	Exp%	Act%
75.00	100.00	100.00
39.10	45.00	0.00#
109.90	25.10	0.00
0.00	0.00	0.00

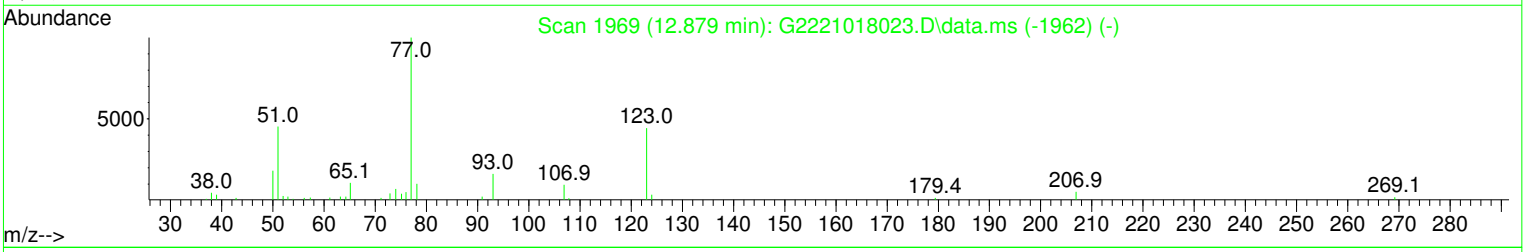
01342454

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524007.D\data.ms

(102) Nitrobenzene (T)

13.222min (-0.006) 1.49 ug/L

response 64184

Ion	Exp%	Act%
77.00	100.00	100.00
51.00	43.20	60.78
123.00	45.20	65.96
0.00	0.00	0.00

01342455

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524007.D
Acq On : 24 May 2023 17:57
Operator : PO1
Sample : SEQ-CAL3@@1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 25 08:49:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:48:52 2023
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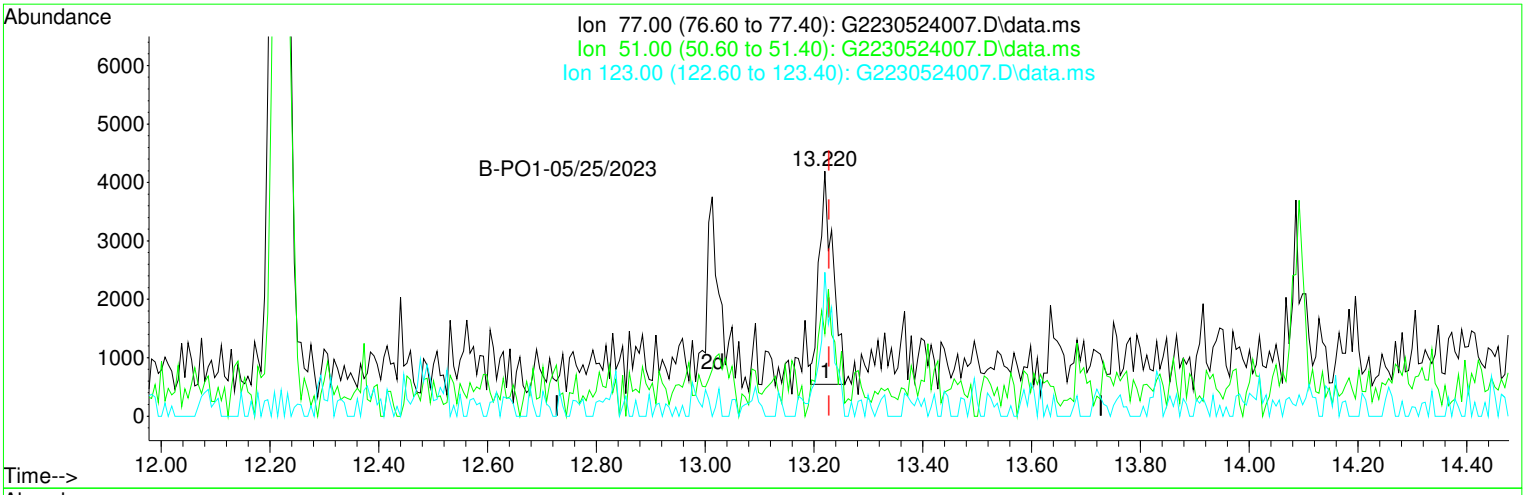

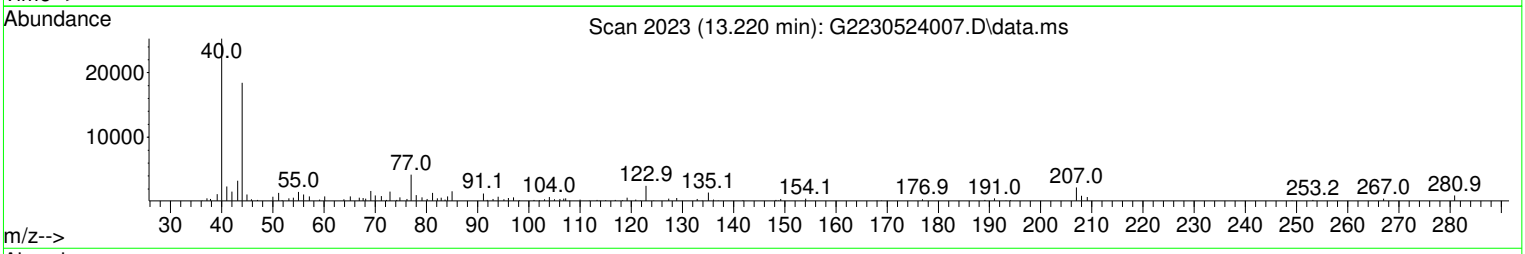

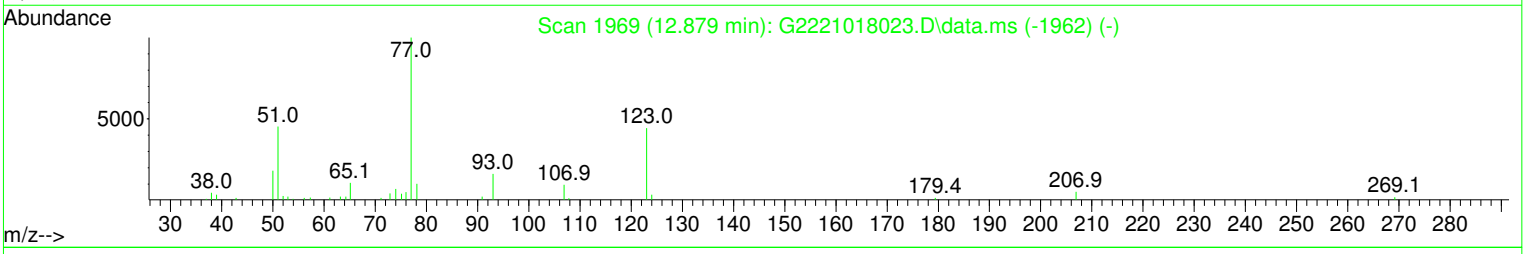

TIC: G2230524007.D\data.ms

(102) Nitrobenzene (T)

13.220min (-0.007) 1.50 ug/L m

response 64552

Ion	Exp%	Act%
77.00	100.00	100.00
51.00	43.20	60.43
123.00	45.20	65.58
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
Operator : PO1
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	24305885	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	34313122	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	30074604	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.842	152	14229900	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	10724051	19.85	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.25%			
43) 1,2-Dichloroethane-d4	5.878	65	10653795	19.94	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.70%			
49) Fluorobenzene	6.278	96	39141974	19.98	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.90%			
64) Toluene-d8	8.017	98	38128160	20.16	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.80%			
81) 4-Bromofluorobenzene	10.686	174	6492060	9.58	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.80%			
97) d4-1,2-Dichlorobenzene	12.219	152	12418527	20.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.15%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.210	85	992380	2.14	ug/L	100
3) Chloromethane	1.351	50	862338	2.16	ug/L	100
4) Vinyl chloride	1.442	62	951382	2.10	ug/L	93
5) Bromomethane	1.715	94	746681	2.53	ug/L	96
6) Chloroethane	1.803	64	580107	2.11	ug/L	98
7) Trichlorofluoromethane	2.027	101	1459496	2.11	ug/L	98
8) Ethyl ether	2.317	59	722412	2.18	ug/L	92
9) Acrolein	2.440	56	369085	5.60	ug/L	98
10) 1,1-Dichloroethene	2.521	61	1133810	2.14	ug/L	89
11) 1,1,2-Trichloro-1,2,2-...	2.533	101	830135	2.17	ug/L	95
12) Acetone	2.610	43	1015052	8.58	ug/L	92
13) Iodomethane	2.673	142	1048540	1.79	ug/L	95
14) Carbon disulfide	2.736	76	2398697	2.19	ug/L	99
15) Isopropanol	2.793	45	417348	21.87	ug/L	94
16) acetonitrile	2.916	41	1275138	5.48	ug/L	87
17) 3-Chloro-1-propene	2.918	76	551982	2.25	ug/L	94
18) Methylene chloride	3.059	49	1659072	3.52	ug/L	86
19) Acrylonitrile	3.385	53	406878	2.23	ug/L	92
20) trans-1,2-Dichloroethene	3.400	61	1076489	2.13	ug/L	89
21) Methyl tert-butyl ether	3.444	73	4213150	2.82	ug/L	95
22) Hexane	3.787	57	909607	2.22	ug/L	93
23) 1,1-Dichloroethane	3.998	63	1467278	2.11	ug/L	94
24) Vinyl acetate	4.127	43	1669338	2.09	ug/L	92
25) 2-Chloro-1,3-butadiene	4.132	53	1169027	2.18	ug/L	90
27) 2,2-Dichloropropane	4.825	77	1392811	2.20	ug/L	95
28) cis-1,2-Dichloroethene	4.834	61	1347861	2.16	ug/L	91
29) 2-Butanone	4.922	72	480287	7.67	ug/L	95
30) Propionitrile	4.978	54	141576m	2.35	ug/L	

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Data File : G2230524008.D
Acq On : 24 May 2023 18:22
Operator : PO1
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.032	61	173243	2.30	ug/L		84
32) Methylacrylate	5.044	55	979286	2.16	ug/L		94
33) 1-Bromopropane	5.077	41	582398	2.29	ug/L		79
34) Bromochloromethane	5.148	130	749980	2.16	ug/L		97
35) Methacrylonitrile	5.176	67	540091	2.37	ug/L		92
36) Tetrahydrofuran	5.271	42	306278	2.31	ug/L		85
37) Chloroform	5.274	83	1635753	2.09	ug/L		95
39) 1,1,1-Trichloroethane	5.478	97	1539342	2.17	ug/L		96
40) Cyclohexane	5.533	84	1380336m	2.09	ug/L		
41) 1-Chlorobutane	5.629	56	1594511	2.14	ug/L		98
42) 1,1-Dichloropropene	5.687	75	1245109	2.21	ug/L		95
44) 1,2-Dichloroethane	5.970	62	1273450	2.19	ug/L		99
45) Isobutanol	5.972	43	339690	21.85	ug/L		88
47) Carbon tetrachloride	5.678	117	1290182	2.10	ug/L		98
48) Benzene	5.935	78	3573691	2.15	ug/L		100
50) Trichloroethene	6.693	95	999920	2.16	ug/L		91
51) 1-Butanol	6.746	56	275416m	25.76	ug/L		
52) 1,2-Dichloropropane	6.945	63	857665	2.16	ug/L		93
53) Dibromomethane	7.071	174	851486	2.13	ug/L	#	93
54) Methyl methacrylate	7.133	69	895773	2.33	ug/L		92
55) 1,4-dioxane	7.142	88	89027m	22.59	ug/L		
56) Bromodichloromethane	7.258	83	1409501	2.30	ug/L		95
57) 2-Nitropropane	7.525	43	407291	2.30	ug/L		95
58) 2-Chloroethyl vinyl ether	7.613	63	654447	2.10	ug/L		93
59) cis-1,3-Dichloropropene	7.745	75	1572680	2.13	ug/L		95
60) 4-Methyl-2-pentanone	7.946	43	3681810	7.72	ug/L	#	86
61) trans-1,3-Dichloropropene	8.334	75	1516390	2.18	ug/L		97
62) 1,1,2-Trichloroethane	8.519	97	916441	2.10	ug/L		95
65) Toluene	8.086	91	4072264	2.19	ug/L		97
66) Ethylmethacrylate	8.461	69	1539150	2.30	ug/L		90
67) Tetrachloroethene	8.647	166	1247521	1.82	ug/L		96
68) 1,3-Dichloropropane	8.687	76	1519847	2.13	ug/L		93
69) 2-Hexanone	8.810	43	2420970	7.89	ug/L		93
70) Dibromochloromethane	8.912	129	1210009	2.16	ug/L		99
71) 1,2-Dibromoethane	9.018	107	1069308	2.21	ug/L		98
72) Chlorobenzene	9.524	112	2748523	2.17	ug/L		96
73) 1,1,1,2-Tetrachloroethane	9.614	131	1093563	2.19	ug/L		98
74) Ethylbenzene	9.643	91	4416229	2.17	ug/L		95
75) m,p-Xylene	9.763	91	6893948	4.47	ug/L		96
76) Styrene	10.176	104	2986207	2.20	ug/L		94
77) Bromoform	10.354	173	975672	2.16	ug/L		97
79) o-Xylene	10.161	91	3548137	2.08	ug/L		95
80) Isopropylbenzene	10.536	105	4135119	2.08	ug/L		98
82) Bromobenzene	10.828	77	1587218	2.13	ug/L		92
83) 1,1,2,2-Tetrachloroethane	10.843	83	1254106	2.10	ug/L		98
84) 1,2,3-Trichloropropane	10.882	110	486823	2.29	ug/L		98
85) trans-1,4-Dichloro-2-b...	10.903	53	352226	2.24	ug/L		78
86) n-Propylbenzene	10.949	91	4671226	2.12	ug/L		97
87) 2-Chlorotoluene	11.028	91	2863182	2.15	ug/L		96

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
Operator : PO1
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
88) 4-Chlorotoluene	11.137	91	3206158	2.11	ug/L	96
89) 1,3,5-Trimethylbenzene	11.129	105	3310264	2.16	ug/L	97
90) 2-ethyl-1-toluene	11.328	105	3922678	2.10	ug/L	98
91) tert-Butylbenzene	11.455	119	3541478	2.21	ug/L	92
92) 1,2,4-Trimethylbenzene	11.502	105	3274122	2.15	ug/L	95
93) sec-Butylbenzene	11.673	105	4053154	2.15	ug/L	98
94) 1,3-Dichlorobenzene	11.775	146	1939721	2.12	ug/L	97
95) 4-Isopropyltoluene	11.823	119	3296435	2.10	ug/L	96
96) 1,4-Dichlorobenzene	11.866	146	1925879	2.17	ug/L	95
98) 1,2-Dichlorobenzene	12.237	146	1785535	2.16	ug/L	94
99) n-Butylbenzene	12.232	91	2595775	2.22	ug/L	95
100) Hexachloroethane	12.492	201	608380	2.09	ug/L	97
101) 1,2-Dibromo-3-chloropr...	13.019	157	299146	2.34	ug/L	94
102) Nitrobenzene	13.226	77	118551m	3.04	ug/L	
103) 1,2,4-Trichlorobenzene	13.847	180	552146	2.24	ug/L	96
104) Hexachlorobutadiene	14.025	225	299828	2.34	ug/L	98
105) Naphthalene	14.091	128	1609227	2.37	ug/L	99
106) 1,2,3-Trichlorobenzene	14.335	180	456991	2.34	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : 8260B Calibration
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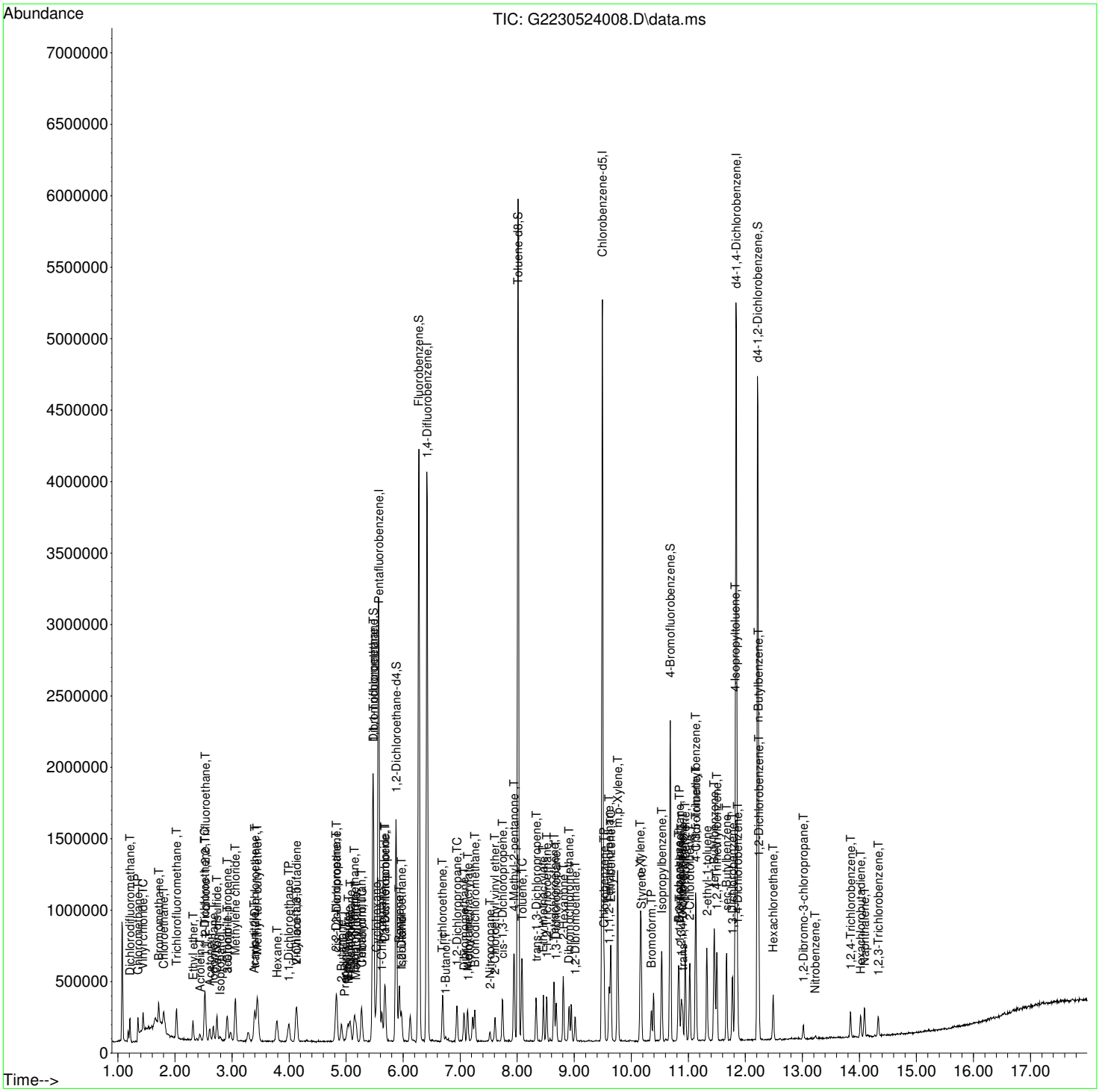

01342460

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
Operator : PO1
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
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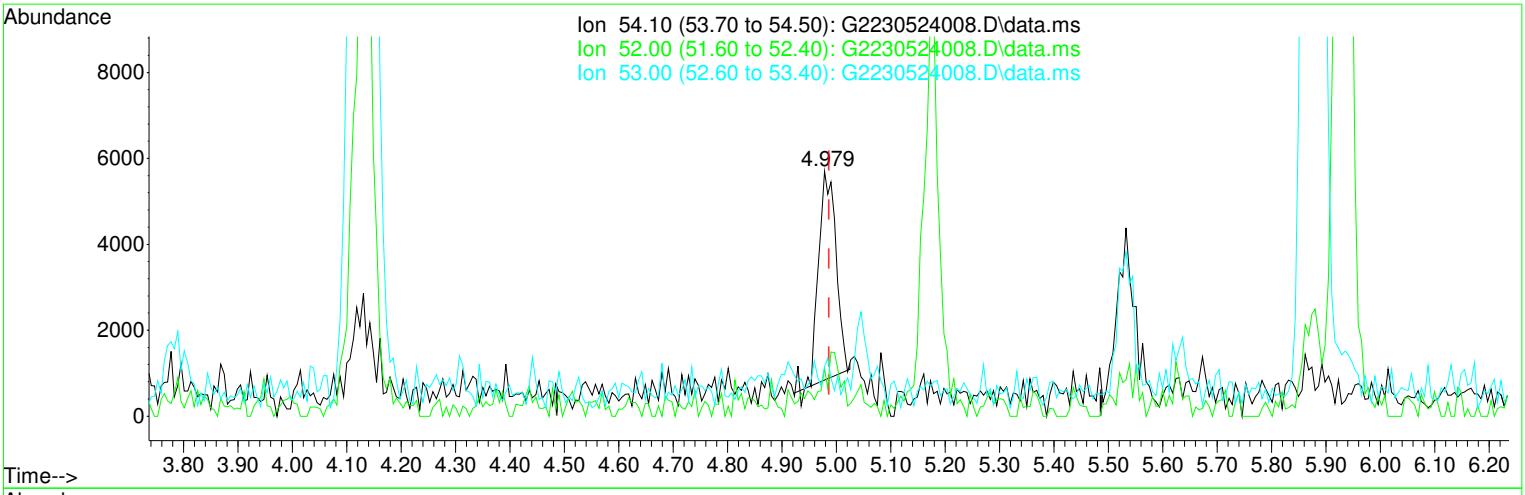

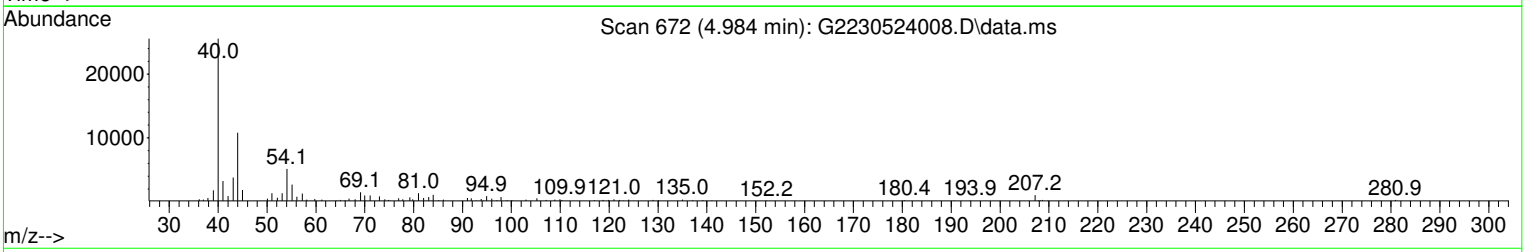

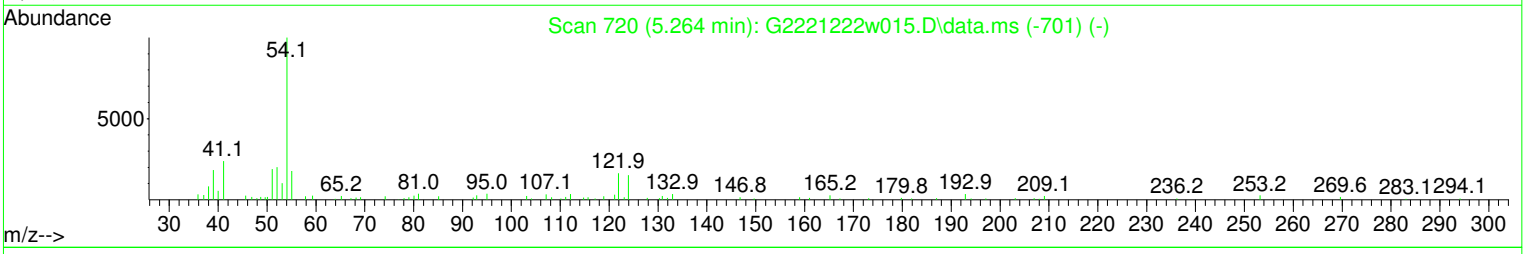

TIC: G2230524008.D\data.ms

(30) Propionitrile (T)

4.982min (-0.004) 1.77 ug/L

response 106479

Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	0.00
53.00	12.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
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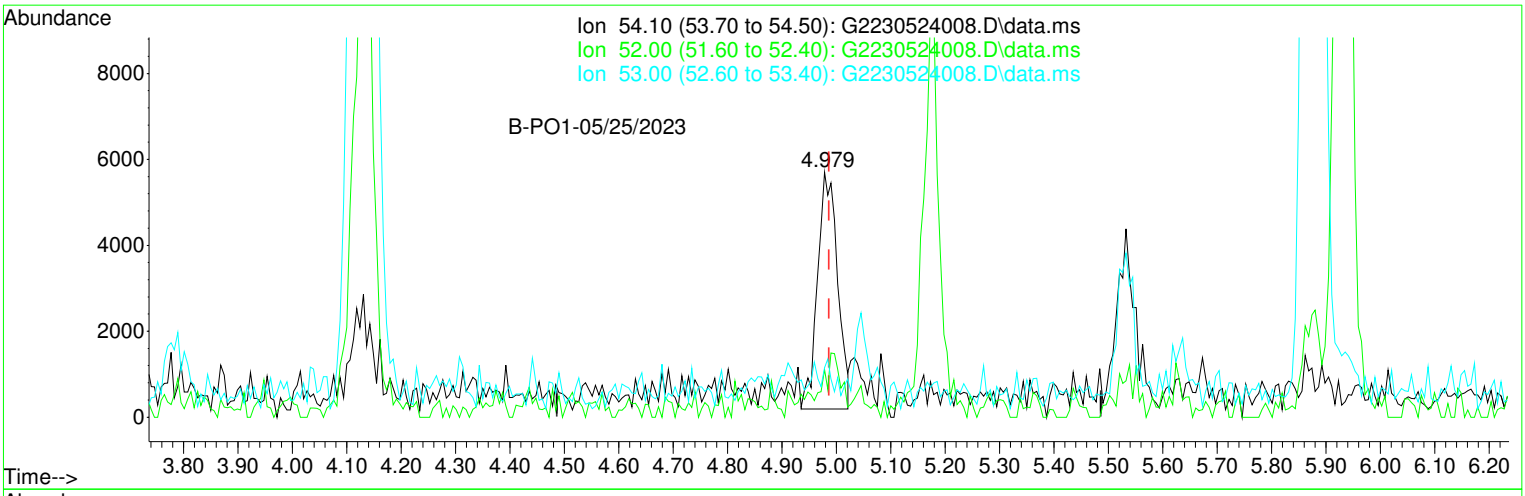
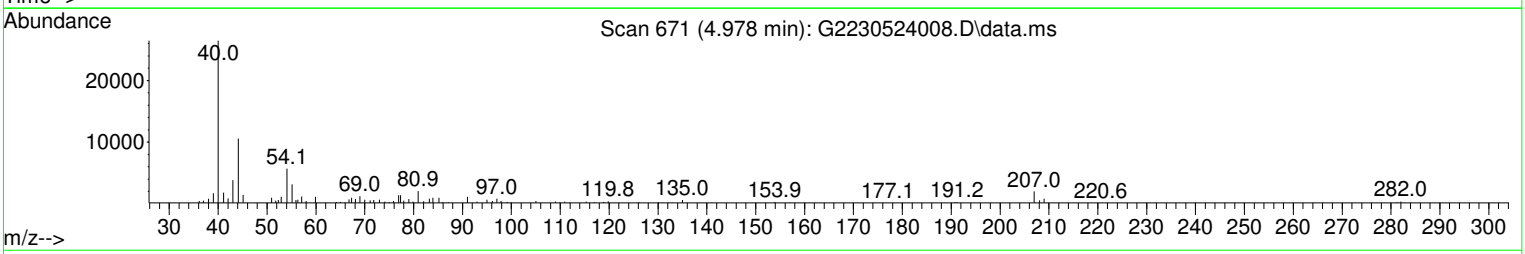
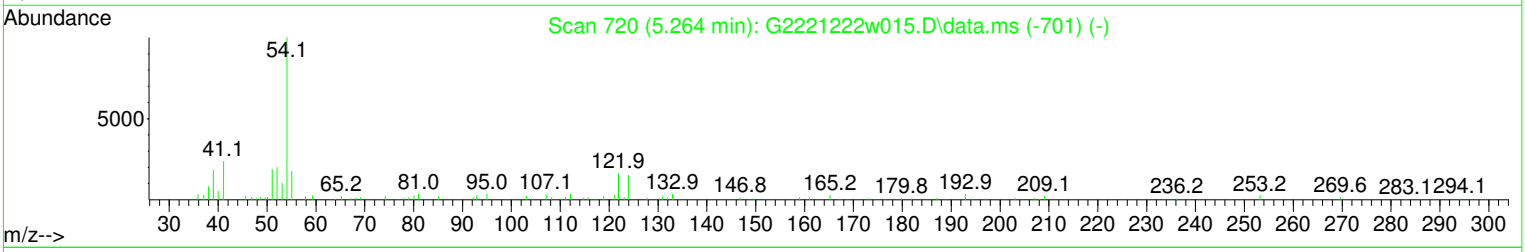
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524008.D\data.ms

(30) Propionitrile (T)

4.978min (-0.009) 2.35 ug/L m

response 141576

Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	0.00
53.00	12.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
Operator : PO1
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
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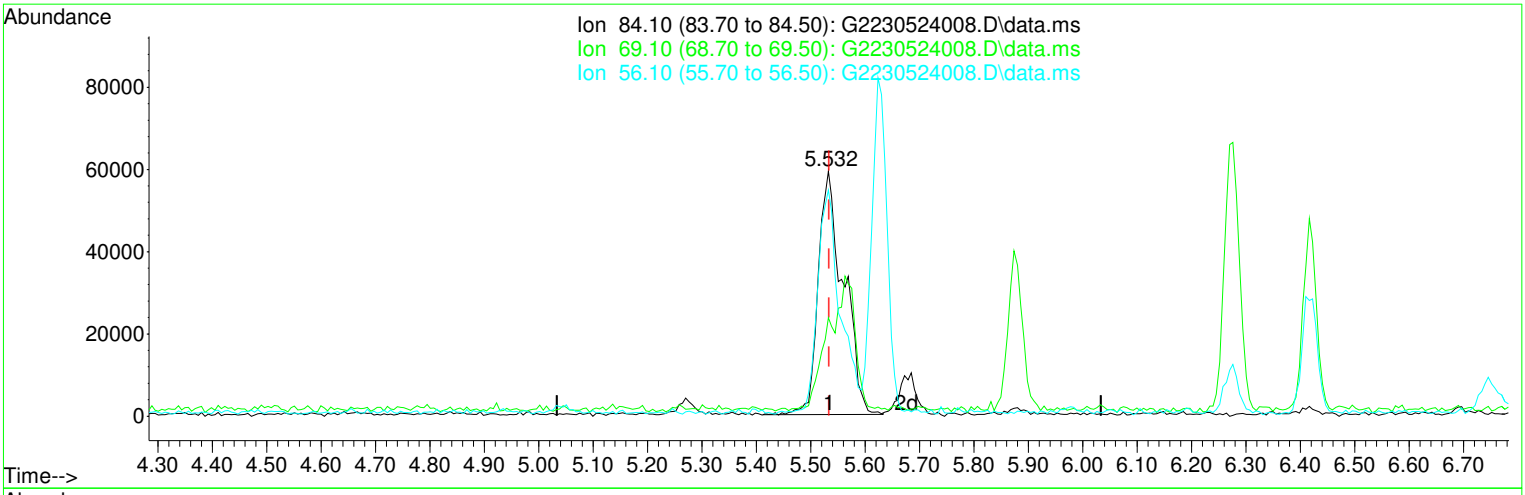

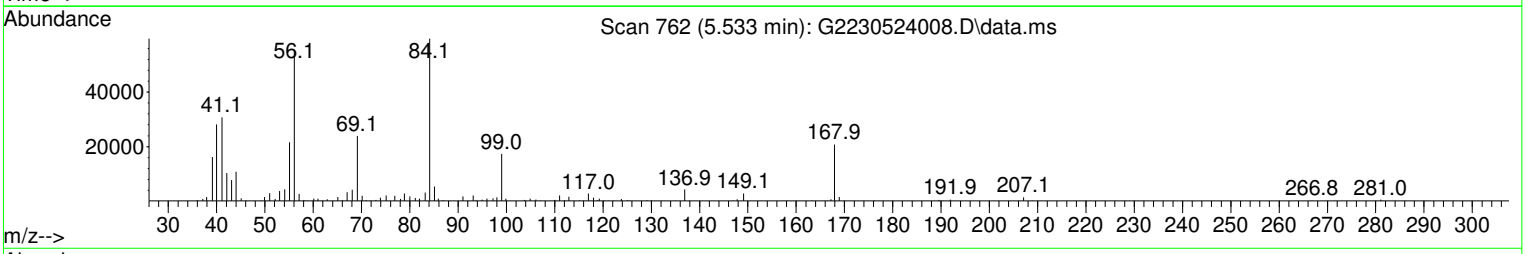

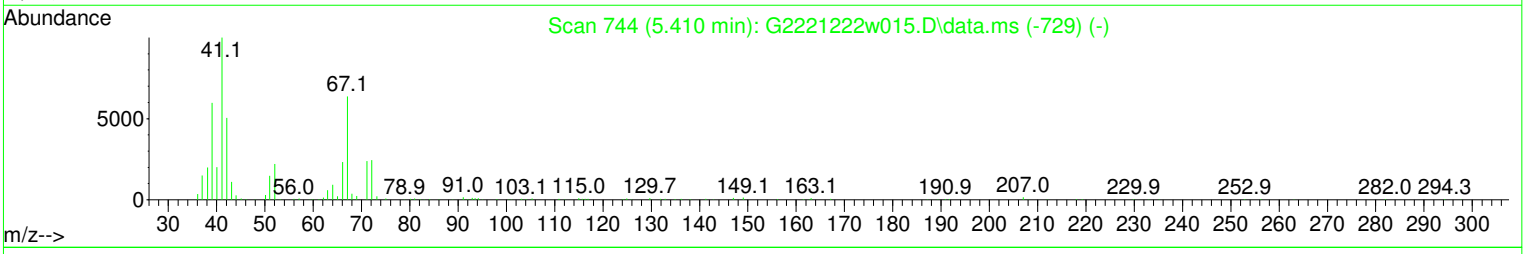

TIC: G2230524008.D\data.ms

(40) Cyclohexane

5.535min (+ 0.001) 2.90 ug/L

response 1913053

Ion	Exp%	Act%
84.10	100.00	100.00
69.10	36.80	19.82
56.10	109.10	81.65
0.00	0.00	0.00

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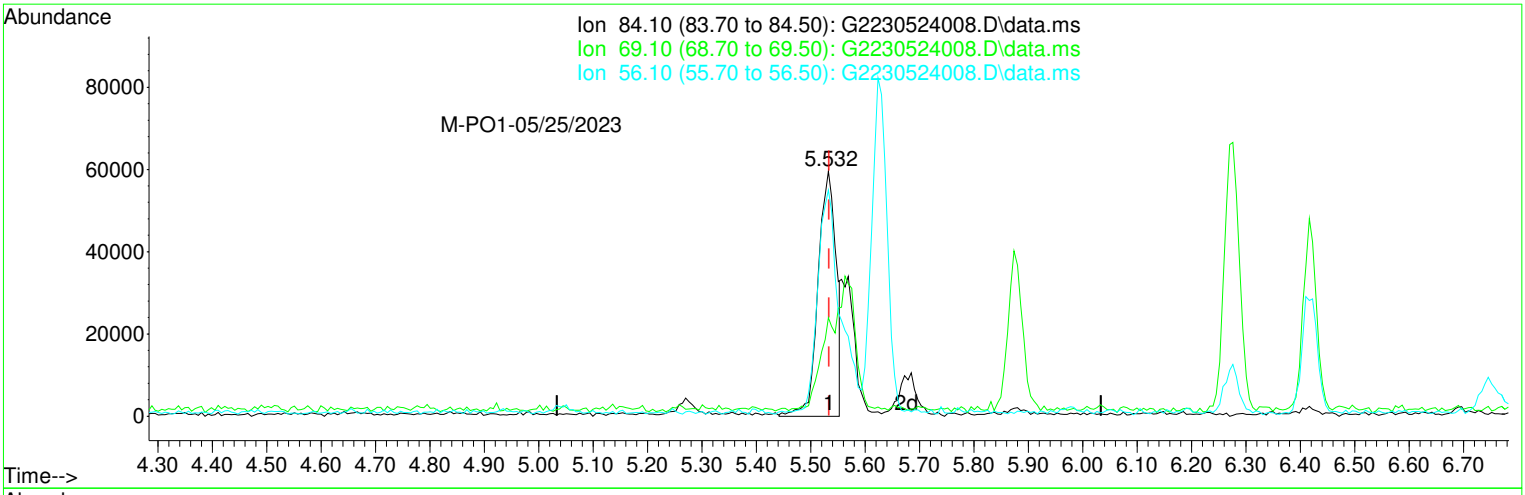

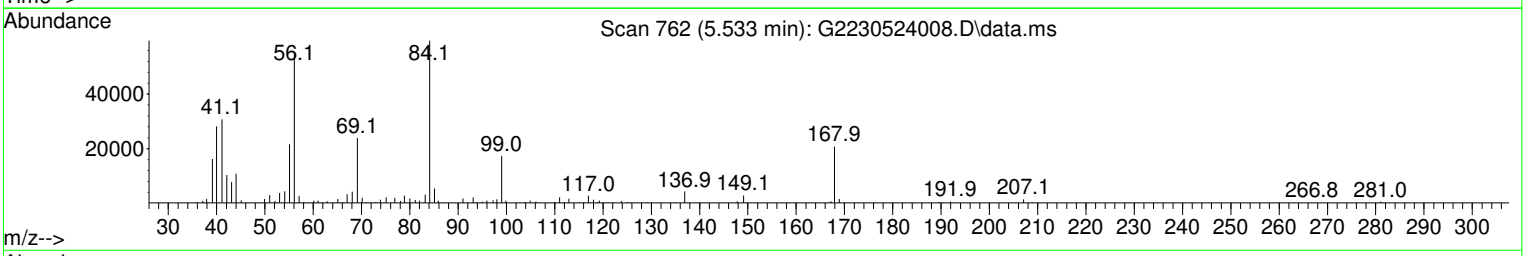

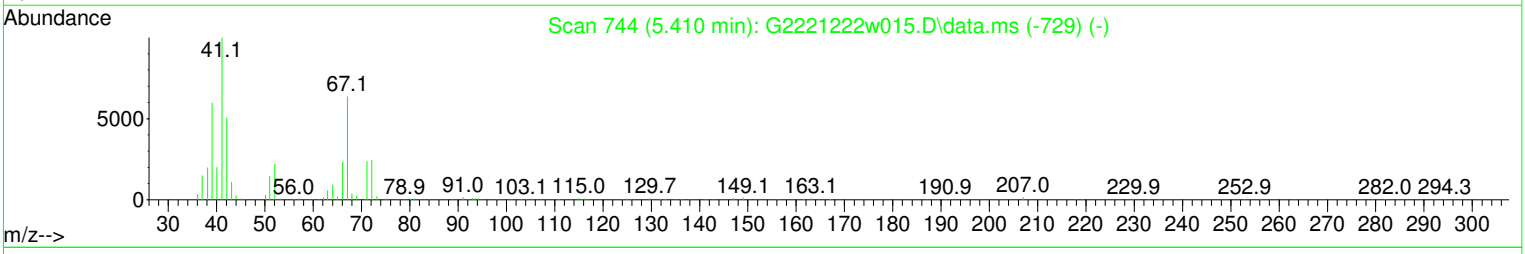

TIC: G2230524008.D\data.ms

(40) Cyclohexane

5.533min (-0.001) 2.09 ug/L m

response 1380336

Ion	Exp%	Act%
84.10	100.00	100.00
69.10	36.80	27.47
56.10	109.10	113.16
0.00	0.00	0.00

01342464

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
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Sample : SEQ-CAL4@@2
Misc :
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Quant Time: May 25 08:45:07 2023
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Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
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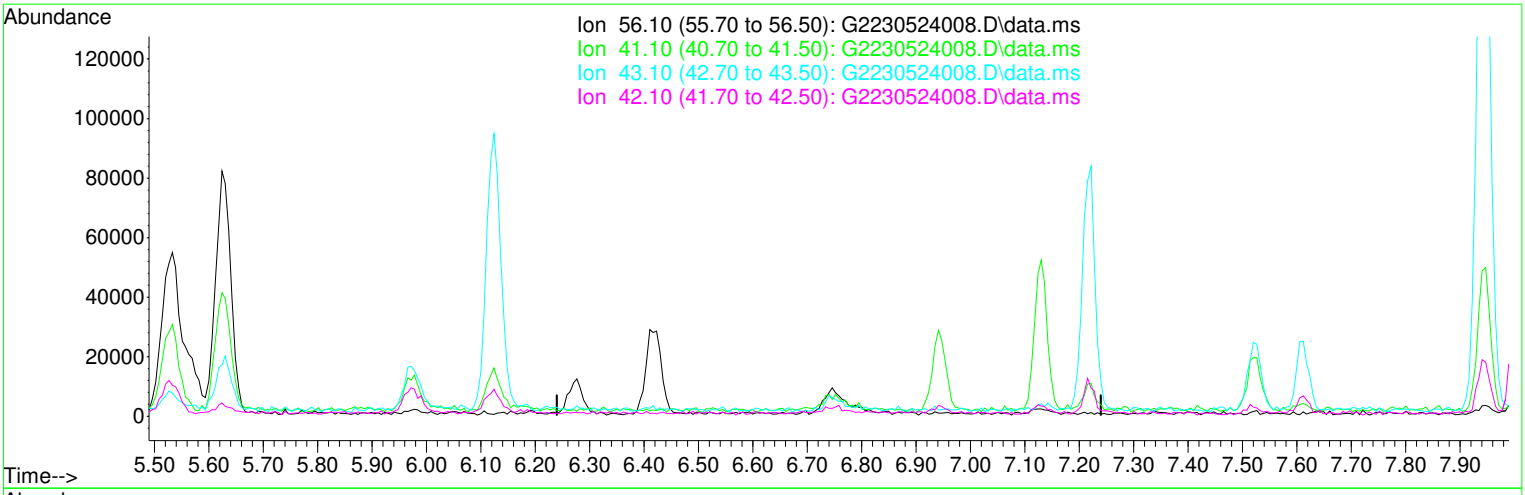

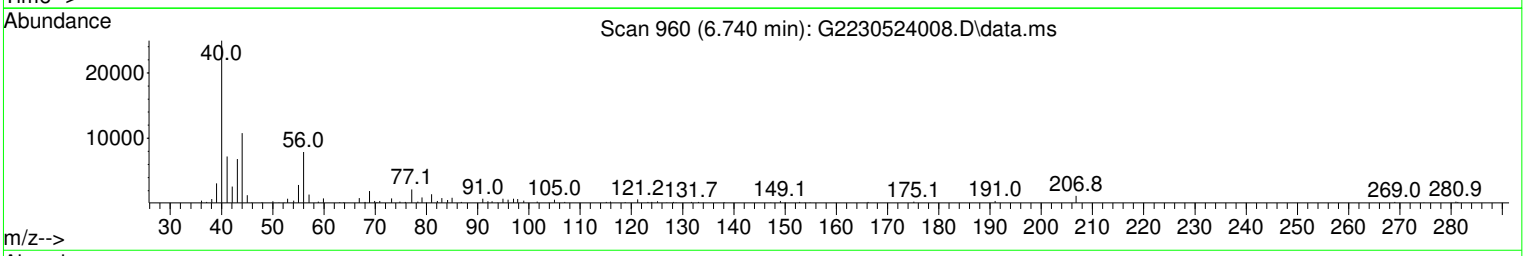

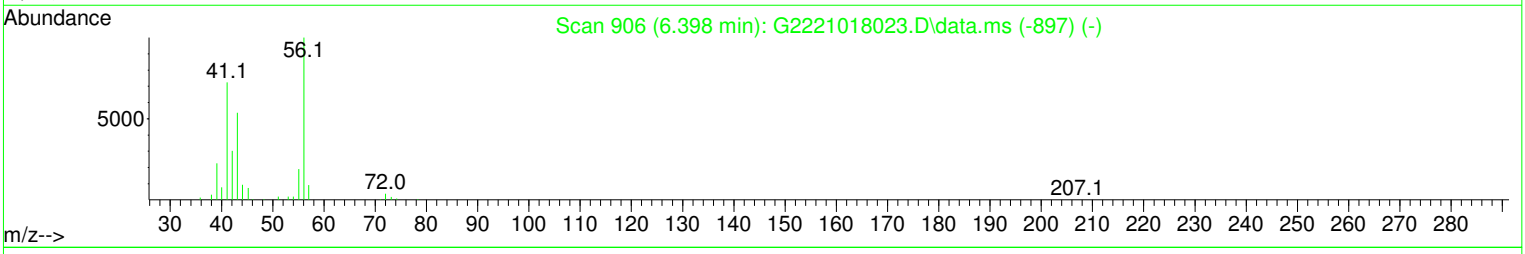

TIC: G2230524008.D\data.ms

(51) 1-Butanol (T)

6.740min (-6.740) 0.00 ug/L

response 0

Ion	Exp%	Act%
56.10	100.00	0.00
41.10	69.10	0.00#
43.10	53.20	0.00#
42.10	27.70	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
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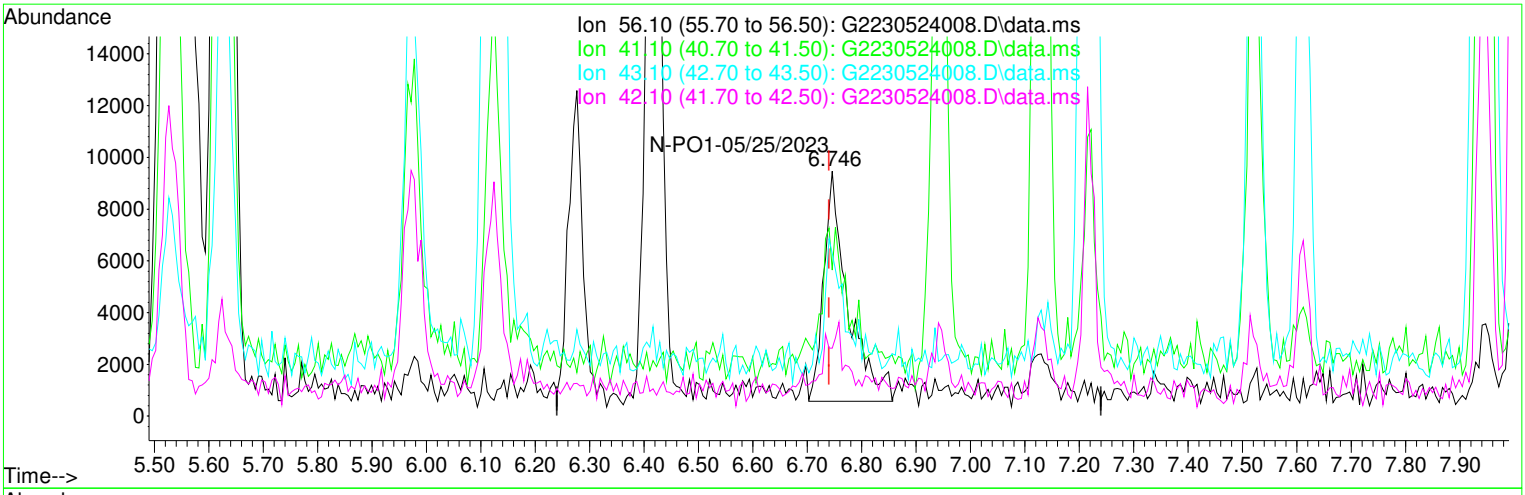
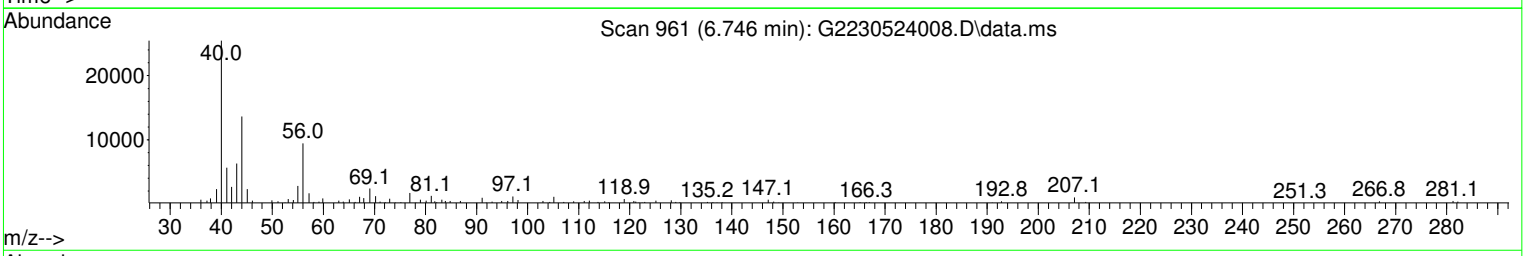
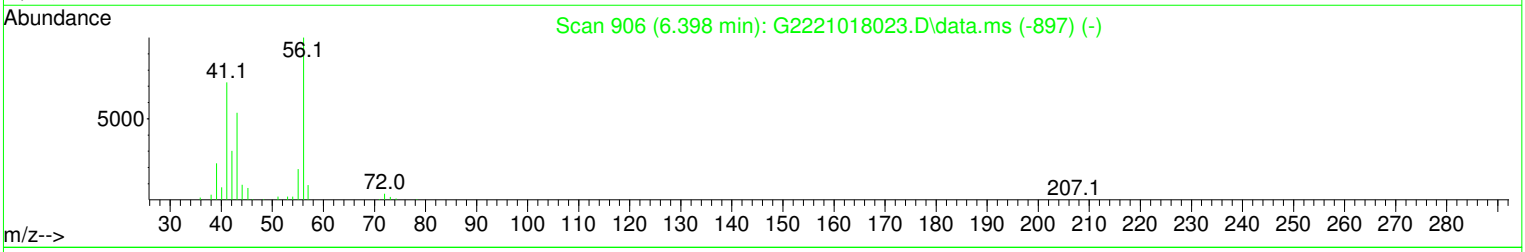
Response via : Initial Calibration
InstName : G







TIC: G2230524008.D\data.ms

(51) 1-Butanol (T)

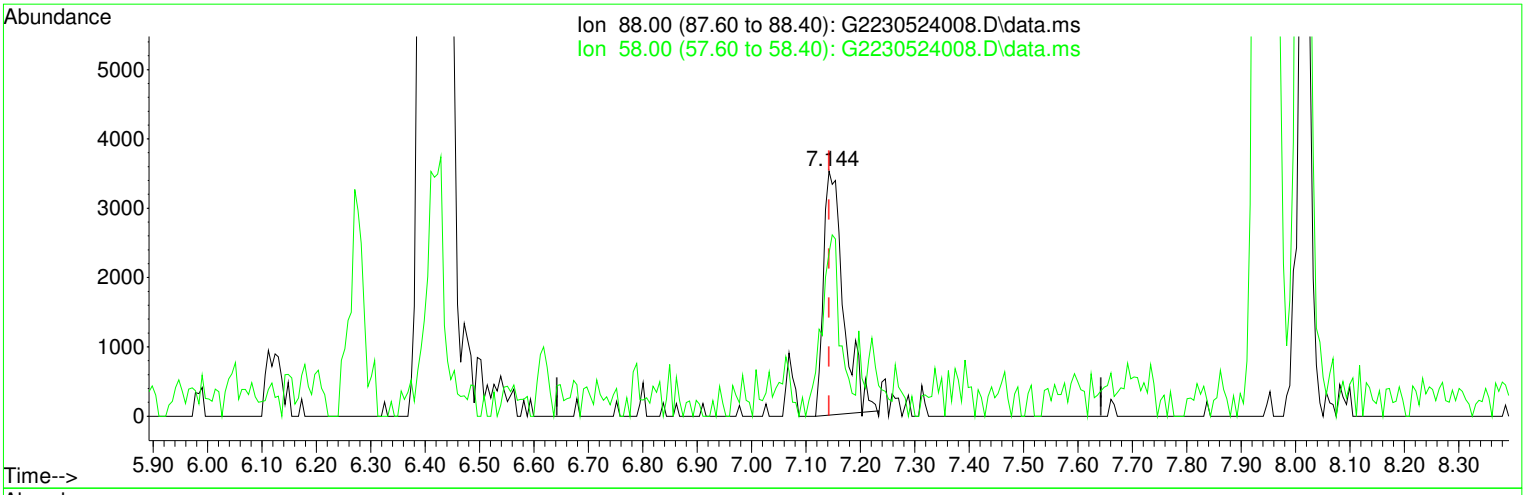
6.746min (+ 0.006) 25.76 ug/L m

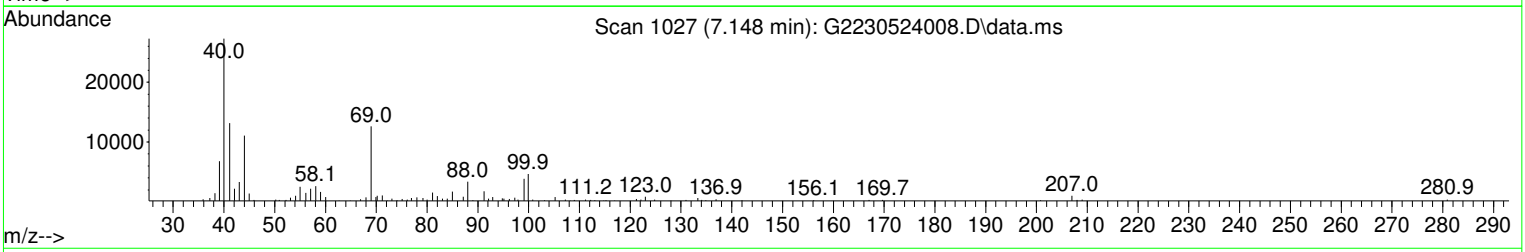
response 275416

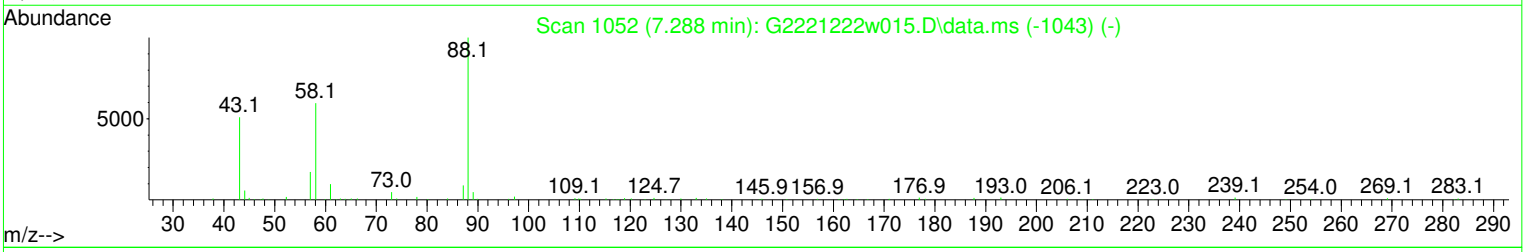
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	0.00#
43.10	53.20	0.00#
42.10	27.70	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
Operator : PO1
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524008.D\data.ms

(55) 1,4-dioxane (T)

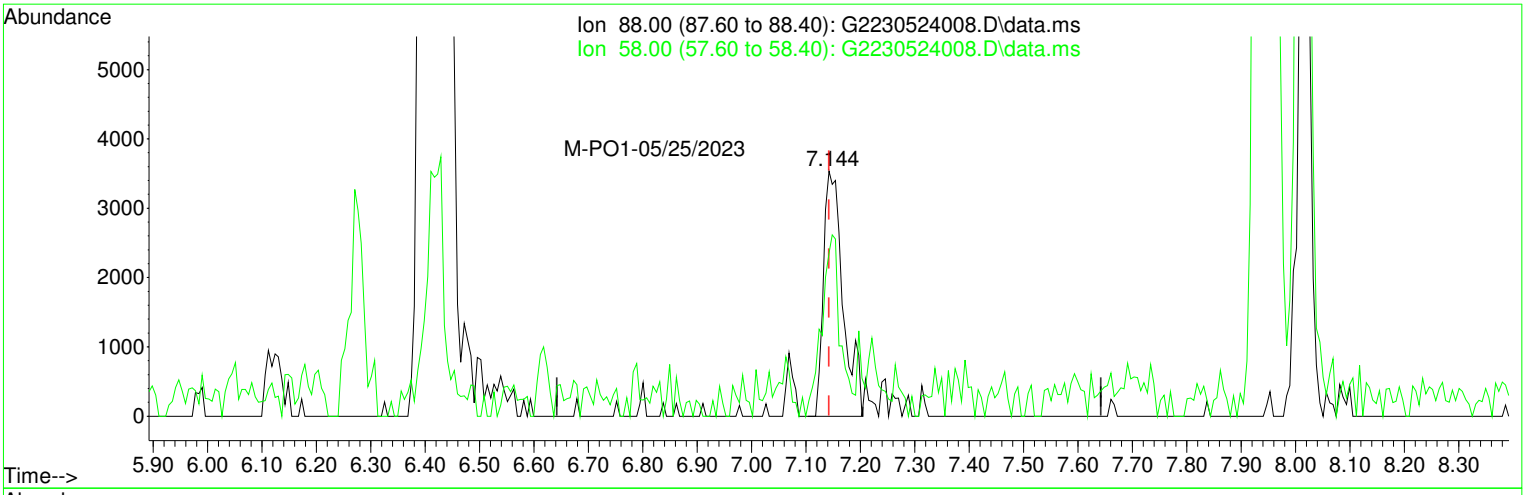
7.148min (+ 0.006) 22.77 ug/L

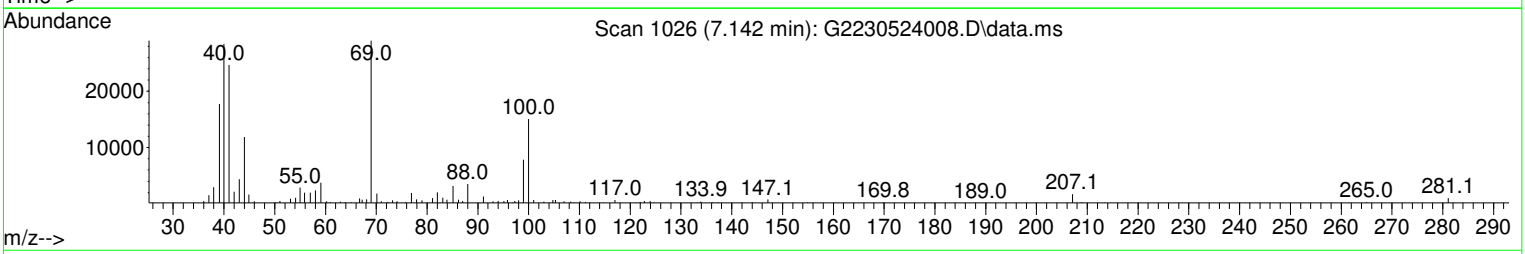
response 89730

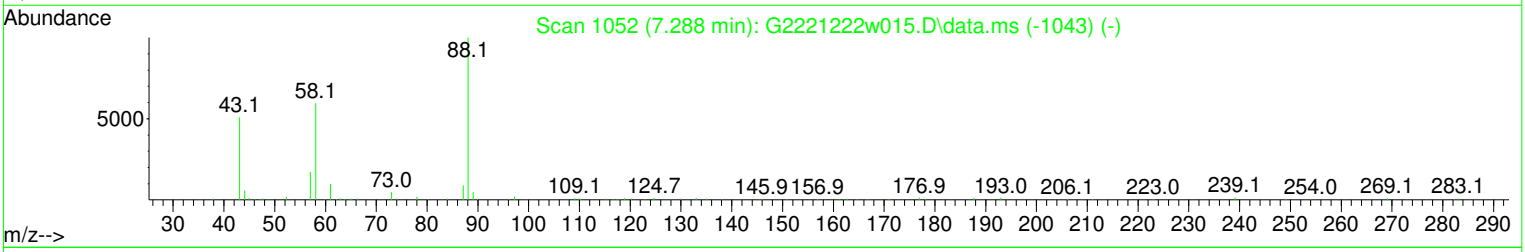
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	59.91
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
Operator : PO1
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524008.D\data.ms

(55) 1,4-dioxane (T)

7.142min (-0.000) 22.59 ug/L m

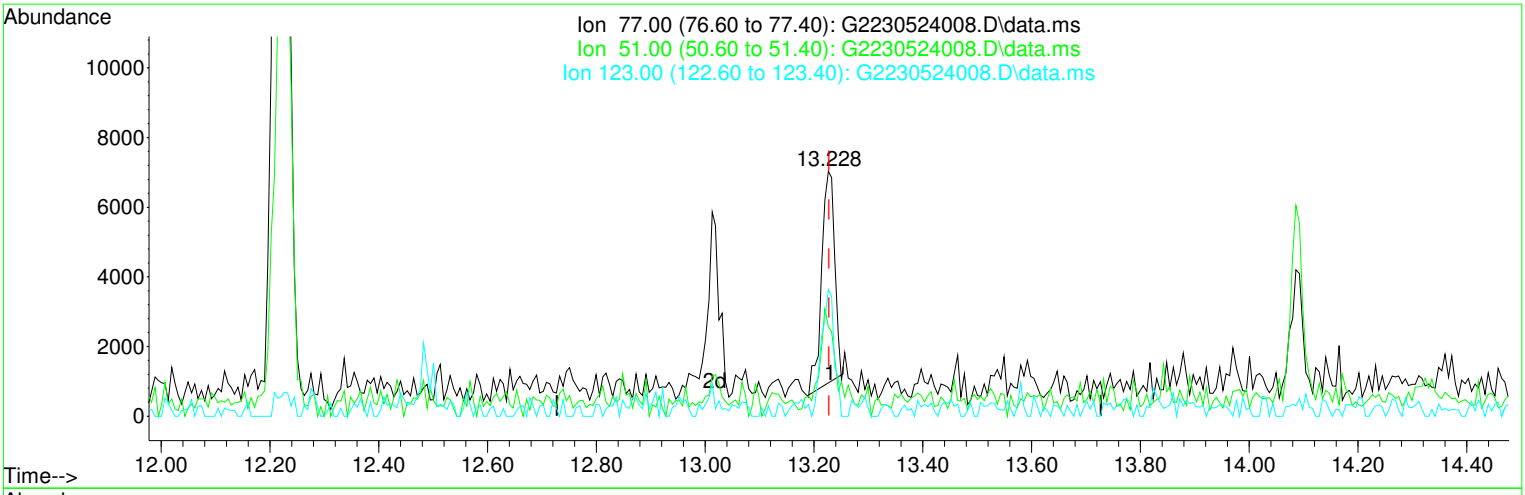
response 89027

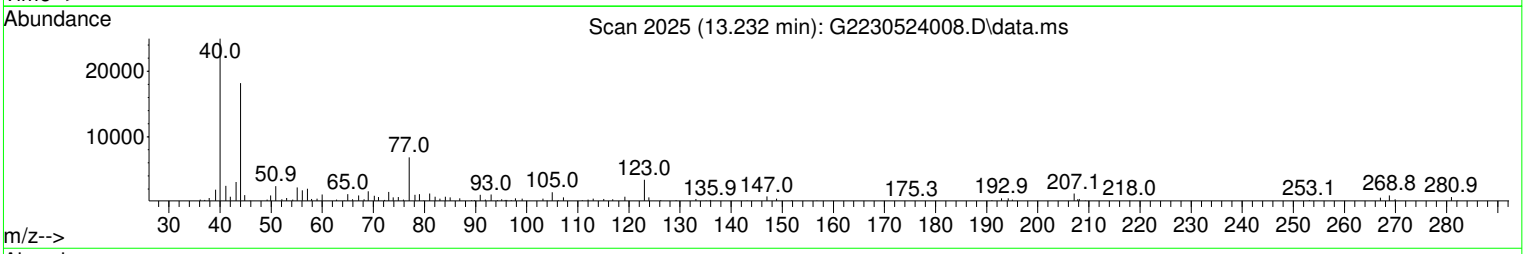
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	60.38
0.00	0.00	0.00
0.00	0.00	0.00

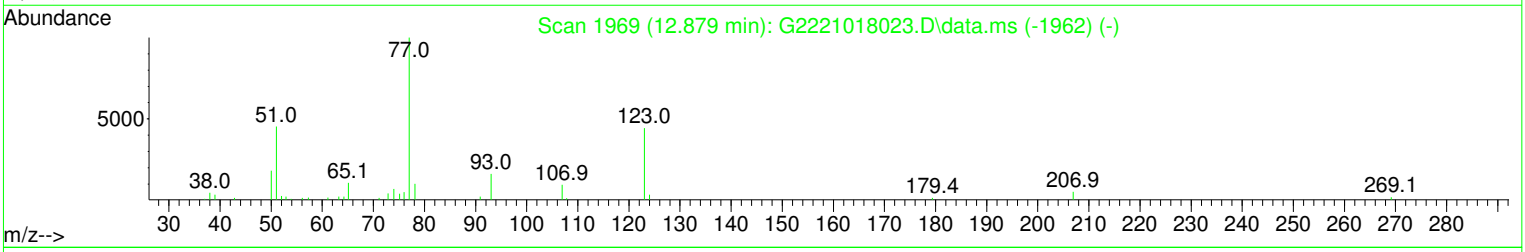
01342468

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
Operator : PO1
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524008.D\data.ms

(102) Nitrobenzene (T)

13.230min (+ 0.003) 2.57 ug/L

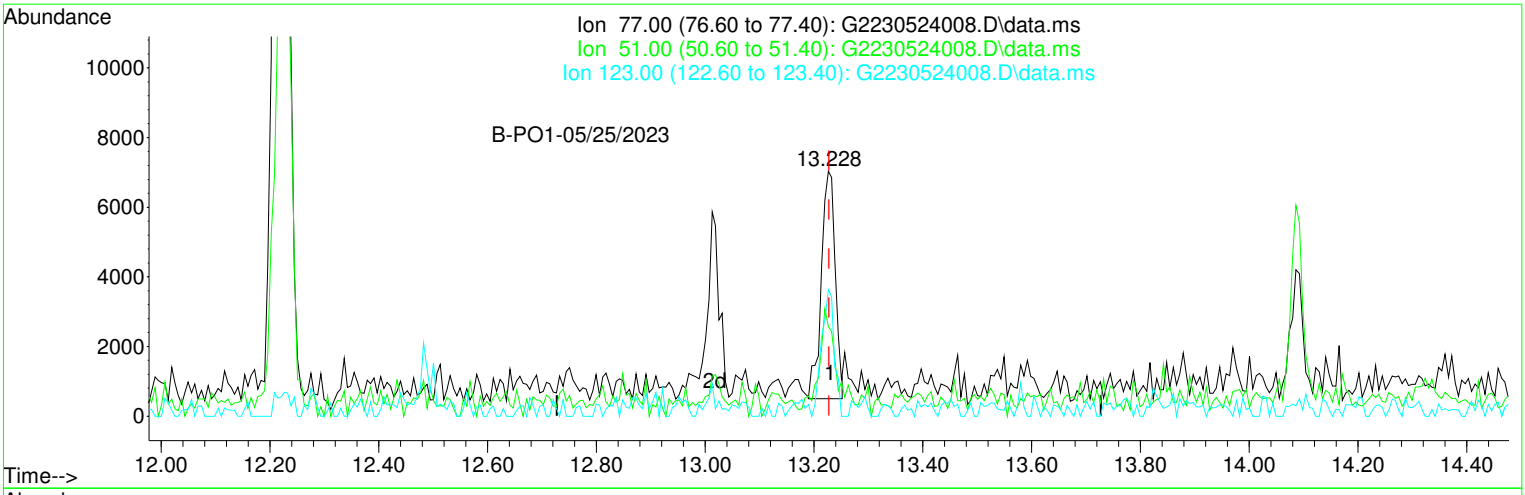
response 100334

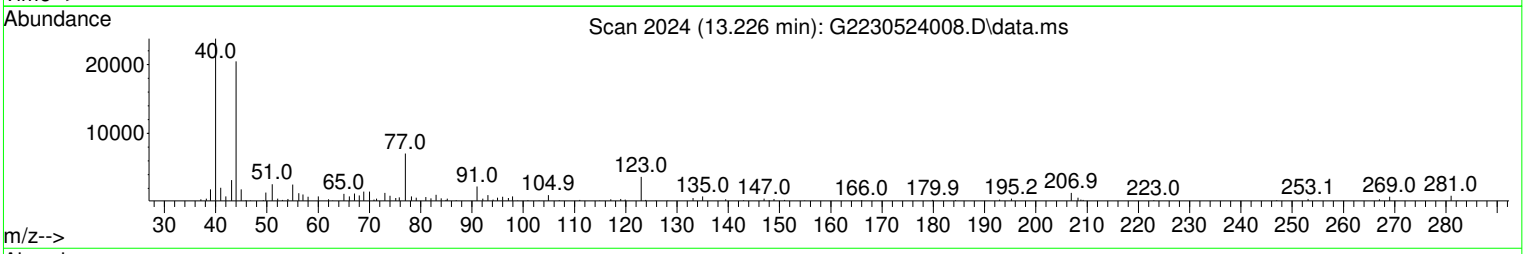
Ion	Exp%	Act%
77.00	100.00	100.00
51.00	43.20	54.98
123.00	45.20	64.52
0.00	0.00	0.00

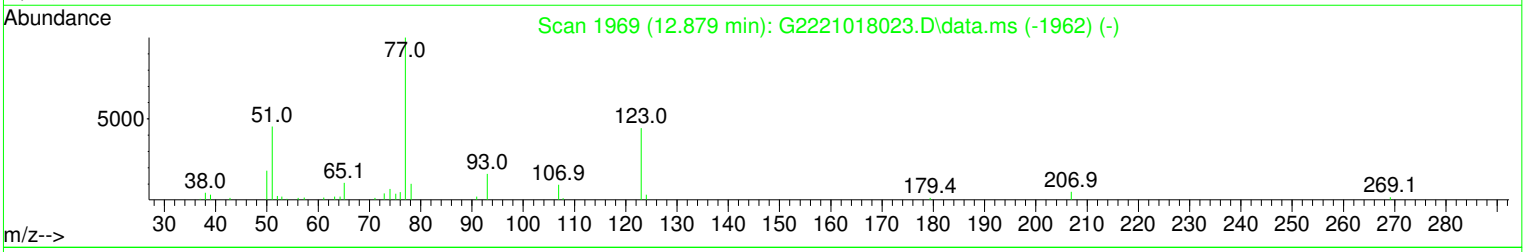
01342469

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524008.D
Acq On : 24 May 2023 18:22
Operator : PO1
Sample : SEQ-CAL4@@2
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 25 08:45:07 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:44:54 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524008.D\data.ms

(102) Nitrobenzene (T)

13.226min (-0.001) 3.04 ug/L m

response 118551

Ion	Exp%	Act%
77.00	100.00	100.00
51.00	43.20	46.53
123.00	45.20	54.61
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	25510344	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.423	114	36378763	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.496	117	32009337	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.842	152	14620657	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.477	111	11260654	19.83	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.15%			
43) 1,2-Dichloroethane-d4	5.879	65	11194823	19.95	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.75%			
49) Fluorobenzene	6.279	96	41454672	19.95	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.75%			
64) Toluene-d8	8.018	98	40110547	19.91	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.55%			
81) 4-Bromofluorobenzene	10.686	174	6819875	9.75	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.50%			
97) d4-1,2-Dichlorobenzene	12.219	152	12639366	20.04	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.20%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.211	85	2284161	4.64	ug/L	100
3) Chloromethane	1.352	50	1952915	4.59	ug/L	99
4) Vinyl chloride	1.444	62	2171985	4.49	ug/L	100
5) Bromomethane	1.716	94	1551528	5.01	ug/L	98
6) Chloroethane	1.805	64	1300489	4.43	ug/L	99
7) Trichlorofluoromethane	2.030	101	3250436	4.38	ug/L	98
8) Ethyl ether	2.317	59	1684495	4.81	ug/L	90
9) Acrolein	2.440	56	840038	12.08	ug/L	95
10) 1,1-Dichloroethene	2.523	61	2710736	4.85	ug/L	91
11) 1,1,2-Trichloro-1,2,2-...	2.533	101	1931862	4.77	ug/L	96
12) Acetone	2.607	43	2162864	17.40	ug/L	92
13) Iodomethane	2.675	142	2685998	4.25	ug/L	94
14) Carbon disulfide	2.738	76	5485338	4.73	ug/L	100
15) Isopropanol	2.790	45	917097	45.04	ug/L	93
16) acetonitrile	2.917	41	2970311	12.09	ug/L	89
17) 3-Chloro-1-propene	2.919	76	1215489	4.66	ug/L	99
18) Methylene chloride	3.062	49	2837191	5.91	ug/L	87
19) Acrylonitrile	3.388	53	944592	4.91	ug/L	97
20) trans-1,2-Dichloroethene	3.401	61	2497757	4.66	ug/L	90
21) Methyl tert-butyl ether	3.446	73	8257458	5.33	ug/L	95
22) Hexane	3.790	57	2034368	4.69	ug/L	96
23) 1,1-Dichloroethane	3.998	63	3522320	4.79	ug/L	97
24) Vinyl acetate	4.130	43	3863672	4.54	ug/L	94
25) 2-Chloro-1,3-butadiene	4.133	53	2694171	4.75	ug/L	90
26) 1-propanol	4.301	59	149369m	56.27	ug/L	
27) 2,2-Dichloropropane	4.826	77	3248345	4.87	ug/L	94
28) cis-1,2-Dichloroethene	4.835	61	3158981	4.79	ug/L	92
29) 2-Butanone	4.921	72	1120682	16.97	ug/L	94

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) Propionitrile	4.985	54	311816	4.91	ug/L		94
31) Ethyl acetate	5.028	61	390864	4.94	ug/L		89
32) Methylacrylate	5.046	55	2217742	4.59	ug/L		93
33) 1-Bromopropane	5.077	41	1275334	4.74	ug/L		74
34) Bromochloromethane	5.149	130	1743753	4.73	ug/L		98
35) Methacrylonitrile	5.178	67	1141244	4.72	ug/L		97
36) Tetrahydrofuran	5.265	42	668322	4.77	ug/L		86
37) Chloroform	5.276	83	3906516	4.72	ug/L		100
39) 1,1,1-Trichloroethane	5.478	97	3562687	4.74	ug/L		97
40) Cyclohexane	5.533	84	3639516	5.31	ug/L		81
41) 1-Chlorobutane	5.630	56	3720641	4.71	ug/L		98
42) 1,1-Dichloropropene	5.690	75	2763052	4.62	ug/L		95
44) 1,2-Dichloroethane	5.971	62	3008525	4.92	ug/L		98
45) Isobutanol	5.965	43	860786m	53.33	ug/L		
47) Carbon tetrachloride	5.680	117	3062063	4.65	ug/L		99
48) Benzene	5.935	78	8388081	4.72	ug/L		99
50) Trichloroethene	6.696	95	2359539	4.78	ug/L		95
51) 1-Butanol	6.748	56	517271	44.84	ug/L		80
52) 1,2-Dichloropropane	6.945	63	2010599	4.73	ug/L		91
53) Dibromomethane	7.071	174	2044760	4.80	ug/L	#	93
54) Methyl methacrylate	7.133	69	1954875	4.76	ug/L		92
55) 1,4-dioxane	7.148	88	212232	50.95	ug/L		85
56) Bromodichloromethane	7.259	83	3100133	4.73	ug/L		99
57) 2-Nitropropane	7.527	43	920840	4.90	ug/L		91
58) 2-Chloroethyl vinyl ether	7.614	63	1462639	4.34	ug/L		99
59) cis-1,3-Dichloropropene	7.746	75	3723716	4.72	ug/L		97
60) 4-Methyl-2-pentanone	7.945	43	8390285	16.43	ug/L	#	92
61) trans-1,3-Dichloropropene	8.335	75	3498185	4.69	ug/L		95
62) 1,1,2-Trichloroethane	8.519	97	2194985	4.70	ug/L		94
65) Toluene	8.086	91	9550465	4.78	ug/L		98
66) Ethylmethacrylate	8.461	69	3382834	4.70	ug/L		92
67) Tetrachloroethene	8.648	166	3646944	5.00	ug/L		95
68) 1,3-Dichloropropane	8.688	76	3636618	4.76	ug/L		90
69) 2-Hexanone	8.810	43	5500632	16.72	ug/L		93
70) Dibromochloromethane	8.912	129	2838518	4.71	ug/L		99
71) 1,2-Dibromoethane	9.019	107	2447019	4.71	ug/L		99
72) Chlorobenzene	9.524	112	6394883	4.70	ug/L		98
73) 1,1,1,2-Tetrachloroethane	9.615	131	2556761	4.77	ug/L		98
74) Ethylbenzene	9.643	91	10333428	4.74	ug/L		97
75) m,p-Xylene	9.764	91	15782783	9.53	ug/L		96
76) Styrene	10.177	104	6919121	4.75	ug/L		94
77) Bromoform	10.356	173	2240127	4.58	ug/L		96
79) o-Xylene	10.161	91	8354350	4.72	ug/L		97
80) Isopropylbenzene	10.536	105	9735602	4.73	ug/L		98
82) Bromobenzene	10.828	77	3635481	4.69	ug/L		89
83) 1,1,2,2-Tetrachloroethane	10.843	83	2908951	4.69	ug/L		99
84) 1,2,3-Trichloropropane	10.881	110	1055095	4.79	ug/L		94
85) trans-1,4-Dichloro-2-b...	10.902	53	743760	4.53	ug/L		74
86) n-Propylbenzene	10.949	91	10733532	4.69	ug/L		97

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G

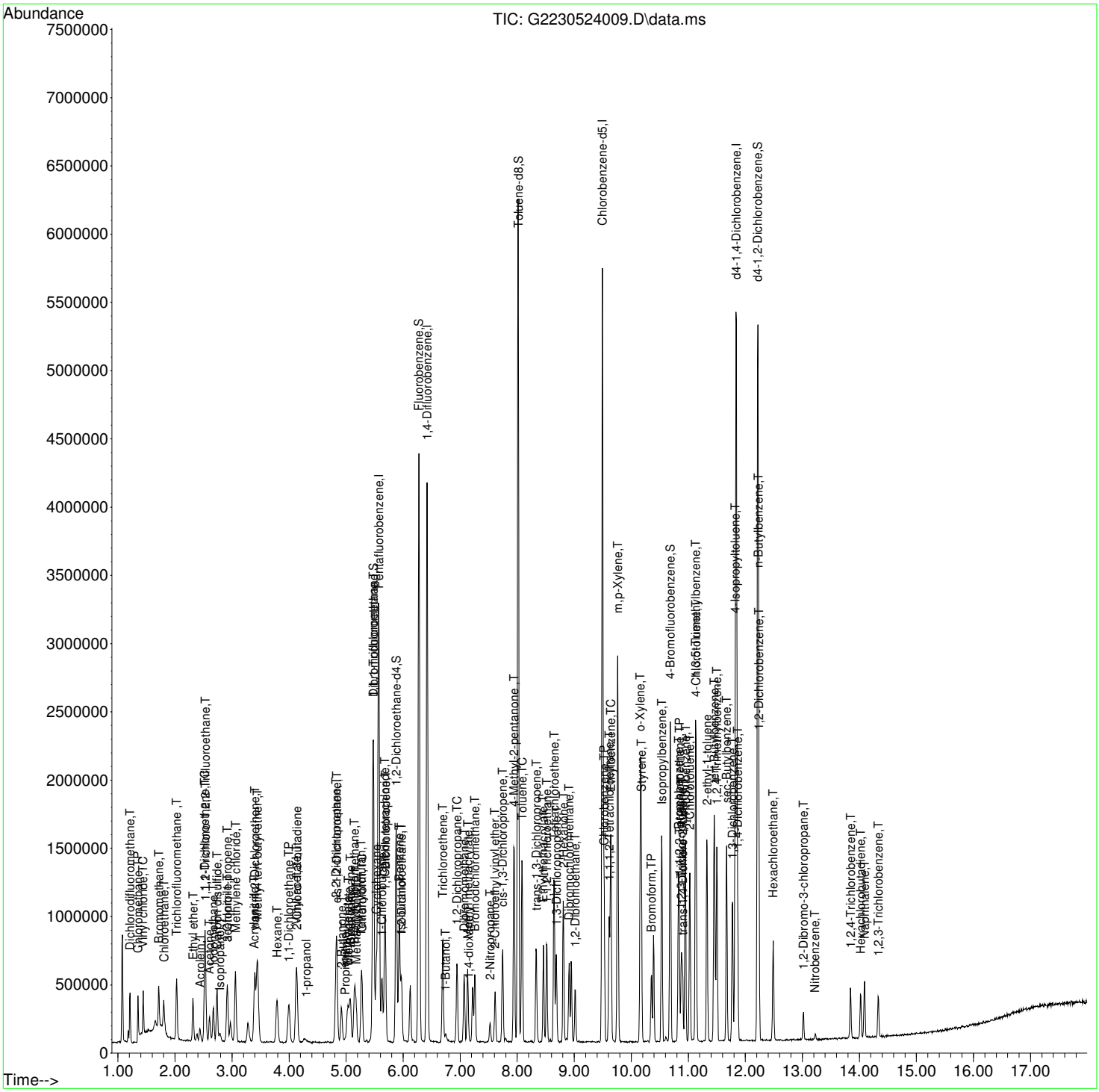
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
87) 2-Chlorotoluene	11.027	91	6494461	4.71 ug/L	97
88) 4-Chlorotoluene	11.138	91	7350221	4.66 ug/L	95
89) 1,3,5-Trimethylbenzene	11.130	105	7444468	4.67 ug/L	96
90) 2-ethyl-1-toluene	11.329	105	9219157	4.78 ug/L	98
91) tert-Butylbenzene	11.455	119	7700577	4.63 ug/L	94
92) 1,2,4-Trimethylbenzene	11.503	105	7573749	4.81 ug/L	93
93) sec-Butylbenzene	11.674	105	9299333	4.77 ug/L	98
94) 1,3-Dichlorobenzene	11.776	146	4456222	4.70 ug/L	99
95) 4-Isopropyltoluene	11.823	119	7759404	4.78 ug/L	98
96) 1,4-Dichlorobenzene	11.866	146	4354684	4.73 ug/L	99
98) 1,2-Dichlorobenzene	12.238	146	4077944	4.78 ug/L	99
99) n-Butylbenzene	12.232	91	5803932	4.80 ug/L	94
100) Hexachloroethane	12.491	201	1394747	4.61 ug/L	99
101) 1,2-Dibromo-3-chloropr...	13.021	157	637597	4.84 ug/L	99
102) Nitrobenzene	13.220	77	189006m	4.66 ug/L	
103) 1,2,4-Trichlorobenzene	13.848	180	1181297	4.61 ug/L	95
104) Hexachlorobutadiene	14.025	225	607417	4.55 ug/L	94
105) Naphthalene	14.091	128	3379626	4.81 ug/L	99
106) 1,2,3-Trichlorobenzene	14.334	180	947776	4.67 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342473

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

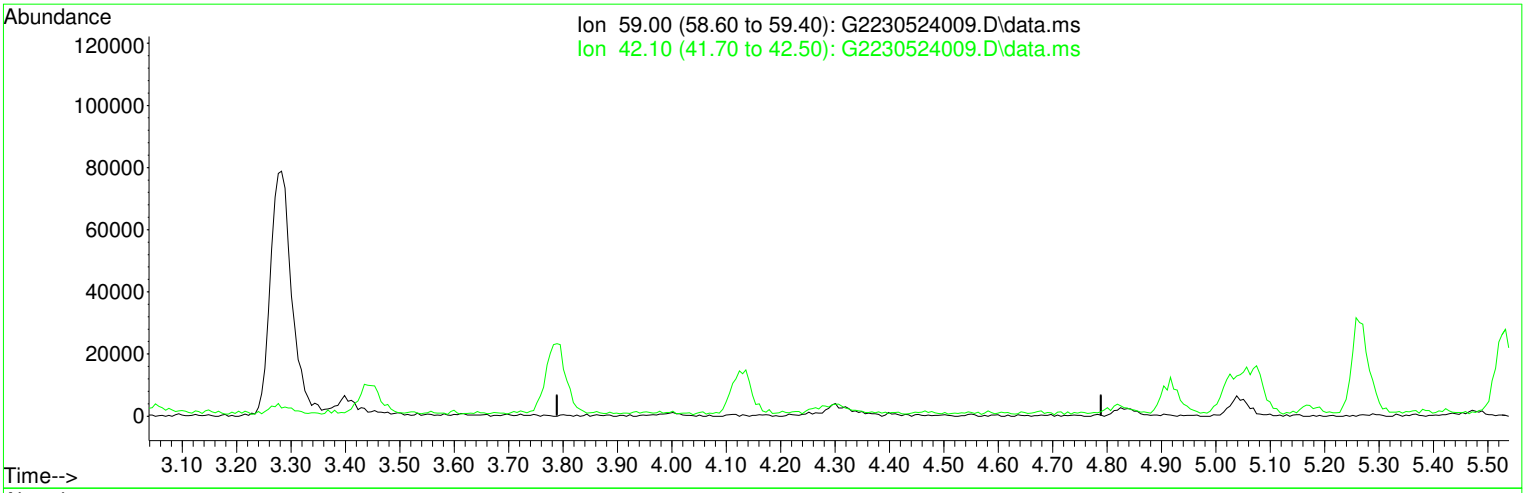
Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G

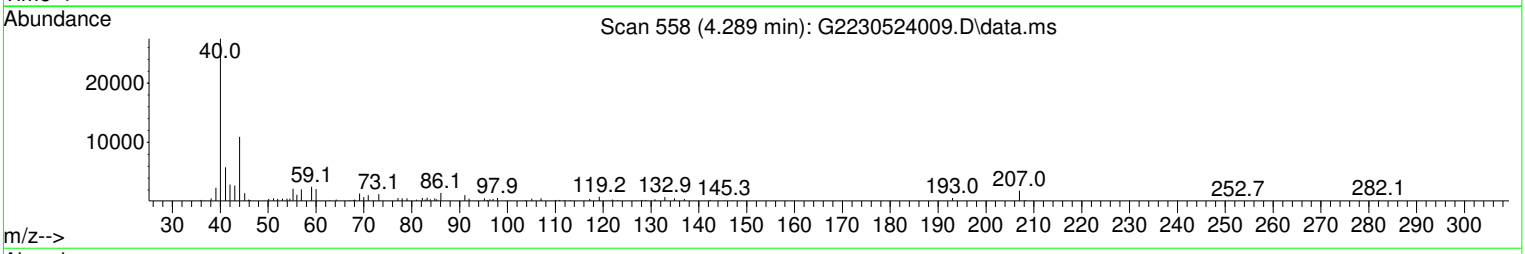


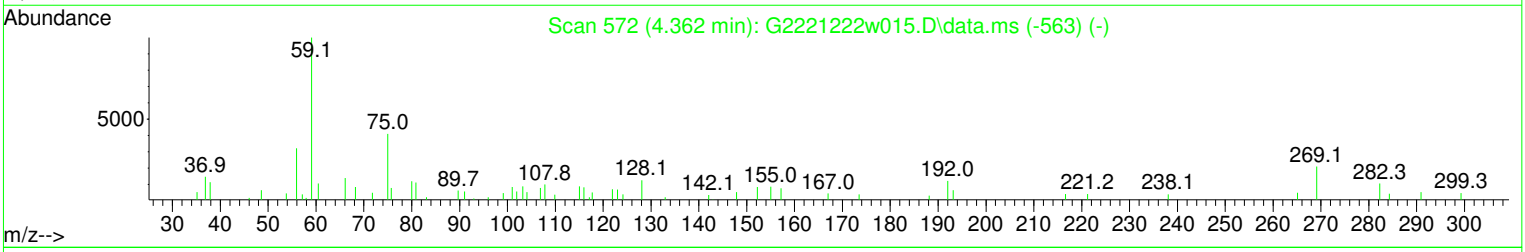
01342474

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524009.D\data.ms

(26) 1-propanol

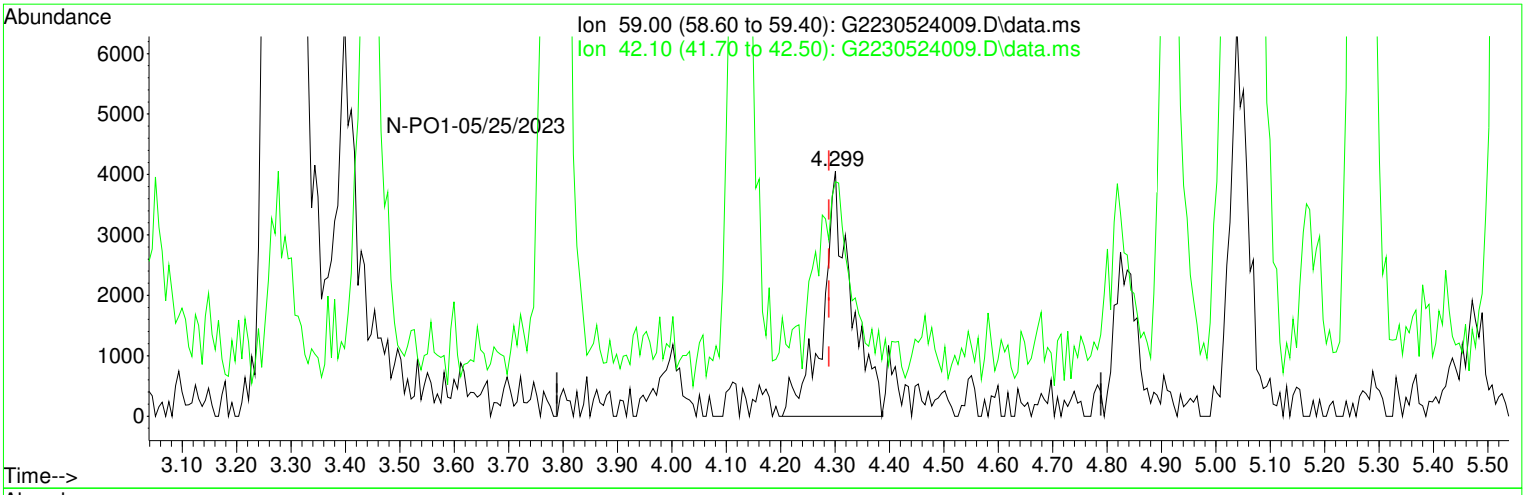
4.289min (-4.289) 0.00 ug/L

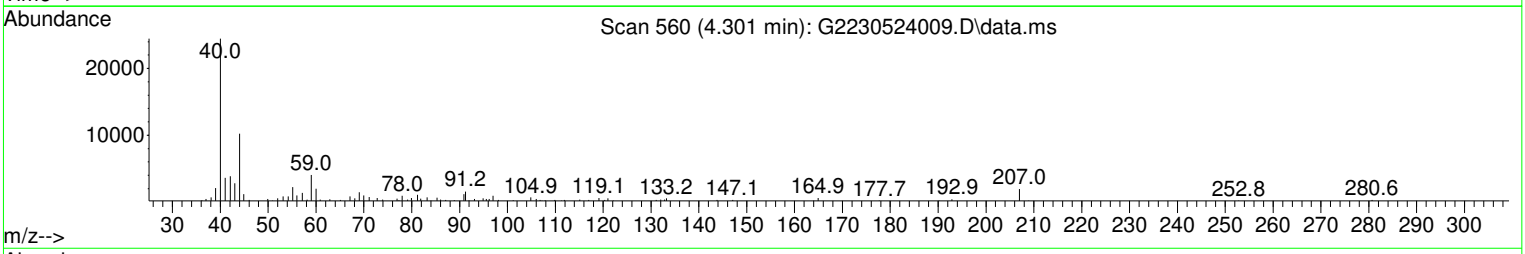
response 0

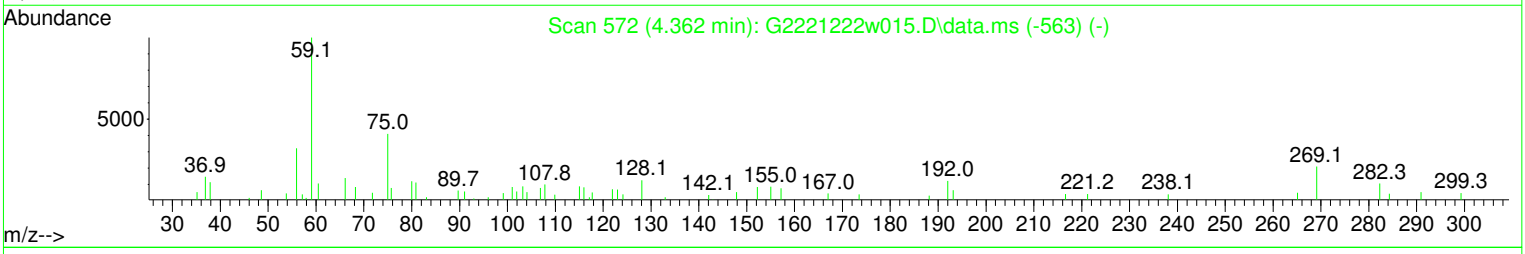
Ion	Exp%	Act%
59.00	100.00	0.00
42.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524009.D\data.ms

(26) 1-propanol

4.301min (+ 0.012) 56.27 ug/L m

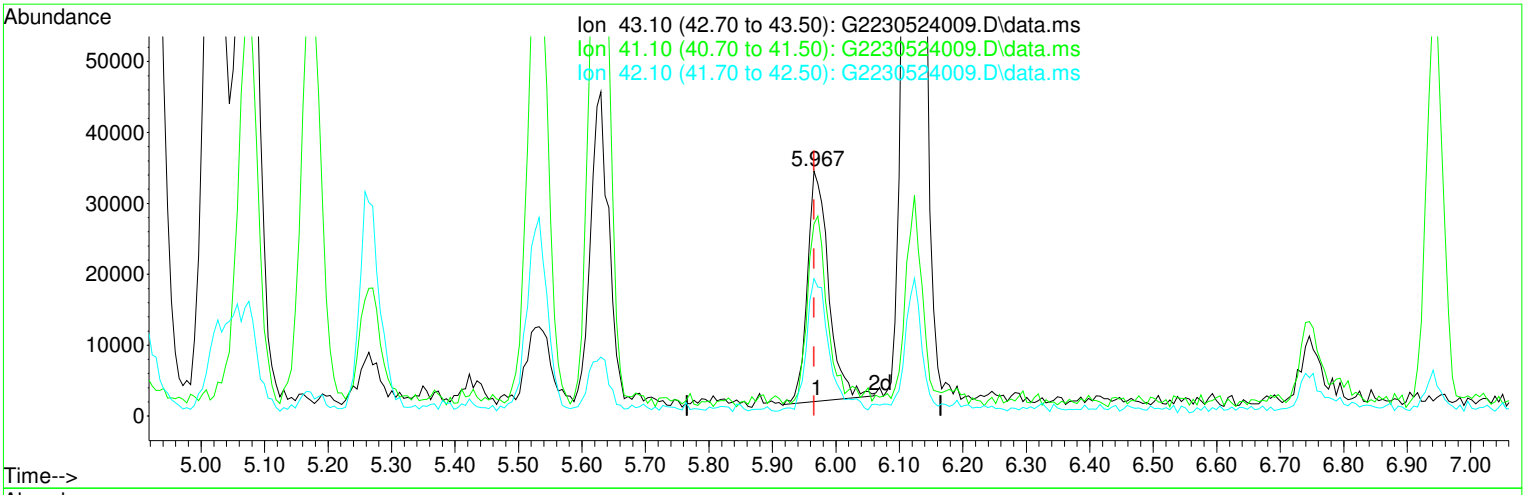
response 149369

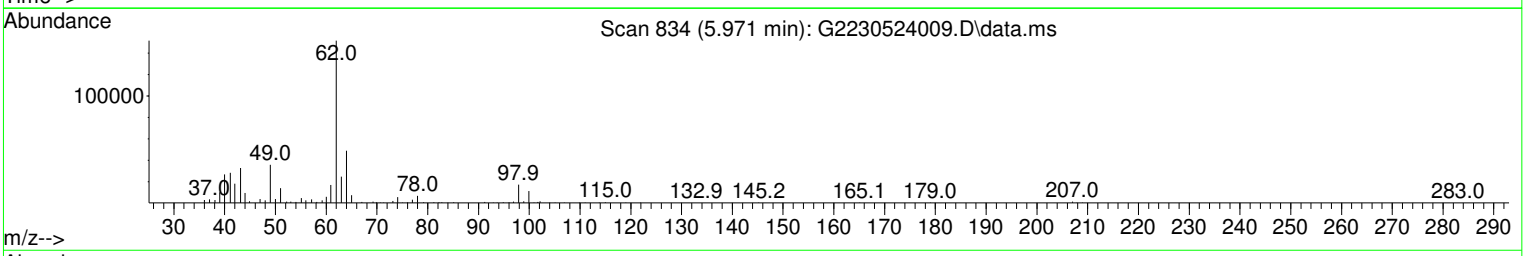
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

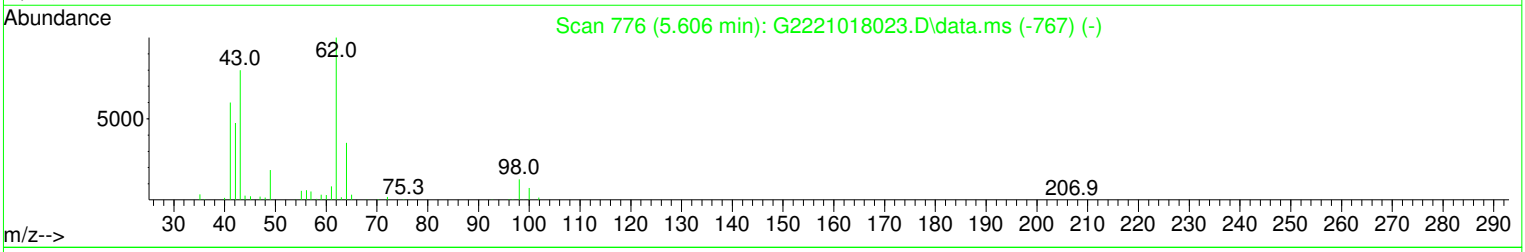
01342476

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524009.D\data.ms

(45) Isobutanol

5.970min (+ 0.005) 46.37 ug/L

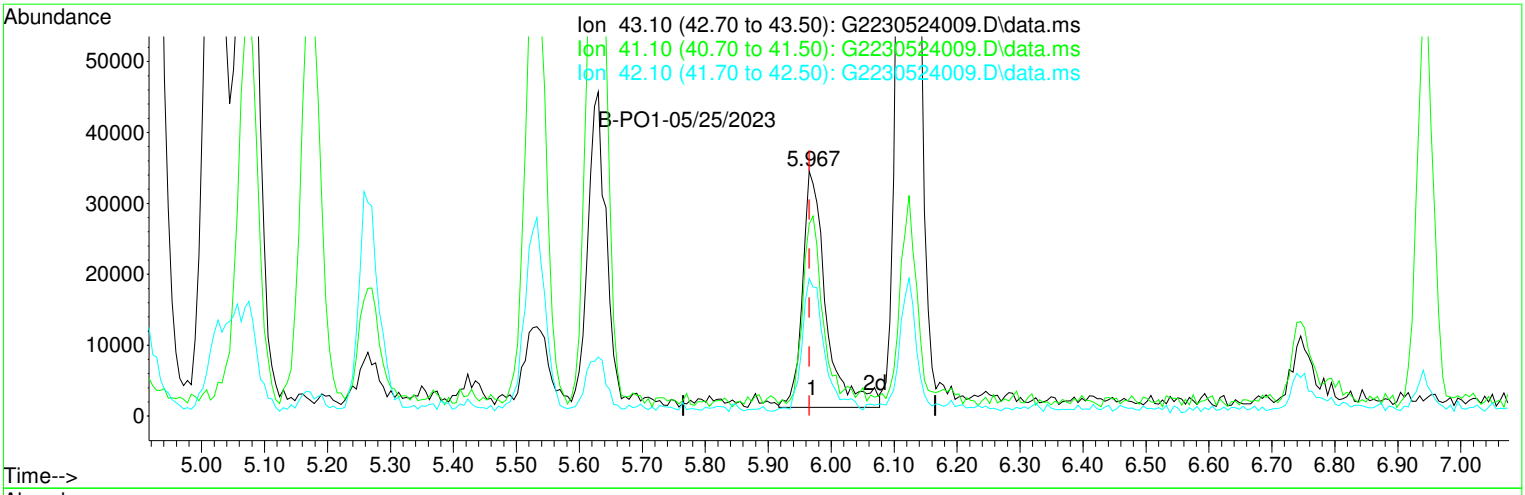
response 748551

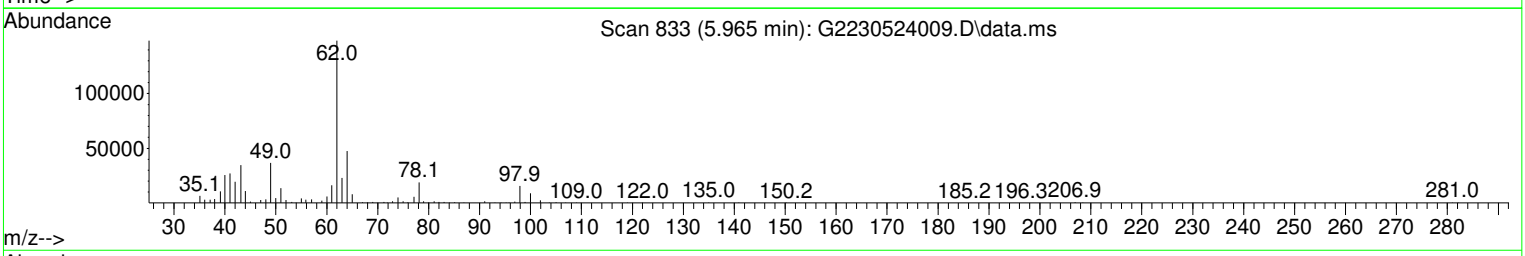
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	71.20
42.10	58.40	60.14
0.00	0.00	0.00

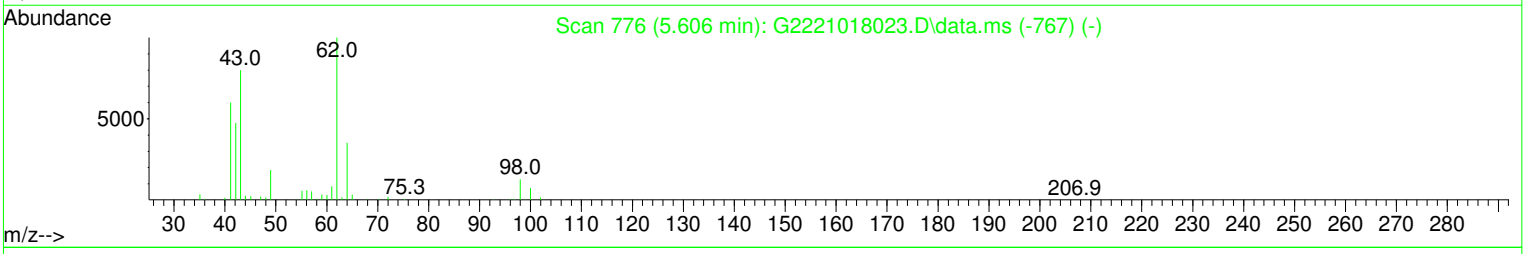
01342477

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524009.D\data.ms

(45) Isobutanol

5.965min (-0.000) 53.33 ug/L m

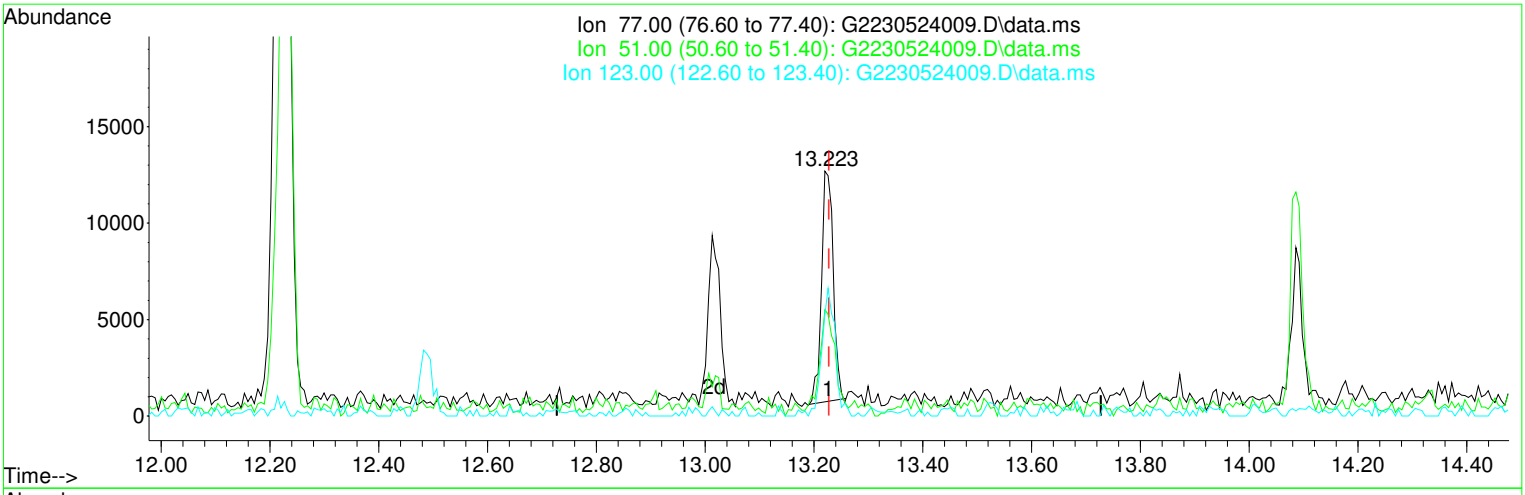
response 860786

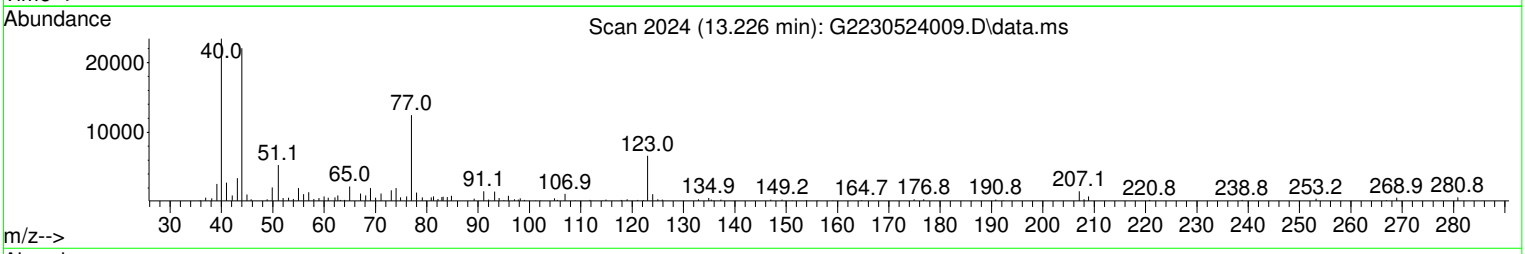
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	61.92
42.10	58.40	52.30
0.00	0.00	0.00

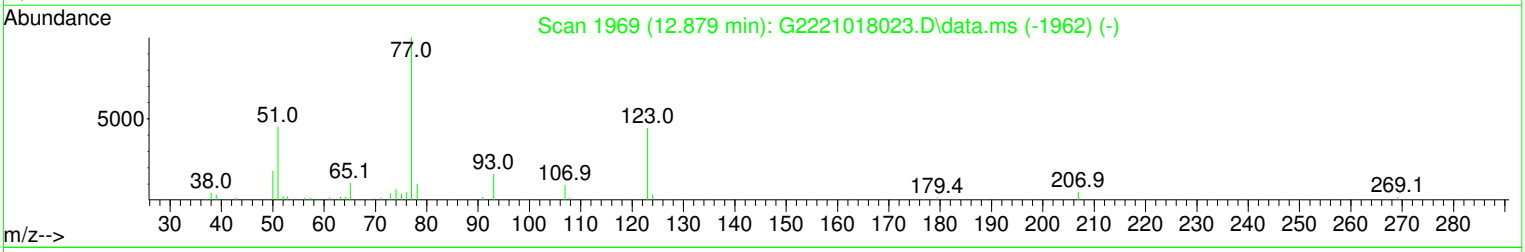
01342478

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524009.D\data.ms

(102) Nitrobenzene (T)

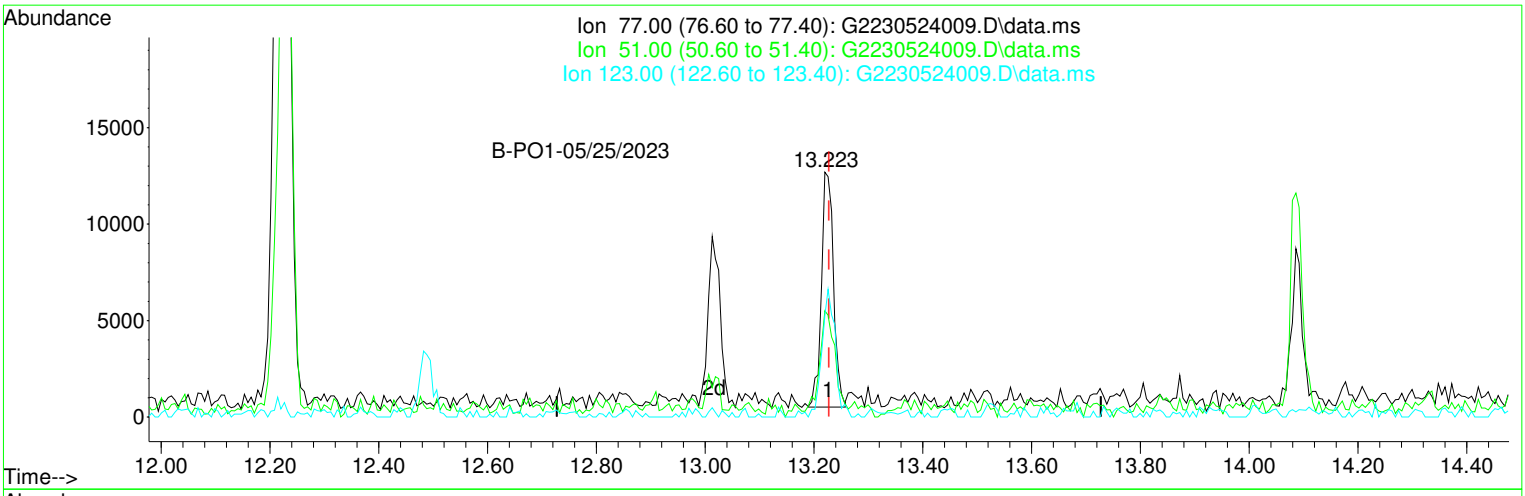
13.227min (-0.001) 4.39 ug/L

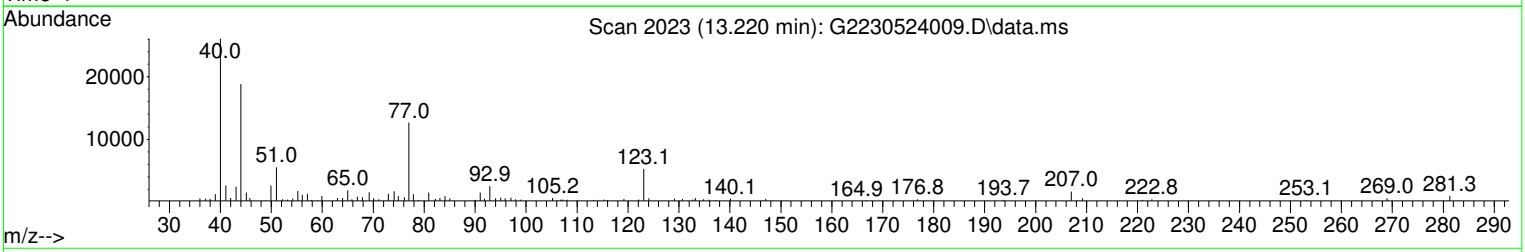
response 177890

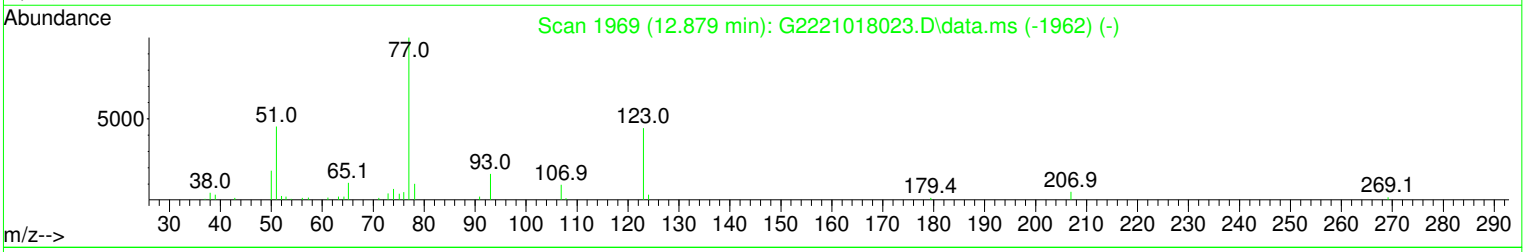
Ion	Exp%	Act%
77.00	100.00	100.00
51.00	43.20	53.12
123.00	45.20	65.28
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524009.D
Acq On : 24 May 2023 18:46
Operator : PO1
Sample : SEQ-CAL5@@5
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 25 08:42:23 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:42:12 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524009.D\data.ms

(102) Nitrobenzene (T)

13.220min (-0.008) 4.66 ug/L m

response 189006

Ion	Exp%	Act%
77.00	100.00	100.00
51.00	43.20	49.99
123.00	45.20	61.44
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.574	168	25615003	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.422	114	36521938	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.496	117	32178409	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.843	152	15250588	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.477	111	11489772	20.19	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.95%			
43) 1,2-Dichloroethane-d4	5.880	65	11358109	20.20	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.00%			
49) Fluorobenzene	6.279	96	41760080	20.02	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.10%			
64) Toluene-d8	8.018	98	40421678	19.95	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.75%			
81) 4-Bromofluorobenzene	10.687	174	7127577	9.72	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.20%			
97) d4-1,2-Dichlorobenzene	12.219	152	13239775	20.16	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.80%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.213	85	4563129	9.05	ug/L	99
3) Chloromethane	1.354	50	3984760	9.18	ug/L	100
4) Vinyl chloride	1.445	62	4566255	9.27	ug/L	100
5) Bromomethane	1.716	94	2756036	8.63	ug/L	99
6) Chloroethane	1.804	64	2804297	9.39	ug/L	96
7) Trichlorofluoromethane	2.029	101	6897174	9.09	ug/L	97
8) Ethyl ether	2.317	59	3403105	9.60	ug/L	88
9) Acrolein	2.438	56	1778755	25.61	ug/L	95
10) 1,1-Dichloroethene	2.523	61	5365879	9.46	ug/L	90
11) 1,1,2-Trichloro-1,2,2-...	2.533	101	3811975	9.23	ug/L	97
12) Acetone	2.609	43	4346348	34.77	ug/L	93
13) Iodomethane	2.675	142	5931522	9.19	ug/L	94
14) Carbon disulfide	2.738	76	11130886	9.45	ug/L	99
15) Isopropanol	2.793	45	2105323	103.74	ug/L	99
16) acetonitrile	2.918	41	5944352	23.88	ug/L	88
17) 3-Chloro-1-propene	2.920	76	2560192	9.73	ug/L	98
18) Methylene chloride	3.062	49	5267565	11.18	ug/L	84
19) Acrylonitrile	3.391	53	1922386	9.93	ug/L	95
20) trans-1,2-Dichloroethene	3.402	61	5188455	9.54	ug/L	91
21) Methyl tert-butyl ether	3.447	73	15828696	10.22	ug/L	93
22) Hexane	3.790	57	4048928	9.14	ug/L	95
23) 1,1-Dichloroethane	3.996	63	7171441	9.65	ug/L	99
24) Vinyl acetate	4.130	43	8672636	10.18	ug/L	94
25) 2-Chloro-1,3-butadiene	4.133	53	5300464	9.15	ug/L	86
26) 1-propanol	4.295	59	260036m	96.97	ug/L	
27) 2,2-Dichloropropane	4.827	77	6508314	9.64	ug/L	93
28) cis-1,2-Dichloroethene	4.835	61	6400394	9.58	ug/L	89
29) 2-Butanone	4.920	72	2306470	34.74	ug/L	92

