LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 2

2024

Bate Stamp Numbers
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Prepared for

Department of the Army
Longhorn Army Ammunition Plant

1976–2024

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

VOLUME 2

2024

A.	Title:	Report (Cont'd) – Draft Final Pre-Design Investigation Report, LHAAP-47, Plant 3 Area, Solid Rocket Motor Fuel Production, Longhorn Army Ammunition Plant, Karnack, Texas
	Author(s):	Department of the Army
	Recipient:	Environmental Protection Agency and Texas Commission on Environmental Quality
	Date:	January 25, 2024
	Bate Stamp:	01214693–01216654

ANALYSIS SEQUENCE SUMMARY

Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0169 Instrument: ICP-MS iCAP Q
Calibration: EF30040

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check (STD # 3060433)	S3F0169-CCVH	060923.xml-114	06/09/23 13:08
Calibration Check (STD # 3060433)	S3F0169-CCVI	060923.xml-115	06/09/23 13:10
Calibration Blank	S3F0169-CCB9	060923.xml-116	06/09/23 13:12
Calibration Check (STD # 3060433)	S3F0169-CCVJ	060923.xml-122	06/09/23 13:23
Calibration Check (STD # 3060433)	S3F0169-CCVK	060923.xml-123	06/09/23 13:25
Calibration Blank	S3F0169-CCBA	060923.xml-124	06/09/23 13:26
Calibration Check (STD # 3060433)	S3F0169-CCVL	060923.xml-132	06/09/23 13:41
Calibration Check (STD # 3060433)	S3F0169-CCVM	060923.xml-133	06/09/23 13:43
Calibration Blank	S3F0169-CCBB	060923.xml-134	06/09/23 13:45
530LHSMW43R	23E0775-39RE2	060923.xml-138	06/09/23 13:52
53047WW09	23E0775-40RE2	060923.xml-139	06/09/23 13:54
53047WW14	23E0775-41RE2	060923.xml-140	06/09/23 13:56
53047WW39	23E0775-42RE2	060923.xml-141	06/09/23 13:58
53047WW06	23E0775-43RE2	060923.xml-142	06/09/23 14:00
530DUP3	23E0775-45RE2	060923.xml-143	06/09/23 14:02
Calibration Check (STD # 3060433)	S3F0169-CCVN	060923.xml-144	06/09/23 14:03
Calibration Check (STD # 3060433)	S3F0169-CCVO	060923.xml-145	06/09/23 14:05
Calibration Blank	S3F0169-CCBC	060923.xml-146	06/09/23 14:07
Calibration Check (STD # 3060433)	S3F0169-CCVP	060923.xml-152	06/09/23 14:18
Calibration Check (STD # 3060433)	S3F0169-CCVQ	060923.xml-153	06/09/23 14:20
Calibration Blank	S3F0169-CCBD	060923.xml-154	06/09/23 14:22
Calibration Check (STD # 3060433)	S3F0169-CCVR	060923.xml-162	06/09/23 14:37
Calibration Check (STD # 3060433)	S3F0169-CCVS	060923.xml-163	06/09/23 14:39
Calibration Blank	S3F0169-CCBE	060923.xml-164	06/09/23 14:41

QC SUMMARY REPORT
INTERNAL STANDARD RELATIVE INTENSITY

Client: HDR

SDG: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0051

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0051-ICV1	6/2/2023	14:36	96.96	96.60	95.02	93.61	94.97	95.28	95.49
S3F0051-ICB1	6/2/2023	14:38	97.06	99.46	95.35	94.70	95.33	96.32	91.63
S3F0051-CRL1	6/2/2023	14:39	97.09	98.08	96.84	92.97	92.92	93.55	92.12
S3F0051-IFA1	6/2/2023	14:41	90.09	88.83	89.22	89.88	88.42	92.26	89.27
S3F0051-IFB1	6/2/2023	14:43	88.04	88.17	87.72	86.81	86.77	91.01	88.60
S3F0051-HCV1	6/2/2023	14:45	87.33	89.02	89.22	87.92	81.78	90.64	88.03
S3F0051-CCV1	6/2/2023	14:52	90.44	91.91	90.59	88.80	88.01	87.15	87.11
S3F0051-CCB1	6/2/2023	14:54	90.34	93.61	89.68	88.41	89.31	86.51	88.96
S3F0051-CCV2	6/2/2023	15:10	91.39	99.72	95.94	93.85	94.14	84.65	82.75
S3F0051-CCB2	6/2/2023	15:12	91.38	100.98	96.33	92.99	91.85	86.54	84.00
B3F0014-BLK1	6/2/2023	15:14	94.16	102.70	99.33	97.82	94.74	88.85	86.48
B3F0014-BS1	6/2/2023	15:16	94.14	100.97	96.28	93.39	93.35	87.53	86.28
S3F0051-CCV3	6/2/2023	15:32	97.33	105.38	102.74	98.77	96.55	92.09	85.18
S3F0051-CCV4	6/2/2023	15:33	96.66	102.54	100.40	96.84	93.80	89.55	89.05
S3F0051-CCB3	6/2/2023	15:35	96.58	104.28	100.63	99.35	99.81	92.69	90.75
B3F0014-MS1	6/2/2023	15:43	96.85	104.91	100.81	100.64	97.56	92.83	90.01
B3F0014-MSD1	6/2/2023	15:44	96.69	104.65	100.47	101.71	95.45	90.12	89.75
23E0775-01	6/2/2023	15:46	95.49	104.63	101.87	100.90	96.25	92.66	87.14
23E0775-03	6/2/2023	15:48	97.75	105.92	103.97	103.30	99.83	92.93	88.51
23E0775-04	6/2/2023	15:50	93.95	103.76	100.11	97.44	92.66	90.79	83.00
23E0775-05	6/2/2023	15:51	92.56	103.92	98.58	96.42	93.87	90.44	83.36
23E0775-06	6/2/2023	15:53	91.73	104.18	100.97	100.01	92.17	90.61	82.90
S3F0051-CCV5	6/2/2023	15:55	99.25	110.27	104.64	102.09	100.03	93.95	89.05
S3F0051-CCV6	6/2/2023	15:57	100.04	108.91	103.09	101.53	101.10	91.74	90.02
S3F0051-CCB4	6/2/2023	15:59	98.97	109.37	104.91	104.00	100.63	92.77	91.18
23E0775-07	6/2/2023	16:00	96.97	107.61	103.25	103.27	100.46	93.83	88.65
23E0775-08	6/2/2023	16:02	91.81	104.95	99.82	100.05	95.04	88.13	81.80
23E0775-09	6/2/2023	16:04	92.82	103.60	100.60	100.70	95.16	90.96	82.95

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0051

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23E0775-10	6/2/2023	16:06	95.98	105.65	101.80	103.12	96.62	92.71	89.11
B3F0014-MS2	6/2/2023	16:08	94.89	104.22	100.86	101.57	94.45	92.34	90.68
B3F0014-MSD2	6/2/2023	16:09	95.06	104.21	102.43	102.57	95.33	94.76	92.74
B3F0014-PS1	6/2/2023	16:11	95.36	104.96	100.83	104.83	97.88	94.37	172.52
B3F0014-DUP1	6/2/2023	16:13	98.01	108.35	102.80	103.05	102.56	93.10	132.35
S3F0051-CCV7	6/2/2023	16:15	100.22	108.48	105.50	104.99	101.61	96.95	92.25
S3F0051-CCV8	6/2/2023	16:17	100.42	108.38	104.83	103.94	104.67	97.99	94.25
S3F0051-CCB5	6/2/2023	16:19	99.67	109.55	104.72	103.99	102.07	97.63	93.06

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0090

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0090-ICV1	6/6/2023	11:19	96.86	97.96	96.19	97.37	97.82	97.35	100.47
S3F0090-ICB1	6/6/2023	11:21	96.60	97.64	96.73	97.32	98.62	96.77	99.55
S3F0090-CRL1	6/6/2023	11:22	97.32	98.71	97.04	98.30	99.78	97.46	99.86
S3F0090-IFA1	6/6/2023	11:24	98.17	96.13	93.07	95.83	94.83	98.33	96.06
S3F0090-IFB1	6/6/2023	11:26	98.14	94.62	92.72	95.74	93.78	98.64	96.99
S3F0090-HCV1	6/6/2023	11:28	99.87	95.48	94.65	96.08	89.81	99.67	98.74
S3F0090-CCV1	6/6/2023	11:36	103.63	98.51	97.52	98.10	99.43	100.63	103.96
S3F0090-CCB1	6/6/2023	11:37	104.36	98.57	97.33	98.17	100.10	101.04	106.49
B3F0014-BLK2	6/6/2023	11:43	102.61	97.02	95.69	96.89	97.46	103.80	104.59
B3F0014-BS2	6/6/2023	11:45	101.76	95.98	94.92	96.09	96.45	100.52	106.11
23E0775-01RE1	6/6/2023	11:47	102.26	96.07	95.93	96.72	95.75	100.54	103.72
23E0775-03RE1	6/6/2023	11:48	103.76	97.68	96.84	96.80	97.68	100.68	104.84
23E0775-04RE1	6/6/2023	11:50	103.38	98.26	97.38	95.83	97.34	101.31	102.44
23E0775-05RE1	6/6/2023	11:52	104.71	99.64	98.87	98.44	99.84	99.78	102.21
23E0775-06RE1	6/6/2023	11:54	106.04	100.57	98.69	99.25	99.96	101.19	103.69
23E0775-07RE1	6/6/2023	11:56	106.87	102.35	100.76	100.28	99.71	103.54	104.65
S3F0090-CCV2	6/6/2023	11:58	106.18	101.37	99.32	100.19	99.60	100.86	104.59
S3F0090-CCB2	6/6/2023	11:59	106.00	100.17	99.24	99.35	100.04	103.28	106.25
23E0775-08RE1	6/6/2023	12:01	105.46	100.78	99.79	99.24	98.49	102.74	102.18
23E0775-09RE1	6/6/2023	12:03	107.31	102.87	101.31	100.16	100.77	102.14	103.94
23E0775-10RE1	6/6/2023	12:05	106.65	102.41	101.35	99.82	101.40	102.75	104.52
B3F0014-MS3	6/6/2023	12:07	105.81	99.60	98.95	100.26	99.84	101.80	103.61
B3F0014-MSD3	6/6/2023	12:09	105.66	99.34	98.80	100.19	100.35	101.76	104.14
B3F0014-PS3	6/6/2023	12:10	104.25	99.99	98.68	98.11	99.34	101.44	105.78
B3F0014-DUP3	6/6/2023	12:12	106.09	100.55	100.09	99.41	100.96	103.51	106.65
23E0775-04RE2	6/6/2023	12:14	105.87	99.98	99.34	100.28			
23E0775-05RE2	6/6/2023	12:16	106.31	100.90	99.52	98.67			
23E0775-06RE2	6/6/2023	12:18	105.83	101.56	100.84	100.49			

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0090

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0090-CCV3	6/6/2023	12:19	105.68	100.48	98.65	99.79	98.22	101.48	106.29
S3F0090-CCB3	6/6/2023	12:21	105.50	100.49	99.62	99.60	100.56	104.31	104.56
23E0775-09RE2	6/6/2023	12:25	106.05	101.41	101.06				
B3F0057-BLK1	6/6/2023	12:27	106.43	101.62	100.64	101.18	102.59	104.83	105.60
B3F0057-BS1	6/6/2023	12:29	104.24	99.65	96.64	100.27	98.57	102.78	107.77
23E0775-11	6/6/2023	12:31	101.99	99.21	96.38	98.06	97.67	100.56	98.12
23E0775-12	6/6/2023	12:32	105.20	102.21	98.70	100.34	99.73	103.56	100.27
23E0775-13	6/6/2023	12:34	102.67	100.72	95.77	97.72	95.50	100.53	94.31
23E0775-14	6/6/2023	12:36	103.61	101.14	95.60	97.26	95.15	99.98	91.39
23E0775-15	6/6/2023	12:38	110.28	104.82	102.70	104.27	105.53	106.50	107.98
23E0775-16	6/6/2023	12:40	102.59	101.31	94.77	97.19	94.00	99.27	90.38
S3F0090-CCV4	6/6/2023	12:42	109.71	103.87	102.41	101.57	102.36	103.24	106.13
S3F0090-CCB4	6/6/2023	12:44	109.85	104.33	101.26	102.36	102.48	104.38	107.95
23E0775-17	6/6/2023	12:45	108.24	103.02	99.92	102.39	100.87	104.75	103.82
23E0775-18	6/6/2023	12:47	103.94	102.30	97.64	99.57	97.41	100.54	96.02
B3F0057-MS1	6/6/2023	12:49	104.65	102.41	96.22	98.38	95.35	101.27	100.22
B3F0057-MSD1	6/6/2023	12:51	104.44	101.13	96.70	99.24	95.21	100.05	99.09
B3F0057-PS1	6/6/2023	12:53	105.06	102.30	97.68	98.86	97.45	102.45	97.90
B3F0057-DUP1	6/6/2023	12:55	108.40	103.27	101.05	100.34	102.30	103.48	106.26
23E0775-19	6/6/2023	12:57	105.45	101.73	96.61	99.43	96.66	100.21	95.47
23E0775-20	6/6/2023	12:58	108.05	105.72	99.82	101.03	98.26	102.59	96.26
23E0775-21	6/6/2023	13:00	111.50	108.60	103.04	105.56	103.33	105.03	103.84
B3F0057-MS2	6/6/2023	13:02	110.27	106.84	102.07	102.38	98.77	103.83	104.39
S3F0090-CCV5	6/6/2023	13:04	113.04	107.50	104.81	104.37	105.36	106.83	109.52
S3F0090-CCB5	6/6/2023	13:06	113.48	108.75	105.26	105.34	106.32	108.49	109.88
B3F0057-MSD2	6/6/2023	13:08	110.53	106.96	101.06	103.38	100.61	106.25	104.51
B3F0057-PS2	6/6/2023	13:09	110.05	107.67	102.76	104.07	101.37	105.10	101.37
B3F0057-DUP2	6/6/2023	13:11	113.86	110.09	107.79	107.47	108.03	107.46	110.26

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0090

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23E0775-23	6/6/2023	13:13	106.01	104.08	99.10	102.81	97.08	102.57	93.74
23E0775-24	6/6/2023	13:15	106.63	103.95	98.20	102.05	97.39	103.00	95.83
23E0775-25	6/6/2023	13:17	107.88	106.68	101.82	103.01	98.19	103.78	95.72
23E0775-26	6/6/2023	13:18	107.67	107.64	99.74	102.03	96.31	102.12	92.27
23E0775-27	6/6/2023	13:20	108.61	108.26	100.56	103.18	98.04	101.57	93.70
23E0775-28	6/6/2023	13:22	109.12	109.62	101.10	103.24	98.32	102.03	93.69
23E0775-29	6/6/2023	13:24	109.77	106.81	101.03	103.62	98.94	103.29	96.32
S3F0090-CCV6	6/6/2023	13:25	116.20	108.85	106.19	106.20	104.69	106.05	108.24
S3F0090-CCB6	6/6/2023	13:27	115.89	110.36	107.58	107.07	107.44	107.36	109.56
23E0775-30	6/6/2023	13:29	111.70	108.60	101.91	104.70	99.72	103.82	96.07
23E0775-11RE1	6/6/2023	13:31	118.28	113.21	109.66	109.54	108.66		
23E0775-12RE1	6/6/2023	13:33	118.92	113.50	109.33	108.57	108.33		
23E0775-13RE1	6/6/2023	13:35	117.87	113.31	110.21	109.47	108.66		
23E0775-14RE1	6/6/2023	13:36	118.14	112.21	109.54	109.97	110.05		
23E0775-15RE1	6/6/2023	13:38			110.89	110.63	111.10		
23E0775-16RE1	6/6/2023	13:40	116.62	113.57	109.54	108.52	108.63		
23E0775-17RE1	6/6/2023	13:42	117.72	111.87	110.24	109.11	108.87		
23E0775-18RE1	6/6/2023	13:44	116.69	112.82	109.65	109.41	109.98		
23E0775-19RE1	6/6/2023	13:46	115.59	112.18	110.29	108.67	108.75		
S3F0090-CCV7	6/6/2023	13:48	115.26	111.84	108.79	108.64	108.15	109.51	111.30
S3F0090-CCB7	6/6/2023	13:50	115.15	110.18	107.97	108.90	109.46	108.83	109.89
23E0775-20RE1	6/6/2023	13:51	114.45	109.82	108.81	108.38	108.45		
23E0775-21RE1	6/6/2023	13:53	115.82	112.29	109.31	108.42	110.54		
23E0775-23RE1	6/6/2023	13:55	114.10	110.73	108.54	108.61	108.28		
23E0775-24RE1	6/6/2023	13:57	114.49	110.26	108.74	108.91	108.51		
23E0775-25RE1	6/6/2023	13:59	115.19	111.30	108.36	110.03	108.07		
23E0775-26RE1	6/6/2023	14:01	114.83	112.24	109.42	109.31	109.79		
23E0775-27RE1	6/6/2023	14:02	114.98	112.02	109.83	110.16	110.33		

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0090

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23E0775-28RE1	6/6/2023	14:04	114.94	111.97	109.93	109.93	109.21		
23E0775-29RE1	6/6/2023	14:06	114.61	112.54	109.18	109.28	109.96		
23E0775-30RE1	6/6/2023	14:08	114.72	112.17	109.64	107.80	110.17		
S3F0090-CCV8	6/6/2023	14:10	114.78	111.39	107.61	106.05	109.70	110.13	110.60
S3F0090-CCB8	6/6/2023	14:12	113.21	109.82	107.28	108.24	109.64	108.64	111.03
23E0775-08RE3	6/6/2023	14:13	113.66	110.44	109.53				
23E0775-13RE2	6/6/2023	14:15	114.93	109.96	109.04	109.01	111.09		
23E0775-14RE2	6/6/2023	14:17	113.68	111.65	109.97	110.31	110.32		
23E0775-16RE2	6/6/2023	14:19	114.00	110.86	110.09	108.64	111.55		
23E0775-18RE2	6/6/2023	14:21	112.80	109.75	108.83	107.95	109.00		
23E0775-19RE2	6/6/2023	14:23	112.85	111.59	109.20	107.64	110.08		
23E0775-20RE2	6/6/2023	14:24	113.61	110.93	109.93	108.81	111.42		
23E0775-23RE2	6/6/2023	14:26	113.48	111.26	109.62	110.15	111.42		
23E0775-24RE2	6/6/2023	14:28	112.95	110.10	107.98	108.19	107.55		
23E0775-25RE2	6/6/2023	14:30	112.79	110.43	109.57	107.83	109.10		
S3F0090-CCV9	6/6/2023	14:32	111.46	108.89	107.74	107.78	107.71	107.13	110.86
S3F0090-CCB9	6/6/2023	14:33	112.78	109.71	106.88	109.33	109.37	110.34	111.41
23E0775-26RE2	6/6/2023	14:35	111.70	108.43	107.21	108.29	109.68		
23E0775-27RE2	6/6/2023	14:37	111.97	108.49	109.30	108.17	109.85		
23E0775-28RE2	6/6/2023	14:39	112.50	108.71	108.40	108.17	109.90		
23E0775-29RE2	6/6/2023	14:41	112.13	108.69	108.16	109.31	108.07		
23E0775-30RE2	6/6/2023	14:43	112.21	109.28	108.86	108.24	110.12		
23E0775-14RE3	6/6/2023	14:44	112.14	109.59	107.41	108.69	110.12		
S3F0090-CCVA	6/6/2023	14:46	110.23	108.12	105.99	106.90	107.65	107.72	110.74
S3F0090-CCBA	6/6/2023	14:48	110.94	107.35	105.65	108.21	110.19	107.93	111.07

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0124

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0124-ICV1	6/7/2023	12:45			97.47	96.85	98.45		
S3F0124-ICB1	6/7/2023	12:47			97.54	97.32	98.07		
S3F0124-CRL1	6/7/2023	12:48			98.05	99.25	99.39		
S3F0124-IFA1	6/7/2023	12:50			94.57	95.51	94.23		
S3F0124-IFB1	6/7/2023	12:52			97.31	97.39	94.11		
S3F0124-HCV1	6/7/2023	12:54			98.22	98.24	86.13		
S3F0124-CCV1	6/7/2023	13:02			101.67	99.79	100.59		
S3F0124-CCB1	6/7/2023	13:03			101.68	100.45	100.89		
B3F0057-BLK2	6/7/2023	13:05			101.27	102.50	102.73		
B3F0057-BS2	6/7/2023	13:07			100.02	102.08	99.85		
23E0775-11RE2	6/7/2023	13:09			98.81	99.69	97.05		
23E0775-12RE2	6/7/2023	13:11			102.21	102.02	100.39		
23E0775-13RE3	6/7/2023	13:13			98.18	100.50	96.70		
23E0775-14RE4	6/7/2023	13:15			98.65	100.22	95.12		
23E0775-15RE2	6/7/2023	13:16			105.68	106.12	103.98		
23E0775-16RE3	6/7/2023	13:18			97.96	98.69	94.28		
23E0775-17RE2	6/7/2023	13:20			105.24	103.55	102.01		
23E0775-18RE3	6/7/2023	13:22			101.29	101.53	97.59		
S3F0124-CCV2	6/7/2023	13:24			103.44	103.23	102.81		
S3F0124-CCB2	6/7/2023	13:26			106.40	104.13	102.28		
B3F0057-MS3	6/7/2023	13:27			100.20	100.43	95.58		
B3F0057-MSD3	6/7/2023	13:29			101.01	101.06	95.84		
B3F0057-PS3	6/7/2023	13:31			99.97	100.83	96.44		
B3F0057-DUP3	6/7/2023	13:33			104.41	102.59	102.08		
23E0775-19RE3	6/7/2023	13:35			101.18	101.87	97.51		
23E0775-20RE3	6/7/2023	13:37			103.23	104.19	97.48		
23E0775-21RE2	6/7/2023	13:39			105.71	106.37	102.99		
B3F0057-MS4	6/7/2023	13:40			105.94	103.35	98.15		

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0124

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
B3F0057-MSD4	6/7/2023	13:42			104.45	104.00	97.99		
B3F0057-PS4	6/7/2023	13:44			105.21	104.30	99.50		
S3F0124-CCV3	6/7/2023	13:46			109.46	106.08	102.06		
S3F0124-CCB3	6/7/2023	13:48			108.87	106.73	104.70		
B3F0057-DUP4	6/7/2023	13:50			108.64	105.99	105.92		
23E0775-23RE3	6/7/2023	13:52			102.19	102.03	95.16		
23E0775-24RE3	6/7/2023	13:53			101.66	102.16	98.11		
23E0775-25RE3	6/7/2023	13:55			103.77	102.81	98.05		
23E0775-26RE3	6/7/2023	13:57			102.15	102.30	96.55		
23E0775-27RE3	6/7/2023	13:59			102.76	102.16	95.75		
23E0775-28RE3	6/7/2023	14:01			103.93	103.38	98.33		
23E0775-29RE3	6/7/2023	14:03			104.01	102.68	98.57		
23E0775-30RE3	6/7/2023	14:04			104.63	104.72	97.55		
S3F0124-CCV4	6/7/2023	14:08			111.47	108.29	106.01		
S3F0124-CCB4	6/7/2023	14:10			110.45	108.02	106.36		
S3F0124-CCV5	6/7/2023	14:30			109.73	107.22	106.22		
S3F0124-CCB5	6/7/2023	14:32			110.17	107.48	106.78		
S3F0124-CCV6	6/7/2023	14:52			106.78	105.20	99.72		
S3F0124-CCV7	6/7/2023	14:54			108.69	105.75	103.81		
S3F0124-CCB6	6/7/2023	14:56			110.27	108.20	106.08		
S3F0124-CCV8	6/7/2023	15:14			123.16	116.39	111.32		
S3F0124-CCV9	6/7/2023	15:16			121.22	115.56	110.84		
S3F0124-CCB7	6/7/2023	15:18			122.03	116.02	112.75		
S3F0124-CCVA	6/7/2023	15:29			116.94	110.66	107.11		
S3F0124-CCVB	6/7/2023	15:31			117.64	111.30	107.60		
S3F0124-CCB8	6/7/2023	15:33			117.32	113.47	110.61		

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0169

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0169-ICV1	6/9/2023	09:49	97.48	95.20	95.69	96.00	97.01	97.47	98.63
S3F0169-ICB1	6/9/2023	09:51	96.60	93.84	94.66	95.53	97.39	96.46	98.17
S3F0169-IFA1	6/9/2023	09:57	114.00	100.77	98.55	101.40	99.26	108.52	104.56
S3F0169-IFB1	6/9/2023	09:58	119.03	102.87	100.14	101.77	100.08	110.38	106.40
S3F0169-CRL1	6/9/2023	10:00	121.70	106.24	105.93	105.56	106.44	113.23	116.72
S3F0169-HCV1	6/9/2023	10:02	119.72	106.04	103.38	103.84	95.61	109.61	109.93
S3F0169-CCV1	6/9/2023	10:10	96.15	86.97	89.80	88.94	88.97	94.37	96.84
S3F0169-CCV2	6/9/2023	10:12	100.11	90.77	92.09	90.36	90.82	96.68	100.40
S3F0169-CCB1	6/9/2023	10:13	102.59	93.20	93.68	93.03	92.97	97.31	99.93
B3F0059-BLK1	6/9/2023	10:27	109.44	99.78	97.32	97.03	98.78	101.31	102.23
B3F0059-BS1	6/9/2023	10:28	110.50	99.99	97.95	97.18	94.57	100.94	105.25
23E0775-22	6/9/2023	10:30	111.29	101.28	98.16	97.59	97.97	100.49	99.22
B3F0059-MS1	6/9/2023	10:32	115.59	103.58	99.59	100.59	95.55	104.82	103.33
S3F0169-CCV3	6/9/2023	10:34	119.20	108.38	104.91	102.00	100.10	105.01	106.89
S3F0169-CCV4	6/9/2023	10:36	118.44	106.83	103.50	102.51	103.83	104.29	105.49
S3F0169-CCB2	6/9/2023	10:37	117.30	107.14	104.26	103.13	103.86	105.50	105.41
B3F0059-MSD1	6/9/2023	10:39	116.03	105.16	101.32	101.39	97.78	103.28	103.40
B3F0059-PS1	6/9/2023	10:41	119.90	107.47	102.74	103.23	101.35	105.91	101.76
B3F0059-DUP1	6/9/2023	10:43	125.04	112.73	109.70	107.22	105.54	106.70	109.30
B3F0059-DUP2	6/9/2023	10:43	125.04	112.73	109.70	107.22	105.54	106.70	109.30
23E0775-32	6/9/2023	10:45	125.14	112.89	108.48	108.74	107.42	110.46	109.63
23E0775-33	6/9/2023	10:47	124.72	113.41	109.22	107.91	107.25	108.83	108.78
23E0775-34	6/9/2023	10:49	124.40	112.18	107.46	108.74	107.85	109.41	109.39
23E0775-35	6/9/2023	10:51	123.52	113.10	108.64	109.09	109.06	109.26	109.66
23E0775-36	6/9/2023	10:52	122.73	112.34	108.65	108.19	107.86	108.24	109.02
23E0775-37	6/9/2023	10:54	122.20	111.40	106.62	108.08	107.61	109.27	109.52
23E0775-38	6/9/2023	10:56	121.03	109.10	104.59	104.15	102.20	105.71	100.57
S3F0169-CCV5	6/9/2023	10:58	122.66	110.71	108.33	105.68	105.17	106.23	107.66

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0169

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0169-CCV6	6/9/2023	11:00	121.87	109.08	106.81	105.29	105.11	104.72	105.81
S3F0169-CCB3	6/9/2023	11:02	121.40	110.03	106.07	105.53	102.70	106.73	106.58
B3F0059-MS2	6/9/2023	11:04	118.68	107.44	102.45	103.49	97.63	104.19	102.95
B3F0059-MSD2	6/9/2023	11:05	120.85	109.62	104.90	104.93	101.76	107.49	105.46
B3F0059-PS2	6/9/2023	11:07	122.18	110.18	105.61	105.44	101.69	106.95	99.82
B3F0059-DUP2	6/9/2023	11:09	125.04	112.73	109.70	107.22	105.54	106.70	109.30
23E0775-39	6/9/2023	11:11	124.94	112.14	106.27	105.12	100.07	105.79	98.22
23E0775-40	6/9/2023	11:13	128.74	113.67	107.04	106.73	103.26	109.38	100.30
23E0775-41	6/9/2023	11:15	131.65	115.34	110.35	109.89	105.37	111.92	105.38
23E0775-42	6/9/2023	11:17	133.51	118.70	112.65	111.40	110.42	112.39	106.77
23E0775-43	6/9/2023	11:18	131.33	118.07	110.05	110.12	105.04	110.83	101.64
23E0775-45	6/9/2023	11:20	129.17	115.26	106.72	106.19	100.66	106.15	96.60
S3F0169-CCV7	6/9/2023	11:22	137.33	119.17	114.81	111.78	111.23	111.87	114.82
S3F0169-CCV8	6/9/2023	11:24	135.45	118.08	114.18	111.35	109.71	113.68	111.96
S3F0169-CCB4	6/9/2023	11:26	135.18	118.05	113.46	110.63	112.99	112.15	113.86
23E0775-22RE1	6/9/2023	11:31	86.03	81.98	85.23				
23E0775-38RE1	6/9/2023	11:33	93.87	88.95	89.82				
23E0775-39RE1	6/9/2023	11:35	100.19	92.21	93.54	92.98			
23E0775-40RE1	6/9/2023	11:37	105.10	96.08	96.91				
23E0775-41RE1	6/9/2023	11:39	107.83	99.78	99.84	97.48			
23E0775-42RE1	6/9/2023	11:40	110.88	101.03	100.56	98.08			
23E0775-43RE1	6/9/2023	11:42	112.49	101.90	102.33	100.23			
23E0775-45RE1	6/9/2023	11:44	113.68	104.43	102.51	100.75			
S3F0169-CCV9	6/9/2023	11:46	115.03	103.39	102.72	100.47	98.57	101.82	103.78
S3F0169-CCVA	6/9/2023	11:48	114.63	103.40	100.88	99.41	100.53	102.35	105.96
S3F0169-CCB5	6/9/2023	11:49	114.82	102.98	101.96	101.50	102.00	102.83	104.65
S3F0169-CCVB	6/9/2023	12:02	96.46	100.79	97.93	94.24	93.86	90.78	88.40
S3F0169-CCVC	6/9/2023	12:04	101.16	103.87	99.46	98.47	95.97	93.53	93.77

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0169

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0169-CCB6	6/9/2023	12:06	106.75	107.35	102.53	100.06	99.72	95.00	95.21
S3F0169-CCVD	6/9/2023	12:20	83.15	86.22	86.18	86.78	87.01	85.31	86.49
S3F0169-CCVE	6/9/2023	12:22	87.43	89.31	88.89	88.92	88.34	89.11	89.19
S3F0169-CCB7	6/9/2023	12:24	92.53	93.29	93.06	92.00	91.30	89.85	92.16
S3F0169-CCVF	6/9/2023	12:51	104.60	96.92	96.95	96.30	96.70	100.27	100.82
S3F0169-CCVG	6/9/2023	12:53	112.47	103.65	101.74	98.82	100.43	102.27	105.14
S3F0169-CCB8	6/9/2023	12:55	120.82	108.65	106.60	104.76	103.92	106.80	108.35
S3F0169-CCVH	6/9/2023	13:08	115.76	104.46	104.27	101.78	102.45	105.21	107.47
S3F0169-CCVI	6/9/2023	13:10	125.51	108.69	108.46	105.51	103.85	107.27	109.94
S3F0169-CCB9	6/9/2023	13:12	131.97	114.60	113.71	109.85	107.55	111.19	114.18
S3F0169-CCVJ	6/9/2023	13:23	144.19	124.49	120.06	117.28	115.56	118.20	118.18
S3F0169-CCVK	6/9/2023	13:25	142.79	123.02	119.14	115.89	113.25	115.69	117.96
S3F0169-CCBA	6/9/2023	13:26	143.29	124.71	120.40	116.84	115.29	116.62	116.02
S3F0169-CCVL	6/9/2023	13:41	143.84	125.13	118.82	116.63	115.67	117.50	117.48
S3F0169-CCVM	6/9/2023	13:43	142.72	123.24	117.93	115.72	113.85	117.07	118.16
S3F0169-CCBB	6/9/2023	13:45	141.67	124.41	119.57	118.29	117.60	117.67	120.85
23E0775-39RE2	6/9/2023	13:52	77.61	77.77	81.28				
23E0775-40RE2	6/9/2023	13:54	87.04	84.95	87.52				
23E0775-41RE2	6/9/2023	13:56	94.40	89.98	93.55				
23E0775-42RE2	6/9/2023	13:58	100.74	94.93	96.59				
23E0775-43RE2	6/9/2023	14:00	105.44	99.12	100.60				
23E0775-45RE2	6/9/2023	14:02	110.62	102.17	102.74				
S3F0169-CCVN	6/9/2023	14:03	112.19	102.68	103.44	101.14	98.85	103.88	105.79
S3F0169-CCVO	6/9/2023	14:05	114.42	104.29	103.24	99.73	101.76	103.08	105.72
S3F0169-CCBC	6/9/2023	14:07	117.44	106.92	104.27	103.65	105.53	107.76	108.16
S3F0169-CCVP	6/9/2023	14:18	127.98	113.08	111.63	108.99	107.64	110.18	112.27
S3F0169-CCVQ	6/9/2023	14:20	128.51	112.92	111.82	109.15	109.84	111.03	110.38
S3F0169-CCBD	6/9/2023	14:22	129.33	113.70	112.54	111.36	109.13	112.06	113.94

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0169

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0169-CCVR	6/9/2023	14:37	90.51	88.20	88.43	88.63	89.50	92.46	95.93
S3F0169-CCVS	6/9/2023	14:39	95.29	89.91	90.94	90.75	92.86	94.68	99.29
S3F0169-CCBE	6/9/2023	14:41	99.75	94.18	94.20	93.10	94.65	96.57	100.72

Element		QC Range
Li	=	> 70%
Sc	=	> 70%
Ge	=	> 70%
Y	=	> 70%
In	=	> 70%
Tb	=	> 70%
Bi	=	> 70%

Performance Report

System (SN 02314R):

Time	6/2/2023 2:16:11 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-20230515-100511588.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	4,965.55 CPS	Greater than	5.0 CPS
59Co	Passed	60,439.0 CPS	Greater than	1,000.0 CPS
24Mg	Passed	13,090.3 CPS	Greater than	50.0 CPS
208Pb	Passed	194,469.0 CPS	Greater than	1,000.0 CPS
140Ce.16O/140Ce	Passed	0.0051	Less than	0.02
137Ba++/137Ba	Passed	0.049	Less than	0.1
115In	Passed	76,907.0 CPS	Greater than	1,000.0 CPS

Stability:
< 5% for 5 Replicates (200.8)

Analyte	Value	Limit
9Be	0.9%	5
59Co	0.5%	5
24Mg	0.4%	5
208Pb	1.1%	5
115In	1.3%	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	9.0025	0.0097	0.704	0.650	0.850
24Mg	Passed	23.9741	0.0109	0.700	0.650	0.850
59Co	Passed	58.9238	0.0094	0.713	0.650	0.850
115In	Passed	114.9043	0.0004	0.740	0.650	0.850
208Pb	Passed	207.9906	0.0140	0.778	0.650	0.850

Performance Report

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	-1.08
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	-133.33
Focus Lens	-6.50
Nebulizer Flow	0.98
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	0.07
Torch Vertical Position	0.63
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		5.652e-7
Interface Pressure		1.691e+0

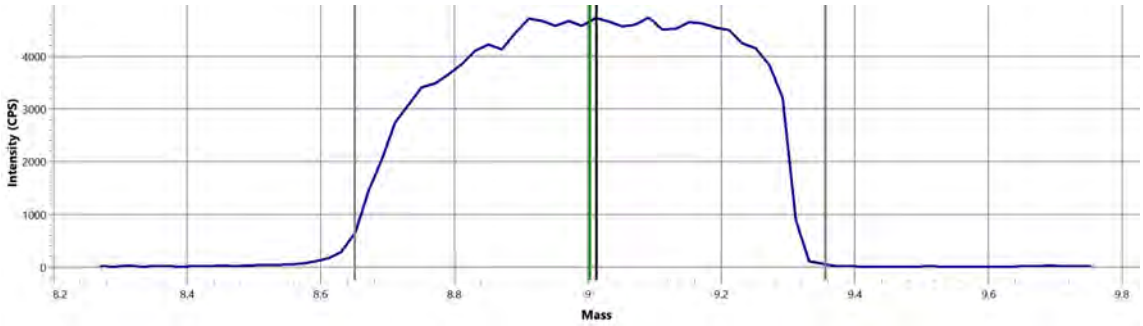
Detector (EM) Voltages:

Analog	Counting
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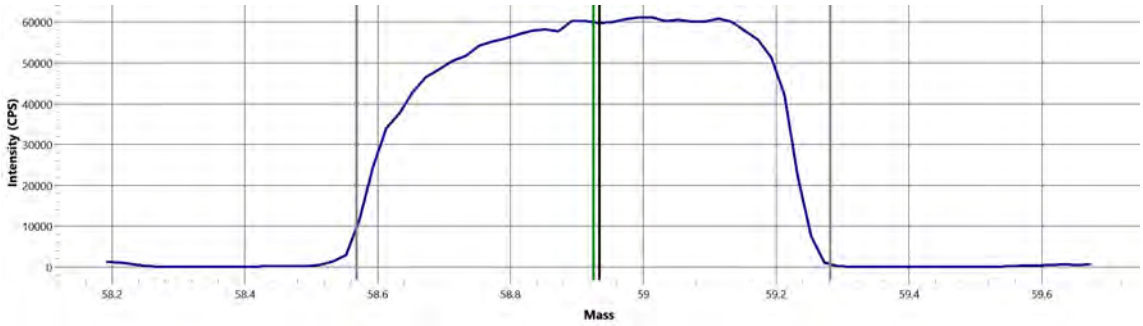
Performance Report

Mass Calibration Peaks

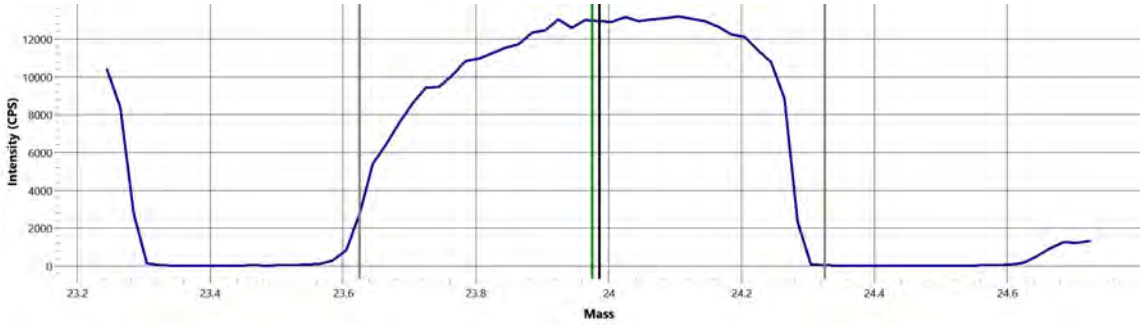
9Be



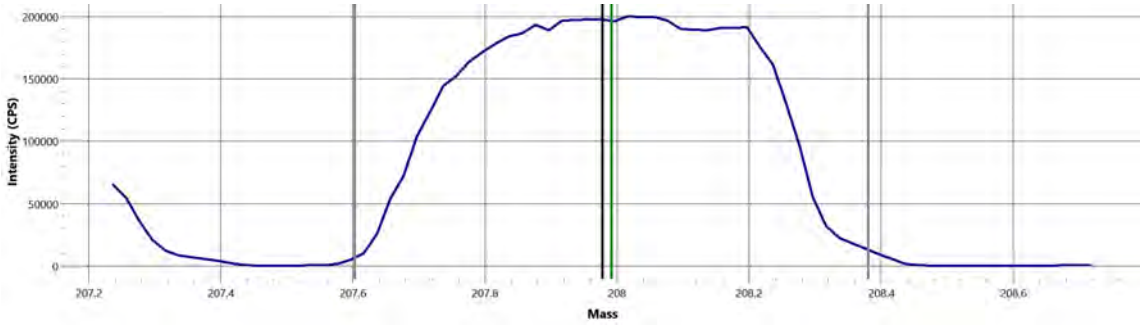
59Co



24Mg

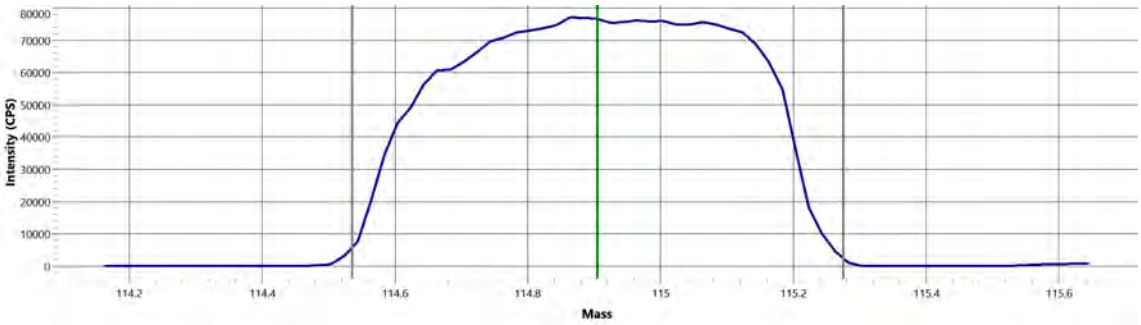


208Pb



115In

Performance Report



Performance Report

System (SN 02314R):

Time	6/6/2023 10:14:38 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-20230605-104820023.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	3,801.3 CPS	Greater than	5.0 CPS
59Co	Passed	48,531.0 CPS	Greater than	1,000.0 CPS
24Mg	Passed	10,597.1 CPS	Greater than	50.0 CPS
208Pb	Passed	210,700.0 CPS	Greater than	1,000.0 CPS
140Ce.16O/140Ce	Passed	0.0053	Less than	0.02
137Ba++/137Ba	Passed	0.035	Less than	0.1
115In	Passed	83,813.0 CPS	Greater than	1,000.0 CPS

Stability:
< 5% for 5 Replicates (200.8)

Analyte	Value	Limit
9Be	0.8%	5
59Co	0.3%	5
24Mg	1.6%	5
208Pb	0.6%	5
115In	0.4%	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	8.9972	0.0150	0.707	0.650	0.850
24Mg	Passed	23.9708	0.0143	0.702	0.650	0.850
59Co	Passed	58.9326	0.0006	0.702	0.650	0.850
115In	Passed	114.9272	0.0233	0.707	0.650	0.850
208Pb	Passed	208.0462	0.0695	0.695	0.650	0.850

Performance Report

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	-125.00
Focus Lens	-6.50
Nebulizer Flow	0.96
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	-0.17
Torch Vertical Position	0.79
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		6.184e-7
Interface Pressure		1.581e+0

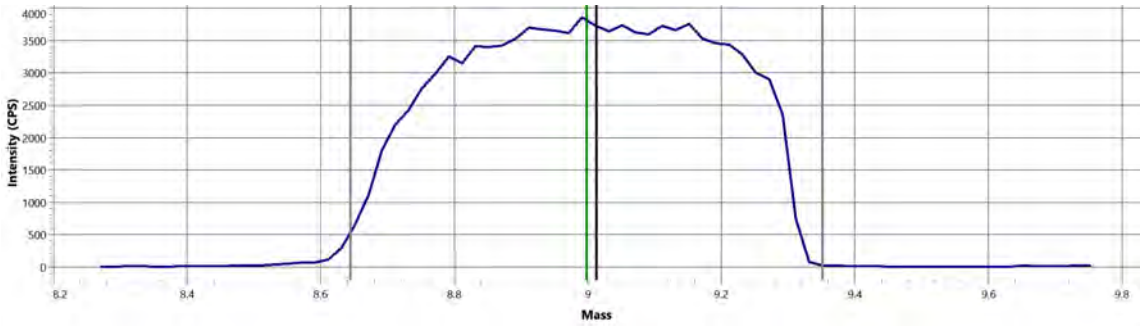
Detector (EM) Voltages:

Analog	Counting
-2837.50	1812.50

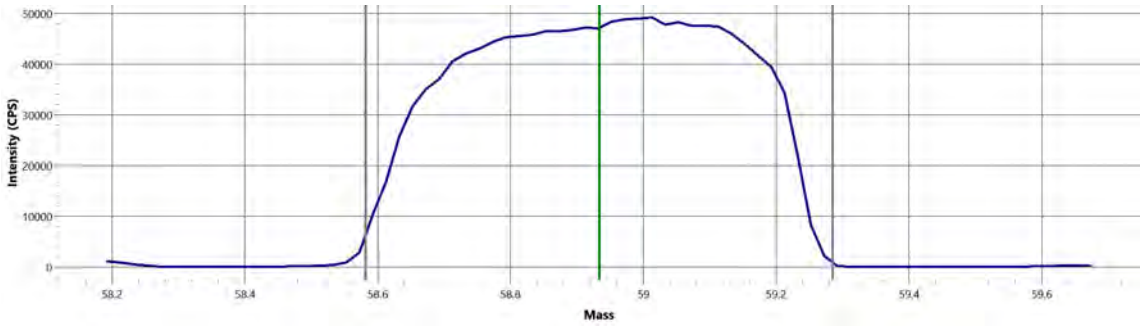
Performance Report

Mass Calibration Peaks

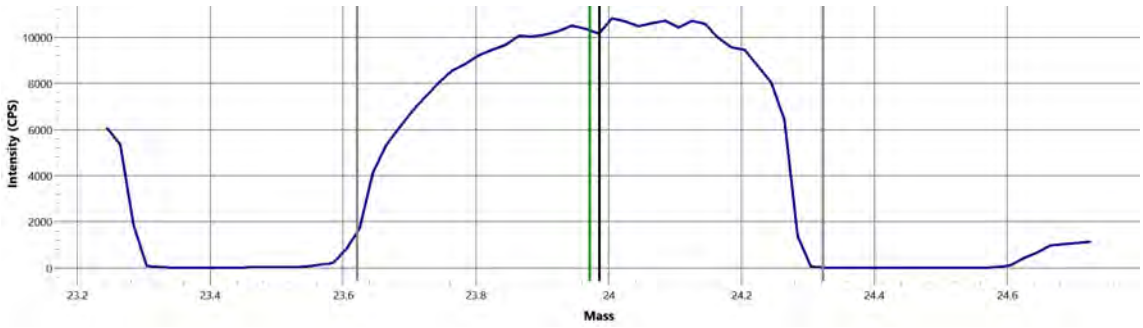
9Be



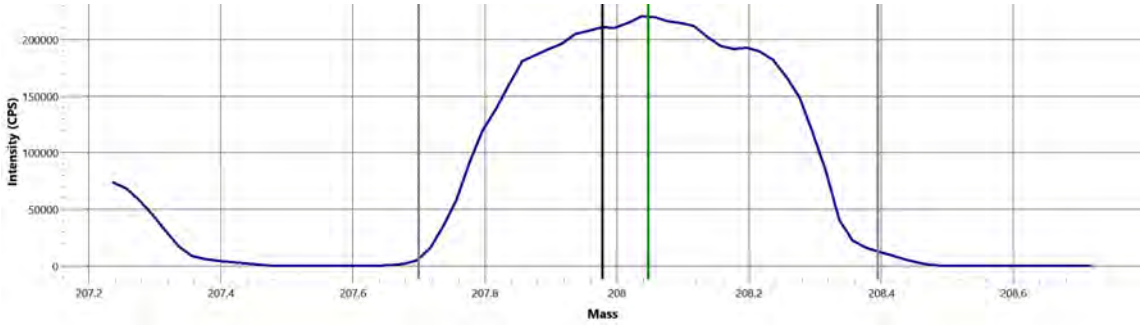
59Co



24Mg

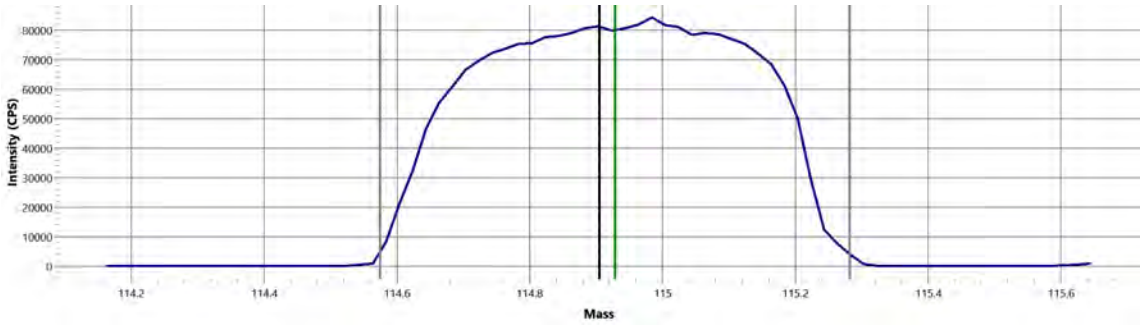


208Pb



115In

Performance Report



Performance Report

System (SN 02314R):

Time	6/7/2023 9:33:23 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-20230605-104820023.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	3,227.62 CPS	Greater than	5.0 CPS
59Co	Passed	44,254.0 CPS	Greater than	1,000.0 CPS
24Mg	Passed	9,145.8 CPS	Greater than	50.0 CPS
208Pb	Passed	203,935.0 CPS	Greater than	1,000.0 CPS
140Ce.16O/140Ce	Passed	0.0053	Less than	0.02
137Ba++/137Ba	Passed	0.036	Less than	0.1
115In	Passed	78,471.0 CPS	Greater than	1,000.0 CPS

Stability:
< 5% for 5 Replicates (200.8)

Analyte	Value	Limit
9Be	0.8%	5
59Co	0.6%	5
24Mg	2.2%	5
208Pb	0.6%	5
115In	1.3%	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	8.9934	0.0188	0.713	0.650	0.850
24Mg	Passed	23.9648	0.0203	0.705	0.650	0.850
59Co	Passed	58.9216	0.0116	0.713	0.650	0.850
115In	Passed	114.9085	0.0046	0.718	0.650	0.850
208Pb	Passed	208.0119	0.0352	0.730	0.650	0.850

Performance Report

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	-125.00
Focus Lens	-6.50
Nebulizer Flow	0.96
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	-0.17
Torch Vertical Position	0.79
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

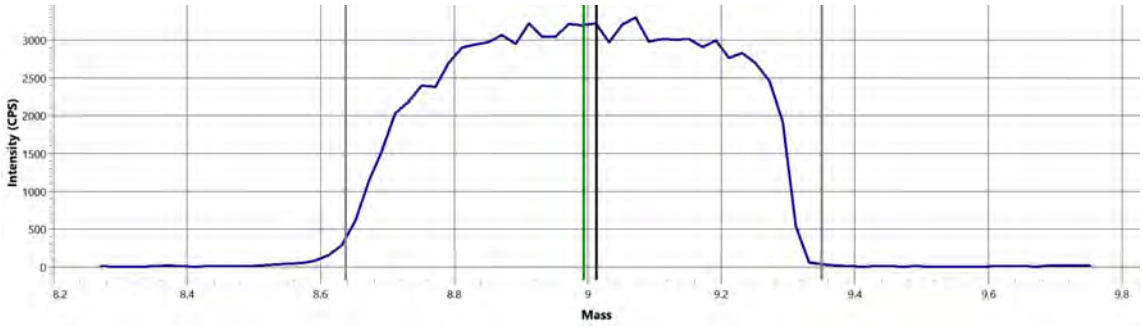
Detector (EM) Voltages:

Analog	Counting
-2837.50	1812.50

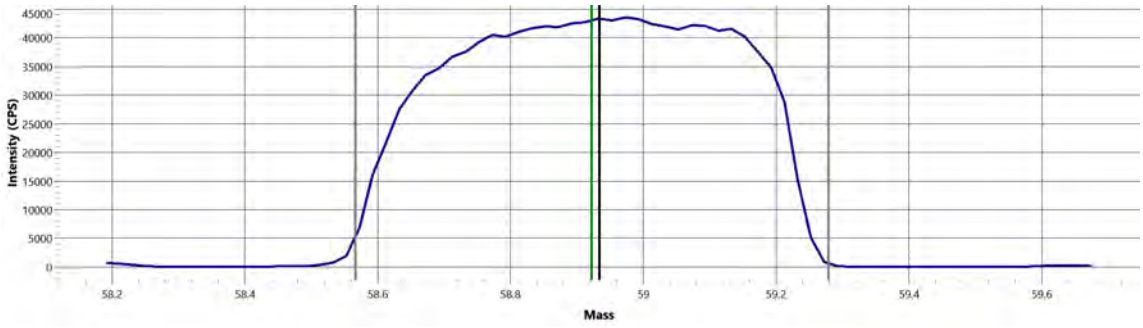
Performance Report

Mass Calibration Peaks

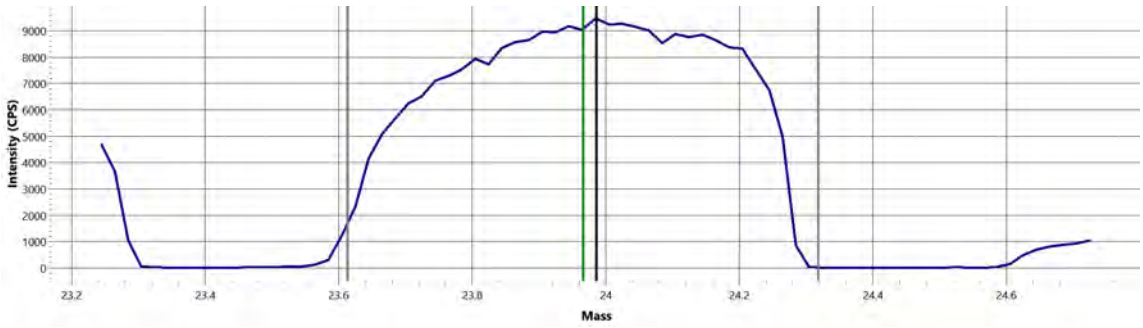
9Be



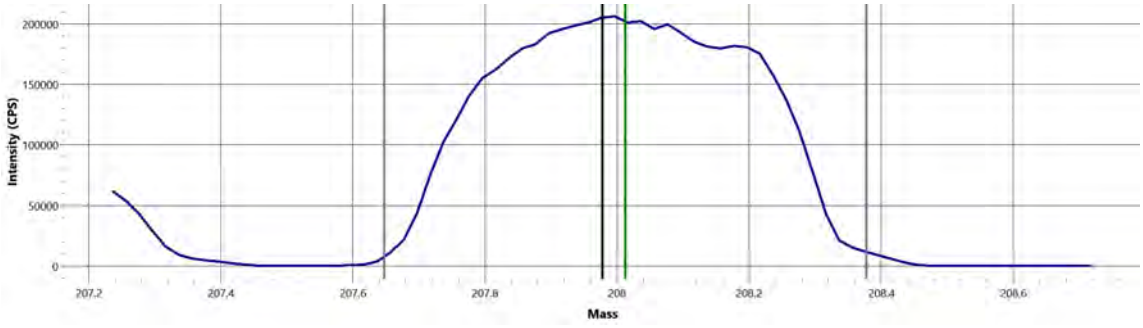
59Co



24Mg

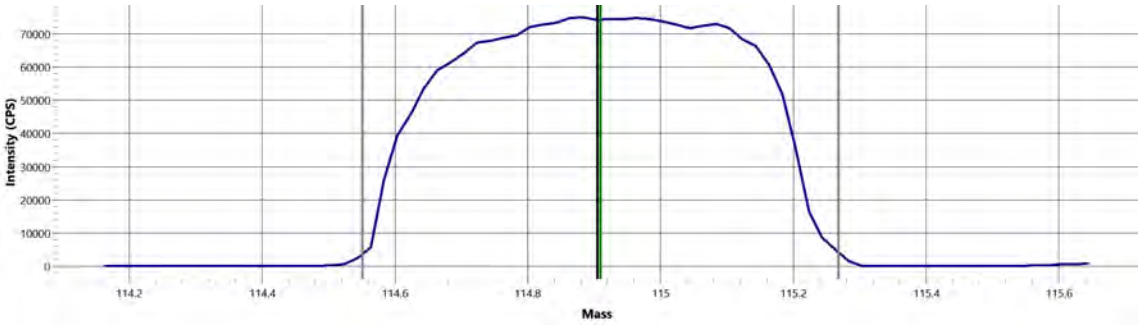


208Pb



115In

Performance Report



Performance Report

System (SN 02314R):

Time	6/9/2023 8:44:50 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-20230605-104820023.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	3,058.85 CPS	Greater than	5.0 CPS
59Co	Passed	44,180.0 CPS	Greater than	1,000.0 CPS
24Mg	Passed	8,842.3 CPS	Greater than	50.0 CPS
208Pb	Passed	197,456.0 CPS	Greater than	1,000.0 CPS
140Ce.16O/140Ce	Passed	0.0052	Less than	0.02
137Ba++/137Ba	Passed	0.037	Less than	0.1
115In	Passed	76,412.0 CPS	Greater than	1,000.0 CPS

Stability:
< 5% for 5 Replicates (200.8)

Analyte	Value	Limit
9Be	0.8%	5
59Co	1.0%	5
24Mg	1.9%	5
208Pb	1.0%	5
115In	0.5%	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	8.9941	0.0181	0.706	0.650	0.850
24Mg	Passed	23.9601	0.0249	0.700	0.650	0.850
59Co	Passed	58.9086	0.0246	0.728	0.650	0.850
115In	Passed	114.8858	0.0181	0.737	0.650	0.850
208Pb	Passed	207.9668	0.0099	0.772	0.650	0.850

Performance Report

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	-125.00
Focus Lens	-6.50
Nebulizer Flow	0.96
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	-0.17
Torch Vertical Position	0.79
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		5.652e-7
Interface Pressure		1.581e+0

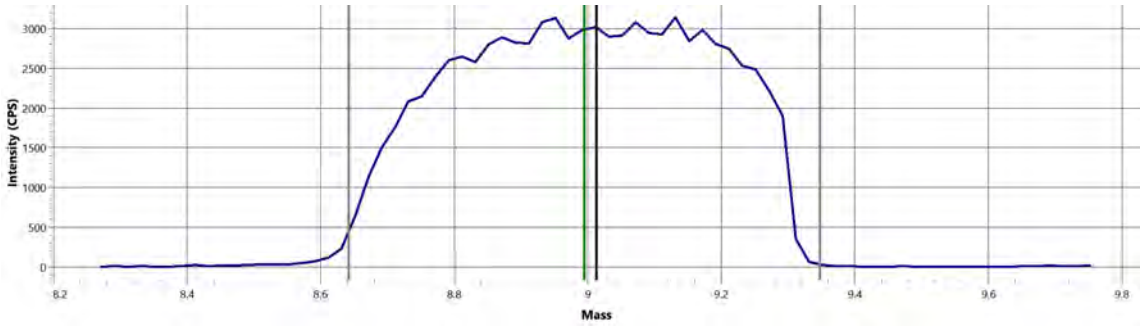
Detector (EM) Voltages:

Analog	Counting
-2837.50	1812.50

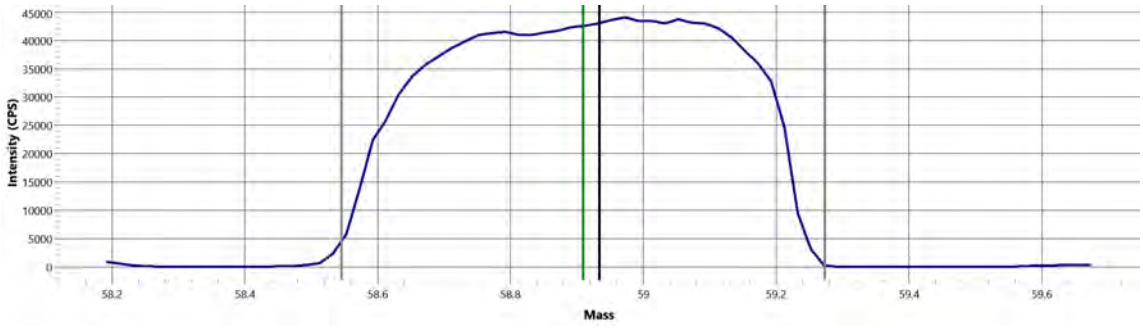
Performance Report

Mass Calibration Peaks

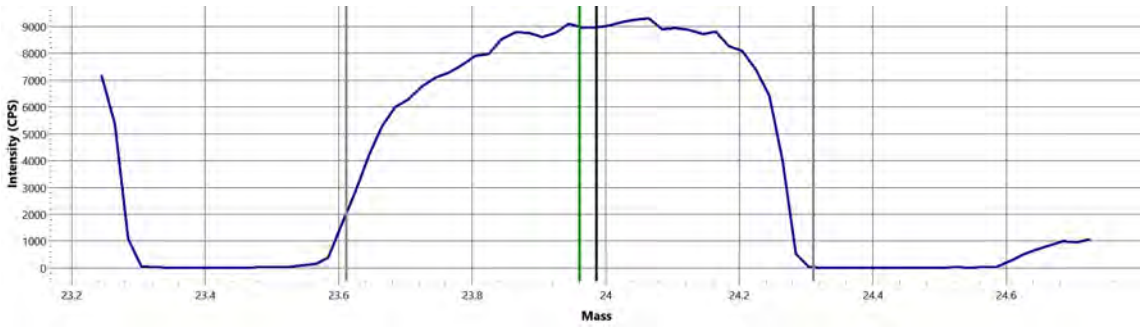
9Be



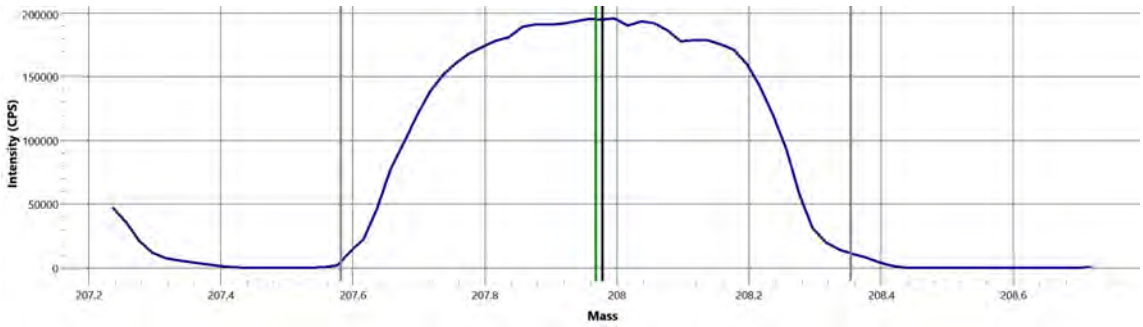
59Co



24Mg

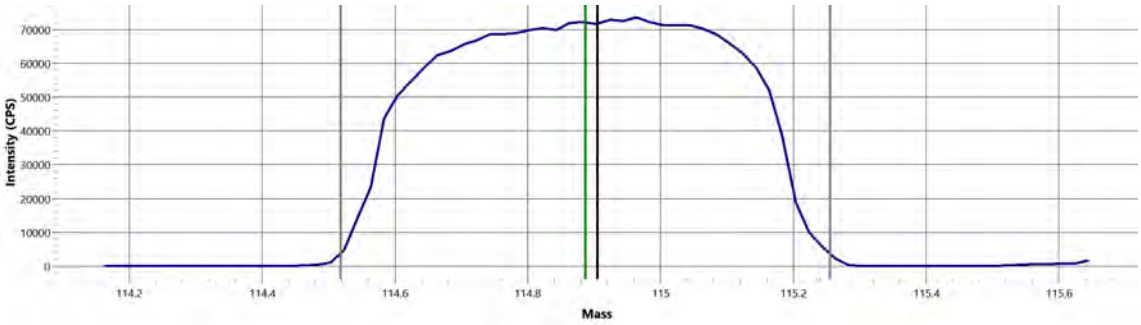


208Pb



115In

Performance Report



Calibration

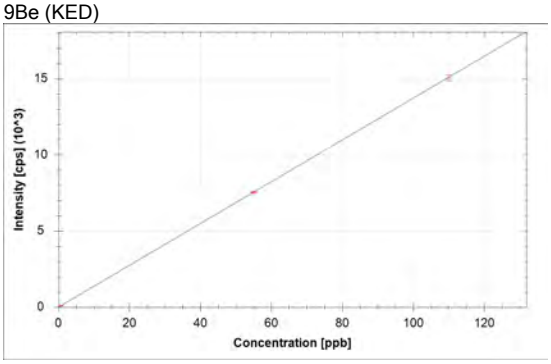
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Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	Undefined

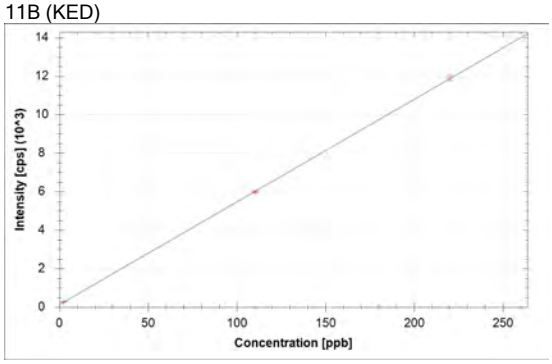
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9Be (KED)



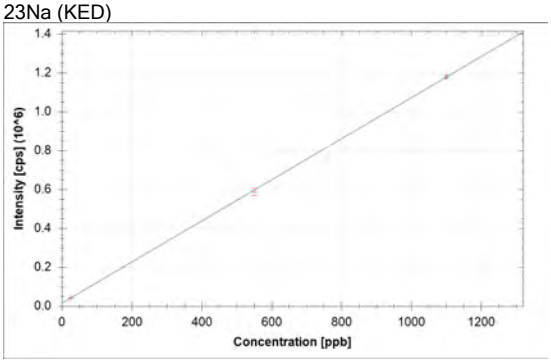
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R² = 1.0000
BEC = 0.023 ppb
LoD = N/A

11B (KED)



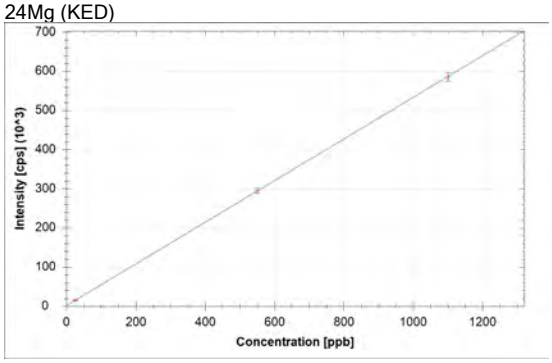
f(x) = 53.3102*x + 133.9695
R² = 1.0000
BEC = 2.513 ppb
LoD = N/A

23Na (KED)



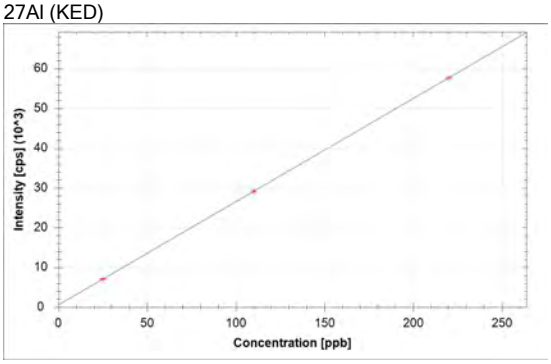
f(x) = 1056.4816*x + 15866.2802
R² = 0.9999
BEC = 15.018 ppb
LoD = N/A

24Mg (KED)



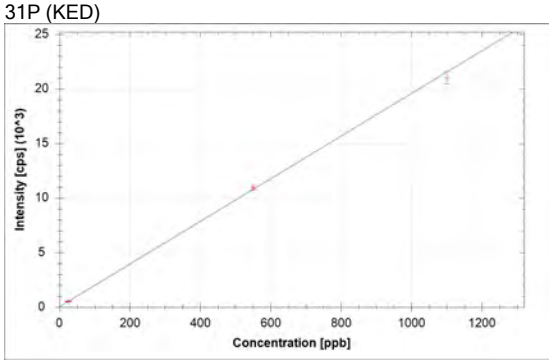
f(x) = 531.9982*x + 1747.0431
R² = 1.0000
BEC = 3.284 ppb
LoD = N/A

27Al (KED)



f(x) = 259.6038*x + 574.4543
R² = 1.0000
BEC = 2.213 ppb
LoD = N/A

31P (KED)

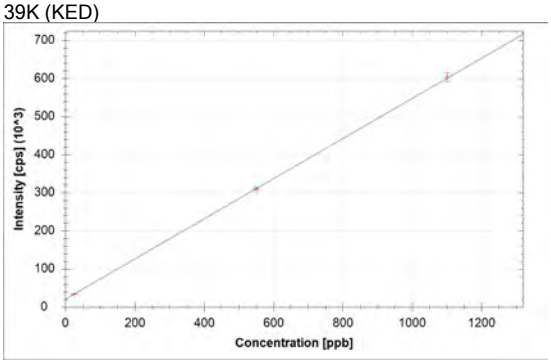


f(x) = 19.5424*x + 43.7654
R² = 0.9986
BEC = 2.240 ppb
LoD = N/A

Calibration

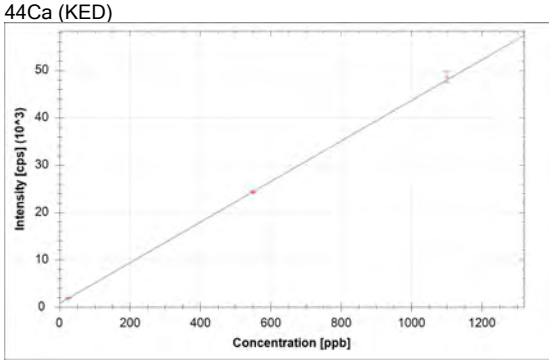
6/2/2023 4:22:24 PM

39K (KED)



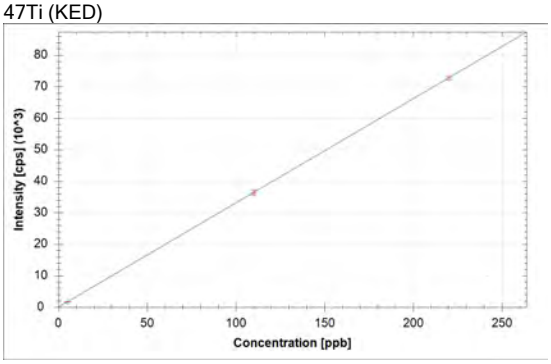
f(x) = 526.8581*x + 20927.7634
R² = 0.9999
BEC = 39.722 ppb
LoD = N/A

44Ca (KED)



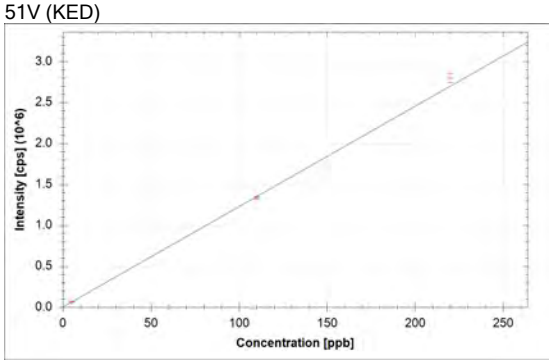
f(x) = 42.9052*x + 759.7030
R² = 0.9996
BEC = 17.707 ppb
LoD = N/A

47Ti (KED)



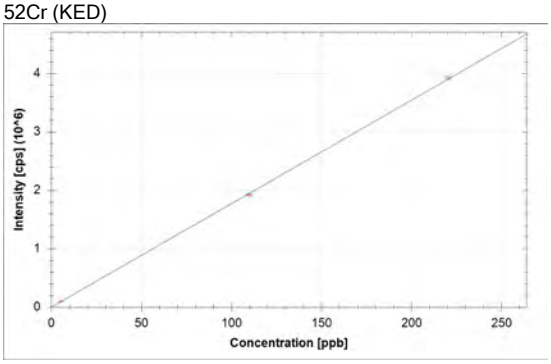
f(x) = 330.8318*x + 26.0168
R² = 1.0000
BEC = 0.079 ppb
LoD = N/A

51V (KED)



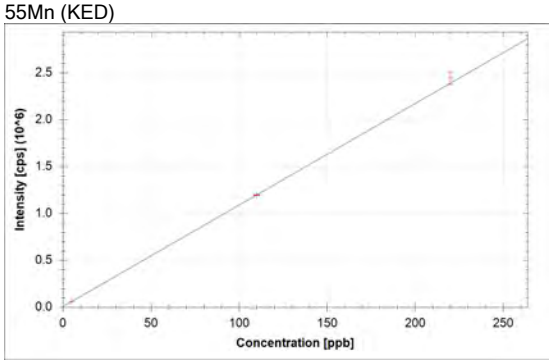
f(x) = 12256.0874*x + 2814.1364
R² = 0.9972
BEC = 0.230 ppb
LoD = N/A

52Cr (KED)



f(x) = 17705.7782*x + 2058.5903
R² = 0.9998
BEC = 0.116 ppb
LoD = N/A

55Mn (KED)

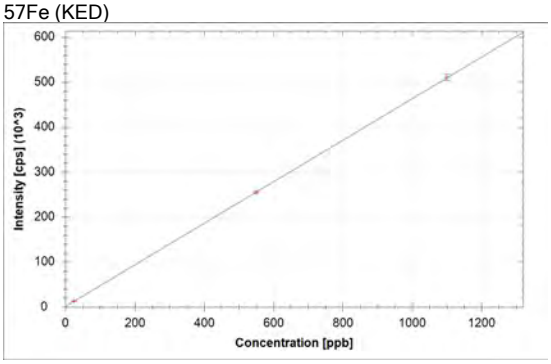


f(x) = 10826.8757*x + 6095.1088
R² = 0.9989
BEC = 0.563 ppb
LoD = N/A

Calibration

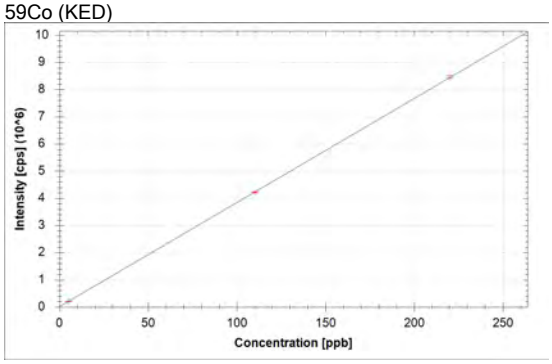
6/2/2023 4:22:24 PM

57Fe (KED)



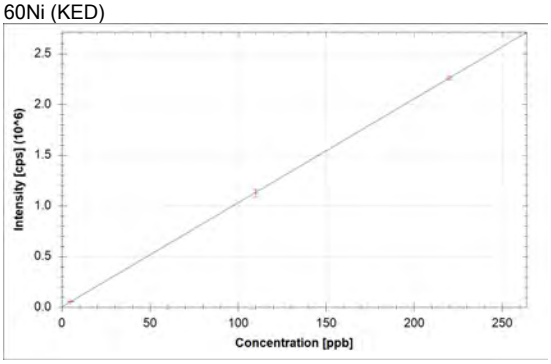
f(x) = 461.9124*x + 1356.2548
R² = 1.0000
BEC = 2.936 ppb
LoD = N/A

59Co (KED)



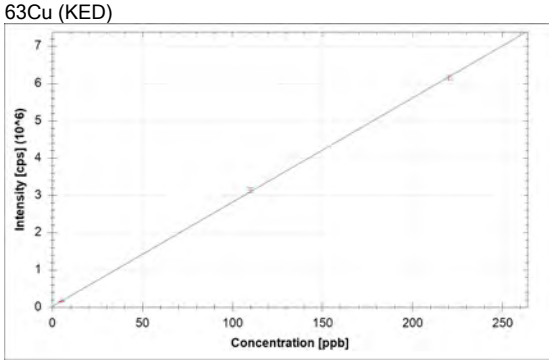
f(x) = 38294.1497*x + 11694.8410
R² = 1.0000
BEC = 0.305 ppb
LoD = N/A

60Ni (KED)



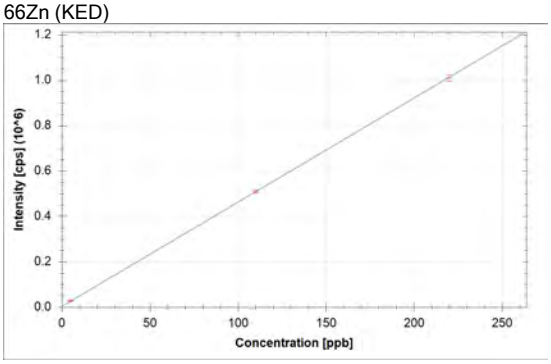
f(x) = 10254.7949*x + 3356.8977
R² = 1.0000
BEC = 0.327 ppb
LoD = N/A

63Cu (KED)



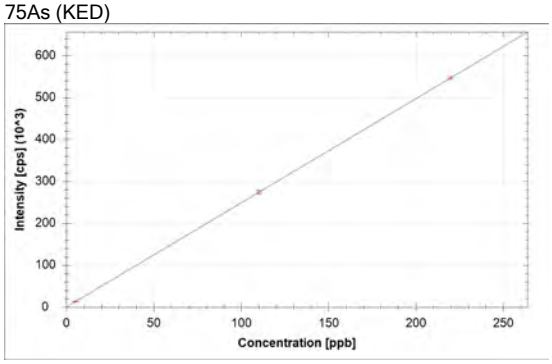
f(x) = 27957.3544*x + 21147.2611
R² = 0.9998
BEC = 0.756 ppb
LoD = N/A

66Zn (KED)



f(x) = 4586.9365*x + 4012.7870
R² = 1.0000
BEC = 0.875 ppb
LoD = N/A

75As (KED)

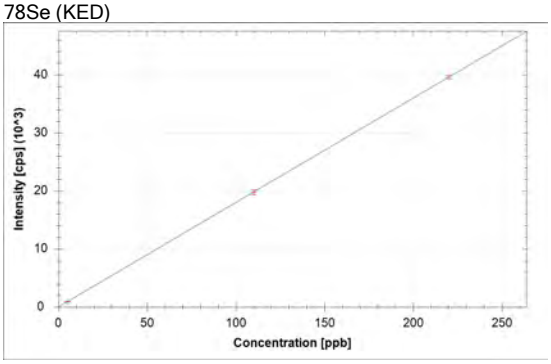


f(x) = 2484.7887*x + 576.6504
R² = 1.0000
BEC = 0.232 ppb
LoD = N/A

Calibration

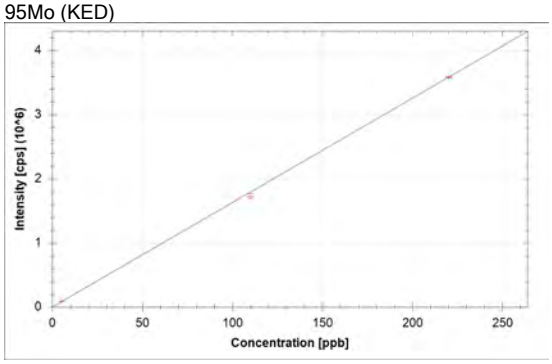
6/2/2023 4:22:24 PM

78Se (KED)



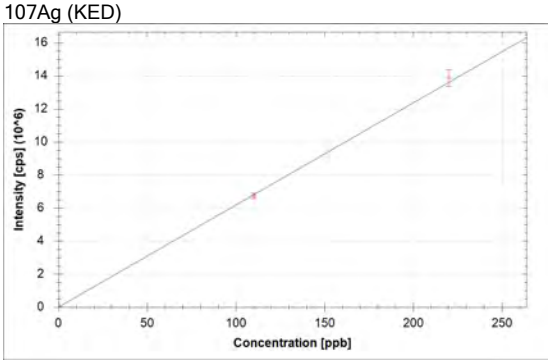
f(x) = 179.8874*x + 22.6482
R² = 1.0000
BEC = 0.126 ppb
LoD = N/A

95Mo (KED)



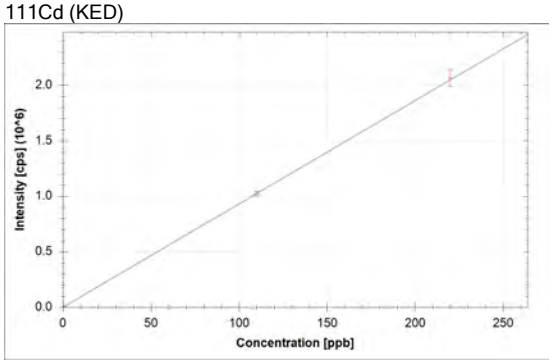
f(x) = 16271.7109*x + 2231.5128
R² = 0.9994
BEC = 0.137 ppb
LoD = N/A

107Ag (KED)



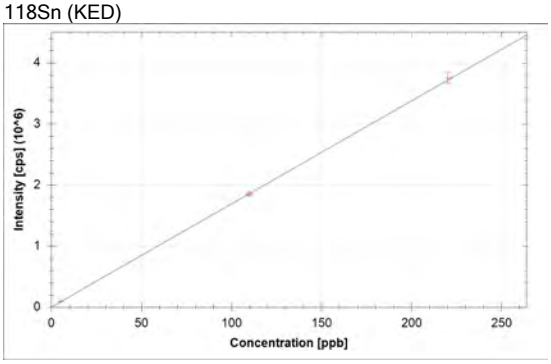
f(x) = 61815.3812*x + 2168.9478
R² = 0.9992
BEC = 0.035 ppb
LoD = N/A

111Cd (KED)



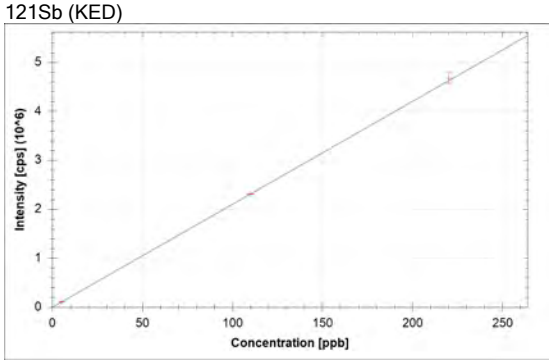
f(x) = 9307.8092*x + 268.7850
R² = 0.9998
BEC = 0.029 ppb
LoD = N/A

118Sn (KED)



f(x) = 16872.0632*x + 3848.7322
R² = 0.9998
BEC = 0.228 ppb
LoD = N/A

121Sb (KED)

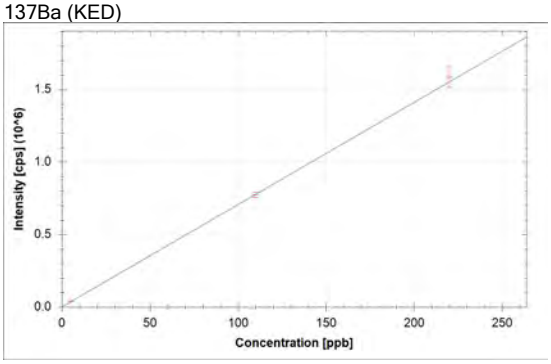


f(x) = 21011.4203*x + -193.9248
R² = 0.9997
BEC = -0.009 ppb
LoD = N/A

Calibration

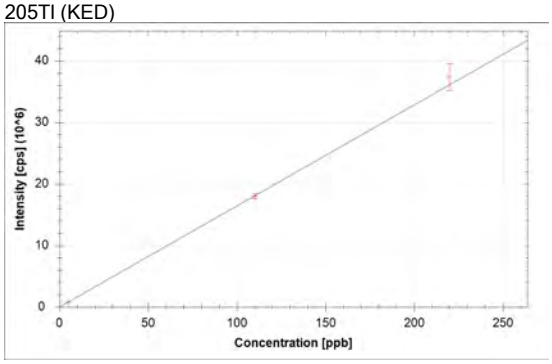
6/2/2023 4:22:24 PM

137Ba (KED)



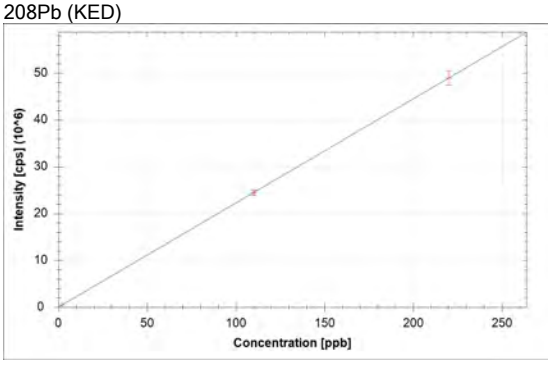
f(x) = 7048.0495*x + 1712.0950
R^2 = 0.9990
BEC = 0.243 ppb
LoD = N/A

205Tl (KED)



f(x) = 164179.1974*x + -3793.8915
R^2 = 0.9977
BEC = -0.023 ppb
LoD = N/A

208Pb (KED)



f(x) = 222468.6287*x + 7977.6928
R^2 = 1.0000
BEC = 0.036 ppb
LoD = N/A

Calibration

6/2/2023 4:22:24 PM

Standards:

Analysis Index: 4
Analysis Name: Calibration 1
AnalysisType STD
Analysis Started at: 6/2/2023 2:30:39 PM
Standard (Stock): Calibration 1
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	100.758 %	N/A	0.0 %	
9Be (KED)	0.500 ppb	10.6 %	0.3 %	0.500 ppb
11B (KED)	2.501 ppb	2.7 %	0.5 %	2.500 ppb
23Na (KED)	25.002 ppb	1.6 %	1.6 %	25.000 ppb
24Mg (KED)	24.998 ppb	2.3 %	0.4 %	25.000 ppb
27Al (KED)	24.989 ppb	1.9 %	0.1 %	25.000 ppb
31P (KED)	24.933 ppb	5.4 %	2.8 %	25.000 ppb
39K (KED)	25.010 ppb	3.4 %	0.6 %	25.000 ppb
44Ca (KED)	25.020 ppb	3.8 %	1.4 %	25.000 ppb
45Sc (KED)	100.205 %	N/A	0.0 %	
47Ti (KED)	4.999 ppb	4.1 %	0.1 %	5.000 ppb
51V (KED)	5.004 ppb	2.1 %	3.9 %	5.000 ppb
52Cr (KED)	5.009 ppb	2.1 %	1.8 %	5.000 ppb
55Mn (KED)	5.000 ppb	0.4 %	2.4 %	5.000 ppb
57Fe (KED)	25.009 ppb	2.8 %	0.4 %	25.000 ppb
59Co (KED)	5.000 ppb	0.8 %	0.3 %	5.000 ppb
60Ni (KED)	5.000 ppb	1.7 %	0.9 %	5.000 ppb
63Cu (KED)	4.998 ppb	2.2 %	1.6 %	5.000 ppb
66Zn (KED)	4.998 ppb	3.5 %	0.4 %	5.000 ppb
72Ge (KED)	100.822 %	N/A	0.0 %	
75As (KED)	5.000 ppb	1.9 %	0.2 %	5.000 ppb
78Se (KED)	5.001 ppb	3.5 %	0.3 %	5.000 ppb
89Y (KED)	100.484 %	N/A	0.0 %	
95Mo (KED)	5.001 ppb	1.0 %	3.3 %	5.000 ppb
107Ag (KED)	0.500 ppb	6.2 %	2.2 %	0.500 ppb
111Cd (KED)	0.500 ppb	1.8 %	0.9 %	0.500 ppb
115In (KED)	99.250 %	N/A	0.0 %	
118Sn (KED)	5.001 ppb	2.2 %	1.1 %	5.000 ppb
121Sb (KED)	5.000 ppb	0.8 %	1.3 %	5.000 ppb
137Ba (KED)	5.000 ppb	1.7 %	2.2 %	5.000 ppb
159Tb (KED)	100.307 %	N/A	0.0 %	
205Tl (KED)	5.000 ppb	1.2 %	3.5 %	5.000 ppb
208Pb (KED)	2.000 ppb	2.7 %	0.1 %	2.000 ppb
209Bi (KED)	100.632 %	N/A	0.0 %	

Calibration

6/2/2023 4:22:24 PM

Standards:

Analysis Index: 5
Analysis Name: Calibration 2
AnalysisType STD
Analysis Started at: 6/2/2023 2:32:31 PM
Standard (Stock): Calibration 2
Standard DF: 0.5

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	98.749 %	N/A	0.0 %	
9Be (KED)	55.020 ppb	0.5 %	0.3 %	55.000 ppb
11B (KED)	109.772 ppb	0.8 %	0.5 %	110.000 ppb
23Na (KED)	541.060 ppb	3.3 %	1.6 %	550.000 ppb
24Mg (KED)	551.596 ppb	2.3 %	0.4 %	550.000 ppb
27Al (KED)	110.149 ppb	1.2 %	0.1 %	110.000 ppb
31P (KED)	557.110 ppb	1.8 %	2.8 %	550.000 ppb
39K (KED)	548.889 ppb	1.2 %	0.6 %	550.000 ppb
44Ca (KED)	549.020 ppb	0.9 %	1.4 %	550.000 ppb
45Sc (KED)	99.124 %	N/A	0.0 %	
47Ti (KED)	110.153 ppb	2.2 %	0.1 %	110.000 ppb
51V (KED)	108.689 ppb	1.2 %	3.9 %	110.000 ppb
52Cr (KED)	108.210 ppb	0.9 %	1.8 %	110.000 ppb
55Mn (KED)	109.941 ppb	0.4 %	2.4 %	110.000 ppb
57Fe (KED)	548.717 ppb	1.1 %	0.4 %	550.000 ppb
59Co (KED)	109.807 ppb	0.6 %	0.3 %	110.000 ppb
60Ni (KED)	109.026 ppb	3.3 %	0.9 %	110.000 ppb
63Cu (KED)	111.738 ppb	2.0 %	1.6 %	110.000 ppb
66Zn (KED)	110.273 ppb	1.3 %	0.4 %	110.000 ppb
72Ge (KED)	97.051 %	N/A	0.0 %	
75As (KED)	110.207 ppb	1.5 %	0.2 %	110.000 ppb
78Se (KED)	109.660 ppb	2.3 %	0.3 %	110.000 ppb
89Y (KED)	96.452 %	N/A	0.0 %	
95Mo (KED)	106.382 ppb	2.1 %	3.3 %	110.000 ppb
107Ag (KED)	109.062 ppb	2.4 %	2.2 %	110.000 ppb
111Cd (KED)	109.780 ppb	1.8 %	0.9 %	110.000 ppb
115In (KED)	97.714 %	N/A	0.0 %	
118Sn (KED)	109.689 ppb	1.2 %	1.1 %	110.000 ppb
121Sb (KED)	109.987 ppb	0.2 %	1.3 %	110.000 ppb
137Ba (KED)	109.380 ppb	2.3 %	2.2 %	110.000 ppb
159Tb (KED)	96.586 %	N/A	0.0 %	
205Tl (KED)	109.468 ppb	2.2 %	3.5 %	110.000 ppb
208Pb (KED)	109.971 ppb	2.4 %	0.1 %	110.000 ppb
209Bi (KED)	98.401 %	N/A	0.0 %	

Calibration

6/2/2023 4:22:24 PM

Standards:

Analysis Index: 6
Analysis Name: Calibration 3
AnalysisType STD
Analysis Started at: 6/2/2023 2:34:21 PM
Standard (Stock): Calibration 3
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	96.754 %	N/A	0.0 %	
9Be (KED)	109.684 ppb	1.3 %	0.3 %	110.000 ppb
11B (KED)	220.881 ppb	1.1 %	0.5 %	220.000 ppb
23Na (KED)	1,100.937 ppb	0.7 %	1.6 %	1,100.000 ppb
24Mg (KED)	1,097.777 ppb	1.9 %	0.4 %	1,100.000 ppb
27Al (KED)	219.953 ppb	0.5 %	0.1 %	220.000 ppb
31P (KED)	1,072.721 ppb	2.6 %	2.8 %	1,100.000 ppb
39K (KED)	1,106.165 ppb	2.0 %	0.6 %	1,100.000 ppb
44Ca (KED)	1,114.751 ppb	2.4 %	1.4 %	1,100.000 ppb
45Sc (KED)	96.995 %	N/A	0.0 %	
47Ti (KED)	219.938 ppb	1.0 %	0.1 %	220.000 ppb
51V (KED)	228.237 ppb	2.1 %	3.9 %	220.000 ppb
52Cr (KED)	221.527 ppb	0.6 %	1.8 %	220.000 ppb
55Mn (KED)	225.262 ppb	2.8 %	2.4 %	220.000 ppb
57Fe (KED)	1,104.015 ppb	1.4 %	0.4 %	1,100.000 ppb
59Co (KED)	220.555 ppb	0.7 %	0.3 %	220.000 ppb
60Ni (KED)	220.116 ppb	0.8 %	0.9 %	220.000 ppb
63Cu (KED)	219.194 ppb	1.0 %	1.6 %	220.000 ppb
66Zn (KED)	219.320 ppb	1.5 %	0.4 %	220.000 ppb
72Ge (KED)	95.466 %	N/A	0.0 %	
75As (KED)	219.926 ppb	0.6 %	0.2 %	220.000 ppb
78Se (KED)	220.078 ppb	0.8 %	0.3 %	220.000 ppb
89Y (KED)	95.323 %	N/A	0.0 %	
95Mo (KED)	220.181 ppb	0.3 %	3.3 %	220.000 ppb
107Ag (KED)	224.445 ppb	3.6 %	2.2 %	220.000 ppb
111Cd (KED)	221.942 ppb	3.8 %	0.9 %	220.000 ppb
115In (KED)	93.157 %	N/A	0.0 %	
118Sn (KED)	222.289 ppb	2.3 %	1.1 %	220.000 ppb
121Sb (KED)	222.835 ppb	2.4 %	1.3 %	220.000 ppb
137Ba (KED)	224.786 ppb	4.4 %	2.2 %	220.000 ppb
159Tb (KED)	95.893 %	N/A	0.0 %	
205Tl (KED)	227.585 ppb	5.8 %	3.5 %	220.000 ppb
208Pb (KED)	220.099 ppb	3.1 %	0.1 %	220.000 ppb
209Bi (KED)	93.731 %	N/A	0.0 %	

Calibration

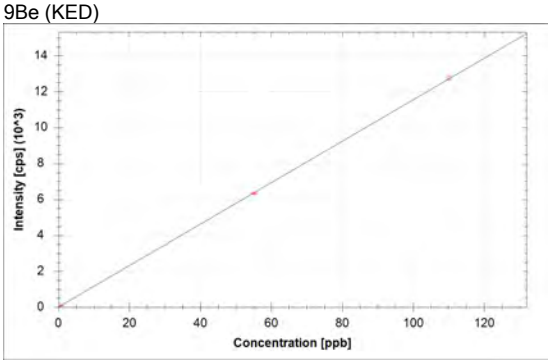
6/6/2023 2:52:17 PM

Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	Undefined

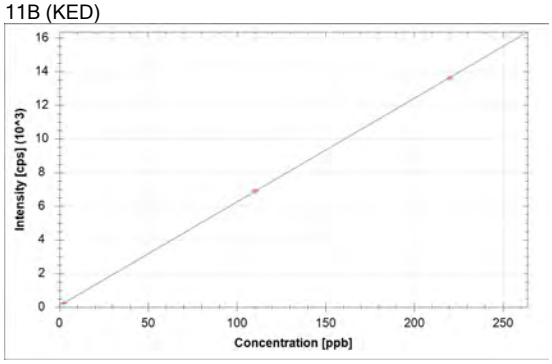
Labbook:	Labbook Path:
060623.imexp	_Application Data\Workspace\LabBooks

9Be (KED)



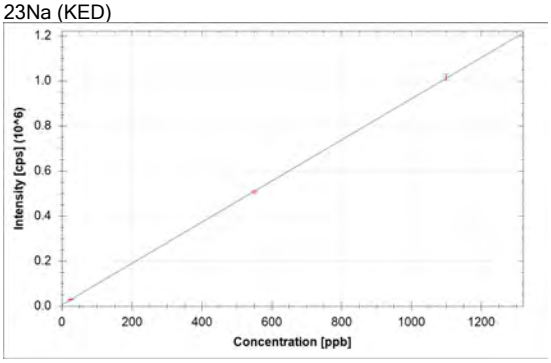
f(x) = 115.3824*x + 9.6591
R² = 0.9999
BEC = 0.084 ppb
LoD = N/A

11B (KED)



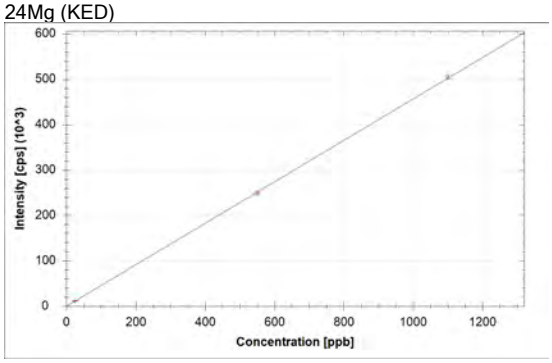
f(x) = 61.5851*x + 90.7090
R² = 1.0000
BEC = 1.473 ppb
LoD = N/A

23Na (KED)



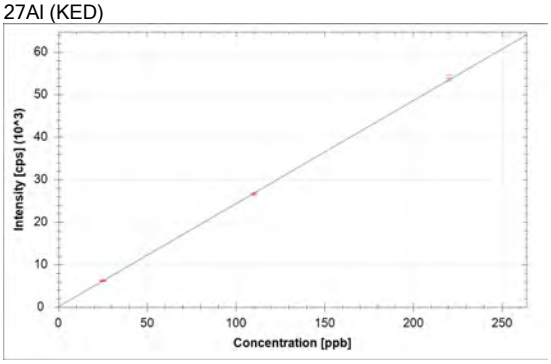
f(x) = 914.0028*x + 6713.1438
R² = 0.9999
BEC = 7.345 ppb
LoD = N/A

24Mg (KED)



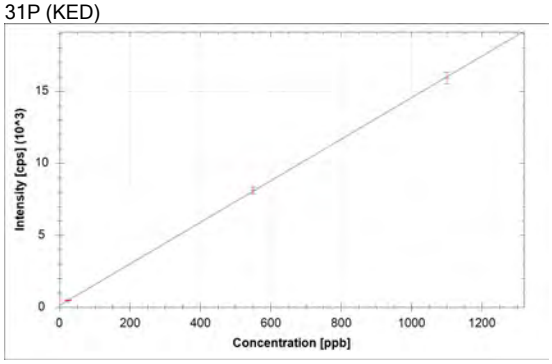
f(x) = 456.7914*x + -16.1801
R² = 0.9999
BEC = -0.035 ppb
LoD = N/A

27Al (KED)



f(x) = 242.2694*x + 125.9538
R² = 0.9997
BEC = 0.520 ppb
LoD = N/A

31P (KED)

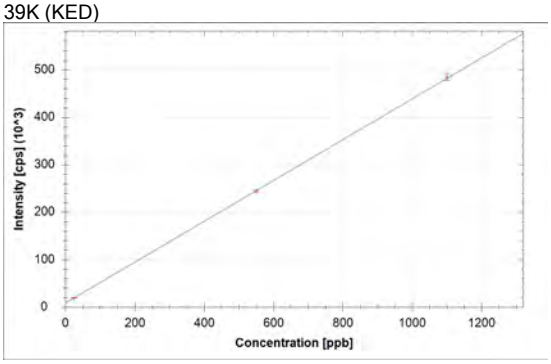


f(x) = 14.4372*x + 113.9366
R² = 0.9999
BEC = 7.892 ppb
LoD = N/A

Calibration

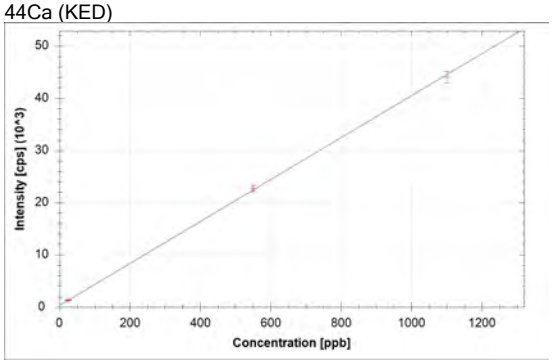
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39K (KED)



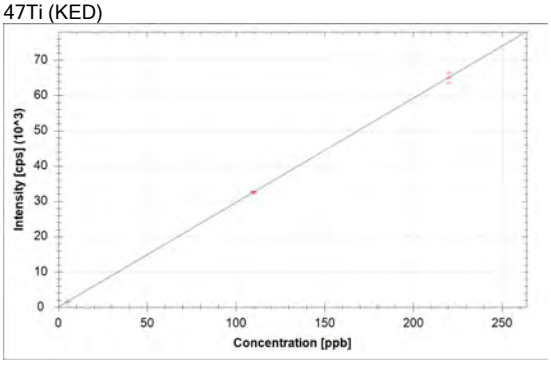
f(x) = 430.3613*x + 8570.1773
R² = 0.9999
BEC = 19.914 ppb
LoD = N/A

44Ca (KED)



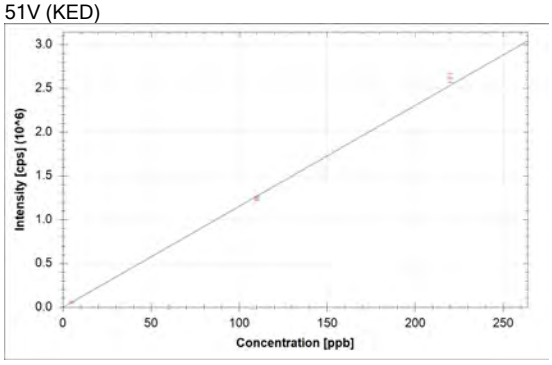
f(x) = 40.1792*x + 302.6482
R² = 0.9997
BEC = 7.532 ppb
LoD = N/A

47Ti (KED)



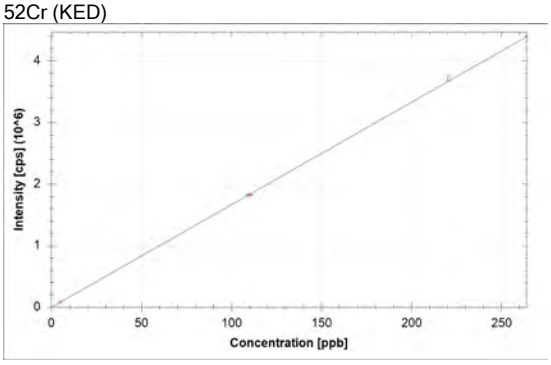
f(x) = 295.4873*x + 73.6542
R² = 1.0000
BEC = 0.249 ppb
LoD = N/A

51V (KED)



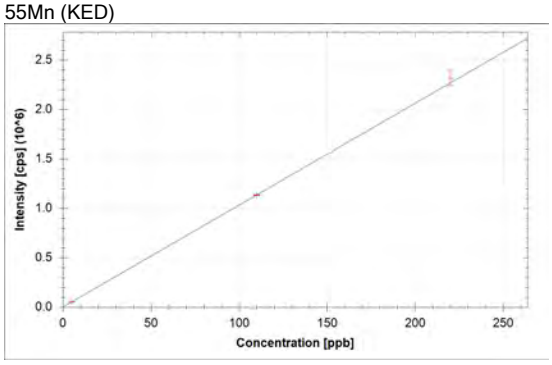
f(x) = 11526.2357*x + -1840.1199
R² = 0.9977
BEC = -0.160 ppb
LoD = N/A

52Cr (KED)



f(x) = 16638.4361*x + -916.3065
R² = 0.9994
BEC = -0.055 ppb
LoD = N/A

55Mn (KED)



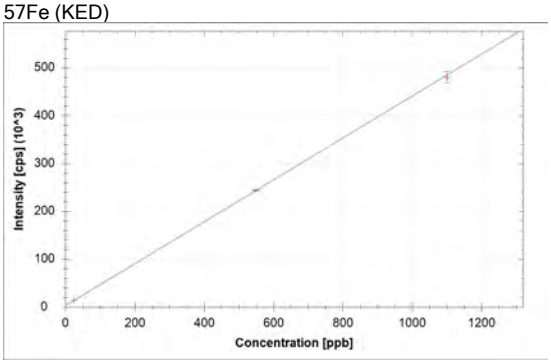
f(x) = 10302.7383*x + 2138.9217
R² = 0.9990
BEC = 0.208 ppb
LoD = N/A

Calibration

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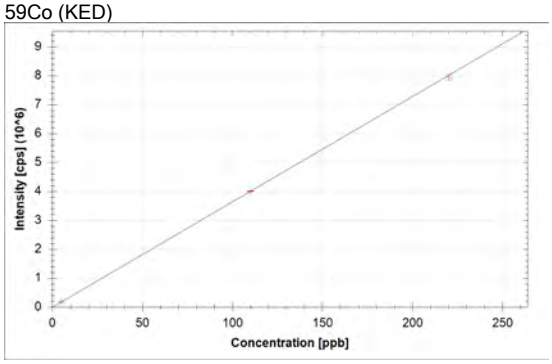
QTEGRA