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) Propionitrile	4.988	54	629911	9.85	ug/L		97
31) Ethyl acetate	5.023	61	790765	9.95	ug/L		87
32) Methylacrylate	5.045	55	4756136	9.76	ug/L		92
33) 1-Bromopropane	5.076	41	2601940	9.54	ug/L		78
34) Bromochloromethane	5.149	130	3567501	9.56	ug/L		99
35) Methacrylonitrile	5.176	67	2389985	9.81	ug/L		92
36) Tetrahydrofuran	5.264	42	1424493	10.16	ug/L		87
37) Chloroform	5.276	83	8012602	9.56	ug/L		100
39) 1,1,1-Trichloroethane	5.479	97	7163346	9.38	ug/L		96
40) Cyclohexane	5.534	84	6730519	9.73	ug/L		85
41) 1-Chlorobutane	5.630	56	7585757	9.46	ug/L		97
42) 1,1-Dichloropropene	5.688	75	5742533	9.45	ug/L		95
44) 1,2-Dichloroethane	5.971	62	6059128	9.83	ug/L		99
45) Isobutanol	5.972	43	1584725	97.24	ug/L		97
47) Carbon tetrachloride	5.680	117	6295274	9.41	ug/L		99
48) Benzene	5.935	78	17338807	9.66	ug/L		100
50) Trichloroethene	6.696	95	4698780	9.37	ug/L		93
51) 1-Butanol	6.746	56	1252954m	110.46	ug/L		
52) 1,2-Dichloropropane	6.945	63	4180130	9.75	ug/L		92
53) Dibromomethane	7.072	174	4185707	9.74	ug/L	#	93
54) Methyl methacrylate	7.132	69	4029243	9.71	ug/L		91
55) 1,4-dioxane	7.142	88	442237m	107.29	ug/L		
56) Bromodichloromethane	7.259	83	6338301	9.54	ug/L		99
57) 2-Nitropropane	7.525	43	1938837	10.34	ug/L		92
58) 2-Chloroethyl vinyl ether	7.614	63	3255529	9.53	ug/L		98
59) cis-1,3-Dichloropropene	7.745	75	7720210	9.69	ug/L		96
60) 4-Methyl-2-pentanone	7.945	43	18041266	35.24	ug/L	#	91
61) trans-1,3-Dichloropropene	8.335	75	7256112	9.61	ug/L		92
62) 1,1,2-Trichloroethane	8.519	97	4571516	9.69	ug/L		96
65) Toluene	8.086	91	19593138	9.70	ug/L		98
66) Ethylmethacrylate	8.462	69	7082788	9.74	ug/L		91
67) Tetrachloroethene	8.648	166	5954754	7.77	ug/L		95
68) 1,3-Dichloropropane	8.688	76	7554396	9.79	ug/L		89
69) 2-Hexanone	8.810	43	11593459	35.07	ug/L		90
70) Dibromochloromethane	8.912	129	5900697	9.68	ug/L		98
71) 1,2-Dibromoethane	9.019	107	5084589	9.66	ug/L		98
72) Chlorobenzene	9.524	112	13361069	9.72	ug/L		95
73) 1,1,1,2-Tetrachloroethane	9.614	131	5289550	9.76	ug/L		98
74) Ethylbenzene	9.644	91	21324964	9.65	ug/L		96
75) m,p-Xylene	9.764	91	32767672	19.61	ug/L		96
76) Styrene	10.177	104	14326988	9.73	ug/L		95
77) Bromoform	10.355	173	4873725	9.90	ug/L		98
79) o-Xylene	10.162	91	17288012	9.22	ug/L		97
80) Isopropylbenzene	10.537	105	20106332	9.21	ug/L		97
82) Bromobenzene	10.828	77	7614767	9.29	ug/L		89
83) 1,1,2,2-Tetrachloroethane	10.843	83	6243693	9.58	ug/L		100
84) 1,2,3-Trichloropropane	10.882	110	2217201	9.56	ug/L		97
85) trans-1,4-Dichloro-2-b...	10.903	53	1640348	9.49	ug/L		72
86) n-Propylbenzene	10.949	91	22606369	9.35	ug/L		97

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G

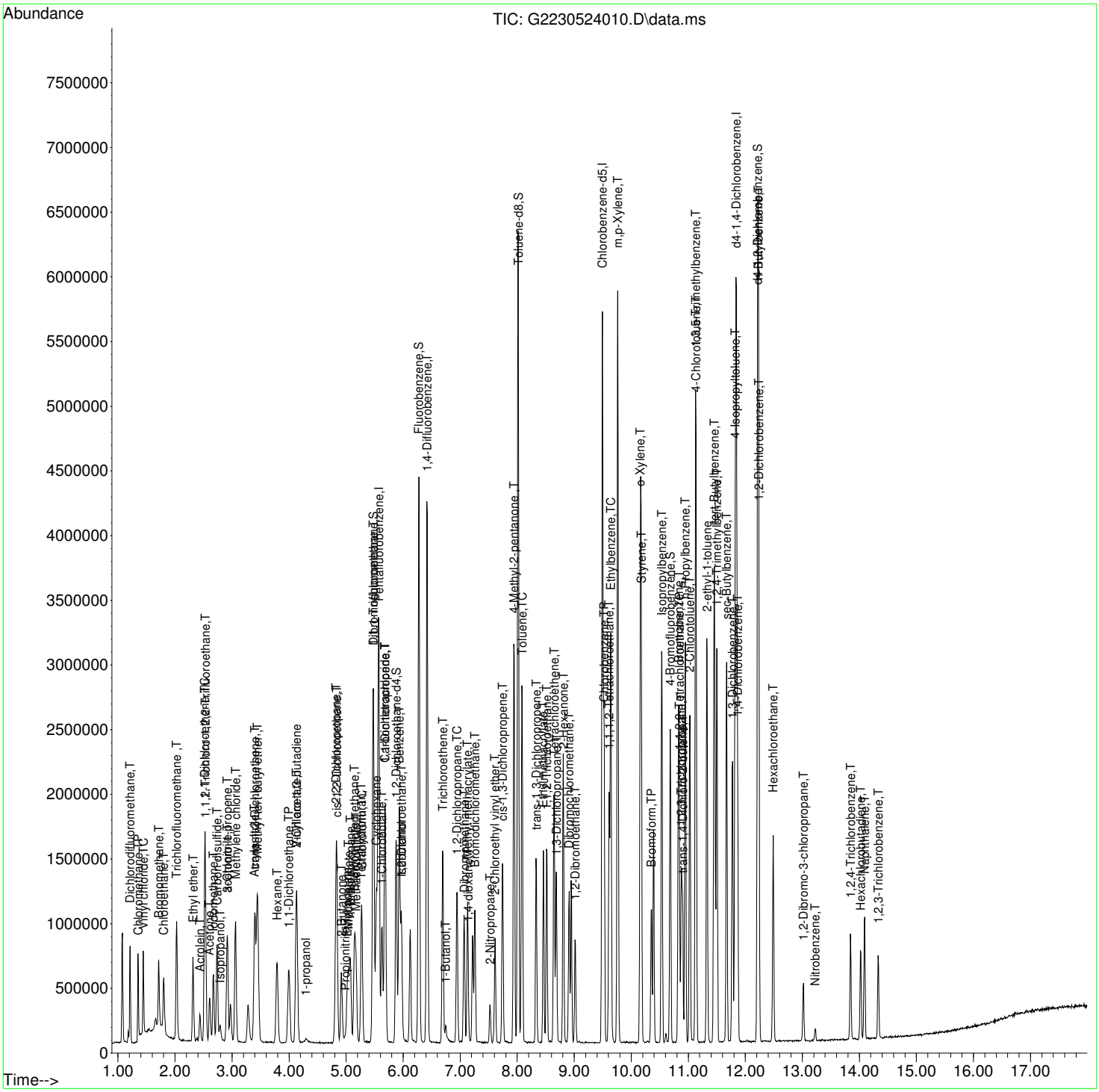
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) 2-Chlorotoluene	11.028	91	13663214	9.37	ug/L	97
88) 4-Chlorotoluene	11.138	91	15670732	9.41	ug/L	96
89) 1,3,5-Trimethylbenzene	11.130	105	15991656	9.53	ug/L	96
90) 2-ethyl-1-toluene	11.329	105	19335893	9.51	ug/L	98
91) tert-Butylbenzene	11.456	119	17141991	9.85	ug/L	91
92) 1,2,4-Trimethylbenzene	11.503	105	15917670	9.62	ug/L	93
93) sec-Butylbenzene	11.674	105	19400432	9.43	ug/L	97
94) 1,3-Dichlorobenzene	11.776	146	9601016	9.63	ug/L	98
95) 4-Isopropyltoluene	11.823	119	16533905	9.70	ug/L	99
96) 1,4-Dichlorobenzene	11.866	146	9314630	9.64	ug/L	99
98) 1,2-Dichlorobenzene	12.238	146	8692223	9.70	ug/L	99
99) n-Butylbenzene	12.232	91	12464677	9.85	ug/L	95
100) Hexachloroethane	12.492	201	3030468	9.52	ug/L	98
101) 1,2-Dibromo-3-chloropr...	13.020	157	1473586	10.91	ug/L	98
102) Nitrobenzene	13.228	77	452909	10.90	ug/L	90
103) 1,2,4-Trichlorobenzene	13.847	180	2731087	10.28	ug/L	97
104) Hexachlorobutadiene	14.025	225	1396298	10.03	ug/L	95
105) Naphthalene	14.092	128	7447476	10.21	ug/L	99
106) 1,2,3-Trichlorobenzene	14.334	180	2065442	9.71	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342483

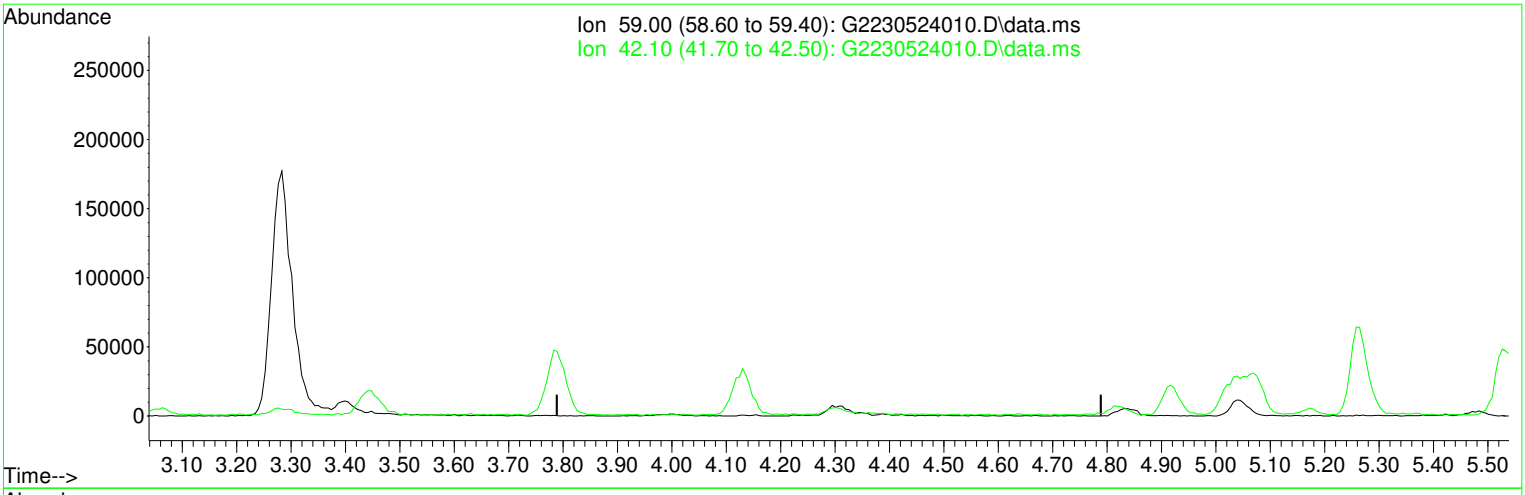
Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

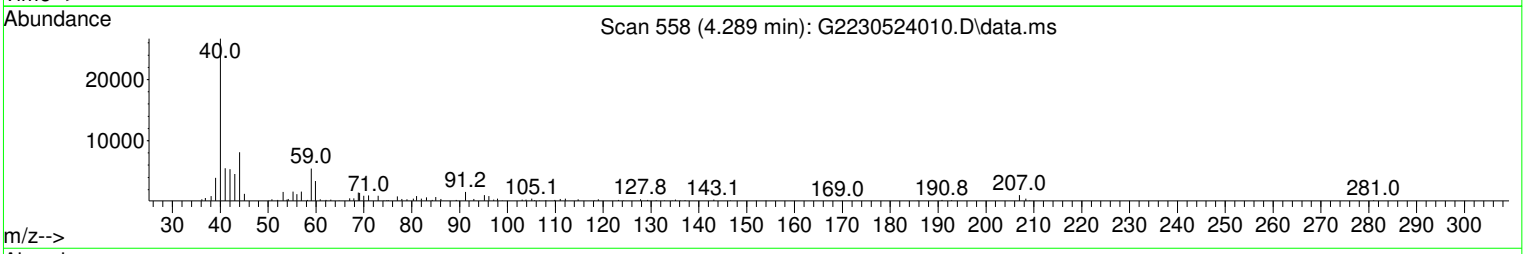
Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G

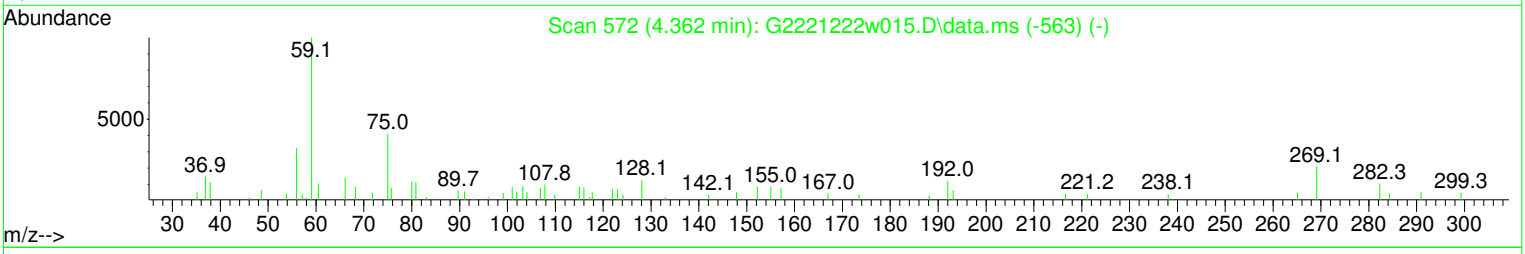


Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524010.D\data.ms

(26) 1-propanol

4.289min (-4.289) 0.00 ug/L

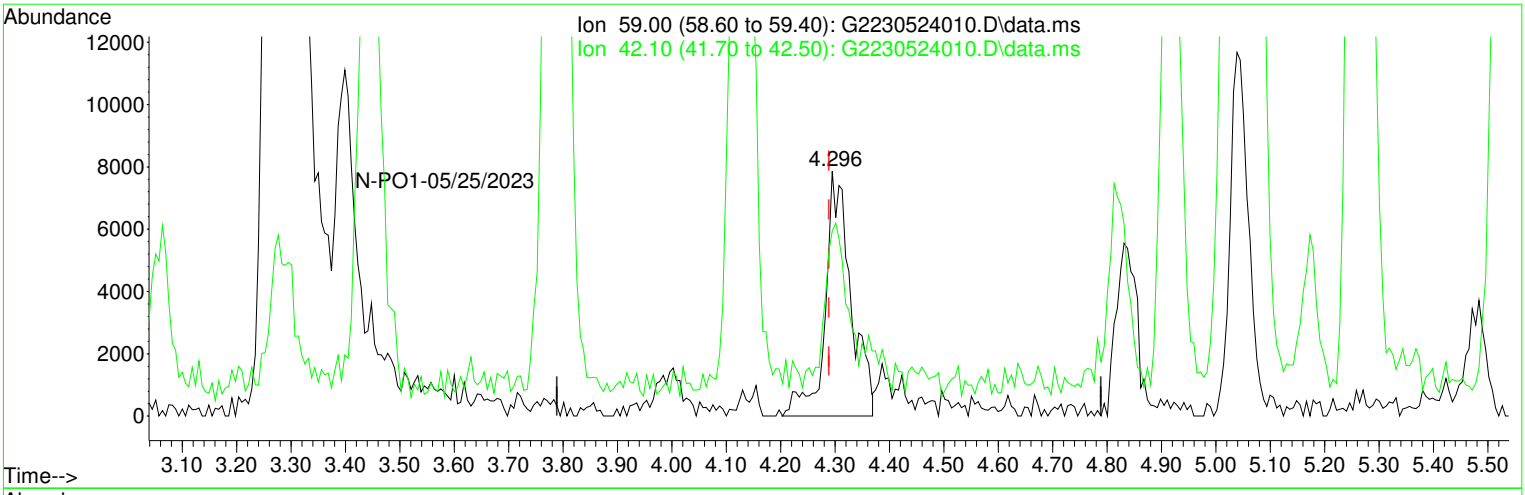
response 0

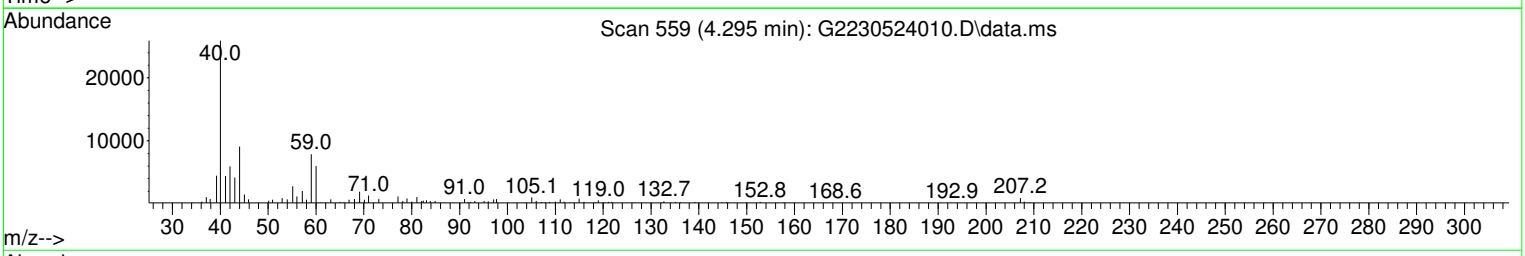
Ion	Exp%	Act%
59.00	100.00	0.00
42.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

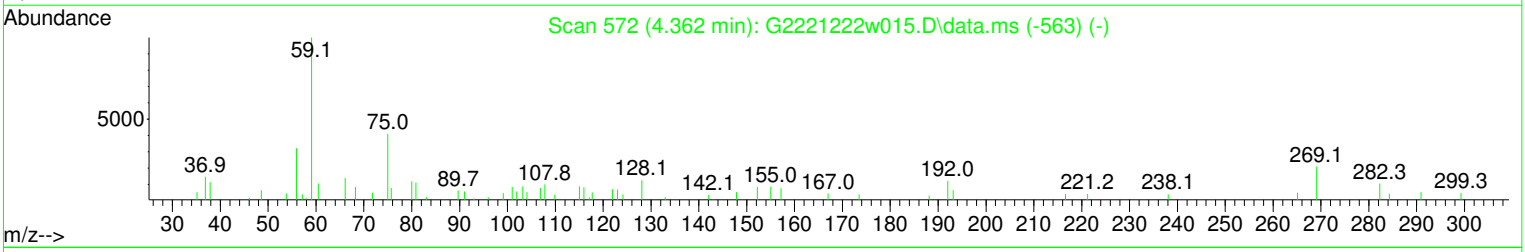
01342485

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524010.D\data.ms

(26) 1-propanol

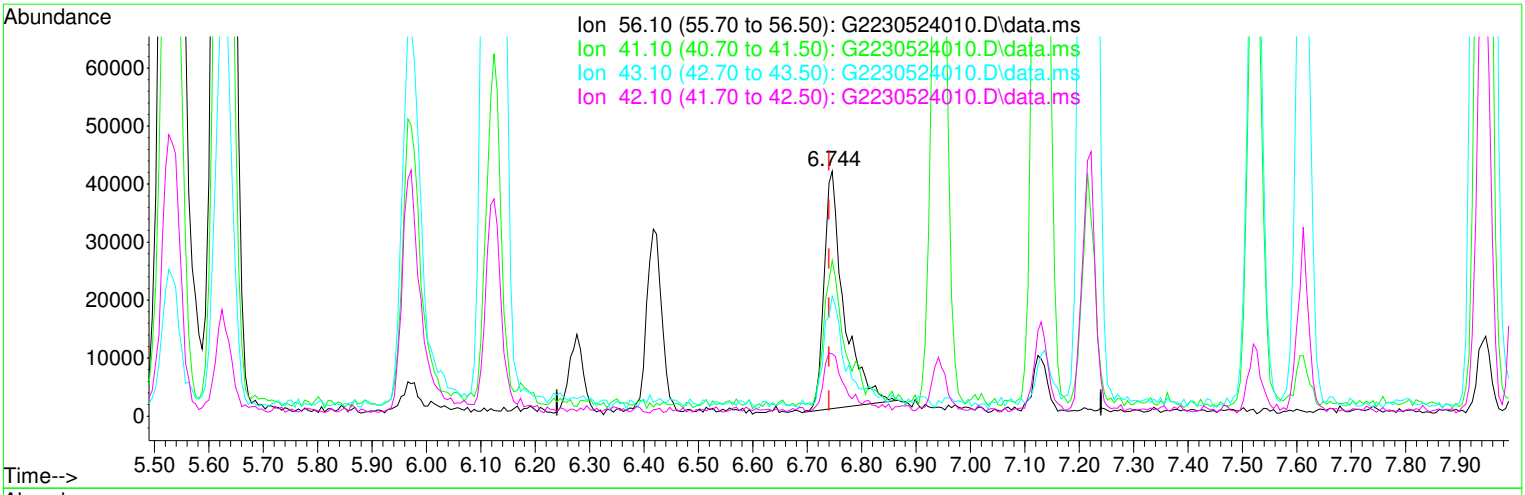
4.295min (+ 0.006) 96.97 ug/L m

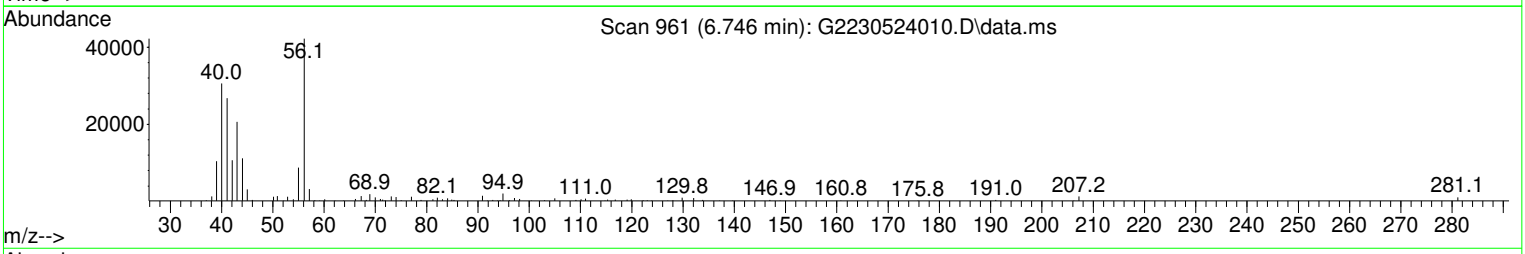
response 260036

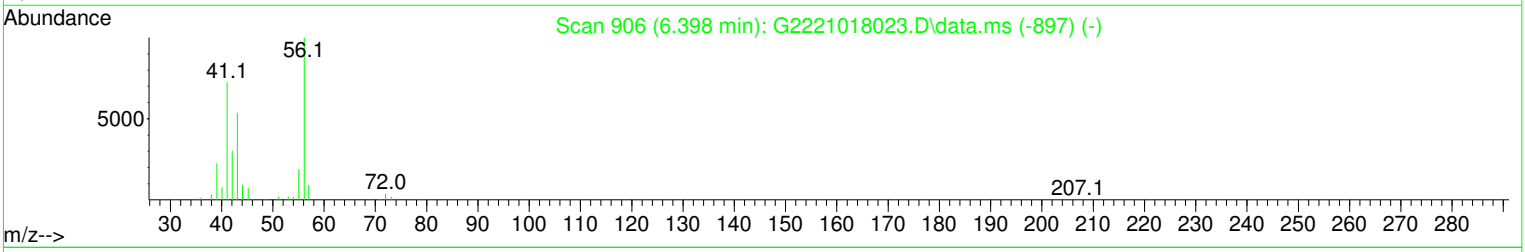
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524010.D\data.ms

(51) 1-Butanol (T)

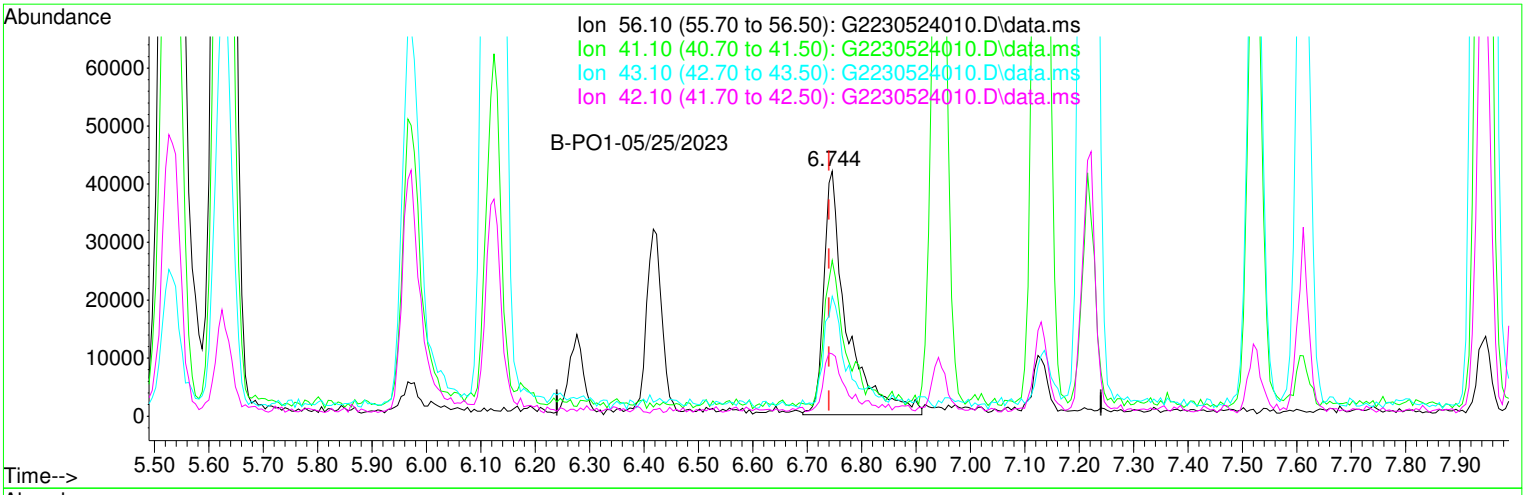
6.747min (+ 0.007) 91.42 ug/L

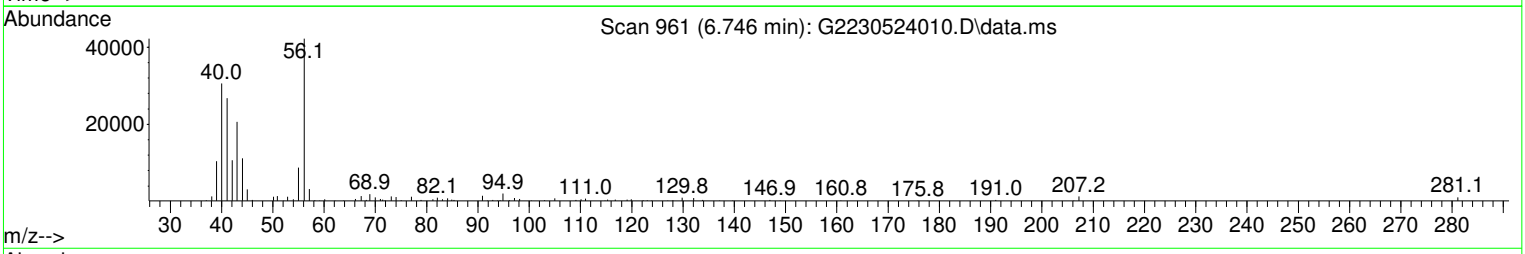
response 1036990

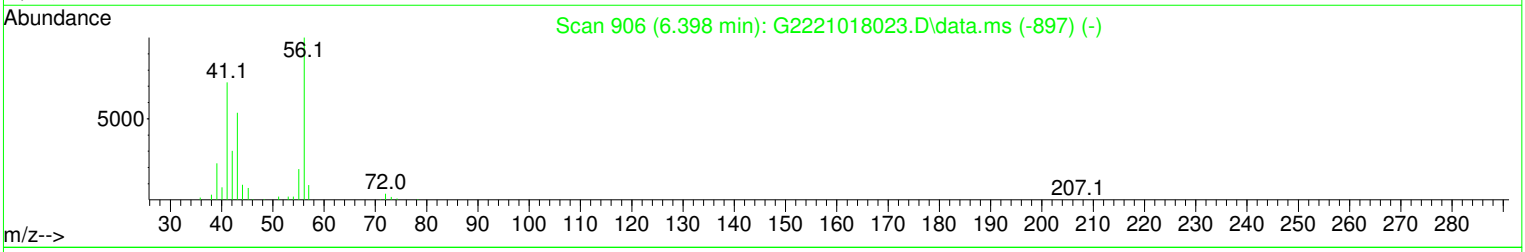
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	65.49
43.10	53.20	46.29
42.10	27.70	28.08

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524010.D\data.ms

(51) 1-Butanol (T)

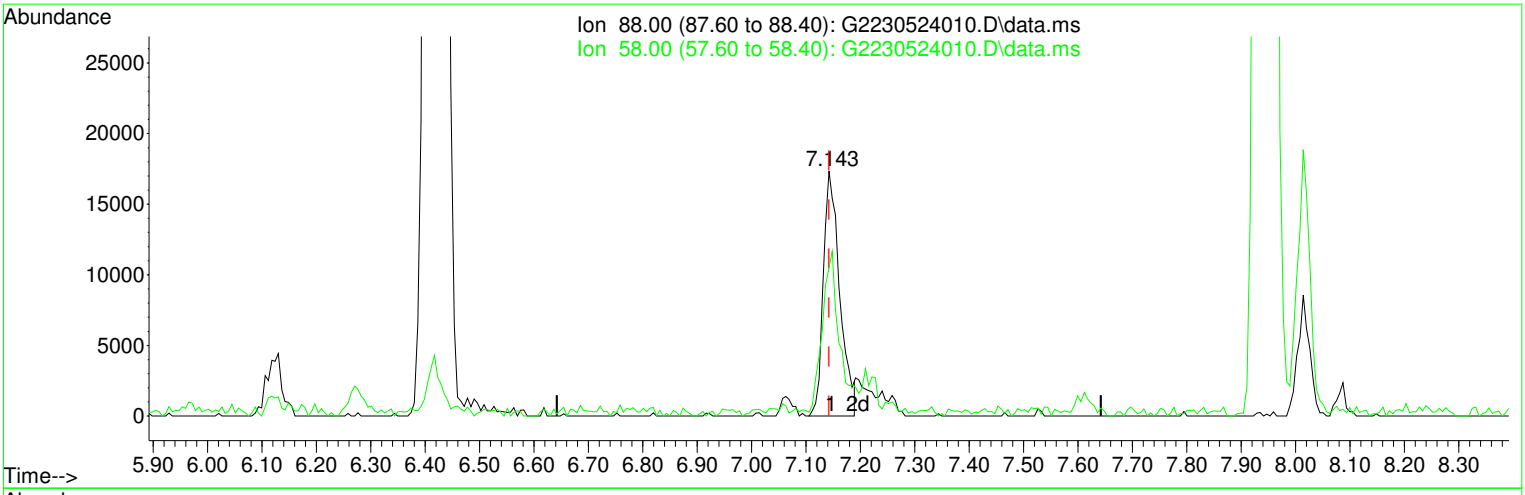
6.746min (+ 0.006) 110.46 ug/L m

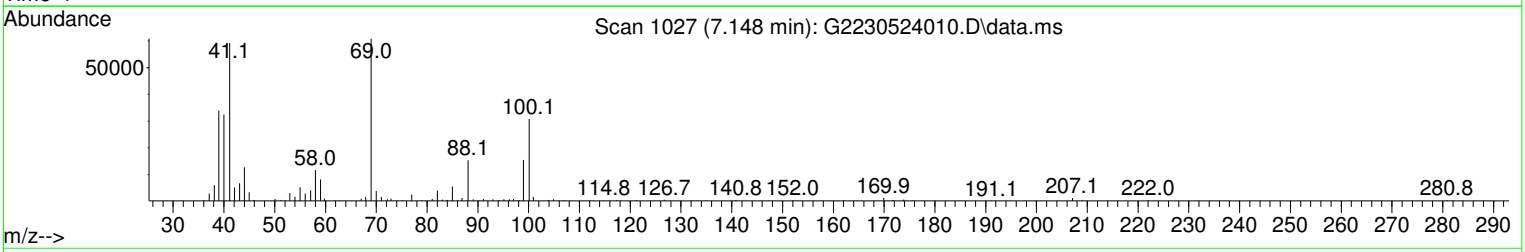
response 1252954

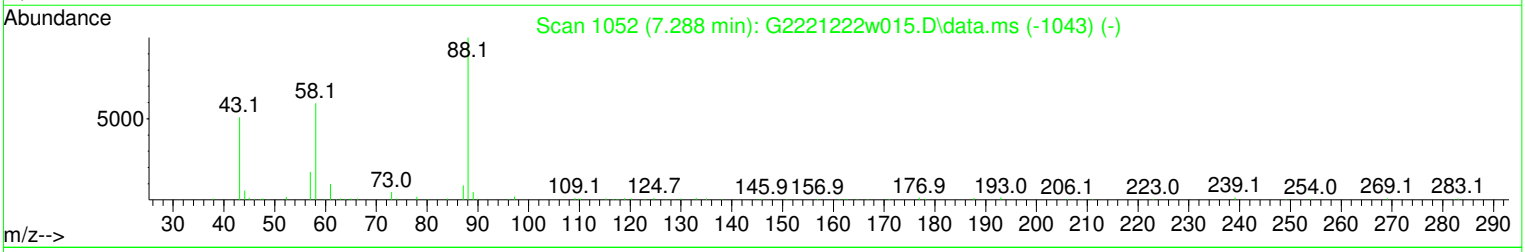
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	54.20
43.10	53.20	38.31
42.10	27.70	23.24

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524010.D\data.ms

(55) 1,4-dioxane (T)

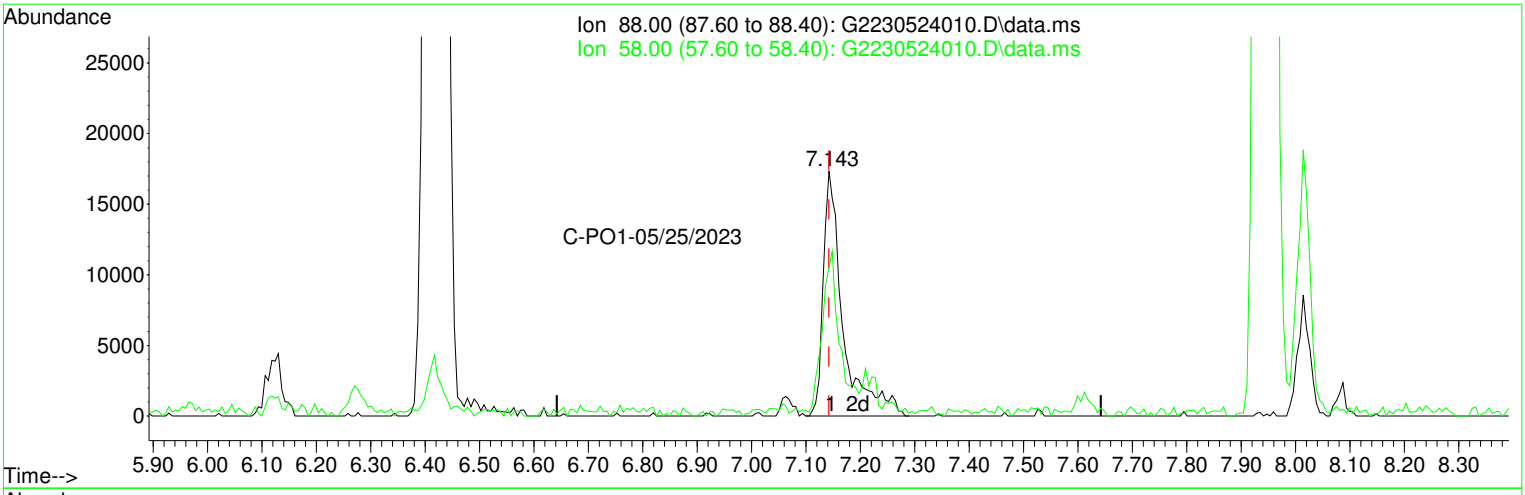
7.146min (+ 0.004) 86.70 ug/L

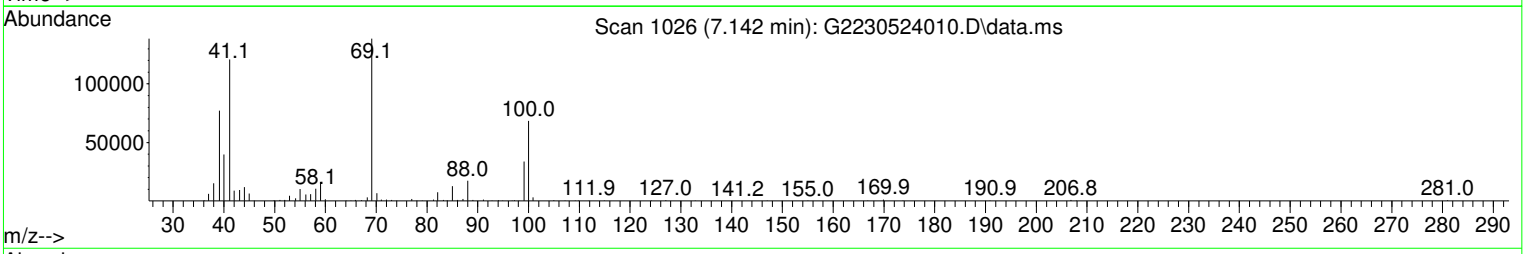
response 357357

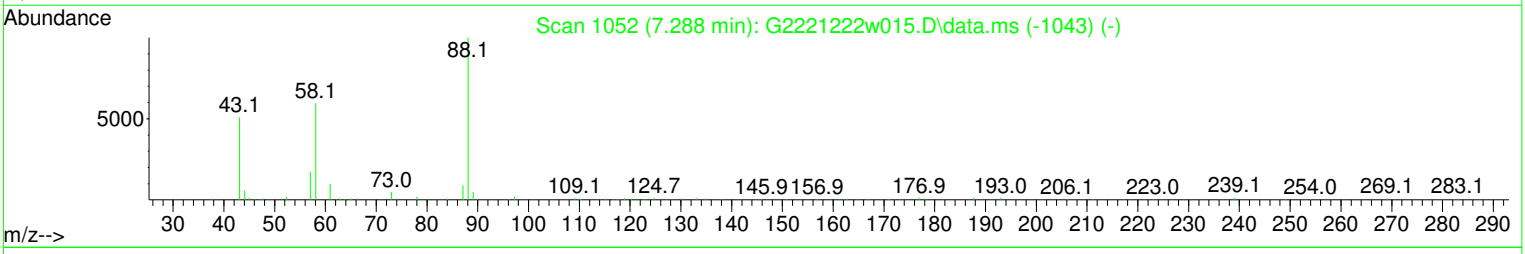
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	69.59
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524010.D
Acq On : 24 May 2023 19:10
Operator : PO1
Sample : SEQ-CAL6@@10
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 25 08:39:33 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:39:23 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524010.D\data.ms

(55) 1,4-dioxane (T)

7.142min (-0.000) 107.29 ug/L m

response 442237

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	56.23
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524011.D
Acq On : 24 May 2023 19:34
Operator : PO1
Sample : SEQ-CAL7@@15
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 25 08:37:30 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:37:18 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.574	168	24016620	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.422	114	34367799	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	30113354	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.843	152	14114439	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.478	111	10668318	20.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.00%			
43) 1,2-Dichloroethane-d4	5.880	65	10619346	20.19	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.95%			
49) Fluorobenzene	6.279	96	39342143	20.06	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.30%			
64) Toluene-d8	8.017	98	38257432	20.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.15%			
81) 4-Bromofluorobenzene	10.686	174	6564410	9.57	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.70%			
97) d4-1,2-Dichlorobenzene	12.219	152	12159757	20.01	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.05%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.215	85	7108362	15.05	ug/L	100
3) Chloromethane	1.356	50	6216017	15.36	ug/L	99
4) Vinyl chloride	1.447	62	6981755	15.16	ug/L	100
5) Bromomethane	1.717	94	4428951	14.72	ug/L	99
6) Chloroethane	1.806	64	4265906	15.31	ug/L	97
7) Trichlorofluoromethane	2.031	101	10600941	14.86	ug/L	99
8) Ethyl ether	2.320	59	4904890	14.68	ug/L	89
9) Acrolein	2.442	56	2480257	38.28	ug/L	98
10) 1,1-Dichloroethene	2.525	61	7889961	14.78	ug/L	91
11) 1,1,2-Trichloro-1,2,2-...	2.535	101	5755113	14.81	ug/L	97
12) Acetone	2.611	43	5976713	50.51	ug/L	93
13) Iodomethane	2.678	142	8870179	14.55	ug/L	94
14) Carbon disulfide	2.741	76	16241401	14.61	ug/L	100
15) Isopropanol	2.795	45	2920748	154.71	ug/L	98
16) acetonitrile	2.920	41	8661751	36.99	ug/L	86
17) 3-Chloro-1-propene	2.922	76	3632333	14.62	ug/L	98
18) Methylene chloride	3.064	49	7067263	16.36	ug/L	85
19) Acrylonitrile	3.393	53	2697926	14.83	ug/L	95
20) trans-1,2-Dichloroethene	3.404	61	7573828	14.81	ug/L	91
21) Methyl tert-butyl ether	3.449	73	22086408	15.29	ug/L	93
22) Hexane	3.793	57	6132175	14.68	ug/L	95
23) 1,1-Dichloroethane	4.000	63	10376045	14.85	ug/L	97
24) Vinyl acetate	4.132	43	12670552	16.18	ug/L	94
25) 2-Chloro-1,3-butadiene	4.135	53	8016137	14.67	ug/L	89
26) 1-propanol	4.301	59	403125m	164.10	ug/L	
27) 2,2-Dichloropropane	4.827	77	9458731	14.93	ug/L	94
28) cis-1,2-Dichloroethene	4.837	61	9433093	15.07	ug/L	91
29) 2-Butanone	4.920	72	3288641	52.94	ug/L	91

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524011.D
Acq On : 24 May 2023 19:34
Operator : PO1
Sample : SEQ-CAL7@@15
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 25 08:37:30 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:37:18 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) Propionitrile	4.988	54	936456	15.84	ug/L		95
31) Ethyl acetate	5.025	61	1114668	14.94	ug/L		91
32) Methylacrylate	5.048	55	6888369	15.11	ug/L		94
33) 1-Bromopropane	5.077	41	3816229	14.90	ug/L		77
34) Bromochloromethane	5.150	130	5237751	14.96	ug/L		99
35) Methacrylonitrile	5.178	67	3435032	15.04	ug/L		93
36) Tetrahydrofuran	5.265	42	2069986	16.01	ug/L		92
37) Chloroform	5.277	83	11610802	14.71	ug/L		100
39) 1,1,1-Trichloroethane	5.481	97	10624806	14.79	ug/L		97
40) Cyclohexane	5.534	84	9866512	15.29	ug/L		85
41) 1-Chlorobutane	5.631	56	11063734	14.63	ug/L		98
42) 1,1-Dichloropropene	5.689	75	8388503	14.63	ug/L		95
44) 1,2-Dichloroethane	5.972	62	8600815	14.83	ug/L		99
45) Isobutanol	5.974	43	2256146	146.88	ug/L		99
47) Carbon tetrachloride	5.680	117	9203121	14.49	ug/L		98
48) Benzene	5.936	78	24872252	14.64	ug/L		99
50) Trichloroethene	6.696	95	6895974	14.49	ug/L		93
51) 1-Butanol	6.746	56	1678247m	159.79	ug/L		
52) 1,2-Dichloropropane	6.946	63	6037951	14.96	ug/L		91
53) Dibromomethane	7.072	174	6074575	15.04	ug/L	#	93
54) Methyl methacrylate	7.133	69	5822696	14.87	ug/L		92
55) 1,4-dioxane	7.148	88	602877	157.32	ug/L		91
56) Bromodichloromethane	7.260	83	9195280	14.62	ug/L		98
57) 2-Nitropropane	7.526	43	2663661	15.12	ug/L		92
58) 2-Chloroethyl vinyl ether	7.614	63	4896407	15.31	ug/L		100
59) cis-1,3-Dichloropropene	7.746	75	11185637	14.89	ug/L		96
60) 4-Methyl-2-pentanone	7.945	43	25433666	52.90	ug/L	#	91
61) trans-1,3-Dichloropropene	8.334	75	10671807	15.03	ug/L		92
62) 1,1,2-Trichloroethane	8.519	97	6611738	14.86	ug/L		96
65) Toluene	8.086	91	28127118	14.84	ug/L		98
66) Ethylmethacrylate	8.461	69	10171987	14.93	ug/L		91
67) Tetrachloroethene	8.648	166	8620449	11.26	ug/L		96
68) 1,3-Dichloropropane	8.687	76	10794326	14.94	ug/L		91
69) 2-Hexanone	8.810	43	16289070	52.71	ug/L		90
70) Dibromochloromethane	8.912	129	8452010	14.75	ug/L		99
71) 1,2-Dibromoethane	9.019	107	7334382	14.85	ug/L		98
72) Chlorobenzene	9.524	112	19072032	14.77	ug/L		95
73) 1,1,1,2-Tetrachloroethane	9.614	131	7509865	14.75	ug/L		97
74) Ethylbenzene	9.643	91	30851142	14.90	ug/L		96
75) m,p-Xylene	9.763	91	47018092	30.10	ug/L		96
76) Styrene	10.176	104	20721598	15.06	ug/L		95
77) Bromoform	10.354	173	6892906	14.95	ug/L		98
79) o-Xylene	10.161	91	24749554	14.04	ug/L		97
80) Isopropylbenzene	10.536	105	28985839	14.14	ug/L		97
82) Bromobenzene	10.828	77	10977493	14.29	ug/L		89
83) 1,1,2,2-Tetrachloroethane	10.843	83	8778397	14.41	ug/L		99
84) 1,2,3-Trichloropropane	10.881	110	3112992	14.35	ug/L		97
85) trans-1,4-Dichloro-2-b...	10.901	53	2327301	14.40	ug/L		74
86) n-Propylbenzene	10.949	91	32165192	14.18	ug/L		96

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524011.D
Acq On : 24 May 2023 19:34
Operator : PO1
Sample : SEQ-CAL7@@15
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 25 08:37:30 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:37:18 2023
Response via : Initial Calibration
InstName : G

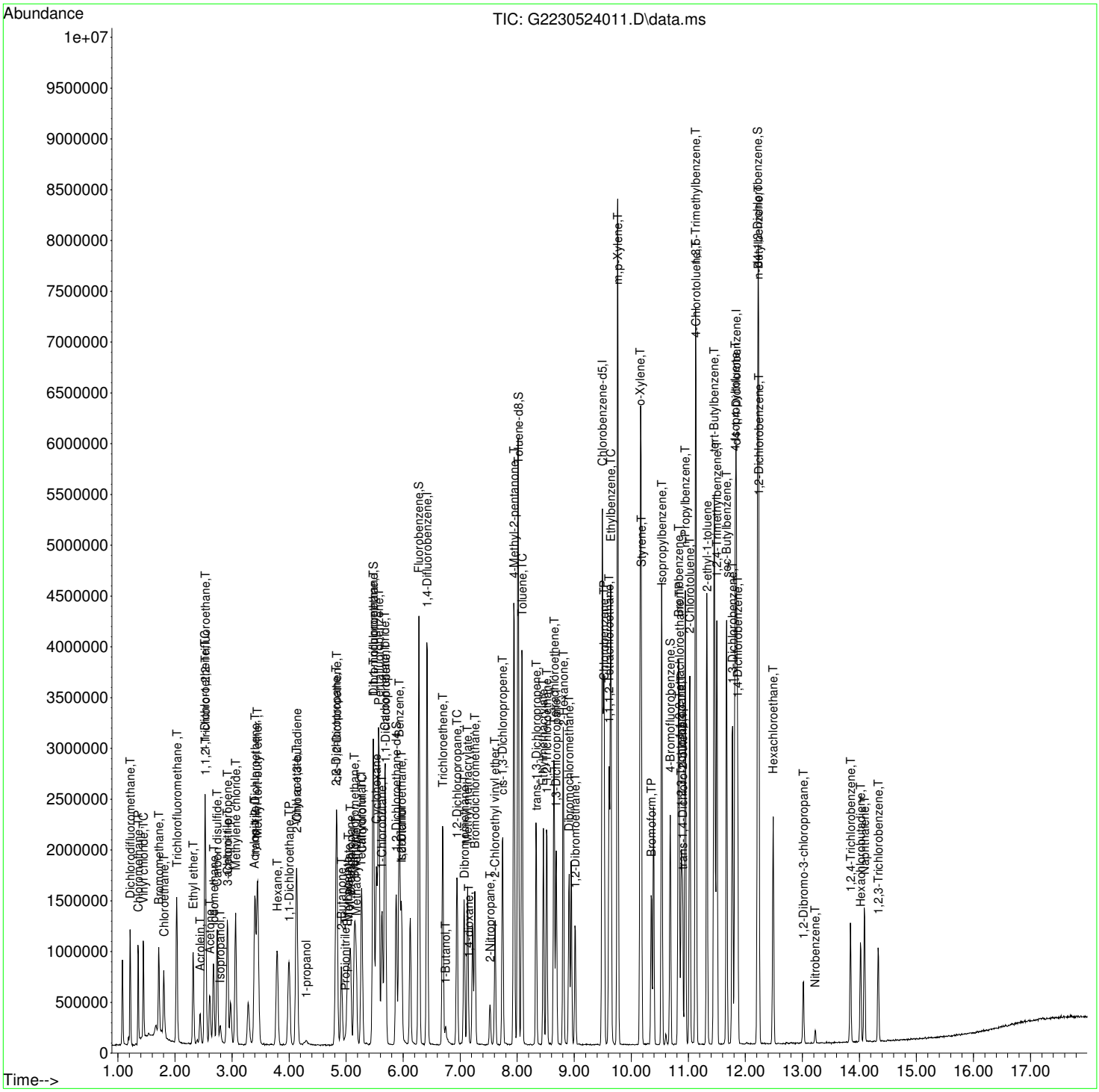
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) 2-Chlorotoluene	11.028	91	19524934	14.31	ug/L	96
88) 4-Chlorotoluene	11.137	91	22373688	14.37	ug/L	96
89) 1,3,5-Trimethylbenzene	11.129	105	22526781	14.35	ug/L	95
90) 2-ethyl-1-toluene	11.328	105	27342706	14.38	ug/L	98
91) tert-Butylbenzene	11.455	119	24555581	15.32	ug/L	91
92) 1,2,4-Trimethylbenzene	11.502	105	22503969	14.60	ug/L	94
93) sec-Butylbenzene	11.674	105	27896481	14.54	ug/L	97
94) 1,3-Dichlorobenzene	11.776	146	13490322	14.51	ug/L	99
95) 4-Isopropyltoluene	11.823	119	23326306	14.72	ug/L	98
96) 1,4-Dichlorobenzene	11.866	146	13244101	14.74	ug/L	98
98) 1,2-Dichlorobenzene	12.238	146	12339994	14.84	ug/L	99
99) n-Butylbenzene	12.232	91	17518673	14.95	ug/L	94
100) Hexachloroethane	12.491	201	4323789	14.57	ug/L	99
101) 1,2-Dibromo-3-chloropr...	13.020	157	1981752	16.16	ug/L	97
102) Nitrobenzene	13.228	77	602544	15.91	ug/L	87
103) 1,2,4-Trichlorobenzene	13.847	180	3887931	16.09	ug/L	97
104) Hexachlorobutadiene	14.024	225	1995544	15.65	ug/L	97
105) Naphthalene	14.091	128	10601150	15.95	ug/L	99
106) 1,2,3-Trichlorobenzene	14.335	180	3065695	15.77	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342493

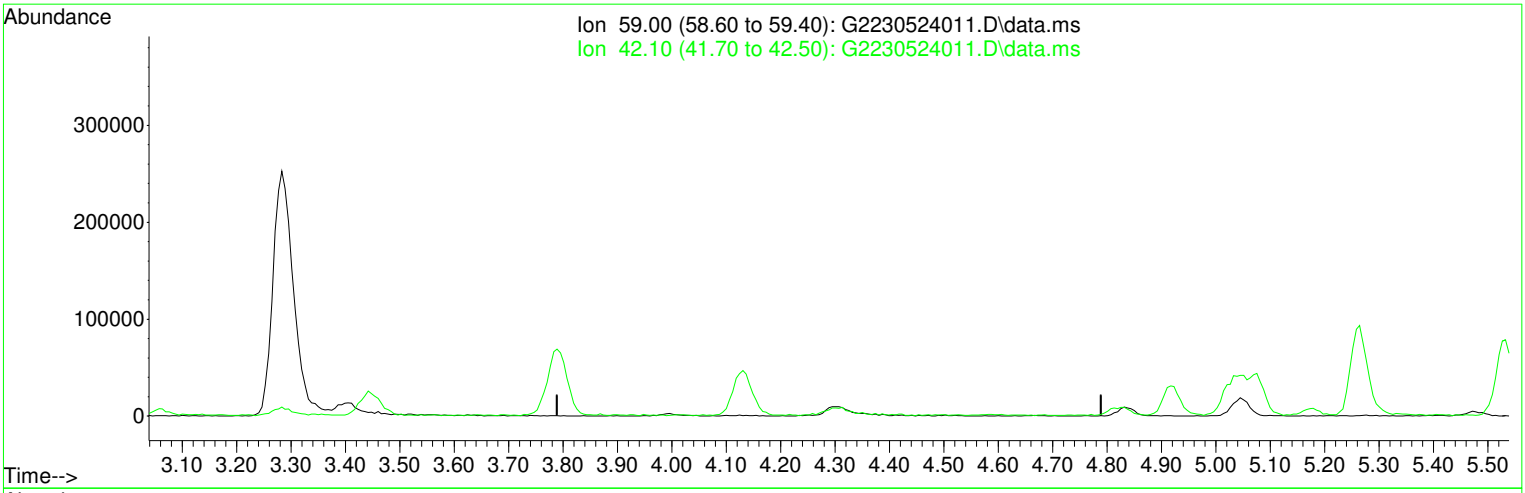
Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524011.D
Acq On : 24 May 2023 19:34
Operator : PO1
Sample : SEQ-CAL7@@15
Misc :
ALS Vial : 11 Sample Multiplier: 1

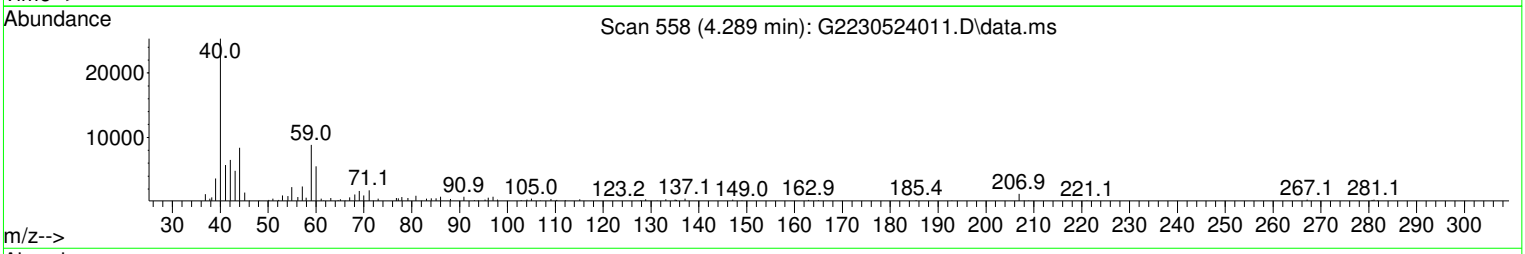
Quant Time: May 25 08:37:30 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:37:18 2023
Response via : Initial Calibration
InstName : G

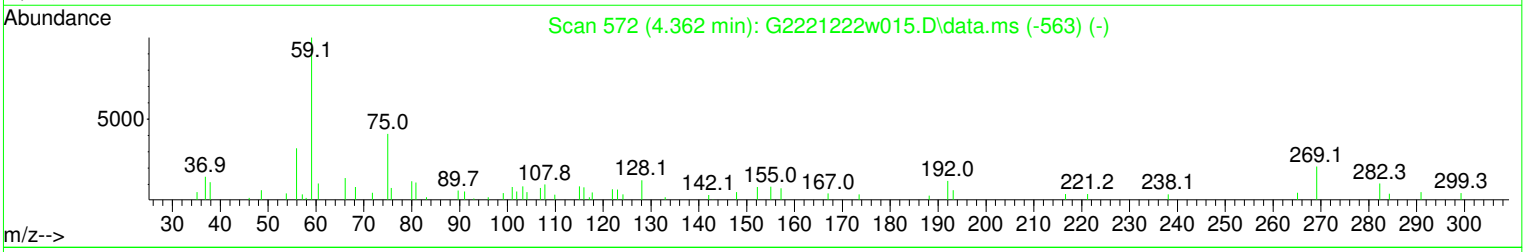


Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524011.D
Acq On : 24 May 2023 19:34
Operator : PO1
Sample : SEQ-CAL7@@15
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 25 08:37:30 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:37:18 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524011.D\data.ms

(26) 1-propanol

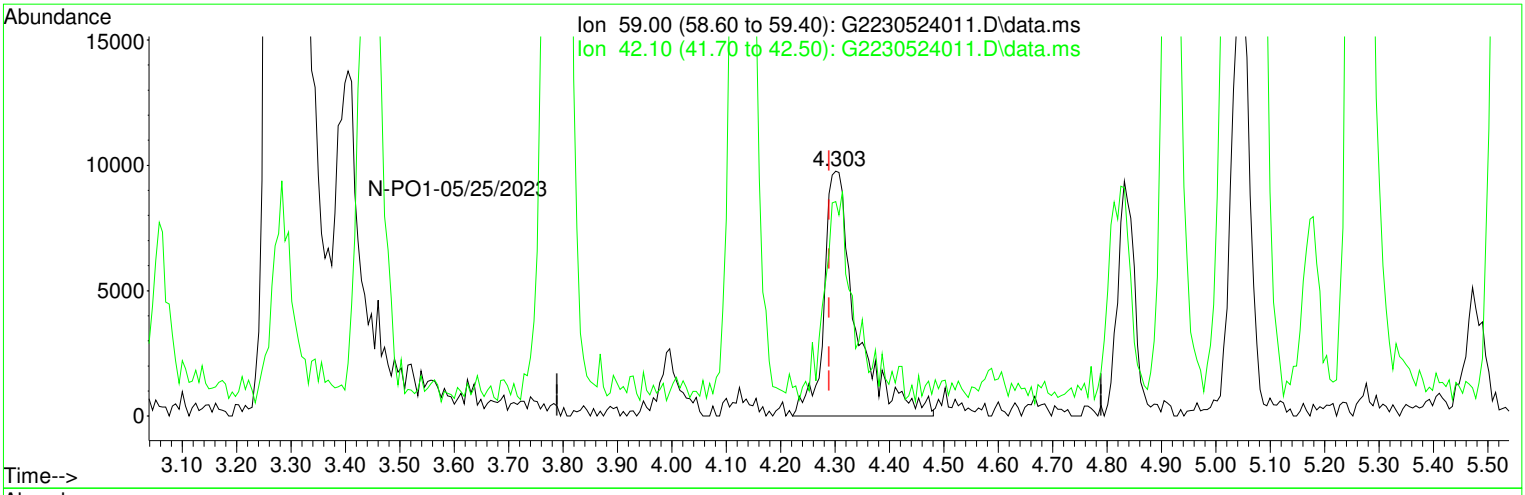
4.289min (-4.289) 0.00 ug/L

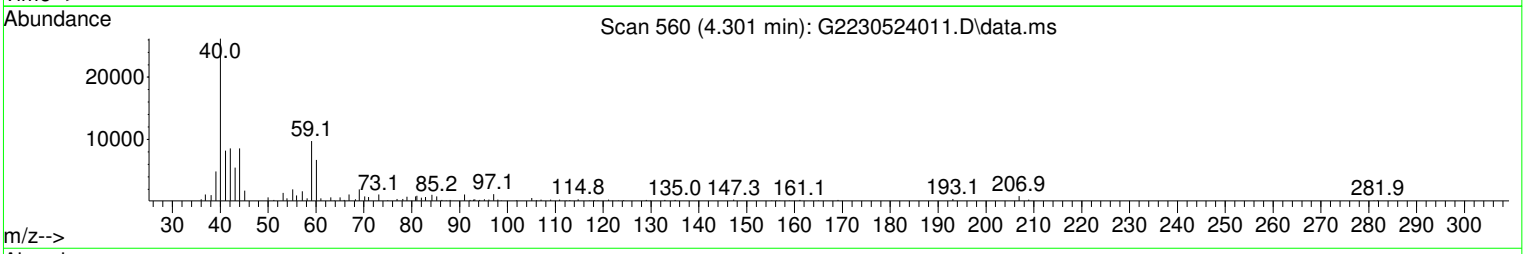
response 0

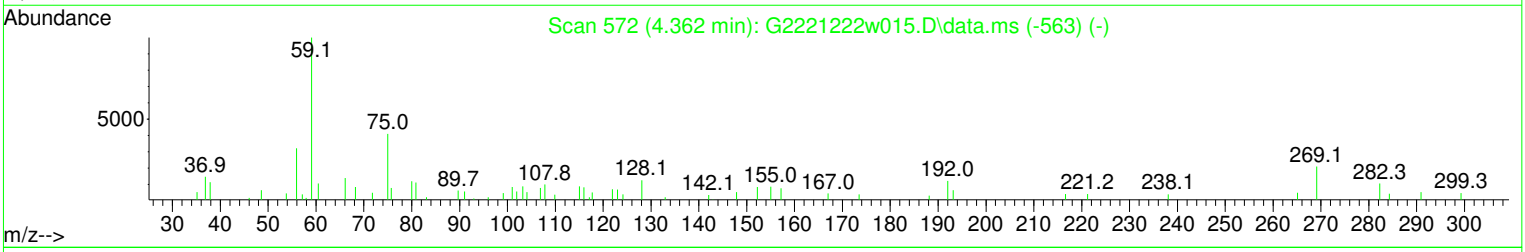
Ion	Exp%	Act%
59.00	100.00	0.00
42.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524011.D
Acq On : 24 May 2023 19:34
Operator : PO1
Sample : SEQ-CAL7@@15
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 25 08:37:30 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:37:18 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524011.D\data.ms

(26) 1-propanol

4.301min (+ 0.012) 164.10 ug/L m

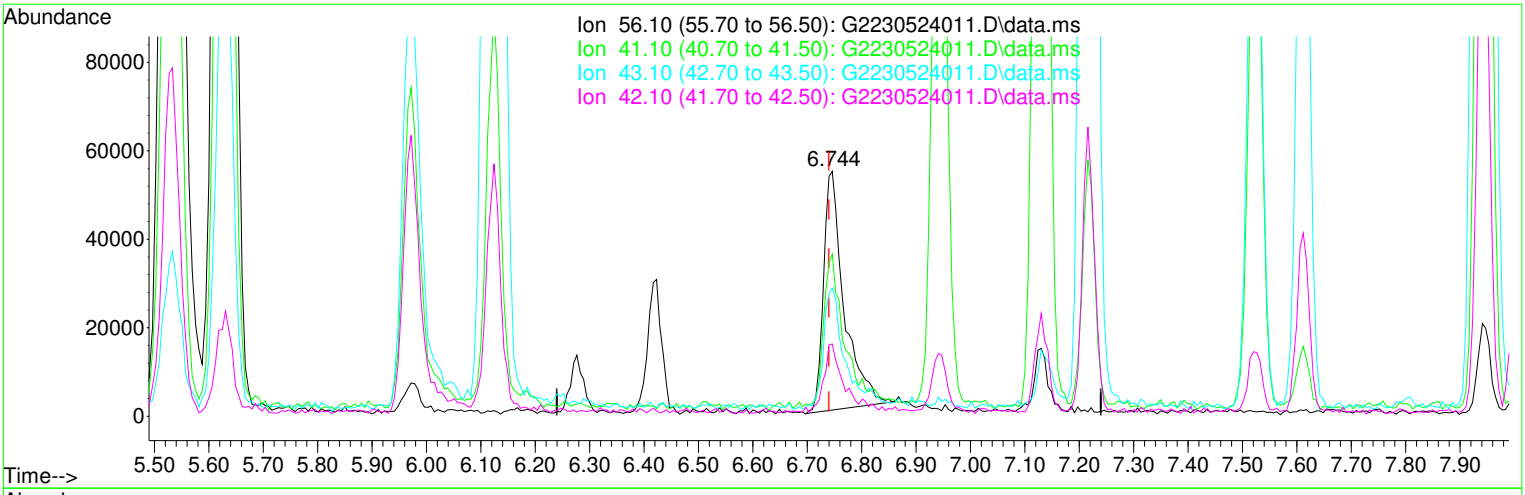
response 403125

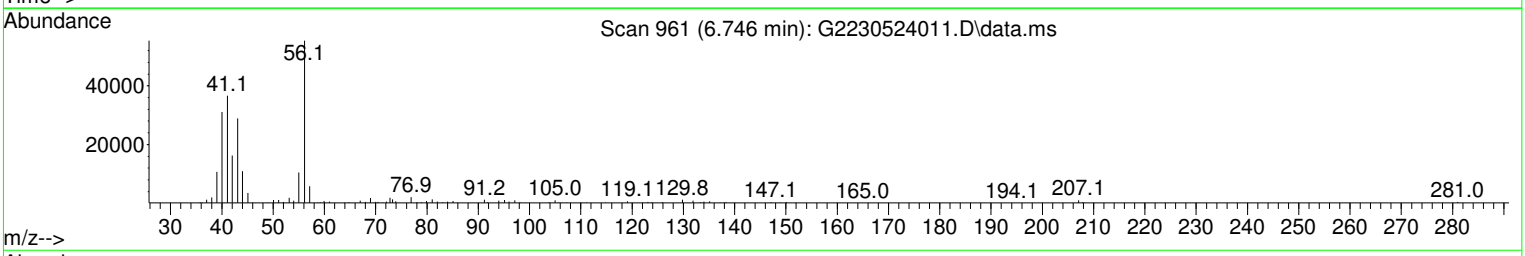
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

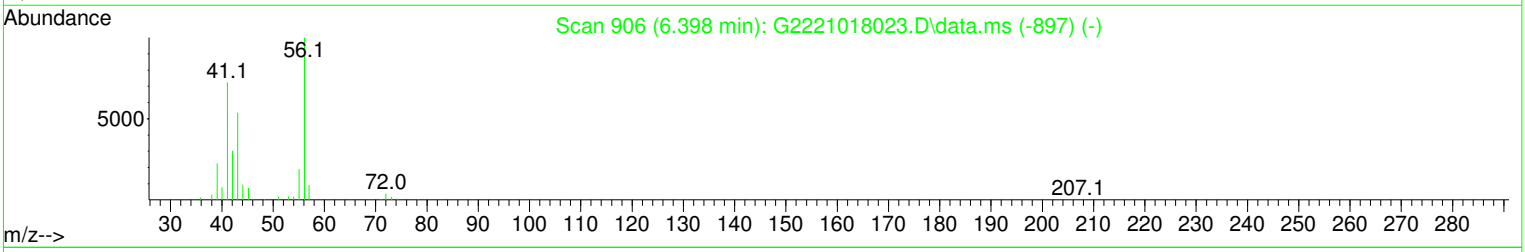
01342496

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524011.D
Acq On : 24 May 2023 19:34
Operator : PO1
Sample : SEQ-CAL7@@15
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 25 08:37:30 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:37:18 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524011.D\data.ms

(51) 1-Butanol (T)

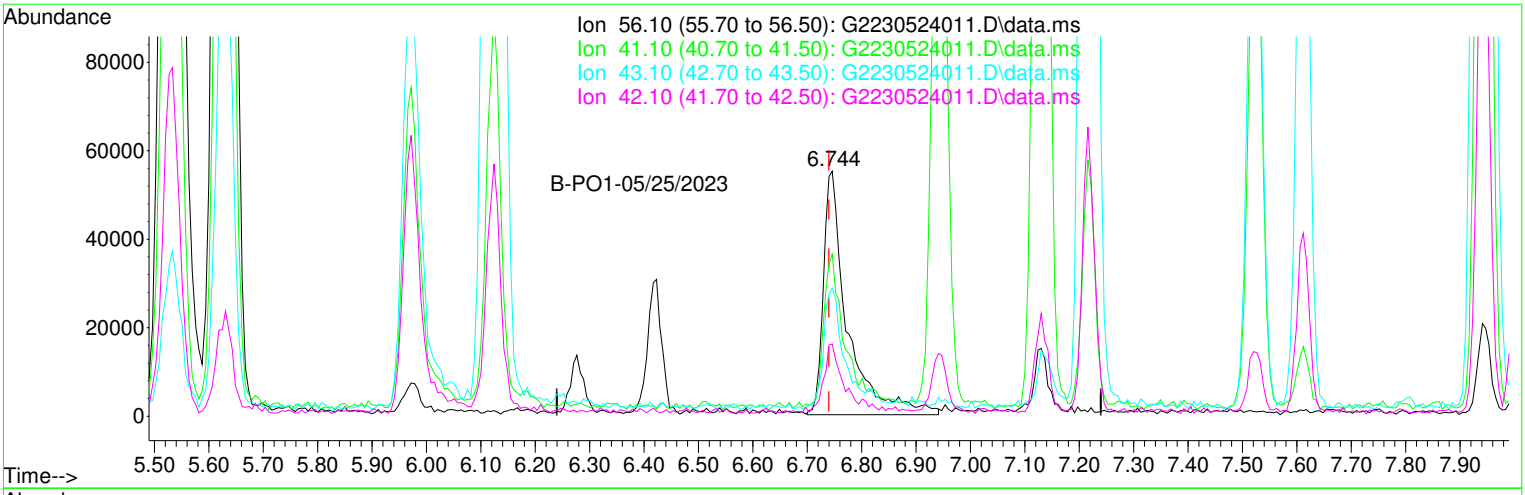
6.746min (+ 0.006) 134.44 ug/L

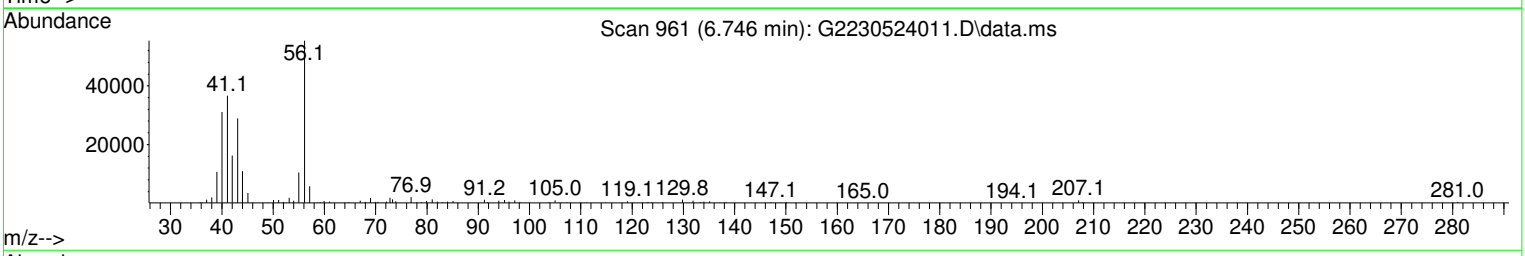
response 1412023

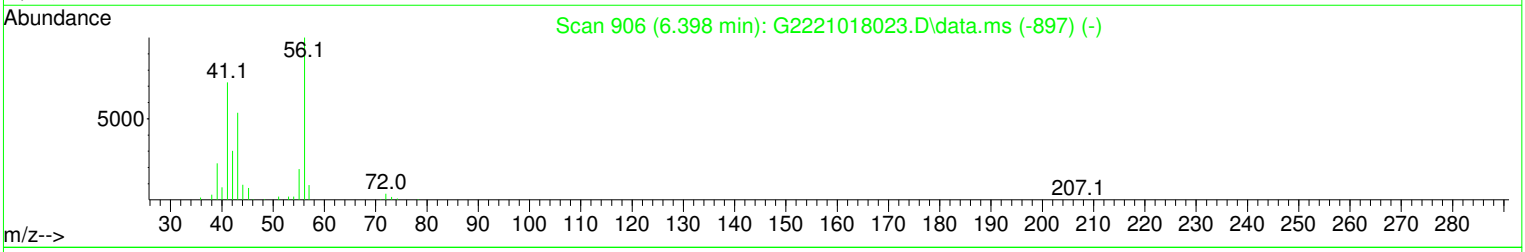
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	69.67
43.10	53.20	54.30
42.10	27.70	26.24

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524011.D
Acq On : 24 May 2023 19:34
Operator : PO1
Sample : SEQ-CAL7@@15
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 25 08:37:30 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:37:18 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524011.D\data.ms

(51) 1-Butanol (T)

6.746min (+ 0.006) 159.79 ug/L m

response 1678247

Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	58.62
43.10	53.20	45.69
42.10	27.70	22.08

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.576	168	24845971	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.424	114	35578817	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.497	117	31330658	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.843	152	13591330	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.479	111	11135323	20.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.35%			
43) 1,2-Dichloroethane-d4	5.881	65	10930721	20.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%			
49) Fluorobenzene	6.280	96	40515467	19.94	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.70%			
64) Toluene-d8	8.019	98	39146251	19.85	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.25%			
81) 4-Bromofluorobenzene	10.687	174	6568234	9.91	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.10%			
97) d4-1,2-Dichlorobenzene	12.219	152	11473319	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.216	85	9506235	19.20	ug/L	99
3) Chloromethane	1.357	50	8263284	19.61	ug/L	100
4) Vinyl chloride	1.449	62	9300761	19.29	ug/L	100
5) Bromomethane	1.720	94	6169564	19.72	ug/L	99
6) Chloroethane	1.808	64	5614021	19.23	ug/L	96
7) Trichlorofluoromethane	2.034	101	14193906	18.87	ug/L	99
8) Ethyl ether	2.321	59	6568199	18.54	ug/L	90
9) Acrolein	2.442	56	3253384	47.83	ug/L	95
10) 1,1-Dichloroethene	2.527	61	10574694	18.74	ug/L	90
11) 1,1,2-Trichloro-1,2,2-...	2.537	101	7543876	18.20	ug/L	97
12) Acetone	2.612	43	7773395	60.68	ug/L	91
13) Iodomethane	2.679	142	12036140	18.66	ug/L	95
14) Carbon disulfide	2.742	76	21978676	18.70	ug/L	99
15) Isopropanol	2.792	45	3576024	175.67	ug/L	99
16) acetonitrile	2.921	41	11585824	46.81	ug/L	86
17) 3-Chloro-1-propene	2.923	76	4956713	18.95	ug/L	98
18) Methylene chloride	3.065	49	8519314	18.63	ug/L	85
19) Acrylonitrile	3.393	53	3544498m	18.30	ug/L	
20) trans-1,2-Dichloroethene	3.405	61	10125334	18.73	ug/L	91
21) Methyl tert-butyl ether	3.448	73	28881800	19.00	ug/L	93
22) Hexane	3.795	57	8164612	18.39	ug/L	96
23) 1,1-Dichloroethane	4.002	63	13826655	18.72	ug/L	97
24) Vinyl acetate	4.133	43	16460132	20.48	ug/L	95
25) 2-Chloro-1,3-butadiene	4.138	53	10751980	18.57	ug/L	89
26) 1-propanol	4.301	59	441329m	162.92	ug/L	
27) 2,2-Dichloropropane	4.829	77	12722712	19.12	ug/L	93
28) cis-1,2-Dichloroethene	4.838	61	12361653	18.67	ug/L	89
29) 2-Butanone	4.921	72	4214206	63.56	ug/L	92

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) Propionitrile	4.987	54	1146480	18.17	ug/L		94
31) Ethyl acetate	5.025	61	1471111	18.62	ug/L		85
32) Methylacrylate	5.048	55	8929649	18.44	ug/L		95
33) 1-Bromopropane	5.078	41	5094969	18.86	ug/L		77
34) Bromochloromethane	5.151	130	6949367	18.80	ug/L		99
35) Methacrylonitrile	5.177	67	4464384	18.39	ug/L		93
36) Tetrahydrofuran	5.263	42	2504290	18.14	ug/L		83
37) Chloroform	5.279	83	15594792	18.67	ug/L		100
39) 1,1,1-Trichloroethane	5.481	97	14096176	18.49	ug/L		97
40) Cyclohexane	5.536	84	12762332	18.70	ug/L		86
41) 1-Chlorobutane	5.632	56	14946614	18.69	ug/L		98
42) 1,1-Dichloropropene	5.691	75	11231385	18.44	ug/L		94
44) 1,2-Dichloroethane	5.973	62	11408848	18.57	ug/L		99
45) Isobutanol	5.972	43	2963100m	180.36	ug/L		
47) Carbon tetrachloride	5.682	117	12358978	18.25	ug/L		100
48) Benzene	5.937	78	33305679	18.45	ug/L		100
50) Trichloroethene	6.697	95	9217037	18.12	ug/L		94
51) 1-Butanol	6.740	56	2100862m	190.00	ug/L		
52) 1,2-Dichloropropane	6.947	63	7944412	18.55	ug/L		91
53) Dibromomethane	7.073	174	7900287	18.38	ug/L	#	94
54) Methyl methacrylate	7.134	69	7710129	18.57	ug/L		93
55) 1,4-dioxane	7.150	88	735204	178.77	ug/L		94
56) Bromodichloromethane	7.261	83	12345343	18.48	ug/L		100
57) 2-Nitropropane	7.526	43	3420429	18.19	ug/L		95
58) 2-Chloroethyl vinyl ether	7.615	63	6386027	18.95	ug/L		99
59) cis-1,3-Dichloropropene	7.746	75	14760348	18.50	ug/L		96
60) 4-Methyl-2-pentanone	7.946	43	32685926	63.69	ug/L	#	91
61) trans-1,3-Dichloropropene	8.336	75	13840237	18.29	ug/L		94
62) 1,1,2-Trichloroethane	8.520	97	8749797	18.54	ug/L		95
65) Toluene	8.088	91	37282322	18.40	ug/L		97
66) Ethylmethacrylate	8.462	69	13228450	18.05	ug/L		91
67) Tetrachloroethene	8.648	166	11795446	13.11	ug/L		96
68) 1,3-Dichloropropane	8.689	76	14168683	18.32	ug/L		90
69) 2-Hexanone	8.810	43	20581475	61.38	ug/L		89
70) Dibromochloromethane	8.913	129	11243317	18.33	ug/L		98
71) 1,2-Dibromoethane	9.020	107	9607138	18.11	ug/L		99
72) Chlorobenzene	9.525	112	25220900	18.21	ug/L		95
73) 1,1,1,2-Tetrachloroethane	9.614	131	9919659	18.14	ug/L		97
74) Ethylbenzene	9.644	91	40412599	18.20	ug/L		96
75) m,p-Xylene	9.765	91	61283226	36.66	ug/L		95
76) Styrene	10.178	104	26805256	18.14	ug/L		95
77) Bromoform	10.355	173	8917436	17.96	ug/L		97
79) o-Xylene	10.162	91	32323956	18.59	ug/L		97
80) Isopropylbenzene	10.537	105	37513763	18.54	ug/L		97
82) Bromobenzene	10.828	77	14177205	18.78	ug/L		89
83) 1,1,2,2-Tetrachloroethane	10.843	83	11247175	18.78	ug/L		98
84) 1,2,3-Trichloropropane	10.882	110	3917020	18.19	ug/L		98
85) trans-1,4-Dichloro-2-b...	10.903	53	2972642	18.67	ug/L		74
86) n-Propylbenzene	10.950	91	41595917	18.59	ug/L		97

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

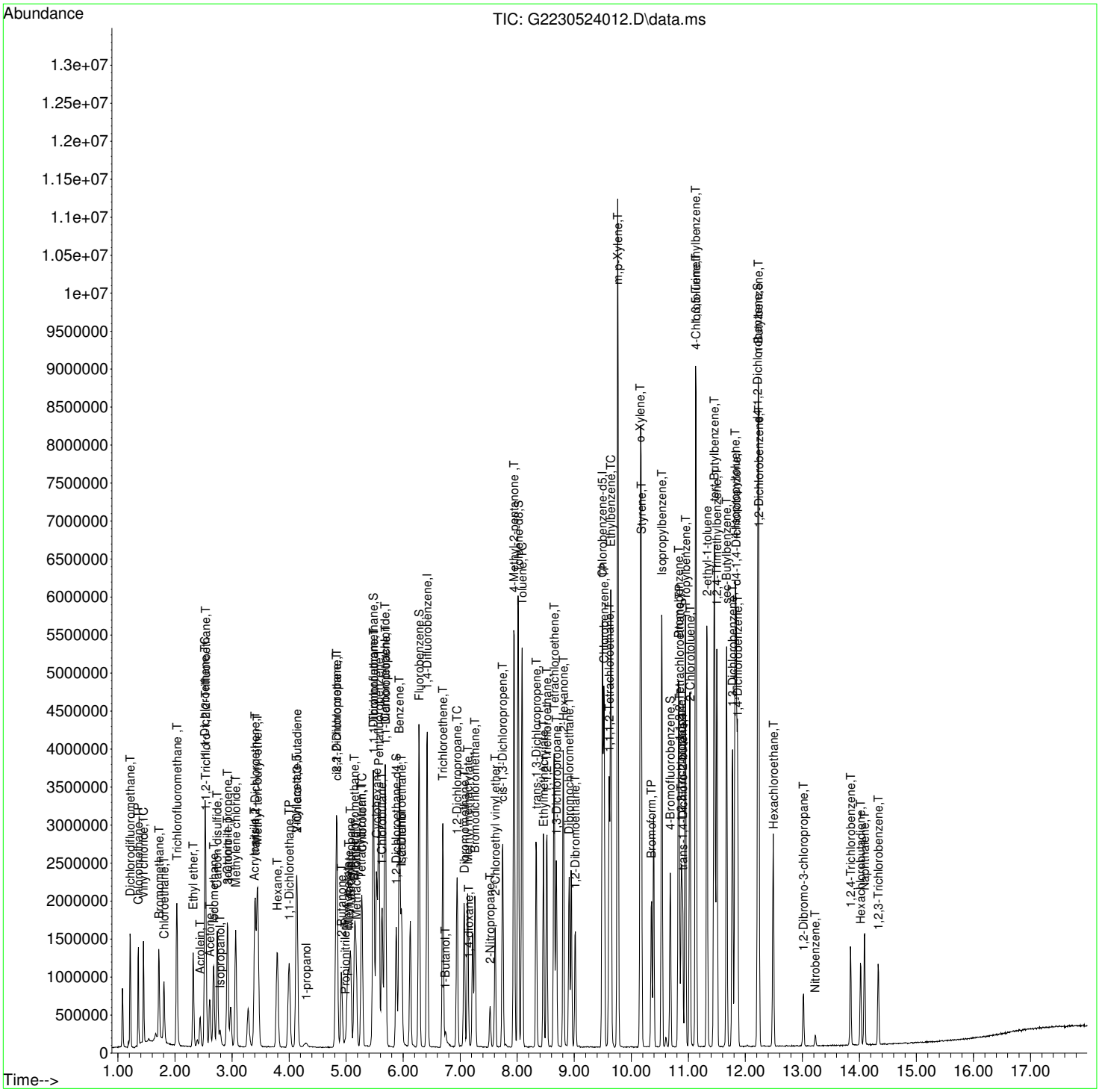
Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) 2-Chlorotoluene	11.029	91	24931745	18.50	ug/L	96
88) 4-Chlorotoluene	11.138	91	28380692	18.44	ug/L	95
89) 1,3,5-Trimethylbenzene	11.130	105	28550044	18.38	ug/L	96
90) 2-ethyl-1-toluene	11.329	105	34852804	18.59	ug/L	98
91) tert-Butylbenzene	11.456	119	30987381	20.12	ug/L	90
92) 1,2,4-Trimethylbenzene	11.502	105	28119467	18.46	ug/L	93
93) sec-Butylbenzene	11.674	105	34871849	18.36	ug/L	98
94) 1,3-Dichlorobenzene	11.777	146	16839497	18.26	ug/L	99
95) 4-Isopropyltoluene	11.823	119	28698885	18.26	ug/L	98
96) 1,4-Dichlorobenzene	11.866	146	16204637	18.15	ug/L	98
98) 1,2-Dichlorobenzene	12.238	146	14915723	18.01	ug/L	99
99) n-Butylbenzene	12.232	91	21148528	18.18	ug/L	94
100) Hexachloroethane	12.492	201	5284503	17.82	ug/L	98
101) 1,2-Dibromo-3-chloropr...	13.021	157	2141772	17.33	ug/L	96
102) Nitrobenzene	13.228	77	673557	17.79	ug/L	91
103) 1,2,4-Trichlorobenzene	13.847	180	4251379	17.52	ug/L	98
104) Hexachlorobutadiene	14.024	225	2196256	17.00	ug/L	98
105) Naphthalene	14.092	128	11796023	17.73	ug/L	99
106) 1,2,3-Trichlorobenzene	14.334	180	3522089	18.27	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

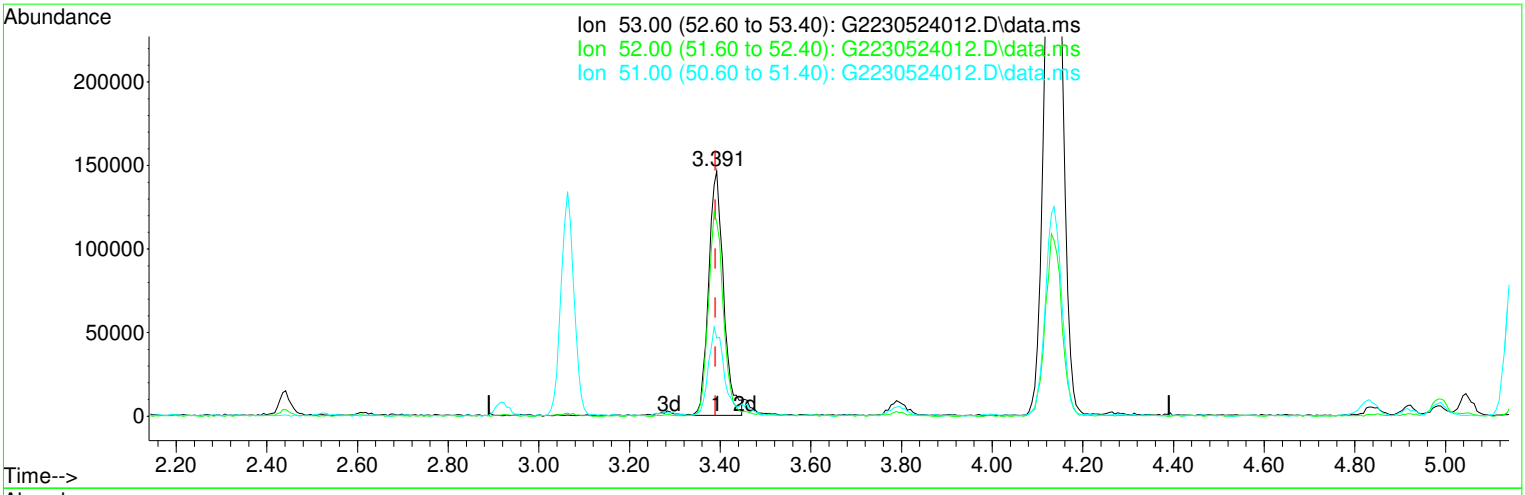
Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

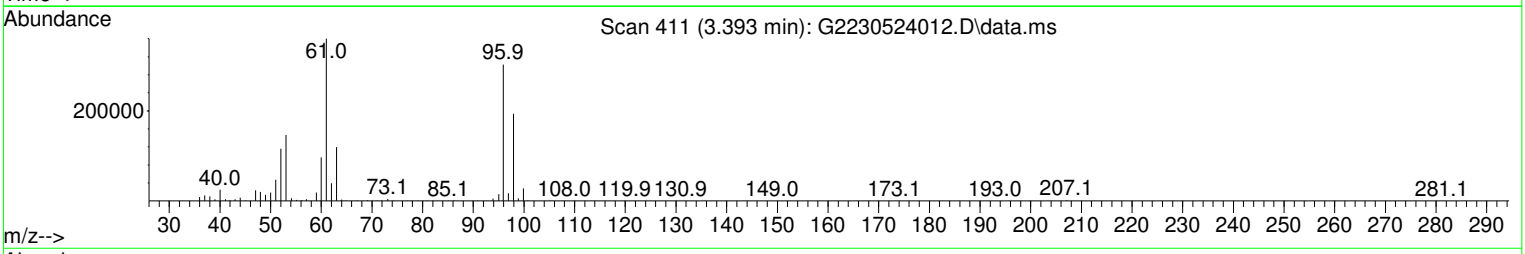
Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G

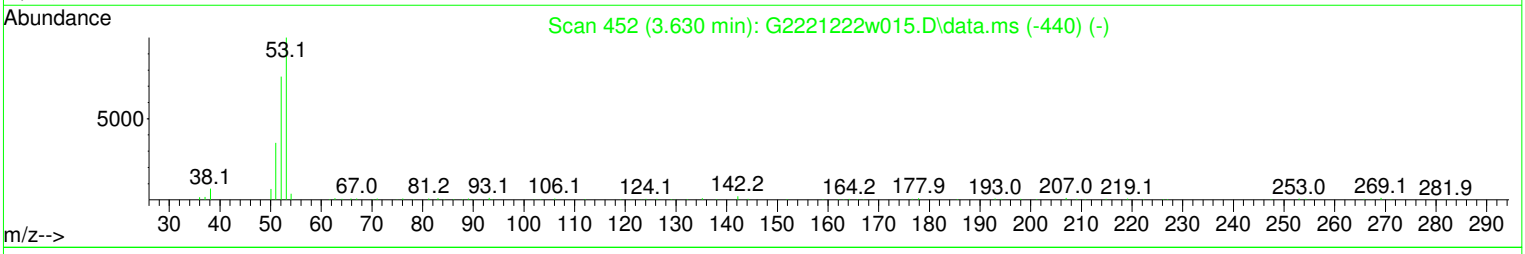


Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524012.D\data.ms

(19) Acrylonitrile (T)

3.393min (+ 0.003) 17.32 ug/L

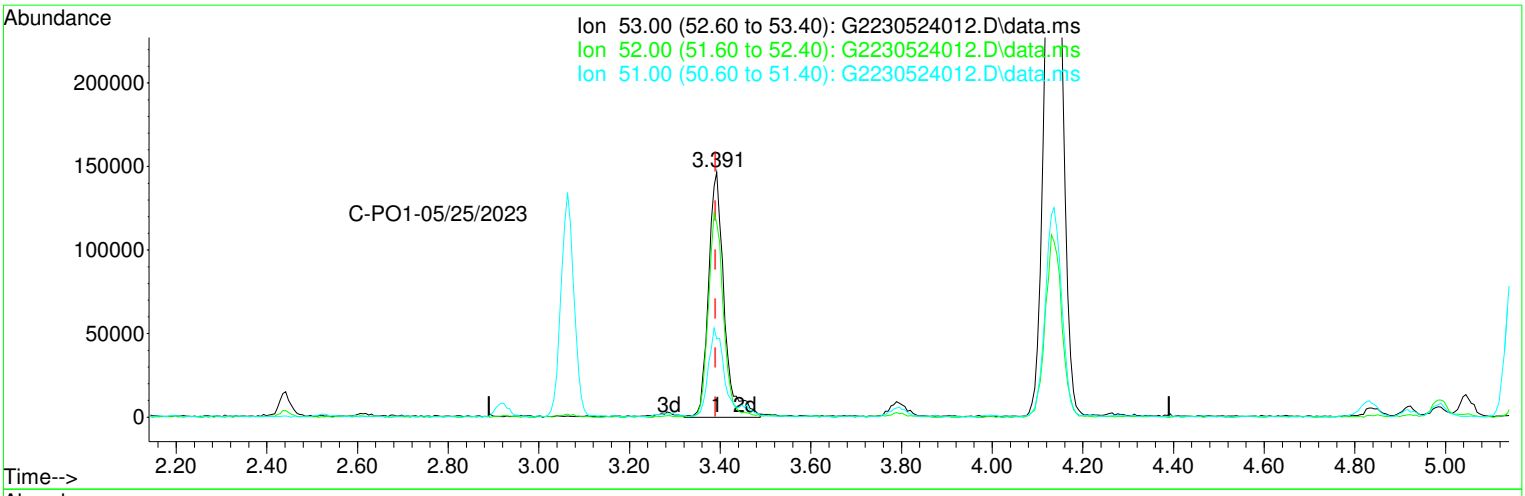
response 3355522

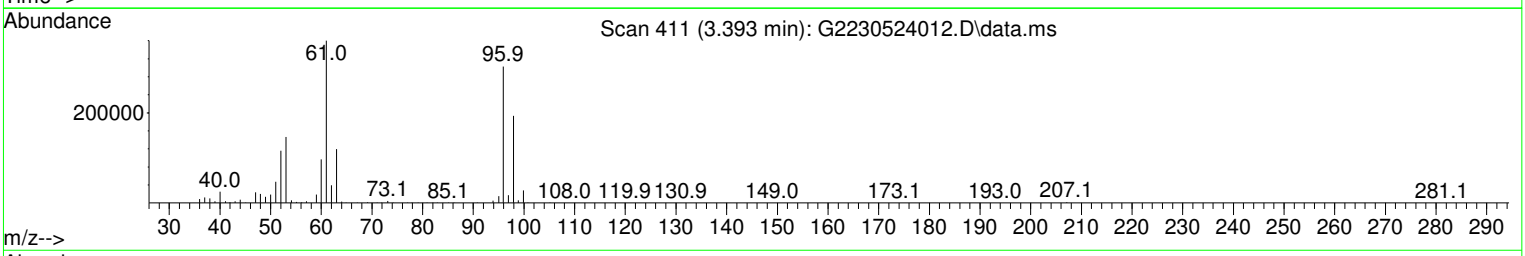
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	82.20	84.70
51.00	38.40	37.35
0.00	0.00	0.00

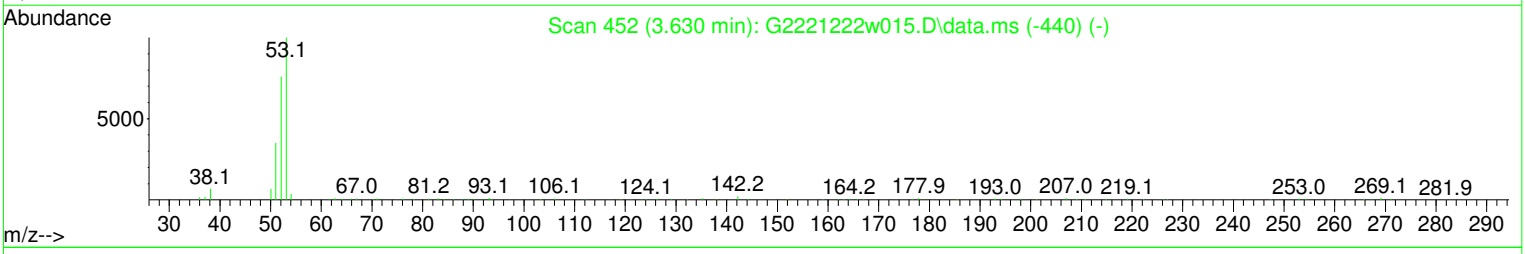
01342503

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524012.D\data.ms

(19) Acrylonitrile (T)

3.393min (+ 0.003) 18.30 ug/L m

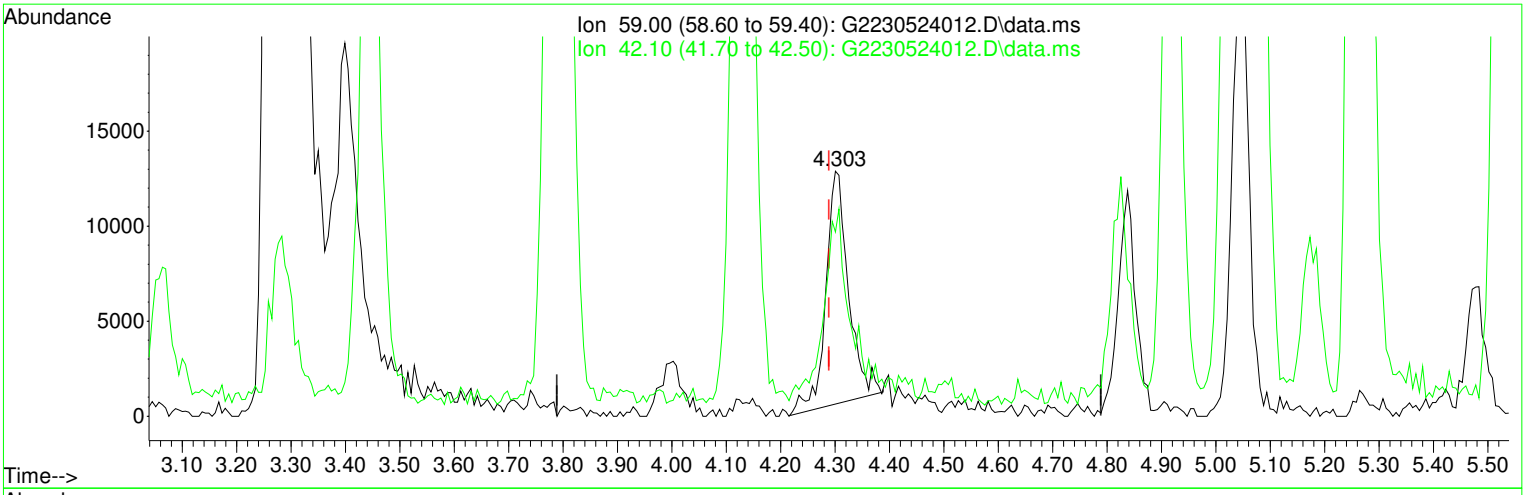
response 3544498

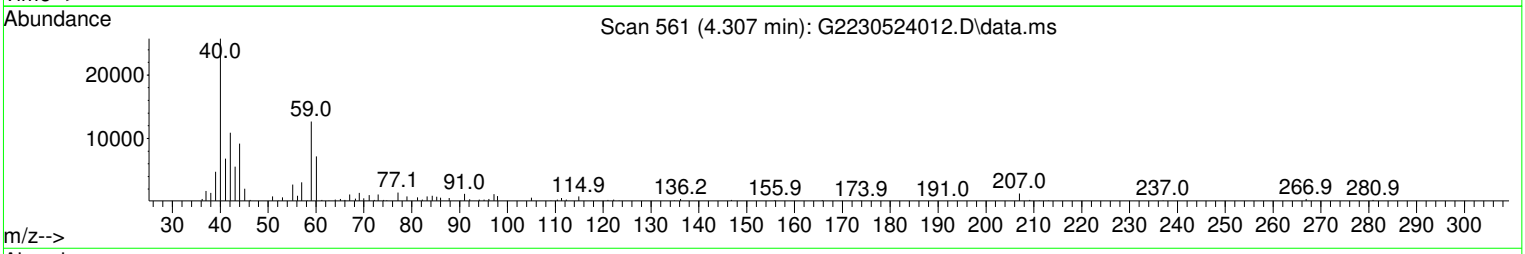
Ion	Exp%	Act%
53.00	100.00	100.00
52.00	82.20	80.19
51.00	38.40	35.35
0.00	0.00	0.00

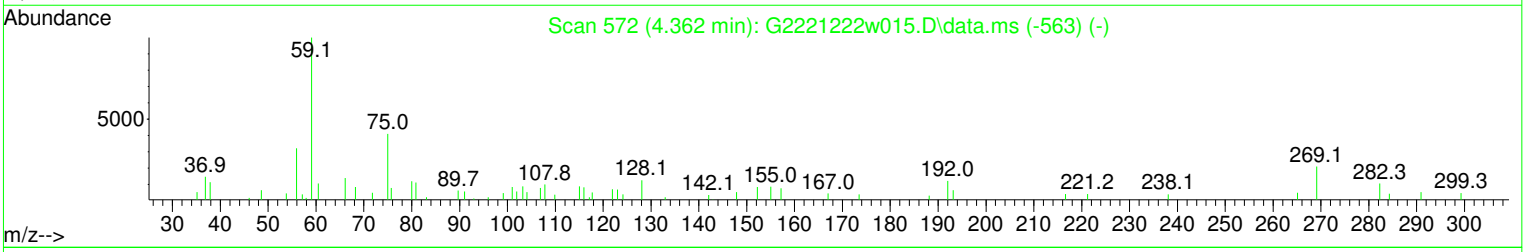
01342504

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524012.D\data.ms

(26) 1-propanol

4.306min (+ 0.017) 130.27 ug/L

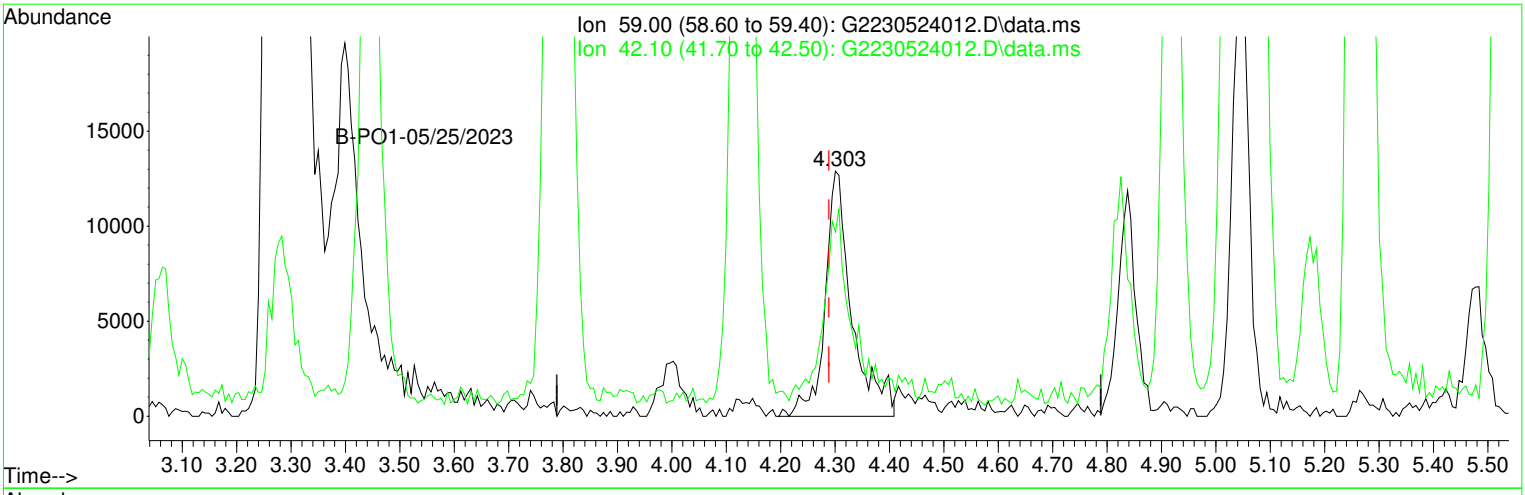
response 352867

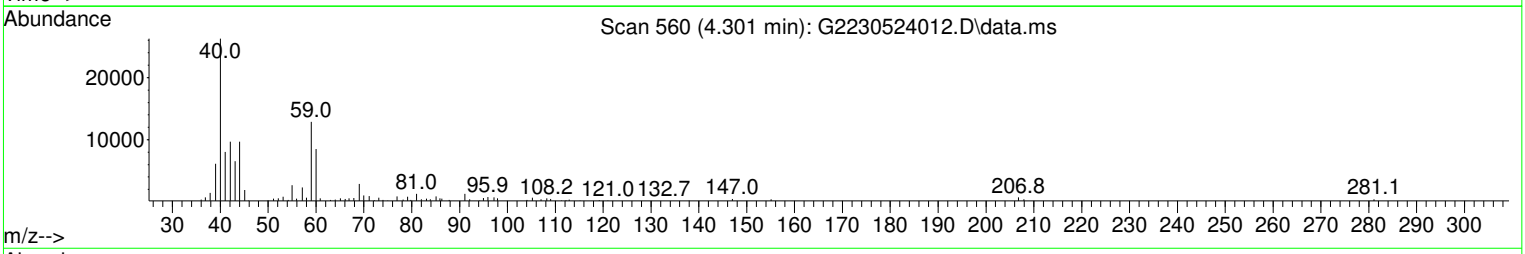
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	84.54#
0.00	0.00	0.00
0.00	0.00	0.00

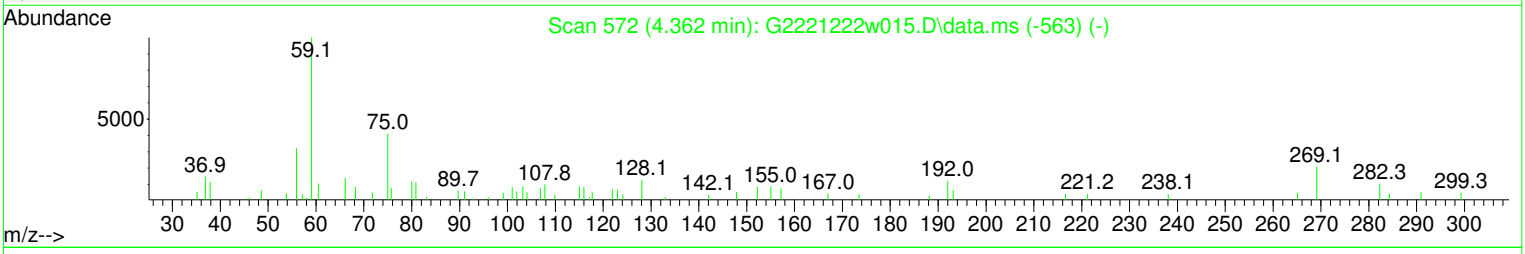
01342505

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524012.D\data.ms

(26) 1-propanol

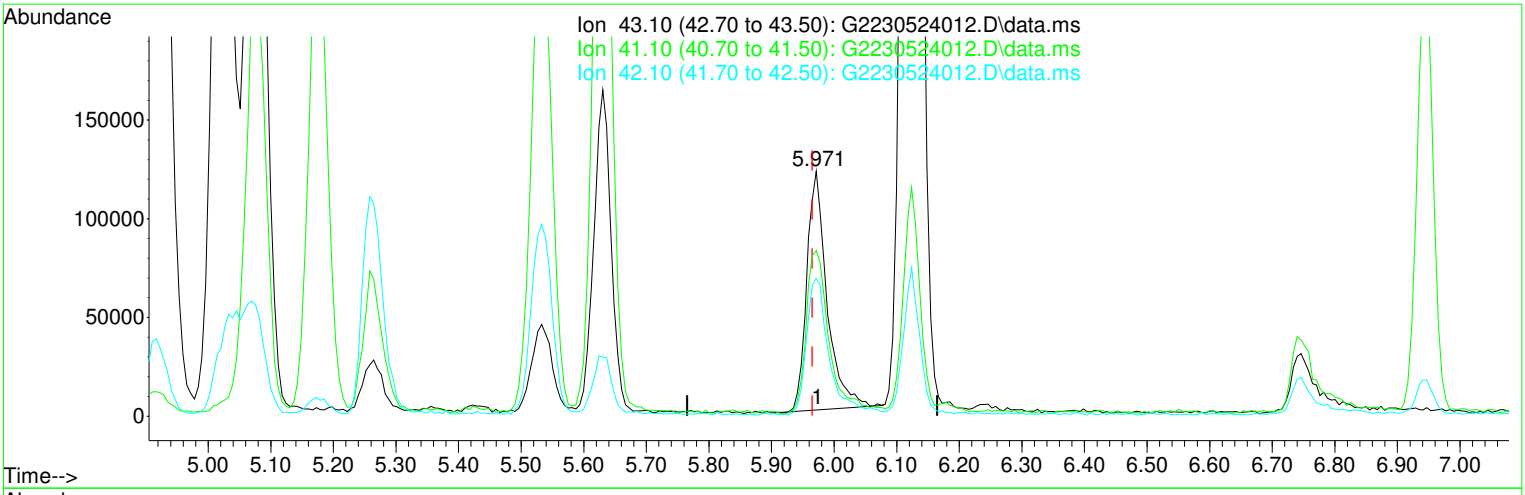
4.301min (+ 0.012) 162.92 ug/L m

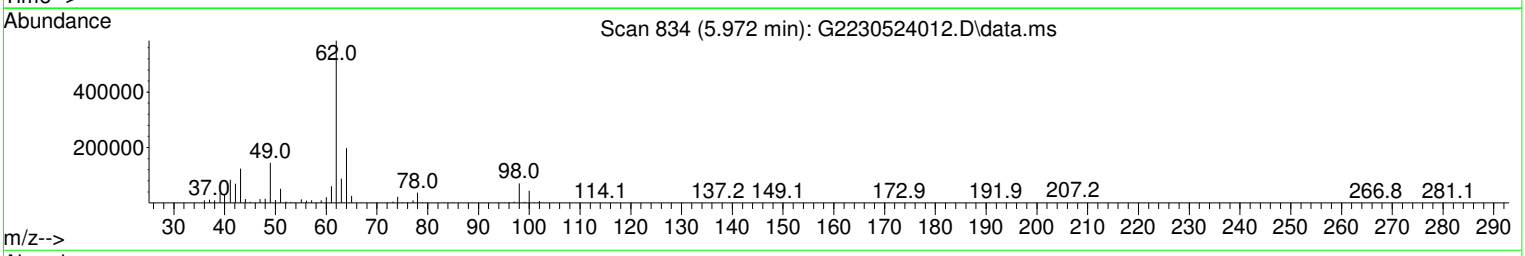
response 441329

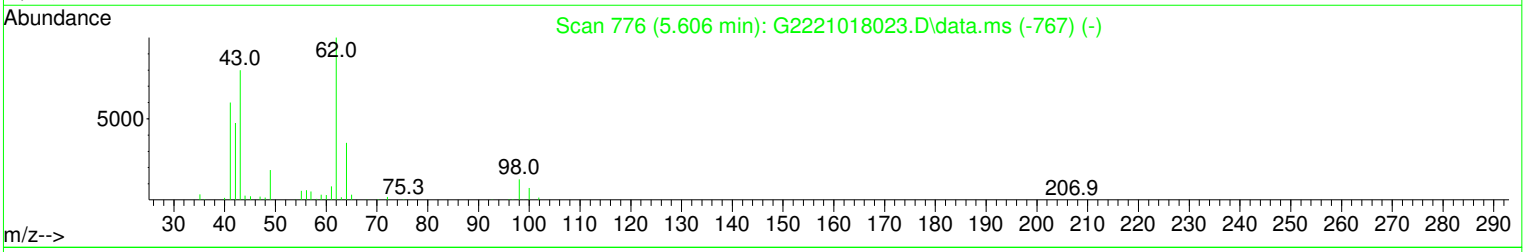
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	67.60#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524012.D\data.ms

(45) Isobutanol

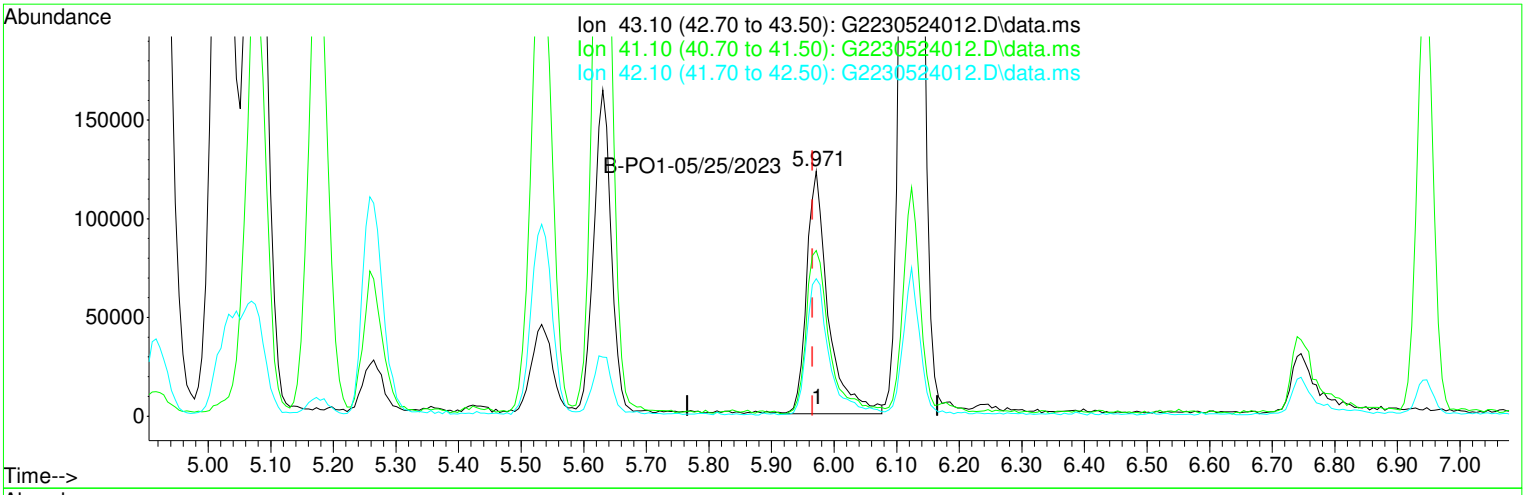
5.974min (+ 0.008) 164.97 ug/L

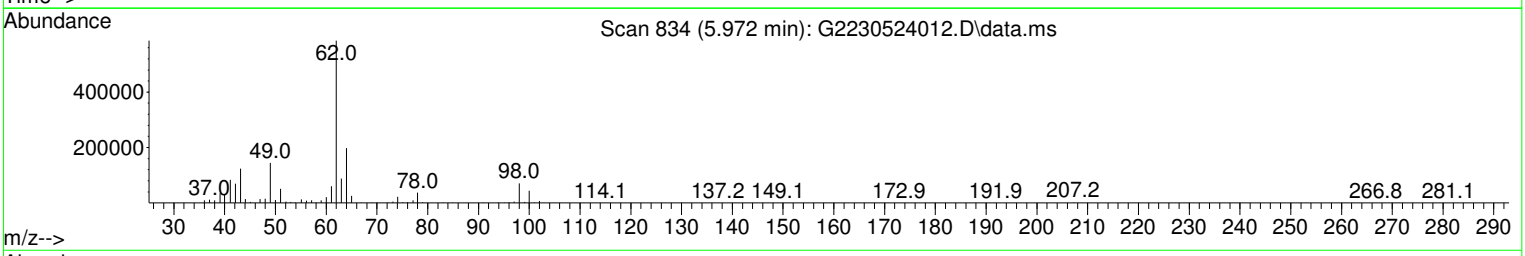
response 2710181

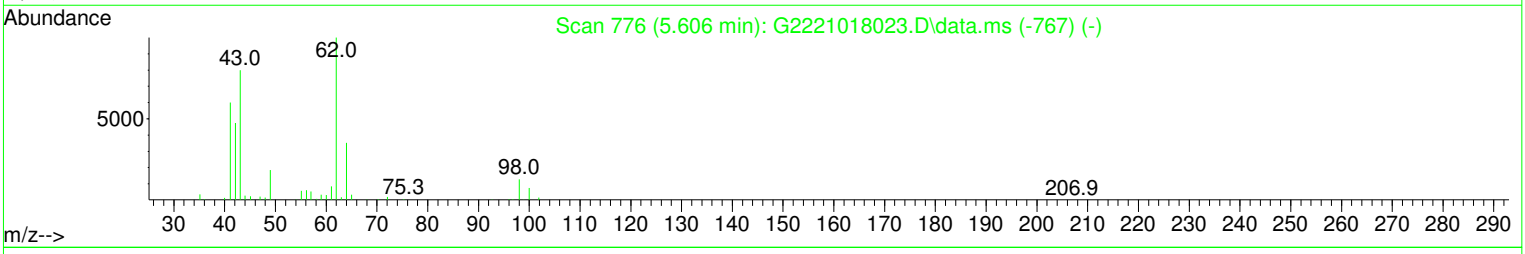
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	74.91
42.10	58.40	61.89
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524012.D\data.ms