57Fe (KED)



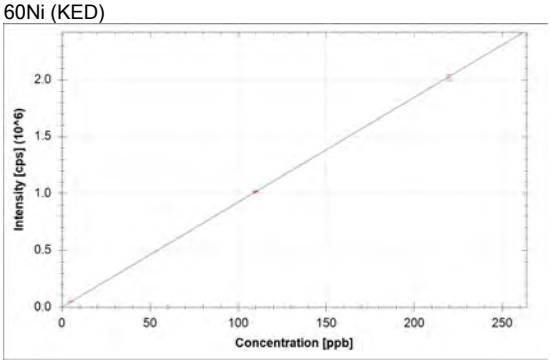
f(x) = 437.9863*x + 3092.7679
R² = 0.9998
BEC = 7.061 ppb
LoD = N/A

59Co (KED)



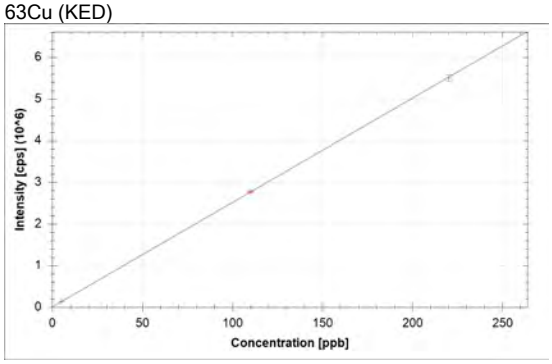
f(x) = 36425.4180*x + -6504.5947
R² = 0.9999
BEC = -0.179 ppb
LoD = N/A

60Ni (KED)



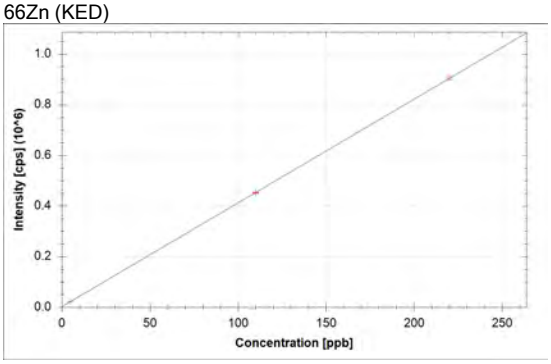
f(x) = 9220.5509*x + 812.0629
R² = 0.9999
BEC = 0.088 ppb
LoD = N/A

63Cu (KED)



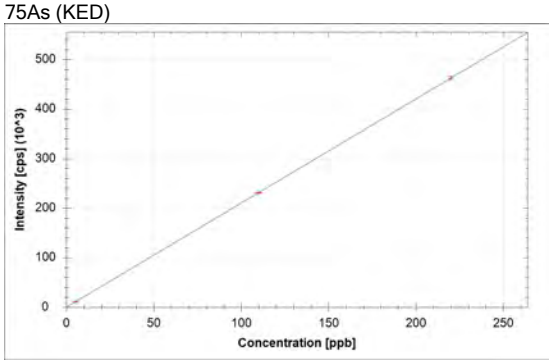
f(x) = 25061.8592*x + 8758.1050
R² = 1.0000
BEC = 0.349 ppb
LoD = N/A

66Zn (KED)



f(x) = 4096.5271*x + 2284.4937
R² = 1.0000
BEC = 0.558 ppb
LoD = N/A

75As (KED)

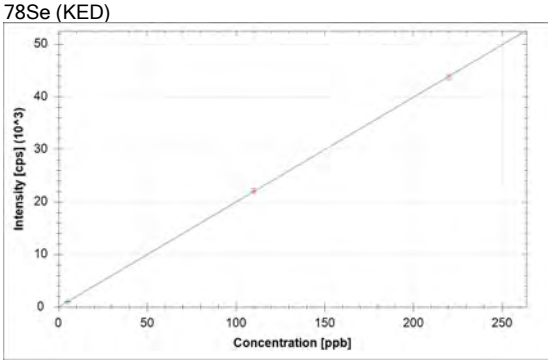


f(x) = 2099.5835*x + 186.5811
R² = 1.0000
BEC = 0.089 ppb
LoD = N/A

Calibration

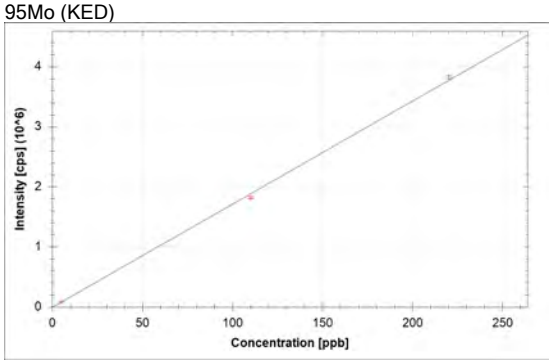
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78Se (KED)



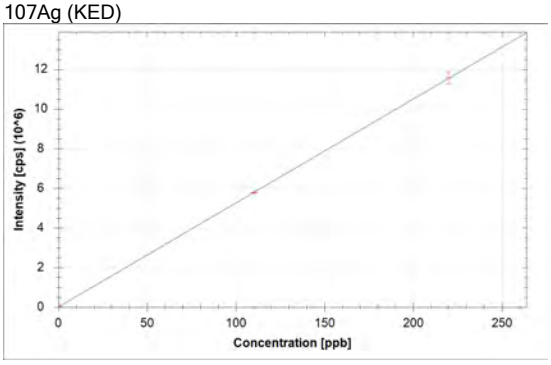
f(x) = 199.3229*x + 7.2910
R² = 0.9999
BEC = 0.037 ppb
LoD = N/A

95Mo (KED)



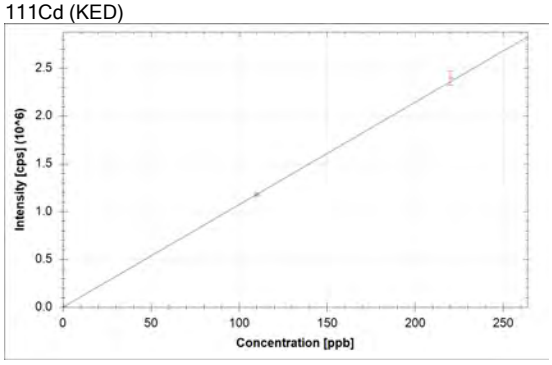
f(x) = 17150.0752*x + -3254.3263
R² = 0.9990
BEC = -0.190 ppb
LoD = N/A

107Ag (KED)



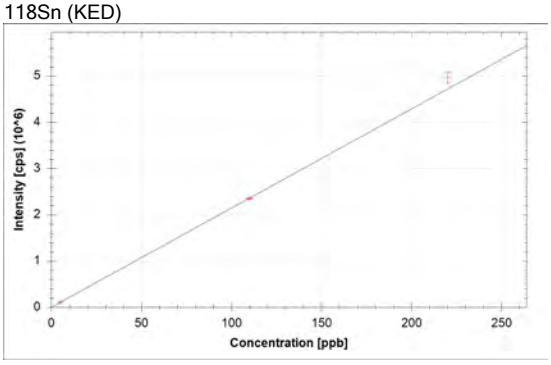
f(x) = 52465.8487*x + 10548.9509
R² = 1.0000
BEC = 0.201 ppb
LoD = N/A

111Cd (KED)



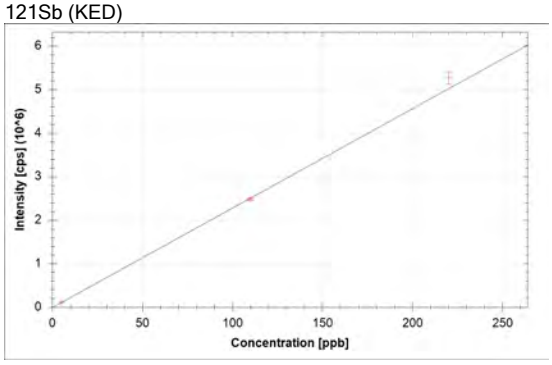
f(x) = 10714.6625*x + 105.8993
R² = 0.9994
BEC = 0.010 ppb
LoD = N/A

118Sn (KED)



f(x) = 21437.1016*x + -239.0755
R² = 0.9950
BEC = -0.011 ppb
LoD = N/A

121Sb (KED)

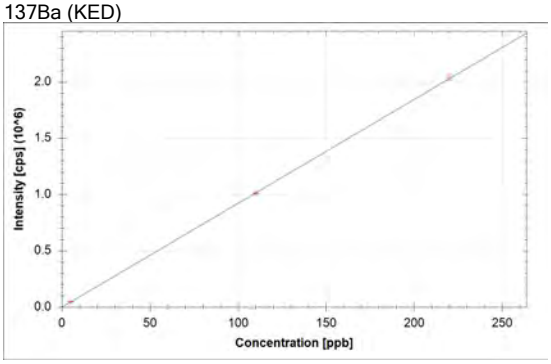


f(x) = 22833.5649*x + -7029.6823
R² = 0.9953
BEC = -0.308 ppb
LoD = N/A

Calibration

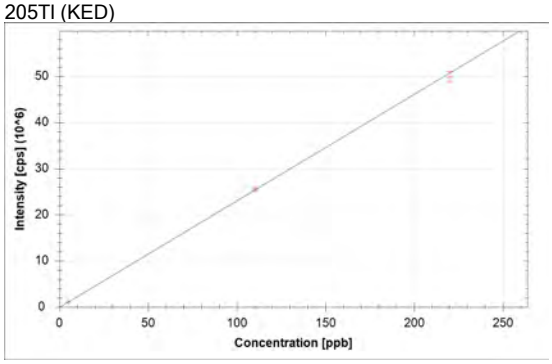
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137Ba (KED)



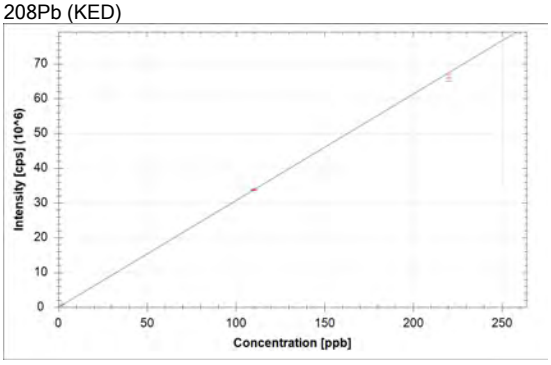
f(x) = 9222.2819*x + -1062.4471
R² = 0.9999
BEC = -0.115 ppb
LoD = N/A

205Tl (KED)



f(x) = 230915.2560*x + -81819.6391
R² = 0.9993
BEC = -0.354 ppb
LoD = N/A

208Pb (KED)



f(x) = 306647.6053*x + -26807.5547
R² = 0.9990
BEC = -0.087 ppb
LoD = N/A

Calibration

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Standards:

Analysis Index: 4
Analysis Name: Calibration 1
AnalysisType STD
Analysis Started at: 6/6/2023 11:13:39 AM
Standard (Stock): Calibration 1
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	99.833 %	N/A	0.0 %	
9Be (KED)	0.501 ppb	9.1 %	0.7 %	0.500 ppb
11B (KED)	2.497 ppb	5.3 %	0.6 %	2.500 ppb
23Na (KED)	25.062 ppb	5.8 %	0.8 %	25.000 ppb
24Mg (KED)	25.108 ppb	5.7 %	1.2 %	25.000 ppb
27Al (KED)	25.064 ppb	1.8 %	1.1 %	25.000 ppb
31P (KED)	24.961 ppb	9.5 %	0.9 %	25.000 ppb
39K (KED)	25.049 ppb	5.9 %	0.7 %	25.000 ppb
44Ca (KED)	24.924 ppb	8.8 %	1.6 %	25.000 ppb
45Sc (KED)	98.676 %	N/A	0.0 %	
47Ti (KED)	5.000 ppb	0.9 %	0.2 %	5.000 ppb
51V (KED)	5.000 ppb	0.5 %	3.8 %	5.000 ppb
52Cr (KED)	5.005 ppb	1.8 %	1.7 %	5.000 ppb
55Mn (KED)	5.002 ppb	2.9 %	2.2 %	5.000 ppb
57Fe (KED)	24.999 ppb	1.1 %	0.9 %	25.000 ppb
59Co (KED)	5.000 ppb	0.1 %	0.7 %	5.000 ppb
60Ni (KED)	4.999 ppb	1.4 %	0.7 %	5.000 ppb
63Cu (KED)	5.000 ppb	0.9 %	0.4 %	5.000 ppb
66Zn (KED)	5.000 ppb	0.6 %	0.3 %	5.000 ppb
72Ge (KED)	98.913 %	N/A	0.0 %	
75As (KED)	5.002 ppb	2.7 %	0.1 %	5.000 ppb
78Se (KED)	4.992 ppb	5.2 %	0.9 %	5.000 ppb
89Y (KED)	99.218 %	N/A	0.0 %	
95Mo (KED)	5.004 ppb	1.1 %	3.7 %	5.000 ppb
107Ag (KED)	0.500 ppb	1.3 %	0.2 %	0.500 ppb
111Cd (KED)	0.500 ppb	4.1 %	1.7 %	0.500 ppb
115In (KED)	100.255 %	N/A	0.0 %	
118Sn (KED)	5.008 ppb	2.9 %	5.2 %	5.000 ppb
121Sb (KED)	5.003 ppb	1.9 %	5.1 %	5.000 ppb
137Ba (KED)	5.007 ppb	3.0 %	0.9 %	5.000 ppb
159Tb (KED)	98.089 %	N/A	0.0 %	
205Tl (KED)	5.000 ppb	0.4 %	1.8 %	5.000 ppb
208Pb (KED)	2.000 ppb	0.5 %	2.2 %	2.000 ppb
209Bi (KED)	101.708 %	N/A	0.0 %	

Calibration

6/6/2023 2:52:17 PM

Standards:

Analysis Index: 5
Analysis Name: Calibration 2
AnalysisType STD
Analysis Started at: 6/6/2023 11:15:31 AM
Standard (Stock): Calibration 2
Standard DF: 0.5

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	98.240 %	N/A	0.0 %	
9Be (KED)	54.796 ppb	0.8 %	0.7 %	55.000 ppb
11B (KED)	110.613 ppb	1.3 %	0.6 %	110.000 ppb
23Na (KED)	547.428 ppb	1.2 %	0.8 %	550.000 ppb
24Mg (KED)	544.528 ppb	1.3 %	1.2 %	550.000 ppb
27Al (KED)	109.495 ppb	0.9 %	1.1 %	110.000 ppb
31P (KED)	553.863 ppb	3.1 %	0.9 %	550.000 ppb
39K (KED)	548.075 ppb	1.2 %	0.7 %	550.000 ppb
44Ca (KED)	556.730 ppb	2.6 %	1.6 %	550.000 ppb
45Sc (KED)	98.798 %	N/A	0.0 %	
47Ti (KED)	110.024 ppb	0.8 %	0.2 %	110.000 ppb
51V (KED)	108.072 ppb	1.6 %	3.8 %	110.000 ppb
52Cr (KED)	109.658 ppb	0.5 %	1.7 %	110.000 ppb
55Mn (KED)	109.957 ppb	0.4 %	2.2 %	110.000 ppb
57Fe (KED)	550.194 ppb	0.5 %	0.9 %	550.000 ppb
59Co (KED)	110.065 ppb	0.3 %	0.7 %	110.000 ppb
60Ni (KED)	110.213 ppb	0.7 %	0.7 %	110.000 ppb
63Cu (KED)	110.209 ppb	1.0 %	0.4 %	110.000 ppb
66Zn (KED)	109.857 ppb	0.6 %	0.3 %	110.000 ppb
72Ge (KED)	98.141 %	N/A	0.0 %	
75As (KED)	109.943 ppb	0.5 %	0.1 %	110.000 ppb
78Se (KED)	110.896 ppb	1.8 %	0.9 %	110.000 ppb
89Y (KED)	99.286 %	N/A	0.0 %	
95Mo (KED)	106.244 ppb	1.2 %	3.7 %	110.000 ppb
107Ag (KED)	109.998 ppb	0.3 %	0.2 %	110.000 ppb
111Cd (KED)	109.710 ppb	1.3 %	1.7 %	110.000 ppb
115In (KED)	98.109 %	N/A	0.0 %	
118Sn (KED)	109.491 ppb	0.7 %	5.2 %	110.000 ppb
121Sb (KED)	109.033 ppb	1.2 %	5.1 %	110.000 ppb
137Ba (KED)	109.487 ppb	0.8 %	0.9 %	110.000 ppb
159Tb (KED)	98.259 %	N/A	0.0 %	
205Tl (KED)	110.637 ppb	1.3 %	1.8 %	110.000 ppb
208Pb (KED)	110.244 ppb	0.5 %	2.2 %	110.000 ppb
209Bi (KED)	98.808 %	N/A	0.0 %	

Calibration

6/6/2023 2:52:17 PM

Standards:

Analysis Index: 6
Analysis Name: Calibration 3
AnalysisType STD
Analysis Started at: 6/6/2023 11:17:24 AM
Standard (Stock): Calibration 3
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	98.128 %	N/A	0.0 %	
9Be (KED)	110.549 ppb	0.9 %	0.7 %	110.000 ppb
11B (KED)	219.700 ppb	0.7 %	0.6 %	220.000 ppb
23Na (KED)	1,105.892 ppb	1.3 %	0.8 %	1,100.000 ppb
24Mg (KED)	1,106.080 ppb	1.0 %	1.2 %	1,100.000 ppb
27Al (KED)	222.152 ppb	1.3 %	1.1 %	220.000 ppb
31P (KED)	1,095.004 ppb	2.5 %	0.9 %	1,100.000 ppb
39K (KED)	1,106.397 ppb	1.6 %	0.7 %	1,100.000 ppb
44Ca (KED)	1,088.428 ppb	2.5 %	1.6 %	1,100.000 ppb
45Sc (KED)	97.477 %	N/A	0.0 %	
47Ti (KED)	219.551 ppb	2.4 %	0.2 %	220.000 ppb
51V (KED)	227.358 ppb	2.1 %	3.8 %	220.000 ppb
52Cr (KED)	223.744 ppb	1.2 %	1.7 %	220.000 ppb
55Mn (KED)	224.948 ppb	3.3 %	2.2 %	220.000 ppb
57Fe (KED)	1,090.381 ppb	2.6 %	0.9 %	1,100.000 ppb
59Co (KED)	218.450 ppb	1.1 %	0.7 %	220.000 ppb
60Ni (KED)	218.629 ppb	1.3 %	0.7 %	220.000 ppb
63Cu (KED)	219.353 ppb	1.3 %	0.4 %	220.000 ppb
66Zn (KED)	220.518 ppb	0.9 %	0.3 %	220.000 ppb
72Ge (KED)	97.378 %	N/A	0.0 %	
75As (KED)	220.259 ppb	0.7 %	0.1 %	220.000 ppb
78Se (KED)	219.355 ppb	1.1 %	0.9 %	220.000 ppb
89Y (KED)	98.604 %	N/A	0.0 %	
95Mo (KED)	223.303 ppb	0.8 %	3.7 %	220.000 ppb
107Ag (KED)	220.356 ppb	2.8 %	0.2 %	220.000 ppb
111Cd (KED)	223.789 ppb	3.2 %	1.7 %	220.000 ppb
115In (KED)	94.727 %	N/A	0.0 %	
118Sn (KED)	231.288 ppb	2.4 %	5.2 %	220.000 ppb
121Sb (KED)	230.966 ppb	2.7 %	5.1 %	220.000 ppb
137Ba (KED)	221.623 ppb	1.1 %	0.9 %	220.000 ppb
159Tb (KED)	97.156 %	N/A	0.0 %	
205Tl (KED)	216.243 ppb	2.4 %	1.8 %	220.000 ppb
208Pb (KED)	215.191 ppb	1.5 %	2.2 %	220.000 ppb
209Bi (KED)	100.088 %	N/A	0.0 %	

Calibration

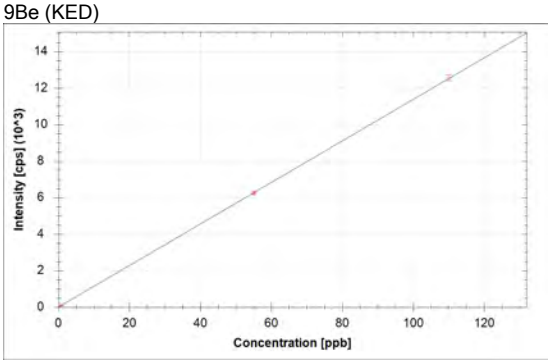
6/7/2023 3:38:21 PM

Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	Undefined

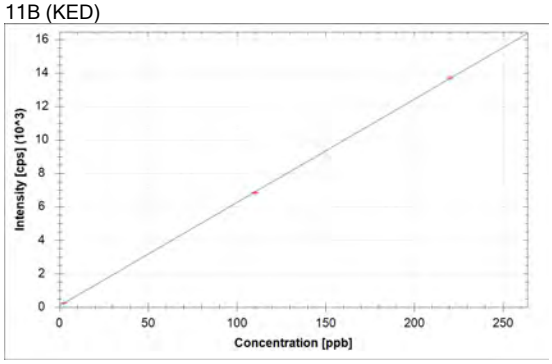
Labbook:	Labbook Path:
060723B.imexp	_Application Data\Workspace\LabBooks

9Be (KED)



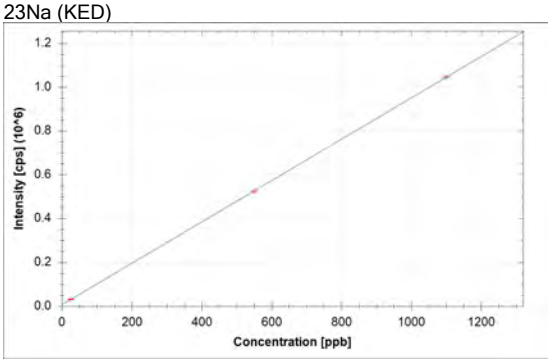
f(x) = 113.7052*x + 7.6558
R² = 1.0000
BEC = 0.067 ppb
LoD = N/A

11B (KED)



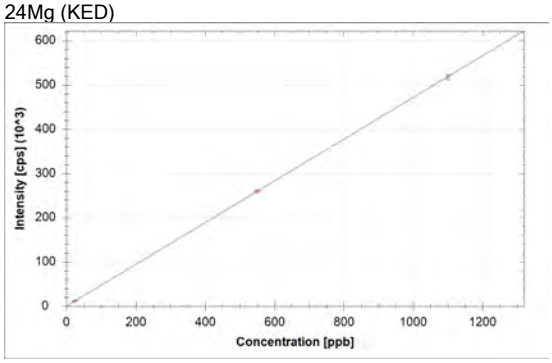
f(x) = 61.7058*x + 84.1404
R² = 1.0000
BEC = 1.364 ppb
LoD = N/A

23Na (KED)



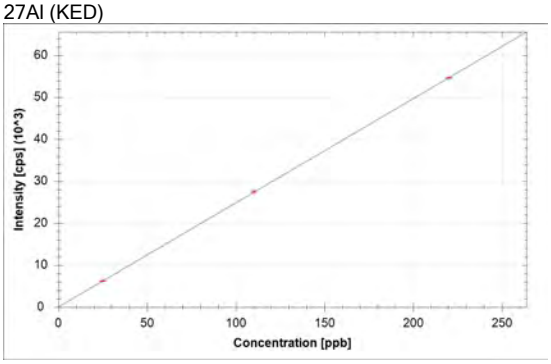
f(x) = 943.3092*x + 7144.7869
R² = 1.0000
BEC = 7.574 ppb
LoD = N/A

24Mg (KED)



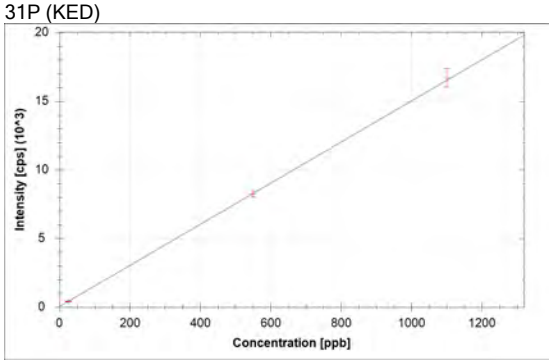
f(x) = 471.9048*x + 136.0299
R² = 1.0000
BEC = 0.288 ppb
LoD = N/A

27Al (KED)



f(x) = 248.2915*x + 43.9548
R² = 1.0000
BEC = 0.177 ppb
LoD = N/A

31P (KED)

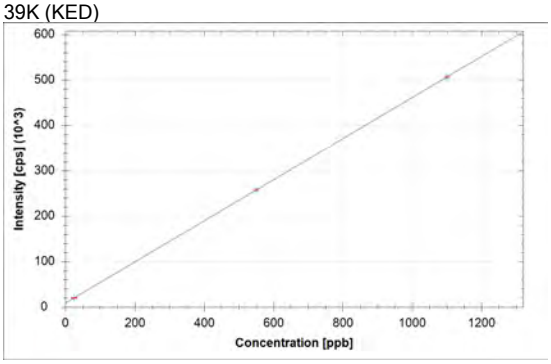


f(x) = 14.9858*x + 46.5440
R² = 0.9998
BEC = 3.106 ppb
LoD = N/A

Calibration

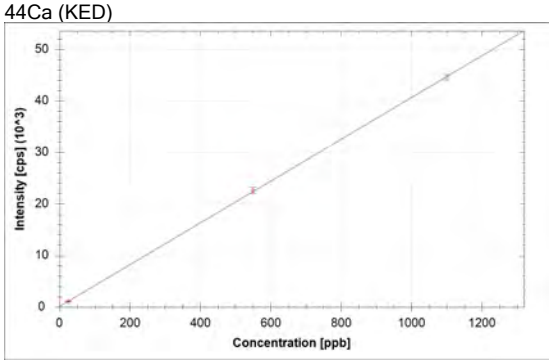
6/7/2023 3:38:21 PM

39K (KED)



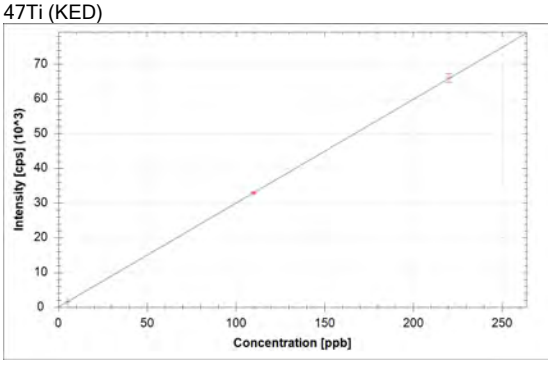
f(x) = 452.5553*x + 8841.4005
R² = 1.0000
BEC = 19.537 ppb
LoD = N/A

44Ca (KED)



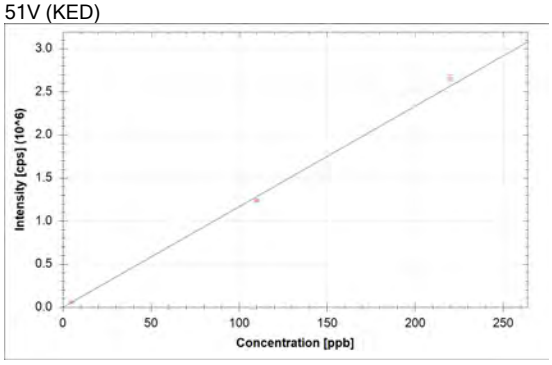
f(x) = 40.5403*x + 103.7811
R² = 0.9999
BEC = 2.560 ppb
LoD = N/A

47Ti (KED)



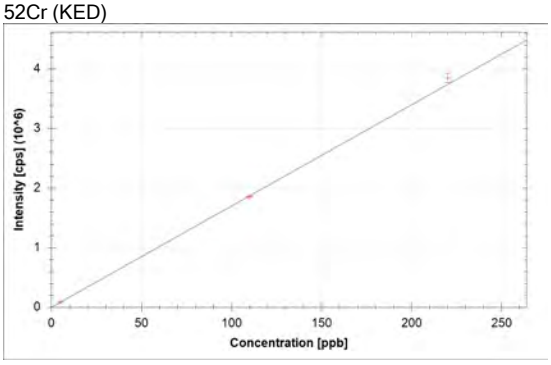
f(x) = 298.7883*x + 46.2408
R² = 1.0000
BEC = 0.155 ppb
LoD = N/A

51V (KED)



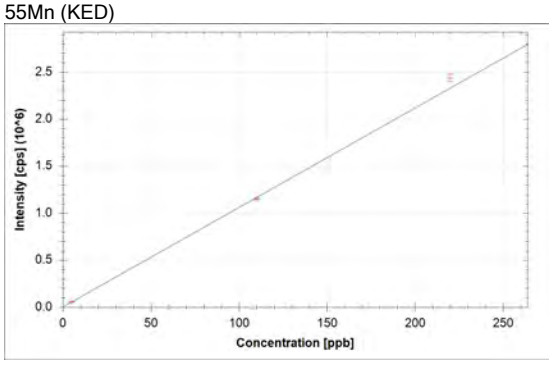
f(x) = 11666.5988*x + -1136.0902
R² = 0.9968
BEC = -0.097 ppb
LoD = N/A

52Cr (KED)



f(x) = 16994.7202*x + -1796.7715
R² = 0.9982
BEC = -0.106 ppb
LoD = N/A

55Mn (KED)



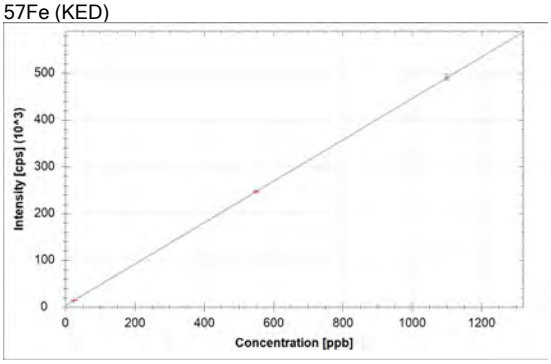
f(x) = 10575.5818*x + 2936.8224
R² = 0.9958
BEC = 0.278 ppb
LoD = N/A

Calibration

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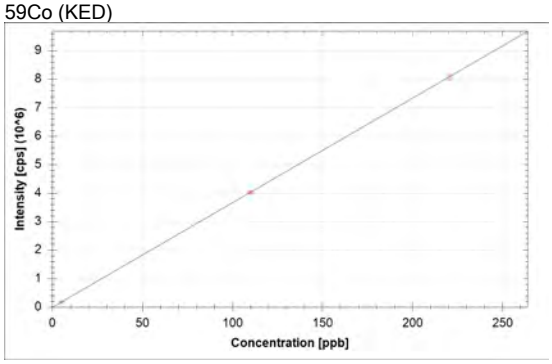
QTEGRA

57Fe (KED)



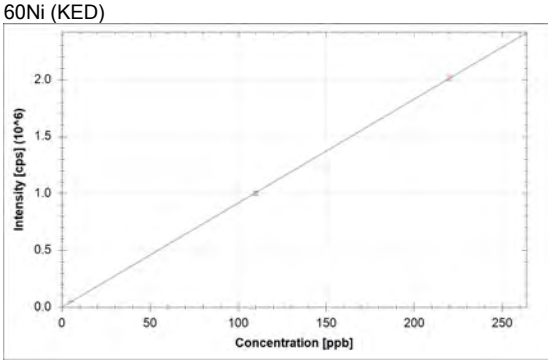
f(x) = 442.7133*x + 3242.0112
R² = 1.0000
BEC = 7.323 ppb
LoD = N/A

59Co (KED)



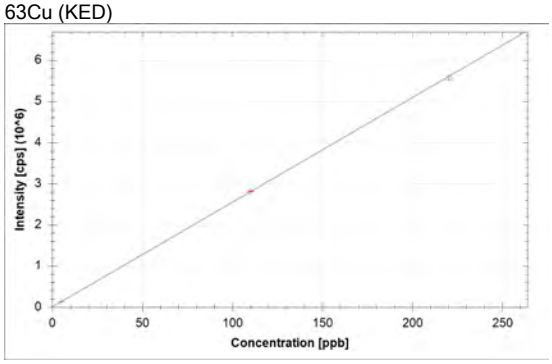
f(x) = 36696.5570*x + -7884.0467
R² = 1.0000
BEC = -0.215 ppb
LoD = N/A

60Ni (KED)



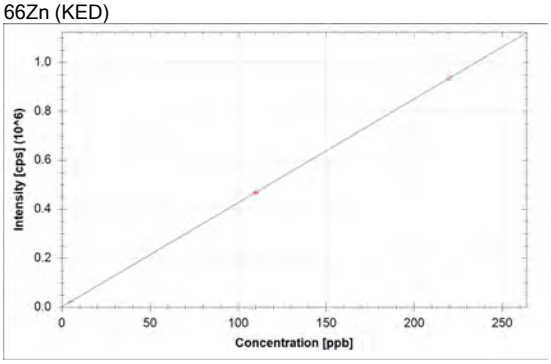
f(x) = 9133.9673*x + 1055.0925
R² = 1.0000
BEC = 0.116 ppb
LoD = N/A

63Cu (KED)



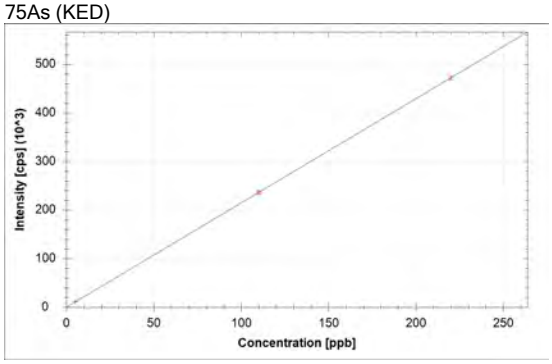
f(x) = 25436.1379*x + 7969.2601
R² = 0.9999
BEC = 0.313 ppb
LoD = N/A

66Zn (KED)



f(x) = 4241.1202*x + 1892.1695
R² = 1.0000
BEC = 0.446 ppb
LoD = N/A

75As (KED)

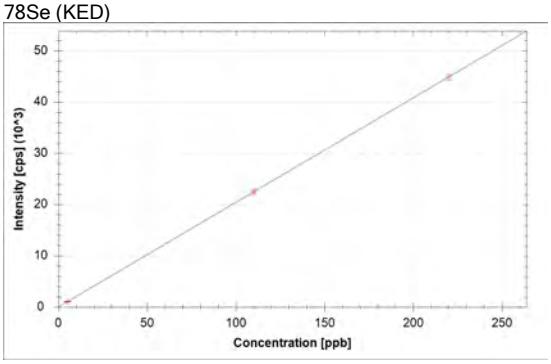


f(x) = 2144.5819*x + 161.4758
R² = 1.0000
BEC = 0.075 ppb
LoD = N/A

Calibration

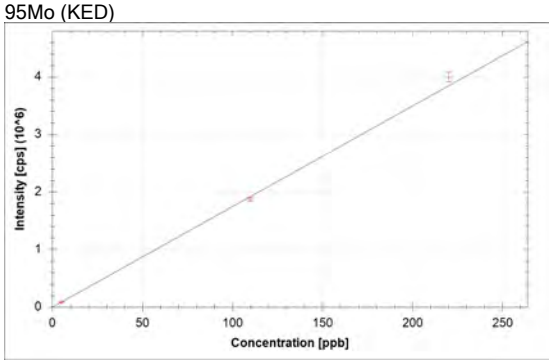
6/7/2023 3:38:21 PM

78Se (KED)



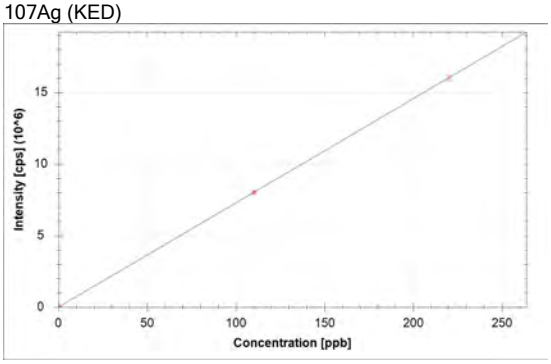
f(x) = 203.9393*x + 19.4683
R² = 1.0000
BEC = 0.095 ppb
LoD = N/A

95Mo (KED)



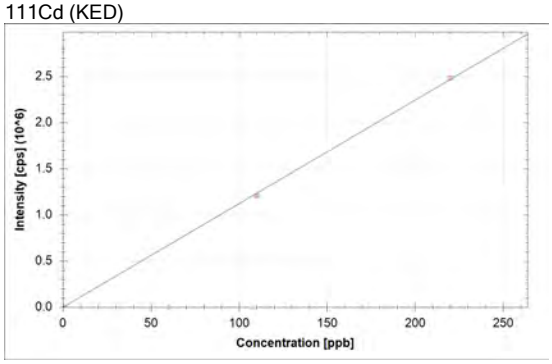
f(x) = 17482.1469*x + -3104.5249
R² = 0.9966
BEC = -0.178 ppb
LoD = N/A

107Ag (KED)



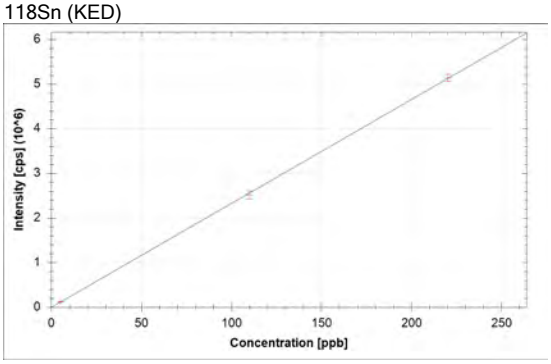
f(x) = 72834.9140*x + 1933.4764
R² = 1.0000
BEC = 0.027 ppb
LoD = N/A

111Cd (KED)



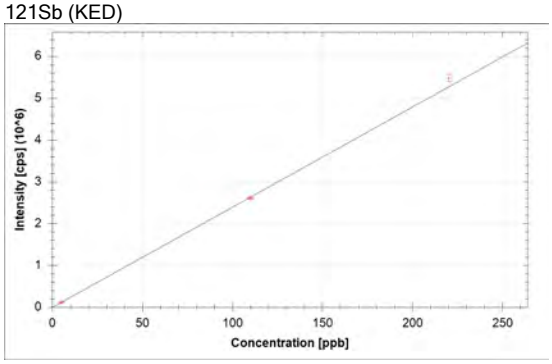
f(x) = 11214.7649*x + 70.1051
R² = 0.9997
BEC = 0.006 ppb
LoD = N/A

118Sn (KED)



f(x) = 23284.0991*x + -2702.2348
R² = 0.9998
BEC = -0.116 ppb
LoD = N/A

121Sb (KED)

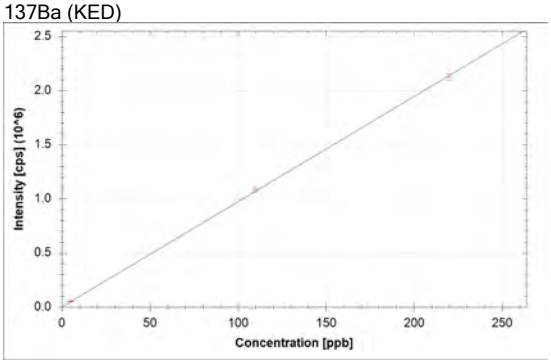


f(x) = 23965.1954*x + -4941.6393
R² = 0.9967
BEC = -0.206 ppb
LoD = N/A

Calibration

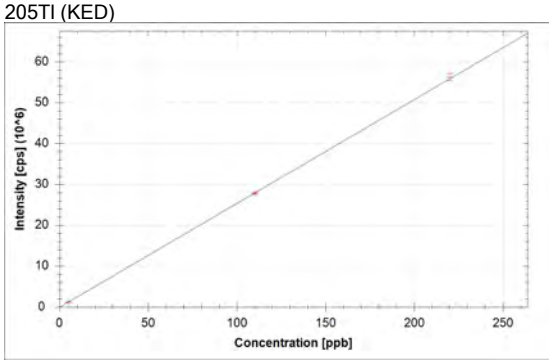
6/7/2023 3:38:21 PM

137Ba (KED)



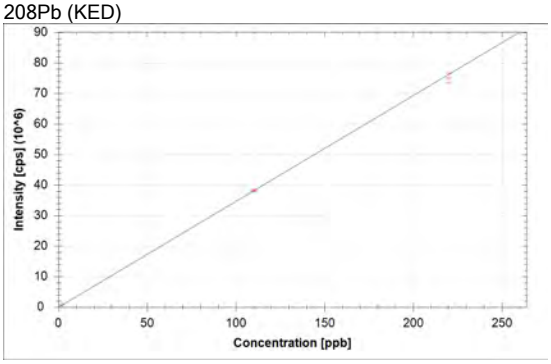
f(x) = 9714.5785*x + 1430.2848
R² = 0.9998
BEC = 0.147 ppb
LoD = N/A

205Tl (KED)



f(x) = 253948.2220*x + -73572.8997
R² = 0.9999
BEC = -0.290 ppb
LoD = N/A

208Pb (KED)



f(x) = 346716.9753*x + -34172.4082
R² = 0.9995
BEC = -0.099 ppb
LoD = N/A

Calibration

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Standards:

Analysis Index: 4
Analysis Name: Calibration 1
AnalysisType STD
Analysis Started at: 6/7/2023 12:39:40 PM
Standard (Stock): Calibration 1
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	99.961 %	N/A	0.0 %	
9Be (KED)	0.501 ppb	14.6 %	0.6 %	0.500 ppb
11B (KED)	2.511 ppb	4.9 %	0.7 %	2.500 ppb
23Na (KED)	25.114 ppb	6.4 %	0.5 %	25.000 ppb
24Mg (KED)	24.992 ppb	3.3 %	0.2 %	25.000 ppb
27Al (KED)	24.902 ppb	2.1 %	0.8 %	25.000 ppb
31P (KED)	25.014 ppb	6.1 %	1.2 %	25.000 ppb
39K (KED)	24.905 ppb	7.2 %	0.5 %	25.000 ppb
44Ca (KED)	24.764 ppb	16.1 %	1.5 %	25.000 ppb
45Sc (KED)	99.553 %	N/A	0.0 %	
47Ti (KED)	5.000 ppb	0.7 %	0.3 %	5.000 ppb
51V (KED)	5.025 ppb	3.0 %	5.1 %	5.000 ppb
52Cr (KED)	5.004 ppb	2.2 %	3.0 %	5.000 ppb
55Mn (KED)	5.018 ppb	3.1 %	4.8 %	5.000 ppb
57Fe (KED)	25.014 ppb	3.4 %	0.3 %	25.000 ppb
59Co (KED)	5.000 ppb	1.2 %	0.1 %	5.000 ppb
60Ni (KED)	5.000 ppb	1.0 %	0.6 %	5.000 ppb
63Cu (KED)	5.000 ppb	0.6 %	0.6 %	5.000 ppb
66Zn (KED)	5.000 ppb	0.7 %	0.2 %	5.000 ppb
72Ge (KED)	100.250 %	N/A	0.0 %	
75As (KED)	5.000 ppb	1.3 %	0.1 %	5.000 ppb
78Se (KED)	4.998 ppb	5.8 %	0.2 %	5.000 ppb
89Y (KED)	100.261 %	N/A	0.0 %	
95Mo (KED)	5.001 ppb	1.1 %	4.7 %	5.000 ppb
107Ag (KED)	0.500 ppb	1.1 %	0.1 %	0.500 ppb
111Cd (KED)	0.500 ppb	2.5 %	2.2 %	0.500 ppb
115In (KED)	99.881 %	N/A	0.0 %	
118Sn (KED)	5.001 ppb	1.8 %	1.8 %	5.000 ppb
121Sb (KED)	5.004 ppb	1.5 %	4.2 %	5.000 ppb
137Ba (KED)	4.995 ppb	3.2 %	1.3 %	5.000 ppb
159Tb (KED)	99.620 %	N/A	0.0 %	
205Tl (KED)	5.002 ppb	2.3 %	0.8 %	5.000 ppb
208Pb (KED)	2.000 ppb	2.1 %	1.5 %	2.000 ppb
209Bi (KED)	100.656 %	N/A	0.0 %	

Calibration

6/7/2023 3:38:21 PM

Standards:

Analysis Index: 5
Analysis Name: Calibration 2
AnalysisType STD
Analysis Started at: 6/7/2023 12:41:32 PM
Standard (Stock): Calibration 2
Standard DF: 0.5

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	98.528 %	N/A	0.0 %	
9Be (KED)	54.785 ppb	1.3 %	0.6 %	55.000 ppb
11B (KED)	109.526 ppb	0.5 %	0.7 %	110.000 ppb
23Na (KED)	548.650 ppb	0.7 %	0.5 %	550.000 ppb
24Mg (KED)	550.754 ppb	1.0 %	0.2 %	550.000 ppb
27Al (KED)	110.793 ppb	1.0 %	0.8 %	110.000 ppb
31P (KED)	547.163 ppb	2.8 %	1.2 %	550.000 ppb
39K (KED)	551.350 ppb	0.9 %	0.5 %	550.000 ppb
44Ca (KED)	556.127 ppb	2.6 %	1.5 %	550.000 ppb
45Sc (KED)	98.928 %	N/A	0.0 %	
47Ti (KED)	109.929 ppb	0.8 %	0.3 %	110.000 ppb
51V (KED)	106.236 ppb	1.2 %	5.1 %	110.000 ppb
52Cr (KED)	109.470 ppb	0.8 %	3.0 %	110.000 ppb
55Mn (KED)	108.642 ppb	0.9 %	4.8 %	110.000 ppb
57Fe (KED)	549.445 ppb	0.7 %	0.3 %	550.000 ppb
59Co (KED)	109.893 ppb	1.2 %	0.1 %	110.000 ppb
60Ni (KED)	109.388 ppb	1.8 %	0.6 %	110.000 ppb
63Cu (KED)	110.223 ppb	0.6 %	0.6 %	110.000 ppb
66Zn (KED)	109.845 ppb	0.8 %	0.2 %	110.000 ppb
72Ge (KED)	98.353 %	N/A	0.0 %	
75As (KED)	110.080 ppb	1.2 %	0.1 %	110.000 ppb
78Se (KED)	110.253 ppb	2.2 %	0.2 %	110.000 ppb
89Y (KED)	99.962 %	N/A	0.0 %	
95Mo (KED)	107.225 ppb	1.8 %	4.7 %	110.000 ppb
107Ag (KED)	110.061 ppb	1.5 %	0.1 %	110.000 ppb
111Cd (KED)	107.709 ppb	1.3 %	2.2 %	110.000 ppb
115In (KED)	98.671 %	N/A	0.0 %	
118Sn (KED)	108.007 ppb	3.5 %	1.8 %	110.000 ppb
121Sb (KED)	109.025 ppb	0.8 %	4.2 %	110.000 ppb
137Ba (KED)	111.230 ppb	1.6 %	1.3 %	110.000 ppb
159Tb (KED)	98.444 %	N/A	0.0 %	
205Tl (KED)	109.776 ppb	0.8 %	0.8 %	110.000 ppb
208Pb (KED)	110.246 ppb	0.9 %	1.5 %	110.000 ppb
209Bi (KED)	98.256 %	N/A	0.0 %	

Calibration

6/7/2023 3:38:21 PM

Standards:

Analysis Index: 6
Analysis Name: Calibration 3
AnalysisType STD
Analysis Started at: 6/7/2023 12:43:21 PM
Standard (Stock): Calibration 3
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	97.079 %	N/A	0.0 %	
9Be (KED)	110.351 ppb	1.2 %	0.6 %	110.000 ppb
11B (KED)	220.747 ppb	0.5 %	0.7 %	220.000 ppb
23Na (KED)	1,101.417 ppb	0.5 %	0.5 %	1,100.000 ppb
24Mg (KED)	1,098.254 ppb	1.1 %	0.2 %	1,100.000 ppb
27Al (KED)	219.931 ppb	0.2 %	0.8 %	220.000 ppb
31P (KED)	1,111.677 ppb	4.1 %	1.2 %	1,100.000 ppb
39K (KED)	1,099.359 ppb	0.4 %	0.5 %	1,100.000 ppb
44Ca (KED)	1,097.756 ppb	1.1 %	1.5 %	1,100.000 ppb
45Sc (KED)	97.496 %	N/A	0.0 %	
47Ti (KED)	220.738 ppb	1.9 %	0.3 %	220.000 ppb
51V (KED)	228.136 ppb	1.2 %	5.1 %	220.000 ppb
52Cr (KED)	226.564 ppb	2.0 %	3.0 %	220.000 ppb
55Mn (KED)	230.247 ppb	1.6 %	4.8 %	220.000 ppb
57Fe (KED)	1,103.141 ppb	1.2 %	0.3 %	1,100.000 ppb
59Co (KED)	220.189 ppb	1.2 %	0.1 %	220.000 ppb
60Ni (KED)	220.500 ppb	1.1 %	0.6 %	220.000 ppb
63Cu (KED)	218.694 ppb	1.0 %	0.6 %	220.000 ppb
66Zn (KED)	220.303 ppb	0.8 %	0.2 %	220.000 ppb
72Ge (KED)	97.297 %	N/A	0.0 %	
75As (KED)	219.919 ppb	0.9 %	0.1 %	220.000 ppb
78Se (KED)	219.879 ppb	1.1 %	0.2 %	220.000 ppb
89Y (KED)	97.431 %	N/A	0.0 %	
95Mo (KED)	228.781 ppb	2.1 %	4.7 %	220.000 ppb
107Ag (KED)	219.938 ppb	1.1 %	0.1 %	220.000 ppb
111Cd (KED)	221.511 ppb	0.7 %	2.2 %	220.000 ppb
115In (KED)	94.587 %	N/A	0.0 %	
118Sn (KED)	220.747 ppb	1.5 %	1.8 %	220.000 ppb
121Sb (KED)	229.060 ppb	1.6 %	4.2 %	220.000 ppb
137Ba (KED)	218.471 ppb	1.3 %	1.3 %	220.000 ppb
159Tb (KED)	98.097 %	N/A	0.0 %	
205Tl (KED)	221.744 ppb	1.6 %	0.8 %	220.000 ppb
208Pb (KED)	216.715 ppb	2.3 %	1.5 %	220.000 ppb
209Bi (KED)	98.561 %	N/A	0.0 %	

Calibration

6/9/2023 2:44:26 PM

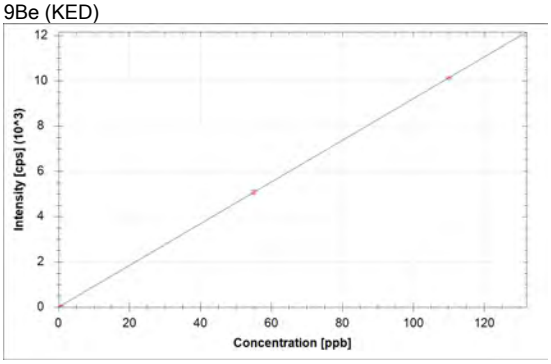
QTEGRA

Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	Undefined

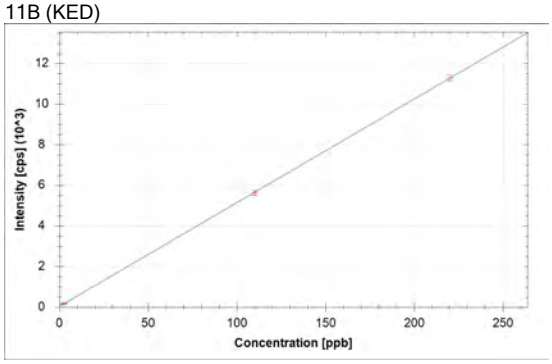
Labbook:	Labbook Path:
060923.imexp	_Application Data\Workspace\LabBooks

9Be (KED)



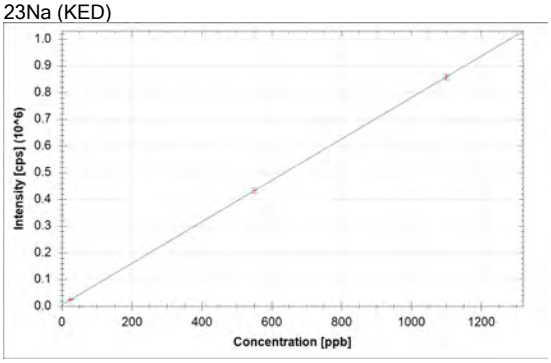
f(x) = 92.0424*x + 3.4025
R² = 1.0000
BEC = 0.037 ppb
LoD = N/A

11B (KED)



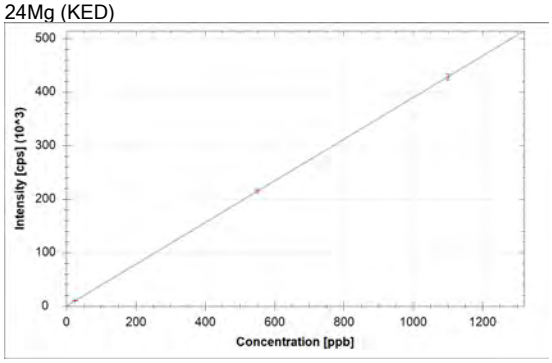
f(x) = 51.0254*x + 42.6379
R² = 1.0000
BEC = 0.836 ppb
LoD = N/A

23Na (KED)



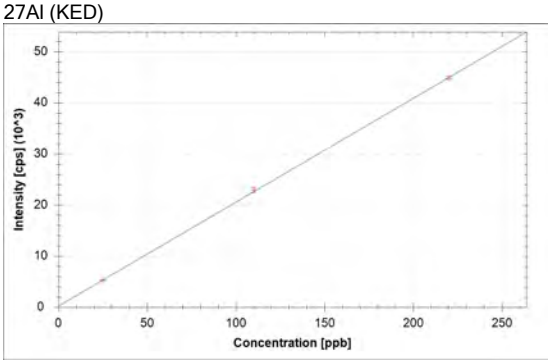
f(x) = 775.9726*x + 5179.2064
R² = 1.0000
BEC = 6.674 ppb
LoD = N/A

24Mg (KED)



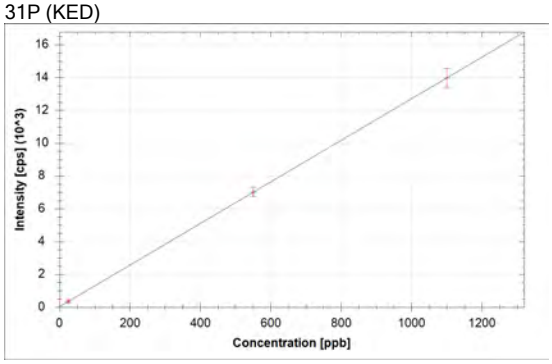
f(x) = 389.3121*x + 401.0264
R² = 1.0000
BEC = 1.030 ppb
LoD = N/A

27Al (KED)



f(x) = 203.2732*x + 214.2965
R² = 0.9998
BEC = 1.054 ppb
LoD = N/A

31P (KED)

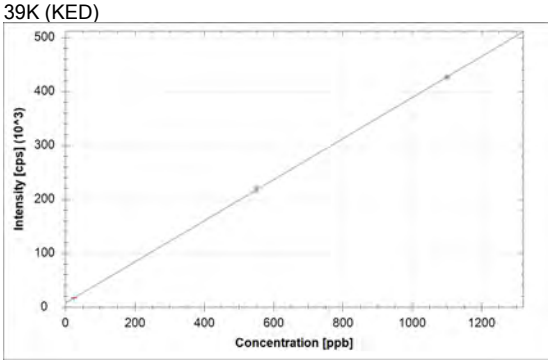


f(x) = 12.6741*x + 30.2814
R² = 1.0000
BEC = 2.389 ppb
LoD = N/A

Calibration

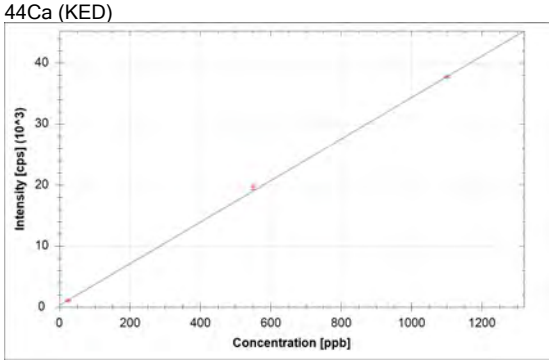
6/9/2023 2:44:26 PM

39K (KED)



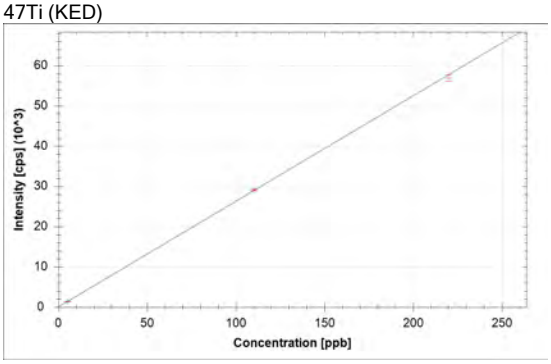
f(x) = 381.2403*x + 7452.7755
R² = 1.0000
BEC = 19.549 ppb
LoD = N/A

44Ca (KED)



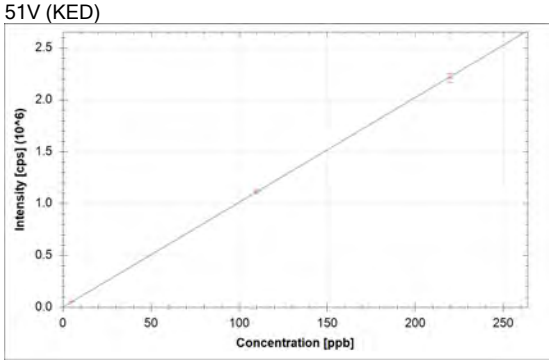
f(x) = 34.0447*x + 275.6202
R² = 0.9995
BEC = 8.096 ppb
LoD = N/A

47Ti (KED)



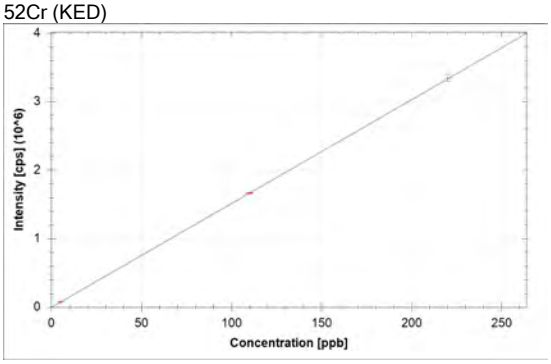
f(x) = 262.1583*x + 85.6851
R² = 0.9996
BEC = 0.327 ppb
LoD = N/A

51V (KED)



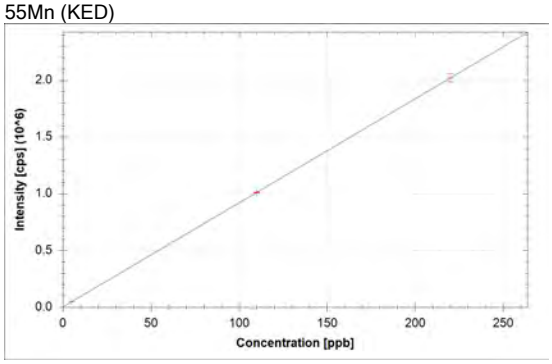
f(x) = 10101.2011*x + 969.2622
R² = 0.9999
BEC = 0.096 ppb
LoD = N/A

52Cr (KED)



f(x) = 15145.6869*x + -1672.1663
R² = 1.0000
BEC = -0.110 ppb
LoD = N/A

55Mn (KED)

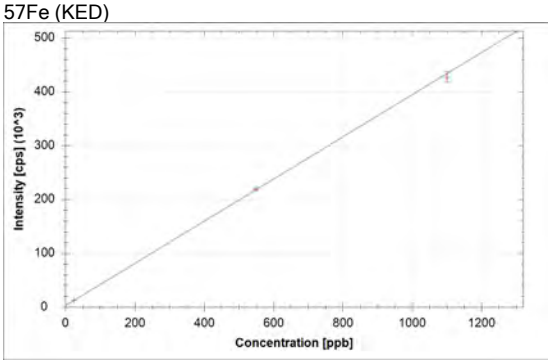


f(x) = 9171.0106*x + 2338.9785
R² = 1.0000
BEC = 0.255 ppb
LoD = N/A

Calibration

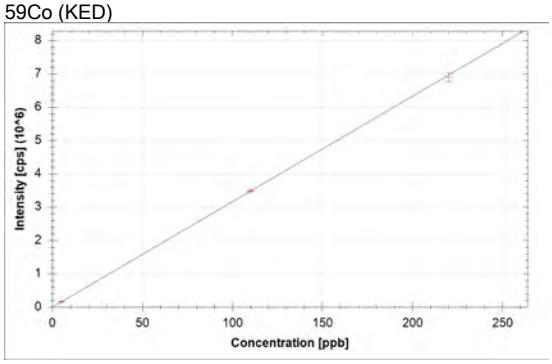
6/9/2023 2:44:26 PM

57Fe (KED)



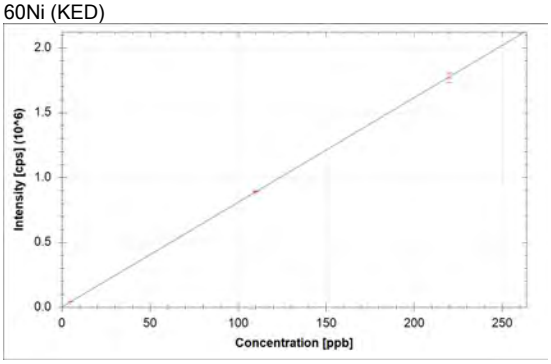
f(x) = 391.9383*x + 2682.4051
R² = 0.9995
BEC = 6.844 ppb
LoD = N/A

59Co (KED)



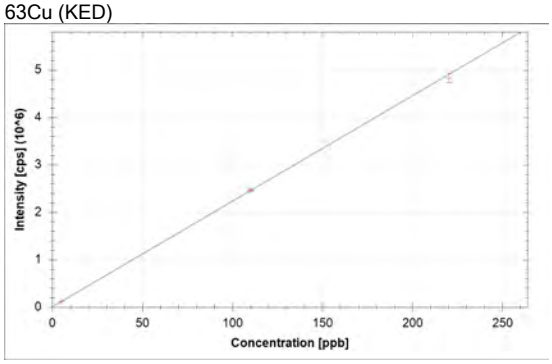
f(x) = 31643.9574*x + -1656.3543
R² = 0.9998
BEC = -0.052 ppb
LoD = N/A

60Ni (KED)



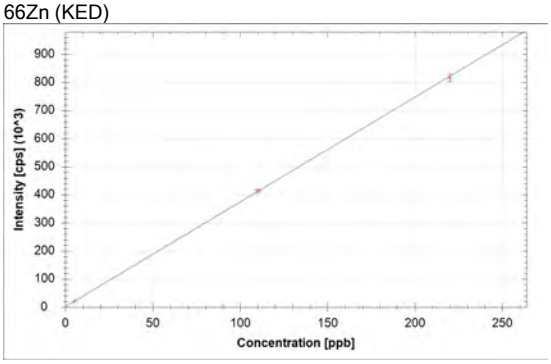
f(x) = 8064.6134*x + 1533.2042
R² = 1.0000
BEC = 0.190 ppb
LoD = N/A

63Cu (KED)



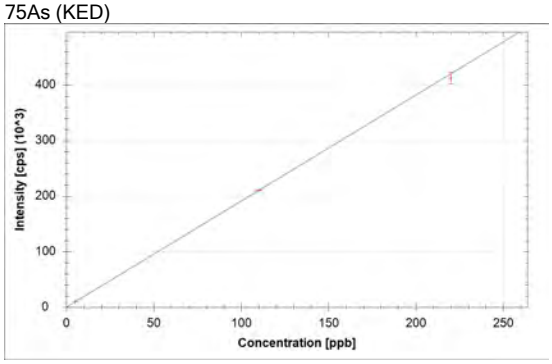
f(x) = 22255.2489*x + 8759.7490
R² = 0.9995
BEC = 0.394 ppb
LoD = N/A

66Zn (KED)



f(x) = 3725.9205*x + 2092.3725
R² = 0.9999
BEC = 0.562 ppb
LoD = N/A

75As (KED)

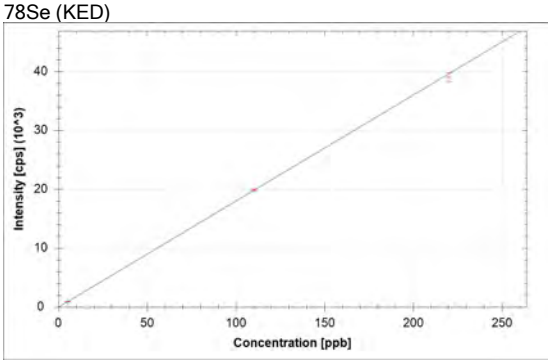


f(x) = 1909.9967*x + 135.6531
R² = 0.9993
BEC = 0.071 ppb
LoD = N/A

Calibration

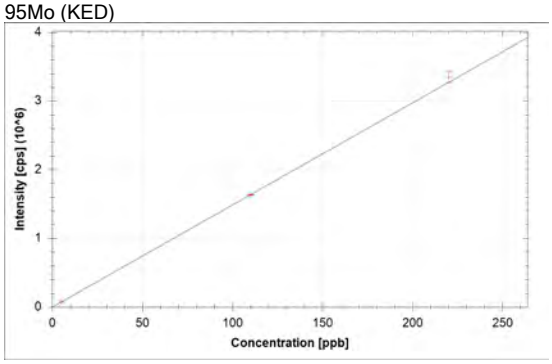
6/9/2023 2:44:26 PM

78Se (KED)



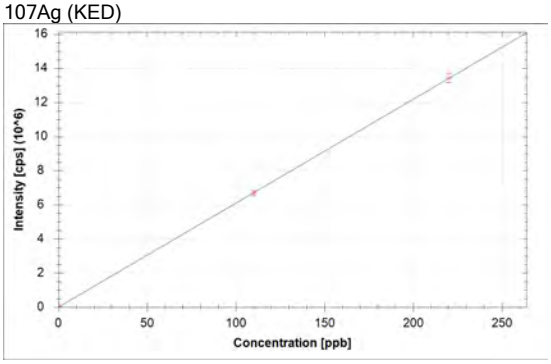
f(x) = 180.1538*x + -23.3969
R² = 0.9996
BEC = -0.130 ppb
LoD = N/A

95Mo (KED)



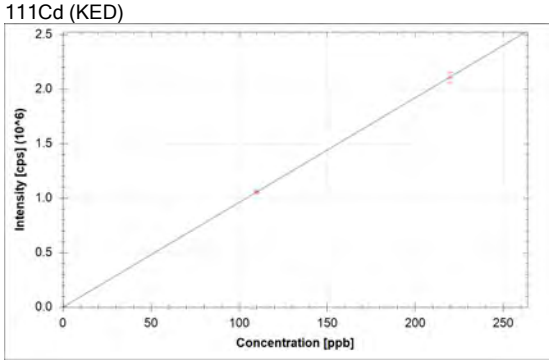
f(x) = 14868.4603*x + -621.1680
R² = 0.9989
BEC = -0.042 ppb
LoD = N/A

107Ag (KED)



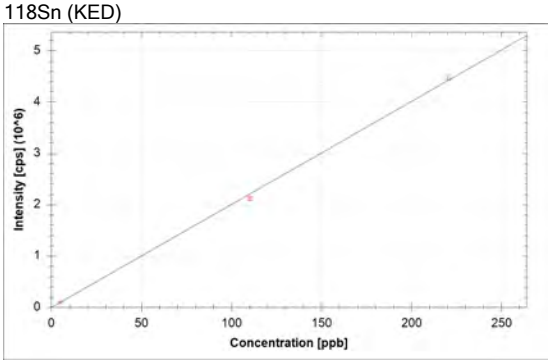
f(x) = 60897.3979*x + 3270.0184
R² = 1.0000
BEC = 0.054 ppb
LoD = N/A

111Cd (KED)



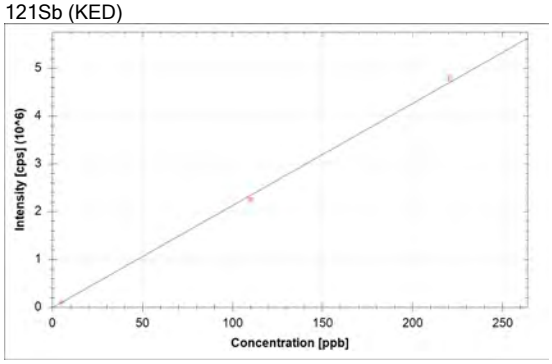
f(x) = 9603.2567*x + 293.9690
R² = 1.0000
BEC = 0.031 ppb
LoD = N/A

118Sn (KED)



f(x) = 20072.7686*x + -4854.5966
R² = 0.9989
BEC = -0.242 ppb
LoD = N/A

121Sb (KED)

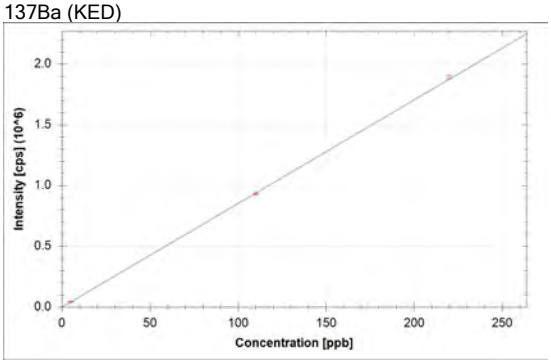


f(x) = 21335.4251*x + -9017.5478
R² = 0.9983
BEC = -0.423 ppb
LoD = N/A

Calibration

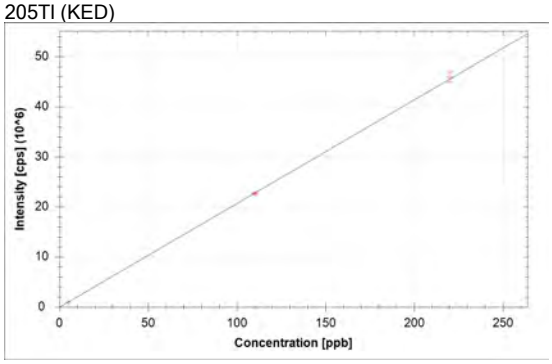
6/9/2023 2:44:26 PM

137Ba (KED)



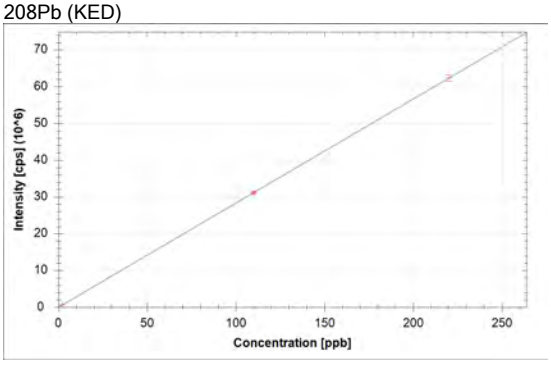
f(x) = 8517.9008*x + -90.8496
R² = 0.9998
BEC = -0.011 ppb
LoD = N/A

205Tl (KED)



f(x) = 206939.8558*x + -35642.0148
R² = 0.9998
BEC = -0.172 ppb
LoD = N/A

208Pb (KED)



f(x) = 283128.7578*x + -15466.3153
R² = 1.0000
BEC = -0.055 ppb
LoD = N/A

Calibration

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Standards:

Analysis Index: 4
Analysis Name: Calibration 1
AnalysisType STD
Analysis Started at: 6/9/2023 9:44:06 AM
Standard (Stock): Calibration 1
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	98.599 %	N/A	0.0 %	
9Be (KED)	0.500 ppb	13.8 %	0.3 %	0.500 ppb
11B (KED)	2.504 ppb	11.2 %	0.6 %	2.500 ppb
23Na (KED)	24.999 ppb	3.1 %	0.1 %	25.000 ppb
24Mg (KED)	24.997 ppb	3.2 %	0.1 %	25.000 ppb
27Al (KED)	24.992 ppb	0.9 %	1.7 %	25.000 ppb
31P (KED)	25.003 ppb	26.4 %	0.0 %	25.000 ppb
39K (KED)	24.988 ppb	3.8 %	0.8 %	25.000 ppb
44Ca (KED)	23.708 ppb	17.0 %	6.1 %	25.000 ppb
45Sc (KED)	98.150 %	N/A	0.0 %	
47Ti (KED)	4.988 ppb	3.8 %	1.6 %	5.000 ppb
51V (KED)	5.000 ppb	1.5 %	0.7 %	5.000 ppb
52Cr (KED)	5.001 ppb	1.9 %	0.5 %	5.000 ppb
55Mn (KED)	5.000 ppb	0.9 %	0.0 %	5.000 ppb
57Fe (KED)	24.999 ppb	0.9 %	1.6 %	25.000 ppb
59Co (KED)	4.999 ppb	1.8 %	0.8 %	5.000 ppb
60Ni (KED)	5.000 ppb	1.1 %	0.5 %	5.000 ppb
63Cu (KED)	5.000 ppb	0.9 %	1.5 %	5.000 ppb
66Zn (KED)	5.000 ppb	1.2 %	0.8 %	5.000 ppb
72Ge (KED)	98.161 %	N/A	0.0 %	
75As (KED)	5.000 ppb	0.8 %	1.8 %	5.000 ppb
78Se (KED)	4.987 ppb	5.5 %	1.5 %	5.000 ppb
89Y (KED)	97.646 %	N/A	0.0 %	
95Mo (KED)	5.000 ppb	0.2 %	2.4 %	5.000 ppb
107Ag (KED)	0.500 ppb	2.2 %	0.4 %	0.500 ppb
111Cd (KED)	0.500 ppb	4.5 %	0.5 %	0.500 ppb
115In (KED)	100.751 %	N/A	0.0 %	
118Sn (KED)	5.002 ppb	1.2 %	4.0 %	5.000 ppb
121Sb (KED)	5.003 ppb	1.3 %	4.3 %	5.000 ppb
137Ba (KED)	5.007 ppb	2.1 %	1.3 %	5.000 ppb
159Tb (KED)	98.803 %	N/A	0.0 %	
205Tl (KED)	5.001 ppb	1.8 %	1.0 %	5.000 ppb
208Pb (KED)	2.000 ppb	1.1 %	0.2 %	2.000 ppb
209Bi (KED)	100.483 %	N/A	0.0 %	

Calibration

6/9/2023 2:44:26 PM

Standards:

Analysis Index: 5
Analysis Name: Calibration 2
AnalysisType STD
Analysis Started at: 6/9/2023 9:46:00 AM
Standard (Stock): Calibration 2
Standard DF: 0.5

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	98.057 %	N/A	0.0 %	
9Be (KED)	55.166 ppb	1.8 %	0.3 %	55.000 ppb
11B (KED)	109.406 ppb	2.1 %	0.6 %	110.000 ppb
23Na (KED)	550.581 ppb	2.2 %	0.1 %	550.000 ppb
24Mg (KED)	550.453 ppb	1.3 %	0.1 %	550.000 ppb
27Al (KED)	111.867 ppb	2.3 %	1.7 %	110.000 ppb
31P (KED)	549.944 ppb	4.0 %	0.0 %	550.000 ppb
39K (KED)	554.485 ppb	2.4 %	0.8 %	550.000 ppb
44Ca (KED)	567.626 ppb	1.9 %	6.1 %	550.000 ppb
45Sc (KED)	96.745 %	N/A	0.0 %	
47Ti (KED)	110.684 ppb	0.9 %	1.6 %	110.000 ppb
51V (KED)	110.430 ppb	1.6 %	0.7 %	110.000 ppb
52Cr (KED)	109.958 ppb	0.4 %	0.5 %	110.000 ppb
55Mn (KED)	109.999 ppb	0.3 %	0.0 %	110.000 ppb
57Fe (KED)	551.851 ppb	1.1 %	1.6 %	550.000 ppb
59Co (KED)	110.088 ppb	0.6 %	0.8 %	110.000 ppb
60Ni (KED)	110.045 ppb	0.6 %	0.5 %	110.000 ppb
63Cu (KED)	110.325 ppb	0.9 %	1.5 %	110.000 ppb
66Zn (KED)	110.441 ppb	1.2 %	0.8 %	110.000 ppb
72Ge (KED)	97.779 %	N/A	0.0 %	
75As (KED)	110.009 ppb	0.2 %	1.8 %	110.000 ppb
78Se (KED)	110.414 ppb	1.0 %	1.5 %	110.000 ppb
89Y (KED)	99.208 %	N/A	0.0 %	
95Mo (KED)	109.893 ppb	0.5 %	2.4 %	110.000 ppb
107Ag (KED)	109.660 ppb	2.4 %	0.4 %	110.000 ppb
111Cd (KED)	110.098 ppb	1.0 %	0.5 %	110.000 ppb
115In (KED)	98.812 %	N/A	0.0 %	
118Sn (KED)	105.872 ppb	1.8 %	4.0 %	110.000 ppb
121Sb (KED)	105.961 ppb	1.5 %	4.3 %	110.000 ppb
137Ba (KED)	109.138 ppb	0.8 %	1.3 %	110.000 ppb
159Tb (KED)	98.960 %	N/A	0.0 %	
205Tl (KED)	109.844 ppb	0.8 %	1.0 %	110.000 ppb
208Pb (KED)	109.883 ppb	1.2 %	0.2 %	110.000 ppb
209Bi (KED)	98.634 %	N/A	0.0 %	

Calibration

6/9/2023 2:44:26 PM

Standards:

Analysis Index: 6
Analysis Name: Calibration 3
AnalysisType STD
Analysis Started at: 6/9/2023 9:47:47 AM
Standard (Stock): Calibration 3
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	97.886 %	N/A	0.0 %	
9Be (KED)	109.978 ppb	0.5 %	0.3 %	110.000 ppb
11B (KED)	220.368 ppb	1.2 %	0.6 %	220.000 ppb
23Na (KED)	1,099.709 ppb	1.1 %	0.1 %	1,100.000 ppb
24Mg (KED)	1,099.066 ppb	1.4 %	0.1 %	1,100.000 ppb
27Al (KED)	219.715 ppb	0.7 %	1.7 %	220.000 ppb
31P (KED)	1,100.120 ppb	4.2 %	0.0 %	1,100.000 ppb
39K (KED)	1,099.306 ppb	0.7 %	0.8 %	1,100.000 ppb
44Ca (KED)	1,098.538 ppb	0.4 %	6.1 %	1,100.000 ppb
45Sc (KED)	95.874 %	N/A	0.0 %	
47Ti (KED)	216.913 ppb	1.4 %	1.6 %	220.000 ppb
51V (KED)	218.822 ppb	1.9 %	0.7 %	220.000 ppb
52Cr (KED)	221.067 ppb	1.5 %	0.5 %	220.000 ppb
55Mn (KED)	220.087 ppb	1.9 %	0.0 %	220.000 ppb
57Fe (KED)	1,083.354 ppb	2.3 %	1.6 %	1,100.000 ppb
59Co (KED)	218.140 ppb	2.0 %	0.8 %	220.000 ppb
60Ni (KED)	218.943 ppb	2.1 %	0.5 %	220.000 ppb
63Cu (KED)	216.815 ppb	2.1 %	1.5 %	220.000 ppb
66Zn (KED)	218.435 ppb	1.6 %	0.8 %	220.000 ppb
72Ge (KED)	96.917 %	N/A	0.0 %	
75As (KED)	216.092 ppb	2.5 %	1.8 %	220.000 ppb
78Se (KED)	216.962 ppb	1.9 %	1.5 %	220.000 ppb
89Y (KED)	96.403 %	N/A	0.0 %	
95Mo (KED)	225.267 ppb	2.4 %	2.4 %	220.000 ppb
107Ag (KED)	220.535 ppb	2.1 %	0.4 %	220.000 ppb
111Cd (KED)	219.005 ppb	2.3 %	0.5 %	220.000 ppb
115In (KED)	94.585 %	N/A	0.0 %	
118Sn (KED)	222.871 ppb	1.0 %	4.0 %	220.000 ppb
121Sb (KED)	225.085 ppb	1.1 %	4.3 %	220.000 ppb
137Ba (KED)	222.142 ppb	0.8 %	1.3 %	220.000 ppb
159Tb (KED)	98.640 %	N/A	0.0 %	
205Tl (KED)	222.081 ppb	2.2 %	1.0 %	220.000 ppb
208Pb (KED)	220.302 ppb	1.4 %	0.2 %	220.000 ppb
209Bi (KED)	99.607 %	N/A	0.0 %	

Analysis Class: ICPMS

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01	File ID:	061323D.xml-019
Sampled:	05/25/23 13:10	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:02
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.0522	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*	*99.3*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00269	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.00260	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*	*74.0*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.561	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved		0.00250	0.0100	0.0250	U
7440-09-7	Potassium, Dissolved	1.97	0.0500	0.100	0.125	D
7782-49-2	Selenium, Dissolved	0.0168	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*	*218*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	20	Stop Time:	6/13/2023 1:04:36 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-01@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:02:50 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.027 ppb	15.6 %
11B (KED)	4.549 ppb	2.3 %
23Na (KED)	39,157.921 ppb	0.7 %
24Mg (KED)	13,316.488 ppb	2.4 %
27Al (KED)	1.404 ppb	5.9 %
31P (KED)	19.451 ppb	19.1 %
39K (KED)	353.872 ppb	1.3 %
44Ca (KED)	17,874.608 ppb	0.3 %
47Ti (KED)	0.187 ppb	6.5 %
51V (KED)	0.236 ppb	7.4 %
52Cr (KED)	0.485 ppb	2.2 %
55Mn (KED)	101.019 ppb	0.4 %
57Fe (KED)	-3.936 ppb	7.0 %
59Co (KED)	0.468 ppb	1.6 %
60Ni (KED)	0.298 ppb	2.8 %
63Cu (KED)	0.019 ppb	25.5 %
66Zn (KED)	0.418 ppb	5.8 %
75As (KED)	0.121 ppb	11.2 %
78Se (KED)	3.029 ppb	0.8 %
95Mo (KED)	0.211 ppb	12.7 %
107Ag (KED)	-0.012 ppb	37.6 %
111Cd (KED)	0.008 ppb	62.4 %
118Sn (KED)	0.195 ppb	1.0 %
121Sb (KED)	0.340 ppb	1.1 %
137Ba (KED)	9.399 ppb	0.9 %
205Tl (KED)	0.010 ppb	32.7 %
208Pb (KED)	0.078 ppb	3.8 %

ISTD's	Concentration average
6Li (KED)	115.021 %
45Sc (KED)	107.886 %
72Ge (KED)	104.089 %
89Y (KED)	103.849 %
115In (KED)	101.278 %
159Tb (KED)	109.890 %
209Bi (KED)	101.547 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01RE1	File ID:	061323D.xml-058
Sampled:	05/25/23 13:10	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:14
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	100	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	73.7	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*225*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	59	Stop Time:	6/13/2023 2:16:31 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-01RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:14:38 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.028 ppb	26.3 %
11B (KED)	0.502 ppb	10.2 %
23Na (KED)	4,054.331 ppb	0.9 %
24Mg (KED)	1,325.747 ppb	0.7 %
27Al (KED)	1.067 ppb	8.9 %
31P (KED)	6.066 ppb	6.6 %
39K (KED)	36.244 ppb	3.2 %
44Ca (KED)	1,808.724 ppb	3.2 %
47Ti (KED)	0.180 ppb	6.0 %
51V (KED)	0.054 ppb	7.4 %
52Cr (KED)	0.343 ppb	1.0 %
55Mn (KED)	10.093 ppb	0.5 %
57Fe (KED)	-4.780 ppb	4.0 %
59Co (KED)	0.150 ppb	0.5 %
60Ni (KED)	0.003 ppb	416.2 %
63Cu (KED)	-0.026 ppb	31.8 %
66Zn (KED)	0.075 ppb	39.8 %
75As (KED)	0.040 ppb	9.2 %
78Se (KED)	0.466 ppb	8.5 %
95Mo (KED)	-0.036 ppb	9.4 %
107Ag (KED)	-0.013 ppb	17.2 %
111Cd (KED)	-0.004 ppb	28.3 %
118Sn (KED)	0.183 ppb	1.4 %
121Sb (KED)	0.304 ppb	0.8 %
137Ba (KED)	1.088 ppb	3.9 %
205Tl (KED)	0.007 ppb	6.5 %
208Pb (KED)	0.074 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	130.322 %
45Sc (KED)	120.003 %
72Ge (KED)	117.264 %
89Y (KED)	113.250 %
115In (KED)	112.216 %
159Tb (KED)	116.461 %
209Bi (KED)	113.389 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01RE2	File ID:	061323D.xml-093
Sampled:	05/25/23 13:10	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:20
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	201	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	94	Stop Time:	6/13/2023 3:22:26 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-01RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 3:20:30 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.023 ppb	60.6 %
11B (KED)	-0.024 ppb	96.7 %
23Na (KED)	361.209 ppb	0.9 %
24Mg (KED)	132.597 ppb	1.7 %
27Al (KED)	1.048 ppb	3.6 %
31P (KED)	3.784 ppb	39.5 %
39K (KED)	2.977 ppb	38.7 %
44Ca (KED)	182.993 ppb	8.2 %
47Ti (KED)	0.201 ppb	10.2 %
51V (KED)	0.053 ppb	4.2 %
52Cr (KED)	0.329 ppb	1.1 %
55Mn (KED)	0.917 ppb	1.4 %
57Fe (KED)	-4.814 ppb	3.1 %
59Co (KED)	0.120 ppb	0.4 %
60Ni (KED)	-0.035 ppb	26.7 %
63Cu (KED)	-0.036 ppb	3.9 %
66Zn (KED)	0.050 ppb	29.5 %
75As (KED)	0.022 ppb	24.2 %
78Se (KED)	0.195 ppb	23.1 %
95Mo (KED)	-0.060 ppb	9.6 %
107Ag (KED)	-0.014 ppb	2.2 %
111Cd (KED)	-0.007 ppb	10.4 %
118Sn (KED)	0.180 ppb	0.4 %
121Sb (KED)	0.300 ppb	0.6 %
137Ba (KED)	0.263 ppb	7.0 %
205Tl (KED)	0.006 ppb	9.9 %
208Pb (KED)	0.074 ppb	1.8 %

ISTD's	Concentration average
6Li (KED)	95.838 %
45Sc (KED)	95.727 %
72Ge (KED)	97.675 %
89Y (KED)	96.809 %
115In (KED)	96.003 %
159Tb (KED)	98.355 %
209Bi (KED)	97.285 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03	File ID:	061323D.xml-020
Sampled:	05/25/23 16:20	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:04
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
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	0.103	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*	*48.6*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00266	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	0.283	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*37.3*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.223	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved		0.00250	0.0100	0.0250	U
7440-09-7	*Potassium, Dissolved*	*39.5*	*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*	*135*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	21	Stop Time:	6/13/2023 1:06:23 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-03@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:04:37 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.023 ppb	62.0 %
11B (KED)	13.909 ppb	2.3 %
23Na (KED)	24,280.689 ppb	1.9 %
24Mg (KED)	6,719.711 ppb	1.7 %
27Al (KED)	1.641 ppb	0.3 %
31P (KED)	6.512 ppb	54.4 %
39K (KED)	7,114.247 ppb	1.6 %
44Ca (KED)	8,743.261 ppb	2.2 %
47Ti (KED)	0.186 ppb	6.2 %
51V (KED)	0.050 ppb	2.0 %
52Cr (KED)	0.479 ppb	0.8 %
55Mn (KED)	40.143 ppb	1.4 %
57Fe (KED)	50.938 ppb	5.4 %
59Co (KED)	0.170 ppb	1.9 %
60Ni (KED)	0.161 ppb	1.1 %
63Cu (KED)	0.001 ppb	1,202.9 %
66Zn (KED)	0.314 ppb	11.3 %
75As (KED)	0.163 ppb	5.5 %
78Se (KED)	0.156 ppb	4.4 %
95Mo (KED)	0.274 ppb	7.4 %
107Ag (KED)	-0.012 ppb	28.7 %
111Cd (KED)	-0.004 ppb	98.1 %
118Sn (KED)	0.189 ppb	0.5 %
121Sb (KED)	0.308 ppb	0.7 %
137Ba (KED)	18.525 ppb	3.3 %
205Tl (KED)	0.006 ppb	17.5 %
208Pb (KED)	0.078 ppb	1.4 %

ISTD's	Concentration average
6Li (KED)	120.492 %
45Sc (KED)	111.699 %
72Ge (KED)	108.163 %
89Y (KED)	107.997 %
115In (KED)	105.401 %
159Tb (KED)	110.688 %
209Bi (KED)	103.940 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03RE1	File ID:	061323D.xml-059
Sampled:	05/25/23 16:20	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:16
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	50.1	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	37.9	0.200	0.500	1.25	D
7440-09-7	Potassium, Dissolved	41.1	0.500	1.00	1.25	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	60	Stop Time:	6/13/2023 2:18:19 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-03RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:16:33 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.026 ppb	41.4 %
11B (KED)	1.421 ppb	3.8 %
23Na (KED)	2,563.096 ppb	0.9 %
24Mg (KED)	681.678 ppb	1.1 %
27Al (KED)	1.094 ppb	9.3 %
31P (KED)	2.350 ppb	28.2 %
39K (KED)	740.143 ppb	0.6 %
44Ca (KED)	901.641 ppb	1.9 %
47Ti (KED)	0.191 ppb	11.1 %
51V (KED)	0.035 ppb	10.4 %
52Cr (KED)	0.343 ppb	1.0 %
55Mn (KED)	3.908 ppb	4.4 %
57Fe (KED)	0.790 ppb	97.6 %
59Co (KED)	0.120 ppb	0.1 %
60Ni (KED)	-0.020 ppb	21.8 %
63Cu (KED)	-0.034 ppb	5.4 %
66Zn (KED)	0.060 ppb	13.8 %
75As (KED)	0.042 ppb	9.9 %
78Se (KED)	0.175 ppb	14.4 %
95Mo (KED)	-0.029 ppb	15.7 %
107Ag (KED)	-0.014 ppb	10.5 %
111Cd (KED)	-0.007 ppb	15.3 %
118Sn (KED)	0.180 ppb	0.7 %
121Sb (KED)	0.296 ppb	0.2 %
137Ba (KED)	2.010 ppb	2.0 %
205Tl (KED)	0.006 ppb	16.8 %
208Pb (KED)	0.074 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	133.435 %
45Sc (KED)	122.709 %
72Ge (KED)	119.436 %
89Y (KED)	116.393 %
115In (KED)	114.384 %
159Tb (KED)	117.529 %
209Bi (KED)	118.075 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03RE2	File ID:	061323D.xml-094
Sampled:	05/25/23 16:20	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:22
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	117	2.00	4.00	5.00	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	95	Stop Time:	6/13/2023 3:24:15 PM	Comment	1/100/2=200 Na
Sample ID:	23E0775-03RE2@200	Dilution Factor	0.5		
Start Time:	6/13/2023 3:22:28 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.031 ppb	43.3 %
11B (KED)	0.241 ppb	67.7 %
23Na (KED)	527.018 ppb	1.7 %
24Mg (KED)	156.197 ppb	0.3 %
27Al (KED)	1.015 ppb	5.2 %
31P (KED)	2.823 ppb	29.7 %
39K (KED)	168.680 ppb	0.4 %
44Ca (KED)	208.552 ppb	2.0 %
47Ti (KED)	0.188 ppb	2.7 %
51V (KED)	0.046 ppb	10.2 %
52Cr (KED)	0.334 ppb	1.1 %
55Mn (KED)	0.895 ppb	6.9 %
57Fe (KED)	-3.581 ppb	3.6 %
59Co (KED)	0.117 ppb	0.6 %
60Ni (KED)	-0.036 ppb	2.1 %
63Cu (KED)	-0.038 ppb	4.4 %
66Zn (KED)	0.088 ppb	12.5 %
75As (KED)	0.029 ppb	30.8 %
78Se (KED)	0.164 ppb	6.1 %
95Mo (KED)	-0.060 ppb	1.4 %
107Ag (KED)	-0.017 ppb	0.3 %
111Cd (KED)	-0.007 ppb	10.0 %
118Sn (KED)	0.181 ppb	0.9 %
121Sb (KED)	0.295 ppb	0.8 %
137Ba (KED)	0.637 ppb	4.3 %
205Tl (KED)	0.005 ppb	15.6 %
208Pb (KED)	0.074 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	99.953 %
45Sc (KED)	99.548 %
72Ge (KED)	99.368 %
89Y (KED)	99.220 %
115In (KED)	98.182 %
159Tb (KED)	101.358 %
209Bi (KED)	98.720 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04	File ID:	061323D.xml-021
Sampled:	05/26/23 12:30	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:06
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
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	0.0246	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	5.66	0.0500	0.100	0.125	D
7440-47-3	Chromium, Dissolved	0.113	0.00250	0.0100	0.0250	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	0.223	0.0200	0.0500	0.125	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*	*357*	*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*	*302*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	22	Stop Time:	6/13/2023 1:08:10 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-04@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:06:24 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.021 ppb	76.0 %
11B (KED)	13.431 ppb	0.6 %
23Na (KED)	54,338.472 ppb	0.4 %
24Mg (KED)	40.082 ppb	0.9 %
27Al (KED)	2.229 ppb	4.9 %
31P (KED)	6.898 ppb	20.9 %
39K (KED)	64,288.390 ppb	0.3 %
44Ca (KED)	1,019.560 ppb	0.4 %
47Ti (KED)	0.214 ppb	9.5 %
51V (KED)	0.199 ppb	3.8 %
52Cr (KED)	20.428 ppb	0.6 %
55Mn (KED)	-0.020 ppb	22.5 %
57Fe (KED)	-3.783 ppb	7.3 %
59Co (KED)	0.150 ppb	1.4 %
60Ni (KED)	0.118 ppb	9.2 %
63Cu (KED)	0.023 ppb	40.3 %
66Zn (KED)	0.152 ppb	14.0 %
75As (KED)	0.085 ppb	5.4 %
78Se (KED)	0.207 ppb	23.2 %
95Mo (KED)	0.402 ppb	6.1 %
107Ag (KED)	-0.015 ppb	3.8 %
111Cd (KED)	-0.004 ppb	38.1 %
118Sn (KED)	0.200 ppb	1.4 %
121Sb (KED)	0.437 ppb	2.2 %
137Ba (KED)	4.420 ppb	2.6 %
205Tl (KED)	0.005 ppb	1.3 %
208Pb (KED)	0.079 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	120.661 %
45Sc (KED)	113.126 %
72Ge (KED)	105.776 %
89Y (KED)	105.362 %
115In (KED)	100.613 %
159Tb (KED)	107.312 %
209Bi (KED)	97.061 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04RE1	File ID:	061323D.xml-062
Sampled:	05/26/23 12:30	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:21
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-09-7	*Potassium, Dissolved*	*363*	*0.500*	*1.00*	*1.25*	*D, E*
7440-23-5	*Sodium, Dissolved*	*301*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	63	Stop Time:	6/13/2023 2:23:52 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-04RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:21:58 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.031 ppb	26.1 %
11B (KED)	1.335 ppb	14.0 %
23Na (KED)	5,425.420 ppb	1.0 %
24Mg (KED)	5.291 ppb	10.6 %
27Al (KED)	1.169 ppb	4.8 %
31P (KED)	2.624 ppb	50.2 %
39K (KED)	6,531.493 ppb	0.8 %
44Ca (KED)	98.521 ppb	5.6 %
47Ti (KED)	0.177 ppb	5.0 %
51V (KED)	0.071 ppb	2.2 %
52Cr (KED)	2.485 ppb	1.5 %
55Mn (KED)	-0.099 ppb	4.7 %
57Fe (KED)	-4.533 ppb	5.7 %
59Co (KED)	0.118 ppb	0.5 %
60Ni (KED)	-0.019 ppb	38.5 %
63Cu (KED)	-0.030 ppb	24.4 %
66Zn (KED)	0.020 ppb	39.3 %
75As (KED)	0.022 ppb	23.6 %
78Se (KED)	0.191 ppb	11.4 %
95Mo (KED)	-0.018 ppb	10.5 %
107Ag (KED)	-0.015 ppb	10.3 %
111Cd (KED)	-0.008 ppb	9.7 %
118Sn (KED)	0.181 ppb	0.5 %
121Sb (KED)	0.307 ppb	0.6 %
137Ba (KED)	0.586 ppb	7.2 %
205Tl (KED)	0.004 ppb	12.4 %
208Pb (KED)	0.074 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	95.739 %
45Sc (KED)	96.340 %
72Ge (KED)	96.424 %
89Y (KED)	97.314 %
115In (KED)	98.128 %
159Tb (KED)	99.729 %
209Bi (KED)	98.267 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04RE2	File ID:	061323D.xml-095
Sampled:	05/26/23 12:30	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:24
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-09-7	Potassium, Dissolved	403	5.00	10.0	12.5	D
7440-23-5	Sodium, Dissolved	311	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	96	Stop Time:	6/13/2023 3:26:04 PM	Comment	1/100/5=500 Na K
Sample ID:	23E0775-04RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 3:24:17 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.024 ppb	31.2 %
11B (KED)	0.151 ppb	101.2 %
23Na (KED)	559.061 ppb	1.6 %
24Mg (KED)	1.813 ppb	9.3 %
27Al (KED)	1.058 ppb	1.4 %
31P (KED)	3.304 ppb	51.2 %
39K (KED)	724.979 ppb	1.0 %
44Ca (KED)	9.841 ppb	33.7 %
47Ti (KED)	0.188 ppb	2.6 %
51V (KED)	0.044 ppb	5.2 %
52Cr (KED)	0.561 ppb	0.5 %
55Mn (KED)	-0.108 ppb	1.4 %
57Fe (KED)	-4.732 ppb	4.7 %
59Co (KED)	0.116 ppb	0.5 %
60Ni (KED)	-0.038 ppb	10.6 %
63Cu (KED)	-0.040 ppb	7.3 %
66Zn (KED)	0.037 ppb	52.9 %
75As (KED)	0.030 ppb	7.0 %
78Se (KED)	0.156 ppb	3.0 %
95Mo (KED)	-0.062 ppb	4.2 %
107Ag (KED)	-0.016 ppb	9.8 %
111Cd (KED)	-0.007 ppb	21.7 %
118Sn (KED)	0.178 ppb	0.5 %
121Sb (KED)	0.295 ppb	0.2 %
137Ba (KED)	0.211 ppb	2.5 %
205Tl (KED)	0.004 ppb	9.3 %
208Pb (KED)	0.073 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	102.050 %
45Sc (KED)	102.027 %
72Ge (KED)	100.518 %
89Y (KED)	99.020 %
115In (KED)	101.621 %
159Tb (KED)	98.909 %
209Bi (KED)	98.967 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05	File ID:	061323D.xml-022
Sampled:	05/26/23 11:05	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:08
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.159	0.0250	0.0500	0.125	D, B
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	0.0292	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*	*244*	*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	0.00321	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*	*214*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	1.27	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00552	0.00250	0.0100	0.0250	J, D
7440-09-7	*Potassium, Dissolved*	*93.1*	*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*	*436*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	23	Stop Time:	6/13/2023 1:09:56 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-05@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:08:10 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.015 ppb	167.9 %
11B (KED)	11.395 ppb	1.7 %
23Na (KED)	78,433.449 ppb	0.9 %
24Mg (KED)	38,451.426 ppb	0.4 %
27Al (KED)	30.942 ppb	0.5 %
31P (KED)	5.786 ppb	19.3 %
39K (KED)	16,757.344 ppb	0.4 %
44Ca (KED)	43,948.840 ppb	0.3 %
47Ti (KED)	0.195 ppb	5.7 %
51V (KED)	0.053 ppb	7.1 %
52Cr (KED)	0.364 ppb	1.7 %
55Mn (KED)	228.013 ppb	1.3 %
57Fe (KED)	5.519 ppb	7.3 %
59Co (KED)	0.578 ppb	1.2 %
60Ni (KED)	0.993 ppb	4.4 %
63Cu (KED)	-0.020 ppb	32.7 %
66Zn (KED)	0.119 ppb	8.8 %
75As (KED)	0.159 ppb	1.4 %
78Se (KED)	0.143 ppb	13.0 %
95Mo (KED)	0.142 ppb	7.4 %
107Ag (KED)	-0.015 ppb	11.9 %
111Cd (KED)	-0.004 ppb	18.9 %
118Sn (KED)	0.198 ppb	1.3 %
121Sb (KED)	0.299 ppb	0.5 %
137Ba (KED)	5.262 ppb	2.2 %
205Tl (KED)	0.006 ppb	5.5 %
208Pb (KED)	0.076 ppb	1.8 %

ISTD's	Concentration average
6Li (KED)	124.406 %
45Sc (KED)	116.181 %
72Ge (KED)	107.463 %
89Y (KED)	108.385 %
115In (KED)	99.522 %
159Tb (KED)	107.935 %
209Bi (KED)	96.448 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05RE1	File ID:	061323D.xml-063
Sampled:	05/26/23 11:05	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:23
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-95-4	*Magnesium, Dissolved*	*232*	*0.200*	*0.500*	*1.25*	*D, E*
7440-09-7	Potassium, Dissolved	104	0.500	1.00	1.25	D
7440-23-5	*Sodium, Dissolved*	*472*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	64	Stop Time:	6/13/2023 2:25:44 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-05RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:23:54 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.031 ppb	0.1 %
11B (KED)	1.352 ppb	14.2 %
23Na (KED)	8,498.534 ppb	1.8 %
24Mg (KED)	4,183.661 ppb	0.9 %
27Al (KED)	3.918 ppb	6.9 %
31P (KED)	3.867 ppb	44.2 %
39K (KED)	1,880.850 ppb	0.4 %
44Ca (KED)	4,990.243 ppb	1.0 %
47Ti (KED)	0.182 ppb	9.6 %
51V (KED)	0.045 ppb	9.8 %
52Cr (KED)	0.329 ppb	0.8 %
55Mn (KED)	25.819 ppb	0.5 %
57Fe (KED)	-3.651 ppb	3.8 %
59Co (KED)	0.167 ppb	0.8 %
60Ni (KED)	0.068 ppb	2.1 %
63Cu (KED)	-0.045 ppb	17.9 %
66Zn (KED)	0.028 ppb	25.5 %
75As (KED)	0.037 ppb	22.4 %
78Se (KED)	0.157 ppb	7.0 %
95Mo (KED)	-0.043 ppb	7.3 %
107Ag (KED)	-0.016 ppb	2.6 %
111Cd (KED)	-0.008 ppb	9.8 %
118Sn (KED)	0.181 ppb	3.4 %
121Sb (KED)	0.293 ppb	0.4 %
137Ba (KED)	0.748 ppb	2.0 %
205Tl (KED)	0.004 ppb	8.3 %
208Pb (KED)	0.073 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	101.865 %
45Sc (KED)	101.419 %
72Ge (KED)	102.219 %
89Y (KED)	100.935 %
115In (KED)	100.479 %
159Tb (KED)	101.976 %
209Bi (KED)	100.009 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05RE2	File ID:	061323D.xml-096
Sampled:	05/26/23 11:05	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:26
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	223	5.00	10.0	12.5	D
7439-95-4	Magnesium, Dissolved	187	2.00	5.00	12.5	D
7440-23-5	Sodium, Dissolved	353	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	97	Stop Time:	6/13/2023 3:27:56 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-05RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 3:26:06 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.019 ppb	118.6 %
11B (KED)	-0.103 ppb	128.7 %
23Na (KED)	635.580 ppb	1.5 %
24Mg (KED)	337.384 ppb	0.9 %
27Al (KED)	1.260 ppb	3.1 %
31P (KED)	2.710 ppb	28.9 %
39K (KED)	151.827 ppb	2.1 %
44Ca (KED)	401.312 ppb	2.6 %
47Ti (KED)	0.193 ppb	7.4 %
51V (KED)	0.043 ppb	7.7 %
52Cr (KED)	0.330 ppb	0.1 %
55Mn (KED)	2.013 ppb	5.2 %
57Fe (KED)	-4.615 ppb	4.4 %
59Co (KED)	0.119 ppb	1.0 %
60Ni (KED)	-0.027 ppb	5.8 %
63Cu (KED)	-0.045 ppb	7.0 %
66Zn (KED)	0.053 ppb	18.9 %
75As (KED)	0.023 ppb	11.0 %
78Se (KED)	0.170 ppb	20.9 %
95Mo (KED)	-0.065 ppb	4.3 %
107Ag (KED)	-0.014 ppb	8.0 %
111Cd (KED)	-0.008 ppb	9.2 %
118Sn (KED)	0.178 ppb	0.6 %
121Sb (KED)	0.293 ppb	0.5 %
137Ba (KED)	0.203 ppb	2.8 %
205Tl (KED)	0.005 ppb	7.8 %
208Pb (KED)	0.073 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	105.020 %
45Sc (KED)	104.170 %
72Ge (KED)	103.764 %
89Y (KED)	103.411 %
115In (KED)	100.473 %
159Tb (KED)	103.106 %
209Bi (KED)	103.377 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06	File ID:	061323D.xml-023
Sampled:	05/26/23 13:55	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:09
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.0583	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*	*257*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0265	0.00250	0.0100	0.0250	D
7440-48-4	Cobalt, Dissolved	0.00490	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	0.950	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*187*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.471	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0823	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	2.85	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*	*436*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	24	Stop Time:	6/13/2023 1:11:43 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-06@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:09:57 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.011 ppb	182.2 %
11B (KED)	14.353 ppb	1.2 %
23Na (KED)	78,445.527 ppb	1.3 %
24Mg (KED)	33,665.215 ppb	1.3 %
27Al (KED)	1.367 ppb	4.8 %
31P (KED)	9.664 ppb	14.2 %
39K (KED)	512.716 ppb	1.5 %
44Ca (KED)	46,236.348 ppb	0.7 %
47Ti (KED)	0.201 ppb	5.4 %
51V (KED)	0.091 ppb	9.1 %
52Cr (KED)	4.764 ppb	1.2 %
55Mn (KED)	84.780 ppb	0.9 %
57Fe (KED)	171.081 ppb	1.7 %
59Co (KED)	0.882 ppb	0.6 %
60Ni (KED)	14.809 ppb	2.1 %
63Cu (KED)	0.198 ppb	2.4 %
66Zn (KED)	0.453 ppb	4.9 %
75As (KED)	0.187 ppb	6.9 %
78Se (KED)	0.178 ppb	24.8 %
95Mo (KED)	0.177 ppb	5.4 %
107Ag (KED)	-0.015 ppb	8.1 %
111Cd (KED)	0.004 ppb	58.7 %
118Sn (KED)	0.186 ppb	1.7 %
121Sb (KED)	0.299 ppb	0.5 %
137Ba (KED)	10.496 ppb	0.4 %
205Tl (KED)	0.007 ppb	13.4 %
208Pb (KED)	0.080 ppb	2.4 %