(45) Isobutanol

5.972min (+ 0.006) 180.36 ug/L m

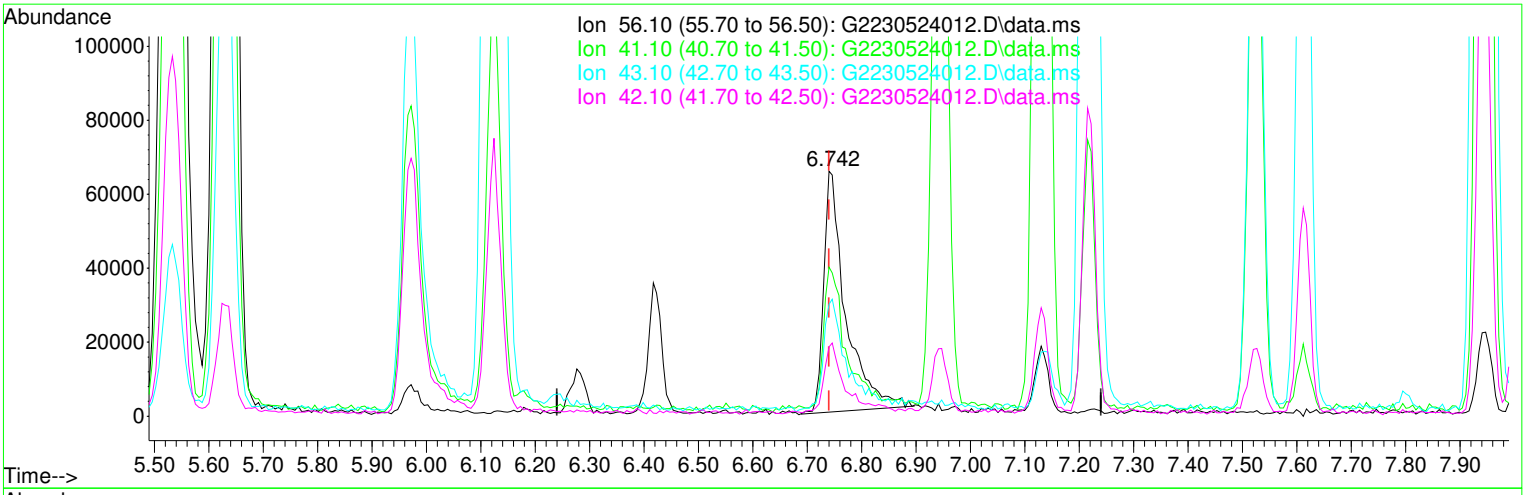
response 2963100

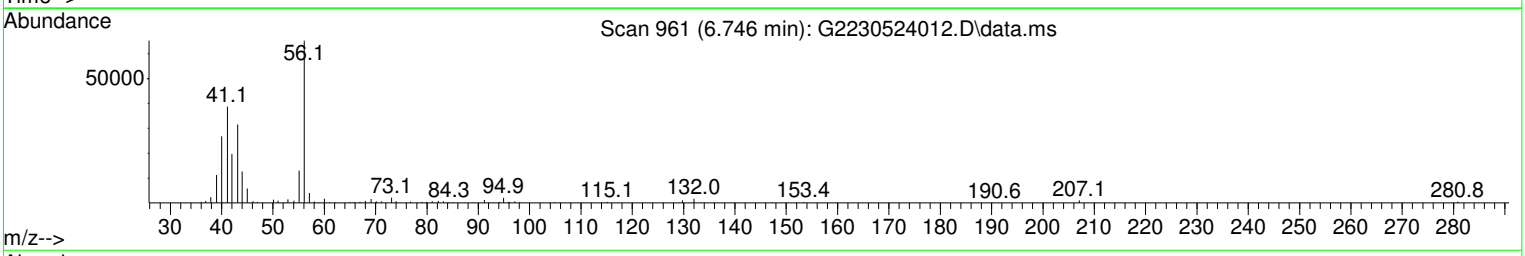
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	68.51
42.10	58.40	56.60
0.00	0.00	0.00

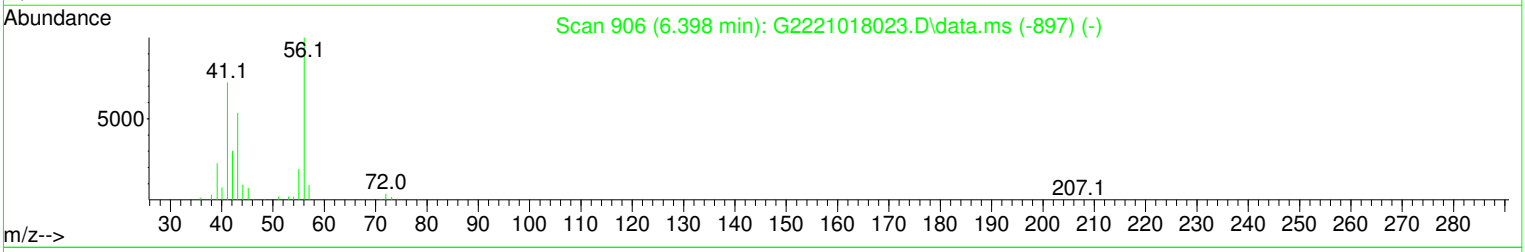
01342508

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524012.D\data.ms

(51) 1-Butanol (T)

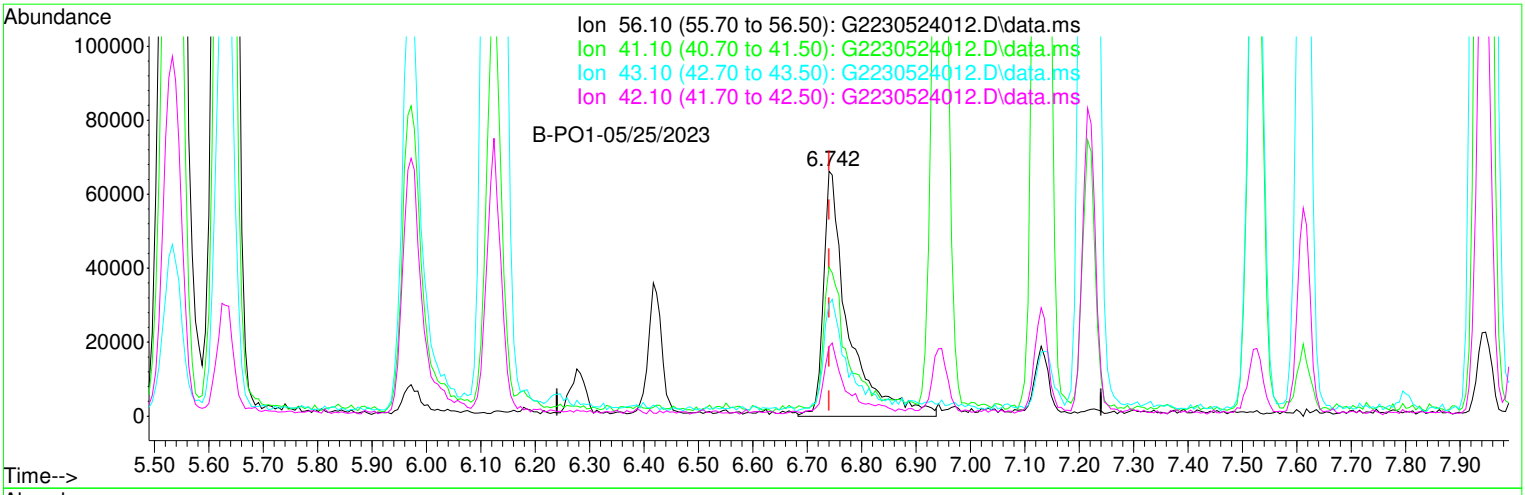
6.746min (+ 0.006) 165.19 ug/L

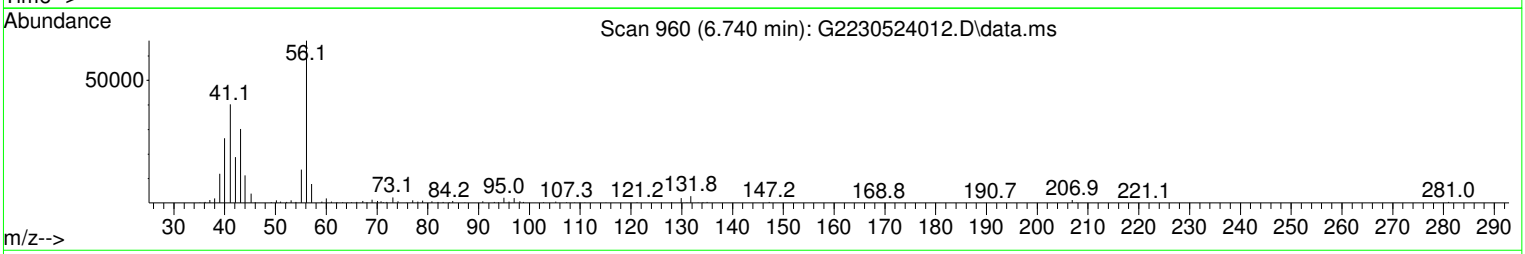
response 1826516

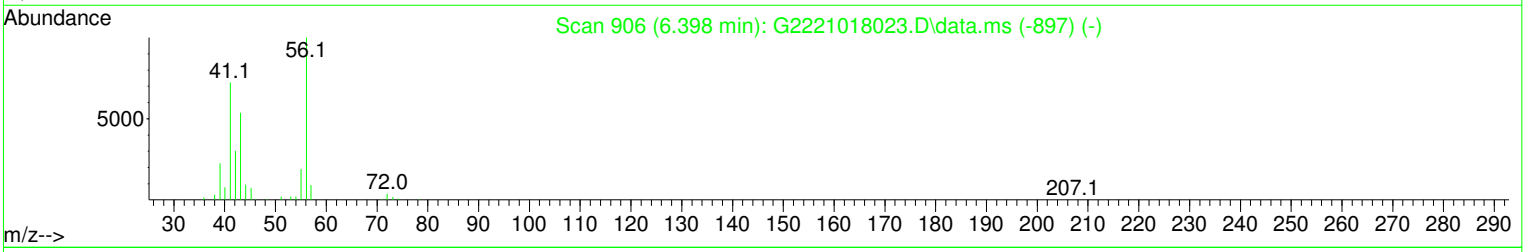
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	59.47
43.10	53.20	51.73
42.10	27.70	25.96

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230524v2\
Data File : G2230524012.D
Acq On : 24 May 2023 19:58
Operator : PO1
Sample : SEQ-CAL8@@20
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: May 25 08:32:48 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 08:32:26 2023
Response via : Initial Calibration
InstName : G







TIC: G2230524012.D\data.ms

(51) 1-Butanol (T)

6.740min (-0.000) 190.00 ug/L m

response 2100862

Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	51.70
43.10	53.20	44.97
42.10	27.70	22.57

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.574	168	24869728	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.422	114	34751970	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	29861691	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	12460381	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.478	111	10685419	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
43) 1,2-Dichloroethane-d4	5.879	65	10469918	19.21	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%			
49) Fluorobenzene	6.279	96	39686997	20.03	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.15%			
64) Toluene-d8	8.017	98	37847967	20.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.55%			
81) 4-Bromofluorobenzene	10.686	174	6315916	10.78	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 107.80%			
97) d4-1,2-Dichlorobenzene	12.218	152	10509981	19.51	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.55%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.218	85	12112803	23.78	ug/L	100
3) Chloromethane	1.359	50	10054645	22.41	ug/L	99
4) Vinyl chloride	1.450	62	11697035	23.85	ug/L	99
5) Bromomethane	1.720	94	8112008	26.45	ug/L	100
6) Chloroethane	1.809	64	7179540	24.05	ug/L	97
7) Trichlorofluoromethane	2.034	101	18975054	25.36	ug/L	98
8) Ethyl ether	2.321	59	7984647	22.28	ug/L	88
9) Acrolein	2.442	56	4009081	59.53	ug/L	95
10) 1,1-Dichloroethene	2.527	61	12920340	22.46	ug/L	89
11) 1,1,2-Trichloro-1,2,2-...	2.537	101	9722003	23.62	ug/L	97
12) Acetone	2.611	43	9457256	77.54	ug/L	93
13) Iodomethane	2.680	142	13462722	22.57	ug/L	94
14) Carbon disulfide	2.743	76	26273929	21.92	ug/L	100
15) Isopropanol	2.792	45	4379047	213.93	ug/L	97
16) acetonitrile	2.922	41	14006984	58.18	ug/L	86
17) 3-Chloro-1-propene	2.922	76	6095382	22.62	ug/L	99
18) Methylene chloride	3.065	49	10055130	21.87	ug/L	83
19) Acrylonitrile	3.391	53	4167571	21.53	ug/L	97
20) trans-1,2-Dichloroethene	3.405	61	12333833	22.55	ug/L	90
21) Methyl tert-butyl ether	3.448	73	34505463	23.04	ug/L	93
22) Hexane	3.794	57	10657407	24.96	ug/L	95
23) 1,1-Dichloroethane	4.001	63	16607790	22.08	ug/L	96
24) Vinyl acetate	4.132	43	20269929	24.13	ug/L	94
25) 2-Chloro-1,3-butadiene	4.136	53	13073937	22.79	ug/L	88
26) 1-propanol	4.289	59	613559m	232.24	ug/L	
27) 2,2-Dichloropropane	4.828	77	16660877	24.20	ug/L	93
28) cis-1,2-Dichloroethene	4.838	61	15260910	22.50	ug/L	90
29) 2-Butanone	4.918	72	5125803	79.43	ug/L	92

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) Propionitrile	4.984	54	1471974m	22.29	ug/L		
31) Ethyl acetate	5.022	61	1795359	23.26	ug/L		83
32) Methylacrylate	5.046	55	10835387	22.65	ug/L		94
33) 1-Bromopropane	5.077	41	6077508	23.02	ug/L		74
34) Bromochloromethane	5.150	130	8429201	22.49	ug/L		99
35) Methacrylonitrile	5.176	67	5443199	23.03	ug/L		93
36) Tetrahydrofuran	5.260	42	2985140	22.01	ug/L		81
37) Chloroform	5.276	83	18921305	22.80	ug/L		99
39) 1,1,1-Trichloroethane	5.480	97	17229413	22.61	ug/L		96
40) Cyclohexane	5.534	84	15722578	23.26	ug/L		86
41) 1-Chlorobutane	5.631	56	18046216	22.87	ug/L		96
42) 1,1-Dichloropropene	5.689	75	13856552	22.61	ug/L		94
44) 1,2-Dichloroethane	5.971	62	13851201	21.79	ug/L		99
45) Isobutanol	5.972	43	3280264m	194.27	ug/L		
47) Carbon tetrachloride	5.681	117	15310338	24.14	ug/L		99
48) Benzene	5.935	78	40665100	23.05	ug/L		100
50) Trichloroethene	6.696	95	11250963	22.64	ug/L		93
51) 1-Butanol	6.746	56	2255289m	208.80	ug/L		
52) 1,2-Dichloropropane	6.945	63	9529873	22.44	ug/L		92
53) Dibromomethane	7.071	174	9677306	23.15	ug/L	#	93
54) Methyl methacrylate	7.131	69	9246056	22.45	ug/L		91
55) 1,4-dioxane	7.142	88	938636m	226.19	ug/L		
56) Bromodichloromethane	7.259	83	14985346	22.95	ug/L		100
57) 2-Nitropropane	7.523	43	4203206	23.39	ug/L		93
58) 2-Chloroethyl vinyl ether	7.613	63	8183821	24.29	ug/L		99
59) cis-1,3-Dichloropropene	7.745	75	18289030	23.54	ug/L		96
60) 4-Methyl-2-pentanone	7.943	43	39864893	77.53	ug/L	#	91
61) trans-1,3-Dichloropropene	8.333	75	17152326	23.06	ug/L		93
62) 1,1,2-Trichloroethane	8.519	97	10619503	22.86	ug/L		95
65) Toluene	8.086	91	45387057	23.04	ug/L		98
66) Ethylmethacrylate	8.460	69	16221604	22.60	ug/L		89
67) Tetrachloroethene	8.647	166	14228124	25.07	ug/L		95
68) 1,3-Dichloropropane	8.686	76	17116213	23.06	ug/L		89
69) 2-Hexanone	8.808	43	25393398	78.41	ug/L		90
70) Dibromochloromethane	8.912	129	13745317	23.30	ug/L		99
71) 1,2-Dibromoethane	9.019	107	11929713	23.35	ug/L		100
72) Chlorobenzene	9.523	112	30973514	23.44	ug/L		94
73) 1,1,1,2-Tetrachloroethane	9.613	131	12273302	23.74	ug/L		98
74) Ethylbenzene	9.643	91	48959091	23.04	ug/L		95
75) m,p-Xylene	9.764	91	74099947	45.86	ug/L		95
76) Styrene	10.176	104	32490477	22.83	ug/L		94
77) Bromoform	10.354	173	11029565	23.49	ug/L		98
79) o-Xylene	10.160	91	38828523	25.14	ug/L		96
80) Isopropylbenzene	10.536	105	45654079	25.36	ug/L		97
82) Bromobenzene	10.827	77	16707349	24.57	ug/L		87
83) 1,1,2,2-Tetrachloroethane	10.842	83	13675430	25.18	ug/L		97
84) 1,2,3-Trichloropropane	10.880	110	4843307	25.52	ug/L		97
85) trans-1,4-Dichloro-2-b...	10.900	53	3658465	25.13	ug/L		73
86) n-Propylbenzene	10.948	91	50017691	24.95	ug/L		96

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87)	2-Chlorotoluene	11.027	91	30059079	24.90	ug/L	96
88)	4-Chlorotoluene	11.137	91	34132705	24.95	ug/L	95
89)	1,3,5-Trimethylbenzene	11.129	105	33756924	24.10	ug/L	96
90)	2-ethyl-1-toluene	11.328	105	41179557	24.15	ug/L	98
91)	tert-Butylbenzene	11.454	119	37181539	25.21	ug/L	90
92)	1,2,4-Trimethylbenzene	11.502	105	33058899	23.59	ug/L	94
93)	sec-Butylbenzene	11.673	105	41479991	24.22	ug/L	97
94)	1,3-Dichlorobenzene	11.775	146	19935622	23.92	ug/L	98
95)	4-Isopropyltoluene	11.822	119	33867661	23.88	ug/L	98
96)	1,4-Dichlorobenzene	11.865	146	19368707	23.91	ug/L	98
98)	1,2-Dichlorobenzene	12.237	146	17483225	23.08	ug/L	99
99)	n-Butylbenzene	12.231	91	24716667	22.57	ug/L	93
100)	Hexachloroethane	12.491	201	6334707	24.27	ug/L	97
101)	1,2-Dibromo-3-chloropr...	13.019	157	2483343	22.29	ug/L	99
102)	Nitrobenzene	13.227	77	786187	22.97	ug/L	94
103)	1,2,4-Trichlorobenzene	13.846	180	4995743	22.07	ug/L	98
104)	Hexachlorobutadiene	14.024	225	2629023	21.47	ug/L	98
105)	Naphthalene	14.091	128	13799913	23.08	ug/L	99
106)	1,2,3-Trichlorobenzene	14.333	180	4207973	23.27	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
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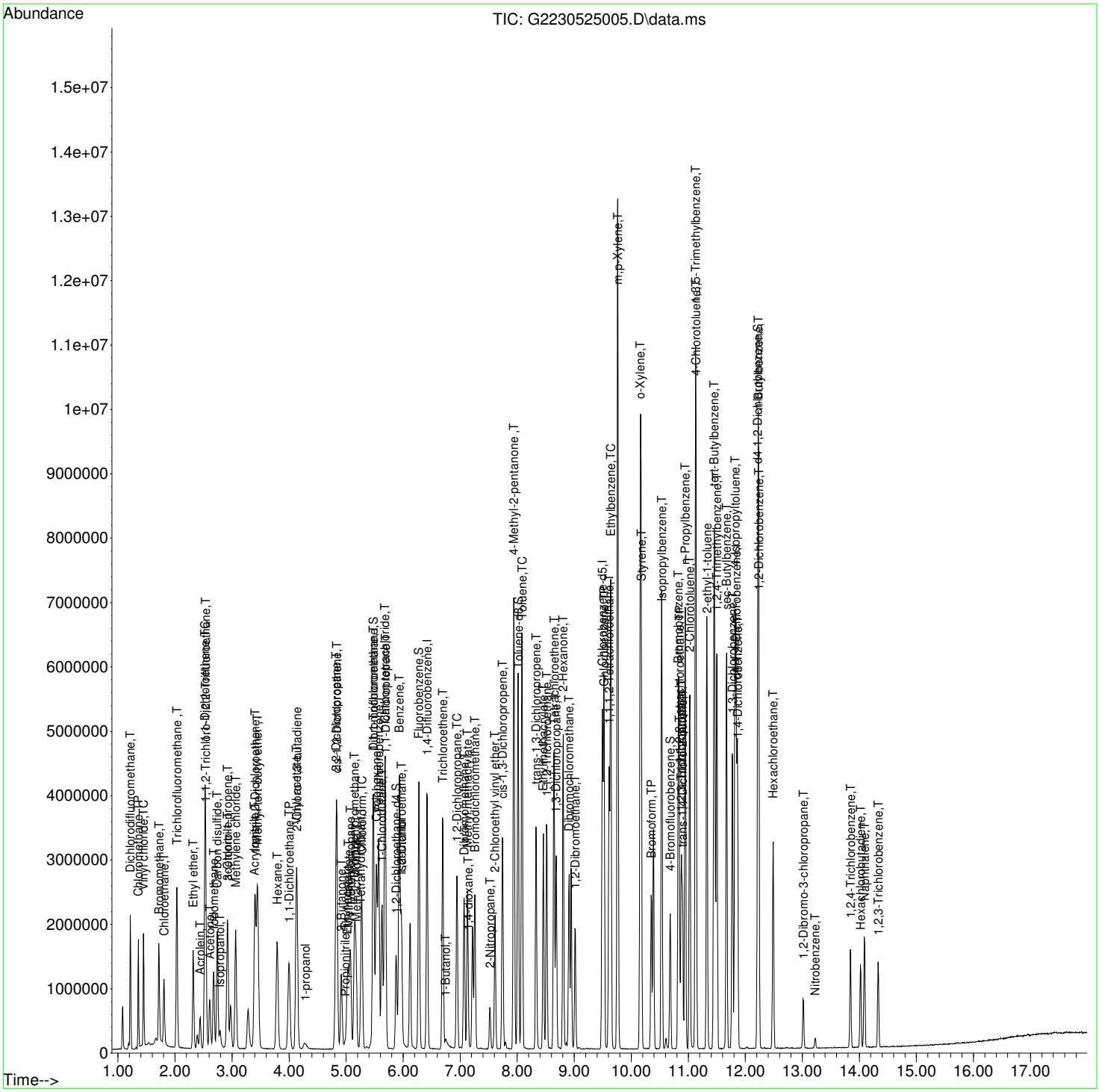
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

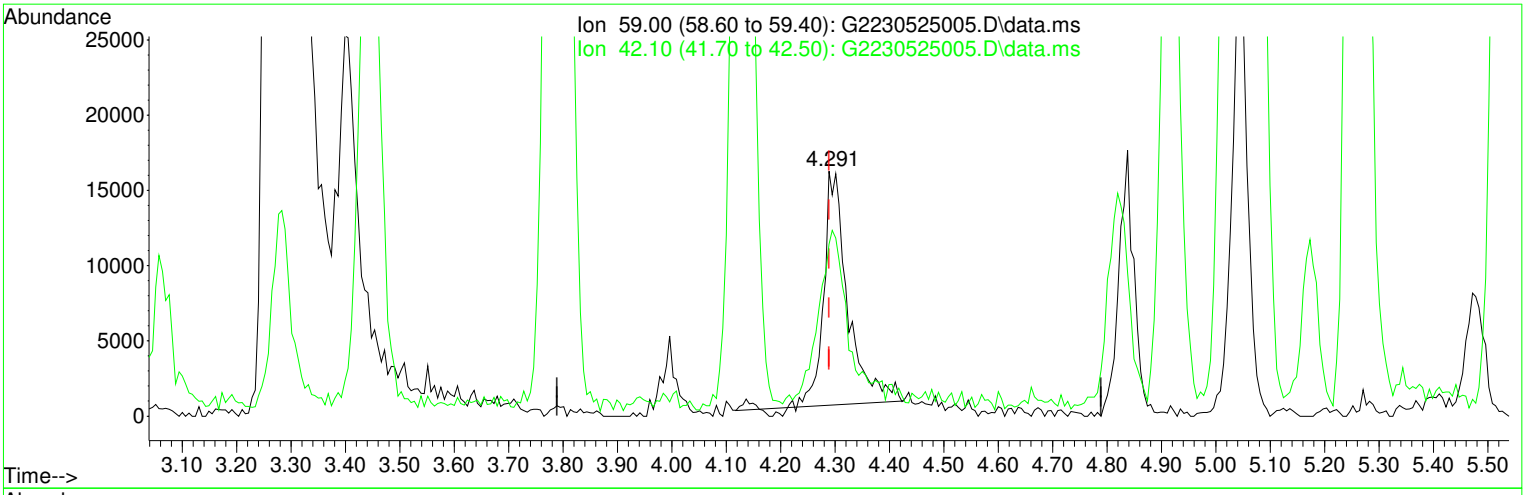
Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G

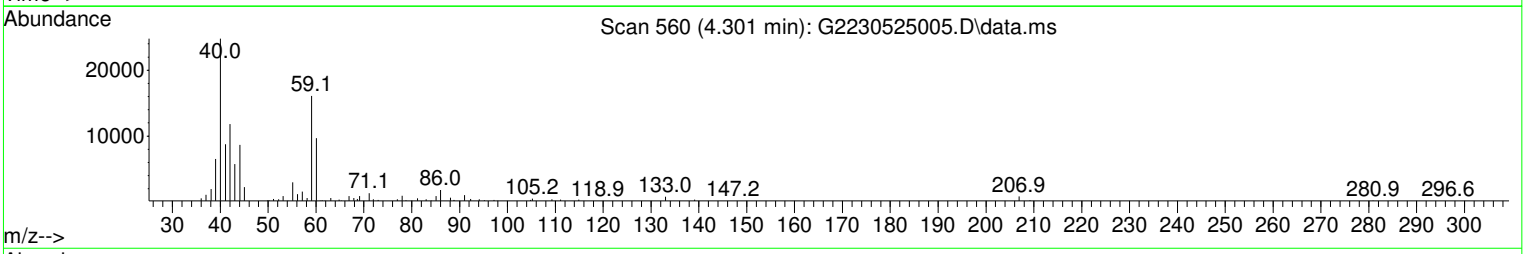


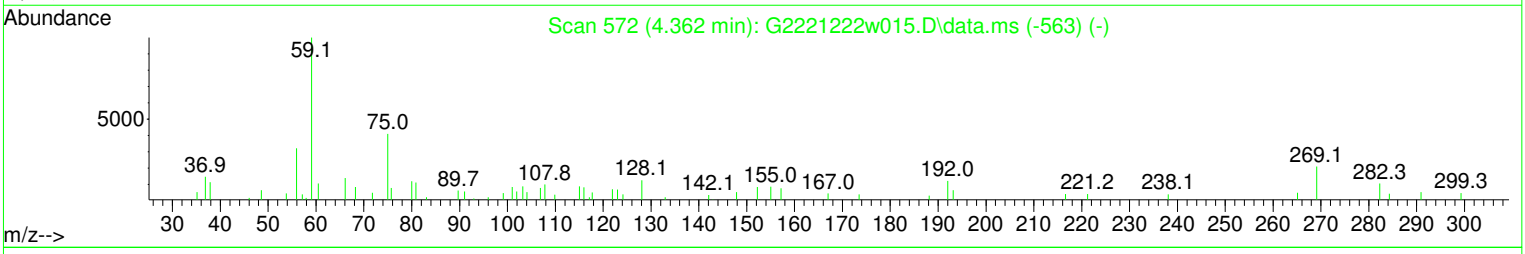
01342514

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525005.D\data.ms

(26) 1-propanol

4.303min (+ 0.014) 181.92 ug/L

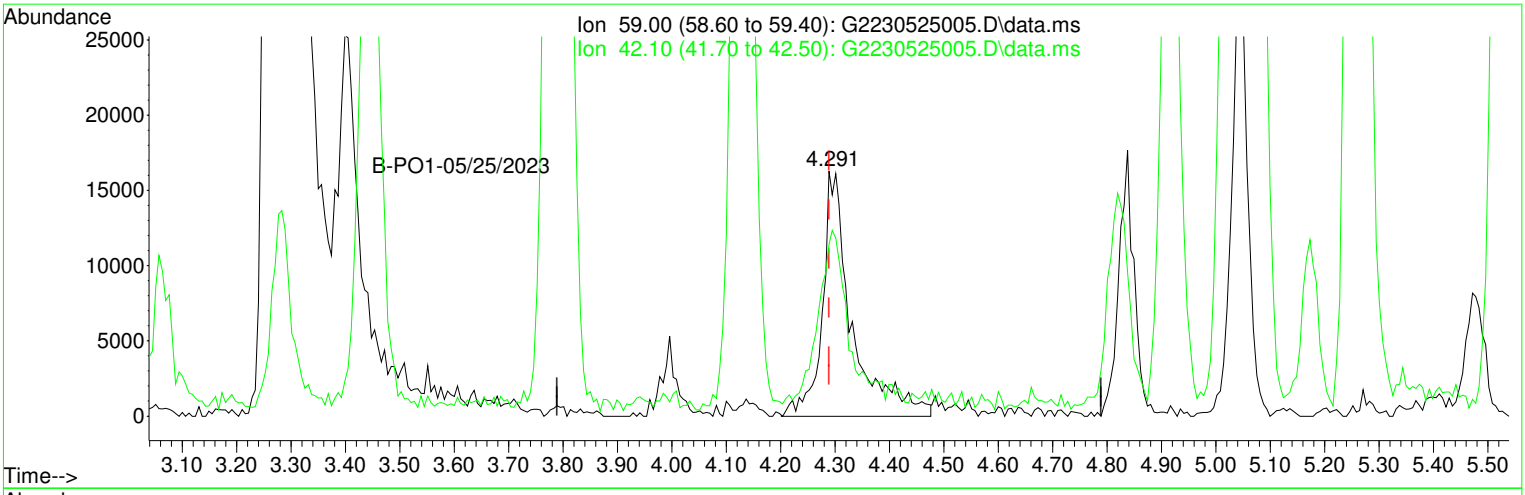
response 480609

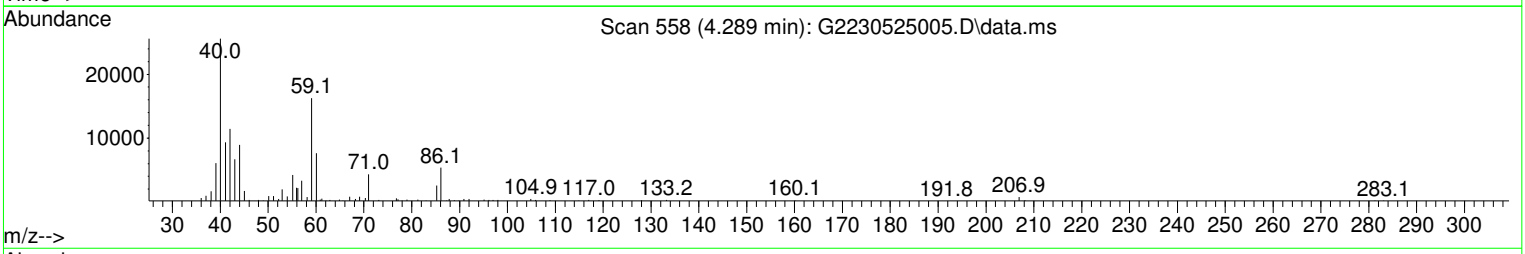
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	78.42#
0.00	0.00	0.00
0.00	0.00	0.00

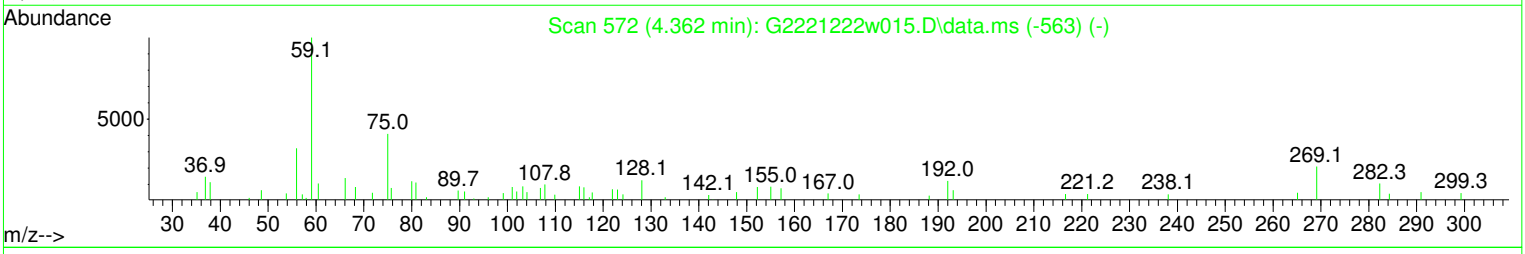
01342515

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525005.D\data.ms

(26) 1-propanol

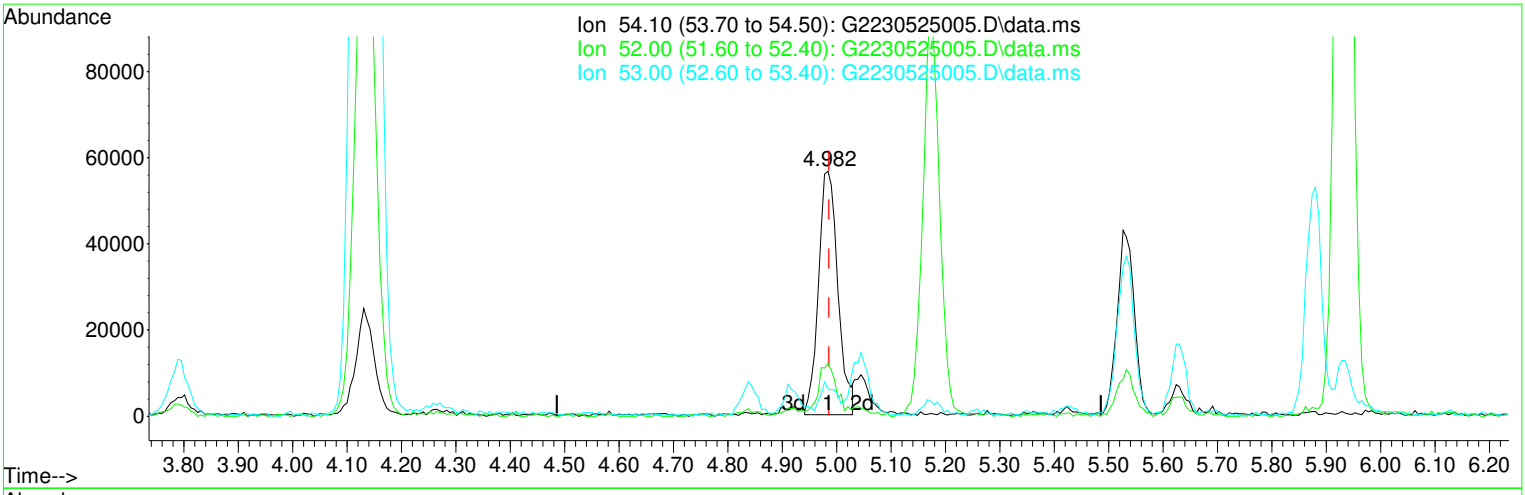
4.289min (0.000) 232.24 ug/L m

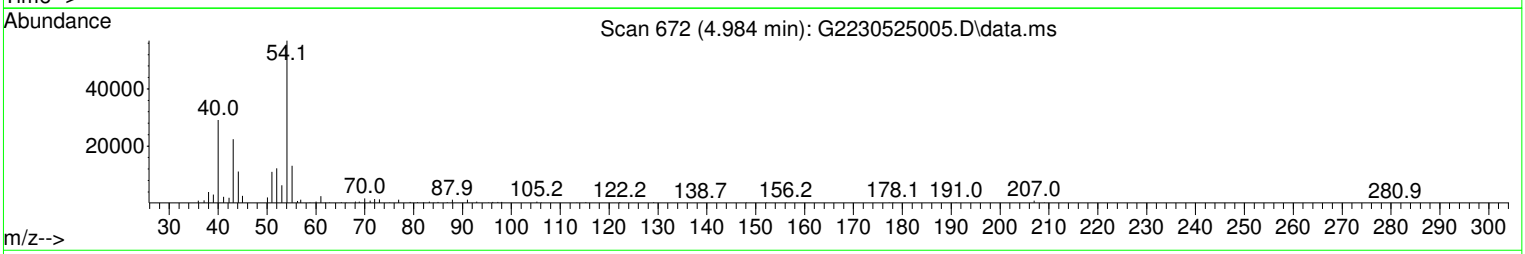
response 613559

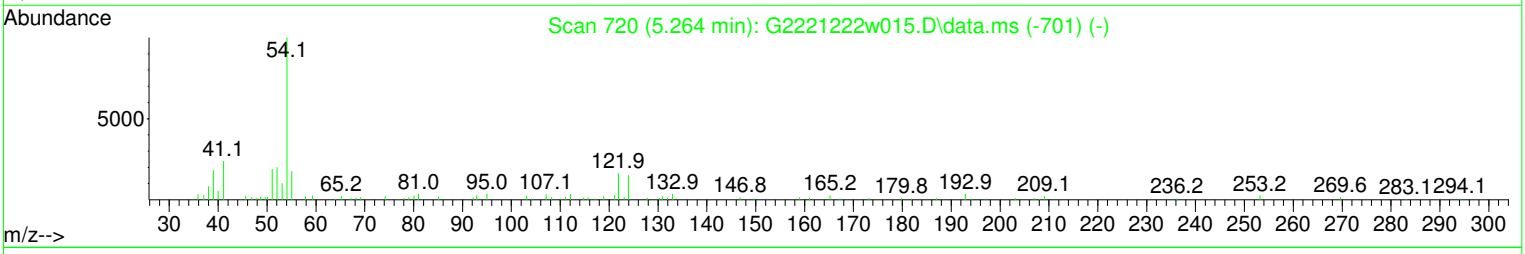
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	61.43#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525005.D\data.ms

(30) Propionitrile (T)

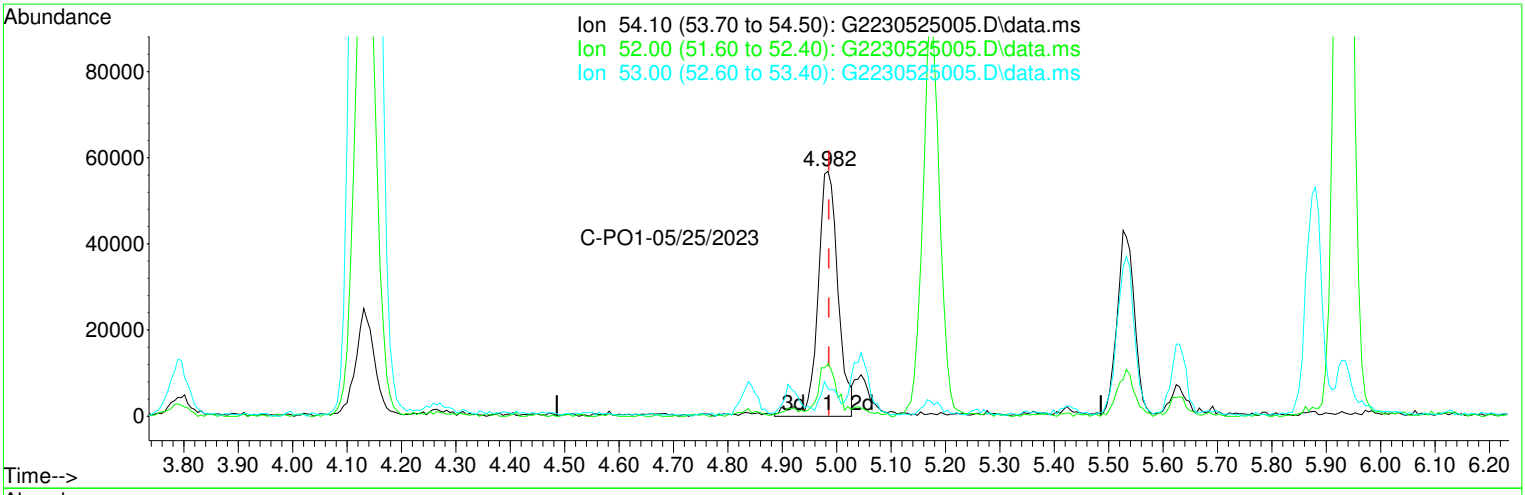
4.985min (-0.001) 20.83 ug/L

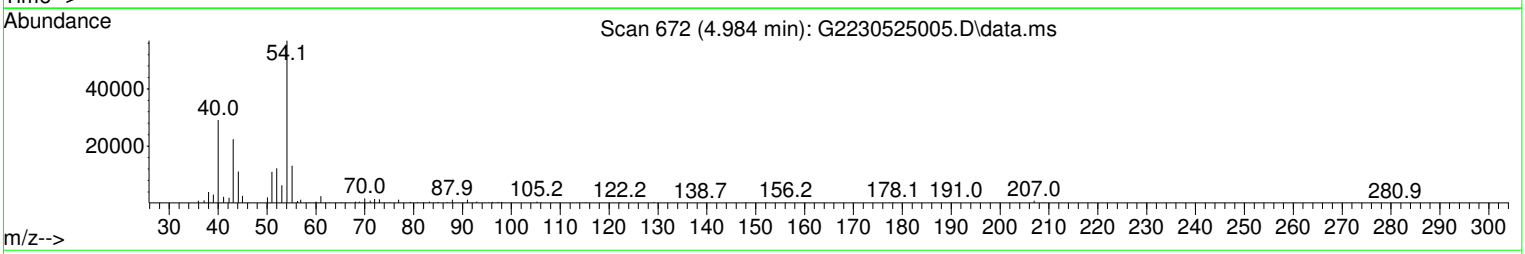
response 1375592

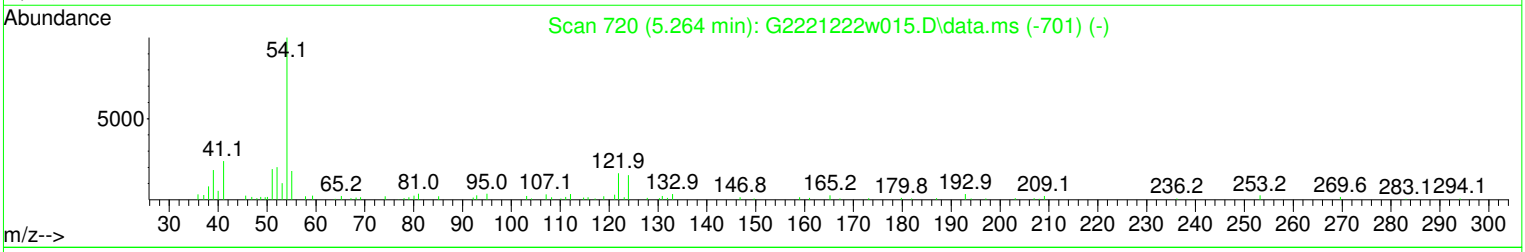
Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	24.45
53.00	12.00	10.89
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525005.D\data.ms

(30) Propionitrile (T)

4.984min (-0.002) 22.29 ug/L m

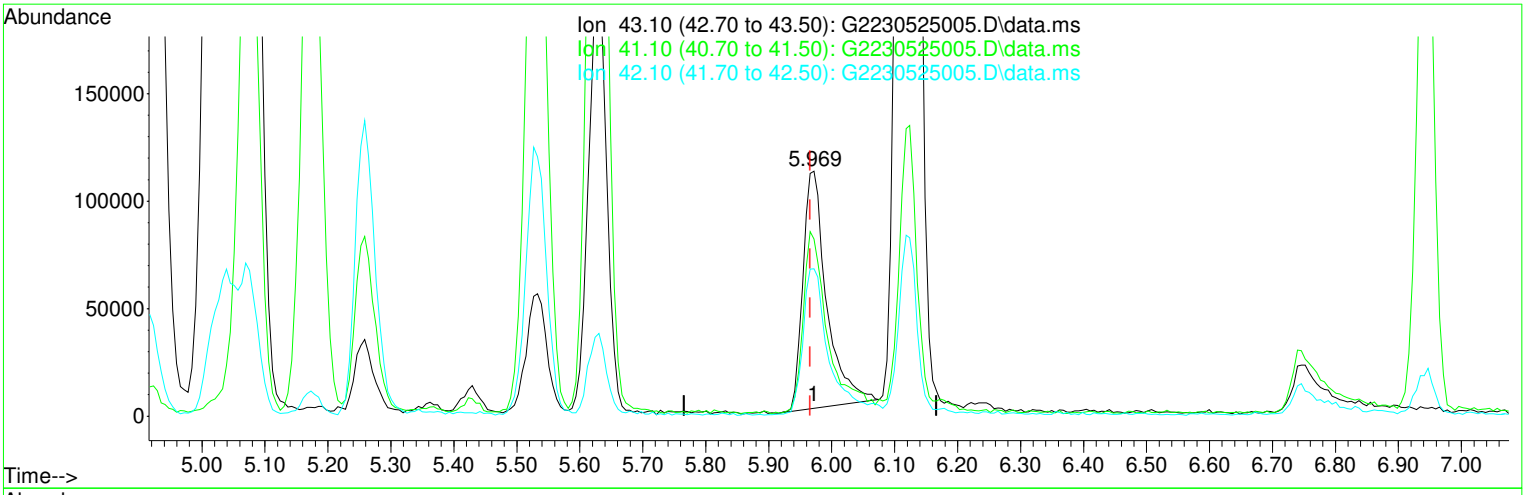
response 1471974

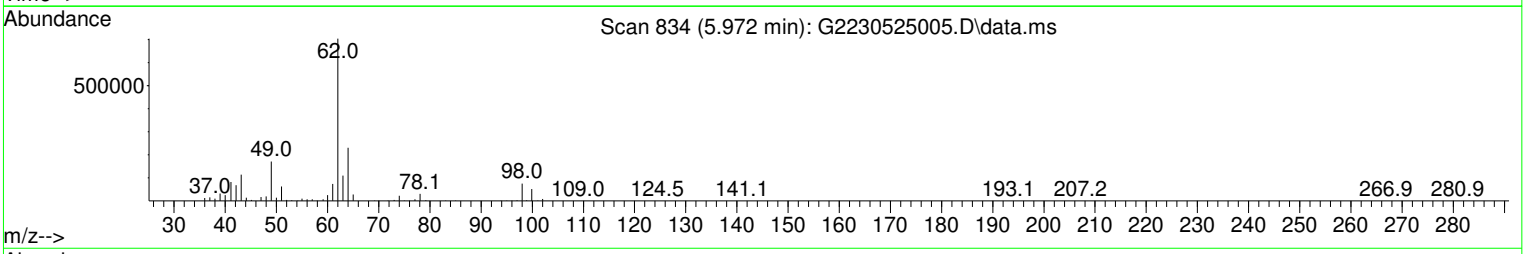
Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	22.85
53.00	12.00	10.17
0.00	0.00	0.00

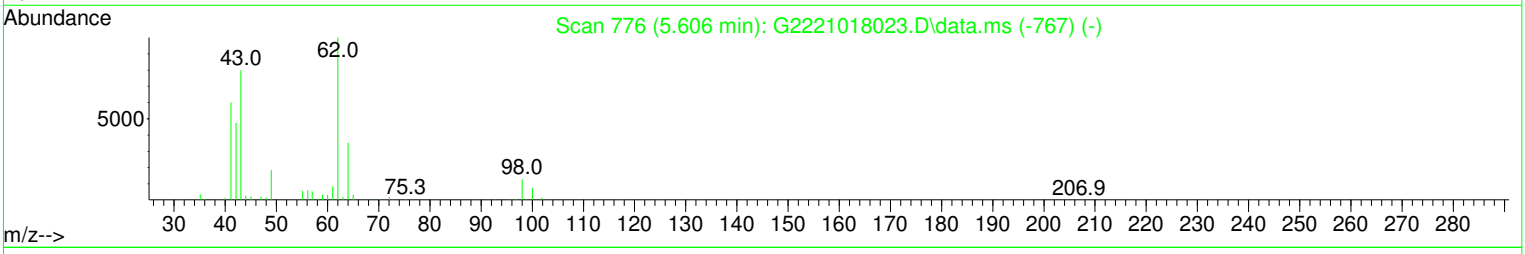
01342518

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525005.D\data.ms

(45) Isobutanol

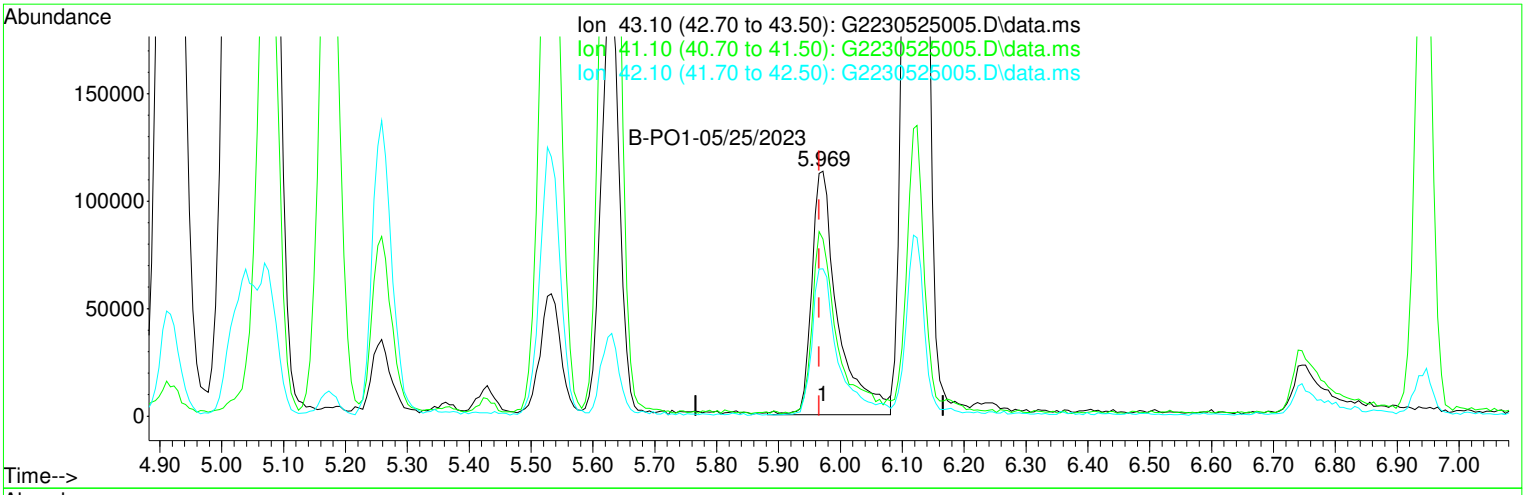
5.972min (+ 0.006) 170.64 ug/L

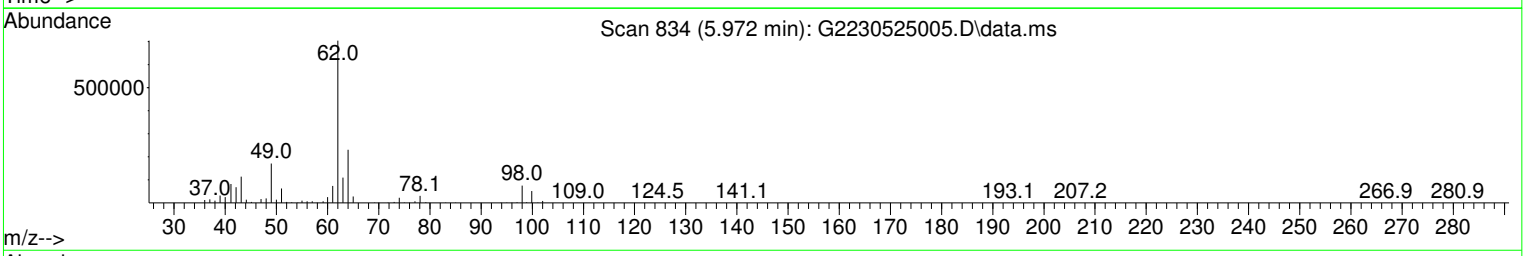
response 2881234

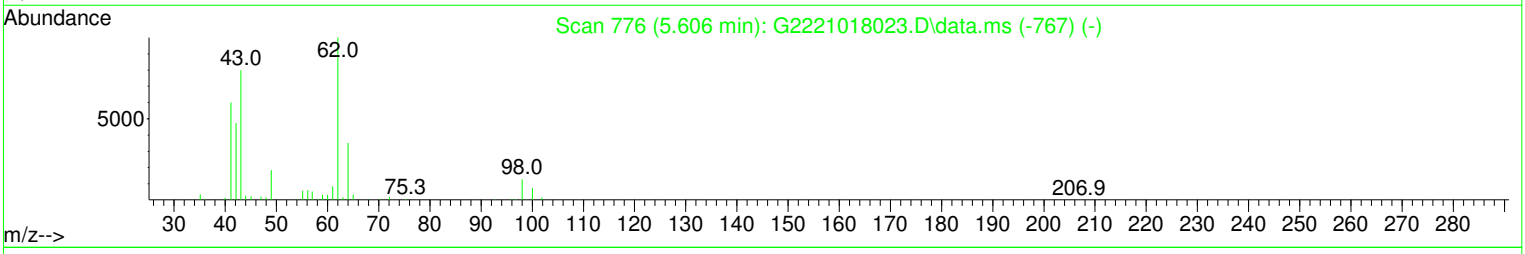
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	73.40
42.10	58.40	60.73
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525005.D\data.ms

(45) Isobutanol

5.972min (+ 0.006) 194.27 ug/L m

response 3280264

Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	64.47
42.10	58.40	53.34
0.00	0.00	0.00

01342520

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
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Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
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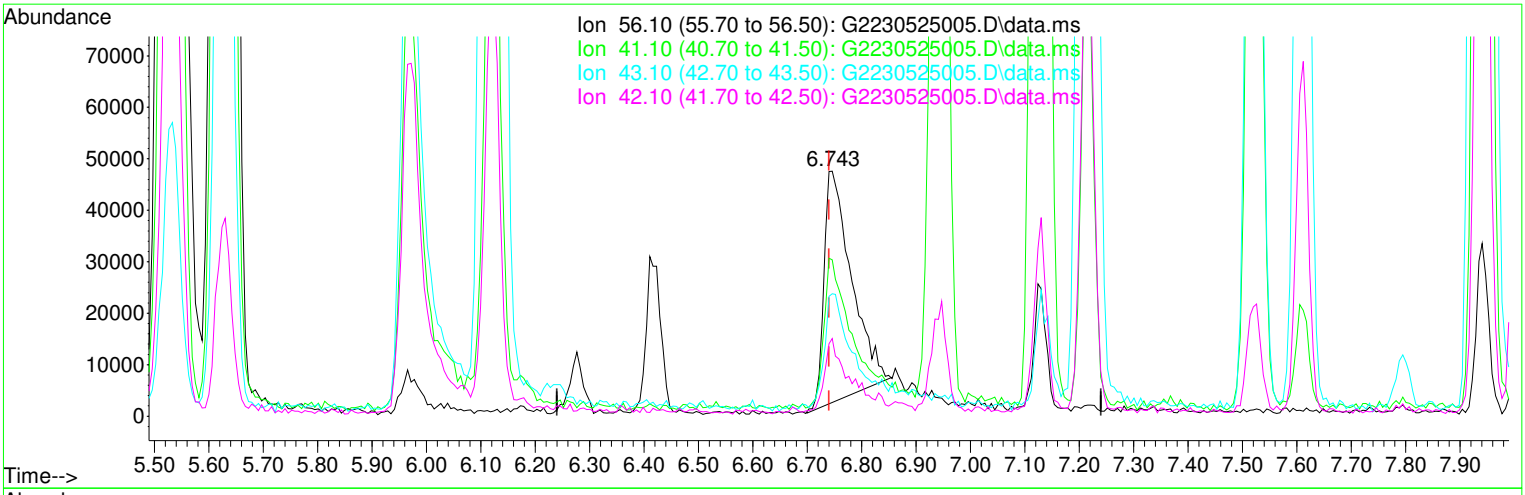
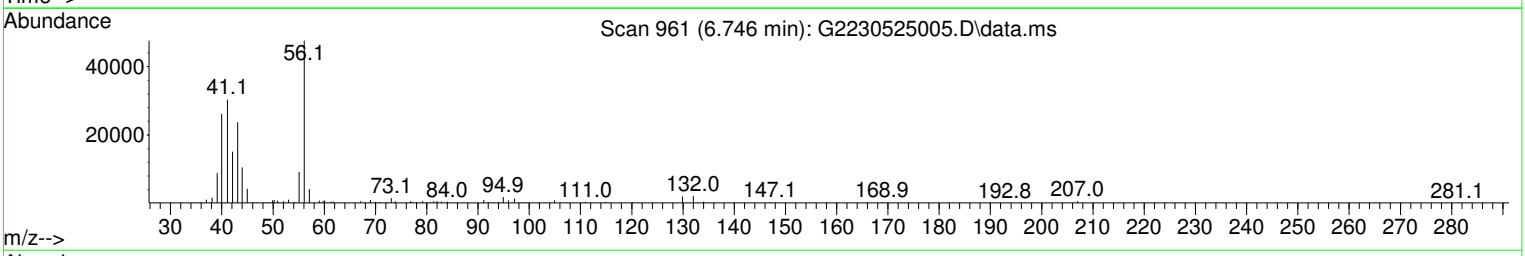
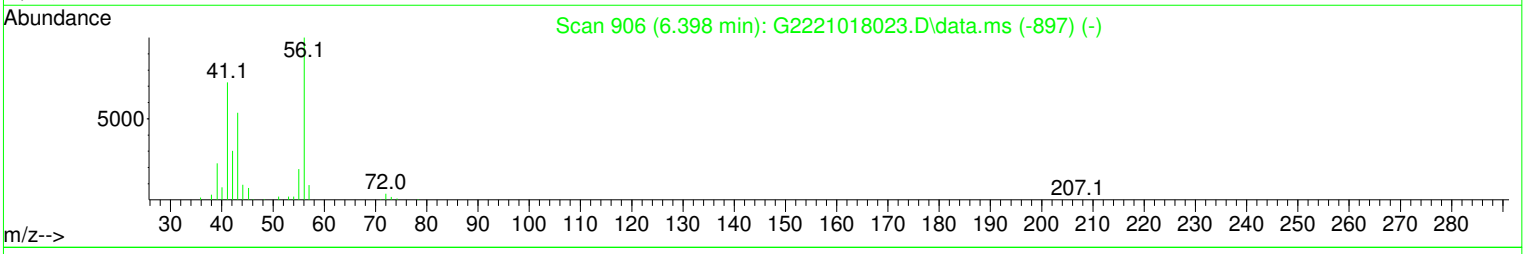






TIC: G2230525005.D\data.ms

(51) 1-Butanol (T)

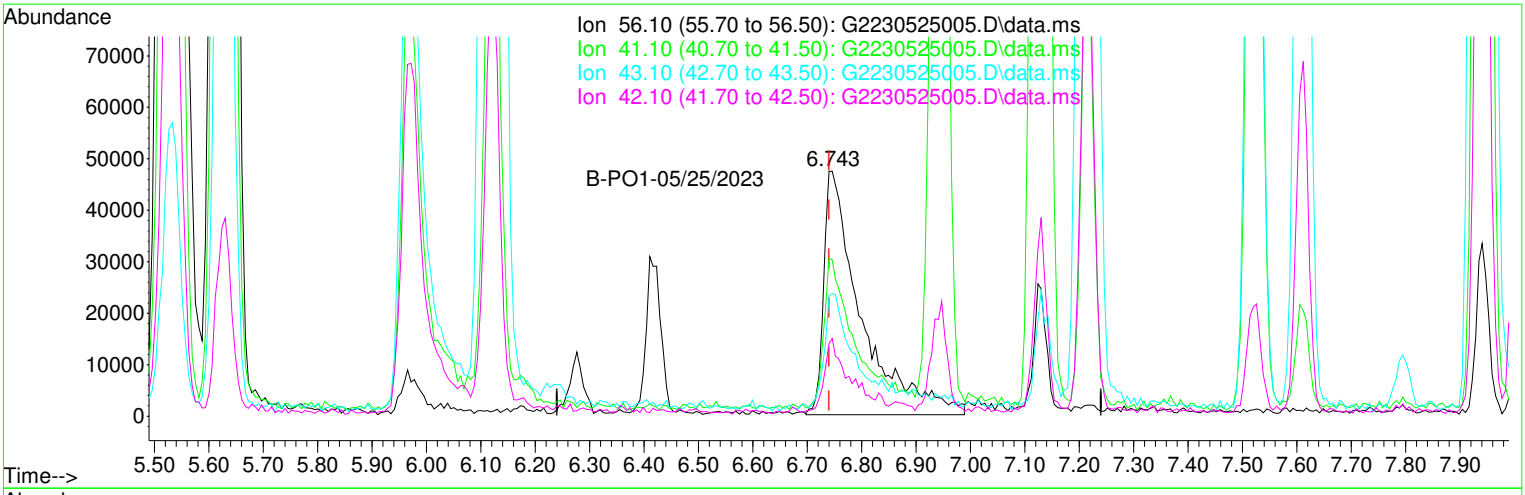
6.747min (+ 0.007) 143.21 ug/L

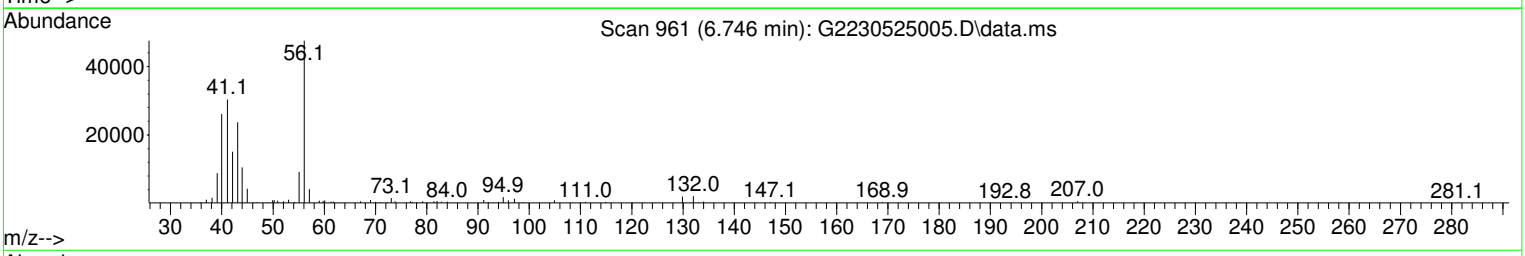
response 1559751

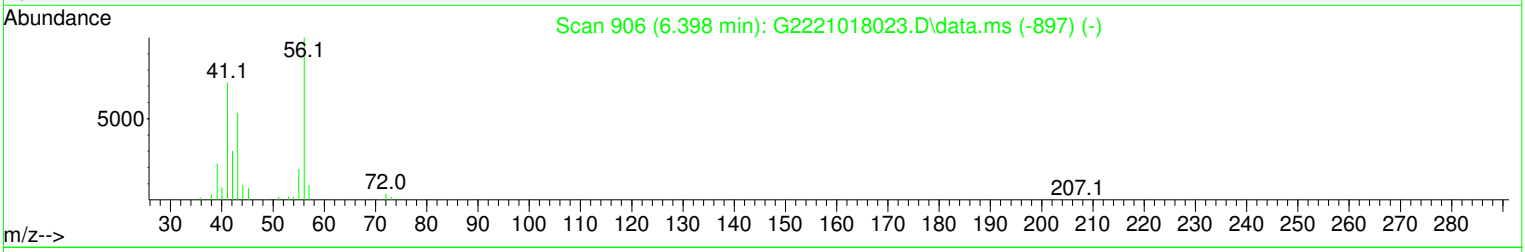
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	70.54
43.10	53.20	54.58
42.10	27.70	28.16

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525005.D\data.ms

(51) 1-Butanol (T)

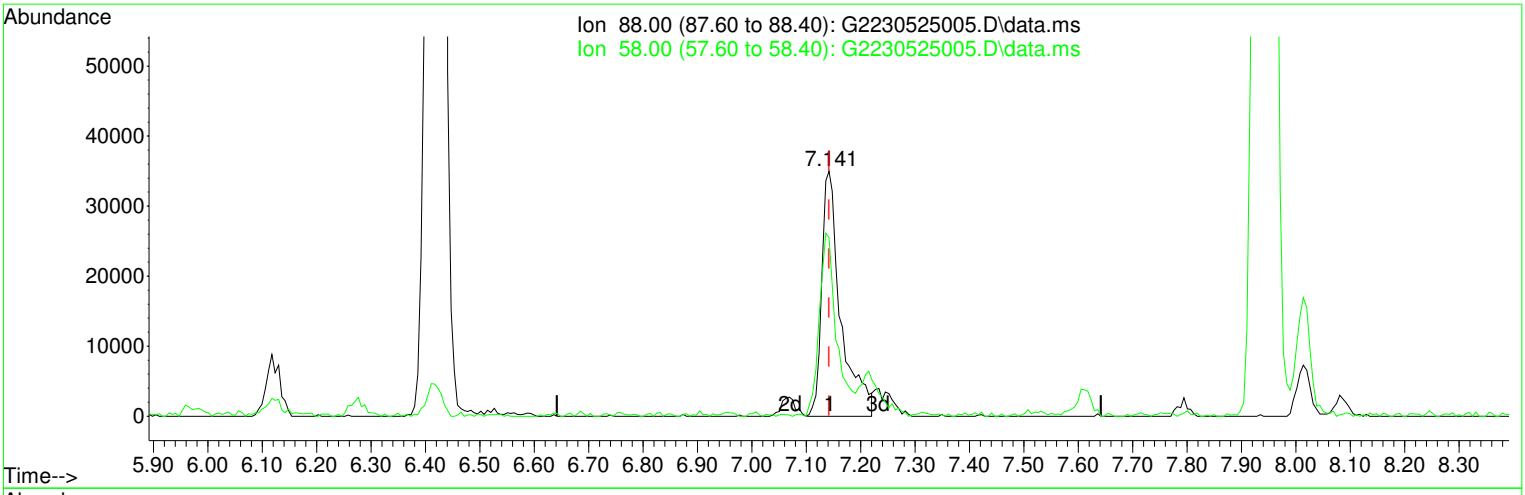
6.746min (+ 0.006) 208.80 ug/L m

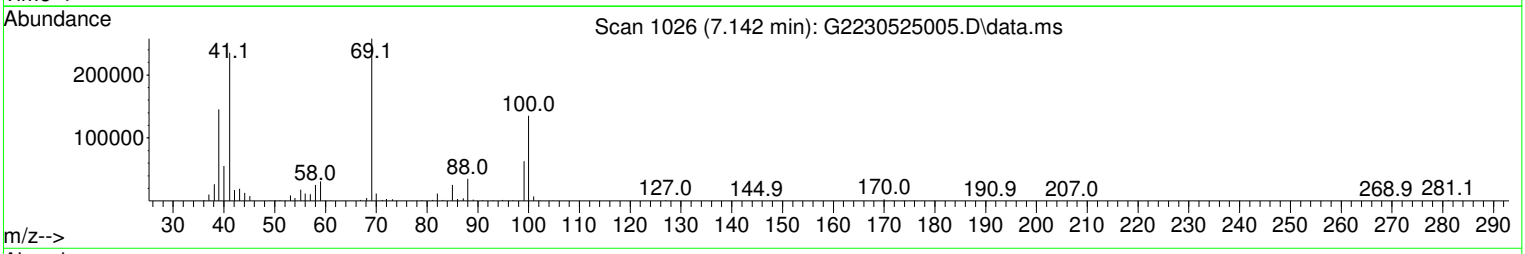
response 2255289

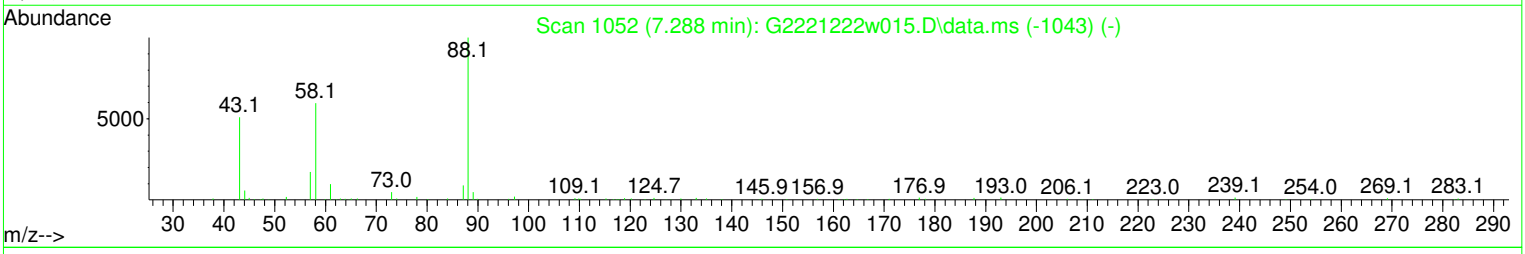
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	48.78
43.10	53.20	37.75
42.10	27.70	19.47

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525005.D\data.ms

(55) 1,4-dioxane (T)

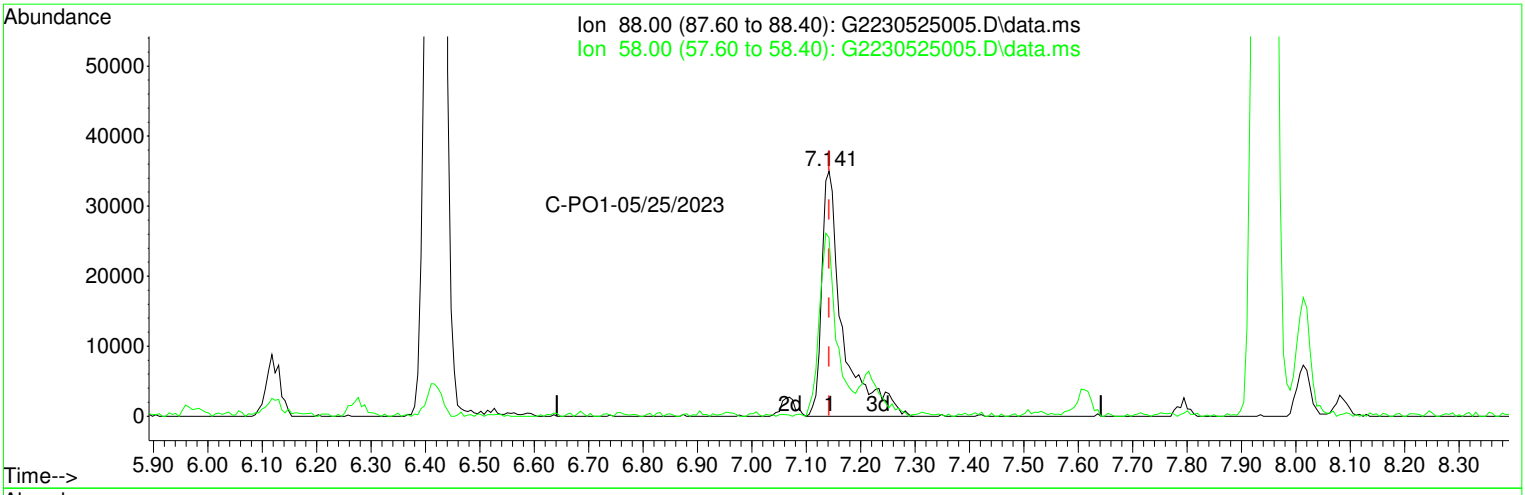
7.144min (+ 0.002) 202.38 ug/L

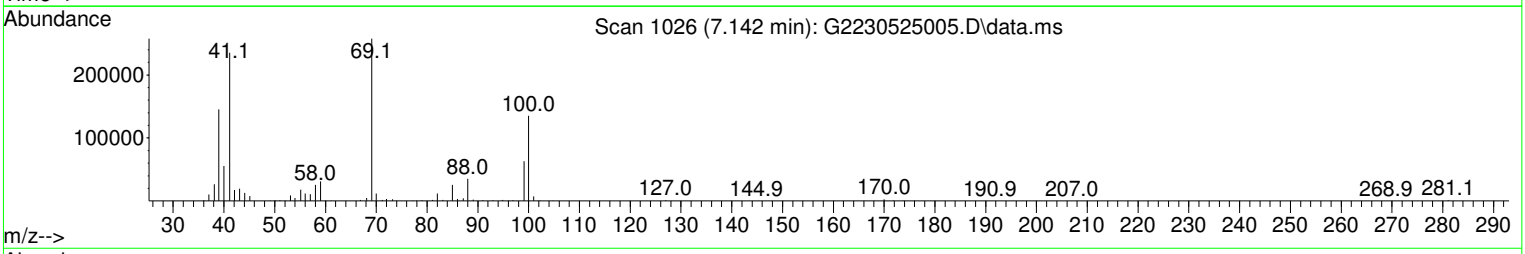
response 839846

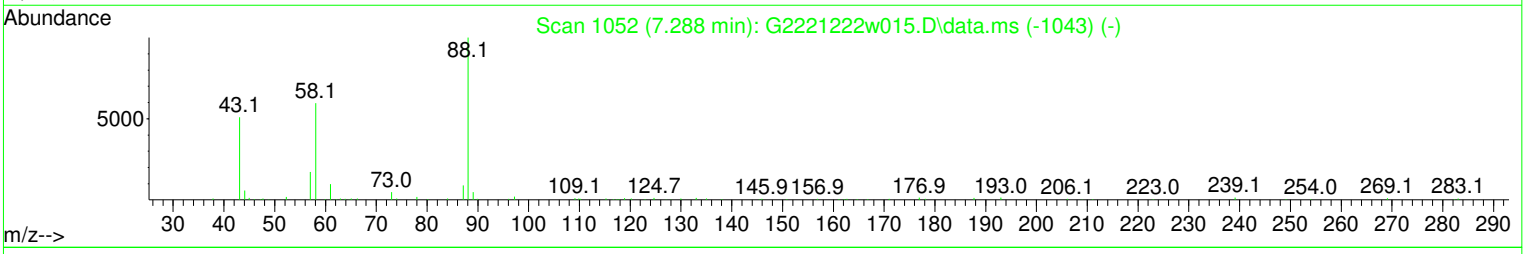
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	67.74
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525005.D
Acq On : 25 May 2023 13:48
Operator : PO1
Sample : SEQ-CAL9
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 25 15:42:28 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:33:52 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525005.D\data.ms

(55) 1,4-dioxane (T)

7.142min (+ 0.000) 226.19 ug/L m

response 938636

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	60.61
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	24269858	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	34198169	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	29487203	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.842	152	13194142	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	10430704	19.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.35%			
43) 1,2-Dichloroethane-d4	5.877	65	10193562	19.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%			
49) Fluorobenzene	6.277	96	38807946	19.90	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.50%			
64) Toluene-d8	8.016	98	36906861	19.85	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.25%			
81) 4-Bromofluorobenzene	10.686	174	6433900	10.31	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 103.10%			
97) d4-1,2-Dichlorobenzene	12.219	152	11215451	19.72	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.211	85	14072216	28.38	ug/L	99
3) Chloromethane	1.352	50	12034841	27.54	ug/L	99
4) Vinyl chloride	1.443	62	14057329	29.46	ug/L	99
5) Bromomethane	1.710	94	9608513	31.38	ug/L	99
6) Chloroethane	1.800	64	8449329	29.04	ug/L	97
7) Trichlorofluoromethane	2.026	101	22141104	30.31	ug/L	98
8) Ethyl ether	2.315	59	9669310	27.94	ug/L	88
9) Acrolein	2.436	56	4939806	76.68	ug/L	98
10) 1,1-Dichloroethene	2.519	61	15823740	28.45	ug/L	89
11) 1,1,2-Trichloro-1,2,2-...	2.530	101	11618697	29.14	ug/L	96
12) Acetone	2.605	43	11607474	102.39	ug/L	92
13) Iodomethane	2.672	142	16956239	29.61	ug/L	94
14) Carbon disulfide	2.736	76	32138889	27.81	ug/L	100
15) Isopropanol	2.788	45	5607473	286.22	ug/L	96
16) acetonitrile	2.915	41	17060176	74.60	ug/L	87
17) 3-Chloro-1-propene	2.915	76	7566291	28.99	ug/L	97
18) Methylene chloride	3.058	49	12421242	29.06	ug/L	85
19) Acrylonitrile	3.386	53	5157766	27.75	ug/L	96
20) trans-1,2-Dichloroethene	3.398	61	14911115	28.19	ug/L	90
21) Methyl tert-butyl ether	3.441	73	42046542	29.72	ug/L	93
22) Hexane	3.786	57	12931728	31.44	ug/L	96
23) 1,1-Dichloroethane	3.993	63	20421655	28.13	ug/L	97
24) Vinyl acetate	4.126	43	24959739	30.37	ug/L	94
25) 2-Chloro-1,3-butadiene	4.130	53	15761766	28.45	ug/L	87
26) 1-propanol	4.289	59	773813m	306.59	ug/L	
27) 2,2-Dichloropropane	4.823	77	20278405	30.20	ug/L	93
28) cis-1,2-Dichloroethene	4.833	61	18397428	28.01	ug/L	89
29) 2-Butanone	4.915	72	6504423	106.86	ug/L	91

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) Propionitrile	4.978	54	1687219m	26.42	ug/L		
31) Ethyl acetate	5.018	61	2182956	29.90	ug/L		82
32) Methylacrylate	5.042	55	13507696	29.26	ug/L		94
33) 1-Bromopropane	5.074	41	7483795	29.78	ug/L		75
34) Bromochloromethane	5.147	130	10168840	28.03	ug/L		99
35) Methacrylonitrile	5.173	67	6734066	30.18	ug/L		92
36) Tetrahydrofuran	5.257	42	3786384	29.85	ug/L		82
37) Chloroform	5.273	83	23001939	28.71	ug/L		99
39) 1,1,1-Trichloroethane	5.476	97	21203182	28.81	ug/L		96
40) Cyclohexane	5.531	84	19289764	29.52	ug/L		85
41) 1-Chlorobutane	5.628	56	21820410	28.63	ug/L		98
42) 1,1-Dichloropropene	5.687	75	16766277	28.30	ug/L		94
44) 1,2-Dichloroethane	5.969	62	16829661	27.41	ug/L		98
45) Isobutanol	5.971	43	4147453m	257.92	ug/L		
47) Carbon tetrachloride	5.677	117	18845105	30.43	ug/L		98
48) Benzene	5.932	78	49263617	28.61	ug/L		99
50) Trichloroethene	6.693	95	13866854	28.65	ug/L		93
51) 1-Butanol	6.739	56	2871806m	285.44	ug/L		
52) 1,2-Dichloropropane	6.944	63	11733183	28.35	ug/L		91
53) Dibromomethane	7.070	174	12096849	29.62	ug/L	#	93
54) Methyl methacrylate	7.130	69	11445540	28.51	ug/L		92
55) 1,4-dioxane	7.144	88	1135488	280.75	ug/L		93
56) Bromodichloromethane	7.258	83	18261352	28.67	ug/L		100
57) 2-Nitropropane	7.524	43	5272613	30.52	ug/L		92
58) 2-Chloroethyl vinyl ether	7.613	63	9797987	29.55	ug/L		99
59) cis-1,3-Dichloropropene	7.744	75	22217771	29.25	ug/L		96
60) 4-Methyl-2-pentanone	7.943	43	49343994	98.56	ug/L	#	90
61) trans-1,3-Dichloropropene	8.333	75	21055344	28.99	ug/L		92
62) 1,1,2-Trichloroethane	8.517	97	13076530	28.83	ug/L		95
65) Toluene	8.085	91	55450914	28.69	ug/L		97
66) Ethylmethacrylate	8.460	69	20054559	28.51	ug/L		90
67) Tetrachloroethene	8.646	166	17494320	31.03	ug/L		96
68) 1,3-Dichloropropane	8.686	76	21161696	29.08	ug/L		89
69) 2-Hexanone	8.808	43	31307311	98.98	ug/L		89
70) Dibromochloromethane	8.911	129	16876246	29.15	ug/L		99
71) 1,2-Dibromoethane	9.018	107	14623938	29.17	ug/L		99
72) Chlorobenzene	9.523	112	38145711	29.44	ug/L		94
73) 1,1,1,2-Tetrachloroethane	9.613	131	15053323	29.68	ug/L		98
74) Ethylbenzene	9.642	91	60346048	28.99	ug/L		96
75) m,p-Xylene	9.763	91	90833179	57.40	ug/L		94
76) Styrene	10.176	104	40462032	29.03	ug/L		95
77) Bromoform	10.354	173	13749287	29.87	ug/L		97
79) o-Xylene	10.160	91	48168358	29.47	ug/L		96
80) Isopropylbenzene	10.536	105	56582489	29.68	ug/L		97
82) Bromobenzene	10.827	77	21181955	29.48	ug/L		87
83) 1,1,2,2-Tetrachloroethane	10.843	83	17033423	29.58	ug/L		99
84) 1,2,3-Trichloropropane	10.881	110	6076721	30.31	ug/L		96
85) trans-1,4-Dichloro-2-b...	10.901	53	4498647	29.17	ug/L		72
86) n-Propylbenzene	10.949	91	63093520	29.76	ug/L		96

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

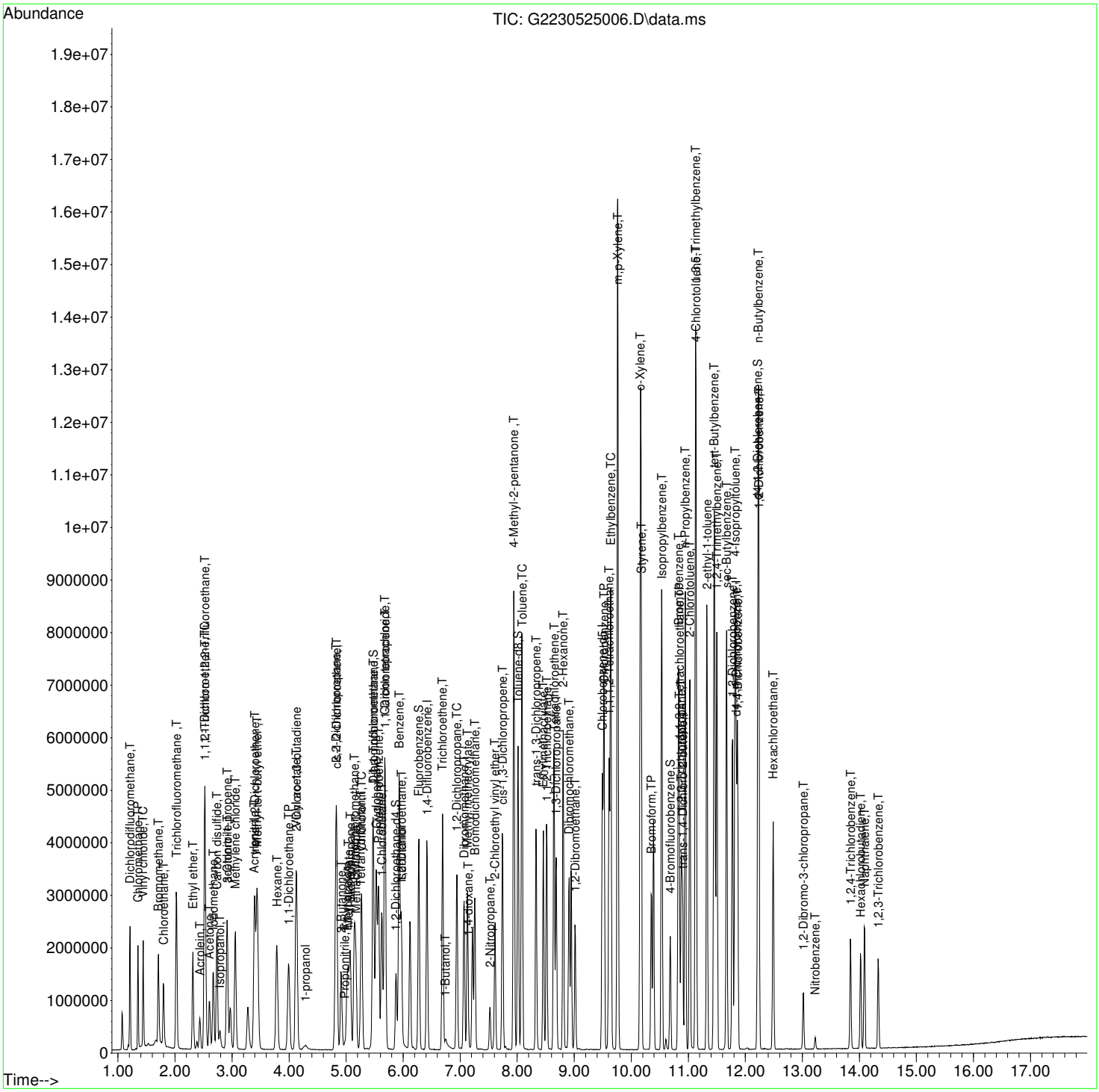
Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87)	2-Chlorotoluene	11.028	91	37442380	29.34	ug/L	96
88)	4-Chlorotoluene	11.138	91	43023765	29.78	ug/L	95
89)	1,3,5-Trimethylbenzene	11.129	105	43553759	29.51	ug/L	96
90)	2-ethyl-1-toluene	11.329	105	52435027	29.16	ug/L	97
91)	tert-Butylbenzene	11.455	119	47142974	29.98	ug/L	91
92)	1,2,4-Trimethylbenzene	11.502	105	42694674	28.92	ug/L	94
93)	sec-Butylbenzene	11.674	105	53284519	29.53	ug/L	97
94)	1,3-Dichlorobenzene	11.776	146	26067107	29.71	ug/L	98
95)	4-Isopropyltoluene	11.823	119	44349508	29.75	ug/L	98
96)	1,4-Dichlorobenzene	11.866	146	25282991	29.65	ug/L	98
98)	1,2-Dichlorobenzene	12.238	146	23164290	29.14	ug/L	98
99)	n-Butylbenzene	12.232	91	33064985	28.78	ug/L	93
100)	Hexachloroethane	12.491	201	8344565	30.39	ug/L	97
101)	1,2-Dibromo-3-chloropr...	13.020	157	3490226	30.84	ug/L	97
102)	Nitrobenzene	13.227	77	1055767	30.08	ug/L	90
103)	1,2,4-Trichlorobenzene	13.847	180	6917940	29.23	ug/L	96
104)	Hexachlorobutadiene	14.024	225	3658858	28.62	ug/L	97
105)	Naphthalene	14.091	128	18790245	30.59	ug/L	99
106)	1,2,3-Trichlorobenzene	14.334	180	5513424	28.92	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

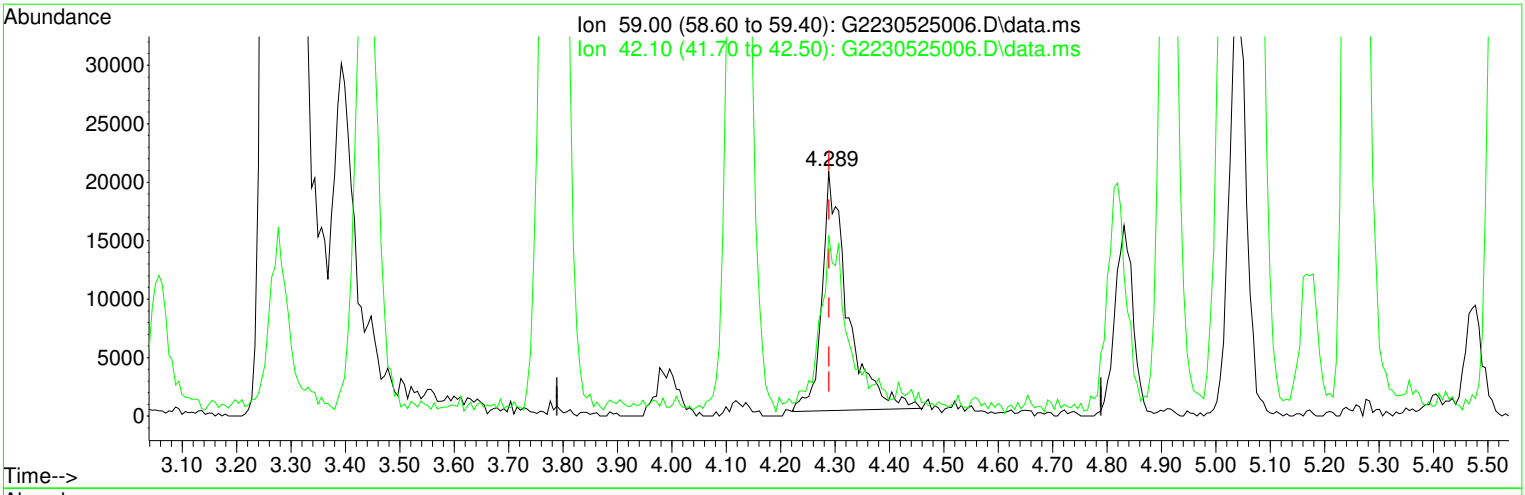
Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

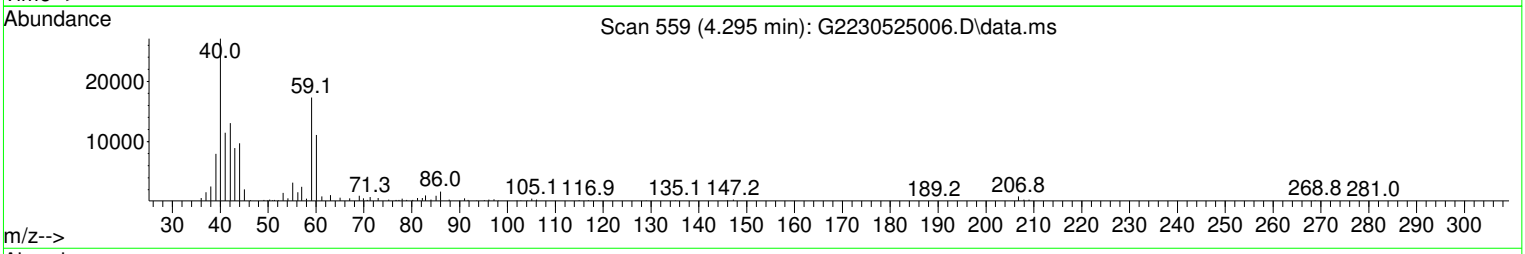
Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G

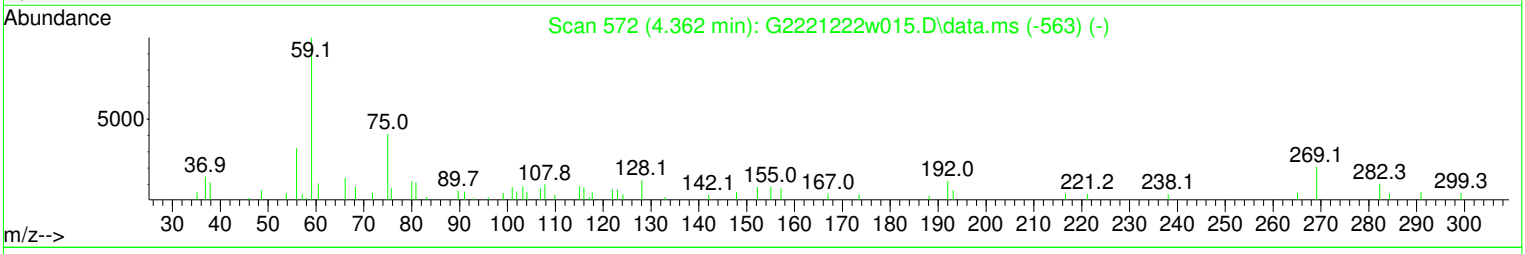


Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525006.D\data.ms

(26) 1-propanol

4.293min (+ 0.004) 266.86 ug/L

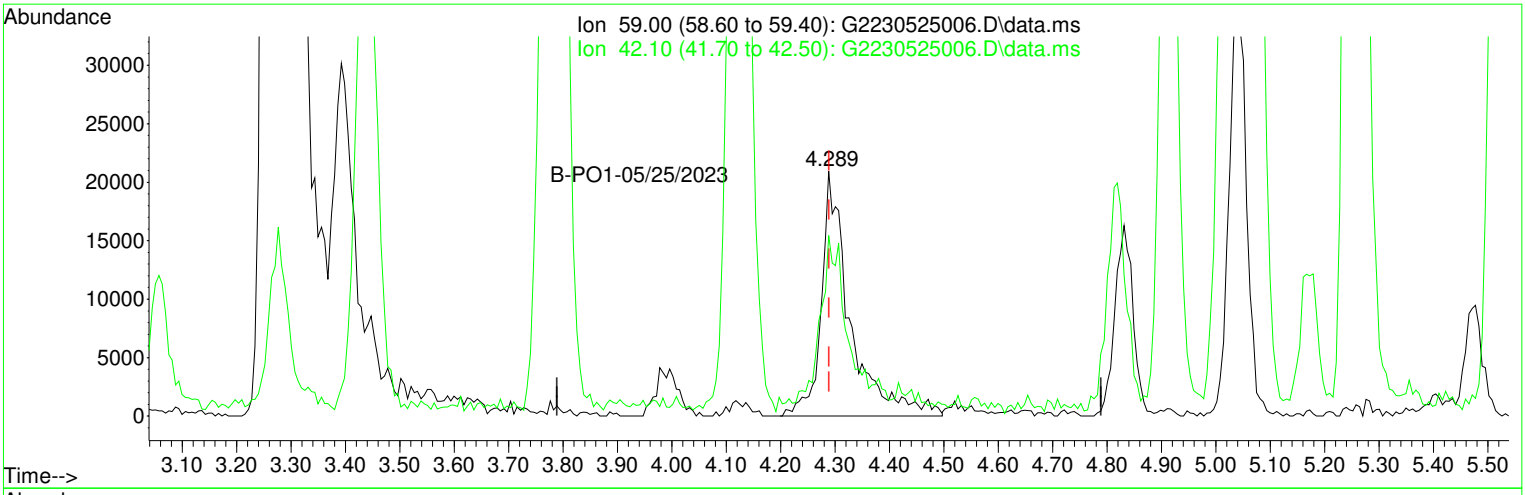
response 673532

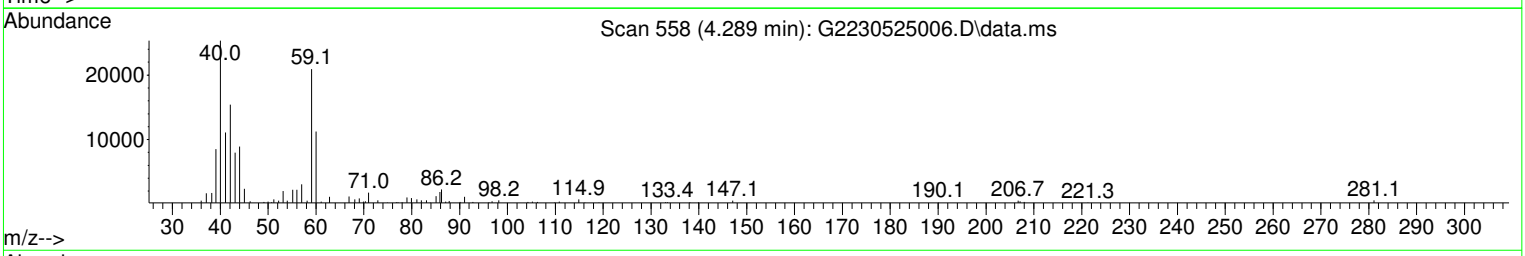
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	68.74#
0.00	0.00	0.00
0.00	0.00	0.00

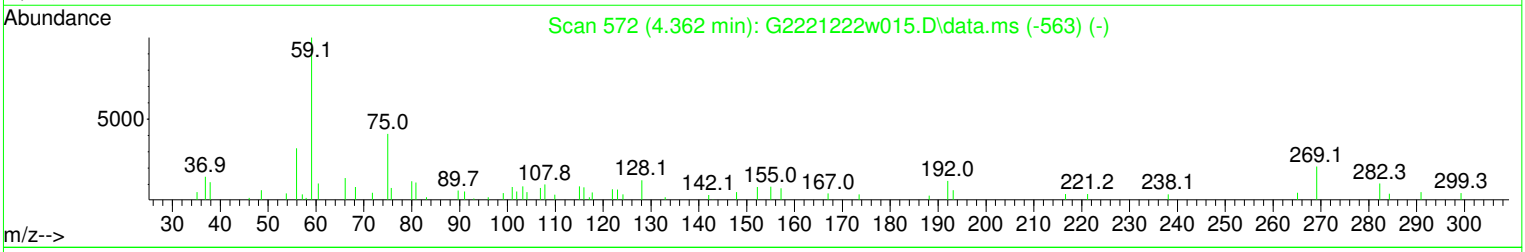
01342529

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525006.D\data.ms

(26) 1-propanol

4.289min (-0.000) 306.59 ug/L m

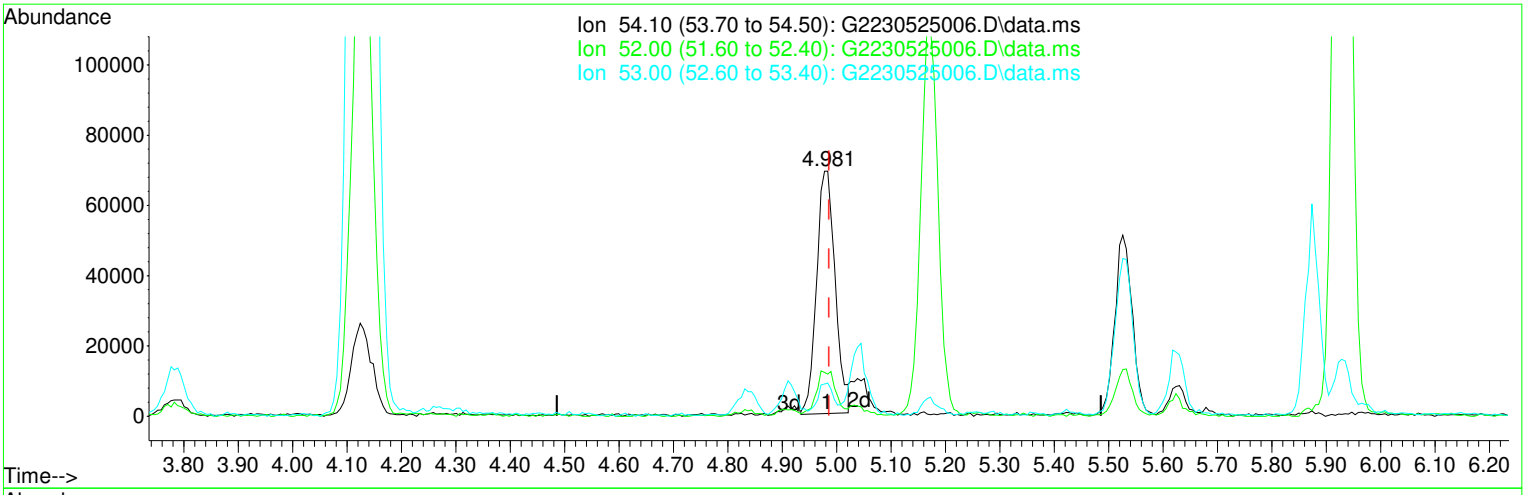
response 773813

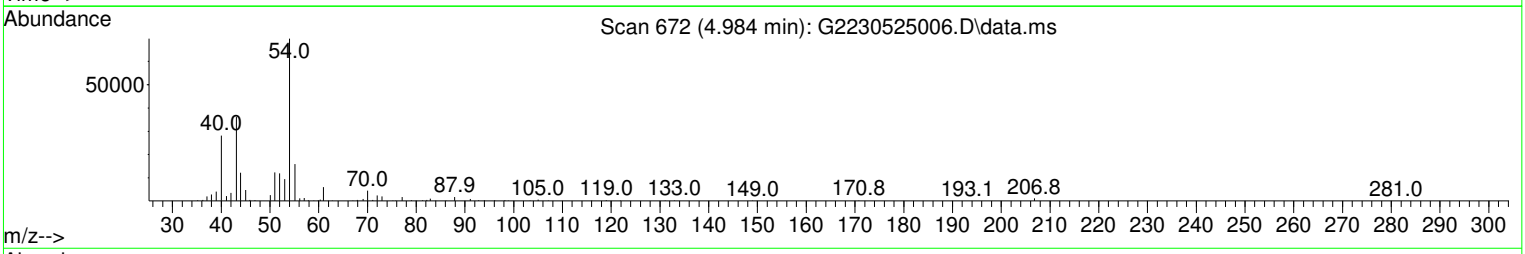
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	59.83#
0.00	0.00	0.00
0.00	0.00	0.00

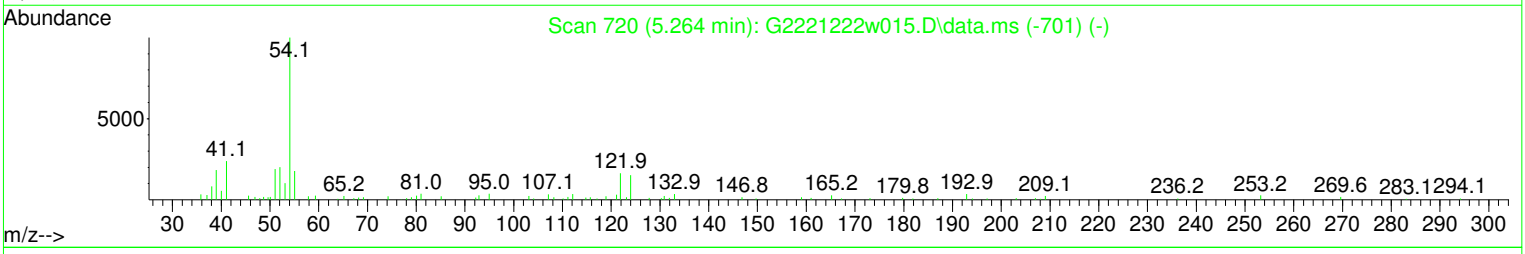
01342530

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525006.D\data.ms

(30) Propionitrile (T)

4.982min (-0.004) 25.30 ug/L

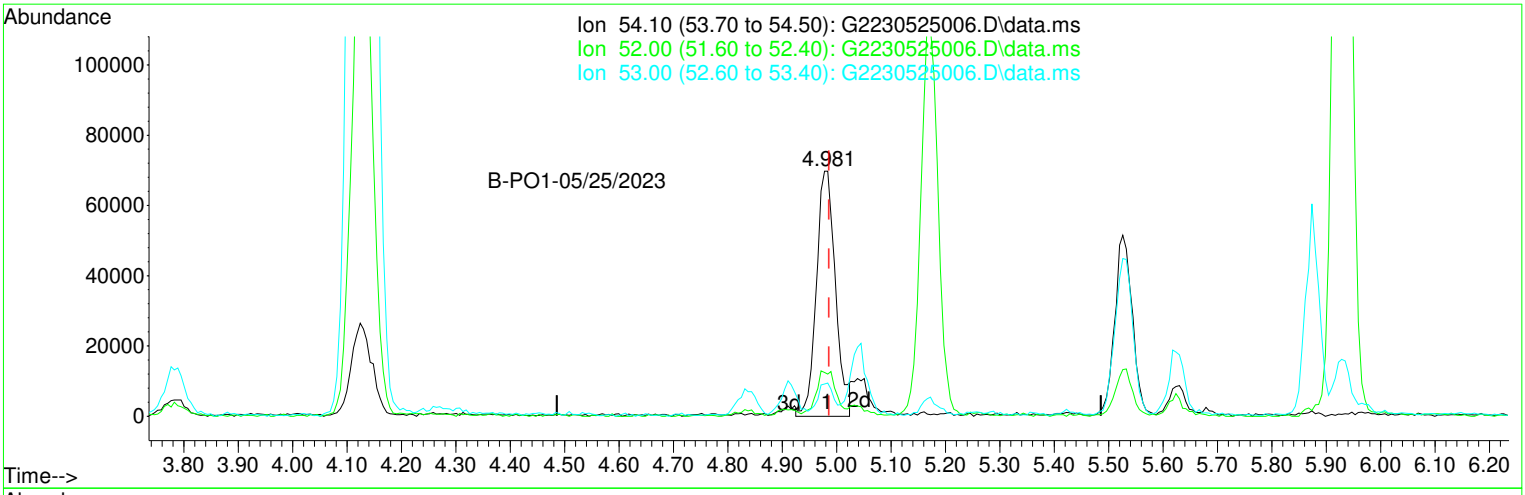
response 1615843

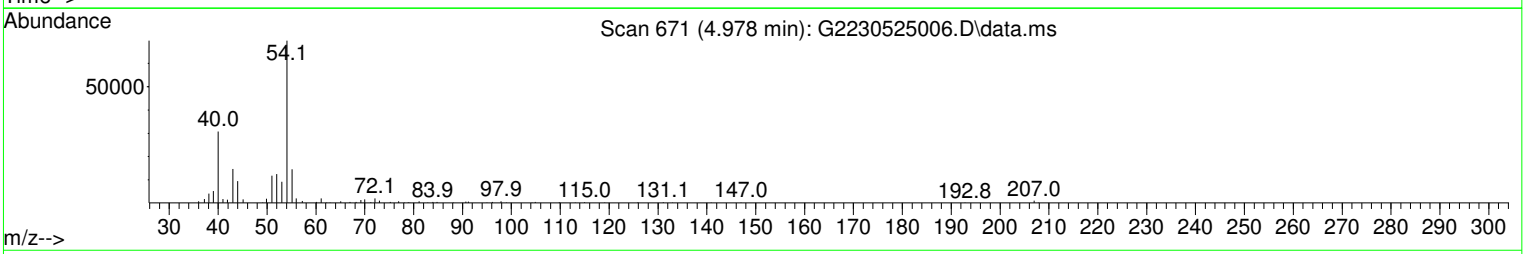
Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	19.48
53.00	12.00	11.39
0.00	0.00	0.00

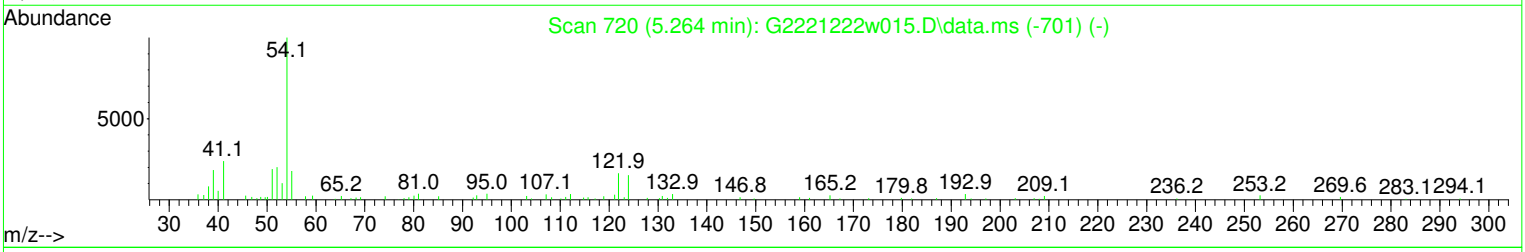
01342531

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525006.D\data.ms

(30) Propionitrile (T)

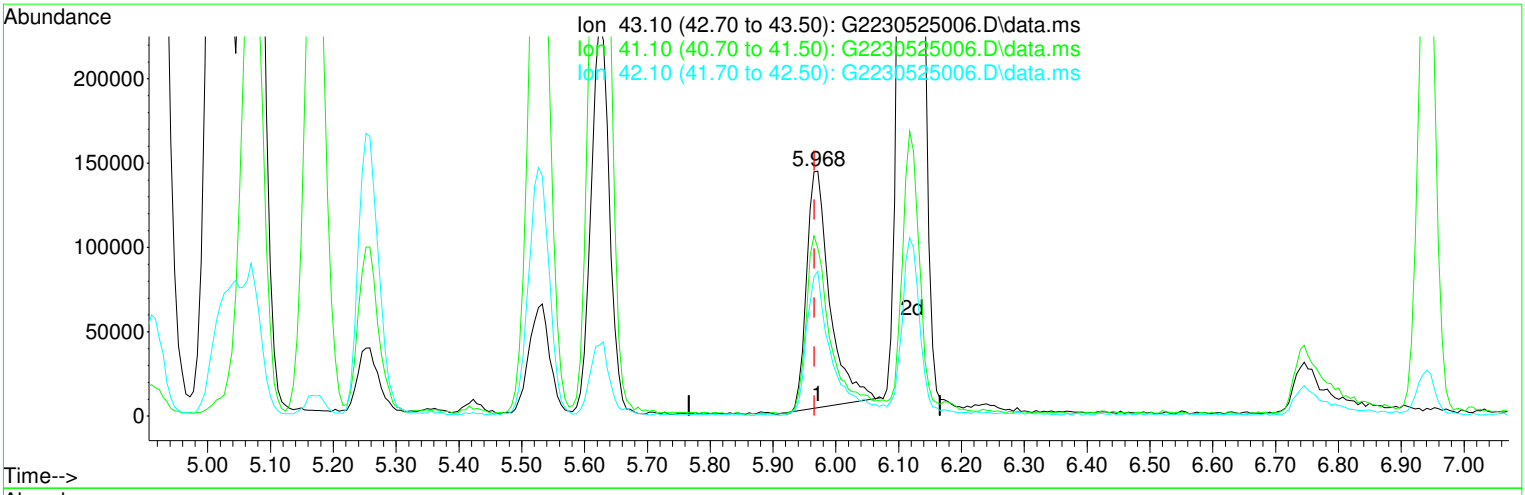
4.978min (-0.008) 26.42 ug/L m

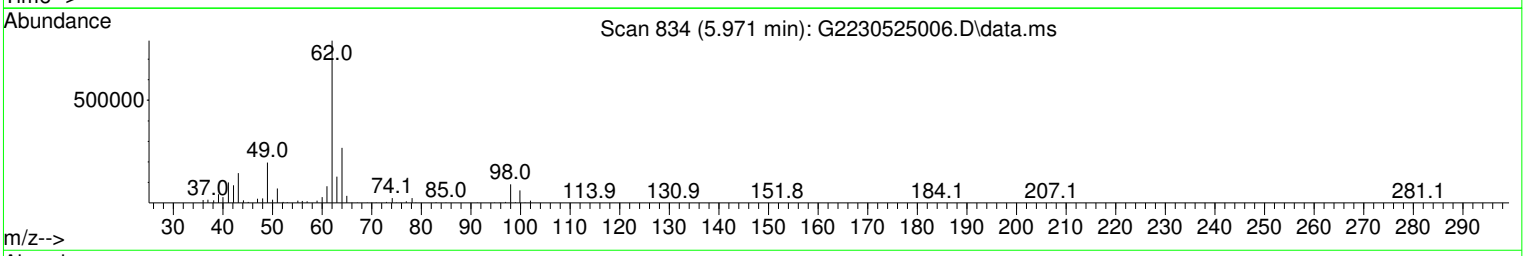
response 1687219

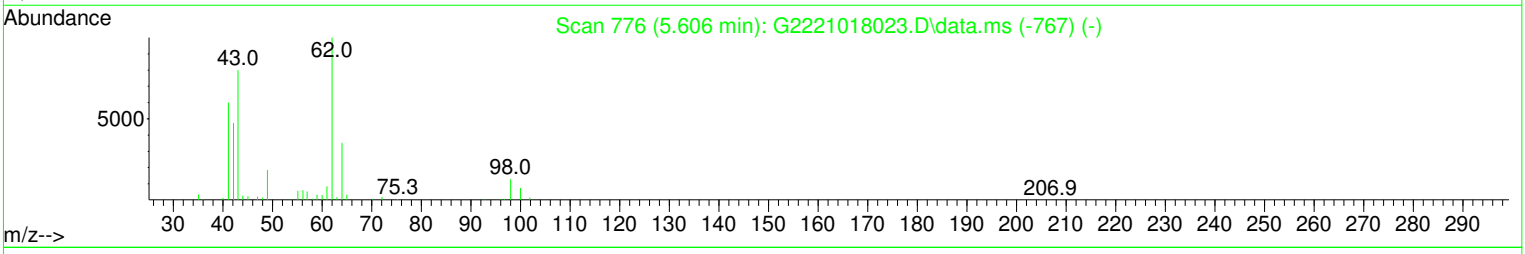
Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	18.66
53.00	12.00	10.91
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525006.D\data.ms

(45) Isobutanol

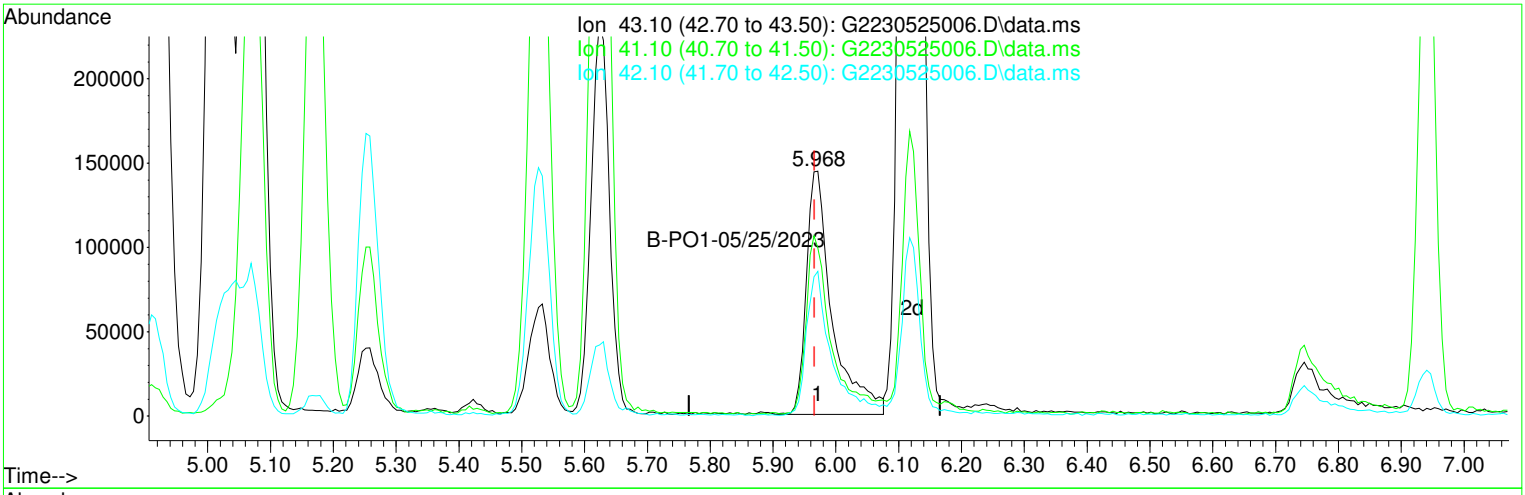
5.971min (+ 0.005) 221.84 ug/L

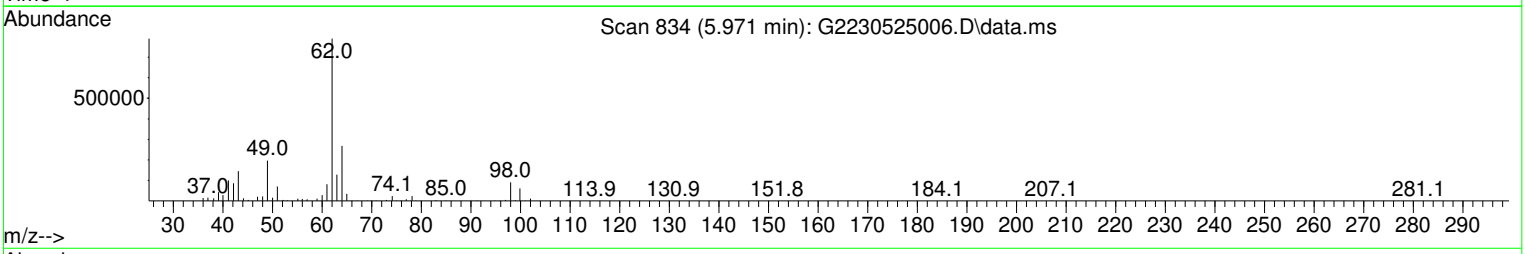
response 3567306

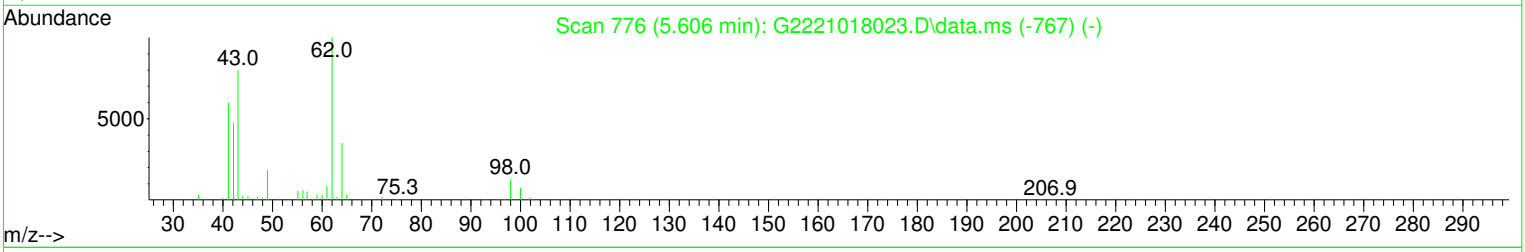
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	71.98
42.10	58.40	59.20
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525006.D\data.ms

(45) Isobutanol

5.971min (+ 0.005) 257.92 ug/L m

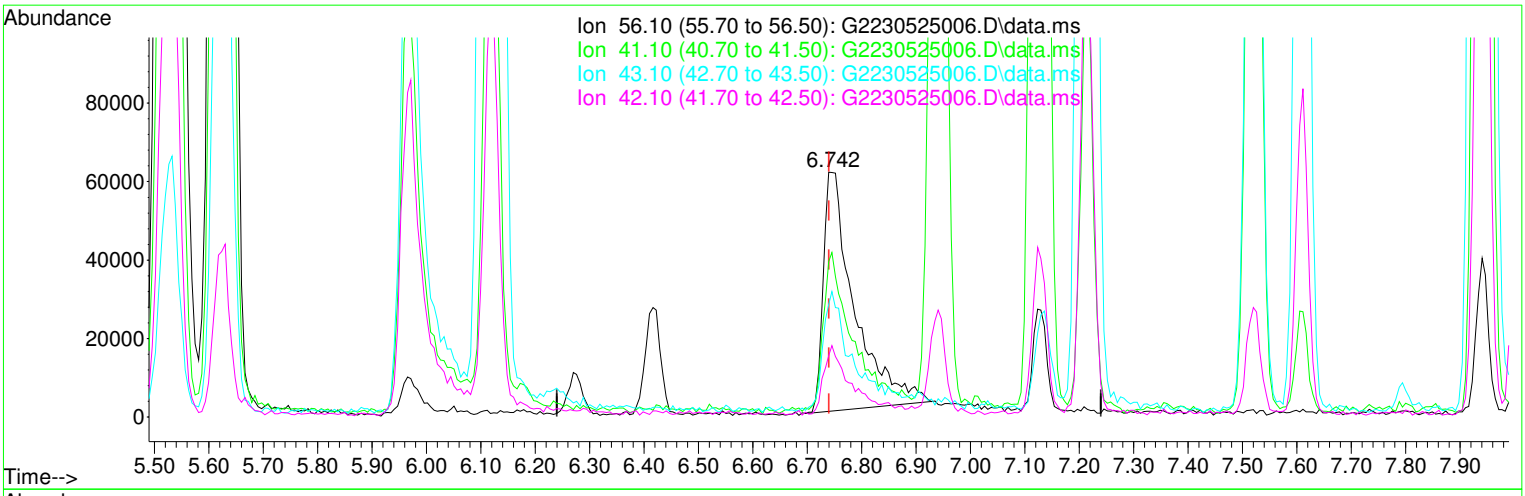
response 4147453

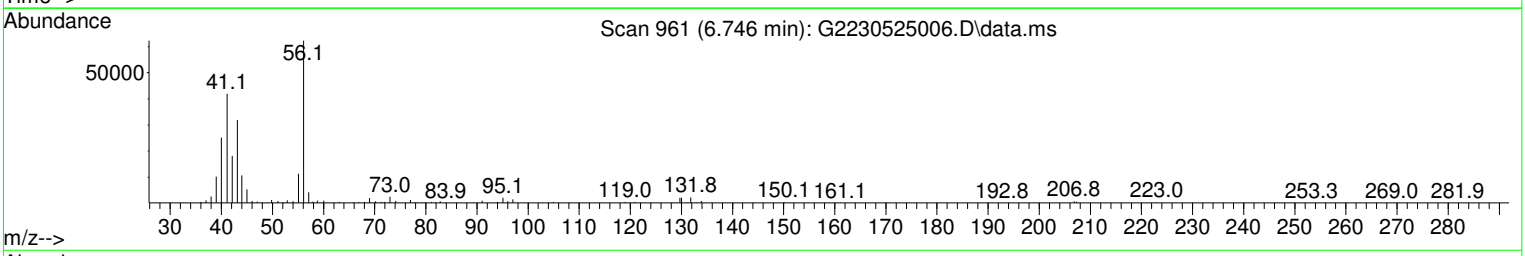
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	61.91
42.10	58.40	50.92
0.00	0.00	0.00

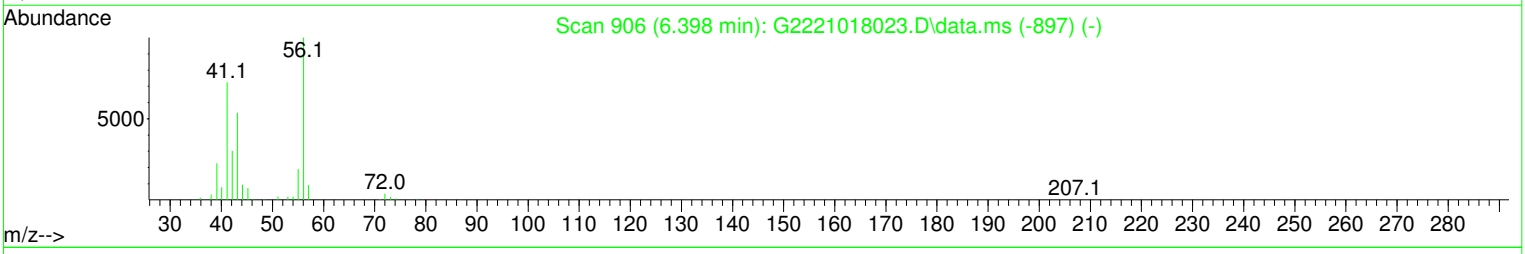
01342534

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525006.D\data.ms

(51) 1-Butanol (T)

6.747min (+ 0.007) 238.48 ug/L

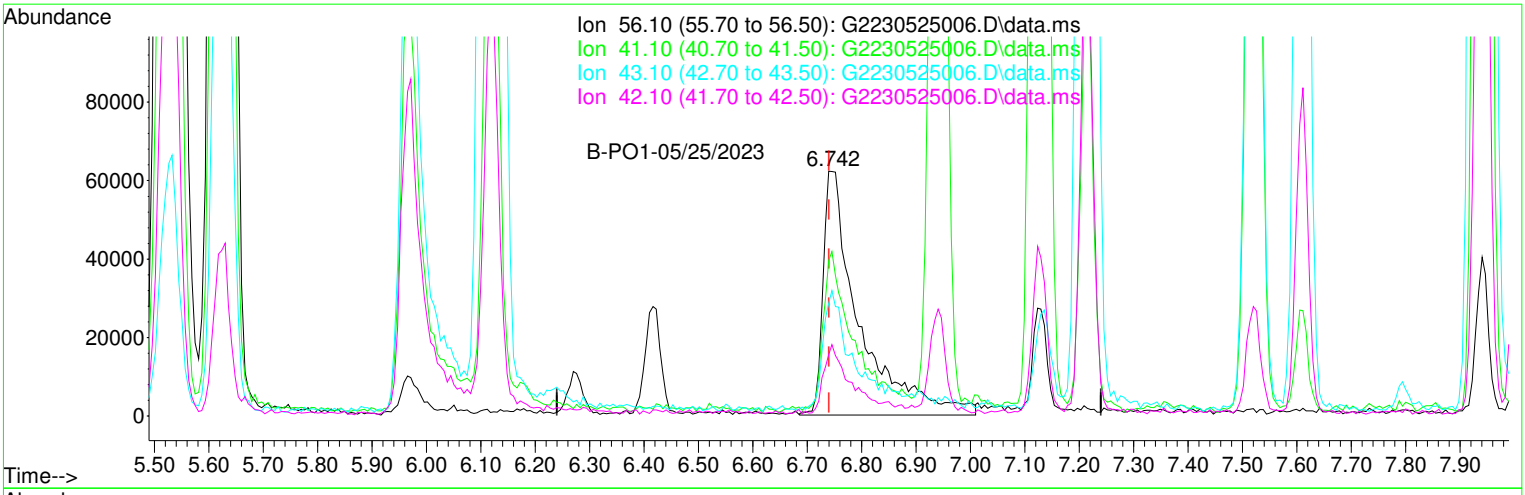
response 2408023

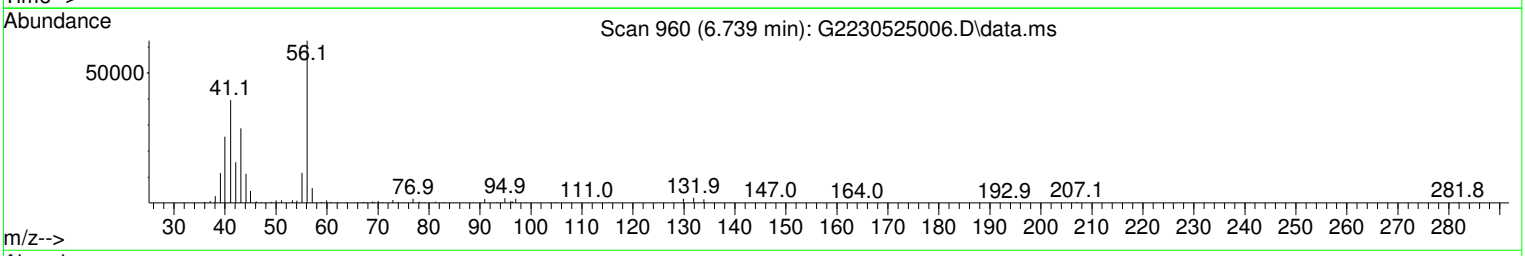
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	64.20
43.10	53.20	30.00
42.10	27.70	23.66

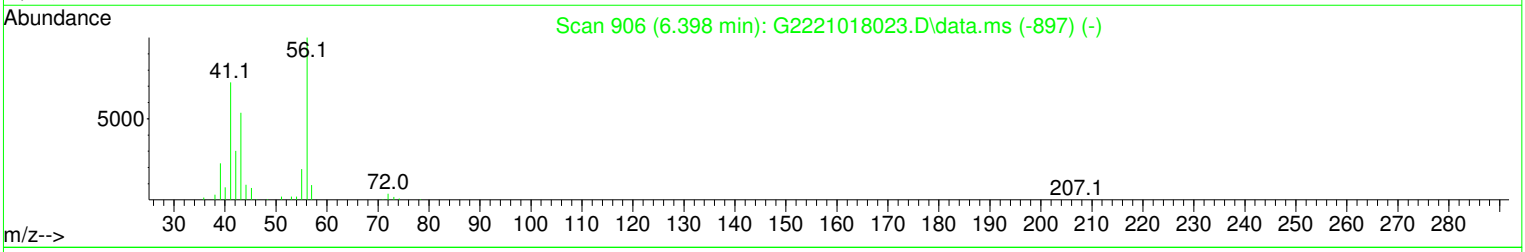
01342535

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525006.D
Acq On : 25 May 2023 14:12
Operator : PO1
Sample : SEQ-CALA
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 25 15:46:25 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 15:46:19 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525006.D\data.ms

(51) 1-Butanol (T)

6.739min (-0.001) 285.44 ug/L m

response 2871806

Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	53.83
43.10	53.20	25.15
42.10	27.70	19.84

INITIAL CALIBRATION VERIFICATION

01342536

SW8260B/D

Laboratory	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230525008.D	Calibration Date:	05/24/23 13:00
Sequence:	S3E0429	Injection Date:	05/25/23
Lab Sample ID:	S3E0429-ICV1	Injection Time:	15:01

		CONC. (ug/L)		RESPONSE FACTOR			ICV	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	% Rec	Lower Limit	Upper Limit
1,1,1,2-Tetrachloroethane	A	15.00	14.8	0.3434339	0.3383993	**99**	80	120
1,1,1-Trichloroethane	A	15.00	14.5	0.603823	0.5843569	**97**	80	120
1,1,2,2-Tetrachloroethane	A	15.00	14.9	0.86935	0.8650603	**100**	80	120
1,1,2-Trichloroethane	A	15.00	14.8	0.2642556	0.2597709	**98**	80	120
1,1-Dichloroethane	L 1/X	15.00	14.8	0.5953788	0.5472882	**98**	80	120
1,1-Dichloroethene	L 1/X	15.00	14.1	0.4569016	0.4027744	**94**	80	120
1,1-Dichloropropene	L 1/X	15.00	14.8	0.4853227	0.4487621	**99**	80	120
1,2,3-Trichlorobenzene	A	15.00	14.7	0.2883305	0.2821218	**98**	80	120
1,2,3-Trichloropropane	L 1/X	15.00	15.1	0.331412	0.3022913	**100**	80	120
1,2,4-Trichlorobenzene	A	15.00	14.6	0.3588914	0.3480192	**97**	80	120
1,2,4-Trimethylbenzene	A	15.00	14.7	2.229227	2.18996	**98**	80	120
1,2-Dibromo-3-chloropropane	L 1/X	15.00	15.6	0.1882045	0.1792446	**104**	80	120
1,2-Dibromoethane	A	15.00	14.5	0.3394667	0.3288407	**97**	80	120
1,2-Dichlorobenzene	L 1/X	15.00	15.4	1.201484	1.173275	**103**	80	120
1,2-Dichloroethane	L 1/X	15.00	14.9	0.5029475	0.4608303	**100**	80	120
1,2-Dichloropropane	L 1/X	15.00	15.4	0.2411055	0.2317499	**102**	80	120
1,3,5-Trimethylbenzene	A	15.00	14.9	2.228381	2.214464	**99**	80	120
1,3-Dichlorobenzene	A	15.00	14.8	1.326244	1.307014	**99**	80	120
1,3-Dichloropropane	L 1/X	15.00	15.2	0.4921719	0.4735974	**101**	80	120
1,4-Dichlorobenzene	A	15.00	15.0	1.289371	1.292615	**100**	80	120
2,2-Dichloropropane	A	15.00	14.3	0.5559494	0.5290053	**95**	80	120
2-Butanone	L 1/X	52.50	51.2	5.658319E-02	4.871441E-02	**97**	80	120
2-Chlorotoluene	A	15.00	14.8	1.923105	1.894649	**99**	80	120
2-Hexanone	L 1/X	52.50	51.6	0.2137484	0.1957368	**98**	80	120
4-Chlorotoluene	A	15.00	15.1	2.179486	2.189062	**100**	80	120
4-Isopropyltoluene	A	15.00	14.9	2.254881	2.234371	**99**	80	120
4-Methyl-2-pentanone	L 1/X	52.50	52.5	0.2919112	0.2714922	**100**	80	120
Acetone	L 1/X	52.50	51.4	0.1293521	8.991602E-02	**98**	80	120
Benzene	A	15.00	14.6	1.002161	0.9785052	**98**	80	120
Bromobenzene	A	15.00	14.6	1.083652	1.056573	**98**	80	120
Bromochloromethane	A	15.00	14.3	0.2969883	0.2833722	**95**	80	120

INITIAL CALIBRATION VERIFICATION

01342537

SW8260B/D

Laboratory	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230525008.D	Calibration Date:	05/24/23 13:00
Sequence:	S3E0429	Injection Date:	05/25/23
Lab Sample ID:	S3E0429-ICV1	Injection Time:	15:01

		CONC. (ug/L)		RESPONSE FACTOR			ICV	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	% Rec	Lower Limit	Upper Limit
Bromodichloromethane	L 1/X	15.00	15.4	0.370729	0.3620139	**103**	80	120
Bromoform	A	15.00	14.6	0.3117301	0.3037491	**97**	80	120
Bromomethane	L 1/X	15.00	17.4	0.3100031	0.293142	**116**	80	120
Carbon disulfide	L 1/X	15.00	14.0	0.9476676	0.8188454	**93**	80	120
Carbon tetrachloride	A	15.00	15.6	0.3608923	0.3754445	**104**	80	120
Chlorobenzene	A	15.00	14.7	0.8774024	0.8593802	**98**	80	120
Chloroethane	A	15.00	14.3	0.239357	0.2285825	**95**	80	120
Chloroform	A	15.00	14.2	0.656932	0.6229854	**95**	80	120
Chloromethane	L 1/X	15.00	15.0	0.3583454	0.3298825	**100**	80	120
cis-1,2-Dichloroethene	L 1/X	15.00	14.7	0.5385255	0.4920999	**98**	80	120
cis-1,3-Dichloropropene	A	15.00	14.7	0.4428763	0.4330082	**98**	80	120
Dibromochloromethane	L 1/X	15.00	15.5	0.3917939	0.3830796	**103**	80	120
Dibromomethane	A	15.00	15.2	0.2381661	0.2409377	**101**	80	120
Dichlorodifluoromethane	A	15.00	13.2	0.4075845	0.3590576	**88**	80	120
Ethylbenzene	L 1/X	15.00	15.6	1.407424	1.390213	**104**	80	120
Hexachlorobutadiene	L 1/X	15.00	15.5	0.1938745	0.1828475	**103**	80	120
Isopropylbenzene	A	15.00	14.8	2.873385	2.836893	**99**	80	120
m,p-Xylene	A	30.00	29.7	1.070642	1.061281	**99**	80	120
Methyl tert-butyl ether	L 1/X	15.00	14.6	2.078829	1.153053	**97**	80	120
Methylene chloride	L 1/X	15.00	15.3	0.4752062	0.3684413	**102**	80	120
n-Butylbenzene	L 1/X	15.00	15.2	1.741335	1.64368	**101**	80	120
n-Propylbenzene	A	15.00	14.9	3.199933	3.180756	**99**	80	120
Naphthalene	L 1/X	15.00	15.4	1.038822	0.9578899	**103**	80	120
o-Xylene	A	15.00	14.9	2.460467	2.441196	**99**	80	120
sec-Butylbenzene	A	15.00	14.8	2.725412	2.692846	**99**	80	120
Styrene	A	15.00	14.5	0.9431739	0.9090641	**96**	80	120
tert-Butylbenzene	A	15.00	15.0	2.390757	2.384128	**100**	80	120
Tetrachloroethene	L 1/X	15.00	15.4	0.4253866	0.3966704	**102**	80	120
Toluene	L 1/X	15.00	15.6	1.307847	1.278948	**104**	80	120
trans-1,2-Dichloroethene	A	15.00	13.8	0.4334531	0.39801	**92**	80	120
trans-1,3-Dichloropropene	A	15.00	14.8	0.423463	0.4169331	**98**	80	120

INITIAL CALIBRATION VERIFICATION

01342538

SW8260B/D

Laboratory	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230525008.D	Calibration Date:	05/24/23 13:00
Sequence:	S3E0429	Injection Date:	05/25/23
Lab Sample ID:	S3E0429-ICV1	Injection Time:	15:01

		CONC. (ug/L)		RESPONSE FACTOR			ICV	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	% Rec	Lower Limit	Upper Limit
Trichloroethene	L 1/X	15.00	15.4	0.2817735	0.2718875	**103**	80	120
Trichlorofluoromethane	A	15.00	14.0	0.6025154	0.5641364	**94**	80	120
Vinyl chloride	A	15.00	13.7	0.3930682	0.3592666	**91**	80	120
Dibromofluoromethane	A	20.00	19.4	0.4401431	0.4274204	**97**	80	120
1,2-Dichloroethane-d4	A	20.00	19.2	0.4349663	0.4169146	**96**	80	120
Fluorobenzene	A	20.00	20.0	1.139643	1.140605	**100**	80	120
Toluene-d8	A	20.00	20.0	1.260611	1.260345	**100**	80	120
4-Bromofluorobenzene	A	10.00	10.1	0.9444054	0.9552632	**101**	80	120
1,2-Dichlorobenzene-d4	A	20.00	19.8	0.8601294	0.8495139	**99**	80	120

A = Average Response Factor

Q = Quadratic Regression

L = Linear Regression

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.574	168	24892871	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.423	114	34255756	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.496	117	29947458	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.842	152	13430214	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.478	111	10639715	19.42	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%			
43) 1,2-Dichloroethane-d4	5.880	65	10378199	19.17	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.85%			
49) Fluorobenzene	6.280	96	39072292	20.02	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.10%			
64) Toluene-d8	8.018	98	37744122	20.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.00%			
81) 4-Bromofluorobenzene	10.686	174	6414693	10.11	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.10%			
97) d4-1,2-Dichlorobenzene	12.219	152	11409145	19.75	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.75%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.215	85	6703481	13.21	ug/L	98
3) Chloromethane	1.355	50	6158791	15.02	ug/L	99
4) Vinyl chloride	1.448	62	6707383	13.71	ug/L	98
5) Bromomethane	1.719	94	5472859	17.39	ug/L	97
6) Chloroethane	1.807	64	4267555	14.32	ug/L	97
7) Trichlorofluoromethane	2.033	101	10532233	14.04	ug/L	99
8) Ethyl ether	2.320	59	4722925	14.31	ug/L	89
9) Acrolein	2.441	56	2920634	43.90	ug/L	95
10) 1,1-Dichloroethene	2.526	61	7519659	14.12	ug/L	90
11) 1,1,2-Trichloro-1,2,2-...	2.537	101	5742312	14.09	ug/L	96
12) Acetone	2.610	43	5875453	51.37	ug/L	93
13) Iodomethane	2.679	142	7745558	13.36	ug/L	95
14) Carbon disulfide	2.741	76	15287564	14.00	ug/L	100
15) Isopropanol	2.790	45	2580824	129.19	ug/L	99
16) acetonitrile	2.920	41	8537205	36.77	ug/L	88
17) 3-Chloro-1-propene	2.922	76	3640390	14.51	ug/L	98
18) Methylene chloride	3.064	49	6878671	15.28	ug/L	86
19) Acrylonitrile	3.391	53	2561929	13.53	ug/L	95
20) trans-1,2-Dichloroethene	3.404	61	7430708	13.77	ug/L	89
21) Methyl tert-butyl ether	3.447	73	21527099	14.59	ug/L	93
22) Hexane	3.793	57	6373066	15.05	ug/L	95
23) 1,1-Dichloroethane	4.000	63	10217678	14.75	ug/L	96
24) Vinyl acetate	4.133	43	12582801	14.87	ug/L	93
25) 2-Chloro-1,3-butadiene	4.137	53	8018795	14.21	ug/L	88
26) 1-propanol	4.301	59	398580m	153.89	ug/L	
27) 2,2-Dichloropropane	4.829	77	9876346	14.27	ug/L	93
28) cis-1,2-Dichloroethene	4.838	61	9187335	14.67	ug/L	89
29) 2-Butanone	4.919	72	3183184	51.18	ug/L	92

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
30) Propionitrile	4.987	54	920385	15.44	ug/L		96
31) Ethyl acetate	5.022	61	1082067	14.47	ug/L		83
32) Methylacrylate	5.046	55	6676304	14.16	ug/L		94
33) 1-Bromopropane	5.078	41	3624691	14.25	ug/L		74
34) Bromochloromethane	5.150	130	5290461	14.31	ug/L		99
35) Methacrylonitrile	5.177	67	3364051	14.76	ug/L		93
36) Tetrahydrofuran	5.263	42	1807355	13.89	ug/L		83
37) Chloroform	5.277	83	11630917	14.22	ug/L		99
39) 1,1,1-Trichloroethane	5.481	97	10909741	14.52	ug/L		96
40) Cyclohexane	5.536	84	9646102	14.43	ug/L		85
41) 1-Chlorobutane	5.631	56	10920583	14.06	ug/L		97
42) 1,1-Dichloropropene	5.690	75	8378232	14.80	ug/L		94
44) 1,2-Dichloroethane	5.972	62	8603541	14.94	ug/L		99
45) Isobutanol	5.972	43	2081168m	142.94	ug/L		
47) Carbon tetrachloride	5.681	117	9645852	15.60	ug/L		99
48) Benzene	5.936	78	25139581	14.65	ug/L		100
50) Trichloroethene	6.696	95	6985285	15.45	ug/L		93
51) 1-Butanol	6.746	56	1415312m	132.02	ug/L		
52) 1,2-Dichloropropane	6.946	63	5954077	15.35	ug/L		92
53) Dibromomethane	7.072	174	6190128	15.17	ug/L	#	92
54) Methyl methacrylate	7.132	69	5782655	14.43	ug/L		92
55) 1,4-dioxane	7.142	88	578604m	143.32	ug/L		
56) Bromodichloromethane	7.260	83	9300796	15.45	ug/L		99
57) 2-Nitropropane	7.525	43	2540979	14.70	ug/L		94
58) 2-Chloroethyl vinyl ether	7.614	63	4556111	13.72	ug/L		99
59) cis-1,3-Dichloropropene	7.745	75	11124765	14.67	ug/L		96
60) 4-Methyl-2-pentanone	7.944	43	24412946	52.48	ug/L	#	90
61) trans-1,3-Dichloropropene	8.335	75	10711770	14.77	ug/L		92
62) 1,1,2-Trichloroethane	8.520	97	6673987	14.75	ug/L		94
65) Toluene	8.087	91	28725941	15.62	ug/L		98
66) Ethylmethacrylate	8.461	69	10069383	15.23	ug/L		89
67) Tetrachloroethene	8.648	166	8909454	15.35	ug/L		94
68) 1,3-Dichloropropane	8.687	76	10637280	15.18	ug/L		89
69) 2-Hexanone	8.808	43	15387282	51.62	ug/L		89
70) Dibromochloromethane	8.912	129	8604196	15.48	ug/L		98
71) 1,2-Dibromoethane	9.019	107	7385958	14.53	ug/L		99
72) Chlorobenzene	9.524	112	19302191	14.69	ug/L		95
73) 1,1,1,2-Tetrachloroethane	9.615	131	7600650	14.78	ug/L		98
74) Ethylbenzene	9.644	91	31225025	15.63	ug/L		96
75) m,p-Xylene	9.764	91	47673991	29.74	ug/L		95
76) Styrene	10.176	104	20418116	14.46	ug/L		95
77) Bromoform	10.355	173	6822386	14.62	ug/L		98
79) o-Xylene	10.161	91	24589328	14.88	ug/L		96
80) Isopropylbenzene	10.536	105	28575053	14.81	ug/L		97
82) Bromobenzene	10.828	77	10642499	14.63	ug/L		87
83) 1,1,2,2-Tetrachloroethane	10.842	83	8713456	14.93	ug/L		98
84) 1,2,3-Trichloropropane	10.881	110	3044877	15.06	ug/L		95
85) trans-1,4-Dichloro-2-b...	10.902	53	2189748	13.99	ug/L		67
86) n-Propylbenzene	10.949	91	32038667	14.91	ug/L		96

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

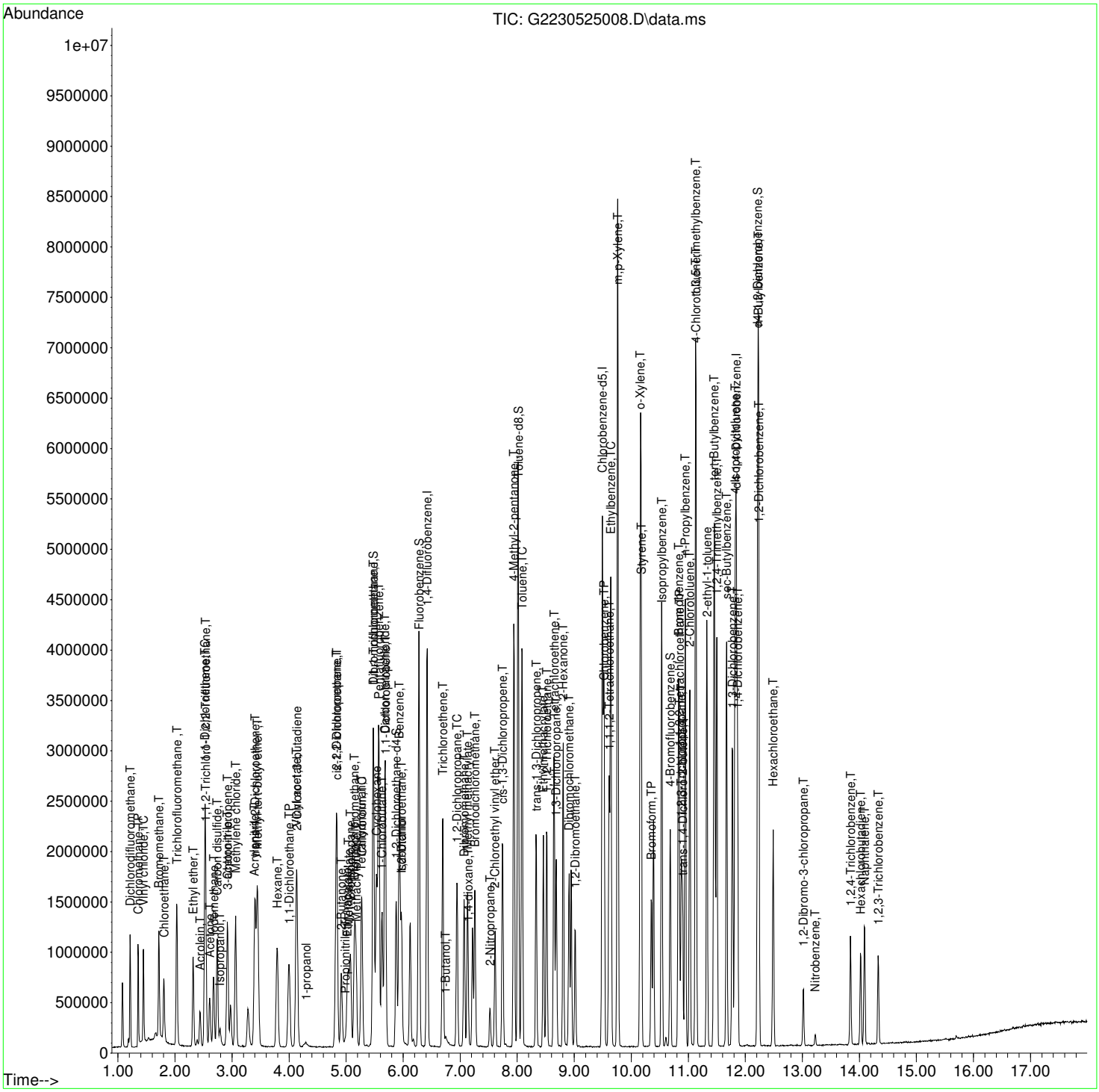
Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
87) 2-Chlorotoluene	11.028	91	19084152	14.78	ug/L	96
88) 4-Chlorotoluene	11.138	91	22049673	15.07	ug/L	95
89) 1,3,5-Trimethylbenzene	11.130	105	22305535	14.91	ug/L	96
90) 2-ethyl-1-toluene	11.329	105	25621524	14.06	ug/L	97
91) tert-Butylbenzene	11.455	119	24014503	14.96	ug/L	91
92) 1,2,4-Trimethylbenzene	11.502	105	22058720	14.74	ug/L	95
93) sec-Butylbenzene	11.674	105	27124121	14.82	ug/L	97
94) 1,3-Dichlorobenzene	11.776	146	13165101	14.78	ug/L	98
95) 4-Isopropyltoluene	11.822	119	22506048	14.86	ug/L	98
96) 1,4-Dichlorobenzene	11.866	146	13020065	15.04	ug/L	98
98) 1,2-Dichlorobenzene	12.238	146	11817997	15.41	ug/L	98
99) n-Butylbenzene	12.232	91	16556227	15.18	ug/L	93
100) Hexachloroethane	12.492	201	4141336	14.88	ug/L	97
101) 1,2-Dibromo-3-chloropr...	13.020	157	1805469	15.57	ug/L	99
102) Nitrobenzene	13.228	77	503508	13.51	ug/L	86
103) 1,2,4-Trichlorobenzene	13.847	180	3505478	14.55	ug/L	97
104) Hexachlorobutadiene	14.024	225	1841760	15.52	ug/L	98
105) Naphthalene	14.092	128	9648497	15.40	ug/L	99
106) 1,2,3-Trichlorobenzene	14.334	180	2841716	14.68	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

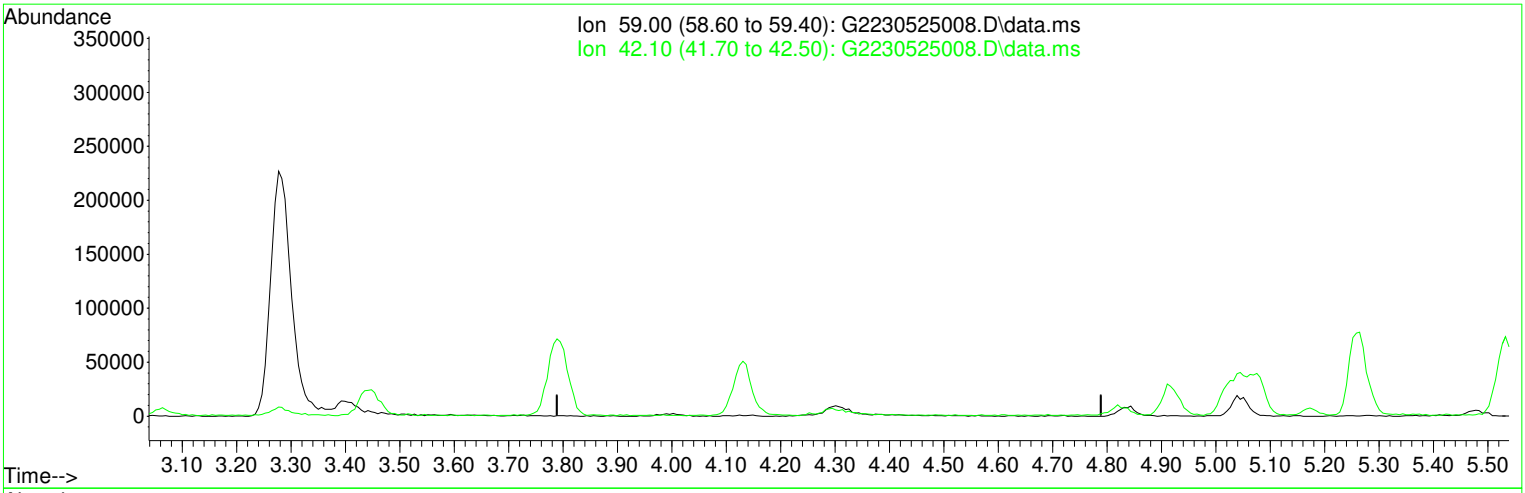
Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

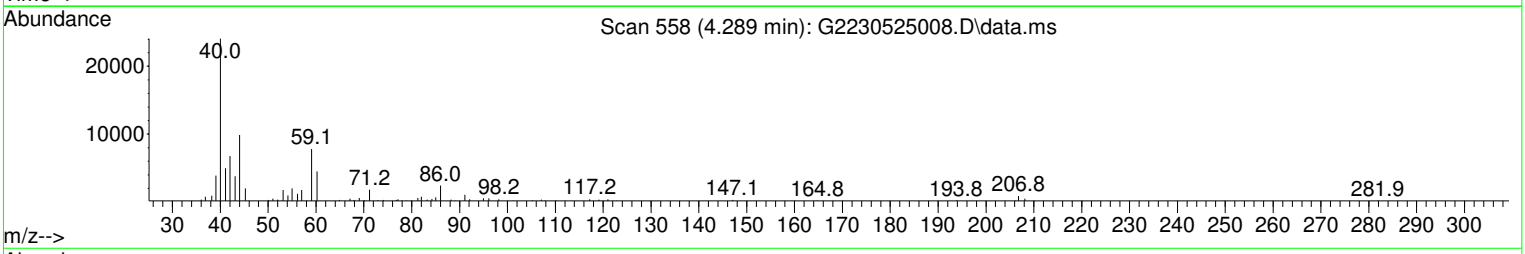
Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G

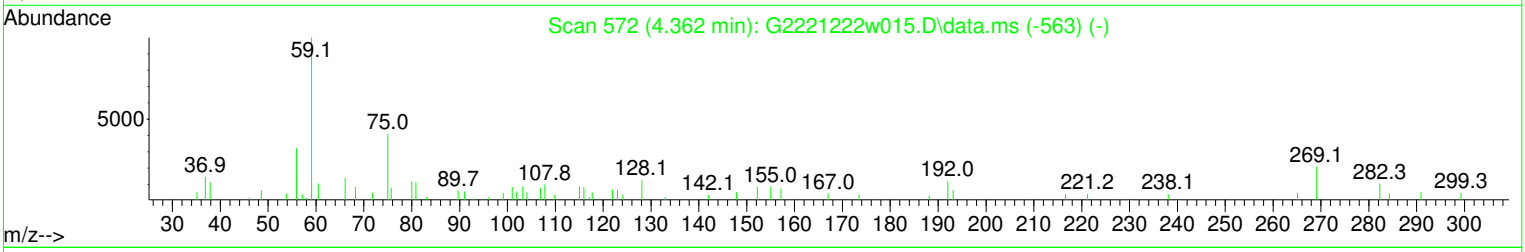


Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525008.D\data.ms

(26) 1-propanol

4.289min (-4.289) 0.00 ug/L

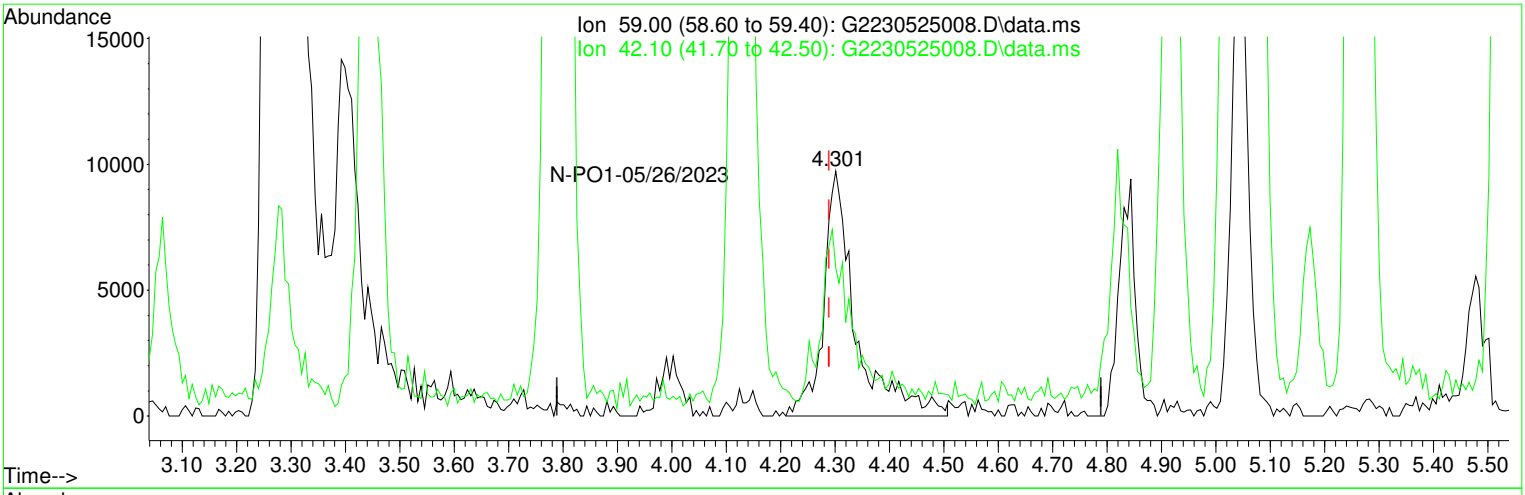
response 0

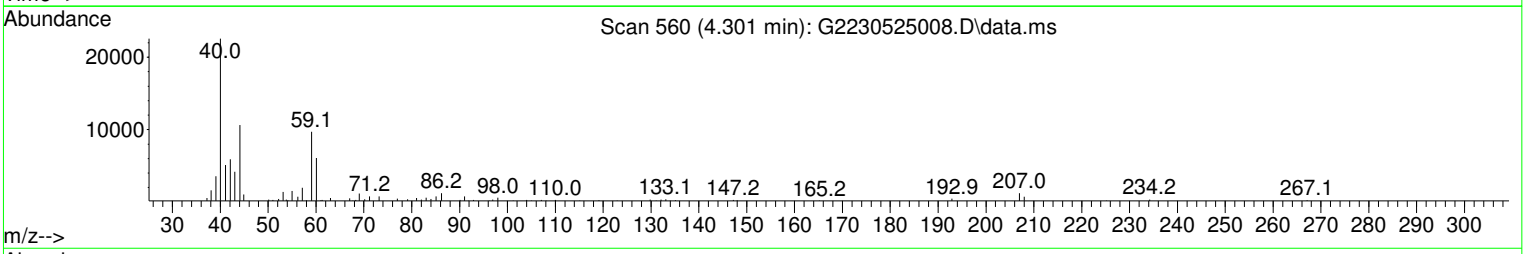
Ion	Exp%	Act%
59.00	100.00	0.00
42.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

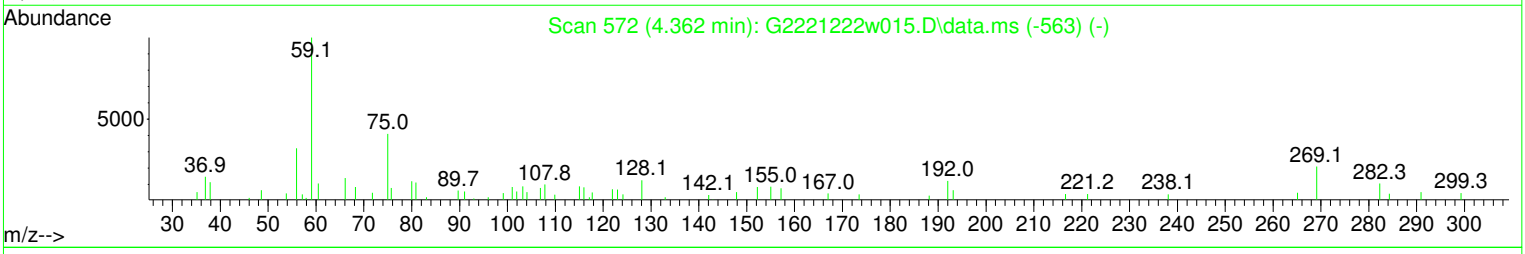
01342544

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525008.D\data.ms

(26) 1-propanol

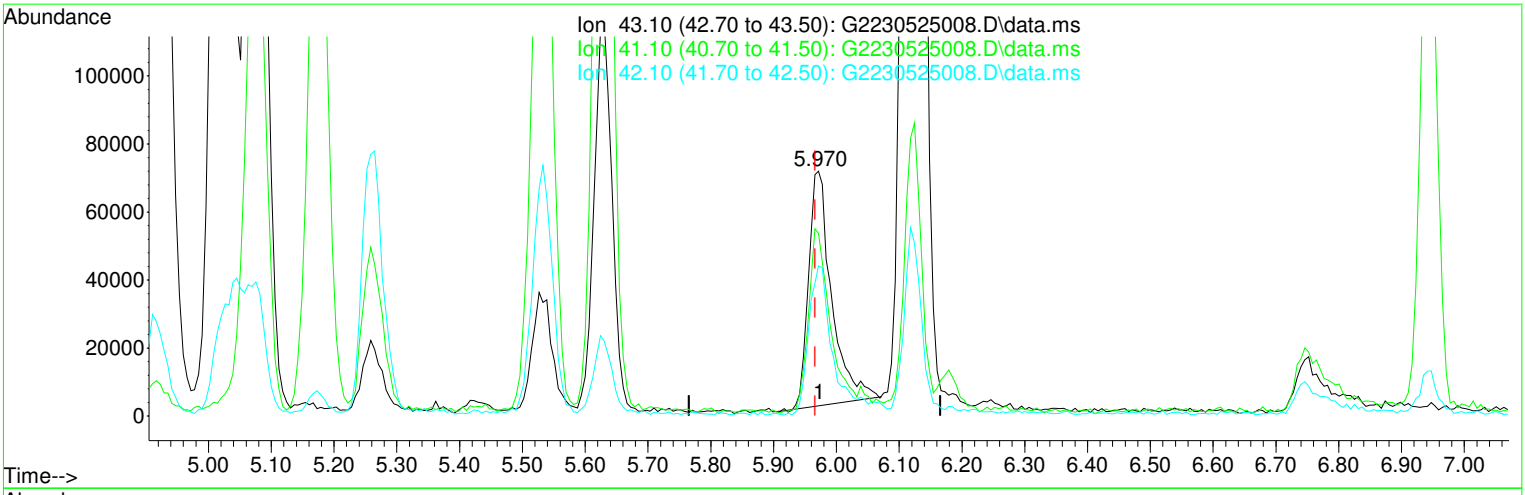
4.301min (+ 0.012) 153.89 ug/L m

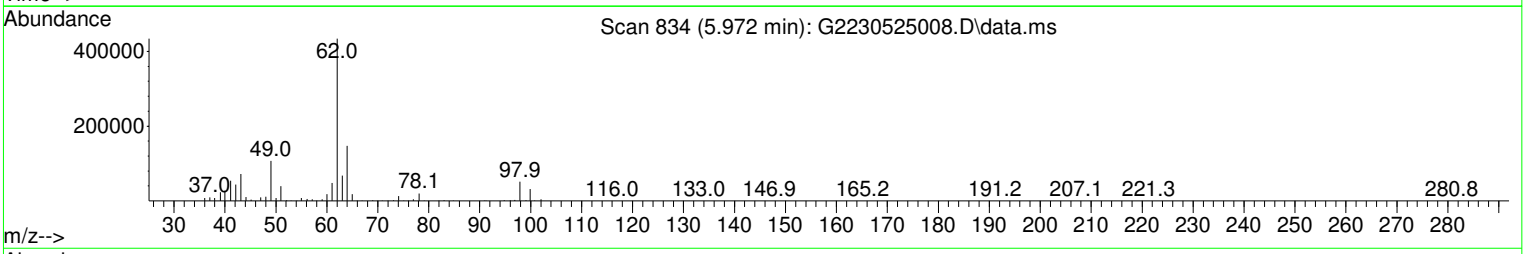
response 398580

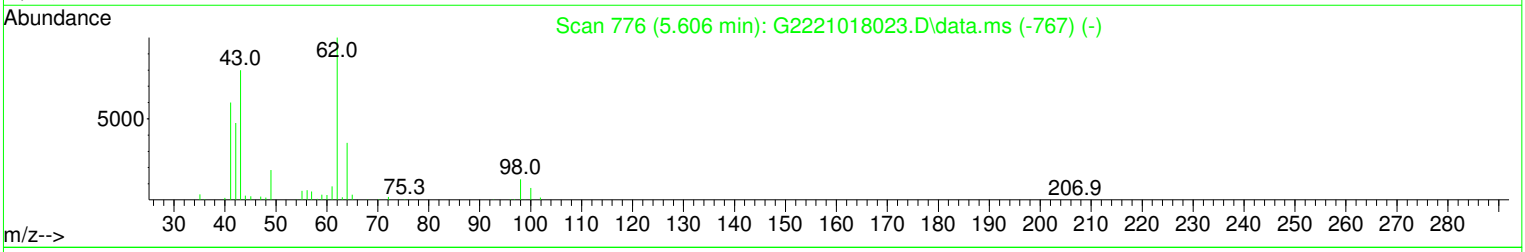
Ion	Exp%	Act%
59.00	100.00	100.00
42.10	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525008.D\data.ms

(45) Isobutanol

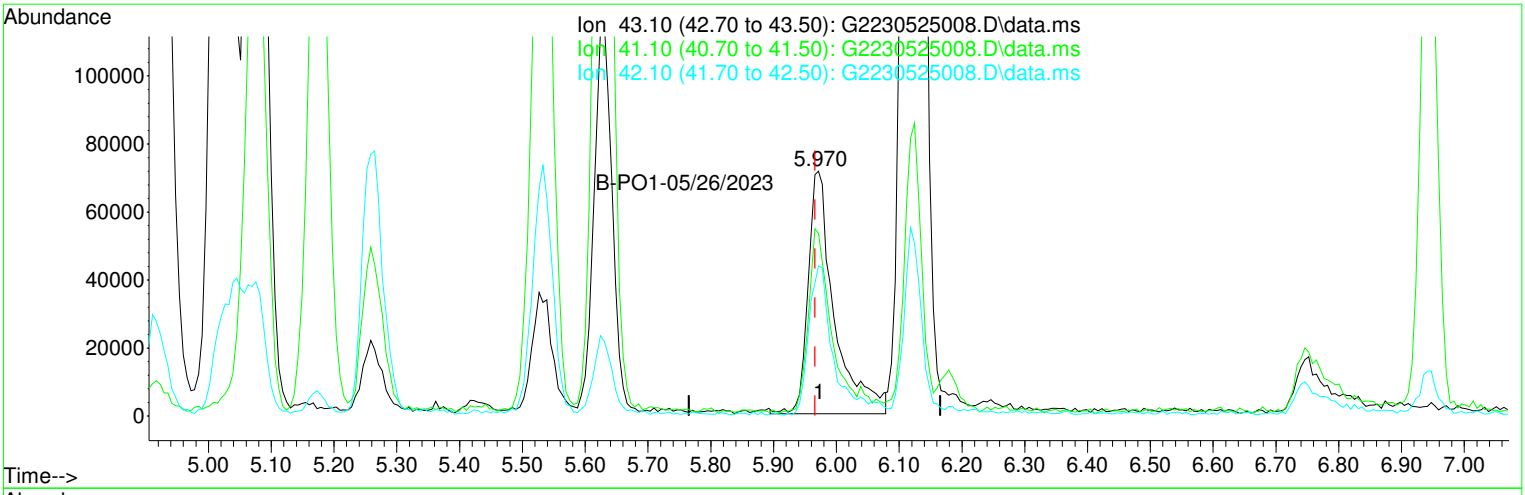
5.973min (+ 0.007) 120.78 ug/L

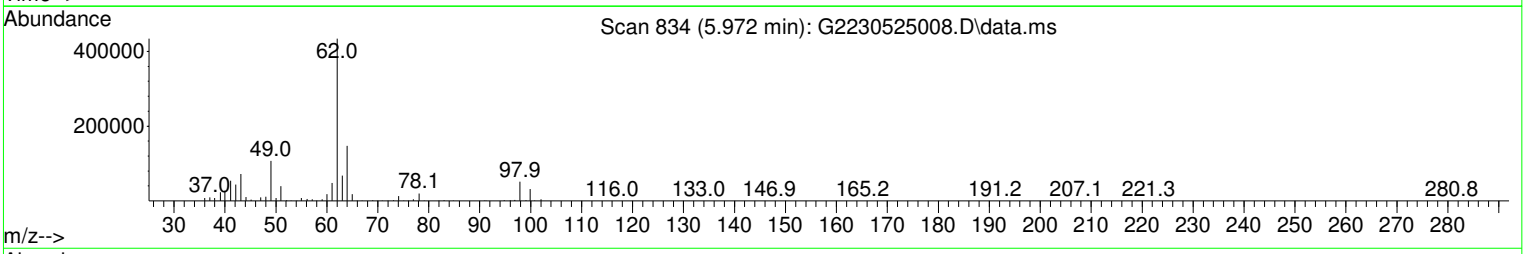
response 1765679

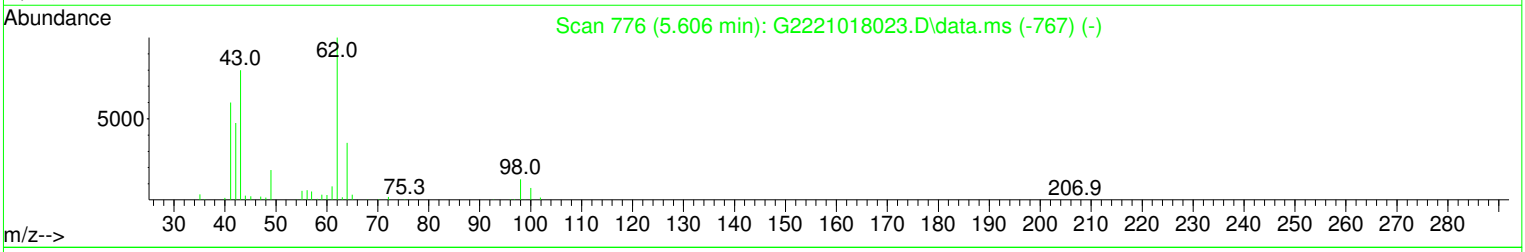
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	73.81
42.10	58.40	64.02
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525008.D\data.ms

(45) Isobutanol

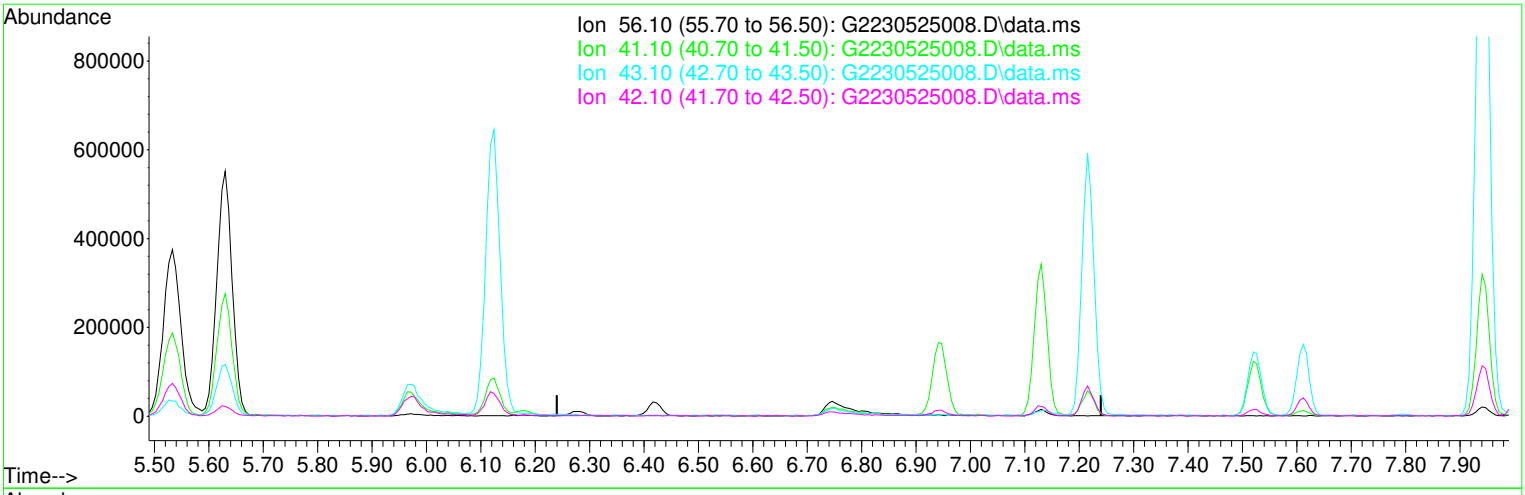
5.972min (+ 0.006) 142.94 ug/L m

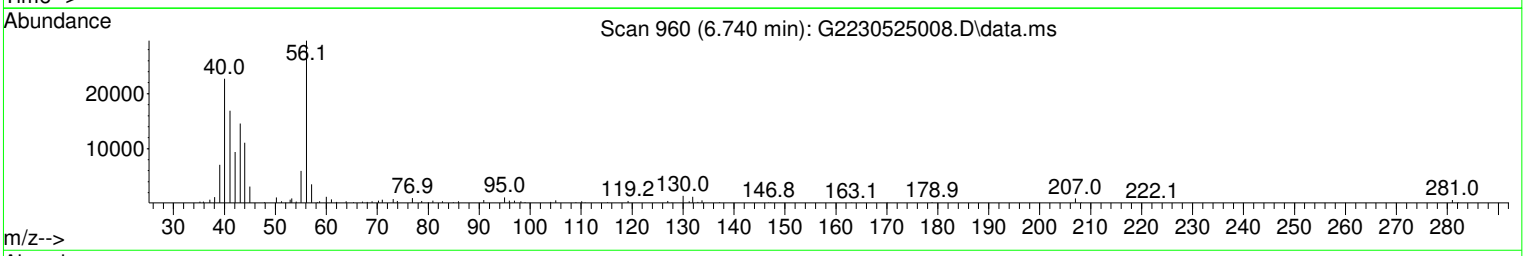
response 2081168

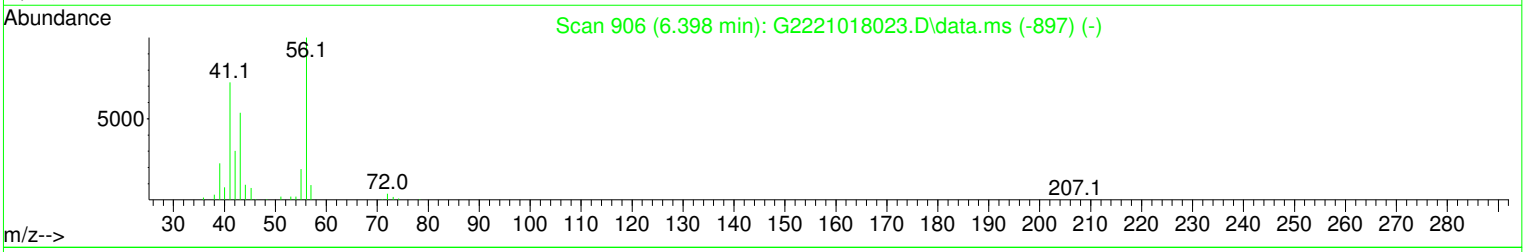
Ion	Exp%	Act%
43.10	100.00	100.00
41.10	70.10	62.62
42.10	58.40	54.31
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525008.D\data.ms

(51) 1-Butanol (T)

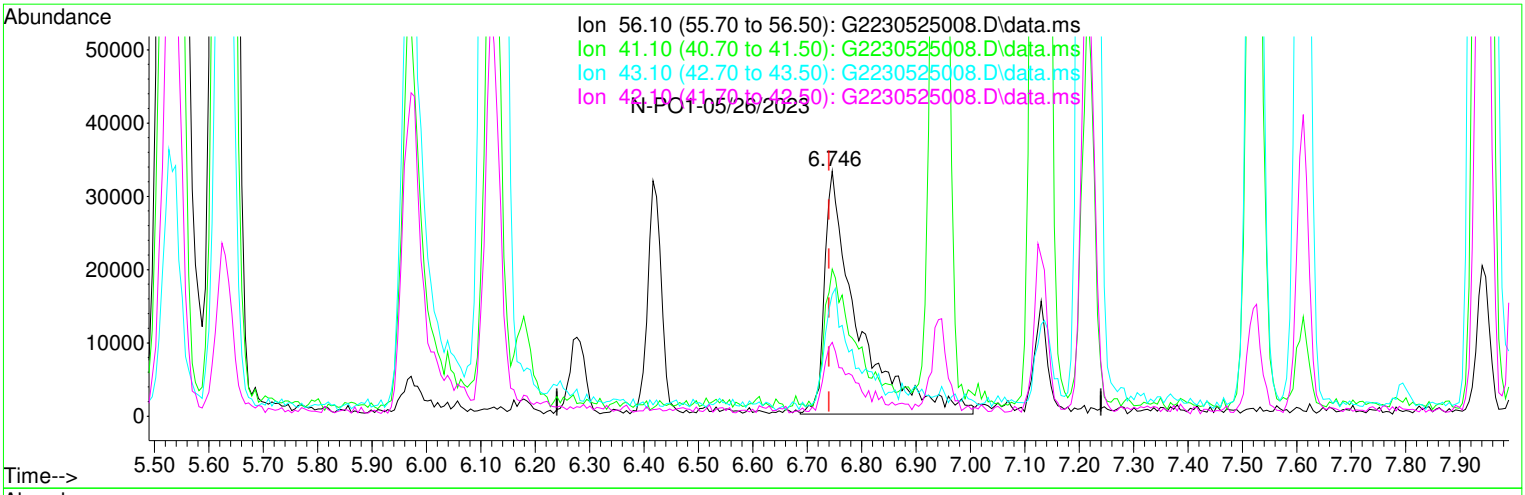
6.740min (-6.740) 0.00 ug/L

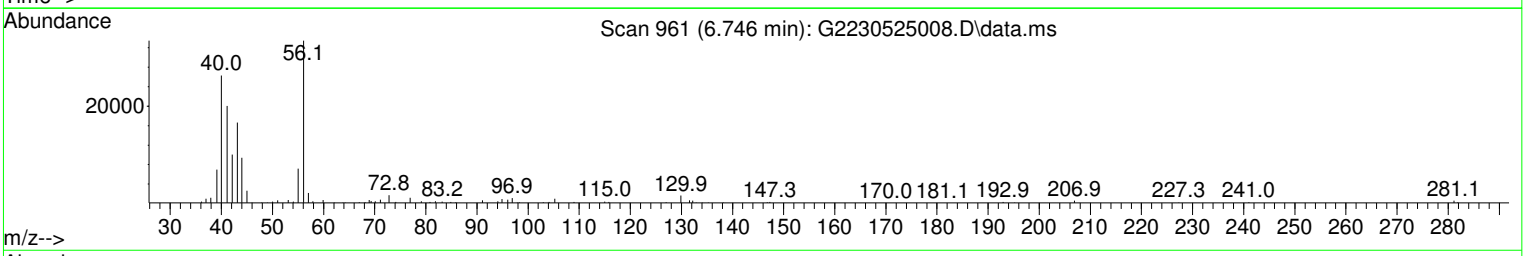
response 0

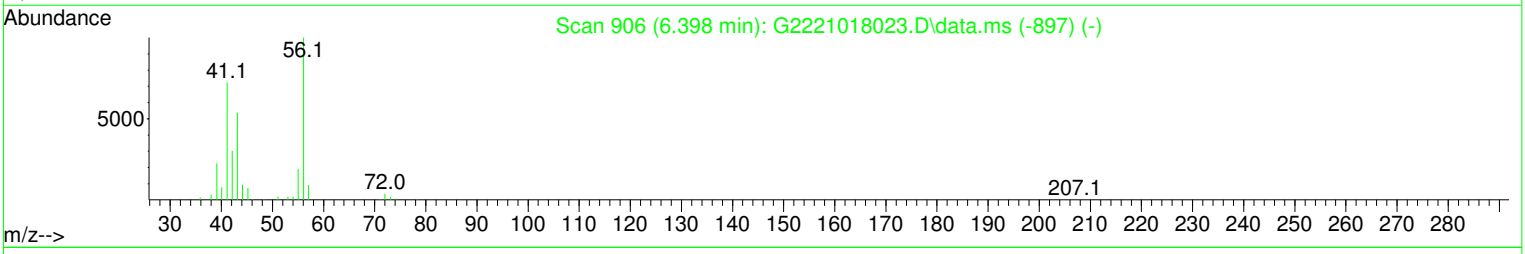
Ion	Exp%	Act%
56.10	100.00	0.00
41.10	69.10	0.00#
43.10	53.20	0.00#
42.10	27.70	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525008.D\data.ms

(51) 1-Butanol (T)

6.746min (+ 0.006) 132.02 ug/L m

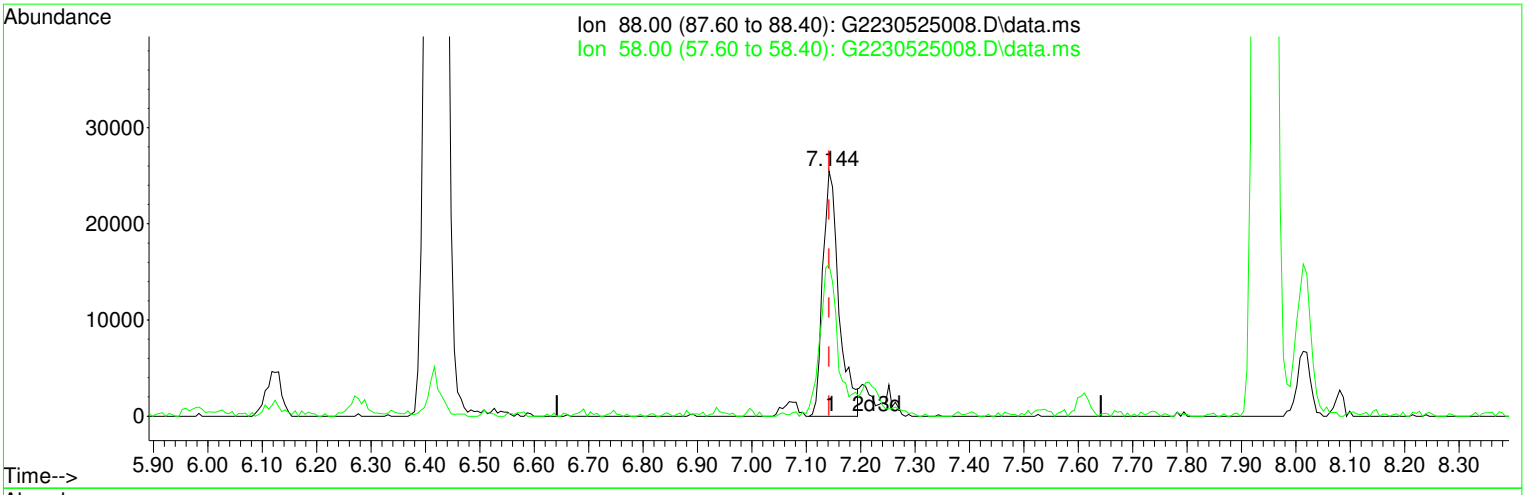
response 1415312

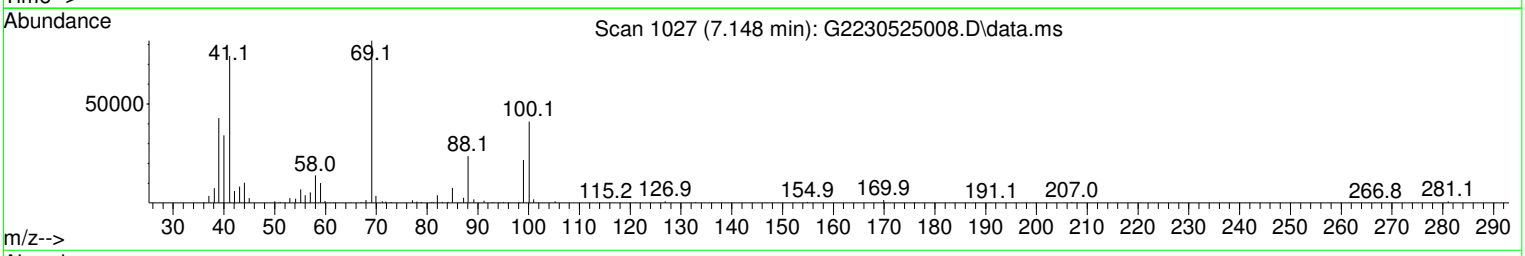
Ion	Exp%	Act%
56.10	100.00	100.00
41.10	69.10	0.00#
43.10	53.20	0.00#
42.10	27.70	0.00

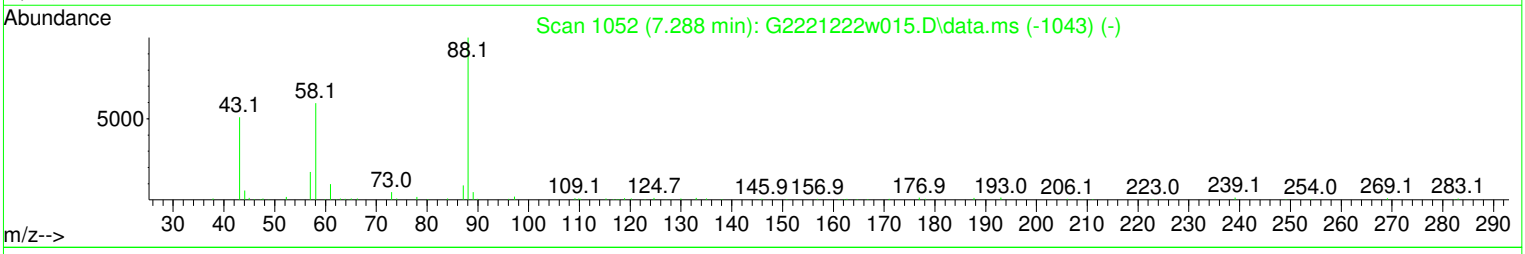
01342549

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525008.D\data.ms

(55) 1,4-dioxane (T)

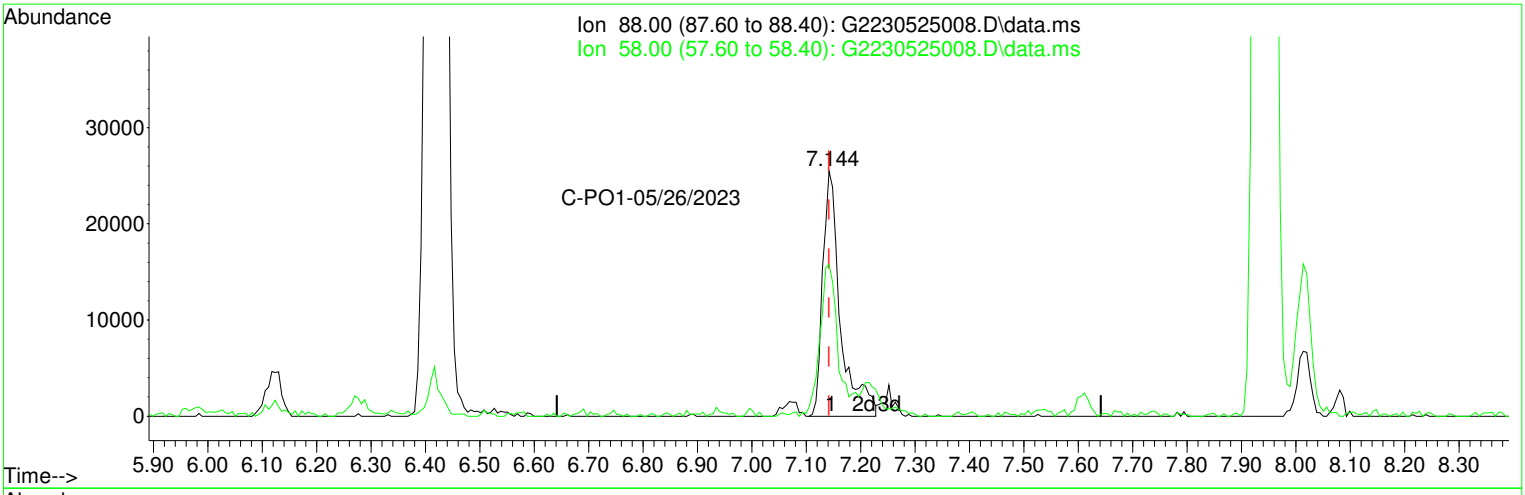
7.147min (+ 0.005) 128.79 ug/L

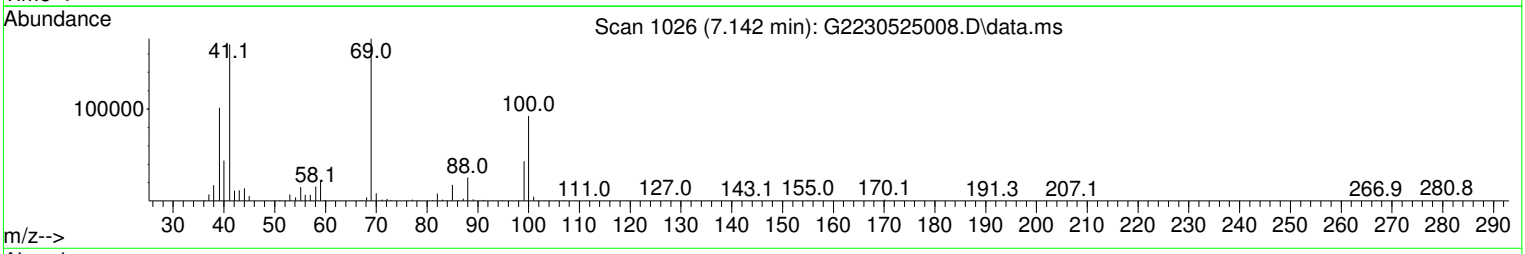
response 519952

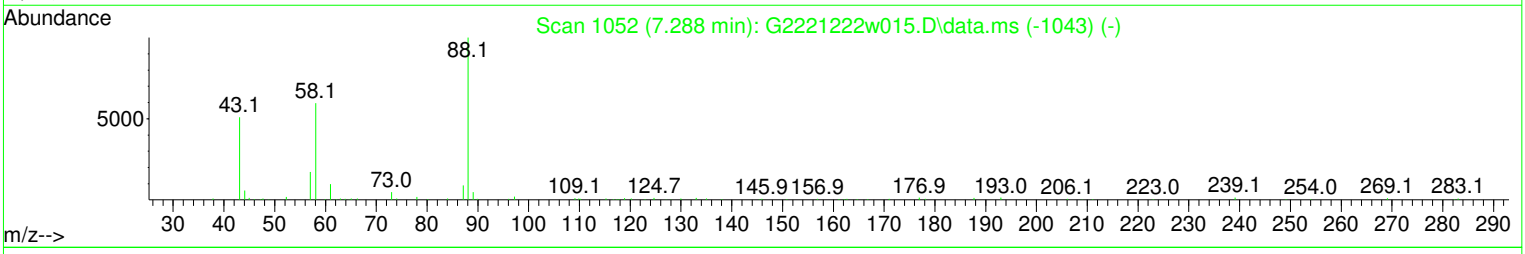
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	67.24
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(E) May\G2230525\
Data File : G2230525008.D
Acq On : 25 May 2023 15:01
Operator : PO1
Sample : SEQ-ICV1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 26 09:16:55 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Fri May 26 09:16:33 2023
Response via : Initial Calibration
InstName : G







TIC: G2230525008.D\data.ms

(55) 1,4-dioxane (T)

7.142min (+ 0.000) 143.32 ug/L m

response 578604

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	60.42
0.00	0.00	0.00
0.00	0.00	0.00

7 - FORM VII

01342551

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612004.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-CCV1 (Calibration Check)	Injection Time:	09:53

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	15.1	0.3434339	0.3467259		1.00	20
1,1,1-Trichloroethane	15.00	13.9	0.603823	0.5599925		-7.00	20
1,1,2,2-Tetrachloroethane	15.00	14.0	0.86935	0.812408	0.3	-6.00	20
1,1,2-Trichloroethane	15.00	14.6	0.2642556	0.2570009		-3.00	20
1,1-Dichloroethane	15.00	13.8	0.5953788	0.5136636	0.1	-8.00	20
1,1-Dichloroethene	15.00	13.8	0.4569016	0.3936868		-8.00	20
1,1-Dichloropropene	15.00	14.1	0.4853227	0.4288551		-6.00	20
1,2,3-Trichlorobenzene	15.00	14.1	0.2883305	0.2709118		-6.00	20
1,2,3-Trichloropropane	15.00	14.3	0.331412	0.2873348		-5.00	20
1,2,4-Trichlorobenzene	15.00	14.3	0.3588914	0.3428361		-4.00	20
1,2,4-Trimethylbenzene	15.00	13.8	2.229227	2.046617		-8.00	20
1,2-Dibromo-3-chloropropane	15.00	15.5	0.1882045	0.1786273		4.00	20
1,2-Dibromoethane	15.00	14.1	0.3394667	0.3200585		-6.00	20
1,2-Dichlorobenzene	15.00	15.6	1.201484	1.185405		4.00	20
1,2-Dichloroethane	15.00	14.1	0.5029475	0.4341644		-6.00	20
1,2-Dichloropropane	15.00	14.4	0.2411055	0.2171111		-4.00	20
1,3,5-Trimethylbenzene	15.00	13.8	2.228381	2.055585		-8.00	20
1,3-Dichlorobenzene	15.00	14.8	1.326244	1.30815		-1.00	20
1,3-Dichloropropane	15.00	14.4	0.4921719	0.4496506		-4.00	20
1,4-Dichlorobenzene	15.00	14.8	1.289371	1.270595		-2.00	20
2,2-Dichloropropane	15.00	13.6	0.5559494	0.5032127		-10.00	20
2-Butanone	52.50	51.0	5.658319E-02	4.849764E-02		-3.00	20
2-Chlorotoluene	15.00	13.8	1.923105	1.767899		-8.00	20
2-Hexanone	52.50	49.2	0.2137484	0.1864586		-6.00	20
4-Chlorotoluene	15.00	14.1	2.179486	2.046376		-6.00	20
4-Isopropyltoluene	15.00	14.1	2.254881	2.123736		-6.00	20
4-Methyl-2-pentanone	52.50	47.1	0.2919112	0.243693		-10.00	20
Acetone	52.50	53.2	0.1293521	9.298712E-02		1.00	20
Benzene	15.00	14.1	1.002161	0.9441122		-6.00	20
Bromobenzene	15.00	13.1	1.083652	0.9433165		-13.00	20

7 - FORM VII

01342552

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612004.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-CCV1 (Calibration Check)	Injection Time:	09:53

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
Bromochloromethane	15.00	14.3	0.2969883	0.2835312		-4.00	20
Bromodichloromethane	15.00	15.2	0.370729	0.3573555		2.00	20
Bromoform	15.00	15.2	0.3117301	0.3156553	0.1	1.00	20
Bromomethane	15.00	15.7	0.3100031	0.2646237		4.00	20
Carbon disulfide	15.00	13.4	0.9476676	0.7836657		-11.00	20
Carbon tetrachloride	15.00	15.3	0.3608923	0.3670719		2.00	20
Chlorobenzene	15.00	14.7	0.8774024	0.8606994	0.3	-2.00	20
Chloroethane	15.00	13.3	0.239357	0.2119194		-12.00	20
Chloroform	15.00	14.0	0.656932	0.6107671		-7.00	20
Chloromethane	15.00	12.9	0.3583454	0.2828422	0.1	-14.00	20
cis-1,2-Dichloroethene	15.00	13.7	0.5385255	0.4605032		-8.00	20
cis-1,3-Dichloropropene	15.00	13.8	0.4428763	0.4079315		-8.00	20
Dibromochloromethane	15.00	15.6	0.3917939	0.3848807		4.00	20
Dibromomethane	15.00	15.8	0.2381661	0.2501965		5.00	20
Dichlorodifluoromethane	15.00	12.1	0.4075845	0.3294355		-19.00	20
Ethylbenzene	15.00	15.0	1.407424	1.334249		0.00	20
Hexachlorobutadiene	15.00	16.1	0.1938745	0.1901616		8.00	20
Isopropylbenzene	15.00	13.9	2.873385	2.66254		-7.00	20
m,p-Xylene	30.00	28.7	1.070642	1.02412		-4.00	20
Methyl tert-butyl ether	15.00	13.2	2.078829	1.048786		-12.00	20
Methylene chloride	15.00	12.5	0.4752062	0.3082273		-16.00	20
n-Butylbenzene	15.00	14.4	1.741335	1.556054		-4.00	20
n-Propylbenzene	15.00	13.8	3.199933	2.951697		-8.00	20
Naphthalene	15.00	13.7	1.038822	0.8514387		-9.00	20
o-Xylene	15.00	13.4	2.460467	2.202061		-10.00	20
sec-Butylbenzene	15.00	13.9	2.725412	2.530783		-7.00	20
Styrene	15.00	14.2	0.9431739	0.8935948		-5.00	20
tert-Butylbenzene	15.00	14.1	2.390757	2.250342		-6.00	20
Tetrachloroethene	15.00	17.0	0.4253866	0.4391196		13.00	20
Toluene	15.00	15.1	1.307847	1.236981		1.00	20

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612004.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-CCV1 (Calibration Check)	Injection Time:	09:53

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	12.9	0.4334531	0.3723362		-14.00	20
trans-1,3-Dichloropropene	15.00	13.4	0.423463	0.3773924		-11.00	20
Trichloroethene	15.00	15.5	0.2817735	0.2732773		4.00	20
Trichlorofluoromethane	15.00	13.8	0.6025154	0.552127		-8.00	20
Vinyl chloride	15.00	12.3	0.3930682	0.3216768		-18.00	20
Dibromofluoromethane	20.00	19.0	0.4401431	0.4187793		-5.00	20
1,2-Dichloroethane-d4	20.00	17.6	0.4349663	0.383027		-12.00	20
Fluorobenzene	20.00	19.5	1.139643	1.110303		-3.00	20
Toluene-d8	20.00	19.7	1.260611	1.242562		-1.00	20
4-Bromofluorobenzene	10.00	9.80	0.9444054	0.9256486		-2.00	20
1,2-Dichlorobenzene-d4	20.00	19.8	0.8601294	0.8514973		-1.00	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.574	168	18995716	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.422	114	25542496	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	22515438	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10720931	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.477	111	7955015	19.03	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.15%			
43) 1,2-Dichloroethane-d4	5.879	65	7275873	17.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.05%			
49) Fluorobenzene	6.279	96	28359925	19.49	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%			
64) Toluene-d8	8.017	98	27976834	19.71	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.55%			
81) 4-Bromofluorobenzene	10.685	174	4961907	9.80	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.00%			
97) d4-1,2-Dichlorobenzene	12.218	152	9128843	19.80	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.217	85	4693399	12.12	ug/L	97
3) Chloromethane	1.358	50	4029593	12.87	ug/L	99
4) Vinyl chloride	1.449	62	4582862	12.28	ug/L	97
5) Bromomethane	1.721	94	3770038	15.67	ug/L	98
6) Chloroethane	1.809	64	3019171	13.28	ug/L	97
7) Trichlorofluoromethane	2.034	101	7866038	13.75	ug/L	98
8) Ethyl ether	2.315	59	3264178	12.95	ug/L	87
9) Acrolein	2.437	56	1610221	31.58	ug/L	96
10) 1,1-Dichloroethene	2.526	61	5608773	13.80	ug/L	86
11) 1,1,2-Trichloro-1,2,2-...	2.538	101	4285025	13.78	ug/L	95
12) Acetone	2.602	43	4636688	53.18	ug/L	91
13) Iodomethane	2.680	142	5331982m	12.06	ug/L	
14) Carbon disulfide	2.743	76	11164715	13.39	ug/L	100
15) Isopropanol	2.786	45	1081255	70.93	ug/L	92
16) acetonitrile	2.920	41	5470760	30.79	ug/L	86
17) 3-Chloro-1-propene	2.922	76	2504901	13.07	ug/L	98
18) Methylene chloride	3.064	49	4391250	12.53	ug/L	77
19) Acrylonitrile	3.385	53	1821098	12.61	ug/L	96
20) trans-1,2-Dichloroethene	3.404	61	5304596	12.88	ug/L	86
21) Methyl tert-butyl ether	3.436	73	14941835	13.19	ug/L	93
22) Hexane	3.794	57	4148460	12.83	ug/L	95
23) 1,1-Dichloroethane	4.000	63	7318058	13.84	ug/L	97
24) Vinyl acetate	4.124	43	7764264m	12.02	ug/L	
25) 2-Chloro-1,3-butadiene	4.137	53	5425093	12.60	ug/L	83
27) 2,2-Dichloropropane	4.828	77	7169165	13.58	ug/L	92
28) cis-1,2-Dichloroethene	4.836	61	6560693	13.72	ug/L	86
29) 2-Butanone	4.906	72	2418275	50.95	ug/L	93
30) Propionitrile	4.977	54	597923	13.11	ug/L	92

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.013	61	737298	12.90	ug/L		80
32) Methylacrylate	5.039	55	4437672	12.34	ug/L		91
33) 1-Bromopropane	5.076	41	2558983	13.18	ug/L		65
34) Bromochloromethane	5.149	130	4039410	14.32	ug/L		100
35) Methacrylonitrile	5.171	67	2322016	13.34	ug/L		91
36) Tetrahydrofuran	5.240	42	1229435	12.31	ug/L		78
37) Chloroform	5.276	83	8701470	13.95	ug/L		100
39) 1,1,1-Trichloroethane	5.479	97	7978095	13.91	ug/L		95
40) Cyclohexane	5.535	84	6819978	13.37	ug/L		81
41) 1-Chlorobutane	5.630	56	7534935	12.72	ug/L		98
42) 1,1-Dichloropropene	5.690	75	6109808	14.14	ug/L		91
44) 1,2-Dichloroethane	5.970	62	6185449	14.07	ug/L		98
47) Carbon tetrachloride	5.680	117	7031950	15.26	ug/L		99
48) Benzene	5.935	78	18086241	14.13	ug/L		100
50) Trichloroethene	6.696	95	5235140	15.53	ug/L		91
52) 1,2-Dichloropropane	6.945	63	4159171	14.37	ug/L		91
53) Dibromomethane	7.071	174	4792983	15.76	ug/L	#	91
54) Methyl methacrylate	7.125	69	3880707	12.99	ug/L		90
55) 1,4-dioxane	7.130	88	435842m	144.79	ug/L		
56) Bromodichloromethane	7.259	83	6845814	15.25	ug/L		99
57) 2-Nitropropane	7.521	43	1684903	13.05	ug/L		96
58) 2-Chloroethyl vinyl ether	7.612	63	2971141	11.99	ug/L		98
59) cis-1,3-Dichloropropene	7.744	75	7814692	13.82	ug/L		95
60) 4-Methyl-2-pentanone	7.936	43	16339388	47.07	ug/L	#	88
61) trans-1,3-Dichloropropene	8.333	75	7229659	13.37	ug/L		89
62) 1,1,2-Trichloroethane	8.518	97	4923335	14.59	ug/L		94
65) Toluene	8.085	91	20888380	15.11	ug/L		97
66) Ethylmethacrylate	8.455	69	6625700	13.32	ug/L		87
67) Tetrachloroethene	8.648	166	7415228	17.00	ug/L		95
68) 1,3-Dichloropropane	8.686	76	7593060	14.41	ug/L		87
69) 2-Hexanone	8.800	43	11020271	49.15	ug/L		89
70) Dibromochloromethane	8.911	129	6499318	15.55	ug/L		99
71) 1,2-Dibromoethane	9.017	107	5404694	14.14	ug/L		97
72) Chlorobenzene	9.523	112	14534269	14.71	ug/L		93
73) 1,1,1,2-Tetrachloroethane	9.613	131	5855014	15.14	ug/L		97
74) Ethylbenzene	9.642	91	22530907	15.00	ug/L		96
75) m,p-Xylene	9.763	91	34587760	28.70	ug/L		94
76) Styrene	10.175	104	15089756	14.21	ug/L		92
77) Bromoform	10.354	173	5330338	15.19	ug/L		96
79) o-Xylene	10.160	91	17706111	13.42	ug/L		96
80) Isopropylbenzene	10.535	105	21408675	13.90	ug/L		96
82) Bromobenzene	10.827	77	7584923	13.06	ug/L		80
83) 1,1,2,2-Tetrachloroethane	10.842	83	6532327	14.02	ug/L		97
84) 1,2,3-Trichloropropane	10.879	110	2310372	14.31	ug/L		95
85) trans-1,4-Dichloro-2-b...	10.900	53	1576970	12.62	ug/L		71
86) n-Propylbenzene	10.949	91	23733698	13.84	ug/L		96
87) 2-Chlorotoluene	11.027	91	14215140	13.79	ug/L		94
88) 4-Chlorotoluene	11.137	91	16454289	14.08	ug/L		94
89) 1,3,5-Trimethylbenzene	11.129	105	16528344	13.84	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

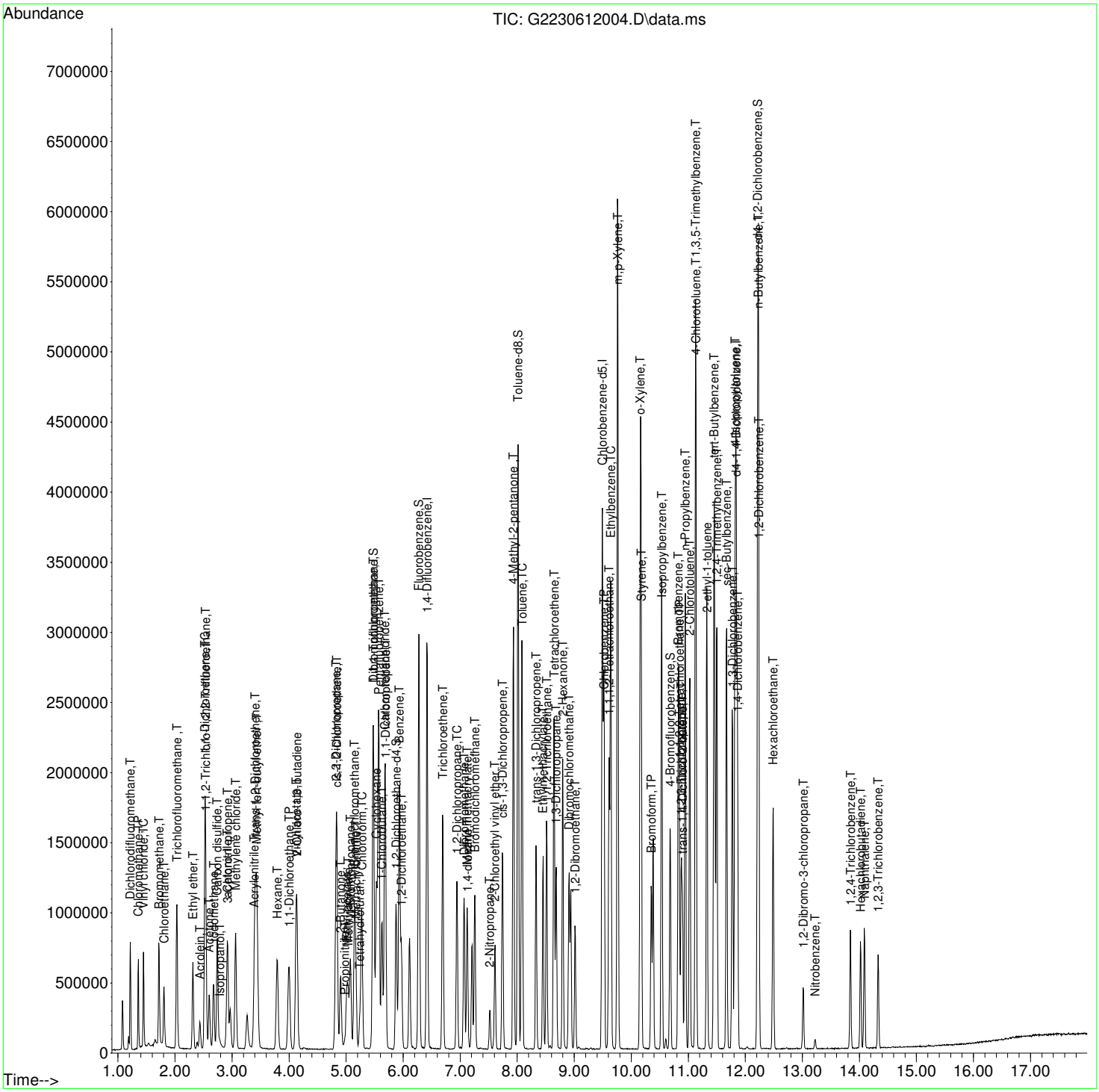
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.328	105	19910021	13.68	ug/L	97
91) tert-Butylbenzene	11.454	119	18094321	14.12	ug/L	89
92) 1,2,4-Trimethylbenzene	11.501	105	16456232	13.77	ug/L	93
93) sec-Butylbenzene	11.672	105	20349258	13.93	ug/L	97
94) 1,3-Dichlorobenzene	11.775	146	10518443	14.80	ug/L	98
95) 4-Isopropyltoluene	11.821	119	17076315	14.13	ug/L	97
96) 1,4-Dichlorobenzene	11.865	146	10216467	14.78	ug/L	96
98) 1,2-Dichlorobenzene	12.236	146	9531480	15.57	ug/L	97
99) n-Butylbenzene	12.231	91	12511757	14.37	ug/L	91
100) Hexachloroethane	12.490	201	3423706	15.41	ug/L	96
101) 1,2-Dibromo-3-chloropr...	13.019	157	1436288	15.52	ug/L	99
102) Nitrobenzene	13.224	77	356627	11.86	ug/L	91
103) 1,2,4-Trichlorobenzene	13.846	180	2756641	14.33	ug/L	97
104) Hexachlorobutadiene	14.024	225	1529032	16.14	ug/L	97
105) Naphthalene	14.090	128	6846161	13.68	ug/L	99
106) 1,2,3-Trichlorobenzene	14.332	180	2178320	14.09	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342557

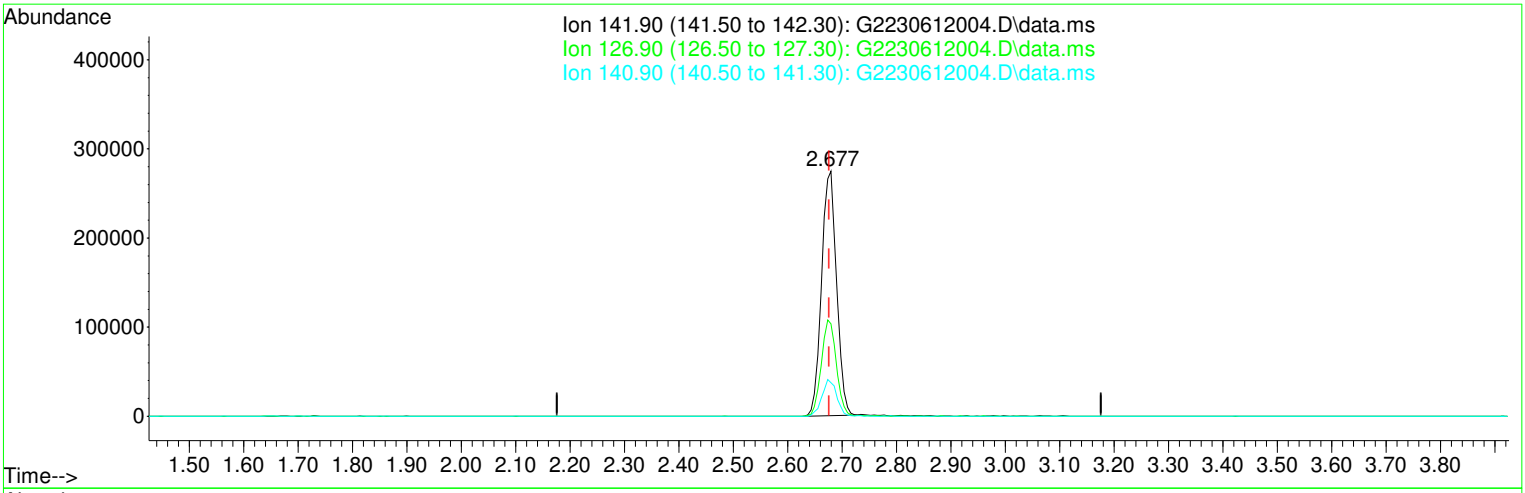
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

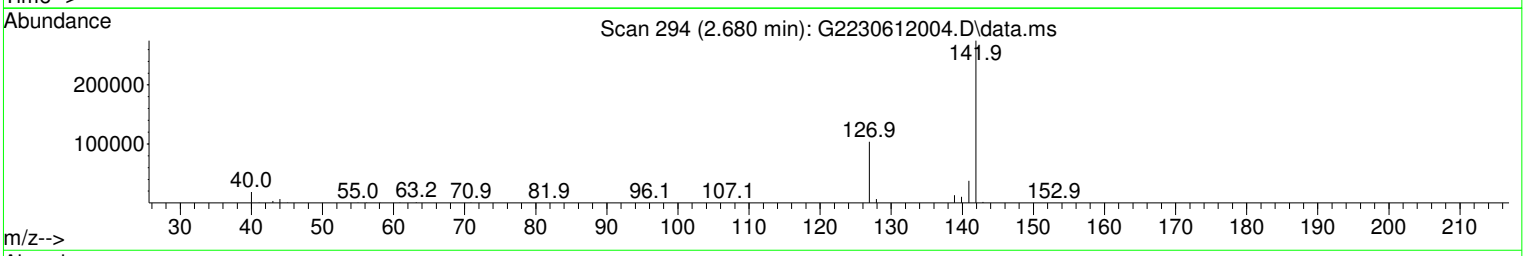
Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

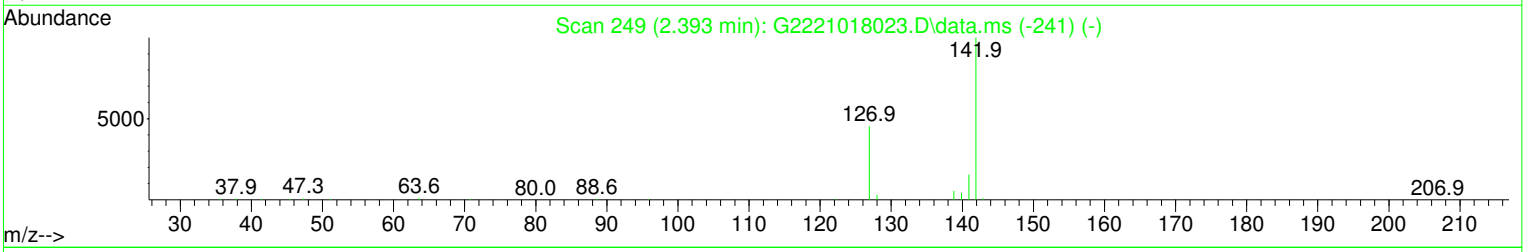


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612004.D\data.ms

(13) Iodomethane (T)

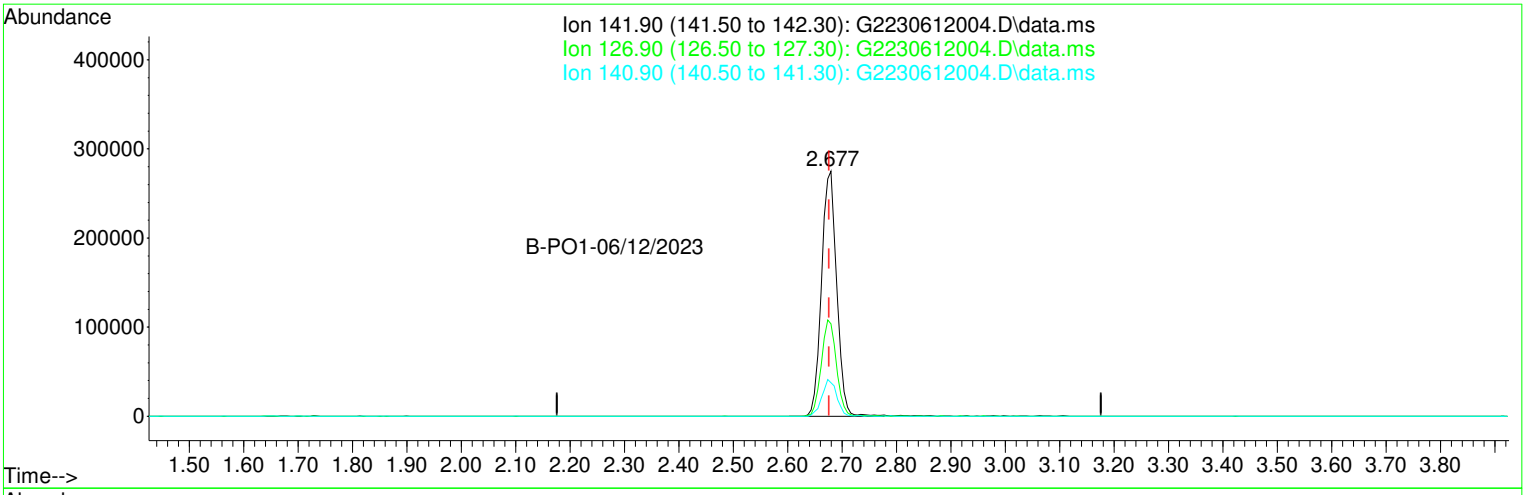
2.679min (+ 0.003) 11.87 ug/L

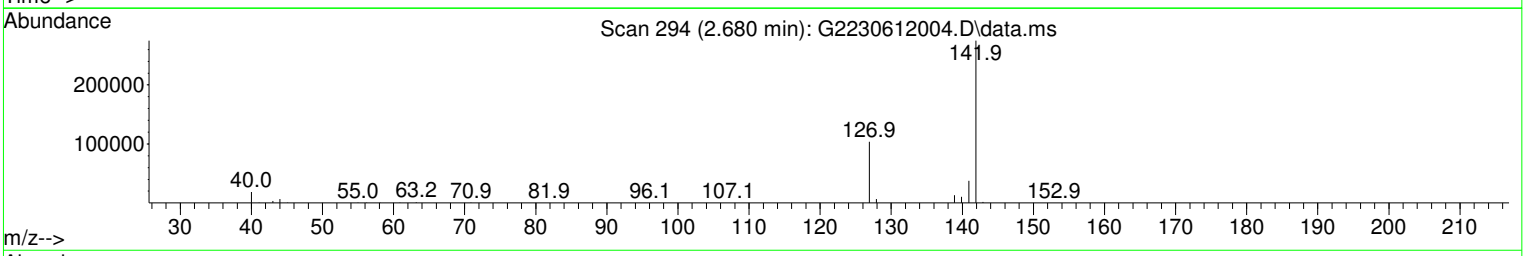
response 5251079

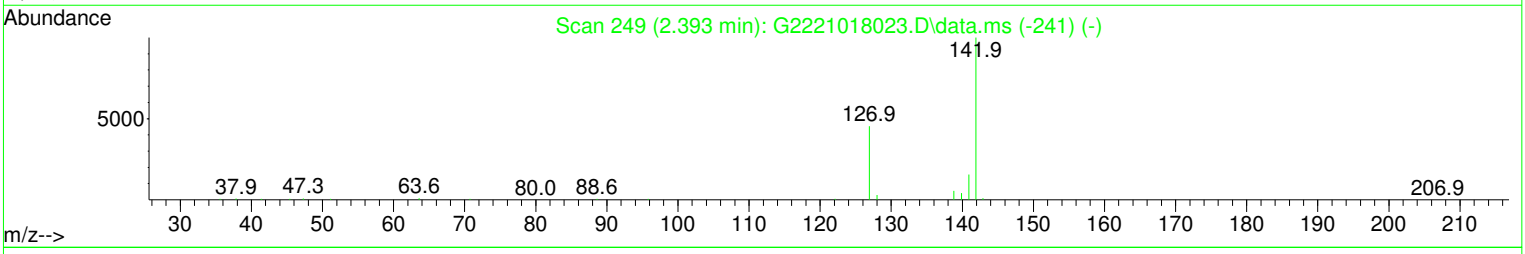
Ion	Exp%	Act%
141.90	100.00	100.00
126.90	43.30	39.70
140.90	15.30	14.52
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612004.D\data.ms

(13) Iodomethane (T)

2.680min (+ 0.004) 12.06 ug/L m

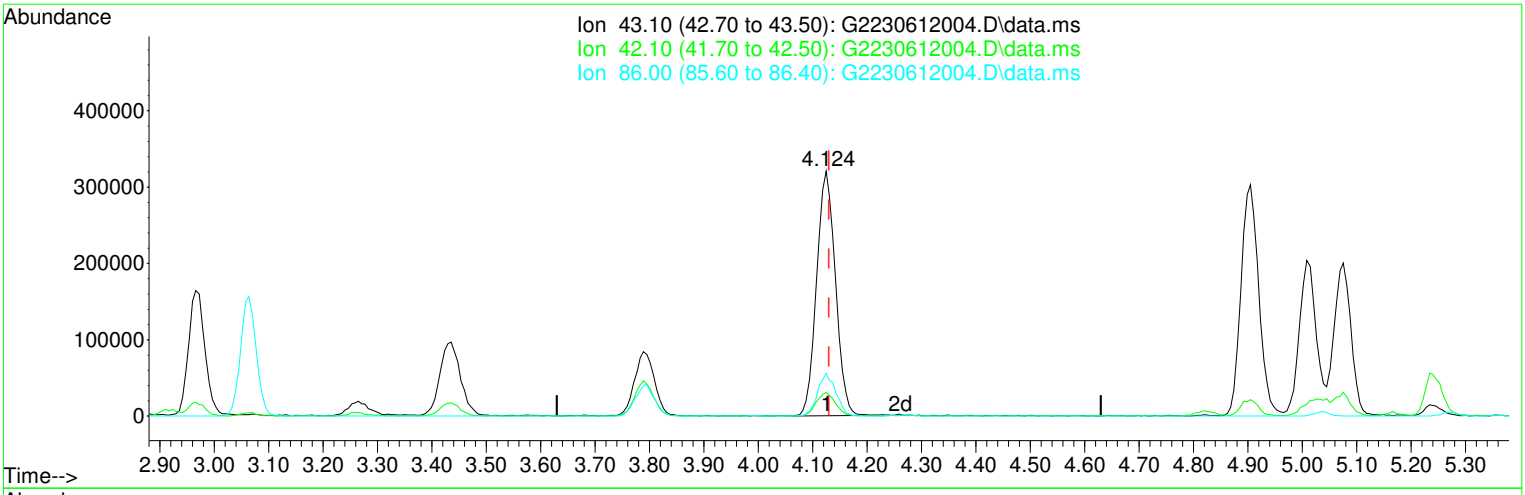
response 5331982

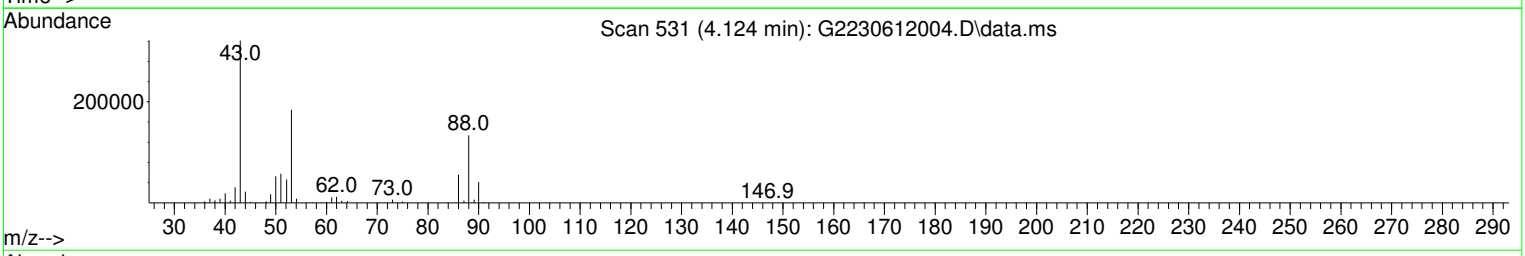
Ion	Exp%	Act%
141.90	100.00	100.00
126.90	43.30	39.10
140.90	15.30	14.30
0.00	0.00	0.00

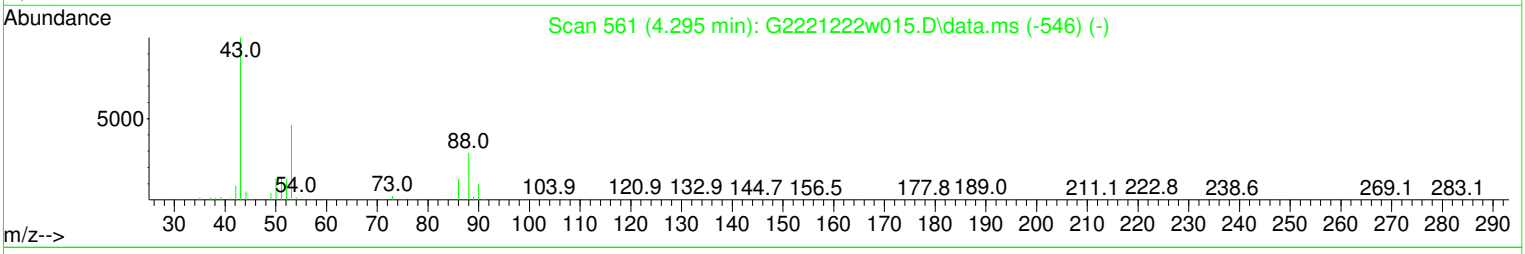
01342560

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612004.D\data.ms

(24) Vinyl acetate (T)

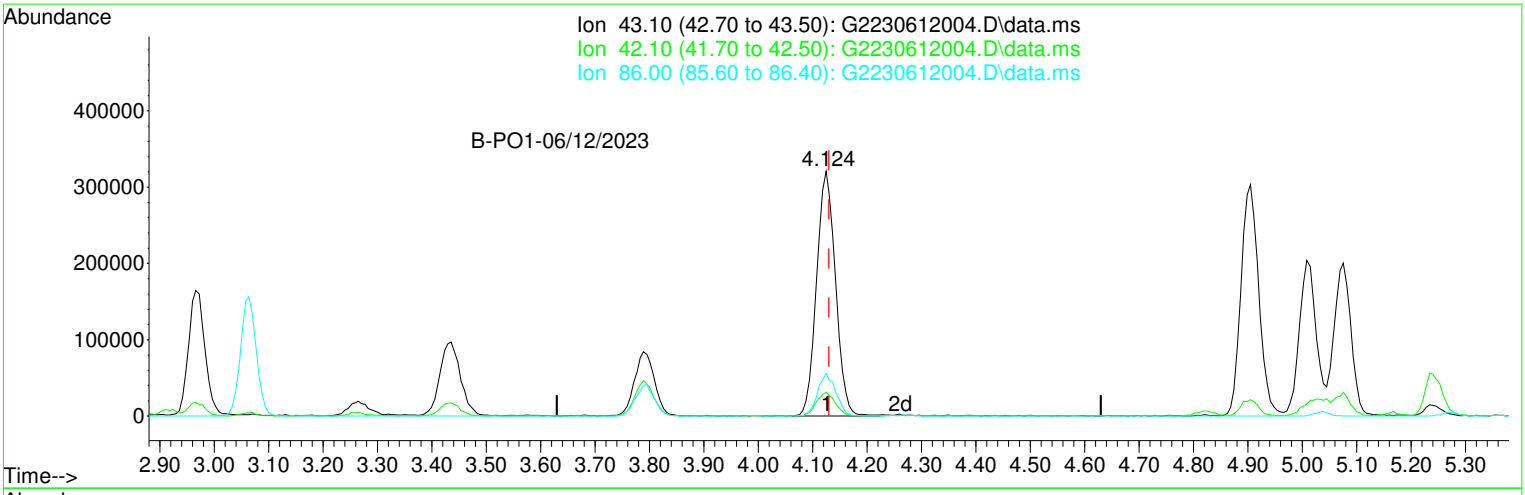
4.126min (-0.004) 11.94 ug/L

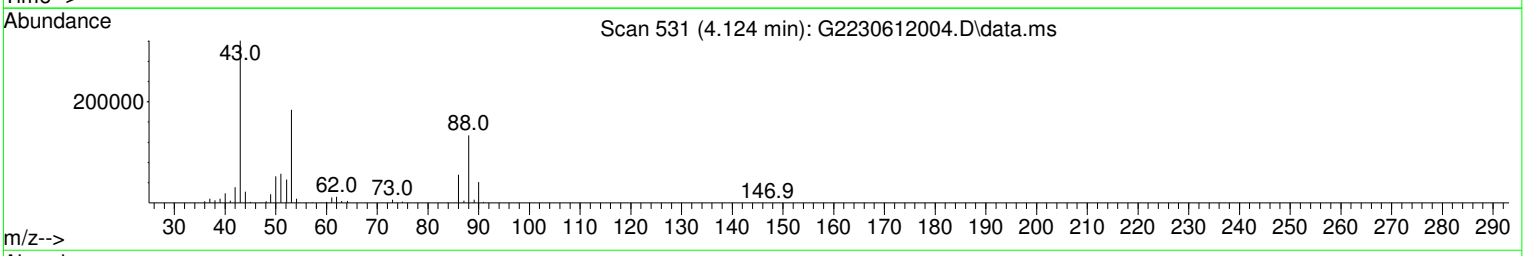
response 7708853

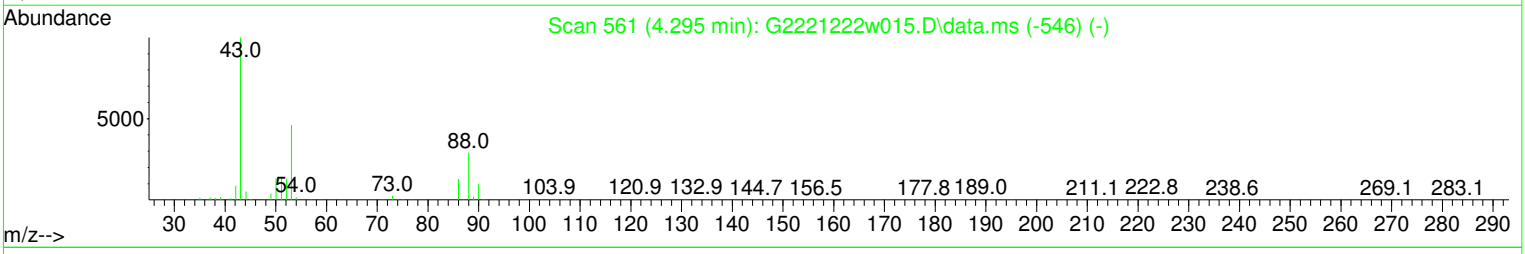
Ion	Exp%	Act%
43.10	100.00	100.00
42.10	9.10	9.70
86.00	10.90	17.02
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612004.D\data.ms

(24) Vinyl acetate (T)

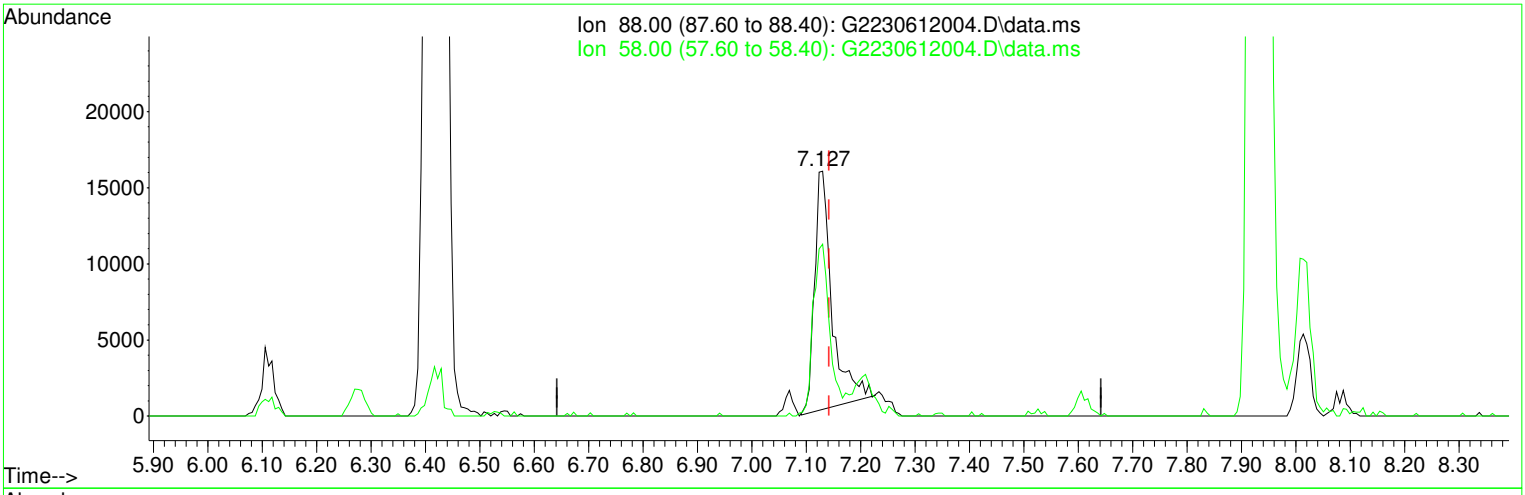
4.124min (-0.006) 12.02 ug/L m

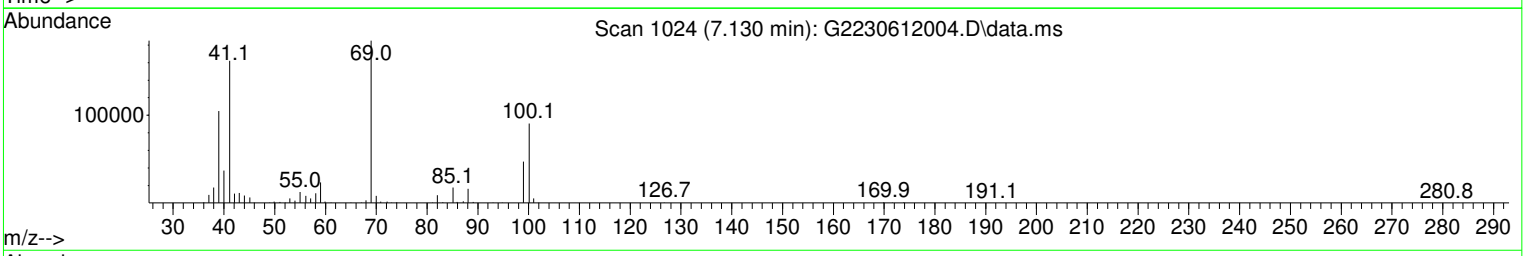
response 7764264

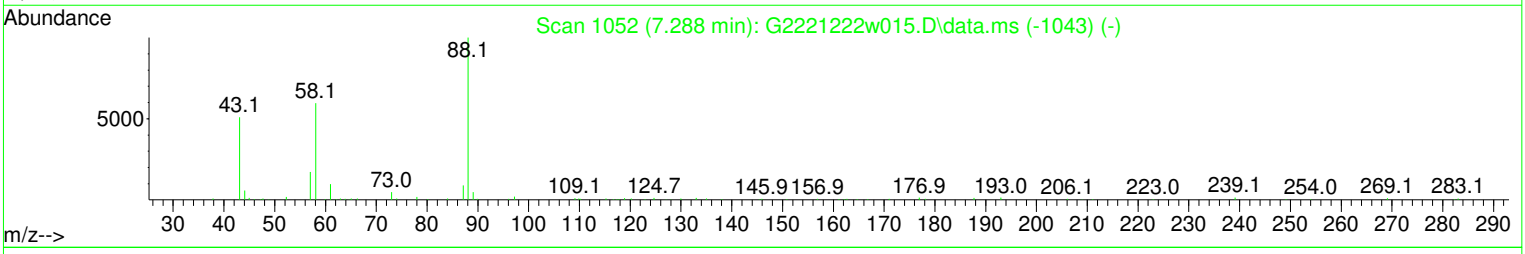
Ion	Exp%	Act%
43.10	100.00	100.00
42.10	9.10	9.63
86.00	10.90	16.89
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612004.D\data.ms