ISTD's	Concentration average
6Li (KED)	129.063 %
45Sc (KED)	120.849 %
72Ge (KED)	111.055 %
89Y (KED)	109.639 %
115In (KED)	104.134 %
159Tb (KED)	112.184 %
209Bi (KED)	100.985 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06RE1	File ID:	061323D.xml-064
Sampled:	05/26/23 13:55	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:25
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	*Calcium, Dissolved*	*262*	*0.500*	*1.00*	*1.25*	*D, E*
7439-95-4	Magnesium, Dissolved	183	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*426*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	65	Stop Time:	6/13/2023 2:27:35 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-06RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:25:46 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.010 ppb	72.6 %
11B (KED)	1.363 ppb	7.5 %
23Na (KED)	7,674.877 ppb	0.7 %
24Mg (KED)	3,285.274 ppb	1.5 %
27Al (KED)	1.070 ppb	3.9 %
31P (KED)	4.192 ppb	0.5 %
39K (KED)	50.025 ppb	4.1 %
44Ca (KED)	4,718.843 ppb	0.5 %
47Ti (KED)	0.179 ppb	2.6 %
51V (KED)	0.047 ppb	7.7 %
52Cr (KED)	0.798 ppb	2.4 %
55Mn (KED)	8.512 ppb	1.0 %
57Fe (KED)	13.738 ppb	0.7 %
59Co (KED)	0.194 ppb	0.7 %
60Ni (KED)	1.474 ppb	2.2 %
63Cu (KED)	-0.013 ppb	27.0 %
66Zn (KED)	0.087 ppb	22.3 %
75As (KED)	0.042 ppb	31.8 %
78Se (KED)	0.155 ppb	8.4 %
95Mo (KED)	-0.042 ppb	9.6 %
107Ag (KED)	-0.014 ppb	14.2 %
111Cd (KED)	-0.007 ppb	11.6 %
118Sn (KED)	0.179 ppb	0.1 %
121Sb (KED)	0.293 ppb	0.2 %
137Ba (KED)	1.283 ppb	3.7 %
205Tl (KED)	0.005 ppb	8.1 %
208Pb (KED)	0.074 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	109.007 %
45Sc (KED)	106.984 %
72Ge (KED)	105.798 %
89Y (KED)	104.519 %
115In (KED)	102.825 %
159Tb (KED)	104.679 %
209Bi (KED)	102.231 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06RE2	File ID:	061323D.xml-097
Sampled:	05/26/23 13:55	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:27
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	259	5.00	10.0	12.5	D
7440-23-5	Sodium, Dissolved	396	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	98	Stop Time:	6/13/2023 3:29:47 PM	Comment	1/100/5=500 Na Ca
Sample ID:	23E0775-06RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 3:27:59 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.031 ppb	22.5 %
11B (KED)	-0.008 ppb	895.1 %
23Na (KED)	713.568 ppb	0.8 %
24Mg (KED)	332.361 ppb	0.7 %
27Al (KED)	1.098 ppb	3.7 %
31P (KED)	2.895 ppb	55.1 %
39K (KED)	4.339 ppb	6.8 %
44Ca (KED)	465.319 ppb	3.3 %
47Ti (KED)	0.174 ppb	2.6 %
51V (KED)	0.039 ppb	8.1 %
52Cr (KED)	0.371 ppb	0.9 %
55Mn (KED)	0.764 ppb	0.9 %
57Fe (KED)	-3.002 ppb	6.1 %
59Co (KED)	0.123 ppb	0.6 %
60Ni (KED)	0.125 ppb	27.0 %
63Cu (KED)	-0.036 ppb	22.7 %
66Zn (KED)	0.057 ppb	31.2 %
75As (KED)	0.023 ppb	2.4 %
78Se (KED)	0.163 ppb	7.5 %
95Mo (KED)	-0.064 ppb	3.8 %
107Ag (KED)	-0.017 ppb	15.0 %
111Cd (KED)	-0.008 ppb	9.6 %
118Sn (KED)	0.180 ppb	0.4 %
121Sb (KED)	0.293 ppb	0.6 %
137Ba (KED)	0.260 ppb	8.5 %
205Tl (KED)	0.005 ppb	17.3 %
208Pb (KED)	0.073 ppb	0.1 %

ISTD's	Concentration average
6Li (KED)	107.570 %
45Sc (KED)	107.380 %
72Ge (KED)	107.346 %
89Y (KED)	103.370 %
115In (KED)	103.742 %
159Tb (KED)	104.724 %
209Bi (KED)	103.172 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07	File ID:	061323D.xml-024
Sampled:	05/27/23 11:25	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:11
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.121	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*	*209*	*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	0.00700	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*	*157*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.227	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00937	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	2.10	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*	*697*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	25	Stop Time:	6/13/2023 1:13:30 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-07@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:11:44 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.032 ppb	0.1 %
11B (KED)	3.350 ppb	5.0 %
23Na (KED)	125,531.953 ppb	0.4 %
24Mg (KED)	28,301.575 ppb	0.9 %
27Al (KED)	1.573 ppb	4.2 %
31P (KED)	12.476 ppb	14.3 %
39K (KED)	377.255 ppb	1.3 %
44Ca (KED)	37,578.286 ppb	0.1 %
47Ti (KED)	0.211 ppb	5.9 %
51V (KED)	0.201 ppb	6.2 %
52Cr (KED)	0.365 ppb	0.9 %
55Mn (KED)	40.915 ppb	0.9 %
57Fe (KED)	-2.694 ppb	12.4 %
59Co (KED)	1.260 ppb	0.6 %
60Ni (KED)	1.686 ppb	6.1 %
63Cu (KED)	0.180 ppb	3.6 %
66Zn (KED)	0.677 ppb	7.9 %
75As (KED)	0.173 ppb	6.2 %
78Se (KED)	0.248 ppb	13.1 %
95Mo (KED)	0.359 ppb	8.5 %
107Ag (KED)	-0.016 ppb	17.4 %
111Cd (KED)	0.081 ppb	6.0 %
118Sn (KED)	0.236 ppb	0.5 %
121Sb (KED)	0.332 ppb	0.6 %
137Ba (KED)	21.744 ppb	0.8 %
205Tl (KED)	0.011 ppb	13.2 %
208Pb (KED)	0.077 ppb	0.9 %

ISTD's	Concentration average
6Li (KED)	128.352 %
45Sc (KED)	120.150 %
72Ge (KED)	110.614 %
89Y (KED)	110.683 %
115In (KED)	102.658 %
159Tb (KED)	109.636 %
209Bi (KED)	98.451 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07RE1	File ID:	061323D.xml-065
Sampled:	05/27/23 11:25	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:27
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	216	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	156	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*703*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	66	Stop Time:	6/13/2023 2:29:25 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-07RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:27:37 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.029 ppb	13.4 %
11B (KED)	0.276 ppb	48.7 %
23Na (KED)	12,660.854 ppb	1.8 %
24Mg (KED)	2,802.731 ppb	1.6 %
27Al (KED)	1.058 ppb	4.3 %
31P (KED)	3.814 ppb	22.0 %
39K (KED)	39.983 ppb	2.2 %
44Ca (KED)	3,894.301 ppb	1.1 %
47Ti (KED)	0.189 ppb	2.3 %
51V (KED)	0.065 ppb	14.6 %
52Cr (KED)	0.338 ppb	3.9 %
55Mn (KED)	4.168 ppb	2.2 %
57Fe (KED)	-4.616 ppb	4.4 %
59Co (KED)	0.242 ppb	4.9 %
60Ni (KED)	0.146 ppb	6.1 %
63Cu (KED)	-0.002 ppb	820.3 %
66Zn (KED)	0.090 ppb	7.5 %
75As (KED)	0.049 ppb	11.5 %
78Se (KED)	0.178 ppb	17.8 %
95Mo (KED)	-0.016 ppb	54.9 %
107Ag (KED)	-0.013 ppb	24.8 %
111Cd (KED)	0.000 ppb	2,431.3 %
118Sn (KED)	0.187 ppb	1.6 %
121Sb (KED)	0.297 ppb	0.6 %
137Ba (KED)	2.444 ppb	1.1 %
205Tl (KED)	0.006 ppb	40.7 %
208Pb (KED)	0.075 ppb	3.3 %

ISTD's	Concentration average
6Li (KED)	112.883 %
45Sc (KED)	110.578 %
72Ge (KED)	108.969 %
89Y (KED)	105.710 %
115In (KED)	104.125 %
159Tb (KED)	106.214 %
209Bi (KED)	102.992 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07RE2	File ID:	061323D.xml-098
Sampled:	05/27/23 11:25	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:29
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	639	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	99	Stop Time:	6/13/2023 3:31:41 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-07RE2@1000	Dilution Factor	0.1		
Start Time:	6/13/2023 3:29:49 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.029 ppb	27.9 %
11B (KED)	-0.077 ppb	103.9 %
23Na (KED)	575.247 ppb	2.6 %
24Mg (KED)	136.968 ppb	3.1 %
27Al (KED)	1.062 ppb	2.4 %
31P (KED)	4.148 ppb	18.7 %
39K (KED)	0.790 ppb	68.8 %
44Ca (KED)	183.860 ppb	3.6 %
47Ti (KED)	0.179 ppb	5.1 %
51V (KED)	0.040 ppb	3.7 %
52Cr (KED)	0.329 ppb	0.3 %
55Mn (KED)	0.114 ppb	20.1 %
57Fe (KED)	-4.649 ppb	4.5 %
59Co (KED)	0.120 ppb	0.7 %
60Ni (KED)	-0.030 ppb	7.1 %
63Cu (KED)	-0.038 ppb	4.0 %
66Zn (KED)	0.028 ppb	33.4 %
75As (KED)	0.032 ppb	23.4 %
78Se (KED)	0.140 ppb	13.4 %
95Mo (KED)	-0.064 ppb	5.6 %
107Ag (KED)	-0.016 ppb	21.3 %
111Cd (KED)	-0.006 ppb	40.8 %
118Sn (KED)	0.180 ppb	1.4 %
121Sb (KED)	0.294 ppb	0.7 %
137Ba (KED)	0.262 ppb	7.7 %
205Tl (KED)	0.005 ppb	18.7 %
208Pb (KED)	0.074 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	110.191 %
45Sc (KED)	108.258 %
72Ge (KED)	107.385 %
89Y (KED)	104.966 %
115In (KED)	106.495 %
159Tb (KED)	105.660 %
209Bi (KED)	100.916 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08	File ID:	061323D.xml-029
Sampled:	05/27/23 13:05	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:20
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
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	0.183	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*	*77.7*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0166	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*	*46.8*	*0.0200*	*0.0500*	*0.125*	*D, E*
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	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*	*245*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	30	Stop Time:	6/13/2023 1:22:36 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-08@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:20:46 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.002 ppb	810.3 %
11B (KED)	6.620 ppb	1.2 %
23Na (KED)	44,073.603 ppb	1.8 %
24Mg (KED)	8,418.535 ppb	1.5 %
27Al (KED)	1.340 ppb	4.8 %
31P (KED)	11.912 ppb	13.4 %
39K (KED)	352.860 ppb	1.3 %
44Ca (KED)	13,981.581 ppb	1.2 %
47Ti (KED)	0.206 ppb	4.6 %
51V (KED)	0.223 ppb	5.6 %
52Cr (KED)	2.990 ppb	2.7 %
55Mn (KED)	0.435 ppb	4.3 %
57Fe (KED)	-3.652 ppb	6.4 %
59Co (KED)	0.124 ppb	0.5 %
60Ni (KED)	0.315 ppb	6.0 %
63Cu (KED)	0.077 ppb	9.9 %
66Zn (KED)	0.379 ppb	7.9 %
75As (KED)	0.082 ppb	13.6 %
78Se (KED)	0.208 ppb	3.8 %
95Mo (KED)	0.114 ppb	8.9 %
107Ag (KED)	-0.016 ppb	13.6 %
111Cd (KED)	0.010 ppb	69.2 %
118Sn (KED)	0.186 ppb	0.7 %
121Sb (KED)	0.315 ppb	0.6 %
137Ba (KED)	33.003 ppb	1.4 %
205Tl (KED)	0.005 ppb	11.5 %
208Pb (KED)	0.077 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	110.688 %
45Sc (KED)	106.973 %
72Ge (KED)	102.629 %
89Y (KED)	101.406 %
115In (KED)	100.342 %
159Tb (KED)	106.584 %
209Bi (KED)	100.331 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08RE1	File ID:	061323D.xml-068
Sampled:	05/27/23 13:05	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:33
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	77.9	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	46.0	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*250*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	69	Stop Time:	6/13/2023 2:35:13 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-08RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:33:18 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.028 ppb	27.4 %
11B (KED)	0.602 ppb	16.1 %
23Na (KED)	4,504.606 ppb	1.2 %
24Mg (KED)	828.827 ppb	1.1 %
27Al (KED)	1.036 ppb	2.9 %
31P (KED)	6.454 ppb	38.5 %
39K (KED)	36.087 ppb	4.8 %
44Ca (KED)	1,401.377 ppb	0.3 %
47Ti (KED)	0.176 ppb	7.2 %
51V (KED)	0.057 ppb	6.8 %
52Cr (KED)	0.599 ppb	0.7 %
55Mn (KED)	-0.064 ppb	9.4 %
57Fe (KED)	-4.695 ppb	4.6 %
59Co (KED)	0.116 ppb	1.0 %
60Ni (KED)	0.000 ppb	6,724.4 %
63Cu (KED)	-0.033 ppb	9.8 %
66Zn (KED)	0.068 ppb	12.4 %
75As (KED)	0.031 ppb	16.1 %
78Se (KED)	0.164 ppb	7.1 %
95Mo (KED)	-0.045 ppb	15.0 %
107Ag (KED)	-0.013 ppb	6.2 %
111Cd (KED)	-0.002 ppb	82.0 %
118Sn (KED)	0.181 ppb	1.3 %
121Sb (KED)	0.300 ppb	0.6 %
137Ba (KED)	3.430 ppb	3.6 %
205Tl (KED)	0.006 ppb	13.1 %
208Pb (KED)	0.074 ppb	0.9 %

ISTD's	Concentration average
6Li (KED)	121.680 %
45Sc (KED)	116.864 %
72Ge (KED)	112.587 %
89Y (KED)	108.276 %
115In (KED)	108.312 %
159Tb (KED)	112.110 %
209Bi (KED)	109.023 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08RE2	File ID:	061323D.xml-101
Sampled:	05/27/23 13:05	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:35
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	250	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	102	Stop Time:	6/13/2023 3:37:26 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-08RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 3:35:35 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.027 ppb	14.6 %
11B (KED)	0.082 ppb	129.3 %
23Na (KED)	450.655 ppb	1.0 %
24Mg (KED)	90.107 ppb	1.3 %
27Al (KED)	1.059 ppb	2.4 %
31P (KED)	5.063 ppb	59.7 %
39K (KED)	4.860 ppb	15.4 %
44Ca (KED)	151.715 ppb	1.9 %
47Ti (KED)	0.181 ppb	6.5 %
51V (KED)	0.036 ppb	5.5 %
52Cr (KED)	0.358 ppb	1.6 %
55Mn (KED)	-0.102 ppb	3.8 %
57Fe (KED)	-4.640 ppb	2.7 %
59Co (KED)	0.117 ppb	1.1 %
60Ni (KED)	-0.025 ppb	37.9 %
63Cu (KED)	-0.038 ppb	7.1 %
66Zn (KED)	0.072 ppb	25.2 %
75As (KED)	0.034 ppb	18.4 %
78Se (KED)	0.198 ppb	14.8 %
95Mo (KED)	-0.058 ppb	3.2 %
107Ag (KED)	-0.012 ppb	17.0 %
111Cd (KED)	-0.006 ppb	20.2 %
118Sn (KED)	0.182 ppb	0.3 %
121Sb (KED)	0.298 ppb	0.1 %
137Ba (KED)	0.511 ppb	5.2 %
205Tl (KED)	0.006 ppb	16.1 %
208Pb (KED)	0.074 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	113.000 %
45Sc (KED)	110.440 %
72Ge (KED)	108.553 %
89Y (KED)	106.806 %
115In (KED)	106.604 %
159Tb (KED)	108.223 %
209Bi (KED)	105.835 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09	File ID:	061323D.xml-030
Sampled:	05/27/23 15:05	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:22
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.0280	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*	*175*	*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	0.00464	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*	*99.3*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.192	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00459	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	1.17	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*	*480*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	31	Stop Time:	6/13/2023 1:24:23 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-09@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:22:37 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.013 ppb	32.9 %
11B (KED)	7.887 ppb	4.5 %
23Na (KED)	86,406.409 ppb	0.9 %
24Mg (KED)	17,871.814 ppb	1.0 %
27Al (KED)	1.265 ppb	4.7 %
31P (KED)	7.397 ppb	33.7 %
39K (KED)	210.932 ppb	2.0 %
44Ca (KED)	31,589.399 ppb	0.9 %
47Ti (KED)	0.200 ppb	7.9 %
51V (KED)	0.220 ppb	2.6 %
52Cr (KED)	0.347 ppb	0.1 %
55Mn (KED)	34.645 ppb	1.5 %
57Fe (KED)	-1.975 ppb	24.2 %
59Co (KED)	0.836 ppb	1.3 %
60Ni (KED)	0.825 ppb	5.8 %
63Cu (KED)	-0.007 ppb	58.7 %
66Zn (KED)	0.763 ppb	3.5 %
75As (KED)	0.198 ppb	6.2 %
78Se (KED)	0.188 ppb	34.1 %
95Mo (KED)	0.004 ppb	176.8 %
107Ag (KED)	-0.016 ppb	13.4 %
111Cd (KED)	-0.002 ppb	284.9 %
118Sn (KED)	0.186 ppb	1.1 %
121Sb (KED)	0.317 ppb	1.0 %
137Ba (KED)	5.048 ppb	0.8 %
205Tl (KED)	0.012 ppb	3.3 %
208Pb (KED)	0.075 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	114.512 %
45Sc (KED)	109.281 %
72Ge (KED)	103.236 %
89Y (KED)	104.127 %
115In (KED)	99.241 %
159Tb (KED)	105.810 %
209Bi (KED)	97.053 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09RE1	File ID:	061323D.xml-069
Sampled:	05/27/23 15:05	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:35
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	175	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	98.6	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*493*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	70	Stop Time:	6/13/2023 2:37:07 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-09RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:35:15 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.026 ppb	24.6 %
11B (KED)	0.767 ppb	13.0 %
23Na (KED)	8,870.302 ppb	1.2 %
24Mg (KED)	1,774.697 ppb	1.2 %
27Al (KED)	1.009 ppb	3.2 %
31P (KED)	3.582 ppb	29.0 %
39K (KED)	22.858 ppb	0.8 %
44Ca (KED)	3,144.428 ppb	0.7 %
47Ti (KED)	0.168 ppb	0.0 %
51V (KED)	0.054 ppb	1.7 %
52Cr (KED)	0.329 ppb	1.7 %
55Mn (KED)	3.372 ppb	0.6 %
57Fe (KED)	-4.450 ppb	1.7 %
59Co (KED)	0.187 ppb	0.7 %
60Ni (KED)	0.058 ppb	17.5 %
63Cu (KED)	-0.039 ppb	10.6 %
66Zn (KED)	0.091 ppb	23.9 %
75As (KED)	0.050 ppb	5.7 %
78Se (KED)	0.161 ppb	16.4 %
95Mo (KED)	-0.056 ppb	2.1 %
107Ag (KED)	-0.015 ppb	4.2 %
111Cd (KED)	-0.005 ppb	42.1 %
118Sn (KED)	0.180 ppb	0.6 %
121Sb (KED)	0.297 ppb	0.8 %
137Ba (KED)	0.610 ppb	2.7 %
205Tl (KED)	0.005 ppb	12.5 %
208Pb (KED)	0.073 ppb	0.1 %

ISTD's	Concentration average
6Li (KED)	123.148 %
45Sc (KED)	118.393 %
72Ge (KED)	115.273 %
89Y (KED)	111.333 %
115In (KED)	109.819 %
159Tb (KED)	113.208 %
209Bi (KED)	106.564 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09RE2	File ID:	061323D.xml-102
Sampled:	05/27/23 15:05	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:37
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	494	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	103	Stop Time:	6/13/2023 3:39:22 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-09RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 3:37:28 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.025 ppb	55.0 %
11B (KED)	0.118 ppb	18.8 %
23Na (KED)	888.633 ppb	1.0 %
24Mg (KED)	192.404 ppb	1.2 %
27Al (KED)	1.060 ppb	4.5 %
31P (KED)	4.514 ppb	34.5 %
39K (KED)	2.054 ppb	29.0 %
44Ca (KED)	346.889 ppb	1.9 %
47Ti (KED)	0.181 ppb	2.5 %
51V (KED)	0.037 ppb	8.3 %
52Cr (KED)	0.330 ppb	1.4 %
55Mn (KED)	0.299 ppb	9.2 %
57Fe (KED)	-4.782 ppb	4.1 %
59Co (KED)	0.123 ppb	1.1 %
60Ni (KED)	-0.023 ppb	38.7 %
63Cu (KED)	-0.026 ppb	24.7 %
66Zn (KED)	0.094 ppb	17.7 %
75As (KED)	0.031 ppb	11.6 %
78Se (KED)	0.177 ppb	12.5 %
95Mo (KED)	-0.065 ppb	9.1 %
107Ag (KED)	-0.015 ppb	18.3 %
111Cd (KED)	-0.007 ppb	26.6 %
118Sn (KED)	0.179 ppb	0.7 %
121Sb (KED)	0.295 ppb	0.3 %
137Ba (KED)	0.211 ppb	1.6 %
205Tl (KED)	0.006 ppb	8.8 %
208Pb (KED)	0.074 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	114.626 %
45Sc (KED)	111.989 %
72Ge (KED)	110.600 %
89Y (KED)	107.517 %
115In (KED)	107.740 %
159Tb (KED)	104.314 %
209Bi (KED)	104.925 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10	File ID:	061323D.xml-031
Sampled:	05/27/23 11:01	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:24
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
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	0.0174	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*	*44.5*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0148	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.00258	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*	*27.3*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0200	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.554	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	1.47	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*	*247*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	32	Stop Time:	6/13/2023 1:26:09 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-10@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:24:24 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.009 ppb	105.0 %
11B (KED)	4.602 ppb	7.5 %
23Na (KED)	44,430.291 ppb	0.7 %
24Mg (KED)	4,913.015 ppb	0.7 %
27Al (KED)	1.395 ppb	6.5 %
31P (KED)	6.633 ppb	24.9 %
39K (KED)	263.910 ppb	2.4 %
44Ca (KED)	8,015.600 ppb	0.6 %
47Ti (KED)	0.206 ppb	3.5 %
51V (KED)	0.066 ppb	14.8 %
52Cr (KED)	2.661 ppb	1.8 %
55Mn (KED)	3.606 ppb	1.2 %
57Fe (KED)	3.270 ppb	29.2 %
59Co (KED)	0.464 ppb	0.4 %
60Ni (KED)	99.780 ppb	0.4 %
63Cu (KED)	0.532 ppb	1.0 %
66Zn (KED)	1.096 ppb	1.6 %
75As (KED)	0.041 ppb	29.7 %
78Se (KED)	0.274 ppb	14.7 %
95Mo (KED)	0.429 ppb	3.3 %
107Ag (KED)	-0.015 ppb	18.2 %
111Cd (KED)	0.006 ppb	66.1 %
118Sn (KED)	0.182 ppb	1.5 %
121Sb (KED)	0.301 ppb	0.7 %
137Ba (KED)	3.138 ppb	2.0 %
205Tl (KED)	0.006 ppb	6.6 %
208Pb (KED)	0.074 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	122.252 %
45Sc (KED)	113.448 %
72Ge (KED)	109.535 %
89Y (KED)	108.043 %
115In (KED)	106.850 %
159Tb (KED)	111.349 %
209Bi (KED)	104.223 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10RE1	File ID:	061323D.xml-070
Sampled:	05/27/23 11:01	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:37
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	44.6	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	26.7	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*248*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	71	Stop Time:	6/13/2023 2:38:59 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-10RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:37:09 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.020 ppb	54.6 %
11B (KED)	0.393 ppb	26.5 %
23Na (KED)	4,464.831 ppb	1.0 %
24Mg (KED)	480.885 ppb	0.5 %
27Al (KED)	1.054 ppb	2.8 %
31P (KED)	3.733 ppb	48.0 %
39K (KED)	26.452 ppb	4.7 %
44Ca (KED)	803.060 ppb	0.5 %
47Ti (KED)	0.189 ppb	9.8 %
51V (KED)	0.037 ppb	9.6 %
52Cr (KED)	0.559 ppb	1.6 %
55Mn (KED)	0.238 ppb	10.1 %
57Fe (KED)	-4.140 ppb	5.5 %
59Co (KED)	0.151 ppb	0.2 %
60Ni (KED)	10.003 ppb	0.9 %
63Cu (KED)	0.020 ppb	19.3 %
66Zn (KED)	0.118 ppb	14.8 %
75As (KED)	0.024 ppb	5.7 %
78Se (KED)	0.178 ppb	20.5 %
95Mo (KED)	-0.016 ppb	18.3 %
107Ag (KED)	-0.015 ppb	3.4 %
111Cd (KED)	-0.006 ppb	35.9 %
118Sn (KED)	0.180 ppb	0.5 %
121Sb (KED)	0.295 ppb	0.4 %
137Ba (KED)	0.441 ppb	2.8 %
205Tl (KED)	0.006 ppb	2.1 %
208Pb (KED)	0.073 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	126.826 %
45Sc (KED)	121.369 %
72Ge (KED)	117.632 %
89Y (KED)	113.091 %
115In (KED)	112.807 %
159Tb (KED)	115.996 %
209Bi (KED)	113.438 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10RE2	File ID:	061323D.xml-103
Sampled:	05/27/23 11:01	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:39
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	228	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	104	Stop Time:	6/13/2023 3:41:10 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-10RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 3:39:24 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.027 ppb	28.1 %
11B (KED)	-0.084 ppb	81.1 %
23Na (KED)	410.857 ppb	2.1 %
24Mg (KED)	50.301 ppb	3.4 %
27Al (KED)	0.993 ppb	3.5 %
31P (KED)	3.016 ppb	56.2 %
39K (KED)	3.322 ppb	24.4 %
44Ca (KED)	80.178 ppb	6.6 %
47Ti (KED)	0.178 ppb	4.9 %
51V (KED)	0.035 ppb	8.6 %
52Cr (KED)	0.343 ppb	0.9 %
55Mn (KED)	-0.071 ppb	2.7 %
57Fe (KED)	-4.612 ppb	2.8 %
59Co (KED)	0.118 ppb	0.5 %
60Ni (KED)	0.925 ppb	1.9 %
63Cu (KED)	-0.032 ppb	22.1 %
66Zn (KED)	0.066 ppb	10.8 %
75As (KED)	0.030 ppb	22.2 %
78Se (KED)	0.167 ppb	12.3 %
95Mo (KED)	-0.058 ppb	3.9 %
107Ag (KED)	-0.015 ppb	11.0 %
111Cd (KED)	-0.008 ppb	8.6 %
118Sn (KED)	0.179 ppb	0.1 %
121Sb (KED)	0.294 ppb	0.4 %
137Ba (KED)	0.183 ppb	6.5 %
205Tl (KED)	0.005 ppb	10.0 %
208Pb (KED)	0.073 ppb	2.1 %

ISTD's	Concentration average
6Li (KED)	116.076 %
45Sc (KED)	113.141 %
72Ge (KED)	110.614 %
89Y (KED)	108.354 %
115In (KED)	108.443 %
159Tb (KED)	111.069 %
209Bi (KED)	105.856 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11	File ID:	061323D.xml-032
Sampled:	05/27/23 15:00	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:26
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.0666	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	0.0218	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	0.234	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*31.9*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0268	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.786	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	2.09	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*	*191*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	33	Stop Time:	6/13/2023 1:27:56 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-11@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:26:10 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.019 ppb	59.0 %
11B (KED)	5.103 ppb	3.0 %
23Na (KED)	34,309.503 ppb	1.8 %
24Mg (KED)	5,746.109 ppb	0.7 %
27Al (KED)	1.225 ppb	7.9 %
31P (KED)	4.295 ppb	9.0 %
39K (KED)	376.032 ppb	0.1 %
44Ca (KED)	11,710.463 ppb	0.8 %
47Ti (KED)	0.195 ppb	4.3 %
51V (KED)	0.065 ppb	6.5 %
52Cr (KED)	3.924 ppb	1.6 %
55Mn (KED)	4.820 ppb	2.7 %
57Fe (KED)	42.040 ppb	3.0 %
59Co (KED)	0.433 ppb	1.1 %
60Ni (KED)	141.482 ppb	1.4 %
63Cu (KED)	0.313 ppb	1.9 %
66Zn (KED)	0.346 ppb	4.5 %
75As (KED)	0.045 ppb	8.0 %
78Se (KED)	0.175 ppb	8.5 %
95Mo (KED)	1.131 ppb	2.1 %
107Ag (KED)	-0.016 ppb	3.3 %
111Cd (KED)	0.001 ppb	445.6 %
118Sn (KED)	0.187 ppb	1.2 %
121Sb (KED)	0.305 ppb	0.8 %
137Ba (KED)	11.994 ppb	2.5 %
205Tl (KED)	0.005 ppb	2.4 %
208Pb (KED)	0.075 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	125.034 %
45Sc (KED)	118.045 %
72Ge (KED)	112.432 %
89Y (KED)	111.249 %
115In (KED)	106.763 %
159Tb (KED)	111.738 %
209Bi (KED)	105.102 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11RE1	File ID:	061323D.xml-074
Sampled:	05/27/23 15:00	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:44
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	71.6	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	32.1	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*197*	*0.500*	*1.00*	*1.25*	*D*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	75	Stop Time:	6/13/2023 2:46:26 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-11RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:44:33 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.030 ppb	50.8 %
11B (KED)	0.443 ppb	34.3 %
23Na (KED)	3,547.366 ppb	1.3 %
24Mg (KED)	577.215 ppb	0.4 %
27Al (KED)	1.004 ppb	4.3 %
31P (KED)	1.593 ppb	90.8 %
39K (KED)	40.090 ppb	6.2 %
44Ca (KED)	1,289.571 ppb	2.2 %
47Ti (KED)	0.178 ppb	0.0 %
51V (KED)	0.057 ppb	2.6 %
52Cr (KED)	0.755 ppb	0.5 %
55Mn (KED)	0.463 ppb	5.1 %
57Fe (KED)	0.092 ppb	248.1 %
59Co (KED)	0.149 ppb	0.9 %
60Ni (KED)	15.460 ppb	0.4 %
63Cu (KED)	0.001 ppb	177.7 %
66Zn (KED)	0.025 ppb	91.2 %
75As (KED)	0.018 ppb	9.0 %
78Se (KED)	0.172 ppb	8.8 %
95Mo (KED)	0.065 ppb	6.7 %
107Ag (KED)	-0.018 ppb	0.4 %
111Cd (KED)	-0.007 ppb	20.6 %
118Sn (KED)	0.177 ppb	1.3 %
121Sb (KED)	0.293 ppb	0.4 %
137Ba (KED)	1.406 ppb	6.0 %
205Tl (KED)	0.004 ppb	13.4 %
208Pb (KED)	0.073 ppb	1.5 %

ISTD's	Concentration average
6Li (KED)	83.838 %
45Sc (KED)	87.744 %
72Ge (KED)	90.615 %
89Y (KED)	89.999 %
115In (KED)	90.984 %
159Tb (KED)	94.995 %
209Bi (KED)	95.260 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11RE2	File ID:	061323D.xml-104
Sampled:	05/27/23 15:00	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:41
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	176	2.00	4.00	5.00	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	105	Stop Time:	6/13/2023 3:43:04 PM	Comment	1/100/2=200 Na
Sample ID:	23E0775-11RE2@200	Dilution Factor	0.5		
Start Time:	6/13/2023 3:41:12 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.023 ppb	44.9 %
11B (KED)	-0.025 ppb	238.4 %
23Na (KED)	791.338 ppb	1.9 %
24Mg (KED)	140.380 ppb	0.5 %
27Al (KED)	1.082 ppb	0.3 %
31P (KED)	2.763 ppb	85.4 %
39K (KED)	9.648 ppb	12.6 %
44Ca (KED)	276.537 ppb	2.9 %
47Ti (KED)	0.186 ppb	8.5 %
51V (KED)	0.033 ppb	5.9 %
52Cr (KED)	0.417 ppb	0.3 %
55Mn (KED)	0.009 ppb	149.5 %
57Fe (KED)	-3.831 ppb	2.1 %
59Co (KED)	0.122 ppb	1.0 %
60Ni (KED)	3.547 ppb	2.3 %
63Cu (KED)	-0.025 ppb	4.3 %
66Zn (KED)	0.092 ppb	11.0 %
75As (KED)	0.028 ppb	18.0 %
78Se (KED)	0.156 ppb	17.3 %
95Mo (KED)	-0.041 ppb	21.1 %
107Ag (KED)	-0.014 ppb	9.8 %
111Cd (KED)	-0.007 ppb	9.6 %
118Sn (KED)	0.178 ppb	0.8 %
121Sb (KED)	0.295 ppb	0.5 %
137Ba (KED)	0.437 ppb	0.9 %
205Tl (KED)	0.005 ppb	16.2 %
208Pb (KED)	0.073 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	117.486 %
45Sc (KED)	114.050 %
72Ge (KED)	111.783 %
89Y (KED)	109.447 %
115In (KED)	109.091 %
159Tb (KED)	111.441 %
209Bi (KED)	108.405 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12	File ID:	061323D.xml-033
Sampled:	05/27/23 17:28	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:27
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.157	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*	*39.7*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00438	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	0.0819	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	16.1	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.0304	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0202	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	1.19	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*	*127*	*0.0500*	*0.100*	*0.125*	*D, 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	0.00197	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	34	Stop Time:	6/13/2023 1:29:43 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-12@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:27:58 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	14,014.9 %
11B (KED)	7.433 ppb	7.6 %
23Na (KED)	22,874.740 ppb	1.3 %
24Mg (KED)	2,903.295 ppb	0.3 %
27Al (KED)	1.563 ppb	4.3 %
31P (KED)	20.946 ppb	29.5 %
39K (KED)	213.449 ppb	1.7 %
44Ca (KED)	7,153.821 ppb	0.7 %
47Ti (KED)	0.214 ppb	10.5 %
51V (KED)	0.355 ppb	2.0 %
52Cr (KED)	0.789 ppb	1.8 %
55Mn (KED)	5.474 ppb	0.8 %
57Fe (KED)	14.739 ppb	2.2 %
59Co (KED)	0.252 ppb	1.0 %
60Ni (KED)	3.641 ppb	0.7 %
63Cu (KED)	0.093 ppb	5.1 %
66Zn (KED)	0.289 ppb	10.1 %
75As (KED)	0.150 ppb	9.0 %
78Se (KED)	0.181 ppb	8.9 %
95Mo (KED)	0.018 ppb	65.5 %
107Ag (KED)	-0.015 ppb	6.9 %
111Cd (KED)	0.002 ppb	141.6 %
118Sn (KED)	0.187 ppb	1.6 %
121Sb (KED)	0.307 ppb	0.7 %
137Ba (KED)	28.199 ppb	3.7 %
205Tl (KED)	0.007 ppb	16.3 %
208Pb (KED)	0.076 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	128.603 %
45Sc (KED)	118.964 %
72Ge (KED)	113.937 %
89Y (KED)	111.994 %
115In (KED)	109.063 %
159Tb (KED)	117.353 %
209Bi (KED)	106.845 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12RE1	File ID:	061323D.xml-075
Sampled:	05/27/23 17:28	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:46
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	40.4	0.500	1.00	1.25	D
7440-23-5	*Sodium, Dissolved*	*113*	*0.500*	*1.00*	*1.25*	*D*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	76	Stop Time:	6/13/2023 2:48:21 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-12RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:46:28 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.028 ppb	33.9 %
11B (KED)	0.516 ppb	14.7 %
23Na (KED)	2,036.499 ppb	1.1 %
24Mg (KED)	281.385 ppb	1.4 %
27Al (KED)	1.131 ppb	6.2 %
31P (KED)	3.875 ppb	23.3 %
39K (KED)	19.259 ppb	7.6 %
44Ca (KED)	728.058 ppb	1.6 %
47Ti (KED)	0.174 ppb	3.0 %
51V (KED)	0.092 ppb	14.5 %
52Cr (KED)	0.372 ppb	2.8 %
55Mn (KED)	0.437 ppb	5.6 %
57Fe (KED)	-2.538 ppb	17.1 %
59Co (KED)	0.128 ppb	0.3 %
60Ni (KED)	0.347 ppb	2.3 %
63Cu (KED)	-0.027 ppb	23.2 %
66Zn (KED)	0.046 ppb	11.0 %
75As (KED)	0.038 ppb	42.1 %
78Se (KED)	0.171 ppb	8.7 %
95Mo (KED)	-0.058 ppb	1.5 %
107Ag (KED)	-0.015 ppb	17.9 %
111Cd (KED)	-0.007 ppb	11.5 %
118Sn (KED)	0.180 ppb	0.5 %
121Sb (KED)	0.293 ppb	0.3 %
137Ba (KED)	3.007 ppb	4.1 %
205Tl (KED)	0.003 ppb	26.2 %
208Pb (KED)	0.072 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	89.326 %
45Sc (KED)	93.324 %
72Ge (KED)	92.720 %
89Y (KED)	91.570 %
115In (KED)	94.175 %
159Tb (KED)	96.822 %
209Bi (KED)	94.559 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12RE2	File ID:	061323D.xml-105
Sampled:	05/27/23 17:28	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:43
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	121	2.00	4.00	5.00	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	106	Stop Time:	6/13/2023 3:44:52 PM	Comment	1/100/2=200 Na
Sample ID:	23E0775-12RE2@200	Dilution Factor	0.5		
Start Time:	6/13/2023 3:43:06 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.021 ppb	17.9 %
11B (KED)	0.064 ppb	164.9 %
23Na (KED)	542.980 ppb	1.4 %
24Mg (KED)	75.941 ppb	2.2 %
27Al (KED)	0.948 ppb	3.7 %
31P (KED)	2.722 ppb	40.3 %
39K (KED)	5.289 ppb	15.3 %
44Ca (KED)	183.249 ppb	3.9 %
47Ti (KED)	0.185 ppb	2.2 %
51V (KED)	0.040 ppb	8.0 %
52Cr (KED)	0.337 ppb	0.2 %
55Mn (KED)	0.036 ppb	34.8 %
57Fe (KED)	-4.233 ppb	4.2 %
59Co (KED)	0.119 ppb	0.3 %
60Ni (KED)	0.060 ppb	23.2 %
63Cu (KED)	-0.034 ppb	19.0 %
66Zn (KED)	0.091 ppb	19.9 %
75As (KED)	0.035 ppb	41.2 %
78Se (KED)	0.159 ppb	22.0 %
95Mo (KED)	-0.065 ppb	2.3 %
107Ag (KED)	-0.014 ppb	8.9 %
111Cd (KED)	-0.008 ppb	8.4 %
118Sn (KED)	0.178 ppb	1.3 %
121Sb (KED)	0.293 ppb	0.3 %
137Ba (KED)	0.872 ppb	3.4 %
205Tl (KED)	0.005 ppb	18.7 %
208Pb (KED)	0.073 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	118.072 %
45Sc (KED)	115.244 %
72Ge (KED)	112.592 %
89Y (KED)	110.835 %
115In (KED)	109.191 %
159Tb (KED)	108.931 %
209Bi (KED)	107.493 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13	File ID:	061323D.xml-034
Sampled:	05/27/23 16:35	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:29
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.0511	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		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt, Dissolved	0.00333	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*	*120*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.848	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00411	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	2.51	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*	*343*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	35	Stop Time:	6/13/2023 1:31:31 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-13@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:29:45 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.013 ppb	53.2 %
11B (KED)	13.533 ppb	0.3 %
23Na (KED)	61,720.222 ppb	1.2 %
24Mg (KED)	21,537.565 ppb	0.2 %
27Al (KED)	1.338 ppb	1.7 %
31P (KED)	5.711 ppb	34.6 %
39K (KED)	452.430 ppb	0.9 %
44Ca (KED)	31,058.752 ppb	0.8 %
47Ti (KED)	0.219 ppb	8.9 %
51V (KED)	0.058 ppb	9.5 %
52Cr (KED)	0.345 ppb	0.9 %
55Mn (KED)	152.675 ppb	0.8 %
57Fe (KED)	-2.339 ppb	3.8 %
59Co (KED)	0.599 ppb	1.4 %
60Ni (KED)	0.740 ppb	3.0 %
63Cu (KED)	0.058 ppb	17.4 %
66Zn (KED)	1.222 ppb	2.3 %
75As (KED)	0.074 ppb	9.5 %
78Se (KED)	0.176 ppb	4.4 %
95Mo (KED)	-0.033 ppb	6.5 %
107Ag (KED)	-0.015 ppb	24.9 %
111Cd (KED)	0.002 ppb	266.9 %
118Sn (KED)	0.186 ppb	0.9 %
121Sb (KED)	0.304 ppb	0.6 %
137Ba (KED)	9.190 ppb	1.8 %
205Tl (KED)	0.012 ppb	3.6 %
208Pb (KED)	0.078 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	126.381 %
45Sc (KED)	117.440 %
72Ge (KED)	109.273 %
89Y (KED)	110.895 %
115In (KED)	105.263 %
159Tb (KED)	113.686 %
209Bi (KED)	104.982 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13RE1	File ID:	061323D.xml-076
Sampled:	05/27/23 16:35	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:48
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	194	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	125	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*363*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	77	Stop Time:	6/13/2023 2:50:14 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-13RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:48:22 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.031 ppb	0.2 %
11B (KED)	1.294 ppb	13.5 %
23Na (KED)	6,528.235 ppb	1.8 %
24Mg (KED)	2,253.662 ppb	1.6 %
27Al (KED)	1.021 ppb	3.2 %
31P (KED)	2.056 ppb	41.4 %
39K (KED)	49.755 ppb	2.2 %
44Ca (KED)	3,487.511 ppb	1.6 %
47Ti (KED)	0.186 ppb	12.8 %
51V (KED)	0.048 ppb	17.1 %
52Cr (KED)	0.330 ppb	1.0 %
55Mn (KED)	17.017 ppb	0.6 %
57Fe (KED)	-4.437 ppb	3.6 %
59Co (KED)	0.168 ppb	0.9 %
60Ni (KED)	0.047 ppb	33.6 %
63Cu (KED)	-0.038 ppb	13.5 %
66Zn (KED)	0.140 ppb	16.4 %
75As (KED)	0.022 ppb	11.9 %
78Se (KED)	0.166 ppb	21.4 %
95Mo (KED)	-0.064 ppb	3.4 %
107Ag (KED)	-0.016 ppb	16.7 %
111Cd (KED)	-0.007 ppb	12.0 %
118Sn (KED)	0.177 ppb	1.0 %
121Sb (KED)	0.293 ppb	0.6 %
137Ba (KED)	1.159 ppb	3.4 %
205Tl (KED)	0.005 ppb	2.8 %
208Pb (KED)	0.073 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	93.786 %
45Sc (KED)	95.649 %
72Ge (KED)	97.083 %
89Y (KED)	94.352 %
115In (KED)	95.116 %
159Tb (KED)	98.164 %
209Bi (KED)	95.556 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13RE2	File ID:	061323D.xml-106
Sampled:	05/27/23 16:35	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:44
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	357	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	107	Stop Time:	6/13/2023 3:46:41 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-13RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 3:44:55 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.014 ppb	208.8 %
11B (KED)	0.134 ppb	70.3 %
23Na (KED)	642.365 ppb	1.3 %
24Mg (KED)	242.440 ppb	1.6 %
27Al (KED)	0.998 ppb	1.7 %
31P (KED)	3.411 ppb	31.8 %
39K (KED)	5.707 ppb	3.8 %
44Ca (KED)	356.405 ppb	3.7 %
47Ti (KED)	0.190 ppb	0.0 %
51V (KED)	0.032 ppb	3.4 %
52Cr (KED)	0.326 ppb	1.2 %
55Mn (KED)	1.693 ppb	2.2 %
57Fe (KED)	-4.784 ppb	2.4 %
59Co (KED)	0.120 ppb	0.5 %
60Ni (KED)	-0.027 ppb	10.4 %
63Cu (KED)	-0.038 ppb	13.6 %
66Zn (KED)	0.055 ppb	5.2 %
75As (KED)	0.028 ppb	37.3 %
78Se (KED)	0.179 ppb	9.2 %
95Mo (KED)	-0.069 ppb	0.6 %
107Ag (KED)	-0.016 ppb	15.9 %
111Cd (KED)	-0.007 ppb	26.1 %
118Sn (KED)	0.180 ppb	0.2 %
121Sb (KED)	0.292 ppb	0.1 %
137Ba (KED)	0.265 ppb	4.8 %
205Tl (KED)	0.005 ppb	8.4 %
208Pb (KED)	0.072 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	120.364 %
45Sc (KED)	116.246 %
72Ge (KED)	114.129 %
89Y (KED)	111.408 %
115In (KED)	111.014 %
159Tb (KED)	112.208 %
209Bi (KED)	107.577 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52847WW11R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-14	File ID:	061323D.xml-040
Sampled:	05/28/23 10:20	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:40
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.0360	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*	*115*	*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*	*69.5*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.113	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00275	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	1.16	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*	*557*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	41	Stop Time:	6/13/2023 1:42:47 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-14@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:40:57 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.027 ppb	16.6 %
11B (KED)	4.231 ppb	1.4 %
23Na (KED)	100,243.271 ppb	0.6 %
24Mg (KED)	12,509.937 ppb	0.6 %
27Al (KED)	1.336 ppb	10.5 %
31P (KED)	11.112 ppb	19.7 %
39K (KED)	209.373 ppb	1.4 %
44Ca (KED)	20,763.506 ppb	0.4 %
47Ti (KED)	0.215 ppb	11.8 %
51V (KED)	0.130 ppb	12.0 %
52Cr (KED)	0.349 ppb	0.8 %
55Mn (KED)	20.422 ppb	0.6 %
57Fe (KED)	-2.844 ppb	9.2 %
59Co (KED)	0.297 ppb	1.3 %
60Ni (KED)	0.494 ppb	12.5 %
63Cu (KED)	0.189 ppb	2.8 %
66Zn (KED)	0.771 ppb	3.6 %
75As (KED)	0.078 ppb	17.0 %
78Se (KED)	0.160 ppb	10.8 %
95Mo (KED)	-0.033 ppb	10.5 %
107Ag (KED)	-0.016 ppb	11.5 %
111Cd (KED)	0.011 ppb	24.2 %
118Sn (KED)	0.185 ppb	0.5 %
121Sb (KED)	0.300 ppb	0.2 %
137Ba (KED)	6.471 ppb	3.5 %
205Tl (KED)	0.005 ppb	6.1 %
208Pb (KED)	0.076 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	92.944 %
45Sc (KED)	91.696 %
72Ge (KED)	90.581 %
89Y (KED)	91.723 %
115In (KED)	89.664 %
159Tb (KED)	98.640 %
209Bi (KED)	90.004 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52847WW11R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-14RE1	File ID:	061323D.xml-079
Sampled:	05/28/23 10:20	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:54
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	122	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	73.5	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*603*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	80	Stop Time:	6/13/2023 2:56:06 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-14RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:54:10 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.011 ppb	135.3 %
11B (KED)	0.445 ppb	23.5 %
23Na (KED)	10,862.385 ppb	1.2 %
24Mg (KED)	1,322.402 ppb	1.4 %
27Al (KED)	1.063 ppb	3.3 %
31P (KED)	3.795 ppb	24.3 %
39K (KED)	22.984 ppb	1.7 %
44Ca (KED)	2,202.804 ppb	1.4 %
47Ti (KED)	0.207 ppb	12.9 %
51V (KED)	0.058 ppb	2.3 %
52Cr (KED)	0.329 ppb	1.9 %
55Mn (KED)	2.045 ppb	1.6 %
57Fe (KED)	-4.564 ppb	1.7 %
59Co (KED)	0.134 ppb	0.7 %
60Ni (KED)	0.020 ppb	92.5 %
63Cu (KED)	-0.017 ppb	30.9 %
66Zn (KED)	0.065 ppb	33.9 %
75As (KED)	0.028 ppb	24.8 %
78Se (KED)	0.159 ppb	4.4 %
95Mo (KED)	-0.059 ppb	6.2 %
107Ag (KED)	-0.017 ppb	19.1 %
111Cd (KED)	-0.004 ppb	80.4 %
118Sn (KED)	0.182 ppb	1.5 %
121Sb (KED)	0.299 ppb	0.8 %
137Ba (KED)	0.863 ppb	2.0 %
205Tl (KED)	0.005 ppb	14.6 %
208Pb (KED)	0.074 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	103.265 %
45Sc (KED)	103.353 %
72Ge (KED)	102.361 %
89Y (KED)	100.782 %
115In (KED)	98.530 %
159Tb (KED)	103.836 %
209Bi (KED)	98.198 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52847WW11R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-14RE2	File ID:	061323D.xml-107
Sampled:	05/28/23 10:20	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:46
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	568	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	108	Stop Time:	6/13/2023 3:48:39 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-14RE2@1000	Dilution Factor	0.1		
Start Time:	6/13/2023 3:46:44 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.032 ppb	20.6 %
11B (KED)	-0.083 ppb	140.6 %
23Na (KED)	511.279 ppb	1.8 %
24Mg (KED)	68.424 ppb	2.5 %
27Al (KED)	1.005 ppb	8.1 %
31P (KED)	2.696 ppb	60.4 %
39K (KED)	2.484 ppb	28.2 %
44Ca (KED)	108.109 ppb	4.0 %
47Ti (KED)	0.180 ppb	6.2 %
51V (KED)	0.033 ppb	10.6 %
52Cr (KED)	0.331 ppb	0.9 %
55Mn (KED)	0.014 ppb	155.1 %
57Fe (KED)	-4.580 ppb	4.0 %
59Co (KED)	0.116 ppb	0.4 %
60Ni (KED)	-0.036 ppb	11.3 %
63Cu (KED)	-0.040 ppb	9.1 %
66Zn (KED)	0.018 ppb	59.9 %
75As (KED)	0.021 ppb	28.8 %
78Se (KED)	0.176 ppb	11.4 %
95Mo (KED)	-0.067 ppb	2.1 %
107Ag (KED)	-0.013 ppb	8.2 %
111Cd (KED)	-0.007 ppb	19.8 %
118Sn (KED)	0.178 ppb	0.7 %
121Sb (KED)	0.293 ppb	0.5 %
137Ba (KED)	0.201 ppb	1.8 %
205Tl (KED)	0.006 ppb	7.5 %
208Pb (KED)	0.073 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	119.846 %
45Sc (KED)	116.334 %
72Ge (KED)	112.872 %
89Y (KED)	112.142 %
115In (KED)	111.295 %
159Tb (KED)	109.911 %
209Bi (KED)	107.348 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528LHSMW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-15	File ID:	061323D.xml-041
Sampled:	05/28/23 11:30	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:42
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.0328	0.0250	0.0500	0.125	J, D, B
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	0.0301	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	1.09	0.0500	0.100	0.125	D
7440-47-3	Chromium, Dissolved		0.00250	0.0100	0.0250	U
7440-48-4	Cobalt, Dissolved	0.00347	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	0.403	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	Magnesium, Dissolved	1.03	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.0258	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00577	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	0.177	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*	*8.29*	*0.0500*	*0.100*	*0.125*	*D*
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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	42	Stop Time:	6/13/2023 1:44:41 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-15@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:42:48 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.001 ppb	1,340.4 %
11B (KED)	2.475 ppb	5.8 %
23Na (KED)	1,492.018 ppb	2.4 %
24Mg (KED)	185.465 ppb	2.0 %
27Al (KED)	6.102 ppb	4.4 %
31P (KED)	5.729 ppb	21.3 %
39K (KED)	31.911 ppb	0.8 %
44Ca (KED)	195.844 ppb	7.0 %
47Ti (KED)	0.271 ppb	19.9 %
51V (KED)	0.061 ppb	5.9 %
52Cr (KED)	0.417 ppb	4.2 %
55Mn (KED)	4.640 ppb	0.6 %
57Fe (KED)	72.553 ppb	1.4 %
59Co (KED)	0.625 ppb	0.5 %
60Ni (KED)	1.039 ppb	2.1 %
63Cu (KED)	0.200 ppb	4.6 %
66Zn (KED)	1.126 ppb	5.1 %
75As (KED)	0.104 ppb	1.8 %
78Se (KED)	0.174 ppb	10.2 %
95Mo (KED)	-0.009 ppb	29.1 %
107Ag (KED)	-0.013 ppb	24.8 %
111Cd (KED)	0.000 ppb	813.7 %
118Sn (KED)	0.184 ppb	2.0 %
121Sb (KED)	0.306 ppb	0.6 %
137Ba (KED)	5.415 ppb	1.6 %
205Tl (KED)	0.006 ppb	4.8 %
208Pb (KED)	0.082 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	107.024 %
45Sc (KED)	101.948 %
72Ge (KED)	101.815 %
89Y (KED)	102.273 %
115In (KED)	102.359 %
159Tb (KED)	107.931 %
209Bi (KED)	104.420 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528LHSMW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-15RE1	File ID:	061323D.xml-080
Sampled:	05/28/23 11:30	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:56
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	8.30	0.500	1.00	1.25	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	81	Stop Time:	6/13/2023 2:57:57 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-15RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:56:08 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.026 ppb	41.8 %
11B (KED)	0.139 ppb	93.4 %
23Na (KED)	149.326 ppb	0.7 %
24Mg (KED)	20.600 ppb	3.2 %
27Al (KED)	1.389 ppb	1.7 %
31P (KED)	3.738 ppb	79.5 %
39K (KED)	2.726 ppb	53.3 %
44Ca (KED)	14.279 ppb	7.4 %
47Ti (KED)	0.209 ppb	10.3 %
51V (KED)	0.046 ppb	7.2 %
52Cr (KED)	0.337 ppb	2.6 %
55Mn (KED)	0.365 ppb	3.6 %
57Fe (KED)	2.835 ppb	10.7 %
59Co (KED)	0.162 ppb	1.2 %
60Ni (KED)	0.065 ppb	19.1 %
63Cu (KED)	-0.016 ppb	25.6 %
66Zn (KED)	0.122 ppb	10.2 %
75As (KED)	0.045 ppb	16.8 %
78Se (KED)	0.170 ppb	15.8 %
95Mo (KED)	-0.060 ppb	2.5 %
107Ag (KED)	-0.015 ppb	6.6 %
111Cd (KED)	-0.006 ppb	42.8 %
118Sn (KED)	0.180 ppb	1.0 %
121Sb (KED)	0.295 ppb	0.4 %
137Ba (KED)	0.682 ppb	2.2 %
205Tl (KED)	0.005 ppb	1.3 %
208Pb (KED)	0.074 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	107.687 %
45Sc (KED)	105.332 %
72Ge (KED)	104.356 %
89Y (KED)	103.475 %
115In (KED)	102.505 %
159Tb (KED)	105.309 %
209Bi (KED)	101.633 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528487WW43

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-16	File ID:	061323D.xml-042
Sampled:	05/28/23 14:00	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:44
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.0341	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*	*174*	*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	0.0602	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*	*113*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0970	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved		0.00250	0.0100	0.0250	U
7440-09-7	Potassium, Dissolved	0.887	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*	*665*	*0.0500*	*0.100*	*0.125*	*D, 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	0.00154	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	43	Stop Time:	6/13/2023 1:46:33 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-16@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:44:42 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.009 ppb	205.1 %
11B (KED)	22.029 ppb	2.0 %
23Na (KED)	119,732.394 ppb	1.7 %
24Mg (KED)	20,355.488 ppb	0.7 %
27Al (KED)	1.539 ppb	1.5 %
31P (KED)	11.479 ppb	21.0 %
39K (KED)	159.613 ppb	0.8 %
44Ca (KED)	31,357.471 ppb	0.1 %
47Ti (KED)	0.201 ppb	8.4 %
51V (KED)	0.276 ppb	5.3 %
52Cr (KED)	0.358 ppb	1.4 %
55Mn (KED)	17.466 ppb	1.2 %
57Fe (KED)	10.829 ppb	7.8 %
59Co (KED)	0.376 ppb	0.8 %
60Ni (KED)	0.415 ppb	5.6 %
63Cu (KED)	0.227 ppb	5.9 %
66Zn (KED)	0.497 ppb	4.6 %
75As (KED)	0.179 ppb	3.4 %
78Se (KED)	0.162 ppb	22.1 %
95Mo (KED)	0.095 ppb	11.7 %
107Ag (KED)	-0.016 ppb	10.3 %
111Cd (KED)	0.009 ppb	26.0 %
118Sn (KED)	0.191 ppb	1.4 %
121Sb (KED)	0.303 ppb	0.1 %
137Ba (KED)	6.133 ppb	1.2 %
205Tl (KED)	0.004 ppb	14.7 %
208Pb (KED)	0.078 ppb	1.1 %

ISTD's	Concentration average
6Li (KED)	110.012 %
45Sc (KED)	103.745 %
72Ge (KED)	99.602 %
89Y (KED)	100.629 %
115In (KED)	96.138 %
159Tb (KED)	106.116 %
209Bi (KED)	95.245 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528487WW43

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-16RE1	File ID:	061323D.xml-081
Sampled:	05/28/23 14:00	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:58
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	188	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	116	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*701*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	82	Stop Time:	6/13/2023 2:59:48 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-16RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:57:59 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.029 ppb	37.9 %
11B (KED)	2.126 ppb	4.3 %
23Na (KED)	12,618.423 ppb	0.7 %
24Mg (KED)	2,093.765 ppb	0.6 %
27Al (KED)	1.057 ppb	5.8 %
31P (KED)	2.661 ppb	50.7 %
39K (KED)	17.083 ppb	5.1 %
44Ca (KED)	3,380.561 ppb	1.4 %
47Ti (KED)	0.190 ppb	6.5 %
51V (KED)	0.063 ppb	14.7 %
52Cr (KED)	0.334 ppb	0.8 %
55Mn (KED)	1.809 ppb	0.9 %
57Fe (KED)	-3.144 ppb	7.0 %
59Co (KED)	0.142 ppb	0.5 %
60Ni (KED)	0.014 ppb	50.9 %
63Cu (KED)	-0.019 ppb	24.7 %
66Zn (KED)	0.051 ppb	14.4 %
75As (KED)	0.040 ppb	12.4 %
78Se (KED)	0.158 ppb	21.1 %
95Mo (KED)	-0.051 ppb	7.0 %
107Ag (KED)	-0.017 ppb	18.7 %
111Cd (KED)	-0.003 ppb	68.0 %
118Sn (KED)	0.180 ppb	0.5 %
121Sb (KED)	0.295 ppb	0.5 %
137Ba (KED)	0.820 ppb	4.6 %
205Tl (KED)	0.005 ppb	6.8 %
208Pb (KED)	0.073 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	108.930 %
45Sc (KED)	106.521 %
72Ge (KED)	106.992 %
89Y (KED)	104.077 %
115In (KED)	101.681 %
159Tb (KED)	105.880 %
209Bi (KED)	100.132 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528487WW43

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-16RE2	File ID:	061323D.xml-112
Sampled:	05/28/23 14:00	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:56
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	585	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	113	Stop Time:	6/13/2023 3:58:05 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-16RE2@1000	Dilution Factor	0.1		
Start Time:	6/13/2023 3:56:10 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.033 ppb	28.0 %
11B (KED)	0.035 ppb	272.5 %
23Na (KED)	526.552 ppb	0.9 %
24Mg (KED)	96.558 ppb	3.5 %
27Al (KED)	1.076 ppb	4.9 %
31P (KED)	2.692 ppb	38.8 %
39K (KED)	0.271 ppb	316.7 %
44Ca (KED)	151.263 ppb	8.2 %
47Ti (KED)	0.211 ppb	20.0 %
51V (KED)	0.052 ppb	10.6 %
52Cr (KED)	0.333 ppb	1.9 %
55Mn (KED)	-0.023 ppb	73.3 %
57Fe (KED)	-4.554 ppb	1.5 %
59Co (KED)	0.121 ppb	4.5 %
60Ni (KED)	-0.026 ppb	21.6 %
63Cu (KED)	-0.040 ppb	32.5 %
66Zn (KED)	0.049 ppb	47.1 %
75As (KED)	0.034 ppb	55.7 %
78Se (KED)	0.163 ppb	18.4 %
95Mo (KED)	-0.064 ppb	4.8 %
107Ag (KED)	-0.014 ppb	9.3 %
111Cd (KED)	-0.007 ppb	19.7 %
118Sn (KED)	0.180 ppb	2.1 %
121Sb (KED)	0.300 ppb	1.2 %
137Ba (KED)	0.195 ppb	3.4 %
205Tl (KED)	0.006 ppb	22.6 %
208Pb (KED)	0.078 ppb	1.5 %

ISTD's	Concentration average
6Li (KED)	90.973 %
45Sc (KED)	93.588 %
72Ge (KED)	94.690 %
89Y (KED)	93.900 %
115In (KED)	93.806 %
159Tb (KED)	97.129 %
209Bi (KED)	96.711 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528487WW23

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-17	File ID:	061323D.xml-043
Sampled:	05/28/23 15:30	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:46
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.0583	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*	*22.7*	*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	11.5	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.0076	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	0.364	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*	*116*	*0.0500*	*0.100*	*0.125*	*D, 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:
061323D.imexp

Index #:	44	Stop Time:	6/13/2023 1:48:23 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-17@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:46:34 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.009 ppb	83.6 %
11B (KED)	4.511 ppb	8.8 %
23Na (KED)	20,917.429 ppb	0.6 %
24Mg (KED)	2,066.770 ppb	1.4 %
27Al (KED)	2.474 ppb	6.5 %
31P (KED)	44.765 ppb	11.5 %
39K (KED)	65.538 ppb	2.0 %
44Ca (KED)	4,081.723 ppb	1.0 %
47Ti (KED)	0.236 ppb	8.5 %
51V (KED)	0.226 ppb	8.4 %
52Cr (KED)	0.406 ppb	0.9 %
55Mn (KED)	1.374 ppb	2.8 %
57Fe (KED)	-2.638 ppb	11.6 %
59Co (KED)	0.147 ppb	0.5 %
60Ni (KED)	0.183 ppb	17.4 %
63Cu (KED)	0.081 ppb	8.2 %
66Zn (KED)	0.272 ppb	2.0 %
75As (KED)	0.089 ppb	1.8 %
78Se (KED)	0.294 ppb	5.8 %
95Mo (KED)	-0.012 ppb	49.9 %
107Ag (KED)	-0.016 ppb	14.4 %
111Cd (KED)	-0.002 ppb	105.1 %
118Sn (KED)	0.187 ppb	1.3 %
121Sb (KED)	0.303 ppb	0.6 %
137Ba (KED)	10.500 ppb	0.4 %
205Tl (KED)	0.005 ppb	7.0 %
208Pb (KED)	0.080 ppb	2.2 %

ISTD's	Concentration average
6Li (KED)	120.927 %
45Sc (KED)	113.872 %
72Ge (KED)	109.752 %
89Y (KED)	107.949 %
115In (KED)	108.174 %
159Tb (KED)	113.498 %
209Bi (KED)	105.918 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528487WW23

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-17RE1	File ID:	061323D.xml-082
Sampled:	05/28/23 15:30	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:59
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	23.2	0.500	1.00	1.25	D
7440-23-5	*Sodium, Dissolved*	*112*	*0.500*	*1.00*	*1.25*	*D*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	83	Stop Time:	6/13/2023 3:01:39 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-17RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 2:59:50 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.020 ppb	39.5 %
11B (KED)	0.319 ppb	11.0 %
23Na (KED)	2,018.597 ppb	4.6 %
24Mg (KED)	211.468 ppb	0.5 %
27Al (KED)	1.218 ppb	8.8 %
31P (KED)	7.765 ppb	34.4 %
39K (KED)	6.638 ppb	3.4 %
44Ca (KED)	417.820 ppb	0.5 %
47Ti (KED)	0.191 ppb	8.0 %
51V (KED)	0.057 ppb	13.9 %
52Cr (KED)	0.335 ppb	1.9 %
55Mn (KED)	0.024 ppb	98.1 %
57Fe (KED)	-4.630 ppb	3.8 %
59Co (KED)	0.117 ppb	0.4 %
60Ni (KED)	-0.011 ppb	53.9 %
63Cu (KED)	-0.031 ppb	6.8 %
66Zn (KED)	0.011 ppb	176.8 %
75As (KED)	0.028 ppb	33.6 %
78Se (KED)	0.199 ppb	6.0 %
95Mo (KED)	-0.062 ppb	5.4 %
107Ag (KED)	-0.015 ppb	5.8 %
111Cd (KED)	-0.008 ppb	9.0 %
118Sn (KED)	0.179 ppb	0.9 %
121Sb (KED)	0.293 ppb	0.3 %
137Ba (KED)	1.217 ppb	1.6 %
205Tl (KED)	0.004 ppb	9.3 %
208Pb (KED)	0.073 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	113.126 %
45Sc (KED)	111.052 %
72Ge (KED)	109.356 %
89Y (KED)	106.981 %
115In (KED)	108.791 %
159Tb (KED)	106.228 %
209Bi (KED)	103.426 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528487WW23

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-17RE2	File ID:	061323D.xml-113
Sampled:	05/28/23 15:30	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:58
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	107	2.00	4.00	5.00	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	114	Stop Time:	6/13/2023 3:59:55 PM	Comment	1/100/2=200 Na
Sample ID:	23E0775-17RE2@200	Dilution Factor	0.5		
Start Time:	6/13/2023 3:58:08 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.028 ppb	44.5 %
11B (KED)	-0.076 ppb	40.0 %
23Na (KED)	480.589 ppb	1.2 %
24Mg (KED)	53.545 ppb	1.9 %
27Al (KED)	1.002 ppb	2.6 %
31P (KED)	3.801 ppb	22.5 %
39K (KED)	2.009 ppb	10.4 %
44Ca (KED)	100.771 ppb	3.6 %
47Ti (KED)	0.180 ppb	7.6 %
51V (KED)	0.047 ppb	5.0 %
52Cr (KED)	0.336 ppb	3.7 %
55Mn (KED)	-0.074 ppb	14.0 %
57Fe (KED)	-4.990 ppb	1.2 %
59Co (KED)	0.117 ppb	0.4 %
60Ni (KED)	-0.013 ppb	80.0 %
63Cu (KED)	-0.030 ppb	8.2 %
66Zn (KED)	0.091 ppb	16.7 %
75As (KED)	0.033 ppb	23.2 %
78Se (KED)	0.156 ppb	31.1 %
95Mo (KED)	-0.063 ppb	1.7 %
107Ag (KED)	-0.016 ppb	13.1 %
111Cd (KED)	-0.007 ppb	31.0 %
118Sn (KED)	0.178 ppb	0.8 %
121Sb (KED)	0.296 ppb	0.4 %
137Ba (KED)	0.410 ppb	7.6 %
205Tl (KED)	0.004 ppb	5.9 %
208Pb (KED)	0.074 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	94.128 %
45Sc (KED)	95.209 %
72Ge (KED)	96.082 %
89Y (KED)	96.212 %
115In (KED)	94.770 %
159Tb (KED)	97.403 %
209Bi (KED)	97.614 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52847WW19

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-18	File ID:	061323D.xml-044
Sampled:	05/28/23 15:20	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:48
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.0837	0.0250	0.0500	0.125	J, D, B
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	0.0360	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*	*145*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00922	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.00297	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	13.7	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*69.5*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	1.31	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0228	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	3.45	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*	*296*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	45	Stop Time:	6/13/2023 1:50:15 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-18@5	Dilution Factor	0.2		
Start Time:	6/13/2023 1:48:24 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.004 ppb	1,309.8 %
11B (KED)	8.432 ppb	7.2 %
23Na (KED)	53,263.965 ppb	0.9 %
24Mg (KED)	12,508.382 ppb	1.2 %
27Al (KED)	15.716 ppb	1.6 %
31P (KED)	5.506 ppb	1.1 %
39K (KED)	621.830 ppb	1.3 %
44Ca (KED)	26,032.992 ppb	1.3 %
47Ti (KED)	0.232 ppb	33.3 %
51V (KED)	0.053 ppb	49.1 %
52Cr (KED)	1.660 ppb	1.2 %
55Mn (KED)	236.685 ppb	0.5 %
57Fe (KED)	2,472.385 ppb	0.4 %
59Co (KED)	0.535 ppb	5.4 %
60Ni (KED)	4.096 ppb	1.6 %
63Cu (KED)	0.103 ppb	31.8 %
66Zn (KED)	0.499 ppb	7.5 %
75As (KED)	0.044 ppb	42.5 %
78Se (KED)	0.172 ppb	18.8 %
95Mo (KED)	0.136 ppb	13.0 %
107Ag (KED)	-0.012 ppb	79.2 %
111Cd (KED)	0.002 ppb	405.2 %
118Sn (KED)	0.188 ppb	4.8 %
121Sb (KED)	0.298 ppb	2.0 %
137Ba (KED)	6.484 ppb	1.1 %
205Tl (KED)	0.007 ppb	85.8 %
208Pb (KED)	0.079 ppb	11.1 %

ISTD's	Concentration average
6Li (KED)	121.506 %
45Sc (KED)	111.714 %
72Ge (KED)	107.689 %
89Y (KED)	106.309 %
115In (KED)	104.124 %
159Tb (KED)	111.064 %
209Bi (KED)	102.958 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52847WW19

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-18RE1	File ID:	061323D.xml-085
Sampled:	05/28/23 15:20	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:05
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	168	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	78.4	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*341*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	86	Stop Time:	6/13/2023 3:07:25 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-18RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 3:05:33 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.025 ppb	46.5 %
11B (KED)	0.843 ppb	10.0 %
23Na (KED)	6,131.802 ppb	0.8 %
24Mg (KED)	1,411.013 ppb	0.6 %
27Al (KED)	2.726 ppb	6.3 %
31P (KED)	2.557 ppb	1.1 %
39K (KED)	73.341 ppb	5.9 %
44Ca (KED)	3,027.839 ppb	1.3 %
47Ti (KED)	0.181 ppb	2.4 %
51V (KED)	0.037 ppb	3.2 %
52Cr (KED)	0.501 ppb	3.1 %
55Mn (KED)	27.495 ppb	1.5 %
57Fe (KED)	282.193 ppb	2.2 %
59Co (KED)	0.162 ppb	1.1 %
60Ni (KED)	0.426 ppb	5.9 %
63Cu (KED)	-0.026 ppb	23.9 %
66Zn (KED)	0.080 ppb	28.4 %
75As (KED)	0.035 ppb	13.8 %
78Se (KED)	0.189 ppb	4.2 %
95Mo (KED)	-0.047 ppb	3.0 %
107Ag (KED)	-0.014 ppb	15.8 %
111Cd (KED)	-0.005 ppb	48.0 %
118Sn (KED)	0.180 ppb	0.9 %
121Sb (KED)	0.298 ppb	0.2 %
137Ba (KED)	0.899 ppb	1.5 %
205Tl (KED)	0.006 ppb	4.0 %
208Pb (KED)	0.073 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	115.954 %
45Sc (KED)	111.404 %
72Ge (KED)	109.120 %
89Y (KED)	107.502 %
115In (KED)	105.726 %
159Tb (KED)	109.001 %
209Bi (KED)	104.260 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52847WW19

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-18RE2	File ID:	061323D.xml-114
Sampled:	05/28/23 15:20	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:59
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	242	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG

6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	115	Stop Time:	6/13/2023 4:01:43 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-18RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 3:59:57 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.031 ppb	25.3 %
11B (KED)	0.019 ppb	248.3 %
23Na (KED)	435.688 ppb	1.8 %
24Mg (KED)	111.870 ppb	1.5 %
27Al (KED)	1.050 ppb	5.7 %
31P (KED)	3.392 ppb	27.9 %
39K (KED)	6.713 ppb	12.4 %
44Ca (KED)	231.252 ppb	6.1 %
47Ti (KED)	0.197 ppb	17.9 %
51V (KED)	0.039 ppb	7.5 %
52Cr (KED)	0.336 ppb	2.6 %
55Mn (KED)	2.046 ppb	1.1 %
57Fe (KED)	17.151 ppb	5.2 %
59Co (KED)	0.118 ppb	0.4 %
60Ni (KED)	0.000 ppb	1,462.7 %
63Cu (KED)	-0.034 ppb	11.8 %
66Zn (KED)	0.026 ppb	79.2 %
75As (KED)	0.023 ppb	20.4 %
78Se (KED)	0.176 ppb	29.1 %
95Mo (KED)	-0.064 ppb	1.8 %
107Ag (KED)	-0.014 ppb	3.7 %
111Cd (KED)	-0.008 ppb	0.0 %
118Sn (KED)	0.180 ppb	0.5 %
121Sb (KED)	0.295 ppb	0.6 %
137Ba (KED)	0.207 ppb	1.7 %
205Tl (KED)	0.005 ppb	13.8 %
208Pb (KED)	0.073 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	97.105 %
45Sc (KED)	98.858 %
72Ge (KED)	99.701 %
89Y (KED)	99.098 %
115In (KED)	98.411 %
159Tb (KED)	99.050 %
209Bi (KED)	99.221 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-19	File ID:	061323D.xml-052
Sampled:	05/29/23 11:50	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:03
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
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	0.0401	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*	*90.2*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00307	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*	*54.3*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.343	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00256	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	4.08	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*	*511*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	53	Stop Time:	6/13/2023 2:05:20 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-19@5	Dilution Factor	0.2		
Start Time:	6/13/2023 2:03:29 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.007 ppb	15.0 %
11B (KED)	21.562 ppb	1.5 %
23Na (KED)	92,008.868 ppb	0.9 %
24Mg (KED)	9,767.984 ppb	0.9 %
27Al (KED)	1.960 ppb	44.0 %
31P (KED)	10.468 ppb	11.0 %
39K (KED)	733.709 ppb	0.5 %
44Ca (KED)	16,241.324 ppb	0.6 %
47Ti (KED)	0.318 ppb	63.4 %
51V (KED)	0.136 ppb	57.0 %
52Cr (KED)	0.553 ppb	17.7 %
55Mn (KED)	61.730 ppb	2.2 %
57Fe (KED)	-1.799 ppb	64.6 %
59Co (KED)	0.440 ppb	18.7 %
60Ni (KED)	0.460 ppb	25.1 %
63Cu (KED)	0.392 ppb	37.1 %
66Zn (KED)	0.633 ppb	10.9 %
75As (KED)	0.095 ppb	59.8 %
78Se (KED)	0.216 ppb	19.1 %
95Mo (KED)	0.168 ppb	34.7 %
107Ag (KED)	0.003 ppb	1,124.8 %
111Cd (KED)	0.036 ppb	77.1 %
118Sn (KED)	0.292 ppb	7.5 %
121Sb (KED)	0.322 ppb	7.4 %
137Ba (KED)	7.218 ppb	1.8 %
205Tl (KED)	0.021 ppb	92.2 %
208Pb (KED)	0.089 ppb	25.5 %

ISTD's	Concentration average
6Li (KED)	104.459 %
45Sc (KED)	100.616 %
72Ge (KED)	98.160 %
89Y (KED)	98.780 %
115In (KED)	97.260 %
159Tb (KED)	104.813 %
209Bi (KED)	95.175 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-19RE1	File ID:	061323D.xml-086
Sampled:	05/29/23 11:50	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:07
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	93.4	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	54.6	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*535*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	87	Stop Time:	6/13/2023 3:09:16 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-19RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 3:07:28 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.002 ppb	625.2 %
11B (KED)	2.335 ppb	4.1 %
23Na (KED)	9,626.368 ppb	1.0 %
24Mg (KED)	981.984 ppb	1.2 %
27Al (KED)	1.068 ppb	3.0 %
31P (KED)	4.742 ppb	31.0 %
39K (KED)	76.631 ppb	1.8 %
44Ca (KED)	1,681.523 ppb	1.8 %
47Ti (KED)	0.183 ppb	0.0 %
51V (KED)	0.042 ppb	6.0 %
52Cr (KED)	0.347 ppb	0.7 %
55Mn (KED)	6.312 ppb	0.9 %
57Fe (KED)	-4.601 ppb	3.6 %
59Co (KED)	0.142 ppb	1.2 %
60Ni (KED)	0.009 ppb	198.9 %
63Cu (KED)	-0.001 ppb	688.0 %
66Zn (KED)	0.074 ppb	25.1 %
75As (KED)	0.040 ppb	16.3 %
78Se (KED)	0.187 ppb	7.8 %
95Mo (KED)	-0.049 ppb	3.1 %
107Ag (KED)	-0.015 ppb	8.1 %
111Cd (KED)	-0.003 ppb	58.6 %
118Sn (KED)	0.191 ppb	0.6 %
121Sb (KED)	0.296 ppb	0.1 %
137Ba (KED)	0.871 ppb	3.1 %
205Tl (KED)	0.006 ppb	14.8 %
208Pb (KED)	0.073 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	117.288 %
45Sc (KED)	112.361 %
72Ge (KED)	111.270 %
89Y (KED)	107.189 %
115In (KED)	106.147 %
159Tb (KED)	107.011 %
209Bi (KED)	104.830 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-19RE2	File ID:	061323D.xml-115
Sampled:	05/29/23 11:50	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 16:01
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	459	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	116	Stop Time:	6/13/2023 4:03:32 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-19RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 4:01:46 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.023 ppb	85.3 %
11B (KED)	0.154 ppb	87.6 %
23Na (KED)	826.069 ppb	0.4 %
24Mg (KED)	93.323 ppb	1.3 %
27Al (KED)	1.024 ppb	7.0 %
31P (KED)	2.243 ppb	42.3 %
39K (KED)	8.237 ppb	17.6 %
44Ca (KED)	156.909 ppb	6.0 %
47Ti (KED)	0.196 ppb	9.0 %
51V (KED)	0.046 ppb	15.6 %
52Cr (KED)	0.336 ppb	0.7 %
55Mn (KED)	0.531 ppb	1.9 %
57Fe (KED)	-4.705 ppb	5.0 %
59Co (KED)	0.120 ppb	4.4 %
60Ni (KED)	-0.027 ppb	35.9 %
63Cu (KED)	-0.031 ppb	29.2 %
66Zn (KED)	0.030 ppb	50.4 %
75As (KED)	0.025 ppb	40.5 %
78Se (KED)	0.160 ppb	13.4 %
95Mo (KED)	-0.063 ppb	3.3 %
107Ag (KED)	-0.014 ppb	12.9 %
111Cd (KED)	-0.006 ppb	22.0 %
118Sn (KED)	0.181 ppb	1.4 %
121Sb (KED)	0.293 ppb	0.2 %
137Ba (KED)	0.230 ppb	5.3 %
205Tl (KED)	0.006 ppb	15.6 %
208Pb (KED)	0.074 ppb	2.1 %

ISTD's	Concentration average
6Li (KED)	99.914 %
45Sc (KED)	101.005 %
72Ge (KED)	100.271 %
89Y (KED)	100.673 %
115In (KED)	101.829 %
159Tb (KED)	102.056 %
209Bi (KED)	99.315 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528LHSMW55R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-20	File ID:	061323D.xml-053
Sampled:	05/28/23 10:12	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:05
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.0622	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*	*195*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0208	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.00534	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	0.197	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*96.1*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.226	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0184	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	1.05	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*	*353*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	54	Stop Time:	6/13/2023 2:07:09 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-20@5	Dilution Factor	0.2		
Start Time:	6/13/2023 2:05:22 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.033 ppb	176.6 %
11B (KED)	6.449 ppb	1.8 %
23Na (KED)	63,613.522 ppb	0.6 %
24Mg (KED)	17,297.990 ppb	0.4 %
27Al (KED)	1.534 ppb	7.6 %
31P (KED)	8.674 ppb	27.3 %
39K (KED)	188.537 ppb	1.3 %
44Ca (KED)	35,096.866 ppb	0.8 %
47Ti (KED)	0.213 ppb	4.0 %
51V (KED)	0.139 ppb	5.2 %
52Cr (KED)	3.743 ppb	1.3 %
55Mn (KED)	40.666 ppb	1.0 %
57Fe (KED)	35.460 ppb	1.7 %
59Co (KED)	0.962 ppb	1.3 %
60Ni (KED)	3.315 ppb	2.4 %
63Cu (KED)	0.000 ppb	2,309.6 %
66Zn (KED)	1.169 ppb	2.8 %
75As (KED)	0.073 ppb	15.3 %
78Se (KED)	0.172 ppb	27.0 %
95Mo (KED)	0.001 ppb	1,860.8 %
107Ag (KED)	-0.014 ppb	21.5 %
111Cd (KED)	0.005 ppb	106.8 %
118Sn (KED)	0.191 ppb	1.6 %
121Sb (KED)	0.296 ppb	0.1 %
137Ba (KED)	11.197 ppb	2.4 %
205Tl (KED)	0.006 ppb	10.7 %
208Pb (KED)	0.075 ppb	0.1 %

ISTD's	Concentration average
6Li (KED)	114.154 %
45Sc (KED)	109.090 %
72Ge (KED)	105.046 %
89Y (KED)	104.882 %
115In (KED)	100.268 %
159Tb (KED)	108.315 %
209Bi (KED)	100.020 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528LHSMW55R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-20RE1	File ID:	061323D.xml-087
Sampled:	05/28/23 10:12	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:09
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	196	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	96.1	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*364*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	88	Stop Time:	6/13/2023 3:11:08 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-20RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 3:09:18 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.025 ppb	26.1 %
11B (KED)	0.648 ppb	15.9 %
23Na (KED)	6,551.997 ppb	1.4 %
24Mg (KED)	1,729.940 ppb	0.5 %
27Al (KED)	1.009 ppb	8.1 %
31P (KED)	4.177 ppb	36.3 %
39K (KED)	18.840 ppb	6.7 %
44Ca (KED)	3,535.934 ppb	1.0 %
47Ti (KED)	0.171 ppb	2.5 %
51V (KED)	0.045 ppb	5.8 %
52Cr (KED)	0.677 ppb	3.8 %
55Mn (KED)	4.083 ppb	2.1 %
57Fe (KED)	-0.371 ppb	160.2 %
59Co (KED)	0.202 ppb	2.2 %
60Ni (KED)	0.298 ppb	10.1 %
63Cu (KED)	-0.041 ppb	10.1 %
66Zn (KED)	0.131 ppb	11.3 %
75As (KED)	0.034 ppb	35.1 %
78Se (KED)	0.147 ppb	16.0 %
95Mo (KED)	-0.058 ppb	4.4 %
107Ag (KED)	-0.017 ppb	14.3 %
111Cd (KED)	-0.008 ppb	8.4 %
118Sn (KED)	0.179 ppb	0.8 %
121Sb (KED)	0.293 ppb	0.5 %
137Ba (KED)	1.259 ppb	2.7 %
205Tl (KED)	0.005 ppb	13.0 %
208Pb (KED)	0.073 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	120.613 %
45Sc (KED)	114.681 %
72Ge (KED)	113.535 %
89Y (KED)	110.855 %
115In (KED)	110.186 %
159Tb (KED)	109.240 %
209Bi (KED)	106.738 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528LHSMW55R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-20RE2	File ID:	061323D.xml-116
Sampled:	05/28/23 10:12	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 16:03
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	326	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	117	Stop Time:	6/13/2023 4:05:20 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-20RE2@500	Dilution Factor	0.2		
Start Time:	6/13/2023 4:03:34 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.024 ppb	30.7 %
11B (KED)	0.026 ppb	218.1 %
23Na (KED)	587.044 ppb	0.8 %
24Mg (KED)	170.591 ppb	1.7 %
27Al (KED)	0.983 ppb	2.7 %
31P (KED)	3.007 ppb	31.1 %
39K (KED)	1.625 ppb	35.9 %
44Ca (KED)	347.767 ppb	5.5 %
47Ti (KED)	0.171 ppb	2.8 %
51V (KED)	0.042 ppb	12.3 %
52Cr (KED)	0.361 ppb	1.2 %
55Mn (KED)	0.295 ppb	5.2 %
57Fe (KED)	-4.447 ppb	4.9 %
59Co (KED)	0.123 ppb	1.1 %
60Ni (KED)	-0.001 ppb	1,251.6 %
63Cu (KED)	-0.043 ppb	16.3 %
66Zn (KED)	0.019 ppb	115.3 %
75As (KED)	0.029 ppb	16.1 %
78Se (KED)	0.182 ppb	23.1 %
95Mo (KED)	-0.066 ppb	5.3 %
107Ag (KED)	-0.014 ppb	9.2 %
111Cd (KED)	-0.007 ppb	21.6 %
118Sn (KED)	0.178 ppb	0.7 %
121Sb (KED)	0.292 ppb	0.5 %
137Ba (KED)	0.271 ppb	6.0 %
205Tl (KED)	0.004 ppb	6.4 %
208Pb (KED)	0.073 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	102.291 %
45Sc (KED)	103.032 %
72Ge (KED)	102.707 %
89Y (KED)	100.969 %
115In (KED)	101.807 %
159Tb (KED)	100.433 %
209Bi (KED)	101.249 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21	File ID:	061323D.xml-054
Sampled:	05/28/23 12:07	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:07
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	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	0.156	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*	*79.8*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0112	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*	*38.7*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0359	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0130	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	1.71	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*	*205*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	55	Stop Time:	6/13/2023 2:08:56 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-21@5	Dilution Factor	0.2		
Start Time:	6/13/2023 2:07:10 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.026 ppb	158.9 %
11B (KED)	5.704 ppb	2.6 %
23Na (KED)	36,836.346 ppb	1.5 %
24Mg (KED)	6,965.374 ppb	0.8 %
27Al (KED)	1.377 ppb	4.3 %
31P (KED)	14.929 ppb	7.4 %
39K (KED)	307.280 ppb	1.1 %
44Ca (KED)	14,372.047 ppb	1.3 %
47Ti (KED)	0.210 ppb	2.1 %
51V (KED)	0.112 ppb	2.0 %
52Cr (KED)	2.016 ppb	3.0 %
55Mn (KED)	6.462 ppb	2.0 %
57Fe (KED)	7.456 ppb	5.8 %
59Co (KED)	0.226 ppb	1.9 %
60Ni (KED)	2.346 ppb	2.8 %
63Cu (KED)	0.132 ppb	5.4 %
66Zn (KED)	0.316 ppb	10.1 %
75As (KED)	0.075 ppb	9.6 %
78Se (KED)	0.187 ppb	13.9 %
95Mo (KED)	-0.033 ppb	10.3 %
107Ag (KED)	-0.015 ppb	10.7 %
111Cd (KED)	-0.004 ppb	18.0 %
118Sn (KED)	0.185 ppb	1.4 %
121Sb (KED)	0.294 ppb	0.4 %
137Ba (KED)	28.143 ppb	3.1 %
205Tl (KED)	0.005 ppb	3.1 %
208Pb (KED)	0.074 ppb	1.1 %

ISTD's	Concentration average
6Li (KED)	121.631 %
45Sc (KED)	114.991 %
72Ge (KED)	110.375 %
89Y (KED)	109.819 %
115In (KED)	107.632 %
159Tb (KED)	112.217 %
209Bi (KED)	104.688 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21RE1	File ID:	061323D.xml-088
Sampled:	05/28/23 12:07	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 15:11
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	82.1	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	38.4	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*209*	*0.500*	*1.00*	*1.25*	*D*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	89	Stop Time:	6/13/2023 3:12:58 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-21RE1@50	Dilution Factor	0.2		
Start Time:	6/13/2023 3:11:10 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.021 ppb	36.1 %
11B (KED)	0.562 ppb	18.3 %
23Na (KED)	3,759.868 ppb	1.2 %
24Mg (KED)	691.806 ppb	0.8 %
27Al (KED)	1.110 ppb	5.5 %
31P (KED)	3.858 ppb	18.4 %
39K (KED)	31.702 ppb	5.9 %
44Ca (KED)	1,477.935 ppb	1.1 %
47Ti (KED)	0.173 ppb	2.4 %
51V (KED)	0.042 ppb	10.7 %
52Cr (KED)	0.488 ppb	1.6 %
55Mn (KED)	0.524 ppb	3.5 %
57Fe (KED)	-3.600 ppb	6.9 %
59Co (KED)	0.126 ppb	0.1 %
60Ni (KED)	0.208 ppb	5.6 %
63Cu (KED)	-0.025 ppb	36.9 %
66Zn (KED)	0.039 ppb	30.4 %
75As (KED)	0.033 ppb	26.7 %
78Se (KED)	0.176 ppb	10.5 %
95Mo (KED)	-0.062 ppb	6.4 %
107Ag (KED)	-0.015 ppb	13.6 %
111Cd (KED)	-0.007 ppb	0.3 %
118Sn (KED)	0.180 ppb	0.8 %
121Sb (KED)	0.293 ppb	0.3 %
137Ba (KED)	2.975 ppb	1.3 %
205Tl (KED)	0.005 ppb	9.7 %
208Pb (KED)	0.073 ppb	1.1 %

ISTD's	Concentration average
6Li (KED)	122.130 %
45Sc (KED)	117.114 %
72Ge (KED)	113.895 %
89Y (KED)	112.768 %
115In (KED)	111.804 %
159Tb (KED)	111.860 %
209Bi (KED)	108.842 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21RE2	File ID:	061323D.xml-117
Sampled:	05/28/23 12:07	Prepared:	06/01/23 09:07	Analyzed:	06/13/23 16:05
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0015	Sequence:	S3F0230	Calibration:	EF30057
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	184	2.00	4.00	5.00	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	118	Stop Time:	6/13/2023 4:07:11 PM	Comment	1/100/2=200 Na
Sample ID:	23E0775-21RE2@200	Dilution Factor	0.5		
Start Time:	6/13/2023 4:05:23 PM	prepFAST DF	2		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.031 ppb	0.2 %
11B (KED)	0.025 ppb	160.8 %
23Na (KED)	827.334 ppb	0.8 %
24Mg (KED)	167.358 ppb	1.3 %
27Al (KED)	1.002 ppb	4.2 %
31P (KED)	2.952 ppb	41.3 %
39K (KED)	6.558 ppb	10.0 %
44Ca (KED)	350.485 ppb	3.5 %
47Ti (KED)	0.182 ppb	5.2 %
51V (KED)	0.040 ppb	15.2 %
52Cr (KED)	0.364 ppb	1.0 %
55Mn (KED)	0.054 ppb	2.6 %
57Fe (KED)	-4.744 ppb	3.8 %
59Co (KED)	0.117 ppb	0.4 %
60Ni (KED)	0.021 ppb	65.7 %
63Cu (KED)	-0.033 ppb	11.8 %
66Zn (KED)	0.053 ppb	33.4 %
75As (KED)	0.027 ppb	47.1 %
78Se (KED)	0.170 ppb	8.9 %
95Mo (KED)	-0.066 ppb	2.4 %
107Ag (KED)	-0.015 ppb	29.3 %
111Cd (KED)	-0.007 ppb	17.6 %
118Sn (KED)	0.178 ppb	0.5 %
121Sb (KED)	0.294 ppb	0.3 %
137Ba (KED)	0.859 ppb	4.3 %
205Tl (KED)	0.005 ppb	14.2 %
208Pb (KED)	0.073 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	104.195 %
45Sc (KED)	105.275 %
72Ge (KED)	103.369 %
89Y (KED)	103.246 %
115In (KED)	102.962 %
159Tb (KED)	102.580 %
209Bi (KED)	100.488 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529LHSMW46R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22	File ID:	060823.xml-024
Sampled:	05/29/23 09:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:28
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0293	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	13.6	0.0500	0.100	0.125	D
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	8.08	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.0086	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	1.11	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*	*185*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	25	Stop Time:	6/8/2023 11:30:03 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-22@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:28:15 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.018 ppb	21.1 %
11B (KED)	8.973 ppb	5.4 %
23Na (KED)	33,357.107 ppb	0.3 %
24Mg (KED)	1,455.167 ppb	1.4 %
27Al (KED)	0.918 ppb	6.9 %
31P (KED)	26.960 ppb	6.8 %
39K (KED)	199.947 ppb	2.5 %
44Ca (KED)	2,440.394 ppb	2.5 %
47Ti (KED)	0.031 ppb	45.7 %
51V (KED)	0.045 ppb	27.5 %
52Cr (KED)	0.308 ppb	2.8 %
55Mn (KED)	1.543 ppb	2.4 %
57Fe (KED)	-1.800 ppb	11.0 %
59Co (KED)	0.123 ppb	0.6 %
60Ni (KED)	0.006 ppb	224.1 %
63Cu (KED)	-0.010 ppb	55.1 %
66Zn (KED)	-0.052 ppb	17.1 %
75As (KED)	0.065 ppb	15.0 %
78Se (KED)	-0.066 ppb	34.1 %
95Mo (KED)	0.360 ppb	0.9 %
107Ag (KED)	-0.018 ppb	5.1 %
111Cd (KED)	0.001 ppb	139.8 %
118Sn (KED)	0.095 ppb	3.6 %
121Sb (KED)	0.386 ppb	0.3 %
137Ba (KED)	5.270 ppb	0.6 %
205Tl (KED)	-0.039 ppb	2.1 %
208Pb (KED)	0.123 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	119.933 %
45Sc (KED)	107.149 %
72Ge (KED)	104.196 %
89Y (KED)	104.887 %
115In (KED)	103.274 %
159Tb (KED)	109.408 %
209Bi (KED)	105.135 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529LHSMW46R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22RE1	File ID:	060823.xml-052
Sampled:	05/29/23 09:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:20
		Preparation:	3005_METALS_PREP_M	Dilution:	200
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	171	2.00	4.00	5.00	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	53	Stop Time:	6/8/2023 12:22:10 PM	Comment	1/10/20=200 6020 DISS Na
Sample ID:	23E0775-22RE1@200	Dilution Factor	0.05		
Start Time:	6/8/2023 12:20:19 PM	prepFAST DF	20		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.006 ppb	252.7 %
11B (KED)	-0.057 ppb	81.9 %
23Na (KED)	770.239 ppb	0.7 %
24Mg (KED)	37.108 ppb	1.7 %
27Al (KED)	-0.454 ppb	6.3 %
31P (KED)	2.588 ppb	33.6 %
39K (KED)	5.263 ppb	21.5 %
44Ca (KED)	54.654 ppb	8.4 %
47Ti (KED)	-0.005 ppb	232.8 %
51V (KED)	-0.054 ppb	7.9 %
52Cr (KED)	0.246 ppb	3.5 %
55Mn (KED)	-0.181 ppb	3.4 %
57Fe (KED)	-5.691 ppb	0.5 %
59Co (KED)	0.099 ppb	0.3 %
60Ni (KED)	-0.059 ppb	8.8 %
63Cu (KED)	-0.045 ppb	12.0 %
66Zn (KED)	-0.007 ppb	186.3 %
75As (KED)	-0.021 ppb	18.5 %
78Se (KED)	-0.081 ppb	16.5 %
95Mo (KED)	0.258 ppb	0.5 %
107Ag (KED)	-0.020 ppb	7.5 %
111Cd (KED)	-0.002 ppb	107.3 %
118Sn (KED)	0.088 ppb	1.3 %
121Sb (KED)	0.368 ppb	1.1 %
137Ba (KED)	0.062 ppb	13.2 %
205Tl (KED)	-0.039 ppb	0.9 %
208Pb (KED)	0.100 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	106.529 %
45Sc (KED)	97.695 %
72Ge (KED)	98.201 %
89Y (KED)	96.702 %
115In (KED)	96.209 %
159Tb (KED)	95.771 %
209Bi (KED)	100.376 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529LHSMW44

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-23	File ID:	060823.xml-027
Sampled:	05/29/23 14:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:33
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
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	0.0340	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*	*95.5*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00981	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.00490	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	0.0606	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*	*49.5*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.258	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	1.72	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	2.05	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*	*671*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	28	Stop Time:	6/8/2023 11:35:26 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-23@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:33:40 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.007 ppb	197.1 %
11B (KED)	18.982 ppb	2.7 %
23Na (KED)	120,861.410 ppb	0.4 %
24Mg (KED)	8,906.731 ppb	0.6 %
27Al (KED)	0.728 ppb	18.8 %
31P (KED)	6.600 ppb	12.1 %
39K (KED)	368.940 ppb	0.1 %
44Ca (KED)	17,182.336 ppb	2.2 %
47Ti (KED)	0.052 ppb	8.1 %
51V (KED)	-0.006 ppb	54.1 %
52Cr (KED)	1.766 ppb	1.1 %
55Mn (KED)	46.370 ppb	0.7 %
57Fe (KED)	10.906 ppb	6.0 %
59Co (KED)	0.881 ppb	1.0 %
60Ni (KED)	309.349 ppb	1.9 %
63Cu (KED)	0.313 ppb	1.1 %
66Zn (KED)	0.197 ppb	9.0 %
75As (KED)	0.003 ppb	146.3 %
78Se (KED)	-0.030 ppb	41.5 %
95Mo (KED)	2.422 ppb	1.4 %
107Ag (KED)	-0.018 ppb	9.5 %
111Cd (KED)	0.001 ppb	151.6 %
118Sn (KED)	0.097 ppb	3.2 %
121Sb (KED)	0.399 ppb	0.5 %
137Ba (KED)	6.116 ppb	0.8 %
205Tl (KED)	-0.039 ppb	0.5 %
208Pb (KED)	0.104 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	117.285 %
45Sc (KED)	106.901 %
72Ge (KED)	100.035 %
89Y (KED)	102.979 %
115In (KED)	98.180 %
159Tb (KED)	104.770 %
209Bi (KED)	95.713 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529LHSMW44

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-23RE1	File ID:	060823.xml-053
Sampled:	05/29/23 14:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:22
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	94.2	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	49.2	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*685*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	54	Stop Time:	6/8/2023 12:24:02 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-23RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:22:12 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.006 ppb	299.6 %
11B (KED)	1.659 ppb	5.0 %
23Na (KED)	12,338.170 ppb	1.3 %
24Mg (KED)	885.098 ppb	1.3 %
27Al (KED)	-0.154 ppb	45.3 %
31P (KED)	2.438 ppb	93.0 %
39K (KED)	39.493 ppb	3.2 %
44Ca (KED)	1,695.773 ppb	1.1 %
47Ti (KED)	0.017 ppb	48.8 %
51V (KED)	-0.057 ppb	3.5 %
52Cr (KED)	0.415 ppb	2.9 %
55Mn (KED)	4.732 ppb	1.8 %
57Fe (KED)	-4.032 ppb	8.6 %
59Co (KED)	0.181 ppb	0.6 %
60Ni (KED)	32.287 ppb	0.6 %
63Cu (KED)	-0.012 ppb	37.9 %
66Zn (KED)	0.485 ppb	3.0 %
75As (KED)	-0.021 ppb	27.4 %
78Se (KED)	-0.059 ppb	18.7 %
95Mo (KED)	0.480 ppb	2.1 %
107Ag (KED)	-0.022 ppb	8.7 %
111Cd (KED)	-0.004 ppb	51.8 %
118Sn (KED)	0.089 ppb	0.7 %
121Sb (KED)	0.368 ppb	0.5 %
137Ba (KED)	0.598 ppb	2.8 %
205Tl (KED)	-0.039 ppb	2.9 %
208Pb (KED)	0.100 ppb	0.1 %

ISTD's	Concentration average
6Li (KED)	111.145 %
45Sc (KED)	101.437 %
72Ge (KED)	100.365 %
89Y (KED)	100.244 %
115In (KED)	97.496 %
159Tb (KED)	99.545 %
209Bi (KED)	99.917 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529LHSMW44

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-23RE2	File ID:	060823.xml-097
Sampled:	05/29/23 14:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 13:43
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	617	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	98	Stop Time:	6/8/2023 1:45:07 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-23RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 1:43:16 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.014 ppb	0.2 %
11B (KED)	-0.141 ppb	17.3 %
23Na (KED)	555.434 ppb	2.2 %
24Mg (KED)	42.393 ppb	3.7 %
27Al (KED)	-0.420 ppb	2.3 %
31P (KED)	1.609 ppb	110.3 %
39K (KED)	2.213 ppb	42.2 %
44Ca (KED)	81.428 ppb	3.0 %
47Ti (KED)	-0.008 ppb	76.7 %
51V (KED)	-0.065 ppb	3.5 %
52Cr (KED)	0.247 ppb	1.9 %
55Mn (KED)	0.013 ppb	94.6 %
57Fe (KED)	-5.764 ppb	0.7 %
59Co (KED)	0.101 ppb	0.3 %
60Ni (KED)	1.508 ppb	3.0 %
63Cu (KED)	-0.057 ppb	9.5 %
66Zn (KED)	-0.090 ppb	11.3 %
75As (KED)	-0.018 ppb	9.2 %
78Se (KED)	-0.090 ppb	18.5 %
95Mo (KED)	0.261 ppb	0.7 %
107Ag (KED)	-0.020 ppb	8.5 %
111Cd (KED)	-0.006 ppb	0.0 %
118Sn (KED)	0.086 ppb	2.3 %
121Sb (KED)	0.359 ppb	0.4 %
137Ba (KED)	-0.038 ppb	4.6 %
205Tl (KED)	-0.040 ppb	1.0 %
208Pb (KED)	0.098 ppb	0.9 %