(55) 1,4-dioxane (T)

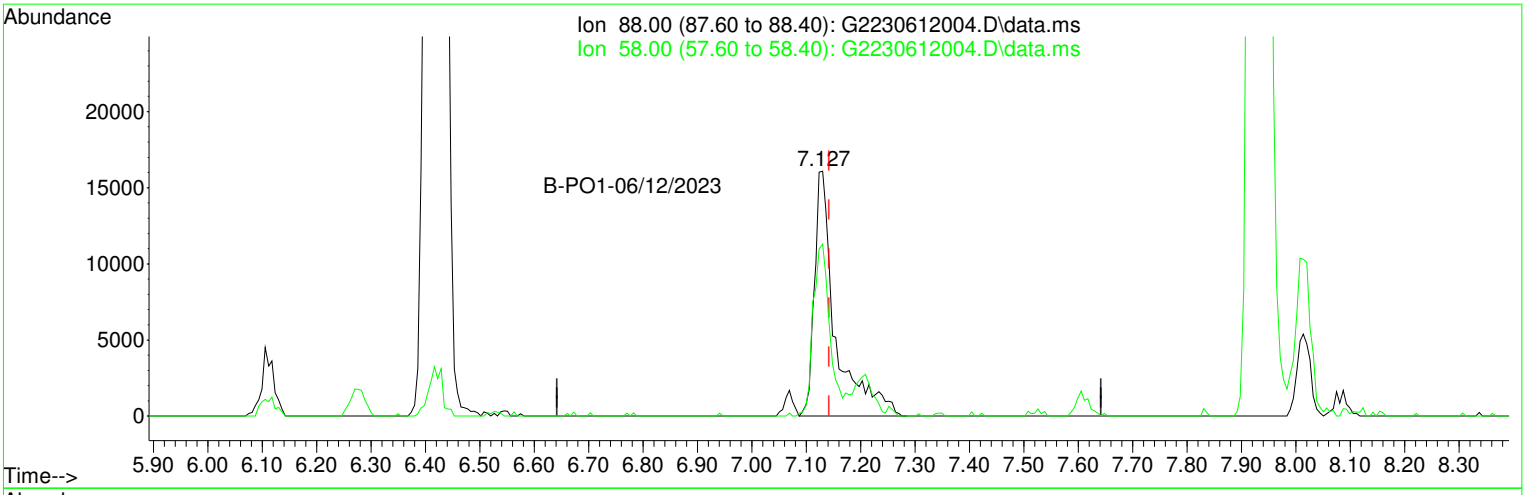
7.130min (-0.012) 116.07 ug/L

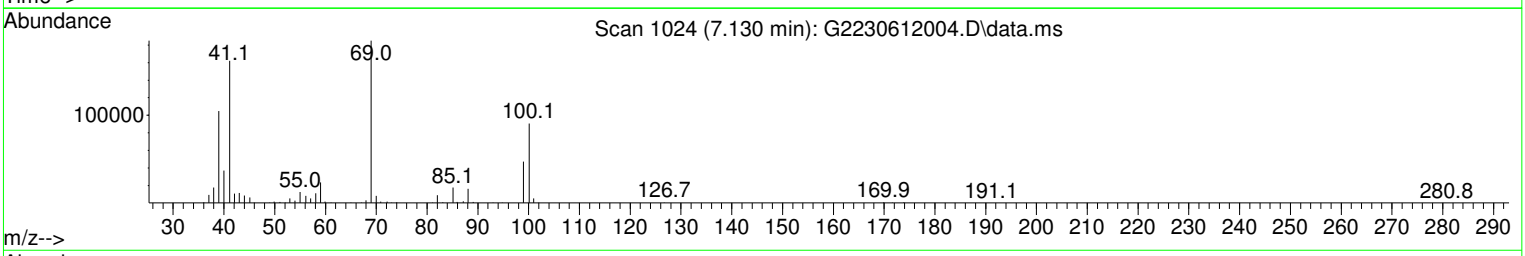
response 349414

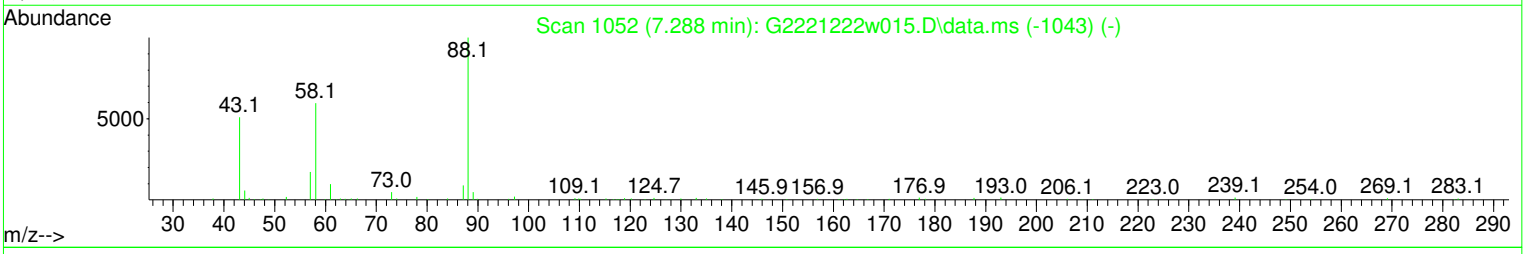
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	71.09
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612004.D
Acq On : 12 Jun 2023 09:53
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 12 10:13:38 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612004.D\data.ms

(55) 1,4-dioxane (T)

7.130min (-0.012) 144.79 ug/L m

response 435842

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	56.99
0.00	0.00	0.00
0.00	0.00	0.00

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612026.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-HCV1 (Closing Cal Check)	Injection Time:	18:58

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	15.2	0.3434339	0.347942		1.00	50
1,1,1-Trichloroethane	15.00	14.9	0.603823	0.5993905		-1.00	50
1,1,2,2-Tetrachloroethane	15.00	11.0	0.86935	0.6370362	0.3	-27.00	50
1,1,2-Trichloroethane	15.00	15.4	0.2642556	0.2711525		3.00	50
1,1-Dichloroethane	15.00	14.8	0.5953788	0.547851	0.1	-2.00	50
1,1-Dichloroethene	15.00	14.7	0.4569016	0.420254		-2.00	50
1,1-Dichloropropene	15.00	14.8	0.4853227	0.4496722		-1.00	50
1,2,3-Trichlorobenzene	15.00	14.9	0.2883305	0.2870328		0.00	50
1,2,3-Trichloropropane	15.00	14.5	0.331412	0.2905462		-4.00	50
1,2,4-Trichlorobenzene	15.00	15.4	0.3588914	0.3687077		3.00	50
1,2,4-Trimethylbenzene	15.00	13.7	2.229227	2.032952		-9.00	50
1,2-Dibromo-3-chloropropane	15.00	15.0	0.1882045	0.1726596		0.00	50
1,2-Dibromoethane	15.00	14.8	0.3394667	0.3350425		-1.00	50
1,2-Dichlorobenzene	15.00	15.9	1.201484	1.208935		6.00	50
1,2-Dichloroethane	15.00	15.0	0.5029475	0.4629742		0.00	50
1,2-Dichloropropane	15.00	14.6	0.2411055	0.2198744		-3.00	50
1,3,5-Trimethylbenzene	15.00	13.6	2.228381	2.022534		-9.00	50
1,3-Dichlorobenzene	15.00	14.7	1.326244	1.298609		-2.00	50
1,3-Dichloropropane	15.00	14.8	0.4921719	0.4629146		-1.00	50
1,4-Dichlorobenzene	15.00	15.2	1.289371	1.304739		1.00	50
2,2-Dichloropropane	15.00	11.6	0.5559494	0.4311565		-22.00	50
2-Butanone	52.50	51.2	5.658319E-02	4.870372E-02		-2.00	50
2-Chlorotoluene	15.00	13.4	1.923105	1.720747		-10.00	50
2-Hexanone	52.50	45.9	0.2137484	0.1743354		-12.00	50
4-Chlorotoluene	15.00	13.7	2.179486	1.994015		-8.00	50
4-Isopropyltoluene	15.00	14.1	2.254881	2.112958		-6.00	50
4-Methyl-2-pentanone	52.50	45.5	0.2919112	0.2355843		-13.00	50
Acetone	52.50	48.5	0.1293521	8.511436E-02		-8.00	50
Benzene	15.00	14.5	1.002161	0.9671438		-4.00	50
Bromobenzene	15.00	12.9	1.083652	0.9314905		-14.00	50

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612026.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-HCV1 (Closing Cal Check)	Injection Time:	18:58

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**	
Bromochloromethane	15.00	15.2	0.2969883	0.3007134		1.00	50	
Bromodichloromethane	15.00	15.4	0.370729	0.3611091		3.00	50	
Bromoform	15.00	13.7	0.3117301	0.283861	0.1	-9.00	50	
Bromomethane	15.00	15.4	0.3100031	0.2598088		2.00	50	
Carbon disulfide	15.00	14.2	0.9476676	0.8275183		-6.00	50	
Carbon tetrachloride	15.00	16.2	0.3608923	0.3891114		8.00	50	
Chlorobenzene	15.00	15.0	0.8774024	0.8787369	0.3	0.00	50	
Chloroethane	15.00	13.9	0.239357	0.2221907		-7.00	50	
Chloroform	15.00	15.0	0.656932	0.6582243		0.00	50	
Chloromethane	15.00	13.5	0.3583454	0.296736	0.1	-10.00	50	
cis-1,2-Dichloroethene	15.00	13.9	0.5385255	0.4651135		-8.00	50	
cis-1,3-Dichloropropene	15.00	13.5	0.4428763	0.3978385		-10.00	50	
Dibromochloromethane	15.00	15.2	0.3917939	0.3768311		2.00	50	
Dibromomethane	15.00	16.4	0.2381661	0.2597026		9.00	50	
Dichlorodifluoromethane	15.00	13.1	0.4075845	0.3555201		-13.00	50	
Ethylbenzene	15.00	15.1	1.407424	1.340834		0.00	50	
Hexachlorobutadiene	15.00	17.3	0.1938745	0.2035084		15.00	50	
Isopropylbenzene	15.00	13.5	2.873385	2.587651		-10.00	50	
m,p-Xylene	30.00	28.6	1.070642	1.018991		-5.00	50	
Methyl tert-butyl ether	15.00	14.0	2.078829	1.105234		-7.00	50	
Methylene chloride	15.00	13.5	0.4752062	0.3290229		-10.00	50	
n-Butylbenzene	15.00	14.0	1.741335	1.512168		-7.00	50	
n-Propylbenzene	15.00	13.4	3.199933	2.850121		-11.00	50	
Naphthalene	15.00	14.8	1.038822	0.9222497		-1.00	50	
o-Xylene	15.00	13.0	2.460467	2.140184		-13.00	50	
sec-Butylbenzene	15.00	13.7	2.725412	2.491158		-9.00	50	
Styrene	15.00	14.4	0.9431739	0.9070353		-4.00	50	
tert-Butylbenzene	15.00	11.8	2.390757	1.874383		-22.00	50	
Tetrachloroethene	15.00	30.2	0.4253866	0.7769594		101.00	50	*
Toluene	15.00	15.2	1.307847	1.247125		2.00	50	

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612026.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-HCV1 (Closing Cal Check)	Injection Time:	18:58

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	13.6	0.4334531	0.3940415		-9.00	50
trans-1,3-Dichloropropene	15.00	13.2	0.423463	0.3730369		-12.00	50
Trichloroethene	15.00	18.5	0.2817735	0.3259938		24.00	50
Trichlorofluoromethane	15.00	14.6	0.6025154	0.5846735		-3.00	50
Vinyl chloride	15.00	13.0	0.3930682	0.3418574		-13.00	50
Dibromofluoromethane	20.00	20.0	0.4401431	0.4413341		0.00	50
1,2-Dichloroethane-d4	20.00	18.4	0.4349663	0.4001899		-8.00	50
Fluorobenzene	20.00	19.4	1.139643	1.106471		-3.00	50
Toluene-d8	20.00	19.2	1.260611	1.212532		-4.00	50
4-Bromofluorobenzene	10.00	9.70	0.9444054	0.9163218		-3.00	50
1,2-Dichlorobenzene-d4	20.00	19.9	0.8601294	0.8570348		0.00	50

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612026.D
Acq On : 12 Jun 2023 18:58
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 13 08:10:43 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	17615686	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	24476694	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	21975268	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10895356	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7774404	20.05	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.25%			
43) 1,2-Dichloroethane-d4	5.877	65	7049622	18.40	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.00%			
49) Fluorobenzene	6.277	96	27082748	19.42	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%			
64) Toluene-d8	8.016	98	26645709	19.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.20%			
81) 4-Bromofluorobenzene	10.685	174	4991828	9.70	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.00%			
97) d4-1,2-Dichlorobenzene	12.217	152	9337703	19.93	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.65%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.215	85	4697049	13.08	ug/L	100
3) Chloromethane	1.355	50	3920407	13.50	ug/L	100
4) Vinyl chloride	1.446	62	4516540	13.05	ug/L	99
5) Bromomethane	1.717	94	3432533	15.38	ug/L	99
6) Chloroethane	1.805	64	2935532	13.92	ug/L	98
7) Trichlorofluoromethane	2.030	101	7724570	14.56	ug/L	97
8) Ethyl ether	2.313	59	3149223	13.48	ug/L	86
9) Acrolein	2.436	56	1303140	27.49	ug/L	96
10) 1,1-Dichloroethene	2.524	61	5552298	14.73	ug/L	85
11) 1,1,2-Trichloro-1,2,2-...	2.534	101	4160796	14.43	ug/L	96
12) Acetone	2.602	43	3935789	48.53	ug/L	91
13) Iodomethane	2.675	142	5074214	12.37	ug/L	95
14) Carbon disulfide	2.739	76	10932979	14.15	ug/L	99
15) Isopropanol	2.788	45	1228962	86.93	ug/L	87
16) acetonitrile	2.918	41	5182694	31.46	ug/L	85
17) 3-Chloro-1-propene	2.920	76	2431293	13.69	ug/L	98
18) Methylene chloride	3.061	49	4346974	13.48	ug/L	76
19) Acrylonitrile	3.383	53	1789074	13.36	ug/L	96
20) trans-1,2-Dichloroethene	3.401	61	5205985	13.64	ug/L	84
21) Methyl tert-butyl ether	3.434	73	14602100	13.95	ug/L	93
22) Hexane	3.790	57	3511309	11.70	ug/L	94
23) 1,1-Dichloroethane	3.998	63	7238080	14.76	ug/L	97
24) Vinyl acetate	4.124	43	2109199	3.52	ug/L	86
25) 2-Chloro-1,3-butadiene	4.134	53	5159932	12.92	ug/L	82
27) 2,2-Dichloropropane	4.825	77	5696339	11.63	ug/L	91
28) cis-1,2-Dichloroethene	4.834	61	6144971	13.86	ug/L	82
29) 2-Butanone	4.902	72	2252118	51.17	ug/L	92
30) Propionitrile	4.978	54	574429	13.59	ug/L	99

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612026.D
Acq On : 12 Jun 2023 18:58
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 13 08:10:43 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.010	61	696114	13.13	ug/L		79
32) Methylacrylate	5.036	55	4079916	12.23	ug/L		90
33) 1-Bromopropane	5.075	41	2446680	13.59	ug/L		64
34) Bromochloromethane	5.147	130	3972956	15.19	ug/L		99
35) Methacrylonitrile	5.169	67	2249993	13.95	ug/L		90
36) Tetrahydrofuran	5.241	42	1212272	13.13	ug/L		78
37) Chloroform	5.273	83	8696306	15.03	ug/L		100
39) 1,1,1-Trichloroethane	5.478	97	7919008	14.89	ug/L		95
40) Cyclohexane	5.532	84	6604658	13.96	ug/L		80
41) 1-Chlorobutane	5.627	56	7485483	13.62	ug/L		97
42) 1,1-Dichloropropene	5.688	75	5940964	14.83	ug/L		92
44) 1,2-Dichloroethane	5.968	62	6116708	15.01	ug/L		98
47) Carbon tetrachloride	5.679	117	7143119	16.17	ug/L		99
48) Benzene	5.933	78	17754356	14.48	ug/L		100
50) Trichloroethene	6.694	95	5984436	18.54	ug/L		90
52) 1,2-Dichloropropane	6.944	63	4036349	14.56	ug/L		89
53) Dibromomethane	7.070	174	4767495	16.36	ug/L	#	91
54) Methyl methacrylate	7.124	69	3677678	12.85	ug/L		89
55) 1,4-dioxane	7.124	88	434074m	150.48	ug/L		
56) Bromodichloromethane	7.257	83	6629067	15.41	ug/L		99
57) 2-Nitropropane	7.520	43	1525523	12.32	ug/L		95
58) 2-Chloroethyl vinyl ether	7.611	63	2623331	11.05	ug/L		99
59) cis-1,3-Dichloropropene	7.743	75	7303327	13.47	ug/L		95
60) 4-Methyl-2-pentanone	7.934	43	15136598	45.49	ug/L	#	85
61) trans-1,3-Dichloropropene	8.333	75	6848032	13.21	ug/L		88
62) 1,1,2-Trichloroethane	8.517	97	4977687	15.39	ug/L		93
65) Toluene	8.084	91	20554431	15.23	ug/L		97
66) Ethylmethacrylate	8.454	69	6344131	13.06	ug/L		87
67) Tetrachloroethene	8.646	166	12805421	30.18	ug/L		94
68) 1,3-Dichloropropane	8.685	76	7629505	14.84	ug/L		84
69) 2-Hexanone	8.799	43	10056551	45.94	ug/L		87
70) Dibromochloromethane	8.910	129	6210724	15.23	ug/L		97
71) 1,2-Dibromoethane	9.016	107	5521987	14.80	ug/L		100
72) Chlorobenzene	9.522	112	14482859	15.02	ug/L		92
73) 1,1,1,2-Tetrachloroethane	9.612	131	5734590	15.20	ug/L		97
74) Ethylbenzene	9.642	91	22098892	15.08	ug/L		95
75) m,p-Xylene	9.762	91	33588909	28.55	ug/L		94
76) Styrene	10.175	104	14949264	14.43	ug/L		93
77) Bromoform	10.352	173	4678441	13.66	ug/L		97
79) o-Xylene	10.159	91	17488561	13.05	ug/L		95
80) Isopropylbenzene	10.535	105	21145037	13.51	ug/L		96
82) Bromobenzene	10.826	77	7611693	12.89	ug/L		80
83) 1,1,2,2-Tetrachloroethane	10.841	83	5205554	10.99	ug/L		99
84) 1,2,3-Trichloropropane	10.880	110	2374204	14.47	ug/L		97
85) trans-1,4-Dichloro-2-b...	10.899	53	1161241	9.15	ug/L		72
86) n-Propylbenzene	10.947	91	23289815	13.36	ug/L		96
87) 2-Chlorotoluene	11.026	91	14061118	13.42	ug/L		94
88) 4-Chlorotoluene	11.135	91	16294130	13.72	ug/L		94
89) 1,3,5-Trimethylbenzene	11.128	105	16527184	13.61	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612026.D
Acq On : 12 Jun 2023 18:58
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 26 Sample Multiplier: 1

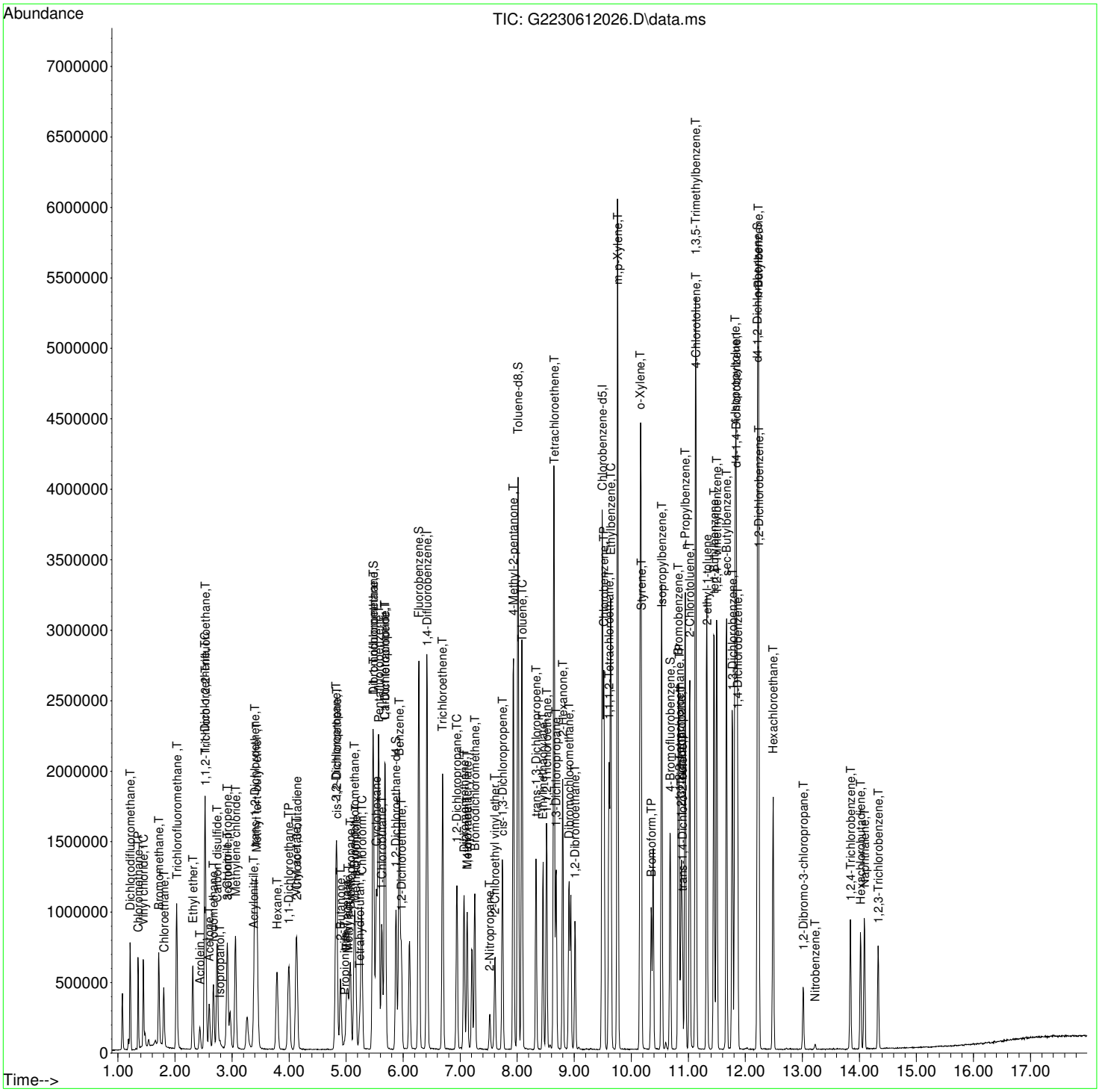
Quant Time: Jun 13 08:10:43 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.327	105	19991926	13.52	ug/L	97
91) tert-Butylbenzene	11.452	119	15316563	11.76	ug/L	97
92) 1,2,4-Trimethylbenzene	11.500	105	16612313	13.68	ug/L	93
93) sec-Butylbenzene	11.672	105	20356549	13.71	ug/L	96
94) 1,3-Dichlorobenzene	11.774	146	10611612	14.69	ug/L	97
95) 4-Isopropyltoluene	11.821	119	17266080	14.06	ug/L	97
96) 1,4-Dichlorobenzene	11.864	146	10661702	15.18	ug/L	97
98) 1,2-Dichlorobenzene	12.236	146	9878839	15.88	ug/L	97
99) n-Butylbenzene	12.230	91	12356708	13.96	ug/L	91
100) Hexachloroethane	12.490	201	3465855	15.35	ug/L	98
101) 1,2-Dibromo-3-chloropr...	13.018	157	1410891	15.00	ug/L	97
102) Nitrobenzene	13.223	77	159614	4.91	ug/L	90
103) 1,2,4-Trichlorobenzene	13.845	180	3012902	15.41	ug/L	96
104) Hexachlorobutadiene	14.023	225	1662973	17.29	ug/L	96
105) Naphthalene	14.090	128	7536182	14.83	ug/L	99
106) 1,2,3-Trichlorobenzene	14.333	180	2345494	14.93	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612026.D
Acq On : 12 Jun 2023 18:58
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 26 Sample Multiplier: 1

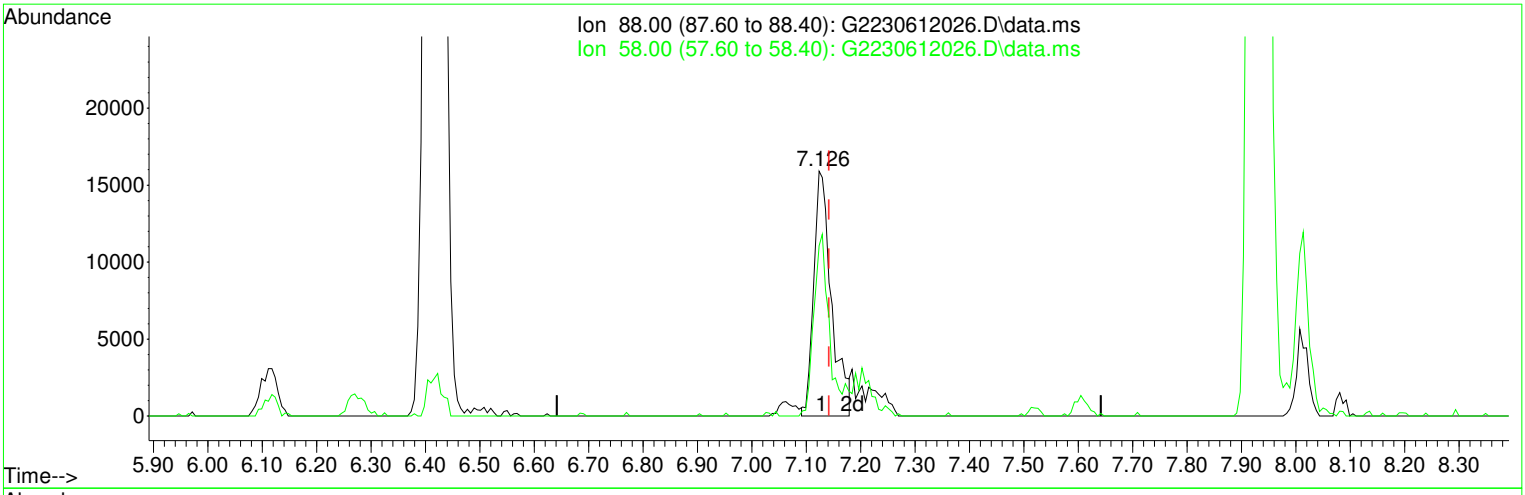
Quant Time: Jun 13 08:10:43 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

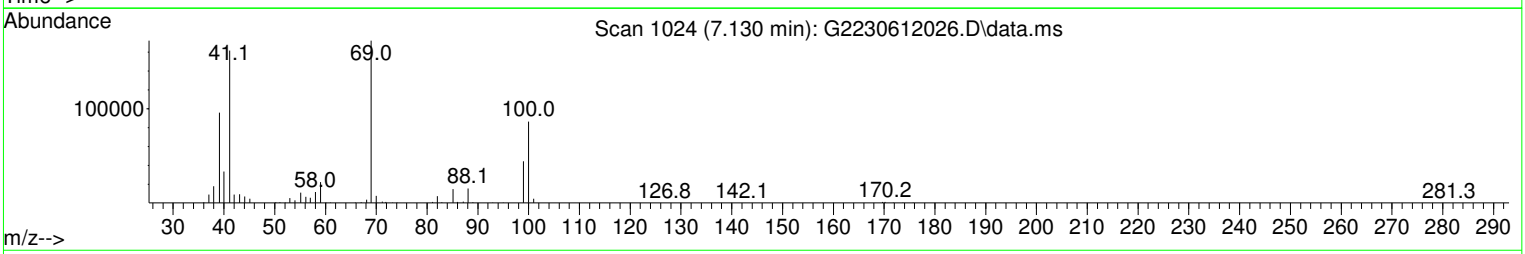


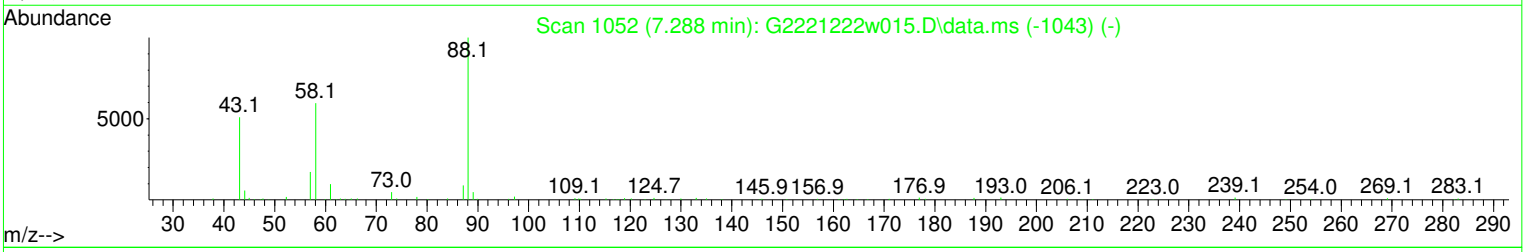
01342571

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612026.D
Acq On : 12 Jun 2023 18:58
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 13 08:10:43 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612026.D\data.ms

(55) 1,4-dioxane (T)

7.129min (-0.013) 122.60 ug/L

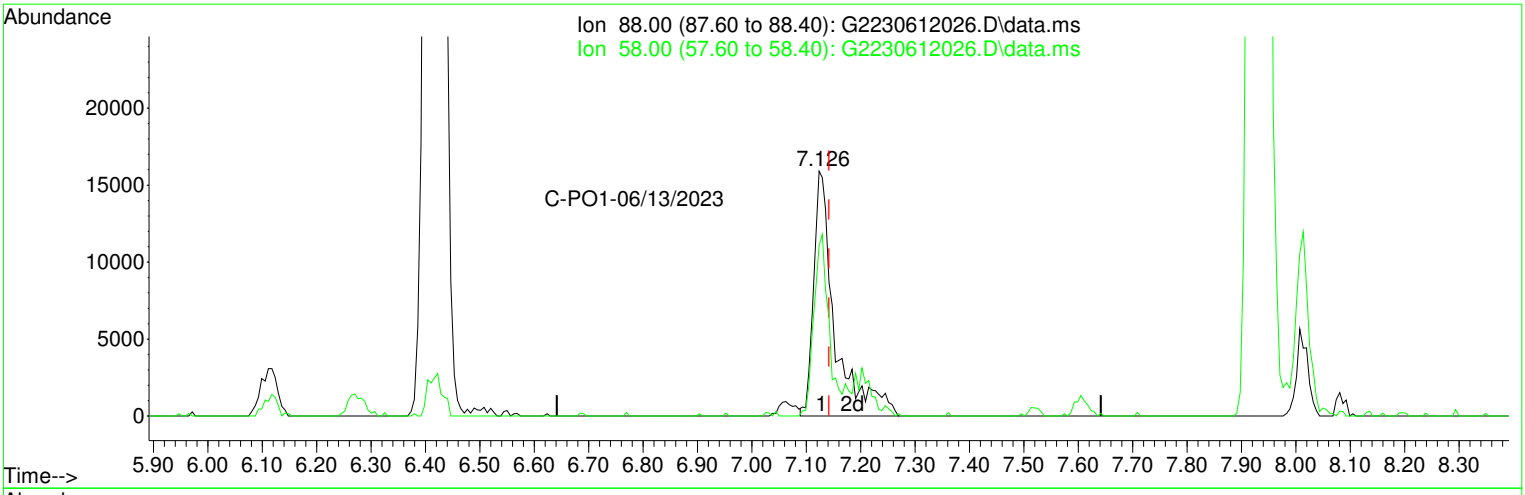
response 353656

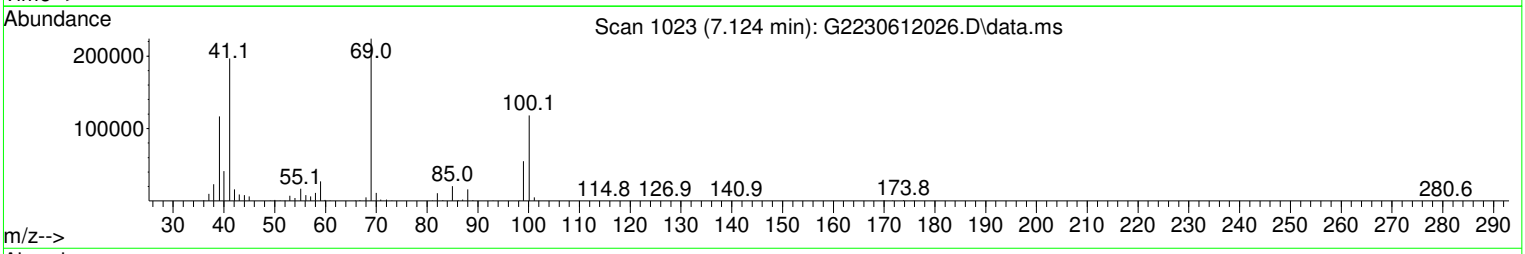
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	62.92
0.00	0.00	0.00
0.00	0.00	0.00

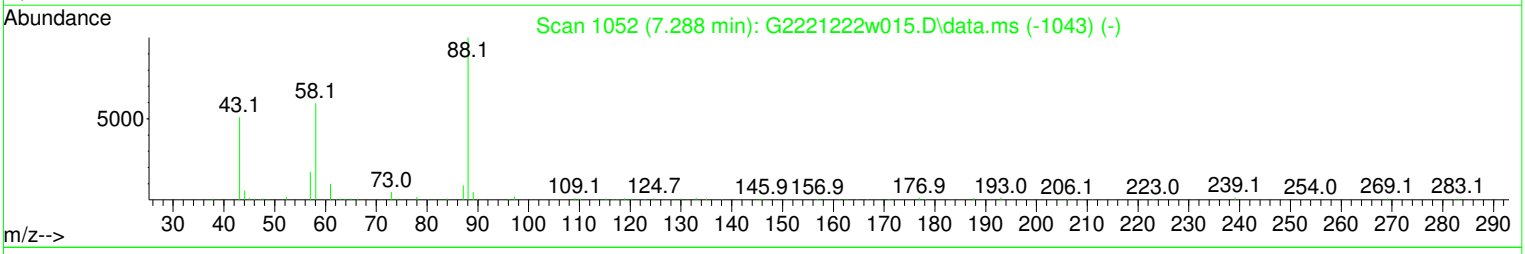
01342572

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612026.D
Acq On : 12 Jun 2023 18:58
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 13 08:10:43 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612026.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 150.48 ug/L m

response 434074

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	51.27
0.00	0.00	0.00
0.00	0.00	0.00

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612027.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-HCV2 (Closing Cal Check)	Injection Time:	19:22

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	15.0	0.3434339	0.3430176		0.00	50
1,1,1-Trichloroethane	15.00	14.2	0.603823	0.5725052		-5.00	50
1,1,2,2-Tetrachloroethane	15.00	13.4	0.86935	0.775639	0.3	-11.00	50
1,1,2-Trichloroethane	15.00	14.8	0.2642556	0.2614914		-1.00	50
1,1-Dichloroethane	15.00	14.3	0.5953788	0.52908	0.1	-5.00	50
1,1-Dichloroethene	15.00	14.0	0.4569016	0.3995732		-7.00	50
1,1-Dichloropropene	15.00	14.2	0.4853227	0.4294753		-6.00	50
1,2,3-Trichlorobenzene	15.00	14.6	0.2883305	0.2816086		-2.00	50
1,2,3-Trichloropropane	15.00	14.6	0.331412	0.292785		-3.00	50
1,2,4-Trichlorobenzene	15.00	15.2	0.3588914	0.3626033		1.00	50
1,2,4-Trimethylbenzene	15.00	13.6	2.229227	2.018864		-9.00	50
1,2-Dibromo-3-chloropropane	15.00	15.4	0.1882045	0.1768747		2.00	50
1,2-Dibromoethane	15.00	14.3	0.3394667	0.3244913		-4.00	50
1,2-Dichlorobenzene	15.00	15.6	1.201484	1.18766		4.00	50
1,2-Dichloroethane	15.00	14.7	0.5029475	0.4542803		-2.00	50
1,2-Dichloropropane	15.00	14.4	0.2411055	0.2172806		-4.00	50
1,3,5-Trimethylbenzene	15.00	13.5	2.228381	2.005107		-10.00	50
1,3-Dichlorobenzene	15.00	14.7	1.326244	1.30085		-2.00	50
1,3-Dichloropropane	15.00	14.6	0.4921719	0.4552813		-3.00	50
1,4-Dichlorobenzene	15.00	14.8	1.289371	1.276459		-1.00	50
2,2-Dichloropropane	15.00	12.4	0.5559494	0.4614803		-17.00	50
2-Butanone	52.50	53.4	5.658319E-02	5.083122E-02		2.00	50
2-Chlorotoluene	15.00	13.4	1.923105	1.716609		-11.00	50
2-Hexanone	52.50	46.7	0.2137484	0.1770385		-11.00	50
4-Chlorotoluene	15.00	13.6	2.179486	1.97529		-9.00	50
4-Isopropyltoluene	15.00	14.0	2.254881	2.100866		-7.00	50
4-Methyl-2-pentanone	52.50	46.2	0.2919112	0.2394618		-12.00	50
Acetone	52.50	56.7	0.1293521	9.899724E-02		8.00	50
Benzene	15.00	14.2	1.002161	0.9494196		-5.00	50
Bromobenzene	15.00	12.8	1.083652	0.9225726		-15.00	50

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612027.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-HCV2 (Closing Cal Check)	Injection Time:	19:22

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
Bromochloromethane	15.00	14.7	0.2969883	0.2904651		-2.00	50
Bromodichloromethane	15.00	15.5	0.370729	0.3633502		3.00	50
Bromoform	15.00	14.7	0.3117301	0.3060976	0.1	-2.00	50
Bromomethane	15.00	16.0	0.3100031	0.2706519		7.00	50
Carbon disulfide	15.00	13.8	0.9476676	0.8069182		-8.00	50
Carbon tetrachloride	15.00	15.3	0.3608923	0.3687492		2.00	50
Chlorobenzene	15.00	14.5	0.8774024	0.8470229	0.3	-4.00	50
Chloroethane	15.00	13.7	0.239357	0.2181597		-9.00	50
Chloroform	15.00	14.5	0.656932	0.6359788		-3.00	50
Chloromethane	15.00	13.2	0.3583454	0.290263	0.1	-12.00	50
cis-1,2-Dichloroethene	15.00	13.7	0.5385255	0.459644		-9.00	50
cis-1,3-Dichloropropene	15.00	13.7	0.4428763	0.4042488		-9.00	50
Dibromochloromethane	15.00	15.2	0.3917939	0.3769553		2.00	50
Dibromomethane	15.00	16.2	0.2381661	0.2572195		8.00	50
Dichlorodifluoromethane	15.00	13.1	0.4075845	0.3559162		-13.00	50
Ethylbenzene	15.00	14.6	1.407424	1.301877		-2.00	50
Hexachlorobutadiene	15.00	17.0	0.1938745	0.2002843		13.00	50
Isopropylbenzene	15.00	13.5	2.873385	2.578514		-10.00	50
m,p-Xylene	30.00	28.0	1.070642	1.001203		-6.00	50
Methyl tert-butyl ether	15.00	13.7	2.078829	1.087357		-9.00	50
Methylene chloride	15.00	13.2	0.4752062	0.32415		-12.00	50
n-Butylbenzene	15.00	13.8	1.741335	1.4983		-8.00	50
n-Propylbenzene	15.00	13.3	3.199933	2.833738		-11.00	50
Naphthalene	15.00	14.4	1.038822	0.896638		-4.00	50
o-Xylene	15.00	13.1	2.460467	2.145495		-13.00	50
sec-Butylbenzene	15.00	13.5	2.725412	2.45798		-10.00	50
Styrene	15.00	14.1	0.9431739	0.8853862		-6.00	50
tert-Butylbenzene	15.00	12.8	2.390757	2.044999		-14.00	50
Tetrachloroethene	15.00	22.2	0.4253866	0.5723945		48.00	50
Toluene	15.00	14.9	1.307847	1.218029		-1.00	50

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612027.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-HCV2 (Closing Cal Check)	Injection Time:	19:22

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	13.0	0.4334531	0.3754013		-13.00	50
trans-1,3-Dichloropropene	15.00	13.1	0.423463	0.3701408		-13.00	50
Trichloroethene	15.00	15.6	0.2817735	0.2747701		4.00	50
Trichlorofluoromethane	15.00	14.1	0.6025154	0.5674169		-6.00	50
Vinyl chloride	15.00	12.8	0.3930682	0.3360489		-14.00	50
Dibromofluoromethane	20.00	20.1	0.4401431	0.4423328		0.00	50
1,2-Dichloroethane-d4	20.00	18.5	0.4349663	0.4019331		-8.00	50
Fluorobenzene	20.00	19.5	1.139643	1.111867		-2.00	50
Toluene-d8	20.00	19.6	1.260611	1.234573		-2.00	50
4-Bromofluorobenzene	10.00	9.75	0.9444054	0.9208406		-2.00	50
1,2-Dichlorobenzene-d4	20.00	20.0	0.8601294	0.8587697		0.00	50

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612027.D
Acq On : 12 Jun 2023 19:22
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 13 08:11:10 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.569	168	17523986	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.418	114	24198253	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	21654366	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10492052	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7751435	20.10	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.50%			
43) 1,2-Dichloroethane-d4	5.874	65	7043471	18.48	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.40%			
49) Fluorobenzene	6.275	96	26905238	19.51	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.55%			
64) Toluene-d8	8.015	98	26733899	19.59	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%			
81) 4-Bromofluorobenzene	10.684	174	4830753	9.75	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.50%			
97) d4-1,2-Dichlorobenzene	12.217	152	9010255	19.97	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.85%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.209	85	4677804	13.10	ug/L	98
3) Chloromethane	1.349	50	3814924	13.21	ug/L	98
4) Vinyl chloride	1.441	62	4416688	12.82	ug/L	99
5) Bromomethane	1.712	94	3557176	16.04	ug/L	99
6) Chloroethane	1.800	64	2867271	13.67	ug/L	97
7) Trichlorofluoromethane	2.026	101	7457556	14.13	ug/L	98
8) Ethyl ether	2.308	59	3127727	13.46	ug/L	85
9) Acrolein	2.430	56	1492911	31.74	ug/L	95
10) 1,1-Dichloroethene	2.518	61	5251588	14.00	ug/L	87
11) 1,1,2-Trichloro-1,2,2-...	2.528	101	3936970	13.72	ug/L	95
12) Acetone	2.595	43	4553920	56.74	ug/L	94
13) Iodomethane	2.670	142	5614504	13.76	ug/L	94
14) Carbon disulfide	2.734	76	10605319	13.79	ug/L	100
15) Isopropanol	2.775	45	1118909	79.56	ug/L	95
16) acetonitrile	2.912	41	5077232	30.97	ug/L	86
17) 3-Chloro-1-propene	2.914	76	2366019	13.39	ug/L	97
18) Methylene chloride	3.055	49	4260301	13.25	ug/L	77
19) Acrylonitrile	3.378	53	1701446	12.77	ug/L	95
20) trans-1,2-Dichloroethene	3.395	61	4933897	12.99	ug/L	84
21) Methyl tert-butyl ether	3.428	73	14291128	13.71	ug/L	93
22) Hexane	3.784	57	3529110	11.82	ug/L	94
23) 1,1-Dichloroethane	3.991	63	6953695	14.26	ug/L	96
24) Vinyl acetate	4.118	43	6768494	11.36	ug/L	92
25) 2-Chloro-1,3-butadiene	4.129	53	5016530	12.63	ug/L	83
27) 2,2-Dichloropropane	4.821	77	6065232	12.45	ug/L	92
28) cis-1,2-Dichloroethene	4.829	61	6041098	13.69	ug/L	84
29) 2-Butanone	4.899	72	2338260	53.43	ug/L	93
30) Propionitrile	4.971	54	592317	14.09	ug/L	97

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612027.D
Acq On : 12 Jun 2023 19:22
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 13 08:11:10 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.005	61	724916	13.76	ug/L		80
32) Methylacrylate	5.034	55	4190412	12.63	ug/L		91
33) 1-Bromopropane	5.071	41	2296731	12.82	ug/L		57
34) Bromochloromethane	5.144	130	3817581	14.67	ug/L		98
35) Methacrylonitrile	5.166	67	2196670	13.68	ug/L		90
36) Tetrahydrofuran	5.238	42	1173717	12.76	ug/L		77
37) Chloroform	5.270	83	8358665	14.52	ug/L		100
39) 1,1,1-Trichloroethane	5.474	97	7524431	14.22	ug/L		96
40) Cyclohexane	5.530	84	6191267	13.15	ug/L		81
41) 1-Chlorobutane	5.625	56	7079687	12.95	ug/L		98
42) 1,1-Dichloropropene	5.684	75	5644591	14.16	ug/L		90
44) 1,2-Dichloroethane	5.966	62	5970603	14.72	ug/L		97
47) Carbon tetrachloride	5.676	117	6692314	15.33	ug/L		97
48) Benzene	5.931	78	17230724	14.21	ug/L		99
50) Trichloroethene	6.692	95	4986717	15.61	ug/L		91
52) 1,2-Dichloropropane	6.942	63	3943358	14.38	ug/L		89
53) Dibromomethane	7.068	174	4668197	16.20	ug/L	#	90
54) Methyl methacrylate	7.122	69	3622701	12.80	ug/L		89
55) 1,4-dioxane	7.124	88	412610m	144.68	ug/L		
56) Bromodichloromethane	7.256	83	6594330	15.51	ug/L		100
57) 2-Nitropropane	7.519	43	1660598	13.59	ug/L		92
58) 2-Chloroethyl vinyl ether	7.610	63	2788147	11.88	ug/L		100
59) cis-1,3-Dichloropropene	7.742	75	7336585	13.69	ug/L		95
60) 4-Methyl-2-pentanone	7.933	43	15210709	46.25	ug/L	#	87
61) trans-1,3-Dichloropropene	8.332	75	6717569	13.11	ug/L		89
62) 1,1,2-Trichloroethane	8.517	97	4745726	14.84	ug/L		93
65) Toluene	8.083	91	19781744	14.87	ug/L		97
66) Ethylmethacrylate	8.454	69	6220903	13.00	ug/L		87
67) Tetrachloroethene	8.646	166	9296132	22.20	ug/L		94
68) 1,3-Dichloropropane	8.684	76	7394123	14.59	ug/L		86
69) 2-Hexanone	8.799	43	10063346	46.66	ug/L		88
70) Dibromochloromethane	8.909	129	6122047	15.23	ug/L		99
71) 1,2-Dibromoethane	9.016	107	5269991	14.34	ug/L		98
72) Chlorobenzene	9.522	112	13756313	14.48	ug/L		93
73) 1,1,1,2-Tetrachloroethane	9.612	131	5570872	14.98	ug/L		96
74) Ethylbenzene	9.642	91	21143503	14.64	ug/L		95
75) m,p-Xylene	9.762	91	32520632	28.05	ug/L		95
76) Styrene	10.175	104	14379355	14.08	ug/L		93
77) Bromoform	10.352	173	4971263	14.73	ug/L		98
79) o-Xylene	10.159	91	16882978	13.08	ug/L		95
80) Isopropylbenzene	10.535	105	20290419	13.46	ug/L		96
82) Bromobenzene	10.825	77	7259758	12.77	ug/L	#	79
83) 1,1,2,2-Tetrachloroethane	10.841	83	6103532	13.38	ug/L		99
84) 1,2,3-Trichloropropane	10.879	110	2303936	14.58	ug/L		99
85) trans-1,4-Dichloro-2-b...	10.900	53	1359673	11.12	ug/L		68
86) n-Propylbenzene	10.947	91	22298792	13.28	ug/L		95
87) 2-Chlorotoluene	11.026	91	13508058	13.39	ug/L		93
88) 4-Chlorotoluene	11.136	91	15543628	13.59	ug/L		92
89) 1,3,5-Trimethylbenzene	11.128	105	15778257	13.50	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612027.D
Acq On : 12 Jun 2023 19:22
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 27 Sample Multiplier: 1

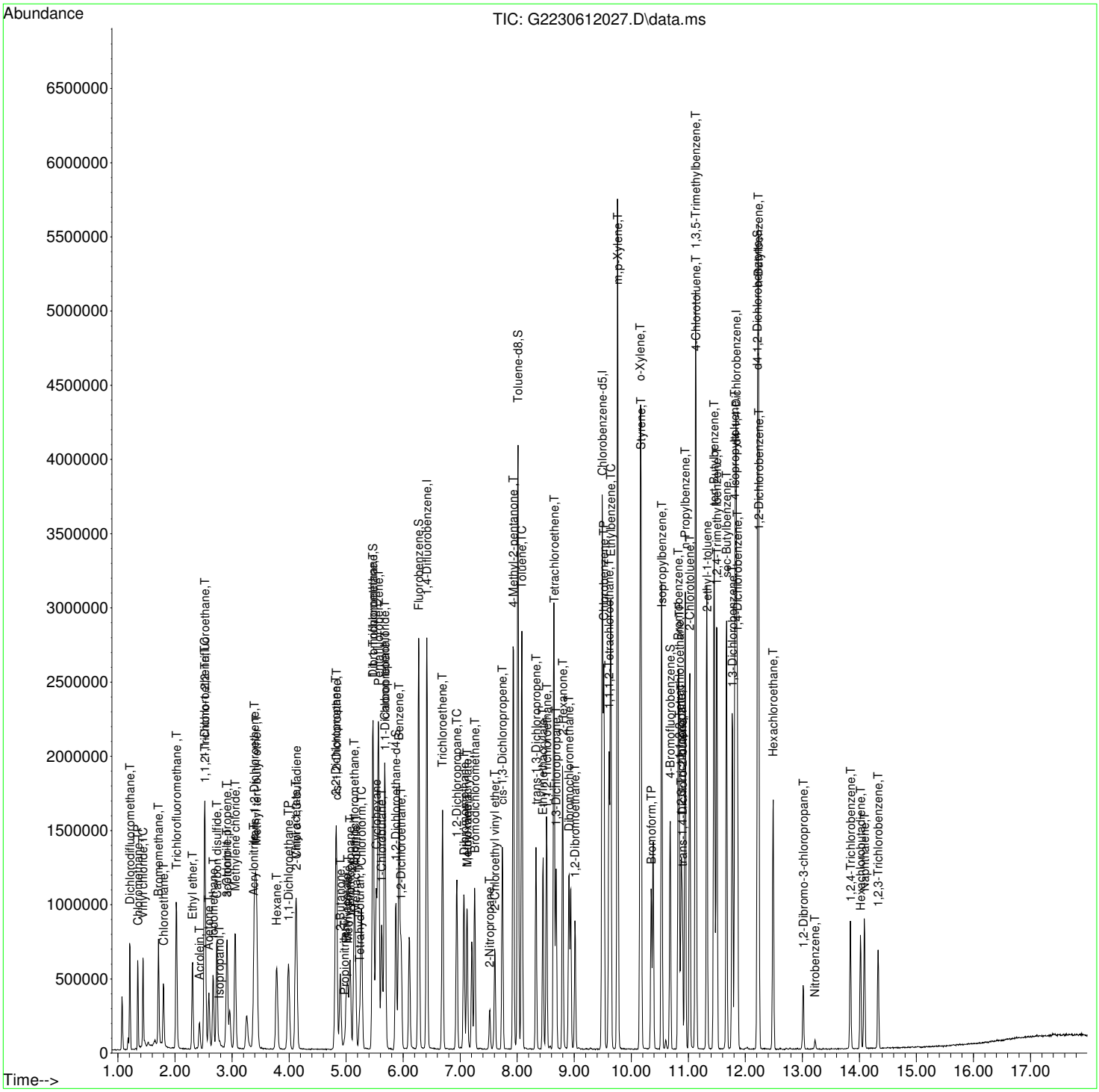
Quant Time: Jun 13 08:11:10 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.327	105	19207106	13.49	ug/L	98
91) tert-Butylbenzene	11.453	119	16092172	12.83	ug/L	92
92) 1,2,4-Trimethylbenzene	11.501	105	15886520	13.58	ug/L	92
93) sec-Butylbenzene	11.672	105	19341940	13.53	ug/L	96
94) 1,3-Dichlorobenzene	11.774	146	10236437	14.71	ug/L	97
95) 4-Isopropyltoluene	11.821	119	16531790	13.98	ug/L	97
96) 1,4-Dichlorobenzene	11.863	146	10044496	14.85	ug/L	97
98) 1,2-Dichlorobenzene	12.236	146	9345743	15.60	ug/L	97
99) n-Butylbenzene	12.230	91	11790183	13.83	ug/L	90
100) Hexachloroethane	12.490	201	3351054	15.41	ug/L	96
101) 1,2-Dibromo-3-chloropr...	13.018	157	1391834	15.37	ug/L	97
102) Nitrobenzene	13.222	77	288040	9.65	ug/L	88
103) 1,2,4-Trichlorobenzene	13.845	180	2853339	15.16	ug/L	97
104) Hexachlorobutadiene	14.022	225	1576045	17.01	ug/L	97
105) Naphthalene	14.090	128	7055678	14.41	ug/L	98
106) 1,2,3-Trichlorobenzene	14.331	180	2215989	14.65	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612027.D
Acq On : 12 Jun 2023 19:22
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 27 Sample Multiplier: 1

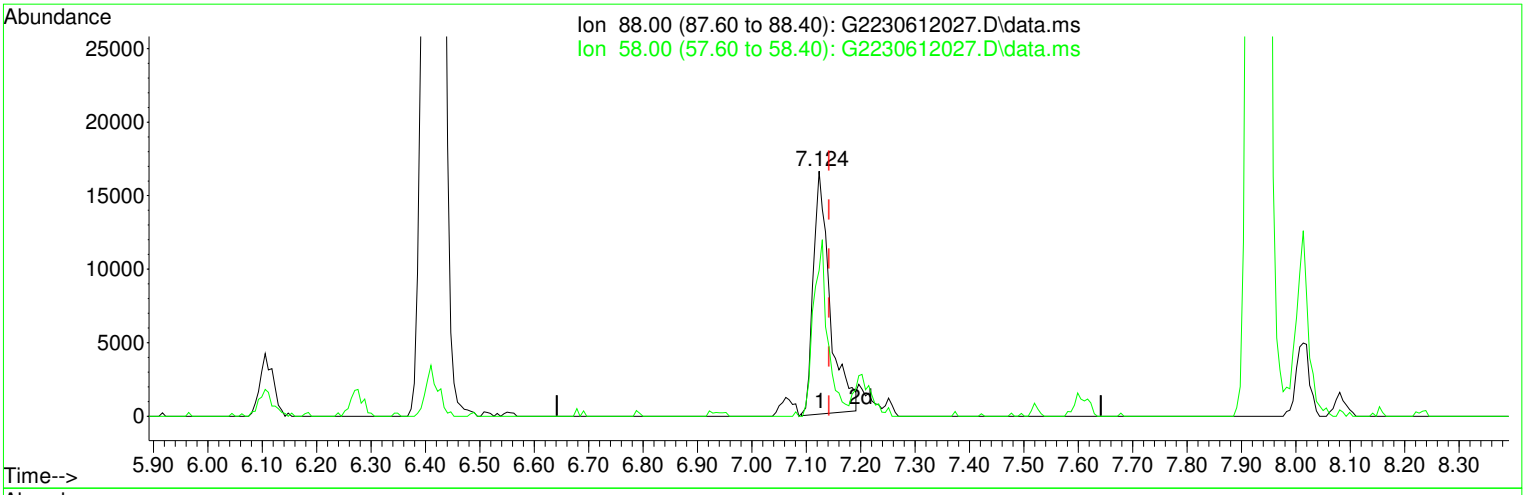
Quant Time: Jun 13 08:11:10 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

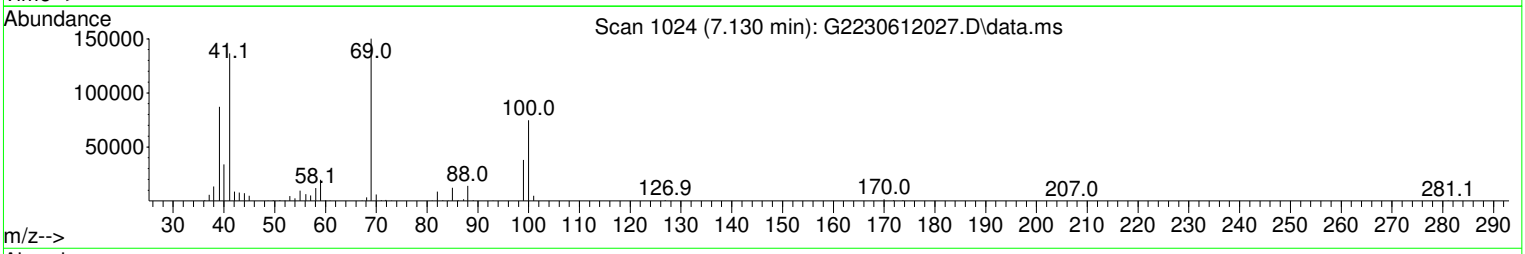


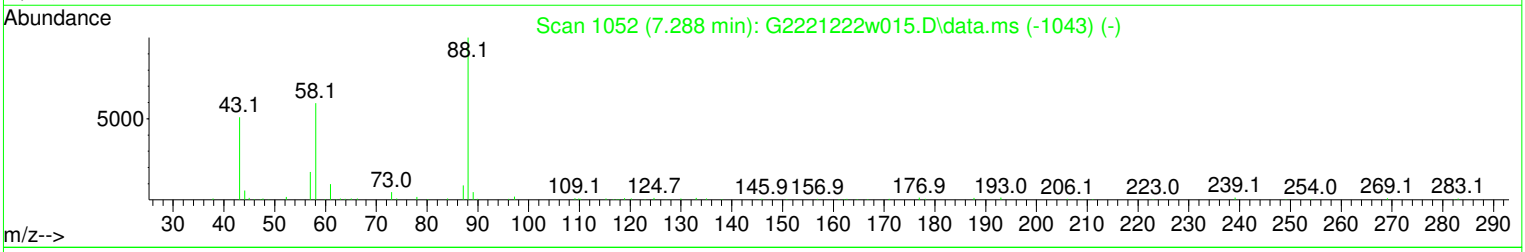
01342580

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612027.D
Acq On : 12 Jun 2023 19:22
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 13 08:11:10 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612027.D\data.ms

(55) 1,4-dioxane (T)

7.127min (-0.015) 122.03 ug/L

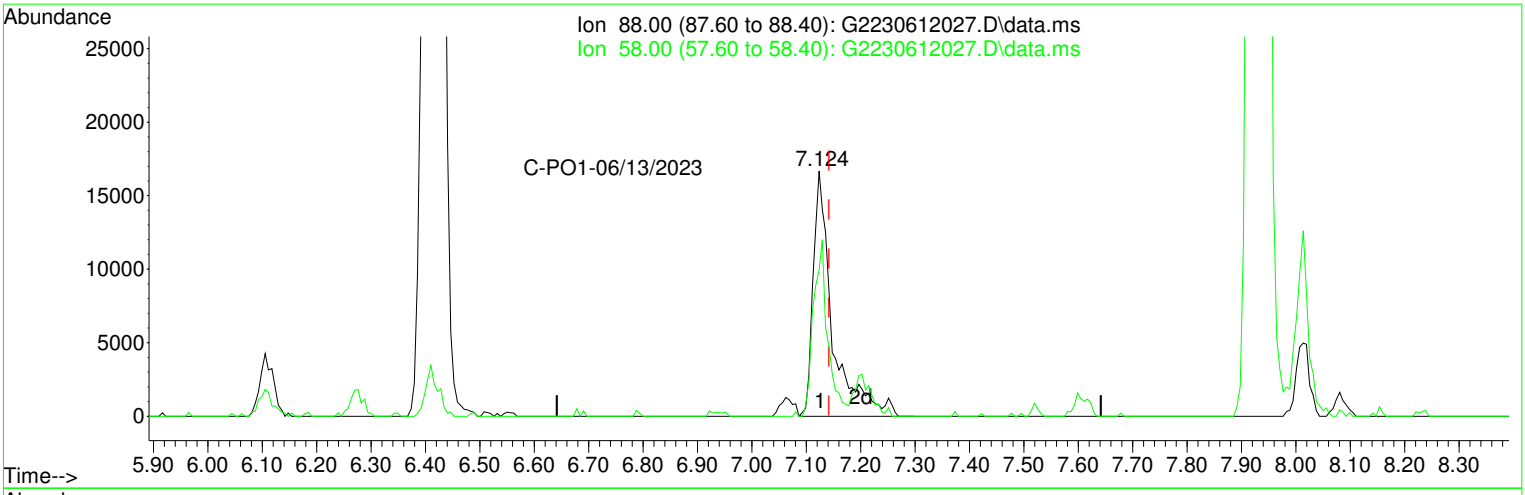
response 348001

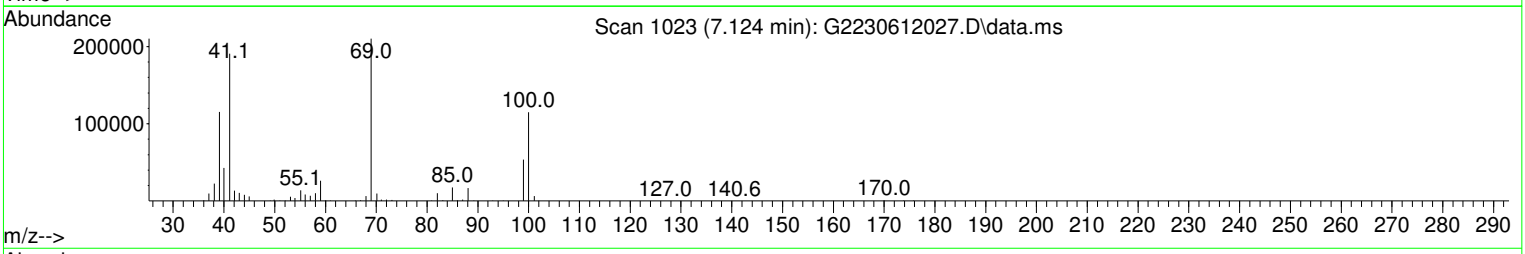
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	63.15
0.00	0.00	0.00
0.00	0.00	0.00

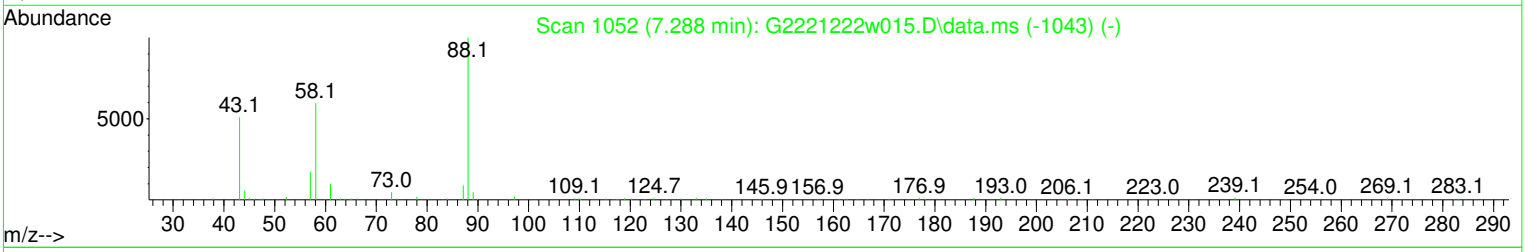
01342581

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612027.D
Acq On : 12 Jun 2023 19:22
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 13 08:11:10 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230612027.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 144.68 ug/L m

response 412610

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	53.26
0.00	0.00	0.00
0.00	0.00	0.00

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612028.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-HCV3 (Closing Cal Check)	Injection Time:	19:47

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	14.9	0.3434339	0.3404154		-1.00	50
1,1,1-Trichloroethane	15.00	13.9	0.603823	0.5594796		-7.00	50
1,1,2,2-Tetrachloroethane	15.00	13.3	0.86935	0.7728694	0.3	-11.00	50
1,1,2-Trichloroethane	15.00	14.5	0.2642556	0.2560045		-3.00	50
1,1-Dichloroethane	15.00	13.7	0.5953788	0.508831	0.1	-9.00	50
1,1-Dichloroethene	15.00	13.6	0.4569016	0.3889405		-9.00	50
1,1-Dichloropropene	15.00	13.8	0.4853227	0.4188656		-8.00	50
1,2,3-Trichlorobenzene	15.00	13.9	0.2883305	0.2675329		-7.00	50
1,2,3-Trichloropropane	15.00	14.5	0.331412	0.2915251		-3.00	50
1,2,4-Trichlorobenzene	15.00	14.7	0.3588914	0.3510647		-2.00	50
1,2,4-Trimethylbenzene	15.00	13.4	2.229227	1.98552		-11.00	50
1,2-Dibromo-3-chloropropane	15.00	15.2	0.1882045	0.1753734		2.00	50
1,2-Dibromoethane	15.00	14.2	0.3394667	0.3219754		-5.00	50
1,2-Dichlorobenzene	15.00	15.4	1.201484	1.168685		2.00	50
1,2-Dichloroethane	15.00	14.2	0.5029475	0.4376699		-6.00	50
1,2-Dichloropropane	15.00	14.1	0.2411055	0.2130596		-6.00	50
1,3,5-Trimethylbenzene	15.00	13.6	2.228381	2.023534		-9.00	50
1,3-Dichlorobenzene	15.00	14.5	1.326244	1.284945		-3.00	50
1,3-Dichloropropane	15.00	14.2	0.4921719	0.4434134		-5.00	50
1,4-Dichlorobenzene	15.00	14.7	1.289371	1.261433		-2.00	50
2,2-Dichloropropane	15.00	12.1	0.5559494	0.4491622		-19.00	50
2-Butanone	52.50	52.0	5.658319E-02	4.943466E-02		-1.00	50
2-Chlorotoluene	15.00	13.3	1.923105	1.708645		-11.00	50
2-Hexanone	52.50	46.0	0.2137484	0.1745769		-12.00	50
4-Chlorotoluene	15.00	13.7	2.179486	1.995686		-8.00	50
4-Isopropyltoluene	15.00	13.8	2.254881	2.076309		-8.00	50
4-Methyl-2-pentanone	52.50	45.8	0.2919112	0.2373277		-13.00	50
Acetone	52.50	54.0	0.1293521	9.428174E-02		3.00	50
Benzene	15.00	14.1	1.002161	0.9449397		-6.00	50
Bromobenzene	15.00	13.0	1.083652	0.935899		-14.00	50

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612028.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-HCV3 (Closing Cal Check)	Injection Time:	19:47

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**	
Bromochloromethane	15.00	14.2	0.2969883	0.2812797		-5.00	50	
Bromodichloromethane	15.00	15.4	0.370729	0.3604119		2.00	50	
Bromoform	15.00	14.8	0.3117301	0.3086465	0.1	-1.00	50	
Bromomethane	15.00	16.0	0.3100031	0.2697158		6.00	50	
Carbon disulfide	15.00	13.4	0.9476676	0.7844032		-11.00	50	
Carbon tetrachloride	15.00	15.2	0.3608923	0.3649345		1.00	50	
Chlorobenzene	15.00	14.3	0.8774024	0.8366115	0.3	-5.00	50	
Chloroethane	15.00	13.2	0.239357	0.2114719		-12.00	50	
Chloroform	15.00	14.0	0.656932	0.6143212		-6.00	50	
Chloromethane	15.00	13.1	0.3583454	0.2886523	0.1	-12.00	50	
cis-1,2-Dichloroethene	15.00	13.4	0.5385255	0.4506561		-10.00	50	
cis-1,3-Dichloropropene	15.00	13.3	0.4428763	0.3924377		-11.00	50	
Dibromochloromethane	15.00	15.5	0.3917939	0.3825729		3.00	50	
Dibromomethane	15.00	15.8	0.2381661	0.250219		5.00	50	
Dichlorodifluoromethane	15.00	12.7	0.4075845	0.3446951		-15.00	50	
Ethylbenzene	15.00	14.4	1.407424	1.282939		-4.00	50	
Hexachlorobutadiene	15.00	16.4	0.1938745	0.1926265		9.00	50	
Isopropylbenzene	15.00	13.5	2.873385	2.579487		-10.00	50	
m,p-Xylene	30.00	27.7	1.070642	0.9889131		-8.00	50	
Methyl tert-butyl ether	15.00	13.2	2.078829	1.047396		-12.00	50	
Methylene chloride	15.00	12.8	0.4752062	0.314173		-15.00	50	
n-Butylbenzene	15.00	13.9	1.741335	1.509228		-7.00	50	
n-Propylbenzene	15.00	13.5	3.199933	2.872249		-10.00	50	
Naphthalene	15.00	13.7	1.038822	0.850147		-9.00	50	
o-Xylene	15.00	13.2	2.460467	2.172128		-12.00	50	
sec-Butylbenzene	15.00	13.6	2.725412	2.461893		-10.00	50	
Styrene	15.00	13.9	0.9431739	0.8716327		-8.00	50	
tert-Butylbenzene	15.00	12.6	2.390757	2.010464		-16.00	50	
Tetrachloroethene	15.00	23.2	0.4253866	0.5976051		54.00	50	*
Toluene	15.00	14.7	1.307847	1.201809		-2.00	50	

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230612028.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0209	Injection Date:	06/12/23
Lab Sample ID:	S3F0209-HCV3 (Closing Cal Check)	Injection Time:	19:47

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	12.9	0.4334531	0.3730504		-14.00	50
trans-1,3-Dichloropropene	15.00	13.2	0.423463	0.3712191		-12.00	50
Trichloroethene	15.00	15.7	0.2817735	0.2768004		5.00	50
Trichlorofluoromethane	15.00	13.6	0.6025154	0.548328		-9.00	50
Vinyl chloride	15.00	12.6	0.3930682	0.3310633		-16.00	50
Dibromofluoromethane	20.00	19.6	0.4401431	0.4317089		-2.00	50
1,2-Dichloroethane-d4	20.00	17.9	0.4349663	0.3899767		-10.00	50
Fluorobenzene	20.00	19.5	1.139643	1.111217		-2.00	50
Toluene-d8	20.00	19.5	1.260611	1.231808		-2.00	50
4-Bromofluorobenzene	10.00	9.95	0.9444054	0.9398302		0.00	50
1,2-Dichlorobenzene-d4	20.00	20.0	0.8601294	0.8601453		0.00	50

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612028.D
Acq On : 12 Jun 2023 19:47
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 13 08:11:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	18175042	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	24709979	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	22129458	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10508096	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	7846326	19.62	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.10%			
43) 1,2-Dichloroethane-d4	5.878	65	7087843	17.93	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.65%			
49) Fluorobenzene	6.278	96	27458142	19.50	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.50%			
64) Toluene-d8	8.016	98	27259235	19.54	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.70%			
81) 4-Bromofluorobenzene	10.685	174	4937915	9.95	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.50%			
97) d4-1,2-Dichlorobenzene	12.217	152	9038493	20.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.215	85	4698636	12.69	ug/L	99
3) Chloromethane	1.355	50	3934700	13.13	ug/L	100
4) Vinyl chloride	1.447	62	4512817	12.63	ug/L	100
5) Bromomethane	1.719	94	3676572	15.98	ug/L	98
6) Chloroethane	1.807	64	2882633	13.25	ug/L	97
7) Trichlorofluoromethane	2.032	101	7474412	13.65	ug/L	100
8) Ethyl ether	2.313	59	3153241	13.08	ug/L	86
9) Acrolein	2.435	56	1427376	29.22	ug/L	99
10) 1,1-Dichloroethene	2.525	61	5301757	13.63	ug/L	87
11) 1,1,2-Trichloro-1,2,2-...	2.535	101	3996022	13.43	ug/L	94
12) Acetone	2.600	43	4498133	53.95	ug/L	90
13) Iodomethane	2.677	142	5621222	13.28	ug/L	96
14) Carbon disulfide	2.740	76	10692421	13.41	ug/L	100
15) Isopropanol	2.785	45	1044560	71.61	ug/L	95
16) acetonitrile	2.918	41	5067262	29.78	ug/L	85
17) 3-Chloro-1-propene	2.920	76	2470118	13.48	ug/L	98
18) Methylene chloride	3.062	49	4282580	12.80	ug/L	77
19) Acrylonitrile	3.384	53	1766032	12.78	ug/L	97
20) trans-1,2-Dichloroethene	3.403	61	5085154	12.91	ug/L	86
21) Methyl tert-butyl ether	3.435	73	14277349	13.17	ug/L	92
22) Hexane	3.792	57	3535784	11.42	ug/L	93
23) 1,1-Dichloroethane	3.998	63	6936018	13.71	ug/L	95
24) Vinyl acetate	4.125	43	6533093	10.57	ug/L	92
25) 2-Chloro-1,3-butadiene	4.133	53	5004765	12.15	ug/L	81
27) 2,2-Dichloropropane	4.826	77	6122656	12.12	ug/L	93
28) cis-1,2-Dichloroethene	4.835	61	6143019	13.42	ug/L	84
29) 2-Butanone	4.904	72	2358502	51.95	ug/L	92
30) Propionitrile	4.977	54	603839	13.85	ug/L	97

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612028.D
Acq On : 12 Jun 2023 19:47
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 13 08:11:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.008	61	697900	12.76	ug/L		79
32) Methylacrylate	5.037	55	4141485	12.03	ug/L		91
33) 1-Bromopropane	5.076	41	2384339	12.83	ug/L		63
34) Bromochloromethane	5.147	130	3834202	14.21	ug/L		99
35) Methacrylonitrile	5.170	67	2211365	13.28	ug/L		89
36) Tetrahydrofuran	5.242	42	1156181	12.09	ug/L		77
37) Chloroform	5.275	83	8373984	14.03	ug/L		100
39) 1,1,1-Trichloroethane	5.479	97	7626423	13.90	ug/L		95
40) Cyclohexane	5.536	84	6336014	12.98	ug/L		81
41) 1-Chlorobutane	5.629	56	7037478	12.41	ug/L		98
42) 1,1-Dichloropropene	5.689	75	5709674	13.81	ug/L		90
44) 1,2-Dichloroethane	5.970	62	5966001	14.18	ug/L		98
47) Carbon tetrachloride	5.680	117	6763144	15.17	ug/L		99
48) Benzene	5.934	78	17512076	14.14	ug/L		100
50) Trichloroethene	6.695	95	5129799	15.73	ug/L		91
52) 1,2-Dichloropropane	6.944	63	3948523	14.10	ug/L		91
53) Dibromomethane	7.071	174	4637179	15.76	ug/L	#	91
54) Methyl methacrylate	7.125	69	3706893	12.83	ug/L		89
55) 1,4-dioxane	7.129	88	387468	133.05	ug/L		96
56) Bromodichloromethane	7.258	83	6679329	15.38	ug/L		99
57) 2-Nitropropane	7.521	43	1585169	12.69	ug/L		95
58) 2-Chloroethyl vinyl ether	7.611	63	2746686	11.46	ug/L		99
59) cis-1,3-Dichloropropene	7.744	75	7272846	13.29	ug/L		96
60) 4-Methyl-2-pentanone	7.935	43	15393951	45.83	ug/L	#	88
61) trans-1,3-Dichloropropene	8.333	75	6879612	13.15	ug/L		88
62) 1,1,2-Trichloroethane	8.518	97	4744399	14.53	ug/L		94
65) Toluene	8.085	91	19946541	14.67	ug/L		98
66) Ethylmethacrylate	8.455	69	6420926	13.13	ug/L		87
67) Tetrachloroethene	8.647	166	9918508	23.18	ug/L		94
68) 1,3-Dichloropropane	8.686	76	7359374	14.21	ug/L		87
69) 2-Hexanone	8.800	43	10141136	46.00	ug/L		88
70) Dibromochloromethane	8.911	129	6349598	15.46	ug/L		98
71) 1,2-Dibromoethane	9.017	107	5343856	14.23	ug/L		99
72) Chlorobenzene	9.523	112	13885322	14.30	ug/L		93
73) 1,1,1,2-Tetrachloroethane	9.613	131	5649906	14.87	ug/L		98
74) Ethylbenzene	9.643	91	21293055	14.42	ug/L		95
75) m,p-Xylene	9.763	91	32826170	27.71	ug/L		95
76) Styrene	10.176	104	14466571	13.86	ug/L		93
77) Bromoform	10.353	173	5122635	14.85	ug/L		97
79) o-Xylene	10.160	91	17118703	13.24	ug/L		95
80) Isopropylbenzene	10.535	105	20329134	13.47	ug/L		96
82) Bromobenzene	10.827	77	7375890	12.95	ug/L		80
83) 1,1,2,2-Tetrachloroethane	10.841	83	6091042	13.34	ug/L		98
84) 1,2,3-Trichloropropane	10.880	110	2297531	14.52	ug/L		97
85) trans-1,4-Dichloro-2-b...	10.900	53	1374957	11.23	ug/L		72
86) n-Propylbenzene	10.948	91	22636407	13.46	ug/L		96
87) 2-Chlorotoluene	11.027	91	13465964	13.33	ug/L		93
88) 4-Chlorotoluene	11.136	91	15728152	13.74	ug/L		93
89) 1,3,5-Trimethylbenzene	11.128	105	15947619	13.62	ug/L		95

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612028.D
Acq On : 12 Jun 2023 19:47
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 13 08:11:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.328	105	19118496	13.41	ug/L	97
91) tert-Butylbenzene	11.453	119	15844621	12.61	ug/L	93
92) 1,2,4-Trimethylbenzene	11.501	105	15648029	13.36	ug/L	93
93) sec-Butylbenzene	11.672	105	19402355	13.55	ug/L	97
94) 1,3-Dichlorobenzene	11.775	146	10126752	14.53	ug/L	97
95) 4-Isopropyltoluene	11.821	119	16363545	13.81	ug/L	97
96) 1,4-Dichlorobenzene	11.865	146	9941451	14.67	ug/L	97
98) 1,2-Dichlorobenzene	12.236	146	9210497	15.35	ug/L	98
99) n-Butylbenzene	12.230	91	11894339	13.93	ug/L	92
100) Hexachloroethane	12.491	201	3328640	15.28	ug/L	97
101) 1,2-Dibromo-3-chloropr...	13.018	157	1382131	15.23	ug/L	96
102) Nitrobenzene	13.225	77	280540	9.36	ug/L	90
103) 1,2,4-Trichlorobenzene	13.846	180	2766767	14.67	ug/L	96
104) Hexachlorobutadiene	14.022	225	1518104	16.36	ug/L	99
105) Naphthalene	14.089	128	6700072	13.66	ug/L	99
106) 1,2,3-Trichlorobenzene	14.331	180	2108447	13.92	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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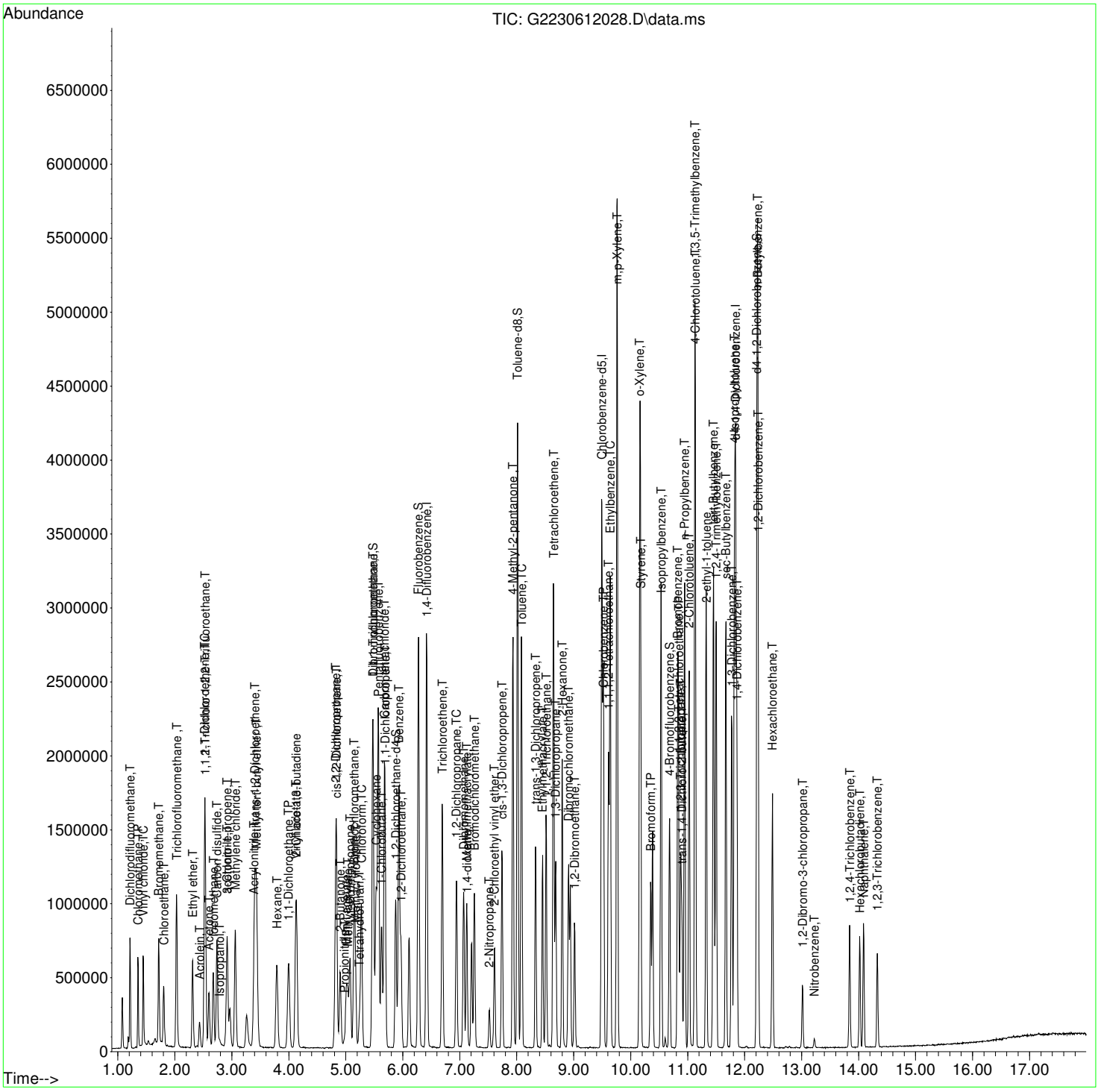
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230612\
Data File : G2230612028.D
Acq On : 12 Jun 2023 19:47
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 13 08:11:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G



7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613004.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0222	Injection Date:	06/13/23
Lab Sample ID:	S3F0222-CCV1 (Calibration Check)	Injection Time:	09:55

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	14.5	0.3434339	0.3318464		-3.00	20
1,1,1-Trichloroethane	15.00	14.2	0.603823	0.5694719		-6.00	20
1,1,2,2-Tetrachloroethane	15.00	13.6	0.86935	0.7870182	0.3	-10.00	20
1,1,2-Trichloroethane	15.00	14.6	0.2642556	0.2562613		-3.00	20
1,1-Dichloroethane	15.00	13.9	0.5953788	0.5172863	0.1	-7.00	20
1,1-Dichloroethene	15.00	14.0	0.4569016	0.4000018		-6.00	20
1,1-Dichloropropene	15.00	14.3	0.4853227	0.4326103		-5.00	20
1,2,3-Trichlorobenzene	15.00	14.1	0.2883305	0.2710429		-6.00	20
1,2,3-Trichloropropane	15.00	14.2	0.331412	0.2852878		-5.00	20
1,2,4-Trichlorobenzene	15.00	14.4	0.3588914	0.3441051		-4.00	20
1,2,4-Trimethylbenzene	15.00	13.6	2.229227	2.014686		-10.00	20
1,2-Dibromo-3-chloropropane	15.00	14.4	0.1882045	0.165848		-4.00	20
1,2-Dibromoethane	15.00	14.0	0.3394667	0.3171489		-7.00	20
1,2-Dichlorobenzene	15.00	15.2	1.201484	1.157302		1.00	20
1,2-Dichloroethane	15.00	14.1	0.5029475	0.4357738		-6.00	20
1,2-Dichloropropane	15.00	14.0	0.2411055	0.2121692		-6.00	20
1,3,5-Trimethylbenzene	15.00	13.4	2.228381	1.988673		-11.00	20
1,3-Dichlorobenzene	15.00	14.5	1.326244	1.281282		-3.00	20
1,3-Dichloropropane	15.00	14.3	0.4921719	0.4462095		-5.00	20
1,4-Dichlorobenzene	15.00	14.6	1.289371	1.258552		-2.00	20
2,2-Dichloropropane	15.00	13.8	0.5559494	0.5130324		-8.00	20
2-Butanone	52.50	51.4	5.658319E-02	4.890278E-02		-2.00	20
2-Chlorotoluene	15.00	13.5	1.923105	1.733191		-10.00	20
2-Hexanone	52.50	46.8	0.2137484	0.177523		-11.00	20
4-Chlorotoluene	15.00	13.7	2.179486	1.997022		-8.00	20
4-Isopropyltoluene	15.00	13.9	2.254881	2.094093		-7.00	20
4-Methyl-2-pentanone	52.50	45.5	0.2919112	0.2357592		-13.00	20
Acetone	52.50	53.7	0.1293521	9.386049E-02		2.00	20
Benzene	15.00	14.1	1.002161	0.9396264		-6.00	20
Bromobenzene	15.00	13.0	1.083652	0.9384586		-13.00	20

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613004.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0222	Injection Date:	06/13/23
Lab Sample ID:	S3F0222-CCV1 (Calibration Check)	Injection Time:	09:55

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
Bromochloromethane	15.00	14.2	0.2969883	0.2820855		-5.00	20
Bromodichloromethane	15.00	15.1	0.370729	0.353538		1.00	20
Bromoform	15.00	15.0	0.3117301	0.3120217	0.1	0.00	20
Bromomethane	15.00	16.5	0.3100031	0.2788099		10.00	20
Carbon disulfide	15.00	13.7	0.9476676	0.7996444		-9.00	20
Carbon tetrachloride	15.00	15.3	0.3608923	0.3675135		2.00	20
Chlorobenzene	15.00	14.4	0.8774024	0.8436901	0.3	-4.00	20
Chloroethane	15.00	13.5	0.239357	0.215048		-10.00	20
Chloroform	15.00	14.2	0.656932	0.6196614		-6.00	20
Chloromethane	15.00	13.5	0.3583454	0.2957579	0.1	-10.00	20
cis-1,2-Dichloroethene	15.00	13.7	0.5385255	0.4590228		-9.00	20
cis-1,3-Dichloropropene	15.00	13.4	0.4428763	0.3952767		-11.00	20
Dibromochloromethane	15.00	15.3	0.3917939	0.378287		2.00	20
Dibromomethane	15.00	15.4	0.2381661	0.2441075		2.00	20
Dichlorodifluoromethane	15.00	13.8	0.4075845	0.3735438		-8.00	20
Ethylbenzene	15.00	14.5	1.407424	1.290271		-3.00	20
Hexachlorobutadiene	15.00	15.9	0.1938745	0.1874879		6.00	20
Isopropylbenzene	15.00	13.7	2.873385	2.622755		-9.00	20
m,p-Xylene	30.00	27.9	1.070642	0.9964794		-7.00	20
Methyl tert-butyl ether	15.00	13.3	2.078829	1.058761		-11.00	20
Methylene chloride	15.00	12.6	0.4752062	0.3103354		-16.00	20
n-Butylbenzene	15.00	14.0	1.741335	1.514008		-7.00	20
n-Propylbenzene	15.00	13.6	3.199933	2.90579		-9.00	20
Naphthalene	15.00	13.2	1.038822	0.8247825		-12.00	20
o-Xylene	15.00	13.3	2.460467	2.180857		-11.00	20
sec-Butylbenzene	15.00	13.7	2.725412	2.482783		-9.00	20
Styrene	15.00	13.7	0.9431739	0.8619644		-9.00	20
tert-Butylbenzene	15.00	13.5	2.390757	2.148539		-10.00	20
Tetrachloroethene	15.00	17.7	0.4253866	0.4560932		18.00	20
Toluene	15.00	14.7	1.307847	1.204397		-2.00	20

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613004.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0222	Injection Date:	06/13/23
Lab Sample ID:	S3F0222-CCV1 (Calibration Check)	Injection Time:	09:55

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	13.0	0.4334531	0.3759563		-13.00	20
trans-1,3-Dichloropropene	15.00	13.3	0.423463	0.3765851		-11.00	20
Trichloroethene	15.00	15.3	0.2817735	0.2698816		2.00	20
Trichlorofluoromethane	15.00	14.4	0.6025154	0.5797538		-4.00	20
Vinyl chloride	15.00	12.9	0.3930682	0.3377121		-14.00	20
Dibromofluoromethane	20.00	19.8	0.4401431	0.4367006		-1.00	20
1,2-Dichloroethane-d4	20.00	18.1	0.4349663	0.392739		-10.00	20
Fluorobenzene	20.00	19.5	1.139643	1.112828		-2.00	20
Toluene-d8	20.00	19.5	1.260611	1.230514		-2.00	20
4-Bromofluorobenzene	10.00	10.2	0.9444054	0.9613193		2.00	20
1,2-Dichlorobenzene-d4	20.00	20.0	0.8601294	0.8601075		0.00	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613004.D
Acq On : 13 Jun 2023 09:55
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 10:14:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	17548802	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	24078516	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	21469131	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10070847	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7663572	19.84	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.20%			
43) 1,2-Dichloroethane-d4	5.875	65	6892099	18.06	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.30%			
49) Fluorobenzene	6.275	96	26795236	19.53	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.65%			
64) Toluene-d8	8.015	98	26418069	19.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%			
81) 4-Bromofluorobenzene	10.684	174	4840651	10.18	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.80%			
97) d4-1,2-Dichlorobenzene	12.217	152	8662014	20.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.210	85	4916434	13.75	ug/L	99
3) Chloromethane	1.351	50	3892647	13.46	ug/L	99
4) Vinyl chloride	1.443	62	4444831	12.89	ug/L	99
5) Bromomethane	1.714	94	3669585	16.53	ug/L	96
6) Chloroethane	1.802	64	2830376	13.48	ug/L	99
7) Trichlorofluoromethane	2.027	101	7630487	14.43	ug/L	99
8) Ethyl ether	2.309	59	2978146	12.79	ug/L	85
9) Acrolein	2.431	56	1540776	32.73	ug/L	92
10) 1,1-Dichloroethene	2.520	61	5264664	14.02	ug/L	87
11) 1,1,2-Trichloro-1,2,2-...	2.531	101	4109473	14.30	ug/L	94
12) Acetone	2.595	43	4323740	53.70	ug/L	91
13) Iodomethane	2.672	142	4990511	12.21	ug/L	95
14) Carbon disulfide	2.736	76	10524601	13.67	ug/L	99
15) Isopropanol	2.779	45	1013137	71.94	ug/L	96
16) acetonitrile	2.914	41	5090728	31.01	ug/L	87
17) 3-Chloro-1-propene	2.916	76	2316722	13.09	ug/L	97
18) Methylene chloride	3.057	49	4084511	12.62	ug/L	75
19) Acrylonitrile	3.378	53	1708864	12.81	ug/L	96
20) trans-1,2-Dichloroethene	3.397	61	4948187	13.01	ug/L	84
21) Methyl tert-butyl ether	3.429	73	13934991	13.32	ug/L	91
22) Hexane	3.788	57	3818734	12.78	ug/L	94
23) 1,1-Dichloroethane	3.993	63	6808315	13.94	ug/L	96
24) Vinyl acetate	4.120	43	7096746	11.90	ug/L	91
25) 2-Chloro-1,3-butadiene	4.130	53	5000819	12.57	ug/L	83
27) 2,2-Dichloropropane	4.822	77	6752327	13.84	ug/L	92
28) cis-1,2-Dichloroethene	4.831	61	6041474	13.67	ug/L	84
29) 2-Butanone	4.901	72	2252736	51.38	ug/L	90
30) Propionitrile	4.974	54	546138	12.96	ug/L	93

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613004.D
Acq On : 13 Jun 2023 09:55
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 10:14:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.009	61	708268	13.42	ug/L		90
32) Methylacrylate	5.032	55	4084806	12.29	ug/L		90
33) 1-Bromopropane	5.071	41	2358223	13.14	ug/L		65
34) Bromochloromethane	5.146	130	3712697	14.25	ug/L		98
35) Methacrylonitrile	5.167	67	2173000	13.52	ug/L		90
36) Tetrahydrofuran	5.237	42	1125966	12.20	ug/L		77
37) Chloroform	5.272	83	8155735	14.15	ug/L		100
39) 1,1,1-Trichloroethane	5.476	97	7495161	14.15	ug/L		95
40) Cyclohexane	5.532	84	6282363	13.33	ug/L		83
41) 1-Chlorobutane	5.627	56	7034248	12.85	ug/L		98
42) 1,1-Dichloropropene	5.686	75	5693844	14.26	ug/L		91
44) 1,2-Dichloroethane	5.967	62	5735481	14.12	ug/L		99
47) Carbon tetrachloride	5.677	117	6636885	15.28	ug/L		99
48) Benzene	5.932	78	16968614	14.06	ug/L		100
50) Trichloroethene	6.693	95	4873762	15.34	ug/L		91
52) 1,2-Dichloropropane	6.942	63	3831541	14.04	ug/L		90
53) Dibromomethane	7.068	174	4408311	15.37	ug/L	#	91
54) Methyl methacrylate	7.123	69	3481054	12.36	ug/L		90
55) 1,4-dioxane	7.124	88	397010m	139.90	ug/L		
56) Bromodichloromethane	7.256	83	6384503	15.09	ug/L		99
57) 2-Nitropropane	7.519	43	1538736	12.64	ug/L		95
58) 2-Chloroethyl vinyl ether	7.610	63	2805525	12.01	ug/L		99
59) cis-1,3-Dichloropropene	7.743	75	7138259	13.39	ug/L		94
60) 4-Methyl-2-pentanone	7.933	43	14901417	45.53	ug/L	#	88
61) trans-1,3-Dichloropropene	8.332	75	6800708	13.34	ug/L		89
62) 1,1,2-Trichloroethane	8.516	97	4627795	14.55	ug/L		93
65) Toluene	8.083	91	19393016	14.71	ug/L		96
66) Ethylmethacrylate	8.453	69	6176976	13.02	ug/L		86
67) Tetrachloroethene	8.646	166	7343943	17.67	ug/L		95
68) 1,3-Dichloropropane	8.684	76	7184797	14.30	ug/L		87
69) 2-Hexanone	8.798	43	10004569	46.78	ug/L		88
70) Dibromochloromethane	8.910	129	6091120	15.29	ug/L		99
71) 1,2-Dibromoethane	9.016	107	5106683	14.01	ug/L		97
72) Chlorobenzene	9.522	112	13584972	14.42	ug/L		92
73) 1,1,1,2-Tetrachloroethane	9.612	131	5343340	14.49	ug/L		97
74) Ethylbenzene	9.641	91	20775747	14.51	ug/L		95
75) m,p-Xylene	9.762	91	32090319	27.92	ug/L		95
76) Styrene	10.174	104	13879216	13.71	ug/L		93
77) Bromoform	10.352	173	5024126	15.01	ug/L		97
79) o-Xylene	10.159	91	16472313	13.30	ug/L		96
80) Isopropylbenzene	10.534	105	19810033	13.69	ug/L		96
82) Bromobenzene	10.826	77	7088307	12.99	ug/L	#	80
83) 1,1,2,2-Tetrachloroethane	10.840	83	5944457	13.58	ug/L		99
84) 1,2,3-Trichloropropane	10.878	110	2154818	14.20	ug/L		96
85) trans-1,4-Dichloro-2-b...	10.899	53	1404737	11.97	ug/L		67
86) n-Propylbenzene	10.947	91	21947833	13.62	ug/L		96
87) 2-Chlorotoluene	11.026	91	13091033	13.52	ug/L		95
88) 4-Chlorotoluene	11.135	91	15083782	13.74	ug/L		93
89) 1,3,5-Trimethylbenzene	11.127	105	15020720	13.39	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613004.D
Acq On : 13 Jun 2023 09:55
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

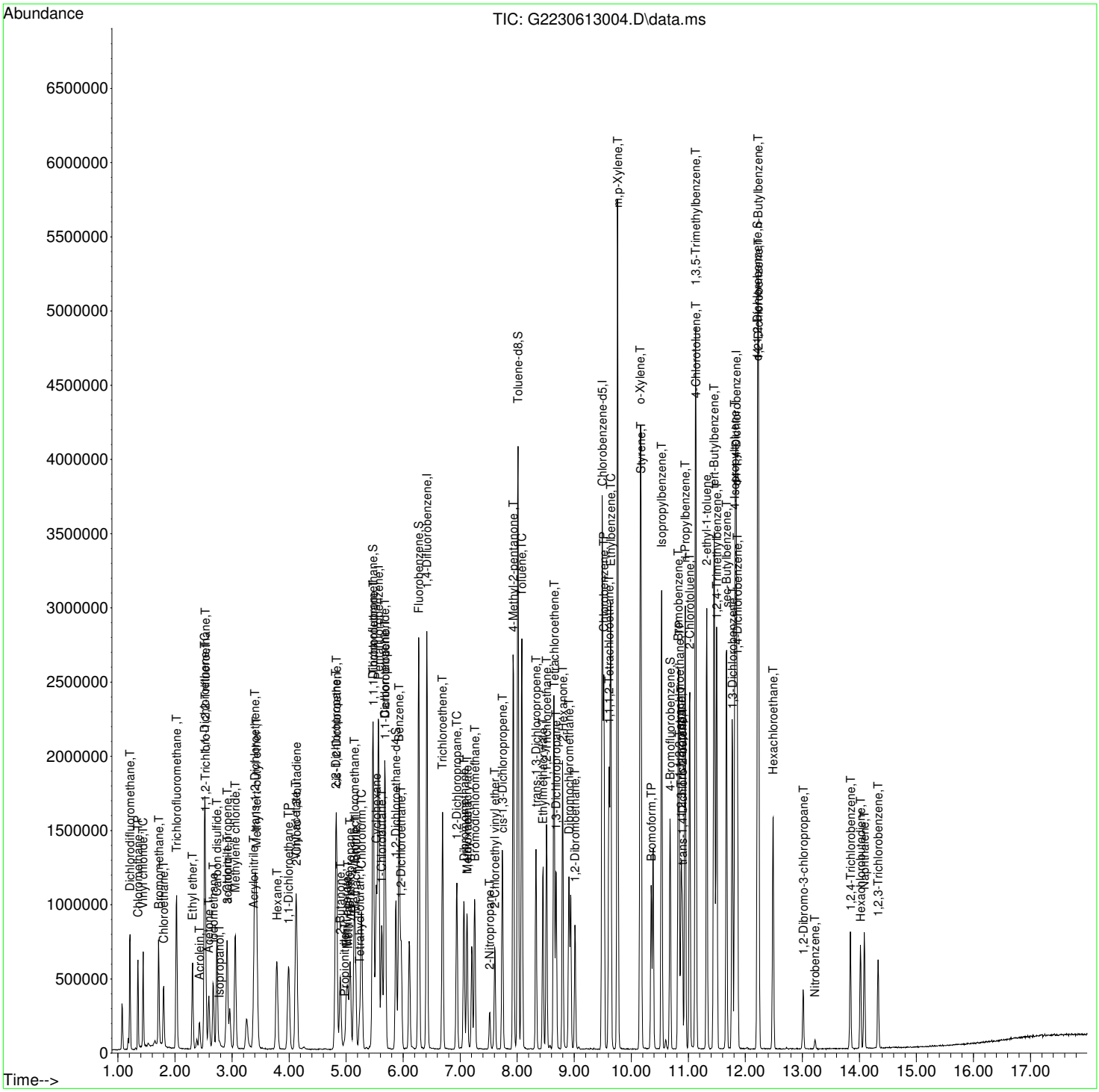
Quant Time: Jun 13 10:14:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.327	105	18335356	13.42	ug/L	98
91) tert-Butylbenzene	11.453	119	16228205	13.48	ug/L	90
92) 1,2,4-Trimethylbenzene	11.500	105	15217202	13.56	ug/L	93
93) sec-Butylbenzene	11.672	105	18752800	13.66	ug/L	97
94) 1,3-Dichlorobenzene	11.773	146	9677696	14.49	ug/L	96
95) 4-Isopropyltoluene	11.821	119	15816968	13.93	ug/L	97
96) 1,4-Dichlorobenzene	11.863	146	9506019	14.64	ug/L	98
98) 1,2-Dichlorobenzene	12.235	146	8741259	15.20	ug/L	97
99) n-Butylbenzene	12.229	91	11435509	13.98	ug/L	92
100) Hexachloroethane	12.489	201	3126216	14.98	ug/L	98
101) 1,2-Dibromo-3-chloropr...	13.017	157	1252673	14.40	ug/L	96
102) Nitrobenzene	13.223	77	299678	10.52	ug/L	89
103) 1,2,4-Trichlorobenzene	13.845	180	2599073	14.38	ug/L	96
104) Hexachlorobutadiene	14.022	225	1416122	15.92	ug/L	98
105) Naphthalene	14.089	128	6229696	13.24	ug/L	99
106) 1,2,3-Trichlorobenzene	14.332	180	2047224	14.10	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

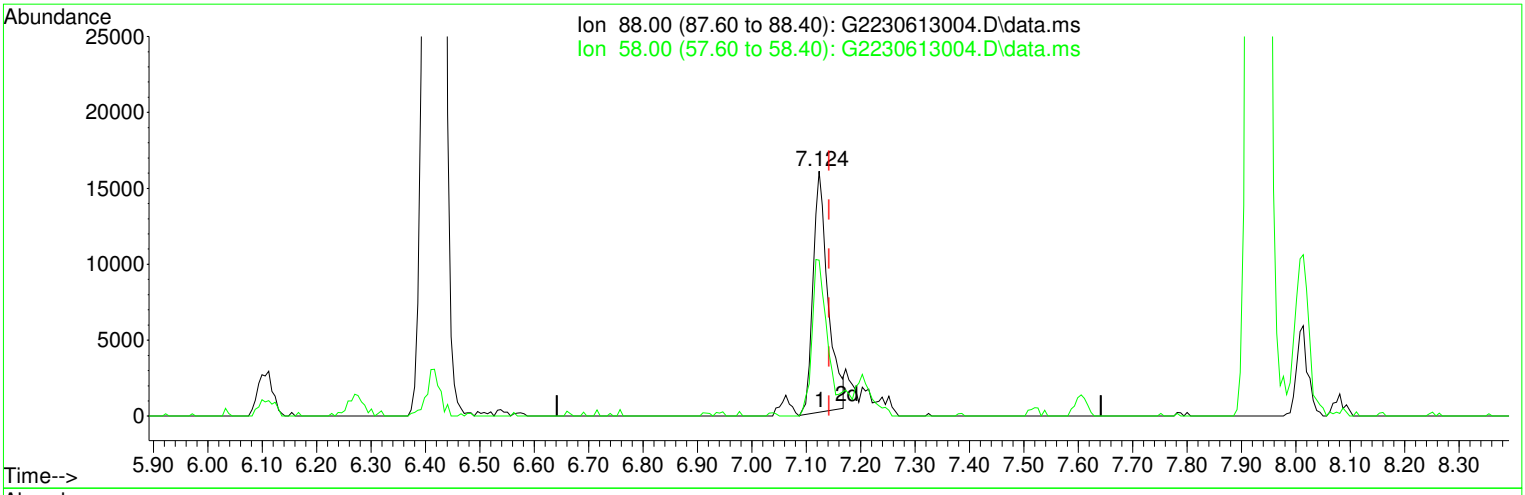
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613004.D
Acq On : 13 Jun 2023 09:55
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

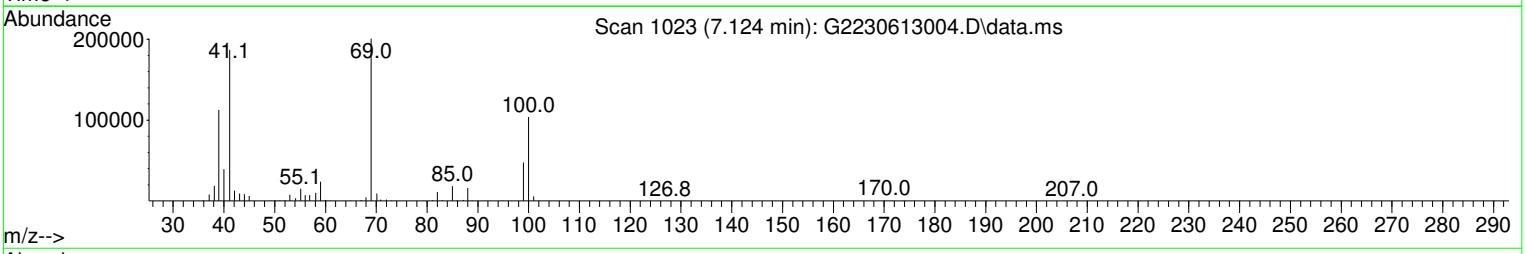
Quant Time: Jun 13 10:14:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

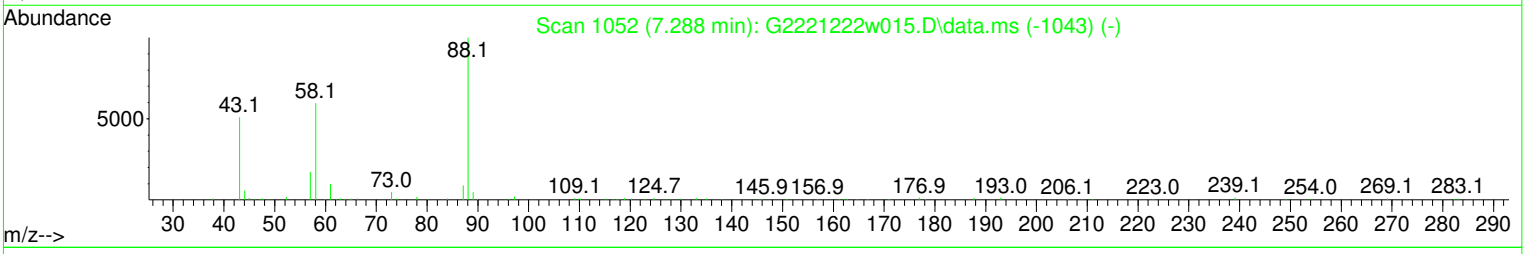


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613004.D
Acq On : 13 Jun 2023 09:55
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 10:14:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613004.D\data.ms

(55) 1,4-dioxane (T)

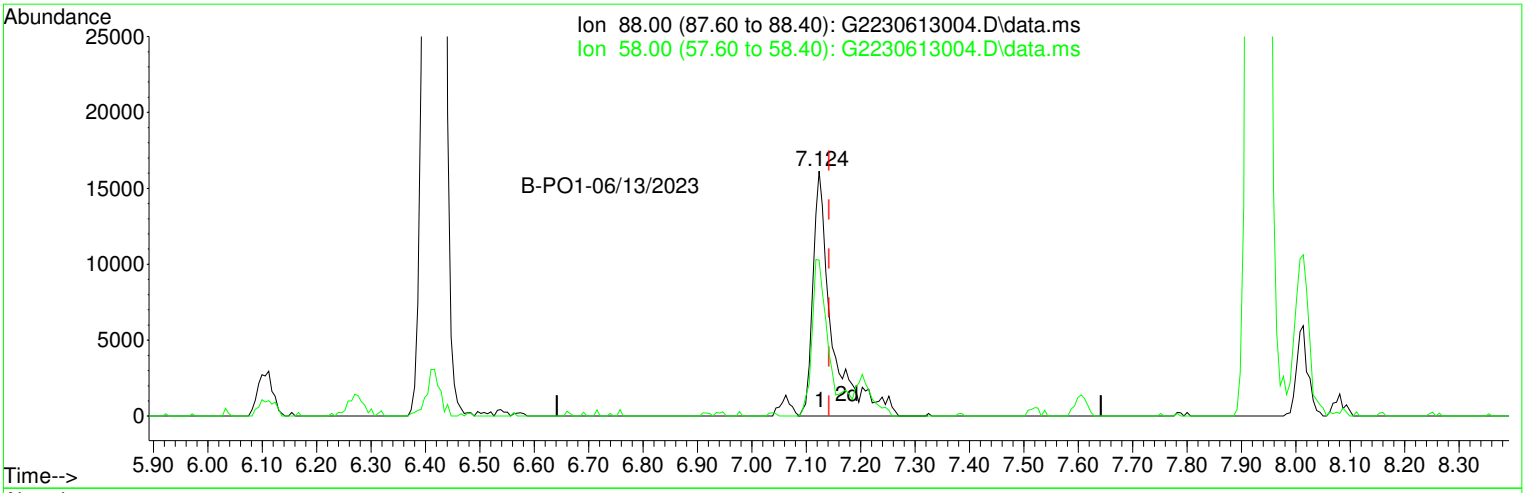
7.127min (-0.015) 103.96 ug/L

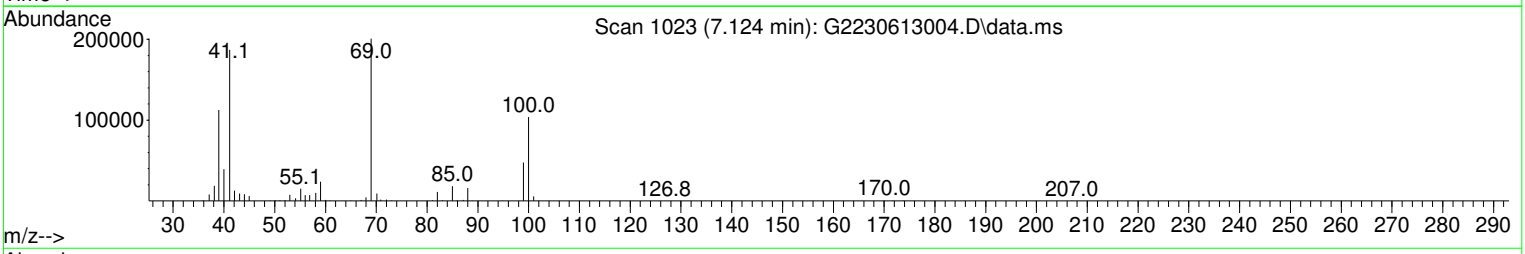
response 295011

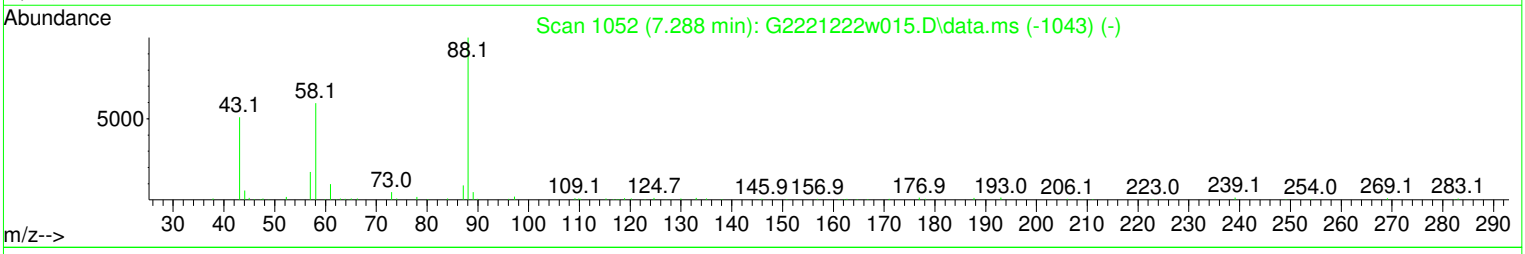
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	66.55
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613004.D
Acq On : 13 Jun 2023 09:55
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 13 10:14:27 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613004.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 139.90 ug/L m

response 397010

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	49.45
0.00	0.00	0.00
0.00	0.00	0.00

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613011.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0222	Injection Date:	06/13/23
Lab Sample ID:	S3F0222-HCV1 (Closing Cal Check)	Injection Time:	12:50

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	15.2	0.3434339	0.3469693		1.00	50
1,1,1-Trichloroethane	15.00	14.5	0.603823	0.5849714		-3.00	50
1,1,2,2-Tetrachloroethane	15.00	13.6	0.86935	0.7851188	0.3	-10.00	50
1,1,2-Trichloroethane	15.00	15.3	0.2642556	0.2699173		2.00	50
1,1-Dichloroethane	15.00	14.1	0.5953788	0.5221457	0.1	-6.00	50
1,1-Dichloroethene	15.00	13.0	0.4569016	0.370322		-14.00	50
1,1-Dichloropropene	15.00	14.3	0.4853227	0.4343556		-4.00	50
1,2,3-Trichlorobenzene	15.00	14.1	0.2883305	0.2705575		-6.00	50
1,2,3-Trichloropropane	15.00	14.4	0.331412	0.2898314		-4.00	50
1,2,4-Trichlorobenzene	15.00	14.7	0.3588914	0.3527814		-2.00	50
1,2,4-Trimethylbenzene	15.00	13.6	2.229227	2.029189		-9.00	50
1,2-Dibromo-3-chloropropane	15.00	15.4	0.1882045	0.1774891		3.00	50
1,2-Dibromoethane	15.00	14.7	0.3394667	0.3329293		-2.00	50
1,2-Dichlorobenzene	15.00	15.6	1.201484	1.18719		4.00	50
1,2-Dichloroethane	15.00	14.5	0.5029475	0.446444		-4.00	50
1,2-Dichloropropane	15.00	14.5	0.2411055	0.2189221		-3.00	50
1,3,5-Trimethylbenzene	15.00	13.7	2.228381	2.038626		-8.00	50
1,3-Dichlorobenzene	15.00	14.8	1.326244	1.30456		-2.00	50
1,3-Dichloropropane	15.00	14.6	0.4921719	0.4539834		-3.00	50
1,4-Dichlorobenzene	15.00	15.3	1.289371	1.311847		2.00	50
2,2-Dichloropropane	15.00	12.9	0.5559494	0.4776208		-14.00	50
2-Butanone	52.50	49.4	5.658319E-02	4.705926E-02		-6.00	50
2-Chlorotoluene	15.00	13.4	1.923105	1.721456		-10.00	50
2-Hexanone	52.50	46.5	0.2137484	0.1763792		-12.00	50
4-Chlorotoluene	15.00	13.8	2.179486	2.010056		-8.00	50
4-Isopropyltoluene	15.00	14.0	2.254881	2.109796		-6.00	50
4-Methyl-2-pentanone	52.50	48.0	0.2919112	0.2484789		-9.00	50
Acetone	52.50	48.3	0.1293521	8.472242E-02		-8.00	50
Benzene	15.00	14.3	1.002161	0.9571661		-4.00	50
Bromobenzene	15.00	13.2	1.083652	0.9506175		-12.00	50

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613011.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0222	Injection Date:	06/13/23
Lab Sample ID:	S3F0222-HCV1 (Closing Cal Check)	Injection Time:	12:50

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
Bromochloromethane	15.00	14.5	0.2969883	0.2865825		-4.00	50
Bromodichloromethane	15.00	15.8	0.370729	0.3694798		5.00	50
Bromoform	15.00	15.0	0.3117301	0.311024	0.1	0.00	50
Bromomethane	15.00	16.1	0.3100031	0.2723947		8.00	50
Carbon disulfide	15.00	13.8	0.9476676	0.8102338		-8.00	50
Carbon tetrachloride	15.00	15.6	0.3608923	0.3744285		4.00	50
Chlorobenzene	15.00	15.0	0.8774024	0.8754166	0.3	0.00	50
Chloroethane	15.00	14.0	0.239357	0.2226786		-7.00	50
Chloroform	15.00	14.4	0.656932	0.6295936		-4.00	50
Chloromethane	15.00	13.1	0.3583454	0.2879922	0.1	-13.00	50
cis-1,2-Dichloroethene	15.00	13.4	0.5385255	0.4502633		-11.00	50
cis-1,3-Dichloropropene	15.00	14.0	0.4428763	0.4139399		-6.00	50
Dibromochloromethane	15.00	15.9	0.3917939	0.3928301		6.00	50
Dibromomethane	15.00	16.4	0.2381661	0.2596715		9.00	50
Dichlorodifluoromethane	15.00	12.4	0.4075845	0.3380699		-17.00	50
Ethylbenzene	15.00	15.0	1.407424	1.331393		0.00	50
Hexachlorobutadiene	15.00	16.9	0.1938745	0.1987541		12.00	50
Isopropylbenzene	15.00	13.3	2.873385	2.555796		-11.00	50
m,p-Xylene	30.00	28.8	1.070642	1.026773		-4.00	50
Methyl tert-butyl ether	15.00	13.6	2.078829	1.076817		-10.00	50
Methylene chloride	15.00	14.2	0.4752062	0.3450757		-5.00	50
n-Butylbenzene	15.00	14.2	1.741335	1.542029		-5.00	50
n-Propylbenzene	15.00	13.7	3.199933	2.928599		-8.00	50
Naphthalene	15.00	13.9	1.038822	0.8659632		-7.00	50
o-Xylene	15.00	13.2	2.460467	2.157589		-12.00	50
sec-Butylbenzene	15.00	13.8	2.725412	2.502807		-8.00	50
Styrene	15.00	14.3	0.9431739	0.9000722		-5.00	50
tert-Butylbenzene	15.00	13.0	2.390757	2.068161		-14.00	50
Tetrachloroethene	15.00	22.1	0.4253866	0.5701612		47.00	50
Toluene	15.00	15.2	1.307847	1.243076		1.00	50