ISTD's	Concentration average
6Li (KED)	126.609 %
45Sc (KED)	114.209 %
72Ge (KED)	111.937 %
89Y (KED)	110.731 %
115In (KED)	107.865 %
159Tb (KED)	108.636 %
209Bi (KED)	107.824 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529LHSMW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-24	File ID:	060823.xml-028
Sampled:	05/29/23 15:25	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:35
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0384	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*	*113*	*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*	*57.6*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0244	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.699	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	1.53	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*	*602*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	29	Stop Time:	6/8/2023 11:37:15 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-24@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:35:27 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.015 ppb	48.3 %
11B (KED)	20.324 ppb	0.9 %
23Na (KED)	108,283.017 ppb	0.6 %
24Mg (KED)	10,362.041 ppb	0.7 %
27Al (KED)	-0.135 ppb	56.1 %
31P (KED)	7.736 ppb	23.3 %
39K (KED)	274.718 ppb	0.4 %
44Ca (KED)	20,411.332 ppb	2.2 %
47Ti (KED)	0.017 ppb	61.3 %
51V (KED)	0.070 ppb	17.5 %
52Cr (KED)	0.313 ppb	0.5 %
55Mn (KED)	4.388 ppb	1.2 %
57Fe (KED)	-3.705 ppb	7.5 %
59Co (KED)	0.351 ppb	1.4 %
60Ni (KED)	125.751 ppb	0.7 %
63Cu (KED)	0.187 ppb	1.9 %
66Zn (KED)	0.222 ppb	2.8 %
75As (KED)	0.023 ppb	21.4 %
78Se (KED)	-0.048 ppb	84.7 %
95Mo (KED)	0.611 ppb	1.4 %
107Ag (KED)	-0.022 ppb	9.6 %
111Cd (KED)	0.013 ppb	3.6 %
118Sn (KED)	0.092 ppb	1.7 %
121Sb (KED)	0.371 ppb	0.2 %
137Ba (KED)	6.911 ppb	1.4 %
205Tl (KED)	-0.040 ppb	0.4 %
208Pb (KED)	0.099 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	120.845 %
45Sc (KED)	107.726 %
72Ge (KED)	101.411 %
89Y (KED)	104.560 %
115In (KED)	98.331 %
159Tb (KED)	107.146 %
209Bi (KED)	97.305 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529LHSMW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-24RE1	File ID:	060823.xml-054
Sampled:	05/29/23 15:25	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:24
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	110	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	55.2	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*595*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	55	Stop Time:	6/8/2023 12:25:55 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-24RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:24:04 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.006 ppb	102.5 %
11B (KED)	2.057 ppb	6.3 %
23Na (KED)	10,718.838 ppb	1.2 %
24Mg (KED)	993.384 ppb	1.7 %
27Al (KED)	-0.265 ppb	17.0 %
31P (KED)	1.369 ppb	62.4 %
39K (KED)	27.189 ppb	6.2 %
44Ca (KED)	1,981.580 ppb	2.7 %
47Ti (KED)	-0.003 ppb	260.7 %
51V (KED)	-0.048 ppb	6.3 %
52Cr (KED)	0.246 ppb	2.7 %
55Mn (KED)	0.231 ppb	4.9 %
57Fe (KED)	-5.625 ppb	4.8 %
59Co (KED)	0.123 ppb	1.2 %
60Ni (KED)	12.799 ppb	1.0 %
63Cu (KED)	-0.028 ppb	15.2 %
66Zn (KED)	0.483 ppb	1.6 %
75As (KED)	-0.016 ppb	44.7 %
78Se (KED)	-0.069 ppb	40.9 %
95Mo (KED)	0.285 ppb	1.5 %
107Ag (KED)	-0.021 ppb	14.0 %
111Cd (KED)	-0.003 ppb	110.7 %
118Sn (KED)	0.088 ppb	2.2 %
121Sb (KED)	0.363 ppb	0.2 %
137Ba (KED)	0.673 ppb	5.5 %
205Tl (KED)	-0.040 ppb	0.1 %
208Pb (KED)	0.099 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	114.344 %
45Sc (KED)	104.626 %
72Ge (KED)	102.580 %
89Y (KED)	99.202 %
115In (KED)	97.819 %
159Tb (KED)	99.097 %
209Bi (KED)	100.150 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529LHSMW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-24RE2	File ID:	060823.xml-098
Sampled:	05/29/23 15:25	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 13:45
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	569	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	99	Stop Time:	6/8/2023 1:47:00 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-24RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 1:45:10 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.010 ppb	71.1 %
11B (KED)	-0.071 ppb	81.6 %
23Na (KED)	512.353 ppb	2.5 %
24Mg (KED)	52.253 ppb	4.1 %
27Al (KED)	-0.431 ppb	10.4 %
31P (KED)	0.695 ppb	109.2 %
39K (KED)	1.591 ppb	52.7 %
44Ca (KED)	94.004 ppb	6.7 %
47Ti (KED)	0.000 ppb	309,158.7 %
51V (KED)	-0.063 ppb	10.4 %
52Cr (KED)	0.242 ppb	1.3 %
55Mn (KED)	-0.199 ppb	5.8 %
57Fe (KED)	-5.823 ppb	5.3 %
59Co (KED)	0.099 ppb	1.4 %
60Ni (KED)	0.603 ppb	5.7 %
63Cu (KED)	-0.055 ppb	8.6 %
66Zn (KED)	-0.069 ppb	30.0 %
75As (KED)	-0.014 ppb	27.9 %
78Se (KED)	-0.069 ppb	6.5 %
95Mo (KED)	0.251 ppb	1.3 %
107Ag (KED)	-0.021 ppb	11.2 %
111Cd (KED)	-0.005 ppb	10.9 %
118Sn (KED)	0.087 ppb	0.9 %
121Sb (KED)	0.360 ppb	0.2 %
137Ba (KED)	-0.034 ppb	14.0 %
205Tl (KED)	-0.040 ppb	0.9 %
208Pb (KED)	0.098 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	129.062 %
45Sc (KED)	115.069 %
72Ge (KED)	112.565 %
89Y (KED)	109.790 %
115In (KED)	108.510 %
159Tb (KED)	108.724 %
209Bi (KED)	109.786 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW56

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-25	File ID:	060823.xml-032
Sampled:	05/29/23 16:26	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:42
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0674	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*153*	*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	0.00546	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*	*123*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0748	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00681	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	2.21	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*	*489*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	33	Stop Time:	6/8/2023 11:44:44 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-25@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:42:50 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.001 ppb	1,149.3 %
11B (KED)	13.645 ppb	4.7 %
23Na (KED)	87,965.685 ppb	0.1 %
24Mg (KED)	22,059.621 ppb	0.4 %
27Al (KED)	0.396 ppb	73.3 %
31P (KED)	5.177 ppb	34.4 %
39K (KED)	397.630 ppb	2.6 %
44Ca (KED)	27,469.434 ppb	0.7 %
47Ti (KED)	0.019 ppb	62.8 %
51V (KED)	0.041 ppb	22.1 %
52Cr (KED)	0.417 ppb	1.7 %
55Mn (KED)	13.457 ppb	1.2 %
57Fe (KED)	-2.447 ppb	26.2 %
59Co (KED)	0.437 ppb	1.4 %
60Ni (KED)	1.226 ppb	2.4 %
63Cu (KED)	0.983 ppb	0.9 %
66Zn (KED)	0.474 ppb	6.2 %
75As (KED)	0.052 ppb	6.0 %
78Se (KED)	-0.037 ppb	15.7 %
95Mo (KED)	0.502 ppb	1.9 %
107Ag (KED)	-0.013 ppb	24.0 %
111Cd (KED)	0.012 ppb	15.5 %
118Sn (KED)	0.264 ppb	0.7 %
121Sb (KED)	0.393 ppb	0.9 %
137Ba (KED)	12.137 ppb	1.6 %
205Tl (KED)	-0.030 ppb	2.6 %
208Pb (KED)	0.100 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	122.640 %
45Sc (KED)	110.537 %
72Ge (KED)	103.139 %
89Y (KED)	107.770 %
115In (KED)	101.168 %
159Tb (KED)	107.388 %
209Bi (KED)	98.303 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW56

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-25RE1	File ID:	060823.xml-055
Sampled:	05/29/23 16:26	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:25
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	154	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	122	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*500*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	56	Stop Time:	6/8/2023 12:27:46 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-25RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:25:56 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.004 ppb	241.1 %
11B (KED)	1.279 ppb	10.9 %
23Na (KED)	8,994.483 ppb	1.7 %
24Mg (KED)	2,196.900 ppb	1.4 %
27Al (KED)	0.401 ppb	36.8 %
31P (KED)	1.794 ppb	69.8 %
39K (KED)	42.446 ppb	3.6 %
44Ca (KED)	2,765.762 ppb	1.2 %
47Ti (KED)	0.024 ppb	71.1 %
51V (KED)	-0.041 ppb	5.4 %
52Cr (KED)	0.325 ppb	3.2 %
55Mn (KED)	1.266 ppb	4.1 %
57Fe (KED)	-5.025 ppb	2.6 %
59Co (KED)	0.143 ppb	0.9 %
60Ni (KED)	0.103 ppb	15.1 %
63Cu (KED)	0.065 ppb	7.7 %
66Zn (KED)	0.665 ppb	3.1 %
75As (KED)	-0.004 ppb	36.6 %
78Se (KED)	-0.072 ppb	15.2 %
95Mo (KED)	0.290 ppb	2.4 %
107Ag (KED)	-0.020 ppb	8.1 %
111Cd (KED)	0.004 ppb	98.4 %
118Sn (KED)	0.120 ppb	2.5 %
121Sb (KED)	0.371 ppb	0.2 %
137Ba (KED)	1.257 ppb	0.4 %
205Tl (KED)	-0.032 ppb	0.7 %
208Pb (KED)	0.107 ppb	0.9 %

ISTD's	Concentration average
6Li (KED)	118.772 %
45Sc (KED)	107.074 %
72Ge (KED)	104.742 %
89Y (KED)	101.652 %
115In (KED)	98.800 %
159Tb (KED)	101.685 %
209Bi (KED)	102.109 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW56

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-25RE2	File ID:	060823.xml-099
Sampled:	05/29/23 16:26	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 13:47
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	461	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	100	Stop Time:	6/8/2023 1:48:53 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-25RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 1:47:03 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.016 ppb	44.0 %
11B (KED)	-0.153 ppb	51.3 %
23Na (KED)	414.726 ppb	0.7 %
24Mg (KED)	111.215 ppb	0.7 %
27Al (KED)	-0.431 ppb	4.3 %
31P (KED)	0.908 ppb	146.4 %
39K (KED)	1.615 ppb	43.4 %
44Ca (KED)	133.759 ppb	3.9 %
47Ti (KED)	-0.011 ppb	34.7 %
51V (KED)	-0.067 ppb	3.0 %
52Cr (KED)	0.245 ppb	1.4 %
55Mn (KED)	-0.150 ppb	4.9 %
57Fe (KED)	-5.639 ppb	5.1 %
59Co (KED)	0.100 ppb	0.7 %
60Ni (KED)	-0.050 ppb	15.6 %
63Cu (KED)	-0.049 ppb	6.2 %
66Zn (KED)	-0.072 ppb	10.1 %
75As (KED)	-0.018 ppb	11.6 %
78Se (KED)	-0.093 ppb	9.4 %
95Mo (KED)	0.251 ppb	0.8 %
107Ag (KED)	-0.020 ppb	10.7 %
111Cd (KED)	-0.006 ppb	18.5 %
118Sn (KED)	0.087 ppb	3.4 %
121Sb (KED)	0.359 ppb	0.5 %
137Ba (KED)	0.006 ppb	42.9 %
205Tl (KED)	-0.040 ppb	0.2 %
208Pb (KED)	0.098 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	128.566 %
45Sc (KED)	115.943 %
72Ge (KED)	113.086 %
89Y (KED)	111.406 %
115In (KED)	108.307 %
159Tb (KED)	108.545 %
209Bi (KED)	108.828 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW52

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-26	File ID:	060823.xml-033
Sampled:	05/29/23 09:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:44
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0894	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*176*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00345	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	0.0642	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*	*137*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.116	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0142	0.00250	0.0100	0.0250	J, D
7440-09-7	*Potassium, Dissolved*	*43.0*	*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*	*739*	*0.0500*	*0.100*	*0.125*	*D, 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	0.00181	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	34	Stop Time:	6/8/2023 11:46:35 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-26@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:44:45 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.011 ppb	32.1 %
11B (KED)	16.567 ppb	0.3 %
23Na (KED)	132,999.311 ppb	1.2 %
24Mg (KED)	24,659.949 ppb	1.0 %
27Al (KED)	-0.071 ppb	71.2 %
31P (KED)	7.958 ppb	35.4 %
39K (KED)	7,743.678 ppb	0.4 %
44Ca (KED)	31,763.138 ppb	0.7 %
47Ti (KED)	0.041 ppb	41.5 %
51V (KED)	0.326 ppb	8.1 %
52Cr (KED)	0.621 ppb	2.4 %
55Mn (KED)	20.907 ppb	1.3 %
57Fe (KED)	11.559 ppb	6.7 %
59Co (KED)	0.394 ppb	2.0 %
60Ni (KED)	2.551 ppb	2.5 %
63Cu (KED)	0.319 ppb	2.3 %
66Zn (KED)	0.336 ppb	5.2 %
75As (KED)	0.126 ppb	14.3 %
78Se (KED)	0.087 ppb	23.5 %
95Mo (KED)	0.965 ppb	0.9 %
107Ag (KED)	-0.019 ppb	11.9 %
111Cd (KED)	0.016 ppb	36.4 %
118Sn (KED)	0.098 ppb	1.1 %
121Sb (KED)	0.383 ppb	0.6 %
137Ba (KED)	16.098 ppb	2.2 %
205Tl (KED)	-0.036 ppb	2.5 %
208Pb (KED)	0.099 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	122.454 %
45Sc (KED)	110.860 %
72Ge (KED)	103.466 %
89Y (KED)	106.147 %
115In (KED)	96.722 %
159Tb (KED)	105.989 %
209Bi (KED)	93.980 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW52

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-26RE1	File ID:	060823.xml-056
Sampled:	05/29/23 09:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:27
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	174	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	133	0.200	0.500	1.25	D
7440-09-7	Potassium, Dissolved	42.5	0.500	1.00	1.25	D
7440-23-5	*Sodium, Dissolved*	*728*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	57	Stop Time:	6/8/2023 12:29:39 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-26RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:27:48 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.005 ppb	209.6 %
11B (KED)	1.318 ppb	12.1 %
23Na (KED)	13,095.825 ppb	0.9 %
24Mg (KED)	2,398.051 ppb	0.5 %
27Al (KED)	-0.282 ppb	14.7 %
31P (KED)	1.732 ppb	79.2 %
39K (KED)	764.378 ppb	1.5 %
44Ca (KED)	3,125.565 ppb	0.7 %
47Ti (KED)	0.003 ppb	116.8 %
51V (KED)	-0.018 ppb	55.8 %
52Cr (KED)	0.278 ppb	1.4 %
55Mn (KED)	1.888 ppb	4.4 %
57Fe (KED)	-3.939 ppb	6.4 %
59Co (KED)	0.128 ppb	1.3 %
60Ni (KED)	0.215 ppb	6.5 %
63Cu (KED)	-0.008 ppb	17.6 %
66Zn (KED)	0.532 ppb	2.9 %
75As (KED)	-0.001 ppb	612.9 %
78Se (KED)	-0.064 ppb	48.0 %
95Mo (KED)	0.321 ppb	3.9 %
107Ag (KED)	-0.019 ppb	9.3 %
111Cd (KED)	-0.003 ppb	99.0 %
118Sn (KED)	0.086 ppb	2.0 %
121Sb (KED)	0.363 ppb	0.7 %
137Ba (KED)	1.582 ppb	2.4 %
205Tl (KED)	-0.040 ppb	0.3 %
208Pb (KED)	0.099 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	119.972 %
45Sc (KED)	108.948 %
72Ge (KED)	105.512 %
89Y (KED)	104.818 %
115In (KED)	100.764 %
159Tb (KED)	103.139 %
209Bi (KED)	101.235 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW52

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-26RE2	File ID:	060823.xml-100
Sampled:	05/29/23 09:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 13:48
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	769	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	101	Stop Time:	6/8/2023 1:50:44 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-26RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 1:48:55 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.014 ppb	0.1 %
11B (KED)	-0.159 ppb	54.5 %
23Na (KED)	691.959 ppb	1.3 %
24Mg (KED)	136.204 ppb	0.4 %
27Al (KED)	-0.408 ppb	14.6 %
31P (KED)	1.769 ppb	21.1 %
39K (KED)	45.225 ppb	3.1 %
44Ca (KED)	174.550 ppb	1.8 %
47Ti (KED)	0.006 ppb	118.4 %
51V (KED)	-0.065 ppb	3.7 %
52Cr (KED)	0.243 ppb	1.8 %
55Mn (KED)	-0.111 ppb	1.2 %
57Fe (KED)	-5.698 ppb	3.6 %
59Co (KED)	0.099 ppb	0.6 %
60Ni (KED)	-0.045 ppb	15.0 %
63Cu (KED)	-0.053 ppb	5.5 %
66Zn (KED)	-0.068 ppb	13.4 %
75As (KED)	-0.016 ppb	12.8 %
78Se (KED)	-0.081 ppb	12.1 %
95Mo (KED)	0.252 ppb	1.1 %
107Ag (KED)	-0.024 ppb	3.8 %
111Cd (KED)	-0.005 ppb	27.2 %
118Sn (KED)	0.086 ppb	2.8 %
121Sb (KED)	0.359 ppb	0.0 %
137Ba (KED)	0.029 ppb	27.3 %
205Tl (KED)	-0.041 ppb	0.8 %
208Pb (KED)	0.098 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	130.013 %
45Sc (KED)	116.906 %
72Ge (KED)	113.272 %
89Y (KED)	111.860 %
115In (KED)	110.526 %
159Tb (KED)	108.340 %
209Bi (KED)	109.148 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW55

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-27	File ID:	060823.xml-034
Sampled:	05/29/23 11:10	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:46
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.108	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*200*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0164	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	0.00358	0.00300	0.0100	0.0250	J, D
7439-89-6	Iron, Dissolved	0.301	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*147*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0126	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.0445	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	1.68	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*	*681*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	35	Stop Time:	6/8/2023 11:48:30 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-27@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:46:36 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.012 ppb	30.2 %
11B (KED)	16.683 ppb	3.4 %
23Na (KED)	122,559.372 ppb	0.6 %
24Mg (KED)	26,418.489 ppb	0.8 %
27Al (KED)	-0.022 ppb	1,091.5 %
31P (KED)	7.328 ppb	13.2 %
39K (KED)	303.016 ppb	0.6 %
44Ca (KED)	35,996.939 ppb	0.9 %
47Ti (KED)	0.009 ppb	80.7 %
51V (KED)	0.138 ppb	13.4 %
52Cr (KED)	2.952 ppb	1.9 %
55Mn (KED)	2.274 ppb	2.8 %
57Fe (KED)	54.224 ppb	0.9 %
59Co (KED)	0.394 ppb	1.6 %
60Ni (KED)	8.006 ppb	1.2 %
63Cu (KED)	0.645 ppb	0.8 %
66Zn (KED)	0.412 ppb	3.0 %
75As (KED)	0.059 ppb	13.9 %
78Se (KED)	-0.021 ppb	251.6 %
95Mo (KED)	0.573 ppb	1.9 %
107Ag (KED)	-0.023 ppb	9.8 %
111Cd (KED)	0.006 ppb	16.3 %
118Sn (KED)	0.094 ppb	3.0 %
121Sb (KED)	0.372 ppb	0.1 %
137Ba (KED)	19.375 ppb	0.6 %
205Tl (KED)	-0.039 ppb	2.0 %
208Pb (KED)	0.101 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	125.218 %
45Sc (KED)	112.867 %
72Ge (KED)	105.980 %
89Y (KED)	107.819 %
115In (KED)	99.239 %
159Tb (KED)	106.257 %
209Bi (KED)	95.000 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW55

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-27RE1	File ID:	060823.xml-057
Sampled:	05/29/23 11:10	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:29
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	198	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	142	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*667*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	58	Stop Time:	6/8/2023 12:31:32 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-27RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:29:41 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.011 ppb	82.6 %
11B (KED)	1.735 ppb	14.8 %
23Na (KED)	12,011.170 ppb	1.2 %
24Mg (KED)	2,548.592 ppb	0.7 %
27Al (KED)	-0.212 ppb	35.4 %
31P (KED)	0.070 ppb	1,157.7 %
39K (KED)	30.928 ppb	4.9 %
44Ca (KED)	3,567.321 ppb	0.4 %
47Ti (KED)	0.014 ppb	216.2 %
51V (KED)	-0.040 ppb	11.6 %
52Cr (KED)	0.547 ppb	3.3 %
55Mn (KED)	0.015 ppb	100.8 %
57Fe (KED)	0.774 ppb	42.6 %
59Co (KED)	0.127 ppb	1.2 %
60Ni (KED)	0.763 ppb	2.1 %
63Cu (KED)	0.017 ppb	44.4 %
66Zn (KED)	0.552 ppb	2.2 %
75As (KED)	-0.014 ppb	59.0 %
78Se (KED)	-0.075 ppb	26.5 %
95Mo (KED)	0.284 ppb	1.6 %
107Ag (KED)	-0.021 ppb	5.1 %
111Cd (KED)	-0.003 ppb	18.8 %
118Sn (KED)	0.087 ppb	0.7 %
121Sb (KED)	0.361 ppb	0.5 %
137Ba (KED)	1.953 ppb	1.6 %
205Tl (KED)	-0.040 ppb	0.4 %
208Pb (KED)	0.100 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	122.516 %
45Sc (KED)	111.208 %
72Ge (KED)	107.589 %
89Y (KED)	104.429 %
115In (KED)	102.410 %
159Tb (KED)	103.237 %
209Bi (KED)	102.371 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW55

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-27RE2	File ID:	060823.xml-101
Sampled:	05/29/23 11:10	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 13:50
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	639	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	102	Stop Time:	6/8/2023 1:52:33 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-27RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 1:50:46 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.016 ppb	22.0 %
11B (KED)	-0.113 ppb	40.5 %
23Na (KED)	575.138 ppb	1.4 %
24Mg (KED)	129.821 ppb	1.7 %
27Al (KED)	-0.416 ppb	18.5 %
31P (KED)	2.211 ppb	53.7 %
39K (KED)	1.701 ppb	34.4 %
44Ca (KED)	170.717 ppb	2.7 %
47Ti (KED)	-0.002 ppb	10.9 %
51V (KED)	-0.068 ppb	2.5 %
52Cr (KED)	0.250 ppb	1.7 %
55Mn (KED)	-0.214 ppb	2.8 %
57Fe (KED)	-5.383 ppb	1.9 %
59Co (KED)	0.098 ppb	1.8 %
60Ni (KED)	-0.020 ppb	9.7 %
63Cu (KED)	-0.051 ppb	6.7 %
66Zn (KED)	-0.078 ppb	13.7 %
75As (KED)	-0.018 ppb	37.4 %
78Se (KED)	-0.104 ppb	8.8 %
95Mo (KED)	0.251 ppb	0.4 %
107Ag (KED)	-0.021 ppb	9.2 %
111Cd (KED)	-0.004 ppb	24.8 %
118Sn (KED)	0.087 ppb	1.8 %
121Sb (KED)	0.360 ppb	0.1 %
137Ba (KED)	0.032 ppb	35.4 %
205Tl (KED)	-0.040 ppb	1.1 %
208Pb (KED)	0.098 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	130.963 %
45Sc (KED)	117.356 %
72Ge (KED)	114.964 %
89Y (KED)	111.876 %
115In (KED)	109.869 %
159Tb (KED)	108.203 %
209Bi (KED)	109.448 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-28	File ID:	060823.xml-035
Sampled:	05/29/23 14:31	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:48
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.00419	0.00200	0.00500	0.0250	J, D
7440-39-3	Barium, Dissolved	0.0644	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*252*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00727	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.00293	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	2.90	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*167*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.338	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0125	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	3.17	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*	*564*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG

6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	36	Stop Time:	6/8/2023 11:50:18 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-28@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:48:31 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.012 ppb	28.9 %
11B (KED)	16.594 ppb	1.3 %
23Na (KED)	101,549.015 ppb	1.4 %
24Mg (KED)	30,042.305 ppb	1.4 %
27Al (KED)	0.148 ppb	202.0 %
31P (KED)	10.078 ppb	30.2 %
39K (KED)	570.547 ppb	1.5 %
44Ca (KED)	45,345.949 ppb	1.9 %
47Ti (KED)	0.019 ppb	69.2 %
51V (KED)	-0.055 ppb	8.3 %
52Cr (KED)	1.309 ppb	2.4 %
55Mn (KED)	60.820 ppb	1.0 %
57Fe (KED)	521.568 ppb	1.2 %
59Co (KED)	0.527 ppb	0.8 %
60Ni (KED)	2.248 ppb	1.1 %
63Cu (KED)	-0.058 ppb	4.8 %
66Zn (KED)	0.476 ppb	1.2 %
75As (KED)	0.754 ppb	5.4 %
78Se (KED)	-0.080 ppb	31.0 %
95Mo (KED)	0.588 ppb	2.0 %
107Ag (KED)	-0.019 ppb	10.3 %
111Cd (KED)	-0.004 ppb	33.4 %
118Sn (KED)	0.096 ppb	4.6 %
121Sb (KED)	0.365 ppb	0.3 %
137Ba (KED)	11.592 ppb	2.0 %
205Tl (KED)	-0.040 ppb	0.7 %
208Pb (KED)	0.099 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	127.709 %
45Sc (KED)	117.420 %
72Ge (KED)	106.770 %
89Y (KED)	109.696 %
115In (KED)	101.895 %
159Tb (KED)	108.044 %
209Bi (KED)	96.122 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-28RE1	File ID:	060823.xml-058
Sampled:	05/29/23 14:31	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:31
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	*Calcium, Dissolved*	*241*	*0.500*	*1.00*	*1.25*	*D, E*
7439-95-4	Magnesium, Dissolved	165	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*571*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	59	Stop Time:	6/8/2023 12:33:20 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-28RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:31:34 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.007 ppb	142.8 %
11B (KED)	1.504 ppb	10.1 %
23Na (KED)	10,274.955 ppb	1.0 %
24Mg (KED)	2,972.867 ppb	1.1 %
27Al (KED)	-0.233 ppb	42.1 %
31P (KED)	4.149 ppb	24.2 %
39K (KED)	57.351 ppb	3.4 %
44Ca (KED)	4,333.038 ppb	1.7 %
47Ti (KED)	-0.006 ppb	121.9 %
51V (KED)	-0.065 ppb	3.3 %
52Cr (KED)	0.345 ppb	2.0 %
55Mn (KED)	6.092 ppb	0.6 %
57Fe (KED)	49.826 ppb	3.5 %
59Co (KED)	0.144 ppb	0.9 %
60Ni (KED)	0.191 ppb	16.0 %
63Cu (KED)	-0.059 ppb	5.8 %
66Zn (KED)	0.525 ppb	3.7 %
75As (KED)	0.059 ppb	6.5 %
78Se (KED)	-0.074 ppb	23.7 %
95Mo (KED)	0.284 ppb	2.3 %
107Ag (KED)	-0.020 ppb	9.7 %
111Cd (KED)	-0.004 ppb	44.3 %
118Sn (KED)	0.092 ppb	8.4 %
121Sb (KED)	0.362 ppb	0.7 %
137Ba (KED)	1.134 ppb	1.4 %
205Tl (KED)	-0.037 ppb	15.9 %
208Pb (KED)	0.103 ppb	6.1 %

ISTD's	Concentration average
6Li (KED)	123.491 %
45Sc (KED)	112.721 %
72Ge (KED)	109.102 %
89Y (KED)	105.962 %
115In (KED)	102.371 %
159Tb (KED)	105.233 %
209Bi (KED)	103.625 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

52947WW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-28RE2	File ID:	060823.xml-107
Sampled:	05/29/23 14:31	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 14:01
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	229	10.0	20.0	25.0	D
7440-23-5	Sodium, Dissolved	506	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	108	Stop Time:	6/8/2023 2:03:47 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-28RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 2:01:58 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.014 ppb	38.1 %
11B (KED)	-0.138 ppb	83.1 %
23Na (KED)	455.304 ppb	2.4 %
24Mg (KED)	144.201 ppb	1.2 %
27Al (KED)	-0.490 ppb	13.5 %
31P (KED)	0.880 ppb	296.1 %
39K (KED)	1.885 ppb	49.1 %
44Ca (KED)	206.501 ppb	4.7 %
47Ti (KED)	-0.002 ppb	269.2 %
51V (KED)	-0.044 ppb	11.1 %
52Cr (KED)	0.250 ppb	4.6 %
55Mn (KED)	0.087 ppb	11.0 %
57Fe (KED)	-3.192 ppb	19.5 %
59Co (KED)	0.100 ppb	0.5 %
60Ni (KED)	-0.044 ppb	14.1 %
63Cu (KED)	-0.063 ppb	12.6 %
66Zn (KED)	-0.085 ppb	25.6 %
75As (KED)	-0.016 ppb	31.0 %
78Se (KED)	-0.075 ppb	33.5 %
95Mo (KED)	0.253 ppb	0.9 %
107Ag (KED)	-0.017 ppb	17.3 %
111Cd (KED)	-0.004 ppb	86.5 %
118Sn (KED)	0.087 ppb	1.2 %
121Sb (KED)	0.360 ppb	0.8 %
137Ba (KED)	-0.002 ppb	413.4 %
205Tl (KED)	-0.040 ppb	1.4 %
208Pb (KED)	0.098 ppb	1.4 %

ISTD's	Concentration average
6Li (KED)	79.721 %
45Sc (KED)	77.498 %
72Ge (KED)	80.775 %
89Y (KED)	82.007 %
115In (KED)	83.865 %
159Tb (KED)	86.217 %
209Bi (KED)	90.718 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529DUP1

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-29	File ID:	060823.xml-036
Sampled:	05/29/23 12:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:50
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0389	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*101*	*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*	*58.4*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.342	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved		0.00250	0.0100	0.0250	U
7440-09-7	Potassium, Dissolved	4.24	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*	*551*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	37	Stop Time:	6/8/2023 11:52:11 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-29@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:50:19 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.002 ppb	655.2 %
11B (KED)	22.678 ppb	1.2 %
23Na (KED)	99,236.468 ppb	1.0 %
24Mg (KED)	10,503.930 ppb	0.3 %
27Al (KED)	0.181 ppb	40.4 %
31P (KED)	9.811 ppb	44.7 %
39K (KED)	763.477 ppb	0.9 %
44Ca (KED)	18,167.208 ppb	0.7 %
47Ti (KED)	0.015 ppb	130.8 %
51V (KED)	-0.013 ppb	64.1 %
52Cr (KED)	0.383 ppb	2.6 %
55Mn (KED)	61.556 ppb	0.9 %
57Fe (KED)	-3.234 ppb	7.3 %
59Co (KED)	0.368 ppb	0.4 %
60Ni (KED)	0.435 ppb	2.8 %
63Cu (KED)	0.286 ppb	3.8 %
66Zn (KED)	0.472 ppb	2.9 %
75As (KED)	0.027 ppb	18.5 %
78Se (KED)	-0.035 ppb	108.1 %
95Mo (KED)	0.428 ppb	3.1 %
107Ag (KED)	-0.021 ppb	10.0 %
111Cd (KED)	0.014 ppb	37.8 %
118Sn (KED)	0.174 ppb	0.9 %
121Sb (KED)	0.373 ppb	0.1 %
137Ba (KED)	6.994 ppb	1.6 %
205Tl (KED)	-0.036 ppb	1.8 %
208Pb (KED)	0.100 ppb	0.5 %

ISTD's	Concentration average
6Li (KED)	128.736 %
45Sc (KED)	115.668 %
72Ge (KED)	106.904 %
89Y (KED)	108.669 %
115In (KED)	103.629 %
159Tb (KED)	109.480 %
209Bi (KED)	98.595 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529DUP1

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-29RE1	File ID:	060823.xml-061
Sampled:	05/29/23 12:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:37
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	97.5	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	55.6	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*547*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	62	Stop Time:	6/8/2023 12:39:10 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-29RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:37:15 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.001 ppb	1,157.1 %
11B (KED)	2.106 ppb	5.6 %
23Na (KED)	9,851.583 ppb	0.7 %
24Mg (KED)	1,000.124 ppb	0.4 %
27Al (KED)	-0.163 ppb	60.7 %
31P (KED)	2.969 ppb	60.8 %
39K (KED)	76.291 ppb	0.9 %
44Ca (KED)	1,754.697 ppb	1.3 %
47Ti (KED)	-0.004 ppb	243.7 %
51V (KED)	-0.058 ppb	4.7 %
52Cr (KED)	0.254 ppb	1.6 %
55Mn (KED)	6.135 ppb	2.2 %
57Fe (KED)	-5.569 ppb	2.4 %
59Co (KED)	0.127 ppb	0.6 %
60Ni (KED)	0.003 ppb	749.7 %
63Cu (KED)	-0.015 ppb	26.7 %
66Zn (KED)	0.553 ppb	3.1 %
75As (KED)	-0.011 ppb	49.3 %
78Se (KED)	-0.071 ppb	46.4 %
95Mo (KED)	0.272 ppb	1.0 %
107Ag (KED)	-0.020 ppb	10.1 %
111Cd (KED)	-0.003 ppb	49.6 %
118Sn (KED)	0.097 ppb	0.7 %
121Sb (KED)	0.370 ppb	0.6 %
137Ba (KED)	0.673 ppb	1.5 %
205Tl (KED)	-0.038 ppb	1.1 %
208Pb (KED)	0.100 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	125.637 %
45Sc (KED)	114.206 %
72Ge (KED)	108.371 %
89Y (KED)	108.472 %
115In (KED)	103.929 %
159Tb (KED)	105.843 %
209Bi (KED)	105.990 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529DUP1

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-29RE2	File ID:	060823.xml-108
Sampled:	05/29/23 12:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 14:03
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	536	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	109	Stop Time:	6/8/2023 2:05:38 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-29RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 2:03:50 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.009 ppb	106.2 %
11B (KED)	0.096 ppb	241.6 %
23Na (KED)	482.269 ppb	2.2 %
24Mg (KED)	54.398 ppb	3.3 %
27Al (KED)	-0.463 ppb	7.3 %
31P (KED)	3.178 ppb	44.7 %
39K (KED)	3.707 ppb	45.0 %
44Ca (KED)	87.437 ppb	2.7 %
47Ti (KED)	-0.006 ppb	2.2 %
51V (KED)	-0.048 ppb	8.0 %
52Cr (KED)	0.242 ppb	2.3 %
55Mn (KED)	0.119 ppb	16.2 %
57Fe (KED)	-5.718 ppb	3.5 %
59Co (KED)	0.099 ppb	0.5 %
60Ni (KED)	-0.058 ppb	9.6 %
63Cu (KED)	-0.061 ppb	6.0 %
66Zn (KED)	-0.096 ppb	9.6 %
75As (KED)	-0.021 ppb	25.5 %
78Se (KED)	-0.061 ppb	23.2 %
95Mo (KED)	0.250 ppb	0.9 %
107Ag (KED)	-0.020 ppb	8.9 %
111Cd (KED)	-0.004 ppb	15.9 %
118Sn (KED)	0.085 ppb	0.5 %
121Sb (KED)	0.360 ppb	0.4 %
137Ba (KED)	-0.024 ppb	32.1 %
205Tl (KED)	-0.040 ppb	1.0 %
208Pb (KED)	0.097 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	88.814 %
45Sc (KED)	84.514 %
72Ge (KED)	87.300 %
89Y (KED)	86.444 %
115In (KED)	87.363 %
159Tb (KED)	90.319 %
209Bi (KED)	91.962 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529DUP2

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-30	File ID:	060823.xml-037
Sampled:	05/29/23 16:26	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:52
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0665	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*153*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00330	0.00250	0.0100	0.0250	J, D
7440-48-4	Cobalt, Dissolved	0.00254	0.00250	0.0100	0.0250	J, D
7440-50-8	Copper, Dissolved	0.00537	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*	*119*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0744	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.00939	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	2.20	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*	*478*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	38	Stop Time:	6/8/2023 11:54:06 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-30@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:52:13 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.047 ppb	82.6 %
11B (KED)	13.341 ppb	1.8 %
23Na (KED)	86,010.618 ppb	1.6 %
24Mg (KED)	21,491.871 ppb	2.1 %
27Al (KED)	0.804 ppb	94.5 %
31P (KED)	10.584 ppb	15.8 %
39K (KED)	395.240 ppb	0.1 %
44Ca (KED)	27,501.275 ppb	1.1 %
47Ti (KED)	0.052 ppb	101.5 %
51V (KED)	0.053 ppb	44.9 %
52Cr (KED)	0.594 ppb	4.2 %
55Mn (KED)	13.395 ppb	2.4 %
57Fe (KED)	1.290 ppb	55.8 %
59Co (KED)	0.456 ppb	4.9 %
60Ni (KED)	1.691 ppb	2.7 %
63Cu (KED)	0.966 ppb	5.2 %
66Zn (KED)	0.447 ppb	2.3 %
75As (KED)	0.072 ppb	27.4 %
78Se (KED)	-0.029 ppb	33.6 %
95Mo (KED)	0.512 ppb	1.7 %
107Ag (KED)	-0.017 ppb	57.4 %
111Cd (KED)	0.012 ppb	65.8 %
118Sn (KED)	0.260 ppb	2.6 %
121Sb (KED)	0.388 ppb	4.6 %
137Ba (KED)	11.978 ppb	0.6 %
205Tl (KED)	-0.008 ppb	491.7 %
208Pb (KED)	0.135 ppb	44.8 %

ISTD's	Concentration average
6Li (KED)	131.280 %
45Sc (KED)	118.805 %
72Ge (KED)	109.120 %
89Y (KED)	111.709 %
115In (KED)	102.853 %
159Tb (KED)	109.506 %
209Bi (KED)	99.893 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529DUP2

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-30RE1	File ID:	060823.xml-062
Sampled:	05/29/23 16:26	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:39
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	160	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	129	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*532*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	63	Stop Time:	6/8/2023 12:41:00 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-30RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:39:12 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.003 ppb	374.7 %
11B (KED)	1.529 ppb	10.4 %
23Na (KED)	9,567.108 ppb	0.7 %
24Mg (KED)	2,325.267 ppb	1.0 %
27Al (KED)	-0.129 ppb	61.3 %
31P (KED)	2.069 ppb	50.0 %
39K (KED)	44.723 ppb	4.0 %
44Ca (KED)	2,884.721 ppb	0.9 %
47Ti (KED)	0.005 ppb	141.7 %
51V (KED)	-0.054 ppb	6.3 %
52Cr (KED)	0.286 ppb	1.9 %
55Mn (KED)	1.275 ppb	0.9 %
57Fe (KED)	-5.136 ppb	5.9 %
59Co (KED)	0.138 ppb	1.9 %
60Ni (KED)	0.150 ppb	10.9 %
63Cu (KED)	0.055 ppb	2.9 %
66Zn (KED)	0.573 ppb	1.8 %
75As (KED)	-0.012 ppb	29.4 %
78Se (KED)	-0.069 ppb	44.6 %
95Mo (KED)	0.279 ppb	1.1 %
107Ag (KED)	-0.021 ppb	8.4 %
111Cd (KED)	-0.002 ppb	64.1 %
118Sn (KED)	0.105 ppb	2.6 %
121Sb (KED)	0.365 ppb	0.7 %
137Ba (KED)	1.273 ppb	1.8 %
205Tl (KED)	-0.039 ppb	1.8 %
208Pb (KED)	0.099 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	127.362 %
45Sc (KED)	113.956 %
72Ge (KED)	110.715 %
89Y (KED)	108.137 %
115In (KED)	104.655 %
159Tb (KED)	107.083 %
209Bi (KED)	105.817 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

529DUP2

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-30RE2	File ID:	060823.xml-109
Sampled:	05/29/23 16:26	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 14:05
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	422	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	110	Stop Time:	6/8/2023 2:07:32 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-30RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 2:05:40 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.015 ppb	62.1 %
11B (KED)	-0.200 ppb	36.9 %
23Na (KED)	379.536 ppb	0.4 %
24Mg (KED)	102.842 ppb	1.0 %
27Al (KED)	-0.477 ppb	6.2 %
31P (KED)	1.209 ppb	109.8 %
39K (KED)	2.806 ppb	24.5 %
44Ca (KED)	114.583 ppb	2.4 %
47Ti (KED)	-0.007 ppb	215.3 %
51V (KED)	-0.054 ppb	5.5 %
52Cr (KED)	0.244 ppb	1.0 %
55Mn (KED)	-0.167 ppb	1.1 %
57Fe (KED)	-5.896 ppb	0.8 %
59Co (KED)	0.098 ppb	0.9 %
60Ni (KED)	-0.050 ppb	12.1 %
63Cu (KED)	-0.055 ppb	5.6 %
66Zn (KED)	-0.108 ppb	15.5 %
75As (KED)	-0.022 ppb	41.4 %
78Se (KED)	-0.096 ppb	17.0 %
95Mo (KED)	0.250 ppb	0.8 %
107Ag (KED)	-0.021 ppb	6.9 %
111Cd (KED)	-0.004 ppb	39.1 %
118Sn (KED)	0.088 ppb	0.6 %
121Sb (KED)	0.359 ppb	0.4 %
137Ba (KED)	-0.011 ppb	14.0 %
205Tl (KED)	-0.040 ppb	1.1 %
208Pb (KED)	0.097 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	95.802 %
45Sc (KED)	89.799 %
72Ge (KED)	91.767 %
89Y (KED)	90.217 %
115In (KED)	90.427 %
159Tb (KED)	91.756 %
209Bi (KED)	96.189 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW58

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-38	File ID:	060823.xml-038
Sampled:	05/30/23 15:57	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:54
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0407	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*23.5*	*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	0.00459	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	14.6	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.0479	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0143	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	1.09	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*	*286*	*0.0500*	*0.100*	*0.125*	*D, 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	0.00173	0.00150	0.00500	0.0250	J, D
7440-66-6	Zinc, Dissolved		0.0100	0.0200	0.0250	U

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG

6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	39	Stop Time:	6/8/2023 11:56:00 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-38@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:54:07 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.029 ppb	139.0 %
11B (KED)	3.457 ppb	5.2 %
23Na (KED)	51,471.100 ppb	0.5 %
24Mg (KED)	2,630.811 ppb	1.0 %
27Al (KED)	0.973 ppb	47.3 %
31P (KED)	19.066 ppb	11.3 %
39K (KED)	196.627 ppb	1.8 %
44Ca (KED)	4,234.465 ppb	0.4 %
47Ti (KED)	0.072 ppb	136.3 %
51V (KED)	0.312 ppb	8.6 %
52Cr (KED)	0.437 ppb	7.1 %
55Mn (KED)	8.625 ppb	0.5 %
57Fe (KED)	4.180 ppb	14.3 %
59Co (KED)	0.276 ppb	10.3 %
60Ni (KED)	2.571 ppb	2.4 %
63Cu (KED)	0.826 ppb	1.2 %
66Zn (KED)	0.361 ppb	7.3 %
75As (KED)	0.135 ppb	15.6 %
78Se (KED)	0.027 ppb	127.4 %
95Mo (KED)	0.670 ppb	6.1 %
107Ag (KED)	-0.020 ppb	32.1 %
111Cd (KED)	0.011 ppb	73.8 %
118Sn (KED)	0.238 ppb	6.1 %
121Sb (KED)	0.380 ppb	2.6 %
137Ba (KED)	7.326 ppb	2.6 %
205Tl (KED)	-0.033 ppb	25.1 %
208Pb (KED)	0.103 ppb	7.0 %

ISTD's	Concentration average
6Li (KED)	134.372 %
45Sc (KED)	119.764 %
72Ge (KED)	113.964 %
89Y (KED)	112.670 %
115In (KED)	107.513 %
159Tb (KED)	113.085 %
209Bi (KED)	105.034 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW58

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-38RE1	File ID:	060823.xml-063
Sampled:	05/30/23 15:57	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:41
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	24.2	0.500	1.00	1.25	D
7440-23-5	*Sodium, Dissolved*	*296*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	64	Stop Time:	6/8/2023 12:42:51 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-38RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:41:01 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.002 ppb	840.9 %
11B (KED)	0.251 ppb	32.9 %
23Na (KED)	5,325.958 ppb	1.6 %
24Mg (KED)	268.334 ppb	1.5 %
27Al (KED)	-0.178 ppb	75.2 %
31P (KED)	3.354 ppb	75.5 %
39K (KED)	21.830 ppb	9.8 %
44Ca (KED)	434.933 ppb	3.0 %
47Ti (KED)	0.000 ppb	13,718.8 %
51V (KED)	-0.024 ppb	25.9 %
52Cr (KED)	0.262 ppb	3.1 %
55Mn (KED)	0.719 ppb	5.2 %
57Fe (KED)	-4.785 ppb	1.3 %
59Co (KED)	0.115 ppb	1.5 %
60Ni (KED)	0.224 ppb	4.1 %
63Cu (KED)	0.049 ppb	7.0 %
66Zn (KED)	0.564 ppb	3.6 %
75As (KED)	0.002 ppb	407.3 %
78Se (KED)	-0.063 ppb	30.4 %
95Mo (KED)	0.293 ppb	0.5 %
107Ag (KED)	-0.021 ppb	6.2 %
111Cd (KED)	-0.005 ppb	39.8 %
118Sn (KED)	0.104 ppb	1.6 %
121Sb (KED)	0.363 ppb	0.3 %
137Ba (KED)	0.715 ppb	4.3 %
205Tl (KED)	-0.040 ppb	1.3 %
208Pb (KED)	0.099 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	128.706 %
45Sc (KED)	115.713 %
72Ge (KED)	112.056 %
89Y (KED)	110.558 %
115In (KED)	109.267 %
159Tb (KED)	107.357 %
209Bi (KED)	106.428 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW58

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-38RE2	File ID:	060823.xml-110
Sampled:	05/30/23 15:57	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 14:07
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	249	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	111	Stop Time:	6/8/2023 2:09:26 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-38RE2@500	Dilution Factor	0.2		
Start Time:	6/8/2023 2:07:35 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.015 ppb	57.2 %
11B (KED)	-0.182 ppb	13.5 %
23Na (KED)	448.967 ppb	1.2 %
24Mg (KED)	24.320 ppb	3.2 %
27Al (KED)	-0.432 ppb	29.5 %
31P (KED)	3.186 ppb	53.1 %
39K (KED)	1.085 ppb	64.7 %
44Ca (KED)	38.484 ppb	8.7 %
47Ti (KED)	-0.002 ppb	753.8 %
51V (KED)	-0.058 ppb	6.3 %
52Cr (KED)	0.241 ppb	2.1 %
55Mn (KED)	-0.143 ppb	6.5 %
57Fe (KED)	-5.479 ppb	3.8 %
59Co (KED)	0.099 ppb	0.5 %
60Ni (KED)	-0.035 ppb	5.8 %
63Cu (KED)	-0.055 ppb	12.0 %
66Zn (KED)	-0.059 ppb	19.5 %
75As (KED)	-0.018 ppb	36.9 %
78Se (KED)	-0.061 ppb	26.9 %
95Mo (KED)	0.256 ppb	1.4 %
107Ag (KED)	-0.021 ppb	4.1 %
111Cd (KED)	-0.006 ppb	10.8 %
118Sn (KED)	0.087 ppb	1.7 %
121Sb (KED)	0.359 ppb	0.1 %
137Ba (KED)	0.002 ppb	232.4 %
205Tl (KED)	-0.040 ppb	1.3 %
208Pb (KED)	0.098 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	101.973 %
45Sc (KED)	96.272 %
72Ge (KED)	95.517 %
89Y (KED)	95.862 %
115In (KED)	94.394 %
159Tb (KED)	96.951 %
209Bi (KED)	98.628 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

530LHSMW43R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-39	File ID:	060823.xml-039
Sampled:	05/30/23 13:40	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:56
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.0459	0.0250	0.0500	0.125	J, 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	0.0141	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*64.1*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.00716	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	0.122	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*	*39.3*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0123	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.0200	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	2.45	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*	*516*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	40	Stop Time:	6/8/2023 11:57:53 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-39@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:56:01 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.012 ppb	58.3 %
11B (KED)	12.565 ppb	1.6 %
23Na (KED)	92,937.179 ppb	1.4 %
24Mg (KED)	7,080.763 ppb	1.7 %
27Al (KED)	8.258 ppb	0.8 %
31P (KED)	13.596 ppb	13.7 %
39K (KED)	440.563 ppb	0.7 %
44Ca (KED)	11,536.665 ppb	1.3 %
47Ti (KED)	0.023 ppb	73.5 %
51V (KED)	0.015 ppb	43.0 %
52Cr (KED)	1.288 ppb	14.2 %
55Mn (KED)	2.212 ppb	2.3 %
57Fe (KED)	22.048 ppb	9.7 %
59Co (KED)	0.285 ppb	0.7 %
60Ni (KED)	3.600 ppb	1.5 %
63Cu (KED)	0.059 ppb	8.4 %
66Zn (KED)	0.080 ppb	30.9 %
75As (KED)	0.016 ppb	68.1 %
78Se (KED)	-0.087 ppb	48.4 %
95Mo (KED)	0.340 ppb	3.5 %
107Ag (KED)	-0.022 ppb	14.7 %
111Cd (KED)	0.009 ppb	21.5 %
118Sn (KED)	0.093 ppb	1.8 %
121Sb (KED)	0.362 ppb	0.4 %
137Ba (KED)	2.530 ppb	3.3 %
205Tl (KED)	-0.040 ppb	0.9 %
208Pb (KED)	0.100 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	131.721 %
45Sc (KED)	117.345 %
72Ge (KED)	109.356 %
89Y (KED)	110.808 %
115In (KED)	103.726 %
159Tb (KED)	111.002 %
209Bi (KED)	101.044 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

530LHSMW43R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-39RE1	File ID:	060823.xml-064
Sampled:	05/30/23 13:40	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:42
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	62.4	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	38.8	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*523*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	65	Stop Time:	6/8/2023 12:44:44 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-39RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:42:53 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.002 ppb	611.7 %
11B (KED)	1.103 ppb	21.3 %
23Na (KED)	9,422.387 ppb	1.0 %
24Mg (KED)	699.104 ppb	2.0 %
27Al (KED)	0.272 ppb	59.4 %
31P (KED)	1.836 ppb	113.5 %
39K (KED)	45.431 ppb	2.5 %
44Ca (KED)	1,122.328 ppb	1.8 %
47Ti (KED)	0.002 ppb	428.9 %
51V (KED)	-0.064 ppb	2.7 %
52Cr (KED)	0.332 ppb	4.0 %
55Mn (KED)	0.021 ppb	46.6 %
57Fe (KED)	-3.326 ppb	11.9 %
59Co (KED)	0.114 ppb	0.7 %
60Ni (KED)	0.335 ppb	4.6 %
63Cu (KED)	-0.050 ppb	10.6 %
66Zn (KED)	-0.035 ppb	38.7 %
75As (KED)	-0.019 ppb	16.6 %
78Se (KED)	-0.105 ppb	11.8 %
95Mo (KED)	0.261 ppb	1.1 %
107Ag (KED)	-0.023 ppb	4.1 %
111Cd (KED)	-0.003 ppb	37.9 %
118Sn (KED)	0.088 ppb	1.4 %
121Sb (KED)	0.361 ppb	0.3 %
137Ba (KED)	0.191 ppb	5.1 %
205Tl (KED)	-0.040 ppb	0.3 %
208Pb (KED)	0.098 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	128.443 %
45Sc (KED)	114.869 %
72Ge (KED)	112.374 %
89Y (KED)	109.429 %
115In (KED)	105.842 %
159Tb (KED)	106.821 %
209Bi (KED)	106.137 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

530LHSMW43R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-39RE2	File ID:	060823.xml-111
Sampled:	05/30/23 13:40	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 14:09
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	487	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	112	Stop Time:	6/8/2023 2:11:19 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-39RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 2:09:29 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.004 ppb	411.5 %
11B (KED)	-0.128 ppb	114.8 %
23Na (KED)	438.713 ppb	1.0 %
24Mg (KED)	35.226 ppb	2.6 %
27Al (KED)	-0.380 ppb	16.6 %
31P (KED)	1.747 ppb	110.6 %
39K (KED)	1.411 ppb	36.4 %
44Ca (KED)	51.081 ppb	4.3 %
47Ti (KED)	-0.005 ppb	87.6 %
51V (KED)	-0.063 ppb	3.7 %
52Cr (KED)	0.248 ppb	1.7 %
55Mn (KED)	-0.213 ppb	0.4 %
57Fe (KED)	-5.416 ppb	5.0 %
59Co (KED)	0.097 ppb	0.9 %
60Ni (KED)	-0.041 ppb	7.6 %
63Cu (KED)	-0.059 ppb	9.0 %
66Zn (KED)	-0.139 ppb	8.2 %
75As (KED)	-0.017 ppb	12.3 %
78Se (KED)	-0.089 ppb	31.6 %
95Mo (KED)	0.248 ppb	1.0 %
107Ag (KED)	-0.022 ppb	8.9 %
111Cd (KED)	-0.006 ppb	10.8 %
118Sn (KED)	0.087 ppb	1.5 %
121Sb (KED)	0.358 ppb	0.3 %
137Ba (KED)	-0.053 ppb	6.3 %
205Tl (KED)	-0.040 ppb	1.0 %
208Pb (KED)	0.098 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	105.430 %
45Sc (KED)	99.489 %
72Ge (KED)	99.179 %
89Y (KED)	96.948 %
115In (KED)	95.968 %
159Tb (KED)	97.432 %
209Bi (KED)	100.354 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW09

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-40	File ID:	060823.xml-040
Sampled:	05/30/23 12:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:57
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.00424	0.00200	0.00500	0.0250	J, D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*19.5*	*0.0500*	*0.100*	*0.125*	*D*
7440-47-3	Chromium, Dissolved	0.00385	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*	*53.9*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0123	0.0025	0.0100	0.0250	J, D
7440-02-0	Nickel, Dissolved	0.0169	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	3.36	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*	*497*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	41	Stop Time:	6/8/2023 11:59:42 AM	Comment	1/5 6020 DISS
Sample ID:	23E0775-40@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:57:54 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.008 ppb	0.7 %
11B (KED)	8.641 ppb	3.6 %
23Na (KED)	89,509.828 ppb	2.0 %
24Mg (KED)	9,701.055 ppb	0.8 %
27Al (KED)	-0.095 ppb	206.8 %
31P (KED)	10.184 ppb	17.5 %
39K (KED)	604.148 ppb	1.4 %
44Ca (KED)	3,517.537 ppb	1.9 %
47Ti (KED)	-0.004 ppb	172.6 %
51V (KED)	-0.053 ppb	7.3 %
52Cr (KED)	0.693 ppb	3.1 %
55Mn (KED)	2.209 ppb	1.6 %
57Fe (KED)	5.908 ppb	11.5 %
59Co (KED)	0.193 ppb	0.6 %
60Ni (KED)	3.046 ppb	2.0 %
63Cu (KED)	-0.017 ppb	40.2 %
66Zn (KED)	-0.124 ppb	9.2 %
75As (KED)	0.035 ppb	8.2 %
78Se (KED)	-0.083 ppb	17.6 %
95Mo (KED)	0.605 ppb	2.5 %
107Ag (KED)	-0.023 ppb	12.4 %
111Cd (KED)	0.001 ppb	80.0 %
118Sn (KED)	0.089 ppb	0.4 %
121Sb (KED)	0.362 ppb	0.1 %
137Ba (KED)	0.763 ppb	3.2 %
205Tl (KED)	-0.041 ppb	0.4 %
208Pb (KED)	0.098 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	132.938 %
45Sc (KED)	116.260 %
72Ge (KED)	110.367 %
89Y (KED)	111.870 %
115In (KED)	104.436 %
159Tb (KED)	111.225 %
209Bi (KED)	101.620 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW09

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-40RE1	File ID:	060823.xml-065
Sampled:	05/30/23 12:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:44
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	20.2	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	55.7	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*535*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	66	Stop Time:	6/8/2023 12:46:32 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-40RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:44:46 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.007 ppb	148.3 %
11B (KED)	0.745 ppb	16.0 %
23Na (KED)	9,636.117 ppb	1.0 %
24Mg (KED)	1,002.971 ppb	0.5 %
27Al (KED)	-0.323 ppb	23.9 %
31P (KED)	1.605 ppb	86.4 %
39K (KED)	66.773 ppb	2.2 %
44Ca (KED)	364.305 ppb	1.2 %
47Ti (KED)	0.002 ppb	636.2 %
51V (KED)	-0.066 ppb	6.5 %
52Cr (KED)	0.283 ppb	1.0 %
55Mn (KED)	0.057 ppb	40.0 %
57Fe (KED)	-4.334 ppb	10.9 %
59Co (KED)	0.107 ppb	1.0 %
60Ni (KED)	0.281 ppb	1.8 %
63Cu (KED)	-0.053 ppb	14.8 %
66Zn (KED)	-0.060 ppb	8.7 %
75As (KED)	-0.012 ppb	64.7 %
78Se (KED)	-0.088 ppb	10.3 %
95Mo (KED)	0.289 ppb	2.1 %
107Ag (KED)	-0.019 ppb	7.9 %
111Cd (KED)	-0.005 ppb	28.0 %
118Sn (KED)	0.088 ppb	1.2 %
121Sb (KED)	0.360 ppb	0.4 %
137Ba (KED)	0.032 ppb	54.0 %
205Tl (KED)	-0.039 ppb	0.4 %
208Pb (KED)	0.098 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	127.956 %
45Sc (KED)	115.099 %
72Ge (KED)	111.248 %
89Y (KED)	108.649 %
115In (KED)	105.948 %
159Tb (KED)	104.793 %
209Bi (KED)	106.055 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW09

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-40RE2	File ID:	060823.xml-112
Sampled:	05/30/23 12:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 14:11
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	430	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	113	Stop Time:	6/8/2023 2:13:10 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-40RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 2:11:22 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.012 ppb	264.5 %
11B (KED)	-0.110 ppb	30.5 %
23Na (KED)	386.657 ppb	1.7 %
24Mg (KED)	43.518 ppb	1.8 %
27Al (KED)	-0.421 ppb	17.0 %
31P (KED)	0.940 ppb	124.4 %
39K (KED)	3.385 ppb	16.0 %
44Ca (KED)	10.507 ppb	40.7 %
47Ti (KED)	0.007 ppb	208.7 %
51V (KED)	-0.060 ppb	1.3 %
52Cr (KED)	0.243 ppb	1.7 %
55Mn (KED)	-0.215 ppb	3.5 %
57Fe (KED)	-5.836 ppb	0.7 %
59Co (KED)	0.098 ppb	1.0 %
60Ni (KED)	-0.043 ppb	17.8 %
63Cu (KED)	-0.057 ppb	2.6 %
66Zn (KED)	-0.144 ppb	19.5 %
75As (KED)	-0.019 ppb	38.6 %
78Se (KED)	-0.065 ppb	16.3 %
95Mo (KED)	0.251 ppb	1.8 %
107Ag (KED)	-0.018 ppb	18.8 %
111Cd (KED)	-0.003 ppb	183.7 %
118Sn (KED)	0.089 ppb	5.3 %
121Sb (KED)	0.360 ppb	0.5 %
137Ba (KED)	-0.060 ppb	7.5 %
205Tl (KED)	-0.039 ppb	7.8 %
208Pb (KED)	0.099 ppb	3.0 %

ISTD's	Concentration average
6Li (KED)	109.319 %
45Sc (KED)	101.338 %
72Ge (KED)	100.332 %
89Y (KED)	98.923 %
115In (KED)	98.701 %
159Tb (KED)	99.866 %
209Bi (KED)	102.987 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW14

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-41	File ID:	060823.xml-041
Sampled:	05/30/23 10:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:59
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0265	0.00200	0.00500	0.0250	D
7440-41-7	Beryllium, Dissolved		0.000500	0.00200	0.00250	Q, U
7440-43-9	Cadmium, Dissolved		0.000500	0.00200	0.00250	U
7440-70-2	*Calcium, Dissolved*	*34.0*	*0.0500*	*0.100*	*0.125*	*D, E*
7440-47-3	Chromium, Dissolved	0.0107	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	0.304	0.0500	0.100	0.125	D
7439-92-1	Lead, Dissolved		0.00150	0.00500	0.0250	U
7439-95-4	*Magnesium, Dissolved*	*18.9*	*0.0200*	*0.0500*	*0.125*	*D*
7439-96-5	Manganese, Dissolved	0.0394	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.269	0.00250	0.0100	0.0250	D
7440-09-7	Potassium, Dissolved	1.26	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*	*250*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	42	Stop Time:	6/8/2023 12:01:32 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-41@5	Dilution Factor	0.2		
Start Time:	6/8/2023 11:59:43 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	3,113.9 %
11B (KED)	19.318 ppb	2.2 %
23Na (KED)	45,050.249 ppb	1.8 %
24Mg (KED)	3,402.101 ppb	1.2 %
27Al (KED)	-0.126 ppb	61.2 %
31P (KED)	9.652 ppb	11.1 %
39K (KED)	227.694 ppb	1.2 %
44Ca (KED)	6,119.890 ppb	1.1 %
47Ti (KED)	0.010 ppb	106.6 %
51V (KED)	-0.044 ppb	7.2 %
52Cr (KED)	1.923 ppb	2.0 %
55Mn (KED)	7.089 ppb	1.4 %
57Fe (KED)	54.797 ppb	3.7 %
59Co (KED)	0.392 ppb	0.4 %
60Ni (KED)	48.331 ppb	0.9 %
63Cu (KED)	0.356 ppb	0.4 %
66Zn (KED)	0.019 ppb	68.3 %
75As (KED)	0.012 ppb	74.1 %
78Se (KED)	-0.061 ppb	54.4 %
95Mo (KED)	0.693 ppb	2.1 %
107Ag (KED)	-0.023 ppb	4.4 %
111Cd (KED)	-0.005 ppb	9.9 %
118Sn (KED)	0.104 ppb	2.9 %
121Sb (KED)	0.365 ppb	0.3 %
137Ba (KED)	4.779 ppb	3.8 %
205Tl (KED)	-0.040 ppb	2.4 %
208Pb (KED)	0.100 ppb	0.1 %

ISTD's	Concentration average
6Li (KED)	136.451 %
45Sc (KED)	119.673 %
72Ge (KED)	113.942 %
89Y (KED)	114.672 %
115In (KED)	108.650 %
159Tb (KED)	113.968 %
209Bi (KED)	106.624 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW14

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-41RE1	File ID:	060823.xml-066
Sampled:	05/30/23 10:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:46
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	36.9	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	20.1	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*268*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG

6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	67	Stop Time:	6/8/2023 12:48:19 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-41RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:46:34 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.002 ppb	385.4 %
11B (KED)	2.035 ppb	7.3 %
23Na (KED)	4,822.470 ppb	1.6 %
24Mg (KED)	361.705 ppb	1.0 %
27Al (KED)	-0.287 ppb	31.7 %
31P (KED)	2.677 ppb	60.5 %
39K (KED)	24.461 ppb	4.9 %
44Ca (KED)	663.444 ppb	4.7 %
47Ti (KED)	0.005 ppb	513.5 %
51V (KED)	-0.063 ppb	8.4 %
52Cr (KED)	0.434 ppb	0.5 %
55Mn (KED)	0.578 ppb	4.3 %
57Fe (KED)	1.085 ppb	31.5 %
59Co (KED)	0.130 ppb	0.6 %
60Ni (KED)	5.345 ppb	3.0 %
63Cu (KED)	-0.010 ppb	79.7 %
66Zn (KED)	-0.017 ppb	89.2 %
75As (KED)	-0.010 ppb	48.6 %
78Se (KED)	-0.061 ppb	43.6 %
95Mo (KED)	0.297 ppb	1.8 %
107Ag (KED)	-0.020 ppb	5.7 %
111Cd (KED)	-0.004 ppb	37.2 %
118Sn (KED)	0.089 ppb	2.1 %
121Sb (KED)	0.360 ppb	0.6 %
137Ba (KED)	0.483 ppb	3.4 %
205Tl (KED)	-0.040 ppb	0.5 %
208Pb (KED)	0.098 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	127.655 %
45Sc (KED)	115.451 %
72Ge (KED)	111.085 %
89Y (KED)	107.244 %
115In (KED)	105.358 %
159Tb (KED)	106.766 %
209Bi (KED)	107.232 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW14

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-41RE2	File ID:	060823.xml-113
Sampled:	05/30/23 10:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 14:13
		Preparation:	3005_METALS_PREP_M	Dilution:	500
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	226	5.00	10.0	12.5	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	114	Stop Time:	6/8/2023 2:15:05 PM	Comment	1/100/5=500 Na
Sample ID:	23E0775-41RE2@500	Dilution Factor	0.2		
Start Time:	6/8/2023 2:13:13 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.021 ppb	142.6 %
11B (KED)	-0.039 ppb	118.3 %
23Na (KED)	406.602 ppb	2.1 %
24Mg (KED)	32.485 ppb	3.1 %
27Al (KED)	-0.437 ppb	9.9 %
31P (KED)	1.653 ppb	69.3 %
39K (KED)	1.720 ppb	40.0 %
44Ca (KED)	60.227 ppb	0.5 %
47Ti (KED)	-0.003 ppb	379.0 %
51V (KED)	-0.058 ppb	8.4 %
52Cr (KED)	0.268 ppb	2.3 %
55Mn (KED)	-0.143 ppb	6.6 %
57Fe (KED)	-5.102 ppb	4.6 %
59Co (KED)	0.099 ppb	0.5 %
60Ni (KED)	0.464 ppb	7.2 %
63Cu (KED)	-0.054 ppb	0.7 %
66Zn (KED)	-0.122 ppb	3.1 %
75As (KED)	-0.015 ppb	17.9 %
78Se (KED)	-0.069 ppb	29.9 %
95Mo (KED)	0.252 ppb	1.3 %
107Ag (KED)	-0.021 ppb	3.7 %
111Cd (KED)	-0.005 ppb	31.3 %
118Sn (KED)	0.087 ppb	0.7 %
121Sb (KED)	0.358 ppb	0.3 %
137Ba (KED)	-0.019 ppb	32.5 %
205Tl (KED)	-0.040 ppb	0.5 %
208Pb (KED)	0.098 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	112.809 %
45Sc (KED)	103.111 %
72Ge (KED)	101.647 %
89Y (KED)	101.128 %
115In (KED)	99.878 %
159Tb (KED)	100.580 %
209Bi (KED)	104.420 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW39

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-42	File ID:	060823.xml-045
Sampled:	05/30/23 09:55	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:07
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0520	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*	*30.6*	*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	15.6	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.0281	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved		0.00250	0.0100	0.0250	U
7440-09-7	Potassium, Dissolved	2.00	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*	*194*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	46	Stop Time:	6/8/2023 12:09:07 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-42@5	Dilution Factor	0.2		
Start Time:	6/8/2023 12:07:13 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.004 ppb	511.0 %
11B (KED)	14.971 ppb	2.7 %
23Na (KED)	34,970.165 ppb	1.9 %
24Mg (KED)	2,809.962 ppb	1.8 %
27Al (KED)	0.361 ppb	29.7 %
31P (KED)	11.081 ppb	22.8 %
39K (KED)	359.164 ppb	1.7 %
44Ca (KED)	5,509.459 ppb	1.4 %
47Ti (KED)	0.042 ppb	59.8 %
51V (KED)	0.011 ppb	210.7 %
52Cr (KED)	0.282 ppb	2.9 %
55Mn (KED)	5.062 ppb	0.9 %
57Fe (KED)	-3.440 ppb	5.8 %
59Co (KED)	0.146 ppb	6.3 %
60Ni (KED)	0.151 ppb	14.8 %
63Cu (KED)	0.127 ppb	7.5 %
66Zn (KED)	0.232 ppb	17.9 %
75As (KED)	0.021 ppb	59.8 %
78Se (KED)	-0.085 ppb	5.5 %
95Mo (KED)	0.275 ppb	1.1 %
107Ag (KED)	-0.017 ppb	36.7 %
111Cd (KED)	0.014 ppb	43.9 %
118Sn (KED)	0.099 ppb	3.9 %
121Sb (KED)	0.391 ppb	0.8 %
137Ba (KED)	9.355 ppb	0.7 %
205Tl (KED)	-0.027 ppb	54.7 %
208Pb (KED)	0.115 ppb	17.2 %

ISTD's	Concentration average
6Li (KED)	131.288 %
45Sc (KED)	116.128 %
72Ge (KED)	110.000 %
89Y (KED)	112.714 %
115In (KED)	108.878 %
159Tb (KED)	111.956 %
209Bi (KED)	107.998 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW39

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-42RE1	File ID:	060823.xml-067
Sampled:	05/30/23 09:55	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:48
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	31.2	0.500	1.00	1.25	D
7440-23-5	Sodium, Dissolved	205	0.500	1.00	1.25	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG

6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	68	Stop Time:	6/8/2023 12:50:07 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-42RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:48:21 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.002 ppb	311.2 %
11B (KED)	1.489 ppb	18.0 %
23Na (KED)	3,694.745 ppb	1.5 %
24Mg (KED)	296.730 ppb	1.3 %
27Al (KED)	-0.378 ppb	18.1 %
31P (KED)	3.315 ppb	39.8 %
39K (KED)	37.594 ppb	4.0 %
44Ca (KED)	562.148 ppb	3.0 %
47Ti (KED)	0.010 ppb	180.2 %
51V (KED)	-0.061 ppb	4.4 %
52Cr (KED)	0.244 ppb	1.2 %
55Mn (KED)	0.330 ppb	3.9 %
57Fe (KED)	-5.460 ppb	0.4 %
59Co (KED)	0.101 ppb	0.5 %
60Ni (KED)	-0.043 ppb	22.0 %
63Cu (KED)	-0.036 ppb	5.0 %
66Zn (KED)	-0.017 ppb	29.9 %
75As (KED)	-0.017 ppb	51.4 %
78Se (KED)	-0.065 ppb	41.9 %
95Mo (KED)	0.252 ppb	1.2 %
107Ag (KED)	-0.021 ppb	8.2 %
111Cd (KED)	-0.005 ppb	29.2 %
118Sn (KED)	0.088 ppb	1.3 %
121Sb (KED)	0.361 ppb	0.4 %
137Ba (KED)	1.004 ppb	2.7 %
205Tl (KED)	-0.040 ppb	0.8 %
208Pb (KED)	0.098 ppb	0.3 %

ISTD's	Concentration average
6Li (KED)	129.887 %
45Sc (KED)	116.418 %
72Ge (KED)	113.150 %
89Y (KED)	112.627 %
115In (KED)	108.727 %
159Tb (KED)	108.038 %
209Bi (KED)	107.679 %

1 - FORM I
ANALYSIS DATA SHEET

Laboratory:			SDG:
Client:			Project:
Matrix:	Laboratory ID:		File ID:
Sampled:	Prepared:		Analyzed:
Solids:	Preparation:		Dilution:
Initial/Final:			
Batch:	Sequence:	Calibration:	Instrument:

Italicized = secondary result

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW06

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-43	File ID:	060823.xml-046
Sampled:	05/30/23 13:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:09
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
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	0.0164	0.00200	0.00500	0.0250	J, D
7440-39-3	Barium, Dissolved	0.0345	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*	*34.5*	*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	18.3	0.0200	0.0500	0.125	D
7439-96-5	Manganese, Dissolved	0.0385	0.0025	0.0100	0.0250	D
7440-02-0	Nickel, Dissolved	0.0162	0.00250	0.0100	0.0250	J, D
7440-09-7	Potassium, Dissolved	2.45	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*	*364*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	47	Stop Time:	6/8/2023 12:10:55 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-43@5	Dilution Factor	0.2		
Start Time:	6/8/2023 12:09:09 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.004 ppb	370.3 %
11B (KED)	23.916 ppb	3.6 %
23Na (KED)	65,584.276 ppb	0.4 %
24Mg (KED)	3,287.512 ppb	1.0 %
27Al (KED)	-0.226 ppb	60.5 %
31P (KED)	50.698 ppb	14.2 %
39K (KED)	440.388 ppb	0.2 %
44Ca (KED)	6,213.037 ppb	1.7 %
47Ti (KED)	0.004 ppb	313.4 %
51V (KED)	-0.031 ppb	19.3 %
52Cr (KED)	0.344 ppb	2.5 %
55Mn (KED)	6.924 ppb	0.8 %
57Fe (KED)	-1.685 ppb	41.1 %
59Co (KED)	0.398 ppb	0.5 %
60Ni (KED)	2.921 ppb	2.1 %
63Cu (KED)	0.144 ppb	1.5 %
66Zn (KED)	0.695 ppb	4.2 %
75As (KED)	2.954 ppb	0.9 %
78Se (KED)	-0.043 ppb	19.1 %
95Mo (KED)	0.678 ppb	2.6 %
107Ag (KED)	-0.010 ppb	199.2 %
111Cd (KED)	0.021 ppb	75.6 %
118Sn (KED)	0.102 ppb	16.5 %
121Sb (KED)	0.379 ppb	3.8 %
137Ba (KED)	6.217 ppb	0.9 %
205Tl (KED)	-0.022 ppb	51.1 %
208Pb (KED)	0.105 ppb	10.2 %

ISTD's	Concentration average
6Li (KED)	132.380 %
45Sc (KED)	117.538 %
72Ge (KED)	110.411 %
89Y (KED)	113.128 %
115In (KED)	106.649 %
159Tb (KED)	112.103 %
209Bi (KED)	105.225 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW06

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-43RE1	File ID:	060823.xml-068
Sampled:	05/30/23 13:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:50
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	34.0	0.500	1.00	1.25	D
7440-23-5	*Sodium, Dissolved*	*360*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	69	Stop Time:	6/8/2023 12:51:55 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-43RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:50:09 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.012 ppb	246.2 %
11B (KED)	2.198 ppb	2.4 %
23Na (KED)	6,486.601 ppb	0.9 %
24Mg (KED)	327.675 ppb	1.1 %
27Al (KED)	-0.359 ppb	9.3 %
31P (KED)	7.668 ppb	19.1 %
39K (KED)	43.989 ppb	4.4 %
44Ca (KED)	611.846 ppb	3.7 %
47Ti (KED)	0.015 ppb	66.8 %
51V (KED)	-0.066 ppb	1.9 %
52Cr (KED)	0.256 ppb	2.0 %
55Mn (KED)	0.513 ppb	2.4 %
57Fe (KED)	-5.425 ppb	1.9 %
59Co (KED)	0.127 ppb	1.0 %
60Ni (KED)	0.234 ppb	14.2 %
63Cu (KED)	-0.040 ppb	16.8 %
66Zn (KED)	0.035 ppb	44.8 %
75As (KED)	0.275 ppb	1.6 %
78Se (KED)	-0.085 ppb	18.2 %
95Mo (KED)	0.281 ppb	0.9 %
107Ag (KED)	-0.021 ppb	3.7 %
111Cd (KED)	-0.004 ppb	51.2 %
118Sn (KED)	0.085 ppb	1.4 %
121Sb (KED)	0.359 ppb	0.3 %
137Ba (KED)	0.575 ppb	5.5 %
205Tl (KED)	-0.039 ppb	1.1 %
208Pb (KED)	0.098 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	129.099 %
45Sc (KED)	117.282 %
72Ge (KED)	112.748 %
89Y (KED)	110.467 %
115In (KED)	107.976 %
159Tb (KED)	108.729 %
209Bi (KED)	105.575 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

53047WW06

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-43RE2	File ID:	060823.xml-117
Sampled:	05/30/23 13:30	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 14:20
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	330	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	118	Stop Time:	6/8/2023 2:22:38 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-43RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 2:20:51 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.002 ppb	325.6 %
11B (KED)	-0.009 ppb	791.5 %
23Na (KED)	297.217 ppb	2.7 %
24Mg (KED)	15.331 ppb	1.6 %
27Al (KED)	-0.463 ppb	9.5 %
31P (KED)	2.731 ppb	53.4 %
39K (KED)	2.281 ppb	42.2 %
44Ca (KED)	21.957 ppb	18.3 %
47Ti (KED)	-0.010 ppb	38.2 %
51V (KED)	-0.068 ppb	2.1 %
52Cr (KED)	0.242 ppb	3.7 %
55Mn (KED)	-0.198 ppb	4.4 %
57Fe (KED)	-5.728 ppb	1.9 %
59Co (KED)	0.099 ppb	0.4 %
60Ni (KED)	-0.042 ppb	10.7 %
63Cu (KED)	-0.057 ppb	6.3 %
66Zn (KED)	-0.150 ppb	4.4 %
75As (KED)	0.002 ppb	136.1 %
78Se (KED)	-0.088 ppb	6.7 %
95Mo (KED)	0.249 ppb	0.5 %
107Ag (KED)	-0.020 ppb	12.6 %
111Cd (KED)	-0.004 ppb	23.0 %
118Sn (KED)	0.086 ppb	2.4 %
121Sb (KED)	0.361 ppb	0.3 %
137Ba (KED)	-0.029 ppb	24.5 %
205Tl (KED)	-0.040 ppb	1.1 %
208Pb (KED)	0.098 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	117.100 %
45Sc (KED)	107.300 %
72Ge (KED)	105.618 %
89Y (KED)	102.908 %
115In (KED)	101.425 %
159Tb (KED)	101.684 %
209Bi (KED)	103.509 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

530DUP3

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-45	File ID:	060823.xml-047
Sampled:	05/30/23 16:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:10
		Preparation:	3005_METALS_PREP_M	Dilution:	5
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	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	0.0286	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*	*158*	*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*	*98.1*	*0.0200*	*0.0500*	*0.125*	*D, E*
7439-96-5	Manganese, Dissolved	0.0129	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	1.41	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*	*806*	*0.0500*	*0.100*	*0.125*	*D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	48	Stop Time:	6/8/2023 12:12:44 PM	Comment	1/5 6020 DISS
Sample ID:	23E0775-45@5	Dilution Factor	0.2		
Start Time:	6/8/2023 12:10:56 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.010 ppb	36.0 %
11B (KED)	20.723 ppb	3.9 %
23Na (KED)	145,097.977 ppb	1.5 %
24Mg (KED)	17,651.332 ppb	1.0 %
27Al (KED)	-0.032 ppb	59.4 %
31P (KED)	18.898 ppb	10.2 %
39K (KED)	253.297 ppb	0.5 %
44Ca (KED)	28,459.315 ppb	1.5 %
47Ti (KED)	0.009 ppb	43.4 %
51V (KED)	0.090 ppb	4.1 %
52Cr (KED)	0.273 ppb	3.9 %
55Mn (KED)	2.313 ppb	2.9 %
57Fe (KED)	-4.278 ppb	4.6 %
59Co (KED)	0.123 ppb	0.6 %
60Ni (KED)	0.155 ppb	7.8 %
63Cu (KED)	0.045 ppb	6.5 %
66Zn (KED)	0.302 ppb	12.6 %
75As (KED)	0.055 ppb	4.0 %
78Se (KED)	-0.057 ppb	28.7 %
95Mo (KED)	0.294 ppb	2.1 %
107Ag (KED)	-0.021 ppb	2.2 %
111Cd (KED)	0.016 ppb	38.9 %
118Sn (KED)	0.092 ppb	0.7 %
121Sb (KED)	0.369 ppb	0.5 %
137Ba (KED)	5.152 ppb	1.3 %
205Tl (KED)	-0.038 ppb	0.7 %
208Pb (KED)	0.100 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	128.385 %
45Sc (KED)	115.656 %
72Ge (KED)	106.863 %
89Y (KED)	109.444 %
115In (KED)	100.908 %
159Tb (KED)	107.444 %
209Bi (KED)	97.053 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

530DUP3

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-45RE1	File ID:	060823.xml-069
Sampled:	05/30/23 16:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 12:51
		Preparation:	3005_METALS_PREP_M	Dilution:	50
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035	Instrument:	ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-70-2	Calcium, Dissolved	185	0.500	1.00	1.25	D
7439-95-4	Magnesium, Dissolved	111	0.200	0.500	1.25	D
7440-23-5	*Sodium, Dissolved*	*944*	*0.500*	*1.00*	*1.25*	*D, E*

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	70	Stop Time:	6/8/2023 12:53:42 PM	Comment	1/10/5=50 6020 DISS
Sample ID:	23E0775-45RE1@50	Dilution Factor	0.2		
Start Time:	6/8/2023 12:51:57 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.002 ppb	405.0 %
11B (KED)	2.519 ppb	3.0 %
23Na (KED)	16,988.536 ppb	0.7 %
24Mg (KED)	1,992.018 ppb	0.5 %
27Al (KED)	-0.356 ppb	24.5 %
31P (KED)	3.128 ppb	45.6 %
39K (KED)	31.057 ppb	5.3 %
44Ca (KED)	3,328.061 ppb	1.3 %
47Ti (KED)	-0.002 ppb	580.7 %
51V (KED)	-0.045 ppb	2.2 %
52Cr (KED)	0.244 ppb	1.7 %
55Mn (KED)	0.096 ppb	21.6 %
57Fe (KED)	-5.568 ppb	4.2 %
59Co (KED)	0.099 ppb	0.2 %
60Ni (KED)	-0.033 ppb	22.7 %
63Cu (KED)	-0.046 ppb	11.1 %
66Zn (KED)	-0.009 ppb	95.3 %
75As (KED)	-0.011 ppb	40.2 %
78Se (KED)	-0.064 ppb	28.5 %
95Mo (KED)	0.255 ppb	0.2 %
107Ag (KED)	-0.021 ppb	7.6 %
111Cd (KED)	-0.003 ppb	106.6 %
118Sn (KED)	0.086 ppb	1.2 %
121Sb (KED)	0.358 ppb	0.6 %
137Ba (KED)	0.570 ppb	6.6 %
205Tl (KED)	-0.040 ppb	1.0 %
208Pb (KED)	0.098 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	127.481 %
45Sc (KED)	116.077 %
72Ge (KED)	109.900 %
89Y (KED)	109.088 %
115In (KED)	104.776 %
159Tb (KED)	107.142 %
209Bi (KED)	104.732 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

530DUP3

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-45RE2	File ID:	060823.xml-118
Sampled:	05/30/23 16:00	Prepared:	06/01/23 09:11	Analyzed:	06/08/23 14:22
		Preparation:	3005_METALS_PREP_M	Dilution:	1000
Initial/Final:	45 ml / 50 ml				
Batch:	B3F0016	Sequence:	S3F0145	Calibration:	EF30035
Instrument:	ICP-MS iCAP Q				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7440-23-5	Sodium, Dissolved	640	10.0	20.0	25.0	D

Italicized = secondary result

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	119	Stop Time:	6/8/2023 2:24:33 PM	Comment	1/100/10=1000 Na
Sample ID:	23E0775-45RE2@1000	Dilution Factor	0.1		
Start Time:	6/8/2023 2:22:41 PM	prepFAST DF	10		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.023 ppb	71.3 %
11B (KED)	-0.088 ppb	89.2 %
23Na (KED)	576.068 ppb	1.5 %
24Mg (KED)	72.056 ppb	2.5 %
27Al (KED)	-0.438 ppb	10.6 %
31P (KED)	0.320 ppb	378.2 %
39K (KED)	0.362 ppb	239.8 %
44Ca (KED)	117.766 ppb	6.8 %
47Ti (KED)	0.008 ppb	204.1 %
51V (KED)	-0.066 ppb	5.3 %
52Cr (KED)	0.239 ppb	2.1 %
55Mn (KED)	-0.215 ppb	4.6 %
57Fe (KED)	-5.656 ppb	2.6 %
59Co (KED)	0.096 ppb	0.1 %
60Ni (KED)	-0.067 ppb	6.0 %
63Cu (KED)	-0.062 ppb	6.4 %
66Zn (KED)	-0.149 ppb	7.5 %
75As (KED)	-0.015 ppb	64.8 %
78Se (KED)	-0.045 ppb	13.1 %
95Mo (KED)	0.251 ppb	1.1 %
107Ag (KED)	-0.020 ppb	5.4 %
111Cd (KED)	-0.005 ppb	28.8 %
118Sn (KED)	0.087 ppb	2.8 %
121Sb (KED)	0.361 ppb	0.2 %
137Ba (KED)	-0.043 ppb	17.2 %
205Tl (KED)	-0.039 ppb	0.7 %
208Pb (KED)	0.098 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	119.506 %
45Sc (KED)	109.130 %
72Ge (KED)	107.310 %
89Y (KED)	105.709 %
115In (KED)	104.143 %
159Tb (KED)	105.538 %
209Bi (KED)	105.702 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

Blank

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0015-BLK1	File ID:	061323D.xml-017
		Prepared:	06/01/23 09:07	Analyzed:	06/13/23 12:59
		Preparation:	3005_METALS_PREP_M	Dilution:	1

Batch: B3F0015 Sequence: S3F0230 Calibration: EF30057 Instrument: ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.00558	0.00500	0.0100	0.0250	J, D
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		0.0100	0.0200	0.0250	U
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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	18	Stop Time:	6/13/2023 1:01:03 PM	Comment	ND 6020 DISS
Sample ID:	B3F0015-BLK1	Dilution Factor	1		
Start Time:	6/13/2023 12:59:15 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.034 ppb	12.4 %
11B (KED)	0.122 ppb	37.9 %
23Na (KED)	0.051 ppb	260.9 %
24Mg (KED)	1.803 ppb	15.9 %
27Al (KED)	5.410 ppb	2.3 %
31P (KED)	6.366 ppb	31.2 %
39K (KED)	-2.824 ppb	60.9 %
44Ca (KED)	-4.965 ppb	23.6 %
47Ti (KED)	0.231 ppb	5.4 %
51V (KED)	0.034 ppb	9.6 %
52Cr (KED)	0.337 ppb	1.4 %
55Mn (KED)	-0.009 ppb	119.0 %
57Fe (KED)	-4.538 ppb	1.2 %
59Co (KED)	0.132 ppb	1.1 %
60Ni (KED)	-0.001 ppb	373.0 %
63Cu (KED)	-0.021 ppb	21.5 %
66Zn (KED)	-0.017 ppb	149.7 %
75As (KED)	0.020 ppb	58.5 %
78Se (KED)	0.169 ppb	7.3 %
95Mo (KED)	-0.014 ppb	75.5 %
107Ag (KED)	-0.011 ppb	24.9 %
111Cd (KED)	-0.006 ppb	54.6 %
118Sn (KED)	0.229 ppb	1.1 %
121Sb (KED)	0.309 ppb	0.6 %
137Ba (KED)	0.161 ppb	2.2 %
205Tl (KED)	0.009 ppb	13.4 %
208Pb (KED)	0.076 ppb	0.1 %

ISTD's	Concentration average
6Li (KED)	110.981 %
45Sc (KED)	104.957 %
72Ge (KED)	100.770 %
89Y (KED)	105.615 %
115In (KED)	104.026 %
159Tb (KED)	113.882 %
209Bi (KED)	105.854 %

1 - FORM I
ANALYSIS DATA SHEET

SW6020 B

Blank

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0015-BLK2	File ID:	061523B.xml-019
		Prepared:	06/01/23 09:07	Analyzed:	06/15/23 15:31
		Preparation:	3005_METALS_PREP_M	Dilution:	1

Batch: B3F0015 Sequence: S3F0259 Calibration: EF30066 Instrument: ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.00541	0.00500	0.0100	0.0250	J, D
7440-23-5	Sodium, Dissolved		0.0100	0.0200	0.0250	U

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

Labbook:
061523B.imexp

Index #:	20	Stop Time:	6/15/2023 3:33:06 PM	Comment	ND 6020 DISS Al
Sample ID:	B3F0015-BLK2	Dilution Factor	1		
Start Time:	6/15/2023 3:31:11 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.052 ppb	98.4 %
11B (KED)	0.324 ppb	9.2 %
23Na (KED)	1.411 ppb	22.5 %
24Mg (KED)	1.593 ppb	5.8 %
27Al (KED)	4.865 ppb	2.2 %
31P (KED)	8.558 ppb	35.7 %
39K (KED)	-2.072 ppb	46.5 %
44Ca (KED)	-0.043 ppb	2,461.0 %
47Ti (KED)	-0.135 ppb	37.6 %
51V (KED)	-0.082 ppb	5.1 %
52Cr (KED)	-0.009 ppb	55.4 %
55Mn (KED)	0.005 ppb	502.8 %
57Fe (KED)	5.062 ppb	5.8 %
59Co (KED)	-0.112 ppb	5.4 %
60Ni (KED)	0.033 ppb	51.2 %
63Cu (KED)	-0.041 ppb	34.6 %
66Zn (KED)	0.236 ppb	15.2 %
75As (KED)	0.055 ppb	59.7 %
78Se (KED)	0.179 ppb	34.4 %
95Mo (KED)	0.083 ppb	75.6 %
107Ag (KED)	-0.030 ppb	102.3 %
111Cd (KED)	-0.012 ppb	260.5 %
118Sn (KED)	-0.199 ppb	18.2 %
121Sb (KED)	-0.063 ppb	42.0 %
137Ba (KED)	-0.063 ppb	46.9 %
205Tl (KED)	0.027 ppb	105.7 %
208Pb (KED)	0.115 ppb	21.2 %

ISTD's	Concentration average
6Li (KED)	94.613 %
45Sc (KED)	90.743 %
72Ge (KED)	92.521 %
89Y (KED)	98.930 %
115In (KED)	99.181 %
159Tb (KED)	102.964 %
209Bi (KED)	101.340 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

LCS

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0015-BS1	File ID:	061323D.xml-018
		Prepared:	06/01/23 09:07	Analyzed:	06/13/23 13:01
		Preparation:	3005_METALS_PREP_M	Dilution:	1

Batch: B3F0015 Sequence: S3F0230 Calibration: EF30057 Instrument: ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.0999	0.00900	0.0180	0.0450	D, B
7440-36-0	Antimony, Dissolved	0.0964	0.00108	0.00360	0.00900	D
7440-38-2	Arsenic, Dissolved	0.0998	0.000720	0.00180	0.00900	D
7440-39-3	Barium, Dissolved	0.0967	0.000720	0.00180	0.00900	D
7440-41-7	Beryllium, Dissolved	0.0518	0.000180	0.000720	0.000900	D
7440-43-9	Cadmium, Dissolved	0.0978	0.000180	0.000720	0.000900	D
7440-70-2	Calcium, Dissolved	0.480	0.0180	0.0360	0.0450	D
7440-47-3	Chromium, Dissolved	0.0988	0.000900	0.00360	0.00900	D
7440-48-4	Cobalt, Dissolved	0.0986	0.000900	0.00360	0.00900	D
7440-50-8	Copper, Dissolved	0.103	0.00108	0.00360	0.00900	D
7439-89-6	Iron, Dissolved	0.494	0.0180	0.0360	0.0450	D
7439-92-1	Lead, Dissolved	0.0966	0.000540	0.00180	0.00900	D
7439-95-4	Magnesium, Dissolved	0.506	0.00720	0.0180	0.0450	D
7439-96-5	Manganese, Dissolved	0.0979	0.0009	0.0036	0.0090	D
7440-02-0	Nickel, Dissolved	0.0999	0.000900	0.00360	0.00900	D
7440-09-7	Potassium, Dissolved	0.499	0.0180	0.0360	0.0450	D
7782-49-2	Selenium, Dissolved	0.0950	0.000900	0.00360	0.00900	D
7440-22-4	Silver, Dissolved	0.100	0.000144	0.000360	0.00900	D
7440-23-5	Sodium, Dissolved	0.509	0.0180	0.0360	0.0450	D
7440-28-0	Thallium, Dissolved	0.0993	0.000144	0.000360	0.00900	D
7440-31-5	Tin, Dissolved	0.0967	0.00360	0.00720	0.00900	D
7440-62-2	Vanadium, Dissolved	0.0980	0.000540	0.00180	0.00900	D
7440-66-6	Zinc, Dissolved	0.101	0.00360	0.00720	0.00900	D

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	19	Stop Time:	6/13/2023 1:02:50 PM	Comment	ND 6020 DISS
Sample ID:	B3F0015-BS1	Dilution Factor	1		
Start Time:	6/13/2023 1:01:04 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	25.890 ppb	2.7 %
11B (KED)	49.575 ppb	3.8 %
23Na (KED)	254.397 ppb	1.2 %
24Mg (KED)	253.066 ppb	1.9 %
27Al (KED)	50.583 ppb	1.6 %
31P (KED)	258.895 ppb	8.2 %
39K (KED)	249.303 ppb	2.8 %
44Ca (KED)	239.860 ppb	0.6 %
47Ti (KED)	48.993 ppb	3.0 %
51V (KED)	48.987 ppb	1.9 %
52Cr (KED)	49.415 ppb	1.6 %
55Mn (KED)	48.952 ppb	1.6 %
57Fe (KED)	246.981 ppb	1.7 %
59Co (KED)	49.309 ppb	1.4 %
60Ni (KED)	49.951 ppb	0.6 %
63Cu (KED)	51.264 ppb	1.4 %
66Zn (KED)	50.648 ppb	1.4 %
75As (KED)	49.879 ppb	0.7 %
78Se (KED)	47.475 ppb	1.0 %
95Mo (KED)	49.854 ppb	1.7 %
107Ag (KED)	50.040 ppb	1.5 %
111Cd (KED)	48.911 ppb	1.1 %
118Sn (KED)	48.330 ppb	1.6 %
121Sb (KED)	48.192 ppb	1.2 %
137Ba (KED)	48.364 ppb	1.9 %
205Tl (KED)	49.629 ppb	1.0 %
208Pb (KED)	48.291 ppb	2.2 %

ISTD's	Concentration average
6Li (KED)	112.117 %
45Sc (KED)	105.426 %
72Ge (KED)	103.695 %
89Y (KED)	102.439 %
115In (KED)	103.239 %
159Tb (KED)	105.641 %
209Bi (KED)	105.580 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

Duplicate

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0015-DUP1	File ID:	061323D.xml-051
		Prepared:	06/01/23 09:07	Analyzed:	06/13/23 14:01
		Preparation:	3005_METALS_PREP_M	Dilution:	25

Batch: B3F0015 Sequence: S3F0230 Calibration: EF30057 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	0.0426	0.0100	0.0250	0.125	P, J, 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	155	0.250	0.500	0.625	D, E
7440-47-3	Chromium, Dissolved	0.0174	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	14.5	0.250	0.500	0.625	D
7439-92-1	Lead, Dissolved		0.00750	0.0250	0.125	U
7439-95-4	Magnesium, Dissolved	70.0	0.100	0.250	0.625	D
7439-96-5	Manganese, Dissolved	1.39	0.0125	0.0500	0.125	D
7440-02-0	Nickel, Dissolved	0.0237	0.0125	0.0500	0.125	J, D
7440-09-7	Potassium, Dissolved	3.56	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	303	0.250	0.500	0.625	D, 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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	52	Stop Time:	6/13/2023 2:03:27 PM	Comment	1/5/5=25 6020 DISS
Sample ID:	B3F0015-DUP1@25	Dilution Factor	0.2		
Start Time:	6/13/2023 2:01:35 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.023 ppb	141.5 %
11B (KED)	1.800 ppb	5.7 %
23Na (KED)	10,891.798 ppb	0.7 %
24Mg (KED)	2,518.443 ppb	0.7 %
27Al (KED)	3.789 ppb	6.6 %
31P (KED)	1.779 ppb	28.0 %
39K (KED)	128.054 ppb	3.2 %
44Ca (KED)	5,562.720 ppb	0.9 %
47Ti (KED)	0.186 ppb	4.8 %
51V (KED)	0.052 ppb	11.8 %
52Cr (KED)	0.626 ppb	2.0 %
55Mn (KED)	50.046 ppb	0.9 %
57Fe (KED)	521.227 ppb	0.9 %
59Co (KED)	0.204 ppb	1.2 %
60Ni (KED)	0.854 ppb	3.2 %
63Cu (KED)	-0.016 ppb	16.1 %
66Zn (KED)	0.099 ppb	5.5 %
75As (KED)	0.030 ppb	19.0 %
78Se (KED)	0.189 ppb	10.5 %
95Mo (KED)	-0.028 ppb	4.6 %
107Ag (KED)	-0.014 ppb	4.3 %
111Cd (KED)	-0.005 ppb	31.9 %
118Sn (KED)	0.179 ppb	0.2 %
121Sb (KED)	0.294 ppb	0.4 %
137Ba (KED)	1.535 ppb	3.5 %
205Tl (KED)	0.004 ppb	4.6 %
208Pb (KED)	0.073 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	97.794 %
45Sc (KED)	95.164 %
72Ge (KED)	96.693 %
89Y (KED)	95.879 %
115In (KED)	96.631 %
159Tb (KED)	101.584 %
209Bi (KED)	99.487 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

Blank

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0016-BLK1	File ID:	060823.xml-021
		Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:22
		Preparation:	3005_METALS_PREP_M	Dilution:	1

Batch: B3F0016 Sequence: S3F0145 Calibration: EF30035 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		0.0100	0.0200	0.0250	U
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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	22	Stop Time:	6/8/2023 11:24:34 AM	Comment	ND 6020 DISS
Sample ID:	B3F0016-BLK1	Dilution Factor	1		
Start Time:	6/8/2023 11:22:48 AM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.011 ppb	82.7 %
11B (KED)	0.094 ppb	117.7 %
23Na (KED)	3.709 ppb	2.6 %
24Mg (KED)	2.032 ppb	30.2 %
27Al (KED)	0.289 ppb	4.6 %
31P (KED)	9.445 ppb	37.3 %
39K (KED)	-1.887 ppb	14.6 %
44Ca (KED)	-1.215 ppb	109.9 %
47Ti (KED)	0.031 ppb	55.9 %
51V (KED)	-0.070 ppb	1.9 %
52Cr (KED)	0.233 ppb	2.6 %
55Mn (KED)	-0.177 ppb	6.1 %
57Fe (KED)	-5.588 ppb	1.7 %
59Co (KED)	0.109 ppb	1.2 %
60Ni (KED)	-0.046 ppb	13.9 %
63Cu (KED)	-0.034 ppb	12.6 %
66Zn (KED)	-0.162 ppb	5.3 %
75As (KED)	-0.027 ppb	14.6 %
78Se (KED)	-0.074 ppb	22.5 %
95Mo (KED)	0.258 ppb	1.5 %
107Ag (KED)	-0.016 ppb	13.3 %
111Cd (KED)	-0.005 ppb	28.6 %
118Sn (KED)	0.127 ppb	0.6 %
121Sb (KED)	0.365 ppb	0.1 %
137Ba (KED)	-0.063 ppb	9.1 %
205Tl (KED)	-0.040 ppb	0.6 %
208Pb (KED)	0.102 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	126.499 %
45Sc (KED)	112.198 %
72Ge (KED)	105.056 %
89Y (KED)	113.999 %
115In (KED)	110.768 %
159Tb (KED)	118.966 %
209Bi (KED)	111.495 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

LCS

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0016-BS1	File ID:	060823.xml-022
		Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:24
		Preparation:	3005_METALS_PREP_M	Dilution:	1

Batch: B3F0016 Sequence: S3F0145 Calibration: EF30035 Instrument: ICP-MS iCAP Q

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7429-90-5	Aluminum, Dissolved	0.106	0.00900	0.0180	0.0450	D
7440-36-0	Antimony, Dissolved	0.0934	0.00108	0.00360	0.00900	D
7440-38-2	Arsenic, Dissolved	0.101	0.000720	0.00180	0.00900	D
7440-39-3	Barium, Dissolved	0.0956	0.000720	0.00180	0.00900	D
7440-41-7	Beryllium, Dissolved	0.0536	0.000180	0.000720	0.000900	D
7440-43-9	Cadmium, Dissolved	0.101	0.000180	0.000720	0.000900	D
7440-70-2	Calcium, Dissolved	0.536	0.0180	0.0360	0.0450	D
7440-47-3	Chromium, Dissolved	0.0971	0.000900	0.00360	0.00900	D
7440-48-4	Cobalt, Dissolved	0.0977	0.000900	0.00360	0.00900	D
7440-50-8	Copper, Dissolved	0.101	0.00108	0.00360	0.00900	D
7439-89-6	Iron, Dissolved	0.506	0.0180	0.0360	0.0450	D
7439-92-1	Lead, Dissolved	0.0982	0.000540	0.00180	0.00900	D
7439-95-4	Magnesium, Dissolved	0.540	0.00720	0.0180	0.0450	D
7439-96-5	Manganese, Dissolved	0.0983	0.0009	0.0036	0.0090	D
7440-02-0	Nickel, Dissolved	0.102	0.000900	0.00360	0.00900	D
7440-09-7	Potassium, Dissolved	0.506	0.0180	0.0360	0.0450	D
7782-49-2	Selenium, Dissolved	0.0965	0.000900	0.00360	0.00900	D
7440-22-4	Silver, Dissolved	0.103	0.000144	0.000360	0.00900	D
7440-23-5	Sodium, Dissolved	0.542	0.0180	0.0360	0.0450	D
7440-28-0	Thallium, Dissolved	0.103	0.000144	0.000360	0.00900	D
7440-31-5	Tin, Dissolved	0.0939	0.00360	0.00720	0.00900	D
7440-62-2	Vanadium, Dissolved	0.100	0.000540	0.00180	0.00900	D
7440-66-6	Zinc, Dissolved	0.109	0.00360	0.00720	0.00900	D

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	23	Stop Time:	6/8/2023 11:26:21 AM	Comment	1/1 6020 DISS
Sample ID:	B3F0016-BS1	Dilution Factor	1		
Start Time:	6/8/2023 11:24:35 AM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	26.785 ppb	2.7 %
11B (KED)	52.397 ppb	3.6 %
23Na (KED)	270.842 ppb	1.3 %
24Mg (KED)	269.752 ppb	0.9 %
27Al (KED)	53.123 ppb	0.4 %
31P (KED)	273.779 ppb	6.1 %
39K (KED)	253.039 ppb	1.0 %
44Ca (KED)	268.143 ppb	4.6 %
47Ti (KED)	49.898 ppb	3.0 %
51V (KED)	50.065 ppb	1.0 %
52Cr (KED)	48.526 ppb	1.7 %
55Mn (KED)	49.146 ppb	0.6 %
57Fe (KED)	253.123 ppb	0.9 %
59Co (KED)	48.851 ppb	1.0 %
60Ni (KED)	51.012 ppb	0.7 %
63Cu (KED)	50.726 ppb	0.3 %
66Zn (KED)	54.268 ppb	1.9 %
75As (KED)	50.269 ppb	0.7 %
78Se (KED)	48.250 ppb	0.9 %
95Mo (KED)	49.487 ppb	1.4 %
107Ag (KED)	51.399 ppb	1.6 %
111Cd (KED)	50.465 ppb	2.0 %
118Sn (KED)	46.967 ppb	1.4 %
121Sb (KED)	46.723 ppb	1.5 %
137Ba (KED)	47.823 ppb	2.0 %
205Tl (KED)	51.289 ppb	3.0 %
208Pb (KED)	49.120 ppb	0.4 %

ISTD's	Concentration average
6Li (KED)	122.767 %
45Sc (KED)	109.253 %
72Ge (KED)	107.061 %
89Y (KED)	107.684 %
115In (KED)	105.262 %
159Tb (KED)	111.548 %
209Bi (KED)	114.334 %

1 - FORM I
ANALYSIS DATA SHEET
SW6020 B

Duplicate

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0016-DUP1	File ID:	060823.xml-026
		Prepared:	06/01/23 09:11	Analyzed:	06/08/23 11:31
		Preparation:	3005_METALS_PREP_M	Dilution:	25

Batch: B3F0016 Sequence: S3F0145 Calibration: EF30035 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	0.0308	0.0100	0.0250	0.125	J, 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	13.9	0.250	0.500	0.625	D
7440-47-3	Chromium, Dissolved		0.0125	0.0500	0.125	U
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	8.50	0.100	0.250	0.625	D
7439-96-5	Manganese, Dissolved		0.0125	0.0500	0.125	U
7440-02-0	Nickel, Dissolved		0.0125	0.0500	0.125	U
7440-09-7	Potassium, Dissolved	1.14	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	194	0.250	0.500	0.625	D, E
7440-28-0	Thallium, Dissolved		0.00200	0.00500	0.125	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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	27	Stop Time:	6/8/2023 11:33:39 AM	Comment	1/5/5=25 6020 DISS
Sample ID:	B3F0016-DUP1@25	Dilution Factor	0.2		
Start Time:	6/8/2023 11:31:53 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.005 ppb	188.6 %
11B (KED)	1.855 ppb	2.8 %
23Na (KED)	6,999.257 ppb	0.4 %
24Mg (KED)	306.136 ppb	2.0 %
27Al (KED)	0.154 ppb	22.6 %
31P (KED)	6.151 ppb	5.4 %
39K (KED)	40.928 ppb	4.9 %
44Ca (KED)	499.219 ppb	2.1 %
47Ti (KED)	0.021 ppb	81.2 %
51V (KED)	-0.044 ppb	13.2 %
52Cr (KED)	0.267 ppb	9.5 %
55Mn (KED)	0.165 ppb	8.2 %
57Fe (KED)	-4.805 ppb	2.7 %
59Co (KED)	0.106 ppb	0.6 %
60Ni (KED)	-0.048 ppb	13.4 %
63Cu (KED)	-0.041 ppb	13.1 %
66Zn (KED)	1.091 ppb	4.1 %
75As (KED)	0.003 ppb	112.1 %
78Se (KED)	-0.083 ppb	34.0 %
95Mo (KED)	0.282 ppb	1.3 %
107Ag (KED)	-0.016 ppb	8.2 %
111Cd (KED)	-0.001 ppb	40.6 %
118Sn (KED)	0.091 ppb	0.8 %
121Sb (KED)	0.388 ppb	2.8 %
137Ba (KED)	1.109 ppb	3.5 %
205Tl (KED)	-0.038 ppb	1.5 %
208Pb (KED)	0.108 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	123.420 %
45Sc (KED)	109.981 %
72Ge (KED)	108.361 %
89Y (KED)	108.356 %
115In (KED)	106.620 %
159Tb (KED)	110.536 %
209Bi (KED)	111.246 %

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-ICV1	Aluminum, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	94.4	94	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.6	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.1	100	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	490	98	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	96.1	96	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	488	98	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	506	101	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	95.6	96	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	488	98	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	486	97	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	95.4	95	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.5	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.0	98	ug/L	+/- 10.00%
S3F0145-HCV1	Aluminum, Dissolved	1000	1000	100	ug/L	+/- 10.00%
	Antimony, Dissolved	1000	998	100	ug/L	+/- 10.00%
	Arsenic, Dissolved	1000	1000	100	ug/L	+/- 10.00%
	Barium, Dissolved	1000	1030	103	ug/L	+/- 10.00%
	Beryllium, Dissolved	500.0	540	108	ug/L	+/- 10.00%
	Cadmium, Dissolved	1000	1030	103	ug/L	+/- 10.00%
	Calcium, Dissolved	5000	5100	102	ug/L	+/- 10.00%
	Chromium, Dissolved	1000	998	100	ug/L	+/- 10.00%
	Cobalt, Dissolved	1000	1010	101	ug/L	+/- 10.00%
	Copper, Dissolved	1000	980	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-HCV1	Iron, Dissolved	5000	5020	100	ug/L	+/- 10.00%
	Lead, Dissolved	1000	990	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	5000	5490	110	ug/L	+/- 10.00%
	Manganese, Dissolved	1000	1020	102	ug/L	+/- 10.00%
	Nickel, Dissolved	1000	1030	103	ug/L	+/- 10.00%
	Potassium, Dissolved	5000	5130	103	ug/L	+/- 10.00%
	Selenium, Dissolved	1000	967	97	ug/L	+/- 10.00%
	Silver, Dissolved	1000	1010	101	ug/L	+/- 10.00%
	Sodium, Dissolved	**5000**	**5630**	**113**	**ug/L**	+/- 10.00%
	Thallium, Dissolved	1000	1020	102	ug/L	+/- 10.00%
	Tin, Dissolved	1000	980	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	1000	1080	108	ug/L	+/- 10.00%
	Zinc, Dissolved	1000	993	99	ug/L	+/- 10.00%
S3F0145-CCV1	Aluminum, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	95.7	96	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	96.5	97	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	53.9	108	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	501	100	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	525	105	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	503	101	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	528	106	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCV1	Tin, Dissolved	100.0	95.5	96	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	101	101	ug/L	+/- 10.00%
S3F0145-CCV2	Aluminum, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	54.2	108	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	517	103	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	524	105	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	537	107	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.5	98	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	511	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	542	108	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.1	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
S3F0145-CCV3	Aluminum, Dissolved	100.0	105	105	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	94.7	95	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	96.0	96	ug/L	+/- 10.00%
	Beryllium, Dissolved	**50.00**	**55.3**	**111**	**ug/L**	+/- 10.00%
	Cadmium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	509	102	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCV3	Chromium, Dissolved	100.0	98.5	99	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	520	104	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	542	108	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	509	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.6	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	544	109	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	95.2	95	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
S3F0145-CCV4	Aluminum, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	98.0	98	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	54.6	109	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	97.5	97	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	528	106	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.5	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	540	108	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	518	104	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCV4	Silver, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	551	110	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
S3F0145-CCV5	Aluminum, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	53.8	108	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	529	106	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.0	97	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	514	103	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.5	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	536	107	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	96.9	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	539	108	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.5	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
S3F0145-CCV6	Aluminum, Dissolved	100.0	99.5	100	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	96.2	96	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCV6	Beryllium, Dissolved	50.00	52.6	105	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	510	102	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	498	100	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	517	103	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.5	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	495	99	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	505	101	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	95.9	96	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
S3F0145-CCV7	Aluminum, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	96.5	96	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	54.3	109	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	524	105	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	520	104	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	539	108	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.5	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCV7	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	96.9	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	536	107	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
S3F0145-CCV8	Aluminum, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	98.5	98	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	52.9	106	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	527	105	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	533	107	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	514	103	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	98.5	99	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	529	106	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
S3F0145-CCV9	Aluminum, Dissolved	100.0	103	103	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCV9	Antimony, Dissolved	100.0	96.4	96	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	96.6	97	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	53.2	106	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	519	104	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	98.6	99	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	522	104	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	530	106	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.8	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	533	107	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	97.1	97	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
S3F0145-CCVA	Aluminum, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	96.3	96	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	51.9	104	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	493	99	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	513	103	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCVA	Lead, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	518	104	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	505	101	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	98.5	99	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	96.7	97	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.5	98	ug/L	+/- 10.00%
S3F0145-CCVB	Aluminum, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	96.4	96	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	52.1	104	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	487	97	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	496	99	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	504	101	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	498	100	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	506	101	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	96.5	97	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCVB	Vanadium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	100	100	ug/L	+/- 10.00%
S3F0145-CCVC	Aluminum, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	97.6	98	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	53.8	108	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	101	101	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	102	102	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	523	105	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	534	107	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	514	103	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	536	107	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.2	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.0	98	ug/L	+/- 10.00%
S3F0145-CCVD	Aluminum, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	96.9	97	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	513	103	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCVD	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	519	104	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	536	107	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	96.4	96	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	98.8	99	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	545	109	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
S3F0145-CCVE	Aluminum, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	97.5	98	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	53.2	106	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	510	102	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	98.2	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	102	102	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	102	102	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	528	106	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	509	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	101	101	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
		Sequence:	S3F0145

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0145-CCVE	Sodium, Dissolved	500.0	522	104	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.2	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
S3F0145-CCVF	Aluminum, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	99.6	100	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	518	104	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	523	105	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	526	105	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.8	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	514	103	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.2	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	531	106	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	97.1	97	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	97.0	97	ug/L	+/- 10.00%

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #: 7
Sample ID: SEQ-ICV
Start Time: 6/8/2023 10:54:38 AM
Stop Time: 6/8/2023 10:56:24 AM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Verification

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.058 ppb	100.117 %	50.000 ppb	1.0 %
11B (KED)	98.623 ppb	98.623 %	100.000 ppb	1.1 %
23Na (KED)	486.266 ppb	97.253 %	500.000 ppb	2.7 %
24Mg (KED)	506.188 ppb	101.238 %	500.000 ppb	2.1 %
27Al (KED)	98.855 ppb	98.855 %	100.000 ppb	0.6 %
31P (KED)	492.736 ppb	98.547 %	500.000 ppb	3.0 %
39K (KED)	487.816 ppb	97.563 %	500.000 ppb	0.7 %
44Ca (KED)	490.242 ppb	98.048 %	500.000 ppb	3.1 %
47Ti (KED)	98.199 ppb	98.199 %	100.000 ppb	0.4 %
51V (KED)	99.529 ppb	99.529 %	100.000 ppb	0.9 %
52Cr (KED)	96.110 ppb	96.110 %	100.000 ppb	0.7 %
55Mn (KED)	95.647 ppb	95.647 %	100.000 ppb	0.5 %
57Fe (KED)	487.665 ppb	97.533 %	500.000 ppb	1.5 %
59Co (KED)	99.305 ppb	99.305 %	100.000 ppb	0.9 %
60Ni (KED)	101.237 ppb	101.237 %	100.000 ppb	2.0 %
63Cu (KED)	98.299 ppb	98.299 %	100.000 ppb	0.1 %
66Zn (KED)	97.979 ppb	97.979 %	100.000 ppb	1.5 %
75As (KED)	98.396 ppb	98.396 %	100.000 ppb	1.3 %
78Se (KED)	98.312 ppb	98.312 %	100.000 ppb	1.5 %
95Mo (KED)	95.497 ppb	95.497 %	100.000 ppb	0.5 %
107Ag (KED)	102.097 ppb	102.097 %	100.000 ppb	1.9 %
111Cd (KED)	97.931 ppb	97.931 %	100.000 ppb	0.7 %
118Sn (KED)	95.371 ppb	95.371 %	100.000 ppb	0.4 %
121Sb (KED)	94.379 ppb	94.379 %	100.000 ppb	1.0 %
137Ba (KED)	97.602 ppb	97.602 %	100.000 ppb	1.4 %
205Tl (KED)	100.644 ppb	100.644 %	100.000 ppb	2.7 %
208Pb (KED)	98.362 ppb	98.362 %	100.000 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	97.195 %
45Sc (KED)	96.323 %
72Ge (KED)	95.374 %
89Y (KED)	97.218 %
115In (KED)	96.094 %
159Tb (KED)	98.345 %
209Bi (KED)	98.774 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	13	Stop Time:	6/8/2023 11:07:44 AM	Comment	IHIGH Cal Verification
Sample ID:	SEQ-HCV1	Dilution Factor	1		
Start Time:	6/8/2023 11:05:49 AM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	539.715 ppb	107.943 %	500.000 ppb	2.5 %
11B (KED)	1,025.192 ppb	102.519 %	1,000.000 ppb	2.8 %
23Na (KED)	5,631.162 ppb	112.623 %	5,000.000 ppb	4.3 %
24Mg (KED)	5,486.799 ppb	109.736 %	5,000.000 ppb	1.2 %
27Al (KED)	1,002.605 ppb	100.261 %	1,000.000 ppb	1.0 %
31P (KED)	5,071.763 ppb	101.435 %	5,000.000 ppb	1.5 %
39K (KED)	5,134.689 ppb	102.694 %	5,000.000 ppb	2.0 %
44Ca (KED)	5,104.060 ppb	102.081 %	5,000.000 ppb	0.8 %
47Ti (KED)	1,001.725 ppb	100.172 %	1,000.000 ppb	1.4 %
51V (KED)	1,077.687 ppb	107.769 %	1,000.000 ppb	2.4 %
52Cr (KED)	997.733 ppb	99.773 %	1,000.000 ppb	1.7 %
55Mn (KED)	1,021.426 ppb	102.143 %	1,000.000 ppb	1.4 %
57Fe (KED)	5,020.886 ppb	100.418 %	5,000.000 ppb	1.0 %
59Co (KED)	1,007.580 ppb	100.758 %	1,000.000 ppb	1.5 %
60Ni (KED)	1,033.037 ppb	103.304 %	1,000.000 ppb	0.8 %
63Cu (KED)	980.199 ppb	98.020 %	1,000.000 ppb	1.2 %
66Zn (KED)	993.236 ppb	99.324 %	1,000.000 ppb	1.7 %
75As (KED)	999.750 ppb	99.975 %	1,000.000 ppb	0.6 %
78Se (KED)	966.958 ppb	96.696 %	1,000.000 ppb	0.6 %
95Mo (KED)	1,046.988 ppb	104.699 %	1,000.000 ppb	0.9 %
107Ag (KED)	1,012.655 ppb	101.265 %	1,000.000 ppb	1.2 %
111Cd (KED)	1,025.213 ppb	102.521 %	1,000.000 ppb	0.4 %
118Sn (KED)	980.048 ppb	98.005 %	1,000.000 ppb	1.9 %
121Sb (KED)	998.258 ppb	99.826 %	1,000.000 ppb	1.3 %
137Ba (KED)	1,027.036 ppb	102.704 %	1,000.000 ppb	3.4 %
205Tl (KED)	1,024.264 ppb	102.426 %	1,000.000 ppb	0.3 %
208Pb (KED)	990.429 ppb	99.043 %	1,000.000 ppb	1.5 %

ISTD's	Concentration average
6Li (KED)	114.677 %
45Sc (KED)	101.839 %
72Ge (KED)	101.464 %
89Y (KED)	103.328 %
115In (KED)	90.270 %
159Tb (KED)	105.706 %
209Bi (KED)	106.914 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	18	Stop Time:	6/8/2023 11:17:10 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 11:15:18 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	53.922 ppb	107.843 %	50.000 ppb	1.1 %
11B (KED)	104.064 ppb	104.064 %	100.000 ppb	1.3 %
23Na (KED)	528.416 ppb	105.683 %	500.000 ppb	1.2 %
24Mg (KED)	524.993 ppb	104.999 %	500.000 ppb	1.5 %
27Al (KED)	102.133 ppb	102.133 %	100.000 ppb	1.5 %
31P (KED)	521.227 ppb	104.245 %	500.000 ppb	5.6 %
39K (KED)	503.383 ppb	100.677 %	500.000 ppb	0.8 %
44Ca (KED)	500.673 ppb	100.135 %	500.000 ppb	2.7 %
47Ti (KED)	98.637 ppb	98.637 %	100.000 ppb	0.4 %
51V (KED)	98.976 ppb	98.976 %	100.000 ppb	0.9 %
52Cr (KED)	99.551 ppb	99.551 %	100.000 ppb	0.3 %
55Mn (KED)	99.318 ppb	99.318 %	100.000 ppb	0.7 %
57Fe (KED)	511.926 ppb	102.385 %	500.000 ppb	1.6 %
59Co (KED)	101.297 ppb	101.297 %	100.000 ppb	0.1 %
60Ni (KED)	101.370 ppb	101.370 %	100.000 ppb	1.4 %
63Cu (KED)	101.157 ppb	101.157 %	100.000 ppb	0.8 %
66Zn (KED)	100.565 ppb	100.565 %	100.000 ppb	0.5 %
75As (KED)	100.449 ppb	100.449 %	100.000 ppb	0.2 %
78Se (KED)	97.346 ppb	97.346 %	100.000 ppb	1.4 %
95Mo (KED)	98.722 ppb	98.722 %	100.000 ppb	0.9 %
107Ag (KED)	101.945 ppb	101.945 %	100.000 ppb	1.1 %
111Cd (KED)	103.070 ppb	103.070 %	100.000 ppb	0.4 %
118Sn (KED)	95.525 ppb	95.525 %	100.000 ppb	0.7 %
121Sb (KED)	95.668 ppb	95.668 %	100.000 ppb	1.4 %
137Ba (KED)	96.544 ppb	96.544 %	100.000 ppb	1.1 %
205Tl (KED)	101.009 ppb	101.009 %	100.000 ppb	3.4 %
208Pb (KED)	100.378 ppb	100.378 %	100.000 ppb	2.0 %

ISTD's	Concentration average
6Li (KED)	114.332 %
45Sc (KED)	103.741 %
72Ge (KED)	103.457 %
89Y (KED)	103.051 %
115In (KED)	103.538 %
159Tb (KED)	107.601 %
209Bi (KED)	109.109 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	30	Stop Time:	6/8/2023 11:39:09 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 11:37:16 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	54.161 ppb	108.322 %	50.000 ppb	0.2 %
11B (KED)	105.873 ppb	105.873 %	100.000 ppb	0.6 %
23Na (KED)	542.140 ppb	108.428 %	500.000 ppb	0.6 %
24Mg (KED)	536.611 ppb	107.322 %	500.000 ppb	0.7 %
27Al (KED)	104.099 ppb	104.099 %	100.000 ppb	1.0 %
31P (KED)	520.462 ppb	104.092 %	500.000 ppb	5.0 %
39K (KED)	510.803 ppb	102.161 %	500.000 ppb	1.2 %
44Ca (KED)	517.326 ppb	103.465 %	500.000 ppb	1.0 %
47Ti (KED)	97.407 ppb	97.407 %	100.000 ppb	1.0 %
51V (KED)	98.642 ppb	98.642 %	100.000 ppb	0.9 %
52Cr (KED)	97.825 ppb	97.825 %	100.000 ppb	0.7 %
55Mn (KED)	98.486 ppb	98.486 %	100.000 ppb	1.0 %
57Fe (KED)	523.767 ppb	104.753 %	500.000 ppb	0.9 %
59Co (KED)	100.394 ppb	100.394 %	100.000 ppb	0.3 %
60Ni (KED)	100.086 ppb	100.086 %	100.000 ppb	0.3 %
63Cu (KED)	99.571 ppb	99.571 %	100.000 ppb	0.2 %
66Zn (KED)	97.882 ppb	97.882 %	100.000 ppb	0.2 %
75As (KED)	99.882 ppb	99.882 %	100.000 ppb	1.2 %
78Se (KED)	98.425 ppb	98.425 %	100.000 ppb	1.3 %
95Mo (KED)	98.344 ppb	98.344 %	100.000 ppb	1.5 %
107Ag (KED)	100.511 ppb	100.511 %	100.000 ppb	1.3 %
111Cd (KED)	100.996 ppb	100.996 %	100.000 ppb	1.3 %
118Sn (KED)	98.077 ppb	98.077 %	100.000 ppb	1.4 %
121Sb (KED)	97.781 ppb	97.781 %	100.000 ppb	1.3 %
137Ba (KED)	99.369 ppb	99.369 %	100.000 ppb	1.4 %
205Tl (KED)	103.382 ppb	103.382 %	100.000 ppb	3.0 %
208Pb (KED)	102.565 ppb	102.565 %	100.000 ppb	1.6 %

ISTD's	Concentration average
6Li (KED)	127.842 %
45Sc (KED)	112.498 %
72Ge (KED)	109.639 %
89Y (KED)	108.807 %
115In (KED)	106.905 %
159Tb (KED)	108.218 %
209Bi (KED)	110.479 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	31	Stop Time:	6/8/2023 11:40:59 AM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 11:39:11 AM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	55.277 ppb	110.553 %	50.000 ppb	1.3 %
11B (KED)	107.839 ppb	107.839 %	100.000 ppb	0.6 %
23Na (KED)	543.700 ppb	108.740 %	500.000 ppb	0.8 %
24Mg (KED)	541.980 ppb	108.396 %	500.000 ppb	1.4 %
27Al (KED)	104.642 ppb	104.642 %	100.000 ppb	0.9 %
31P (KED)	514.510 ppb	102.902 %	500.000 ppb	3.9 %
39K (KED)	509.479 ppb	101.896 %	500.000 ppb	1.3 %
44Ca (KED)	509.309 ppb	101.862 %	500.000 ppb	1.1 %
47Ti (KED)	98.172 ppb	98.172 %	100.000 ppb	1.2 %
51V (KED)	98.899 ppb	98.899 %	100.000 ppb	0.7 %
52Cr (KED)	98.503 ppb	98.503 %	100.000 ppb	0.3 %
55Mn (KED)	98.959 ppb	98.959 %	100.000 ppb	0.4 %
57Fe (KED)	519.839 ppb	103.968 %	500.000 ppb	1.0 %
59Co (KED)	101.323 ppb	101.323 %	100.000 ppb	0.5 %
60Ni (KED)	100.891 ppb	100.891 %	100.000 ppb	0.5 %
63Cu (KED)	101.103 ppb	101.103 %	100.000 ppb	0.5 %
66Zn (KED)	99.714 ppb	99.714 %	100.000 ppb	0.7 %
75As (KED)	99.301 ppb	99.301 %	100.000 ppb	0.4 %
78Se (KED)	97.609 ppb	97.609 %	100.000 ppb	0.9 %
95Mo (KED)	98.811 ppb	98.811 %	100.000 ppb	1.4 %
107Ag (KED)	101.080 ppb	101.080 %	100.000 ppb	2.0 %
111Cd (KED)	101.709 ppb	101.709 %	100.000 ppb	1.6 %
118Sn (KED)	95.219 ppb	95.219 %	100.000 ppb	0.7 %
121Sb (KED)	94.746 ppb	94.746 %	100.000 ppb	1.1 %
137Ba (KED)	96.040 ppb	96.040 %	100.000 ppb	1.9 %
205Tl (KED)	100.262 ppb	100.262 %	100.000 ppb	1.1 %
208Pb (KED)	98.737 ppb	98.737 %	100.000 ppb	1.7 %

ISTD's	Concentration average
6Li (KED)	125.124 %
45Sc (KED)	109.466 %
72Ge (KED)	108.619 %
89Y (KED)	107.733 %
115In (KED)	107.202 %
159Tb (KED)	111.246 %
209Bi (KED)	111.338 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	43	Stop Time:	6/8/2023 12:03:30 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 12:01:33 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	54.551 ppb	109.102 %	50.000 ppb	2.2 %
11B (KED)	108.148 ppb	108.148 %	100.000 ppb	0.9 %
23Na (KED)	550.840 ppb	110.168 %	500.000 ppb	0.9 %
24Mg (KED)	540.381 ppb	108.076 %	500.000 ppb	2.2 %
27Al (KED)	104.425 ppb	104.425 %	100.000 ppb	0.8 %
31P (KED)	519.161 ppb	103.832 %	500.000 ppb	0.7 %
39K (KED)	517.635 ppb	103.527 %	500.000 ppb	1.7 %
44Ca (KED)	520.958 ppb	104.192 %	500.000 ppb	2.8 %
47Ti (KED)	98.858 ppb	98.858 %	100.000 ppb	0.9 %
51V (KED)	97.821 ppb	97.821 %	100.000 ppb	0.6 %
52Cr (KED)	97.495 ppb	97.495 %	100.000 ppb	0.9 %
55Mn (KED)	99.719 ppb	99.719 %	100.000 ppb	0.9 %
57Fe (KED)	527.996 ppb	105.599 %	500.000 ppb	1.2 %
59Co (KED)	100.376 ppb	100.376 %	100.000 ppb	1.1 %
60Ni (KED)	100.133 ppb	100.133 %	100.000 ppb	0.8 %
63Cu (KED)	99.997 ppb	99.997 %	100.000 ppb	0.8 %
66Zn (KED)	97.270 ppb	97.270 %	100.000 ppb	1.0 %
75As (KED)	100.248 ppb	100.248 %	100.000 ppb	1.0 %
78Se (KED)	97.740 ppb	97.740 %	100.000 ppb	0.3 %
95Mo (KED)	98.526 ppb	98.526 %	100.000 ppb	0.5 %
107Ag (KED)	99.144 ppb	99.144 %	100.000 ppb	1.5 %
111Cd (KED)	100.684 ppb	100.684 %	100.000 ppb	1.2 %
118Sn (KED)	97.760 ppb	97.760 %	100.000 ppb	1.7 %
121Sb (KED)	97.998 ppb	97.998 %	100.000 ppb	1.5 %
137Ba (KED)	98.746 ppb	98.746 %	100.000 ppb	1.6 %
205Tl (KED)	100.637 ppb	100.637 %	100.000 ppb	2.2 %
208Pb (KED)	99.486 ppb	99.486 %	100.000 ppb	0.7 %

ISTD's	Concentration average
6Li (KED)	138.397 %
45Sc (KED)	121.495 %
72Ge (KED)	117.104 %
89Y (KED)	115.025 %
115In (KED)	110.970 %
159Tb (KED)	113.993 %
209Bi (KED)	115.463 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

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Index #:	44	Stop Time:	6/8/2023 12:05:21 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 12:03:32 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	53.767 ppb	107.534 %	50.000 ppb	1.7 %
11B (KED)	106.817 ppb	106.817 %	100.000 ppb	1.3 %
23Na (KED)	538.796 ppb	107.759 %	500.000 ppb	1.2 %
24Mg (KED)	536.169 ppb	107.234 %	500.000 ppb	1.2 %
27Al (KED)	103.962 ppb	103.962 %	100.000 ppb	0.8 %
31P (KED)	522.302 ppb	104.460 %	500.000 ppb	2.4 %
39K (KED)	515.323 ppb	103.065 %	500.000 ppb	0.6 %
44Ca (KED)	528.996 ppb	105.799 %	500.000 ppb	0.8 %
47Ti (KED)	97.965 ppb	97.965 %	100.000 ppb	1.1 %
51V (KED)	97.509 ppb	97.509 %	100.000 ppb	1.1 %
52Cr (KED)	97.018 ppb	97.018 %	100.000 ppb	1.6 %
55Mn (KED)	98.726 ppb	98.726 %	100.000 ppb	1.0 %
57Fe (KED)	513.824 ppb	102.765 %	500.000 ppb	2.2 %
59Co (KED)	99.738 ppb	99.738 %	100.000 ppb	1.1 %
60Ni (KED)	99.202 ppb	99.202 %	100.000 ppb	1.4 %
63Cu (KED)	99.979 ppb	99.979 %	100.000 ppb	1.2 %
66Zn (KED)	96.752 ppb	96.752 %	100.000 ppb	1.5 %
75As (KED)	99.410 ppb	99.410 %	100.000 ppb	0.3 %
78Se (KED)	96.857 ppb	96.857 %	100.000 ppb	1.0 %
95Mo (KED)	96.764 ppb	96.764 %	100.000 ppb	1.0 %
107Ag (KED)	99.719 ppb	99.719 %	100.000 ppb	1.5 %
111Cd (KED)	98.673 ppb	98.673 %	100.000 ppb	2.2 %
118Sn (KED)	97.725 ppb	97.725 %	100.000 ppb	3.0 %
121Sb (KED)	96.767 ppb	96.767 %	100.000 ppb	2.9 %
137Ba (KED)	98.644 ppb	98.644 %	100.000 ppb	3.4 %
205Tl (KED)	101.715 ppb	101.715 %	100.000 ppb	3.2 %
208Pb (KED)	99.484 ppb	99.484 %	100.000 ppb	4.9 %

ISTD's	Concentration average
6Li (KED)	136.385 %
45Sc (KED)	120.342 %
72Ge (KED)	115.694 %
89Y (KED)	116.135 %
115In (KED)	111.519 %
159Tb (KED)	113.622 %
209Bi (KED)	113.883 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

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Index #:	51	Stop Time:	6/8/2023 12:18:25 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 12:16:32 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	52.634 ppb	105.267 %	50.000 ppb	1.7 %
11B (KED)	101.076 ppb	101.076 %	100.000 ppb	2.0 %
23Na (KED)	505.172 ppb	101.034 %	500.000 ppb	0.6 %
24Mg (KED)	516.663 ppb	103.333 %	500.000 ppb	1.1 %
27Al (KED)	99.533 ppb	99.533 %	100.000 ppb	1.0 %
31P (KED)	499.154 ppb	99.831 %	500.000 ppb	2.0 %
39K (KED)	494.751 ppb	98.950 %	500.000 ppb	2.8 %
44Ca (KED)	509.814 ppb	101.963 %	500.000 ppb	0.9 %
47Ti (KED)	99.117 ppb	99.117 %	100.000 ppb	1.2 %
51V (KED)	102.115 ppb	102.115 %	100.000 ppb	1.5 %
52Cr (KED)	100.929 ppb	100.929 %	100.000 ppb	0.5 %
55Mn (KED)	98.528 ppb	98.528 %	100.000 ppb	0.6 %
57Fe (KED)	497.748 ppb	99.550 %	500.000 ppb	0.7 %
59Co (KED)	99.774 ppb	99.774 %	100.000 ppb	0.9 %
60Ni (KED)	99.684 ppb	99.684 %	100.000 ppb	0.6 %
63Cu (KED)	99.624 ppb	99.624 %	100.000 ppb	0.8 %
66Zn (KED)	99.671 ppb	99.671 %	100.000 ppb	1.0 %
75As (KED)	100.188 ppb	100.188 %	100.000 ppb	0.6 %
78Se (KED)	98.577 ppb	98.577 %	100.000 ppb	1.8 %
95Mo (KED)	97.674 ppb	97.674 %	100.000 ppb	1.3 %
107Ag (KED)	101.039 ppb	101.039 %	100.000 ppb	0.5 %
111Cd (KED)	100.276 ppb	100.276 %	100.000 ppb	1.7 %
118Sn (KED)	95.903 ppb	95.903 %	100.000 ppb	1.1 %
121Sb (KED)	96.180 ppb	96.180 %	100.000 ppb	1.9 %
137Ba (KED)	97.371 ppb	97.371 %	100.000 ppb	1.3 %
205Tl (KED)	101.980 ppb	101.980 %	100.000 ppb	1.4 %
208Pb (KED)	102.398 ppb	102.398 %	100.000 ppb	2.6 %

ISTD's	Concentration average
6Li (KED)	94.020 %
45Sc (KED)	88.642 %
72Ge (KED)	88.713 %
89Y (KED)	89.699 %
115In (KED)	88.362 %
159Tb (KED)	91.984 %
209Bi (KED)	94.947 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

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Index #:	60	Stop Time:	6/8/2023 12:35:16 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 12:33:22 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	54.289 ppb	108.578 %	50.000 ppb	1.8 %
11B (KED)	105.636 ppb	105.636 %	100.000 ppb	1.5 %
23Na (KED)	536.072 ppb	107.214 %	500.000 ppb	1.0 %
24Mg (KED)	538.900 ppb	107.780 %	500.000 ppb	0.7 %
27Al (KED)	103.339 ppb	103.339 %	100.000 ppb	1.5 %
31P (KED)	539.917 ppb	107.983 %	500.000 ppb	3.4 %
39K (KED)	512.292 ppb	102.458 %	500.000 ppb	1.1 %
44Ca (KED)	524.319 ppb	104.864 %	500.000 ppb	3.5 %
47Ti (KED)	98.895 ppb	98.895 %	100.000 ppb	1.2 %
51V (KED)	99.617 ppb	99.617 %	100.000 ppb	1.0 %
52Cr (KED)	99.242 ppb	99.242 %	100.000 ppb	1.0 %
55Mn (KED)	98.478 ppb	98.478 %	100.000 ppb	0.6 %
57Fe (KED)	519.976 ppb	103.995 %	500.000 ppb	1.9 %
59Co (KED)	101.057 ppb	101.057 %	100.000 ppb	1.0 %
60Ni (KED)	101.097 ppb	101.097 %	100.000 ppb	0.5 %
63Cu (KED)	101.325 ppb	101.325 %	100.000 ppb	0.7 %
66Zn (KED)	97.273 ppb	97.273 %	100.000 ppb	0.5 %
75As (KED)	100.349 ppb	100.349 %	100.000 ppb	1.1 %
78Se (KED)	96.889 ppb	96.889 %	100.000 ppb	1.8 %
95Mo (KED)	97.589 ppb	97.589 %	100.000 ppb	1.5 %
107Ag (KED)	99.099 ppb	99.099 %	100.000 ppb	1.5 %
111Cd (KED)	99.006 ppb	99.006 %	100.000 ppb	1.5 %
118Sn (KED)	96.817 ppb	96.817 %	100.000 ppb	0.4 %
121Sb (KED)	96.485 ppb	96.485 %	100.000 ppb	0.2 %
137Ba (KED)	97.689 ppb	97.689 %	100.000 ppb	0.9 %
205Tl (KED)	100.293 ppb	100.293 %	100.000 ppb	1.6 %
208Pb (KED)	99.277 ppb	99.277 %	100.000 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	123.318 %
45Sc (KED)	112.304 %
72Ge (KED)	108.361 %
89Y (KED)	107.633 %
115In (KED)	103.781 %
159Tb (KED)	106.356 %
209Bi (KED)	106.574 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

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Index #:	72	Stop Time:	6/8/2023 12:57:21 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 12:55:32 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	52.877 ppb	105.754 %	50.000 ppb	0.3 %
11B (KED)	105.119 ppb	105.119 %	100.000 ppb	0.7 %
23Na (KED)	529.243 ppb	105.849 %	500.000 ppb	0.9 %
24Mg (KED)	533.086 ppb	106.617 %	500.000 ppb	0.4 %
27Al (KED)	101.617 ppb	101.617 %	100.000 ppb	1.0 %
31P (KED)	486.981 ppb	97.396 %	500.000 ppb	3.3 %
39K (KED)	513.980 ppb	102.796 %	500.000 ppb	1.4 %
44Ca (KED)	527.271 ppb	105.454 %	500.000 ppb	2.2 %
47Ti (KED)	98.707 ppb	98.707 %	100.000 ppb	0.6 %
51V (KED)	98.951 ppb	98.951 %	100.000 ppb	1.5 %
52Cr (KED)	98.351 ppb	98.351 %	100.000 ppb	1.9 %
55Mn (KED)	98.437 ppb	98.437 %	100.000 ppb	1.5 %
57Fe (KED)	515.183 ppb	103.037 %	500.000 ppb	1.3 %
59Co (KED)	100.563 ppb	100.563 %	100.000 ppb	0.9 %
60Ni (KED)	99.829 ppb	99.829 %	100.000 ppb	1.1 %
63Cu (KED)	100.591 ppb	100.591 %	100.000 ppb	1.3 %
66Zn (KED)	97.285 ppb	97.285 %	100.000 ppb	0.6 %
75As (KED)	99.911 ppb	99.911 %	100.000 ppb	0.8 %
78Se (KED)	97.278 ppb	97.278 %	100.000 ppb	1.3 %
95Mo (KED)	96.611 ppb	96.611 %	100.000 ppb	1.2 %
107Ag (KED)	98.516 ppb	98.516 %	100.000 ppb	1.9 %
111Cd (KED)	98.414 ppb	98.414 %	100.000 ppb	0.4 %
118Sn (KED)	99.067 ppb	99.067 %	100.000 ppb	0.9 %
121Sb (KED)	98.474 ppb	98.474 %	100.000 ppb	0.6 %
137Ba (KED)	99.070 ppb	99.070 %	100.000 ppb	0.6 %
205Tl (KED)	103.019 ppb	103.019 %	100.000 ppb	0.6 %
208Pb (KED)	101.145 ppb	101.145 %	100.000 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	126.911 %
45Sc (KED)	115.277 %
72Ge (KED)	111.688 %
89Y (KED)	110.708 %
115In (KED)	106.078 %
159Tb (KED)	106.324 %
209Bi (KED)	107.340 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

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Index #:	73	Stop Time:	6/8/2023 12:59:12 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 12:57:24 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	53.244 ppb	106.488 %	50.000 ppb	1.8 %
11B (KED)	106.207 ppb	106.207 %	100.000 ppb	1.4 %
23Na (KED)	533.098 ppb	106.620 %	500.000 ppb	1.1 %
24Mg (KED)	529.839 ppb	105.968 %	500.000 ppb	0.5 %
27Al (KED)	103.453 ppb	103.453 %	100.000 ppb	1.2 %
31P (KED)	528.944 ppb	105.789 %	500.000 ppb	5.1 %
39K (KED)	512.353 ppb	102.471 %	500.000 ppb	1.5 %
44Ca (KED)	519.465 ppb	103.893 %	500.000 ppb	4.7 %
47Ti (KED)	98.070 ppb	98.070 %	100.000 ppb	1.7 %
51V (KED)	99.008 ppb	99.008 %	100.000 ppb	0.7 %
52Cr (KED)	98.633 ppb	98.633 %	100.000 ppb	0.3 %
55Mn (KED)	98.831 ppb	98.831 %	100.000 ppb	0.7 %
57Fe (KED)	522.195 ppb	104.439 %	500.000 ppb	0.5 %
59Co (KED)	100.438 ppb	100.438 %	100.000 ppb	0.3 %
60Ni (KED)	99.318 ppb	99.318 %	100.000 ppb	1.5 %
63Cu (KED)	100.495 ppb	100.495 %	100.000 ppb	1.3 %
66Zn (KED)	97.344 ppb	97.344 %	100.000 ppb	1.2 %
75As (KED)	100.590 ppb	100.590 %	100.000 ppb	0.8 %
78Se (KED)	97.852 ppb	97.852 %	100.000 ppb	1.6 %
95Mo (KED)	98.362 ppb	98.362 %	100.000 ppb	1.2 %
107Ag (KED)	99.975 ppb	99.975 %	100.000 ppb	1.5 %
111Cd (KED)	99.866 ppb	99.866 %	100.000 ppb	0.9 %
118Sn (KED)	97.115 ppb	97.115 %	100.000 ppb	1.7 %
121Sb (KED)	96.412 ppb	96.412 %	100.000 ppb	1.2 %
137Ba (KED)	96.611 ppb	96.611 %	100.000 ppb	0.8 %
205Tl (KED)	99.779 ppb	99.779 %	100.000 ppb	1.1 %
208Pb (KED)	100.056 ppb	100.056 %	100.000 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	125.541 %
45Sc (KED)	112.964 %
72Ge (KED)	108.776 %
89Y (KED)	107.783 %
115In (KED)	103.558 %
159Tb (KED)	107.229 %
209Bi (KED)	106.169 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	82	Stop Time:	6/8/2023 1:15:35 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 1:13:45 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	51.946 ppb	103.893 %	50.000 ppb	1.4 %
11B (KED)	101.476 ppb	101.476 %	100.000 ppb	0.7 %
23Na (KED)	512.430 ppb	102.486 %	500.000 ppb	0.2 %
24Mg (KED)	517.579 ppb	103.516 %	500.000 ppb	2.0 %
27Al (KED)	100.716 ppb	100.716 %	100.000 ppb	1.4 %
31P (KED)	513.449 ppb	102.690 %	500.000 ppb	3.5 %
39K (KED)	504.827 ppb	100.965 %	500.000 ppb	0.9 %
44Ca (KED)	492.806 ppb	98.561 %	500.000 ppb	3.7 %
47Ti (KED)	99.008 ppb	99.008 %	100.000 ppb	0.7 %
51V (KED)	100.936 ppb	100.936 %	100.000 ppb	1.7 %
52Cr (KED)	101.602 ppb	101.602 %	100.000 ppb	1.4 %
55Mn (KED)	99.025 ppb	99.025 %	100.000 ppb	0.9 %
57Fe (KED)	512.902 ppb	102.580 %	500.000 ppb	2.0 %
59Co (KED)	100.393 ppb	100.393 %	100.000 ppb	0.2 %
60Ni (KED)	99.395 ppb	99.395 %	100.000 ppb	0.5 %
63Cu (KED)	99.741 ppb	99.741 %	100.000 ppb	0.3 %
66Zn (KED)	98.488 ppb	98.488 %	100.000 ppb	1.5 %
75As (KED)	99.438 ppb	99.438 %	100.000 ppb	0.5 %
78Se (KED)	96.774 ppb	96.774 %	100.000 ppb	0.6 %
95Mo (KED)	97.676 ppb	97.676 %	100.000 ppb	1.2 %
107Ag (KED)	98.516 ppb	98.516 %	100.000 ppb	1.2 %
111Cd (KED)	100.327 ppb	100.327 %	100.000 ppb	2.1 %
118Sn (KED)	96.703 ppb	96.703 %	100.000 ppb	1.5 %
121Sb (KED)	96.281 ppb	96.281 %	100.000 ppb	1.5 %
137Ba (KED)	97.761 ppb	97.761 %	100.000 ppb	1.0 %
205Tl (KED)	101.675 ppb	101.675 %	100.000 ppb	1.3 %
208Pb (KED)	100.907 ppb	100.907 %	100.000 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	104.001 %
45Sc (KED)	98.143 %
72Ge (KED)	97.837 %
89Y (KED)	96.105 %
115In (KED)	94.250 %
159Tb (KED)	96.359 %
209Bi (KED)	99.251 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	91	Stop Time:	6/8/2023 1:32:05 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 1:30:13 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	52.128 ppb	104.257 %	50.000 ppb	0.9 %
11B (KED)	100.960 ppb	100.960 %	100.000 ppb	1.0 %
23Na (KED)	506.127 ppb	101.225 %	500.000 ppb	2.3 %
24Mg (KED)	504.047 ppb	100.809 %	500.000 ppb	2.8 %
27Al (KED)	98.344 ppb	98.344 %	100.000 ppb	1.8 %
31P (KED)	508.254 ppb	101.651 %	500.000 ppb	5.5 %
39K (KED)	497.606 ppb	99.521 %	500.000 ppb	2.0 %
44Ca (KED)	487.202 ppb	97.440 %	500.000 ppb	1.9 %
47Ti (KED)	98.454 ppb	98.454 %	100.000 ppb	0.8 %
51V (KED)	103.168 ppb	103.168 %	100.000 ppb	0.7 %
52Cr (KED)	101.217 ppb	101.217 %	100.000 ppb	0.4 %
55Mn (KED)	97.764 ppb	97.764 %	100.000 ppb	0.8 %
57Fe (KED)	495.837 ppb	99.167 %	500.000 ppb	0.4 %
59Co (KED)	101.189 ppb	101.189 %	100.000 ppb	1.1 %
60Ni (KED)	100.571 ppb	100.571 %	100.000 ppb	1.6 %
63Cu (KED)	100.570 ppb	100.570 %	100.000 ppb	0.3 %
66Zn (KED)	100.122 ppb	100.122 %	100.000 ppb	1.6 %
75As (KED)	100.264 ppb	100.264 %	100.000 ppb	1.1 %
78Se (KED)	96.786 ppb	96.786 %	100.000 ppb	0.7 %
95Mo (KED)	98.191 ppb	98.191 %	100.000 ppb	0.8 %
107Ag (KED)	102.086 ppb	102.086 %	100.000 ppb	0.2 %
111Cd (KED)	101.569 ppb	101.569 %	100.000 ppb	0.7 %
118Sn (KED)	96.518 ppb	96.518 %	100.000 ppb	1.2 %
121Sb (KED)	96.428 ppb	96.428 %	100.000 ppb	1.5 %
137Ba (KED)	98.661 ppb	98.661 %	100.000 ppb	1.5 %
205Tl (KED)	103.959 ppb	103.959 %	100.000 ppb	2.0 %
208Pb (KED)	103.198 ppb	103.198 %	100.000 ppb	1.8 %

ISTD's	Concentration average
6Li (KED)	93.581 %
45Sc (KED)	88.763 %
72Ge (KED)	90.124 %
89Y (KED)	90.244 %
115In (KED)	89.829 %
159Tb (KED)	92.102 %
209Bi (KED)	95.779 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	103	Stop Time:	6/8/2023 1:54:32 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 1:52:36 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	53.847 ppb	107.694 %	50.000 ppb	2.0 %
11B (KED)	104.795 ppb	104.795 %	100.000 ppb	1.5 %
23Na (KED)	535.628 ppb	107.126 %	500.000 ppb	0.6 %
24Mg (KED)	533.967 ppb	106.793 %	500.000 ppb	0.7 %
27Al (KED)	103.475 ppb	103.475 %	100.000 ppb	1.3 %
31P (KED)	527.485 ppb	105.497 %	500.000 ppb	5.8 %
39K (KED)	514.087 ppb	102.817 %	500.000 ppb	1.4 %
44Ca (KED)	515.305 ppb	103.061 %	500.000 ppb	2.7 %
47Ti (KED)	99.344 ppb	99.344 %	100.000 ppb	0.6 %
51V (KED)	99.589 ppb	99.589 %	100.000 ppb	0.3 %
52Cr (KED)	98.459 ppb	98.459 %	100.000 ppb	0.5 %
55Mn (KED)	98.366 ppb	98.366 %	100.000 ppb	0.7 %
57Fe (KED)	522.849 ppb	104.570 %	500.000 ppb	2.1 %
59Co (KED)	102.190 ppb	102.190 %	100.000 ppb	0.3 %
60Ni (KED)	101.077 ppb	101.077 %	100.000 ppb	0.7 %
63Cu (KED)	102.288 ppb	102.288 %	100.000 ppb	0.4 %
66Zn (KED)	97.982 ppb	97.982 %	100.000 ppb	1.3 %
75As (KED)	100.845 ppb	100.845 %	100.000 ppb	0.3 %
78Se (KED)	96.810 ppb	96.810 %	100.000 ppb	0.4 %
95Mo (KED)	98.999 ppb	98.999 %	100.000 ppb	1.4 %
107Ag (KED)	100.551 ppb	100.551 %	100.000 ppb	0.3 %
111Cd (KED)	100.735 ppb	100.735 %	100.000 ppb	1.3 %
118Sn (KED)	98.249 ppb	98.249 %	100.000 ppb	1.9 %
121Sb (KED)	97.552 ppb	97.552 %	100.000 ppb	1.9 %
137Ba (KED)	99.198 ppb	99.198 %	100.000 ppb	1.4 %
205Tl (KED)	102.234 ppb	102.234 %	100.000 ppb	2.8 %
208Pb (KED)	100.002 ppb	100.002 %	100.000 ppb	1.8 %

ISTD's	Concentration average
6Li (KED)	129.995 %
45Sc (KED)	115.631 %
72Ge (KED)	112.653 %
89Y (KED)	110.146 %
115In (KED)	107.602 %
159Tb (KED)	108.400 %
209Bi (KED)	109.970 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
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Index #:	104	Stop Time:	6/8/2023 1:56:23 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 1:54:35 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	54.140 ppb	108.279 %	50.000 ppb	2.3 %
11B (KED)	105.939 ppb	105.939 %	100.000 ppb	2.5 %
23Na (KED)	545.372 ppb	109.074 %	500.000 ppb	1.9 %
24Mg (KED)	535.554 ppb	107.111 %	500.000 ppb	1.3 %
27Al (KED)	102.483 ppb	102.483 %	100.000 ppb	2.5 %
31P (KED)	520.234 ppb	104.047 %	500.000 ppb	3.1 %
39K (KED)	514.529 ppb	102.906 %	500.000 ppb	2.3 %
44Ca (KED)	512.858 ppb	102.572 %	500.000 ppb	1.4 %
47Ti (KED)	98.847 ppb	98.847 %	100.000 ppb	0.6 %
51V (KED)	98.873 ppb	98.873 %	100.000 ppb	0.7 %
52Cr (KED)	99.083 ppb	99.083 %	100.000 ppb	0.2 %
55Mn (KED)	97.700 ppb	97.700 %	100.000 ppb	0.2 %
57Fe (KED)	519.292 ppb	103.858 %	500.000 ppb	0.7 %
59Co (KED)	101.464 ppb	101.464 %	100.000 ppb	0.8 %
60Ni (KED)	99.924 ppb	99.924 %	100.000 ppb	1.0 %
63Cu (KED)	101.072 ppb	101.072 %	100.000 ppb	0.9 %
66Zn (KED)	97.762 ppb	97.762 %	100.000 ppb	1.4 %
75As (KED)	100.276 ppb	100.276 %	100.000 ppb	0.8 %
78Se (KED)	96.443 ppb	96.443 %	100.000 ppb	0.9 %
95Mo (KED)	98.550 ppb	98.550 %	100.000 ppb	1.0 %
107Ag (KED)	98.844 ppb	98.844 %	100.000 ppb	1.8 %
111Cd (KED)	100.549 ppb	100.549 %	100.000 ppb	1.4 %
118Sn (KED)	98.678 ppb	98.678 %	100.000 ppb	0.5 %
121Sb (KED)	98.369 ppb	98.369 %	100.000 ppb	0.4 %
137Ba (KED)	96.928 ppb	96.928 %	100.000 ppb	1.5 %
205Tl (KED)	102.463 ppb	102.463 %	100.000 ppb	1.7 %
208Pb (KED)	101.834 ppb	101.834 %	100.000 ppb	1.1 %

ISTD's	Concentration average
6Li (KED)	128.670 %
45Sc (KED)	113.809 %
72Ge (KED)	111.433 %
89Y (KED)	109.088 %
115In (KED)	106.298 %
159Tb (KED)	106.748 %
209Bi (KED)	108.284 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
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Index #:	115	Stop Time:	6/8/2023 2:16:58 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 2:15:07 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	53.230 ppb	106.459 %	50.000 ppb	0.7 %
11B (KED)	104.768 ppb	104.768 %	100.000 ppb	3.3 %
23Na (KED)	522.250 ppb	104.450 %	500.000 ppb	0.6 %
24Mg (KED)	527.934 ppb	105.587 %	500.000 ppb	1.6 %
27Al (KED)	100.809 ppb	100.809 %	100.000 ppb	1.5 %
31P (KED)	515.241 ppb	103.048 %	500.000 ppb	7.9 %
39K (KED)	508.654 ppb	101.731 %	500.000 ppb	0.6 %
44Ca (KED)	510.337 ppb	102.067 %	500.000 ppb	6.4 %
47Ti (KED)	98.453 ppb	98.453 %	100.000 ppb	1.0 %
51V (KED)	100.118 ppb	100.118 %	100.000 ppb	0.7 %
52Cr (KED)	98.226 ppb	98.226 %	100.000 ppb	0.7 %
55Mn (KED)	98.673 ppb	98.673 %	100.000 ppb	0.4 %
57Fe (KED)	509.846 ppb	101.969 %	500.000 ppb	1.3 %
59Co (KED)	101.552 ppb	101.552 %	100.000 ppb	0.2 %
60Ni (KED)	99.694 ppb	99.694 %	100.000 ppb	1.2 %
63Cu (KED)	100.027 ppb	100.027 %	100.000 ppb	0.7 %
66Zn (KED)	98.920 ppb	98.920 %	100.000 ppb	0.6 %
75As (KED)	100.401 ppb	100.401 %	100.000 ppb	0.4 %
78Se (KED)	97.927 ppb	97.927 %	100.000 ppb	1.1 %
95Mo (KED)	97.314 ppb	97.314 %	100.000 ppb	0.7 %
107Ag (KED)	100.971 ppb	100.971 %	100.000 ppb	0.6 %
111Cd (KED)	99.967 ppb	99.967 %	100.000 ppb	0.6 %
118Sn (KED)	98.185 ppb	98.185 %	100.000 ppb	2.2 %
121Sb (KED)	97.530 ppb	97.530 %	100.000 ppb	2.0 %
137Ba (KED)	98.322 ppb	98.322 %	100.000 ppb	2.9 %
205Tl (KED)	103.827 ppb	103.827 %	100.000 ppb	0.9 %
208Pb (KED)	102.455 ppb	102.455 %	100.000 ppb	1.5 %

ISTD's	Concentration average
6Li (KED)	112.099 %
45Sc (KED)	102.913 %
72Ge (KED)	101.295 %
89Y (KED)	100.968 %
115In (KED)	99.032 %
159Tb (KED)	100.063 %
209Bi (KED)	103.248 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	125	Stop Time:	6/8/2023 2:35:52 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/8/2023 2:34:02 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	53.113 ppb	106.226 %	50.000 ppb	0.5 %
11B (KED)	104.147 ppb	104.147 %	100.000 ppb	2.1 %
23Na (KED)	531.435 ppb	106.287 %	500.000 ppb	0.8 %
24Mg (KED)	526.111 ppb	105.222 %	500.000 ppb	0.5 %
27Al (KED)	102.441 ppb	102.441 %	100.000 ppb	0.4 %
31P (KED)	516.977 ppb	103.395 %	500.000 ppb	3.0 %
39K (KED)	513.625 ppb	102.725 %	500.000 ppb	0.6 %
44Ca (KED)	517.512 ppb	103.502 %	500.000 ppb	3.2 %
47Ti (KED)	98.414 ppb	98.414 %	100.000 ppb	0.8 %
51V (KED)	99.122 ppb	99.122 %	100.000 ppb	0.3 %
52Cr (KED)	98.942 ppb	98.942 %	100.000 ppb	0.7 %
55Mn (KED)	98.824 ppb	98.824 %	100.000 ppb	0.3 %
57Fe (KED)	523.218 ppb	104.644 %	500.000 ppb	1.1 %
59Co (KED)	101.008 ppb	101.008 %	100.000 ppb	1.0 %
60Ni (KED)	99.565 ppb	99.565 %	100.000 ppb	0.4 %
63Cu (KED)	100.626 ppb	100.626 %	100.000 ppb	0.7 %
66Zn (KED)	96.970 ppb	96.970 %	100.000 ppb	1.0 %
75As (KED)	99.782 ppb	99.782 %	100.000 ppb	0.5 %
78Se (KED)	97.242 ppb	97.242 %	100.000 ppb	0.5 %
95Mo (KED)	98.647 ppb	98.647 %	100.000 ppb	0.6 %
107Ag (KED)	99.696 ppb	99.696 %	100.000 ppb	1.3 %
111Cd (KED)	101.118 ppb	101.118 %	100.000 ppb	0.5 %
118Sn (KED)	97.108 ppb	97.108 %	100.000 ppb	1.9 %
121Sb (KED)	97.392 ppb	97.392 %	100.000 ppb	1.7 %
137Ba (KED)	99.635 ppb	99.635 %	100.000 ppb	1.2 %
205Tl (KED)	101.632 ppb	101.632 %	100.000 ppb	0.4 %
208Pb (KED)	101.467 ppb	101.467 %	100.000 ppb	1.4 %

ISTD's	Concentration average
6Li (KED)	122.948 %
45Sc (KED)	111.700 %
72Ge (KED)	108.628 %
89Y (KED)	106.121 %
115In (KED)	104.729 %
159Tb (KED)	105.671 %
209Bi (KED)	106.252 %

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-ICV1	Aluminum, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	96.1	96	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	96.8	97	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	48.6	97	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	493	99	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	96.7	97	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	487	97	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	97.5	98	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	496	99	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	486	97	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	96.1	96	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
S3F0230-HCV1	Aluminum, Dissolved	1000	987	99	ug/L	+/- 10.00%
	Antimony, Dissolved	1000	1040	104	ug/L	+/- 10.00%
	Arsenic, Dissolved	1000	1000	100	ug/L	+/- 10.00%
	Barium, Dissolved	1000	1000	100	ug/L	+/- 10.00%
	Beryllium, Dissolved	500.0	536	107	ug/L	+/- 10.00%
	Cadmium, Dissolved	1000	1020	102	ug/L	+/- 10.00%
	Calcium, Dissolved	5000	4940	99	ug/L	+/- 10.00%
	Chromium, Dissolved	1000	959	96	ug/L	+/- 10.00%
	Cobalt, Dissolved	1000	989	99	ug/L	+/- 10.00%
	Copper, Dissolved	1000	975	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-HCV1	Iron, Dissolved	5000	4970	99	ug/L	+/- 10.00%
	Lead, Dissolved	1000	977	98	ug/L	+/- 10.00%
	Magnesium, Dissolved	5000	5370	107	ug/L	+/- 10.00%
	Manganese, Dissolved	1000	1000	100	ug/L	+/- 10.00%
	Nickel, Dissolved	1000	992	99	ug/L	+/- 10.00%
	Potassium, Dissolved	5000	5040	101	ug/L	+/- 10.00%
	Selenium, Dissolved	1000	956	96	ug/L	+/- 10.00%
	Silver, Dissolved	1000	1010	101	ug/L	+/- 10.00%
	Sodium, Dissolved	**5000**	**5590**	**112**	**ug/L**	+/- 10.00%
	Thallium, Dissolved	1000	979	98	ug/L	+/- 10.00%
	Tin, Dissolved	1000	1010	101	ug/L	+/- 10.00%
	Vanadium, Dissolved	1000	1020	102	ug/L	+/- 10.00%
	Zinc, Dissolved	1000	981	98	ug/L	+/- 10.00%
S3F0230-CCV1	Aluminum, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.1	97	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	52.9	106	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	501	100	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	505	101	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	509	102	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	497	99	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	98.1	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	503	101	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	103	103	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCV1	Tin, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	101	101	ug/L	+/- 10.00%
S3F0230-CCV2	Aluminum, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.5	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.8	102	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	490	98	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	499	100	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	509	102	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	495	99	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	506	101	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	101	101	ug/L	+/- 10.00%
S3F0230-CCV3	Aluminum, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	54.0	108	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	490	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCV3	Chromium, Dissolved	100.0	98.0	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	499	100	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	522	104	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	514	103	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.2	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	541	108	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.5	99	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	101	101	ug/L	+/- 10.00%
S3F0230-CCV4	Aluminum, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	54.2	108	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	502	100	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	98.0	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	501	100	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	528	106	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCV4	Silver, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	539	108	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	98.1	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	101	101	ug/L	+/- 10.00%
S3F0230-CCV5	Aluminum, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	95.7	96	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	52.6	105	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	493	99	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.5	97	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	503	101	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	520	104	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	514	103	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	528	106	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	97.1	97	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	101	101	ug/L	+/- 10.00%
S3F0230-CCV6	Aluminum, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.5	97	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCV6	Beryllium, Dissolved	50.00	53.3	107	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	488	98	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	499	100	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	520	104	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.5	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	506	101	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	104	104	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	525	105	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	96.6	97	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	100	100	ug/L	+/- 10.00%
S3F0230-CCV7	Aluminum, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.1	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	52.5	105	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	496	99	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.5	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	506	101	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	519	104	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCV7	Nickel, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	515	103	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	523	105	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	97.9	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	101	101	ug/L	+/- 10.00%
S3F0230-CCV8	Aluminum, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.4	97	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	52.8	106	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	99.5	100	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	506	101	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	499	100	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	525	105	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.5	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	512	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	526	105	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.2	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.6	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	100	100	ug/L	+/- 10.00%
S3F0230-CCV9	Aluminum, Dissolved	100.0	101	101	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCV9	Antimony, Dissolved	100.0	99.3	99	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	50.6	101	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	488	98	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.2	97	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	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	508	102	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	511	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.2	97	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	509	102	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	99.0	99	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%
S3F0230-CCVA	Aluminum, Dissolved	100.0	99.4	99	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	49.2	98	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	492	98	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	492	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCVA	Lead, Dissolved	100.0	99.5	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	498	100	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	98.5	99	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	489	98	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	98.4	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	501	100	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	97.9	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	100	100	ug/L	+/- 10.00%
S3F0230-CCVB	Aluminum, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	97.2	97	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	51.2	102	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	490	98	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	98.0	98	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	496	99	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	506	101	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	506	101	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	503	101	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	96.6	97	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.9	99	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCVB	Vanadium, Dissolved	100.0	97.8	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
S3F0230-CCVC	Aluminum, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.5	98	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	48.3	97	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	98.6	99	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	494	99	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	497	99	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	484	97	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	491	98	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	483	97	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	99.9	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	100	100	ug/L	+/- 10.00%
S3F0230-CCVD	Aluminum, Dissolved	100.0	99.2	99	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	99.9	100	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	49.9	100	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	486	97	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCVD	Cobalt, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	492	98	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	497	99	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	98.5	99	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	97.7	98	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	509	102	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	97.6	98	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Sodium, Dissolved	500.0	494	99	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.1	98	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	97.6	98	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.0	99	ug/L	+/- 10.00%
S3F0230-CCVE	Aluminum, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Antimony, Dissolved	100.0	98.8	99	ug/L	+/- 10.00%
	Arsenic, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	98.7	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	48.2	96	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	482	96	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	99.6	100	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	504	101	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	487	97	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	99.8	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	492	98	ug/L	+/- 10.00%
	Selenium, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Silver, Dissolved	100.0	98.3	98	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
		Sequence:	S3F0230

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0230-CCVE	Sodium, Dissolved	500.0	479	96	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	103	103	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	97.3	97	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	100	100	ug/L	+/- 10.00%
S3F0230-CCVF	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	101	101	ug/L	+/- 10.00%
	Barium, Dissolved	100.0	99.1	99	ug/L	+/- 10.00%
	Beryllium, Dissolved	50.00	49.3	99	ug/L	+/- 10.00%
	Cadmium, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%
	Calcium, Dissolved	500.0	491	98	ug/L	+/- 10.00%
	Chromium, Dissolved	100.0	99.2	99	ug/L	+/- 10.00%
	Cobalt, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Copper, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Iron, Dissolved	500.0	504	101	ug/L	+/- 10.00%
	Lead, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Magnesium, Dissolved	500.0	511	102	ug/L	+/- 10.00%
	Manganese, Dissolved	100.0	101	101	ug/L	+/- 10.00%
	Nickel, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Potassium, Dissolved	500.0	508	102	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	507	101	ug/L	+/- 10.00%
	Thallium, Dissolved	100.0	102	102	ug/L	+/- 10.00%
	Tin, Dissolved	100.0	98.8	99	ug/L	+/- 10.00%
	Vanadium, Dissolved	100.0	100	100	ug/L	+/- 10.00%
	Zinc, Dissolved	100.0	99.7	100	ug/L	+/- 10.00%

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 7
Sample ID: SEQ-ICV
Start Time: 6/13/2023 12:39:03 PM
Stop Time: 6/13/2023 12:40:48 PM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Verification

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	48.575 ppb	97.150 %	50.000 ppb	3.1 %
11B (KED)	97.625 ppb	97.625 %	100.000 ppb	1.1 %
23Na (KED)	486.303 ppb	97.261 %	500.000 ppb	1.3 %
24Mg (KED)	511.248 ppb	102.250 %	500.000 ppb	0.8 %
27Al (KED)	101.624 ppb	101.624 %	100.000 ppb	0.3 %
31P (KED)	499.173 ppb	99.835 %	500.000 ppb	6.2 %
39K (KED)	496.283 ppb	99.257 %	500.000 ppb	1.2 %
44Ca (KED)	492.582 ppb	98.516 %	500.000 ppb	5.0 %
47Ti (KED)	100.036 ppb	100.036 %	100.000 ppb	1.2 %
51V (KED)	100.432 ppb	100.432 %	100.000 ppb	0.7 %
52Cr (KED)	96.687 ppb	96.687 %	100.000 ppb	1.5 %
55Mn (KED)	97.513 ppb	97.513 %	100.000 ppb	0.4 %
57Fe (KED)	486.828 ppb	97.366 %	500.000 ppb	1.6 %
59Co (KED)	99.161 ppb	99.161 %	100.000 ppb	0.7 %
60Ni (KED)	101.014 ppb	101.014 %	100.000 ppb	0.9 %
63Cu (KED)	99.401 ppb	99.401 %	100.000 ppb	1.2 %
66Zn (KED)	98.691 ppb	98.691 %	100.000 ppb	0.8 %
75As (KED)	98.558 ppb	98.558 %	100.000 ppb	0.9 %
78Se (KED)	97.391 ppb	97.391 %	100.000 ppb	1.6 %
95Mo (KED)	97.498 ppb	97.498 %	100.000 ppb	0.3 %
107Ag (KED)	97.410 ppb	97.410 %	100.000 ppb	1.3 %
111Cd (KED)	97.443 ppb	97.443 %	100.000 ppb	1.2 %
118Sn (KED)	96.089 ppb	96.089 %	100.000 ppb	1.6 %
121Sb (KED)	96.118 ppb	96.118 %	100.000 ppb	2.0 %
137Ba (KED)	96.753 ppb	96.753 %	100.000 ppb	2.0 %
205Tl (KED)	99.822 ppb	99.822 %	100.000 ppb	0.5 %
208Pb (KED)	97.931 ppb	97.931 %	100.000 ppb	2.8 %

ISTD's	Concentration average
6Li (KED)	100.176 %
45Sc (KED)	100.327 %
72Ge (KED)	98.478 %
89Y (KED)	98.198 %
115In (KED)	99.856 %
159Tb (KED)	102.648 %
209Bi (KED)	101.469 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 12
Sample ID: SEQ-HCV1
Start Time: 6/13/2023 12:48:22 PM
Stop Time: 6/13/2023 12:50:11 PM
Dilution Factor 1
prepFAST DF 1
Comment IHIGH Cal Verification

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	535.966 ppb	107.193 %	500.000 ppb	0.8 %
11B (KED)	1,007.034 ppb	100.703 %	1,000.000 ppb	1.1 %
23Na (KED)	5,585.550 ppb	111.711 %	5,000.000 ppb	0.9 %
24Mg (KED)	5,374.256 ppb	107.485 %	5,000.000 ppb	1.3 %
27Al (KED)	993.050 ppb	99.305 %	1,000.000 ppb	1.5 %
31P (KED)	5,012.337 ppb	100.247 %	5,000.000 ppb	1.4 %
39K (KED)	5,036.581 ppb	100.732 %	5,000.000 ppb	1.6 %
44Ca (KED)	4,944.125 ppb	98.883 %	5,000.000 ppb	1.4 %
47Ti (KED)	991.602 ppb	99.160 %	1,000.000 ppb	0.9 %
51V (KED)	1,019.833 ppb	101.983 %	1,000.000 ppb	1.2 %
52Cr (KED)	959.341 ppb	95.934 %	1,000.000 ppb	0.7 %
55Mn (KED)	1,000.558 ppb	100.056 %	1,000.000 ppb	0.6 %
57Fe (KED)	4,966.516 ppb	99.330 %	5,000.000 ppb	0.7 %
59Co (KED)	989.135 ppb	98.913 %	1,000.000 ppb	0.3 %
60Ni (KED)	992.043 ppb	99.204 %	1,000.000 ppb	1.9 %
63Cu (KED)	975.017 ppb	97.502 %	1,000.000 ppb	0.9 %
66Zn (KED)	980.635 ppb	98.063 %	1,000.000 ppb	0.5 %
75As (KED)	1,001.481 ppb	100.148 %	1,000.000 ppb	0.7 %
78Se (KED)	956.373 ppb	95.637 %	1,000.000 ppb	0.8 %
95Mo (KED)	1,066.698 ppb	106.670 %	1,000.000 ppb	2.3 %
107Ag (KED)	1,007.814 ppb	100.781 %	1,000.000 ppb	3.0 %
111Cd (KED)	1,017.248 ppb	101.725 %	1,000.000 ppb	5.0 %
118Sn (KED)	1,014.587 ppb	101.459 %	1,000.000 ppb	5.4 %
121Sb (KED)	1,038.382 ppb	103.838 %	1,000.000 ppb	4.4 %
137Ba (KED)	1,001.513 ppb	100.151 %	1,000.000 ppb	2.8 %
205Tl (KED)	978.554 ppb	97.855 %	1,000.000 ppb	1.2 %
208Pb (KED)	977.008 ppb	97.701 %	1,000.000 ppb	0.9 %

ISTD's	Concentration average
6Li (KED)	126.205 %
45Sc (KED)	113.322 %
72Ge (KED)	111.712 %
89Y (KED)	111.994 %
115In (KED)	107.703 %
159Tb (KED)	117.310 %
209Bi (KED)	112.226 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	16	Stop Time:	6/13/2023 12:57:24 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 12:55:36 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	52.899 ppb	105.797 %	50.000 ppb	1.5 %
11B (KED)	100.379 ppb	100.379 %	100.000 ppb	0.8 %
23Na (KED)	502.924 ppb	100.585 %	500.000 ppb	0.8 %
24Mg (KED)	509.242 ppb	101.848 %	500.000 ppb	1.6 %
27Al (KED)	97.555 ppb	97.555 %	100.000 ppb	1.9 %
31P (KED)	500.748 ppb	100.150 %	500.000 ppb	6.7 %
39K (KED)	496.881 ppb	99.376 %	500.000 ppb	0.1 %
44Ca (KED)	501.049 ppb	100.210 %	500.000 ppb	0.7 %
47Ti (KED)	99.433 ppb	99.433 %	100.000 ppb	0.3 %
51V (KED)	101.338 ppb	101.338 %	100.000 ppb	1.1 %
52Cr (KED)	101.012 ppb	101.012 %	100.000 ppb	1.3 %
55Mn (KED)	98.858 ppb	98.858 %	100.000 ppb	0.2 %
57Fe (KED)	505.308 ppb	101.062 %	500.000 ppb	0.4 %
59Co (KED)	101.832 ppb	101.832 %	100.000 ppb	0.9 %
60Ni (KED)	101.766 ppb	101.766 %	100.000 ppb	0.9 %
63Cu (KED)	103.399 ppb	103.399 %	100.000 ppb	0.7 %
66Zn (KED)	100.965 ppb	100.965 %	100.000 ppb	0.7 %
75As (KED)	100.701 ppb	100.701 %	100.000 ppb	0.7 %
78Se (KED)	98.054 ppb	98.054 %	100.000 ppb	0.9 %
95Mo (KED)	103.169 ppb	103.169 %	100.000 ppb	0.9 %
107Ag (KED)	103.131 ppb	103.131 %	100.000 ppb	1.3 %
111Cd (KED)	102.519 ppb	102.519 %	100.000 ppb	1.0 %
118Sn (KED)	100.164 ppb	100.164 %	100.000 ppb	1.1 %
121Sb (KED)	100.610 ppb	100.610 %	100.000 ppb	1.5 %
137Ba (KED)	97.089 ppb	97.089 %	100.000 ppb	1.9 %
205Tl (KED)	102.703 ppb	102.703 %	100.000 ppb	1.3 %
208Pb (KED)	101.014 ppb	101.014 %	100.000 ppb	2.1 %

ISTD's	Concentration average
6Li (KED)	101.283 %
45Sc (KED)	94.991 %
72Ge (KED)	96.633 %
89Y (KED)	94.970 %
115In (KED)	95.258 %
159Tb (KED)	100.487 %
209Bi (KED)	100.545 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	28	Stop Time:	6/13/2023 1:18:56 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 1:17:08 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.804 ppb	101.608 %	50.000 ppb	0.6 %
11B (KED)	99.217 ppb	99.217 %	100.000 ppb	1.1 %
23Na (KED)	505.927 ppb	101.185 %	500.000 ppb	0.6 %
24Mg (KED)	508.718 ppb	101.744 %	500.000 ppb	1.1 %
27Al (KED)	100.042 ppb	100.042 %	100.000 ppb	0.9 %
31P (KED)	513.098 ppb	102.620 %	500.000 ppb	5.0 %
39K (KED)	494.704 ppb	98.941 %	500.000 ppb	1.7 %
44Ca (KED)	490.240 ppb	98.048 %	500.000 ppb	3.7 %
47Ti (KED)	100.049 ppb	100.049 %	100.000 ppb	0.2 %
51V (KED)	101.125 ppb	101.125 %	100.000 ppb	0.5 %
52Cr (KED)	101.226 ppb	101.226 %	100.000 ppb	1.1 %
55Mn (KED)	99.146 ppb	99.146 %	100.000 ppb	0.7 %
57Fe (KED)	498.926 ppb	99.785 %	500.000 ppb	1.3 %
59Co (KED)	102.212 ppb	102.212 %	100.000 ppb	0.2 %
60Ni (KED)	101.059 ppb	101.059 %	100.000 ppb	0.3 %
63Cu (KED)	103.321 ppb	103.321 %	100.000 ppb	0.4 %
66Zn (KED)	100.980 ppb	100.980 %	100.000 ppb	0.4 %
75As (KED)	101.590 ppb	101.590 %	100.000 ppb	1.3 %
78Se (KED)	99.078 ppb	99.078 %	100.000 ppb	0.9 %
95Mo (KED)	103.508 ppb	103.508 %	100.000 ppb	1.2 %
107Ag (KED)	102.650 ppb	102.650 %	100.000 ppb	1.3 %
111Cd (KED)	101.418 ppb	101.418 %	100.000 ppb	1.4 %
118Sn (KED)	100.523 ppb	100.523 %	100.000 ppb	2.5 %
121Sb (KED)	100.951 ppb	100.951 %	100.000 ppb	1.5 %
137Ba (KED)	98.467 ppb	98.467 %	100.000 ppb	1.3 %
205Tl (KED)	97.940 ppb	97.940 %	100.000 ppb	2.5 %
208Pb (KED)	100.899 ppb	100.899 %	100.000 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	99.274 %
45Sc (KED)	97.190 %
72Ge (KED)	96.588 %
89Y (KED)	95.800 %
115In (KED)	95.306 %
159Tb (KED)	102.050 %
209Bi (KED)	99.430 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	36	Stop Time:	6/13/2023 1:33:24 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 1:31:32 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	54.030 ppb	108.059 %	50.000 ppb	0.8 %
11B (KED)	105.169 ppb	105.169 %	100.000 ppb	2.2 %
23Na (KED)	540.801 ppb	108.160 %	500.000 ppb	1.0 %
24Mg (KED)	521.587 ppb	104.317 %	500.000 ppb	0.9 %
27Al (KED)	105.748 ppb	105.748 %	100.000 ppb	0.7 %
31P (KED)	498.442 ppb	99.688 %	500.000 ppb	1.6 %
39K (KED)	514.467 ppb	102.893 %	500.000 ppb	0.7 %
44Ca (KED)	490.368 ppb	98.074 %	500.000 ppb	2.4 %
47Ti (KED)	98.810 ppb	98.810 %	100.000 ppb	0.6 %
51V (KED)	97.820 ppb	97.820 %	100.000 ppb	0.8 %
52Cr (KED)	98.001 ppb	98.001 %	100.000 ppb	0.9 %
55Mn (KED)	98.964 ppb	98.964 %	100.000 ppb	0.9 %
57Fe (KED)	499.368 ppb	99.874 %	500.000 ppb	1.0 %
59Co (KED)	101.760 ppb	101.760 %	100.000 ppb	0.9 %
60Ni (KED)	101.360 ppb	101.360 %	100.000 ppb	0.9 %
63Cu (KED)	102.982 ppb	102.982 %	100.000 ppb	0.5 %
66Zn (KED)	101.037 ppb	101.037 %	100.000 ppb	0.9 %
75As (KED)	101.223 ppb	101.223 %	100.000 ppb	0.8 %
78Se (KED)	97.231 ppb	97.231 %	100.000 ppb	1.2 %
95Mo (KED)	102.243 ppb	102.243 %	100.000 ppb	0.9 %
107Ag (KED)	101.545 ppb	101.545 %	100.000 ppb	3.5 %
111Cd (KED)	100.600 ppb	100.600 %	100.000 ppb	0.3 %
118Sn (KED)	98.528 ppb	98.528 %	100.000 ppb	0.1 %
121Sb (KED)	99.239 ppb	99.239 %	100.000 ppb	1.4 %
137Ba (KED)	97.732 ppb	97.732 %	100.000 ppb	1.0 %
205Tl (KED)	100.924 ppb	100.924 %	100.000 ppb	2.7 %
208Pb (KED)	103.666 ppb	103.666 %	100.000 ppb	2.2 %

ISTD's	Concentration average
6Li (KED)	134.039 %
45Sc (KED)	120.183 %
72Ge (KED)	116.526 %
89Y (KED)	114.307 %
115In (KED)	113.552 %
159Tb (KED)	114.365 %
209Bi (KED)	112.158 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	37	Stop Time:	6/13/2023 1:35:21 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 1:33:26 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	54.173 ppb	108.346 %	50.000 ppb	2.6 %
11B (KED)	104.229 ppb	104.229 %	100.000 ppb	2.4 %
23Na (KED)	539.318 ppb	107.864 %	500.000 ppb	3.2 %
24Mg (KED)	527.820 ppb	105.564 %	500.000 ppb	1.4 %
27Al (KED)	106.785 ppb	106.785 %	100.000 ppb	2.0 %
31P (KED)	519.813 ppb	103.963 %	500.000 ppb	3.6 %
39K (KED)	511.835 ppb	102.367 %	500.000 ppb	1.3 %
44Ca (KED)	501.627 ppb	100.325 %	500.000 ppb	3.0 %
47Ti (KED)	98.132 ppb	98.132 %	100.000 ppb	1.5 %
51V (KED)	98.106 ppb	98.106 %	100.000 ppb	1.4 %
52Cr (KED)	97.991 ppb	97.991 %	100.000 ppb	1.1 %
55Mn (KED)	100.381 ppb	100.381 %	100.000 ppb	0.3 %
57Fe (KED)	500.529 ppb	100.106 %	500.000 ppb	2.1 %
59Co (KED)	102.120 ppb	102.120 %	100.000 ppb	1.3 %
60Ni (KED)	100.500 ppb	100.500 %	100.000 ppb	1.2 %
63Cu (KED)	103.001 ppb	103.001 %	100.000 ppb	1.0 %
66Zn (KED)	100.964 ppb	100.964 %	100.000 ppb	0.6 %
75As (KED)	101.556 ppb	101.556 %	100.000 ppb	0.8 %
78Se (KED)	98.555 ppb	98.555 %	100.000 ppb	0.4 %
95Mo (KED)	100.115 ppb	100.115 %	100.000 ppb	1.6 %
107Ag (KED)	102.880 ppb	102.880 %	100.000 ppb	1.9 %
111Cd (KED)	103.033 ppb	103.033 %	100.000 ppb	2.4 %
118Sn (KED)	101.432 ppb	101.432 %	100.000 ppb	1.0 %
121Sb (KED)	101.524 ppb	101.524 %	100.000 ppb	1.0 %
137Ba (KED)	100.737 ppb	100.737 %	100.000 ppb	2.3 %
205Tl (KED)	103.319 ppb	103.319 %	100.000 ppb	1.5 %
208Pb (KED)	99.568 ppb	99.568 %	100.000 ppb	3.2 %

ISTD's	Concentration average
6Li (KED)	134.465 %
45Sc (KED)	119.620 %
72Ge (KED)	114.696 %
89Y (KED)	115.774 %
115In (KED)	111.014 %
159Tb (KED)	112.709 %
209Bi (KED)	113.933 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	47	Stop Time:	6/13/2023 1:54:02 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 1:52:10 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	52.556 ppb	105.112 %	50.000 ppb	1.3 %
11B (KED)	103.178 ppb	103.178 %	100.000 ppb	1.6 %
23Na (KED)	528.493 ppb	105.699 %	500.000 ppb	1.2 %
24Mg (KED)	520.288 ppb	104.058 %	500.000 ppb	2.0 %
27Al (KED)	105.786 ppb	105.786 %	100.000 ppb	1.6 %
31P (KED)	504.597 ppb	100.919 %	500.000 ppb	2.1 %
39K (KED)	514.223 ppb	102.845 %	500.000 ppb	1.1 %
44Ca (KED)	492.657 ppb	98.531 %	500.000 ppb	1.0 %
47Ti (KED)	97.940 ppb	97.940 %	100.000 ppb	1.3 %
51V (KED)	97.127 ppb	97.127 %	100.000 ppb	1.1 %
52Cr (KED)	97.493 ppb	97.493 %	100.000 ppb	1.1 %
55Mn (KED)	99.694 ppb	99.694 %	100.000 ppb	1.1 %
57Fe (KED)	503.116 ppb	100.623 %	500.000 ppb	2.1 %
59Co (KED)	101.269 ppb	101.269 %	100.000 ppb	1.2 %
60Ni (KED)	99.890 ppb	99.890 %	100.000 ppb	1.6 %
63Cu (KED)	102.396 ppb	102.396 %	100.000 ppb	1.3 %
66Zn (KED)	100.512 ppb	100.512 %	100.000 ppb	0.7 %
75As (KED)	100.853 ppb	100.853 %	100.000 ppb	1.2 %
78Se (KED)	97.777 ppb	97.777 %	100.000 ppb	0.9 %
95Mo (KED)	101.556 ppb	101.556 %	100.000 ppb	2.2 %
107Ag (KED)	102.634 ppb	102.634 %	100.000 ppb	2.1 %
111Cd (KED)	100.071 ppb	100.071 %	100.000 ppb	2.1 %
118Sn (KED)	98.740 ppb	98.740 %	100.000 ppb	1.2 %
121Sb (KED)	98.872 ppb	98.872 %	100.000 ppb	1.7 %
137Ba (KED)	95.726 ppb	95.726 %	100.000 ppb	1.4 %
205Tl (KED)	99.975 ppb	99.975 %	100.000 ppb	4.4 %
208Pb (KED)	99.958 ppb	99.958 %	100.000 ppb	1.0 %

ISTD's	Concentration average
6Li (KED)	132.896 %
45Sc (KED)	119.824 %
72Ge (KED)	115.119 %
89Y (KED)	114.470 %
115In (KED)	113.867 %
159Tb (KED)	117.283 %
209Bi (KED)	114.725 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
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Index #:	48	Stop Time:	6/13/2023 1:55:52 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 1:54:04 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	53.298 ppb	106.597 %	50.000 ppb	0.4 %
11B (KED)	103.131 ppb	103.131 %	100.000 ppb	2.2 %
23Na (KED)	525.271 ppb	105.054 %	500.000 ppb	0.1 %
24Mg (KED)	519.699 ppb	103.940 %	500.000 ppb	0.5 %
27Al (KED)	104.915 ppb	104.915 %	100.000 ppb	0.7 %
31P (KED)	512.773 ppb	102.555 %	500.000 ppb	0.9 %
39K (KED)	505.929 ppb	101.186 %	500.000 ppb	1.5 %
44Ca (KED)	487.656 ppb	97.531 %	500.000 ppb	2.8 %
47Ti (KED)	97.612 ppb	97.612 %	100.000 ppb	0.8 %
51V (KED)	96.634 ppb	96.634 %	100.000 ppb	0.5 %
52Cr (KED)	97.257 ppb	97.257 %	100.000 ppb	0.4 %
55Mn (KED)	100.109 ppb	100.109 %	100.000 ppb	1.0 %
57Fe (KED)	499.484 ppb	99.897 %	500.000 ppb	1.0 %
59Co (KED)	100.978 ppb	100.978 %	100.000 ppb	0.9 %
60Ni (KED)	99.519 ppb	99.519 %	100.000 ppb	1.3 %
63Cu (KED)	102.460 ppb	102.460 %	100.000 ppb	0.1 %
66Zn (KED)	100.400 ppb	100.400 %	100.000 ppb	0.2 %
75As (KED)	101.351 ppb	101.351 %	100.000 ppb	0.2 %
78Se (KED)	98.638 ppb	98.638 %	100.000 ppb	0.8 %
95Mo (KED)	100.399 ppb	100.399 %	100.000 ppb	0.8 %
107Ag (KED)	104.304 ppb	104.304 %	100.000 ppb	0.5 %
111Cd (KED)	101.900 ppb	101.900 %	100.000 ppb	2.0 %
118Sn (KED)	99.974 ppb	99.974 %	100.000 ppb	0.7 %
121Sb (KED)	100.200 ppb	100.200 %	100.000 ppb	0.9 %
137Ba (KED)	97.489 ppb	97.489 %	100.000 ppb	1.9 %
205Tl (KED)	100.877 ppb	100.877 %	100.000 ppb	2.2 %
208Pb (KED)	100.715 ppb	100.715 %	100.000 ppb	2.8 %

ISTD's	Concentration average
6Li (KED)	133.952 %
45Sc (KED)	121.216 %
72Ge (KED)	116.247 %
89Y (KED)	116.131 %
115In (KED)	112.766 %
159Tb (KED)	117.283 %
209Bi (KED)	115.427 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	56	Stop Time:	6/13/2023 2:10:52 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 2:08:58 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	52.538 ppb	105.076 %	50.000 ppb	2.3 %
11B (KED)	102.523 ppb	102.523 %	100.000 ppb	1.2 %
23Na (KED)	523.005 ppb	104.601 %	500.000 ppb	1.8 %
24Mg (KED)	518.587 ppb	103.717 %	500.000 ppb	2.2 %
27Al (KED)	105.052 ppb	105.052 %	100.000 ppb	2.8 %
31P (KED)	528.121 ppb	105.624 %	500.000 ppb	6.1 %
39K (KED)	514.958 ppb	102.992 %	500.000 ppb	1.4 %
44Ca (KED)	495.694 ppb	99.139 %	500.000 ppb	1.2 %
47Ti (KED)	99.685 ppb	99.685 %	100.000 ppb	1.1 %
51V (KED)	97.902 ppb	97.902 %	100.000 ppb	1.0 %
52Cr (KED)	97.501 ppb	97.501 %	100.000 ppb	1.4 %
55Mn (KED)	99.229 ppb	99.229 %	100.000 ppb	0.8 %
57Fe (KED)	506.492 ppb	101.298 %	500.000 ppb	1.4 %
59Co (KED)	101.383 ppb	101.383 %	100.000 ppb	1.3 %
60Ni (KED)	99.991 ppb	99.991 %	100.000 ppb	1.0 %
63Cu (KED)	102.121 ppb	102.121 %	100.000 ppb	1.6 %
66Zn (KED)	101.064 ppb	101.064 %	100.000 ppb	1.3 %
75As (KED)	101.108 ppb	101.108 %	100.000 ppb	1.2 %
78Se (KED)	98.379 ppb	98.379 %	100.000 ppb	1.3 %
95Mo (KED)	102.203 ppb	102.203 %	100.000 ppb	1.6 %
107Ag (KED)	101.387 ppb	101.387 %	100.000 ppb	1.7 %
111Cd (KED)	102.410 ppb	102.410 %	100.000 ppb	1.4 %
118Sn (KED)	100.449 ppb	100.449 %	100.000 ppb	1.5 %
121Sb (KED)	100.223 ppb	100.223 %	100.000 ppb	1.3 %
137Ba (KED)	98.114 ppb	98.114 %	100.000 ppb	3.1 %
205Tl (KED)	100.788 ppb	100.788 %	100.000 ppb	4.3 %
208Pb (KED)	101.508 ppb	101.508 %	100.000 ppb	2.0 %

ISTD's	Concentration average
6Li (KED)	125.391 %
45Sc (KED)	116.231 %
72Ge (KED)	112.843 %
89Y (KED)	110.707 %
115In (KED)	109.537 %
159Tb (KED)	113.312 %
209Bi (KED)	109.511 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	57	Stop Time:	6/13/2023 2:12:44 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 2:10:54 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	52.815 ppb	105.631 %	50.000 ppb	1.7 %
11B (KED)	103.576 ppb	103.576 %	100.000 ppb	2.1 %
23Na (KED)	525.664 ppb	105.133 %	500.000 ppb	1.2 %
24Mg (KED)	524.643 ppb	104.929 %	500.000 ppb	1.1 %
27Al (KED)	101.530 ppb	101.530 %	100.000 ppb	1.7 %
31P (KED)	518.199 ppb	103.640 %	500.000 ppb	4.5 %
39K (KED)	512.191 ppb	102.438 %	500.000 ppb	0.6 %
44Ca (KED)	505.603 ppb	101.121 %	500.000 ppb	0.2 %
47Ti (KED)	98.737 ppb	98.737 %	100.000 ppb	1.7 %
51V (KED)	97.609 ppb	97.609 %	100.000 ppb	1.9 %
52Cr (KED)	97.736 ppb	97.736 %	100.000 ppb	1.1 %
55Mn (KED)	98.536 ppb	98.536 %	100.000 ppb	1.5 %
57Fe (KED)	499.417 ppb	99.883 %	500.000 ppb	1.7 %
59Co (KED)	100.376 ppb	100.376 %	100.000 ppb	1.3 %
60Ni (KED)	99.207 ppb	99.207 %	100.000 ppb	2.1 %
63Cu (KED)	101.623 ppb	101.623 %	100.000 ppb	1.2 %
66Zn (KED)	99.950 ppb	99.950 %	100.000 ppb	0.9 %
75As (KED)	100.026 ppb	100.026 %	100.000 ppb	1.0 %
78Se (KED)	97.255 ppb	97.255 %	100.000 ppb	0.9 %
95Mo (KED)	101.749 ppb	101.749 %	100.000 ppb	3.6 %
107Ag (KED)	101.242 ppb	101.242 %	100.000 ppb	2.4 %
111Cd (KED)	99.502 ppb	99.502 %	100.000 ppb	1.7 %
118Sn (KED)	98.154 ppb	98.154 %	100.000 ppb	2.0 %
121Sb (KED)	98.988 ppb	98.988 %	100.000 ppb	1.2 %
137Ba (KED)	97.435 ppb	97.435 %	100.000 ppb	0.3 %
205Tl (KED)	101.609 ppb	101.609 %	100.000 ppb	2.2 %
208Pb (KED)	99.849 ppb	99.849 %	100.000 ppb	2.6 %

ISTD's	Concentration average
6Li (KED)	127.156 %
45Sc (KED)	115.914 %
72Ge (KED)	113.820 %
89Y (KED)	110.539 %
115In (KED)	110.878 %
159Tb (KED)	112.507 %
209Bi (KED)	112.413 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
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Index #:	67	Stop Time:	6/13/2023 2:31:23 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 2:29:27 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	50.570 ppb	101.139 %	50.000 ppb	1.8 %
11B (KED)	101.776 ppb	101.776 %	100.000 ppb	0.2 %
23Na (KED)	509.207 ppb	101.841 %	500.000 ppb	1.2 %
24Mg (KED)	507.768 ppb	101.554 %	500.000 ppb	1.2 %
27Al (KED)	101.781 ppb	101.781 %	100.000 ppb	1.0 %
31P (KED)	478.252 ppb	95.650 %	500.000 ppb	5.6 %
39K (KED)	510.720 ppb	102.144 %	500.000 ppb	1.2 %
44Ca (KED)	487.775 ppb	97.555 %	500.000 ppb	0.3 %
47Ti (KED)	99.089 ppb	99.089 %	100.000 ppb	1.8 %
51V (KED)	98.149 ppb	98.149 %	100.000 ppb	0.8 %
52Cr (KED)	97.159 ppb	97.159 %	100.000 ppb	0.7 %
55Mn (KED)	99.063 ppb	99.063 %	100.000 ppb	0.5 %
57Fe (KED)	492.630 ppb	98.526 %	500.000 ppb	0.4 %
59Co (KED)	100.676 ppb	100.676 %	100.000 ppb	0.8 %
60Ni (KED)	99.011 ppb	99.011 %	100.000 ppb	0.7 %
63Cu (KED)	100.740 ppb	100.740 %	100.000 ppb	0.4 %
66Zn (KED)	99.796 ppb	99.796 %	100.000 ppb	0.4 %
75As (KED)	100.123 ppb	100.123 %	100.000 ppb	1.0 %
78Se (KED)	97.194 ppb	97.194 %	100.000 ppb	1.1 %
95Mo (KED)	101.534 ppb	101.534 %	100.000 ppb	1.5 %
107Ag (KED)	99.422 ppb	99.422 %	100.000 ppb	0.2 %
111Cd (KED)	101.193 ppb	101.193 %	100.000 ppb	1.3 %
118Sn (KED)	99.020 ppb	99.020 %	100.000 ppb	0.7 %
121Sb (KED)	99.255 ppb	99.255 %	100.000 ppb	1.0 %
137Ba (KED)	98.402 ppb	98.402 %	100.000 ppb	2.1 %
205Tl (KED)	99.082 ppb	99.082 %	100.000 ppb	0.8 %
208Pb (KED)	100.160 ppb	100.160 %	100.000 ppb	2.4 %

ISTD's	Concentration average
6Li (KED)	117.016 %
45Sc (KED)	112.227 %
72Ge (KED)	110.228 %
89Y (KED)	107.442 %
115In (KED)	107.443 %
159Tb (KED)	109.077 %
209Bi (KED)	107.492 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	78	Stop Time:	6/13/2023 2:52:11 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 2:50:16 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.170 ppb	98.339 %	50.000 ppb	2.7 %
11B (KED)	96.932 ppb	96.932 %	100.000 ppb	3.4 %
23Na (KED)	500.812 ppb	100.162 %	500.000 ppb	3.1 %
24Mg (KED)	498.008 ppb	99.602 %	500.000 ppb	2.4 %
27Al (KED)	99.811 ppb	99.811 %	100.000 ppb	1.3 %
31P (KED)	489.415 ppb	97.883 %	500.000 ppb	2.2 %
39K (KED)	488.605 ppb	97.721 %	500.000 ppb	1.3 %
44Ca (KED)	492.269 ppb	98.454 %	500.000 ppb	6.3 %
47Ti (KED)	99.807 ppb	99.807 %	100.000 ppb	1.9 %
51V (KED)	99.078 ppb	99.078 %	100.000 ppb	1.2 %
52Cr (KED)	99.052 ppb	99.052 %	100.000 ppb	1.1 %
55Mn (KED)	98.937 ppb	98.937 %	100.000 ppb	1.0 %
57Fe (KED)	491.596 ppb	98.319 %	500.000 ppb	1.9 %
59Co (KED)	100.729 ppb	100.729 %	100.000 ppb	0.7 %
60Ni (KED)	98.533 ppb	98.533 %	100.000 ppb	0.6 %
63Cu (KED)	101.402 ppb	101.402 %	100.000 ppb	0.7 %
66Zn (KED)	100.144 ppb	100.144 %	100.000 ppb	0.2 %
75As (KED)	100.889 ppb	100.889 %	100.000 ppb	0.4 %
78Se (KED)	98.377 ppb	98.377 %	100.000 ppb	0.3 %
95Mo (KED)	98.777 ppb	98.777 %	100.000 ppb	1.3 %
107Ag (KED)	99.941 ppb	99.941 %	100.000 ppb	0.9 %
111Cd (KED)	98.585 ppb	98.585 %	100.000 ppb	2.7 %
118Sn (KED)	97.902 ppb	97.902 %	100.000 ppb	1.8 %
121Sb (KED)	99.117 ppb	99.117 %	100.000 ppb	2.0 %
137Ba (KED)	97.825 ppb	97.825 %	100.000 ppb	2.9 %
205Tl (KED)	100.900 ppb	100.900 %	100.000 ppb	3.8 %
208Pb (KED)	99.469 ppb	99.469 %	100.000 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	97.631 %
45Sc (KED)	98.201 %
72Ge (KED)	97.148 %
89Y (KED)	97.846 %
115In (KED)	98.498 %
159Tb (KED)	100.389 %
209Bi (KED)	100.072 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
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Index #:	84	Stop Time:	6/13/2023 3:03:36 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 3:01:42 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	51.242 ppb	102.485 %	50.000 ppb	1.2 %
11B (KED)	100.175 ppb	100.175 %	100.000 ppb	2.8 %
23Na (KED)	502.545 ppb	100.509 %	500.000 ppb	1.3 %
24Mg (KED)	506.101 ppb	101.220 %	500.000 ppb	1.0 %
27Al (KED)	103.849 ppb	103.849 %	100.000 ppb	1.4 %
31P (KED)	512.475 ppb	102.495 %	500.000 ppb	3.2 %
39K (KED)	506.394 ppb	101.279 %	500.000 ppb	1.2 %
44Ca (KED)	489.556 ppb	97.911 %	500.000 ppb	1.1 %
47Ti (KED)	98.688 ppb	98.688 %	100.000 ppb	2.0 %
51V (KED)	97.846 ppb	97.846 %	100.000 ppb	1.3 %
52Cr (KED)	98.043 ppb	98.043 %	100.000 ppb	1.3 %
55Mn (KED)	98.923 ppb	98.923 %	100.000 ppb	0.7 %
57Fe (KED)	495.666 ppb	99.133 %	500.000 ppb	1.9 %
59Co (KED)	101.305 ppb	101.305 %	100.000 ppb	0.9 %
60Ni (KED)	98.335 ppb	98.335 %	100.000 ppb	0.5 %
63Cu (KED)	100.974 ppb	100.974 %	100.000 ppb	0.2 %
66Zn (KED)	99.678 ppb	99.678 %	100.000 ppb	1.0 %
75As (KED)	101.309 ppb	101.309 %	100.000 ppb	1.0 %
78Se (KED)	99.757 ppb	99.757 %	100.000 ppb	0.1 %
95Mo (KED)	100.965 ppb	100.965 %	100.000 ppb	3.0 %
107Ag (KED)	101.850 ppb	101.850 %	100.000 ppb	2.0 %
111Cd (KED)	100.640 ppb	100.640 %	100.000 ppb	2.0 %
118Sn (KED)	98.944 ppb	98.944 %	100.000 ppb	2.4 %
121Sb (KED)	99.655 ppb	99.655 %	100.000 ppb	2.7 %
137Ba (KED)	97.227 ppb	97.227 %	100.000 ppb	2.1 %
205Tl (KED)	96.606 ppb	96.606 %	100.000 ppb	1.7 %
208Pb (KED)	101.353 ppb	101.353 %	100.000 ppb	1.4 %

ISTD's	Concentration average
6Li (KED)	114.348 %
45Sc (KED)	109.811 %
72Ge (KED)	107.291 %
89Y (KED)	105.601 %
115In (KED)	105.128 %
159Tb (KED)	108.617 %
209Bi (KED)	103.497 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	92	Stop Time:	6/13/2023 3:18:36 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 3:16:45 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	48.332 ppb	96.665 %	50.000 ppb	1.5 %
11B (KED)	95.163 ppb	95.163 %	100.000 ppb	1.1 %
23Na (KED)	482.717 ppb	96.543 %	500.000 ppb	0.9 %
24Mg (KED)	484.198 ppb	96.840 %	500.000 ppb	0.7 %
27Al (KED)	96.361 ppb	96.361 %	100.000 ppb	0.5 %
31P (KED)	466.366 ppb	93.273 %	500.000 ppb	2.7 %
39K (KED)	491.056 ppb	98.211 %	500.000 ppb	1.9 %
44Ca (KED)	494.132 ppb	98.826 %	500.000 ppb	2.3 %
47Ti (KED)	101.023 ppb	101.023 %	100.000 ppb	0.7 %
51V (KED)	99.882 ppb	99.882 %	100.000 ppb	1.6 %
52Cr (KED)	100.097 ppb	100.097 %	100.000 ppb	1.1 %
55Mn (KED)	99.623 ppb	99.623 %	100.000 ppb	0.5 %
57Fe (KED)	496.881 ppb	99.376 %	500.000 ppb	1.1 %
59Co (KED)	101.034 ppb	101.034 %	100.000 ppb	0.7 %
60Ni (KED)	99.687 ppb	99.687 %	100.000 ppb	1.5 %
63Cu (KED)	101.081 ppb	101.081 %	100.000 ppb	0.7 %
66Zn (KED)	100.046 ppb	100.046 %	100.000 ppb	0.6 %
75As (KED)	100.663 ppb	100.663 %	100.000 ppb	0.8 %
78Se (KED)	100.479 ppb	100.479 %	100.000 ppb	0.2 %
95Mo (KED)	99.012 ppb	99.012 %	100.000 ppb	1.2 %
107Ag (KED)	100.128 ppb	100.128 %	100.000 ppb	2.7 %
111Cd (KED)	98.551 ppb	98.551 %	100.000 ppb	1.5 %
118Sn (KED)	98.315 ppb	98.315 %	100.000 ppb	2.7 %
121Sb (KED)	99.553 ppb	99.553 %	100.000 ppb	2.0 %
137Ba (KED)	98.472 ppb	98.472 %	100.000 ppb	1.6 %
205Tl (KED)	100.603 ppb	100.603 %	100.000 ppb	1.2 %
208Pb (KED)	101.836 ppb	101.836 %	100.000 ppb	2.5 %

ISTD's	Concentration average
6Li (KED)	87.041 %
45Sc (KED)	88.922 %
72Ge (KED)	90.114 %
89Y (KED)	90.764 %
115In (KED)	92.274 %
159Tb (KED)	96.049 %
209Bi (KED)	93.950 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	100	Stop Time:	6/13/2023 3:33:36 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 3:31:43 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.874 ppb	99.747 %	50.000 ppb	2.3 %
11B (KED)	96.670 ppb	96.670 %	100.000 ppb	1.7 %
23Na (KED)	494.497 ppb	98.899 %	500.000 ppb	1.7 %
24Mg (KED)	497.282 ppb	99.456 %	500.000 ppb	1.1 %
27Al (KED)	101.255 ppb	101.255 %	100.000 ppb	2.7 %
31P (KED)	484.976 ppb	96.995 %	500.000 ppb	1.6 %
39K (KED)	508.645 ppb	101.729 %	500.000 ppb	1.6 %
44Ca (KED)	486.301 ppb	97.260 %	500.000 ppb	2.7 %
47Ti (KED)	98.762 ppb	98.762 %	100.000 ppb	1.1 %
51V (KED)	97.647 ppb	97.647 %	100.000 ppb	0.1 %
52Cr (KED)	97.309 ppb	97.309 %	100.000 ppb	0.6 %
55Mn (KED)	98.535 ppb	98.535 %	100.000 ppb	1.0 %
57Fe (KED)	492.361 ppb	98.472 %	500.000 ppb	1.5 %
59Co (KED)	100.155 ppb	100.155 %	100.000 ppb	1.3 %
60Ni (KED)	97.723 ppb	97.723 %	100.000 ppb	0.6 %
63Cu (KED)	100.161 ppb	100.161 %	100.000 ppb	1.1 %
66Zn (KED)	98.989 ppb	98.989 %	100.000 ppb	1.4 %
75As (KED)	99.958 ppb	99.958 %	100.000 ppb	2.1 %
78Se (KED)	97.629 ppb	97.629 %	100.000 ppb	2.9 %
95Mo (KED)	100.259 ppb	100.259 %	100.000 ppb	1.0 %
107Ag (KED)	101.262 ppb	101.262 %	100.000 ppb	1.4 %
111Cd (KED)	99.704 ppb	99.704 %	100.000 ppb	0.6 %
118Sn (KED)	98.148 ppb	98.148 %	100.000 ppb	2.2 %
121Sb (KED)	99.814 ppb	99.814 %	100.000 ppb	1.6 %
137Ba (KED)	99.928 ppb	99.928 %	100.000 ppb	1.3 %
205Tl (KED)	101.385 ppb	101.385 %	100.000 ppb	2.3 %
208Pb (KED)	99.191 ppb	99.191 %	100.000 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	111.765 %
45Sc (KED)	110.322 %
72Ge (KED)	107.452 %
89Y (KED)	105.068 %
115In (KED)	104.846 %
159Tb (KED)	104.878 %
209Bi (KED)	105.552 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	111	Stop Time:	6/13/2023 3:54:14 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 3:52:25 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	48.226 ppb	96.453 %	50.000 ppb	2.3 %
11B (KED)	97.638 ppb	97.638 %	100.000 ppb	0.7 %
23Na (KED)	478.641 ppb	95.728 %	500.000 ppb	0.9 %
24Mg (KED)	486.605 ppb	97.321 %	500.000 ppb	0.6 %
27Al (KED)	96.435 ppb	96.435 %	100.000 ppb	0.7 %
31P (KED)	490.471 ppb	98.094 %	500.000 ppb	3.5 %
39K (KED)	492.436 ppb	98.487 %	500.000 ppb	0.7 %
44Ca (KED)	482.431 ppb	96.486 %	500.000 ppb	5.2 %
47Ti (KED)	102.108 ppb	102.108 %	100.000 ppb	0.8 %
51V (KED)	102.489 ppb	102.489 %	100.000 ppb	0.5 %
52Cr (KED)	102.090 ppb	102.090 %	100.000 ppb	1.2 %
55Mn (KED)	100.688 ppb	100.688 %	100.000 ppb	0.3 %
57Fe (KED)	503.537 ppb	100.707 %	500.000 ppb	0.7 %
59Co (KED)	99.605 ppb	99.605 %	100.000 ppb	2.4 %
60Ni (KED)	99.797 ppb	99.797 %	100.000 ppb	1.0 %
63Cu (KED)	100.634 ppb	100.634 %	100.000 ppb	0.5 %
66Zn (KED)	100.184 ppb	100.184 %	100.000 ppb	0.6 %
75As (KED)	101.291 ppb	101.291 %	100.000 ppb	0.4 %
78Se (KED)	101.000 ppb	101.000 %	100.000 ppb	1.3 %
95Mo (KED)	99.131 ppb	99.131 %	100.000 ppb	1.3 %
107Ag (KED)	98.263 ppb	98.263 %	100.000 ppb	1.7 %
111Cd (KED)	98.277 ppb	98.277 %	100.000 ppb	1.9 %
118Sn (KED)	97.281 ppb	97.281 %	100.000 ppb	1.4 %
121Sb (KED)	98.801 ppb	98.801 %	100.000 ppb	1.2 %
137Ba (KED)	98.733 ppb	98.733 %	100.000 ppb	1.7 %
205Tl (KED)	103.497 ppb	103.497 %	100.000 ppb	2.4 %
208Pb (KED)	99.816 ppb	99.816 %	100.000 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	81.525 %
45Sc (KED)	84.325 %
72Ge (KED)	86.884 %
89Y (KED)	88.056 %
115In (KED)	90.766 %
159Tb (KED)	91.859 %
209Bi (KED)	93.160 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	119	Stop Time:	6/13/2023 4:09:05 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/13/2023 4:07:14 PM	prepFAST DF	2.2		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	49.273 ppb	98.547 %	50.000 ppb	1.5 %
11B (KED)	98.862 ppb	98.862 %	100.000 ppb	3.4 %
23Na (KED)	506.503 ppb	101.301 %	500.000 ppb	0.3 %
24Mg (KED)	510.784 ppb	102.157 %	500.000 ppb	0.4 %
27Al (KED)	102.016 ppb	102.016 %	100.000 ppb	1.3 %
31P (KED)	506.785 ppb	101.357 %	500.000 ppb	4.1 %
39K (KED)	507.813 ppb	101.563 %	500.000 ppb	0.5 %
44Ca (KED)	491.077 ppb	98.215 %	500.000 ppb	2.2 %
47Ti (KED)	99.811 ppb	99.811 %	100.000 ppb	0.7 %
51V (KED)	100.168 ppb	100.168 %	100.000 ppb	1.6 %
52Cr (KED)	99.164 ppb	99.164 %	100.000 ppb	1.1 %
55Mn (KED)	100.687 ppb	100.687 %	100.000 ppb	1.7 %
57Fe (KED)	503.593 ppb	100.719 %	500.000 ppb	0.5 %
59Co (KED)	102.061 ppb	102.061 %	100.000 ppb	0.6 %
60Ni (KED)	100.304 ppb	100.304 %	100.000 ppb	0.9 %
63Cu (KED)	100.856 ppb	100.856 %	100.000 ppb	1.0 %
66Zn (KED)	99.706 ppb	99.706 %	100.000 ppb	0.6 %
75As (KED)	101.167 ppb	101.167 %	100.000 ppb	0.8 %
78Se (KED)	100.437 ppb	100.437 %	100.000 ppb	1.2 %
95Mo (KED)	100.698 ppb	100.698 %	100.000 ppb	1.4 %
107Ag (KED)	100.766 ppb	100.766 %	100.000 ppb	2.2 %
111Cd (KED)	99.707 ppb	99.707 %	100.000 ppb	0.3 %
118Sn (KED)	98.782 ppb	98.782 %	100.000 ppb	2.1 %
121Sb (KED)	99.793 ppb	99.793 %	100.000 ppb	1.1 %
137Ba (KED)	99.094 ppb	99.094 %	100.000 ppb	2.4 %
205Tl (KED)	102.219 ppb	102.219 %	100.000 ppb	2.7 %
208Pb (KED)	102.215 ppb	102.215 %	100.000 ppb	1.3 %

ISTD's	Concentration average
6Li (KED)	105.746 %
45Sc (KED)	104.745 %
72Ge (KED)	103.919 %
89Y (KED)	102.602 %
115In (KED)	102.620 %
159Tb (KED)	103.008 %
209Bi (KED)	101.839 %

INITIAL AND CONTINUING CALIBRATION CHECK

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
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%

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

Labbook:
061523B.imexp

Index #:	30	Stop Time:	6/15/2023 3:51:40 PM	Comment	Contin Cal Ver
Sample ID:	SEQ-CCV	Dilution Factor	0.454545		
Start Time:	6/15/2023 3:49:47 PM	prepFAST DF	2.2		