7 - FORM VII

01342600

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613011.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0222	Injection Date:	06/13/23
Lab Sample ID:	S3F0222-HCV1 (Closing Cal Check)	Injection Time:	12:50

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	12.9	0.4334531	0.3719272		-14.00	50
trans-1,3-Dichloropropene	15.00	14.1	0.423463	0.3980984		-6.00	50
Trichloroethene	15.00	16.3	0.2817735	0.2863452		8.00	50
Trichlorofluoromethane	15.00	14.5	0.6025154	0.5818834		-3.00	50
Vinyl chloride	15.00	13.0	0.3930682	0.339412		-14.00	50
Dibromofluoromethane	20.00	19.5	0.4401431	0.429753		-2.00	50
1,2-Dichloroethane-d4	20.00	18.5	0.4349663	0.4029014		-7.00	50
Fluorobenzene	20.00	19.5	1.139643	1.111359		-2.00	50
Toluene-d8	20.00	19.4	1.260611	1.225462		-3.00	50
4-Bromofluorobenzene	10.00	9.87	0.9444054	0.9318123		-1.00	50
1,2-Dichlorobenzene-d4	20.00	19.9	0.8601294	0.8562211		0.00	50

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613011.D
Acq On : 13 Jun 2023 12:50
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 13:08:36 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	18327320	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	24571907	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22282447	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10756223	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	7876221	19.53	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.65%			
43) 1,2-Dichloroethane-d4	5.876	65	7384102	18.53	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.65%			
49) Fluorobenzene	6.276	96	27308218	19.50	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.50%			
64) Toluene-d8	8.016	98	27306296	19.44	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.20%			
81) 4-Bromofluorobenzene	10.684	174	5011389	9.87	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.70%			
97) d4-1,2-Dichlorobenzene	12.217	152	9209703	19.91	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.55%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.212	85	4646937	12.44	ug/L	100
3) Chloromethane	1.353	50	3958594	13.10	ug/L	98
4) Vinyl chloride	1.445	62	4665384	12.95	ug/L	99
5) Bromomethane	1.715	94	3744199	16.14	ug/L	99
6) Chloroethane	1.803	64	3060827	13.95	ug/L	98
7) Trichlorofluoromethane	2.028	101	7998272	14.49	ug/L	99
8) Ethyl ether	2.310	59	3277676	13.49	ug/L	86
9) Acrolein	2.432	56	1873054	38.18	ug/L	96
10) 1,1-Dichloroethene	2.521	61	5090257	12.97	ug/L	85
11) 1,1,2-Trichloro-1,2,2-...	2.532	101	4123934	13.74	ug/L	95
12) Acetone	2.597	43	4075929	48.30	ug/L	94
13) Iodomethane	2.673	142	5398810	12.65	ug/L	94
14) Carbon disulfide	2.737	76	11137063	13.85	ug/L	100
15) Isopropanol	2.779	45	981612	66.74	ug/L	98
16) acetonitrile	2.915	41	5426053	31.66	ug/L	90
17) 3-Chloro-1-propene	2.917	76	2498605	13.52	ug/L	97
18) Methylene chloride	3.059	49	4743234	14.21	ug/L	78
19) Acrylonitrile	3.381	53	1790643	12.85	ug/L	97
20) trans-1,2-Dichloroethene	3.400	61	5112322	12.87	ug/L	84
21) Methyl tert-butyl ether	3.430	73	14801381	13.57	ug/L	93
22) Hexane	3.789	57	3926012	12.58	ug/L	94
23) 1,1-Dichloroethane	3.994	63	7177149	14.07	ug/L	96
24) Vinyl acetate	4.122	43	7049525	11.32	ug/L	90
25) 2-Chloro-1,3-butadiene	4.131	53	5305578	12.77	ug/L	85
27) 2,2-Dichloropropane	4.823	77	6565132	12.89	ug/L	92
28) cis-1,2-Dichloroethene	4.833	61	6189090	13.41	ug/L	83
29) 2-Butanone	4.901	72	2263984	49.42	ug/L	93
30) Propionitrile	4.972	54	612923m	13.94	ug/L	

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613011.D
Acq On : 13 Jun 2023 12:50
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 13:08:36 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.008	61	756681	13.73	ug/L		88
32) Methylacrylate	5.034	55	4433684	12.77	ug/L		91
33) 1-Bromopropane	5.072	41	2338839	12.48	ug/L		62
34) Bromochloromethane	5.146	130	3939217	14.47	ug/L		98
35) Methacrylonitrile	5.168	67	2322098	13.83	ug/L		91
36) Tetrahydrofuran	5.238	42	1217438	12.65	ug/L		77
37) Chloroform	5.273	83	8654072	14.38	ug/L		99
39) 1,1,1-Trichloroethane	5.477	97	8040719	14.53	ug/L		96
40) Cyclohexane	5.532	84	6720701	13.65	ug/L		81
41) 1-Chlorobutane	5.628	56	7434715	13.01	ug/L		98
42) 1,1-Dichloropropene	5.687	75	5970431	14.32	ug/L		90
44) 1,2-Dichloroethane	5.968	62	6136592	14.47	ug/L		97
47) Carbon tetrachloride	5.678	117	6900318	15.56	ug/L		99
48) Benzene	5.932	78	17639549	14.33	ug/L		100
50) Trichloroethene	6.694	95	5277036	16.28	ug/L		91
52) 1,2-Dichloropropane	6.943	63	4034501	14.49	ug/L		90
53) Dibromomethane	7.070	174	4785468	16.35	ug/L	#	90
54) Methyl methacrylate	7.123	69	3913536	13.62	ug/L		90
55) 1,4-dioxane	7.124	88	409178m	141.30	ug/L		
56) Bromodichloromethane	7.257	83	6809118	15.77	ug/L		100
57) 2-Nitropropane	7.519	43	1699809	13.70	ug/L		92
58) 2-Chloroethyl vinyl ether	7.611	63	2878968	12.08	ug/L		98
59) cis-1,3-Dichloropropene	7.743	75	7628470	14.02	ug/L		96
60) 4-Methyl-2-pentanone	7.934	43	16027202	48.00	ug/L	#	88
61) trans-1,3-Dichloropropene	8.332	75	7336528	14.10	ug/L		88
62) 1,1,2-Trichloroethane	8.517	97	4974287	15.32	ug/L		93
65) Toluene	8.084	91	20774086	15.18	ug/L		97
66) Ethylmethacrylate	8.454	69	6630018	13.46	ug/L		88
67) Tetrachloroethene	8.646	166	9528441	22.11	ug/L		94
68) 1,3-Dichloropropane	8.685	76	7586897	14.55	ug/L		86
69) 2-Hexanone	8.799	43	10316673	46.48	ug/L		88
70) Dibromochloromethane	8.910	129	6564913	15.88	ug/L		99
71) 1,2-Dibromoethane	9.016	107	5563860	14.71	ug/L		98
72) Chlorobenzene	9.522	112	14629816	14.97	ug/L		92
73) 1,1,1,2-Tetrachloroethane	9.612	131	5798494	15.15	ug/L		97
74) Ethylbenzene	9.642	91	22250032	14.97	ug/L		95
75) m,p-Xylene	9.762	91	34318529	28.77	ug/L		94
76) Styrene	10.175	104	15041859	14.31	ug/L		92
77) Bromoform	10.353	173	5197782	14.97	ug/L		98
79) o-Xylene	10.159	91	17405627	13.15	ug/L		95
80) Isopropylbenzene	10.534	105	20618034	13.34	ug/L		96
82) Bromobenzene	10.826	77	7668788	13.16	ug/L		80
83) 1,1,2,2-Tetrachloroethane	10.840	83	6333683	13.55	ug/L		99
84) 1,2,3-Trichloropropane	10.880	110	2338118	14.43	ug/L		97
85) trans-1,4-Dichloro-2-b...	10.900	53	1519785	12.13	ug/L		72
86) n-Propylbenzene	10.947	91	23625491	13.73	ug/L		95
87) 2-Chlorotoluene	11.026	91	13887271	13.43	ug/L		93
88) 4-Chlorotoluene	11.135	91	16215445	13.83	ug/L		93
89) 1,3,5-Trimethylbenzene	11.128	105	16445928	13.72	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613011.D
Acq On : 13 Jun 2023 12:50
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 13:08:36 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

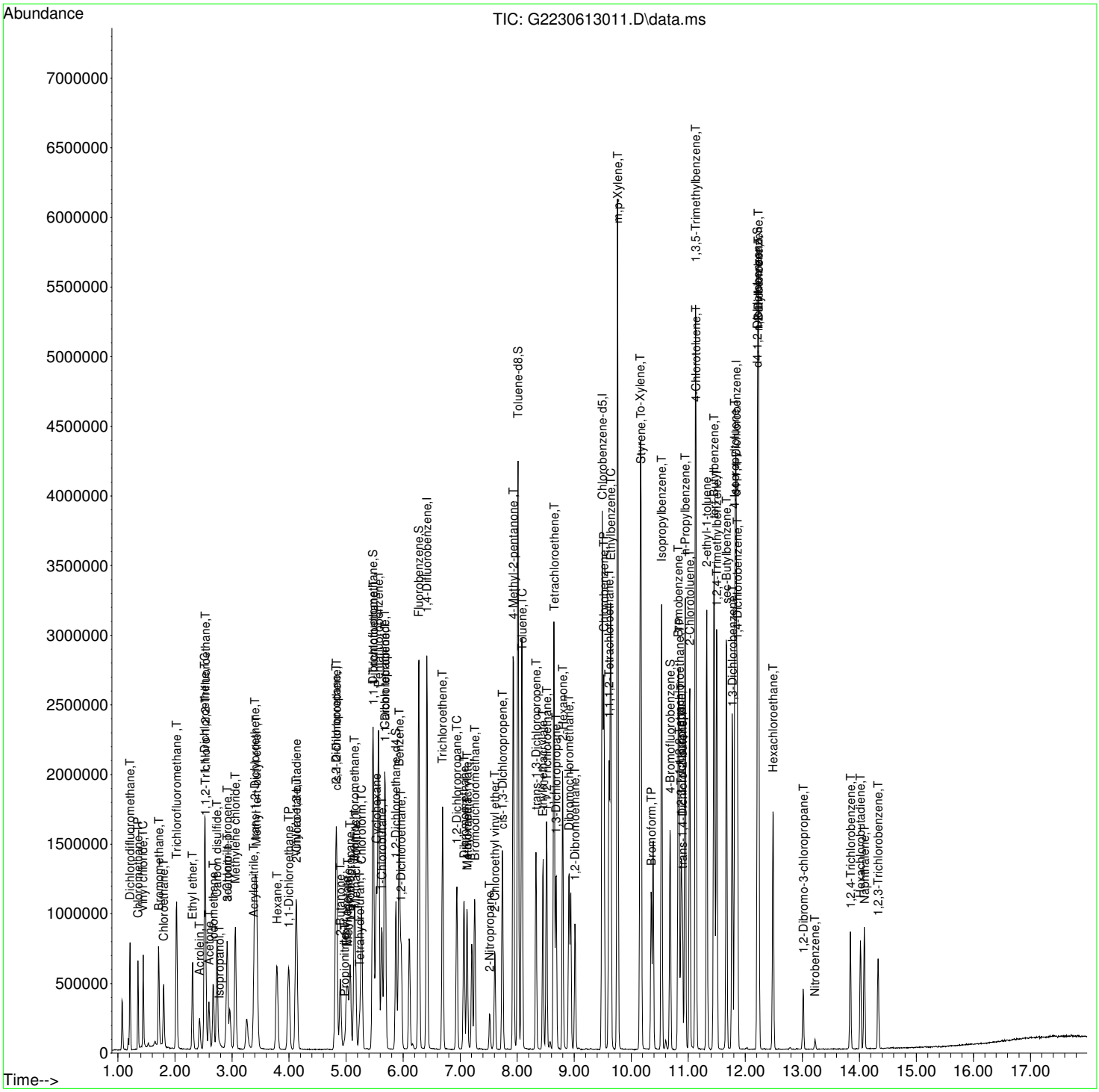
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.327	105	18868010	12.93	ug/L	97
91) tert-Butylbenzene	11.453	119	16684197	12.98	ug/L	92
92) 1,2,4-Trimethylbenzene	11.500	105	16369800	13.65	ug/L	93
93) sec-Butylbenzene	11.671	105	20190564	13.77	ug/L	97
94) 1,3-Dichlorobenzene	11.774	146	10524102	14.75	ug/L	98
95) 4-Isopropyltoluene	11.820	119	17020068	14.03	ug/L	98
96) 1,4-Dichlorobenzene	11.864	146	10582889	15.26	ug/L	97
98) 1,2-Dichlorobenzene	12.236	146	9577256	15.60	ug/L	97
99) n-Butylbenzene	12.230	91	12439803	14.24	ug/L	92
100) Hexachloroethane	12.489	201	3408879	15.29	ug/L	97
101) 1,2-Dibromo-3-chloropr...	13.018	157	1431834	15.42	ug/L	98
102) Nitrobenzene	13.223	77	303270	9.93	ug/L	93
103) 1,2,4-Trichlorobenzene	13.845	180	2845946	14.74	ug/L	97
104) Hexachlorobutadiene	14.022	225	1603382	16.88	ug/L	96
105) Naphthalene	14.089	128	6985868	13.91	ug/L	99
106) 1,2,3-Trichlorobenzene	14.332	180	2182632	14.08	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342604

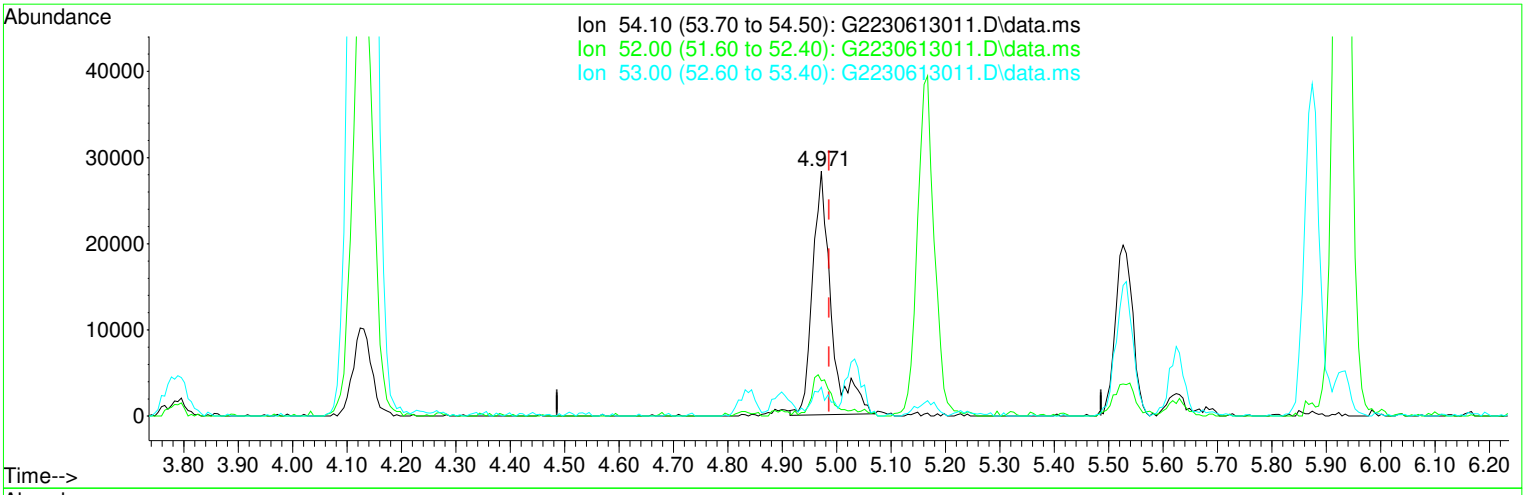
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613011.D
Acq On : 13 Jun 2023 12:50
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

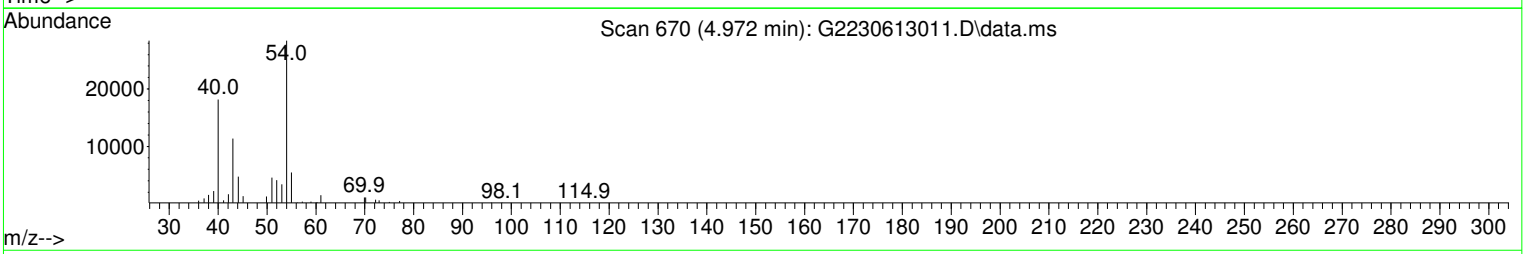
Quant Time: Jun 13 13:08:36 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

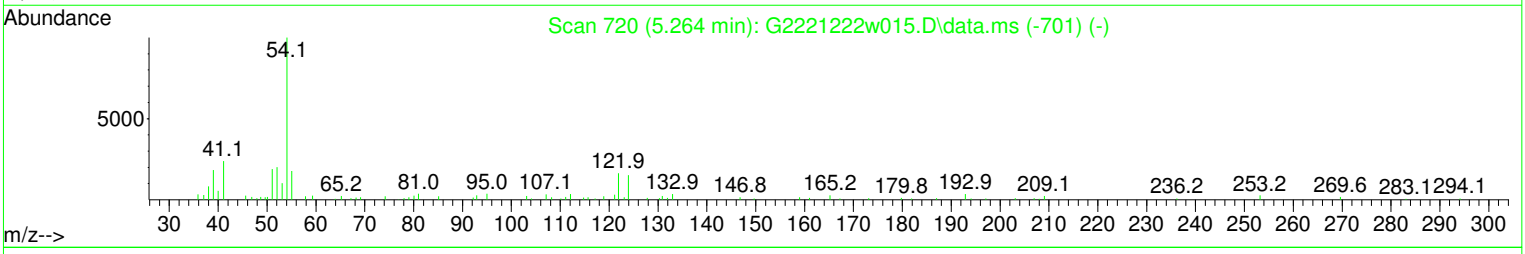


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613011.D
Acq On : 13 Jun 2023 12:50
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 13:08:36 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613011.D\data.ms

(30) Propionitrile (T)

4.974min (-0.012) 15.43 ug/L

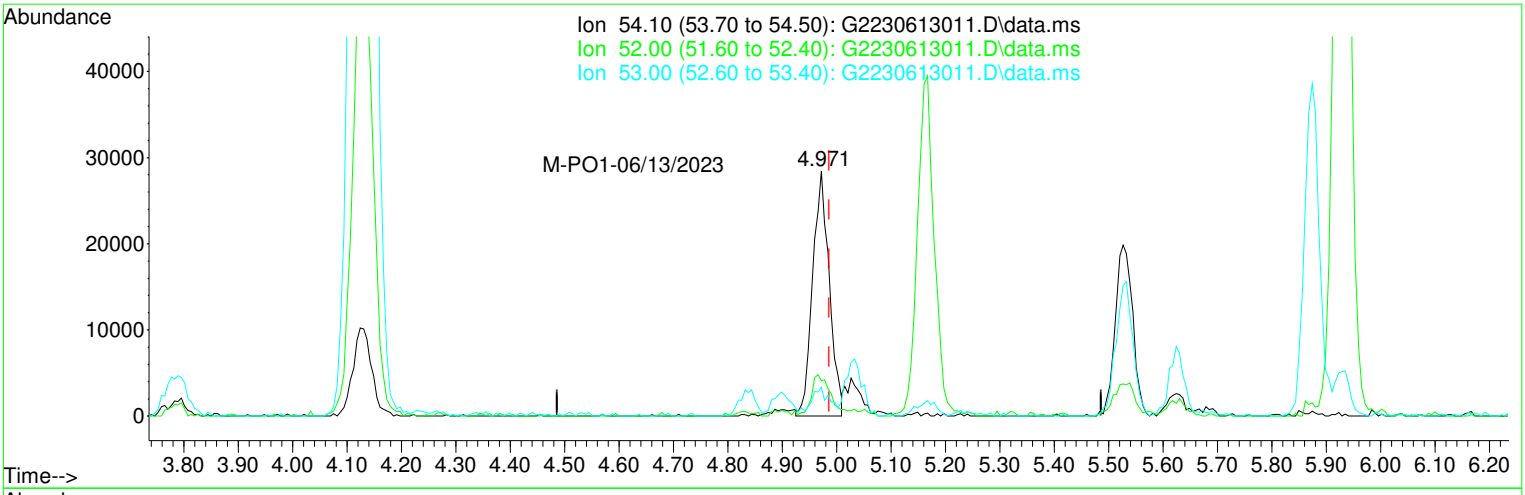
response 677343

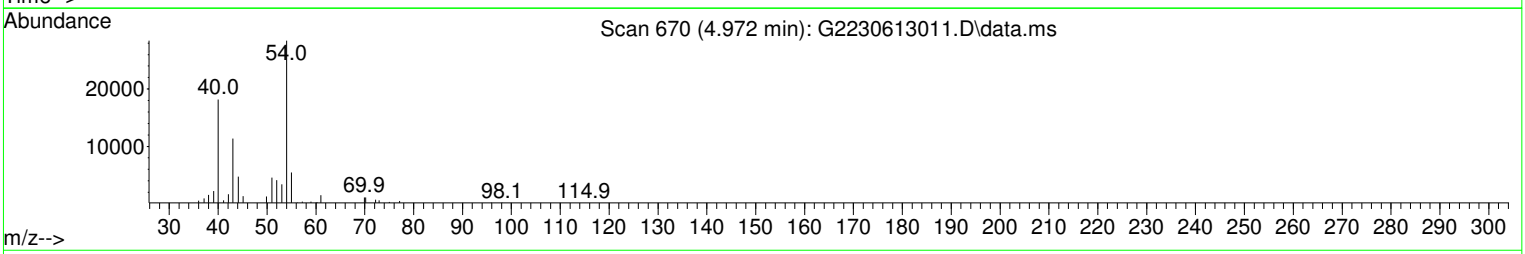
Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	13.72
53.00	12.00	10.94
0.00	0.00	0.00

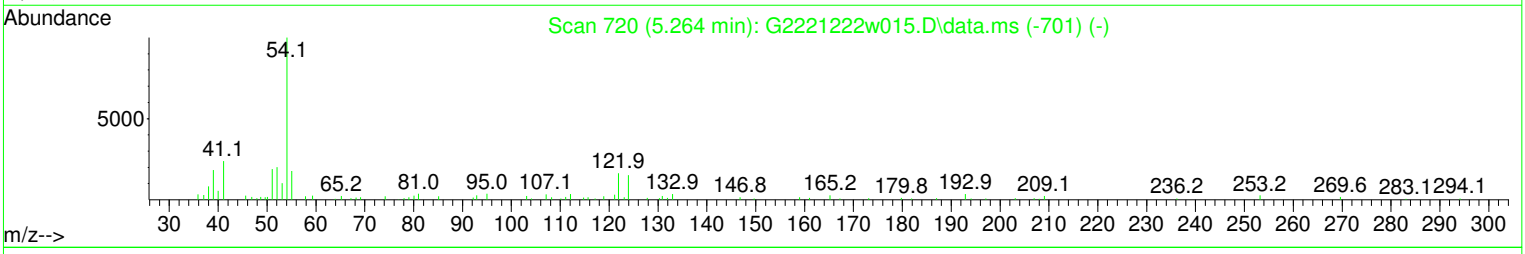
01342606

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613011.D
Acq On : 13 Jun 2023 12:50
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 13:08:36 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613011.D\data.ms

(30) Propionitrile (T)

4.972min (-0.014) 13.94 ug/L m

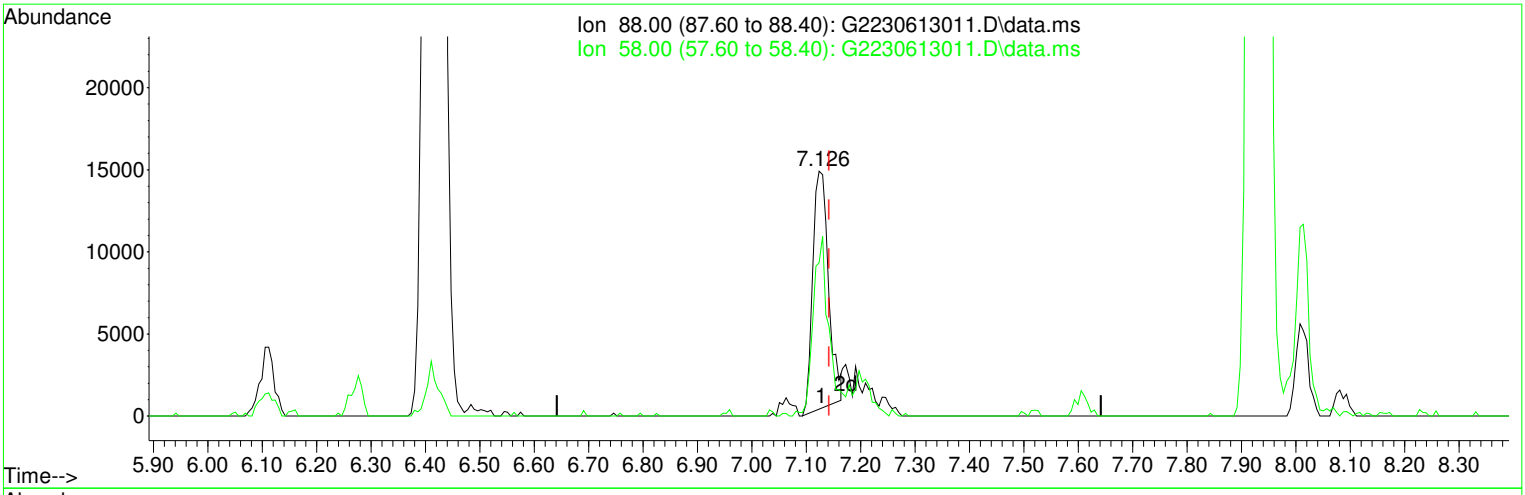
response 612923

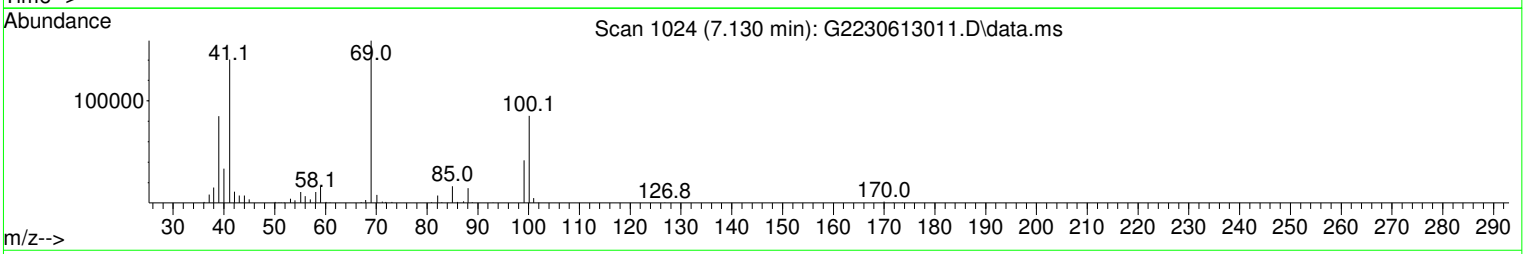
Ion	Exp%	Act%
54.10	100.00	100.00
52.00	18.10	15.17
53.00	12.00	12.09
0.00	0.00	0.00

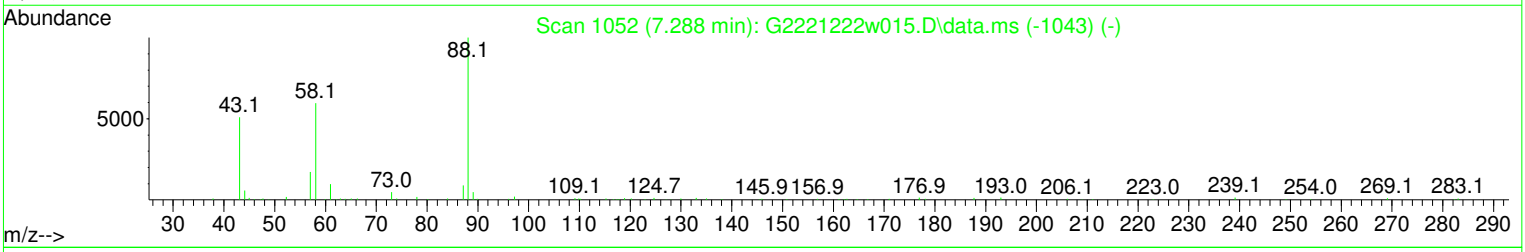
01342607

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613011.D
Acq On : 13 Jun 2023 12:50
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 13:08:36 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613011.D\data.ms

(55) 1,4-dioxane (T)

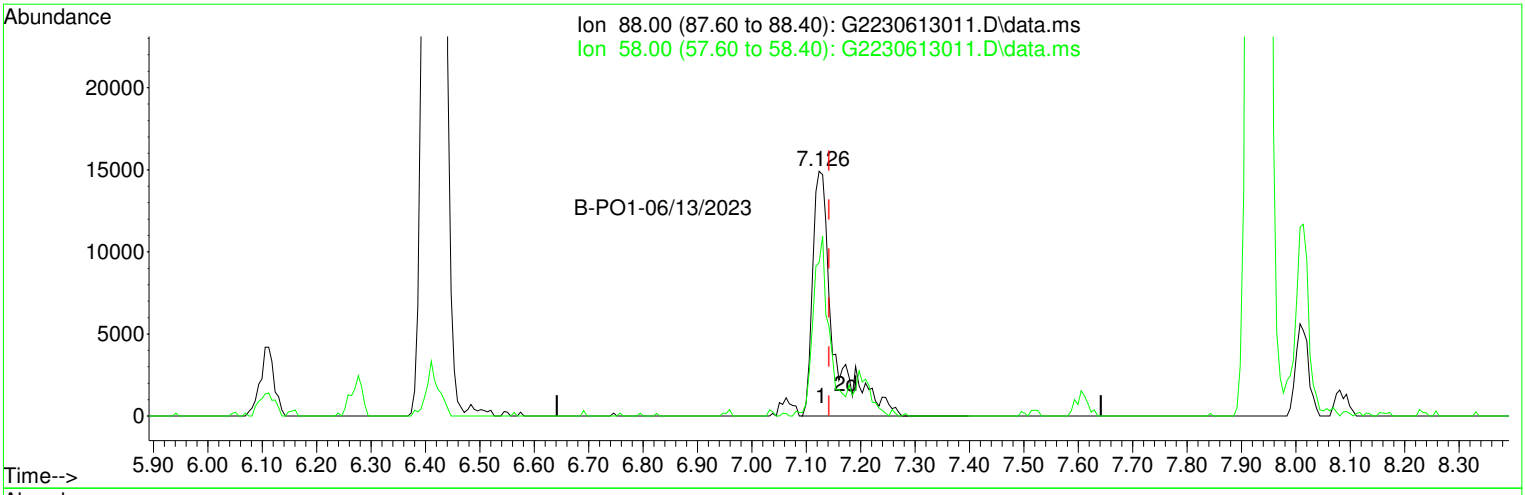
7.128min (-0.014) 99.15 ug/L

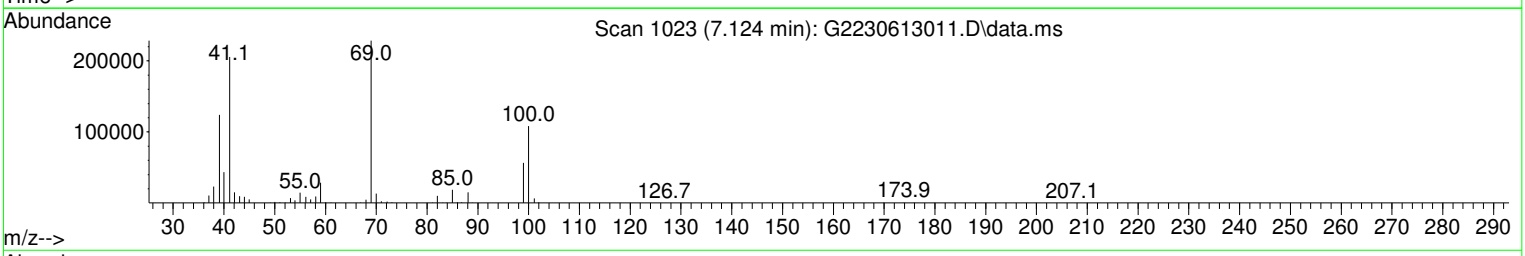
response 287124

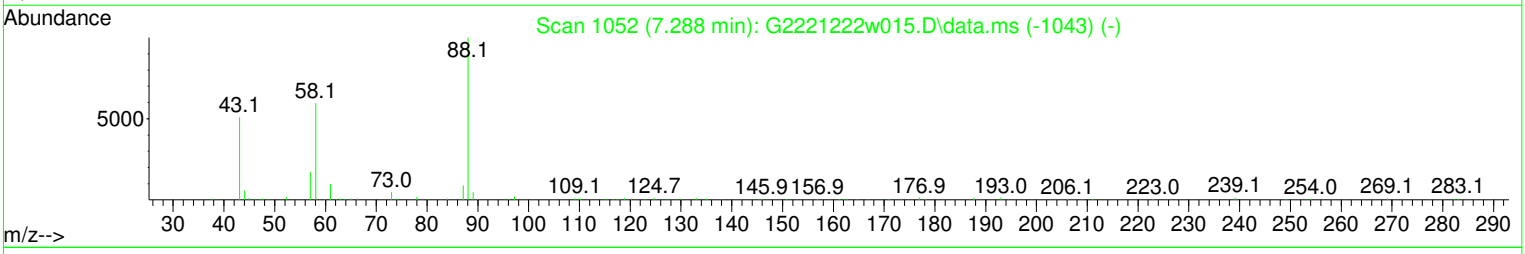
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	74.94
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613011.D
Acq On : 13 Jun 2023 12:50
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 13 13:08:36 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613011.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 141.30 ug/L m

response 409178

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	52.59
0.00	0.00	0.00
0.00	0.00	0.00

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613015.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/13/23
Lab Sample ID:	S3F0236-CCV1 (Calibration Check)	Injection Time:	14:29

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	15.4	0.3434339	0.3513995		2.00	20
1,1,1-Trichloroethane	15.00	14.4	0.603823	0.5815582		-4.00	20
1,1,2,2-Tetrachloroethane	15.00	13.7	0.86935	0.7937897	0.3	-9.00	20
1,1,2-Trichloroethane	15.00	15.1	0.2642556	0.2665296		1.00	20
1,1-Dichloroethane	15.00	13.9	0.5953788	0.5145919	0.1	-8.00	20
1,1-Dichloroethene	15.00	13.0	0.4569016	0.3704111		-14.00	20
1,1-Dichloropropene	15.00	14.5	0.4853227	0.4407606		-3.00	20
1,2,3-Trichlorobenzene	15.00	16.1	0.2883305	0.3102573		8.00	20
1,2,3-Trichloropropane	15.00	14.3	0.331412	0.2864373		-5.00	20
1,2,4-Trichlorobenzene	15.00	16.8	0.3588914	0.4029137		12.00	20
1,2,4-Trimethylbenzene	15.00	14.0	2.229227	2.082852		-7.00	20
1,2-Dibromo-3-chloropropane	15.00	17.0	0.1882045	0.1957149		13.00	20
1,2-Dibromoethane	15.00	14.6	0.3394667	0.3311324		-2.00	20
1,2-Dichlorobenzene	15.00	16.1	1.201484	1.228718		8.00	20
1,2-Dichloroethane	15.00	14.5	0.5029475	0.4465745		-4.00	20
1,2-Dichloropropane	15.00	14.6	0.2411055	0.2200822		-3.00	20
1,3,5-Trimethylbenzene	15.00	13.9	2.228381	2.066062		-7.00	20
1,3-Dichlorobenzene	15.00	15.1	1.326244	1.333128		0.00	20
1,3-Dichloropropane	15.00	14.7	0.4921719	0.4581974		-2.00	20
1,4-Dichlorobenzene	15.00	15.5	1.289371	1.336026		4.00	20
2,2-Dichloropropane	15.00	14.0	0.5559494	0.5177412		-7.00	20
2-Butanone	52.50	53.9	5.658319E-02	5.131161E-02		3.00	20
2-Chlorotoluene	15.00	13.4	1.923105	1.722403		-10.00	20
2-Hexanone	52.50	48.0	0.2137484	0.1822919		-8.00	20
4-Chlorotoluene	15.00	13.9	2.179486	2.016975		-8.00	20
4-Isopropyltoluene	15.00	14.5	2.254881	2.180961		-3.00	20
4-Methyl-2-pentanone	52.50	48.3	0.2919112	0.2499339		-8.00	20
Acetone	52.50	53.4	0.1293521	9.332538E-02		2.00	20
Benzene	15.00	14.5	1.002161	0.9692629		-3.00	20
Bromobenzene	15.00	12.9	1.083652	0.9301145		-14.00	20

7 - FORM VII

01342610

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613015.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/13/23
Lab Sample ID:	S3F0236-CCV1 (Calibration Check)	Injection Time:	14:29

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**	
Bromochloromethane	15.00	14.1	0.2969883	0.2796092		-6.00	20	
Bromodichloromethane	15.00	15.9	0.370729	0.3721491		6.00	20	
Bromoform	15.00	15.6	0.3117301	0.3236488	0.1	4.00	20	
Bromomethane	15.00	16.2	0.3100031	0.2734435		8.00	20	
Carbon disulfide	15.00	13.4	0.9476676	0.7846913		-11.00	20	
Carbon tetrachloride	15.00	15.7	0.3608923	0.377639		5.00	20	
Chlorobenzene	15.00	15.1	0.8774024	0.8833215	0.3	1.00	20	
Chloroethane	15.00	14.7	0.239357	0.2345492		-2.00	20	
Chloroform	15.00	14.1	0.656932	0.6157868		-6.00	20	
Chloromethane	15.00	13.6	0.3583454	0.299545	0.1	-9.00	20	
cis-1,2-Dichloroethene	15.00	13.7	0.5385255	0.4587016		-9.00	20	
cis-1,3-Dichloropropene	15.00	14.3	0.4428763	0.4212575		-5.00	20	
Dibromochloromethane	15.00	16.1	0.3917939	0.3985596		7.00	20	
Dibromomethane	15.00	16.1	0.2381661	0.2560047		8.00	20	
Dichlorodifluoromethane	15.00	12.4	0.4075845	0.3376321		-17.00	20	
Ethylbenzene	15.00	15.2	1.407424	1.35322		2.00	20	
Hexachlorobutadiene	15.00	18.6	0.1938745	0.2190518		24.00	20	*
Isopropylbenzene	15.00	13.3	2.873385	2.55141		-11.00	20	
m,p-Xylene	30.00	29.8	1.070642	1.061925		-1.00	20	
Methyl tert-butyl ether	15.00	13.6	2.078829	1.079168		-9.00	20	
Methylene chloride	15.00	14.1	0.4752062	0.3423065		-6.00	20	
n-Butylbenzene	15.00	14.9	1.741335	1.609193		-1.00	20	
n-Propylbenzene	15.00	13.7	3.199933	2.923449		-9.00	20	
Naphthalene	15.00	15.4	1.038822	0.9596559		3.00	20	
o-Xylene	15.00	13.1	2.460467	2.150522		-13.00	20	
sec-Butylbenzene	15.00	14.0	2.725412	2.54929		-6.00	20	
Styrene	15.00	14.5	0.9431739	0.9137664		-3.00	20	
tert-Butylbenzene	15.00	14.2	2.390757	2.266346		-5.00	20	
Tetrachloroethene	15.00	16.4	0.4253866	0.4245772		10.00	20	
Toluene	15.00	15.4	1.307847	1.264379		3.00	20	

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613015.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/13/23
Lab Sample ID:	S3F0236-CCV1 (Calibration Check)	Injection Time:	14:29

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	13.0	0.4334531	0.3747073		-14.00	20
trans-1,3-Dichloropropene	15.00	14.0	0.423463	0.3964143		-6.00	20
Trichloroethene	15.00	16.0	0.2817735	0.2819042		7.00	20
Trichlorofluoromethane	15.00	14.6	0.6025154	0.5862311		-3.00	20
Vinyl chloride	15.00	13.2	0.3930682	0.3456101		-12.00	20
Dibromofluoromethane	20.00	19.6	0.4401431	0.4303867		-2.00	20
1,2-Dichloroethane-d4	20.00	18.0	0.4349663	0.3914944		-10.00	20
Fluorobenzene	20.00	19.6	1.139643	1.115001		-2.00	20
Toluene-d8	20.00	19.5	1.260611	1.226738		-3.00	20
4-Bromofluorobenzene	10.00	9.70	0.9444054	0.9161123		-3.00	20
1,2-Dichlorobenzene-d4	20.00	19.9	0.8601294	0.8574639		0.00	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613015.D
Acq On : 13 Jun 2023 14:29
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 14 08:45:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17529215	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23693112	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	21107003	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10567460	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	7544343	19.56	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.80%			
43) 1,2-Dichloroethane-d4	5.876	65	6862592	18.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.00%			
49) Fluorobenzene	6.276	96	26417853	19.57	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.85%			
64) Toluene-d8	8.015	98	25892755	19.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%			
81) 4-Bromofluorobenzene	10.684	174	4840490	9.70	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.00%			
97) d4-1,2-Dichlorobenzene	12.216	152	9061215	19.94	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.212	85	4438820	12.43	ug/L	99
3) Chloromethane	1.353	50	3938092	13.63	ug/L	99
4) Vinyl chloride	1.444	62	4543707	13.19	ug/L	99
5) Bromomethane	1.714	94	3594938	16.20	ug/L	97
6) Chloroethane	1.802	64	3083599	14.70	ug/L	96
7) Trichlorofluoromethane	2.027	101	7707131	14.59	ug/L	97
8) Ethyl ether	2.310	59	3058740	13.16	ug/L	86
9) Acrolein	2.432	56	1846421	39.36	ug/L	98
10) 1,1-Dichloroethene	2.521	61	4869763	12.98	ug/L	85
11) 1,1,2-Trichloro-1,2,2-...	2.531	101	3983413	13.88	ug/L	94
12) Acetone	2.598	43	4294293	53.38	ug/L	91
13) Iodomethane	2.673	142	5217288	12.78	ug/L	95
14) Carbon disulfide	2.737	76	10316273	13.41	ug/L	99
15) Isopropanol	2.784	45	1071157	76.14	ug/L	95
16) acetonitrile	2.914	41	5264586	32.13	ug/L	86
17) 3-Chloro-1-propene	2.917	76	2432604	13.76	ug/L	98
18) Methylene chloride	3.059	49	4500275	14.08	ug/L	75
19) Acrylonitrile	3.383	53	1761658	13.22	ug/L	95
20) trans-1,2-Dichloroethene	3.399	61	4926245	12.97	ug/L	84
21) Methyl tert-butyl ether	3.430	73	14187734	13.60	ug/L	93
22) Hexane	3.787	57	4023150	13.49	ug/L	96
23) 1,1-Dichloroethane	3.994	63	6765296	13.86	ug/L	96
24) Vinyl acetate	4.122	43	7660430	12.86	ug/L	92
25) 2-Chloro-1,3-butadiene	4.130	53	5136586	12.92	ug/L	84
27) 2,2-Dichloropropane	4.822	77	6806700	13.97	ug/L	92
28) cis-1,2-Dichloroethene	4.832	61	6030511	13.67	ug/L	86
29) 2-Butanone	4.901	72	2361063	53.94	ug/L	90
30) Propionitrile	4.971	54	584225	13.89	ug/L	95

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613015.D
Acq On : 13 Jun 2023 14:29
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 14 08:45:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.009	61	723954	13.74	ug/L		84
32) Methylacrylate	5.034	55	4222970	12.72	ug/L		92
33) 1-Bromopropane	5.072	41	2344658	13.08	ug/L		66
34) Bromochloromethane	5.147	130	3675998	14.12	ug/L		97
35) Methacrylonitrile	5.167	67	2269986	14.14	ug/L		89
36) Tetrahydrofuran	5.238	42	1196285	13.02	ug/L		78
37) Chloroform	5.273	83	8095697	14.06	ug/L		99
39) 1,1,1-Trichloroethane	5.476	97	7645696	14.45	ug/L		95
40) Cyclohexane	5.531	84	6438724	13.67	ug/L		82
41) 1-Chlorobutane	5.627	56	7163387	13.10	ug/L		98
42) 1,1-Dichloropropene	5.686	75	5794642	14.53	ug/L		91
44) 1,2-Dichloroethane	5.967	62	5871077	14.47	ug/L		98
47) Carbon tetrachloride	5.678	117	6710581	15.70	ug/L		100
48) Benzene	5.932	78	17223639	14.51	ug/L		100
50) Trichloroethene	6.693	95	5009391	16.02	ug/L		91
52) 1,2-Dichloropropane	6.942	63	3910824	14.57	ug/L		89
53) Dibromomethane	7.069	174	4549161	16.12	ug/L	#	91
54) Methyl methacrylate	7.123	69	3720278	13.43	ug/L		90
55) 1,4-dioxane	7.124	88	420935m	150.75	ug/L		
56) Bromodichloromethane	7.256	83	6613028	15.89	ug/L		99
57) 2-Nitropropane	7.520	43	1604505	13.41	ug/L		95
58) 2-Chloroethyl vinyl ether	7.610	63	2895641	12.60	ug/L		99
59) cis-1,3-Dichloropropene	7.743	75	7485675	14.27	ug/L		95
60) 4-Methyl-2-pentanone	7.934	43	15544493	48.28	ug/L	#	88
61) trans-1,3-Dichloropropene	8.332	75	7044215	14.04	ug/L		89
62) 1,1,2-Trichloroethane	8.517	97	4736186	15.13	ug/L		95
65) Toluene	8.084	91	20015445	15.44	ug/L		98
66) Ethylmethacrylate	8.454	69	6381354	13.68	ug/L		86
67) Tetrachloroethene	8.646	166	6721163	16.44	ug/L		94
68) 1,3-Dichloropropane	8.684	76	7253380	14.69	ug/L		85
69) 2-Hexanone	8.799	43	10100035	48.05	ug/L		86
70) Dibromochloromethane	8.910	129	6309298	16.11	ug/L		98
71) 1,2-Dibromoethane	9.016	107	5241908	14.63	ug/L		97
72) Chlorobenzene	9.522	112	13983198	15.10	ug/L		92
73) 1,1,1,2-Tetrachloroethane	9.612	131	5562742	15.35	ug/L		97
74) Ethylbenzene	9.642	91	21421806	15.22	ug/L		95
75) m,p-Xylene	9.762	91	33621084	29.76	ug/L		95
76) Styrene	10.174	104	14465152	14.53	ug/L		93
77) Bromoform	10.353	173	5123442	15.57	ug/L		98
79) o-Xylene	10.159	91	17044167	13.11	ug/L		95
80) Isopropylbenzene	10.534	105	20221437	13.32	ug/L		96
82) Bromobenzene	10.825	77	7371711	12.87	ug/L	#	79
83) 1,1,2,2-Tetrachloroethane	10.840	83	6291256	13.70	ug/L		99
84) 1,2,3-Trichloropropane	10.878	110	2270186	14.26	ug/L		96
85) trans-1,4-Dichloro-2-b...	10.899	53	1517422	12.32	ug/L		69
86) n-Propylbenzene	10.947	91	23170067	13.70	ug/L		96
87) 2-Chlorotoluene	11.025	91	13651066	13.43	ug/L		94
88) 4-Chlorotoluene	11.136	91	15985731	13.88	ug/L		93
89) 1,3,5-Trimethylbenzene	11.127	105	16374766	13.91	ug/L		95

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613015.D
Acq On : 13 Jun 2023 14:29
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 15 Sample Multiplier: 1

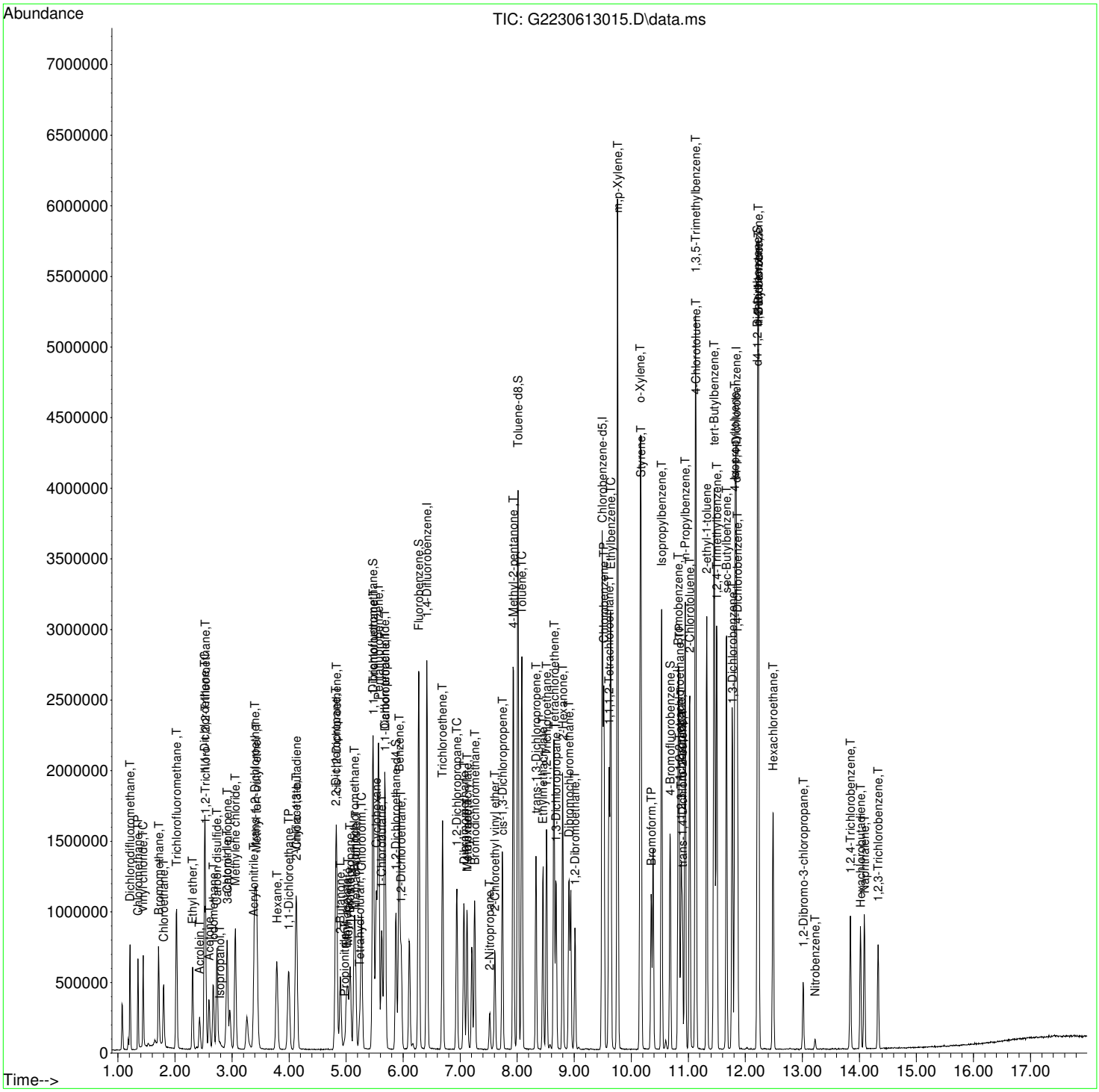
Quant Time: Jun 14 08:45:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.327	105	18716821	13.05	ug/L	97
91) tert-Butylbenzene	11.453	119	17962136	14.22	ug/L	89
92) 1,2,4-Trimethylbenzene	11.500	105	16507842	14.02	ug/L	93
93) sec-Butylbenzene	11.672	105	20204641	14.03	ug/L	97
94) 1,3-Dichlorobenzene	11.774	146	10565826	15.08	ug/L	97
95) 4-Isopropyltoluene	11.821	119	17285407	14.51	ug/L	97
96) 1,4-Dichlorobenzene	11.864	146	10588803	15.54	ug/L	97
98) 1,2-Dichlorobenzene	12.235	146	9738322	16.14	ug/L	96
99) n-Butylbenzene	12.230	91	12753808	14.86	ug/L	92
100) Hexachloroethane	12.489	201	3371189	15.39	ug/L	99
101) 1,2-Dibromo-3-chloropr...	13.018	157	1551157	17.01	ug/L	97
102) Nitrobenzene	13.225	77	348419	11.75	ug/L	95
103) 1,2,4-Trichlorobenzene	13.845	180	3193331	16.84	ug/L	96
104) Hexachlorobutadiene	14.022	225	1736116	18.62	ug/L	97
105) Naphthalene	14.089	128	7605844	15.43	ug/L	99
106) 1,2,3-Trichlorobenzene	14.332	180	2458974	16.14	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

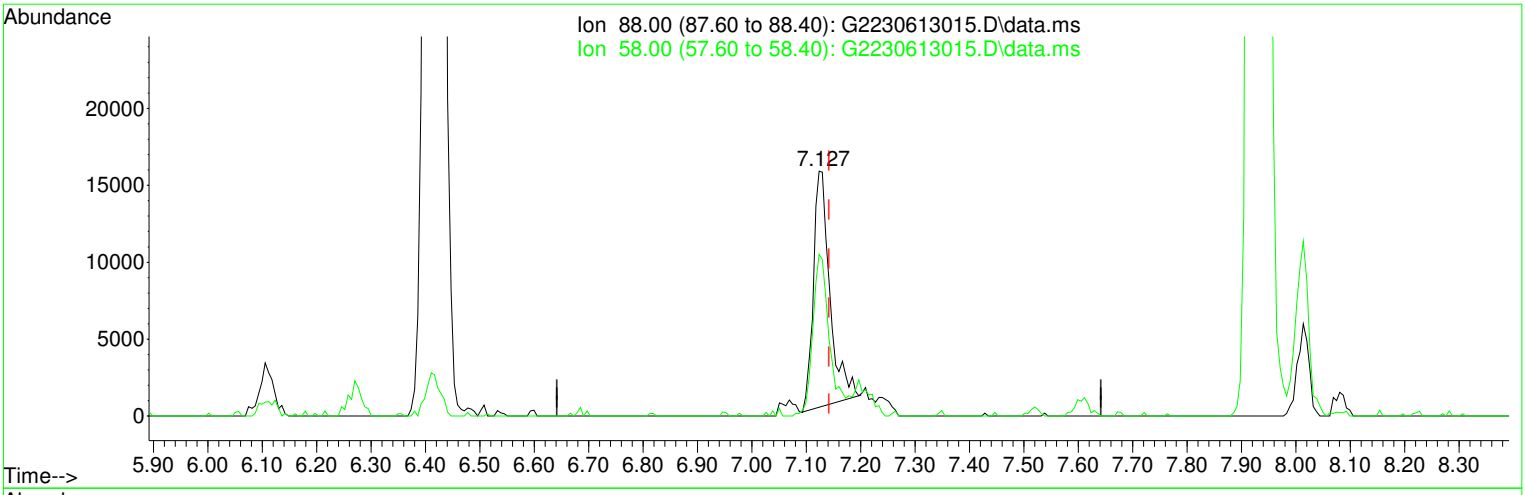
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613015.D
Acq On : 13 Jun 2023 14:29
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 15 Sample Multiplier: 1

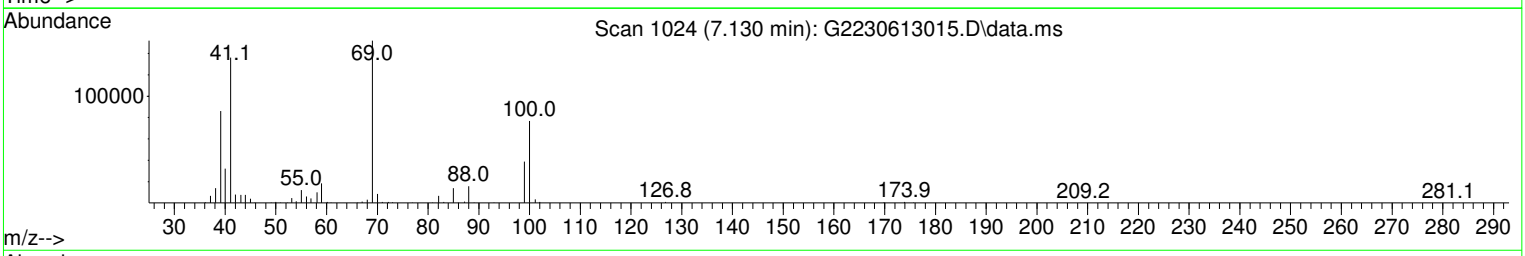
Quant Time: Jun 14 08:45:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

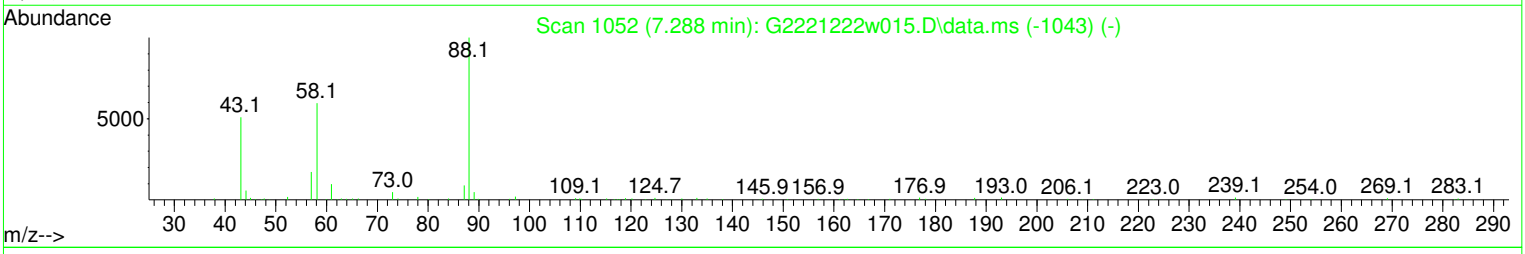


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613015.D
Acq On : 13 Jun 2023 14:29
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 14 08:45:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613015.D\data.ms

(55) 1,4-dioxane (T)

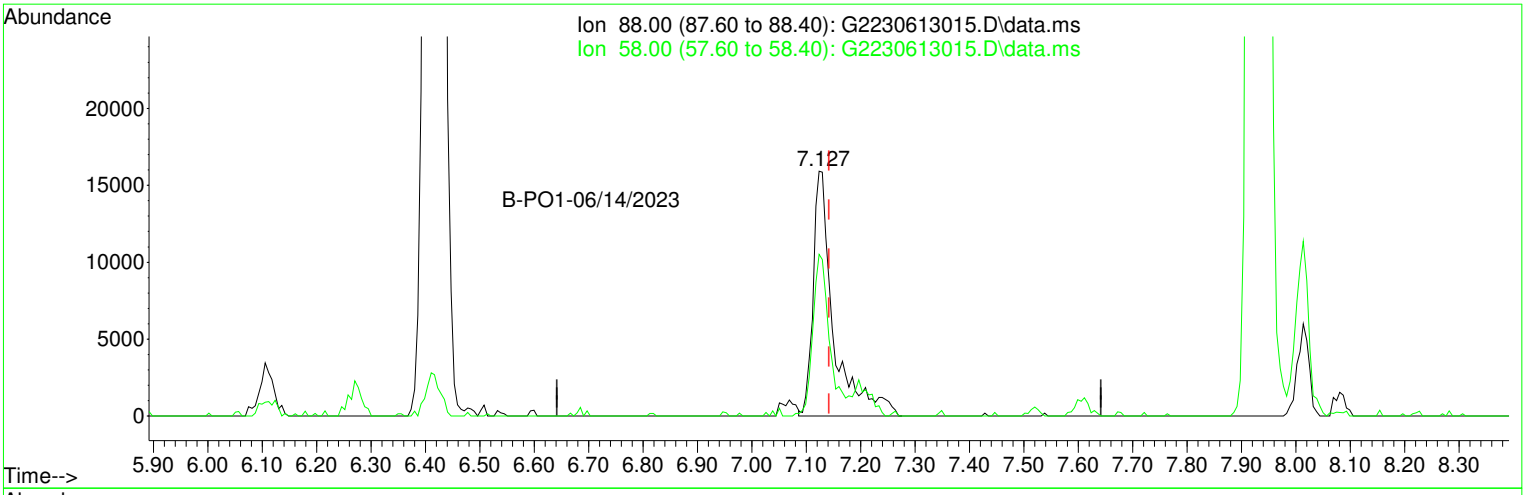
7.129min (-0.013) 115.11 ug/L

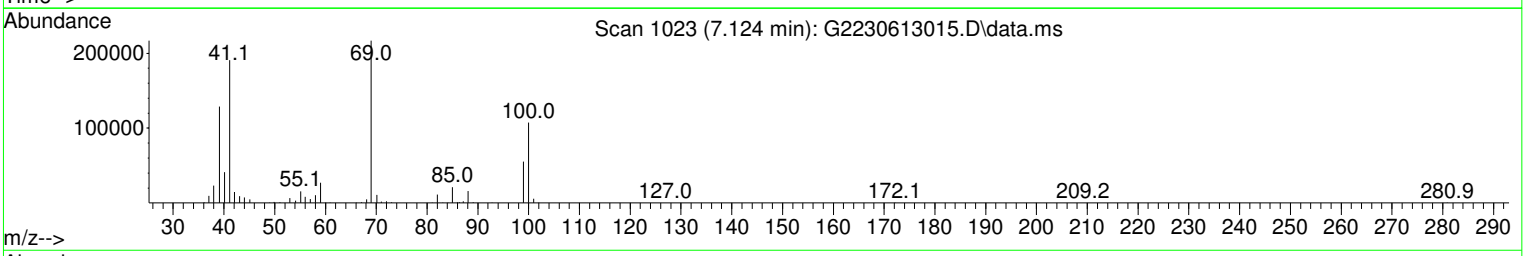
response 321420

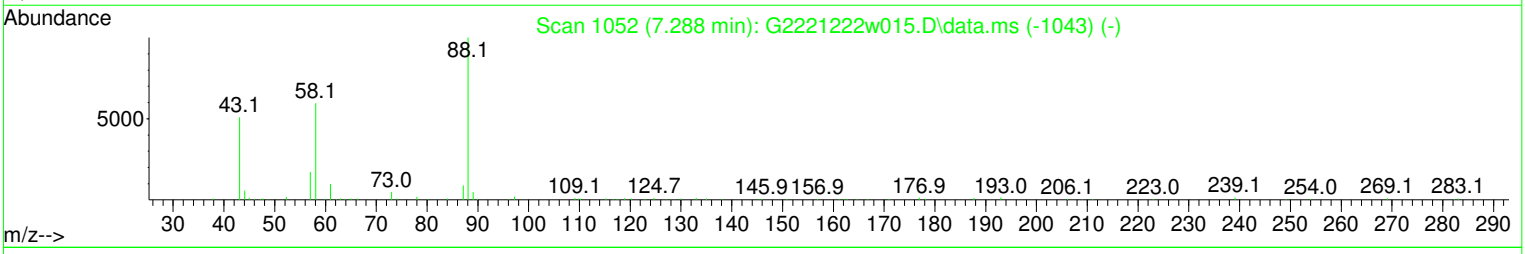
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	69.17
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613015.D
Acq On : 13 Jun 2023 14:29
Operator : PO1/MP3
Sample : SEQ-CCV1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 14 08:45:26 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613015.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 150.75 ug/L m

response 420935

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	52.82
0.00	0.00	0.00
0.00	0.00	0.00

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613037.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/13/23
Lab Sample ID:	S3F0236-HCV1 (Closing Cal Check)	Injection Time:	23:42

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	15.1	0.3434339	0.3450938		0.00	50
1,1,1-Trichloroethane	15.00	14.0	0.603823	0.5653043		-6.00	50
1,1,2,2-Tetrachloroethane	15.00	13.3	0.86935	0.7716275	0.3	-11.00	50
1,1,2-Trichloroethane	15.00	15.0	0.2642556	0.2640378		0.00	50
1,1-Dichloroethane	15.00	13.8	0.5953788	0.5124227	0.1	-8.00	50
1,1-Dichloroethene	15.00	14.0	0.4569016	0.4005759		-6.00	50
1,1-Dichloropropene	15.00	14.1	0.4853227	0.4288481		-6.00	50
1,2,3-Trichlorobenzene	15.00	14.7	0.2883305	0.2818991		-2.00	50
1,2,3-Trichloropropane	15.00	14.3	0.331412	0.2870345		-5.00	50
1,2,4-Trichlorobenzene	15.00	15.8	0.3588914	0.3780903		5.00	50
1,2,4-Trimethylbenzene	15.00	13.7	2.229227	2.030038		-9.00	50
1,2-Dibromo-3-chloropropane	15.00	14.9	0.1882045	0.1716608		-1.00	50
1,2-Dibromoethane	15.00	14.4	0.3394667	0.3265863		-4.00	50
1,2-Dichlorobenzene	15.00	15.7	1.201484	1.192627		4.00	50
1,2-Dichloroethane	15.00	14.0	0.5029475	0.4327331		-6.00	50
1,2-Dichloropropane	15.00	14.3	0.2411055	0.2161908		-5.00	50
1,3,5-Trimethylbenzene	15.00	13.6	2.228381	2.026158		-9.00	50
1,3-Dichlorobenzene	15.00	14.8	1.326244	1.305977		-2.00	50
1,3-Dichloropropane	15.00	14.6	0.4921719	0.4553139		-3.00	50
1,4-Dichlorobenzene	15.00	14.9	1.289371	1.280371		-1.00	50
2,2-Dichloropropane	15.00	11.9	0.5559494	0.4412085		-21.00	50
2-Butanone	52.50	48.2	5.658319E-02	4.585841E-02		-8.00	50
2-Chlorotoluene	15.00	13.3	1.923105	1.703701		-11.00	50
2-Hexanone	52.50	46.4	0.2137484	0.1759794		-12.00	50
4-Chlorotoluene	15.00	13.7	2.179486	1.984589		-9.00	50
4-Isopropyltoluene	15.00	14.0	2.254881	2.110317		-6.00	50
4-Methyl-2-pentanone	52.50	46.8	0.2919112	0.2424538		-11.00	50
Acetone	52.50	45.9	0.1293521	8.059167E-02		-13.00	50
Benzene	15.00	14.4	1.002161	0.9620722		-4.00	50
Bromobenzene	15.00	13.0	1.083652	0.9394398		-13.00	50

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613037.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/13/23
Lab Sample ID:	S3F0236-HCV1 (Closing Cal Check)	Injection Time:	23:42

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**	
Bromochloromethane	15.00	14.3	0.2969883	0.2825957		-5.00	50	
Bromodichloromethane	15.00	15.5	0.370729	0.3625222		3.00	50	
Bromoform	15.00	13.0	0.3117301	0.2706948	0.1	-13.00	50	
Bromomethane	15.00	15.6	0.3100031	0.2636418		4.00	50	
Carbon disulfide	15.00	12.9	0.9476676	0.7569327		-14.00	50	
Carbon tetrachloride	15.00	16.4	0.3608923	0.395888		10.00	50	
Chlorobenzene	15.00	14.9	0.8774024	0.8711701	0.3	-1.00	50	
Chloroethane	15.00	13.0	0.239357	0.2074957		-13.00	50	
Chloroform	15.00	14.0	0.656932	0.6115318		-7.00	50	
Chloromethane	15.00	12.6	0.3583454	0.2780255	0.1	-16.00	50	
cis-1,2-Dichloroethene	15.00	13.1	0.5385255	0.4391572		-13.00	50	
cis-1,3-Dichloropropene	15.00	13.1	0.4428763	0.3870519		-13.00	50	
Dibromochloromethane	15.00	14.9	0.3917939	0.3697662		0.00	50	
Dibromomethane	15.00	15.8	0.2381661	0.2510776		5.00	50	
Dichlorodifluoromethane	15.00	13.4	0.4075845	0.3644434		-11.00	50	
Ethylbenzene	15.00	14.9	1.407424	1.328691		0.00	50	
Hexachlorobutadiene	15.00	17.9	0.1938745	0.2107893		19.00	50	
Isopropylbenzene	15.00	13.5	2.873385	2.581116		-10.00	50	
m,p-Xylene	30.00	28.7	1.070642	1.025463		-4.00	50	
Methyl tert-butyl ether	15.00	12.9	2.078829	1.027927		-14.00	50	
Methylene chloride	15.00	12.4	0.4752062	0.3060197		-17.00	50	
n-Butylbenzene	15.00	14.0	1.741335	1.511011		-7.00	50	
n-Propylbenzene	15.00	13.5	3.199933	2.875036		-10.00	50	
Naphthalene	15.00	14.6	1.038822	0.9052889		-3.00	50	
o-Xylene	15.00	13.0	2.460467	2.132678		-13.00	50	
sec-Butylbenzene	15.00	13.9	2.725412	2.521207		-8.00	50	
Styrene	15.00	14.1	0.9431739	0.8894123		-6.00	50	
tert-Butylbenzene	15.00	12.3	2.390757	1.956055		-18.00	50	
Tetrachloroethene	15.00	26.0	0.4253866	0.6705197		74.00	50	*
Toluene	15.00	15.1	1.307847	1.237236		1.00	50	

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613037.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/13/23
Lab Sample ID:	S3F0236-HCV1 (Closing Cal Check)	Injection Time:	23:42

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	12.7	0.4334531	0.3681266		-15.00	50
trans-1,3-Dichloropropene	15.00	13.0	0.423463	0.3663803		-14.00	50
Trichloroethene	15.00	16.0	0.2817735	0.2818003		7.00	50
Trichlorofluoromethane	15.00	14.5	0.6025154	0.5815066		-4.00	50
Vinyl chloride	15.00	12.5	0.3930682	0.3264323		-17.00	50
Dibromofluoromethane	20.00	19.1	0.4401431	0.4195959		-5.00	50
1,2-Dichloroethane-d4	20.00	17.2	0.4349663	0.374115		-14.00	50
Fluorobenzene	20.00	19.4	1.139643	1.104774		-3.00	50
Toluene-d8	20.00	19.5	1.260611	1.226701		-3.00	50
4-Bromofluorobenzene	10.00	9.69	0.9444054	0.9150088		-3.00	50
1,2-Dichlorobenzene-d4	20.00	20.1	0.8601294	0.8628299		0.00	50

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613037.D
Acq On : 13 Jun 2023 23:42
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jun 14 08:05:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17290037	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	22874433	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	20311094	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	9950368	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7254830	19.07	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.35%			
43) 1,2-Dichloroethane-d4	5.877	65	6468464	17.20	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 86.00%			
49) Fluorobenzene	6.277	96	25271078	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
64) Toluene-d8	8.015	98	24915638	19.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%			
81) 4-Bromofluorobenzene	10.684	174	4552337	9.69	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.90%			
97) d4-1,2-Dichlorobenzene	12.216	152	8585475	20.06	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.213	85	4725931	13.41	ug/L	100
3) Chloromethane	1.354	50	3605304	12.65	ug/L	97
4) Vinyl chloride	1.445	62	4233020	12.46	ug/L	98
5) Bromomethane	1.716	94	3418783	15.61	ug/L	98
6) Chloroethane	1.804	64	2690707	13.00	ug/L	96
7) Trichlorofluoromethane	2.029	101	7540704	14.48	ug/L	97
8) Ethyl ether	2.312	59	2940203	12.82	ug/L	86
9) Acrolein	2.434	56	1314487	28.27	ug/L	94
10) 1,1-Dichloroethene	2.522	61	5194480	14.04	ug/L	86
11) 1,1,2-Trichloro-1,2,2-...	2.534	101	4022710	14.21	ug/L	95
12) Acetone	2.601	43	3657762	45.86	ug/L	94
13) Iodomethane	2.674	142	4924880	12.23	ug/L	95
14) Carbon disulfide	2.738	76	9815548	12.93	ug/L	100
15) Isopropanol	2.786	45	1052208	75.83	ug/L	89
16) acetonitrile	2.916	41	4809812	29.72	ug/L	88
17) 3-Chloro-1-propene	2.918	76	2242640	12.86	ug/L	98
18) Methylene chloride	3.060	49	3968320	12.43	ug/L	76
19) Acrylonitrile	3.386	53	1692709	12.87	ug/L	96
20) trans-1,2-Dichloroethene	3.399	61	4773693	12.74	ug/L	85
21) Methyl tert-butyl ether	3.432	73	13329684	12.91	ug/L	93
22) Hexane	3.791	57	3411276	11.58	ug/L	93
23) 1,1-Dichloroethane	3.996	63	6644857	13.80	ug/L	97
24) Vinyl acetate	4.122	43	5669762	9.65	ug/L	91
25) 2-Chloro-1,3-butadiene	4.132	53	4784935	12.21	ug/L	81
27) 2,2-Dichloropropane	4.823	77	5721384	11.90	ug/L	92
28) cis-1,2-Dichloroethene	4.833	61	5694784	13.08	ug/L	83
29) 2-Butanone	4.903	72	2081346	48.15	ug/L	92
30) Propionitrile	4.974	54	562381	13.55	ug/L	98

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613037.D
Acq On : 13 Jun 2023 23:42
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jun 14 08:05:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.007	61	654360	12.57	ug/L		81
32) Methylacrylate	5.034	55	3839808	11.73	ug/L		89
33) 1-Bromopropane	5.074	41	2234373	12.63	ug/L		61
34) Bromochloromethane	5.147	130	3664568	14.27	ug/L		100
35) Methacrylonitrile	5.168	67	2113189	13.34	ug/L		89
36) Tetrahydrofuran	5.238	42	1126019	12.40	ug/L		75
37) Chloroform	5.274	83	7930057	13.96	ug/L		100
39) 1,1,1-Trichloroethane	5.477	97	7330601	14.04	ug/L		96
40) Cyclohexane	5.533	84	6254894	13.47	ug/L		81
41) 1-Chlorobutane	5.628	56	6798430	12.61	ug/L		99
42) 1,1-Dichloropropene	5.687	75	5561100	14.14	ug/L		91
44) 1,2-Dichloroethane	5.968	62	5611480	14.02	ug/L		98
47) Carbon tetrachloride	5.678	117	6791784	16.45	ug/L		99
48) Benzene	5.932	78	16505142	14.40	ug/L		100
50) Trichloroethene	6.694	95	4834516	16.02	ug/L		91
52) 1,2-Dichloropropane	6.943	63	3708931	14.31	ug/L		90
53) Dibromomethane	7.069	174	4307443	15.81	ug/L	#	91
54) Methyl methacrylate	7.123	69	3423173	12.80	ug/L		90
55) 1,4-dioxane	7.124	88	406069m	150.63	ug/L		
56) Bromodichloromethane	7.257	83	6219367	15.47	ug/L		99
57) 2-Nitropropane	7.520	43	1524407	13.19	ug/L		94
58) 2-Chloroethyl vinyl ether	7.611	63	2458889	11.08	ug/L		99
59) cis-1,3-Dichloropropene	7.743	75	6640193	13.11	ug/L		95
60) 4-Methyl-2-pentanone	7.933	43	14558232	46.83	ug/L	#	87
61) trans-1,3-Dichloropropene	8.332	75	6285555	12.98	ug/L		89
62) 1,1,2-Trichloroethane	8.516	97	4529786	14.99	ug/L		92
65) Toluene	8.084	91	18847209	15.11	ug/L		98
66) Ethylmethacrylate	8.454	69	5927278	13.20	ug/L		86
67) Tetrachloroethene	8.646	166	10214239	26.03	ug/L		94
68) 1,3-Dichloropropane	8.684	76	6935941	14.60	ug/L		86
69) 2-Hexanone	8.798	43	9382625	46.37	ug/L		88
70) Dibromochloromethane	8.910	129	5632766	14.94	ug/L		98
71) 1,2-Dibromoethane	9.016	107	4974993	14.43	ug/L		98
72) Chlorobenzene	9.522	112	13270808	14.89	ug/L		92
73) 1,1,1,2-Tetrachloroethane	9.611	131	5256924	15.07	ug/L		97
74) Ethylbenzene	9.641	91	20240373	14.94	ug/L		95
75) m,p-Xylene	9.761	91	31242411	28.73	ug/L		95
76) Styrene	10.174	104	13548698	14.14	ug/L		93
77) Bromoform	10.352	173	4123580	13.03	ug/L		97
79) o-Xylene	10.158	91	15915698	13.00	ug/L		95
80) Isopropylbenzene	10.534	105	19262292	13.47	ug/L		96
82) Bromobenzene	10.825	77	7010829	13.00	ug/L	#	79
83) 1,1,2,2-Tetrachloroethane	10.840	83	5758483	13.31	ug/L		99
84) 1,2,3-Trichloropropane	10.878	110	2142074	14.29	ug/L		98
85) trans-1,4-Dichloro-2-b...	10.898	53	969670	8.36	ug/L		73
86) n-Propylbenzene	10.946	91	21455750	13.48	ug/L		95
87) 2-Chlorotoluene	11.025	91	12714342	13.29	ug/L		93
88) 4-Chlorotoluene	11.135	91	14810536	13.66	ug/L		93
89) 1,3,5-Trimethylbenzene	11.127	105	15120763	13.64	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613037.D
Acq On : 13 Jun 2023 23:42
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jun 14 08:05:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

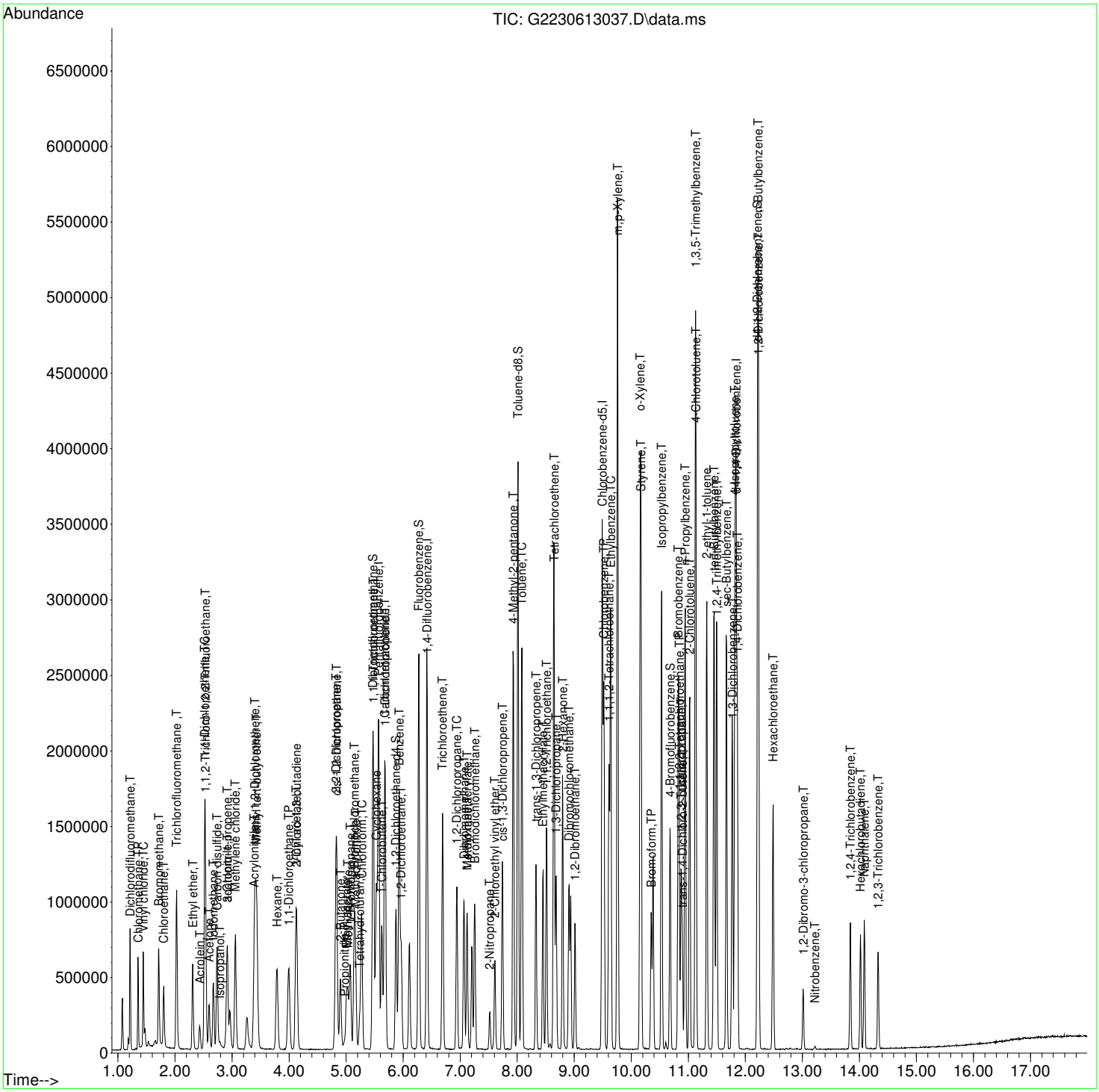
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.327	105	18175383	13.46	ug/L	97
91) tert-Butylbenzene	11.452	119	14597598	12.27	ug/L	94
92) 1,2,4-Trimethylbenzene	11.499	105	15149720	13.66	ug/L	93
93) sec-Butylbenzene	11.671	105	18815196	13.88	ug/L	96
94) 1,3-Dichlorobenzene	11.773	146	9746212	14.77	ug/L	98
95) 4-Isopropyltoluene	11.820	119	15748819	14.04	ug/L	97
96) 1,4-Dichlorobenzene	11.863	146	9555122	14.90	ug/L	97
98) 1,2-Dichlorobenzene	12.235	146	8900305	15.67	ug/L	97
99) n-Butylbenzene	12.229	91	11276339	13.95	ug/L	92
100) Hexachloroethane	12.489	201	3227620	15.65	ug/L	96
101) 1,2-Dibromo-3-chloropr...	13.017	157	1281066	14.91	ug/L	97
102) Nitrobenzene	13.222	77	82874	2.64	ug/L	96
103) 1,2,4-Trichlorobenzene	13.845	180	2821603	15.80	ug/L	97
104) Hexachlorobutadiene	14.022	225	1573073	17.91	ug/L	97
105) Naphthalene	14.089	128	6755968	14.55	ug/L	99
106) 1,2,3-Trichlorobenzene	14.332	180	2103750	14.67	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342624

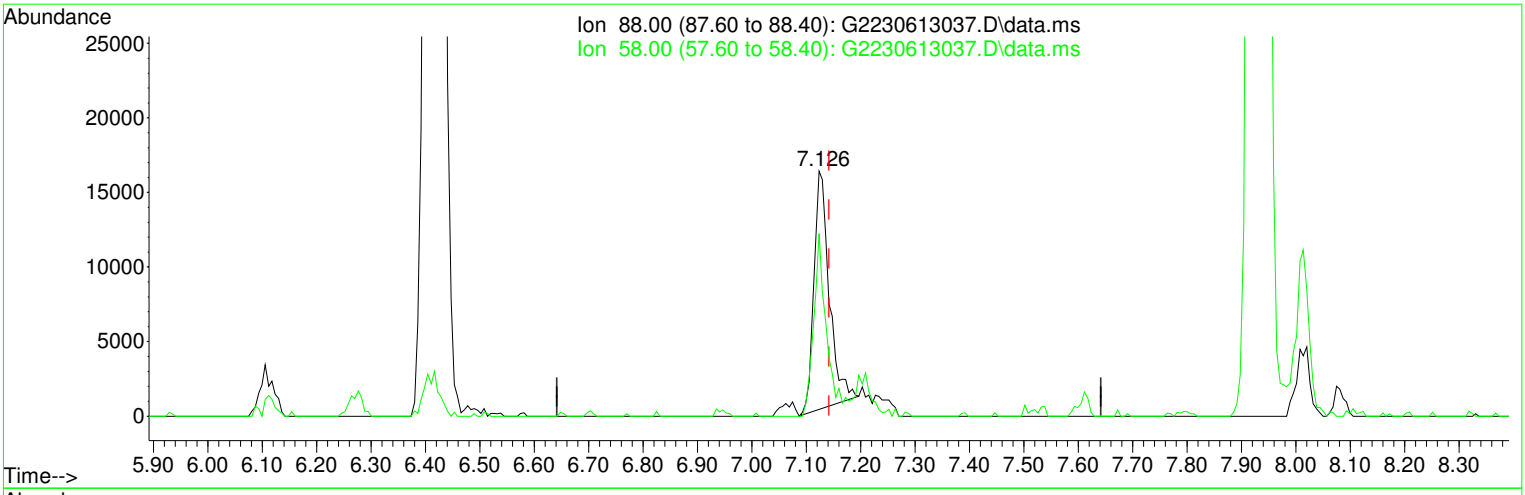
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613037.D
Acq On : 13 Jun 2023 23:42
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 37 Sample Multiplier: 1

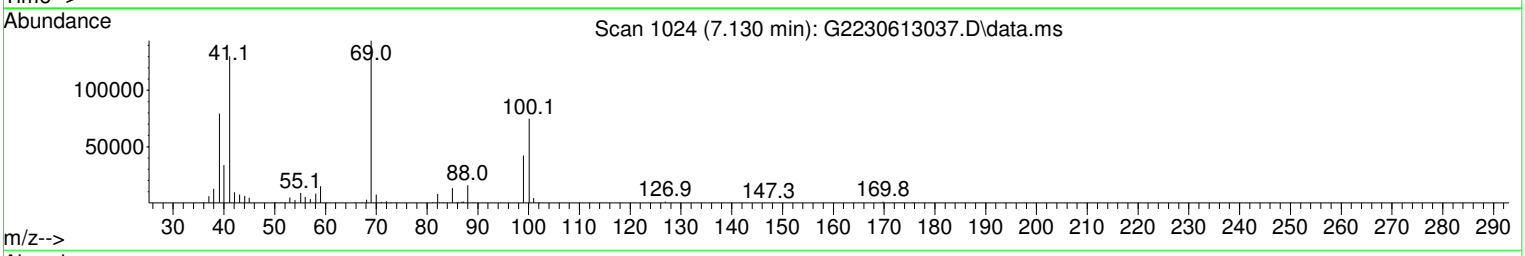
Quant Time: Jun 14 08:05:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

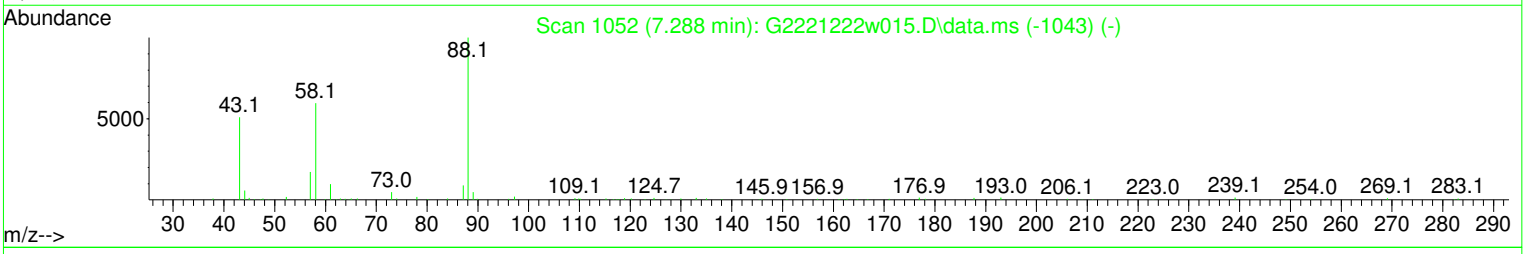


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613037.D
Acq On : 13 Jun 2023 23:42
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jun 14 08:05:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613037.D\data.ms

(55) 1,4-dioxane (T)

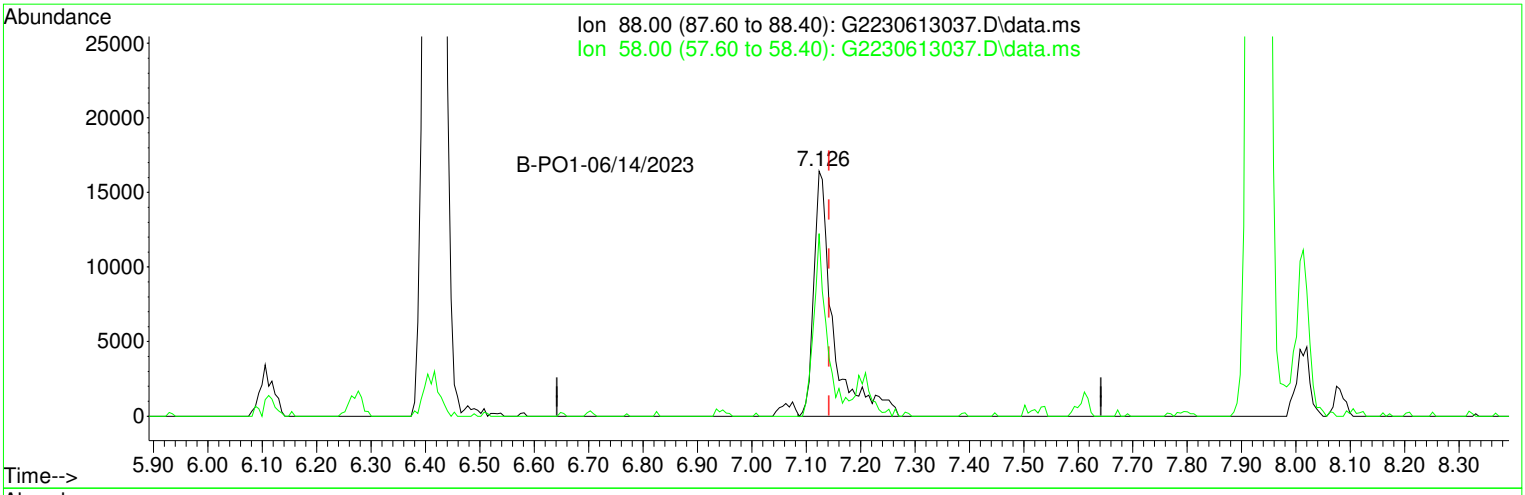
7.129min (-0.013) 114.75 ug/L

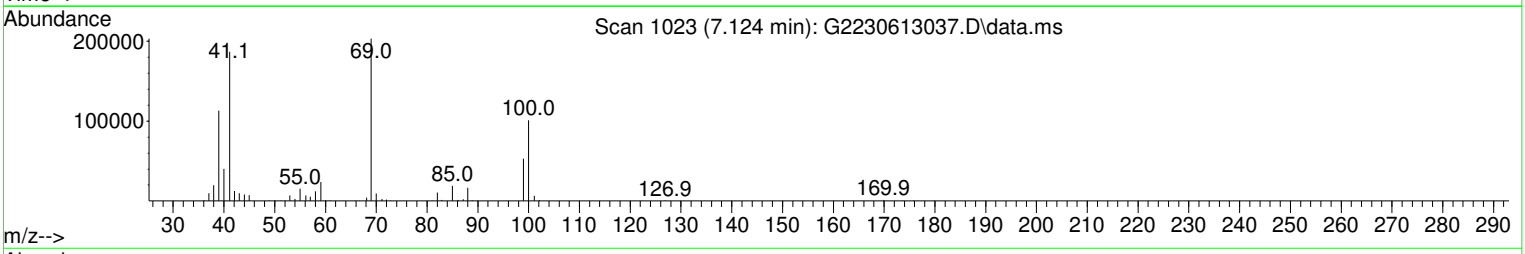
response 309353

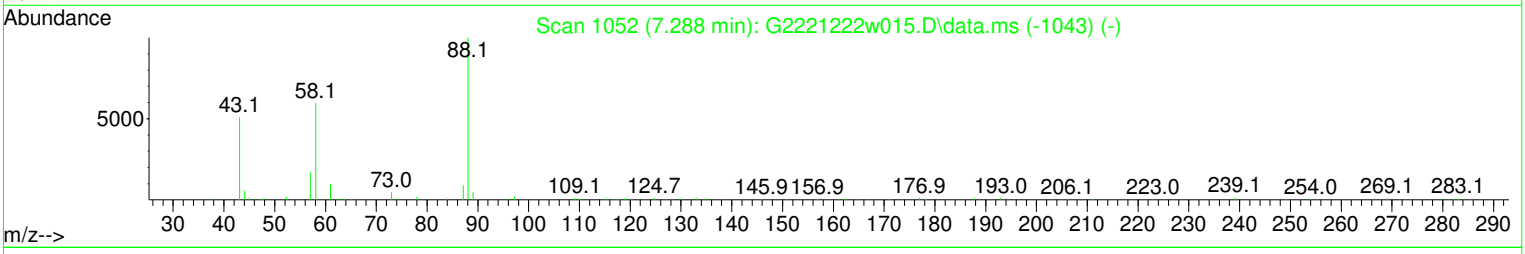
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	66.91
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613037.D
Acq On : 13 Jun 2023 23:42
Operator : PO1/MP3
Sample : SEQ-HCV1
Misc :
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Jun 14 08:05:29 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613037.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 150.63 ug/L m

response 406069

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	50.97
0.00	0.00	0.00
0.00	0.00	0.00

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613038.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/14/23
Lab Sample ID:	S3F0236-HCV2 (Closing Cal Check)	Injection Time:	00:07

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	14.1	0.3434339	0.3227474		-6.00	50
1,1,1-Trichloroethane	15.00	13.3	0.603823	0.5341322		-12.00	50
1,1,2,2-Tetrachloroethane	15.00	12.6	0.86935	0.7321382	0.3	-16.00	50
1,1,2-Trichloroethane	15.00	13.7	0.2642556	0.2421274		-8.00	50
1,1-Dichloroethane	15.00	13.2	0.5953788	0.4894506	0.1	-12.00	50
1,1-Dichloroethene	15.00	13.0	0.4569016	0.3709478		-13.00	50
1,1-Dichloropropene	15.00	12.9	0.4853227	0.3917118		-14.00	50
1,2,3-Trichlorobenzene	15.00	13.3	0.2883305	0.2560327		-11.00	50
1,2,3-Trichloropropane	15.00	13.6	0.331412	0.2742487		-9.00	50
1,2,4-Trichlorobenzene	15.00	13.4	0.3588914	0.3218114		-10.00	50
1,2,4-Trimethylbenzene	15.00	12.7	2.229227	1.888785		-15.00	50
1,2-Dibromo-3-chloropropane	15.00	14.3	0.1882045	0.1649828		-4.00	50
1,2-Dibromoethane	15.00	13.7	0.3394667	0.3100077		-9.00	50
1,2-Dichlorobenzene	15.00	14.6	1.201484	1.114164		-2.00	50
1,2-Dichloroethane	15.00	13.2	0.5029475	0.4082144		-12.00	50
1,2-Dichloropropane	15.00	13.3	0.2411055	0.201032		-11.00	50
1,3,5-Trimethylbenzene	15.00	12.7	2.228381	1.886858		-15.00	50
1,3-Dichlorobenzene	15.00	13.8	1.326244	1.223494		-8.00	50
1,3-Dichloropropane	15.00	13.7	0.4921719	0.4263266		-9.00	50
1,4-Dichlorobenzene	15.00	14.0	1.289371	1.20329		-7.00	50
2,2-Dichloropropane	15.00	11.1	0.5559494	0.4109128		-26.00	50
2-Butanone	52.50	48.2	5.658319E-02	4.586208E-02		-8.00	50
2-Chlorotoluene	15.00	12.7	1.923105	1.626118		-15.00	50
2-Hexanone	52.50	43.8	0.2137484	0.1660852		-17.00	50
4-Chlorotoluene	15.00	13.0	2.179486	1.89604		-13.00	50
4-Isopropyltoluene	15.00	13.0	2.254881	1.957114		-13.00	50
4-Methyl-2-pentanone	52.50	43.1	0.2919112	0.2231579		-18.00	50
Acetone	52.50	53.8	0.1293521	9.399629E-02		2.00	50
Benzene	15.00	13.5	1.002161	0.9006569		-10.00	50
Bromobenzene	15.00	12.3	1.083652	0.8861983		-18.00	50

7 - FORM VII

01342628

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613038.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/14/23
Lab Sample ID:	S3F0236-HCV2 (Closing Cal Check)	Injection Time:	00:07

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**	
Bromochloromethane	15.00	13.6	0.2969883	0.2694479		-9.00	50	
Bromodichloromethane	15.00	14.5	0.370729	0.3388211		-4.00	50	
Bromoform	15.00	13.8	0.3117301	0.2871691	0.1	-8.00	50	
Bromomethane	15.00	14.6	0.3100031	0.2465099		-3.00	50	
Carbon disulfide	15.00	12.7	0.9476676	0.743713		-15.00	50	
Carbon tetrachloride	15.00	15.3	0.3608923	0.3675601		2.00	50	
Chlorobenzene	15.00	13.9	0.8774024	0.8124218	0.3	-7.00	50	
Chloroethane	15.00	12.2	0.239357	0.1954325		-18.00	50	
Chloroform	15.00	13.3	0.656932	0.582944		-11.00	50	
Chloromethane	15.00	12.1	0.3583454	0.2662446	0.1	-19.00	50	
cis-1,2-Dichloroethene	15.00	12.4	0.5385255	0.4178951		-17.00	50	
cis-1,3-Dichloropropene	15.00	12.6	0.4428763	0.3721529		-16.00	50	
Dibromochloromethane	15.00	14.5	0.3917939	0.3597358		-3.00	50	
Dibromomethane	15.00	15.0	0.2381661	0.2388895		0.00	50	
Dichlorodifluoromethane	15.00	12.8	0.4075845	0.3470132		-15.00	50	
Ethylbenzene	15.00	14.0	1.407424	1.241301		-7.00	50	
Hexachlorobutadiene	15.00	15.0	0.1938745	0.1762608		0.00	50	
Isopropylbenzene	15.00	13.0	2.873385	2.493849		-13.00	50	
m,p-Xylene	30.00	26.6	1.070642	0.9483099		-11.00	50	
Methyl tert-butyl ether	15.00	12.2	2.078829	0.9733285		-19.00	50	
Methylene chloride	15.00	11.8	0.4752062	0.2913182		-22.00	50	
n-Butylbenzene	15.00	12.9	1.741335	1.397119		-14.00	50	
n-Propylbenzene	15.00	12.8	3.199933	2.720959		-15.00	50	
Naphthalene	15.00	12.6	1.038822	0.7877805		-16.00	50	
o-Xylene	15.00	12.5	2.460467	2.056363		-16.00	50	
sec-Butylbenzene	15.00	12.8	2.725412	2.325873		-15.00	50	
Styrene	15.00	13.4	0.9431739	0.841788		-11.00	50	
tert-Butylbenzene	15.00	11.8	2.390757	1.873207		-22.00	50	
Tetrachloroethene	15.00	23.6	0.4253866	0.6074886		57.00	50	*
Toluene	15.00	14.1	1.307847	1.155664		-6.00	50	

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613038.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/14/23
Lab Sample ID:	S3F0236-HCV2 (Closing Cal Check)	Injection Time:	00:07

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	12.0	0.4334531	0.3479005		-20.00	50
trans-1,3-Dichloropropene	15.00	12.4	0.423463	0.3508494		-17.00	50
Trichloroethene	15.00	15.0	0.2817735	0.2634384		0.00	50
Trichlorofluoromethane	15.00	13.5	0.6025154	0.5428542		-10.00	50
Vinyl chloride	15.00	11.8	0.3930682	0.309614		-21.00	50
Dibromofluoromethane	20.00	19.2	0.4401431	0.4231433		-4.00	50
1,2-Dichloroethane-d4	20.00	17.7	0.4349663	0.3843577		-12.00	50
Fluorobenzene	20.00	19.4	1.139643	1.10345		-3.00	50
Toluene-d8	20.00	19.5	1.260611	1.23111		-2.00	50
4-Bromofluorobenzene	10.00	9.92	0.9444054	0.9370642		-1.00	50
1,2-Dichlorobenzene-d4	20.00	19.9	0.8601294	0.8548971		-1.00	50

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613038.D
Acq On : 14 Jun 2023 00:07
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jun 14 08:05:51 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17834543	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23708276	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	21054580	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10067274	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	7546567	19.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%			
43) 1,2-Dichloroethane-d4	5.875	65	6854842	17.67	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.35%			
49) Fluorobenzene	6.276	96	26160902	19.36	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%			
64) Toluene-d8	8.015	98	25920506	19.53	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.65%			
81) 4-Bromofluorobenzene	10.684	174	4716839	9.92	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.20%			
97) d4-1,2-Dichlorobenzene	12.216	152	8606480	19.88	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.211	85	4641616	12.77	ug/L	98
3) Chloromethane	1.352	50	3561262	12.10	ug/L	100
4) Vinyl chloride	1.444	62	4141367	11.82	ug/L	99
5) Bromomethane	1.716	94	3297293	14.58	ug/L	99
6) Chloroethane	1.803	64	2614087	12.25	ug/L	97
7) Trichlorofluoromethane	2.028	101	7261166	13.51	ug/L	98
8) Ethyl ether	2.309	59	2827060	11.94	ug/L	86
9) Acrolein	2.432	56	1286581	26.80	ug/L	96
10) 1,1-Dichloroethene	2.521	61	4961762	12.99	ug/L	86
11) 1,1,2-Trichloro-1,2,2-...	2.531	101	3880671	13.29	ug/L	95
12) Acetone	2.595	43	4400499	53.78	ug/L	91
13) Iodomethane	2.673	142	5186827	12.49	ug/L	95
14) Carbon disulfide	2.736	76	9947835	12.70	ug/L	100
15) Isopropanol	2.782	45	742370	51.87	ug/L	93
16) acetonitrile	2.914	41	4643413	27.78	ug/L	86
17) 3-Chloro-1-propene	2.916	76	2169724	12.06	ug/L	97
18) Methylene chloride	3.058	49	3896645	11.76	ug/L	76
19) Acrylonitrile	3.381	53	1557574	11.49	ug/L	98
20) trans-1,2-Dichloroethene	3.398	61	4653484	12.04	ug/L	85
21) Methyl tert-butyl ether	3.428	73	13019146	12.17	ug/L	93
22) Hexane	3.790	57	3361517	11.06	ug/L	94
23) 1,1-Dichloroethane	3.994	63	6546845	13.18	ug/L	97
24) Vinyl acetate	4.120	43	5656738	9.33	ug/L	90
25) 2-Chloro-1,3-butadiene	4.131	53	4733451	11.71	ug/L	85
27) 2,2-Dichloropropane	4.822	77	5496331	11.09	ug/L	92
28) cis-1,2-Dichloroethene	4.833	61	5589725	12.44	ug/L	84
29) 2-Butanone	4.899	72	2147064	48.15	ug/L	90
30) Propionitrile	4.970	54	527961	12.31	ug/L	96

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613038.D
Acq On : 14 Jun 2023 00:07
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jun 14 08:05:51 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.006	61	634512	11.80	ug/L		77
32) Methylacrylate	5.034	55	3831414	11.34	ug/L		91
33) 1-Bromopropane	5.071	41	2245768	12.31	ug/L		67
34) Bromochloromethane	5.145	130	3604110	13.61	ug/L		98
35) Methacrylonitrile	5.166	67	1933805	11.82	ug/L		93
36) Tetrahydrofuran	5.238	42	1105011	11.76	ug/L		82
37) Chloroform	5.272	83	7797403	13.31	ug/L		99
39) 1,1,1-Trichloroethane	5.477	97	7144501	13.27	ug/L		96
40) Cyclohexane	5.532	84	6120395	12.78	ug/L		81
41) 1-Chlorobutane	5.627	56	6672269	11.99	ug/L		99
42) 1,1-Dichloropropene	5.686	75	5239500	12.91	ug/L		91
44) 1,2-Dichloroethane	5.968	62	5460237	13.22	ug/L		98
47) Carbon tetrachloride	5.678	117	6535663	15.28	ug/L		98
48) Benzene	5.932	78	16014767	13.48	ug/L		100
50) Trichloroethene	6.693	95	4684254	14.97	ug/L		91
52) 1,2-Dichloropropane	6.943	63	3574593	13.30	ug/L		88
53) Dibromomethane	7.068	174	4247744	15.05	ug/L	#	91
54) Methyl methacrylate	7.123	69	3337735	12.04	ug/L		89
55) 1,4-dioxane	7.130	88	389662m	139.46	ug/L		
56) Bromodichloromethane	7.256	83	6024649	14.46	ug/L		98
57) 2-Nitropropane	7.519	43	1446186	12.06	ug/L		95
58) 2-Chloroethyl vinyl ether	7.610	63	2487137	10.82	ug/L		98
59) cis-1,3-Dichloropropene	7.742	75	6617329	12.60	ug/L		95
60) 4-Methyl-2-pentanone	7.932	43	13888059	43.08	ug/L	#	87
61) trans-1,3-Dichloropropene	8.332	75	6238526	12.43	ug/L		88
62) 1,1,2-Trichloroethane	8.516	97	4305318	13.74	ug/L		94
65) Toluene	8.084	91	18249007	14.11	ug/L		98
66) Ethylmethacrylate	8.454	69	5783081	12.42	ug/L		86
67) Tetrachloroethene	8.646	166	9592813	23.57	ug/L		94
68) 1,3-Dichloropropane	8.683	76	6732096	13.66	ug/L		86
69) 2-Hexanone	8.798	43	9179241	43.75	ug/L		87
70) Dibromochloromethane	8.909	129	5680564	14.53	ug/L		98
71) 1,2-Dibromoethane	9.016	107	4895312	13.70	ug/L		98
72) Chlorobenzene	9.521	112	12828901	13.89	ug/L		92
73) 1,1,1,2-Tetrachloroethane	9.612	131	5096484	14.10	ug/L		97
74) Ethylbenzene	9.641	91	19601309	13.95	ug/L		96
75) m,p-Xylene	9.761	91	29949400	26.57	ug/L		94
76) Styrene	10.174	104	13292624	13.39	ug/L		92
77) Bromoform	10.352	173	4534669	13.82	ug/L		97
79) o-Xylene	10.159	91	15526469	12.54	ug/L		95
80) Isopropylbenzene	10.534	105	18829688	13.02	ug/L		96
82) Bromobenzene	10.825	77	6691198	12.27	ug/L	#	79
83) 1,1,2,2-Tetrachloroethane	10.839	83	5527975	12.63	ug/L		99
84) 1,2,3-Trichloropropane	10.878	110	2070702	13.65	ug/L		98
85) trans-1,4-Dichloro-2-b...	10.900	53	1222770	10.42	ug/L		69
86) n-Propylbenzene	10.947	91	20544474	12.75	ug/L		95
87) 2-Chlorotoluene	11.026	91	12277930	12.68	ug/L		94
88) 4-Chlorotoluene	11.135	91	14315956	13.05	ug/L		93
89) 1,3,5-Trimethylbenzene	11.127	105	14246630	12.70	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613038.D
Acq On : 14 Jun 2023 00:07
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jun 14 08:05:51 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

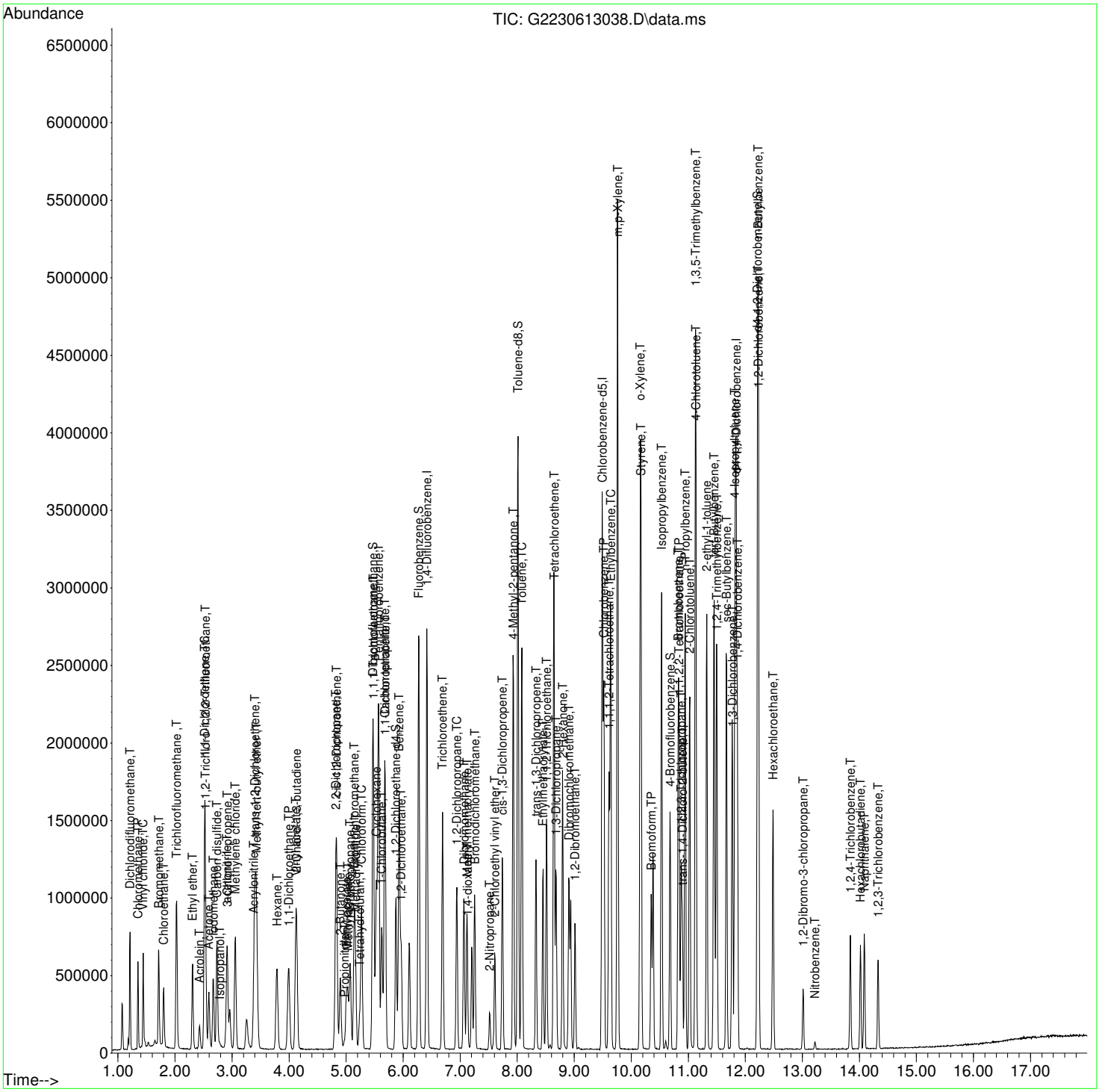
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.326	105	17387243	12.73	ug/L	97
91) tert-Butylbenzene	11.452	119	14143560	11.75	ug/L	93
92) 1,2,4-Trimethylbenzene	11.500	105	14261184	12.71	ug/L	93
93) sec-Butylbenzene	11.671	105	17561392	12.80	ug/L	96
94) 1,3-Dichlorobenzene	11.773	146	9237933	13.84	ug/L	97
95) 4-Isopropyltoluene	11.820	119	14777099	13.02	ug/L	98
96) 1,4-Dichlorobenzene	11.863	146	9085387	14.00	ug/L	97
98) 1,2-Dichlorobenzene	12.234	146	8412445	14.63	ug/L	97
99) n-Butylbenzene	12.229	91	10548884	12.89	ug/L	90
100) Hexachloroethane	12.489	201	2973113	14.25	ug/L	98
101) 1,2-Dibromo-3-chloropr...	13.016	157	1245695	14.33	ug/L	99
102) Nitrobenzene	13.222	77	203388	6.94	ug/L	86
103) 1,2,4-Trichlorobenzene	13.844	180	2429822	13.45	ug/L	97
104) Hexachlorobutadiene	14.021	225	1330849	14.96	ug/L	97
105) Naphthalene	14.089	128	5948099	12.64	ug/L	99
106) 1,2,3-Trichlorobenzene	14.331	180	1933163	13.32	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

01342633

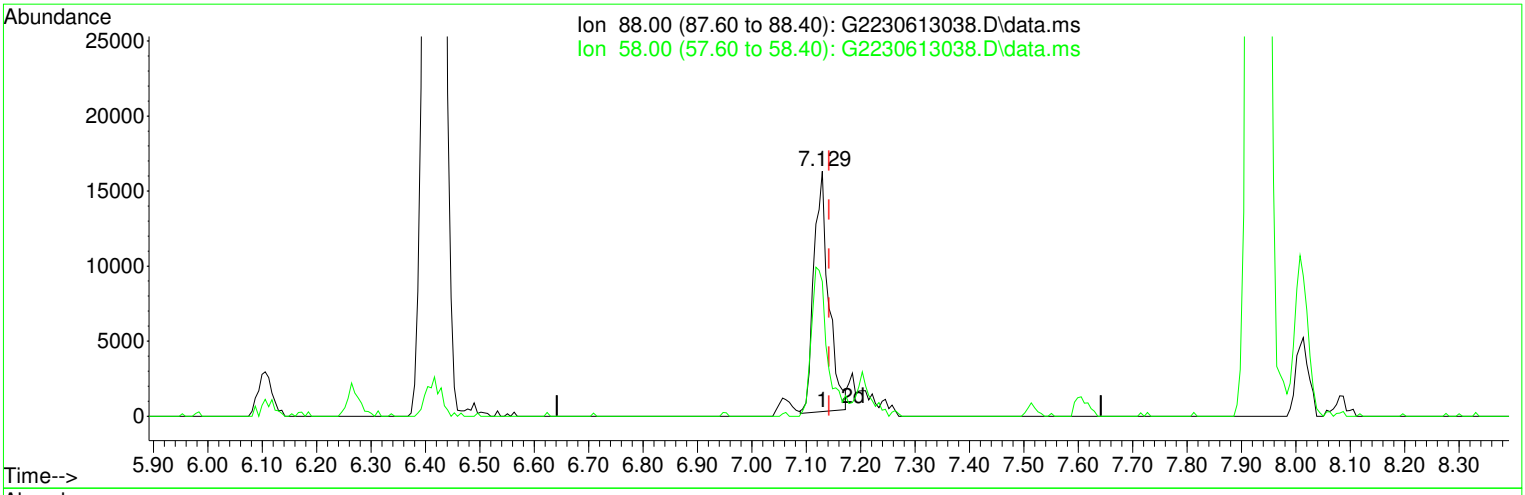
Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613038.D
Acq On : 14 Jun 2023 00:07
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 38 Sample Multiplier: 1

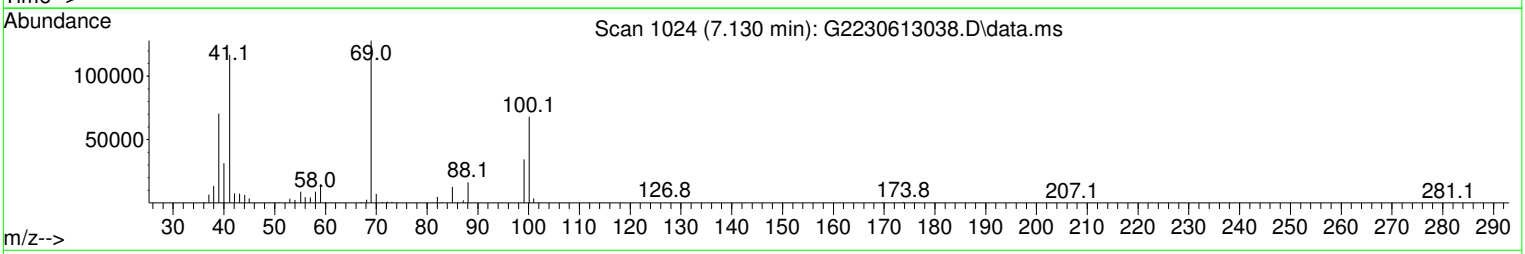
Quant Time: Jun 14 08:05:51 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

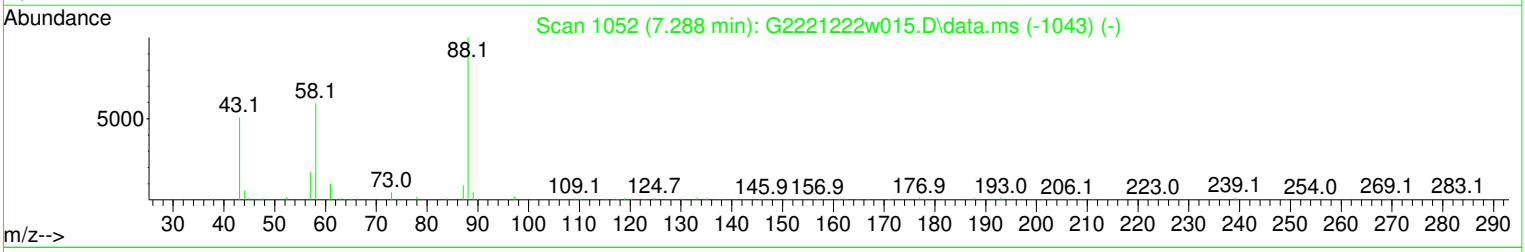


Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613038.D
Acq On : 14 Jun 2023 00:07
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jun 14 08:05:51 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613038.D\data.ms

(55) 1,4-dioxane (T)

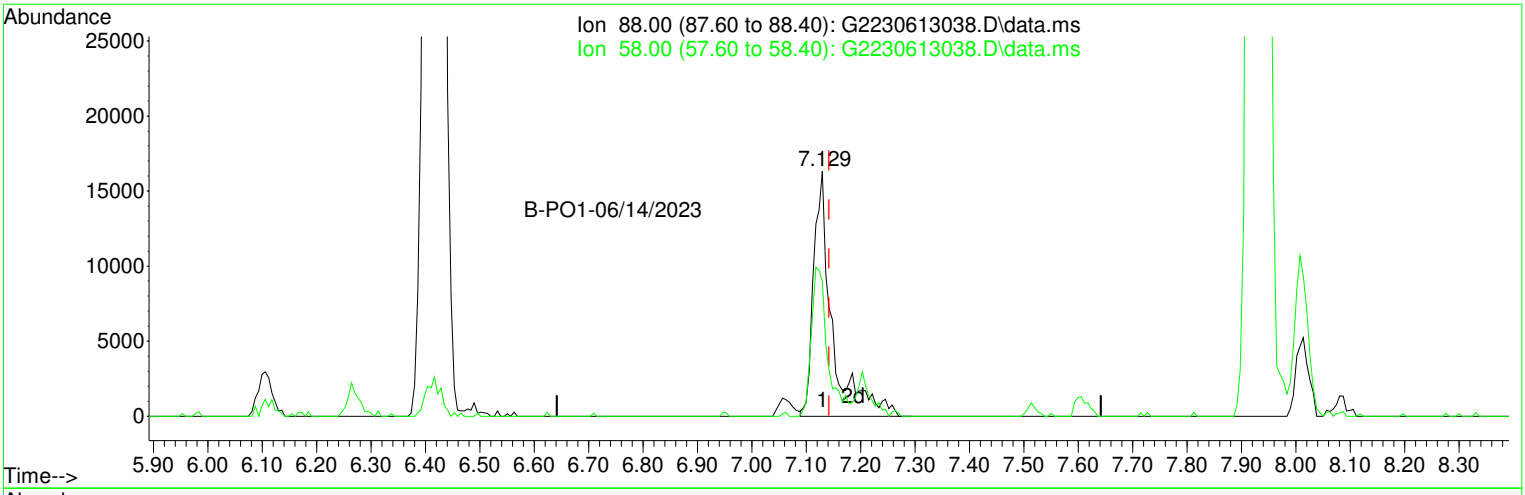
7.131min (-0.011) 106.67 ug/L

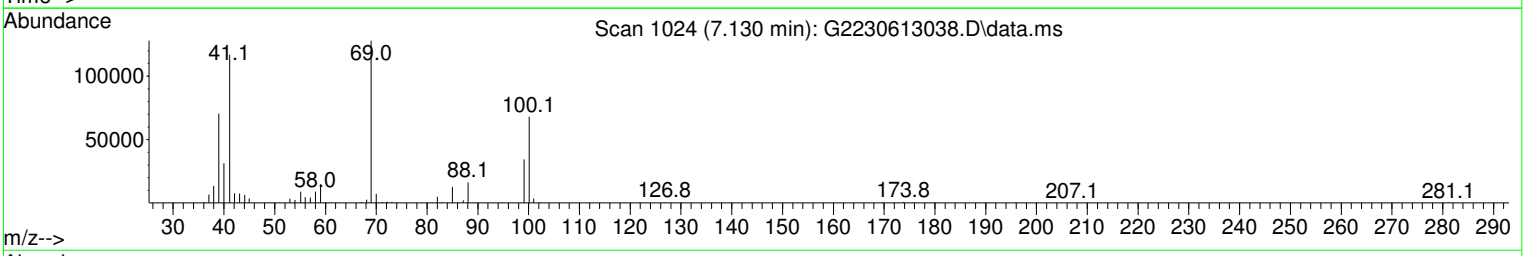
response 298042

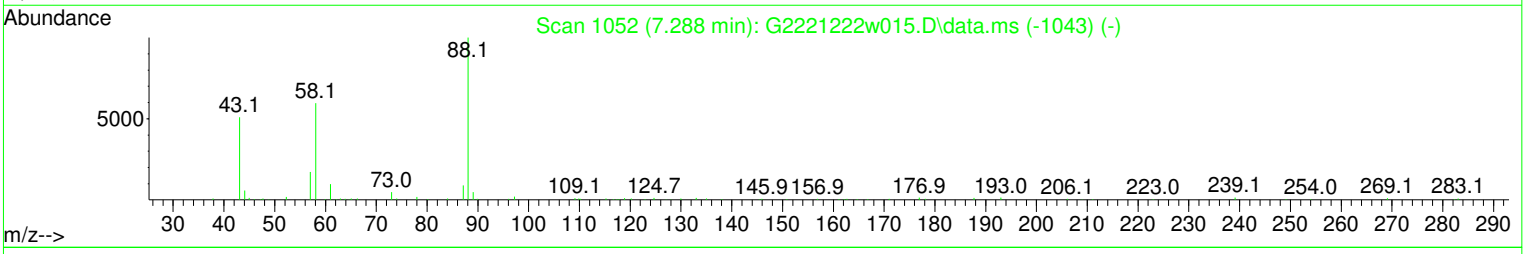
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	69.06
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613038.D
Acq On : 14 Jun 2023 00:07
Operator : PO1/MP3
Sample : SEQ-HCV2
Misc :
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Jun 14 08:05:51 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613038.D\data.ms

(55) 1,4-dioxane (T)

7.130min (-0.012) 139.46 ug/L m

response 389662

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	52.82
0.00	0.00	0.00
0.00	0.00	0.00

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613039.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/14/23
Lab Sample ID:	S3F0236-HCV3 (Closing Cal Check)	Injection Time:	00:31

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
1,1,1,2-Tetrachloroethane	15.00	14.8	0.3434339	0.3401009		-1.00	50
1,1,1-Trichloroethane	15.00	13.4	0.603823	0.5382553		-11.00	50
1,1,2,2-Tetrachloroethane	15.00	12.8	0.86935	0.7449654	0.3	-14.00	50
1,1,2-Trichloroethane	15.00	14.3	0.2642556	0.2519293		-5.00	50
1,1-Dichloroethane	15.00	13.1	0.5953788	0.4880547	0.1	-12.00	50
1,1-Dichloroethene	15.00	13.1	0.4569016	0.3745445		-12.00	50
1,1-Dichloropropene	15.00	13.4	0.4853227	0.4051315		-11.00	50
1,2,3-Trichlorobenzene	15.00	14.9	0.2883305	0.2871355		0.00	50
1,2,3-Trichloropropane	15.00	14.0	0.331412	0.2805192		-7.00	50
1,2,4-Trichlorobenzene	15.00	15.0	0.3588914	0.3589094		0.00	50
1,2,4-Trimethylbenzene	15.00	13.1	2.229227	1.945786		-13.00	50
1,2-Dibromo-3-chloropropane	15.00	15.8	0.1882045	0.1814225		5.00	50
1,2-Dibromoethane	15.00	14.3	0.3394667	0.323974		-5.00	50
1,2-Dichlorobenzene	15.00	15.2	1.201484	1.153839		1.00	50
1,2-Dichloroethane	15.00	13.7	0.5029475	0.4230306		-9.00	50
1,2-Dichloropropane	15.00	13.8	0.2411055	0.2076864		-8.00	50
1,3,5-Trimethylbenzene	15.00	12.9	2.228381	1.912869		-14.00	50
1,3-Dichlorobenzene	15.00	14.4	1.326244	1.2749		-4.00	50
1,3-Dichloropropane	15.00	14.2	0.4921719	0.443757		-5.00	50
1,4-Dichlorobenzene	15.00	14.4	1.289371	1.240641		-4.00	50
2,2-Dichloropropane	15.00	11.1	0.5559494	0.4118504		-26.00	50
2-Butanone	52.50	52.4	5.658319E-02	4.985543E-02		0.00	50
2-Chlorotoluene	15.00	12.9	1.923105	1.655379		-14.00	50
2-Hexanone	52.50	47.1	0.2137484	0.178871		-10.00	50
4-Chlorotoluene	15.00	13.2	2.179486	1.923029		-12.00	50
4-Isopropyltoluene	15.00	13.3	2.254881	1.999527		-11.00	50
4-Methyl-2-pentanone	52.50	45.0	0.2919112	0.2327943		-14.00	50
Acetone	52.50	56.6	0.1293521	9.878043E-02		8.00	50
Benzene	15.00	13.8	1.002161	0.9197198		-8.00	50
Bromobenzene	15.00	12.6	1.083652	0.9088787		-16.00	50

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613039.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/14/23
Lab Sample ID:	S3F0236-HCV3 (Closing Cal Check)	Injection Time:	00:31

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**	
Bromochloromethane	15.00	14.0	0.2969883	0.2764558		-7.00	50	
Bromodichloromethane	15.00	15.0	0.370729	0.3505248		0.00	50	
Bromoform	15.00	14.7	0.3117301	0.3055559	0.1	-2.00	50	
Bromomethane	15.00	14.6	0.3100031	0.2474179		-2.00	50	
Carbon disulfide	15.00	12.4	0.9476676	0.7251122		-18.00	50	
Carbon tetrachloride	15.00	15.4	0.3608923	0.3707593		3.00	50	
Chlorobenzene	15.00	14.4	0.8774024	0.8430613	0.3	-4.00	50	
Chloroethane	15.00	12.4	0.239357	0.1982094		-17.00	50	
Chloroform	15.00	13.7	0.656932	0.5993198		-9.00	50	
Chloromethane	15.00	12.2	0.3583454	0.2692897	0.1	-18.00	50	
cis-1,2-Dichloroethene	15.00	12.6	0.5385255	0.4213505		-16.00	50	
cis-1,3-Dichloropropene	15.00	13.1	0.4428763	0.3863746		-13.00	50	
Dibromochloromethane	15.00	15.4	0.3917939	0.3803382		2.00	50	
Dibromomethane	15.00	15.6	0.2381661	0.247164		4.00	50	
Dichlorodifluoromethane	15.00	12.8	0.4075845	0.3487138		-14.00	50	
Ethylbenzene	15.00	14.2	1.407424	1.267992		-5.00	50	
Hexachlorobutadiene	15.00	16.5	0.1938745	0.1945593		10.00	50	
Isopropylbenzene	15.00	13.0	2.873385	2.487338		-13.00	50	
m,p-Xylene	30.00	27.4	1.070642	0.976779		-9.00	50	
Methyl tert-butyl ether	15.00	12.7	2.078829	1.015118		-15.00	50	
Methylene chloride	15.00	12.0	0.4752062	0.2970695		-20.00	50	
n-Butylbenzene	15.00	13.3	1.741335	1.44452		-11.00	50	
n-Propylbenzene	15.00	12.9	3.199933	2.749092		-14.00	50	
Naphthalene	15.00	14.3	1.038822	0.8876981		-5.00	50	
o-Xylene	15.00	12.6	2.460467	2.074031		-16.00	50	
sec-Butylbenzene	15.00	13.1	2.725412	2.381032		-13.00	50	
Styrene	15.00	14.0	0.9431739	0.8772679		-7.00	50	
tert-Butylbenzene	15.00	11.4	2.390757	1.825281		-24.00	50	
Tetrachloroethene	15.00	26.6	0.4253866	0.685798		78.00	50	*
Toluene	15.00	14.5	1.307847	1.188201		-3.00	50	

7 - FORM VII

CONTINUING CALIBRATION CHECK

SW8260B/D

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23F0136
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	G2	Calibration:	EE30097
Lab File ID:	G2230613039.D	Calibration Date:	05/24/23 13:00
Sequence:	S3F0236	Injection Date:	06/14/23
Lab Sample ID:	S3F0236-HCV3 (Closing Cal Check)	Injection Time:	00:31

	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	**STD**	**CCV**	**ICAL**	**CCV**	**MIN (#)**	**CCV**	**LIMIT (#)**
trans-1,2-Dichloroethene	15.00	12.1	0.4334531	0.3495755		-19.00	50
trans-1,3-Dichloropropene	15.00	12.8	0.423463	0.3602271		-15.00	50
Trichloroethene	15.00	15.4	0.2817735	0.2714166		3.00	50
Trichlorofluoromethane	15.00	13.6	0.6025154	0.5474794		-9.00	50
Vinyl chloride	15.00	11.9	0.3930682	0.310946		-21.00	50
Dibromofluoromethane	20.00	19.2	0.4401431	0.4216692		-4.00	50
1,2-Dichloroethane-d4	20.00	17.6	0.4349663	0.3833056		-12.00	50
Fluorobenzene	20.00	19.6	1.139643	1.114115		-2.00	50
Toluene-d8	20.00	19.7	1.260611	1.239619		-2.00	50
4-Bromofluorobenzene	10.00	9.80	0.9444054	0.9258028		-2.00	50
1,2-Dichlorobenzene-d4	20.00	20.1	0.8601294	0.862971		0.00	50

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613039.D
Acq On : 14 Jun 2023 00:31
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jun 14 08:06:12 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17426537	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	23221453	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	20456477	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.839	152	10021669	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	7348236	19.16	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.80%			
43) 1,2-Dichloroethane-d4	5.876	65	6679691	17.62	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.10%			
49) Fluorobenzene	6.276	96	25871372	19.55	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.75%			
64) Toluene-d8	8.014	98	25358250	19.67	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.35%			
81) 4-Bromofluorobenzene	10.683	174	4639045	9.80	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.00%			
97) d4-1,2-Dichlorobenzene	12.215	152	8648411	20.07	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.35%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.212	85	4557656	12.83	ug/L	99
3) Chloromethane	1.352	50	3519591	12.24	ug/L	100
4) Vinyl chloride	1.444	62	4064035	11.87	ug/L	98
5) Bromomethane	1.715	94	3233729	14.64	ug/L	99
6) Chloroethane	1.803	64	2590578	12.42	ug/L	98
7) Trichlorofluoromethane	2.028	101	7155504	13.63	ug/L	98
8) Ethyl ether	2.310	59	2863168	12.38	ug/L	85
9) Acrolein	2.433	56	1326501	28.30	ug/L	92
10) 1,1-Dichloroethene	2.520	61	4895261	13.12	ug/L	85
11) 1,1,2-Trichloro-1,2,2-...	2.531	101	3840100	13.46	ug/L	94
12) Acetone	2.596	43	4518678	56.61	ug/L	91
13) Iodomethane	2.672	142	5114046	12.60	ug/L	95
14) Carbon disulfide	2.736	76	9477147	12.38	ug/L	100
15) Isopropanol	2.779	45	960700	68.69	ug/L	99
16) acetonitrile	2.914	41	4580418	28.05	ug/L	87
17) 3-Chloro-1-propene	2.917	76	2172984	12.36	ug/L	97
18) Methylene chloride	3.058	49	3882670	12.02	ug/L	75
19) Acrylonitrile	3.380	53	1590773	12.00	ug/L	98
20) trans-1,2-Dichloroethene	3.398	61	4568918	12.10	ug/L	84
21) Methyl tert-butyl ether	3.430	73	13267502	12.73	ug/L	92
22) Hexane	3.786	57	3353272	11.29	ug/L	95
23) 1,1-Dichloroethane	3.993	63	6378828	13.14	ug/L	95
24) Vinyl acetate	4.121	43	5134737	8.67	ug/L	90
25) 2-Chloro-1,3-butadiene	4.130	53	4561988	11.55	ug/L	82
27) 2,2-Dichloropropane	4.823	77	5382845	11.11	ug/L	92
28) cis-1,2-Dichloroethene	4.833	61	5507011	12.55	ug/L	83
29) 2-Butanone	4.901	72	2280620	52.39	ug/L	91
30) Propionitrile	4.976	54	546008	13.05	ug/L	94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613039.D
Acq On : 14 Jun 2023 00:31
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jun 14 08:06:12 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
31) Ethyl acetate	5.006	61	661466	12.61	ug/L		77
32) Methylacrylate	5.033	55	3942206	11.95	ug/L		92
33) 1-Bromopropane	5.072	41	2243700	12.59	ug/L		66
34) Bromochloromethane	5.144	130	3613251	13.96	ug/L		99
35) Methacrylonitrile	5.165	67	2006543	12.56	ug/L		92
36) Tetrahydrofuran	5.236	42	1103881	12.04	ug/L		79
37) Chloroform	5.273	83	7833053	13.68	ug/L		100
39) 1,1,1-Trichloroethane	5.475	97	7034945	13.37	ug/L		96
40) Cyclohexane	5.531	84	5992882	12.80	ug/L		81
41) 1-Chlorobutane	5.626	56	6557897	12.06	ug/L		98
42) 1,1-Dichloropropene	5.686	75	5295030	13.35	ug/L		89
44) 1,2-Dichloroethane	5.967	62	5528970	13.70	ug/L		98
47) Carbon tetrachloride	5.677	117	6457176	15.41	ug/L		100
48) Benzene	5.932	78	16017924	13.77	ug/L		100
50) Trichloroethene	6.693	95	4727015	15.42	ug/L		91
52) 1,2-Dichloropropane	6.942	63	3617085	13.75	ug/L		90
53) Dibromomethane	7.068	174	4304629	15.57	ug/L	#	90
54) Methyl methacrylate	7.122	69	3381643	12.45	ug/L		91
55) 1,4-dioxane	7.124	88	397114m	145.11	ug/L		
56) Bromodichloromethane	7.256	83	6104771	14.96	ug/L		99
57) 2-Nitropropane	7.519	43	1497774	12.76	ug/L		93
58) 2-Chloroethyl vinyl ether	7.610	63	2586067	11.48	ug/L		98
59) cis-1,3-Dichloropropene	7.742	75	6729134	13.09	ug/L		95
60) 4-Methyl-2-pentanone	7.933	43	14190280	44.95	ug/L	#	87
61) trans-1,3-Dichloropropene	8.331	75	6273747	12.76	ug/L		89
62) 1,1,2-Trichloroethane	8.515	97	4387622	14.30	ug/L		94
65) Toluene	8.083	91	18229800	14.51	ug/L		97
66) Ethylmethacrylate	8.453	69	5826287	12.88	ug/L		88
67) Tetrachloroethene	8.645	166	10521755	26.62	ug/L		95
68) 1,3-Dichloropropane	8.683	76	6808280	14.22	ug/L		87
69) 2-Hexanone	8.798	43	9605064	47.14	ug/L		87
70) Dibromochloromethane	8.909	129	5835286	15.37	ug/L		98
71) 1,2-Dibromoethane	9.015	107	4970526	14.32	ug/L		99
72) Chlorobenzene	9.521	112	12934551	14.41	ug/L		92
73) 1,1,1,2-Tetrachloroethane	9.611	131	5217951	14.85	ug/L		97
74) Ethylbenzene	9.641	91	19453993	14.25	ug/L		94
75) m,p-Xylene	9.761	91	29972190	27.37	ug/L		94
76) Styrene	10.173	104	13459364	13.95	ug/L		92
77) Bromoform	10.351	173	4687948	14.70	ug/L		96
79) o-Xylene	10.158	91	15588937	12.64	ug/L		95
80) Isopropylbenzene	10.533	105	18695464	12.98	ug/L		96
82) Bromobenzene	10.824	77	6831362	12.58	ug/L		80
83) 1,1,2,2-Tetrachloroethane	10.839	83	5599348	12.85	ug/L		99
84) 1,2,3-Trichloropropane	10.877	110	2108453	13.96	ug/L		96
85) trans-1,4-Dichloro-2-b...	10.897	53	1263854	10.82	ug/L		69
86) n-Propylbenzene	10.946	91	20662866	12.89	ug/L		95
87) 2-Chlorotoluene	11.025	91	12442252	12.91	ug/L		93
88) 4-Chlorotoluene	11.134	91	14453969	13.23	ug/L		93
89) 1,3,5-Trimethylbenzene	11.126	105	14377605	12.88	ug/L		94

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613039.D
Acq On : 14 Jun 2023 00:31
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 39 Sample Multiplier: 1

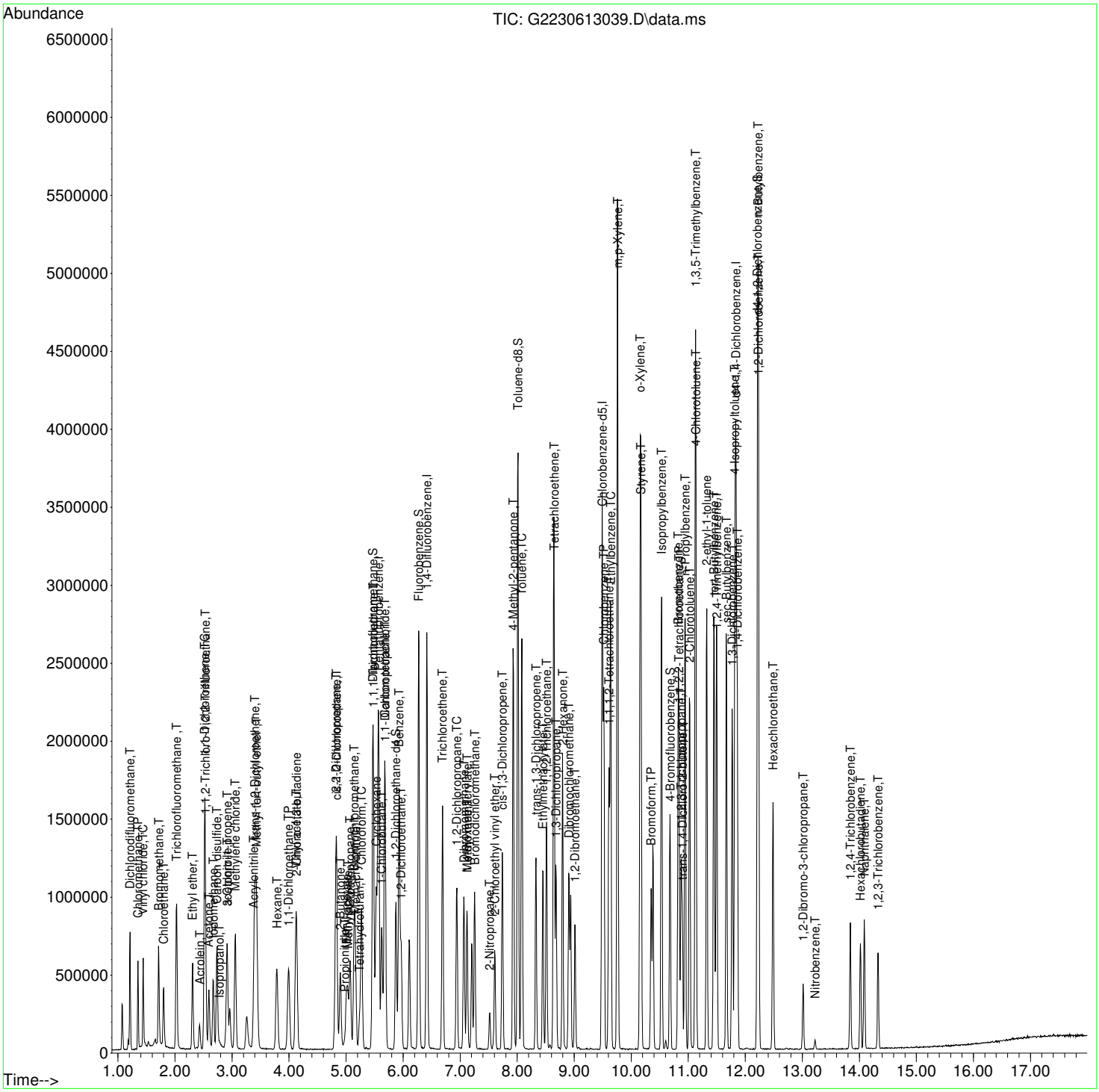
Quant Time: Jun 14 08:06:12 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) 2-ethyl-1-toluene	11.326	105	17564099	12.91	ug/L	97
91) tert-Butylbenzene	11.451	119	13719269	11.45	ug/L	95
92) 1,2,4-Trimethylbenzene	11.499	105	14625022	13.09	ug/L	93
93) sec-Butylbenzene	11.670	105	17896436	13.10	ug/L	97
94) 1,3-Dichlorobenzene	11.772	146	9582470	14.42	ug/L	97
95) 4-Isopropyltoluene	11.820	119	15028953	13.30	ug/L	97
96) 1,4-Dichlorobenzene	11.863	146	9324972	14.43	ug/L	97
98) 1,2-Dichlorobenzene	12.234	146	8672542	15.16	ug/L	98
99) n-Butylbenzene	12.229	91	10857379	13.33	ug/L	91
100) Hexachloroethane	12.489	201	3015753	14.52	ug/L	99
101) 1,2-Dibromo-3-chloropr...	13.016	157	1363617	15.76	ug/L	98
102) Nitrobenzene	13.224	77	267451	9.36	ug/L	92
103) 1,2,4-Trichlorobenzene	13.844	180	2697654	15.00	ug/L	97
104) Hexachlorobutadiene	14.021	225	1462357	16.52	ug/L	98
105) Naphthalene	14.089	128	6672163	14.27	ug/L	98
106) 1,2,3-Trichlorobenzene	14.330	180	2158183	14.94	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613039.D
Acq On : 14 Jun 2023 00:31
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 39 Sample Multiplier: 1

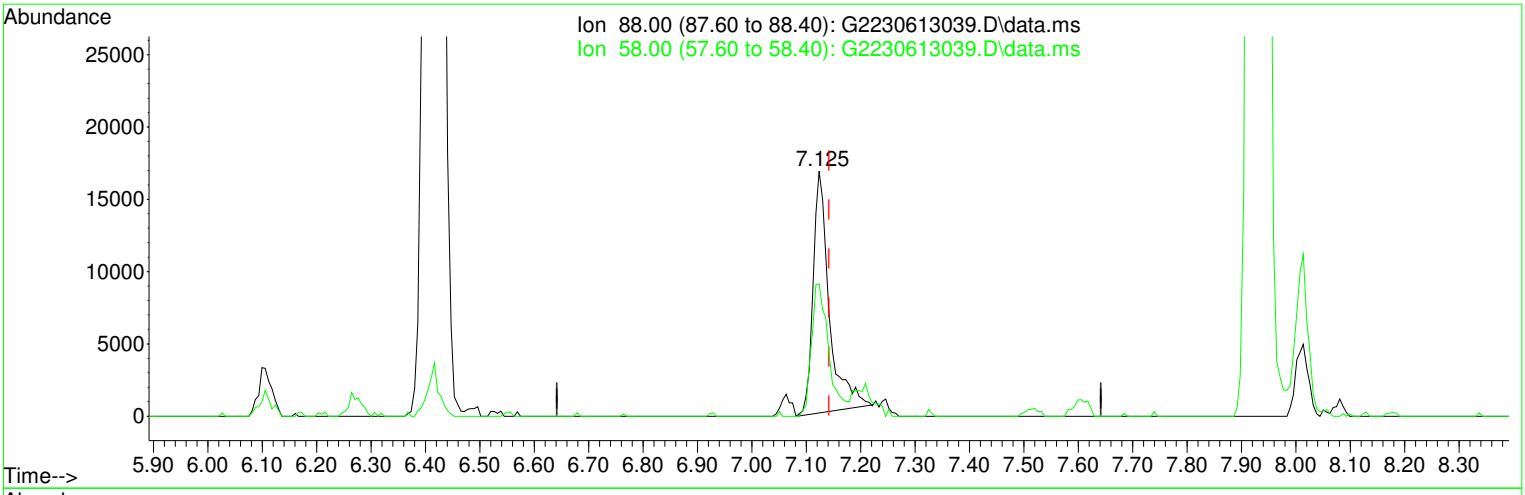
Quant Time: Jun 14 08:06:12 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G

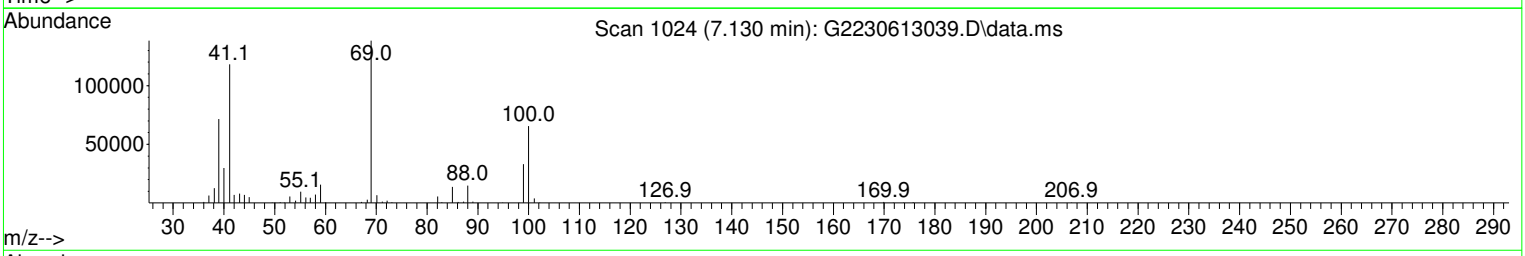


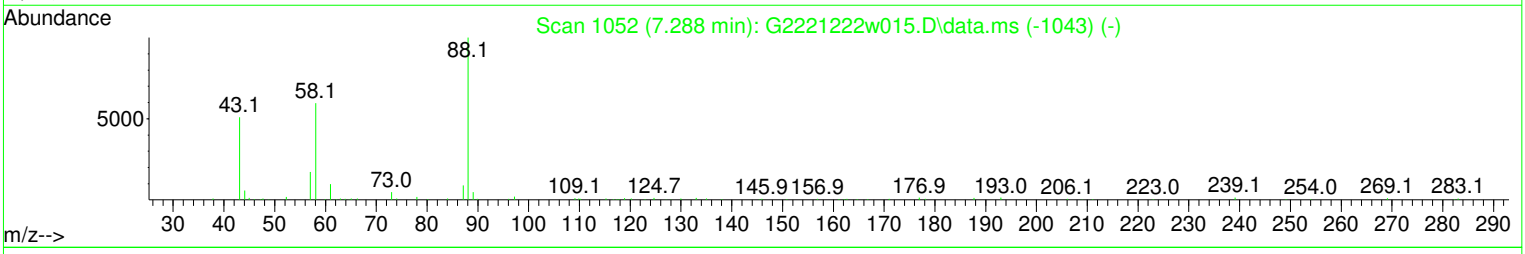
01342643

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613039.D
Acq On : 14 Jun 2023 00:31
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jun 14 08:06:12 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613039.D\data.ms

(55) 1,4-dioxane (T)

7.127min (-0.015) 125.93 ug/L

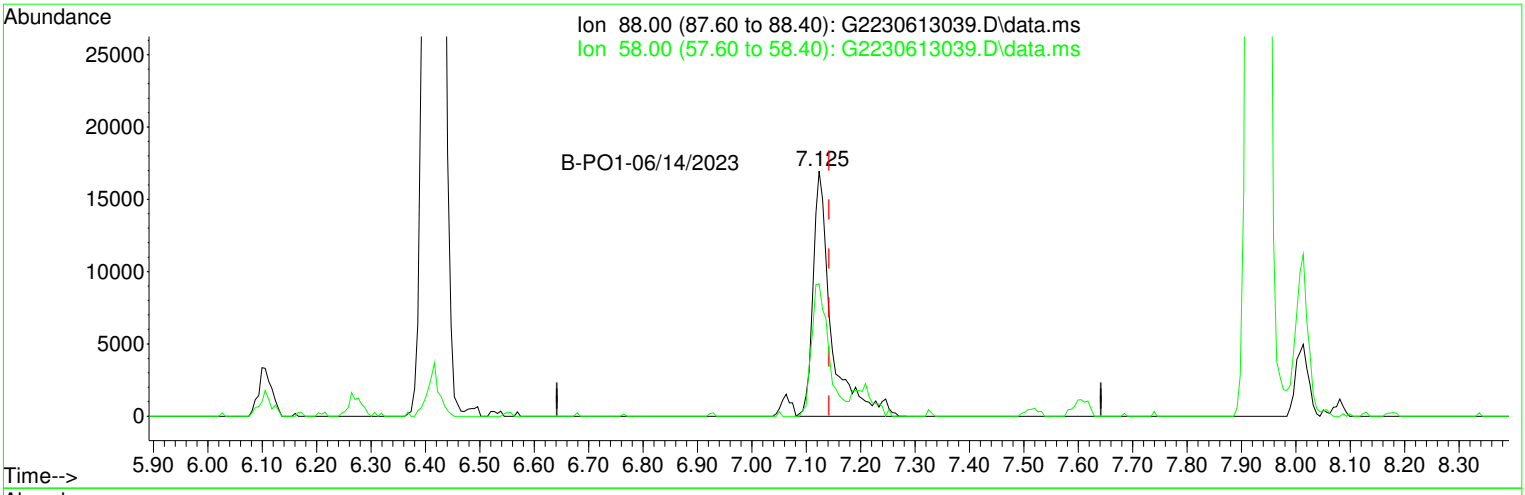
response 344633

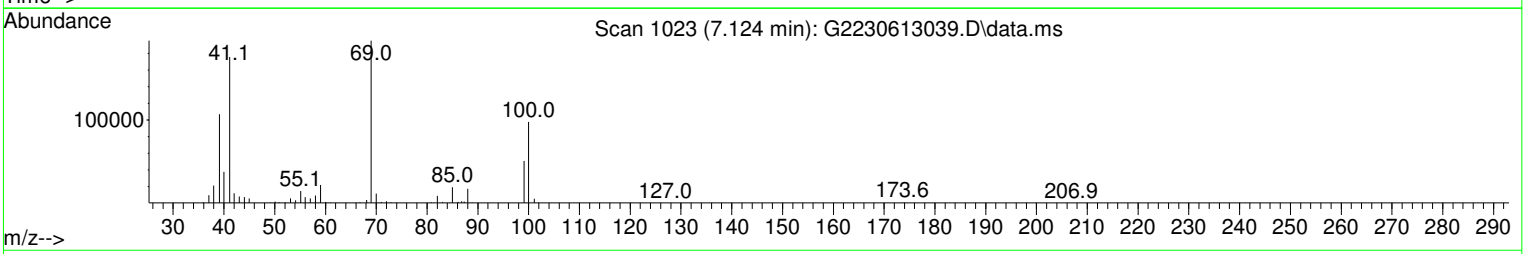
Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	58.48
0.00	0.00	0.00
0.00	0.00	0.00

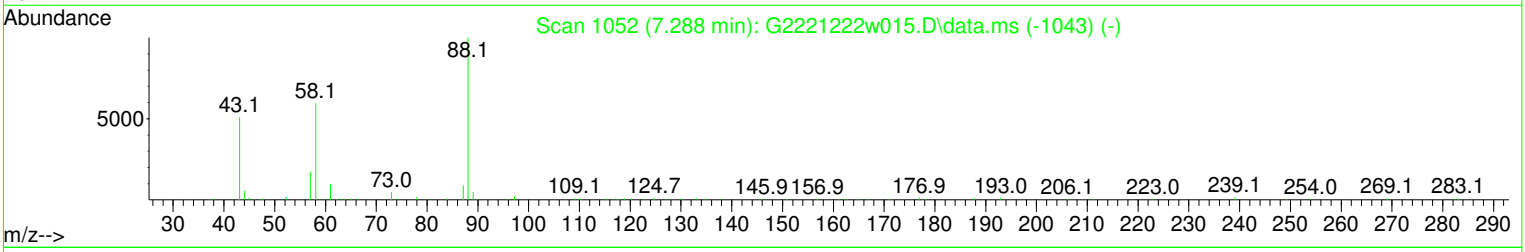
01342644

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230613\
Data File : G2230613039.D
Acq On : 14 Jun 2023 00:31
Operator : PO1/MP3
Sample : SEQ-HCV3
Misc :
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Jun 14 08:06:12 2023
Quant Method : D:\MassHunter\GCMS\1\methods\Quantitation\2023\G2W5230524.M
Quant Title : 8260B Calibration
QLast Update : Thu May 25 16:51:34 2023
Response via : Initial Calibration
InstName : G







TIC: G2230613039.D\data.ms

(55) 1,4-dioxane (T)

7.124min (-0.018) 145.11 ug/L m

response 397114

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	56.10	50.75
0.00	0.00	0.00
0.00	0.00	0.00

INTERNAL STANDARD AREA AND RT SUMMARY

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Sequence: S3E0429 Instrument: G2
Calibration: EE30097

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (S3E0429-ICV1)			*Lab File ID: G2230525008.D*			*Analyzed: 05/25/23 15:01*			
Pentafluorobenzene	24892870	5.574	2.401662E+07	5.574	104	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene	34255760	6.423	3.43678E+07	6.422	100	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	29947460	9.496	3.011335E+07	9.495	99	50 - 200	0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	13430210	11.842	1.411444E+07	11.843	95	50 - 200	-0.0010	+/-0.50	

* Values outside of QC limits

INTERNAL STANDARD AREA AND RT SUMMARY

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Sequence: S3F0209 Instrument: G2
Calibration: EE30097

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S3F0209-CCV1)			*Lab File ID: G2230612004.D*			*Analyzed: 06/12/23 09:53*			
Pentafluorobenzene	18995720	5.574	2.401662E+07	5.574	79	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene	25542500	6.422	3.43678E+07	6.422	74	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	22515440	9.495	3.011335E+07	9.495	75	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	10720930	11.84	1.411444E+07	11.843	76	50 - 200	-0.0030	+/-0.50	
LCS (B3F0366-BS1)			*Lab File ID: G2230612005.D*			*Analyzed: 06/12/23 10:18*			
Pentafluorobenzene	18400840	5.571	18995720	5.574	97	50 - 200	-0.0030	+/-0.50	
1,4-Difluorobenzene	25000980	6.42	25542500	6.422	98	50 - 200	-0.0020	+/-0.50	
Chlorobenzene-d5	22079540	9.494	22515440	9.495	98	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10423000	11.84	10720930	11.84	97	50 - 200	0.0000	+/-0.50	
Blank (B3F0366-BLK1)			*Lab File ID: G2230612008.D*			*Analyzed: 06/12/23 11:32*			
Pentafluorobenzene	18274560	5.574	18995720	5.574	96	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene	24921710	6.422	25542500	6.422	98	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	22374340	9.495	22515440	9.495	99	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	10604180	11.84	10720930	11.84	99	50 - 200	0.0000	+/-0.50	
Matrix Spike (B3F0366-MS1)			*Lab File ID: G2230612009.D*			*Analyzed: 06/12/23 11:56*			
Pentafluorobenzene	17826920	5.572	18995720	5.574	94	50 - 200	-0.0020	+/-0.50	
1,4-Difluorobenzene	24379540	6.42	25542500	6.422	95	50 - 200	-0.0020	+/-0.50	
Chlorobenzene-d5	21597660	9.494	22515440	9.495	96	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10138120	11.84	10720930	11.84	95	50 - 200	0.0000	+/-0.50	
Matrix Spike Dup (B3F0366-MSD1)			*Lab File ID: G2230612010.D*			*Analyzed: 06/12/23 12:21*			
Pentafluorobenzene	18364940	5.57	18995720	5.574	97	50 - 200	-0.0040	+/-0.50	
1,4-Difluorobenzene	25212750	6.419	25542500	6.422	99	50 - 200	-0.0030	+/-0.50	
Chlorobenzene-d5	22407360	9.493	22515440	9.495	100	50 - 200	-0.0020	+/-0.50	
1,4-Dichlorobenzene-d4	10317440	11.841	10720930	11.84	96	50 - 200	0.0010	+/-0.50	
53047WW08R (23F0136-03)			*Lab File ID: G2230612021.D*			*Analyzed: 06/12/23 16:55*			
Pentafluorobenzene	16502950	5.57	18995720	5.574	87	50 - 200	-0.0040	+/-0.50	
1,4-Difluorobenzene	22943950	6.419	25542500	6.422	90	50 - 200	-0.0030	+/-0.50	
Chlorobenzene-d5	20345900	9.493	22515440	9.495	90	50 - 200	-0.0020	+/-0.50	
1,4-Dichlorobenzene-d4	9813308	11.84	10720930	11.84	92	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Sequence: S3F0209 Instrument: G2
Calibration: EE30097

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
High Cal Check (S3F0209-HCV1)			*Lab File ID: G2230612026.D*			*Analyzed: 06/12/23 18:58*			
Pentafluorobenzene	17615690	5.573	2.401662E+07	5.574	73	50 - 200	-0.0010	+/-0.50	
1,4-Difluorobenzene	24476690	6.42	3.43678E+07	6.422	71	50 - 200	-0.0020	+/-0.50	
Chlorobenzene-d5	21975270	9.494	3.011335E+07	9.495	73	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10895360	11.84	1.411444E+07	11.843	77	50 - 200	-0.0030	+/-0.50	
High Cal Check (S3F0209-HCV2)			*Lab File ID: G2230612027.D*			*Analyzed: 06/12/23 19:22*			
Pentafluorobenzene	17523990	5.569	2.401662E+07	5.574	73	50 - 200	-0.0050	+/-0.50	
1,4-Difluorobenzene	24198250	6.418	3.43678E+07	6.422	70	50 - 200	-0.0040	+/-0.50	
Chlorobenzene-d5	21654370	9.494	3.011335E+07	9.495	72	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10492050	11.84	1.411444E+07	11.843	74	50 - 200	-0.0030	+/-0.50	
High Cal Check (S3F0209-HCV3)			*Lab File ID: G2230612028.D*			*Analyzed: 06/12/23 19:47*			
Pentafluorobenzene	18175040	5.573	2.401662E+07	5.574	76	50 - 200	-0.0010	+/-0.50	
1,4-Difluorobenzene	24709980	6.421	3.43678E+07	6.422	72	50 - 200	-0.0010	+/-0.50	
Chlorobenzene-d5	22129460	9.495	3.011335E+07	9.495	73	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	10508100	11.841	1.411444E+07	11.843	74	50 - 200	-0.0020	+/-0.50	

* Values outside of QC limits

INTERNAL STANDARD AREA AND RT SUMMARY

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Sequence: S3F0222 Instrument: G2
Calibration: EE30097

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S3F0222-CCV1)			*Lab File ID: G2230613004.D*			*Analyzed: 06/13/23 09:55*			
Pentafluorobenzene	17548800	5.57	2.401662E+07	5.574	73	50 - 200	-0.0040	+/-0.50	
1,4-Difluorobenzene	24078520	6.419	3.43678E+07	6.422	70	50 - 200	-0.0030	+/-0.50	
Chlorobenzene-d5	21469130	9.494	3.011335E+07	9.495	71	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10070850	11.84	1.411444E+07	11.843	71	50 - 200	-0.0030	+/-0.50	
53147WW29 (23F0136-01)			*Lab File ID: G2230613007.D*			*Analyzed: 06/13/23 11:10*			
Pentafluorobenzene	17344110	5.572	17548800	5.57	99	50 - 200	0.0020	+/-0.50	
1,4-Difluorobenzene	23764220	6.42	24078520	6.419	99	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	21155830	9.494	21469130	9.494	99	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	9954211	11.84	10070850	11.84	99	50 - 200	0.0000	+/-0.50	
53147WW13 (23F0136-02)			*Lab File ID: G2230613008.D*			*Analyzed: 06/13/23 11:35*			
Pentafluorobenzene	17717260	5.571	17548800	5.57	101	50 - 200	0.0010	+/-0.50	
1,4-Difluorobenzene	24618890	6.419	24078520	6.419	102	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	21940920	9.493	21469130	9.494	102	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10771270	11.84	10070850	11.84	107	50 - 200	0.0000	+/-0.50	
531DUP4 (23F0136-04)			*Lab File ID: G2230613009.D*			*Analyzed: 06/13/23 12:00*			
Pentafluorobenzene	16912940	5.572	17548800	5.57	96	50 - 200	0.0020	+/-0.50	
1,4-Difluorobenzene	23209260	6.42	24078520	6.419	96	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	20660400	9.493	21469130	9.494	96	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10125160	11.84	10070850	11.84	101	50 - 200	0.0000	+/-0.50	
53147WW38 (23F0136-10)			*Lab File ID: G2230613010.D*			*Analyzed: 06/13/23 12:25*			
Pentafluorobenzene	16819850	5.57	17548800	5.57	96	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene	23150490	6.419	24078520	6.419	96	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	20379860	9.493	21469130	9.494	95	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	9721938	11.839	10070850	11.84	97	50 - 200	-0.0010	+/-0.50	
High Cal Check (S3F0222-HCV1)			*Lab File ID: G2230613011.D*			*Analyzed: 06/13/23 12:50*			
Pentafluorobenzene	18327320	5.571	2.401662E+07	5.574	76	50 - 200	-0.0030	+/-0.50	
1,4-Difluorobenzene	24571910	6.42	3.43678E+07	6.422	71	50 - 200	-0.0020	+/-0.50	
Chlorobenzene-d5	22282450	9.494	3.011335E+07	9.495	74	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10756220	11.84	1.411444E+07	11.843	76	50 - 200	-0.0030	+/-0.50	

* Values outside of QC limits

INTERNAL STANDARD AREA AND RT SUMMARY

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Sequence: S3F0236 Instrument: G2
Calibration: EE30097

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S3F0236-CCV1)			*Lab File ID: G2230613015.D*			*Analyzed: 06/13/23 14:29*			
Pentafluorobenzene	17529220	5.571	2.401662E+07	5.574	73	50 - 200	-0.0030	+/-0.50	
1,4-Difluorobenzene	23693110	6.419	3.43678E+07	6.422	69	50 - 200	-0.0030	+/-0.50	
Chlorobenzene-d5	21107000	9.494	3.011335E+07	9.495	70	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10567460	11.84	1.411444E+07	11.843	75	50 - 200	-0.0030	+/-0.50	
LCS (B3F0409-BS1)			*Lab File ID: G2230613016.D*			*Analyzed: 06/13/23 14:53*			
Pentafluorobenzene	17306450	5.572	17529220	5.571	99	50 - 200	0.0010	+/-0.50	
1,4-Difluorobenzene	23542010	6.42	23693110	6.419	99	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	20881740	9.494	21107000	9.494	99	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	10174920	11.84	10567460	11.84	96	50 - 200	0.0000	+/-0.50	
LCS Dup (B3F0409-BSD1)			*Lab File ID: G2230613017.D*			*Analyzed: 06/13/23 15:26*			
Pentafluorobenzene	17998320	5.57	17529220	5.571	103	50 - 200	-0.0010	+/-0.50	
1,4-Difluorobenzene	24449190	6.417	23693110	6.419	103	50 - 200	-0.0020	+/-0.50	
Chlorobenzene-d5	21839470	9.492	21107000	9.494	103	50 - 200	-0.0020	+/-0.50	
1,4-Dichlorobenzene-d4	9953547	11.838	10567460	11.84	94	50 - 200	-0.0020	+/-0.50	
Blank (B3F0409-BLK1)			*Lab File ID: G2230613019.D*			*Analyzed: 06/13/23 16:16*			
Pentafluorobenzene	16955700	5.569	17529220	5.571	97	50 - 200	-0.0020	+/-0.50	
1,4-Difluorobenzene	22912350	6.418	23693110	6.419	97	50 - 200	-0.0010	+/-0.50	
Chlorobenzene-d5	20582260	9.492	21107000	9.494	98	50 - 200	-0.0020	+/-0.50	
1,4-Dichlorobenzene-d4	9846488	11.839	10567460	11.84	93	50 - 200	-0.0010	+/-0.50	
6147WW34 (23F0136-05)			*Lab File ID: G2230613020.D*			*Analyzed: 06/13/23 16:41*			
Pentafluorobenzene	17034100	5.572	17529220	5.571	97	50 - 200	0.0010	+/-0.50	
1,4-Difluorobenzene	23125670	6.419	23693110	6.419	98	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	20333260	9.493	21107000	9.494	96	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	9428957	11.839	10567460	11.84	89	50 - 200	-0.0010	+/-0.50	
61DUP6 (23F0136-06)			*Lab File ID: G2230613021.D*			*Analyzed: 06/13/23 17:06*			
Pentafluorobenzene	17409580	5.571	17529220	5.571	99	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene	23537320	6.419	23693110	6.419	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	20848230	9.493	21107000	9.494	99	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	9991090	11.84	10567460	11.84	95	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Sequence: S3F0236 Instrument: G2
Calibration: EE30097

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
6147WW04 (23F0136-07)			*Lab File ID: G2230613022.D*			*Analyzed: 06/13/23 17:31*			
Pentafluorobenzene	16797330	5.572	17529220	5.571	96	50 - 200	0.0010	+/-0.50	
1,4-Difluorobenzene	22703040	6.42	23693110	6.419	96	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	20416260	9.493	21107000	9.494	97	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	9655637	11.84	10567460	11.84	91	50 - 200	0.0000	+/-0.50	
6147WW33 (23F0136-08)			*Lab File ID: G2230613023.D*			*Analyzed: 06/13/23 17:56*			
Pentafluorobenzene	17200380	5.571	17529220	5.571	98	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene	23380990	6.42	23693110	6.419	99	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	20595230	9.493	21107000	9.494	98	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	9788185	11.839	10567460	11.84	93	50 - 200	-0.0010	+/-0.50	
6147WW46 (23F0136-09)			*Lab File ID: G2230613024.D*			*Analyzed: 06/13/23 18:21*			
Pentafluorobenzene	17060210	5.571	17529220	5.571	97	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene	23384860	6.419	23693110	6.419	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	20865220	9.493	21107000	9.494	99	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10096750	11.84	10567460	11.84	96	50 - 200	0.0000	+/-0.50	
531LHSMW50 (23F0136-12)			*Lab File ID: G2230613025.D*			*Analyzed: 06/13/23 18:45*			
Pentafluorobenzene	16505860	5.571	17529220	5.571	94	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene	22332830	6.419	23693110	6.419	94	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	19908000	9.493	21107000	9.494	94	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	9536464	11.839	10567460	11.84	90	50 - 200	-0.0010	+/-0.50	
53147WW61 (23F0136-13)			*Lab File ID: G2230613026.D*			*Analyzed: 06/13/23 19:10*			
Pentafluorobenzene	17227320	5.573	17529220	5.571	98	50 - 200	0.0020	+/-0.50	
1,4-Difluorobenzene	23321950	6.42	23693110	6.419	98	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	20784730	9.494	21107000	9.494	98	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	9869571	11.84	10567460	11.84	93	50 - 200	0.0000	+/-0.50	
6147WW31 (23F0136-14)			*Lab File ID: G2230613027.D*			*Analyzed: 06/13/23 19:35*			
Pentafluorobenzene	16302420	5.573	17529220	5.571	93	50 - 200	0.0020	+/-0.50	
1,4-Difluorobenzene	21921700	6.421	23693110	6.419	93	50 - 200	0.0020	+/-0.50	
Chlorobenzene-d5	19488490	9.493	21107000	9.494	92	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	8994328	11.84	10567460	11.84	85	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

SW8260B/D

Client: HDR
SDG: 23F0136
Project: Longhorn AAP

Sequence: S3F0236 Instrument: G2
Calibration: EE30097

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
531DUP6 (23F0136-11)			*Lab File ID: G2230613028.D*			*Analyzed: 06/13/23 20:00*			
Pentafluorobenzene	17244550	5.57	17529220	5.571	98	50 - 200	-0.0010	+/-0.50	
1,4-Difluorobenzene	23561990	6.419	23693110	6.419	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	20968180	9.493	21107000	9.494	99	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	10041950	11.84	10567460	11.84	95	50 - 200	0.0000	+/-0.50	
6147WW45 (23F0136-15)			*Lab File ID: G2230613029.D*			*Analyzed: 06/13/23 20:25*			
Pentafluorobenzene	16848330	5.572	17529220	5.571	96	50 - 200	0.0010	+/-0.50	
1,4-Difluorobenzene	22737600	6.42	23693110	6.419	96	50 - 200	0.0010	+/-0.50	
Chlorobenzene-d5	20189910	9.492	21107000	9.494	96	50 - 200	-0.0020	+/-0.50	
1,4-Dichlorobenzene-d4	9569875	11.839	10567460	11.84	91	50 - 200	-0.0010	+/-0.50	
61Trip2 (23F0136-16)			*Lab File ID: G2230613030.D*			*Analyzed: 06/13/23 20:50*			
Pentafluorobenzene	17233520	5.57	17529220	5.571	98	50 - 200	-0.0010	+/-0.50	
1,4-Difluorobenzene	23333030	6.419	23693110	6.419	98	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	20930530	9.493	21107000	9.494	99	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	9884681	11.84	10567460	11.84	94	50 - 200	0.0000	+/-0.50	
High Cal Check (S3F0236-HCV1)			*Lab File ID: G2230613037.D*			*Analyzed: 06/13/23 23:42*			
Pentafluorobenzene	17290040	5.571	2.401662E+07	5.574	72	50 - 200	-0.0030	+/-0.50	
1,4-Difluorobenzene	22874430	6.42	3.43678E+07	6.422	67	50 - 200	-0.0020	+/-0.50	
Chlorobenzene-d5	20311090	9.494	3.011335E+07	9.495	67	50 - 200	-0.0010	+/-0.50	
1,4-Dichlorobenzene-d4	9950368	11.839	1.411444E+07	11.843	70	50 - 200	-0.0040	+/-0.50	
High Cal Check (S3F0236-HCV2)			*Lab File ID: G2230613038.D*			*Analyzed: 06/14/23 00:07*			
Pentafluorobenzene	17834540	5.571	2.401662E+07	5.574	74	50 - 200	-0.0030	+/-0.50	
1,4-Difluorobenzene	23708280	6.419	3.43678E+07	6.422	69	50 - 200	-0.0030	+/-0.50	
Chlorobenzene-d5	21054580	9.493	3.011335E+07	9.495	70	50 - 200	-0.0020	+/-0.50	
1,4-Dichlorobenzene-d4	10067270	11.84	1.411444E+07	11.843	71	50 - 200	-0.0030	+/-0.50	
High Cal Check (S3F0236-HCV3)			*Lab File ID: G2230613039.D*			*Analyzed: 06/14/23 00:31*			
Pentafluorobenzene	17426540	5.571	2.401662E+07	5.574	73	50 - 200	-0.0030	+/-0.50	
1,4-Difluorobenzene	23221450	6.419	3.43678E+07	6.422	68	50 - 200	-0.0030	+/-0.50	
Chlorobenzene-d5	20456480	9.493	3.011335E+07	9.495	68	50 - 200	-0.0020	+/-0.50	
1,4-Dichlorobenzene-d4	10021670	11.839	1.411444E+07	11.843	71	50 - 200	-0.0040	+/-0.50	

* Values outside of QC limits

PREPARATION BENCH SHEET
MSVOA

01342652 Print Date/Time: 06/13/2023

B3F0366

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses
8260_DoD
8260B_VOC_25

Surrogate Solution(s)
2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
B3F0366-BLK1	06/12/23 08:20	5	5				5	
!pH <2: : : : :								**Prepared By**: PO1
B3F0366-BS1	06/12/23 08:20	5	5	3060539 & 3060375		1.5 & 1.5	5	
!pH <2: : : : :								**Prepared By**: PO1
B3F0366-BSD1	06/12/23 08:20	5	5	3060539 & 3060375		1.5 & 1.5	5	
!pH <2: : : : :								**Prepared By**: PO1
B3F0366-MS1	06/12/23 11:15	5	5	3060539 & 3060375	23E0775-38	3 & 3	5	
!pH <2: Yes : : : :								**Prepared By**: MP3
B3F0366-MSD1	06/12/23 11:15	5	5	3060539 & 3060375	23E0775-38	3 & 3	5	
!pH <2: Yes : : : :								**Prepared By**: MP3
23E0775-29 A	06/12/23 12:00	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

01342653 Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-30 A	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

01342654 Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-36 C	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

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B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-37 B	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-38 C	06/12/23 11:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: MP3

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Cyclohexane, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride, Xylenes, Total

PREPARATION BENCH SHEET
MSVOA

01342657 Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-39 C	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses
8260_DoD
8260B_VOC_25

Surrogate Solution(s)
2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-40 A	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

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B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-40RE1 B	06/13/23 08:00	5	5				5	Added 6/13/2023 By PO1 PCE failed for HCV

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

01342660 Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-41 C	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses
8260_DoD
8260B_VOC_25

Surrogate Solution(s)
2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-42 B	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses
8260_DoD
8260B_VOC_25

Surrogate Solution(s)
2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-43 B	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

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B3F0366

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Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-45 B	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

01342664 Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-46 C	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-01 B	06/13/23 08:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

01342666 Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-02 C	06/13/23 08:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-03 B	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

01342668 Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-04 B	06/13/23 08:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses
8260_DoD
8260B_VOC_25

Surrogate Solution(s)
2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-10 B	06/13/23 08:00	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1
Special Analytes:	1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride							
23F0158-01 J	06/12/23 12:00	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1
Special Analytes:	1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2-Butanone, 2-Hexanone, 4-Bromofluorobenzene, 4-Methyl-2-pentanone, Acetone, Acrylonitrile, Benzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Ethylbenzene, Fluorobenzene, Iodomethane, Methylene chloride, Pentafluorobenzene, Styrene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, trans-1,4-Dichloro-2-butene, Trichloroethene, Trichlorofluoromethane, Vinyl acetate, Vinyl chloride, Xylenes, Total							

PREPARATION BENCH SHEET
MSVOA

01342670 Print Date/Time: 06/13/2023

B3F0366

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0158-02 G	06/12/23 12:00	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2-Butanone, 2-Hexanone, 4-Bromofluorobenzene, 4-Methyl-2-pentanone, Acetone, Acrylonitrile, Benzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Ethylbenzene, Fluorobenzene, Iodomethane, Methylene chloride, Pentafluorobenzene, Styrene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, trans-1,4-Dichloro-2-butene, Trichloroethene, Trichlorofluoromethane, Vinyl acetate, Vinyl chloride, Xylenes, Total

Spiking Solution(s)

3060375 ICV/LCS Gases & 2-CVE 50 PPM
3060539 ICV/LCS 50 PPM

Reagents / Equipment

Standard	Description	LotNum

PREPARATION BENCH SHEET
MSVOA

01342671 Print Date/Time: 06/14/2023

B3F0409

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses
8260_DoD
8260B_VOC_25

Surrogate Solution(s)
2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
B3F0409-BLK1	06/13/23 09:00	5	5				5	
!pH <2: : : : :								**Prepared By**: PO1
B3F0409-BS1	06/13/23 09:00	5	5	3060539 & 3060555		1.5 & 1.5	5	
!pH <2: : : : :								**Prepared By**: PO1
B3F0409-BSD1	06/13/23 09:00	5	5	3060539 & 3060555		1.5 & 1.5	5	
!pH <2: : : : :								**Prepared By**: PO1
23F0136-05 A	06/13/23 12:15	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

01342672 Print Date/Time: 06/14/2023

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-06 A	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

01342673 Print Date/Time: 06/14/2023

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-07 A	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

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B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-08 A	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

01342675 Print Date/Time: 06/14/2023

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-09 A	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-11 A	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

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B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-12 A	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-13 B	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

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B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-14 A	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-15 A	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride

PREPARATION BENCH SHEET
MSVOA

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses
8260_DoD
8260B_VOC_25

Surrogate Solution(s)
2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0136-16 C	06/13/23 12:15	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1
Special Analytes:	1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,1-Dichloropropene, 1,2,3-Trichlorobenzene, 1,2,3-Trichloropropane, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2,2-Dichloropropane, 2-Butanone, 2-Chlorotoluene, 2-Hexanone, 4-Bromofluorobenzene, 4-Chlorotoluene, 4-Isopropyltoluene, 4-Methyl-2-pentanone, Acetone, Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, Chloromethane, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Dibromomethane, Dichlorodifluoromethane, Ethylbenzene, Fluorobenzene, Hexachlorobutadiene, Isopropylbenzene, m,p-Xylene, Methyl tert-butyl ether, Methylene chloride, Naphthalene, n-Butylbenzene, n-Propylbenzene, o-Xylene, Pentafluorobenzene, sec-Butylbenzene, Styrene, tert-Butylbenzene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride							
23F0158-03 G	06/13/23 12:15	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1
Special Analytes:	1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2-Butanone, 2-Hexanone, 4-Bromofluorobenzene, 4-Methyl-2-pentanone, Acetone, Acrylonitrile, Benzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Ethylbenzene, Fluorobenzene, Iodomethane, Methylene chloride, Pentafluorobenzene, Styrene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, trans-1,4-Dichloro-2-butene, Trichloroethene, Trichlorofluoromethane, Vinyl acetate, Vinyl chloride, Xylenes, Total							

PREPARATION BENCH SHEET
MSVOA

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses
8260_DoD
8260B_VOC_25

Surrogate Solution(s)
2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0158-04 K	06/13/23 12:15	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1
Special Analytes:	1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2-Butanone, 2-Hexanone, 4-Bromofluorobenzene, 4-Methyl-2-pentanone, Acetone, Acrylonitrile, Benzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Ethylbenzene, Fluorobenzene, Iodomethane, Methylene chloride, Pentafluorobenzene, Styrene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, trans-1,4-Dichloro-2-butene, Trichloroethene, Trichlorofluoromethane, Vinyl acetate, Vinyl chloride, Xylenes, Total							
23F0158-05 G	06/13/23 12:15	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1
Special Analytes:	1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2-Butanone, 2-Hexanone, 4-Bromofluorobenzene, 4-Methyl-2-pentanone, Acetone, Acrylonitrile, Benzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Ethylbenzene, Fluorobenzene, Iodomethane, Methylene chloride, Pentafluorobenzene, Styrene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, trans-1,4-Dichloro-2-butene, Trichloroethene, Trichlorofluoromethane, Vinyl acetate, Vinyl chloride, Xylenes, Total							

PREPARATION BENCH SHEET
MSVOA

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses
8260_DoD
8260B_VOC_25

Surrogate Solution(s)
2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0158-06 G	06/13/23 12:15	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1
Special Analytes:	1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2-Butanone, 2-Hexanone, 4-Bromofluorobenzene, 4-Methyl-2-pentanone, Acetone, Acrylonitrile, Benzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Ethylbenzene, Fluorobenzene, Iodomethane, Methylene chloride, Pentafluorobenzene, Styrene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, trans-1,4-Dichloro-2-butene, Trichloroethene, Trichlorofluoromethane, Vinyl acetate, Vinyl chloride, Xylenes, Total							
23F0158-07 G	06/13/23 12:15	5	5				5	
!pH <2: Yes : : : :								**Prepared By**: PO1
Special Analytes:	1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2-Butanone, 2-Hexanone, 4-Bromofluorobenzene, 4-Methyl-2-pentanone, Acetone, Acrylonitrile, Benzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Ethylbenzene, Fluorobenzene, Iodomethane, Methylene chloride, Pentafluorobenzene, Styrene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, trans-1,4-Dichloro-2-butene, Trichloroethene, Trichlorofluoromethane, Vinyl acetate, Vinyl chloride, Xylenes, Total							

PREPARATION BENCH SHEET
MSVOA

01342684 Print Date/Time: 06/14/2023

B3F0409

(Continued)

Matrix: Water

Prepared using: MSVOA - 5030_W

Analyses

8260_DoD
8260B_VOC_25

Surrogate Solution(s)

2090775 Working Surrogate (purged)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0158-09 B	06/13/23 12:15	5	5				5	

!pH <2: Yes : : : :

Prepared By: PO1

Special Analytes: 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichloropropane, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichlorobenzene-d4, 1,2-Dichloroethane, 1,2-Dichloroethane-d4, 1,2-Dichloropropane, 1,4-Dichlorobenzene, 1,4-Dichlorobenzene-d4, 1,4-Difluorobenzene, 2-Butanone, 2-Hexanone, 4-Bromofluorobenzene, 4-Methyl-2-pentanone, Acetone, Acrylonitrile, Benzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorobenzene-d5, Chloroethane, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Dibromofluoromethane, Ethylbenzene, Fluorobenzene, Iodomethane, Methylene chloride, Pentafluorobenzene, Styrene, Tetrachloroethene, Toluene, Toluene-d8, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, trans-1,4-Dichloro-2-butene, Trichloroethene, Trichlorofluoromethane, Vinyl acetate, Vinyl chloride, Xylenes, Total

Spiking Solution(s)

3060539 ICV/LCS 50 PPM
3060555 ICV/LCS Gases & 2-CVE 50 PPM

Reagents / Equipment

Standard	Description	LotNum

ANALYSIS SEQUENCE SUMMARY

01342685

Volatile Organic Compounds by GC/MS

Client: HDR
Project: Longhorn AAP

Sequence: S3E0428 Instrument: G2
Calibration: EE30097

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3020394)	S3E0428-TUN1	G2230524004.D	05/24/23 16:45
Cal Standard (STD # 3050774)	S3E0428-CAL1	G2230524005.D	05/24/23 17:09
Cal Standard (STD # 3050773)	S3E0428-CAL2	G2230524006.D	05/24/23 17:33
Cal Standard (STD # 3050772)	S3E0428-CAL3	G2230524007.D	05/24/23 17:57
Cal Standard (STD # 3050771)	S3E0428-CAL4	G2230524008.D	05/24/23 18:22
Cal Standard (STD # 3050770)	S3E0428-CAL5	G2230524009.D	05/24/23 18:46
Cal Standard (STD # 3050769)	S3E0428-CAL6	G2230524010.D	05/24/23 19:10
Cal Standard (STD # 3050768)	S3E0428-CAL7	G2230524011.D	05/24/23 19:34
Cal Standard (STD # 3050767)	S3E0428-CAL8	G2230524012.D	05/24/23 19:58

ANALYSIS SEQUENCE SUMMARY

01342686

Volatile Organic Compounds by GC/MS

Client: HDR
Project: Longhorn AAP

Sequence: S3E0429 Instrument: G2
Calibration: EE30097

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3020394)	S3E0429-TUN1	G2230525004.D	05/25/23 13:24
Cal Standard (STD # 3050766)	S3E0429-CAL1	G2230525005.D	05/25/23 13:48
Cal Standard (STD # 3050765)	S3E0429-CAL2	G2230525006.D	05/25/23 14:12
Initial Cal Check (STD # 3050775)	S3E0429-ICV1	G2230525008.D	05/25/23 15:01

ANALYSIS SEQUENCE SUMMARY

01342687

Volatile Organic Compounds by GC/MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0209 Instrument: G2
Calibration: EE30097

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3020394)	S3F0209-TUN1	G2230612002.D	06/12/23 09:04
Calibration Check (STD # 3060423)	S3F0209-CCV1	G2230612004.D	06/12/23 09:53
LCS	B3F0366-BS1	G2230612005.D	06/12/23 10:18
Blank	B3F0366-BLK1	G2230612008.D	06/12/23 11:32
Matrix Spike	B3F0366-MS1	G2230612009.D	06/12/23 11:56
Matrix Spike Dup	B3F0366-MSD1	G2230612010.D	06/12/23 12:21
53047WW08R	23F0136-03	G2230612021.D	06/12/23 16:55
Closing Cal Check (STD # 3060423)	S3F0209-HCV1	G2230612026.D	06/12/23 18:58
Closing Cal Check (STD # 3060423)	S3F0209-HCV2	G2230612027.D	06/12/23 19:22
Closing Cal Check (STD # 3060423)	S3F0209-HCV3	G2230612028.D	06/12/23 19:47

ANALYSIS SEQUENCE SUMMARY

01342688

Volatile Organic Compounds by GC/MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0222 Instrument: G2
Calibration: EE30097

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3020394)	S3F0222-TUN1	G2230613003.D	06/13/23 09:30
Calibration Check (STD # 3060637)	S3F0222-CCV1	G2230613004.D	06/13/23 09:55
53147WW29	23F0136-01	G2230613007.D	06/13/23 11:10
53147WW13	23F0136-02	G2230613008.D	06/13/23 11:35
531DUP4	23F0136-04	G2230613009.D	06/13/23 12:00
53147WW38	23F0136-10	G2230613010.D	06/13/23 12:25
Closing Cal Check (STD # 3060637)	S3F0222-HCV1	G2230613011.D	06/13/23 12:50

ANALYSIS SEQUENCE SUMMARY

01342689

Volatile Organic Compounds by GC/MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0236 Instrument: G2
Calibration: EE30097

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3020394)	S3F0236-TUN1	G2230613014.D	06/13/23 14:04
Calibration Check (STD # 3060637)	S3F0236-CCV1	G2230613015.D	06/13/23 14:29
LCS	B3F0409-BS1	G2230613016.D	06/13/23 14:53
LCS Dup	B3F0409-BSD1	G2230613017.D	06/13/23 15:26
Blank	B3F0409-BLK1	G2230613019.D	06/13/23 16:16
6147WW34	23F0136-05	G2230613020.D	06/13/23 16:41
61DUP6	23F0136-06	G2230613021.D	06/13/23 17:06
6147WW04	23F0136-07	G2230613022.D	06/13/23 17:31
6147WW33	23F0136-08	G2230613023.D	06/13/23 17:56
6147WW46	23F0136-09	G2230613024.D	06/13/23 18:21
531LHSMW50	23F0136-12	G2230613025.D	06/13/23 18:45
53147WW61	23F0136-13	G2230613026.D	06/13/23 19:10
6147WW31	23F0136-14	G2230613027.D	06/13/23 19:35
531DUP6	23F0136-11	G2230613028.D	06/13/23 20:00
6147WW45	23F0136-15	G2230613029.D	06/13/23 20:25
61Trip2	23F0136-16	G2230613030.D	06/13/23 20:50
Closing Cal Check (STD # 3060637)	S3F0236-HCV1	G2230613037.D	06/13/23 23:42
Closing Cal Check (STD # 3060637)	S3F0236-HCV2	G2230613038.D	06/14/23 00:07
Closing Cal Check (STD # 3060637)	S3F0236-HCV3	G2230613039.D	06/14/23 00:31

H	Only half of the peak was integrated. A manual integration was performed to include the whole peak.
I	The peak was mis-identified. A manual integration was performed to pick the correct peak.
N	The peak was not integrated. A manual integration was performed to integrate the correct peak.
T	The peak was integrated with excessive tailing. A manual integration was performed to eliminate the excessive tailing.
C	The peak was cut off too soon. A manual integration was performed to include the rest of the peak.
B	The baseline was drawn incorrectly. A manual integration was performed to correct the baseline.
M	Two or more peaks were merged. A manual integration was performed to separate the peaks
d	The peak was deleted because it was mis-identified.

Subject:	**Final Monthly Manager's Meeting (MMM), Longhorn Army Ammunition Plant (LHAAP)**
Location of Meeting:	**WebEx**
Date of Meeting:	**19 March 2025 – 10:00 AM Central Standard Time (CST)**

Attendees:

USEPA:	Brian Follin (BF); Janetta Coats (JC)
USACE:	Aaron Williams (AW)
USAEC:	Mike Bowlby (MB)
USGS:	Tim Bartos (TB)
TCEQ:	April Palmie (AP)
PCI/Bhate JV (PBJV):	Kelsey Edwards (KE); Michelle Schwartz; Mitchell Freeby
APTIM:	William Foss (WF); Praveen Srivastav
HDR:	Gregory Kelly (GK)
BRAC:	Kyle Russel (KR)

The following Decision Points were reached during the March MMM:

1. The March Restoration Advisory Board (RAB) deliverable will be updated according to the comments received from TCEQ and EPA but will not be significantly altered to include additional content. The RAB members will be asked for feedback on the deliverable, specifically whether the appropriate amount of information/data is shared.

Defense Environmental Restoration Program (DERP):

KE started the meeting with a discussion on PBJV action items. Action Item 1: KE states that PBJV had received feedback from the Army and TCEQ on the electronic RAB update and was still awaiting EPA comment. BF expressed concern that the electronic RAB document may not fully address what an in-person RAB would cover. AP discussed that the electronic RAB update did represent what is normally presented in the RAB meeting and proposed that the final draft be sent in its current format to the RAB and to solicit the RAB members' opinions on the content of the update. BF and KE agree to this strategy. AW pointed out that there was very little field work occurring on the site which also limits what new data is available to present. BF recommended adding a short narrative to the document to show how the sites are moving towards MCLs and site transfer.

WF led a discussion on well 46WW08 at LHAAP-46. WF first explained the background of the well and what its intended purpose was. 46WW08 was installed in 2013 to serve as an

intermediate zone well in the northwest portion of the site. However, since its installation, the groundwater elevations measured in this well more closely resemble the groundwater elevations measured in shallow water bearing zone. WF showed that the well is screened at 33-43 feet (ft) and that there were a series of silty sands and several dry clay layers above the screened interval, implying that the well is properly placed in the intermediate zone. WF mentioned that the well is not used in contouring the intermediate zone. WF does not believe that the cause of this groundwater elevation measurement is a leaking well and does not know if the well was installed improperly. WF elicited recommendations for what to do with the well. He asked if it would be best to remove and reinstall the well? AP concurred that the well is likely not contributing to the understanding of the site. BF asked if a new well could be installed, and AW replied that a shallow downgradient well is planned to be installed on site and suggested the new intermediate zone well could be installed during the same field effort. WF stated that a recommendation to add a new well would be included in the Year 11 report. WF proposed the well be installed to the northwest corner of the former building foundation shown in the figure.

During this conversation, AP requested that the title of reports change from “Year 10”, “Year 11” to “2024” and “2025”. BF stated that he agreed it would add clarity to the time periods that were covered in each report.

BF discussed that the EPA’s internal risk team wanted to visit LHAAP sometime in April. AW and MB confirmed that there would not be any issue with this happening. KE requested that BF send the dates of the visit so that she could communicate with Scott Beesinger and let him know to expect the visit.

Groundwater Treatment Plant (GWTP): KE mentioned that the GWTP is functioning well and that current work is being done to repair Interception Collection Trench (ICT) wells. KE stated three more ICT wells need to be addressed, but that one of those wells may be difficult to access until the site dries out. KE also discussed that LHAAP-17 is still having electrical issues, but that she hoped to have a subcontractor out this week to address these issues.

Field Work: KE mentioned that there was not any planned field work for this month. KE stated that once the electrical issues are resolved at LHAAP-17, Scott Beesinger would complete the previously planned LHAAP-17 field work. WF mentioned that Scott Beesinger would also be completing maintenance on the LHAAP-16 to address the tree issues for the landfill cap.

DI Tracker: KE referred to the DI tracker for March 2025.

- **Task 1-5** (Project Management) – KE stated that PBJV submitted the Final version of the November 2024 MMM minutes on 12 March 2025. KE reminded the group that there was no December 2024 MMM. The January 2025 MMM Draft Final minutes are in progress. The February 2025 Draft minutes were submitted on 5 March 2025, and are pending EPA review. The 2025 1st Quarterly RAB update was submitted for regulatory feedback on 14 March 2025.
- **Task 6** (LHAAP-04) – KE stated that the Year 5 Remedial Action – Operation (RA-O) Report is in progress and will likely be a March 2025 submittal to the Regulators. KE said the1st semi-annual sampling event for Year 6 was completed and that validated data is expected in April 2025.
- **Task 7** (LHAAP-12) - KE stated that draft 2024 Annual RA-O report was in progress and would be soon sent to the Army for review.
- **Task 8** (LHAAP-16) and **Task 1022** (Option 22: LHAAP-16) – WF stated that the Final Year 4 RA-O and responses to EPA counter comments was scheduled for submittal to regulators in March 2025. WF mentioned that he was awaiting the validated data from the sampling performed in January 2025 and was anticipating the data by April 2025. WF also discussed the lack of comments received by TCEQ and EPA on the Conceptual Site Model Report and inquired about the preferred method to finalize the document. BF requested that the final version be compiled as "Final" and sent out.
- **Task 9** (LHAAP-18/24/GWTP) – KE presented the validated data from the December 2024 sampling event at LHAAP-18/24 and stated that the results were consistent with previous years' results. KE stated that this information would be included in the 1st semi-annual GWTP report, which would include data from the 3rd and 4th Quarter 2024. The Army Draft of this document is still in progress.
- **Task 10** (LHAAP-37) – WF stated that the Year 8 RA-O report was in preparation.
- **Task 11** (LHAAP-46) – WF stated that the RTC and Final Year 10 RA-O report was submitted to regulators on 04 March 2025 and that he was waiting on the validated data from the February 2025 sampling event. The validated data is anticipated to be ready by the April 2025 MMM.
- **Task 12** (LHAAP-50) – KE stated that EPA comments on the Year 10 RA-O report were received on 17 March 2025 and that she was working on the RTCs. KE mentioned that the next sampling event is scheduled for May 2025.
- **Task 13** (LHAAP-58) – KE stated that the team had received Army comments on the Year 10 RA-O report. The responses to comments are in progress and the draft report will likely be sent to regulators by the end of March 2025.

- **Task 14** (LHAAP-67) – WF stated that the Year 11 RA-O report is in progress.
- **Task 15** (LHAAP-001-R-01 and LHAAP-003-R-01) – KE stated that the 2024 long-term monitoring (LTM) report will be included in the 4th Quarter 2024 Administrative Record (AR) update.
- **Task 16** (Surface Water) – KE stated that the final document will be included in the 1st Quarter 2025 AR Update.
- **Task 17** (Land Use Control Management)—KE stated that document will be included in the 4th Quarter 2024 AR Update
- **Task 18** (AR) – WF stated that the July through September 2024 AR has been submitted for printing and will be completed soon.

Update on other DERP Sites:

- **LHAAP 18/24 –** GK stated there are no further updates, and the 100% Remedial Design (RD) will be included in the AR Update.
- **LHAAP-29** – GK stated there are no further updates, and the 100% RDI will be included in the AR Update.
- **LHAAP-47** – GK stated that the Draft Pre-Design Investigation (PDI) Addendum was submitted to the regulators on 14 March 2025 with review comments requested by 17 April 2025. The 30% Remedial Design is in progress and is scheduled for delivery to the regulators in April/May 2025.
- **LHAAP-17** – KE stated the Year 2 RA-O draft report is in progress. She stated that the performance monitoring is ongoing.

Per- and polyfluoroalkyl substances (PFAS) Update: MB stated that there is a lot of ongoing conversation regarding the prioritization of funds. BF asked about influent and effluent sampling at the GWTP. AW said that PFAS sampling of influent and effluent at the GWTP is included as a yearly option within the next five-year contract.

Five-Year Review: KE stated that the Five-Year Review will be included in the 2025 1st quarter update for the AR. JC asked whether members of the RAB participated in the questionnaire for the Five-Year Review. AW confirmed that they were on the list of people to contact but could not remember if any of them participated. AP stated that no RAB member interviews were included in the Five-Year Review and that they likely did not respond to the request.

Transfer Update: KR stated that information was submitted to the realty specialist at the US Fish and Wildlife Service and that they are the ones handling the documents for the

conveyance of the property. They have been in discussion with General Services Administration (GSA). As of now, KR stated that there is a November timeframe for completing this work.

Schedule Next Managers' Meeting

MB stated that Kelly Norwood would be Lena's replacement on the USAEC's side of the project. KR stated that Jennifer Solomon will be the new BRAC program manager.

KE stated the next MMM will be held via Webex on Wednesday, 16 April 2025 at 10:00 CST. Meeting adjourned at 11:00 CST.

ACRONYM LIST

AP	April Palmie
AR	Administrative Record
AW	Aaron Williams
CST	Central Standard Time
CSM	Conceptual Site Model
DERP	Defense Environmental Restoration Program
GK	Gregory Kelly
GSA	General Services Administration
GWTP	Groundwater Treatment Plant
ICT	Interception Collection Trench
KE	Kelsey Edwards
KR	Kyle Russel
LHAAP	Longhorn Army Ammunition Plant
LUC	Land Use Control
MB	Mike Bowlby
MMM	Monthly Managers' Meeting
PBJV	Poarch Creek Indians, Governmental Services, LLC /Bhate Environmental Associates Joint Venture
PDI	Pre- Design Investigation
PFAS	Per- and polyfluoroalkyl substances
RAB	Restoration Advisory Board
RD	Remedial Design
RTC	Response to comments
TCEQ	Texas Commission on Environmental Quality
USACE	United States Army Corps of Engineers
USAEC	United States Army Environmental Command
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WF	William Foss

LHAAP Validated Data
March 2025 MMM

GWTP Effluent	*Weekly Perchlorate Sampling –January 2025* Perchlorate (6850)
GWTP Effluent	*Weekly, Bi-Weekly, and Monthly Sampling – January 2025* Ammonia (350.3) Ortho-Phosphate (365.3) Total Organic Carbon (415.1) VOC (8260C) Metals (6020A) Hexavalent Chromium (7196A) 1,4-Dioxane (8270D-SIM) Anions (9056)
GWTP Influent	*Monthly Sampling – January 2025* Metals (6020A) Perchlorate (6850) Hexavalent Chromium (7196A)
LHAAP Surface Water	*Quarterly Perchlorate Sampling - January 2025* Perchlorate (6850)
LHAAP 18/24	*Semi-Annual - December 2024* 1,4-Dioxane (8270D-SIM) VOC (8260C) Perchlorate (6850) Metals (6020A)

Perchlorate Sampling - January 2025

Location ID: Sample Date:	Units	Daily Maximum Conc	PCL	LH18/24-SP650_010225_BIX 1/2/25	LH18/24-SP650_010225_AIX 1/2/25	LH18/24-SP650_010725_BIX 1/7/25	LH18/24-SP650_010725_AIX 1/7/25	LH18/24-SP650_011525_AIX 1/15/25	LH18/24-SP650_011525_BIX 1/15/25	LH18/24-SP650_011525_AIX 1/15/25
ɔcation Description										
				Weekly	Weekly	Weekly	Weekly	Monthly Eff	Weekly	Weekly
Perchlorate (6850)										
Perchlorate	µg/L	589	17	**8.6**	**0.20**	**200**	< 0.10 U	**0.42**	**59.5**	**0.080 J**

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

µg/L - micrograms per liter

BIX - before ion exchange/AIX - after ion exchange

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

above the PCL

J - estimated value

Bold Values- Detections

GWTP Weekly Sampling - January 2025

Location ID: Sample Date:	Units	Daily Maximum Conc	LH18/24-SP650_010225 1/2/25	LH18/24-SP650_010725 1/7/25	LH18/24-SP650_011525 1/15/25
Location Description			**GWTP–Collected from a spigot on the discharge of effluent TK-650. Sampled Weekly.**		
Ammonia as N (350.3)					
Ammonia as N	mg/L	NV	**7.9**	**7.1**	**7.3**
Ortho-Phosphate (365.3)					
Ortho-Phosphate	mg/L	NV	**3.26**	**2.95**	**6.85**
Organic Carbon (415.1)					
Total Organic Carbon (TOC)	mg/L	NV	**3.40**	**2.53**	**3.18 J**

Notes:

GWTP - Groundwater Treatment Plant

TK - Tank

mg/L - milligrams per liter

NV - No Value

Bold Values- Detections

GWTP Bi-Weekly Sampling - January 2025

Location ID: / Sample Date:	Units	(Bayou) Daily Maximum Conc	(INF pond) MCL	LH18/24-SP650_010725 1/7/25
Location Description				**GWTP – Collected from a spigot on the discharge of effluent TK-650. Sampled Biweekly.**
Volatile Organic Compounds (8260C)				
1,1,1-Trichloroethane	µg/L	7,230	200	< 0.500 U
1,1,2-Trichloroethane	µg/L	216.9	5	< 0.500 U
1,1-Dichloroethane	µg/L	14,032	NV	< 0.500 U
1,1-Dichloroethene	µg/L	253	7	< 0.500 U
1,2-Dichloroethane	µg/L	181	5	< 0.500 U
1,2-Dichloropropane	µg/L	5	5	< 0.500 U
Acetone	µg/L	2,395	NV	< 1.00 U
Benzene	µg/L	181	5	< 0.500 U
Carbon tetrachloride	µg/L	181	5	< 2.00 U
Chlorobenzene	µg/L	47,180	100	< 0.500 U
Chloroform	µg/L	3,615	NV	< 0.500 U
cis-1,2-Dichloroethene	µg/L	NV	70	**1.06**
Ethylbenzene	µg/L	57,025	700	< 0.500 U
m,p-Xylene	µg/L	83.6	NV	< 1.00 U
Methylene chloride	µg/L	1,699	5	< 0.500 U
o-Xylene	µg/L	83.6	NV	< 0.500 U
Styrene	µg/L	5,987	100	< 0.500 U
Tetrachloroethene	µg/L	180.7	5	< 0.500 U
Toluene	µg/L	4,189	10	< 0.500 U
Trichloroethene	µg/L	181	5	**0.393 J**
Vinyl chloride	µg/L	72	2	< 0.500 U
Anions (9056)				
Chloride	mg/L	NV	NV	**209**
Sulfate	mg/L	NV	NV	**16.8**

Notes:

GWTP - Groundwater Treatment Plant

INF - Intermediate Range Nuclear Forces

MCL - Maximum Contaminant Level

TK - Tank

µg/L - micrograms per liter

mg/L - milligrams per liter

Bold Values- Detections

J - estimated value

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

GWTP Monthly Effluent Sampling - January 2025

Location ID: Sample Date:	Units	Daily Maximum Conc	(INF pond) MCL	LH18/24_SP650_011525 1/15/25
Location Description				**GWTP – Collected from a spigot on the discharge of effluent TK-650. Sampled monthly**
Volatile Organic Compounds (8260C)				
1,1,1-Trichloroethane	µg/L	7,230	200	< 0.500 U
1,1,2-Trichloroethane	µg/L	216.9	5	< 0.500 U
1,1-Dichloroethane	µg/L	14,032	NV	< 0.500 U
1,1-Dichloroethene	µg/L	253	7	< 0.500 U
1,2-Dichloroethane	µg/L	181	5	< 0.500 U
1,2-Dichloropropane	µg/L	5	5	< 0.500 U
Acetone	µg/L	2,395	NV	< 1.00 U
Benzene	µg/L	181	5	< 0.500 U
Carbon tetrachloride	µg/L	181	5	< 2.00 U
Chlorobenzene	µg/L	47,180	100	< 0.500 U
Chloroform	µg/L	3,615	NV	< 0.500 U
cis-1,2-dichloroethene	µg/L	NV	70	**1.24**
Ethylbenzene	µg/L	57,025	700	< 0.500 U
m,p-Xylene	µg/L	83.6	NV	< 1.00 U
Methylene chloride	µg/L	1,699	5	< 0.500 U
o-Xylene	µg/L	83.6	NV	< 0.500 U
Styrene	µg/L	5,987	100	< 0.500 U
Tetrachloroethene	µg/L	180.7	5	< 0.500 U
Toluene	µg/L	4,189	10	< 0.500 U
Trichloroethene	µg/L	181	5	**0.463 J**
Vinyl chloride	µg/L	72	2	< 0.500 U
Metals (6020A)				
Barium	mg/L	2	2	**0.327**
Lead	mg/L	0.0046	0.015	< 0.00125 U
Selenium	mg/L	0.012	0.05	**0.00152 J**
Silver	mg/L	0.003	0.1	< 0.000500 U
Hexavalent Chromium (7196A)				
Hexavalent Chromium	mg/L	0.1244	NV	< 0.0100 U
Semi-Volatile Organic Compounds (8270D SIM)				
1,4-Dioxane	µg/L	134.2	NV	**1.3 J**

Notes:

GWTP - Groundwater Treatment Plant

INF - Intermediate Range Nuclear Forces

MCL - Maximum Contaminant Level

TK - Tank

SIM - Select Ion monitoring

µg/L - micrograms per liter

mg/L - milligrams per liter

Bold Values- Detections

J - estimated value

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

GWTP Monthly Influent Sampling - January 2025

Location ID: Sample Date:	Units	LH18/24-SP140_011525 1/15/25
Location Description		**GWTP – Collected from a spigot on the influent to TK-140. Sampled Monthly.**
Metals (6020A)		
Selenium	mg/L	**0.00225 J**
Silver	mg/L	< 0.000500 U
Hexavalent Chromium (7196A)		
Hexavalent Chromium	mg/L	< 0.0100 U
Perchlorate (6850)		
Perchlorate	µg/L	**6,480**

Notes:

GWTP - Groundwater Treatment Plant

TK - Tank

mg/L - milligrams per liter

µg/L - micrograms per liter

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

Bold Values- Detections

J - estimated value

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID				AWD1_121124	AWD3_120524	AWD4_120924	18CPTMW01SW_120524	18CPTMW03SW_121024	18CPTMW04SW_120324	18CPTMW04_120324	18CPTMW06_121224	18CPTMW07_120924	18CPTMW08DW_120924	18CPTMW08SW_120924	18CPTMW10SW_121124
Aquifer Zone				Shallow	Shallow	Shallow	Wilcox	Wilcox	Wilcox	Shallow	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox
Well Identification				AWD-1	AWD-3	AWD-4	18CPTMW01SW	18CPTMW03SW	18CPTMW04SW	18CPTMW04	18CPTMW06	18CPTMW07	18CPTMW08DW	18CPTMW08SW	18CPTMW10SW
ANALYTE	CAS NUMBER	UNITS	MCL/MSC/PCL												
Method: 6850															
Perchlorate		µg/L	17*	**8.1**	**0.18 J**	**1050**	**0.21**	**14.9**	**0.10 J**	**165**	**15.6**	**0.36**	**11700**	**12600**	**1.6**
Method: SW6020A															
Aluminum	7429-90-5	mg/L	100	**0.343**	**0.0479**	**0.437**	**0.021**	**0.036**	**0.0405**	NA	NA	NA	NA	NA	NA
Antimony	7440-36-0	mg/L	0.006	**0.000715 J**	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 UJ	< 0.00125 U	NA	NA	NA	NA	NA	NA
Arsenic	7440-38-2	mg/L	0.01	**0.0136**	< 0.00125 U	< 0.00125 U	**0.00856**	**0.00209**	**0.00276 J**	NA	NA	NA	NA	NA	NA
Barium	7440-39-3	mg/L	2	**0.148**	**0.0864**	**0.159**	**1.31**	**0.0662**	**0.354**	NA	NA	NA	NA	NA	NA
Beryllium	7440-41-7	mg/L	0.004	**0.000243 J**	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	NA	NA	NA	NA	NA
Cadmium	7440-43-9	mg/L	0.005	< 0.000500 U	< 0.000500 U	**0.000394 J**	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	NA	NA	NA	NA	NA
Calcium	7440-70-2	mg/L	NV	**1.42**	**2.76**	**7.91**	**46.8**	**9.32**	**11.8**	NA	NA	NA	NA	NA	NA
Chromium	7440-47-3	mg/L	0.1	**0.00379 J**	**0.0485**	**0.112**	**0.00212 J**	**0.014**	**0.0468**	NA	NA	NA	NA	NA	NA
Cobalt	7440-48-4	mg/L	6.1	**0.00409 J**	**0.00222 J**	**0.000844 J**	**0.00152 J**	**0.00106 J**	**0.00143 J**	NA	NA	NA	NA	NA	NA
Copper	7440-50-8	mg/L	1.3	**0.00115 J**	**0.00137 J**	**0.00403**	**0.00113 J**	< 0.00125 UJ	**0.00209 J**	NA	NA	NA	NA	NA	NA
Iron	7439-89-6	mg/L	NV	**4.22**	**0.179 J**	**1.24**	**61.6**	**0.514**	**4.41**	NA	NA	NA	NA	NA	NA
Lead	7439-92-1	mg/L	0.015	**0.00134 J**	< 0.00125 U	< 0.00125 UJ	< 0.00125 U	< 0.00125 UJ	< 0.00125 U	NA	NA	NA	NA	NA	NA
Magnesium	7439-95-4	mg/L	NV	**1.45**	**1.97**	**4.49**	**29.6**	**11.4**	**7.94**	NA	NA	NA	NA	NA	NA
Manganese	7439-96-5	mg/L	1.1*	**0.111**	**0.0324**	**0.0124**	**0.714**	**0.0263**	**0.151**	NA	NA	NA	NA	NA	NA
Nickel	7440-02-0	mg/L	0.49*	**0.0152**	**0.188**	**0.157**	**0.00286**	**0.00640 J**	**0.00142 J**	NA	NA	NA	NA	NA	NA
Potassium	7440-09-7	mg/L	NV	**2.1**	**0.913**	**0.399**	**15.9**	**193**	**185**	NA	NA	NA	NA	NA	NA
Selenium	7782-49-2	mg/L	0.05	**0.00257**	0.00416	< 0.00250 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	NA	NA	NA	NA	NA
Silver	7440-22-4	mg/L	0.51	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 UJ	< 0.000500 U	NA	NA	NA	NA	NA	NA
Sodium	7440-23-5	mg/L	NV	**75.3**	**46.9**	**48.7**	**129**	**242**	**156**	NA	NA	NA	NA	NA	NA
Thallium	7440-28-0	mg/L	0.002	< 0.000500 U	< 0.000500 UJ	**0.000564 J**	< 0.000500 U	**0.000706 J**	**0.000324 J**	NA	NA	NA	NA	NA	NA
Vanadium	7440-62-2	mg/L	0.72	**0.00264 J**	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	NA	NA	NA	NA	NA
Zinc	7440-66-6	mg/L	31	**0.00543**	**0.00465**	**0.00624**	**0.00538**	**0.00426**	**0.0147**	NA	NA	NA	NA	NA	NA
Method: SW7470A															
Mercury	7439-97-6	mg/L	0.002	< 0.000100 U	< 0.000100 U	< 0.000100 UJ	< 0.000100 U	< 0.000100 U	< 0.000100 U	NA	NA	NA	NA	NA	NA
Method: SW8260															
1,1,1,2-Tetrachloroethane	630-20-6	µg/L	110	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,1,1-Trichloroethane	71-55-6	µg/L	200	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	14	NA	< 100 U	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
1,1,2-Trichloroethane	79-00-5	µg/L	5	NA	< 50.0 U	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,1-Dichloroethane	75-34-3	µg/L	10000	NA	< 50.0 UJ	3.52	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,1-Dichloroethene	75-35-4	µg/L	7	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,1-Dichloropropene	563-58-6	µg/L	2.9	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,2,3-Trichlorobenzene	87-61-6	µg/L	310	NA	< 50.0 U	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,2,3-Trichloropropane	96-18-4	µg/L	0.041	NA	< 100 U	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
1,2,4-Trichlorobenzene	120-82-1	µg/L	70	NA	< 100 UJ	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
1,2,4-Trimethylbenzene	95-63-6	µg/L	5100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,2-Dibromo-3-chloropropane	96-12-8	µg/L	0.2	NA	< 50.0 U	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,2-Dibromoethane	106-93-4	µg/L	0.05	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,2-Dichlorobenzene	95-50-1	µg/L	600	NA	< 100 UJ	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
1,2-Dichloroethane	107-06-2	µg/L	5	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,2-Dichloropropane	78-87-5	µg/L	5	NA	< 100 UJ	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
1,3,5-Trimethylbenzene	108-67-8	µg/L	5100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,3-Dichlorobenzene	541-73-1	µg/L	3100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,3-Dichloropropane	142-28-9	µg/L	29	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
1,4-Dichlorobenzene	106-46-7	µg/L	75	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
2,2-Dichloropropane	594-20-7	µg/L	42	NA	< 50.0 U	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
2-Butanone	78-93-3	µg/L	61000	NA	< 100 U	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
2-Chlorotoluene	95-49-8	µg/L	2000	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
2-Hexanone	591-78-6	µg/L	6100	NA	< 200 U	< 2.00 U	< 200 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	NA	NA	< 2.00 U
4-Chlorotoluene	106-43-4	µg/L	2000	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
4-Isopropyltoluene	99-87-6	µg/L	10000	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
4-Methyl-2-pentanone	108-10-1	µg/L	8200	NA	< 100 U	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
Acetone	67-64-1	µg/L	92000	NA	< 100 U	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
Benzene	71-43-2	µg/L	5	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Bromobenzene	108-86-1	µg/L	2000	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Bromochloromethane	74-97-5	µg/L	4100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Bromodichloromethane	75-27-4	µg/L	4.6	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Bromoform	75-25-2	µg/L	36	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Bromomethane	74-83-9	µg/L	140	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID				AWD1_121124	AWD3_120524	AWD4_120924	18CPTMW01SW_120524	18CPTMW03SW_121024	18CPTMW04SW_120324	18CPTMW04_120324	18CPTMW06_121224	18CPTMW07_120924	18CPTMW08DW_120924	18CPTMW08SW_120924	18CPTMW10SW_121124
Aquifer Zone				Shallow	Shallow	Shallow	Wilcox	Wilcox	Wilcox	Shallow	Wilcox	Wilcox	Wilcox	Wilcox	Wilcox
Well Identification				AWD-1	AWD-3	AWD-4	18CPTMW01SW	18CPTMW03SW	18CPTMW04SW	18CPTMW04	18CPTMW06	18CPTMW07	18CPTMW08DW	18CPTMW08SW	18CPTMW10SW
ANALYTE	CAS NUMBER	UNITS	MCL/MSC/PCL												
Carbon disulfide	75-15-0	µg/L	10000	NA	< 100 UJ	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
Carbon tetrachloride	56-23-5	µg/L	5	NA	< 100 UJ	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
Chlorobenzene	108-90-7	µg/L	100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Chloroethane	75-00-3	µg/L	41000	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Chloroform	67-66-3	µg/L	1000	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Chloromethane	74-87-3	µg/L	220	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
cis-1,2-Dichloroethene	156-59-2	µg/L	70	NA	**2190 J**	**9.88**	**2280**	**12.8**	< 0.500 U	**9.32 J**	< 0.500 U	35.3	NA	NA	< 0.500 U
cis-1,3-Dichloropropene	10061-01-5	µg/L	5.3	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Dibromochloromethane	124-48-1	µg/L	34	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Dibromomethane	74-95-3	µg/L	380	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Dichlorodifluoromethane	75-71-8	µg/L	20000	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Ethylbenzene	100-41-4	µg/L	700	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Hexachlorobutadiene	87-68-3	µg/L	20	NA	< 200 U	< 0.500 U	< 200 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Isopropylbenzene	98-82-8	µg/L	10000	NA	< 50.0 U	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
m,p-Xylene	179601-23-1	µg/L	10,000**	NA	< 100 UJ	< 1.00 U	< 100 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	NA	< 1.00 U
Methylene chloride	75-09-2	µg/L	5	NA	< 50.0 UJ	< 0.500 U	**9520**	< 1.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 1.00 U
Naphthalene	91-20-3	µg/L	2000	NA	< 50.0 U	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
n-Butylbenzene	104-51-8	µg/L	4100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
n-Propylbenzene	103-65-1	µg/L	4100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
o-Xylene	95-47-6	µg/L	10,000**	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
sec-Butylbenzene	135-98-8	µg/L	4100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Styrene	100-42-5	µg/L	100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
tert-Butylbenzene	98-06-6	µg/L	4100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Tetrachloroethene	127-18-4	µg/L	5	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Toluene	108-88-3	µg/L	1000	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
trans-1,2-Dichloroethene	156-60-5	µg/L	100	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
trans-1,3-Dichloropropene	10061-02-6	µg/L	29	NA	< 50.0 UJ	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Trichloroethene	79-01-6	µg/L	5	NA	**5530 J**	**35**	**70.6 J**	**9.58**	< 0.500 U	**75.3 J**	**4.5**	**93.7**	NA	NA	**7.17 J**
Trichlorofluoromethane	75-69-4	µg/L	31000	NA	< 50.0 U	< 0.500 U	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	NA	< 0.500 U
Vinyl chloride	75-01-4	µg/L	2	NA	< 50.0 UJ	**2.38**	< 50.0 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	**89**	NA	NA	< 0.500 U
Method: SW8270SIM															
1,4-Dioxane	123-91-1	ug/L	9.1	0.39 J	NA	< 0.020 UJ	< 0.020 U	**0.12**	**0.039 J**	**0.062**	< 0.020 U	**0.013 J**	< 0.20 UJ	0.086	< 0.020 UJ

Notes:

Blue highlighting indicates concentrations above the MCL/MSC/PCL

MCL/MSC - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

1 -- lab forgot to run mercury and would be > 2x hold time

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID Aquifer Zone Well Identification ANALYTE	CAS NUMBER	UNITS	MCL/MSC/PCL	18CPTMW10DW_121124 Wilcox 18CPTMW10DW	18CPTMW12SW_120324 Wilcox 18CPTMW12SW	18CPTMW12DW_120324 Wilcox 18CPTMW12DW	18CPTMW14_121624 Shallow 18CPTMW14	18CPTMW15_121224 Shallow 18CPTMW15	18CPTMW16_121624 Shallow 18CPTMW16	18CPTMW16_121624_a Shallow 18CPTMW16	18CPTMW18_121124 Shallow 18CPTMW18	18CPTMW19_120924 Shallow 18CPTMW19	18CPTMW22R_120524 Shallow 18CPTMW22R	18CPTMW22SW_120524 Wilcox 18CPTMW22SW
Method: 6850														
Perchlorate		µg/L	17*	**3840**	**31**	**0.51**	**8000**	**0.15 J**	NA	NA	**0.19 J**	**1.5**	**380**	**11.9**
Method: SW6020A														
Aluminum	7429-90-5	mg/L	100	**0.0403**	**0.0125**	**0.0117**	**0.0567**	NA	NA	NA	**0.0263**	NA	**1.38**	**0.132**
Antimony	7440-36-0	mg/L	0.006	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	**0.000413 J**	**0.000553 J**
Arsenic	7440-38-2	mg/L	0.01	**0.000910 J**	< 0.00125 U	**0.00191 J**	**0.00159 J**	NA	NA	NA	**0.000680 J**	NA	**0.000849 J**	**0.00127 J**
Barium	7440-39-3	mg/L	2	**0.374**	**0.719**	**0.24**	**2.13**	NA	NA	NA	**0.485**	NA	**0.108**	**0.313**
Beryllium	7440-41-7	mg/L	0.004	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA	**0.000466 J**	< 0.000500 U
Cadmium	7440-43-9	mg/L	0.005	< 0.000500 U	< 0.000500 U	< 0.000500 U	**0.000483 J**	NA	NA	NA	**0.000297 J**	NA	< 0.000500 U	< 0.000500 U
Calcium	7440-70-2	mg/L	NV	**57.2**	**57.2**	**23.2**	**246**	NA	NA	NA	**194**	NA	**1.8**	**83.1**
Chromium	7440-47-3	mg/L	0.1	**0.00382 J**	**0.00132 J**	**0.00284 J**	**0.0276**	NA	NA	NA	**0.00124 J**	NA	**0.00123 J**	**0.0307**
Cobalt	7440-48-4	mg/L	6.1	**0.000275 J**	**0.00175 J**	**0.000147 J**	**0.000980 J**	NA	NA	NA	**0.01**	NA	**0.0067**	< 0.000500 U
Copper	7440-50-8	mg/L	1.3	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	**0.00244**	< 0.00125 U
Iron	7439-89-6	mg/L	NV	**7.52**	**0.272**	**3.59**	**0.143 J**	NA	NA	NA	**0.537**	NA	**1.25**	**0.0365 J**
Lead	7439-92-1	mg/L	0.015	< 0.00125 U	< 0.00125 UJ	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	**0.00133 J**	< 0.00125 U
Magnesium	7439-95-4	mg/L	NV	**11.5**	**33.8**	**9.82**	**81.3**	NA	NA	NA	**144**	NA	**1.84**	**0.672**
Manganese	7439-96-5	mg/L	1.1*	**0.233**	**0.442**	**0.146**	**0.0114**	NA	NA	NA	**1.58**	NA	**0.0432**	**0.00893**
Nickel	7440-02-0	mg/L	0.49*	**0.00111 J**	**0.00495 J**	< 0.00125 U	**0.00186 J**	NA	NA	NA	**0.0101**	NA	**0.00426**	**0.00106 J**
Potassium	7440-09-7	mg/L	NV	**45.7**	**17.1**	**49.9**	**4.7**	NA	NA	NA	**2.54**	NA	**0.219**	**300**
Selenium	7782-49-2	mg/L	0.05	< 0.00125 U	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	< 0.00125 U	< 0.00125 U
Silver	7440-22-4	mg/L	0.51	< 0.000500 U	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U
Sodium	7440-23-5	mg/L	NV	**140**	**223**	**158**	**570**	NA	NA	NA	**564**	NA	**31.8**	**363**
Thallium	7440-28-0	mg/L	0.002	< 0.000500 U	**0.000940 J**	< 0.000500 U	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U
Vanadium	7440-62-2	mg/L	0.72	< 0.00125 U	< 0.00125 U	< 0.00125 U	**0.00196 J**	NA	NA	NA	< 0.00125 U	NA	**0.00395 J**	< 0.00125 U
Zinc	7440-66-6	mg/L	31	**0.00472**	**0.00724**	**< 0.00250 U**	**0.00372 J**	NA	NA	NA	**0.0165**	NA	**0.011**	**0.00518**
Method: SW7470A														
Mercury	7439-97-6	mg/L	0.002	< 0.000100 U	< 0.000100 U	< 0.000100 U	< 0.000100 U	NA	NA	NA	< 0.000100 U	NA	< 0.000100 U	< 0.000100 U
Method: SW8260														
1,1,1,2-Tetrachloroethane	630-20-6	µg/L	110	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 5.00 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1,1-Trichloroethane	71-55-6	µg/L	200	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	14	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,1,2-Trichloroethane	79-00-5	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1-Dichloroethane	75-34-3	µg/L	10000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1-Dichloroethene	75-35-4	µg/L	7	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,1-Dichloropropene	563-58-6	µg/L	2.9	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2,3-Trichlorobenzene	87-61-6	µg/L	310	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2,3-Trichloropropane	96-18-4	µg/L	0.041	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,2,4-Trichlorobenzene	120-82-1	µg/L	70	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,2,4-Trimethylbenzene	95-63-6	µg/L	5100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2-Dibromo-3-chloropropane	96-12-8	µg/L	0.2	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2-Dibromoethane	106-93-4	µg/L	0.05	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2-Dichlorobenzene	95-50-1	µg/L	600	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,2-Dichloroethane	107-06-2	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	**617 J**	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,2-Dichloropropane	78-87-5	µg/L	5	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
1,3,5-Trimethylbenzene	108-67-8	µg/L	5100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,3-Dichlorobenzene	541-73-1	µg/L	3100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,3-Dichloropropane	142-28-9	µg/L	29	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
1,4-Dichlorobenzene	106-46-7	µg/L	75	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
2,2-Dichloropropane	594-20-7	µg/L	42	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
2-Butanone	78-93-3	µg/L	61000	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
2-Chlorotoluene	95-49-8	µg/L	2000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
2-Hexanone	591-78-6	µg/L	6100	< 2.00 U	< 2.00 U	< 2.00 U	< 50.0 U	< 2.00 U	NA	NA	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U
4-Chlorotoluene	106-43-4	µg/L	2000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
4-Isopropyltoluene	99-87-6	µg/L	10000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
4-Methyl-2-pentanone	108-10-1	µg/L	8200	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Acetone	67-64-1	µg/L	92000	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Benzene	71-43-2	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Bromobenzene	108-86-1	µg/L	2000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Bromochloromethane	74-97-5	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Bromodichloromethane	75-27-4	µg/L	4.6	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Bromoform	75-25-2	µg/L	36	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Bromomethane	74-83-9	µg/L	140	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID				18CPTMW10DW_121124	18CPTMW12SW_120324	18CPTMW12DW_120324	18CPTMW14_121624	18CPTMW15_121224	18CPTMW16_121624	18CPTMW16_121624_a	18CPTMW18_121124	18CPTMW19_120924	18CPTMW22R_120524	18CPTMW22SW_120524
Aquifer Zone				Wilcox	Wilcox	Wilcox	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Wilcox
Well Identification				18CPTMW10DW	18CPTMW12SW	18CPTMW12DW	18CPTMW14	18CPTMW15	18CPTMW16	18CPTMW16	18CPTMW18	18CPTMW19	18CPTMW22R	18CPTMW22SW
ANALYTE	CAS NUMBER	UNITS	MCL/MSC/PCL											
Carbon disulfide	75-15-0	µg/L	10000	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Carbon tetrachloride	56-23-5	µg/L	5	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Chlorobenzene	108-90-7	µg/L	100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Chloroethane	75-00-3	µg/L	41000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Chloroform	67-66-3	µg/L	1000	< 0.500 U	< 0.500 U	< 0.500 U	**926 J**	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Chloromethane	74-87-3	µg/L	220	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
cis-1,2-Dichloroethene	156-59-2	µg/L	70	**3.65**	< 0.500 U	< 0.500 U	**124 J**	< 0.500 U	NA	NA	< 0.500 U	**10.4**	< 0.500 U	< 0.500 U
cis-1,3-Dichloropropene	10061-01-5	µg/L	5.3	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Dibromochloromethane	124-48-1	µg/L	34	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Dibromomethane	74-95-3	µg/L	380	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Dichlorodifluoromethane	75-71-8	µg/L	20000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Ethylbenzene	100-41-4	µg/L	700	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Hexachlorobutadiene	87-68-3	µg/L	20	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 2.00 U	< 2.00 U
Isopropylbenzene	98-82-8	µg/L	10000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
m,p-Xylene	179601-23-1	µg/L	10,000**	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U
Methylene chloride	75-09-2	µg/L	5	< 1.00 U	< 1.00 U	< 0.500 U	< 25.0 U	< 1.00 U	NA	NA	< 1.00 U	< 0.500 U	< 0.500 U	< 0.500 U
Naphthalene	91-20-3	µg/L	2000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
n-Butylbenzene	104-51-8	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
n-Propylbenzene	103-65-1	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
o-Xylene	95-47-6	µg/L	10,000**	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
sec-Butylbenzene	135-98-8	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Styrene	100-42-5	µg/L	100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
tert-Butylbenzene	98-06-6	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Tetrachloroethene	127-18-4	µg/L	5	< 0.500 U	< 0.500 U	< 0.500 U	**58.8 J**	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Toluene	108-88-3	µg/L	1000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
trans-1,2-Dichloroethene	156-60-5	µg/L	100	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
trans-1,3-Dichloropropene	10061-02-6	µg/L	29	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Trichloroethene	79-01-6	µg/L	5	**170**	**1.77**	< 0.500 U	**3010 J**	3.04	NA	NA	< 0.500 U	**17.6**	< 0.500 U	< 0.500 U
Trichlorofluoromethane	75-69-4	µg/L	31000	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Vinyl chloride	75-01-4	µg/L	2	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U	NA	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U
Method: SW8270SIM														
1,4-Dioxane	123-91-1	ug/L	9.1	NA	0.046	0.086 J	**0.38**	< 0.020 UJ	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	**0.23 J**

Notes:

Blue highlighting indicates concentrations above the MCL/MSC/PCL

MCL/MSC - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

1 -- lab forgot to run mercury and would be > 2x hold time

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID				18CPTMW23_121224	18CPTMW24_120924	18WW02_120524	18WW06_120524	18WW08_121224	18WW08_121224_a	18WW10_121024	18WW22_121624	18WW24_121224	18WW24_121224_a	C03_121124	C08_121124	C09_120924	MW2_120524	MW3_121624
Aquifer Zone				Shallow	Shallow	Wilcox	Wilcox	Shallow	Wilcox	Shallow	Shallow	Shallow	Shallow	Wilcox	Shallow	Shallow	Shallow	Shallow
Well Identification				18CPTMW23	18CPTMW24	18WW02	18WW06	18WW08	18WW08	18WW10	18WW22	18WW24	18WW24	C-03	C-08	C-09	MW-2	MW-3
ANALYTE	CAS NUMBER	UNITS	MCL/MSC/PCL															
Method: 6850																		
Perchlorate		µg/L	17*	**64.8**	**66.5**	**0.15 J**	**0.15 J**	**4550**	**4550**	**12.6**	**0.5**	**2.4 J**	**0.58 J**	**109**	**0.21**	**0.17**	**0.21**	**2790**
Method: SW6020A																		
Aluminum	7429-90-5	mg/L	100	NA	**0.0137 J**	**0.0418**	NA	NA	NA	NA	**0.145**	**0.166**	NA	NA	**0.0249**	**0.0423**	**0.0164**	**0.00910 J**
Antimony	7440-36-0	mg/L	0.006	NA	< 0.00250 U	< 0.00125 U	NA	NA	NA	NA	**0.000510 J**	< 0.00125 U	< 0.00125 U	NA	< 0.00125 U	< 0.00250 U	**0.000549 J**	< 0.00125 U
Arsenic	7440-38-2	mg/L	0.01	NA	**0.00476**	< 0.00125 U	NA	NA	NA	NA	**0.00160 J**	**0.000815 J**	**0.000766 J**	NA	< 0.00125 U	< 0.00250 U	**0.0329**	< 0.00125 U
Barium	7440-39-3	mg/L	2	NA	**7.86**	**0.0377**	NA	NA	NA	NA	**0.0378**	**0.05**	**0.049**	NA	**4.99**	**1.11**	**6.95**	**0.242**
Beryllium	7440-41-7	mg/L	0.004	NA	< 0.00100 U	< 0.000500 U	NA	NA	NA	NA	< 0.000500 U	**0.000312 J**	**0.000313 J**	NA	< 0.000500 U	< 0.00100 U	**0.000387 J**	< 0.000500 U
Cadmium	7440-43-9	mg/L	0.005	NA	< 0.00100 U	< 0.000500 U	NA	NA	NA	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	**0.000209 J**	< 0.00100 U	< 0.000500 U	**0.000232 J**
Calcium	7440-70-2	mg/L	NV	NA	**345**	**6.69**	NA	NA	NA	NA	**8.23**	**42**	**41.9**	NA	**248**	**392**	**118**	**14.1**
Chromium	7440-47-3	mg/L	0.1	NA	**0.000851 J**	**0.0133**	NA	NA	NA	NA	**0.0286**	**0.000813 J**	**0.000916 J**	NA	**0.000863 J**	**0.00336 J**	**0.184**	**0.00145 J**
Cobalt	7440-48-4	mg/L	6.1	NA	**0.00196 J**	< 0.000500 U	NA	NA	NA	NA	< 0.000500 U	**0.044**	**0.044**	NA	**0.00197 J**	**0.00180 J**	**0.453**	**0.00343 J**
Copper	7440-50-8	mg/L	1.3	NA	< 0.00500 U	**0.00102 J**	NA	NA	NA	NA	< 0.00125 U	**0.00121 J**	**0.00129 J**	NA	< 0.00125 U	< 0.00500 U	**0.00190 J**	< 0.00125 U
Iron	7439-89-6	mg/L	NV	NA	**6.21**	**0.738**	NA	NA	NA	NA	**0.0215 J**	**0.292**	**0.305**	NA	**0.412**	**0.149 J**	**58.6**	**0.286**
Lead	7439-92-1	mg/L	0.015	NA	< 0.00250 U	< 0.00125 U	NA	NA	NA	NA	< 0.00125 U	< 0.00125 U	< 0.00125 U	NA	< 0.00125 U	< 0.00250 U	< 0.00125 U	< 0.00125 U
Magnesium	7439-95-4	mg/L	NV	NA	**232**	**1.25**	NA	NA	NA	NA	**1.04**	**35.3**	**35.6**	NA	**176**	**199**	**96.4**	**7.76**
Manganese	7439-96-5	mg/L	1.1*	NA	**0.459**	**0.0831**	NA	NA	NA	NA	**0.00122 J**	**9.29**	**9.55**	NA	**0.212**	**0.358**	**33.3**	**1.41**
Nickel	7440-02-0	mg/L	0.49*	NA	**0.00322 J**	**0.0101**	NA	NA	NA	NA	< 0.00125 U	**0.127**	**0.129**	NA	**0.00199 J**	**0.12**	**0.228**	**0.00463**
Potassium	7440-09-7	mg/L	NV	NA	**2.17**	**1.87**	NA	NA	NA	NA	**2.48**	**0.68**	**0.689**	NA	**2.13**	**1.41**	**3.6**	**1.00**
Selenium	7782-49-2	mg/L	0.05	NA	< 0.00500 U	< 0.00125 U	NA	NA	NA	NA	**0.00136 J**	< 0.00125 U	< 0.00125 U	NA	< 0.00125 U	< 0.00500 U	< 0.00125 U	< 0.00125 U
Silver	7440-22-4	mg/L	0.51	NA	< 0.00100 U	< 0.000500 U	NA	NA	NA	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U	< 0.00100 U	< 0.000500 U	< 0.000500 U
Sodium	7440-23-5	mg/L	NV	NA	**955**	**39.1**	NA	NA	NA	NA	**41.3**	**631**	**635**	NA	**812**	**585**	**344**	**164**
Thallium	7440-28-0	mg/L	0.002	NA	< 0.00100 U	< 0.000500 U	NA	NA	NA	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U	NA	< 0.000500 U	< 0.00100 U	< 0.000500 U	**0.000230 J**
Vanadium	7440-62-2	mg/L	0.72	NA	< 0.00250 U	**0.00114 J**	NA	NA	NA	NA	**0.016**	**0.00103 J**	**0.00106 J**	NA	**0.000687 J**	< 0.00250 U	< 0.00125 U	< 0.00125 U
Zinc	7440-66-6	mg/L	31	NA	**0.00651 J**	**0.00400 J**	NA	NA	NA	NA	< 0.00250 U	**0.0479**	**0.0474**	NA	**0.0075**	**0.0106**	**0.055**	**0.00456**
Method: SW7470A																		
Mercury	7439-97-6	mg/L	0.002	NA	< 0.000100 UJ	< 0.000100 U	NA	NA	NA	NA	< 0.000100 U	< 0.000100 UJ	< 0.000100 UJ	NA	0.0000340 J	< 0.000100 UJ	< 0.000100 U	< 0.000100 U
Method: SW8260																		
1,1,1,2-Tetrachloroethane	630-20-6	µg/L	110	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,1,1-Trichloroethane	71-55-6	µg/L	200	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	14	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
1,1,2-Trichloroethane	79-00-5	µg/L	5	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,1-Dichloroethane	75-34-3	µg/L	10000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,1-Dichloroethene	75-35-4	µg/L	7	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,1-Dichloropropene	563-58-6	µg/L	2.9	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,2,3-Trichlorobenzene	87-61-6	µg/L	310	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,2,3-Trichloropropane	96-18-4	µg/L	0.041	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
1,2,4-Trichlorobenzene	120-82-1	µg/L	70	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
1,2,4-Trimethylbenzene	95-63-6	µg/L	5100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,2-Dibromo-3-chloropropane	96-12-8	µg/L	0.2	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,2-Dibromoethane	106-93-4	µg/L	0.05	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,2-Dichlorobenzene	95-50-1	µg/L	600	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
1,2-Dichloroethane	107-06-2	µg/L	5	**78.4**	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,2-Dichloropropane	78-87-5	µg/L	5	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
1,3,5-Trimethylbenzene	108-67-8	µg/L	5100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,3-Dichlorobenzene	541-73-1	µg/L	3100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,3-Dichloropropane	142-28-9	µg/L	29	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
1,4-Dichlorobenzene	106-46-7	µg/L	75	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
2,2-Dichloropropane	594-20-7	µg/L	42	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
2-Butanone	78-93-3	µg/L	61000	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
2-Chlorotoluene	95-49-8	µg/L	2000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
2-Hexanone	591-78-6	µg/L	6100	< 20.0 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 400 U	< 10.0 U
4-Chlorotoluene	106-43-4	µg/L	2000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
4-Isopropyltoluene	99-87-6	µg/L	10000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
4-Methyl-2-pentanone	108-10-1	µg/L	8200	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
Acetone	67-64-1	µg/L	92000	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
Benzene	71-43-2	µg/L	5	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Bromobenzene	108-86-1	µg/L	2000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Bromochloromethane	74-97-5	µg/L	4100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Bromodichloromethane	75-27-4	µg/L	4.6	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Bromoform	75-25-2	µg/L	36	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Bromomethane	74-83-9	µg/L	140	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID				18CPTMW23_121224	18CPTMW24_120924	18WW02_120524	18WW06_120524	18WW08_121224	18WW08_121224_a	18WW10_121024	18WW22_121624	18WW24_121224	18WW24_121224_a	C03_121124	C08_121124	C09_120924	MW2_120524	MW3_121624
Aquifer Zone				Shallow	Shallow	Wilcox	Wilcox	Shallow	Wilcox	Shallow	Shallow	Shallow	Shallow	Wilcox	Shallow	Shallow	Shallow	Shallow
Well Identification				18CPTMW23	18CPTMW24	18WW02	18WW06	18WW08	18WW08	18WW10	18WW22	18WW24	18WW24	C-03	C-08	C-09	MW-2	MW-3
ANALYTE	CAS NUMBER	UNITS	MCL/MSC/PCL															
Carbon disulfide	75-15-0	µg/L	10000	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
Carbon tetrachloride	56-23-5	µg/L	5	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
Chlorobenzene	108-90-7	µg/L	100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Chloroethane	75-00-3	µg/L	41000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Chloroform	67-66-3	µg/L	1000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Chloromethane	74-87-3	µg/L	220	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
cis-1,2-Dichloroethene	156-59-2	µg/L	70	**187**	< 0.500 U	< 0.500 U	< 0.500 U	**1.95**	**2.21**	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	**37200**	**31.3 J**
cis-1,3-Dichloropropene	10061-01-5	µg/L	5.3	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Dibromochloromethane	124-48-1	µg/L	34	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Dibromomethane	74-95-3	µg/L	380	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Dichlorodifluoromethane	75-71-8	µg/L	20000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Ethylbenzene	100-41-4	µg/L	700	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Hexachlorobutadiene	87-68-3	µg/L	20	< 5.00 U	< 0.500 U	< 2.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 400 U	< 2.50 U
Isopropylbenzene	98-82-8	µg/L	10000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
m,p-Xylene	179601-23-1	µg/L	10,000**	< 10.0 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 200 U	< 5.00 U
Methylene chloride	75-09-2	µg/L	5	< 5.00 U	< 1.00 U	< 0.500 U	< 1.00 U	< 1.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 1.00 U	< 1.00 U	< 1.00 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Naphthalene	91-20-3	µg/L	2000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
n-Butylbenzene	104-51-8	µg/L	4100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
n-Propylbenzene	103-65-1	µg/L	4100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
o-Xylene	95-47-6	µg/L	10,000**	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
sec-Butylbenzene	135-98-8	µg/L	4100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Styrene	100-42-5	µg/L	100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
tert-Butylbenzene	98-06-6	µg/L	4100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Tetrachloroethene	127-18-4	µg/L	5	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Toluene	108-88-3	µg/L	1000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
trans-1,2-Dichloroethene	156-60-5	µg/L	100	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	**108 J**	< 2.50 U
trans-1,3-Dichloropropene	10061-02-6	µg/L	29	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Trichloroethene	79-01-6	µg/L	5	**1270**	< 0.500 U	< 0.500 U	< 0.500 U	**5.44**	**5.3**	< 0.500 U	< 0.500 U	**0.544 J**	**0.431 J**	< 0.500 U	< 0.500 U	< 0.500 U	**3360**	**196 J**
Trichlorofluoromethane	75-69-4	µg/L	31000	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	< 2.50 U
Vinyl chloride	75-01-4	µg/L	2	< 5.00 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 100 U	**12.5 J**
Method: SW8270SIM																		
1,4-Dioxane	123-91-1	ug/L	9.1	**0.24**	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	< 0.020 U	NA	NA	< 0.020 U	< 0.020 U	NA	0.45	NA