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

Labbook:
061523B.imexp

Index #: 52
Sample ID: SEQ-CCV
Start Time: 6/15/2023 4:30:40 PM
Stop Time: 6/15/2023 4:32:33 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)	49.169 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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
Sequence:	S3F0145		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S3F0145-CRL1	Aluminum, Dissolved	5.000	5.18	104	ug/L	80 - 120
	Antimony, Dissolved	5.000	5.11	102	ug/L	80 - 120
	Arsenic, Dissolved	5.000	5.09	102	ug/L	80 - 120
	Barium, Dissolved	5.000	5.04	101	ug/L	80 - 120
	Beryllium, Dissolved	2.500	2.89	116	ug/L	80 - 120
	Cadmium, Dissolved	5.000	5.19	104	ug/L	80 - 120
	Calcium, Dissolved	25.00	23.7	95	ug/L	80 - 120
	Chromium, Dissolved	5.000	5.21	104	ug/L	80 - 120
	Cobalt, Dissolved	5.000	5.10	102	ug/L	80 - 120
	Copper, Dissolved	5.000	5.21	104	ug/L	80 - 120
	Iron, Dissolved	25.00	20.0	80	ug/L	80 - 120
	Lead, Dissolved	5.000	4.97	99	ug/L	80 - 120
	Magnesium, Dissolved	25.00	27.3	109	ug/L	80 - 120
	Manganese, Dissolved	5.000	4.66	93	ug/L	80 - 120
	Nickel, Dissolved	5.000	5.28	106	ug/L	80 - 120
	Potassium, Dissolved	25.00	24.8	99	ug/L	80 - 120
	Selenium, Dissolved	5.000	5.01	100	ug/L	80 - 120
	Silver, Dissolved	5.000	5.36	107	ug/L	80 - 120
	Sodium, Dissolved	25.00	26.9	108	ug/L	80 - 120
	Thallium, Dissolved	5.000	5.00	100	ug/L	80 - 120
	Tin, Dissolved	5.000	5.01	100	ug/L	80 - 120
	Vanadium, Dissolved	5.000	5.09	102	ug/L	80 - 120
	Zinc, Dissolved	5.000	5.96	119	ug/L	80 - 120

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #: 17
Sample ID: SEQ-CRL
Start Time: 6/8/2023 11:13:25 AM
Stop Time: 6/8/2023 11:15:17 AM
Dilution Factor 1
prepFAST DF 1
Comment Perf Eval Mix

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	2.892 ppb	115.680 %	2.500 ppb	5.3 %
11B (KED)	5.344 ppb	106.883 %	5.000 ppb	3.9 %
23Na (KED)	26.877 ppb	107.507 %	25.000 ppb	1.9 %
24Mg (KED)	27.334 ppb	109.337 %	25.000 ppb	3.7 %
27Al (KED)	5.180 ppb	103.599 %	5.000 ppb	4.4 %
31P (KED)	29.584 ppb	118.336 %	25.000 ppb	26.2 %
39K (KED)	24.761 ppb	99.043 %	25.000 ppb	4.7 %
44Ca (KED)	23.657 ppb	94.630 %	25.000 ppb	13.5 %
47Ti (KED)	5.493 ppb	109.860 %	5.000 ppb	3.7 %
51V (KED)	5.092 ppb	101.832 %	5.000 ppb	1.6 %
52Cr (KED)	5.211 ppb	104.216 %	5.000 ppb	1.0 %
55Mn (KED)	4.655 ppb	93.104 %	5.000 ppb	2.6 %
57Fe (KED)	20.047 ppb	80.188 %	25.000 ppb	5.4 %
59Co (KED)	5.104 ppb	102.076 %	5.000 ppb	0.1 %
60Ni (KED)	5.282 ppb	105.632 %	5.000 ppb	1.1 %
63Cu (KED)	5.214 ppb	104.282 %	5.000 ppb	1.3 %
66Zn (KED)	5.956 ppb	119.122 %	5.000 ppb	1.5 %
75As (KED)	5.089 ppb	101.782 %	5.000 ppb	1.7 %
78Se (KED)	5.013 ppb	100.257 %	5.000 ppb	1.3 %
95Mo (KED)	5.244 ppb	104.885 %	5.000 ppb	0.7 %
107Ag (KED)	5.356 ppb	107.112 %	5.000 ppb	1.4 %
111Cd (KED)	5.186 ppb	103.728 %	5.000 ppb	0.6 %
118Sn (KED)	5.008 ppb	100.154 %	5.000 ppb	1.7 %
121Sb (KED)	5.110 ppb	102.194 %	5.000 ppb	1.2 %
137Ba (KED)	5.036 ppb	100.720 %	5.000 ppb	2.3 %
205Tl (KED)	5.003 ppb	100.070 %	5.000 ppb	1.3 %
208Pb (KED)	4.973 ppb	99.459 %	5.000 ppb	0.6 %

ISTD's	Concentration average
6Li (KED)	114.762 %
45Sc (KED)	103.117 %
72Ge (KED)	102.023 %
89Y (KED)	104.354 %
115In (KED)	104.435 %
159Tb (KED)	106.070 %
209Bi (KED)	109.831 %

Performance Evaluation Mixture

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
S3F0230-CRL1	Aluminum, Dissolved	5.000	5.49	110	ug/L	80 - 120
	Antimony, Dissolved	5.000	5.08	102	ug/L	80 - 120
	Arsenic, Dissolved	5.000	4.97	99	ug/L	80 - 120
	Barium, Dissolved	5.000	5.04	101	ug/L	80 - 120
	Beryllium, Dissolved	2.500	2.38	95	ug/L	80 - 120
	Cadmium, Dissolved	5.000	4.81	96	ug/L	80 - 120
	Calcium, Dissolved	25.00	20.8	83	ug/L	80 - 120
	Chromium, Dissolved	5.000	5.16	103	ug/L	80 - 120
	Cobalt, Dissolved	5.000	5.00	100	ug/L	80 - 120
	Copper, Dissolved	5.000	5.03	101	ug/L	80 - 120
	Iron, Dissolved	25.00	20.3	81	ug/L	80 - 120
	Lead, Dissolved	5.000	4.75	95	ug/L	80 - 120
	Magnesium, Dissolved	25.00	26.9	107	ug/L	80 - 120
	Manganese, Dissolved	5.000	4.89	98	ug/L	80 - 120
	Nickel, Dissolved	5.000	5.02	100	ug/L	80 - 120
	Potassium, Dissolved	25.00	25.7	103	ug/L	80 - 120
	Selenium, Dissolved	5.000	5.22	104	ug/L	80 - 120
	Silver, Dissolved	5.000	5.02	100	ug/L	80 - 120
	Sodium, Dissolved	25.00	22.7	91	ug/L	80 - 120
	Thallium, Dissolved	5.000	4.79	96	ug/L	80 - 120
	Tin, Dissolved	5.000	5.01	100	ug/L	80 - 120
	Vanadium, Dissolved	5.000	4.96	99	ug/L	80 - 120
	Zinc, Dissolved	5.000	5.00	100	ug/L	80 - 120

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	9	Stop Time:	6/13/2023 12:44:26 PM	Comment	Perf Eval Mix
Sample ID:	SEQ-CRL	Dilution Factor	0.05		
Start Time:	6/13/2023 12:42:38 PM	prepFAST DF	20		

Analytes	Concentration average	Recovery Percentage 1	Reference Amount 1	Concentration RSD
9Be (KED)	2.375 ppb	95.011 %	2.500 ppb	6.4 %
11B (KED)	4.845 ppb	96.897 %	5.000 ppb	10.4 %
23Na (KED)	22.661 ppb	90.642 %	25.000 ppb	3.5 %
24Mg (KED)	26.858 ppb	107.432 %	25.000 ppb	2.4 %
27Al (KED)	5.721 ppb	114.420 %	5.000 ppb	5.3 %
31P (KED)	29.929 ppb	119.717 %	25.000 ppb	38.3 %
39K (KED)	25.694 ppb	102.776 %	25.000 ppb	2.0 %
44Ca (KED)	20.811 ppb	83.245 %	25.000 ppb	1.6 %
47Ti (KED)	5.092 ppb	101.837 %	5.000 ppb	1.5 %
51V (KED)	4.963 ppb	99.261 %	5.000 ppb	1.2 %
52Cr (KED)	5.165 ppb	103.297 %	5.000 ppb	1.1 %
55Mn (KED)	4.886 ppb	97.721 %	5.000 ppb	2.0 %
57Fe (KED)	20.298 ppb	81.192 %	25.000 ppb	0.8 %
59Co (KED)	4.997 ppb	99.948 %	5.000 ppb	1.4 %
60Ni (KED)	5.024 ppb	100.478 %	5.000 ppb	1.3 %
63Cu (KED)	5.032 ppb	100.633 %	5.000 ppb	1.8 %
66Zn (KED)	5.004 ppb	100.090 %	5.000 ppb	0.7 %
75As (KED)	4.966 ppb	99.330 %	5.000 ppb	3.3 %
78Se (KED)	5.215 ppb	104.309 %	5.000 ppb	9.1 %
95Mo (KED)	4.797 ppb	95.948 %	5.000 ppb	0.8 %
107Ag (KED)	5.017 ppb	100.347 %	5.000 ppb	2.6 %
111Cd (KED)	4.814 ppb	96.272 %	5.000 ppb	0.8 %
118Sn (KED)	5.012 ppb	100.232 %	5.000 ppb	2.7 %
121Sb (KED)	5.076 ppb	101.521 %	5.000 ppb	1.9 %
137Ba (KED)	5.035 ppb	100.704 %	5.000 ppb	3.4 %
205Tl (KED)	4.785 ppb	95.705 %	5.000 ppb	2.0 %
208Pb (KED)	4.746 ppb	94.920 %	5.000 ppb	1.6 %

ISTD's	Concentration average
6Li (KED)	99.651 %
45Sc (KED)	101.229 %
72Ge (KED)	100.616 %
89Y (KED)	100.826 %
115In (KED)	101.443 %
159Tb (KED)	104.204 %
209Bi (KED)	102.680 %

Performance Evaluation Mixture

SW6020 B

Laboratory:	Sterling Labs	SDG:	23E0775
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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
Sequence:	S3F0145		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0145-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
S3F0145-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
Sequence:	S3F0145		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0145-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
B3F0016-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		mg/L	0.0250	U
	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
S3F0145-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

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
Sequence:	S3F0145		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0145-CCB2	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
S3F0145-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
	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
S3F0145-CCB4	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
Sequence:	S3F0145		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0145-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
S3F0145-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
Sequence:	S3F0145		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0145-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
S3F0145-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
S3F0145-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
Sequence:	S3F0145		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0145-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
S3F0145-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
S3F0145-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
Sequence:	S3F0145		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0145-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
S3F0145-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30035
Sequence:	S3F0145		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0145-CCBA	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0145-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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #: 8
Sample ID: SEQ-ICB
Start Time: 6/8/2023 10:56:25 AM
Stop Time: 6/8/2023 10:58:15 AM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.051 ppb	23.128 %	36.7 %
11B (KED)	0.164 ppb	13.106 %	39.0 %
23Na (KED)	-0.716 ppb	-5.731 %	37.6 %
24Mg (KED)	-0.328 ppb	-2.622 %	35.0 %
27Al (KED)	-0.461 ppb	-18.457 %	19.0 %
31P (KED)	2.936 ppb	23.491 %	119.4 %
39K (KED)	0.124 ppb	0.995 %	731.6 %
44Ca (KED)	-6.780 ppb	-56.269 %	17.4 %
47Ti (KED)	0.029 ppb	2.201 %	124.3 %
51V (KED)	-0.062 ppb	-9.363 %	7.0 %
52Cr (KED)	0.247 ppb	22.469 %	2.2 %
55Mn (KED)	-0.224 ppb	-20.368 %	1.8 %
57Fe (KED)	-5.853 ppb	-93.650 %	3.1 %
59Co (KED)	0.103 ppb	7.825 %	0.5 %
60Ni (KED)	-0.061 ppb	-5.554 %	1.5 %
63Cu (KED)	-0.057 ppb	-5.173 %	6.2 %
66Zn (KED)	-0.175 ppb	-6.985 %	5.2 %
75As (KED)	-0.014 ppb	-1.573 %	58.4 %
78Se (KED)	-0.071 ppb	-5.361 %	42.1 %
95Mo (KED)	0.264 ppb	24.000 %	1.7 %
107Ag (KED)	-0.010 ppb	-5.958 %	22.7 %
111Cd (KED)	0.002 ppb	3.035 %	84.2 %
118Sn (KED)	0.097 ppb	3.897 %	2.0 %
121Sb (KED)	0.418 ppb	31.644 %	1.8 %
137Ba (KED)	-0.061 ppb	-6.928 %	3.6 %
205Tl (KED)	-0.034 ppb	-18.658 %	2.3 %
208Pb (KED)	0.104 ppb	54.941 %	0.5 %

ISTD's	Concentration average
6Li (KED)	96.319 %
45Sc (KED)	95.308 %
72Ge (KED)	95.875 %
89Y (KED)	95.654 %
115In (KED)	96.698 %
159Tb (KED)	98.074 %
209Bi (KED)	99.196 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	19	Stop Time:	6/8/2023 11:19:02 AM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/8/2023 11:17:11 AM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.011 ppb	5.080 %	189.9 %
11B (KED)	0.045 ppb	3.615 %	330.3 %
23Na (KED)	-0.276 ppb	-2.212 %	79.0 %
24Mg (KED)	-0.273 ppb	-2.188 %	35.6 %
27Al (KED)	-0.451 ppb	-18.052 %	5.6 %
31P (KED)	2.840 ppb	22.718 %	39.4 %
39K (KED)	-0.691 ppb	-5.526 %	120.4 %
44Ca (KED)	-5.700 ppb	-47.302 %	5.7 %
47Ti (KED)	-0.010 ppb	-0.769 %	40.1 %
51V (KED)	-0.066 ppb	-10.070 %	2.5 %
52Cr (KED)	0.233 ppb	21.216 %	1.6 %
55Mn (KED)	-0.227 ppb	-20.646 %	0.9 %
57Fe (KED)	-6.068 ppb	-97.090 %	2.5 %
59Co (KED)	0.100 ppb	7.557 %	0.4 %
60Ni (KED)	-0.069 ppb	-6.311 %	5.9 %
63Cu (KED)	-0.061 ppb	-5.530 %	6.4 %
66Zn (KED)	-0.176 ppb	-7.023 %	9.6 %
75As (KED)	-0.018 ppb	-2.090 %	29.4 %
78Se (KED)	-0.066 ppb	-5.026 %	18.4 %
95Mo (KED)	0.262 ppb	23.853 %	1.4 %
107Ag (KED)	-0.014 ppb	-8.077 %	16.1 %
111Cd (KED)	-0.001 ppb	-1.614 %	266.7 %
118Sn (KED)	0.093 ppb	3.719 %	2.5 %
121Sb (KED)	0.407 ppb	30.800 %	1.4 %
137Ba (KED)	-0.065 ppb	-7.416 %	1.8 %
205Tl (KED)	-0.036 ppb	-19.784 %	1.6 %
208Pb (KED)	0.101 ppb	53.219 %	0.6 %

ISTD's	Concentration average
6Li (KED)	114.948 %
45Sc (KED)	104.649 %
72Ge (KED)	103.277 %
89Y (KED)	104.488 %
115In (KED)	102.389 %
159Tb (KED)	106.829 %
209Bi (KED)	110.079 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	22	Stop Time:	6/8/2023 11:24:34 AM	Comment	ND 6020 DISS
Sample ID:	B3F0016-BLK1	Dilution Factor	1		
Start Time:	6/8/2023 11:22:48 AM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.011 ppb	82.7 %
11B (KED)	0.094 ppb	117.7 %
23Na (KED)	3.709 ppb	2.6 %
24Mg (KED)	2.032 ppb	30.2 %
27Al (KED)	0.289 ppb	4.6 %
31P (KED)	9.445 ppb	37.3 %
39K (KED)	-1.887 ppb	14.6 %
44Ca (KED)	-1.215 ppb	109.9 %
47Ti (KED)	0.031 ppb	55.9 %
51V (KED)	-0.070 ppb	1.9 %
52Cr (KED)	0.233 ppb	2.6 %
55Mn (KED)	-0.177 ppb	6.1 %
57Fe (KED)	-5.588 ppb	1.7 %
59Co (KED)	0.109 ppb	1.2 %
60Ni (KED)	-0.046 ppb	13.9 %
63Cu (KED)	-0.034 ppb	12.6 %
66Zn (KED)	-0.162 ppb	5.3 %
75As (KED)	-0.027 ppb	14.6 %
78Se (KED)	-0.074 ppb	22.5 %
95Mo (KED)	0.258 ppb	1.5 %
107Ag (KED)	-0.016 ppb	13.3 %
111Cd (KED)	-0.005 ppb	28.6 %
118Sn (KED)	0.127 ppb	0.6 %
121Sb (KED)	0.365 ppb	0.1 %
137Ba (KED)	-0.063 ppb	9.1 %
205Tl (KED)	-0.040 ppb	0.6 %
208Pb (KED)	0.102 ppb	0.8 %

ISTD's	Concentration average
6Li (KED)	126.499 %
45Sc (KED)	112.198 %
72Ge (KED)	105.056 %
89Y (KED)	113.999 %
115In (KED)	110.768 %
159Tb (KED)	118.966 %
209Bi (KED)	111.495 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	32	Stop Time:	6/8/2023 11:42:49 AM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/8/2023 11:41:00 AM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.009 ppb	-4.171 %	39.9 %
11B (KED)	0.030 ppb	2.378 %	732.8 %
23Na (KED)	1.756 ppb	14.047 %	5.7 %
24Mg (KED)	-0.219 ppb	-1.750 %	82.1 %
27Al (KED)	-0.502 ppb	-20.099 %	3.2 %
31P (KED)	2.183 ppb	17.466 %	66.1 %
39K (KED)	-0.030 ppb	-0.243 %	2,373.1 %
44Ca (KED)	-5.847 ppb	-48.525 %	6.0 %
47Ti (KED)	0.005 ppb	0.400 %	253.2 %
51V (KED)	-0.065 ppb	-9.846 %	6.2 %
52Cr (KED)	0.235 ppb	21.384 %	1.3 %
55Mn (KED)	-0.226 ppb	-20.568 %	1.4 %
57Fe (KED)	-5.982 ppb	-95.707 %	1.4 %
59Co (KED)	0.102 ppb	7.692 %	1.5 %
60Ni (KED)	-0.060 ppb	-5.450 %	0.3 %
63Cu (KED)	-0.055 ppb	-5.024 %	8.1 %
66Zn (KED)	-0.178 ppb	-7.113 %	9.3 %
75As (KED)	-0.010 ppb	-1.180 %	85.9 %
78Se (KED)	-0.066 ppb	-5.002 %	31.1 %
95Mo (KED)	0.266 ppb	24.179 %	4.1 %
107Ag (KED)	-0.010 ppb	-5.929 %	80.5 %
111Cd (KED)	0.002 ppb	3.018 %	356.6 %
118Sn (KED)	0.100 ppb	3.989 %	4.6 %
121Sb (KED)	0.412 ppb	31.176 %	1.8 %
137Ba (KED)	-0.060 ppb	-6.767 %	7.4 %
205Tl (KED)	-0.033 ppb	-18.342 %	12.5 %
208Pb (KED)	0.104 ppb	54.996 %	4.3 %

ISTD's	Concentration average
6Li (KED)	125.518 %
45Sc (KED)	109.829 %
72Ge (KED)	106.714 %
89Y (KED)	107.499 %
115In (KED)	107.318 %
159Tb (KED)	110.693 %
209Bi (KED)	112.183 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #: 45
Sample ID: SEQ-CCB
Start Time: 6/8/2023 12:05:23 PM
Stop Time: 6/8/2023 12:07:12 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.008 ppb	-3.691 %	121.5 %
11B (KED)	-0.022 ppb	-1.765 %	190.7 %
23Na (KED)	1.220 ppb	9.757 %	16.1 %
24Mg (KED)	-0.106 ppb	-0.852 %	13.9 %
27Al (KED)	-0.404 ppb	-16.158 %	16.5 %
31P (KED)	1.945 ppb	15.560 %	69.4 %
39K (KED)	-0.579 ppb	-4.630 %	201.2 %
44Ca (KED)	-5.510 ppb	-45.730 %	35.6 %
47Ti (KED)	0.012 ppb	0.923 %	107.8 %
51V (KED)	-0.067 ppb	-10.110 %	6.0 %
52Cr (KED)	0.238 ppb	21.677 %	3.6 %
55Mn (KED)	-0.223 ppb	-20.309 %	1.2 %
57Fe (KED)	-5.974 ppb	-95.581 %	3.5 %
59Co (KED)	0.100 ppb	7.580 %	0.8 %
60Ni (KED)	-0.064 ppb	-5.795 %	4.2 %
63Cu (KED)	-0.059 ppb	-5.332 %	6.9 %
66Zn (KED)	-0.171 ppb	-6.860 %	8.3 %
75As (KED)	-0.018 ppb	-2.044 %	14.8 %
78Se (KED)	-0.070 ppb	-5.283 %	56.7 %
95Mo (KED)	0.265 ppb	24.089 %	1.8 %
107Ag (KED)	-0.012 ppb	-6.964 %	10.4 %
111Cd (KED)	-0.003 ppb	-3.868 %	30.9 %
118Sn (KED)	0.096 ppb	3.847 %	1.1 %
121Sb (KED)	0.413 ppb	31.323 %	1.3 %
137Ba (KED)	-0.064 ppb	-7.295 %	9.3 %
205Tl (KED)	-0.035 ppb	-19.495 %	4.0 %
208Pb (KED)	0.101 ppb	53.091 %	0.5 %

ISTD's	Concentration average
6Li (KED)	134.259 %
45Sc (KED)	118.701 %
72Ge (KED)	115.208 %
89Y (KED)	114.004 %
115In (KED)	113.107 %
159Tb (KED)	113.434 %
209Bi (KED)	115.288 %

Labbook:
060823.imexp

Index #: 52
Sample ID: SEQ-CCB
Start Time: 6/8/2023 12:18:26 PM
Stop Time: 6/8/2023 12:20:17 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.007 ppb	-3.349 %	209.3 %
11B (KED)	-0.141 ppb	-11.276 %	81.5 %
23Na (KED)	6.607 ppb	52.857 %	157.6 %
24Mg (KED)	0.429 ppb	3.431 %	216.5 %
27Al (KED)	-0.443 ppb	-17.738 %	6.3 %
31P (KED)	1.411 ppb	11.287 %	174.6 %
39K (KED)	-0.648 ppb	-5.188 %	43.3 %
44Ca (KED)	-5.113 ppb	-42.432 %	47.1 %
47Ti (KED)	-0.001 ppb	-0.112 %	841.2 %
51V (KED)	-0.046 ppb	-7.044 %	17.6 %
52Cr (KED)	0.238 ppb	21.681 %	3.0 %
55Mn (KED)	-0.225 ppb	-20.467 %	4.3 %
57Fe (KED)	-5.950 ppb	-95.193 %	2.3 %
59Co (KED)	0.102 ppb	7.705 %	1.9 %
60Ni (KED)	-0.063 ppb	-5.697 %	12.2 %
63Cu (KED)	-0.062 ppb	-5.657 %	5.8 %
66Zn (KED)	-0.172 ppb	-6.871 %	9.8 %
75As (KED)	-0.018 ppb	-2.012 %	29.3 %
78Se (KED)	-0.060 ppb	-4.572 %	58.1 %
95Mo (KED)	0.263 ppb	23.918 %	1.3 %
107Ag (KED)	-0.008 ppb	-4.657 %	104.8 %
111Cd (KED)	0.004 ppb	5.808 %	119.6 %
118Sn (KED)	0.099 ppb	3.966 %	11.4 %
121Sb (KED)	0.401 ppb	30.409 %	2.7 %
137Ba (KED)	-0.055 ppb	-6.233 %	39.5 %
205Tl (KED)	-0.027 ppb	-14.742 %	57.7 %
208Pb (KED)	0.111 ppb	58.181 %	15.7 %

ISTD's	Concentration average
6Li (KED)	100.702 %
45Sc (KED)	92.416 %
72Ge (KED)	93.596 %
89Y (KED)	93.626 %
115In (KED)	91.996 %
159Tb (KED)	94.559 %
209Bi (KED)	96.925 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	61	Stop Time:	6/8/2023 12:37:13 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/8/2023 12:35:18 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.016 ppb	-7.113 %	45.2 %
11B (KED)	-0.038 ppb	-3.026 %	224.4 %
23Na (KED)	0.773 ppb	6.182 %	37.0 %
24Mg (KED)	-0.245 ppb	-1.961 %	74.8 %
27Al (KED)	-0.437 ppb	-17.464 %	10.4 %
31P (KED)	2.078 ppb	16.622 %	17.9 %
39K (KED)	-0.083 ppb	-0.667 %	1,673.4 %
44Ca (KED)	-5.776 ppb	-47.930 %	19.4 %
47Ti (KED)	0.013 ppb	1.006 %	55.3 %
51V (KED)	-0.063 ppb	-9.530 %	3.3 %
52Cr (KED)	0.236 ppb	21.488 %	1.2 %
55Mn (KED)	-0.228 ppb	-20.747 %	2.1 %
57Fe (KED)	-5.989 ppb	-95.817 %	1.9 %
59Co (KED)	0.101 ppb	7.624 %	0.6 %
60Ni (KED)	-0.066 ppb	-5.999 %	11.3 %
63Cu (KED)	-0.054 ppb	-4.905 %	5.9 %
66Zn (KED)	-0.176 ppb	-7.044 %	10.1 %
75As (KED)	-0.019 ppb	-2.107 %	17.4 %
78Se (KED)	-0.087 ppb	-6.575 %	16.7 %
95Mo (KED)	0.262 ppb	23.798 %	1.2 %
107Ag (KED)	-0.013 ppb	-7.419 %	9.1 %
111Cd (KED)	0.000 ppb	0.262 %	1,015.8 %
118Sn (KED)	0.095 ppb	3.786 %	0.8 %
121Sb (KED)	0.396 ppb	29.995 %	1.3 %
137Ba (KED)	-0.059 ppb	-6.733 %	6.7 %
205Tl (KED)	-0.035 ppb	-19.540 %	1.2 %
208Pb (KED)	0.101 ppb	53.338 %	0.6 %

ISTD's	Concentration average
6Li (KED)	126.188 %
45Sc (KED)	113.559 %
72Ge (KED)	109.049 %
89Y (KED)	109.379 %
115In (KED)	105.533 %
159Tb (KED)	106.626 %
209Bi (KED)	106.987 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	74	Stop Time:	6/8/2023 1:01:02 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/8/2023 12:59:14 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.005 ppb	2.282 %	119.3 %
11B (KED)	0.033 ppb	2.677 %	444.5 %
23Na (KED)	1.000 ppb	7.997 %	149.3 %
24Mg (KED)	-0.016 ppb	-0.127 %	746.3 %
27Al (KED)	-0.487 ppb	-19.482 %	10.7 %
31P (KED)	2.796 ppb	22.369 %	26.5 %
39K (KED)	0.741 ppb	5.929 %	206.1 %
44Ca (KED)	-4.871 ppb	-40.421 %	46.4 %
47Ti (KED)	0.012 ppb	0.877 %	200.1 %
51V (KED)	-0.053 ppb	-8.092 %	38.3 %
52Cr (KED)	0.248 ppb	22.586 %	4.8 %
55Mn (KED)	-0.213 ppb	-19.382 %	12.2 %
57Fe (KED)	-5.817 ppb	-93.068 %	5.8 %
59Co (KED)	0.113 ppb	8.529 %	17.3 %
60Ni (KED)	-0.055 ppb	-5.001 %	38.4 %
63Cu (KED)	-0.056 ppb	-5.119 %	23.9 %
66Zn (KED)	-0.183 ppb	-7.304 %	18.8 %
75As (KED)	-0.010 ppb	-1.126 %	138.7 %
78Se (KED)	-0.079 ppb	-6.001 %	25.9 %
95Mo (KED)	0.270 ppb	24.537 %	2.2 %
107Ag (KED)	-0.011 ppb	-6.289 %	37.7 %
111Cd (KED)	0.002 ppb	2.607 %	109.9 %
118Sn (KED)	0.099 ppb	3.942 %	7.7 %
121Sb (KED)	0.407 ppb	30.818 %	1.4 %
137Ba (KED)	-0.059 ppb	-6.685 %	8.7 %
205Tl (KED)	-0.031 ppb	-17.465 %	20.7 %
208Pb (KED)	0.104 ppb	54.756 %	3.3 %

ISTD's	Concentration average
6Li (KED)	125.157 %
45Sc (KED)	112.282 %
72Ge (KED)	109.294 %
89Y (KED)	107.656 %
115In (KED)	105.222 %
159Tb (KED)	104.259 %
209Bi (KED)	106.773 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	83	Stop Time:	6/8/2023 1:17:25 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/8/2023 1:15:37 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.001 ppb	0.638 %	495.0 %
11B (KED)	-0.033 ppb	-2.607 %	130.2 %
23Na (KED)	0.166 ppb	1.332 %	123.0 %
24Mg (KED)	-0.135 ppb	-1.079 %	53.8 %
27Al (KED)	-0.426 ppb	-17.033 %	15.5 %
31P (KED)	2.814 ppb	22.513 %	26.6 %
39K (KED)	-0.297 ppb	-2.373 %	299.1 %
44Ca (KED)	-5.263 ppb	-43.676 %	14.3 %
47Ti (KED)	0.008 ppb	0.572 %	171.5 %
51V (KED)	-0.063 ppb	-9.563 %	1.6 %
52Cr (KED)	0.235 ppb	21.400 %	3.5 %
55Mn (KED)	-0.230 ppb	-20.930 %	0.7 %
57Fe (KED)	-6.015 ppb	-96.238 %	3.4 %
59Co (KED)	0.101 ppb	7.618 %	0.6 %
60Ni (KED)	-0.063 ppb	-5.757 %	2.3 %
63Cu (KED)	-0.056 ppb	-5.133 %	9.8 %
66Zn (KED)	-0.173 ppb	-6.933 %	4.7 %
75As (KED)	-0.015 ppb	-1.748 %	23.8 %
78Se (KED)	-0.066 ppb	-4.973 %	46.6 %
95Mo (KED)	0.266 ppb	24.176 %	1.4 %
107Ag (KED)	-0.014 ppb	-7.971 %	14.6 %
111Cd (KED)	-0.001 ppb	-1.102 %	278.1 %
118Sn (KED)	0.096 ppb	3.848 %	1.1 %
121Sb (KED)	0.395 ppb	29.951 %	0.2 %
137Ba (KED)	-0.063 ppb	-7.137 %	9.4 %
205Tl (KED)	-0.035 ppb	-19.642 %	2.5 %
208Pb (KED)	0.101 ppb	53.346 %	0.5 %

ISTD's	Concentration average
6Li (KED)	105.448 %
45Sc (KED)	98.653 %
72Ge (KED)	98.015 %
89Y (KED)	98.002 %
115In (KED)	96.625 %
159Tb (KED)	97.758 %
209Bi (KED)	98.964 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	92	Stop Time:	6/8/2023 1:34:00 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/8/2023 1:32:08 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.005 ppb	-2.345 %	282.5 %
11B (KED)	-0.071 ppb	-5.647 %	101.0 %
23Na (KED)	1.967 ppb	15.732 %	79.4 %
24Mg (KED)	0.575 ppb	4.599 %	160.0 %
27Al (KED)	-0.418 ppb	-16.702 %	35.9 %
31P (KED)	1.052 ppb	8.413 %	86.4 %
39K (KED)	0.115 ppb	0.922 %	859.8 %
44Ca (KED)	-3.411 ppb	-28.307 %	104.9 %
47Ti (KED)	0.011 ppb	0.811 %	82.2 %
51V (KED)	-0.051 ppb	-7.727 %	17.3 %
52Cr (KED)	0.242 ppb	22.030 %	5.3 %
55Mn (KED)	-0.208 ppb	-18.893 %	5.0 %
57Fe (KED)	-5.960 ppb	-95.364 %	1.3 %
59Co (KED)	0.108 ppb	8.220 %	12.5 %
60Ni (KED)	-0.057 ppb	-5.178 %	14.1 %
63Cu (KED)	-0.050 ppb	-4.509 %	32.0 %
66Zn (KED)	-0.181 ppb	-7.245 %	11.2 %
75As (KED)	-0.009 ppb	-1.076 %	87.8 %
78Se (KED)	-0.059 ppb	-4.491 %	6.6 %
95Mo (KED)	0.265 ppb	24.083 %	1.4 %
107Ag (KED)	-0.009 ppb	-5.412 %	42.6 %
111Cd (KED)	-0.001 ppb	-1.410 %	318.5 %
118Sn (KED)	0.096 ppb	3.831 %	4.9 %
121Sb (KED)	0.393 ppb	29.791 %	0.9 %
137Ba (KED)	-0.059 ppb	-6.741 %	8.1 %
205Tl (KED)	-0.034 ppb	-19.002 %	8.9 %
208Pb (KED)	0.103 ppb	54.245 %	2.5 %

ISTD's	Concentration average
6Li (KED)	103.686 %
45Sc (KED)	95.878 %
72Ge (KED)	96.066 %
89Y (KED)	95.652 %
115In (KED)	94.912 %
159Tb (KED)	97.452 %
209Bi (KED)	100.674 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG

6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	105	Stop Time:	6/8/2023 1:58:14 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/8/2023 1:56:26 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.003 ppb	-1.561 %	365.8 %
11B (KED)	0.157 ppb	12.568 %	47.9 %
23Na (KED)	0.293 ppb	2.347 %	45.7 %
24Mg (KED)	-0.071 ppb	-0.572 %	288.3 %
27Al (KED)	-0.391 ppb	-15.645 %	4.5 %
31P (KED)	0.044 ppb	0.352 %	1,748.9 %
39K (KED)	0.316 ppb	2.528 %	144.6 %
44Ca (KED)	-6.026 ppb	-50.007 %	23.4 %
47Ti (KED)	0.009 ppb	0.699 %	229.9 %
51V (KED)	-0.058 ppb	-8.831 %	8.8 %
52Cr (KED)	0.240 ppb	21.799 %	1.8 %
55Mn (KED)	-0.225 ppb	-20.423 %	3.6 %
57Fe (KED)	-6.080 ppb	-97.276 %	3.4 %
59Co (KED)	0.103 ppb	7.837 %	5.8 %
60Ni (KED)	-0.061 ppb	-5.587 %	11.4 %
63Cu (KED)	-0.051 ppb	-4.667 %	21.5 %
66Zn (KED)	-0.161 ppb	-6.436 %	9.9 %
75As (KED)	-0.011 ppb	-1.279 %	83.3 %
78Se (KED)	-0.103 ppb	-7.802 %	3.9 %
95Mo (KED)	0.266 ppb	24.167 %	1.9 %
107Ag (KED)	-0.011 ppb	-6.541 %	56.6 %
111Cd (KED)	0.000 ppb	0.322 %	1,389.9 %
118Sn (KED)	0.098 ppb	3.938 %	4.4 %
121Sb (KED)	0.402 ppb	30.463 %	0.7 %
137Ba (KED)	-0.063 ppb	-7.119 %	12.8 %
205Tl (KED)	-0.034 ppb	-18.829 %	10.2 %
208Pb (KED)	0.106 ppb	55.655 %	6.5 %

ISTD's	Concentration average
6Li (KED)	128.034 %
45Sc (KED)	112.976 %
72Ge (KED)	110.794 %
89Y (KED)	108.025 %
115In (KED)	104.958 %
159Tb (KED)	106.085 %
209Bi (KED)	108.836 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	116	Stop Time:	6/8/2023 2:18:50 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/8/2023 2:17:01 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.003 ppb	1.326 %	136.4 %
11B (KED)	-0.069 ppb	-5.539 %	228.4 %
23Na (KED)	0.199 ppb	1.593 %	153.3 %
24Mg (KED)	-0.168 ppb	-1.344 %	145.3 %
27Al (KED)	-0.395 ppb	-15.795 %	34.7 %
31P (KED)	1.673 ppb	13.382 %	68.7 %
39K (KED)	0.211 ppb	1.691 %	992.3 %
44Ca (KED)	-5.341 ppb	-44.326 %	7.2 %
47Ti (KED)	0.014 ppb	1.053 %	51.3 %
51V (KED)	-0.057 ppb	-8.702 %	4.2 %
52Cr (KED)	0.238 ppb	21.617 %	2.7 %
55Mn (KED)	-0.225 ppb	-20.441 %	0.9 %
57Fe (KED)	-5.885 ppb	-94.160 %	1.8 %
59Co (KED)	0.102 ppb	7.736 %	0.3 %
60Ni (KED)	-0.068 ppb	-6.141 %	5.7 %
63Cu (KED)	-0.055 ppb	-4.990 %	7.0 %
66Zn (KED)	-0.167 ppb	-6.668 %	3.4 %
75As (KED)	-0.015 ppb	-1.730 %	29.4 %
78Se (KED)	-0.076 ppb	-5.725 %	7.6 %
95Mo (KED)	0.263 ppb	23.923 %	0.6 %
107Ag (KED)	-0.011 ppb	-6.415 %	9.6 %
111Cd (KED)	0.001 ppb	1.914 %	184.6 %
118Sn (KED)	0.097 ppb	3.867 %	1.0 %
121Sb (KED)	0.395 ppb	29.905 %	1.2 %
137Ba (KED)	-0.066 ppb	-7.525 %	1.5 %
205Tl (KED)	-0.034 ppb	-19.068 %	0.6 %
208Pb (KED)	0.103 ppb	54.464 %	0.9 %

ISTD's	Concentration average
6Li (KED)	113.213 %
45Sc (KED)	102.385 %
72Ge (KED)	101.351 %
89Y (KED)	101.254 %
115In (KED)	100.100 %
159Tb (KED)	101.414 %
209Bi (KED)	102.382 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	126	Stop Time:	6/8/2023 2:37:43 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/8/2023 2:35:55 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.007 ppb	-3.287 %	149.7 %
11B (KED)	-0.096 ppb	-7.708 %	129.1 %
23Na (KED)	0.167 ppb	1.335 %	201.8 %
24Mg (KED)	-0.168 ppb	-1.341 %	87.5 %
27Al (KED)	-0.408 ppb	-16.326 %	6.6 %
31P (KED)	0.064 ppb	0.512 %	630.8 %
39K (KED)	-0.024 ppb	-0.189 %	5,281.5 %
44Ca (KED)	-6.416 ppb	-53.243 %	23.2 %
47Ti (KED)	0.007 ppb	0.538 %	296.1 %
51V (KED)	-0.065 ppb	-9.867 %	10.4 %
52Cr (KED)	0.242 ppb	22.044 %	1.8 %
55Mn (KED)	-0.229 ppb	-20.833 %	3.7 %
57Fe (KED)	-5.872 ppb	-93.945 %	5.3 %
59Co (KED)	0.102 ppb	7.700 %	2.2 %
60Ni (KED)	-0.062 ppb	-5.648 %	5.4 %
63Cu (KED)	-0.054 ppb	-4.867 %	12.8 %
66Zn (KED)	-0.165 ppb	-6.588 %	7.3 %
75As (KED)	-0.018 ppb	-2.078 %	54.3 %
78Se (KED)	-0.061 ppb	-4.617 %	50.8 %
95Mo (KED)	0.264 ppb	24.012 %	1.7 %
107Ag (KED)	-0.012 ppb	-7.322 %	14.6 %
111Cd (KED)	0.002 ppb	2.205 %	187.3 %
118Sn (KED)	0.096 ppb	3.851 %	1.1 %
121Sb (KED)	0.392 ppb	29.700 %	0.4 %
137Ba (KED)	-0.066 ppb	-7.481 %	2.8 %
205Tl (KED)	-0.035 ppb	-19.575 %	1.1 %
208Pb (KED)	0.102 ppb	53.800 %	1.4 %

ISTD's	Concentration average
6Li (KED)	122.251 %
45Sc (KED)	111.715 %
72Ge (KED)	107.960 %
89Y (KED)	106.843 %
115In (KED)	103.833 %
159Tb (KED)	105.638 %
209Bi (KED)	105.647 %

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0230-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
S3F0230-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0230-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
B3F0015-BLK1	Aluminum, Dissolved	0.00558	mg/L	0.0250	J
	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		mg/L	0.0250	U
	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
S3F0230-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

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0230-CCB2	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
S3F0230-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
	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
S3F0230-CCB4	Aluminum, Dissolved		ug/L	22.5	U
	Antimony, Dissolved		ug/L	4.50	U

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0230-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
S3F0230-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0230-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
S3F0230-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
S3F0230-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0230-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
S3F0230-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
S3F0230-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0230-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
S3F0230-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0230-CCBA	Tin, Dissolved		ug/L	4.50	U
	Vanadium, Dissolved		ug/L	4.50	U
	Zinc, Dissolved		ug/L	4.50	U
S3F0230-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
S3F0230-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:	Sterling Labs	Work Order:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	ICP-MS iCAP Q	Calibration:	EF30057
Sequence:	S3F0230		

Lab Sample ID	Analyte	Found	Units	RL	Qual
S3F0230-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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 8
Sample ID: SEQ-ICB
Start Time: 6/13/2023 12:40:49 PM
Stop Time: 6/13/2023 12:42:38 PM
Dilution Factor 1
prepFAST DF 1
Comment Initial Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.034 ppb	-15.230 %	13.0 %
11B (KED)	0.016 ppb	1.265 %	402.5 %
23Na (KED)	-1.401 ppb	-11.211 %	32.2 %
24Mg (KED)	1.613 ppb	12.901 %	14.8 %
27Al (KED)	1.012 ppb	40.493 %	8.0 %
31P (KED)	1.422 ppb	11.375 %	66.2 %
39K (KED)	1.348 ppb	10.780 %	167.6 %
44Ca (KED)	-6.351 ppb	-52.702 %	15.9 %
47Ti (KED)	0.196 ppb	14.874 %	9.0 %
51V (KED)	0.040 ppb	6.080 %	7.7 %
52Cr (KED)	0.332 ppb	30.197 %	1.9 %
55Mn (KED)	-0.099 ppb	-8.983 %	3.5 %
57Fe (KED)	-5.192 ppb	-83.077 %	1.9 %
59Co (KED)	0.124 ppb	9.378 %	0.7 %
60Ni (KED)	-0.033 ppb	-3.002 %	4.3 %
63Cu (KED)	-0.034 ppb	-3.078 %	15.1 %
66Zn (KED)	0.020 ppb	0.783 %	65.0 %
75As (KED)	0.029 ppb	3.319 %	20.1 %
78Se (KED)	0.184 ppb	13.947 %	10.6 %
95Mo (KED)	-0.048 ppb	-4.358 %	4.6 %
107Ag (KED)	-0.007 ppb	-4.352 %	48.4 %
111Cd (KED)	0.002 ppb	2.644 %	65.9 %
118Sn (KED)	0.198 ppb	7.902 %	1.9 %
121Sb (KED)	0.344 ppb	26.063 %	0.9 %
137Ba (KED)	0.165 ppb	18.708 %	3.7 %
205Tl (KED)	0.015 ppb	8.324 %	1.8 %
208Pb (KED)	0.081 ppb	42.596 %	1.6 %

ISTD's	Concentration average
6Li (KED)	99.973 %
45Sc (KED)	101.469 %
72Ge (KED)	100.469 %
89Y (KED)	100.282 %
115In (KED)	100.743 %
159Tb (KED)	104.435 %
209Bi (KED)	102.589 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 17
Sample ID: SEQ-CCB
Start Time: 6/13/2023 12:57:25 PM
Stop Time: 6/13/2023 12:59:14 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.010 ppb	-4.630 %	114.7 %
11B (KED)	0.144 ppb	11.506 %	42.4 %
23Na (KED)	-0.152 ppb	-1.214 %	205.2 %
24Mg (KED)	1.727 ppb	13.819 %	3.7 %
27Al (KED)	1.034 ppb	41.372 %	5.7 %
31P (KED)	1.171 ppb	9.372 %	71.7 %
39K (KED)	0.842 ppb	6.737 %	106.7 %
44Ca (KED)	-6.110 ppb	-50.706 %	33.0 %
47Ti (KED)	0.191 ppb	14.498 %	7.0 %
51V (KED)	0.042 ppb	6.309 %	1.4 %
52Cr (KED)	0.329 ppb	29.911 %	0.8 %
55Mn (KED)	-0.104 ppb	-9.488 %	3.1 %
57Fe (KED)	-5.066 ppb	-81.055 %	1.8 %
59Co (KED)	0.120 ppb	9.122 %	0.7 %
60Ni (KED)	-0.036 ppb	-3.298 %	6.0 %
63Cu (KED)	-0.023 ppb	-2.077 %	2.6 %
66Zn (KED)	0.040 ppb	1.607 %	55.2 %
75As (KED)	0.036 ppb	4.123 %	10.3 %
78Se (KED)	0.200 ppb	15.189 %	5.8 %
95Mo (KED)	-0.050 ppb	-4.590 %	11.7 %
107Ag (KED)	-0.009 ppb	-5.329 %	35.8 %
111Cd (KED)	-0.002 ppb	-2.303 %	371.0 %
118Sn (KED)	0.192 ppb	7.669 %	0.9 %
121Sb (KED)	0.322 ppb	24.389 %	1.2 %
137Ba (KED)	0.162 ppb	18.406 %	1.1 %
205Tl (KED)	0.011 ppb	6.121 %	4.5 %
208Pb (KED)	0.078 ppb	40.799 %	1.6 %

ISTD's	Concentration average
6Li (KED)	106.098 %
45Sc (KED)	98.487 %
72Ge (KED)	98.754 %
89Y (KED)	97.667 %
115In (KED)	95.782 %
159Tb (KED)	104.179 %
209Bi (KED)	103.678 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	18	Stop Time:	6/13/2023 1:01:03 PM	Comment	ND 6020 DISS
Sample ID:	B3F0015-BLK1	Dilution Factor	1		
Start Time:	6/13/2023 12:59:15 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.034 ppb	12.4 %
11B (KED)	0.122 ppb	37.9 %
23Na (KED)	0.051 ppb	260.9 %
24Mg (KED)	1.803 ppb	15.9 %
27Al (KED)	5.410 ppb	2.3 %
31P (KED)	6.366 ppb	31.2 %
39K (KED)	-2.824 ppb	60.9 %
44Ca (KED)	-4.965 ppb	23.6 %
47Ti (KED)	0.231 ppb	5.4 %
51V (KED)	0.034 ppb	9.6 %
52Cr (KED)	0.337 ppb	1.4 %
55Mn (KED)	-0.009 ppb	119.0 %
57Fe (KED)	-4.538 ppb	1.2 %
59Co (KED)	0.132 ppb	1.1 %
60Ni (KED)	-0.001 ppb	373.0 %
63Cu (KED)	-0.021 ppb	21.5 %
66Zn (KED)	-0.017 ppb	149.7 %
75As (KED)	0.020 ppb	58.5 %
78Se (KED)	0.169 ppb	7.3 %
95Mo (KED)	-0.014 ppb	75.5 %
107Ag (KED)	-0.011 ppb	24.9 %
111Cd (KED)	-0.006 ppb	54.6 %
118Sn (KED)	0.229 ppb	1.1 %
121Sb (KED)	0.309 ppb	0.6 %
137Ba (KED)	0.161 ppb	2.2 %
205Tl (KED)	0.009 ppb	13.4 %
208Pb (KED)	0.076 ppb	0.1 %

ISTD's	Concentration average
6Li (KED)	110.981 %
45Sc (KED)	104.957 %
72Ge (KED)	100.770 %
89Y (KED)	105.615 %
115In (KED)	104.026 %
159Tb (KED)	113.882 %
209Bi (KED)	105.854 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 29
Sample ID: SEQ-CCB
Start Time: 6/13/2023 1:18:57 PM
Stop Time: 6/13/2023 1:20:45 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.016 ppb	-7.327 %	80.7 %
11B (KED)	0.041 ppb	3.246 %	205.2 %
23Na (KED)	0.226 ppb	1.809 %	115.1 %
24Mg (KED)	1.741 ppb	13.929 %	14.4 %
27Al (KED)	1.065 ppb	42.601 %	3.9 %
31P (KED)	1.141 ppb	9.131 %	1.0 %
39K (KED)	-0.284 ppb	-2.268 %	950.9 %
44Ca (KED)	-6.699 ppb	-55.592 %	19.4 %
47Ti (KED)	0.188 ppb	14.218 %	2.5 %
51V (KED)	0.045 ppb	6.779 %	9.1 %
52Cr (KED)	0.324 ppb	29.445 %	0.5 %
55Mn (KED)	-0.099 ppb	-9.012 %	8.5 %
57Fe (KED)	-4.964 ppb	-79.424 %	4.4 %
59Co (KED)	0.118 ppb	8.931 %	0.4 %
60Ni (KED)	-0.036 ppb	-3.230 %	21.7 %
63Cu (KED)	-0.031 ppb	-2.863 %	11.6 %
66Zn (KED)	0.059 ppb	2.352 %	3.7 %
75As (KED)	0.030 ppb	3.401 %	19.9 %
78Se (KED)	0.156 ppb	11.788 %	2.9 %
95Mo (KED)	-0.059 ppb	-5.348 %	3.8 %
107Ag (KED)	-0.009 ppb	-5.230 %	16.1 %
111Cd (KED)	-0.003 ppb	-4.092 %	26.6 %
118Sn (KED)	0.191 ppb	7.624 %	1.0 %
121Sb (KED)	0.315 ppb	23.899 %	1.2 %
137Ba (KED)	0.163 ppb	18.475 %	3.0 %
205Tl (KED)	0.009 ppb	4.776 %	2.8 %
208Pb (KED)	0.076 ppb	40.117 %	0.5 %

ISTD's	Concentration average
6Li (KED)	107.983 %
45Sc (KED)	102.279 %
72Ge (KED)	101.634 %
89Y (KED)	101.781 %
115In (KED)	101.349 %
159Tb (KED)	104.281 %
209Bi (KED)	104.847 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG

6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	38	Stop Time:	6/13/2023 1:37:16 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/13/2023 1:35:22 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.003 ppb	-1.137 %	298.1 %
11B (KED)	0.175 ppb	13.994 %	53.1 %
23Na (KED)	1.123 ppb	8.983 %	71.1 %
24Mg (KED)	1.825 ppb	14.601 %	2.0 %
27Al (KED)	1.022 ppb	40.877 %	4.7 %
31P (KED)	3.082 ppb	24.659 %	67.1 %
39K (KED)	0.115 ppb	0.923 %	605.6 %
44Ca (KED)	-6.210 ppb	-51.536 %	18.7 %
47Ti (KED)	0.185 ppb	13.997 %	8.0 %
51V (KED)	0.035 ppb	5.253 %	15.0 %
52Cr (KED)	0.329 ppb	29.912 %	0.4 %
55Mn (KED)	-0.105 ppb	-9.531 %	1.6 %
57Fe (KED)	-4.935 ppb	-78.957 %	2.7 %
59Co (KED)	0.119 ppb	8.988 %	0.5 %
60Ni (KED)	-0.033 ppb	-3.020 %	10.6 %
63Cu (KED)	-0.030 ppb	-2.710 %	27.3 %
66Zn (KED)	0.045 ppb	1.781 %	56.8 %
75As (KED)	0.025 ppb	2.833 %	32.6 %
78Se (KED)	0.145 ppb	11.013 %	7.9 %
95Mo (KED)	-0.054 ppb	-4.890 %	4.8 %
107Ag (KED)	-0.010 ppb	-5.635 %	7.0 %
111Cd (KED)	-0.005 ppb	-6.534 %	37.4 %
118Sn (KED)	0.193 ppb	7.731 %	0.5 %
121Sb (KED)	0.324 ppb	24.563 %	0.5 %
137Ba (KED)	0.166 ppb	18.863 %	3.7 %
205Tl (KED)	0.010 ppb	5.297 %	10.4 %
208Pb (KED)	0.077 ppb	40.655 %	2.8 %

ISTD's	Concentration average
6Li (KED)	133.874 %
45Sc (KED)	119.925 %
72Ge (KED)	116.069 %
89Y (KED)	116.231 %
115In (KED)	112.237 %
159Tb (KED)	117.484 %
209Bi (KED)	113.241 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	49	Stop Time:	6/13/2023 1:57:43 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/13/2023 1:55:54 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.008 ppb	3.580 %	172.9 %
11B (KED)	0.222 ppb	17.733 %	33.3 %
23Na (KED)	1.678 ppb	13.425 %	46.6 %
24Mg (KED)	1.961 ppb	15.692 %	25.7 %
27Al (KED)	1.090 ppb	43.581 %	5.6 %
31P (KED)	2.624 ppb	20.992 %	61.4 %
39K (KED)	-0.133 ppb	-1.066 %	668.3 %
44Ca (KED)	-5.971 ppb	-49.548 %	22.8 %
47Ti (KED)	0.206 ppb	15.615 %	8.8 %
51V (KED)	0.045 ppb	6.785 %	16.6 %
52Cr (KED)	0.332 ppb	30.143 %	0.6 %
55Mn (KED)	-0.106 ppb	-9.677 %	3.5 %
57Fe (KED)	-4.774 ppb	-76.380 %	6.1 %
59Co (KED)	0.122 ppb	9.263 %	2.5 %
60Ni (KED)	-0.029 ppb	-2.641 %	15.5 %
63Cu (KED)	-0.027 ppb	-2.441 %	17.6 %
66Zn (KED)	0.052 ppb	2.088 %	36.0 %
75As (KED)	0.033 ppb	3.781 %	6.0 %
78Se (KED)	0.190 ppb	14.363 %	16.1 %
95Mo (KED)	-0.050 ppb	-4.505 %	5.4 %
107Ag (KED)	-0.006 ppb	-3.639 %	66.4 %
111Cd (KED)	-0.001 ppb	-0.826 %	206.5 %
118Sn (KED)	0.194 ppb	7.764 %	1.7 %
121Sb (KED)	0.329 ppb	24.894 %	0.8 %
137Ba (KED)	0.164 ppb	18.682 %	3.4 %
205Tl (KED)	0.011 ppb	6.158 %	13.3 %
208Pb (KED)	0.079 ppb	41.511 %	2.0 %

ISTD's	Concentration average
6Li (KED)	135.865 %
45Sc (KED)	120.702 %
72Ge (KED)	117.008 %
89Y (KED)	115.184 %
115In (KED)	115.870 %
159Tb (KED)	118.104 %
209Bi (KED)	118.243 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG

6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	58	Stop Time:	6/13/2023 2:14:36 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/13/2023 2:12:45 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.002 ppb	-1.094 %	844.1 %
11B (KED)	0.097 ppb	7.756 %	103.8 %
23Na (KED)	-0.202 ppb	-1.613 %	207.7 %
24Mg (KED)	1.557 ppb	12.457 %	3.9 %
27Al (KED)	0.996 ppb	39.832 %	9.2 %
31P (KED)	2.877 ppb	23.013 %	14.7 %
39K (KED)	1.008 ppb	8.060 %	53.8 %
44Ca (KED)	-6.637 ppb	-55.080 %	14.9 %
47Ti (KED)	0.197 ppb	14.925 %	7.4 %
51V (KED)	0.043 ppb	6.534 %	5.7 %
52Cr (KED)	0.327 ppb	29.712 %	1.2 %
55Mn (KED)	-0.109 ppb	-9.940 %	7.1 %
57Fe (KED)	-5.033 ppb	-80.520 %	4.4 %
59Co (KED)	0.118 ppb	8.959 %	0.7 %
60Ni (KED)	-0.038 ppb	-3.409 %	6.5 %
63Cu (KED)	-0.035 ppb	-3.174 %	18.1 %
66Zn (KED)	-0.017 ppb	-0.672 %	119.2 %
75As (KED)	0.034 ppb	3.899 %	22.8 %
78Se (KED)	0.181 ppb	13.703 %	2.6 %
95Mo (KED)	-0.054 ppb	-4.919 %	12.4 %
107Ag (KED)	-0.011 ppb	-6.473 %	16.7 %
111Cd (KED)	-0.004 ppb	-5.497 %	30.7 %
118Sn (KED)	0.192 ppb	7.677 %	0.3 %
121Sb (KED)	0.324 ppb	24.566 %	1.2 %
137Ba (KED)	0.156 ppb	17.780 %	1.9 %
205Tl (KED)	0.011 ppb	5.879 %	5.8 %
208Pb (KED)	0.077 ppb	40.662 %	1.6 %

ISTD's	Concentration average
6Li (KED)	128.954 %
45Sc (KED)	119.166 %
72Ge (KED)	115.571 %
89Y (KED)	112.221 %
115In (KED)	114.488 %
159Tb (KED)	115.725 %
209Bi (KED)	114.128 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
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Index #: 68
Sample ID: SEQ-CCB
Start Time: 6/13/2023 2:31:25 PM
Stop Time: 6/13/2023 2:33:16 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.023 ppb	-10.555 %	64.2 %
11B (KED)	-0.025 ppb	-2.018 %	204.0 %
23Na (KED)	-0.503 ppb	-4.027 %	53.8 %
24Mg (KED)	1.695 ppb	13.562 %	7.5 %
27Al (KED)	1.033 ppb	41.315 %	10.3 %
31P (KED)	2.504 ppb	20.031 %	77.1 %
39K (KED)	0.161 ppb	1.286 %	579.5 %
44Ca (KED)	-5.559 ppb	-46.131 %	1.4 %
47Ti (KED)	0.225 ppb	17.056 %	13.6 %
51V (KED)	0.042 ppb	6.293 %	3.0 %
52Cr (KED)	0.330 ppb	30.029 %	2.2 %
55Mn (KED)	-0.106 ppb	-9.612 %	2.0 %
57Fe (KED)	-5.166 ppb	-82.663 %	0.1 %
59Co (KED)	0.119 ppb	9.025 %	1.6 %
60Ni (KED)	-0.034 ppb	-3.064 %	15.2 %
63Cu (KED)	-0.032 ppb	-2.922 %	26.8 %
66Zn (KED)	-0.021 ppb	-0.846 %	57.7 %
75As (KED)	0.031 ppb	3.505 %	18.3 %
78Se (KED)	0.158 ppb	11.989 %	7.9 %
95Mo (KED)	-0.056 ppb	-5.094 %	6.0 %
107Ag (KED)	-0.009 ppb	-5.023 %	19.3 %
111Cd (KED)	-0.003 ppb	-4.578 %	43.3 %
118Sn (KED)	0.190 ppb	7.616 %	0.7 %
121Sb (KED)	0.320 ppb	24.218 %	0.7 %
137Ba (KED)	0.166 ppb	18.876 %	2.7 %
205Tl (KED)	0.010 ppb	5.555 %	6.1 %
208Pb (KED)	0.077 ppb	40.353 %	1.5 %

ISTD's	Concentration average
6Li (KED)	120.706 %
45Sc (KED)	114.959 %
72Ge (KED)	109.788 %
89Y (KED)	110.204 %
115In (KED)	107.713 %
159Tb (KED)	109.777 %
209Bi (KED)	108.892 %

Labbook:
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Index #: 79
Sample ID: SEQ-CCB
Start Time: 6/13/2023 2:52:13 PM
Stop Time: 6/13/2023 2:54:08 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.026 ppb	-11.710 %	62.1 %
11B (KED)	-0.013 ppb	-1.011 %	856.6 %
23Na (KED)	-0.741 ppb	-5.924 %	13.5 %
24Mg (KED)	1.604 ppb	12.829 %	3.8 %
27Al (KED)	1.044 ppb	41.777 %	8.4 %
31P (KED)	1.994 ppb	15.953 %	110.5 %
39K (KED)	-0.655 ppb	-5.236 %	141.2 %
44Ca (KED)	-6.411 ppb	-53.201 %	15.9 %
47Ti (KED)	0.197 ppb	14.890 %	9.9 %
51V (KED)	0.045 ppb	6.830 %	11.0 %
52Cr (KED)	0.325 ppb	29.564 %	2.3 %
55Mn (KED)	-0.108 ppb	-9.837 %	8.9 %
57Fe (KED)	-5.138 ppb	-82.214 %	2.3 %
59Co (KED)	0.117 ppb	8.856 %	0.4 %
60Ni (KED)	-0.040 ppb	-3.627 %	3.6 %
63Cu (KED)	-0.043 ppb	-3.938 %	8.2 %
66Zn (KED)	-0.013 ppb	-0.517 %	283.5 %
75As (KED)	0.029 ppb	3.270 %	22.8 %
78Se (KED)	0.164 ppb	12.416 %	9.2 %
95Mo (KED)	-0.058 ppb	-5.307 %	2.3 %
107Ag (KED)	-0.012 ppb	-7.160 %	24.0 %
111Cd (KED)	-0.006 ppb	-8.249 %	38.9 %
118Sn (KED)	0.187 ppb	7.478 %	0.8 %
121Sb (KED)	0.315 ppb	23.894 %	1.2 %
137Ba (KED)	0.157 ppb	17.865 %	1.7 %
205Tl (KED)	0.008 ppb	4.293 %	13.9 %
208Pb (KED)	0.076 ppb	39.836 %	1.6 %

ISTD's	Concentration average
6Li (KED)	101.902 %
45Sc (KED)	100.200 %
72Ge (KED)	100.543 %
89Y (KED)	100.084 %
115In (KED)	100.332 %
159Tb (KED)	100.786 %
209Bi (KED)	99.813 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
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Index #:	85	Stop Time:	6/13/2023 3:05:31 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/13/2023 3:03:39 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.011 ppb	-5.011 %	109.6 %
11B (KED)	0.022 ppb	1.738 %	264.5 %
23Na (KED)	-0.763 ppb	-6.107 %	22.5 %
24Mg (KED)	1.742 ppb	13.932 %	5.2 %
27Al (KED)	1.045 ppb	41.808 %	1.9 %
31P (KED)	3.067 ppb	24.538 %	37.7 %
39K (KED)	-0.060 ppb	-0.482 %	830.2 %
44Ca (KED)	-6.443 ppb	-53.471 %	8.7 %
47Ti (KED)	0.194 ppb	14.697 %	11.5 %
51V (KED)	0.037 ppb	5.654 %	7.3 %
52Cr (KED)	0.326 ppb	29.656 %	1.2 %
55Mn (KED)	-0.108 ppb	-9.861 %	8.4 %
57Fe (KED)	-5.088 ppb	-81.411 %	2.6 %
59Co (KED)	0.119 ppb	8.982 %	0.6 %
60Ni (KED)	-0.032 ppb	-2.906 %	9.9 %
63Cu (KED)	-0.033 ppb	-3.035 %	9.7 %
66Zn (KED)	-0.022 ppb	-0.867 %	57.3 %
75As (KED)	0.034 ppb	3.887 %	9.7 %
78Se (KED)	0.186 ppb	14.072 %	15.7 %
95Mo (KED)	-0.053 ppb	-4.861 %	6.8 %
107Ag (KED)	-0.010 ppb	-5.929 %	9.1 %
111Cd (KED)	-0.003 ppb	-4.401 %	21.0 %
118Sn (KED)	0.191 ppb	7.642 %	1.5 %
121Sb (KED)	0.319 ppb	24.133 %	0.9 %
137Ba (KED)	0.169 ppb	19.211 %	1.3 %
205Tl (KED)	0.009 ppb	4.913 %	5.0 %
208Pb (KED)	0.077 ppb	40.451 %	0.7 %

ISTD's	Concentration average
6Li (KED)	115.038 %
45Sc (KED)	111.023 %
72Ge (KED)	108.883 %
89Y (KED)	106.521 %
115In (KED)	105.202 %
159Tb (KED)	106.484 %
209Bi (KED)	106.669 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	93	Stop Time:	6/13/2023 3:20:27 PM	Comment	Contin Cal Blank
Sample ID:	SEQ-CCB	Dilution Factor	1		
Start Time:	6/13/2023 3:18:38 PM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.011 ppb	-5.030 %	188.3 %
11B (KED)	0.010 ppb	0.831 %	828.3 %
23Na (KED)	-1.052 ppb	-8.418 %	10.3 %
24Mg (KED)	1.776 ppb	14.210 %	7.0 %
27Al (KED)	1.115 ppb	44.601 %	19.5 %
31P (KED)	2.131 ppb	17.051 %	84.1 %
39K (KED)	-1.253 ppb	-10.026 %	124.6 %
44Ca (KED)	-7.093 ppb	-58.862 %	3.1 %
47Ti (KED)	0.199 ppb	15.066 %	6.9 %
51V (KED)	0.048 ppb	7.249 %	8.0 %
52Cr (KED)	0.327 ppb	29.718 %	2.0 %
55Mn (KED)	-0.110 ppb	-10.028 %	7.2 %
57Fe (KED)	-5.137 ppb	-82.197 %	2.3 %
59Co (KED)	0.117 ppb	8.885 %	0.8 %
60Ni (KED)	-0.039 ppb	-3.508 %	13.5 %
63Cu (KED)	-0.042 ppb	-3.825 %	6.6 %
66Zn (KED)	-0.019 ppb	-0.746 %	96.5 %
75As (KED)	0.027 ppb	3.018 %	15.5 %
78Se (KED)	0.182 ppb	13.806 %	9.2 %
95Mo (KED)	-0.057 ppb	-5.180 %	13.6 %
107Ag (KED)	-0.014 ppb	-8.522 %	31.7 %
111Cd (KED)	-0.006 ppb	-8.735 %	33.6 %
118Sn (KED)	0.187 ppb	7.490 %	1.3 %
121Sb (KED)	0.316 ppb	23.935 %	0.5 %
137Ba (KED)	0.158 ppb	17.915 %	3.1 %
205Tl (KED)	0.008 ppb	4.194 %	3.8 %
208Pb (KED)	0.075 ppb	39.358 %	1.8 %

ISTD's	Concentration average
6Li (KED)	92.017 %
45Sc (KED)	92.423 %
72Ge (KED)	93.285 %
89Y (KED)	93.640 %
115In (KED)	95.380 %
159Tb (KED)	96.701 %
209Bi (KED)	96.111 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 101
Sample ID: SEQ-CCB
Start Time: 6/13/2023 3:33:39 PM
Stop Time: 6/13/2023 3:35:32 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.029 ppb	-13.297 %	36.1 %
11B (KED)	0.063 ppb	5.053 %	51.9 %
23Na (KED)	-0.753 ppb	-6.026 %	56.0 %
24Mg (KED)	1.607 ppb	12.856 %	5.0 %
27Al (KED)	1.045 ppb	41.810 %	4.4 %
31P (KED)	2.098 ppb	16.782 %	55.0 %
39K (KED)	-0.104 ppb	-0.834 %	772.4 %
44Ca (KED)	-7.744 ppb	-64.267 %	6.3 %
47Ti (KED)	0.181 ppb	13.731 %	2.4 %
51V (KED)	0.040 ppb	5.989 %	13.4 %
52Cr (KED)	0.328 ppb	29.852 %	1.7 %
55Mn (KED)	-0.107 ppb	-9.724 %	8.7 %
57Fe (KED)	-4.876 ppb	-78.011 %	3.3 %
59Co (KED)	0.118 ppb	8.941 %	0.7 %
60Ni (KED)	-0.035 ppb	-3.191 %	29.6 %
63Cu (KED)	-0.038 ppb	-3.470 %	16.5 %
66Zn (KED)	-0.006 ppb	-0.245 %	309.1 %
75As (KED)	0.031 ppb	3.558 %	30.0 %
78Se (KED)	0.155 ppb	11.732 %	12.2 %
95Mo (KED)	-0.058 ppb	-5.244 %	5.9 %
107Ag (KED)	-0.013 ppb	-7.420 %	20.4 %
111Cd (KED)	-0.006 ppb	-9.005 %	30.0 %
118Sn (KED)	0.191 ppb	7.633 %	1.2 %
121Sb (KED)	0.319 ppb	24.179 %	0.5 %
137Ba (KED)	0.163 ppb	18.549 %	2.1 %
205Tl (KED)	0.008 ppb	4.231 %	13.2 %
208Pb (KED)	0.076 ppb	39.997 %	0.7 %

ISTD's	Concentration average
6Li (KED)	111.903 %
45Sc (KED)	109.059 %
72Ge (KED)	107.572 %
89Y (KED)	105.137 %
115In (KED)	104.013 %
159Tb (KED)	106.412 %
209Bi (KED)	104.660 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 112
Sample ID: SEQ-CCB
Start Time: 6/13/2023 3:54:17 PM
Stop Time: 6/13/2023 3:56:07 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.039 ppb	-17.512 %	0.0 %
11B (KED)	0.075 ppb	5.968 %	9.1 %
23Na (KED)	-1.203 ppb	-9.627 %	13.7 %
24Mg (KED)	1.523 ppb	12.184 %	7.1 %
27Al (KED)	0.979 ppb	39.148 %	1.7 %
31P (KED)	0.950 ppb	7.597 %	112.2 %
39K (KED)	-1.561 ppb	-12.485 %	96.2 %
44Ca (KED)	-6.498 ppb	-53.923 %	27.9 %
47Ti (KED)	0.194 ppb	14.666 %	10.2 %
51V (KED)	0.055 ppb	8.273 %	7.6 %
52Cr (KED)	0.333 ppb	30.277 %	2.1 %
55Mn (KED)	-0.107 ppb	-9.717 %	2.0 %
57Fe (KED)	-5.020 ppb	-80.327 %	1.0 %
59Co (KED)	0.118 ppb	8.955 %	1.5 %
60Ni (KED)	-0.029 ppb	-2.662 %	2.8 %
63Cu (KED)	-0.036 ppb	-3.258 %	13.5 %
66Zn (KED)	-0.009 ppb	-0.364 %	130.6 %
75As (KED)	0.033 ppb	3.801 %	41.1 %
78Se (KED)	0.147 ppb	11.117 %	27.1 %
95Mo (KED)	-0.050 ppb	-4.509 %	18.9 %
107Ag (KED)	-0.005 ppb	-2.848 %	273.9 %
111Cd (KED)	0.002 ppb	2.706 %	755.1 %
118Sn (KED)	0.195 ppb	7.781 %	5.2 %
121Sb (KED)	0.324 ppb	24.543 %	3.1 %
137Ba (KED)	0.172 ppb	19.510 %	7.4 %
205Tl (KED)	0.011 ppb	5.938 %	62.2 %
208Pb (KED)	0.080 ppb	42.145 %	11.4 %

ISTD's	Concentration average
6Li (KED)	87.148 %
45Sc (KED)	89.501 %
72Ge (KED)	91.441 %
89Y (KED)	91.564 %
115In (KED)	92.647 %
159Tb (KED)	95.753 %
209Bi (KED)	95.319 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 120
Sample ID: SEQ-CCB
Start Time: 6/13/2023 4:09:08 PM
Stop Time: 6/13/2023 4:11:02 PM
Dilution Factor 1
prepFAST DF 1
Comment Contin Cal Blank

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.015 ppb	-6.658 %	75.6 %
11B (KED)	0.072 ppb	5.754 %	399.0 %
23Na (KED)	-0.867 ppb	-6.933 %	19.4 %
24Mg (KED)	1.592 ppb	12.736 %	9.1 %
27Al (KED)	1.015 ppb	40.587 %	6.2 %
31P (KED)	4.978 ppb	39.821 %	30.7 %
39K (KED)	0.384 ppb	3.074 %	340.8 %
44Ca (KED)	-7.166 ppb	-59.466 %	9.1 %
47Ti (KED)	0.195 ppb	14.766 %	6.2 %
51V (KED)	0.045 ppb	6.878 %	9.2 %
52Cr (KED)	0.327 ppb	29.705 %	0.6 %
55Mn (KED)	-0.106 ppb	-9.594 %	3.7 %
57Fe (KED)	-4.985 ppb	-79.755 %	1.5 %
59Co (KED)	0.116 ppb	8.823 %	0.7 %
60Ni (KED)	-0.036 ppb	-3.263 %	25.1 %
63Cu (KED)	-0.039 ppb	-3.523 %	7.6 %
66Zn (KED)	-0.015 ppb	-0.611 %	74.2 %
75As (KED)	0.031 ppb	3.469 %	7.6 %
78Se (KED)	0.173 ppb	13.114 %	26.8 %
95Mo (KED)	-0.060 ppb	-5.473 %	0.9 %
107Ag (KED)	-0.015 ppb	-8.705 %	11.1 %
111Cd (KED)	-0.006 ppb	-8.997 %	30.1 %
118Sn (KED)	0.190 ppb	7.594 %	1.0 %
121Sb (KED)	0.320 ppb	24.218 %	0.4 %
137Ba (KED)	0.158 ppb	17.999 %	4.9 %
205Tl (KED)	0.008 ppb	4.201 %	14.8 %
208Pb (KED)	0.075 ppb	39.615 %	0.9 %

ISTD's	Concentration average
6Li (KED)	107.585 %
45Sc (KED)	106.541 %
72Ge (KED)	105.077 %
89Y (KED)	104.963 %
115In (KED)	103.618 %
159Tb (KED)	104.291 %
209Bi (KED)	104.366 %

FORM 3 - Blank Summary

SW6020 B

Laboratory:	Sterling Labs	Work Order:	23E0775
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
B3F0015-BLK2	Aluminum, Dissolved	0.00541	mg/L	0.0250	J
	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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

Labbook:
061523B.imexp

Index #:	20	Stop Time:	6/15/2023 3:33:06 PM	Comment	ND 6020 DISS Al
Sample ID:	B3F0015-BLK2	Dilution Factor	1		
Start Time:	6/15/2023 3:31:11 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.052 ppb	98.4 %
11B (KED)	0.324 ppb	9.2 %
23Na (KED)	1.411 ppb	22.5 %
24Mg (KED)	1.593 ppb	5.8 %
27Al (KED)	4.865 ppb	2.2 %
31P (KED)	8.558 ppb	35.7 %
39K (KED)	-2.072 ppb	46.5 %
44Ca (KED)	-0.043 ppb	2,461.0 %
47Ti (KED)	-0.135 ppb	37.6 %
51V (KED)	-0.082 ppb	5.1 %
52Cr (KED)	-0.009 ppb	55.4 %
55Mn (KED)	0.005 ppb	502.8 %
57Fe (KED)	5.062 ppb	5.8 %
59Co (KED)	-0.112 ppb	5.4 %
60Ni (KED)	0.033 ppb	51.2 %
63Cu (KED)	-0.041 ppb	34.6 %
66Zn (KED)	0.236 ppb	15.2 %
75As (KED)	0.055 ppb	59.7 %
78Se (KED)	0.179 ppb	34.4 %
95Mo (KED)	0.083 ppb	75.6 %
107Ag (KED)	-0.030 ppb	102.3 %
111Cd (KED)	-0.012 ppb	260.5 %
118Sn (KED)	-0.199 ppb	18.2 %
121Sb (KED)	-0.063 ppb	42.0 %
137Ba (KED)	-0.063 ppb	46.9 %
205Tl (KED)	0.027 ppb	105.7 %
208Pb (KED)	0.115 ppb	21.2 %

ISTD's	Concentration average
6Li (KED)	94.613 %
45Sc (KED)	90.743 %
72Ge (KED)	92.521 %
89Y (KED)	98.930 %
115In (KED)	99.181 %
159Tb (KED)	102.964 %
209Bi (KED)	101.340 %

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	10	Stop Time:	6/8/2023 11:02:04 AM	Comment	Int Check Soln A
Sample ID:	SEQ-IFA	Dilution Factor	1		
Start Time:	6/8/2023 11:00:09 AM	prepFAST DF	1		

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	0.008 ppb		88.1 %
11B (KED)	1.680 ppb	134.368 %	25.1 %
23Na (KED)	11,436.296 ppb		1.0 %
24Mg (KED)	10,733.689 ppb		0.8 %
27Al (KED)	10,008.718 ppb		0.1 %
31P (KED)	10,456.894 ppb		0.3 %
39K (KED)	10,035.417 ppb		1.6 %
44Ca (KED)	10,337.089 ppb		2.1 %
47Ti (KED)	2,048.958 ppb		1.1 %
51V (KED)	-0.007 ppb	-1.100 %	37.3 %
52Cr (KED)	0.432 ppb	39.268 %	1.3 %
55Mn (KED)	0.537 ppb	48.808 %	1.2 %
57Fe (KED)	10,875.134 ppb		0.3 %
59Co (KED)	0.226 ppb	17.100 %	1.4 %
60Ni (KED)	1.566 ppb	142.380 %	5.8 %
63Cu (KED)	0.451 ppb	41.022 %	1.8 %
66Zn (KED)	4.466 ppb	178.640 %	1.9 %
75As (KED)	0.011 ppb	1.295 %	34.0 %
78Se (KED)	-0.058 ppb	-4.413 %	17.7 %
95Mo (KED)	2,146.669 ppb		1.4 %
107Ag (KED)	-0.009 ppb	-5.443 %	37.2 %
111Cd (KED)	-0.190 ppb	-271.844 %	31.8 %
118Sn (KED)	0.174 ppb	6.959 %	4.0 %
121Sb (KED)	0.445 ppb		0.9 %
137Ba (KED)	0.116 ppb		5.9 %
205Tl (KED)	-0.037 ppb		0.3 %
208Pb (KED)	0.362 ppb	190.564 %	1.1 %

ISTD's	Concentration average
6Li (KED)	110.700 %
45Sc (KED)	100.655 %
72Ge (KED)	98.434 %
89Y (KED)	101.728 %
115In (KED)	98.389 %
159Tb (KED)	105.579 %
209Bi (KED)	101.109 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #: 11
Sample ID: SEQ-IFB
Start Time: 6/8/2023 11:02:05 AM
Stop Time: 6/8/2023 11:03:56 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)	0.001 ppb			910.1 %
11B (KED)	2.171 ppb			8.2 %
23Na (KED)	11,509.399 ppb	115.094 %	10,000.000 ppb	1.1 %
24Mg (KED)	10,789.806 ppb	107.898 %	10,000.000 ppb	1.1 %
27Al (KED)	9,979.008 ppb	99.790 %	10,000.000 ppb	0.7 %
31P (KED)	10,273.187 ppb	102.732 %	10,000.000 ppb	1.3 %
39K (KED)	10,055.336 ppb	100.553 %	10,000.000 ppb	0.7 %
44Ca (KED)	10,378.576 ppb	103.786 %	10,000.000 ppb	2.6 %
47Ti (KED)	2,046.257 ppb	102.313 %	2,000.000 ppb	0.8 %
51V (KED)	20.660 ppb	103.301 %	20.000 ppb	0.7 %
52Cr (KED)	19.176 ppb	95.879 %	20.000 ppb	1.8 %
55Mn (KED)	19.839 ppb	99.197 %	20.000 ppb	2.3 %
57Fe (KED)	11,063.546 ppb	110.635 %	10,000.000 ppb	1.5 %
59Co (KED)	19.871 ppb	99.357 %	20.000 ppb	0.5 %
60Ni (KED)	21.641 ppb	108.204 %	20.000 ppb	1.0 %
63Cu (KED)	19.759 ppb	98.795 %	20.000 ppb	0.8 %
66Zn (KED)	20.559 ppb	102.795 %	20.000 ppb	0.6 %
75As (KED)	20.291 ppb	101.455 %	20.000 ppb	1.5 %
78Se (KED)	21.205 ppb	106.026 %	20.000 ppb	1.1 %
95Mo (KED)	2,187.921 ppb	109.396 %	2,000.000 ppb	0.6 %
107Ag (KED)	20.527 ppb	102.636 %	20.000 ppb	0.8 %
111Cd (KED)	19.850 ppb	99.252 %	20.000 ppb	0.8 %
118Sn (KED)	0.116 ppb			4.1 %
121Sb (KED)	0.428 ppb			1.1 %
137Ba (KED)	0.012 ppb			39.9 %
205Tl (KED)	-0.034 ppb			7.5 %
208Pb (KED)	0.118 ppb			2.3 %

ISTD's	Concentration average
6Li (KED)	113.964 %
45Sc (KED)	101.873 %
72Ge (KED)	98.933 %
89Y (KED)	102.342 %
115In (KED)	97.682 %
159Tb (KED)	108.214 %
209Bi (KED)	103.603 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 10
Sample ID: SEQ-IFA
Start Time: 6/13/2023 12:44:45 PM
Stop Time: 6/13/2023 12:46:34 PM
Dilution Factor 1
prepFAST DF 1
Comment Int Check Soln A

Analytes	Concentration average	Recovery Percentage 1	Concentration RSD
9Be (KED)	-0.027 ppb		38.8 %
11B (KED)	1.198 ppb	95.836 %	1.3 %
23Na (KED)	11,064.313 ppb		0.9 %
24Mg (KED)	10,259.236 ppb		0.9 %
27Al (KED)	9,776.650 ppb		0.2 %
31P (KED)	10,140.923 ppb		0.8 %
39K (KED)	9,754.558 ppb		0.5 %
44Ca (KED)	9,716.430 ppb		1.0 %
47Ti (KED)	1,954.556 ppb		1.2 %
51V (KED)	0.066 ppb	9.977 %	16.1 %
52Cr (KED)	0.489 ppb	44.488 %	2.1 %
55Mn (KED)	0.175 ppb	15.875 %	12.5 %
57Fe (KED)	10,439.923 ppb		1.2 %
59Co (KED)	0.241 ppb	18.283 %	1.2 %
60Ni (KED)	1.344 ppb	122.200 %	3.5 %
63Cu (KED)	0.004 ppb	0.395 %	162.8 %
66Zn (KED)	0.719 ppb	28.750 %	0.4 %
75As (KED)	0.049 ppb	5.536 %	16.8 %
78Se (KED)	0.172 ppb	13.000 %	6.3 %
95Mo (KED)	2,187.145 ppb		1.6 %
107Ag (KED)	-0.012 ppb	-6.978 %	55.0 %
111Cd (KED)	-0.325 ppb	-464.593 %	9.3 %
118Sn (KED)	0.215 ppb	8.599 %	1.0 %
121Sb (KED)	0.380 ppb		0.3 %
137Ba (KED)	0.219 ppb		3.7 %
205Tl (KED)	0.009 ppb		10.3 %
208Pb (KED)	0.085 ppb	44.814 %	1.6 %

ISTD's	Concentration average
6Li (KED)	119.059 %
45Sc (KED)	110.798 %
72Ge (KED)	107.885 %
89Y (KED)	107.911 %
115In (KED)	105.054 %
159Tb (KED)	116.725 %
209Bi (KED)	108.275 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #: 11
Sample ID: SEQ-IFB
Start Time: 6/13/2023 12:46:35 PM
Stop Time: 6/13/2023 12:48:21 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)	-0.025 ppb			26.4 %
11B (KED)	0.625 ppb			12.1 %
23Na (KED)	11,056.314 ppb	110.563 %	10,000.000 ppb	1.6 %
24Mg (KED)	10,177.492 ppb	101.775 %	10,000.000 ppb	0.2 %
27Al (KED)	9,875.111 ppb	98.751 %	10,000.000 ppb	2.2 %
31P (KED)	10,066.022 ppb	100.660 %	10,000.000 ppb	2.8 %
39K (KED)	9,804.920 ppb	98.049 %	10,000.000 ppb	2.2 %
44Ca (KED)	9,816.398 ppb	98.164 %	10,000.000 ppb	1.3 %
47Ti (KED)	1,998.438 ppb	99.922 %	2,000.000 ppb	0.3 %
51V (KED)	19.837 ppb	99.186 %	20.000 ppb	1.7 %
52Cr (KED)	18.827 ppb	94.133 %	20.000 ppb	1.1 %
55Mn (KED)	19.913 ppb	99.567 %	20.000 ppb	1.5 %
57Fe (KED)	10,583.099 ppb	105.831 %	10,000.000 ppb	0.6 %
59Co (KED)	19.702 ppb	98.510 %	20.000 ppb	1.6 %
60Ni (KED)	21.282 ppb	106.410 %	20.000 ppb	1.4 %
63Cu (KED)	19.711 ppb	98.554 %	20.000 ppb	1.3 %
66Zn (KED)	20.266 ppb	101.329 %	20.000 ppb	1.1 %
75As (KED)	20.135 ppb	100.673 %	20.000 ppb	2.3 %
78Se (KED)	20.955 ppb	104.776 %	20.000 ppb	0.5 %
95Mo (KED)	2,225.153 ppb	111.258 %	2,000.000 ppb	0.6 %
107Ag (KED)	20.410 ppb	102.049 %	20.000 ppb	1.9 %
111Cd (KED)	19.702 ppb	98.508 %	20.000 ppb	1.4 %
118Sn (KED)	0.198 ppb			5.2 %
121Sb (KED)	0.371 ppb			2.7 %
137Ba (KED)	0.233 ppb			8.3 %
205Tl (KED)	0.013 ppb			61.9 %
208Pb (KED)	0.087 ppb			8.1 %

ISTD's	Concentration average
6Li (KED)	125.025 %
45Sc (KED)	113.194 %
72Ge (KED)	108.929 %
89Y (KED)	108.450 %
115In (KED)	107.606 %
159Tb (KED)	117.217 %
209Bi (KED)	109.719 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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 %

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/15/2023 5:37:52 PM (= Date & Time of Report generation)

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

52847WW19

Laboratory: Sterling Labs
Client: HDR
Matrix: Water
Batch: B3F0015
Preparation: 3005_METALS_PREP_MS
Source Sample Name: 52847WW19

SDG: 23E0775
Project: Longhorn AAP
Laboratory ID: B3F0015-PS1
Lab Source ID: 23E0775-18
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	0.355	0.0837	0.2778	98	
Antimony, Dissolved	75 - 125	0.272	ND	0.2778	98	
Arsenic, Dissolved	75 - 125	0.266	ND	0.2778	96	
Barium, Dissolved	75 - 125	0.304	0.0360	0.2778	97	
Beryllium, Dissolved	75 - 125	0.140	ND	0.1389	101	
Cadmium, Dissolved	75 - 125	0.265	ND	0.2778	95	
Calcium, Dissolved	75 - 125	145	145	1.389	15	*
Chromium, Dissolved	75 - 125	0.266	0.00922	0.2778	92	
Cobalt, Dissolved	75 - 125	0.262	0.00297	0.2778	93	
Copper, Dissolved	75 - 125	0.262	ND	0.2778	94	
Iron, Dissolved	75 - 125	15.0	13.7	1.389	90	
Lead, Dissolved	75 - 125	0.279	ND	0.2778	100	
Magnesium, Dissolved	75 - 125	70.0	69.5	1.389	36	*
Manganese, Dissolved	75 - 125	1.59	1.31	0.2778	99	
Nickel, Dissolved	75 - 125	0.282	0.0228	0.2778	93	
Potassium, Dissolved	75 - 125	4.83	3.45	1.389	99	
Selenium, Dissolved	75 - 125	0.243	ND	0.2778	88	
Silver, Dissolved	75 - 125	0.266	ND	0.2778	96	
Sodium, Dissolved	75 - 125	295	296	1.389	-57	*
Thallium, Dissolved	75 - 125	0.260	ND	0.2778	94	
Tin, Dissolved	75 - 125	0.278	ND	0.2778	100	
Vanadium, Dissolved	75 - 125	0.266	ND	0.2778	96	
Zinc, Dissolved	75 - 125	0.254	ND	0.2778	92	
Lithium	60 - 200	125		100.0	93	
Scandium	60 - 200	114		100.0	95	
Germanium	60 - 200	110		100.0	96	

Yttrium	60 - 200	109		100.0	94
Indium	60 - 200	104		100.0	94
Terbium	60 - 200	113		100.0	101
Bismuth	60 - 200	104		100.0	92

* Values outside of QC limits

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	46	Stop Time:	6/13/2023 1:52:09 PM	Comment	1/5 6020 DISS
Sample ID:	B3F0015-PS1	Dilution Factor	1		
Start Time:	6/13/2023 1:50:16 PM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	25.197 ppb	3.0 %
11B (KED)	57.959 ppb	1.9 %
23Na (KED)	53,122.429 ppb	1.8 %
24Mg (KED)	12,597.736 ppb	2.4 %
27Al (KED)	66.031 ppb	1.5 %
31P (KED)	242.061 ppb	8.4 %
39K (KED)	869.554 ppb	1.2 %
44Ca (KED)	26,071.546 ppb	1.1 %
47Ti (KED)	48.922 ppb	1.4 %
51V (KED)	47.857 ppb	1.6 %
52Cr (KED)	47.797 ppb	1.7 %
55Mn (KED)	286.281 ppb	3.3 %
57Fe (KED)	2,698.187 ppb	0.7 %
59Co (KED)	47.192 ppb	1.1 %
60Ni (KED)	50.708 ppb	2.1 %
63Cu (KED)	47.130 ppb	1.7 %
66Zn (KED)	45.798 ppb	1.2 %
75As (KED)	47.937 ppb	1.0 %
78Se (KED)	43.786 ppb	1.3 %
95Mo (KED)	51.261 ppb	1.3 %
107Ag (KED)	47.918 ppb	1.6 %
111Cd (KED)	47.667 ppb	1.8 %
118Sn (KED)	49.993 ppb	1.5 %
121Sb (KED)	48.959 ppb	2.1 %
137Ba (KED)	54.781 ppb	2.2 %
205Tl (KED)	46.796 ppb	1.5 %
208Pb (KED)	50.180 ppb	1.1 %

ISTD's	Concentration average
6Li (KED)	125.129 %
45Sc (KED)	114.070 %
72Ge (KED)	109.847 %
89Y (KED)	109.212 %
115In (KED)	104.232 %
159Tb (KED)	113.392 %
209Bi (KED)	104.206 %

POST DIGEST SPIKE SAMPLE RECOVERY

SW6020 B

529LHSMW46R

Laboratory: Sterling Labs
Client: HDR
Matrix: Water
Batch: B3F0016
Preparation: 3005_METALS_PREP_MS

SDG: 23E0775
Project: Longhorn AAP
Laboratory ID: B3F0016-PS1
Lab Source ID: 23E0775-22
Initial/Final: 1.8 ml / 10 ml

Source Sample Name: 529LHSMW46R
% 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	0.293	ND	0.2778	106
Antimony, Dissolved	75 - 125	0.250	ND	0.2778	90
Arsenic, Dissolved	75 - 125	0.265	ND	0.2778	95
Barium, Dissolved	75 - 125	0.294	0.0293	0.2778	95
Beryllium, Dissolved	75 - 125	0.147	ND	0.1389	106
Cadmium, Dissolved	75 - 125	0.264	ND	0.2778	95
Calcium, Dissolved	75 - 125	15.1	13.6	1.389	113
Chromium, Dissolved	75 - 125	0.260	ND	0.2778	94
Cobalt, Dissolved	75 - 125	0.266	ND	0.2778	96
Copper, Dissolved	75 - 125	0.269	ND	0.2778	97
Iron, Dissolved	75 - 125	1.36	ND	1.389	98
Lead, Dissolved	75 - 125	0.264	ND	0.2778	95
Magnesium, Dissolved	75 - 125	9.67	8.08	1.389	115
Manganese, Dissolved	75 - 125	0.278	0.0086	0.2778	97
Nickel, Dissolved	75 - 125	0.271	ND	0.2778	98
Potassium, Dissolved	75 - 125	2.50	1.11	1.389	100
Selenium, Dissolved	75 - 125	0.244	ND	0.2778	88
Silver, Dissolved	75 - 125	0.272	ND	0.2778	98
Sodium, Dissolved	75 - 125	190	185	1.389	365 *
Thallium, Dissolved	75 - 125	0.275	ND	0.2778	99
Tin, Dissolved	75 - 125	0.257	ND	0.2778	93
Vanadium, Dissolved	75 - 125	0.273	ND	0.2778	98
Zinc, Dissolved	75 - 125	0.265	ND	0.2778	95
Lithium	60 - 200	120		100.0	105
Scandium	60 - 200	106		100.0	102
Germanium	60 - 200	103		100.0	99

Yttrium	60 - 200	105		100.0	102
Indium	60 - 200	102		100.0	99
Terbium	60 - 200	108		100.0	101
Bismuth	60 - 200	104		100.0	95

* Values outside of QC limits

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	26	Stop Time:	6/8/2023 11:31:52 AM	Comment	1/5 6020 DISS
Sample ID:	B3F0016-PS1	Dilution Factor	1		
Start Time:	6/8/2023 11:30:04 AM	prepFAST DF	1		

Analytes	Concentration average	Concentration RSD
9Be (KED)	26.513 ppb	2.1 %
11B (KED)	60.479 ppb	2.9 %
23Na (KED)	34,269.025 ppb	1.4 %
24Mg (KED)	1,741.439 ppb	0.8 %
27Al (KED)	52.820 ppb	2.1 %
31P (KED)	288.031 ppb	8.5 %
39K (KED)	449.187 ppb	0.9 %
44Ca (KED)	2,723.812 ppb	1.5 %
47Ti (KED)	48.974 ppb	0.5 %
51V (KED)	49.192 ppb	0.4 %
52Cr (KED)	46.818 ppb	1.2 %
55Mn (KED)	49.983 ppb	0.4 %
57Fe (KED)	244.911 ppb	1.1 %
59Co (KED)	47.841 ppb	0.1 %
60Ni (KED)	48.842 ppb	1.0 %
63Cu (KED)	48.411 ppb	0.5 %
66Zn (KED)	47.690 ppb	0.8 %
75As (KED)	47.704 ppb	1.0 %
78Se (KED)	43.971 ppb	0.9 %
95Mo (KED)	49.804 ppb	1.2 %
107Ag (KED)	48.967 ppb	1.0 %
111Cd (KED)	47.587 ppb	2.2 %
118Sn (KED)	46.336 ppb	0.2 %
121Sb (KED)	45.065 ppb	0.4 %
137Ba (KED)	52.914 ppb	0.7 %
205Tl (KED)	49.548 ppb	0.1 %
208Pb (KED)	47.564 ppb	0.9 %

ISTD's	Concentration average
6Li (KED)	119.887 %
45Sc (KED)	105.792 %
72Ge (KED)	102.612 %
89Y (KED)	104.715 %
115In (KED)	102.059 %
159Tb (KED)	108.462 %
209Bi (KED)	103.930 %

LCS / LCS DUPLICATE RECOVERY

SW6020 B

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Prep Method:	3005_METALS_PREP_MS
Prep Batch:	B3F0015	Lab Sample ID:	B3F0015-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Aluminum, Dissolved (dissolved)	0.1000	0.0999	100	84 - 117
Antimony, Dissolved (dissolved)	0.1000	0.0964	96	80 - 120
Arsenic, Dissolved (dissolved)	0.1000	0.0998	100	84 - 116
Barium, Dissolved (dissolved)	0.1000	0.0967	97	86 - 114
Beryllium, Dissolved (dissolved)	0.05000	0.0518	104	83 - 121
Cadmium, Dissolved (dissolved)	0.1000	0.0978	98	87 - 115
Calcium, Dissolved (dissolved)	0.5000	0.480	96	87 - 118
Chromium, Dissolved (dissolved)	0.1000	0.0988	99	85 - 116
Cobalt, Dissolved (dissolved)	0.1000	0.0986	99	86 - 115
Copper, Dissolved (dissolved)	0.1000	0.103	103	85 - 118
Iron, Dissolved (dissolved)	0.5000	0.494	99	87 - 118
Lead, Dissolved (dissolved)	0.1000	0.0966	97	88 - 115
Magnesium, Dissolved (dissolved)	0.5000	0.506	101	83 - 118
Manganese, Dissolved (dissolved)	0.1000	0.0979	98	87 - 115
Nickel, Dissolved (dissolved)	0.1000	0.0999	100	85 - 117
Potassium, Dissolved (dissolved)	0.5000	0.499	100	87 - 115
Selenium, Dissolved (dissolved)	0.1000	0.0950	95	80 - 120
Silver, Dissolved (dissolved)	0.1000	0.100	100	85 - 116
Sodium, Dissolved (dissolved)	0.5000	0.509	102	85 - 117
Thallium, Dissolved (dissolved)	0.1000	0.0993	99	82 - 116
Tin, Dissolved (dissolved)	0.1000	0.0967	97	86 - 115
Vanadium, Dissolved (dissolved)	0.1000	0.0980	98	86 - 115
Zinc, Dissolved (dissolved)	0.1000	0.101	101	83 - 119

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW6020 B

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Prep Method:	3005_METALS_PREP_MS
Prep Batch:	B3F0016	Lab Sample ID:	B3F0016-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Aluminum, Dissolved (dissolved)	0.1000	0.106	106	84 - 117
Antimony, Dissolved (dissolved)	0.1000	0.0934	93	80 - 120
Arsenic, Dissolved (dissolved)	0.1000	0.101	101	84 - 116
Barium, Dissolved (dissolved)	0.1000	0.0956	96	86 - 114
Beryllium, Dissolved (dissolved)	0.05000	0.0536	107	83 - 121
Cadmium, Dissolved (dissolved)	0.1000	0.101	101	87 - 115
Calcium, Dissolved (dissolved)	0.5000	0.536	107	87 - 118
Chromium, Dissolved (dissolved)	0.1000	0.0971	97	85 - 116
Cobalt, Dissolved (dissolved)	0.1000	0.0977	98	86 - 115
Copper, Dissolved (dissolved)	0.1000	0.101	101	85 - 118
Iron, Dissolved (dissolved)	0.5000	0.506	101	87 - 118
Lead, Dissolved (dissolved)	0.1000	0.0982	98	88 - 115
Magnesium, Dissolved (dissolved)	0.5000	0.540	108	83 - 118
Manganese, Dissolved (dissolved)	0.1000	0.0983	98	87 - 115
Nickel, Dissolved (dissolved)	0.1000	0.102	102	85 - 117
Potassium, Dissolved (dissolved)	0.5000	0.506	101	87 - 115
Selenium, Dissolved (dissolved)	0.1000	0.0965	96	80 - 120
Silver, Dissolved (dissolved)	0.1000	0.103	103	85 - 116
Sodium, Dissolved (dissolved)	0.5000	0.542	108	85 - 117
Thallium, Dissolved (dissolved)	0.1000	0.103	103	82 - 116
Tin, Dissolved (dissolved)	0.1000	0.0939	94	86 - 115
Vanadium, Dissolved (dissolved)	0.1000	0.100	100	86 - 115
Zinc, Dissolved (dissolved)	0.1000	0.109	109	83 - 119

* Values outside of QC limits

SERIAL DILUTION

SW6020 B

52847WW19

Laboratory: Sterling Labs
Client: HDR
Matrix: Water
Sequence: S3F0230
Preparation: 3005_METALS_PREP_MS
Source Sample Name: 52847WW19

SDG: 23E0775
Project: Longhorn AAP
Laboratory ID: B3F0015-DUP1
Lab Source ID: 23E0775-18
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	0.0360		0.0426		18.4	NA	SW6020 B	10
Beryllium, Dissolved	ND		ND		0	NA	SW6020 B	10
Cadmium, Dissolved	ND		ND		0	NA	SW6020 B	10
Calcium, Dissolved	145		155		6.84		SW6020 B	10
Chromium, Dissolved	ND		0.0174		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	13.7		14.5		5.41		SW6020 B	10
Lead, Dissolved	ND		ND		0	NA	SW6020 B	10
Magnesium, Dissolved	69.5		70.0		0.67		SW6020 B	10
Manganese, Dissolved	1.31		1.39		5.72		SW6020 B	10
Nickel, Dissolved	0.0228		0.0237		4.24	NA	SW6020 B	10
Potassium, Dissolved	3.45		3.56		2.97		SW6020 B	10
Selenium, Dissolved	ND		ND		0	NA	SW6020 B	10
Silver, Dissolved	ND		ND		0	NA	SW6020 B	10
Sodium, Dissolved	296		303		2.24		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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/14/2023 3:25:37 PM (= Date & Time of Report generation)

Labbook:
061323D.imexp

Index #:	52	Stop Time:	6/13/2023 2:03:27 PM	Comment	1/5/5=25 6020 DISS
Sample ID:	B3F0015-DUP1@25	Dilution Factor	0.2		
Start Time:	6/13/2023 2:01:35 PM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	0.023 ppb	141.5 %
11B (KED)	1.800 ppb	5.7 %
23Na (KED)	10,891.798 ppb	0.7 %
24Mg (KED)	2,518.443 ppb	0.7 %
27Al (KED)	3.789 ppb	6.6 %
31P (KED)	1.779 ppb	28.0 %
39K (KED)	128.054 ppb	3.2 %
44Ca (KED)	5,562.720 ppb	0.9 %
47Ti (KED)	0.186 ppb	4.8 %
51V (KED)	0.052 ppb	11.8 %
52Cr (KED)	0.626 ppb	2.0 %
55Mn (KED)	50.046 ppb	0.9 %
57Fe (KED)	521.227 ppb	0.9 %
59Co (KED)	0.204 ppb	1.2 %
60Ni (KED)	0.854 ppb	3.2 %
63Cu (KED)	-0.016 ppb	16.1 %
66Zn (KED)	0.099 ppb	5.5 %
75As (KED)	0.030 ppb	19.0 %
78Se (KED)	0.189 ppb	10.5 %
95Mo (KED)	-0.028 ppb	4.6 %
107Ag (KED)	-0.014 ppb	4.3 %
111Cd (KED)	-0.005 ppb	31.9 %
118Sn (KED)	0.179 ppb	0.2 %
121Sb (KED)	0.294 ppb	0.4 %
137Ba (KED)	1.535 ppb	3.5 %
205Tl (KED)	0.004 ppb	4.6 %
208Pb (KED)	0.073 ppb	1.2 %

ISTD's	Concentration average
6Li (KED)	97.794 %
45Sc (KED)	95.164 %
72Ge (KED)	96.693 %
89Y (KED)	95.879 %
115In (KED)	96.631 %
159Tb (KED)	101.584 %
209Bi (KED)	99.487 %

SERIAL DILUTION

SW6020 B

529LHSMW46R

Laboratory: Sterling Labs
Client: HDR
Matrix: Water
Sequence: S3F0145
Preparation: 3005_METALS_PREP_MS
Source Sample Name: 529LHSMW46R

SDG: 23E0775
Project: Longhorn AAP
Laboratory ID: B3F0016-DUP1
Lab Source ID: 23E0775-22
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	0.0293		0.0308		5.2	NA	SW6020 B	10
Beryllium, Dissolved	ND		ND		0	NA	SW6020 B	10
Cadmium, Dissolved	ND		ND		0	NA	SW6020 B	10
Calcium, Dissolved	13.6		13.9		2.28		SW6020 B	10
Chromium, Dissolved	ND		ND		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	ND		ND		0	NA	SW6020 B	10
Lead, Dissolved	ND		ND		0	NA	SW6020 B	10
Magnesium, Dissolved	8.08		8.50		5.19		SW6020 B	10
Manganese, Dissolved	ND		ND		0	NA	SW6020 B	10
Nickel, Dissolved	ND		ND		0	NA	SW6020 B	10
Potassium, Dissolved	1.11		1.14		2.35	NA	SW6020 B	10
Selenium, Dissolved	ND		ND		0	NA	SW6020 B	10
Silver, Dissolved	ND		ND		0	NA	SW6020 B	10
Sodium, Dissolved	185		194		4.91		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

EMT iCAPq ICP-MS (SN 02314R) Analysis. Run by: AG
6/9/2023 11:49:20 AM (= Date & Time of Report generation)

Labbook:
060823.imexp

Index #:	27	Stop Time:	6/8/2023 11:33:39 AM	Comment	1/5/5=25 6020 DISS
Sample ID:	B3F0016-DUP1@25	Dilution Factor	0.2		
Start Time:	6/8/2023 11:31:53 AM	prepFAST DF	5		

Analytes	Concentration average	Concentration RSD
9Be (KED)	-0.005 ppb	188.6 %
11B (KED)	1.855 ppb	2.8 %
23Na (KED)	6,999.257 ppb	0.4 %
24Mg (KED)	306.136 ppb	2.0 %
27Al (KED)	0.154 ppb	22.6 %
31P (KED)	6.151 ppb	5.4 %
39K (KED)	40.928 ppb	4.9 %
44Ca (KED)	499.219 ppb	2.1 %
47Ti (KED)	0.021 ppb	81.2 %
51V (KED)	-0.044 ppb	13.2 %
52Cr (KED)	0.267 ppb	9.5 %
55Mn (KED)	0.165 ppb	8.2 %
57Fe (KED)	-4.805 ppb	2.7 %
59Co (KED)	0.106 ppb	0.6 %
60Ni (KED)	-0.048 ppb	13.4 %
63Cu (KED)	-0.041 ppb	13.1 %
66Zn (KED)	1.091 ppb	4.1 %
75As (KED)	0.003 ppb	112.1 %
78Se (KED)	-0.083 ppb	34.0 %
95Mo (KED)	0.282 ppb	1.3 %
107Ag (KED)	-0.016 ppb	8.2 %
111Cd (KED)	-0.001 ppb	40.6 %
118Sn (KED)	0.091 ppb	0.8 %
121Sb (KED)	0.388 ppb	2.8 %
137Ba (KED)	1.109 ppb	3.5 %
205Tl (KED)	-0.038 ppb	1.5 %
208Pb (KED)	0.108 ppb	0.2 %

ISTD's	Concentration average
6Li (KED)	123.420 %
45Sc (KED)	109.981 %
72Ge (KED)	108.361 %
89Y (KED)	108.356 %
115In (KED)	106.620 %
159Tb (KED)	110.536 %
209Bi (KED)	111.246 %

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/02/2023

B3F0015

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
23E0775-01 : : : : :	06/01/23 09:07	45	50				**Prepared By**: MBD
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						
23E0775-03 : : : : :	06/01/23 09:07	45	50				**Prepared By**: MBD
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						
23E0775-04 : : : : :	06/01/23 09:07	45	50				**Prepared By**: MBD
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						

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/02/2023

B3F0015

(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
23E0775-05	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-06	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-07	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/02/2023

B3F0015

(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
23E0775-08	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-09	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-10	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/02/2023

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(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
23E0775-11	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-12	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-13	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/02/2023

B3F0015

(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
23E0775-14	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-15	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-16	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/02/2023

B3F0015

(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
23E0775-17	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-18	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-19	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/02/2023

B3F0015

(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
23E0775-20	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-21	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD
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						
B3F0015-BLK1	06/01/23 09:07	45	50				
: : : : :							**Prepared By**: MBD

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

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

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
23E0624-01	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Arsenic, Dissolved, Cadmium, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Scandium, Terbium, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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
23E0775-22	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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
23E0775-23	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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
23E0775-24	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD

Analytes: Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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
23E0775-25	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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
23E0775-26	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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
23E0775-27	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD

Analytes: Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

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(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
23E0775-28	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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
23E0775-29	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

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(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
23E0775-30	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

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(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
23E0775-38	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

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(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
23E0775-39	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

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(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
23E0775-40	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

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(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
23E0775-41	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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
23E0775-42	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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
23E0775-43	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/01/2023

B3F0016

(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	
23E0775-45	06/01/23 09:11	45	50					
: : : : :								**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium							
B3F0016-BLK1	06/01/23 09:11	45	50					
: : : : :								**Prepared By**: MBD

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PREPARATION BENCH SHEET

Print Date/Time: 06/01/2023

B3F0016

(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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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

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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
23E0624-01	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Manganese, Dissolved, Scandium, Terbium, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-22	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-23	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-24	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-25	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-26	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-27	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-28	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-29	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-30	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

B3F0016

(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
23E0775-38	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

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(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
23E0775-39	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

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(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
23E0775-40	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

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(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
23E0775-41	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

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(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
23E0775-42	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

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(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
23E0775-43	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						

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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/06/2023

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(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
23E0775-45	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Aluminum, Dissolved, Antimony, Dissolved, Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Chromium, Dissolved, Cobalt, Dissolved, Germanium, Indium, Lithium, Manganese, Dissolved, Nickel, Dissolved, Scandium, Silver, Dissolved, Terbium, Thallium, Dissolved, Tin, Dissolved, Vanadium, Dissolved, Yttrium						
B3F0016-BLK1	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD

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PREPARATION BENCH SHEET

Print Date/Time: 06/06/2023

B3F0016

(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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PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0016

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
23E0624-01 : : : : :	06/01/23 09:11	45	50				**Prepared By**: MBD
Analytes:	Arsenic, Dissolved, Bismuth, Cadmium, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Manganese, Dissolved, Scandium, Terbium, Yttrium						
23E0775-22 : : : : :	06/01/23 09:11	45	50				**Prepared By**: MBD
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						
23E0775-23 : : : : :	06/01/23 09:11	45	50				**Prepared By**: MBD
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						
23E0775-24 : : : : :	06/01/23 09:11	45	50				**Prepared By**: MBD
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

B3F0016

(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
23E0775-25	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-26	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-27	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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

B3F0016

(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
23E0775-28	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-29	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-30	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-31	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Barium, Dissolved, Beryllium, Dissolved, Bismuth, Calcium, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Sodium, Dissolved, Terbium, Yttrium, Zinc, Dissolved						

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0016

(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
23E0775-38	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-39	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-40	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0016

(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
23E0775-41	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-42	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-43	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
23E0775-44	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
Analytes:	Barium, Dissolved, Beryllium, Dissolved, Bismuth, Calcium, Dissolved, Copper, Dissolved, Germanium, Indium, Iron, Dissolved, Lead, Dissolved, Lithium, Magnesium, Dissolved, Potassium, Dissolved, Scandium, Selenium, Dissolved, Sodium, Dissolved, Terbium, Yttrium, Zinc, Dissolved						

PREPARATION BENCH SHEET
ICPMS

Print Date/Time: 06/07/2023

B3F0016

(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
23E0775-45	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD
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						
B3F0016-BLK1	06/01/23 09:11	45	50				
: : : : :							**Prepared By**: MBD

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

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0145 Instrument: ICP-MS iCAP Q
Calibration: EF30035

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3050591)	S3F0145-TUN1	060823TUNE	06/08/23 10:21
Initial Cal Check (STD # 3060393)	S3F0145-ICV1	060823.xml-006	06/08/23 10:54
Initial Cal Blank	S3F0145-ICB1	060823.xml-007	06/08/23 10:56
Interference Check A (STD # 3050595)	S3F0145-IFA1	060823.xml-009	06/08/23 11:00
Interference Check B (STD # 3050596)	S3F0145-IFB1	060823.xml-010	06/08/23 11:02
Closing Cal Check (STD # 3060392)	S3F0145-HCV1	060823.xml-012	06/08/23 11:05
Instrument RL Check (STD # 3060394)	S3F0145-CRL1	060823.xml-016	06/08/23 11:13
Calibration Check (STD # 3060433)	S3F0145-CCV1	060823.xml-017	06/08/23 11:15
Calibration Blank	S3F0145-CCB1	060823.xml-018	06/08/23 11:17
Blank	B3F0016-BLK1	060823.xml-021	06/08/23 11:22
LCS	B3F0016-BS1	060823.xml-022	06/08/23 11:24
529LHSMW46R	23E0775-22	060823.xml-024	06/08/23 11:28
529LHSMW46R	B3F0016-PS1	060823.xml-025	06/08/23 11:30
529LHSMW46R	B3F0016-DUP1	060823.xml-026	06/08/23 11:31
529LHSMW44	23E0775-23	060823.xml-027	06/08/23 11:33
529LHSMW41	23E0775-24	060823.xml-028	06/08/23 11:35
Calibration Check (STD # 3060433)	S3F0145-CCV2	060823.xml-029	06/08/23 11:37
Calibration Check (STD # 3060433)	S3F0145-CCV3	060823.xml-030	06/08/23 11:39
Calibration Blank	S3F0145-CCB2	060823.xml-031	06/08/23 11:41
52947WW56	23E0775-25	060823.xml-032	06/08/23 11:42
52947WW52	23E0775-26	060823.xml-033	06/08/23 11:44
52947WW55	23E0775-27	060823.xml-034	06/08/23 11:46
52947WW54	23E0775-28	060823.xml-035	06/08/23 11:48
529DUP1	23E0775-29	060823.xml-036	06/08/23 11:50
529DUP2	23E0775-30	060823.xml-037	06/08/23 11:52
53047WW58	23E0775-38	060823.xml-038	06/08/23 11:54
530LHSMW43R	23E0775-39	060823.xml-039	06/08/23 11:56
53047WW09	23E0775-40	060823.xml-040	06/08/23 11:57
53047WW14	23E0775-41	060823.xml-041	06/08/23 11:59
Calibration Check (STD # 3060433)	S3F0145-CCV4	060823.xml-042	06/08/23 12:01
Calibration Check (STD # 3060433)	S3F0145-CCV5	060823.xml-043	06/08/23 12:03
Calibration Blank	S3F0145-CCB3	060823.xml-044	06/08/23 12:05

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0145 Instrument: ICP-MS iCAP Q
Calibration: EF30035

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
53047WW39	23E0775-42	060823.xml-045	06/08/23 12:07
53047WW06	23E0775-43	060823.xml-046	06/08/23 12:09
530DUP3	23E0775-45	060823.xml-047	06/08/23 12:10
Calibration Check (STD # 3060433)	S3F0145-CCV6	060823.xml-050	06/08/23 12:16
Calibration Blank	S3F0145-CCB4	060823.xml-051	06/08/23 12:18
529LHSMW46R	23E0775-22RE1	060823.xml-052	06/08/23 12:20
529LHSMW44	23E0775-23RE1	060823.xml-053	06/08/23 12:22
529LHSMW41	23E0775-24RE1	060823.xml-054	06/08/23 12:24
52947WW56	23E0775-25RE1	060823.xml-055	06/08/23 12:25
52947WW52	23E0775-26RE1	060823.xml-056	06/08/23 12:27
52947WW55	23E0775-27RE1	060823.xml-057	06/08/23 12:29
52947WW54	23E0775-28RE1	060823.xml-058	06/08/23 12:31
Calibration Check (STD # 3060433)	S3F0145-CCV7	060823.xml-059	06/08/23 12:33
Calibration Blank	S3F0145-CCB5	060823.xml-060	06/08/23 12:35
529DUP1	23E0775-29RE1	060823.xml-061	06/08/23 12:37
529DUP2	23E0775-30RE1	060823.xml-062	06/08/23 12:39
53047WW58	23E0775-38RE1	060823.xml-063	06/08/23 12:41
530LHSMW43R	23E0775-39RE1	060823.xml-064	06/08/23 12:42
53047WW09	23E0775-40RE1	060823.xml-065	06/08/23 12:44
53047WW14	23E0775-41RE1	060823.xml-066	06/08/23 12:46
53047WW39	23E0775-42RE1	060823.xml-067	06/08/23 12:48
53047WW06	23E0775-43RE1	060823.xml-068	06/08/23 12:50
530DUP3	23E0775-45RE1	060823.xml-069	06/08/23 12:51
Calibration Check (STD # 3060433)	S3F0145-CCV8	060823.xml-071	06/08/23 12:55
Calibration Check (STD # 3060433)	S3F0145-CCV9	060823.xml-072	06/08/23 12:57
Calibration Blank	S3F0145-CCB6	060823.xml-073	06/08/23 12:59
Calibration Check (STD # 3060433)	S3F0145-CCVA	060823.xml-081	06/08/23 13:13
Calibration Blank	S3F0145-CCB7	060823.xml-082	06/08/23 13:15
Calibration Check (STD # 3060433)	S3F0145-CCVB	060823.xml-090	06/08/23 13:30
Calibration Blank	S3F0145-CCB8	060823.xml-091	06/08/23 13:32
529LHSMW44	23E0775-23RE2	060823.xml-097	06/08/23 13:43
529LHSMW41	23E0775-24RE2	060823.xml-098	06/08/23 13:45

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0145 Instrument: ICP-MS iCAP Q
Calibration: EF30035

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
52947WW56	23E0775-25RE2	060823.xml-099	06/08/23 13:47
52947WW52	23E0775-26RE2	060823.xml-100	06/08/23 13:48
52947WW55	23E0775-27RE2	060823.xml-101	06/08/23 13:50
Calibration Check (STD # 3060433)	S3F0145-CCVC	060823.xml-102	06/08/23 13:52
Calibration Check (STD # 3060433)	S3F0145-CCVD	060823.xml-103	06/08/23 13:54
Calibration Blank	S3F0145-CCB9	060823.xml-104	06/08/23 13:56
52947WW54	23E0775-28RE2	060823.xml-107	06/08/23 14:01
529DUP1	23E0775-29RE2	060823.xml-108	06/08/23 14:03
529DUP2	23E0775-30RE2	060823.xml-109	06/08/23 14:05
53047WW58	23E0775-38RE2	060823.xml-110	06/08/23 14:07
530LHSMW43R	23E0775-39RE2	060823.xml-111	06/08/23 14:09
53047WW09	23E0775-40RE2	060823.xml-112	06/08/23 14:11
53047WW14	23E0775-41RE2	060823.xml-113	06/08/23 14:13
Calibration Check (STD # 3060433)	S3F0145-CCVE	060823.xml-114	06/08/23 14:15
Calibration Blank	S3F0145-CCBA	060823.xml-115	06/08/23 14:17
53047WW06	23E0775-43RE2	060823.xml-117	06/08/23 14:20
530DUP3	23E0775-45RE2	060823.xml-118	06/08/23 14:22
Calibration Check (STD # 3060433)	S3F0145-CCVF	060823.xml-124	06/08/23 14:34
Calibration Blank	S3F0145-CCBB	060823.xml-125	06/08/23 14:35

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0230 Instrument: ICP-MS iCAP Q
Calibration: EF30057

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune (STD # 3050591)	S3F0230-TUN1	061323DTUNE	06/13/23 11:48
Initial Cal Check (STD # 3060393)	S3F0230-ICV1	061323D.xml-006	06/13/23 12:39
Initial Cal Blank	S3F0230-ICB1	061323D.xml-007	06/13/23 12:40
Instrument RL Check (STD # 3060394)	S3F0230-CRL1	061323D.xml-008	06/13/23 12:42
Interference Check A (STD # 3050595)	S3F0230-IFA1	061323D.xml-009	06/13/23 12:44
Interference Check B (STD # 3050596)	S3F0230-IFB1	061323D.xml-010	06/13/23 12:46
Closing Cal Check (STD # 3060620)	S3F0230-HCV1	061323D.xml-011	06/13/23 12:48
Calibration Check (STD # 3060433)	S3F0230-CCV1	061323D.xml-015	06/13/23 12:55
Calibration Blank	S3F0230-CCB1	061323D.xml-016	06/13/23 12:57
Blank	B3F0015-BLK1	061323D.xml-017	06/13/23 12:59
LCS	B3F0015-BS1	061323D.xml-018	06/13/23 13:01
52547WW48	23E0775-01	061323D.xml-019	06/13/23 13:02
52647WW50	23E0775-03	061323D.xml-020	06/13/23 13:04
52647WW37	23E0775-04	061323D.xml-021	06/13/23 13:06
52647WW51	23E0775-05	061323D.xml-022	06/13/23 13:08
52747WW53	23E0775-06	061323D.xml-023	06/13/23 13:09
52747WW59	23E0775-07	061323D.xml-024	06/13/23 13:11
Calibration Check (STD # 3060433)	S3F0230-CCV2	061323D.xml-027	06/13/23 13:17
Calibration Blank	S3F0230-CCB2	061323D.xml-028	06/13/23 13:18
52747WW40	23E0775-08	061323D.xml-029	06/13/23 13:20
52747WW41	23E0775-09	061323D.xml-030	06/13/23 13:22
527LHSMW60	23E0775-10	061323D.xml-031	06/13/23 13:24
527LHSMW54	23E0775-11	061323D.xml-032	06/13/23 13:26
52747WW42	23E0775-12	061323D.xml-033	06/13/23 13:27
52747WW26R	23E0775-13	061323D.xml-034	06/13/23 13:29
Calibration Check (STD # 3060433)	S3F0230-CCV3	061323D.xml-035	06/13/23 13:31
Calibration Check (STD # 3060433)	S3F0230-CCV4	061323D.xml-036	06/13/23 13:33
Calibration Blank	S3F0230-CCB3	061323D.xml-037	06/13/23 13:35
52847WW11R	23E0775-14	061323D.xml-040	06/13/23 13:40
528LHSMW57	23E0775-15	061323D.xml-041	06/13/23 13:42
528487WW43	23E0775-16	061323D.xml-042	06/13/23 13:44
528487WW23	23E0775-17	061323D.xml-043	06/13/23 13:46

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0230 Instrument: ICP-MS iCAP Q
Calibration: EF30057

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
52847WW19	23E0775-18	061323D.xml-044	06/13/23 13:48
52847WW19	B3F0015-PS1	061323D.xml-045	06/13/23 13:50
Calibration Check (STD # 3060433)	S3F0230-CCV5	061323D.xml-046	06/13/23 13:52
Calibration Check (STD # 3060433)	S3F0230-CCV6	061323D.xml-047	06/13/23 13:54
Calibration Blank	S3F0230-CCB4	061323D.xml-048	06/13/23 13:55
52847WW19	B3F0015-DUP1	061323D.xml-051	06/13/23 14:01
52947WW57	23E0775-19	061323D.xml-052	06/13/23 14:03
528LHSMW55R	23E0775-20	061323D.xml-053	06/13/23 14:05
528LHSMW56R	23E0775-21	061323D.xml-054	06/13/23 14:07
Calibration Check (STD # 3060433)	S3F0230-CCV7	061323D.xml-055	06/13/23 14:08
Calibration Check (STD # 3060433)	S3F0230-CCV8	061323D.xml-056	06/13/23 14:10
Calibration Blank	S3F0230-CCB5	061323D.xml-057	06/13/23 14:12
52547WW48	23E0775-01RE1	061323D.xml-058	06/13/23 14:14
52647WW50	23E0775-03RE1	061323D.xml-059	06/13/23 14:16
52647WW37	23E0775-04RE1	061323D.xml-062	06/13/23 14:21
52647WW51	23E0775-05RE1	061323D.xml-063	06/13/23 14:23
52747WW53	23E0775-06RE1	061323D.xml-064	06/13/23 14:25
52747WW59	23E0775-07RE1	061323D.xml-065	06/13/23 14:27
Calibration Check (STD # 3060433)	S3F0230-CCV9	061323D.xml-066	06/13/23 14:29
Calibration Blank	S3F0230-CCB6	061323D.xml-067	06/13/23 14:31
52747WW40	23E0775-08RE1	061323D.xml-068	06/13/23 14:33
52747WW41	23E0775-09RE1	061323D.xml-069	06/13/23 14:35
527LHSMW60	23E0775-10RE1	061323D.xml-070	06/13/23 14:37
527LHSMW54	23E0775-11RE1	061323D.xml-074	06/13/23 14:44
52747WW42	23E0775-12RE1	061323D.xml-075	06/13/23 14:46
52747WW26R	23E0775-13RE1	061323D.xml-076	06/13/23 14:48
Calibration Check (STD # 3060433)	S3F0230-CCVA	061323D.xml-077	06/13/23 14:50
Calibration Blank	S3F0230-CCB7	061323D.xml-078	06/13/23 14:52
52847WW11R	23E0775-14RE1	061323D.xml-079	06/13/23 14:54
528LHSMW57	23E0775-15RE1	061323D.xml-080	06/13/23 14:56
528487WW43	23E0775-16RE1	061323D.xml-081	06/13/23 14:58
528487WW23	23E0775-17RE1	061323D.xml-082	06/13/23 14:59

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence: S3F0230 Instrument: ICP-MS iCAP Q
Calibration: EF30057

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check (STD # 3060433)	S3F0230-CCVB	061323D.xml-083	06/13/23 15:01
Calibration Blank	S3F0230-CCB8	061323D.xml-084	06/13/23 15:03
52847WW19	23E0775-18RE1	061323D.xml-085	06/13/23 15:05
52947WW57	23E0775-19RE1	061323D.xml-086	06/13/23 15:07
528LHSMW55R	23E0775-20RE1	061323D.xml-087	06/13/23 15:09
528LHSMW56R	23E0775-21RE1	061323D.xml-088	06/13/23 15:11
Calibration Check (STD # 3060433)	S3F0230-CCVC	061323D.xml-091	06/13/23 15:16
Calibration Blank	S3F0230-CCB9	061323D.xml-092	06/13/23 15:18
52547WW48	23E0775-01RE2	061323D.xml-093	06/13/23 15:20
52647WW50	23E0775-03RE2	061323D.xml-094	06/13/23 15:22
52647WW37	23E0775-04RE2	061323D.xml-095	06/13/23 15:24
52647WW51	23E0775-05RE2	061323D.xml-096	06/13/23 15:26
52747WW53	23E0775-06RE2	061323D.xml-097	06/13/23 15:27
52747WW59	23E0775-07RE2	061323D.xml-098	06/13/23 15:29
Calibration Check (STD # 3060433)	S3F0230-CCVD	061323D.xml-099	06/13/23 15:31
Calibration Blank	S3F0230-CCBA	061323D.xml-100	06/13/23 15:33
52747WW40	23E0775-08RE2	061323D.xml-101	06/13/23 15:35
52747WW41	23E0775-09RE2	061323D.xml-102	06/13/23 15:37
527LHSMW60	23E0775-10RE2	061323D.xml-103	06/13/23 15:39
527LHSMW54	23E0775-11RE2	061323D.xml-104	06/13/23 15:41
52747WW42	23E0775-12RE2	061323D.xml-105	06/13/23 15:43
52747WW26R	23E0775-13RE2	061323D.xml-106	06/13/23 15:44
52847WW11R	23E0775-14RE2	061323D.xml-107	06/13/23 15:46
Calibration Check (STD # 3060433)	S3F0230-CCVE	061323D.xml-110	06/13/23 15:52
Calibration Blank	S3F0230-CCBB	061323D.xml-111	06/13/23 15:54
528487WW43	23E0775-16RE2	061323D.xml-112	06/13/23 15:56
528487WW23	23E0775-17RE2	061323D.xml-113	06/13/23 15:58
52847WW19	23E0775-18RE2	061323D.xml-114	06/13/23 15:59
52947WW57	23E0775-19RE2	061323D.xml-115	06/13/23 16:01
528LHSMW55R	23E0775-20RE2	061323D.xml-116	06/13/23 16:03
528LHSMW56R	23E0775-21RE2	061323D.xml-117	06/13/23 16:05
Calibration Check (STD # 3060433)	S3F0230-CCVF	061323D.xml-118	06/13/23 16:07

ANALYSIS SEQUENCE SUMMARY

Dissolved Metals by ICP-MS

Client: HDR
Project: Longhorn AAP

Sequence:	S3F0230	Instrument:	ICP-MS iCAP Q
Calibration:	EF30057		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	S3F0230-CCBC	061323D.xml-119	06/13/23 16:09

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	B3F0015-BLK2	061523B.xml-019	06/15/23 15:31
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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0145

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0145-ICV1	6/8/2023	10:54	97.19	96.32	95.37	97.22	96.09	98.34	98.77
S3F0145-ICB1	6/8/2023	10:56	96.32	95.31	95.88	95.65	96.70	98.07	99.20
S3F0145-IFA1	6/8/2023	11:00	110.70	100.65	98.43	101.73	98.39	105.58	101.11
S3F0145-IFB1	6/8/2023	11:02	113.96	101.87	98.93	102.34	97.68	108.21	103.60
S3F0145-HCV1	6/8/2023	11:05	114.68	101.84	101.46	103.33	90.27	105.71	106.91
S3F0145-CRL1	6/8/2023	11:13	114.76	103.12	102.02	104.35	104.44	106.07	109.83
S3F0145-CCV1	6/8/2023	11:15	114.33	103.74	103.46	103.05	103.54	107.60	109.11
S3F0145-CCB1	6/8/2023	11:17	114.95	104.65	103.28	104.49	102.39	106.83	110.08
B3F0016-BLK1	6/8/2023	11:22	126.50	112.20	105.06	114.00	110.77	118.97	111.50
B3F0016-BS1	6/8/2023	11:24	122.77	109.25	107.06	107.68	105.26	111.55	114.33
23E0775-22	6/8/2023	11:28	119.93	107.15	104.20	104.89	103.27	109.41	105.13
B3F0016-PS1	6/8/2023	11:30	119.89	105.79	102.61	104.71	102.06	108.46	103.93
B3F0016-DUP1	6/8/2023	11:31	123.42	109.98	108.36	108.36	106.62	110.54	111.25
23E0775-23	6/8/2023	11:33	117.28	106.90	100.04	102.98	98.18	104.77	95.71
23E0775-24	6/8/2023	11:35	120.85	107.73	101.41	104.56	98.33	107.15	97.31
S3F0145-CCV2	6/8/2023	11:37	127.84	112.50	109.64	108.81	106.90	108.22	110.48
S3F0145-CCV3	6/8/2023	11:39	125.12	109.47	108.62	107.73	107.20	111.25	111.34
S3F0145-CCB2	6/8/2023	11:41	125.52	109.83	106.71	107.50	107.32	110.69	112.18
23E0775-25	6/8/2023	11:42	122.64	110.54	103.14	107.77	101.17	107.39	98.30
23E0775-26	6/8/2023	11:44	122.45	110.86	103.47	106.15	96.72	105.99	93.98
23E0775-27	6/8/2023	11:46	125.22	112.87	105.98	107.82	99.24	106.26	95.00
23E0775-28	6/8/2023	11:48	127.71	117.42	106.77	109.70	101.89	108.04	96.12
23E0775-29	6/8/2023	11:50	128.74	115.67	106.90	108.67	103.63	109.48	98.59
23E0775-30	6/8/2023	11:52	131.28	118.80	109.12	111.71	102.85	109.51	99.89
23E0775-38	6/8/2023	11:54	134.37	119.76	113.96	112.67	107.51	113.09	105.03
23E0775-39	6/8/2023	11:56	131.72	117.34	109.36	110.81	103.73	111.00	101.04
23E0775-40	6/8/2023	11:57	132.94	116.26	110.37	111.87	104.44	111.22	101.62
23E0775-41	6/8/2023	11:59	136.45	119.67	113.94	114.67	108.65	113.97	106.62

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0145

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0145-CCV4	6/8/2023	12:01	138.40	121.50	117.10	115.02	110.97	113.99	115.46
S3F0145-CCV5	6/8/2023	12:03	136.38	120.34	115.69	116.14	111.52	113.62	113.88
S3F0145-CCB3	6/8/2023	12:05	134.26	118.70	115.21	114.00	113.11	113.43	115.29
23E0775-42	6/8/2023	12:07	131.29	116.13	110.00	112.71	108.88	111.96	108.00
23E0775-43	6/8/2023	12:09	132.38	117.54	110.41	113.13	106.65	112.10	105.22
23E0775-45	6/8/2023	12:10	128.39	115.66	106.86	109.44	100.91	107.44	97.05
S3F0145-CCV6	6/8/2023	12:16	94.02	88.64	88.71	89.70	88.36	91.98	94.95
S3F0145-CCB4	6/8/2023	12:18	100.70	92.42	93.60	93.63	92.00	94.56	96.92
23E0775-22RE1	6/8/2023	12:20	106.53	97.69	98.20				
23E0775-23RE1	6/8/2023	12:22	111.14	101.44	100.36	100.24			
23E0775-24RE1	6/8/2023	12:24	114.34	104.63	102.58	99.20			
23E0775-25RE1	6/8/2023	12:25	118.77	107.07	104.74	101.65			
23E0775-26RE1	6/8/2023	12:27	119.97	108.95	105.51	104.82			
23E0775-27RE1	6/8/2023	12:29	122.52	111.21	107.59	104.43			
23E0775-28RE1	6/8/2023	12:31	123.49	112.72	109.10	105.96			
S3F0145-CCV7	6/8/2023	12:33	123.32	112.30	108.36	107.63	103.78	106.36	106.57
S3F0145-CCB5	6/8/2023	12:35	126.19	113.56	109.05	109.38	105.53	106.63	106.99
23E0775-29RE1	6/8/2023	12:37	125.64	114.21	108.37	108.47			
23E0775-30RE1	6/8/2023	12:39	127.36	113.96	110.71	108.14			
23E0775-38RE1	6/8/2023	12:41	128.71	115.71	112.06	110.56			
23E0775-39RE1	6/8/2023	12:42	128.44	114.87	112.37	109.43			
23E0775-40RE1	6/8/2023	12:44	127.96	115.10	111.25	108.65			
23E0775-41RE1	6/8/2023	12:46	127.66	115.45	111.09	107.24			
23E0775-42RE1	6/8/2023	12:48	129.89	116.42	113.15	112.63			
23E0775-43RE1	6/8/2023	12:50	129.10	117.28	112.75	110.47			
23E0775-45RE1	6/8/2023	12:51	127.48	116.08	109.90	109.09			
S3F0145-CCV8	6/8/2023	12:55	126.91	115.28	111.69	110.71	106.08	106.32	107.34
S3F0145-CCV9	6/8/2023	12:57	125.54	112.96	108.78	107.78	103.56	107.23	106.17

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0145

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0145-CCB6	6/8/2023	12:59	125.16	112.28	109.29	107.66	105.22	104.26	106.77
S3F0145-CCVA	6/8/2023	13:13	104.00	98.14	97.84	96.10	94.25	96.36	99.25
S3F0145-CCB7	6/8/2023	13:15	105.45	98.65	98.02	98.00	96.62	97.76	98.96
S3F0145-CCVB	6/8/2023	13:30	93.58	88.76	90.12	90.24	89.83	92.10	95.78
S3F0145-CCB8	6/8/2023	13:32	103.69	95.88	96.07	95.65	94.91	97.45	100.67
23E0775-23RE2	6/8/2023	13:43	126.61	114.21	111.94				
23E0775-24RE2	6/8/2023	13:45	129.06	115.07	112.56				
23E0775-25RE2	6/8/2023	13:47	128.57	115.94	113.09				
23E0775-26RE2	6/8/2023	13:48	130.01	116.91	113.27				
23E0775-27RE2	6/8/2023	13:50	130.96	117.36	114.96				
S3F0145-CCVC	6/8/2023	13:52	130.00	115.63	112.65	110.15	107.60	108.40	109.97
S3F0145-CCVD	6/8/2023	13:54	128.67	113.81	111.43	109.09	106.30	106.75	108.28
S3F0145-CCB9	6/8/2023	13:56	128.03	112.98	110.79	108.03	104.96	106.08	108.84
23E0775-28RE2	6/8/2023	14:01	79.72	77.50	80.77	82.01			
23E0775-29RE2	6/8/2023	14:03	88.81	84.51	87.30				
23E0775-30RE2	6/8/2023	14:05	95.80	89.80	91.77				
23E0775-38RE2	6/8/2023	14:07	101.97	96.27	95.52				
23E0775-39RE2	6/8/2023	14:09	105.43	99.49	99.18				
23E0775-40RE2	6/8/2023	14:11	109.32	101.34	100.33				
23E0775-41RE2	6/8/2023	14:13	112.81	103.11	101.65				
S3F0145-CCVE	6/8/2023	14:15	112.10	102.91	101.30	100.97	99.03	100.06	103.25
S3F0145-CCBA	6/8/2023	14:17	113.21	102.39	101.35	101.25	100.10	101.41	102.38
23E0775-43RE2	6/8/2023	14:20	117.10	107.30	105.62				
23E0775-45RE2	6/8/2023	14:22	119.51	109.13	107.31				
S3F0145-CCVF	6/8/2023	14:34	122.95	111.70	108.63	106.12	104.73	105.67	106.25
S3F0145-CCBB	6/8/2023	14:35	122.25	111.71	107.96	106.84	103.83	105.64	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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0230

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
S3F0230-ICV1	6/13/2023	12:39	100.18	100.33	98.48	98.20	99.86	102.65	101.47
S3F0230-ICB1	6/13/2023	12:40	99.97	101.47	100.47	100.28	100.74	104.44	102.59
S3F0230-CRL1	6/13/2023	12:42	99.65	101.23	100.62	100.83	101.44	104.20	102.68
S3F0230-IFA1	6/13/2023	12:44	119.06	110.80	107.88	107.91	105.05	116.73	108.28
S3F0230-IFB1	6/13/2023	12:46	125.02	113.19	108.93	108.45	107.61	117.22	109.72
S3F0230-HCV1	6/13/2023	12:48	126.21	113.32	111.71	111.99	107.70	117.31	112.23
S3F0230-CCV1	6/13/2023	12:55	101.28	94.99	96.63	94.97	95.26	100.49	100.55
S3F0230-CCB1	6/13/2023	12:57	106.10	98.49	98.75	97.67	95.78	104.18	103.68
B3F0015-BLK1	6/13/2023	12:59	110.98	104.96	100.77	105.62	104.03	113.88	105.85
B3F0015-BS1	6/13/2023	13:01	112.12	105.43	103.70	102.44	103.24	105.64	105.58
23E0775-01	6/13/2023	13:02	115.02	107.89	104.09	103.85	101.28	109.89	101.55
23E0775-03	6/13/2023	13:04	120.49	111.70	108.16	108.00	105.40	110.69	103.94
23E0775-04	6/13/2023	13:06	120.66	113.13	105.78	105.36	100.61	107.31	97.06
23E0775-05	6/13/2023	13:08	124.41	116.18	107.46	108.39	99.52	107.93	96.45
23E0775-06	6/13/2023	13:09	129.06	120.85	111.05	109.64	104.13	112.18	100.99
23E0775-07	6/13/2023	13:11	128.35	120.15	110.61	110.68	102.66	109.64	98.45
S3F0230-CCV2	6/13/2023	13:17	99.27	97.19	96.59	95.80	95.31	102.05	99.43
S3F0230-CCB2	6/13/2023	13:18	107.98	102.28	101.63	101.78	101.35	104.28	104.85
23E0775-08	6/13/2023	13:20	110.69	106.97	102.63	101.41	100.34	106.58	100.33
23E0775-09	6/13/2023	13:22	114.51	109.28	103.24	104.13	99.24	105.81	97.05
23E0775-10	6/13/2023	13:24	122.25	113.45	109.53	108.04	106.85	111.35	104.22
23E0775-11	6/13/2023	13:26	125.03	118.05	112.43	111.25	106.76	111.74	105.10
23E0775-12	6/13/2023	13:27	128.60	118.96	113.94	111.99	109.06	117.35	106.84
23E0775-13	6/13/2023	13:29	126.38	117.44	109.27	110.89	105.26	113.69	104.98
S3F0230-CCV3	6/13/2023	13:31	134.04	120.18	116.53	114.31	113.55	114.37	112.16
S3F0230-CCV4	6/13/2023	13:33	134.46	119.62	114.70	115.77	111.01	112.71	113.93
S3F0230-CCB3	6/13/2023	13:35	133.87	119.92	116.07	116.23	112.24	117.48	113.24
23E0775-14	6/13/2023	13:40	92.94	91.70	90.58	91.72	89.66	98.64	90.00

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0230

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23E0775-15	6/13/2023	13:42	107.02	101.95	101.81	102.27	102.36	107.93	104.42
23E0775-16	6/13/2023	13:44	110.01	103.75	99.60	100.63	96.14	106.12	95.24
23E0775-17	6/13/2023	13:46	120.93	113.87	109.75	107.95	108.17	113.50	105.92
23E0775-18	6/13/2023	13:48	121.51	111.71	107.69	106.31	104.12	111.06	102.96
B3F0015-PS1	6/13/2023	13:50	125.13	114.07	109.85	109.21	104.23	113.39	104.21
S3F0230-CCV5	6/13/2023	13:52	132.90	119.82	115.12	114.47	113.87	117.28	114.73
S3F0230-CCV6	6/13/2023	13:54	133.95	121.22	116.25	116.13	112.77	117.28	115.43
S3F0230-CCB4	6/13/2023	13:55	135.87	120.70	117.01	115.18	115.87	118.10	118.24
B3F0015-DUP1	6/13/2023	14:01	97.79	95.16	96.69	95.88	96.63	101.58	99.49
23E0775-19	6/13/2023	14:03	104.46	100.62	98.16	98.78	97.26	104.81	95.18
23E0775-20	6/13/2023	14:05	114.15	109.09	105.05	104.88	100.27	108.31	100.02
23E0775-21	6/13/2023	14:07	121.63	114.99	110.38	109.82	107.63	112.22	104.69
S3F0230-CCV7	6/13/2023	14:08	125.39	116.23	112.84	110.71	109.54	113.31	109.51
S3F0230-CCV8	6/13/2023	14:10	127.16	115.91	113.82	110.54	110.88	112.51	112.41
S3F0230-CCB5	6/13/2023	14:12	128.95	119.17	115.57	112.22	114.49	115.72	114.13
23E0775-01RE1	6/13/2023	14:14	130.32	120.00	117.26	113.25			
23E0775-03RE1	6/13/2023	14:16	133.44	122.71	119.44	116.39			
23E0775-04RE1	6/13/2023	14:21	95.74	96.34	96.42	97.31			
23E0775-05RE1	6/13/2023	14:23	101.87	101.42	102.22	100.94			
23E0775-06RE1	6/13/2023	14:25	109.01	106.98	105.80	104.52			
23E0775-07RE1	6/13/2023	14:27	112.88	110.58	108.97	105.71			
S3F0230-CCV9	6/13/2023	14:29	117.02	112.23	110.23	107.44	107.44	109.08	107.49
S3F0230-CCB6	6/13/2023	14:31	120.71	114.96	109.79	110.20	107.71	109.78	108.89
23E0775-08RE1	6/13/2023	14:33	121.68	116.86	112.59	108.28			
23E0775-09RE1	6/13/2023	14:35	123.15	118.39	115.27	111.33			
23E0775-10RE1	6/13/2023	14:37	126.83	121.37	117.63	113.09			
23E0775-11RE1	6/13/2023	14:44	83.84	87.74	90.61	90.00			
23E0775-12RE1	6/13/2023	14:46	89.33	93.32	92.72	91.57			

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0230

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23E0775-13RE1	6/13/2023	14:48	93.79	95.65	97.08	94.35			
S3F0230-CCVA	6/13/2023	14:50	97.63	98.20	97.15	97.85	98.50	100.39	100.07
S3F0230-CCB7	6/13/2023	14:52	101.90	100.20	100.54	100.08	100.33	100.79	99.81
23E0775-14RE1	6/13/2023	14:54	103.27	103.35	102.36	100.78			
23E0775-15RE1	6/13/2023	14:56	107.69	105.33	104.36				
23E0775-16RE1	6/13/2023	14:58	108.93	106.52	106.99	104.08			
23E0775-17RE1	6/13/2023	14:59	113.13	111.05	109.36	106.98			
S3F0230-CCVB	6/13/2023	15:01	114.35	109.81	107.29	105.60	105.13	108.62	103.50
S3F0230-CCB8	6/13/2023	15:03	115.04	111.02	108.88	106.52	105.20	106.48	106.67
23E0775-18RE1	6/13/2023	15:05	115.95	111.40	109.12	107.50			
23E0775-19RE1	6/13/2023	15:07	117.29	112.36	111.27	107.19			
23E0775-20RE1	6/13/2023	15:09	120.61	114.68	113.53	110.85			
23E0775-21RE1	6/13/2023	15:11	122.13	117.11	113.89	112.77			
S3F0230-CCVC	6/13/2023	15:16	87.04	88.92	90.11	90.76	92.27	96.05	93.95
S3F0230-CCB9	6/13/2023	15:18	92.02	92.42	93.28	93.64	95.38	96.70	96.11
23E0775-01RE2	6/13/2023	15:20	95.84	95.73	97.67				
23E0775-03RE2	6/13/2023	15:22	99.95	99.55	99.37				
23E0775-04RE2	6/13/2023	15:24	102.05	102.03	100.52	99.02			
23E0775-05RE2	6/13/2023	15:26	105.02	104.17	103.76	103.41			
23E0775-06RE2	6/13/2023	15:27	107.57	107.38	107.35	103.37			
23E0775-07RE2	6/13/2023	15:29	110.19	108.26	107.38				
S3F0230-CCVD	6/13/2023	15:31	111.76	110.32	107.45	105.07	104.85	104.88	105.55
S3F0230-CCBA	6/13/2023	15:33	111.90	109.06	107.57	105.14	104.01	106.41	104.66
23E0775-08RE2	6/13/2023	15:35	113.00	110.44	108.55				
23E0775-09RE2	6/13/2023	15:37	114.63	111.99	110.60				
23E0775-10RE2	6/13/2023	15:39	116.08	113.14	110.61				
23E0775-11RE2	6/13/2023	15:41	117.49	114.05	111.78				
23E0775-12RE2	6/13/2023	15:43	118.07	115.24	112.59				

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: 23E0775

Project: Longhorn AAP

Test No: SW6020 B

Sequence: S3F0230

ICPMS

SampleID	Date	Time	Internal Standards for Element %:						
			Li	Sc	Ge	Y	In	Tb	Bi
23E0775-13RE2	6/13/2023	15:44	120.36	116.25	114.13				
23E0775-14RE2	6/13/2023	15:46	119.85	116.33	112.87				
S3F0230-CCVE	6/13/2023	15:52	81.53	84.33	86.88	88.06	90.77	91.86	93.16
S3F0230-CCBB	6/13/2023	15:54	87.15	89.50	91.44	91.56	92.65	95.75	95.32
23E0775-16RE2	6/13/2023	15:56	90.97	93.59	94.69				
23E0775-17RE2	6/13/2023	15:58	94.13	95.21	96.08				
23E0775-18RE2	6/13/2023	15:59	97.11	98.86	99.70				
23E0775-19RE2	6/13/2023	16:01	99.91	101.01	100.27				
23E0775-20RE2	6/13/2023	16:03	102.29	103.03	102.71				
23E0775-21RE2	6/13/2023	16:05	104.20	105.28	103.37				
S3F0230-CCVF	6/13/2023	16:07	105.75	104.75	103.92	102.60	102.62	103.01	101.84
S3F0230-CCBC	6/13/2023	16:09	107.58	106.54	105.08	104.96	103.62	104.29	104.37

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: 23E0775

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				
B3F0015-BLK2	6/15/2023	15:31	94.61	90.74	92.52				
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%

Performance Report

System (SN 02314R):

Time	6/8/2023 10:21:51 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-20230605-104820023.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	3,159.56 CPS	Greater than	5.0 CPS
59Co	Passed	44,428.0 CPS	Greater than	1,000.0 CPS
24Mg	Passed	9,096.3 CPS	Greater than	50.0 CPS
208Pb	Passed	204,772.0 CPS	Greater than	1,000.0 CPS
140Ce.16O/140Ce	Passed	0.0054	Less than	0.02
137Ba++/137Ba	Passed	0.034	Less than	0.1
115In	Passed	80,543.0 CPS	Greater than	1,000.0 CPS

Stability:
< 5% for 5 Replicates (200.8)

Analyte	Value	Limit
9Be	0.8%	5
59Co	1.3%	5
24Mg	0.4%	5
208Pb	0.9%	5
115In	1.5%	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	8.9923	0.0199	0.715	0.650	0.850
24Mg	Passed	23.9611	0.0240	0.704	0.650	0.850
59Co	Passed	58.9138	0.0194	0.730	0.650	0.850
115In	Passed	114.8952	0.0087	0.740	0.650	0.850
208Pb	Passed	207.9838	0.0072	0.771	0.650	0.850

Performance Report

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	-125.00
Focus Lens	-6.50
Nebulizer Flow	0.96
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	-0.17
Torch Vertical Position	0.79
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		6.184e-7
Interface Pressure		1.546e+0

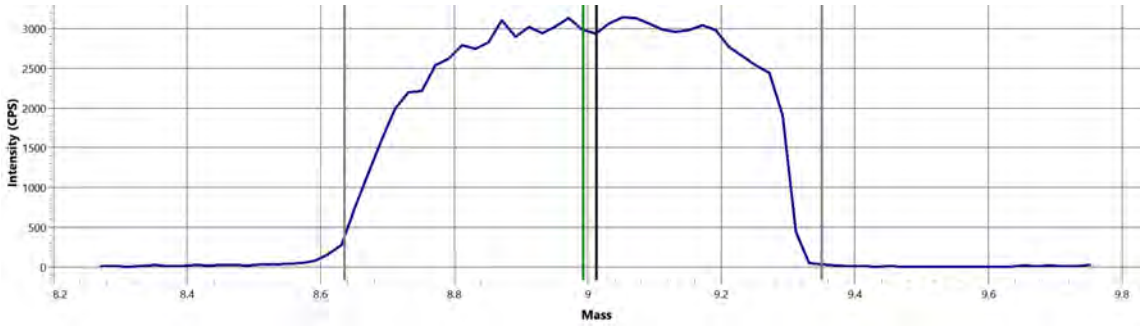
Detector (EM) Voltages:

Analog	Counting
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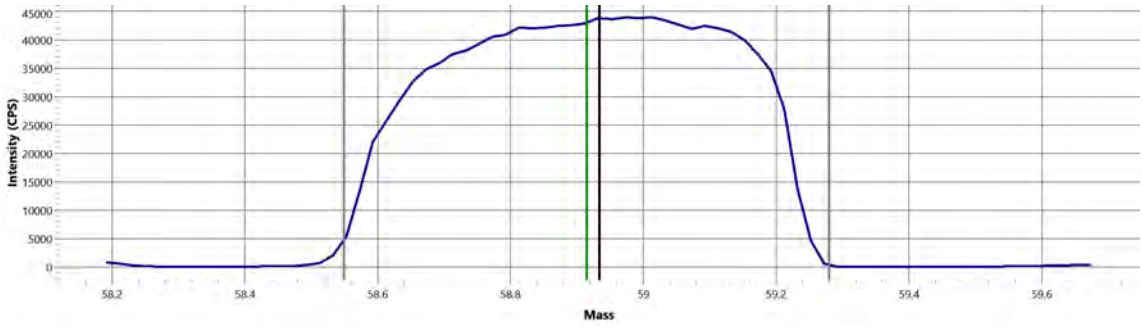
Performance Report

Mass Calibration Peaks

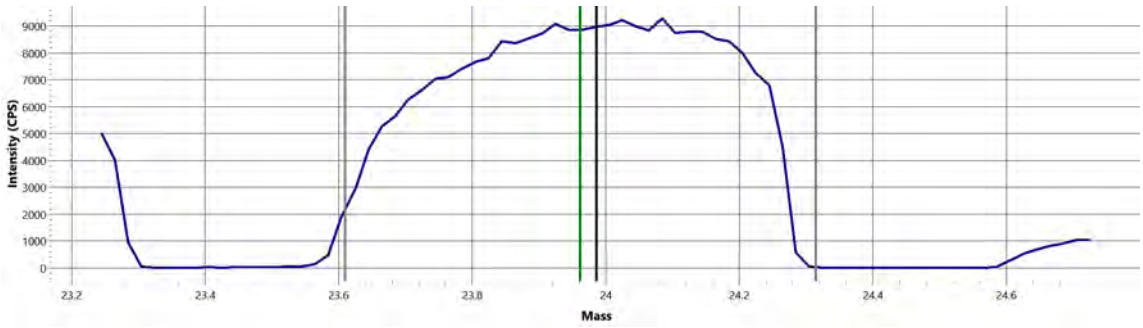
9Be



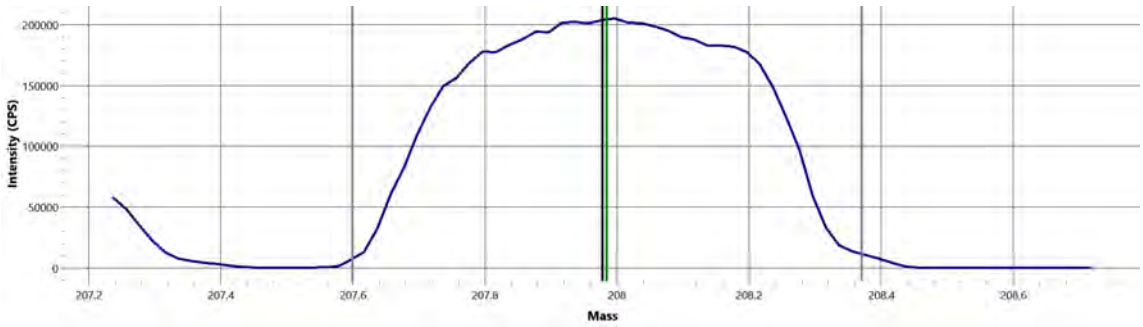
59Co



24Mg

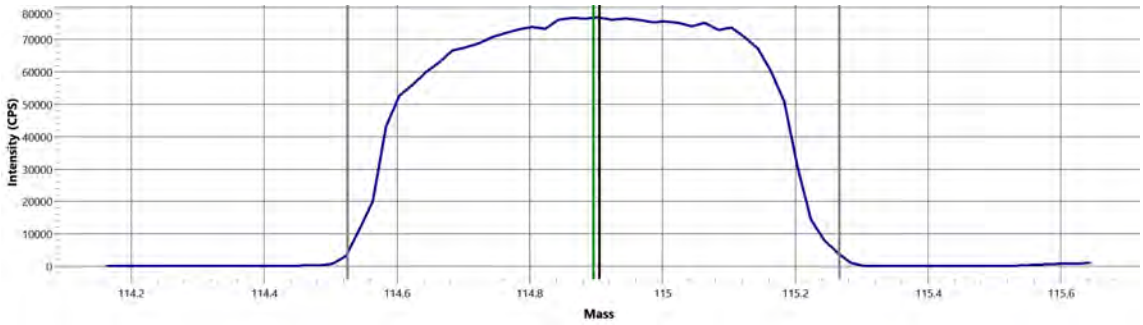


208Pb



115In

Performance Report



Performance Report

System (SN 02314R):

Time	6/13/2023 11:48:48 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	2,677.05 CPS	Greater than	5.0 CPS
59Co	Passed	35,455.0 CPS	Greater than	1,000.0 CPS
24Mg	Passed	7,440.2 CPS	Greater than	50.0 CPS
208Pb	Passed	139,303.0 CPS	Greater than	1,000.0 CPS
140Ce.16O/140Ce	Passed	0.0049	Less than	0.02
137Ba++/137Ba	Passed	0.04	Less than	0.1
115In	Passed	54,660.0 CPS	Greater than	1,000.0 CPS

Stability:
< 5% for 5 Replicates (200.8)

Analyte	Value	Limit
9Be	1.0%	5
59Co	0.4%	5
24Mg	2.0%	5
208Pb	0.7%	5
115In	0.9%	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	9.0006	0.0116	0.697	0.650	0.850
24Mg	Passed	23.9690	0.0160	0.689	0.650	0.850
59Co	Passed	58.9281	0.0051	0.714	0.650	0.850
115In	Passed	114.9212	0.0173	0.727	0.650	0.850
208Pb	Passed	208.0282	0.0516	0.741	0.650	0.850

Performance Report

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		1.546e+0

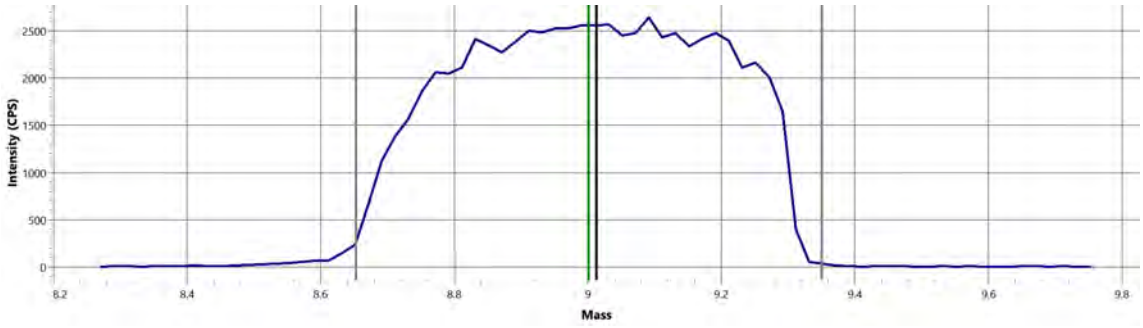
Detector (EM) Voltages:

Analog	Counting
-2837.50	1812.50

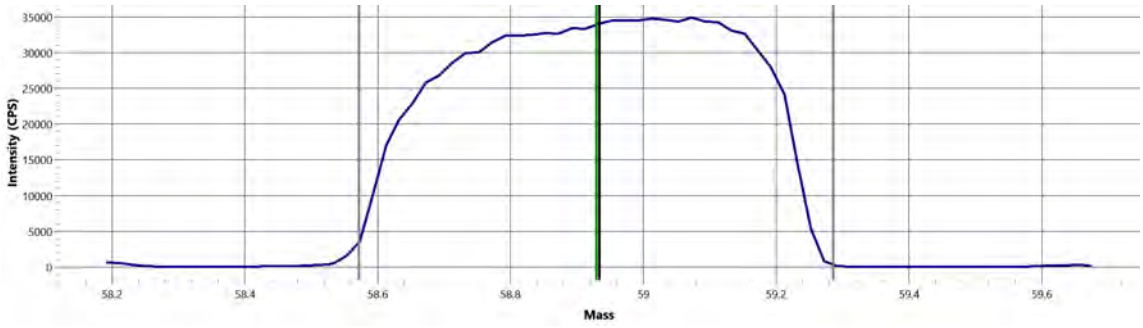
Performance Report

Mass Calibration Peaks

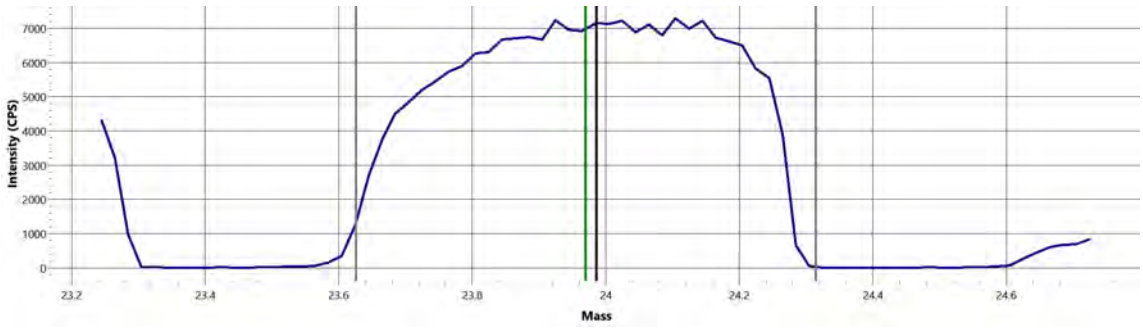
9Be



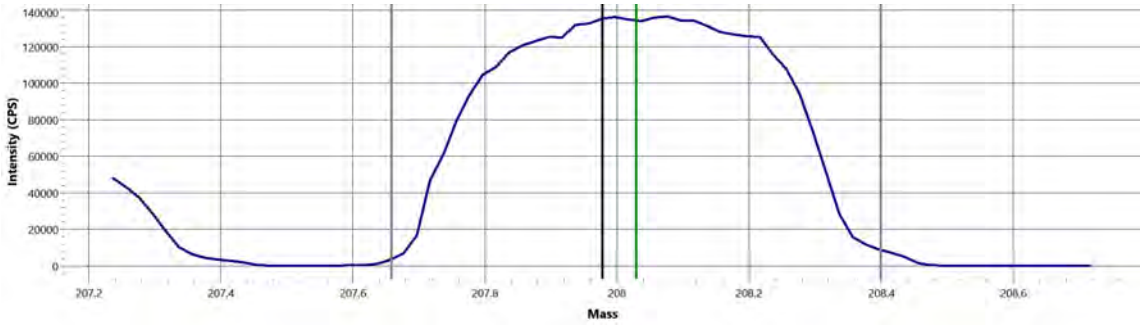
59Co



24Mg

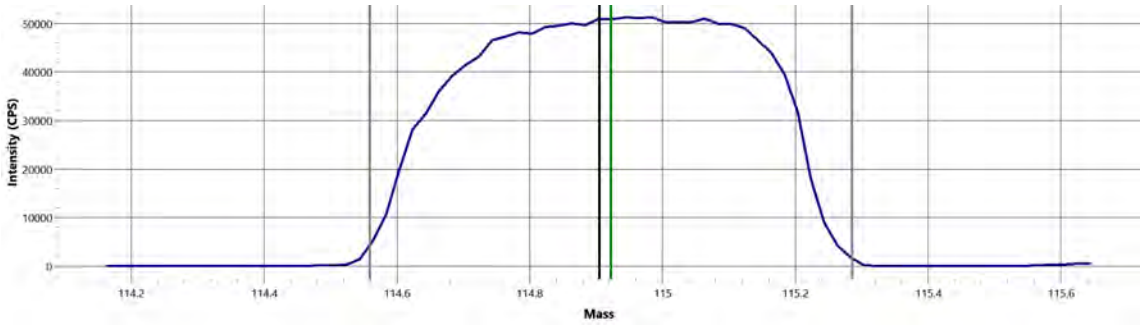


208Pb



115In

Performance Report



Performance Report

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

Performance Report

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

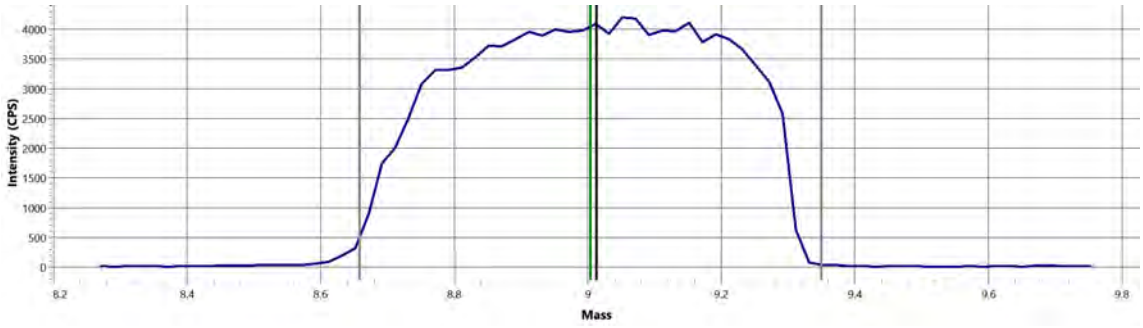
Detector (EM) Voltages:

Analog	Counting
-2837.50	1812.50

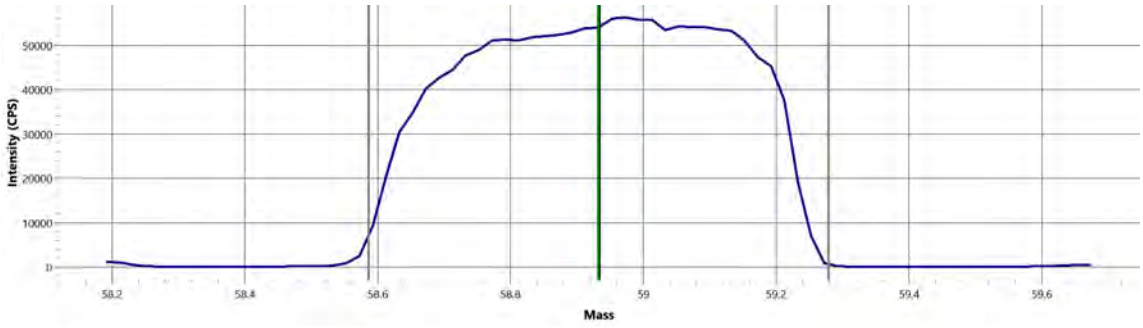
Performance Report

Mass Calibration Peaks

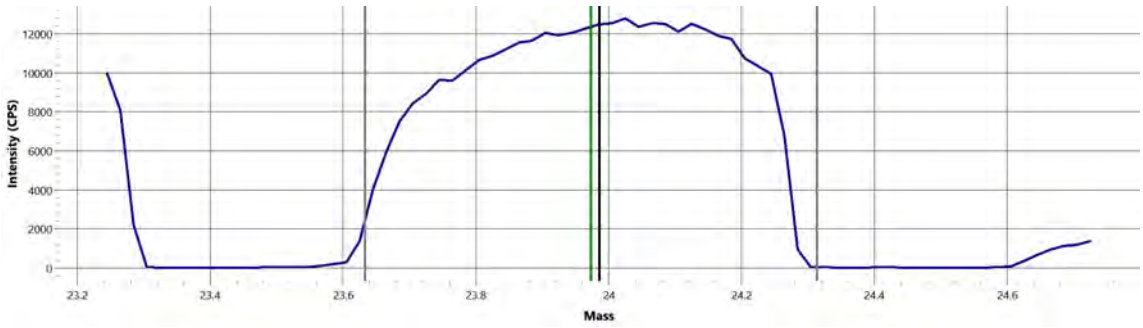
9Be



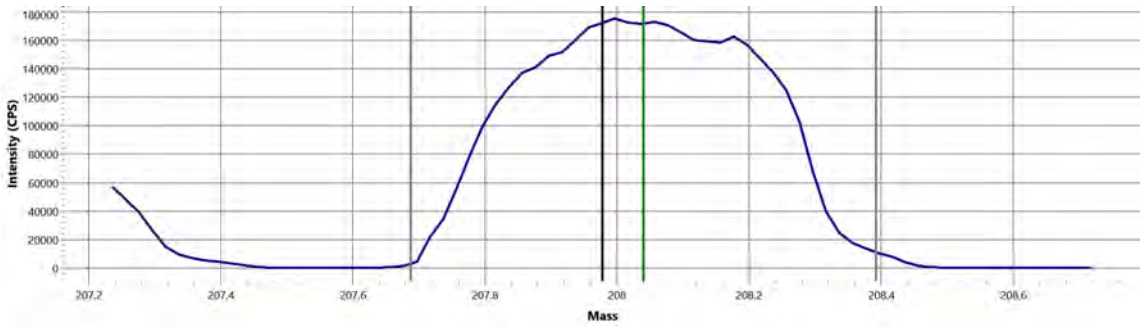
59Co



24Mg

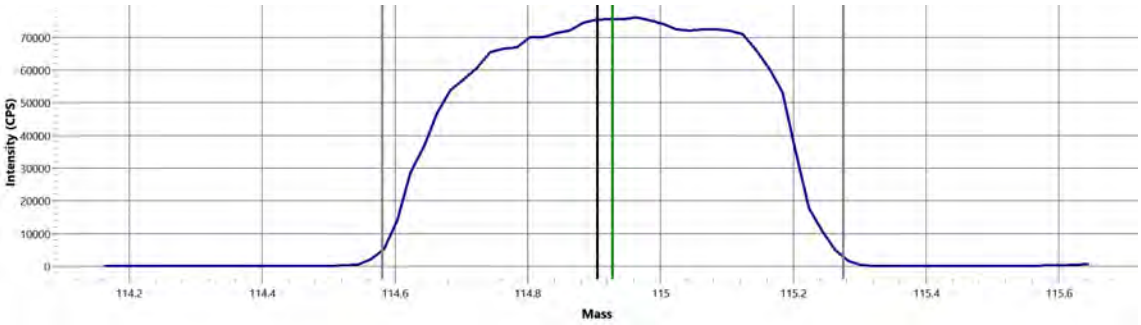


208Pb



115In

Performance Report



Calibration

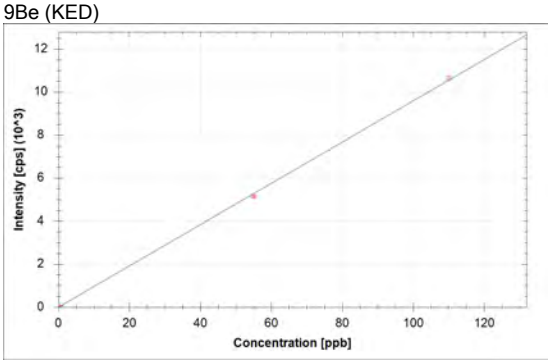
6/8/2023 2:40:36 PM

Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	Undefined

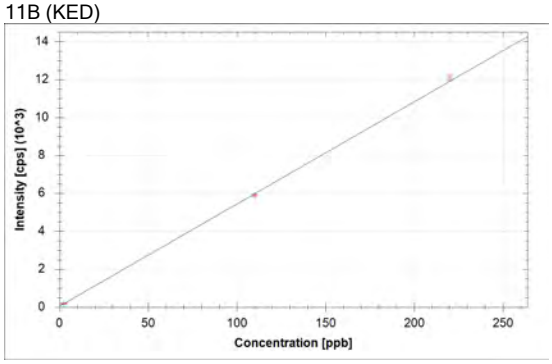
Labbook:	Labbook Path:
060823.imexp	_Application Data\Workspace\LabBooks

9Be (KED)



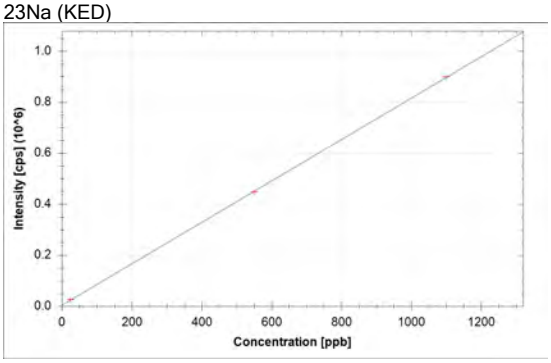
f(x) = 95.8506*x + 1.8913
R² = 0.9995
BEC = 0.020 ppb
LoD = N/A

11B (KED)



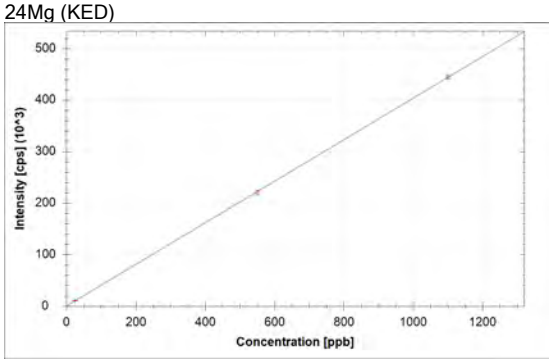
f(x) = 53.8745*x + 50.3986
R² = 0.9994
BEC = 0.935 ppb
LoD = N/A

23Na (KED)



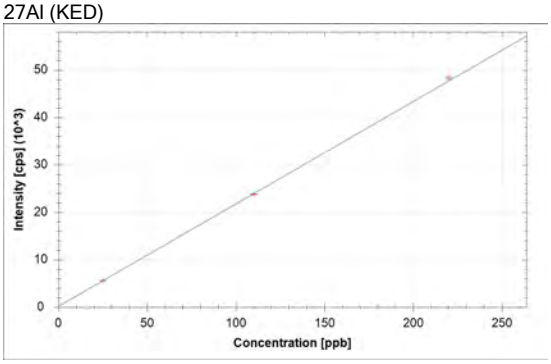
f(x) = 811.7633*x + 3860.1719
R² = 1.0000
BEC = 4.755 ppb
LoD = N/A

24Mg (KED)



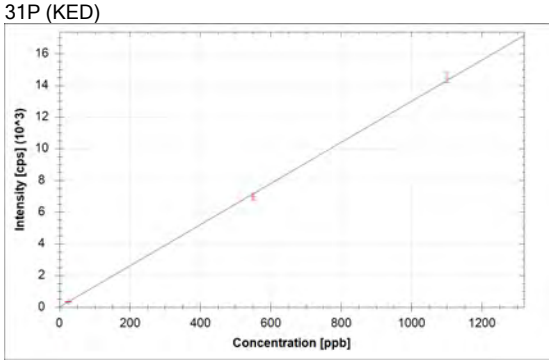
f(x) = 403.3601*x + 419.2555
R² = 1.0000
BEC = 1.039 ppb
LoD = N/A

27Al (KED)



f(x) = 215.8781*x + 176.4504
R² = 0.9995
BEC = 0.817 ppb
LoD = N/A

31P (KED)

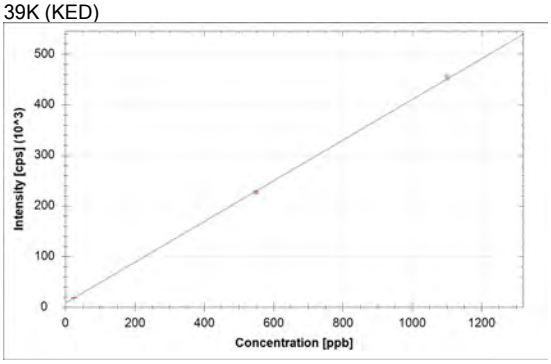


f(x) = 12.9765*x + 14.1099
R² = 0.9994
BEC = 1.087 ppb
LoD = N/A

Calibration

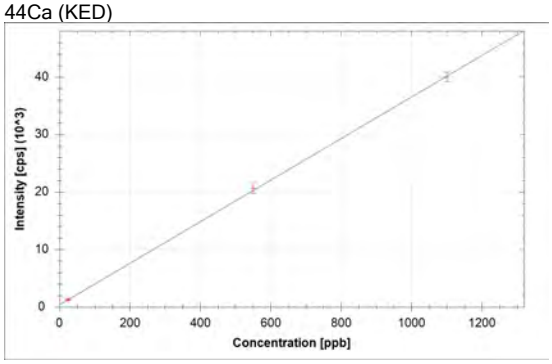
6/8/2023 2:40:36 PM

39K (KED)



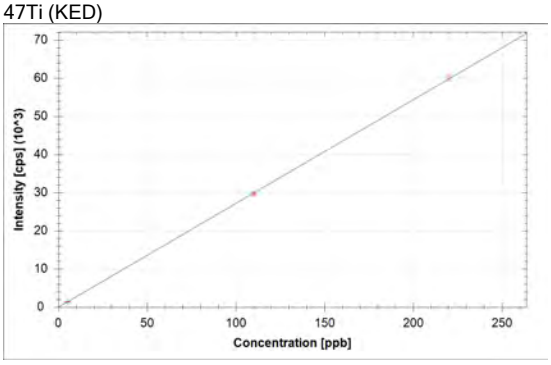
f(x) = 402.1907*x + 8117.6076
R² = 0.9998
BEC = 20.183 ppb
LoD = N/A

44Ca (KED)



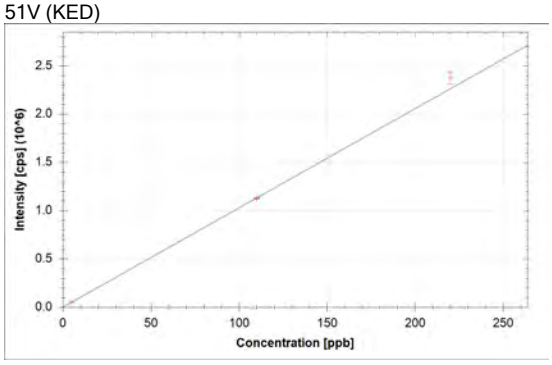
f(x) = 36.1569*x + 373.9548
R² = 0.9998
BEC = 10.343 ppb
LoD = N/A

47Ti (KED)



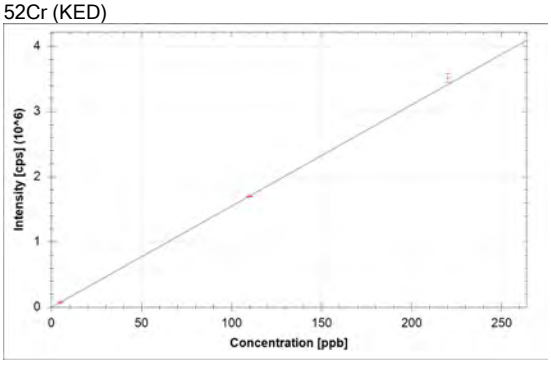
f(x) = 271.8572*x + 4.0368
R² = 0.9999
BEC = 0.015 ppb
LoD = N/A

51V (KED)



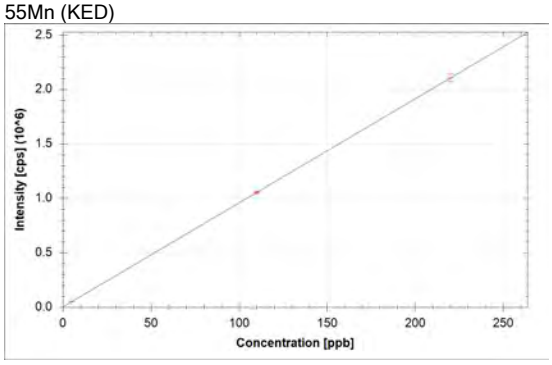
f(x) = 10277.4584*x + 750.1823
R² = 0.9953
BEC = 0.073 ppb
LoD = N/A

52Cr (KED)



f(x) = 15516.5172*x + -3154.5510
R² = 0.9982
BEC = -0.203 ppb
LoD = N/A

55Mn (KED)



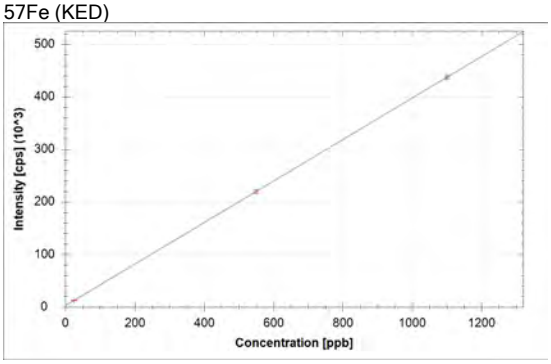
f(x) = 9552.7935*x + 2412.6910
R² = 1.0000
BEC = 0.253 ppb
LoD = N/A

Calibration

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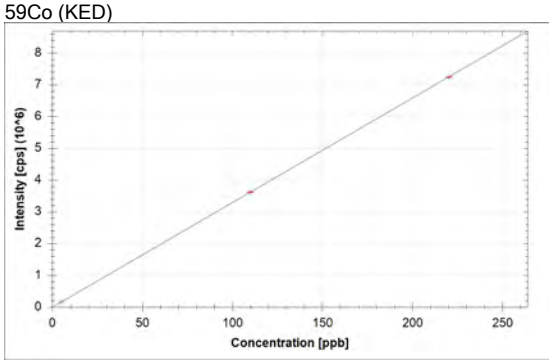
QTEGRA

57Fe (KED)



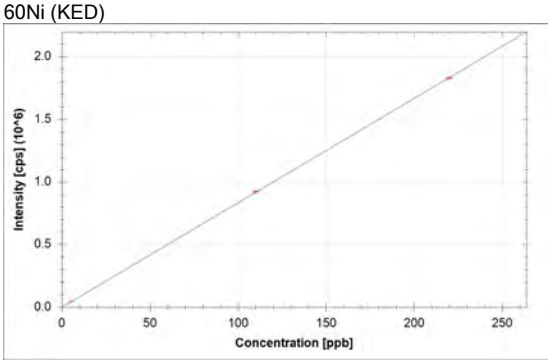
f(x) = 395.0955*x + 2713.6688
R² = 1.0000
BEC = 6.868 ppb
LoD = N/A

59Co (KED)



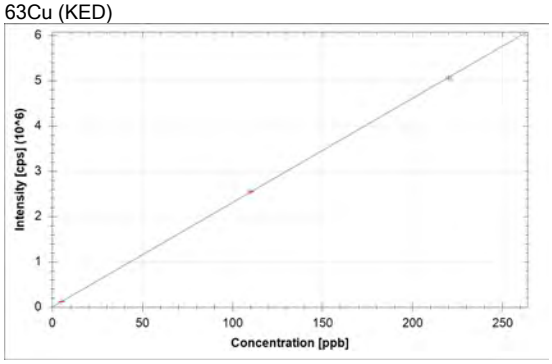
f(x) = 32929.5662*x + -3033.8139
R² = 1.0000
BEC = -0.092 ppb
LoD = N/A

60Ni (KED)



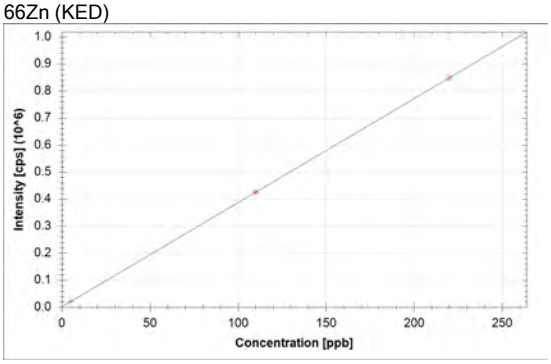
f(x) = 8325.2084*x + 693.3939
R² = 1.0000
BEC = 0.083 ppb
LoD = N/A

63Cu (KED)



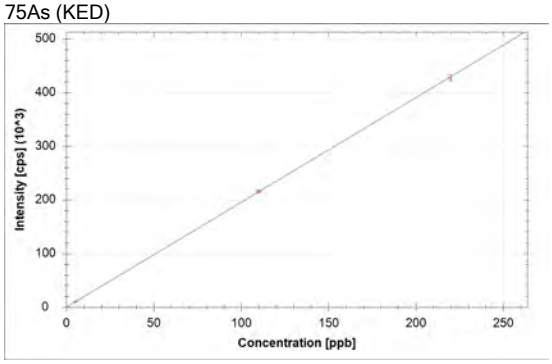
f(x) = 23027.1136*x + 6761.6623
R² = 1.0000
BEC = 0.294 ppb
LoD = N/A

66Zn (KED)



f(x) = 3849.9538*x + 1771.9719
R² = 1.0000
BEC = 0.460 ppb
LoD = N/A

75As (KED)

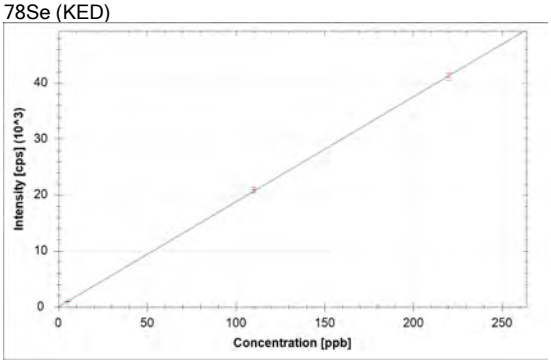


f(x) = 1953.0095*x + 151.4252
R² = 0.9999
BEC = 0.078 ppb
LoD = N/A

Calibration

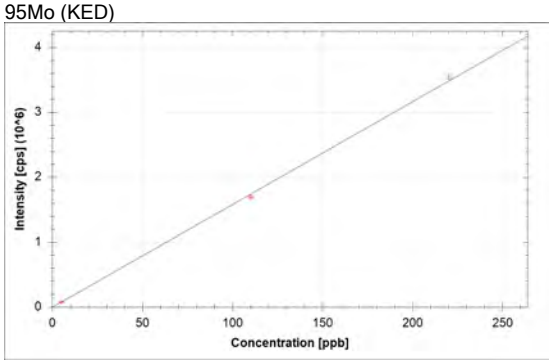
6/8/2023 2:40:36 PM

78Se (KED)



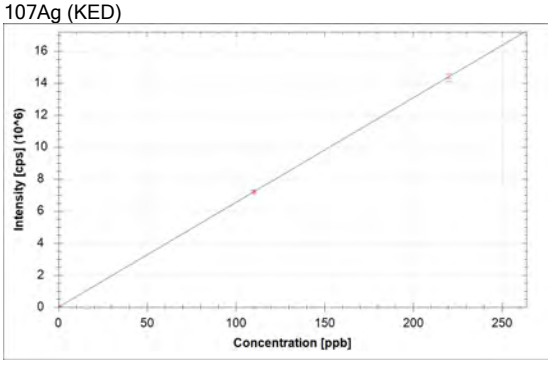
f(x) = 187.5727*x + 26.7245
R² = 0.9999
BEC = 0.142 ppb
LoD = N/A

95Mo (KED)



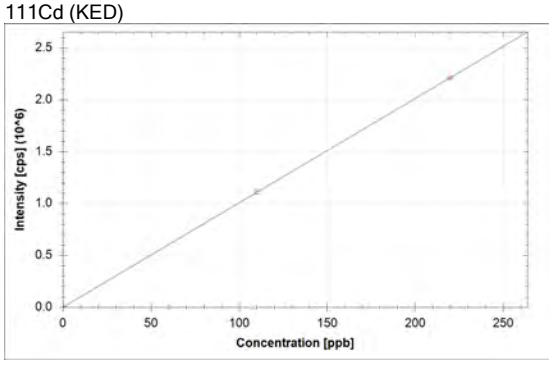
f(x) = 15828.6278*x + -3869.0659
R² = 0.9990
BEC = -0.244 ppb
LoD = N/A

107Ag (KED)



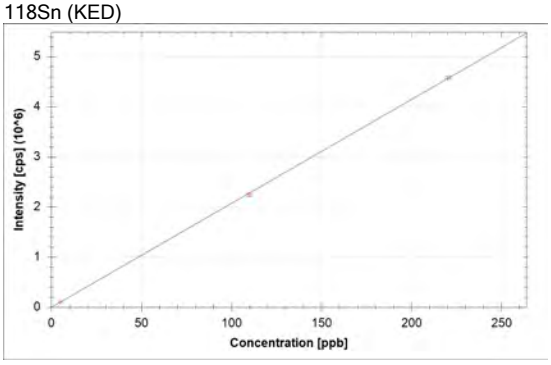
f(x) = 65417.6533*x + 2824.6962
R² = 1.0000
BEC = 0.043 ppb
LoD = N/A

111Cd (KED)



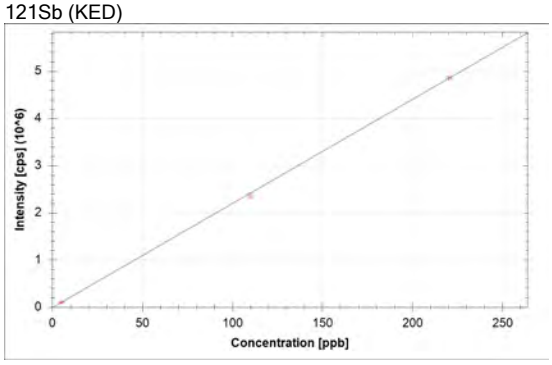
f(x) = 10056.4528*x + 62.1809
R² = 1.0000
BEC = 0.006 ppb
LoD = N/A

118Sn (KED)



f(x) = 20732.4962*x + -1252.9069
R² = 0.9999
BEC = -0.060 ppb
LoD = N/A

121Sb (KED)

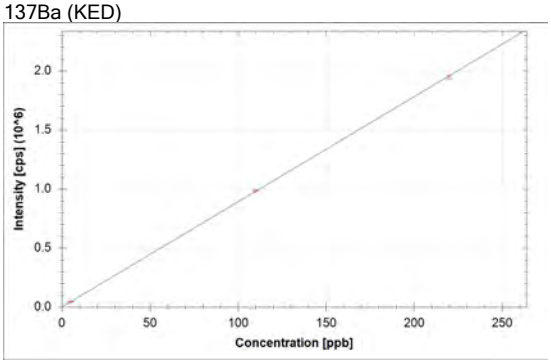


f(x) = 22055.6280*x + -7666.8661
R² = 0.9997
BEC = -0.348 ppb
LoD = N/A

Calibration

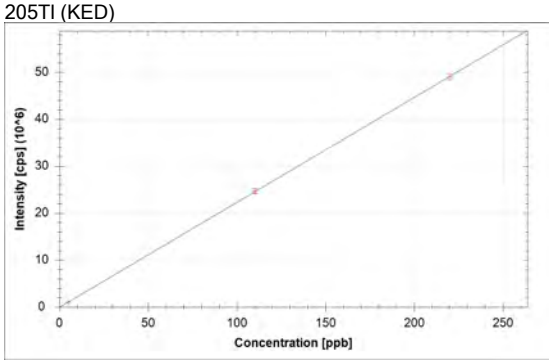
6/8/2023 2:40:36 PM

137Ba (KED)



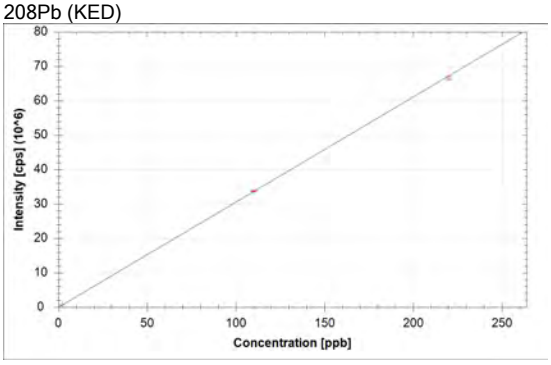
f(x) = 8899.0497*x + 668.1247
R² = 0.9999
BEC = 0.075 ppb
LoD = N/A

205Tl (KED)



f(x) = 223462.6709*x + -64275.2808
R² = 1.0000
BEC = -0.288 ppb
LoD = N/A

208Pb (KED)



f(x) = 305554.8054*x + -27794.9559
R² = 0.9998
BEC = -0.091 ppb
LoD = N/A

Calibration

6/8/2023 2:40:36 PM

Standards:

Analysis Index: 4
Analysis Name: Calibration 1
AnalysisType STD
Analysis Started at: 6/8/2023 10:49:01 AM
Standard (Stock): Calibration 1
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	99.632 %	N/A	0.0 %	
9Be (KED)	0.503 ppb	9.2 %	2.8 %	0.500 ppb
11B (KED)	2.593 ppb	16.0 %	4.3 %	2.500 ppb
23Na (KED)	26.881 ppb	3.8 %	7.6 %	25.000 ppb
24Mg (KED)	25.014 ppb	3.5 %	0.8 %	25.000 ppb
27Al (KED)	25.197 ppb	1.2 %	1.7 %	25.000 ppb
31P (KED)	25.047 ppb	5.5 %	2.7 %	25.000 ppb
39K (KED)	25.011 ppb	1.6 %	1.3 %	25.000 ppb
44Ca (KED)	24.883 ppb	15.5 %	2.0 %	25.000 ppb
45Sc (KED)	99.302 %	N/A	0.0 %	
47Ti (KED)	5.002 ppb	2.0 %	1.0 %	5.000 ppb
51V (KED)	5.002 ppb	1.7 %	5.0 %	5.000 ppb
52Cr (KED)	5.004 ppb	1.9 %	3.1 %	5.000 ppb
55Mn (KED)	5.000 ppb	0.8 %	0.1 %	5.000 ppb
57Fe (KED)	25.016 ppb	5.7 %	0.3 %	25.000 ppb
59Co (KED)	5.000 ppb	0.3 %	0.0 %	5.000 ppb
60Ni (KED)	4.995 ppb	1.8 %	0.8 %	5.000 ppb
63Cu (KED)	5.000 ppb	0.8 %	0.3 %	5.000 ppb
66Zn (KED)	5.000 ppb	1.4 %	0.1 %	5.000 ppb
72Ge (KED)	100.262 %	N/A	0.0 %	
75As (KED)	5.000 ppb	0.9 %	0.7 %	5.000 ppb
78Se (KED)	4.996 ppb	3.9 %	1.3 %	5.000 ppb
89Y (KED)	100.595 %	N/A	0.0 %	
95Mo (KED)	5.006 ppb	1.6 %	3.0 %	5.000 ppb
107Ag (KED)	0.500 ppb	1.4 %	0.5 %	0.500 ppb
111Cd (KED)	0.500 ppb	5.1 %	0.7 %	0.500 ppb
115In (KED)	101.171 %	N/A	0.0 %	
118Sn (KED)	5.000 ppb	0.4 %	1.5 %	5.000 ppb
121Sb (KED)	5.002 ppb	1.4 %	2.2 %	5.000 ppb
137Ba (KED)	4.987 ppb	3.3 %	0.8 %	5.000 ppb
159Tb (KED)	99.604 %	N/A	0.0 %	
205Tl (KED)	4.999 ppb	1.6 %	0.8 %	5.000 ppb
208Pb (KED)	1.999 ppb	1.4 %	0.9 %	2.000 ppb
209Bi (KED)	100.834 %	N/A	0.0 %	

Calibration

6/8/2023 2:40:36 PM

Standards:

Analysis Index: 5
Analysis Name: Calibration 2
AnalysisType STD
Analysis Started at: 6/8/2023 10:50:51 AM
Standard (Stock): Calibration 2
Standard DF: 0.5

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	97.540 %	N/A	0.0 %	
9Be (KED)	53.636 ppb	1.2 %	2.8 %	55.000 ppb
11B (KED)	108.487 ppb	1.1 %	4.3 %	110.000 ppb
23Na (KED)	546.108 ppb	0.2 %	7.6 %	550.000 ppb
24Mg (KED)	545.930 ppb	2.0 %	0.8 %	550.000 ppb
27Al (KED)	109.325 ppb	0.4 %	1.7 %	110.000 ppb
31P (KED)	536.708 ppb	3.1 %	2.7 %	550.000 ppb
39K (KED)	544.868 ppb	1.2 %	1.3 %	550.000 ppb
44Ca (KED)	560.549 ppb	4.7 %	2.0 %	550.000 ppb
45Sc (KED)	98.190 %	N/A	0.0 %	
47Ti (KED)	109.088 ppb	1.4 %	1.0 %	110.000 ppb
51V (KED)	109.647 ppb	0.7 %	5.0 %	110.000 ppb
52Cr (KED)	109.755 ppb	0.5 %	3.1 %	110.000 ppb
55Mn (KED)	109.969 ppb	1.0 %	0.1 %	110.000 ppb
57Fe (KED)	548.642 ppb	1.7 %	0.3 %	550.000 ppb
59Co (KED)	110.024 ppb	0.5 %	0.0 %	110.000 ppb
60Ni (KED)	110.854 ppb	0.8 %	0.8 %	110.000 ppb
63Cu (KED)	110.266 ppb	0.6 %	0.3 %	110.000 ppb
66Zn (KED)	110.076 ppb	1.2 %	0.1 %	110.000 ppb
72Ge (KED)	97.144 %	N/A	0.0 %	
75As (KED)	110.431 ppb	1.1 %	0.7 %	110.000 ppb
78Se (KED)	111.337 ppb	2.4 %	1.3 %	110.000 ppb
89Y (KED)	97.711 %	N/A	0.0 %	
95Mo (KED)	107.355 ppb	1.1 %	3.0 %	110.000 ppb
107Ag (KED)	110.243 ppb	1.1 %	0.5 %	110.000 ppb
111Cd (KED)	110.719 ppb	1.8 %	0.7 %	110.000 ppb
115In (KED)	96.727 %	N/A	0.0 %	
118Sn (KED)	108.386 ppb	1.5 %	1.5 %	110.000 ppb
121Sb (KED)	107.552 ppb	1.8 %	2.2 %	110.000 ppb
137Ba (KED)	110.592 ppb	0.7 %	0.8 %	110.000 ppb
159Tb (KED)	97.210 %	N/A	0.0 %	
205Tl (KED)	110.821 ppb	2.0 %	0.8 %	110.000 ppb
208Pb (KED)	110.460 ppb	0.5 %	0.9 %	110.000 ppb
209Bi (KED)	98.373 %	N/A	0.0 %	

Calibration

6/8/2023 2:40:36 PM

Standards:

Analysis Index: 6
Analysis Name: Calibration 3
AnalysisType STD
Analysis Started at: 6/8/2023 10:52:42 AM
Standard (Stock): Calibration 3
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	97.105 %	N/A	0.0 %	
9Be (KED)	111.129 ppb	0.8 %	2.8 %	110.000 ppb
11B (KED)	223.406 ppb	1.1 %	4.3 %	220.000 ppb
23Na (KED)	1,102.402 ppb	0.1 %	7.6 %	1,100.000 ppb
24Mg (KED)	1,102.007 ppb	1.0 %	0.8 %	1,100.000 ppb
27Al (KED)	223.084 ppb	0.6 %	1.7 %	220.000 ppb
31P (KED)	1,113.465 ppb	2.2 %	2.7 %	1,100.000 ppb
39K (KED)	1,109.965 ppb	1.1 %	1.3 %	1,100.000 ppb
44Ca (KED)	1,095.903 ppb	2.1 %	2.0 %	1,100.000 ppb
45Sc (KED)	95.190 %	N/A	0.0 %	
47Ti (KED)	221.066 ppb	1.1 %	1.0 %	220.000 ppb
51V (KED)	231.015 ppb	2.7 %	5.0 %	220.000 ppb
52Cr (KED)	226.741 ppb	1.9 %	3.1 %	220.000 ppb
55Mn (KED)	220.173 ppb	1.7 %	0.1 %	220.000 ppb
57Fe (KED)	1,100.780 ppb	0.9 %	0.3 %	1,100.000 ppb
59Co (KED)	219.985 ppb	0.3 %	0.0 %	220.000 ppb
60Ni (KED)	219.731 ppb	0.3 %	0.8 %	220.000 ppb
63Cu (KED)	219.548 ppb	0.6 %	0.3 %	220.000 ppb
66Zn (KED)	219.914 ppb	0.9 %	0.1 %	220.000 ppb
72Ge (KED)	96.549 %	N/A	0.0 %	
75As (KED)	218.705 ppb	1.3 %	0.7 %	220.000 ppb
78Se (KED)	218.805 ppb	1.6 %	1.3 %	220.000 ppb
89Y (KED)	96.909 %	N/A	0.0 %	
95Mo (KED)	224.017 ppb	0.9 %	3.0 %	220.000 ppb
107Ag (KED)	218.974 ppb	1.7 %	0.5 %	220.000 ppb
111Cd (KED)	219.811 ppb	0.7 %	0.7 %	220.000 ppb
115In (KED)	94.199 %	N/A	0.0 %	
118Sn (KED)	220.773 ppb	0.7 %	1.5 %	220.000 ppb
121Sb (KED)	220.635 ppb	0.6 %	2.2 %	220.000 ppb
137Ba (KED)	218.713 ppb	0.7 %	0.8 %	220.000 ppb
159Tb (KED)	98.002 %	N/A	0.0 %	
205Tl (KED)	219.439 ppb	1.2 %	0.8 %	220.000 ppb
208Pb (KED)	218.160 ppb	0.8 %	0.9 %	220.000 ppb
209Bi (KED)	98.324 %	N/A	0.0 %	

Calibration
6/13/2023 4:15:01 PM

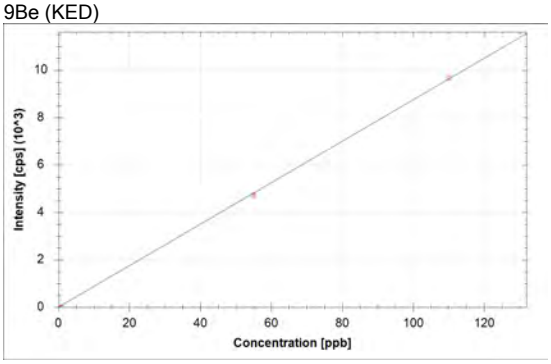
QTEGRA

Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	Undefined

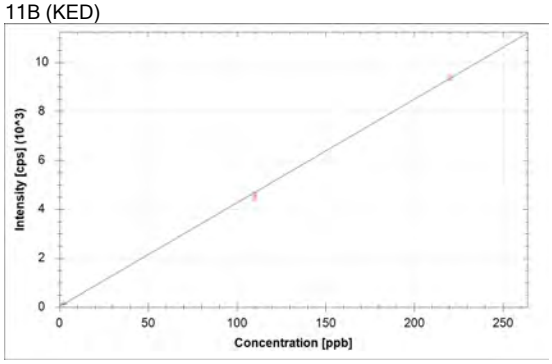
Labbook:	Labbook Path:
061323D.imexp	_Application Data\Workspace\LabBooks

9Be (KED)



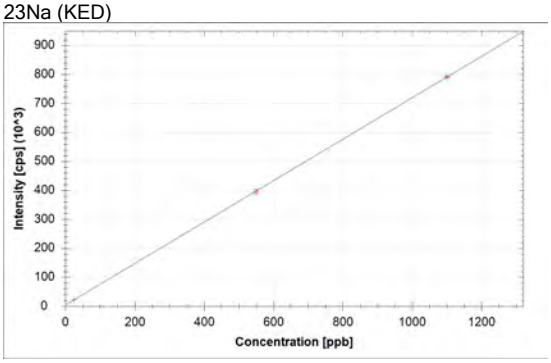
f(x) = 87.4816*x + 3.3704
R² = 0.9998
BEC = 0.039 ppb
LoD = N/A

11B (KED)



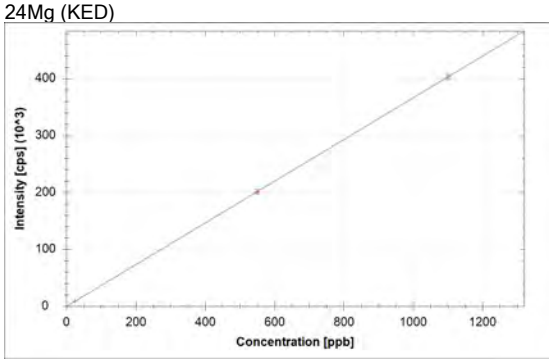
f(x) = 42.3264*x + 29.1193
R² = 0.9995
BEC = 0.688 ppb
LoD = N/A

23Na (KED)



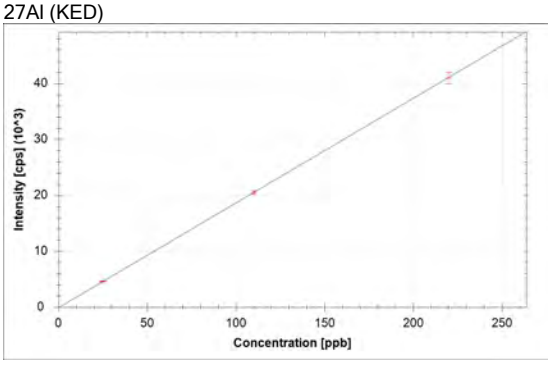
f(x) = 715.1715*x + 4306.1519
R² = 1.0000
BEC = 6.021 ppb
LoD = N/A

24Mg (KED)



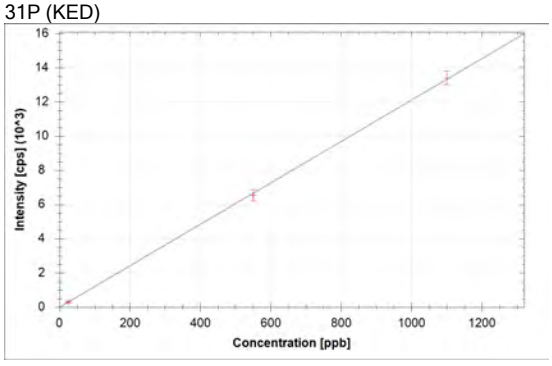
f(x) = 366.5272*x + -304.9195
R² = 1.0000
BEC = -0.832 ppb
LoD = N/A

27Al (KED)



f(x) = 187.2507*x + -97.8418
R² = 1.0000
BEC = -0.523 ppb
LoD = N/A

31P (KED)

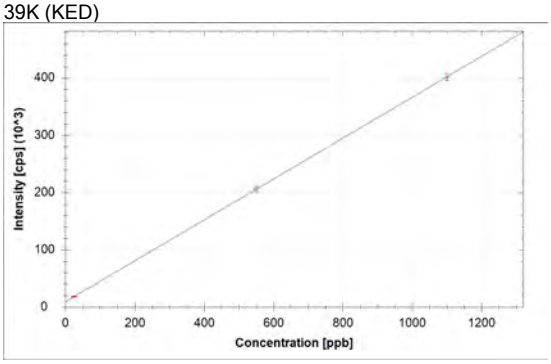


f(x) = 12.1160*x + -4.0505
R² = 0.9997
BEC = -0.334 ppb
LoD = N/A

Calibration

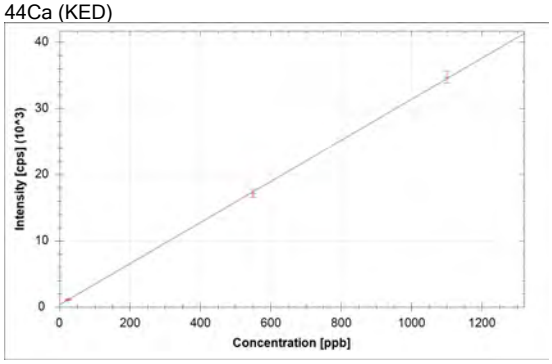
6/13/2023 4:15:01 PM

39K (KED)



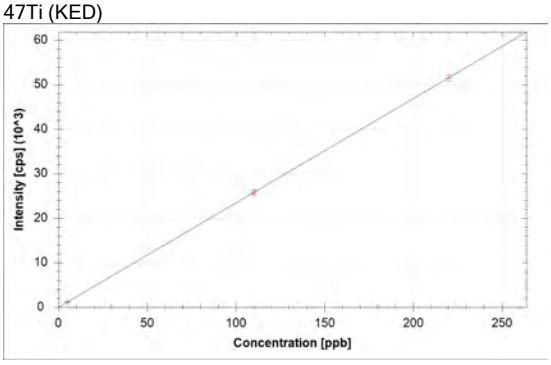
f(x) = 357.1585*x + 9320.3682
R² = 1.0000
BEC = 26.096 ppb
LoD = N/A

44Ca (KED)



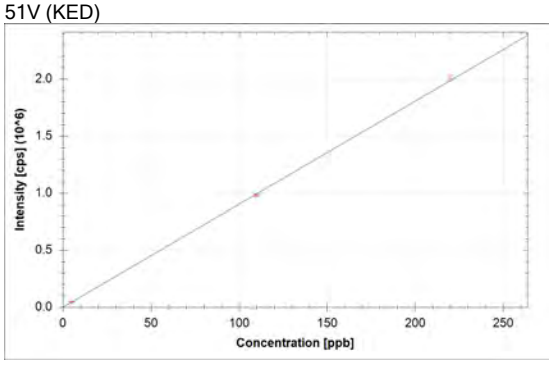
f(x) = 31.0419*x + 332.0080
R² = 0.9998
BEC = 10.695 ppb
LoD = N/A

47Ti (KED)



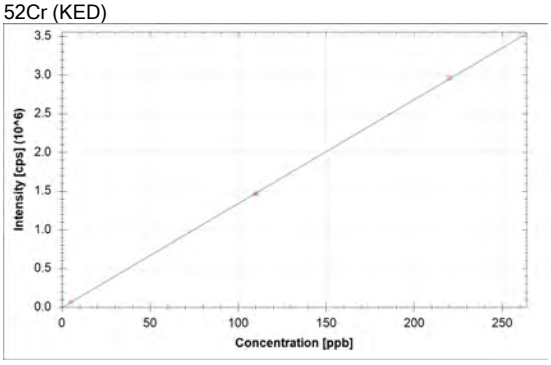
f(x) = 234.4584*x + -39.4408
R² = 1.0000
BEC = -0.168 ppb
LoD = N/A

51V (KED)



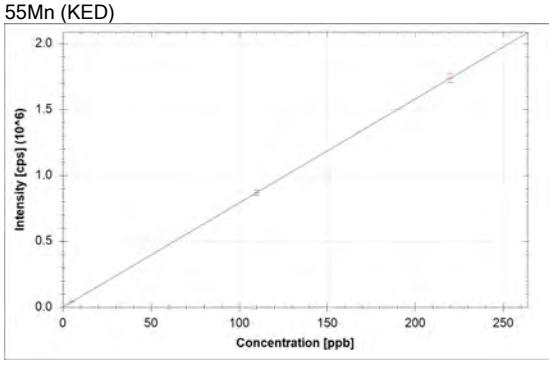
f(x) = 9027.7406*x + -237.2618
R² = 0.9996
BEC = -0.026 ppb
LoD = N/A

52Cr (KED)



f(x) = 13412.7834*x + -4118.9239
R² = 0.9999
BEC = -0.307 ppb
LoD = N/A

55Mn (KED)

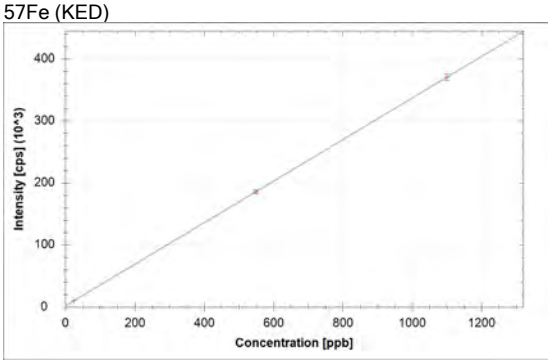


f(x) = 7889.4390*x + 1046.5093
R² = 1.0000
BEC = 0.133 ppb
LoD = N/A

Calibration

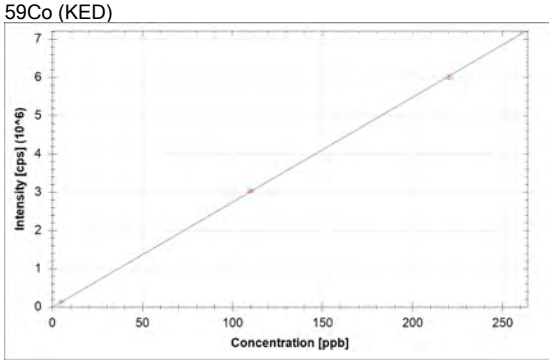
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57Fe (KED)



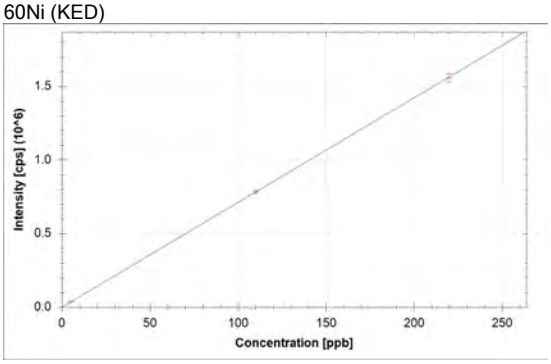
f(x) = 334.8376*x + 1942.9527
R² = 1.0000
BEC = 5.803 ppb
LoD = N/A

59Co (KED)



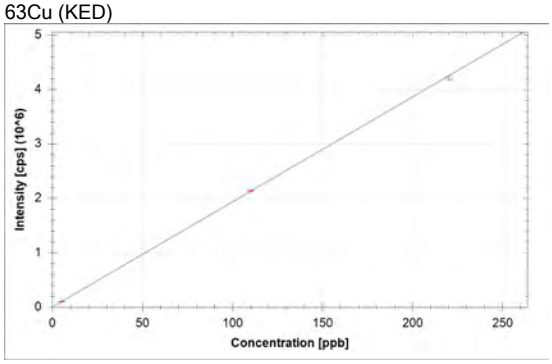
f(x) = 27414.7493*x + -3052.2243
R² = 1.0000
BEC = -0.111 ppb
LoD = N/A

60Ni (KED)



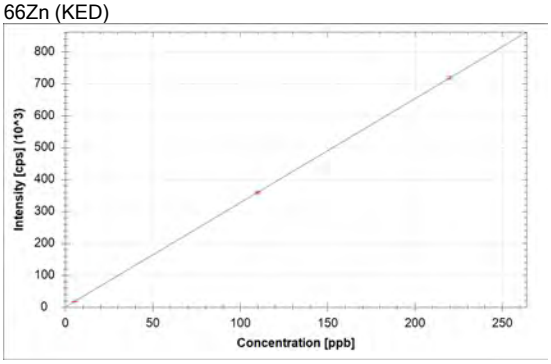
f(x) = 7112.0528*x + 403.2995
R² = 1.0000
BEC = 0.057 ppb
LoD = N/A

63Cu (KED)



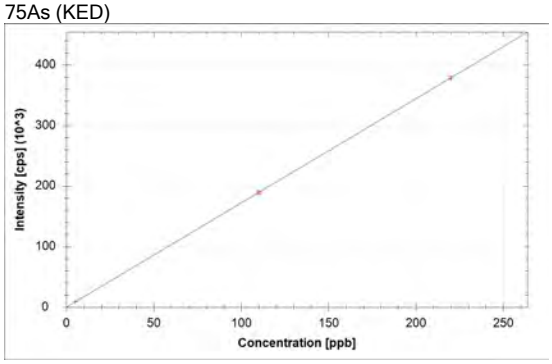
f(x) = 19296.4020*x + 5253.3218
R² = 0.9998
BEC = 0.272 ppb
LoD = N/A