Notes:

Blue highlighting indicates concentrations above the MCL/MSC/PCL

MCL/MSC - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

1 -- lab forgot to run mercury and would be > 2x hold time

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID				MW3_121624_a	MW5_120924	MW7_120324	MW8_121624	MW8_121624_a	MW9_121124	MW10_121024	MW14_121024	MW16_121024	MW17_121024	MW18_120324	MW19_120324	MW20_120524	MW21_120324	MW22_121224	MW22_121224_a
Aquifer Zone				Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Wilcox	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Well Identification				MW-3	MW-5	MW-7	MW-8	MW-8	MW-9	MW-10	MW-14	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-22
ANALYTE	CAS NUMBER	UNITS	MCL/MSC/PCL																
Method: 6850																			
Perchlorate		µg/L	17*	**2810**	**16000**	**8720**	**2810**	**7310**	**2**	**15.8**	**374000**	**43.6**	**0.32**	**0.55**	**3.9**	**1.0**	**2500**	**2360**	**2420**
Method: SW6020A																			
Aluminum	7429-90-5	mg/L	100	**0.0122**	**0.0101**	NA	NA	NA	**0.0163**	NA	**0.132**	NA	NA	NA	**0.217**	NA	**0.00952 J**	**0.0183 J**	**0.0256 J**
Antimony	7440-36-0	mg/L	0.006	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	**0.000421 J**	**0.000666 J**	**0.000661 J**
Arsenic	7440-38-2	mg/L	0.01	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	**0.00155 J**	NA	NA	NA	**0.00165 J**	NA	**0.000412 J**	**0.000773 J**	**0.000835 J**
Barium	7440-39-3	mg/L	2	**0.23**	**0.709**	NA	NA	NA	**0.0484**	NA	**0.188**	NA	NA	NA	**0.185**	NA	**3.57**	**0.713**	**0.707**
Beryllium	7440-41-7	mg/L	0.004	< 0.000500 U	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA	**0.00151 J**	NA	NA	NA	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U
Cadmium	7440-43-9	mg/L	0.005	**0.000209 J**	**0.000682 J**	NA	NA	NA	< 0.000500 U	NA	**0.00118 J**	NA	NA	NA	**0.000635 J**	NA	**0.000451 J**	< 0.000500 U	< 0.000500 U
Calcium	7440-70-2	mg/L	NV	**14.2**	**17.9**	NA	NA	NA	**4.8**	NA	**140**	NA	NA	NA	**137**	NA	**99.9**	**64.8**	**65.2**
Chromium	7440-47-3	mg/L	0.1	**0.00132 J**	**0.454**	NA	NA	NA	**0.0523**	NA	**1.52**	NA	NA	NA	**0.0235**	NA	**0.144**	**0.497**	**0.533**
Cobalt	7440-48-4	mg/L	6.1	**0.00321 J**	**0.00547**	NA	NA	NA	**0.00111 J**	NA	**0.0755**	NA	NA	NA	**0.00477 J**	NA	**0.0381**	**0.00323 J**	**0.00340 J**
Copper	7440-50-8	mg/L	1.3	< 0.00125 U	**0.00546**	NA	NA	NA	< 0.00125 U	NA	**0.0229**	NA	NA	NA	**0.00276 J**	NA	**0.0232**	**0.0091**	**0.00939**
Iron	7439-89-6	mg/L	NV	**0.254**	**2.89**	NA	NA	NA	**0.805**	NA	**115**	NA	NA	NA	**97.1**	NA	**8.96**	**6.09**	**6.24**
Lead	7439-92-1	mg/L	0.015	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	< 0.00125 U	< 0.00125 U	< 0.00125 U
Magnesium	7439-95-4	mg/L	NV	**7.91**	**18**	NA	NA	NA	**1.41**	NA	**84.7**	NA	NA	NA	**77.4**	NA	**75**	**21.4**	**21.4**
Manganese	7439-96-5	mg/L	1.1*	**1.39**	**0.126**	NA	NA	NA	**0.035**	NA	**6.03**	NA	NA	NA	**2.18**	NA	**0.888**	**0.0563**	**0.058**
Nickel	7440-02-0	mg/L	0.49*	**0.00461**	**0.361**	NA	NA	NA	**0.00704**	NA	**2.54**	NA	NA	NA	**0.0677**	NA	**0.804**	**0.315**	**0.315**
Potassium	7440-09-7	mg/L	NV	**1.02**	**1.99**	NA	NA	NA	**0.245**	NA	**13.7**	NA	NA	NA	**4.24**	NA	**1.65**	**2.01**	**2**
Selenium	7782-49-2	mg/L	0.05	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	< 0.00125 U	< 0.00125 U	< 0.00125 U
Silver	7440-22-4	mg/L	0.51	< 0.000500 U	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U
Sodium	7440-23-5	mg/L	NV	**168**	**101**	NA	NA	NA	**10.1**	NA	**573**	NA	NA	NA	**1120**	NA	**330**	**342**	**339**
Thallium	7440-28-0	mg/L	0.002	< 0.000500 U	< 0.000500 U	NA	NA	NA	< 0.000500 U	NA	**0.000509 J**	NA	NA	NA	< 0.000500 U	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U
Vanadium	7440-62-2	mg/L	0.72	< 0.00125 U	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	< 0.00125 U	NA	NA	NA	< 0.00125 U	NA	< 0.00125 U	< 0.00125 U	< 0.00125 U
Zinc	7440-66-6	mg/L	31	**0.00441**	**0.0185**	NA	NA	NA	**0.0097**	NA	**0.855**	NA	NA	NA	**0.00784**	NA	**0.0133**	**0.00337 J**	**0.00655 J**
Method: SW7470A																			
Mercury	7439-97-6	mg/L	0.002	< 0.000100 U	NA[1]	NA	NA	NA	< 0.000100 U	NA	< 0.000100 U	NA	NA	NA	< 0.000100 U	NA	< 0.000100 U	< 0.000100 UJ	< 0.000100 UJ
Method: SW8260																			
1,1,1,2-Tetrachloroethane	630-20-6	µg/L	110	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
1,1,1-Trichloroethane	71-55-6	µg/L	200	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	14	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 UJ	< 1.00 U	< 25.0 U	< 1.00 U
1,1,2-Trichloroethane	79-00-5	µg/L	5	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	**6.21**	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
1,1-Dichloroethane	75-34-3	µg/L	10000	< 2.50 U	**2.61**	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	**48.8**	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	**8.72**	< 12.5 U	< 0.500 U
1,1-Dichloroethene	75-35-4	µg/L	7	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	**3.24**	< 0.500 U	**62.5 J**	**6.04**	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
1,1-Dichloropropene	563-58-6	µg/L	2.9	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
1,2,3-Trichlorobenzene	87-61-6	µg/L	310	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
1,2,3-Trichloropropane	96-18-4	µg/L	0.041	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 UJ	< 1.00 U	< 25.0 U	< 1.00 U
1,2,4-Trichlorobenzene	120-82-1	µg/L	70	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 UJ	< 1.00 U	< 25.0 U	< 1.00 U
1,2,4-Trimethylbenzene	95-63-6	µg/L	5100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
1,2-Dibromo-3-chloropropane	96-12-8	µg/L	0.2	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
1,2-Dibromoethane	106-93-4	µg/L	0.05	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
1,2-Dichlorobenzene	95-50-1	µg/L	600	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 UJ	< 1.00 U	< 25.0 U	< 1.00 U
1,2-Dichloroethane	107-06-2	µg/L	5	< 2.50 U	< 0.500 U	< 0.500 U	**62.4 J**	**64.7 J**	< 0.500 U	< 0.500 U	**117**	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	**7.95**
1,2-Dichloropropane	78-87-5	µg/L	5	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 UJ	< 1.00 U	< 25.0 U	< 1.00 U
1,3,5-Trimethylbenzene	108-67-8	µg/L	5100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
1,3-Dichlorobenzene	541-73-1	µg/L	3100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
1,3-Dichloropropane	142-28-9	µg/L	29	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
1,4-Dichlorobenzene	106-46-7	µg/L	75	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
2,2-Dichloropropane	594-20-7	µg/L	42	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
2-Butanone	78-93-3	µg/L	61000	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U
2-Chlorotoluene	95-49-8	µg/L	2000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
2-Hexanone	591-78-6	µg/L	6100	< 10.0 U	< 2.00 U	< 2.00 U	< 10.0 U	< 10.0 U	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	NA	< 2.00 U	< 2.00 U	< 2.00 U	< 2.00 U	< 50.0 U	< 2.00 U
4-Chlorotoluene	106-43-4	µg/L	2000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
4-Isopropyltoluene	99-87-6	µg/L	10000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
4-Methyl-2-pentanone	108-10-1	µg/L	8200	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U
Acetone	67-64-1	µg/L	92000	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U
Benzene	71-43-2	µg/L	5	< 2.50 U	< 0.500 U	0.770 J	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	**8.75**	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	**2.28**	< 12.5 U	**0.830 J**
Bromobenzene	108-86-1	µg/L	2000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Bromochloromethane	74-97-5	µg/L	4100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Bromodichloromethane	75-27-4	µg/L	4.6	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Bromoform	75-25-2	µg/L	36	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Bromomethane	74-83-9	µg/L	140	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID				MW3_121624_a	MW5_120924	MW7_120324	MW8_121624	MW8_121624_a	MW9_121124	MW10_121024	MW14_121024	MW16_121024	MW17_121024	MW18_120324	MW19_120324	MW20_120524	MW21_120324	MW22_121224	MW22_121224_a
Aquifer Zone				Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Wilcox	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Well Identification				MW-3	MW-5	MW-7	MW-8	MW-8	MW-9	MW-10	MW-14	MW-16	MW-17	MW-18	MW-19	MW-20	MW-21	MW-22	MW-22
ANALYTE	CAS NUMBER	UNITS	MCL/MSC/PCL																
Carbon disulfide	75-15-0	µg/L	10000	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 25.0 U	< 1.00 U
Carbon tetrachloride	56-23-5	µg/L	5	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 UJ	< 1.00 U	< 25.0 U	< 1.00 U
Chlorobenzene	108-90-7	µg/L	100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Chloroethane	75-00-3	µg/L	41000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
Chloroform	67-66-3	µg/L	1000	< 2.50 U	< 0.500 U	**13.5**	< 2.50 U	< 2.50 U	0.724 J	< 0.500 U	**13.7**	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	**17.4**	< 12.5 U	**2.93**
Chloromethane	74-87-3	µg/L	220	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
cis-1,2-Dichloroethene	156-59-2	µg/L	70	**32.6 J**	**8.63**	**13.8**	**477 J**	**494 J**	**42.9**	< 0.500 U	**1460**	**16.9**	NA	**0.845 J**	< 0.500 U	< 0.500 UJ	**506**	< 12.5 U	**6.92**
cis-1,3-Dichloropropene	10061-01-5	µg/L	5.3	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Dibromochloromethane	124-48-1	µg/L	34	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Dibromomethane	74-95-3	µg/L	380	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Dichlorodifluoromethane	75-71-8	µg/L	20000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
Ethylbenzene	100-41-4	µg/L	700	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Hexachlorobutadiene	87-68-3	µg/L	20	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 2.00 U	< 0.500 U	< 12.5 U	< 0.500 U
Isopropylbenzene	98-82-8	µg/L	10000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
m,p-Xylene	179601-23-1	µg/L	10,000**	< 5.00 U	< 1.00 U	< 1.00 U	< 5.00 U	< 5.00 U	< 1.00 U	< 1.00 U	< 1.00 U	< 1.00 U	NA	< 1.00 U	< 1.00 U	< 1.00 UJ	< 1.00 U	< 25.0 U	< 1.00 U
Methylene chloride	75-09-2	µg/L	5	< 2.50 U	< 1.00 U	< 1.00 U	< 2.50 U	< 2.50 U	< 0.500 U	< 1.00 U	**34.4**	< 1.00 U	NA	< 1.00 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Naphthalene	91-20-3	µg/L	2000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
n-Butylbenzene	104-51-8	µg/L	4100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
n-Propylbenzene	103-65-1	µg/L	4100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
o-Xylene	95-47-6	µg/L	10,000**	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	**0.547 J**	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
sec-Butylbenzene	135-98-8	µg/L	4100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
Styrene	100-42-5	µg/L	100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
tert-Butylbenzene	98-06-6	µg/L	4100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Tetrachloroethene	127-18-4	µg/L	5	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	**2.33**	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	**3.23**	< 12.5 U	**0.591 J**
Toluene	108-88-3	µg/L	1000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	**1.47**	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
trans-1,2-Dichloroethene	156-60-5	µg/L	100	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	**34.2**	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	**28.4**	< 12.5 U	< 0.500 U
trans-1,3-Dichloropropene	10061-02-6	µg/L	29	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	< 0.500 U	< 12.5 U	< 0.500 U
Trichloroethene	79-01-6	µg/L	5	**203 J**	**21.8**	**222**	**470 J**	**449 J**	**778**	**1.82**	**2870**	**322**	NA	< 0.500 U	< 0.500 U	< 0.500 UJ	**603**	**298 J**	**461 J**
Trichlorofluoromethane	75-69-4	µg/L	31000	< 2.50 U	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	NA	< 0.500 U	< 0.500 U	< 0.500 U	< 0.500 U	< 12.5 U	< 0.500 U
Vinyl chloride	75-01-4	µg/L	2	**14.5 J**	< 0.500 U	< 0.500 U	< 2.50 U	< 2.50 U	< 0.500 U	< 0.500 U	**21.6**	0.591 J	NA	< 0.500 U	< 0.500 U	< 0.500 U	**103**	< 12.5 U	0.726 J
Method: SW8270SIM																			
1,4-Dioxane	123-91-1	µg/L	9.1	NA	0.068	**0.32 J**	**0.96 J**	**0.95 J**	**0.088 J**	< 0.020 U	**5.3**	**0.1**	**0.021 J**	NA	NA	NA	**0.068**	NA	NA

Notes:

Blue highlighting indicates concentrations above the MCL/MSC/PCL

MCL/MSC - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

1 -- lab forgot to run mercury and would be > 2x hold time

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID Aquifer Zone Well Identification ANALYTE	CAS NUMBER	UNITS	MCL/MSC/PCL	MW23_121024 Shallow MW-23	109_121124 Shallow MW-109	120_1212024 Shallow MW-120	125_121624 Shallow MW-125	126_121124 Shallow MW-126	1824DPTMW07_121124 Shallow 1824DPTMW07
Method: 6850									
Perchlorate		µg/L	17*	**81800**	**1780**	**7490**	**4290**	**1.2**	**7.5**
Method: SW6020A									
Aluminum	7429-90-5	mg/L	100	NA	NA	NA	**0.53**	**0.0928**	**0.0652**
Antimony	7440-36-0	mg/L	0.006	NA	NA	NA	< 0.00125 U	< 0.00125 U	**0.000838 J**
Arsenic	7440-38-2	mg/L	0.01	NA	NA	NA	**0.00133 J**	**0.00439**	**0.00947**
Barium	7440-39-3	mg/L	2	NA	NA	NA	**0.212**	**10.6**	**0.284**
Beryllium	7440-41-7	mg/L	0.004	NA	NA	NA	**0.000301 J**	< 0.000500 U	< 0.000500 U
Cadmium	7440-43-9	mg/L	0.005	NA	NA	NA	< 0.000500 U	**0.000313 J**	< 0.000500 U
Calcium	7440-70-2	mg/L	NV	NA	NA	NA	**2.91**	**345**	**40.9**
Chromium	7440-47-3	mg/L	0.1	NA	NA	NA	**0.00267 J**	**0.00191 J**	**0.00108 J**
Cobalt	7440-48-4	mg/L	6.1	NA	NA	NA	**0.00173 J**	**0.00782**	**0.00669**
Copper	7440-50-8	mg/L	1.3	NA	NA	NA	**0.00189 J**	< 0.00125 U	< 0.00125 U
Iron	7439-89-6	mg/L	NV	NA	NA	NA	**0.619**	**5.48**	**43.8**
Lead	7439-92-1	mg/L	0.015	NA	NA	NA	**0.00273**	< 0.00125 U	< 0.00125 U
Magnesium	7439-95-4	mg/L	NV	NA	NA	NA	**2.23**	**260**	**27.3**
Manganese	7439-96-5	mg/L	1.1*	NA	NA	NA	**0.0489**	**0.116**	**8.1**
Nickel	7440-02-0	mg/L	0.49*	NA	NA	NA	**0.00377**	**0.0119**	**0.00234**
Potassium	7440-09-7	mg/L	NV	NA	NA	NA	**0.582**	**4.28**	**0.768**
Selenium	7782-49-2	mg/L	0.05	NA	NA	NA	< 0.00125 U	< 0.00125 U	< 0.00125 U
Silver	7440-22-4	mg/L	0.51	NA	NA	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U
Sodium	7440-23-5	mg/L	NV	NA	NA	NA	**43.2**	**894**	**107**
Thallium	7440-28-0	mg/L	0.002	NA	NA	NA	< 0.000500 U	< 0.000500 U	< 0.000500 U
Vanadium	7440-62-2	mg/L	0.72	NA	NA	NA	**0.00214 J**	**0.00153 J**	**0.000631 J**
Zinc	7440-66-6	mg/L	31	NA	NA	NA	**0.0115**	**0.0512**	**0.00683**
Method: SW7470A									
Mercury	7439-97-6	mg/L	0.002	NA	NA	NA	< 0.000100 U	< 0.000100 UJ	< 0.000100 UJ
Method: SW8260									
1,1,1,2-Tetrachloroethane	630-20-6	µg/L	110	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,1,1-Trichloroethane	71-55-6	µg/L	200	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,1,2,2-Tetrachloroethane	79-34-5	µg/L	14	< 1.00 U	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
1,1,2-Trichloroethane	79-00-5	µg/L	5	< 0.500 U	< 0.500 U	**1.63**	< 5.00 U	< 0.500 U	< 0.500 U
1,1-Dichloroethane	75-34-3	µg/L	10000	0.840 J	**2.97**	**15.3**	< 5.00 U	< 0.500 U	< 0.500 U
1,1-Dichloroethene	75-35-4	µg/L	7	< 0.500 U	< 0.500 U	**90.1**	< 5.00 U	< 0.500 U	< 0.500 U
1,1-Dichloropropene	563-58-6	µg/L	2.9	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,2,3-Trichlorobenzene	87-61-6	µg/L	310	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,2,3-Trichloropropane	96-18-4	µg/L	0.041	< 1.00 U	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
1,2,4-Trichlorobenzene	120-82-1	µg/L	70	< 1.00 U	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
1,2,4-Trimethylbenzene	95-63-6	µg/L	5100	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,2-Dibromo-3-chloropropane	96-12-8	µg/L	0.2	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,2-Dibromoethane	106-93-4	µg/L	0.05	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,2-Dichlorobenzene	95-50-1	µg/L	600	< 1.00 UJ	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
1,2-Dichloroethane	107-06-2	µg/L	5	**89.7**	< 0.500 U	**16.8**	< 5.00 U	< 0.500 U	< 0.500 U
1,2-Dichloropropane	78-87-5	µg/L	5	< 1.00 U	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
1,3,5-Trimethylbenzene	108-67-8	µg/L	5100	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,3-Dichlorobenzene	541-73-1	µg/L	3100	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,3-Dichloropropane	142-28-9	µg/L	29	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
1,4-Dichlorobenzene	106-46-7	µg/L	75	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
2,2-Dichloropropane	594-20-7	µg/L	42	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
2-Butanone	78-93-3	µg/L	61000	< 1.00 U	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
2-Chlorotoluene	95-49-8	µg/L	2000	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
2-Hexanone	591-78-6	µg/L	6100	< 2.00 U	< 2.00 U	< 2.00 U	< 20.0 U	< 2.00 U	< 2.00 U
4-Chlorotoluene	106-43-4	µg/L	2000	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
4-Isopropyltoluene	99-87-6	µg/L	10000	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
4-Methyl-2-pentanone	108-10-1	µg/L	8200	< 1.00 U	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
Acetone	67-64-1	µg/L	92000	< 1.00 U	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
Benzene	71-43-2	µg/L	5	**1.77**	< 0.500 U	**2.51**	< 5.00 U	< 0.500 U	< 0.500 U
Bromobenzene	108-86-1	µg/L	2000	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Bromochloromethane	74-97-5	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Bromodichloromethane	75-27-4	µg/L	4.6	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Bromoform	75-25-2	µg/L	36	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Bromomethane	74-83-9	µg/L	140	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U

Semiannual Sampling Event Groundwater Analyitcal Results - December 2024
LHAAP-18/24

Sample ID				MW23_121024	109_121124	120_1212024	125_121624	126_121124	1824DPTMW07_121124
Aquifer Zone				Shallow	Shallow	Shallow	Shallow	Shallow	Shallow
Well Identification			MCL/MSC/PCL	MW-23	MW-109	MW-120	MW-125	MW-126	1824DPTMW07
ANALYTE	CAS NUMBER	UNITS							
Carbon disulfide	75-15-0	µg/L	10000	< 1.00 U	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
Carbon tetrachloride	56-23-5	µg/L	5	**6.95 J**	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
Chlorobenzene	108-90-7	µg/L	100	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Chloroethane	75-00-3	µg/L	41000	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Chloroform	67-66-3	µg/L	1000	**12.6 J**	**3.44**	**14.6**	< 5.00 U	< 0.500 U	< 0.500 U
Chloromethane	74-87-3	µg/L	220	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
cis-1,2-Dichloroethene	156-59-2	µg/L	70	**55.3 J**	**1050**	**760**	**5.03 J**	< 0.500 U	< 0.500 U
cis-1,3-Dichloropropene	10061-01-5	µg/L	5.3	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Dibromochloromethane	124-48-1	µg/L	34	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Dibromomethane	74-95-3	µg/L	380	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Dichlorodifluoromethane	75-71-8	µg/L	20000	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Ethylbenzene	100-41-4	µg/L	700	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Hexachlorobutadiene	87-68-3	µg/L	20	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Isopropylbenzene	98-82-8	µg/L	10000	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
m,p-Xylene	179601-23-1	µg/L	10,000**	< 1.00 UJ	< 1.00 U	< 1.00 U	< 10.0 U	< 1.00 U	< 1.00 U
Methylene chloride	75-09-2	µg/L	5	< 1.00 U	< 0.500 U	**5.13**	< 5.00 U	< 0.500 U	< 1.00 U
Naphthalene	91-20-3	µg/L	2000	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
n-Butylbenzene	104-51-8	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
n-Propylbenzene	103-65-1	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
o-Xylene	95-47-6	µg/L	10,000**	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
sec-Butylbenzene	135-98-8	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Styrene	100-42-5	µg/L	100	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
tert-Butylbenzene	98-06-6	µg/L	4100	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Tetrachloroethene	127-18-4	µg/L	5	**1.8**	**1.31**	**5.44**	< 5.00 U	< 0.500 U	< 0.500 U
Toluene	108-88-3	µg/L	1000	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
trans-1,2-Dichloroethene	156-60-5	µg/L	100	**3.14**	**5.34**	**7.82**	< 5.00 U	< 0.500 U	< 0.500 U
trans-1,3-Dichloropropene	10061-02-6	µg/L	29	< 0.500 UJ	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Trichloroethene	79-01-6	µg/L	5	**4000**	**1400**	**2570**	< 5.00 U	< 0.500 U	< 0.500 U
Trichlorofluoromethane	75-69-4	µg/L	31000	< 0.500 U	< 0.500 U	< 0.500 U	< 5.00 U	< 0.500 U	< 0.500 U
Vinyl chloride	75-01-4	µg/L	2	< 0.500 U	**8.99**	**19.7**	< 5.00 U	< 0.500 U	< 0.500 U
Method: SW8270SIM									
1,4-Dioxane	123-91-1	ug/L	9.1	NA	**0.078**	**2.3**	< 0.020 U	< 0.020 U	NA

Notes:

Blue highlighting indicates concentrations above the MCL/MSC/PCL

MCL/MSC - Maximum Contaminant Limit/Medium-Specific Concentrations/Protective Concentration Level

NA - Not Analyzed/Not Applicable; NV - No value

µg/L - micrograms per liter; mg/L - milligrams per liter

a - duplicate sample

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.

U - Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

*Perchlorate, manganese, and nickel compared to the PCL

** Value is for total xylenes

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

1 -- lab forgot to run mercury and would be > 2x hold time

01342713

TUSCON AVE
TALVEP AVE
LHAAP-35C (53)
18WW05 (167.31)
168.00
C-06 (167.19)
Harrison Bayou
C-05 (169.03)
169.00
18WW20 (169.13)
18CPTMW16 (170.10) (Not Used)
18CPTMW18 (170.37)
1824DPTMW01 (169.37)
18WW22 (170.58)
18CPTMW19 (171.20)
BGPZ-6 (171.27)
18WW08 (170.48)
1824DPTMW03 (170.08)
MW-5 (171.28)
AWD-4 (171.61)
BGPZ-7 (170.15)
18WW25 (169.33)
MW-6 (170.54)
125 (172.01)
18CPTMW15 (171.44)
BGPZ-5 (171.87)
MW-4 (172.95)
1824DPTMW02 (170.22)
171.00
LHAAP-24
MW-3 (172.09)
170.00
18WW24 (170.23)
BGPZ-4 (169.98)
109 (171.99)
18CPTMW23 (170.93)
BGPZ-11 (171.28)
1824DPTMW04 (170.36)
MW-16 (170.42)
BGPZ-3 (170.14)
MW-11 (170.02)
123 (173.89)
18CPTMW04 (174.05)
BGPZ-8 (169.64)
MW-21 (171.60)
C-08 (171.85)
MW-1 (174.50)
MW-2 (173.48)
C-02 (172.00)
AWD-2 (173.56)
BGPZ-9 (171.37)
MW-12 (171.62)
BGPZ-12 (Plugged)
AWD-3 (174.73)
18WW10 (169.60)
MW-10 (171.21)
AWD-1 (173.86)
18CPTMW24 (171.78)
101 (189.32) (Not Used)
120 (172.60)
LHAAP-18
MW-22 (173.00)
MW-17 (170.72)
MW-9 (172.08)
174.00
BGPZ-2 (171.10)
MW-23 (173.10)
1824DPTMW05 (173.22)
171.00
BGPZ-10 (170.04)
18CPTMW14 (172.93)
173.00
129 (172.47)
MW-8 (171.90)
MW-18 (172.26)
MW-7 (171.62)
LHAAP-39
Groundwater Treatment Plant
126 (172.47)
MW-19 (171.42)
BGPZ-1 (179.80) (Not Used)
102 (175.30) (Not Used)
130 (172.24)
18CPTMW22R (181.01) (Not Used)
18CPTMW26 (166.33) (Not Used)
MW-20 (175.49) (Not Used)
172:00
LHAAP-63
SCUDDAY AVE
172.00
LHAAP-17
17WW08 (172.20)
AVE "Q"
18WW14 (171.50)
C-09 (171.09)
171.00
LONG POINT RD
170.00
C-07 (169.51)
HAYSTACK RD
LHAAP-19
BOBBY JONES RD

Legend:
- Shallow Monitoring Well Location (inside ICTs)
- Shallow Monitoring Well Location (outside ICTs)
- Shallow Piezometer Location (inside ICTs)
- Shallow Piezometer Location (outside ICTs)
- (172.47) Potentiometric Surface Elevation in Feet Above Mean Sea Level
- Potentiometric Surface Contour
- Direction of Groundwater Flow
- HDPE High Density Polyethylene
- Interception-Collection Trench (ICT) Location
- HDPE Liner Installed outside of the ICT
- Installation Restoration Program (IRP) Area
- Stream / Ditch Centerline
- Road Line

Notes:
This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

0 75 150 300 Feet

PCIbhate

Quarterly Evaluation Report 2nd Quarter (April – June) 2023
Groundwater Treatment Plant
Longhorn Army Ammunition Plant, Karnack, Texas

Groundwater Potentiometric Surface Map
Shallow Zone (May 15, 2023) LHAAP-18/24

Figure B-1

PROJECT NO:	SCALE:	DATE:	DRAWN BY:
JVPCIBH.0001.0005.03	As Shown	8/9/2023	MRM

01342714

TUSCON AVE

TALYER AVE

LHAAP-35C (53)

Harrison Bayou

18WW04
(167.69)

168.00

168.50

169.00

18WW19
(168.95)

18CPTMW19SW
(168.84)

169.50

18WW21
(169.55)

170.00

C-04A
(170.24)

C-04
(169.96)
(Not Used)

170.50

18WW09
(170.66)

18WW18
(170.79)

C-03
(170.95)

18CPTMW08DW
(170.43)

18CPTMW08SW
(171.08)
(Not Used)

1824DPTMW06
(171.76)

18CPTMW23SW
(171.12)

LHAAP-24

18CPTMW01SW
(172.10)

18CPTMW01DW
(170.65)
(Not Used)

18CPTMW07
(171.37)

18WW06
(170.65)

18WW02
(171.38)

18CPTMW04SW
(171.02)

172.00

MW-13
(171.07)

171

LHAAP-18

18WW03
(170.50)

18WW11
(169.58)

173.50

173.00

172.50

172.00

18CPTMW06
(171.08)

MW-14
(173.89)

171.50

18CPTMW10DW
(170.38)

18CPTMW03SW
(171.38)

18CPTMW10SW
(170.96)

170.00

BOBBY JONES RD.

18CPTMW12SW
(170.72)

18CPTMW12DW
(170.58)

LHAAP-39

Groundwater Treatment Plant

Unnamed Ditch

170.50

18CPTMW22SW
(171.21)

18CPTMW26SW
(169.38)

169.50

18CPTMW22DW
(171.19)

170.00

LHAAP-63

SCUDDAY AVE

LHAAP-17

171.00

AVE "Q"

C-01
(171.77)

171.50

170.50

18WW15
(171.94)

LONG POINT RD

C-10
(170.39)

HAYSTACK RD.

LHAAP-19

Legend:

- Wilcox Formation Monitoring Well Location
- (170.39) Potentiometric Surface Elevation in Feet Above Mean Sea Level
- Potentiometric Surface Contour
- Direction of Groundwater Flow
- HDPE High Density Polyethylene
- Interception-Collection Trench (ICT) Location
- HDPE Liner Installed outside of the ICT
- Installation Restoration Program (IRP) Area
- Stream / Ditch Centerline
- Road Line

Notes:
This information is depicted to provide visual aid within the context of this document and should not be used as a sole reference in precise dimensioning of features indicated. Please verify the location of all features including underground and aboveground utilities prior to conducting any subsurface exploration or site assessment.

0 75 150 300 Feet

PCIbhate

Quarterly Evaluation Report 2nd Quarter (April – June) 2023
Groundwater Treatment Plant
Longhorn Army Ammunition Plant, Karnack, Texas

Groundwater Potentiometric Surface Map
Wilcox Zone (May 15, 2023) LHAAP-18/24

Figure B-3

PROJECT NO:	SCALE:	DATE:	DRAWN BY:
JVPCIBH.0001.0005.03	As Shown	8/9/2023	MRM

LHAAP-Quarterly Surface Water Sampling

January 2025 (Quarter 1)

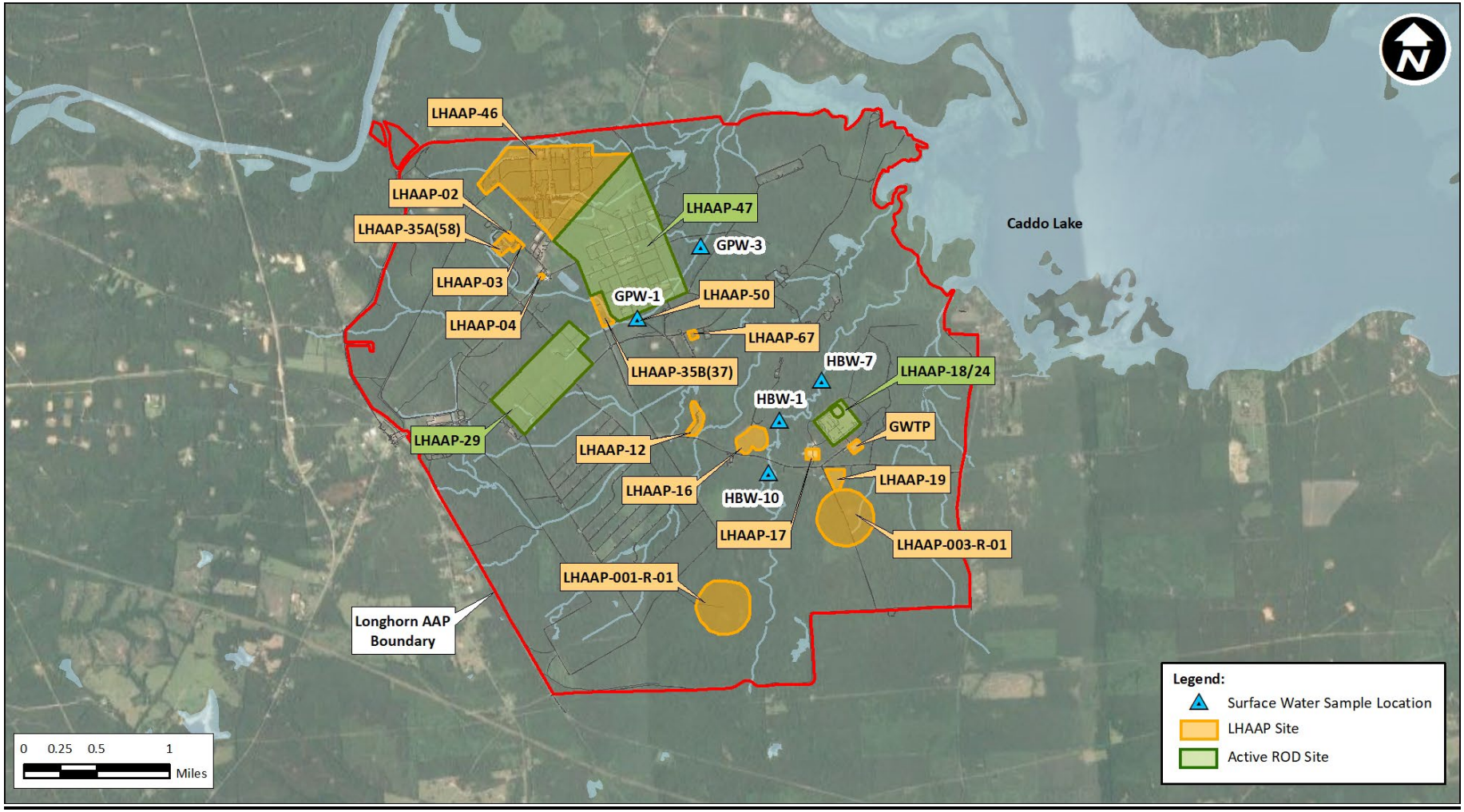
Location ID: / Sample Date:	Units	PCL	HBW1_011525 1/15/25	HBW7_011525 1/15/25	HBW7_011525_A 1/15/25	HBW10_011525 1/15/25	GPW1_011525 1/15/25	GPW3_011525 1/15/25
Perchlorate (6850)			Harrison Bayou				Goose Prairie Creek	
Perchlorate	µg/L	17	**0.064 J**	**0.14 J**	**0.051 J**	**0.057 J**	**0.069 J**	**0.050 J**

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

J - estimated value between the detection limit and limit of quanitation

U - non-detect value reported to the limit of detection

Longhorn Army Ammuntion Plant Creek Sampling Locations



Subject:	**Final Monthly Manager's Meeting (MMM), Longhorn Army Ammunition Plant (LHAAP)**
Location of Meeting:	**WebEx**
Date of Meeting:	**16 April 2025 – 10:00 AM Central Standard Time (CST)**

Attendees:

USEPA:	Brian Follin (BF); Janetta Coats; Teresie Walker; Anna Milburn
USACE:	Aaron Williams (AW); Chelsea Montoya
USAEC:	Kelly Norwood (KN)
USGS:	Tim Bartos (TB); Christopher Braun
TCEQ:	April Palmie (AP)
PCI/Bhate JV (PBJV):	Zack Beck (ZB); Kelsey Edwards (KE); Michelle Schwartz; Mitchell Freeby; Scott Beesinger (SB)
APTIM:	William Foss (WF); Praveen Srivastav
TLI:	Jon Tatman
HDR:	Philip Werner (PW)

The following Decision Points were reached during the April MMM:

1. USACE, USAEC, EPA, and TCEQ will continue to meet between active contracts. USACE will send out meeting appointments as necessary.

Defense Environmental Restoration Program (DERP):

ZB started with a discussion on the wildfire that occurred at LHAAP. He detailed that a fire took place and stated that a controlled burn started on Wednesday 19 March 2025 by the US Fish and Wildlife Service (USFWS) jumped Harrison Bayou on 20 March 2025 and burned potions of several of the Army's sites at LHAAP including Sites 12, 16, and 18/24. ZB stated that the biggest impact from the fire was in the vicinity of the groundwater treatment plant (GWTP) where the underground valve box which brings water into the GWTP was melted. He added that the GWTP has not been able to run since the fire and until the valve box is repaired, well field 18/24 and site 17 are both temporarily down. ZB said that contractors are currently looking into the repair and providing quotes for the repair. He said the Army is working with USFWS on the funding for the repair and it will likely be repaired under the follow-on contract. BF asked whether there would be a formal report on these issues. AW agreed that a Memorandum for Record was a good idea and said that the Army would prepare. BF asked whether the damage to LHAAP-16 was to the wells, or the landfill cap. SB answered that there was no damage to the cap and only piezometers at LHAAP-16. BF asked whether we should take this opportunity to rethink the status of the GWTP. ZB stated that the GWTP is an interim remedy (IR) and the Final Remedy has been approved and will be

implemented in the next few years. AW added that the intent of the final remedy is to include active treatments aimed to remove the heavy contamination at Site 18/24. He stated that the active treatment will allow the Army to ramp down the GWTP. BF said that the IR has been in place for decades and was not intended to be used the way it is and suggested the team look into changes as opposed to temporary fixes. AW said the final remedy will replace it. He added that the PBJV's contract is ending at the end of this month so the current plan is to add an option to the next contract to address the GWTP repair. BF asked if the Army is part of any of the planning for the prescribed burns and suggested that the Army should be in the future if they are not currently. AP agreed it was a good idea for the Army to be involved in those conversations. AW said language was added into the new contract to ensure coordination with USFWS. ZB added that USFWS has acknowledged that in hindsight the timing of the burn wasn't the best decision. AP followed up on the reporting of the fire to document the damages and contracting issues. AW agreed it would be a good idea to create a technical memorandum documenting the events. ZB added that the LHAAP-12 report will document the fire and the damage to this particular site. AP asked if prescribed burns were part of long-term plan at LHAAP-12. WF recalled a controlled burn which took place a few years ago that burned down off the landfill and into the well area. SB added that they perform burns every year in late February, early March, but that typically the weather is watched closer, specifically the wind. BF stated that the controlled burns have not been a problem until now and we need to ensure we document this event that has impacted a Superfund site.

ZB stated that the PBJV has other action items which include updating the website with the most recent RAB information, including the Q1 2025 RAB update. WF added that he would notify the group when this information is added to the website.

Field Work: ZB stated that the PBJV has nearly completed all field work under the current contract. SB said they were doing well maintenance at LHAAP-46 this week and he was planning to do the LUC inspection and mow/weed at LHAAP-001-R-01 and LHAAP-003-R-01 as soon as the sites dry out enough to mow. WF asked SB about tree removals at LHAAP-16. SB stated he has been unable to remove the trees yet, but it is part of his plan to do so when the weather dries up [This will be completed under the next contract]. ZB asked SB about the status of the GWTP now that there is no influent. SB stated that the fluidized bed reactor is in recycle mode.

DI Tracker: ZB referred to the DI tracker for April 2025.

- **Task 1-5** (Project Management) – ZB stated that the PBJV had finalized the January and February minutes. He added that the March 2025 MMM minutes were

submitted as draft at the end of March and that AP has reviewed them with no comments. ZB said that the May 2025 MMM would be held in the event that PBJV is under contract, but for now the May meeting is not planned. ZB stated that there would likely be a contract kick off call as well.

- **Task 6** (LHAAP-04) – ZB stated that the Year 5 Remedial Action – Operation (RA-O) Report is expected to be submitted for regulatory review today or tomorrow. ZB said the first semi-annual sampling event for Year 6 was completed in February 2025 and introduced the validated data. He said perchlorate continues to be below the protective concentration level (PCL) and the site continues to return to pre-existing aerobic conditions.
- **Task 7** (LHAAP-12) – ZB stated that draft 2024 Annual RA-O report was in progress and would be submitted for regulator review by the end of the month or early May 2025. The report will cover the annual event that was completed in December 2024 as well as an inspection that was completed post-fire.
- **Task 8** (LHAAP-16) and **Task 1022** (Option 22: LHAAP-16) – WF mentioned that semi-annual sampling was completed in January 2025 and stated that the validated data was included in this month's data package. WF stated that the data from the semi-annual event showed COC concentrations went up from the July 2024 data but that they are generally consistent with what the January 2024 data showed. WF mentioned continued seasonal fluctuations at the site. He added that there is a continued decline in the DHC and carbon concentrations from January 2024 to January 2025. He stated that this information is generally consistent with reaching the end of the time frame of the injected carbon that was used as an EVO here. WF stated that the data also shows degradation on the upgradient portion of the plume but that overall, we are seeing the end of life of the carbon used in injections. ZB stated this site will be recommended for additional injections in the upcoming contract. AW verified this in addition to addressing the findings from the five-year review.
- **Task 9** (LHAAP-18/24/GWTP) – ZB stated the next semiannual sampling event will be included in the next contract and that the sampling is typically completed in the June timeframe. ZB stated that information from the December 2024 sampling event would be included in the 1st semi-annual GWTP report, which would include data from the 3rd and 4th Quarter 2024. The Army Draft of this document is still in progress. The 2nd Quarter 2024 report was submitted and is under TCEQ and EPA review. ZB said he received the extension request from AP for the review of this document.
- **Task 10** (LHAAP-37) – WF stated that the Year 8 RA-O report was in army review and will presumably be with the regulators next month.

- **Task 11** (LHAAP-46) – WF stated that the Final 2023 RA-O report was put back up on the portal after replacing the missing page the AP called out. The validated data for the 2024 RA-O report was presented. AW stated that this group had previously discussed the installation of an additional well on the northwest portion of the site. WF agreed that this discussion will be part of the next Report and stated that the 2024 report will be ready for review in May or early June 2025.
- **Task 12** (LHAAP-50) – ZB stated that regulator comments on the Year 10 RA-O report were received and the goal is to have RTCs back by the end of the month. ZB mentioned that the next sampling event would be completed under the next contract.
- **Task 13** (LHAAP-58) – ZB stated that the Year 10 RA-O report was submitted to the Regulators at the end of March. The Year 11 sampling will be covered under the follow-on contract and the scheduled is to be determined.
- **Task 14** (LHAAP-67) – WF stated that the 2024 RA-O report is in progress and will be likely submitted to the Army early next week and thus to the Regulators sometime next month.
- **Task 15** (LHAAP-001-R-01 and LHAAP-003-R-01) – ZB stated that PBJV is trying to get the inspection and mowing performed prior to the end of this contract [This was completed in April 2025].
- **Task 16** (Surface Water) – ZB stated that the final document will be included in the 1st Quarter 2025 AR Update.
- **Task 17** (Land Use Control Management)—ZB stated that the PBJV combined the 2023 and 2024 LUC management plan update and the 2025 update will be included in the follow on contract.
- **Task 18** (AR) – WF stated the AR update for July through September has gone through review and should be coming out to the group this week. He stated they are working on the October to December 2024 AR updates.

Update on other DERP Sites:

- **LHAAP 18/24 –** PW stated there are no further updates, and the 100% Remedial Design (RD) will be included in the AR Update.
- **LHAAP-29** – PW stated there are no further updates, and the 100% RDI will be included in the AR Update.
- **LHAAP-47** – PW stated that the Draft Pre-Design Investigation (PDI) Addendum was submitted to the regulators on 14 March 2025 with review comments requested by 17 April 2025. PW asked AP and BF if they were going to need an extension on review

time. Both AP and BF stated they believed they would be able to get the review back by tomorrow. PW added that the 30% Remedial Design is in progress.

- **LHAAP-17** – ZB stated that the performance monitoring is ongoing and the last quarterly sampling event was performed in March. ZB stated the Year 2 RA-O draft report is in review with the Regulators and there was a 20-day extension request from TCEQ with a target date of 6 May 2025. He added that because the GWTP is currently down, there is no water being extracted from LHAAP-17.

Per- and polyfluoroalkyl substances (PFAS) Update: AW stated that the current status is that the Army is unable to fund any new Remedial Investigations for the remainder of the fiscal year, so any PFAS work will be tentatively planned for fiscal year 26.

Five-Year Review: AW said the Five-Year Review is being placed into the AR.

Transfer Update: ZB stated that USFWS approved the ECP and the transfer is moving forward.

ZB pointed to the list of remaining documents which PBJV is working on under the current contract. AP said that there will be a need for extensions because all of these documents will be hitting about the same time. AW stated we will try to wrap up all of the reports within 3 months of the POP ending.

AP asked if the Army expects a contract to be in place by 2 May 2025. AW stated there will likely be a gap in coverage and it is not known how long that gap will be.

KN introduced herself as the new Environmental Support Manager (ESM) for LHAAP at USAEC.

Schedule Next Managers' Meeting
ZB stated the next MMM is not formerly scheduled pending the follow-on contract. He stated he would communicate the schedule for the next MMM via email.

BF stated that there could be a Regulator and Army meeting during that time. AP agreed this would be a good idea. AW said that an email would be sent out to set up a meeting.

Meeting adjourned at 11:58 CST.

ACRONYM LIST

AP	April Palmie
AR	Administrative Record
AW	Aaron Williams
CST	Central Standard Time
CSM	Conceptual Site Model
DERP	Defense Environmental Restoration Program
GK	Gregory Kelly
GSA	General Services Administration
GWTP	Groundwater Treatment Plant
ICT	Interception Collection Trench
KE	Kelsey Edwards
KR	Kyle Russel
LHAAP	Longhorn Army Ammunition Plant
LUC	Land Use Control
MB	Mike Bowlby
MMM	Monthly Managers' Meeting
PBJV	Poarch Creek Indians, Governmental Services, LLC /Bhate Environmental Associates Joint Venture
PDI	Pre- Design Investigation
PFAS	Per- and polyfluoroalkyl substances
RAB	Restoration Advisory Board
RD	Remedial Design
RTC	Response to comments
TCEQ	Texas Commission on Environmental Quality
USACE	United States Army Corps of Engineers
USAEC	United States Army Environmental Command
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WF	William Foss

LHAAP Validated Data
April 2025 MMM

GWTP Effluent	*Weekly Perchlorate Sampling –February 2025* Perchlorate (6850)
GWTP Effluent	*Weekly, Bi-Weekly, and Monthly Sampling – February 2025* Ammonia (350.3) Ortho-Phosphate (365.3) Total Organic Carbon (415.1) VOC (8260C) Metals (6020A) Hexavalent Chromium (7196A) 1,4-Dioxane (8270D-SIM) Anions (9056)
GWTP Influent	*Monthly Sampling – February 2025* Metals (6020A) Perchlorate (6850) Hexavalent Chromium (7196A)
LHAAP-04	*Semi-Annual Sampling - February 2025* Perchlorate (6850)
LHAAP-16	*January 2025 Remedial Performance Monitoring (Year 5, Semiannual Event #2)* Volatile Organic Compounds (8260C) Perchlorate (EPA 6850) Dissolved Gases (RSK-175) Nitrate/Sulfate (SW9056A) Total Organic Carbon (SM5310B) Metals (6020) Dechlorinating Bacteria (Census) Field Measurements (Dissolved Oxygen, Oxidation Reduction Potential, and pH)
LHAAP-46	*February 2025 Annual Remedial Action Operation Monitoring (Year 11)* Volatile Organic Compounds (8260C) Dissolved Gases (RSK-175) Nitrate, Chloride, and Sulfate (SW9056A) Total Organic Carbon (SM5310B) Field Measurements (Dissolved Oxygen, Oxidation Reduction Potential, and pH)

Perchlorate Sampling - February 2025

Location ID: Sample Date:	Units	Daily Maximum Conc	PCL	LH18/24-SP650_020425_BIX 2/4/25	LH18/24-SP650_020425_AIX 2/4/25	LH18/24-SP650_021125_BIX 2/11/25	LH18/24-SP650_021125_AIX 2/11/25	LH18/24-SP650_021125_AIX 2/11/25	LH18/24-SP650_021925_BIX 2/19/25	LH18/24-SP650_021925_AIX 2/19/25	LH18/24-SP650_022725_BIX 2/27/25	LH18/24-SP650_022725_AIX 2/27/25
ɔcation Description												
				Weekly	Weekly	Weekly	Weekly	Monthly Eff	Weekly	Weekly	Weekly	Weekly
Perchlorate (6850)												
Perchlorate	µg/L	589	17	**391**	< 0.10 U	**138**	**1.8**	**8.5**	**68.1**	**3.4**	**98.4**	**5.5**

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level

µg/L - micrograms per liter

BIX - before ion exchange/AIX - after ion exchange

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

above the PCL

Bold Values- Detections

GWTP Weekly Sampling - February 2025

Location ID: Sample Date:	Units	Daily Maximum Conc	LH18/2424-SP650_020425 2/24/25	LH18/24-SP650_021125 2/11/25	LH18/24-SP650_021925 2/19/25	LH18/24-SP650_022725 2/27/25
Location Description			**GWTP–Collected from a spigot on the discharge of effluent TK-650. Sampled Weekly.**			
Ammonia as N (350.3)						
Ammonia as N	mg/L	NV	**3.3**	**3.1**	**4.7**	**8.9**
Ortho-Phosphate (365.3)						
Ortho-Phosphate	mg/L	NV	**2.02**	**1.42**	**1.55**	**1.82**
Organic Carbon (415.1)						
Total Organic Carbon (TOC)	mg/L	NV	**7.61**	**20.6**	**22.4**	**15.6 J**

Notes:

GWTP - Groundwater Treatment Plant

TK - Tank

mg/L - milligrams per liter

NV - No Value

Bold Values- Detections

J - estimated value

GWTP Bi-Weekly Sampling - February 2025

Location ID: Sample Date:	Units	(Bayou) Daily Maximum Conc	(INF pond) MCL	LH18/24-SP650_020425 2/4/25	LH18/24-SP650_021925 2/19/25
Location Description				**GWTP – Collected from a spigot on the discharge of effluent TK-650. Sampled Biweekly.**	
Volatile Organic Compounds (8260C)					
1,1,1-Trichloroethane	µg/L	7,230	200	< 0.500 U	< 0.500 U
1,1,2-Trichloroethane	µg/L	216.9	5	< 0.500 U	< 0.500 U
1,1-Dichloroethane	µg/L	14,032	NV	< 0.500 U	< 0.500 U
1,1-Dichloroethene	µg/L	253	7	< 0.500 U	< 0.500 U
1,2-Dichloroethane	µg/L	181	5	< 0.500 U	< 0.500 U
1,2-Dichloropropane	µg/L	5	5	< 0.500 U	< 1.00 U
Acetone	µg/L	2,395	NV	< 1.00 U	< 1.00 U
Benzene	µg/L	181	5	< 0.500 U	< 0.500 U
Carbon tetrachloride	µg/L	181	5	< 1.00 U	< 1.00 U
Chlorobenzene	µg/L	47,180	100	< 0.500 U	< 0.500 U
Chloroform	µg/L	3,615	NV	< 0.500 U	< 0.500 U
cis-1,2-Dichloroethene	µg/L	NV	70	**1.32**	**0.984 J**
Ethylbenzene	µg/L	57,025	700	< 0.500 U	< 0.500 U
m,p-Xylene	µg/L	83.6	NV	< 1.00 U	< 1.00 U
Methylene chloride	µg/L	1,699	5	< 1.00 U	< 1.00 U
o-Xylene	µg/L	83.6	NV	< 0.500 U	< 0.500 U
Styrene	µg/L	5,987	100	< 0.500 U	< 0.500 U
Tetrachloroethene	µg/L	180.7	5	< 0.500 U	< 0.500 U
Toluene	µg/L	4,189	10	< 0.500 U	< 0.500 U
Trichloroethene	µg/L	181	5	**0.410 J**	**0.458 J**
Vinyl chloride	µg/L	72	2	< 0.500 U	< 0.500 U
Anions (9056)					
Chloride	mg/L	NV	NV	**161**	**172**
Sulfate	mg/L	NV	NV	**11.2**	**14.6**

Notes:

GWTP - Groundwater Treatment Plant

INF - Intermediate Range Nuclear Forces

MCL - Maximum Contaminant Level

TK - Tank

µg/L - micrograms per liter

mg/L - milligrams per liter

Bold Values- Detections

J - estimated value

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

GWTP Monthly Effluent Sampling - February 2025

Location ID: Sample Date:	Units	Daily Maximum Conc	(INF pond) MCL	LH18/24-SP650_021125 2/11/25
Location Description				**GWTP – Collected from a spigot on the discharge of effluent TK-650. Sampled monthly**
Volatile Organic Compounds (8260C)				
1,1,1-Trichloroethane	µg/L	7,230	200	< 0.500 U
1,1,2-Trichloroethane	µg/L	216.9	5	< 0.500 U
1,1-Dichloroethane	µg/L	14,032	NV	< 0.500 U
1,1-Dichloroethene	µg/L	253	7	< 0.500 U
1,2-Dichloroethane	µg/L	181	5	< 0.500 U
1,2-Dichloropropane	µg/L	5	5	< 1.00 U
Acetone	µg/L	2,395	NV	< 1.00 U
Benzene	µg/L	181	5	< 0.500 U
Carbon tetrachloride	µg/L	181	5	< 1.00 U
Chlorobenzene	µg/L	47,180	100	< 0.500 U
Chloroform	µg/L	3,615	NV	< 0.500 U
cis-1,2-dichloroethene	µg/L	NV	70	**1.02**
Ethylbenzene	µg/L	57,025	700	< 0.500 U
m,p-Xylene	µg/L	83.6	NV	< 1.00 U
Methylene chloride	µg/L	1,699	5	< 1.00 U
o-Xylene	µg/L	83.6	NV	< 0.500 U
Styrene	µg/L	5,987	100	< 0.500 U
Tetrachloroethene	µg/L	180.7	5	< 0.500 U
Toluene	µg/L	4,189	10	< 0.500 U
Trichloroethene	µg/L	181	5	**0.412 J**
Vinyl chloride	µg/L	72	2	< 0.500 U
Metals (6020A)				
Barium	mg/L	2	2	**0.300**
Lead	mg/L	0.0046	0.015	< 0.00125 U
Selenium	mg/L	0.012	0.05	< 0.00125 U
Silver	mg/L	0.003	0.1	< 0.000500 U
Hexavalent Chromium (7196A)				
Hexavalent Chromium	mg/L	0.1244	NV	< 0.0100 U
Semi-Volatile Organic Compounds (8270D SIM)				
1,4-Dioxane	µg/L	134.2	NV	**1.00**

Notes:

GWTP - Groundwater Treatment Plant

INF - Intermediate Range Nuclear Forces

MCL - Maximum Contaminant Level

TK - Tank

SIM - Select Ion monitoring

µg/L - micrograms per liter

mg/L - milligrams per liter

Bold Values- Detections

J - estimated value

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

GWTP Monthly Influent Sampling - February 2025

Location ID: Sample Date:	Units	LH18/24-SP140_021125 2/11/25
Location Description		**GWTP – Collected from a spigot on the influent to TK-140. Sampled Monthly.**
Metals (6020A)		
Selenium	mg/L	< 0.00125 U
Silver	mg/L	< 0.000500 U
Hexavalent Chromium (7196A)		
Hexavalent Chromium	mg/L	< 0.0100 U
Perchlorate (6850)		
Perchlorate	µg/L	**7,920**

Notes:

GWTP - Groundwater Treatment Plant

TK - Tank

mg/L - milligrams per liter

µg/L - micrograms per liter

U- Undetected: The analyte was analyzed for, but not detected and reported to the limit of detection.

Bold Values- Detections

LHAAP-04

February 2025 Semi-Annual Event

Location ID: / Sample Date:	Units	PCL	04WW01_022625 2/26/25	04WW04_022625 2/26/25	04WW04_022625-A 2/26/25	04WW05_022625 2/26/25	04WW07_022625 2/26/25	04WW09_022625 2/26/25	04WW10_022625 2/26/25	04WW11_022625 2/26/25
Perchlorate (6850)										
Perchlorate	µg/L	17	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	**0.11 J**
Field Parameters										
Dissolved oxygen	mg/L	NV	0.25	0.29		0.83	0.73	0.19	2.23	3.22
ORP	mV	NV	-75	-118		43	198	-46	273	78
pH	Std. Units	NV	6.39	6.38		6.22	6.61	6.60	6.28	6.70

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level
J - Estimated: Between the method detection limit and
U - Undetected: The analyte was analyzed for, but not detected.
µg/L - micrograms per liter
J - Estimated: Between the method detection limit and reporting limit
mg/L - milligrams per liter
mV - millivolts

01342730

Figure 2

Site Layout and Features

Fourth Annual RA-O Report LHAAP-04
Longhorn Army Ammunition Plant
Karnack, Texas

DRAWN BY: MRM

DATE: 1/11/2024

SCALE: As Shown

PROJECT NO: JVPCIBH.0001.0002.01

PCIbhate

LHAAP-66
LHAAP-60A
LHAAP-60B
LHAAP-60C
LHAAP-04
Site LHAAP-04 Boundary
04WW01
04WW02
04WW04
04WW05
04WW06
04WW07
04WW08
04WW09
04WW10
04WW11
LHSMW01
LHSMW02
60TH ST.
6TH ST.
AVE "T"
Former Fire Station

Legend:
- RA-O Monitoring Well Location
- Shallow Monitoring Well Location
- Intermediate Monitoring Well Location
- Limits of Excavation at Surface (Source: LHAAP-04 Final Completion Report, Shaw, 2011)
- Land Use Control Boundary
- Installation Restoration Program (IRP) Area
- Stream
- Former and/or Existing Building Location

Acronyms:
RA-O - Remedial Action Operations

Aerial Photography Source: Google Earth, 6/11/2022

0 30 60 120 Feet

LHAAP-16 Remedial Performance Monitoring
Year 5 Semiannual Event #2
(January 2025)

Injection Area			**Landfill Biobarrier #1**													
Location Code			**16IW09**				**16RW01**		**16RW03**		**16RW04**		**16RW05**		**16WW26**	
Sample ID			**16IW09-250121**		**16IW09-250121-FD**		**16RW01-250127**		**16RW03-250124**		**16RW04-250127**		**16RW05-250124**		**16WW26-250129**	
Sample Date			**1/21/2025**		**1/21/2025**		**1/27/2025**		**1/24/2025**		**1/27/2025**		**1/24/2025**		**1/29/2025**	
Sample Type			**REG**		**FD**		**REG**		**REG**		**REG**		**REG**		**REG**	
Location Description			**Performance Data Within Landfill Biobarrier #1; Shallow Zone**				**Upgradient Well for Landfill Biobarrier #1; Shallow Zone**		**Performance Data Within Landfill Biobarrier #1; Shallow Zone**		**Downgradient Well for Landfill Biobarrier #1; Shallow Zone**		**Downgradient Well for Landfill Biobarrier #1; Shallow Zone**		**Downgradient Well for Landfill Biobarrier #1; Shallow Zone**	
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)																
Dehalococcoides	cells/mL	NV	3.7		NA		NA		NA		NA		NA		NA	
Field Measurements																
Dissolved oxygen	mg/L	NV	0.31		0.31		0.08		4.56		0.02		0.06		0.01	
Oxidation Reduction Potential	mV	NV	-45		-45		307		215		256		117		67	
pH	SU	NV	6.03		6.03		4.92		5.59		4.97		6.45		5.66	
Dissolved Gases (RSK-175)																
Carbon Dioxide	µg/L	NV	200,000		210,000		NA		NA		NA		NA		NA	
Ethane	µg/L	NV	< 0.25	U	< 0.25	U	NA		NA		< 0.25	U	< 0.25	U	NA	
Ethylene	µg/L	NV	< 0.25	UJ	< 0.25	UJ	NA		NA		4.03	J	< 0.25	U	NA	
Methane	µg/L	NV	2,460	J	8,800	J	NA		NA		394	J	2,080	J	NA	
General Chemistry (SM5310B/SW9056A)																
Nitrate	mg/L	NV	< 0.05	UJ	< 0.05	UJ	NA		NA		NA		NA		NA	
Nitrite	mg/L	NV	0.144	J	0.143	J	NA		NA		NA		NA		NA	
Sulfate	mg/L	NV	6.52		6.65		NA		NA		NA		NA		NA	
Total organic carbon	mg/L	NV	49.6		49		NA		NA		NA		NA		42.4	
Metals (6020)																
Arsenic	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Chromium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Manganese	mg/L	1,100 [a]	NA		NA		NA		NA		NA		NA		NA	
Nickel	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Thallium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Perchlorate (EPA 6850)																
Perchlorate	µg/L	17	0.1	J	< 0.1	U	< 0.1	U	< 0.1	U	< 0.1	U	< 0.1	U	< 0.1	U
Volatile Organic Compounds (8260)																
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 25	U	< 0.5	U	< 50	U	< 0.5	U	< 5	U
1,1-Dichloroethene	µg/L	7	< 0.5	U	< 0.5	U	< 25	U	< 0.5	U	< 50	U	< 0.5	U	< 5	U
1,2-Dichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 25	U	< 0.5	U	< 50	U	< 0.5	U	< 5	U
cis-1,2-Dichloroethene	µg/L	70	< 0.5	U	< 0.5	U	**107**	J	< 0.5	U	**186**	J	1.63		**76.8**	
Methylene chloride	µg/L	5	< 1	U	< 1	U	< 50	U	< 1	U	< 100	U	< 1	U	< 10	U
Trichloroethene	µg/L	5	< 0.5	U	< 0.5	U	**2,210**	J	< 0.5	U	**3,830**	J	< 0.5	U	**1,250**	
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	< 25	U	< 0.5	U	< 50	U	< 0.5	U	< 5	U

LHAAP-16 Remedial Performance Monitoring
Year 5 Semiannual Event #2
(January 2025)

Injection Area			Landfill Biobarrier #1		Landfill Biobarrier #2											
Location Code			16WW42		16IW03		16PM02		16PM03		16PM06		16PM09			
Sample ID			16WW42-250124		16IW03-250121		16PM02-250123		16PM03-250123		16PM06-250127		16PM09-250127		16PM09-250127-FD	
Sample Date			1/24/2025		1/21/2025		1/23/2025		1/23/2025		1/27/2025		1/27/2025		1/27/2025	
Sample Type			REG		REG		REG		REG		REG		REG		FD	
Location Description			Downgradient Well for Landfill Biobarrier #1; Shallow Zone		Performance Data Within Landfill Biobarrier #2; Shallow Zone		Upgradient Well for Landfill Biobarrier #2; Shallow Zone		Upgradient Well for Landfill Biobarrier #2; Shallow Zone		Downgradient Well for Landfill Biobarrier #2; Shallow Zone		Downgradient Well for Landfill Biobarrier #2; Shallow Zone			
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)																
Dehalococcoides	cells/mL	NV	NA		93,000		NA		NA		NA		NA		NA	
Field Measurements																
Dissolved oxygen	mg/L	NV	4.39		0.17		0.03		0.08		0.05		0.24		0.24	
Oxidation Reduction Potential	mV	NV	250		-43		68		133		-15		160		160	
pH	SU	NV	5.42		6.21		5.69		6.16		5.95		5.79		5.79	
Dissolved Gases (RSK-175)																
Carbon Dioxide	µg/L	NV	NA		230,000		NA		NA		NA		NA		NA	
Ethane	µg/L	NV	NA		< 0.25	UJ	NA		NA		< 0.25	U	NA		NA	
Ethylene	µg/L	NV	NA		803	J	NA		NA		128	J	NA		NA	
Methane	µg/L	NV	NA		6,090	J	NA		NA		920	J	NA		NA	
General Chemistry (SM5310B/SW9056A)																
Nitrate	mg/L	NV	NA		< 0.05	U	NA		NA		NA		NA		NA	
Nitrite	mg/L	NV	NA		< 0.05	UJ	NA		NA		NA		NA		NA	
Sulfate	mg/L	NV	NA		5.13		NA		NA		NA		NA		NA	
Total organic carbon	mg/L	NV	NA		202	J	NA		NA		NA		NA		NA	
Metals (6020)																
Arsenic	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Chromium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Manganese	mg/L	1,100 [a]	NA		NA		NA		NA		NA		NA		NA	
Nickel	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Thallium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Perchlorate (EPA 6850)																
Perchlorate	µg/L	17	0.068	J	< 0.1	U	< 0.1	U	**409**		< 0.1	U	< 0.1	U	< 0.1	U
Volatile Organic Compounds (8260)																
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 250	U	< 50	U	< 500	U	< 5	U	< 5	U
1,1-Dichloroethene	µg/L	7	< 0.5	U	1.24		< 250	U	< 50	U	< 500	U	**22**	J	**21.8**	J
1,2-Dichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 250	U	< 50	U	< 500	U	< 5	U	< 5	U
cis-1,2-Dichloroethene	µg/L	70	**97.4**		**111**		**7,380**		**6,670**		**36,100**	J	**384**	J	**380**	J
Methylene chloride	µg/L	5	< 1	U	< 1	U	< 500	U	< 100	U	< 1,000	U	6.82	J	11.4	J
Trichloroethene	µg/L	5	**26**		**109**		**76,300**		**12,000**		**134,000**	J	**1,210**	J	**1,220**	J
Vinyl chloride	µg/L	2	< 0.5	U	**43.5**		**282**	J	**389**		**956**	J	**16.6**	J	**15.5**	J

LHAAP-16 Remedial Performance Monitoring
Year 5 Semiannual Event #2
(January 2025)

Injection Area			Landfill Biobarrier #2				Landfill Biobarrier #3									
Location Code			16PM14		16WW36		16RW06		16RW07		16RW09		16RW10		16IW10	
Sample ID			16PM14-250127		16WW36-250123		16RW06-250128		16RW07-250128		16RW09-250128		16RW10-250128		16IW10-250121	
Sample Date			1/27/2025		1/23/2025		1/28/2025		1/28/2025		1/28/2025		1/28/2025		1/21/2025	
Sample Type			REG		REG		REG		REG		REG		REG		REG	
Location Description			Downgradient Well for Landfill Biobarrier #2; Shallow Zone		Downgradient Well for Landfill Biobarrier #2; Shallow Zone		Upgradient Well for Landfill Biobarrier #3; Shallow Zone		Upgradient Well for Landfill Biobarrier #3; Shallow Zone		Downgradient Well for Landfill Biobarrier #3; Shallow Zone		Downgradient Well for Landfill Biobarrier #3; Shallow Zone		Performance Data Within Landfill Biobarrier #3; Shallow Zone	
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)																
Dehalococcoides	cells/mL	NV	NA		NA		NA		NA		NA		NA		2,100	
Field Measurements																
Dissolved oxygen	mg/L	NV	0.04		0.02		0.02		0.04		0.01		0.03		0.28	
Oxidation Reduction Potential	mV	NV	128		130		24		64		58		-9		102	
pH	SU	NV	6.32		6.93		6.65		6.51		6.46		6.53		6.08	
Dissolved Gases (RSK-175)																
Carbon Dioxide	µg/L	NV	NA		NA		NA		NA		NA		NA		230,000	
Ethane	µg/L	NV	NA		NA		NA		NA		< 0.25	U	< 0.25	U	< 0.25	U
Ethylene	µg/L	NV	NA		NA		NA		NA		15.3	J	23.1	J	< 0.25	UJ
Methane	µg/L	NV	NA		NA		NA		NA		644	J	1,020	J	5,240	J
General Chemistry (SM5310B/SW9056A)																
Nitrate	mg/L	NV	NA		NA		NA		NA		NA		NA		< 0.05	U
Nitrite	mg/L	NV	NA		NA		NA		NA		NA		NA		< 0.05	U
Sulfate	mg/L	NV	NA		NA		NA		NA		NA		NA		0.493	J
Total organic carbon	mg/L	NV	NA		28		NA		NA		38.2		NA		82.8	
Metals (6020)																
Arsenic	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Chromium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Manganese	mg/L	1,100 [a]	NA		NA		NA		NA		NA		NA		NA	
Nickel	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Thallium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Perchlorate (EPA 6850)																
Perchlorate	µg/L	17	< 0.1	U	< 0.5	U	< 0.1	U	0.17	J	< 0.1	U	0.35		< 0.1	U
Volatile Organic Compounds (8260)																
1,1,2-Trichloroethane	µg/L	5	< 50	U	< 100	U	< 0.5	U	< 12.5	U	< 50	U	< 2.5	U	< 0.5	U
1,1-Dichloroethene	µg/L	7	< 50	U	**296**		1.54		**12.7**	J	< 50	U	**59.4**	J	< 0.5	U
1,2-Dichloroethane	µg/L	5	< 50	U	< 100	U	< 0.5	U	< 12.5	U	< 50	U	4.85	J	< 0.5	U
cis-1,2-Dichloroethene	µg/L	70	**5,470**	J	**22,500**		10.7		**132**		**378**	J	**446**	J	28.9	
Methylene chloride	µg/L	5	< 100	U	< 200	U	< 1	U	< 25	U	< 100	U	< 5	U	< 1	U
Trichloroethene	µg/L	5	**7,830**	J	**29,900**		**138**		**2,300**		**3,340**	J	**882**	J	4.49	
Vinyl chloride	µg/L	2	**254**	J	**707**		**11.9**		**94**		**210**	J	**467**	J	**5.13**	

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Year 5 Semiannual Event #2
(January 2025)

Injection Area			Bayou Biobarrier												Mid Plume and Bayou Biobarrier	
Location Code			16IW20		16RW12		16WW12				16WW22		16WW40		16WW39	
Sample ID			16IW20-250121		16RW12-250129		16WW12-250129		16WW12-250129-FD		16WW22-250131		16WW40-250129		16WW39-250129	
Sample Date			1/21/2025		1/29/2025		1/29/2025		1/29/2025		1/31/2025		1/29/2025		1/29/2025	
Sample Type			REG		REG		REG		FD		REG		REG		REG	
Location Description			Performance Data Within the Bayou Biobarrier; Shallow Zone		Downgradient Well for Bayou Biobarrier; Shallow Zone		Upgradient Well for Bayou Biobarrier; Shallow Zone				Upgradient Well for Bayou Biobarrier; Shallow Zone		Downgradient Well for Bayou Biobarrier; Shallow Zone		Upgradient Well for Bayou Biobarrier and Downgradient Well for Mid-Plume; Shallow Zone	
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)																
Dehalococcoides	cells/mL	NV	4,900		NA		NA		NA		NA		NA		NA	
Field Measurements																
Dissolved oxygen	mg/L	NV	0.19		0.07		0.04		0.04		0.05		0.05		0.15	
Oxidation Reduction Potential	mV	NV	79		39		136		136		25		13		126	
pH	SU	NV	6.72		6.45		6.24		6.24		6.31		6.24		6.47	
Dissolved Gases (RSK-175)																
Carbon Dioxide	µg/L	NV	130,000		NA		NA		NA		NA		NA		NA	
Ethane	µg/L	NV	< 0.25	U	NA		NA		NA		NA		< 0.25	U	NA	
Ethylene	µg/L	NV	35	J	NA		NA		NA		NA		< 0.25	U	NA	
Methane	µg/L	NV	1,580	J	NA		NA		NA		NA		672	J	NA	
General Chemistry (SM5310B/SW9056A)																
Nitrate	mg/L	NV	0.0488	J	NA		NA		NA		NA		NA		NA	
Nitrite	mg/L	NV	< 0.05	UJ	NA		NA		NA		NA		NA		NA	
Sulfate	mg/L	NV	245		NA		NA		NA		NA		NA		NA	
Total organic carbon	mg/L	NV	5.45		NA		NA		NA		NA		65.4		NA	
Metals (6020)																
Arsenic	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Chromium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Manganese	mg/L	1,100 [a]	NA		NA		NA		NA		NA		NA		NA	
Nickel	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Thallium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Perchlorate (EPA 6850)																
Perchlorate	µg/L	17	< 0.1	U	< 0.1	U	**38.2**		**37.7**		3.5		< 0.1	U	**20.3**	
Volatile Organic Compounds (8260)																
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 5	U	< 5	U	< 0.5	U	< 2.5	U	< 2.5	U
1,1-Dichloroethene	µg/L	7	< 0.5	U	1.33	J	5.78	J	< 5	U	1		4.01	J	3.1	J
1,2-Dichloroethane	µg/L	5	< 0.5	U	0.576	J	< 5	U	3.53	J	< 0.5	U	3.85	J	< 2.5	U
cis-1,2-Dichloroethene	µg/L	70	18.8		**80.4**	J	**315**	J	**278**		24.9		**467**		**185**	J
Methylene chloride	µg/L	5	< 1	U	< 1	U	< 10	U	< 10	U	< 1	U	< 5	U	< 5	U
Trichloroethene	µg/L	5	1.21		**135**	J	**1,180**	J	**776**	J	**79.5**		**554**		**555**	J
Vinyl chloride	µg/L	2	**42.1**		**13.2**	J	**27.2**	J	**13.9**	J	**3.81**		**12.6**		**27.3**	J

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Year 5 Semiannual Event #2
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Injection Area			Mid Plume Area													
Location Code			16EW01		16EW02		16EW03		16EW04		16EW08		16IW26		16WW29	
Sample ID			16EW01-250131		16EW02-250121		16EW03-250123		16EW04-250131		16EW08-250131		16IW26-250121		16WW29-250131	
Sample Date			1/31/2025		1/21/2025		1/23/2025		1/31/2025		1/31/2025		1/21/2025		1/31/2025	
Sample Type			REG		REG		REG		REG		REG		REG		REG	
Location Description			Performance Data Within Mid-Plume ISB Injection Area; Shallow Zone		Performance Data Within Mid-Plume ISB Injection Area; Shallow Zone		Performance Data Within Mid-Plume ISB Injection Area; Shallow Zone		Performance Data Within Mid-Plume ISB Injection Area; Shallow Zone		Performance Data Within Mid-Plume ISB Injection Area; Intermediate Zone		Performance Data Within Mid-Plume ISB Injection Area; Inetermediate Zone		Downgradient Well for Mid-Plume; Intermediate Zone	
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)																
Dehalococcoides	cells/mL	NV	NA		1,500		NA		NA		NA		5,600		NA	
Field Measurements																
Dissolved oxygen	mg/L	NV	0.04		0.11		0.04		0.02		0.02		0.29		0.03	
Oxidation Reduction Potential	mV	NV	3		-7		34		11		-97		33		-38	
pH	SU	NV	6.42		6.5		6.22		5.88		6.32		5.99		6.1	
Dissolved Gases (RSK-175)																
Carbon Dioxide	µg/L	NV	NA		220,000		270,000		NA		NA		280,000		NA	
Ethane	µg/L	NV	NA		< 0.25	U	< 0.25	U	NA		NA		< 0.25	U	NA	
Ethylene	µg/L	NV	NA		598		259		NA		NA		41.3		NA	
Methane	µg/L	NV	NA		1,060	J	2,670	J	NA		NA		3,470	J	NA	
General Chemistry (SM5310B/SW9056A)																
Nitrate	mg/L	NV	NA		< 0.05	UJ	< 0.1	U	NA		NA		< 0.05	UJ	NA	
Nitrite	mg/L	NV	NA		< 0.05	UJ	< 0.1	U	NA		NA		< 0.05	UJ	NA	
Sulfate	mg/L	NV	NA		3,260		2,920		NA		NA		2.8		NA	
Total organic carbon	mg/L	NV	77		14.8		19.8		NA		NA		217		NA	
Metals (6020)																
Arsenic	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Chromium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Manganese	mg/L	1,100 [a]	NA		NA		NA		NA		NA		NA		NA	
Nickel	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Thallium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Perchlorate (EPA 6850)																
Perchlorate	µg/L	17	4.8		< 0.1	U	< 0.1	U	< 0.1	U	< 0.1	U	0.12	J	< 0.1	U
Volatile Organic Compounds (8260)																
1,1,2-Trichloroethane	µg/L	5	< 50	U	< 250	U	< 25	U	< 50	U	< 0.5	U	< 0.5	U	< 0.5	U
1,1-Dichloroethene	µg/L	7	< 50	U	< 250	U	< 25	U	< 50	U	< 0.5	U	< 0.5	U	< 0.5	U
1,2-Dichloroethane	µg/L	5	< 50	U	< 250	U	< 25	U	< 50	U	< 0.5	U	< 0.5	U	< 0.5	U
cis-1,2-Dichloroethene	µg/L	70	**9,600**		**38,500**		**3,650**		**8,700**	J	0.612	J	0.888	J	< 0.5	U
Methylene chloride	µg/L	5	< 100	U	< 500	U	< 50	U	< 100	U	< 1	U	< 1	U	< 1	U
Trichloroethene	µg/L	5	**3,870**		< 250	U	**2,240**		**10,500**	J	0.75	UB	1.56		0.36	UB
Vinyl chloride	µg/L	2	**1,850**		**2,020**		**1,090**		**1,090**	J	< 0.5	U	1.51		< 0.5	U

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Injection Area			Mid Plume Area								MNA and LTM Performance Wells from RAWP Table 4-9					
Location Code			16WW30		16WW48		16WW49		16WW51		16WW13		16WW16			
Sample ID			16WW30-250131		16WW48-250129		16WW49-250129		16WW51-250127		16WW13-250124		16WW16-250123		16WW16-250123-FD	
Sample Date			1/31/2025		1/29/2025		1/29/2025		1/27/2025		1/24/2025		1/23/2025		1/23/2025	
Sample Type			REG		REG		REG		REG		REG		REG		FD	
Location Description			Downgradient Well for Mid-Plume; Shallow Zone		Downgradient Well for Mid-Plume; Shallow Zone		Performance Data for Mid-Plume ISB Injection Area; Intermediate Zone		Performance Data for Mid-Plume ISB Injection Area; Intermediate Zone		MNA Evaluation; Downgradient of Landfill Biobarrier #1; Intermediate Zone		MNA Evaluation; Upgradient of Landfill Biobarrier #2; Shallow Zone			
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)																
Dehalococcoides	cells/mL	NV	NA		NA		NA		NA		NA		NA		NA	
Field Measurements																
Dissolved oxygen	mg/L	NV	0.07		0.01		0.06		0.08		0.05		0.09		0.09	
Oxidation Reduction Potential	mV	NV	-38		122		15		-70		159		151		151	
pH	SU	NV	6.3		6.22		5.98		6.03		5.4		6.25		6.25	
Dissolved Gases (RSK-175)																
Carbon Dioxide	µg/L	NV	NA		230,000		NA		NA		NA		110,000		110,000	
Ethane	µg/L	NV	NA		< 0.25	U	NA		NA		NA		8.95	J	6.1	J
Ethylene	µg/L	NV	NA		52.6	J	NA		NA		NA		10.6		9.81	
Methane	µg/L	NV	NA		97.5	J	NA		NA		NA		1,020	J	1,220	J
General Chemistry (SM5310B/SW9056A)																
Nitrate	mg/L	NV	NA		< 0.05	U	NA		NA		NA		< 0.05	U	< 0.05	U
Nitrite	mg/L	NV	NA		< 0.05	U	NA		NA		NA		< 0.05	U	< 0.05	U
Sulfate	mg/L	NV	NA		2,450		NA		NA		NA		493		499	
Total organic carbon	mg/L	NV	NA		NA		NA		NA		NA		5.1	J	4.94	
Metals (6020)																
Arsenic	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Chromium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Manganese	mg/L	1,100 [a]	NA		NA		NA		NA		NA		NA		NA	
Nickel	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Thallium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Perchlorate (EPA 6850)																
Perchlorate	µg/L	17	< 0.1	U	0.084	J	0.062	J	< 0.1	U	< 0.1	U	**428**		**441**	
Volatile Organic Compounds (8260)																
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	< 125	U	< 0.5	U	< 50	U	< 2.5	U	< 100	U	< 100	U
1,1-Dichloroethene	µg/L	7	< 0.5	U	< 125	U	0.566	J	< 50	U	< 2.5	U	**108**	J	**102**	J
1,2-Dichloroethane	µg/L	5	< 0.5	U	< 125	U	< 0.5	U	< 50	U	< 2.5	U	< 100	U	< 100	U
cis-1,2-Dichloroethene	µg/L	70	20.7		**31,100**	J	22.4		**4,480**	J	**888**		**23,800**		**22,100**	
Methylene chloride	µg/L	5	< 1	U	< 250	U	< 1	U	< 100	U	< 5	U	< 200	U	< 200	U
Trichloroethene	µg/L	5	**10.6**		**15,700**	J	**79.9**		**10,400**	J	**223**		**36,900**		**31,200**	
Vinyl chloride	µg/L	2	< 0.5	U	**446**	J	< 0.5	U	**129**	J	**5.52**		**655**		**570**	

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Injection Area			MNA and LTM Performance Wells from RAWP Table 4-9													
Location Code			16WW23		16WW24		16WW25		16WW27		16WW31		16WW32			
Sample ID			16WW23-250124		16WW24-250124		16WW25-250129		16WW27-250124		16WW31-250128		16WW32-250128		16WW32-250128-FD	
Sample Date			1/24/2025		1/24/2025		1/29/2025		1/24/2025		1/28/2025		1/28/2025		1/28/2025	
Sample Type			REG		REG		REG		REG		REG		REG		FD	
Location Description			MNA Evaluation; Intermediate Zone		MNA Evaluation; Shallow Zone		MNA Evaluation; Intermediate Zone		MNA Evaluation; Downgradient of Landfill Biobarrier #2; Intermediate Zone		MNA Evaluation; Intermediate Zone		MNA Evaluation; Upgradient of Bayou Biobarrier; Shallow Zone			
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)																
Dehalococcoides	cells/mL	NV	NA		NA		NA		NA		NA		NA		NA	
Field Measurements																
Dissolved oxygen	mg/L	NV	0.06		0.38		0.03		0.05		0.03		0.05		0.05	
Oxidation Reduction Potential	mV	NV	-40		494		-43		-39		140		2		2	
pH	SU	NV	5.87		2.86		6.07		5.78		6.29		6.47		6.47	
Dissolved Gases (RSK-175)																
Carbon Dioxide	µg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Ethane	µg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Ethylene	µg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Methane	µg/L	NV	NA		NA		NA		NA		NA		NA		NA	
General Chemistry (SM5310B/SW9056A)																
Nitrate	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Nitrite	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Sulfate	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Total organic carbon	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Metals (6020)																
Arsenic	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Chromium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Manganese	mg/L	1,100 [a]	NA		NA		NA		NA		NA		NA		NA	
Nickel	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Thallium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Perchlorate (EPA 6850)																
Perchlorate	µg/L	17	< 0.1	U	< 0.1	U	< 0.1	U	< 0.1	U	< 0.1	U	< 0.1	U	< 0.1	U
Volatile Organic Compounds (8260)																
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
1,1-Dichloroethene	µg/L	7	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
1,2-Dichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
cis-1,2-Dichloroethene	µg/L	70	< 0.5	U	< 0.5	U	0.804	J	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Methylene chloride	µg/L	5	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Trichloroethene	µg/L	5	< 0.5	U	< 0.5	U	1.07		< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

LHAAP-16 Remedial Performance Monitoring
Year 5 Semiannual Event #2
(January 2025)

Injection Area			MNA and LTM Performance Wells from RAWP Table 4-9													
Location Code			16WW33		16WW34		16WW35		16WW37		16WW38		16WW41		16WW43	
Sample ID			16WW33-250128		16WW34-250128		16WW35-250123		16WW37-250127		16WW38-250127		16WW41-250121		16WW43-250124	
Sample Date			1/28/2025		1/28/2025		1/23/2025		1/27/2025		1/27/2025		1/21/2025		1/24/2025	
Sample Type			REG		REG		REG		REG		REG		REG		REG	
Location Description			MNA Evaluation; Intermediate Zone		MNA Evaluation; Shallow Zone		MNA Evaluation; Downgradient of Landfill Biobarrier #3; Intermediate Zone		MNA Evaluation; Intermediate Zone		MNA evaluation; Shallow Zone		MNA Evaluation; Upgradient of the Bayou Biobarrier; Intermediate Zone		MNA Evaluation; Shallow Zone	
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)																
Dehalococcoides	cells/mL	NV	NA		NA		NA		NA		NA		NA		NA	
Field Measurements																
Dissolved oxygen	mg/L	NV	0.02		0.07		0.06		0.04		0.14		0.35		2.68	
Oxidation Reduction Potential	mV	NV	97		53		83		10		24		215		75	
pH	SU	NV	6.48		6.3		6.69		6.62		6.37		6.25		6.38	
Dissolved Gases (RSK-175)																
Carbon Dioxide	µg/L	NV	NA		NA		180,000		NA		NA		260,000		NA	
Ethane	µg/L	NV	NA		NA		1.49	J	NA		NA		< 0.25	U	NA	
Ethylene	µg/L	NV	NA		NA		9.63		NA		NA		64.3	J	NA	
Methane	µg/L	NV	NA		NA		94.5	J	NA		NA		60.6	J	NA	
General Chemistry (SM5310B/SW9056A)																
Nitrate	mg/L	NV	NA		NA		< 0.5	U	NA		NA		< 0.5	UJ	NA	
Nitrite	mg/L	NV	NA		NA		< 0.5	U	NA		NA		< 0.5	UJ	NA	
Sulfate	mg/L	NV	NA		NA		11,200		NA		NA		9,110		NA	
Total organic carbon	mg/L	NV	NA		NA		62.8		NA		NA		46.6		NA	
Metals (6020)																
Arsenic	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Chromium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Manganese	mg/L	1,100 [a]	NA		NA		NA		NA		NA		NA		NA	
Nickel	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Thallium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Perchlorate (EPA 6850)																
Perchlorate	µg/L	17	< 0.1	U	< 0.1	U	**520**		**386**		< 0.1	U	11.5		< 0.1	U
Volatile Organic Compounds (8260)																
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 25	U	< 5	U	< 25	U	< 25	U	< 0.5	U
1,1-Dichloroethene	µg/L	7	< 0.5	U	< 0.5	U	< 25	U	**7.46**	J	**31.2**	J	**34.6**	J	< 0.5	U
1,2-Dichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 25	U	< 5	U	< 25	U	< 25	U	< 0.5	U
cis-1,2-Dichloroethene	µg/L	70	< 0.5	U	< 0.5	U	**448**		46.2		**521**	J	**4,140**		< 0.5	U
Methylene chloride	µg/L	5	< 1	U	< 1	U	< 50	U	< 10	U	< 50	U	< 50	U	< 1	U
Trichloroethene	µg/L	5	< 0.5	U	0.687	J	**5,720**		**616**		**3,750**	J	**6,210**		< 0.5	U
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	**110**		**46.3**		**162**	J	**1,130**		< 0.5	U

LHAAP-16 Remedial Performance Monitoring
Year 5 Semiannual Event #2
(January 2025)

Injection Area			MNA and LTM Performance Wells from RAWP Table 4-9													
Location Code			16WW44				16WW46		16WW55		16WW56		16WW57		16WW58	
Sample ID			16WW44-250127		16WW44-250127-FD		16WW46-250131		16WW55-250121		16WW56-250128		16WW57-250123		16WW58-250123	
Sample Date			1/27/2025		1/27/2025		1/31/2025		1/21/2025		1/28/2025		1/23/2025		1/23/2025	
Sample Type			REG		FD		REG		REG		REG		REG		REG	
Location Description			MNA Evaluation; Shallow Zone				MNA Evaluation; Shallow Zone		MNA Evaluation; Shallow Zone		MNA Evaluation; Downgradient of the Bayou Biobarrier; Shallow Zone		MNA Evaluation; Intermediate Zone		MNA Evaluation; Intermediate Zone	
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)																
Dehalococcoides	cells/mL	NV	NA		NA		NA		NA		NA		NA		NA	
Field Measurements																
Dissolved oxygen	mg/L	NV	0.08		0.08		0.03		0.38		0.08		0.04		0.06	
Oxidation Reduction Potential	mV	NV	6		6		94		-12		98		-23		-82	
pH	SU	NV	6.53		6.53		6.67		6.59		6.24		5.94		6.13	
Dissolved Gases (RSK-175)																
Carbon Dioxide	µg/L	NV	NA		NA		NA		110,000		NA		190,000		160,000	
Ethane	µg/L	NV	NA		NA		NA		< 0.25	U	NA		< 0.25	U	< 0.25	U
Ethylene	µg/L	NV	NA		NA		NA		24.1	J	NA		0.373	J	0.899	J
Methane	µg/L	NV	NA		NA		NA		1,190	J	NA		3.06	J	6.49	J
General Chemistry (SM5310B/SW9056A)																
Nitrate	mg/L	NV	NA		NA		NA		< 0.05	U	NA		< 0.1	U	< 0.05	U
Nitrite	mg/L	NV	NA		NA		NA		< 0.05	U	NA		< 0.1	U	< 0.05	U
Sulfate	mg/L	NV	NA		NA		NA		700		NA		3,430		828	
Total organic carbon	mg/L	NV	NA		NA		NA		4.84		NA		25.2		10.7	
Metals (6020)																
Arsenic	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Chromium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Manganese	mg/L	1,100 [a]	NA		NA		NA		NA		NA		NA		NA	
Nickel	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Thallium	mg/L	NV	NA		NA		NA		NA		NA		NA		NA	
Perchlorate (EPA 6850)																
Perchlorate	µg/L	17	< 0.1	U	0.16	J	< 0.1	U	15.1		< 0.1	U	< 0.1	U	< 0.1	U
Volatile Organic Compounds (8260)																
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 12.5	U	< 0.5	U	< 0.5	U	< 25	U
1,1-Dichloroethene	µg/L	7	< 0.5	U	< 0.5	U	< 0.5	U	**15**	J	0.595	J	2.22		< 25	U
1,2-Dichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 12.5	U	< 0.5	U	< 0.5	U	< 25	U
cis-1,2-Dichloroethene	µg/L	70	< 0.5	U	< 0.5	U	< 0.5	U	**991**		6.02		17.4		**364**	
Methylene chloride	µg/L	5	< 1	U	< 1	U	< 1	U	< 25	U	< 1	U	< 1	U	< 50	U
Trichloroethene	µg/L	5	< 0.5	U	< 0.5	U	0.602	UB	**1,800**		**38.5**		**161**		**6,120**	
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	< 0.5	U	**196**		0.747	J	< 0.5	U	< 25	U

LHAAP-16 Remedial Performance Monitoring
Year 5 Semiannual Event #2
(January 2025)

Injection Area			**Harrison Bayou**							
Location Code			**16SW01**				**16SW02**		**16SW03**	
Sample ID			**16SW01-250131**		**16SW01-250131-FD**		**16SW02-250131**		**16SW03-250131**	
Sample Date			**1/31/2025**		**1/31/2025**		**1/31/2025**		**1/31/2025**	
Sample Type			**REG**		**FD**		**REG**		**REG**	
Location Description			**Surface Water**				**Surface Water**		**Surface Water**	
Analyte	**Units**	**MCL/PCL/ UTL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Dechlorinating Bacteria (Census)										
Dehalococcoides	cells/mL	NV	NA		NA		NA		NA	
Field Measurements										
Dissolved oxygen	mg/L	NV	NM		NM		NM		NM	
Oxidation Reduction Potential	mV	NV	NM		NM		NM		NM	
pH	SU	NV	NM		NM		NM		NM	
Dissolved Gases (RSK-175)										
Carbon Dioxide	µg/L	NV	NA		NA		NA		NA	
Ethane	µg/L	NV	NA		NA		NA		NA	
Ethylene	µg/L	NV	NA		NA		NA		NA	
Methane	µg/L	NV	NA		NA		NA		NA	
General Chemistry (SM5310B/SW9056A)										
Nitrate	mg/L	NV	NA		NA		NA		NA	
Nitrite	mg/L	NV	NA		NA		NA		NA	
Sulfate	mg/L	NV	NA		NA		NA		NA	
Total organic carbon	mg/L	NV	NA		NA		NA		NA	
Metals (6020)										
Arsenic	mg/L	NV	0.000518	J	0.000489	J	0.000438	J	0.000415	J
Chromium	mg/L	NV	0.000738	UB	0.000813	UB	0.000812	UB	0.000917	UB
Manganese	mg/L	1,100 [a]	0.0211		0.0207		0.0198		0.0206	
Nickel	mg/L	NV	0.00227		0.0021		0.00198	J	0.00188	J
Thallium	mg/L	NV	< 0.0005	U	< 0.0005	U	< 0.0005	U	< 0.0005	U
Perchlorate (EPA 6850)										
Perchlorate	µg/L	17	0.054	J	< 0.1	U	0.051	J	0.053	J
Volatile Organic Compounds (8260)										
1,1,2-Trichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
1,1-Dichloroethene	µg/L	7	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
1,2-Dichloroethane	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
cis-1,2-Dichloroethene	µg/L	70	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Methylene chloride	µg/L	5	< 1	U	< 1	U	< 1	U	< 1	U
Trichloroethene	µg/L	5	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

LHAAP-16 Remedial Performance Monitoring
Year 4 Semiannual Event #2
(January 2024)

Notes:

[a] Cleanup Level for manganese identifed in Table 1-1 of the Remedial Action Work Plan is the 95% upper tolerance limit value from the *Final Evaluation of Perimeter Well Data for Use as Groundwater Background* (Shaw, 2007)

Blue highlighting indicates the concentration (bolded) or detection limit (unbolded) exceeds the MCL/PCL

Some samples have been diluted due to the concentration(s) of one or more analytes exceeding the upper limit of the calibration curve.

J - Estimated: The analyte was positively identified, the quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.

UJ – Undetected estimated. The analyte was analyzed for but, was not detected. Even though the analyte was not detected, certain discrepancies in meeting analyte specific quality control were not met.

U - Undetected: The analyte was analyzed for, but not detected.

UB - The analyte was detected; however, the quantity detected in an assciated blank sample exceeded the quality control criteria. The sample is treated as a non detect due to the the blank contamination detected.

MCL - Maximum Contaminant Limit

PCL – Texas Risk Reduction Program (TRRP) Tier 1 Groundwater Residential Protective Concentration Level (used for perchlorate, manganese, and nickel where no MCL has been established)

mg/L - milligrams per liter

µg/L - micrograms per liter

ID - Identification

REG - Regular sample

FD - Field duplicate sample

< - The analyte was not detected above the concentration shown

NA - not analyzed

NM - not measured

NV - No MCL/PCL is shown for analytes that are not contaminants of concern

SU - standard pH Units

mV - millivolts

cells/mL - cells per milliliter

UTL - upper tolerance limit

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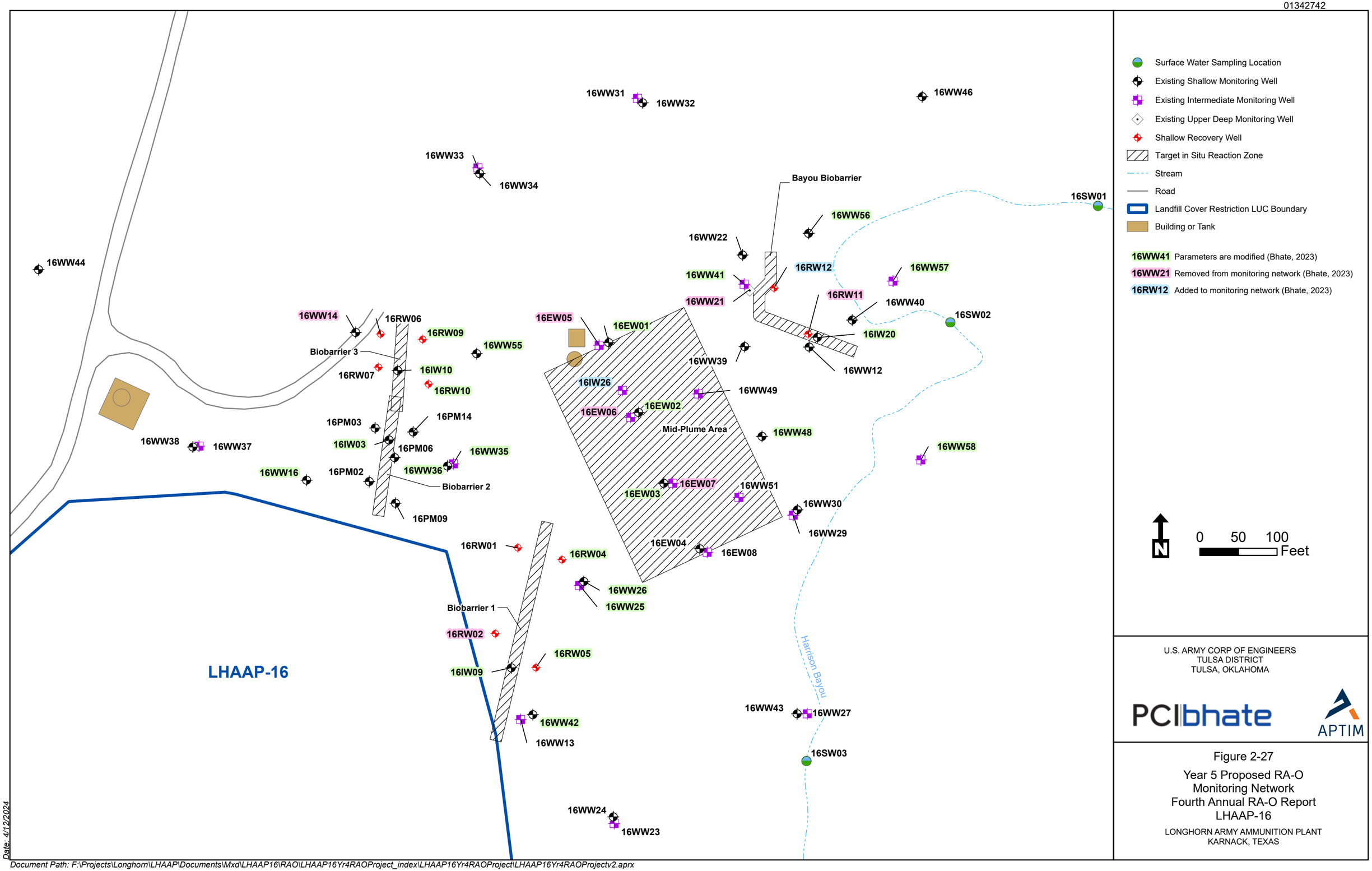

U.S. ARMY CORP OF ENGINEERS
TULSA DISTRICT
TULSA, OKLAHOMA

PCIbhate APTIM

Figure 2-27

Year 5 Proposed RA-O Monitoring Network
Fourth Annual RA-O Report
LHAAP-16

LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 4/12/2024

Document Path: F:\Projects\Longhorn\LHAAP\Documents\Mxd\LHAAP16\RAO\LHAAP16Yr4RAOProject_index\LHAAP16Yr4RAOProject\LHAAP16Yr4RAOProjectv2.aprx

LHAAP-46 2025 Annual RA-O Sampling
February 2025

		Location Code	46WW02		46WW03		46WW05		46WW06		46WW07		46WW08	
		Sample ID	46WW02-250225		46WW03-250224		46WW05-250225		46WW06-250224		46WW07-250224		46WW08-250224	
		Sample Date	2/25/2025		2/24/2025		2/25/2025		2/24/2025		2/24/2025		2/24/2025	
		Location Description	Site 46 - Central, Within Site Boundary, Shallow Zone		Site 45 - Northeast, Within Site Boundary, Intermediate Zone		Site 46 - North, Within Site Boundary, Intermediate Zone		Site 46 - Northeast, Within Site Boundary, Shallow/Intermediate Zone		Site 46 - Central, Within Site Boundary, Shallow Zone			
Analyte	**Units**	**MCL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements														
Dissolved oxygen	mg/L	NV	0.78		0.67		1.51		0.4		3.82		0.44	
Ferrous Iron	mg/L	NV	0		NM		0.09		NM		NM		NM	
Oxidation Reduction Potential	mV	NV	235		50		270		11		158		-35	
pH	Std. Units	NV	5.47		8.03		5.34		7.04		7.38		7.1	
Dissolved Gases (RSK-175)														
Carbon dioxide	µg/L	NV	99,000	J	NA		170,000		NA		NA		NA	
Ethane	µg/L	NV	0.246	J	NA		< 0.25	U	NA		NA		NA	
Ethylene	µg/L	NV	< 0.25	U	NA		< 0.25	U	NA		NA		NA	
Methane	µg/L	NV	2.74	J	NA		1.47	J	NA		NA		NA	
General Chemistry (SM5310B/SW9056A)														
Chloride	mg/L	NV	54.6		NA		164		NA		NA		NA	
Nitrate	mg/L	NV	0.0676	J	NA		0.186	J	NA		NA		NA	
Sulfate	mg/L	NV	298		NA		4,890		NA		NA		NA	
Total organic carbon	mg/L	NV	16.5	J	NA		46.8		NA		NA		NA	
Volatile Organic Compounds (Method SW8260C)														
cis-1,2-Dichloroethene	µg/L	70	1.93		< 0.5	U	2.96		< 0.5	U	< 0.5	U	< 0.5	U
Trichloroethene	µg/L	5	**30.5**		0.21	J	**83.1**		< 0.5	U	0.208	J	< 0.5	U
Vinyl chloride	µg/L	2	0.454	J	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

Notes:

Blue highlighting indicates concentrations above the MCL

J - Estimated

U - Undetected: The analyte was analyzed for, but not detected.

MCL - Maximum Contaminant Limit

ug/L - micrograms per liter

mg/L - milligrams per liter

mV - millivolts

Std. Units - standard pH units

< - The analyte was not detected above the concentration shown

Val Qual - Validation Qualifier

NA - not analyzed

NM - not measured

NV - no value; MCLs only shown for constituents of concern

ID - identification

FD - field duplicate

LHAAP-46 2025 Annual RA-O Sampling
February 2025

		Location Code	46WW09				46WW11		46WW14		46WW16		46WW17	
		Sample ID	46WW09-250225		46WW09-250225-FD		46WW11-250225		46WW14-250224		46WW16-250225		46WW17-250224	
		Sample Date	2/25/2025		2/25/2025		2/25/2025		2/24/2025		2/25/2025		2/24/2025	
		Location Description	Site 46 - Central, Within Site Boundary. Intermediate Zone				Site 46 - Central, Within Site Boundary, Shallow Zone		Site 45 - Northeast, Within Site Boundary, Intermediate Zone		Site 46 - North, Within Site Boundary, Intermediate Zone		Site 46 - Northeast, Within Site Boundary, Shallow/Intermediate Zone	
Analyte	**Units**	**MCL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements														
Dissolved oxygen	mg/L	NV	2.59		2.59		0.87		5.72		0.38		6.5	
Ferrous Iron	mg/L	NV	0.32		0.32		0.13		NM		0.72		NM	
Oxidation Reduction Potential	mV	NV	99		99		122		175		-135		122	
pH	Std. Units	NV	7.4		7.4		6		6.7		11.15		7.63	
Dissolved Gases (RSK-175)														
Carbon dioxide	µg/L	NV	63,000		63,000		84,000		NA		< 11,000	U	NA	
Ethane	µg/L	NV	< 0.25	U	< 0.25	U	< 0.25	U	NA		0.351	J	NA	
Ethylene	µg/L	NV	< 0.25	U	< 0.25	U	< 0.25	U	NA		< 0.25	U	NA	
Methane	µg/L	NV	0.968	J	1.11	J	12.1	J	NA		3.46	J	NA	
General Chemistry (SM5310B/SW9056A)														
Chloride	mg/L	NV	484		482		170		NA		261		NA	
Nitrate	mg/L	NV	< 0.1	U	< 0.1	U	< 0.05	U	NA		< 0.05	U	NA	
Sulfate	mg/L	NV	2,510		2,470		265		NA		565		NA	
Total organic carbon	mg/L	NV	30.8		23.7		10.3		NA		29.6		NA	
Volatile Organic Compounds (Method SW8260C)														
cis-1,2-Dichloroethene	µg/L	70	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U
Trichloroethene	µg/L	5	0.248	J	0.216	J	**22.2**		< 0.5	U	0.348	J	< 0.5	U
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U

Notes:

Blue highlighting indicates concentrations above the MCL

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NM - not measured

NV - no value; MCLs only shown for constituents of concern

ID - identification

FD - field duplicate

LHAAP-46 2025 Annual RA-O Sampling
February 2025

	Location Code	LHSMW19				LHSMW21		LHSMW23R				LHSMW25	
	Sample ID	LHSMW19-250224		LHSMW19-250224-FD		LHSMW21-250225		LHSMW23R-250224		LHSMW23R-250224-FD		LHSMW25-250224	
	Sample Date	2/24/2025		2/24/2025		2/25/2025		2/24/2025		2/24/2025		2/24/2025	
	Location Description	Site 46 - Central, Within Site Boundary, Shallow Zone				Site 46 - North, Within Site Boundary, Shallow Zone		Site 46 - South, Within Site Boundary, Intermediate Zone				Site 46 - East, Within Site Boundary, Intermediate Zone	
Analyte	**Units**	**MCL**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**	**Result**	**Val Qual**
Field Measurements														
Dissolved oxygen	mg/L	NV	0.43		0.43		0.65		0.63		0.63		0.57	
Ferrous Iron	mg/L	NV	NM		NM		0.37		NM		NM		NM	
Oxidation Reduction Potential	mV	NV	13		13		133		72		72		45	
pH	Std. Units	NV	7.51		7.51		7.52		6.65		6.65		7.09	
Dissolved Gases (RSK-175)														
Carbon dioxide	µg/L	NV	NA		NA		54,000		NA		NA		NA	
Ethane	µg/L	NV	NA		NA		< 0.25	U	NA		NA		NA	
Ethylene	µg/L	NV	NA		NA		< 0.25	U	NA		NA		NA	
Methane	µg/L	NV	NA		NA		2.58	J	NA		NA		NA	
General Chemistry (SM5310B/SW9056A)														
Chloride	mg/L	NV	NA		NA		87.5		NA		NA		NA	
Nitrate	mg/L	NV	NA		NA		< 0.05	U	NA		NA		NA	
Sulfate	mg/L	NV	NA		NA		864		NA		NA		NA	
Total organic carbon	mg/L	NV	NA		NA		33.9		NA		NA		NA	
Volatile Organic Compounds (Method SW8260C)														
cis-1,2-Dichloroethene	µg/L	70	18.8		18.5		**237**		< 0.5	U	< 0.5	U	< 0.5	U
Trichloroethene	µg/L	5	**22.4**		**22.4**		**58.4**		0.287	J	0.289	J	< 0.5	U
Vinyl chloride	µg/L	2	< 0.5	U	< 0.5	U	**9.7**		< 0.5	U	< 0.5	U	< 0.5	U

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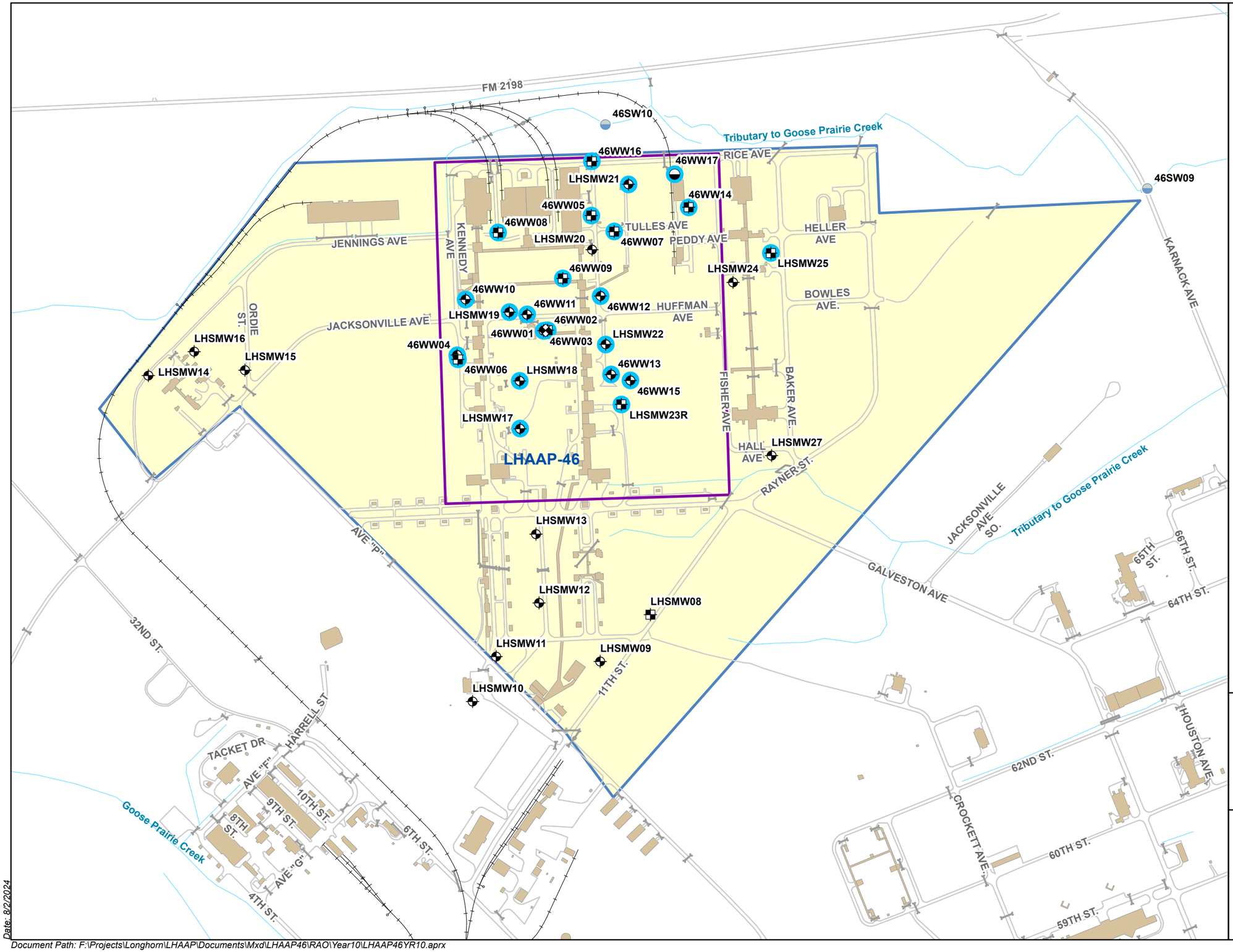

- Shallow Monitoring Well
- Shallow/Intermediate Monitoring Well
- Intermediate Monitoring Well
- Deep Monitoring Well
- RA-O Monitoring Well
- Surface Water Sample Location
- Former Railroad Location
- Culvert
- Surveyed Land Use Control Boundary
- Stream
- Roads
- Former Buildings
- LHAAP-46 Site Boundary

Note:
1. RA-O = Remedial Action Operations
2. LHAAP = Longhorn Army Ammunition Plant

N

0 250 500 Feet

U.S. ARMY CORP OF ENGINEERS
TULSA DISTRICT
TULSA, OKLAHOMA

PCIbhate APTIM

Figure 2-8

Year 11 Annual RA-O Monitoring Locations
Tenth Annual RA-O Report
LHAAP-46
LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS

Date: 8/2/2024

Document Path: F:\Projects\Longhorn\LHAAP\Documents\Mxd\LHAAP46\RAO\Year10\LHAAP46YR10.aprx