66Zn (KED)



f(x) = 3259.1488*x + 1121.7899
R² = 1.0000
BEC = 0.344 ppb
LoD = N/A

75As (KED)

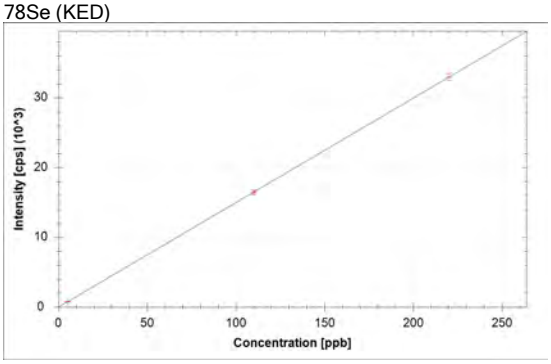


f(x) = 1720.2269*x + 91.4908
R² = 1.0000
BEC = 0.053 ppb
LoD = N/A

Calibration

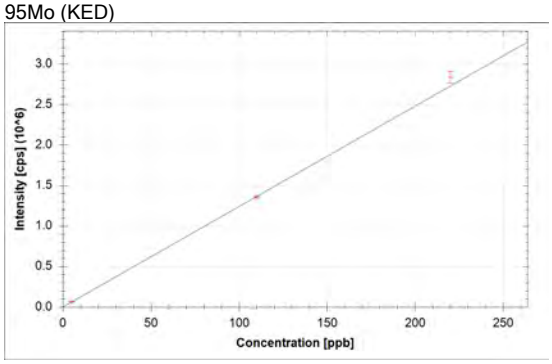
6/13/2023 4:15:01 PM

78Se (KED)



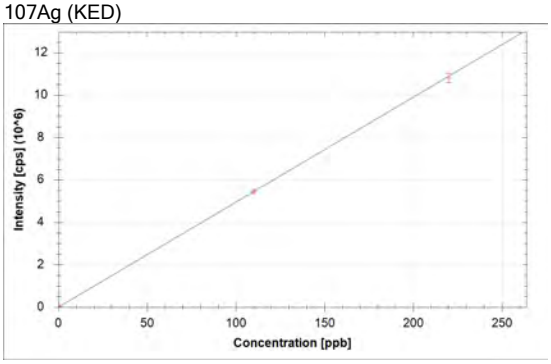
f(x) = 149.7813*x + -14.4511
R² = 1.0000
BEC = -0.096 ppb
LoD = N/A

95Mo (KED)



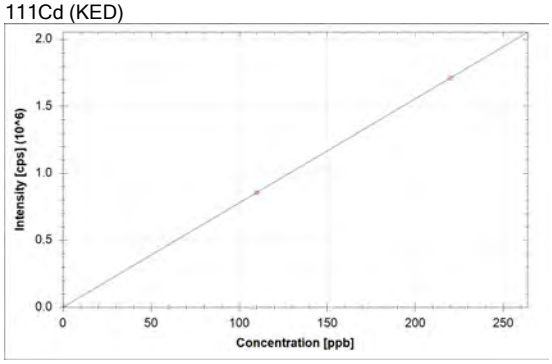
f(x) = 12388.2812*x + 882.8506
R² = 0.9968
BEC = 0.071 ppb
LoD = N/A

107Ag (KED)



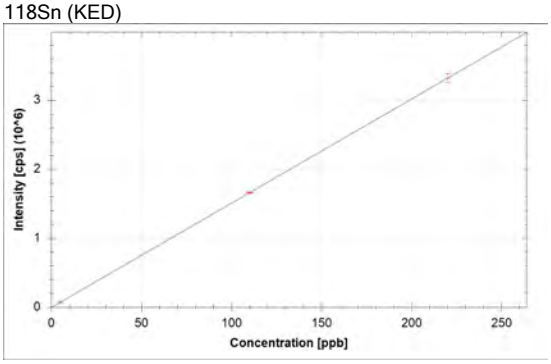
f(x) = 49483.1115*x + 1790.1309
R² = 0.9999
BEC = 0.036 ppb
LoD = N/A

111Cd (KED)



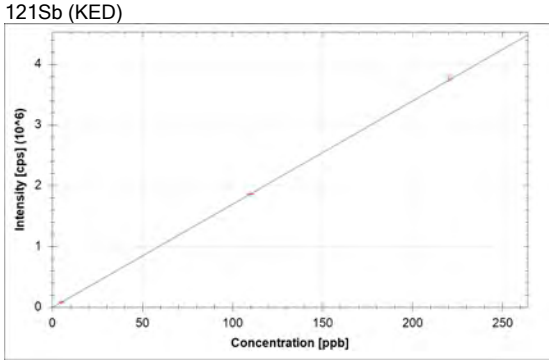
f(x) = 7772.9955*x + 64.9716
R² = 1.0000
BEC = 0.008 ppb
LoD = N/A

118Sn (KED)



f(x) = 15094.0979*x + -2435.4492
R² = 1.0000
BEC = -0.161 ppb
LoD = N/A

121Sb (KED)

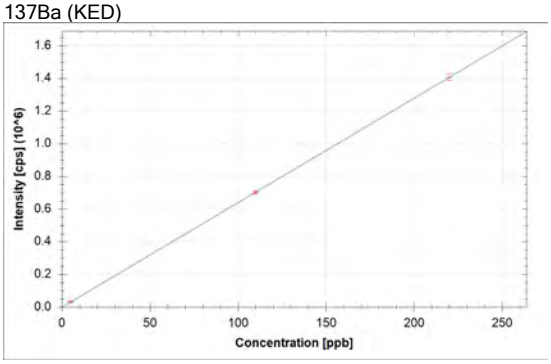


f(x) = 16990.1373*x + -4796.3600
R² = 0.9998
BEC = -0.282 ppb
LoD = N/A

Calibration

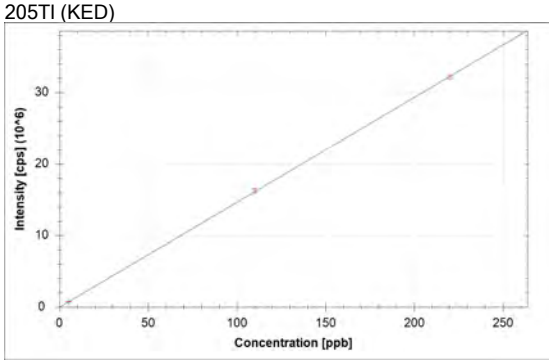
6/13/2023 4:15:01 PM

137Ba (KED)



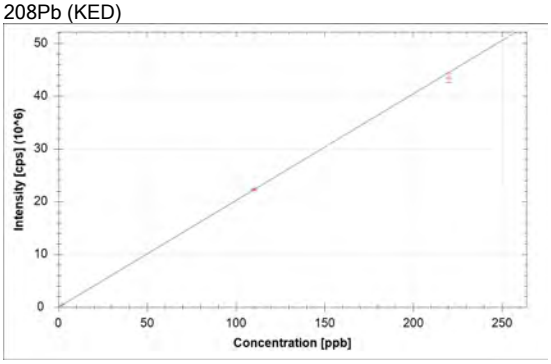
f(x) = 6394.4872*x + -945.5982
R² = 1.0000
BEC = -0.148 ppb
LoD = N/A

205Tl (KED)



f(x) = 146660.0278*x + -28704.9448
R² = 0.9999
BEC = -0.196 ppb
LoD = N/A

208Pb (KED)



f(x) = 202191.0255*x + -13433.2148
R² = 0.9989
BEC = -0.066 ppb
LoD = N/A

Calibration

6/13/2023 4:15:01 PM

Standards:

Analysis Index: 4
Analysis Name: Calibration 1
AnalysisType STD
Analysis Started at: 6/13/2023 12:33:39 PM
Standard (Stock): Calibration 1
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	98.768 %	N/A	0.0 %	
9Be (KED)	0.502 ppb	13.2 %	1.9 %	0.500 ppb
11B (KED)	2.502 ppb	5.0 %	3.0 %	2.500 ppb
23Na (KED)	25.010 ppb	3.0 %	0.6 %	25.000 ppb
24Mg (KED)	25.000 ppb	2.2 %	0.1 %	25.000 ppb
27Al (KED)	24.998 ppb	1.3 %	0.2 %	25.000 ppb
31P (KED)	25.106 ppb	15.9 %	2.0 %	25.000 ppb
39K (KED)	24.994 ppb	4.4 %	0.3 %	25.000 ppb
44Ca (KED)	25.043 ppb	8.4 %	1.6 %	25.000 ppb
45Sc (KED)	100.039 %	N/A	0.0 %	
47Ti (KED)	5.000 ppb	3.3 %	0.2 %	5.000 ppb
51V (KED)	5.001 ppb	0.9 %	1.7 %	5.000 ppb
52Cr (KED)	5.000 ppb	0.5 %	1.0 %	5.000 ppb
55Mn (KED)	5.000 ppb	0.1 %	0.2 %	5.000 ppb
57Fe (KED)	25.001 ppb	1.7 %	0.1 %	25.000 ppb
59Co (KED)	5.000 ppb	0.5 %	0.8 %	5.000 ppb
60Ni (KED)	4.999 ppb	2.1 %	0.5 %	5.000 ppb
63Cu (KED)	5.000 ppb	0.2 %	1.0 %	5.000 ppb
66Zn (KED)	5.000 ppb	1.3 %	0.0 %	5.000 ppb
72Ge (KED)	100.169 %	N/A	0.0 %	
75As (KED)	5.000 ppb	0.8 %	0.1 %	5.000 ppb
78Se (KED)	5.000 ppb	2.9 %	0.1 %	5.000 ppb
89Y (KED)	98.503 %	N/A	0.0 %	
95Mo (KED)	5.015 ppb	4.6 %	4.1 %	5.000 ppb
107Ag (KED)	0.500 ppb	1.3 %	0.8 %	0.500 ppb
111Cd (KED)	0.500 ppb	6.7 %	0.2 %	0.500 ppb
115In (KED)	100.101 %	N/A	0.0 %	
118Sn (KED)	5.000 ppb	1.9 %	0.1 %	5.000 ppb
121Sb (KED)	5.003 ppb	1.8 %	1.1 %	5.000 ppb
137Ba (KED)	5.000 ppb	2.8 %	0.2 %	5.000 ppb
159Tb (KED)	101.061 %	N/A	0.0 %	
205Tl (KED)	4.996 ppb	3.0 %	1.3 %	5.000 ppb
208Pb (KED)	1.999 ppb	3.0 %	2.3 %	2.000 ppb
209Bi (KED)	102.053 %	N/A	0.0 %	

Calibration

6/13/2023 4:15:01 PM

QTEGRA

Standards:

Analysis Index: 5
Analysis Name: Calibration 2
AnalysisType STD
Analysis Started at: 6/13/2023 12:35:27 PM
Standard (Stock): Calibration 2
Standard DF: 0.5

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	99.316 %	N/A	0.0 %	
9Be (KED)	54.029 ppb	1.8 %	1.9 %	55.000 ppb
11B (KED)	106.758 ppb	3.3 %	3.0 %	110.000 ppb
23Na (KED)	546.636 ppb	1.8 %	0.6 %	550.000 ppb
24Mg (KED)	549.714 ppb	1.8 %	0.1 %	550.000 ppb
27Al (KED)	110.106 ppb	1.5 %	0.2 %	110.000 ppb
31P (KED)	539.611 ppb	5.2 %	2.0 %	550.000 ppb
39K (KED)	551.388 ppb	2.2 %	0.3 %	550.000 ppb
44Ca (KED)	542.196 ppb	3.7 %	1.6 %	550.000 ppb
45Sc (KED)	100.274 %	N/A	0.0 %	
47Ti (KED)	110.170 ppb	2.0 %	0.2 %	110.000 ppb
51V (KED)	108.608 ppb	1.1 %	1.7 %	110.000 ppb
52Cr (KED)	109.033 ppb	1.0 %	1.0 %	110.000 ppb
55Mn (KED)	109.794 ppb	2.1 %	0.2 %	110.000 ppb
57Fe (KED)	549.476 ppb	1.8 %	0.1 %	550.000 ppb
59Co (KED)	110.813 ppb	1.3 %	0.8 %	110.000 ppb
60Ni (KED)	110.168 ppb	1.0 %	0.5 %	110.000 ppb
63Cu (KED)	110.427 ppb	0.6 %	1.0 %	110.000 ppb
66Zn (KED)	110.017 ppb	1.0 %	0.0 %	110.000 ppb
72Ge (KED)	99.474 %	N/A	0.0 %	
75As (KED)	110.095 ppb	1.3 %	0.1 %	110.000 ppb
78Se (KED)	109.874 ppb	1.8 %	0.1 %	110.000 ppb
89Y (KED)	98.794 %	N/A	0.0 %	
95Mo (KED)	109.460 ppb	0.9 %	4.1 %	110.000 ppb
107Ag (KED)	110.461 ppb	1.6 %	0.8 %	110.000 ppb
111Cd (KED)	109.809 ppb	1.2 %	0.2 %	110.000 ppb
115In (KED)	98.733 %	N/A	0.0 %	
118Sn (KED)	109.979 ppb	0.7 %	0.1 %	110.000 ppb
121Sb (KED)	109.969 ppb	0.2 %	1.1 %	110.000 ppb
137Ba (KED)	109.902 ppb	1.3 %	0.2 %	110.000 ppb
159Tb (KED)	101.178 %	N/A	0.0 %	
205Tl (KED)	111.395 ppb	1.9 %	1.3 %	110.000 ppb
208Pb (KED)	110.405 ppb	0.8 %	2.3 %	110.000 ppb
209Bi (KED)	100.539 %	N/A	0.0 %	

Calibration

6/13/2023 4:15:01 PM

Standards:

Analysis Index: 6
Analysis Name: Calibration 3
AnalysisType STD
Analysis Started at: 6/13/2023 12:37:14 PM
Standard (Stock): Calibration 3
Standard DF: 1

Category	Concentration average	Concentration RSD	RSE	Standard Concentration
6Li (KED)	100.125 %	N/A	0.0 %	
9Be (KED)	110.541 ppb	0.9 %	1.9 %	110.000 ppb
11B (KED)	220.651 ppb	1.0 %	3.0 %	220.000 ppb
23Na (KED)	1,100.506 ppb	0.5 %	0.6 %	1,100.000 ppb
24Mg (KED)	1,100.205 ppb	1.1 %	0.1 %	1,100.000 ppb
27Al (KED)	219.513 ppb	2.5 %	0.2 %	220.000 ppb
31P (KED)	1,106.736 ppb	2.9 %	2.0 %	1,100.000 ppb
39K (KED)	1,098.623 ppb	1.6 %	0.3 %	1,100.000 ppb
44Ca (KED)	1,107.941 ppb	2.6 %	1.6 %	1,100.000 ppb
45Sc (KED)	99.249 %	N/A	0.0 %	
47Ti (KED)	219.831 ppb	1.4 %	0.2 %	220.000 ppb
51V (KED)	222.601 ppb	1.1 %	1.7 %	220.000 ppb
52Cr (KED)	221.130 ppb	0.8 %	1.0 %	220.000 ppb
55Mn (KED)	220.363 ppb	2.0 %	0.2 %	220.000 ppb
57Fe (KED)	1,100.698 ppb	1.5 %	0.1 %	1,100.000 ppb
59Co (KED)	219.304 ppb	0.9 %	0.8 %	220.000 ppb
60Ni (KED)	219.029 ppb	1.8 %	0.5 %	220.000 ppb
63Cu (KED)	218.061 ppb	1.0 %	1.0 %	220.000 ppb
66Zn (KED)	219.981 ppb	0.7 %	0.0 %	220.000 ppb
72Ge (KED)	99.076 %	N/A	0.0 %	
75As (KED)	219.943 ppb	0.7 %	0.1 %	220.000 ppb
78Se (KED)	220.172 ppb	1.5 %	0.1 %	220.000 ppb
89Y (KED)	98.746 %	N/A	0.0 %	
95Mo (KED)	228.951 ppb	2.5 %	4.1 %	220.000 ppb
107Ag (KED)	218.398 ppb	2.1 %	0.8 %	220.000 ppb
111Cd (KED)	220.169 ppb	0.8 %	0.2 %	220.000 ppb
115In (KED)	99.100 %	N/A	0.0 %	
118Sn (KED)	220.310 ppb	1.9 %	0.1 %	220.000 ppb
121Sb (KED)	222.429 ppb	1.1 %	1.1 %	220.000 ppb
137Ba (KED)	220.271 ppb	1.5 %	0.2 %	220.000 ppb
159Tb (KED)	102.226 %	N/A	0.0 %	
205Tl (KED)	219.453 ppb	0.9 %	1.3 %	220.000 ppb
208Pb (KED)	214.969 ppb	2.0 %	2.3 %	220.000 ppb
209Bi (KED)	102.633 %	N/A	0.0 %	

Calibration
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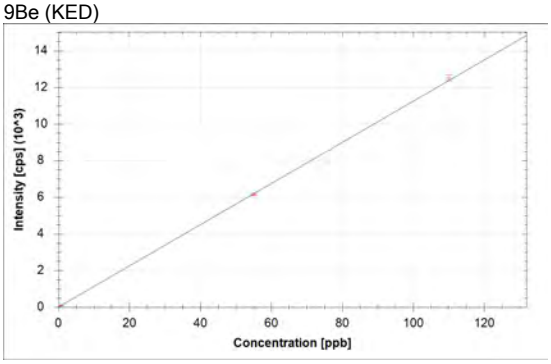
QTEGRA

Calibration Curves:

Instrument Name:	Serial Number:
iCAP Q	02314R

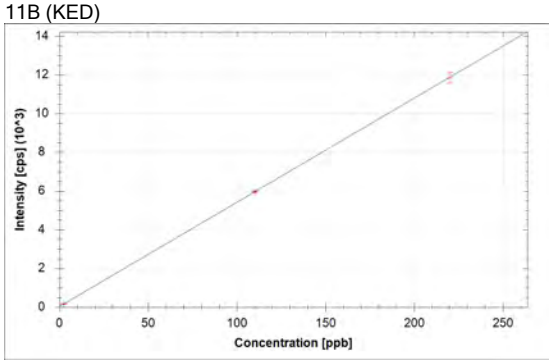
Labbook:	Labbook Path:
061523B.imexp	_Application Data\Workspace\LabBooks

9Be (KED)



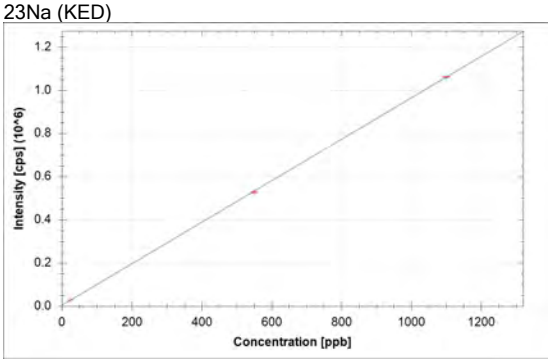
f(x) = 112.3321*x + 6.4442
R² = 0.9997
BEC = 0.057 ppb
LoD = N/A

11B (KED)



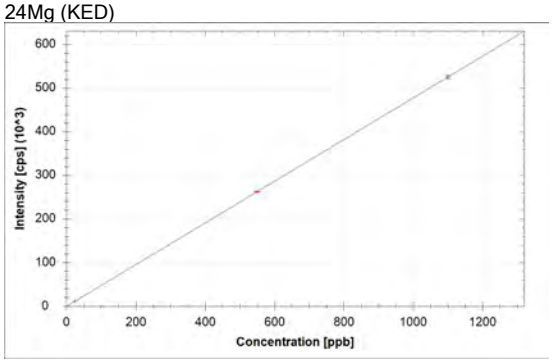
f(x) = 53.8102*x + 35.4569
R² = 1.0000
BEC = 0.659 ppb
LoD = N/A

23Na (KED)



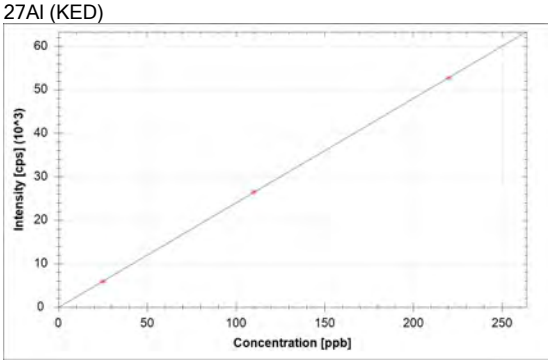
f(x) = 960.5718*x + 4551.6019
R² = 1.0000
BEC = 4.738 ppb
LoD = N/A

24Mg (KED)



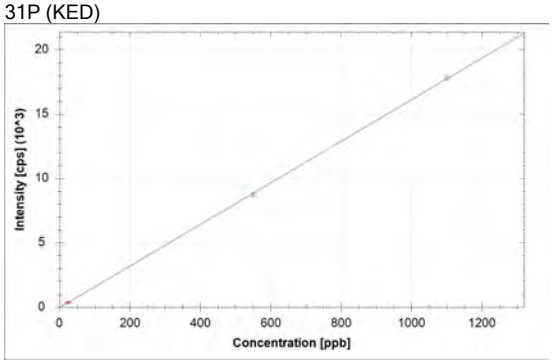
f(x) = 477.5654*x + -268.4286
R² = 1.0000
BEC = -0.562 ppb
LoD = N/A

27Al (KED)



f(x) = 240.1198*x + -55.7420
R² = 1.0000
BEC = -0.232 ppb
LoD = N/A

31P (KED)

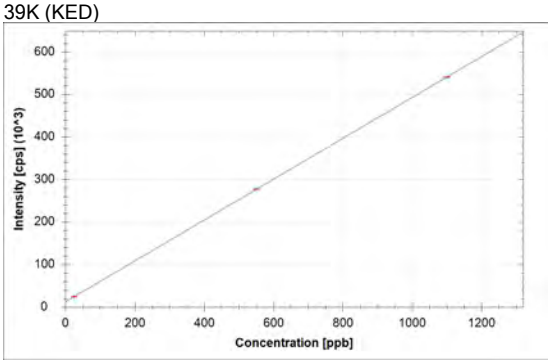


f(x) = 16.1493*x + -40.6985
R² = 0.9999
BEC = -2.520 ppb
LoD = N/A

Calibration

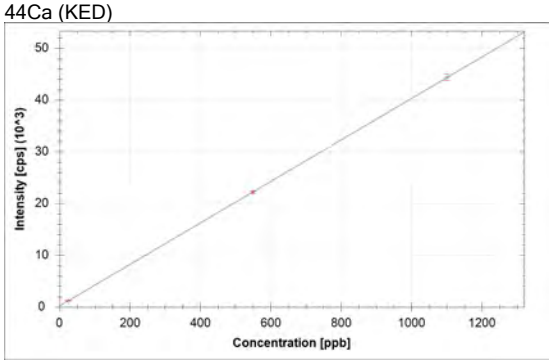
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39K (KED)



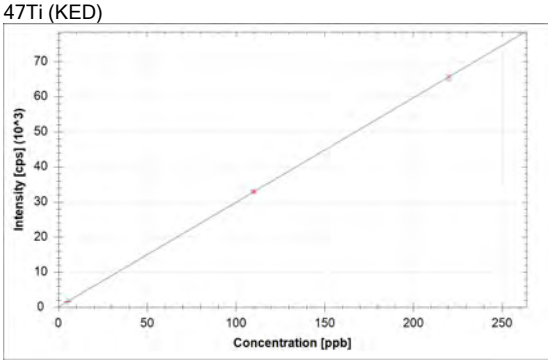
f(x) = 480.4329*x + 12355.8935
R² = 1.0000
BEC = 25.718 ppb
LoD = N/A

44Ca (KED)



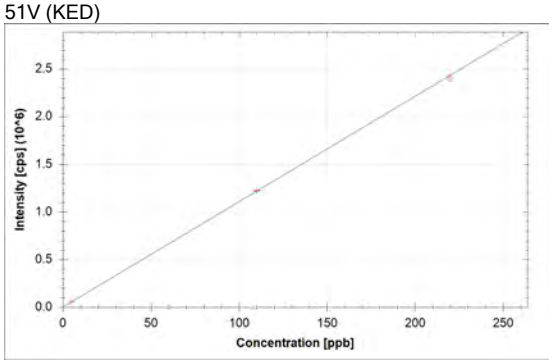
f(x) = 40.0870*x + 207.3817
R² = 1.0000
BEC = 5.173 ppb
LoD = N/A

47Ti (KED)



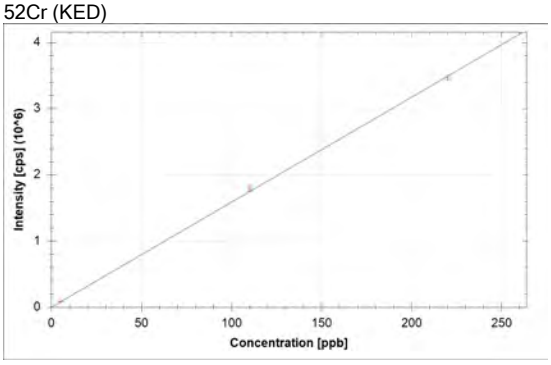
f(x) = 297.9369*x + 67.4904
R² = 1.0000
BEC = 0.227 ppb
LoD = N/A

51V (KED)



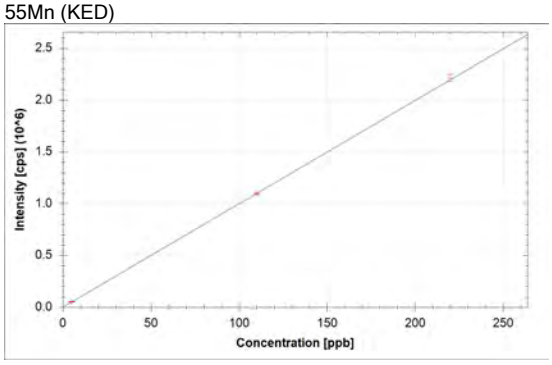
f(x) = 11062.6152*x + 1063.8981
R² = 0.9997
BEC = 0.096 ppb
LoD = N/A

52Cr (KED)



f(x) = 15854.4419*x + 690.7026
R² = 0.9995
BEC = 0.044 ppb
LoD = N/A

55Mn (KED)



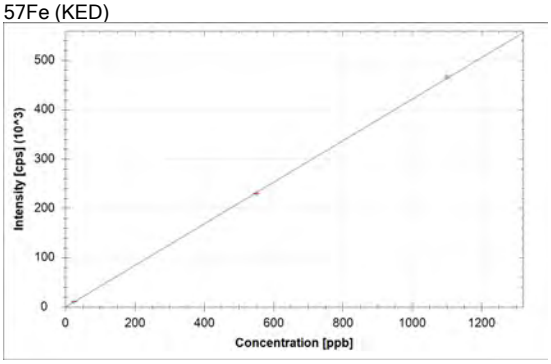
f(x) = 9969.3959*x + 1332.3510
R² = 0.9998
BEC = 0.134 ppb
LoD = N/A

Calibration

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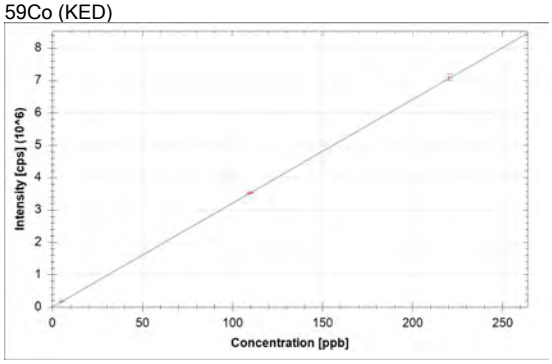
QTEGRA

57Fe (KED)



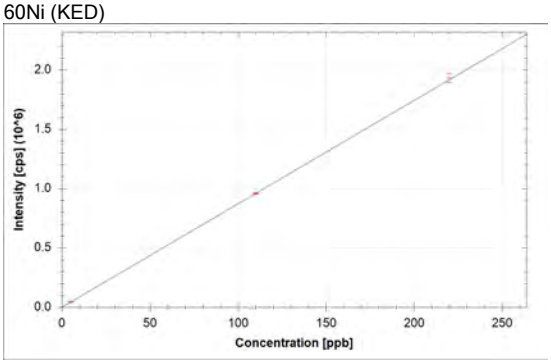
f(x) = 421.3536*x + -35.5799
R² = 0.9999
BEC = -0.084 ppb
LoD = N/A

59Co (KED)



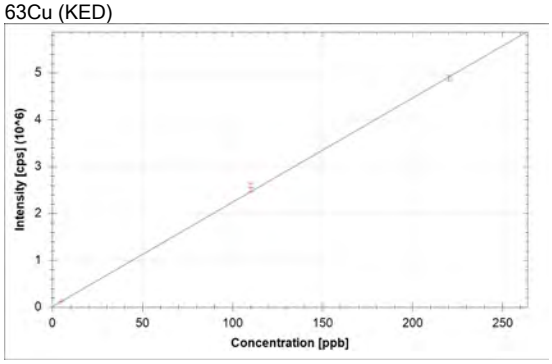
f(x) = 32031.2062*x + 4352.1493
R² = 0.9999
BEC = 0.136 ppb
LoD = N/A

60Ni (KED)



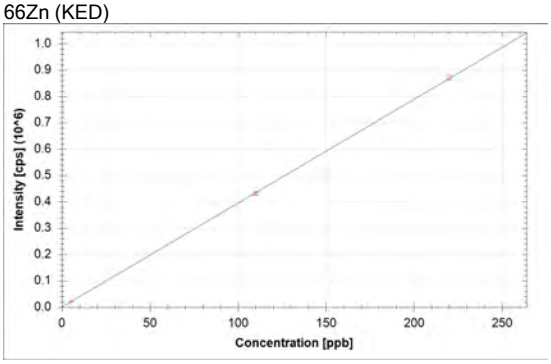
f(x) = 8711.7676*x + 230.9853
R² = 0.9999
BEC = 0.027 ppb
LoD = N/A

63Cu (KED)



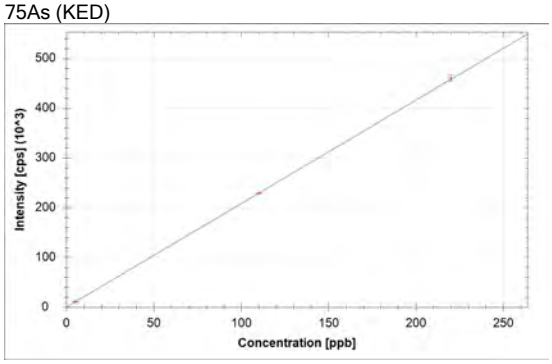
f(x) = 22245.2491*x + 12930.4811
R² = 0.9992
BEC = 0.581 ppb
LoD = N/A

66Zn (KED)



f(x) = 3942.2475*x + 664.0858
R² = 1.0000
BEC = 0.168 ppb
LoD = N/A

75As (KED)

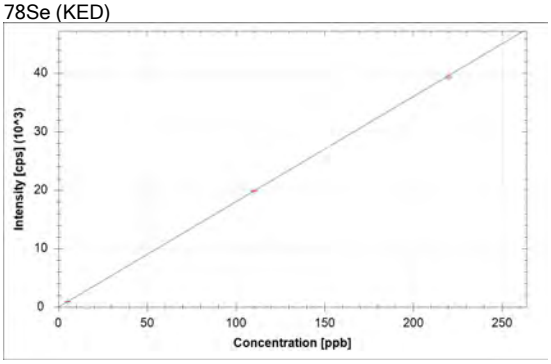


f(x) = 2081.2714*x + 118.8726
R² = 0.9999
BEC = 0.057 ppb
LoD = N/A

Calibration

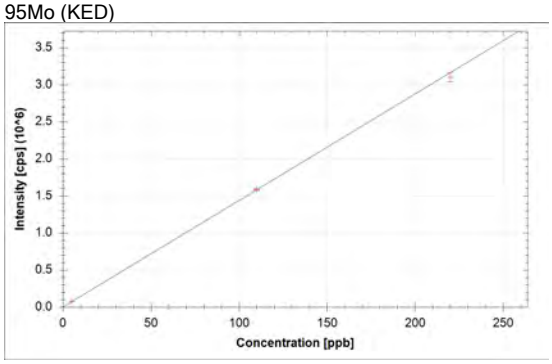
6/15/2023 5:36:57 PM

78Se (KED)



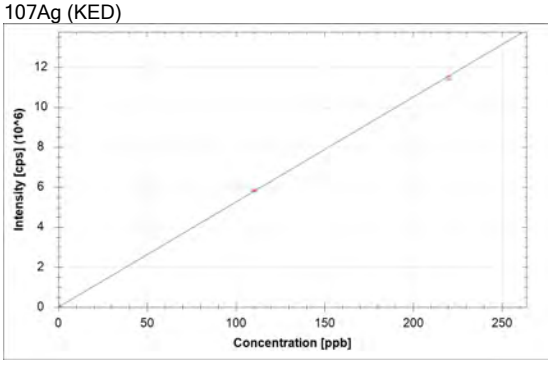
f(x) = 180.1231*x + -6.7871
R² = 0.9999
BEC = -0.038 ppb
LoD = N/A

95Mo (KED)



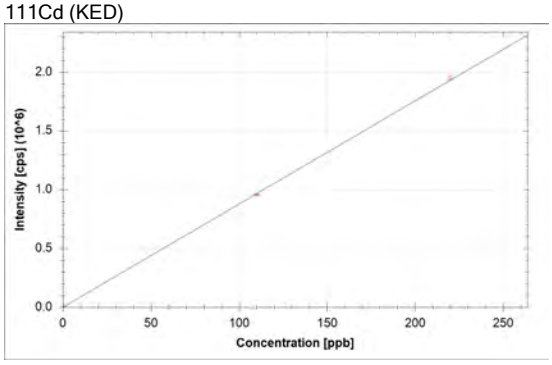
f(x) = 14373.0865*x + 158.2824
R² = 0.9992
BEC = 0.011 ppb
LoD = N/A

107Ag (KED)



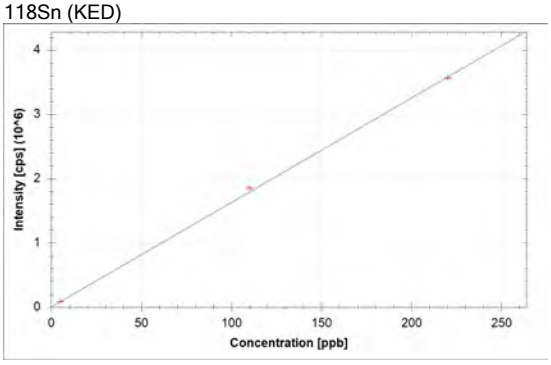
f(x) = 52481.9616*x + 4228.0923
R² = 0.9998
BEC = 0.081 ppb
LoD = N/A

111Cd (KED)



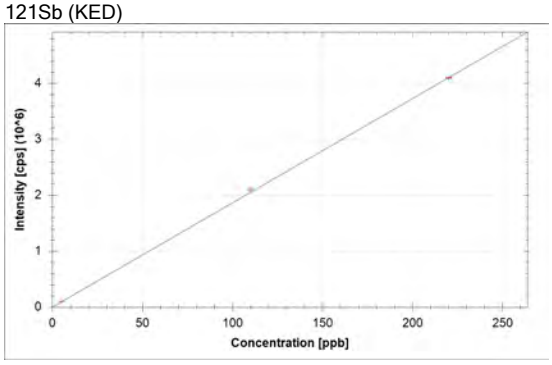
f(x) = 8773.0934*x + 264.3886
R² = 0.9997
BEC = 0.030 ppb
LoD = N/A

118Sn (KED)



f(x) = 16251.1392*x + 4873.8024
R² = 0.9994
BEC = 0.300 ppb
LoD = N/A

121Sb (KED)

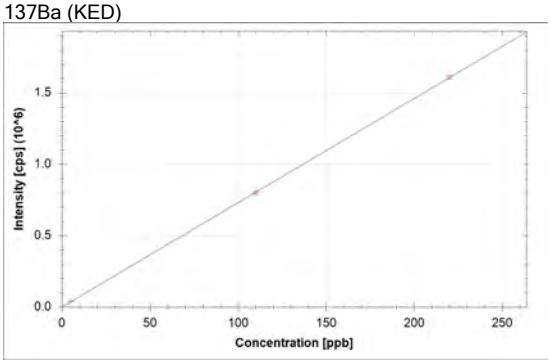


f(x) = 18626.0876*x + 1910.9496
R² = 0.9997
BEC = 0.103 ppb
LoD = N/A

Calibration

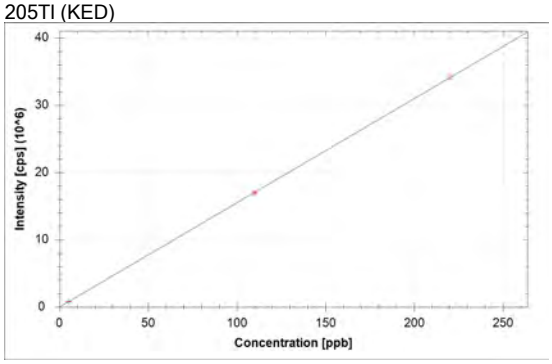
6/15/2023 5:36:57 PM

137Ba (KED)



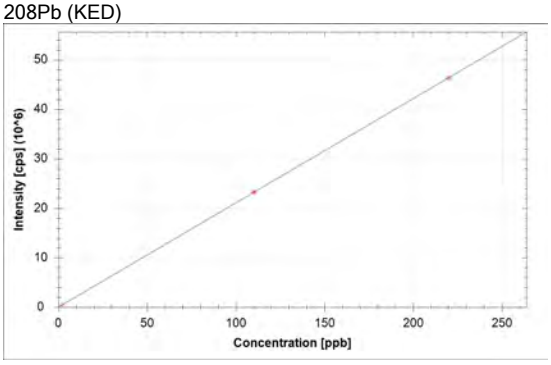
f(x) = 7295.6604*x + 717.2085
R² = 1.0000
BEC = 0.098 ppb
LoD = N/A

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

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

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

52547WW48

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01	File ID:	060223L-035
Sampled:	05/25/23 13:10	Prepared:	06/01/23 13:05	Analyzed:	06/02/23 12:15
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
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

52647WW50

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03	File ID:	060223L-040
Sampled:	05/25/23 16:20	Prepared:	06/01/23 13:05	Analyzed:	06/02/23 12:33
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
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

52647WW37

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04	File ID:	060223L-041
Sampled:	05/26/23 12:30	Prepared:	06/01/23 13:05	Analyzed:	06/02/23 12:35
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
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

52647WW51

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05	File ID:	060223L-042
Sampled:	05/26/23 11:05	Prepared:	06/01/23 13:05	Analyzed:	06/02/23 12:36
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
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

527LHSMW60

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10	File ID:	060523L-015
Sampled:	05/27/23 11:01	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:19
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

52747WW59

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07	File ID:	060223L-044
Sampled:	05/27/23 11:25	Prepared:	06/01/23 13:05	Analyzed:	06/02/23 12:40
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
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

52747WW40

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08	File ID:	060223L-045
Sampled:	05/27/23 13:05	Prepared:	06/01/23 13:05	Analyzed:	06/02/23 12:42
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
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

52747WW41

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09	File ID:	060223L-046
Sampled:	05/27/23 15:05	Prepared:	06/01/23 13:05	Analyzed:	06/02/23 12:44
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
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

527LHSMW60

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10	File ID:	060523L-015
Sampled:	05/27/23 11:01	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:19
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

527LHSMW54

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11	File ID:	060523L-016
Sampled:	05/27/23 15:00	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:21
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

52747WW42

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12	File ID:	060523L-017
Sampled:	05/27/23 17:28	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:23
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

52747WW26R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13	File ID:	060523L-018
Sampled:	05/27/23 16:35	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:25
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

52847WW11R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-14	File ID:	060523L-019
Sampled:	05/28/23 10:20	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:27
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

528LHSMW57

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-15	File ID:	060523L-020
Sampled:	05/28/23 11:30	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:29
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

528487WW43

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-16	File ID:	060523L-021
Sampled:	05/28/23 14:00	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:30
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

528487WW23

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-17	File ID:	060523L-022
Sampled:	05/28/23 15:30	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:32
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

52847WW19

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-18	File ID:	060523L-025
Sampled:	05/28/23 15:20	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:38
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00223	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

52947WW57

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-19	File ID:	060523L-028
Sampled:	05/29/23 11:50	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:43
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
				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

528LHSMW55R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-20	File ID:	060523L-029
Sampled:	05/28/23 10:12	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:45
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

528LHSMW56R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21	File ID:	060623L-029
Sampled:	05/28/23 12:07	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:04
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	25 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00040	0.00080	0.00100	U

1 - FORM I
ANALYSIS DATA SHEET

529LHSMW46R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22	File ID:	060623L-032
Sampled:	05/29/23 09:30	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:10
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	25 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury		0.00040	0.00080	0.00100	U

1 - FORM I
ANALYSIS DATA SHEET

529LHSMW44

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-23	File ID:	060523L-030
Sampled:	05/29/23 14:00	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:47
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00049	0.00020	0.00040	0.00050	J

1 - FORM I
ANALYSIS DATA SHEET

529LHSMW41

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-24	File ID:	060523L-031
Sampled:	05/29/23 15:25	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:49
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

52947WW56

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-25	File ID:	060523L-032
Sampled:	05/29/23 16:26	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:51
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

52947WW52

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-26	File ID:	060523L-033
Sampled:	05/29/23 09:30	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:53
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

52947WW55

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-27	File ID:	060523L-034
Sampled:	05/29/23 11:10	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:55
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

52947WW54

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-28	File ID:	060523L-037
Sampled:	05/29/23 14:31	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 09:00
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

529DUP1

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-29	File ID:	060523L-038
Sampled:	05/29/23 12:30	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 09:02
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

529DUP2

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-30	File ID:	060523L-039
Sampled:	05/29/23 16:26	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 09:04
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

527EB1

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-32	File ID:	060523L-040
Sampled:	05/27/23 18:00	Prepared:	06/02/23 14:00	Analyzed:	06/05/23 09:06
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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

527EB2

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-33	File ID:	060623L-035
Sampled:	05/27/23 18:00	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:15
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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

528EB3

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-34	File ID:	060623L-036
Sampled:	05/28/23 16:20	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:17
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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

528EB4

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-35	File ID:	060623L-037
Sampled:	05/28/23 16:20	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:19
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
				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

529EB5

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-36	File ID:	060623L-038
Sampled:	05/29/23 16:30	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:21
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
				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

529EB6

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-37	File ID:	060623L-041
Sampled:	05/29/23 16:30	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:26
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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

53047WW58

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-38	File ID:	060623L-042
Sampled:	05/30/23 15:57	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:28
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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

530LHSMW43R

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-39	File ID:	060623L-045
Sampled:	05/30/23 13:40	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:34
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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

53047WW09

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-40	File ID:	060623L-046
Sampled:	05/30/23 12:00	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:36
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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

53047WW14

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-41	File ID:	060623L-047
Sampled:	05/30/23 10:00	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:38
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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

53047WW39

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-42	File ID:	060623L-048
Sampled:	05/30/23 09:55	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:39
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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

53047WW06

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-43	File ID:	060623L-049
Sampled:	05/30/23 13:30	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:41
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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

530DUP3

Laboratory:	Environmental Monitoring and Technologies, Inc			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-45	File ID:	060623L-050
Sampled:	05/30/23 16:00	Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:43
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0035-BLK1	File ID:	060223L-013
		Prepared:	06/01/23 13:05	Analyzed:	06/02/23 10:30
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
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:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0035-BS1	File ID:	060223L-014
		Prepared:	06/01/23 13:05	Analyzed:	06/02/23 10:32
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00523	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0035-MS1	File ID:	060223L-018
		Prepared:	06/01/23 13:05	Analyzed:	06/02/23 10:39
	99.58	Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00216	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0035-MS2	File ID:	060223L-036
		Prepared:	06/01/23 13:05	Analyzed:	06/02/23 12:21
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00176	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0035-MSD1	File ID:	060223L-019
		Prepared:	06/01/23 13:05	Analyzed:	06/02/23 10:41
	99.58	Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00206	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0035-MSD2	File ID:	060223L-039
		Prepared:	06/01/23 13:05	Analyzed:	06/02/23 12:31
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0035	Sequence:	S3F0037	Calibration:	EF30011
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00234	0.00020	0.00040	0.00050	P

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0111-BLK1	File ID:	060523L-013
		Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:10
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
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:	23E0775	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0111-BS1		File ID:	060523L-014	
		Prepared:	06/02/23 14:00		Analyzed:	06/05/23 08:12	
		Preparation:	245-7470_HG_PREP		Dilution:	1	
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00543	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0111-MS1	File ID:	060523L-026
		Prepared:	06/02/23 14:00	Analyzed:	06/05/23 08:40
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00453	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, I				SDG:	23E0775	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0111-MSD1		File ID:	060523L-027	
		Prepared:	06/02/23 14:00		Analyzed:	06/05/23 08:42	
		Preparation:	245-7470_HG_PREP		Dilution:	1	
Batch:	B3F0111	Sequence:	S3F0063	Calibration:	EF30016	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00406	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0121-BLK1	File ID:	060623L-015
		Prepared:	06/05/23 10:43	Analyzed:	06/06/23 12:29
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
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:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0121-BS1	File ID:	060623L-016
		Prepared:	06/05/23 10:43	Analyzed:	06/06/23 12:35
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00487	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, I				SDG:	23E0775	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0121-MS1		File ID:	060623L-030	
		Prepared:	06/05/23 10:43		Analyzed:	06/06/23 13:06	
		Preparation:	245-7470_HG_PREP		Dilution:	1	
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00440	0.00040	0.00080	0.00100	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0121-MS2	File ID:	060623L-033
		Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:12
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00400	0.00040	0.00080	0.00100	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, I				SDG:	23E0775	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0121-MS3		File ID:	060623L-043	
		Prepared:	06/05/23 10:43		Analyzed:	06/06/23 13:30	
		Preparation:	245-7470_HG_PREP		Dilution:	1	
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00216	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Environmental Monitoring and Technologies, I				SDG:	23E0775	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0121-MS4		File ID:	060623L-019	
		Prepared:	06/05/23 10:43		Analyzed:	06/06/23 12:45	
		Preparation:	245-7470_HG_PREP		Dilution:	1	
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00233	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, I				SDG:	23E0775	
Client:	HDR				Project:	Longhorn AAP	
Matrix:	Water	Laboratory ID:	B3F0121-MSD1		File ID:	060623L-031	
		Prepared:	06/05/23 10:43		Analyzed:	06/06/23 13:08	
		Preparation:	245-7470_HG_PREP		Dilution:	1	
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00460	0.00040	0.00080	0.00100	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0121-MSD2	File ID:	060623L-034
		Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:13
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00399	0.00040	0.00080	0.00100	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0121-MSD3	File ID:	060623L-044
		Prepared:	06/05/23 10:43	Analyzed:	06/06/23 13:32
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00214	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Environmental Monitoring and Technologies, I			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0121-MSD4	File ID:	060623L-020
		Prepared:	06/05/23 10:43	Analyzed:	06/06/23 12:46
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0121	Sequence:	S3F0089	Calibration:	EF30021
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury	0.00222	0.00020	0.00040	0.00050	

INITIAL AND CONTINUING CALIBRATION CHECK

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30011
		Sequence:	S3F0037

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0037-ICV1	Mercury	5.000	5.07	101	ug/L	+/- 10.00%
S3F0037-CCV1	Mercury	5.000	5.02	100	ug/L	+/- 10.00%
S3F0037-CCV2	Mercury	5.000	4.99	99.8	ug/L	+/- 10.00%
S3F0037-CCV3	Mercury	5.000	4.77	95.3	ug/L	+/- 10.00%
S3F0037-CCV4	Mercury	5.000	4.84	96.9	ug/L	+/- 10.00%
S3F0037-CCV5	Mercury	5.000	4.71	94.2	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30016
		Sequence:	S3F0063

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0063-ICV1	Mercury	5.000	5.35	107	ug/L	+/- 10.00%
S3F0063-CCV1	Mercury	5.000	5.09	102	ug/L	+/- 10.00%
S3F0063-CCV2	Mercury	5.000	5.01	100	ug/L	+/- 10.00%
S3F0063-CCV3	Mercury	5.000	4.98	99.7	ug/L	+/- 10.00%
S3F0063-CCV4	Mercury	5.000	4.82	96.4	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30021
		Sequence:	S3F0089

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0089-ICV1	Mercury	5.000	5.45	109	ug/L	+/- 10.00%
S3F0089-CCV1	Mercury	5.000	5.02	100	ug/L	+/- 10.00%
S3F0089-ICV2	Mercury	5.000	5.18	104	ug/L	+/- 10.00%
S3F0089-CCV2	**Mercury**	**5.000**	**4.48**	**89.5**	**ug/L**	+/- 10.00%
S3F0089-CCV3	Mercury	5.000	4.84	96.7	ug/L	+/- 10.00%
S3F0089-CCV4	Mercury	5.000	4.57	91.3	ug/L	+/- 10.00%
S3F0089-CCV5	Mercury	5.000	4.69	93.7	ug/L	+/- 10.00%
S3F0089-CCV6	Mercury	5.000	4.59	91.9	ug/L	+/- 10.00%
S3F0089-CCV7	**Mercury**	**5.000**	**4.38**	**87.5**	**ug/L**	+/- 10.00%
S3F0089-CCV8	Mercury	5.000	4.59	91.8	ug/L	+/- 10.00%
S3F0089-CCV9	Mercury	5.000	4.52	90.4	ug/L	+/- 10.00%

LOQ Check

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B3F0035-MRL1	Mercury	0.0005000	0.00056	111	mg/L	70 - 130

LOQ Check

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B3F0111-MRL1	Mercury	0.0005000	0.00043	86.5	mg/L	70 - 130

LOQ Check

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B3F0121-MRL1	Mercury	0.0005000	0.00048	95.9	mg/L	70 - 130

FORM 3 - Blank Summary

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30011
Sequence:	S3F0037		

Lab Sample ID	Analyte	Found	Units	LOQ	Qual
S3F0037-ICB1	Mercury		ug/L	0.500	U
S3F0037-CCB1	Mercury		ug/L	0.500	U
B3F0035-BLK1	Mercury		mg/L	0.00050	U
S3F0037-CCB2	Mercury		ug/L	0.500	U
S3F0037-CCB3	Mercury		ug/L	0.500	U
S3F0037-CCB4	Mercury		ug/L	0.500	U
S3F0037-CCB5	Mercury		ug/L	0.500	U

FORM 3 - Blank Summary

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30016
Sequence:	S3F0063		

Lab Sample ID	Analyte	Found	Units	LOQ	Qual
S3F0063-ICB1	Mercury		ug/L	0.500	U
S3F0063-CCB1	Mercury		ug/L	0.500	U
B3F0111-BLK1	Mercury		mg/L	0.00050	U
S3F0063-CCB2	Mercury		ug/L	0.500	U
S3F0063-CCB3	Mercury		ug/L	0.500	U
S3F0063-CCB4	Mercury		ug/L	0.500	U

FORM 3 - Blank Summary

SW7470A

Laboratory:	Environmental Monitoring and Technologies, Inc	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30021
Sequence:	S3F0089		

Lab Sample ID	Analyte	Found	Units	LOQ	Qual
S3F0089-ICB1	Mercury		ug/L	0.500	U
S3F0089-CCB1	Mercury		ug/L	0.500	U
B3F0121-BLK1	Mercury		mg/L	0.00050	U
S3F0089-CCB2	Mercury		ug/L	0.500	U
S3F0089-CCB3	Mercury		ug/L	0.500	U
S3F0089-CCB4	Mercury		ug/L	0.500	U
S3F0089-CCB5	Mercury		ug/L	0.500	U

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0035	Prep Method:	245-7470_HG_PREP
Percent Solids:	99.58	Laboratory ID:	B3F0035-MS1
		Source Sample ID:	23E0718-01

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury	0.002000	ND	0.00216	108	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury	0.002000	0.00206	103	4.88	20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

52547WW48

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0035	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0035-MS2
		Source Sample ID:	23E0775-01

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury	0.002000	ND	0.00176	88.1	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD		QC LIMITS RPD	QC LIMITS REC.
Mercury	0.002000	0.00234	117	28.1	*	20	75 - 125

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

52847WW19

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0111	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0111-MS1
		Source Sample ID:	23E0775-18

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury	0.002000	0.00223	0.00453	115	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury	0.002000	0.00406	91.7	10.8	20	75 - 125

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

528LHSMW56R

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0121	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0121-MS1
		Source Sample ID:	23E0775-21

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury	0.004000	ND	0.00440	110	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury	0.004000	0.00460	115	4.47	20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

529LHSMW46R

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0121	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0121-MS2
		Source Sample ID:	23E0775-22

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury	0.004000	ND	0.00400	99.9	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury	0.004000	0.00399	99.7	0.210	20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

53047WW58

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0121	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0121-MS3
		Source Sample ID:	23E0775-38

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury	0.002000	ND	0.00216	108	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury	0.002000	0.00214	107	0.876	20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0121	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0121-MS4
		Source Sample ID:	23F0153-02

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury	0.002000	ND	0.00233	116	75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	QC LIMITS RPD	QC LIMITS REC.
Mercury	0.002000	0.00222	111	4.54	20	75 - 125

* Values outside of QC limits

POST DIGEST SPIKE SAMPLE RECOVERY

Laboratory:		SDG:	
Client:		Project:	
Matrix:		Laboratory ID:	
Batch:		Lab Source ID:	
Preparation:		Initial/Final:	
Source Sample Name:		% Solids:	

Analyte	Control Limit %R	Spike Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW7470A

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Prep Method:	245-7470_HG_PREP
Prep Batch:	B3F0035	Lab Sample ID:	B3F0035-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Mercury	0.005000	0.00523	105	87.6 - 112

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW7470A

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Prep Method:	245-7470_HG_PREP
Prep Batch:	B3F0111	Lab Sample ID:	B3F0111-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Mercury	0.005000	0.00543	109	87.6 - 112

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW7470A

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Prep Method:	245-7470_HG_PREP
Prep Batch:	B3F0121	Lab Sample ID:	B3F0121-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Mercury	0.005000	0.00487	97.4	87.6 - 112

* Values outside of QC limits

PREPARATION BENCH SHEET
HG

B3F0035

Print Date/Time: 06/02/2023

Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23E0683-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-02	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-03	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-04	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-05	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0684-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-02	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-03	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						

PREPARATION BENCH SHEET
HG

Print Date/Time: 06/02/2023

B3F0035

(Continued)

Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23E0718-01	06/01/23 13:05	50	50				Added for BatchQC in: B3F0035	BatchQC
Position: **Hot Block:** **Temperature:** **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0725-01	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0733-03	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0775-01	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-03	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-04	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-05	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-06	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-07	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								

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B3F0035

(Continued)

Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23E0775-08	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS
Analytes: Mercury							
23E0775-09	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS
Analytes: Mercury							
B3F0035-BLK1	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-BS1	06/01/23 13:05	50	50	3050521		250	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-LBK1	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-LBK2	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MRL1	06/01/23 13:05	50	50	3050520		200	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MS1	06/01/23 13:05	50	50	3050521	23E0718-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MS2	06/01/23 13:05	50	50	3050521	23E0775-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS
B3F0035-MSD1	06/01/23 13:05	50	50	3050521	23E0718-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MSD2	06/01/23 13:05	50	50	3050521	23E0775-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS

PREPARATION BENCH SHEET

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B3F0035

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 245-7470_HG_PREP**

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

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
3050508	10% KMNO4	1003366985
3050532	NH2OH.HCL	2LF0424
3050724	10% HCL	23A1362009
3050890	SNCL2	22240209

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Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23E0683-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-02	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-03	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-04	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-05	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0684-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-02	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-03	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						

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(Continued)

Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23E0718-01	06/01/23 13:05	50	50				Added for BatchQC in: B3F0035	BatchQC
Position: **Hot Block:** **Temperature:** **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0725-01	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0733-03	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0775-01	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-03	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-04	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-05	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-06	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-07	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								

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(Continued)

Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23E0775-08	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS
Analytes: Mercury							
23E0775-09	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS
Analytes: Mercury							
B3F0035-BLK1	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-BS1	06/01/23 13:05	50	50	3050521		250	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-LBK1	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-LBK2	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MRL1	06/01/23 13:05	50	50	3050520		200	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MS1	06/01/23 13:05	50	50	3050521	23E0718-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MS2	06/01/23 13:05	50	50	3050521	23E0775-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS
B3F0035-MSD1	06/01/23 13:05	50	50	3050521	23E0718-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MSD2	06/01/23 13:05	50	50	3050521	23E0775-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS

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Matrix: Water **Method:** **Prepared using: ME - 245-7470_HG_PREP**

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

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
3050508	10% KMNO4	1003366985
3050532	NH2OH.HCL	2LF0424
3050724	10% HCL	23A1362009
3050890	SNCL2	22240209

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Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23E0683-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-02	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-03	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-04	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-05	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0684-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-02	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-03	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						

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HG

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Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23E0718-01	06/01/23 13:05	50	50				Added for BatchQC in: B3F0035	BatchQC
Position: **Hot Block:** **Temperature:** **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0725-01	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0733-03	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0775-01	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-03	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-04	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-05	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-06	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-07	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								

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Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23E0775-08	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS
Analytes: Mercury							
23E0775-09	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS
Analytes: Mercury							
B3F0035-BLK1	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-BS1	06/01/23 13:05	50	50	3050521		250	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-LBK1	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-LBK2	06/01/23 13:05	50	50				
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MRL1	06/01/23 13:05	50	50	3050520		200	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MS1	06/01/23 13:05	50	50	3050521	23E0718-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MS2	06/01/23 13:05	50	50	3050521	23E0775-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS
B3F0035-MSD1	06/01/23 13:05	50	50	3050521	23E0718-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :							**Prepared By**: ES1
B3F0035-MSD2	06/01/23 13:05	50	50	3050521	23E0775-01	100	
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :							**Prepared By**: SAS

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Matrix: Water **Method:** **Prepared using: ME - 245-7470_HG_PREP**

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

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
3050508	10% KMNO4	1003366985
3050532	NH2OH.HCL	2LF0424
3050724	10% HCL	23A1362009
3050890	SNCL2	22240209

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Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments
23E0683-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-02	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-03	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-04	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0683-05	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0684-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-01	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-02	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						
23E0697-03	06/01/23 13:05	50	50				
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 96	**pH:** :				**Prepared By**: ES1
	Analytes: Mercury						

PREPARATION BENCH SHEET
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Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23E0718-01	06/01/23 13:05	50	50				Added for BatchQC in: B3F0035	BatchQC
Position: **Hot Block:** **Temperature:** **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0725-01	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0733-03	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
Analytes: Mercury								
23E0775-01	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-03	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-04	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-05	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-06	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-07	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								

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Matrix: Water **Method: SW7470A** **Prepared using: ME - 245-7470_HG_PREP**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
23E0775-08	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
23E0775-09	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
Analytes: Mercury								
B3F0035-BLK1	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
B3F0035-BS1	06/01/23 13:05	50	50	3050521		250		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
B3F0035-LBK1	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
B3F0035-LBK2	06/01/23 13:05	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
B3F0035-MRL1	06/01/23 13:05	50	50	3050520		200		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
B3F0035-MS1	06/01/23 13:05	50	50	3050521	23E0718-01	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
B3F0035-MS2	06/01/23 13:05	50	50	3050521	23E0775-01	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS
B3F0035-MSD1	06/01/23 13:05	50	50	3050521	23E0718-01	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** :								**Prepared By**: ES1
B3F0035-MSD2	06/01/23 13:05	50	50	3050521	23E0775-01	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 96 **pH:** <2 :								**Prepared By**: SAS

PREPARATION BENCH SHEET

Print Date/Time: 06/02/2023

B3F0035

(Continued)

Matrix: Water **Method:** **Prepared using: ME - 245-7470_HG_PREP**

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

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
3050508	10% KMNO4	1003366985
3050532	NH2OH.HCL	2LF0424
3050724	10% HCL	23A1362009
3050890	SNCL2	22240209

PREPARATION BENCH SHEET
ME

B3F0111

Print Date/Time: 06/05/2023

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
B3F0111-BLK1	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
B3F0111-BS1	06/02/23 14:00	50	50	3050521		250		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
B3F0111-MRL1	06/02/23 14:00	50	50	3050520		200		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
B3F0111-MS1	06/02/23 14:00	50	50	3050521	23E0775-18	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
B3F0111-MSD1	06/02/23 14:00	50	50	3050521	23E0775-18	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
23E0775-10 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-11 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-12 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-13 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-14 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-15 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-16 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/05/2023

B3F0111
(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-17 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-18 I	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-19 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-20 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-23 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-23RE1 D	06/02/23 14:00	50	50					Added 6/5/2023 by ES1
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-24 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-25 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-26 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-27 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-28 D	06/02/23 14:00	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 94 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/05/2023

B3F0111
(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
7470_MERCURY

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-29 D	06/02/23 14:00	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-30 D	06/02/23 14:00	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 94	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-32 D	06/02/23 14:00	50	50					
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 2202231	2211204
3050375	Sulfuric acid H2SO4	62252
3050454	5% K2S2O8	1003376829
3050508	10% KMNO4	1003366985
3050724	10% HCL	23A1362009
3050890	SNCL2	22240209
3050895	NH2OH.HCL	2LF0424

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/06/2023

B3F0121

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
245.1_MERCURY
7470_MERCURY

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
B3F0121-BLK1	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-BS1	06/05/23 10:43	50	50	3050521		250		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-MRL1	06/05/23 10:43	50	50	3050520		200		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-MS1	06/05/23 10:43	25	50	3050521	23E0775-21	100		Dilution required due to low sample volume
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-MS2	06/05/23 10:43	25	50	3050521	23E0775-22	100		Dilution required due to low sample volume
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-MS3	06/05/23 10:43	50	50	3050521	23E0775-38	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-MS4	06/05/23 10:43	50	50	3050521	23F0153-02	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-MSD1	06/05/23 10:43	25	50	3050521	23E0775-21	100		Dilution required due to low sample volume
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-MSD2	06/05/23 10:43	25	50	3050521	23E0775-22	100		Dilution required due to low sample volume
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-MSD3	06/05/23 10:43	50	50	3050521	23E0775-38	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
B3F0121-MSD4	06/05/23 10:43	50	50	3050521	23F0153-02	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
23E0623-01 E	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0623-02 E	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/06/2023

B3F0121
(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
245.1_MERCURY
7470_MERCURY

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0623-03 E	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0623-04 E	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0623-04RE1 E	06/05/23 10:43	50	50					Added 6/6/2023 by ES1
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0623-04RE2 E	06/05/23 10:43	50	50					Added 6/6/2023 By TW1-C
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-21 I	06/05/23 10:43	25	50					Added for BatchQC in: B3F0121 BatchQC
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-22 I	06/05/23 10:43	25	50					Added for BatchQC in: B3F0121 BatchQC
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-33 D	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-34 D	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-35 D	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-36 D	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0775-37 D	06/05/23 10:43	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 92 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/06/2023

B3F0121
(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
245.1_MERCURY
7470_MERCURY

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-38 I	06/05/23 10:43	50	50					Added for BatchQC in: B3F0121 BatchQC
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 92	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-39 D	06/05/23 10:43	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 92	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-40 D	06/05/23 10:43	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 92	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-41 D	06/05/23 10:43	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 92	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-42 D	06/05/23 10:43	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 92	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-43 D	06/05/23 10:43	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 92	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-45 D	06/05/23 10:43	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 92	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0145-02 A	06/05/23 10:43	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 92	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0153-02 A	06/05/23 10:43	50	50					Added for BatchQC in: B3F0121 BatchQC
Position:	**Hot Block:**	**Temperature:**	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/06/2023

B3F0121

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
245.1_MERCURY
7470_MERCURY

Surrogate Solution(s)

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

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

2288/4867

ANALYSIS SEQUENCE SUMMARY

Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0037 Instrument: Hg Hydra II # 2
Calibration: EF30011

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Blank	S3F0037-ICB1	060223L-007	06/02/23 10:14
Initial Cal Check (STD # 3050553)	S3F0037-ICV1	060223L-008	06/02/23 10:17
Calibration Check (STD # 3050384)	S3F0037-CCV1	060223L-009	06/02/23 10:19
Calibration Blank	S3F0037-CCB1	060223L-010	06/02/23 10:21
MRL Check	B3F0035-MRL1	060223L-011	06/02/23 10:23
Instrument RL Check (STD # 3050555)	S3F0037-CRL1	060223L-012	06/02/23 10:28
Blank	B3F0035-BLK1	060223L-013	06/02/23 10:30
LCS	B3F0035-BS1	060223L-014	06/02/23 10:32
Leach Fluid Blank	B3F0035-LBK1	060223L-015	06/02/23 10:34
Leach Fluid Blank	B3F0035-LBK2	060223L-016	06/02/23 10:36
Matrix Spike	B3F0035-MS1	060223L-018	06/02/23 10:39
Matrix Spike Dup	B3F0035-MSD1	060223L-019	06/02/23 10:41
Calibration Check (STD # 3050384)	S3F0037-CCV2	060223L-023	06/02/23 10:49
Calibration Blank	S3F0037-CCB2	060223L-024	06/02/23 10:50
Calibration Check (STD # 3050384)	S3F0037-CCV3	060223L-033	06/02/23 11:07
Calibration Blank	S3F0037-CCB3	060223L-034	06/02/23 11:09
52547WW48	23E0775-01	060223L-035	06/02/23 12:15
52547WW48	B3F0035-MS2	060223L-036	06/02/23 12:21
Calibration Check (STD # 3050384)	S3F0037-CCV4	060223L-037	06/02/23 12:23
Calibration Blank	S3F0037-CCB4	060223L-038	06/02/23 12:29
52547WW48	B3F0035-MSD2	060223L-039	06/02/23 12:31
52647WW50	23E0775-03	060223L-040	06/02/23 12:33
52647WW37	23E0775-04	060223L-041	06/02/23 12:35
52647WW51	23E0775-05	060223L-042	06/02/23 12:36
52747WW53	23E0775-06	060223L-043	06/02/23 12:38
52747WW59	23E0775-07	060223L-044	06/02/23 12:40
52747WW40	23E0775-08	060223L-045	06/02/23 12:42
52747WW41	23E0775-09	060223L-046	06/02/23 12:44
Calibration Check (STD # 3050384)	S3F0037-CCV5	060223L-047	06/02/23 12:46
Calibration Blank	S3F0037-CCB5	060223L-048	06/02/23 12:48

ANALYSIS SEQUENCE SUMMARY

Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0063 Instrument: Hg Hydra II # 2
Calibration: EF30016

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check (STD # 3050553)	S3F0063-ICV1	060523L-007	06/05/23 07:56
Initial Cal Blank	S3F0063-ICB1	060523L-008	06/05/23 07:58
Calibration Check (STD # 3060344)	S3F0063-CCV1	060523L-009	06/05/23 08:00
Calibration Blank	S3F0063-CCB1	060523L-010	06/05/23 08:02
MRL Check	B3F0111-MRL1	060523L-011	06/05/23 08:04
Instrument RL Check (STD # 3050555)	S3F0063-CRL1	060523L-012	06/05/23 08:06
Blank	B3F0111-BLK1	060523L-013	06/05/23 08:10
LCS	B3F0111-BS1	060523L-014	06/05/23 08:12
527LHSMW60	23E0775-10	060523L-015	06/05/23 08:19
527LHSMW54	23E0775-11	060523L-016	06/05/23 08:21
52747WW42	23E0775-12	060523L-017	06/05/23 08:23
52747WW26R	23E0775-13	060523L-018	06/05/23 08:25
52847WW11R	23E0775-14	060523L-019	06/05/23 08:27
528LHSMW57	23E0775-15	060523L-020	06/05/23 08:29
528487WW43	23E0775-16	060523L-021	06/05/23 08:30
528487WW23	23E0775-17	060523L-022	06/05/23 08:32
Calibration Check (STD # 3060344)	S3F0063-CCV2	060523L-023	06/05/23 08:34
Calibration Blank	S3F0063-CCB2	060523L-024	06/05/23 08:36
52847WW19	23E0775-18	060523L-025	06/05/23 08:38
52847WW19	B3F0111-MS1	060523L-026	06/05/23 08:40
52847WW19	B3F0111-MSD1	060523L-027	06/05/23 08:42
52947WW57	23E0775-19	060523L-028	06/05/23 08:43
528LHSMW55R	23E0775-20	060523L-029	06/05/23 08:45
529LHSMW44	23E0775-23	060523L-030	06/05/23 08:47
529LHSMW41	23E0775-24	060523L-031	06/05/23 08:49
52947WW56	23E0775-25	060523L-032	06/05/23 08:51
52947WW52	23E0775-26	060523L-033	06/05/23 08:53
52947WW55	23E0775-27	060523L-034	06/05/23 08:55
Calibration Check (STD # 3060344)	S3F0063-CCV3	060523L-035	06/05/23 08:56
Calibration Blank	S3F0063-CCB3	060523L-036	06/05/23 08:58
52947WW54	23E0775-28	060523L-037	06/05/23 09:00
529DUP1	23E0775-29	060523L-038	06/05/23 09:02
529DUP2	23E0775-30	060523L-039	06/05/23 09:04

ANALYSIS SEQUENCE SUMMARY

Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0063 Instrument: Hg Hydra II # 2
Calibration: EF30016

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
527EB1	23E0775-32	060523L-040	06/05/23 09:06
Calibration Check (STD # 3060344)	S3F0063-CCV4	060523L-042	06/05/23 09:09
Calibration Blank	S3F0063-CCB4	060523L-043	06/05/23 09:11

ANALYSIS SEQUENCE SUMMARY

Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0089 Instrument: Hg Hydra II # 2
Calibration: EF30021

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check (STD # 3050553)	S3F0089-ICV1	060623L-007	06/06/23 12:04
Initial Cal Blank	S3F0089-ICB1	060623L-008	06/06/23 12:09
Calibration Check (STD # 3060344)	S3F0089-CCV1	060623L-009	06/06/23 12:11
Initial Cal Check (STD # 3050553)	S3F0089-ICV2	060623L-010	06/06/23 12:16
Calibration Blank	S3F0089-CCB1	060623L-012	06/06/23 12:24
MRL Check	B3F0121-MRL1	060623L-013	06/06/23 12:26
Instrument RL Check (STD # 3050555)	S3F0089-CRL1	060623L-014	06/06/23 12:27
Blank	B3F0121-BLK1	060623L-015	06/06/23 12:29
LCS	B3F0121-BS1	060623L-016	06/06/23 12:35
Matrix Spike	B3F0121-MS4	060623L-019	06/06/23 12:45
Matrix Spike Dup	B3F0121-MSD4	060623L-020	06/06/23 12:46
Calibration Check (STD # 3060344)	S3F0089-CCV2	060623L-025	06/06/23 12:56
Calibration Check (STD # 3060344)	S3F0089-CCV3	060623L-026	06/06/23 12:58
Calibration Check (STD # 3060344)	S3F0089-CCV4	060623L-027	06/06/23 13:00
Calibration Blank	S3F0089-CCB2	060623L-028	06/06/23 13:02
528LHSMW56R	23E0775-21	060623L-029	06/06/23 13:04
528LHSMW56R	B3F0121-MS1	060623L-030	06/06/23 13:06
528LHSMW56R	B3F0121-MSD1	060623L-031	06/06/23 13:08
529LHSMW46R	23E0775-22	060623L-032	06/06/23 13:10
529LHSMW46R	B3F0121-MS2	060623L-033	06/06/23 13:12
529LHSMW46R	B3F0121-MSD2	060623L-034	06/06/23 13:13
527EB2	23E0775-33	060623L-035	06/06/23 13:15
528EB3	23E0775-34	060623L-036	06/06/23 13:17
528EB4	23E0775-35	060623L-037	06/06/23 13:19
529EB5	23E0775-36	060623L-038	06/06/23 13:21
Calibration Check (STD # 3060344)	S3F0089-CCV5	060623L-039	06/06/23 13:23
Calibration Blank	S3F0089-CCB3	060623L-040	06/06/23 13:25
529EB6	23E0775-37	060623L-041	06/06/23 13:26
53047WW58	23E0775-38	060623L-042	06/06/23 13:28
53047WW58	B3F0121-MS3	060623L-043	06/06/23 13:30
53047WW58	B3F0121-MSD3	060623L-044	06/06/23 13:32
530LHSMW43R	23E0775-39	060623L-045	06/06/23 13:34
53047WW09	23E0775-40	060623L-046	06/06/23 13:36

ANALYSIS SEQUENCE SUMMARY

Mercury by CVAA

Client: HDR
Project: Longhorn AAP

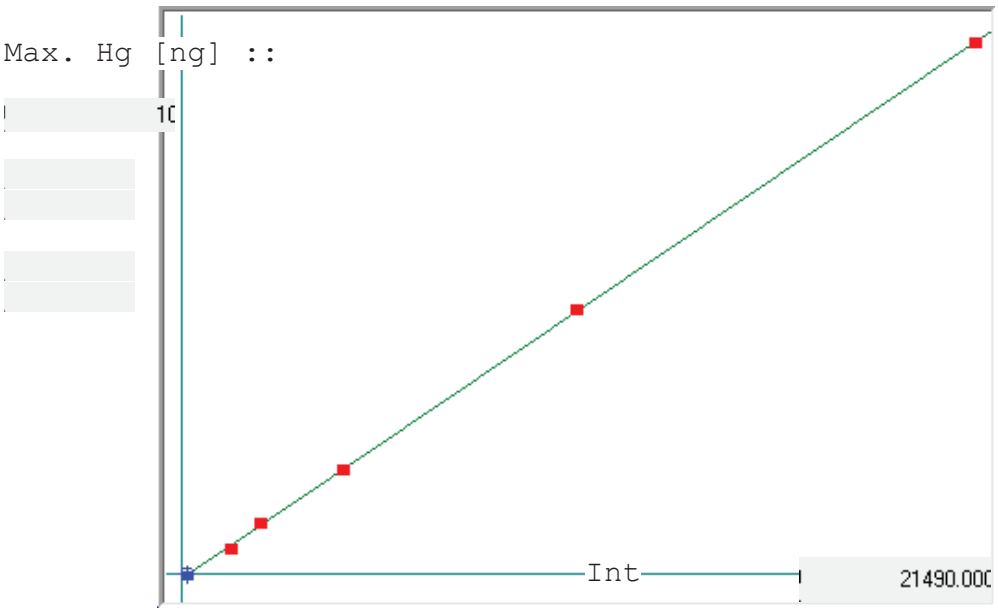
Sequence: S3F0089 Instrument: Hg Hydra II # 2
Calibration: EF30021

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
53047WW14	23E0775-41	060623L-047	06/06/23 13:38
53047WW39	23E0775-42	060623L-048	06/06/23 13:39
53047WW06	23E0775-43	060623L-049	06/06/23 13:41
530DUP3	23E0775-45	060623L-050	06/06/23 13:43
Calibration Check (STD # 3060344)	S3F0089-CCV6	060623L-051	06/06/23 13:45
Calibration Blank	S3F0089-CCB4	060623L-052	06/06/23 13:47
Calibration Check (STD # 3060344)	S3F0089-CCV7	060623L-054	06/06/23 13:50
Calibration Check (STD # 3060344)	S3F0089-CCV8	060623L-055	06/06/23 13:56
Calibration Check (STD # 3060344)	S3F0089-CCV9	060623L-056	06/06/23 13:58
Calibration Blank	S3F0089-CCB5	060623L-057	06/06/23 14:00

EF30011

True value for cal standard	Measured concentration of the cal std,	% Relative Error	Recovery Acceptance range		Recovery Evaluation
ppm	ppm	%	Low%	High%	
0.5	0.569	13.80	-30	30	TRUE
1	0.953	-4.70	-30	30	TRUE
2	1.989	-0.55	-30	30	TRUE
	4.966	-0.68	-10	10	TRUE
10	10.019	0.19	-10	10	TRUE

HG WATER



Linear

A= 0.0000e+000

B= 4.6946e-004

C= -6.9224e-002

Rho= 0.9999411

Accept= Accepted

Accepted Date=

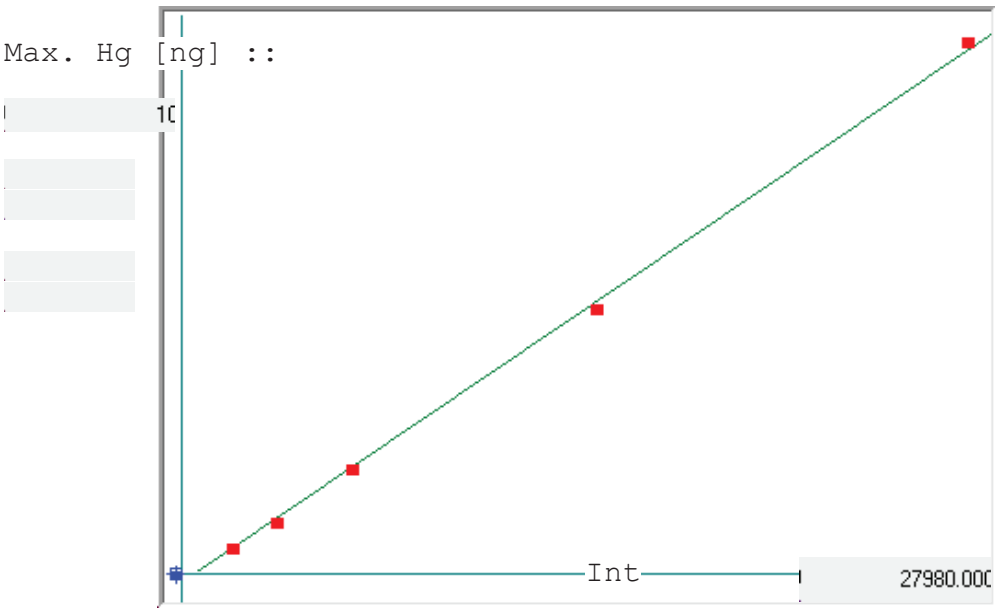
06/02/23 10:12

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	153	0.000	153				
0.5	0.500	0.569	0.069	1360	0.0 %	1360				
1	1.000	0.953	-0.047	2178	0.0 %	2178				
2	2.000	1.989	-0.011	4385	0.0 %	4385				
5	5.000	4.966	-0.034	10726	0.0 %	10726				
10	10.000	10.019	0.019	21490	0.0 %	21490				

EF30116

True value for cal standard	Measured concentration of the cal std,	% Relative Error	Recovery Acceptance range		Recovery Evaluation
ppm	ppm	%	Low%	High%	
0.5	0.533	6.60	-30	30	TRUE
1	1.08	8.00	-30	30	TRUE
2	2.046	2.30	-30	30	TRUE
	5.164	3.28	-10	10	TRUE
10	9.89	-1.10	-10	10	TRUE

HG WATER



Linear

A= 0.0000e+000

B= 3.5846e-004

C= -1.3973e-001

Rho= 0.9993609

Accept= Accepted

Accepted Date=

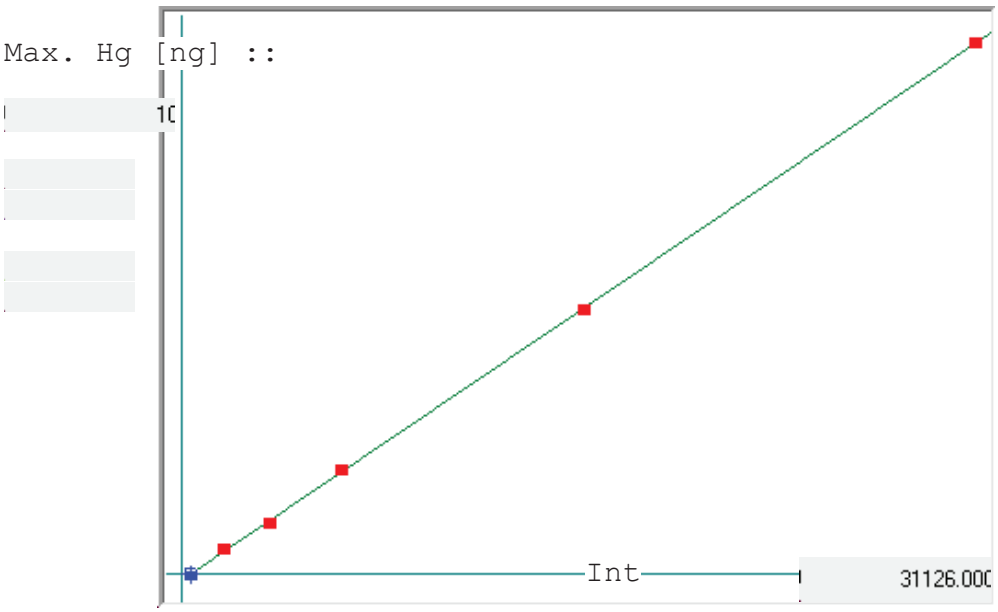
06/05/23 07:56

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Blank	0.000	-0.212	-0.212	-202	0.000	-202				
0.5	0.500	0.533	0.033	1876	0.0 %	1876				
1	1.000	1.080	0.080	3402	0.0 %	3402				
2	2.000	2.046	0.046	6097	0.0 %	6097				
5	5.000	5.164	0.164	14796	0.0 %	14796				
10	10.000	9.890	-0.110	27980	0.0 %	27980				

EF30021

True value for cal standard	Measured concentration of the cal std,	% Relative Error	Recovery Acceptance range		Recovery Evaluation
ppm	ppm	%	Low%	High%	
0.5	0.46	-8.00	-30	30	TRUE
1	1.031	3.10	-30	30	TRUE
2	1.95	-2.50	-30	30	TRUE
	5.031	0.62	-10	10	TRUE
10	9.992	-0.08	-10	10	TRUE

HG WATER



Linear

A= 0.0000e+000

B= 3.2417e-004

C= -9.7708e-002

Rho= 0.9999502

Accept= Accepted

Accepted Date=

06/06/23 12:04

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Blank	0.000	0.035	0.035	410	0.000	410				
0.5	0.500	0.460	-0.040	1720	0.0 %	1720				
1	1.000	1.031	0.031	3481	0.0 %	3481				
2	2.000	1.950	-0.050	6318	0.0 %	6318				
5	5.000	5.031	0.031	15822	0.0 %	15822				
10	10.000	9.992	-0.008	31126	0.0 %	31126				

Report Title

Method: HG WATER Operator: IGORELIK Date of Analysis: 01 Jun 2023 15:42:16

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Date	Curve Type	Method
S	Blank - 1		-	153	ppb	02 Jun 2023 10:01:25	-	HG WATER
S	0.5 - 1		-	1360	ppb	02 Jun 2023 10:03:17	-	HG WATER
S	1 - 1		-	2178	ppb	02 Jun 2023 10:05:10	-	HG WATER
S	2 - 1		-	4385	ppb	02 Jun 2023 10:07:02	-	HG WATER
S	5 - 1		-	10726	ppb	02 Jun 2023 10:08:53	-	HG WATER
S	10 - 1		-	21490	ppb	02 Jun 2023 10:10:44	-	HG WATER
C	SEQ-ICB - 1		0.0176	185	ppb	02 Jun 2023 10:14:25	Linear	HG WATER
C	SEQ-ICV - 1		101.4% 5.0680	10943	ppb	02 Jun 2023 10:17:16	Linear	HG WATER
C	SEQ-CCV - 1		100.4% 5.0187	10838	ppb	02 Jun 2023 10:19:31	Linear	HG WATER
C	SEQ-CCB - 1		0.0167	183	ppb	02 Jun 2023 10:21:22	Linear	HG WATER
C	SEQ-MRL - 1		111.0% 0.5552	1330	ppb	02 Jun 2023 10:23:13	Linear	HG WATER
C	SEQ-CRL - 1		103.8% 0.5190	1253	ppb	02 Jun 2023 10:28:43	Linear	HG WATER
U	B3F0035-BLK1 - 1	7470 TCLP	0.0139	177	ppb	02 Jun 2023 10:30:33	Linear	HG WATER
U	B3F0035-BS1 - 1	5.0 PPB	5.2323	11293	ppb	02 Jun 2023 10:32:23	Linear	HG WATER
U	B3F0035-LBK1 - 1	TCLP B3E0945	0.0909	341	ppb	02 Jun 2023 10:34:14	Linear	HG WATER
U	B3F0035-LBK2 - 1	TCLP B3E0922	0.0876	334	ppb	02 Jun 2023 10:36:04	Linear	HG WATER
U	23E0718-01 - 1		0.0763	310	ppb	02 Jun 2023 10:37:54	Linear	HG WATER
U	B3F0035-MS1 - 1	23E0718-01	2.1598	4748	ppb	02 Jun 2023 10:39:44	Linear	HG WATER
U	B3F0035-MSD1 - 1	23E0718-01	2.0569	4529	ppb	02 Jun 2023 10:41:35	Linear	HG WATER
U	23E0725-01 - 1		0.1233	410	ppb	02 Jun 2023 10:43:26	Linear	HG WATER
U	23E0733-03 - 1		0.0744	306	ppb	02 Jun 2023 10:45:17	Linear	HG WATER
U	23E0697-01 - 1		0.1308	426	ppb	02 Jun 2023 10:47:09	Linear	HG WATER
C	SEQ-CCV - 1		99.8% 4.9878	10772	ppb	02 Jun 2023 10:49:01	Linear	HG WATER
C	SEQ-CCB - 1		-0.0152	115	ppb	02 Jun 2023 10:50:52	Linear	HG WATER
U	23E0697-02 - 1		0.0956	351	ppb	02 Jun 2023 10:52:42	Linear	HG WATER
U	23E0697-03 - 1		0.1355	436	ppb	02 Jun 2023 10:54:35	Linear	HG WATER
U	23E0683-01 - 1		0.0463	246	ppb	02 Jun 2023 10:56:27	Linear	HG WATER
U	23E0683-02 - 1		0.0824	323	ppb	02 Jun 2023 10:58:18	Linear	HG WATER
U	23E0683-03 - 1		0.0819	322	ppb	02 Jun 2023 11:00:09	Linear	HG WATER
U	23E0683-04 - 1		0.0664	289	ppb	02 Jun 2023 11:02:00	Linear	HG WATER
U	23E0683-05 - 1		0.0632	282	ppb	02 Jun 2023 11:03:51	Linear	HG WATER
U	23E0684-01 - 1		0.0843	327	ppb	02 Jun 2023 11:05:42	Linear	HG WATER
C	SEQ-CCV - 1		95.3% 4.7652	10298	ppb	02 Jun 2023 11:07:41	Linear	HG WATER
C	SEQ-CCB - 1		-0.0185	108	ppb	02 Jun 2023 11:09:34	Linear	HG WATER
U	23E0775-01 - 1		-0.0486	44	ppb	02 Jun 2023 12:15:29	Linear	HG WATER
U	B3F0035-MS2 - 1	23E0775-01	1.7626	3902	ppb	02 Jun 2023 12:21:55	Linear	HG WATER
C	SEQ-CCV - 1		96.9% 4.8450	10468	ppb	02 Jun 2023 12:23:46	Linear	HG WATER
C	SEQ-CCB - 1		-0.0152	115	ppb	02 Jun 2023 12:29:31	Linear	HG WATER
U	B3F0035-MSD2 - 1	23E0775-01	2.3396	5131	ppb	02 Jun 2023 12:31:21	Linear	HG WATER
U	23E0775-03 - 1		-0.0720	-6	ppb	02 Jun 2023 12:33:13	Linear	HG WATER
U	23E0775-04 - 1		-0.0373	68	ppb	02 Jun 2023 12:35:05	Linear	HG WATER
U	23E0775-05 - 1		-0.0542	32	ppb	02 Jun 2023 12:36:57	Linear	HG WATER
U	23E0775-06 - 1		-0.0688	1	ppb	02 Jun 2023 12:38:50	Linear	HG WATER
U	23E0775-07 - 1		-0.0542	32	ppb	02 Jun 2023 12:40:40	Linear	HG WATER
U	23E0775-08 - 1		-0.0603	19	ppb	02 Jun 2023 12:42:31	Linear	HG WATER
U	23E0775-09 - 1		-0.0627	14	ppb	02 Jun 2023 12:44:22	Linear	HG WATER
C	SEQ-CCV - 1		94.2% 4.7084	10177	ppb	02 Jun 2023 12:46:13	Linear	HG WATER
C	SEQ-CCB - 1		-0.0218	101	ppb	02 Jun 2023 12:48:07	Linear	HG WATER

Hydra II #2
B3F0035
S3F0037
Run by: SAS
06/02/23

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.
1	1	B3F0035-BLK1	7470 TCLP	1.0000	1.0000
1	2	B3F0035-BS1	5.0 PPB	1.0000	1.0000
1	3	B3F0035-LBK1	TCLP B3E0945	1.0000	1.0000
1	4	B3F0035-LBK2	TCLP B3E0922	1.0000	1.0000
1	5	23E0718-01		1.0000	1.0000
1	6	B3F0035-MS1	23E0718-01	1.0000	1.0000
1	7	B3F0035-MSD1	23E0718-01	1.0000	1.0000
1	8	23E0725-01		1.0000	1.0000
1	9	23E0733-03		1.0000	1.0000
1	10	23E0697-01		1.0000	1.0000
1	11	23E0697-02		1.0000	1.0000
1	12	23E0697-03		1.0000	1.0000
1	13	23E0683-01		1.0000	1.0000
1	14	23E0683-02		1.0000	1.0000
1	15	23E0683-03		1.0000	1.0000
1	16	23E0683-04		1.0000	1.0000
1	17	23E0683-05		1.0000	1.0000
1	18	23E0684-01		1.0000	1.0000
1	19	23E0775-01		1.0000	1.0000
1	20	B3F0035-MS2	23E0775-01	1.0000	1.0000
1	21	B3F0035-MSD2	23E0775-01	1.0000	1.0000
1	22	23E0775-03		1.0000	1.0000
1	23	23E0775-04		1.0000	1.0000
1	24	23E0775-05		1.0000	1.0000
1	25	23E0775-06		1.0000	1.0000
1	26	23E0775-07		1.0000	1.0000
1	27	23E0775-08		1.0000	1.0000
1	28	23E0775-09		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

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.
1	38			1.0000	1.0000
1	39			1.0000	1.0000
1	40			1.0000	1.0000
1	41			1.0000	1.0000
1	42			1.0000	1.0000
1	43			1.0000	1.0000
1	44			1.0000	1.0000
1	45			1.0000	1.0000
1	46			1.0000	1.0000
1	47			1.0000	1.0000
1	48			1.0000	1.0000
1	49			1.0000	1.0000
1	50			1.0000	1.0000
1	51			1.0000	1.0000
1	52			1.0000	1.0000
1	53			1.0000	1.0000
1	54			1.0000	1.0000
1	55			1.0000	1.0000
1	56			1.0000	1.0000
1	57			1.0000	1.0000
1	58			1.0000	1.0000
1	59			1.0000	1.0000
1	60			1.0000	1.0000
2	1			1.0000	1.0000
2	2			1.0000	1.0000
2	3			1.0000	1.0000
2	4			1.0000	1.0000
2	5			1.0000	1.0000
2	6			1.0000	1.0000
2	7			1.0000	1.0000
2	8			1.0000	1.0000
2	9			1.0000	1.0000
2	10			1.0000	1.0000
2	11			1.0000	1.0000
2	12			1.0000	1.0000
2	13			1.0000	1.0000
2	14			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 # B3F0035 Time in: 09:00:00AM Time out: 1(10:00:00 AM

Date: 06/02/23 **Prepared by:** SAS **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**	3050180
**** Hg 1000 ug/l**	3050521
***** Hg 125 ug/l**	3050520
SnCl2:	3050890
10% KMno4 :	3050508
NH2OH*HCl :	3050532
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)

HYDRA II #2
B3F0111
S3F0063
RUN BY: ES1
06/05/2023

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.	Cup Action
1	1	B3F0111-BLK1	7470	1.0000	1.0000	
1	2	B3F0111-BS1	5.0 PPB	1.0000	1.0000	
1	3	23E0775-10		1.0000	1.0000	
1	4	23E0775-11		1.0000	1.0000	
1	5	23E0775-12		1.0000	1.0000	
1	6	23E0775-13		1.0000	1.0000	
1	7	23E0775-14		1.0000	1.0000	
1	8	23E0775-15		1.0000	1.0000	
1	9	23E0775-16		1.0000	1.0000	
1	10	23E0775-17		1.0000	1.0000	
1	11	23E0775-18		1.0000	1.0000	
1	12	B3F0111-MS1	23E0775-18	1.0000	1.0000	
1	13	B3F0111-MSD1	23E0775-18	1.0000	1.0000	
1	14	23E0775-19		1.0000	1.0000	
1	15	23E0775-20		1.0000	1.0000	
1	16	23E0775-23		1.0000	1.0000	
1	17	23E0775-24		1.0000	1.0000	
1	18	23E0775-25		1.0000	1.0000	
1	19	23E0775-26		1.0000	1.0000	
1	20	23E0775-27		1.0000	1.0000	
1	21	23E0775-28		1.0000	1.0000	
1	22	23E0775-29		1.0000	1.0000	
1	23	23E0775-30		1.0000	1.0000	
1	24	23E0775-32		1.0000	1.0000	
1	25	23E0775-23RE1		1.0000	1.0000	
1	26			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 # B3F0111 Time in: 07:00:00AM Time out: 1(9:00:00 AM

Date: 06/05/23 **Prepared by:** SAS/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**	3050180
**** Hg 1000 ug/l**	3050521
***** Hg 125 ug/l**	3050520
SnCl2:	3050890
10% KMno4 :	3050508
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: 05 Jun 2023 07:24:35

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Date	Curve Type	Method
S	Blank - 1		-	-202	ppb	05 Jun 2023 07:45:42	-	HG WATER
S	0.5 - 1		-	1876	ppb	05 Jun 2023 07:47:34	-	HG WATER
S	1 - 1		-	3402	ppb	05 Jun 2023 07:49:26	-	HG WATER
S	2 - 1		-	6097	ppb	05 Jun 2023 07:51:18	-	HG WATER
S	5 - 1		ESmith 06/05/2023 -	14796	ppb	05 Jun 2023 07:53:10	-	HG WATER
S	10 - 1		Only 7470 so 10% spec -	27980	ppb	05 Jun 2023 07:55:02	-	HG WATER
C	SEQ-ICV - 1		~~(H)~~107.1%	5.3525	15322	ppb	05 Jun 2023 07:56:53	Linear	HG WATER
C	SEQ-ICB - 1		-0.1447		-14	ppb	05 Jun 2023 07:58:42	Linear	HG WATER
C	SEQ-CCV - 1		101.9%	5.0945	14602	ppb	05 Jun 2023 08:00:33	Linear	HG WATER
C	SEQ-CCB - 1		-0.1447		-14	ppb	05 Jun 2023 08:02:24	Linear	HG WATER
C	SEQ-MRL - 1		86.5%	0.4327	1597	ppb	05 Jun 2023 08:04:14	Linear	HG WATER
C	SEQ-CRL - 1		92.7%	0.4636	1683	ppb	05 Jun 2023 08:06:04	Linear	HG WATER
U	B3F0111-BLK1 - 1	7470	-0.1182		60	ppb	05 Jun 2023 08:10:21	Linear	HG WATER
U	B3F0111-BS1 - 1	5.0 PPB	5.4296		15537	ppb	05 Jun 2023 08:12:11	Linear	HG WATER
U	23E0775-10 - 1		0.0227		453	ppb	05 Jun 2023 08:19:52	Linear	HG WATER
U	23E0775-11 - 1		0.0495		528	ppb	05 Jun 2023 08:21:42	Linear	HG WATER
U	23E0775-12 - 1		-0.0827		159	ppb	05 Jun 2023 08:23:32	Linear	HG WATER
U	23E0775-13 - 1		-0.1003		110	ppb	05 Jun 2023 08:25:23	Linear	HG WATER
U	23E0775-14 - 1		-0.0612		219	ppb	05 Jun 2023 08:27:13	Linear	HG WATER
U	23E0775-15 - 1		-0.0680		200	ppb	05 Jun 2023 08:29:04	Linear	HG WATER
U	23E0775-16 - 1		-0.0698		195	ppb	05 Jun 2023 08:30:56	Linear	HG WATER
U	23E0775-17 - 1		-0.0752		180	ppb	05 Jun 2023 08:32:47	Linear	HG WATER
C	SEQ-CCV - 1		100.3%	5.0134	14376	ppb	05 Jun 2023 08:34:39	Linear	HG WATER
C	SEQ-CCB - 1		-0.1394		1	ppb	05 Jun 2023 08:36:30	Linear	HG WATER
U	23E0775-18 - 1		2.2286		6607	ppb	05 Jun 2023 08:38:21	Linear	HG WATER
U	B3F0111-MS1 - 1	23E0775-18	4.5285		13023	ppb	05 Jun 2023 08:40:13	Linear	HG WATER
U	B3F0111-MSD1 - 1	23E0775-18	4.0632		11725	ppb	05 Jun 2023 08:42:05	Linear	HG WATER
U	23E0775-19 - 1		-0.2871		-411	ppb	05 Jun 2023 08:43:55	Linear	HG WATER
U	23E0775-20 - 1		-0.1060		94	ppb	05 Jun 2023 08:45:46	Linear	HG WATER
U	23E0775-23 - 1		0.4929		1765	ppb	05 Jun 2023 08:47:36	Linear	HG WATER
U	23E0775-24 - 1		-0.2003		-169	ppb	05 Jun 2023 08:49:27	Linear	HG WATER
U	23E0775-25 - 1		-0.0838		156	ppb	05 Jun 2023 08:51:18	Linear	HG WATER
U	23E0775-26 - 1		-0.0713		191	ppb	05 Jun 2023 08:53:09	Linear	HG WATER
U	23E0775-27 - 1		-0.0695		196	ppb	05 Jun 2023 08:55:00	Linear	HG WATER
C	SEQ-CCV - 1		99.7%	4.9837	14293	ppb	05 Jun 2023 08:56:51	Linear	HG WATER
C	SEQ-CCB - 1		-0.1444		-13	ppb	05 Jun 2023 08:58:43	Linear	HG WATER
U	23E0775-28 - 1		-0.0494		252	ppb	05 Jun 2023 09:00:33	Linear	HG WATER
U	23E0775-29 - 1		-0.1064		93	ppb	05 Jun 2023 09:02:25	Linear	HG WATER
U	23E0775-30 - 1		-0.0834		157	ppb	05 Jun 2023 09:04:17	Linear	HG WATER
U	23E0775-32 - 1		-0.0917		134	ppb	05 Jun 2023 09:06:09	Linear	HG WATER
U	23E0775-23RE1 - 1		0.4811		1732	ppb	05 Jun 2023 09:08:01	Linear	HG WATER
C	SEQ-CCV - 1		96.4%	4.8177	13830	ppb	05 Jun 2023 09:09:52	Linear	HG WATER
C	SEQ-CCB - 1		-0.1670		-76	ppb	05 Jun 2023 09:11:44	Linear	HG WATER

Method: HG WATER Operator: IGORELIK Date of Analysis: 05 Jun 2023 10:55:16

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Date	Curve Type	Method
S	Blank - 1		-	410	ppb	06 Jun 2023 11:53:03	-	HG WATER
S	0.5 - 1		-	1720	ppb	06 Jun 2023 11:54:55	-	HG WATER
S	1 - 1		-	3481	ppb	06 Jun 2023 11:56:47	-	HG WATER
S	2 - 1		-	6318	ppb	06 Jun 2023 11:58:40	-	HG WATER
S	5 - 1		-	15822	ppb	06 Jun 2023 12:00:31	-	HG WATER
S	10 - 1		-	31126	ppb	06 Jun 2023 12:02:22	-	HG WATER
C	SEQ-ICV - 1		(H)109.1% 5.4537	17125	ppb	06 Jun 2023 12:04:12	Linear	HG WATER
C	SEQ-ICB - 1		-0.0371	187	ppb	06 Jun 2023 12:09:45	Linear	HG WATER
C	SEQ-CCV - 1		100.3% 5.0151	15772	ppb	06 Jun 2023 12:11:35	Linear	HG WATER
C	SEQ-ICV - 1		103.7% 5.1837	16292	ppb	06 Jun 2023 12:16:24	Linear	HG WATER
C	SEQ-ICV - 1		103.4% 5.1704	16251	ppb	06 Jun 2023 12:21:14	Linear	HG WATER
C	SEQ-CCB - 1		-0.0212	236	ppb	06 Jun 2023 12:24:14	Linear	HG WATER
C	SEQ-MRL - 1		95.9% 0.4796	1781	ppb	06 Jun 2023 12:26:04	Linear	HG WATER
C	SEQ-CRL - 1		92.7% 0.4634	1731	ppb	06 Jun 2023 12:27:54	Linear	HG WATER
U	B3F0121-BLK1 - 1	7470/245.1	-0.0037	290	ppb	06 Jun 2023 12:29:44	Linear	HG WATER
U	B3F0121-BS1 - 1	5.0 PPB	4.8699	15324	ppb	06 Jun 2023 12:35:40	Linear	HG WATER
U	23F0145-02 - 1		-0.0144	257	ppb	06 Jun 2023 12:41:24	Linear	HG WATER
U	23F0153-02 - 1		0.0485	451	ppb	06 Jun 2023 12:43:14	Linear	HG WATER
U	B3F0121-MS4 - 1	23F0153-02	2.3284	7484	ppb	06 Jun 2023 12:45:04	Linear	HG WATER
U	B3F0121-MSD4 - 1	23F0153-02	2.2250	7165	ppb	06 Jun 2023 12:46:54	Linear	HG WATER
U	23E0623-01 - 1		-0.1732	-233	ppb	06 Jun 2023 12:48:45	Linear	HG WATER
U	23E0623-02 - 1		-0.1068	-28	ppb	06 Jun 2023 12:50:36	Linear	HG WATER
U	23E0623-03 - 1		-0.0546	133	ppb	06 Jun 2023 12:52:27	Linear	HG WATER
U	23E0623-04 - 1		0.8518	2929	ppb	06 Jun 2023 12:54:19	Linear	HG WATER
C	SEQ-CCV - 1		(L)89.5% 4.4773	14113	ppb	06 Jun 2023 12:56:11	Linear	HG WATER
C	SEQ-CCV - 1		96.7% 4.8365	15221	ppb	06 Jun 2023 12:58:47	Linear	HG WATER
C	SEQ-CCV - 1		91.3% 4.5661	14387	ppb	06 Jun 2023 13:00:56	Linear	HG WATER
C	SEQ-CCB - 1		-0.0834	44	ppb	06 Jun 2023 13:02:47	Linear	HG WATER
U	23E0775-21 - 1		-0.0475	155	ppb	06 Jun 2023 13:04:37	Linear	HG WATER
U	B3F0121-MS1 - 1	23E0775-21	2.1987	7084	ppb	06 Jun 2023 13:06:30	Linear	HG WATER
U	B3F0121-MSD1 - 1	23E0775-21	2.2992	7394	ppb	06 Jun 2023 13:08:22	Linear	HG WATER
U	23E0775-22 - 1		-0.0021	295	ppb	06 Jun 2023 13:10:13	Linear	HG WATER
U	B3F0121-MS2 - 1	23E0775-22	1.9984	6466	ppb	06 Jun 2023 13:12:03	Linear	HG WATER
U	B3F0121-MSD2 - 1	23E0775-22	1.9942	6453	ppb	06 Jun 2023 13:13:54	Linear	HG WATER
U	23E0775-33 - 1		-0.2089	-343	ppb	06 Jun 2023 13:15:45	Linear	HG WATER
U	23E0775-34 - 1		-0.0627	108	ppb	06 Jun 2023 13:17:36	Linear	HG WATER
U	23E0775-35 - 1		-0.0432	168	ppb	06 Jun 2023 13:19:27	Linear	HG WATER
U	23E0775-36 - 1		-0.0351	193	ppb	06 Jun 2023 13:21:18	Linear	HG WATER
C	SEQ-CCV - 1		93.7% 4.6851	14754	ppb	06 Jun 2023 13:23:09	Linear	HG WATER
C	SEQ-CCB - 1		-0.0504	146	ppb	06 Jun 2023 13:25:01	Linear	HG WATER
U	23E0775-37 - 1		-0.0523	140	ppb	06 Jun 2023 13:26:51	Linear	HG WATER
U	23E0775-38 - 1		-0.0150	255	ppb	06 Jun 2023 13:28:42	Linear	HG WATER
U	B3F0121-MS3 - 1	23E0775-38	2.1556	6951	ppb	06 Jun 2023 13:30:34	Linear	HG WATER
U	B3F0121-MSD3 - 1	23E0775-38	2.1368	6893	ppb	06 Jun 2023 13:32:26	Linear	HG WATER
U	23E0775-39 - 1		-0.0206	238	ppb	06 Jun 2023 13:34:19	Linear	HG WATER
U	23E0775-40 - 1		-0.0293	211	ppb	06 Jun 2023 13:36:09	Linear	HG WATER
U	23E0775-41 - 1		0.0504	457	ppb	06 Jun 2023 13:38:00	Linear	HG WATER
U	23E0775-42 - 1		-0.2867	-583	ppb	06 Jun 2023 13:39:51	Linear	HG WATER
U	23E0775-43 - 1		-0.0770	64	ppb	06 Jun 2023 13:41:42	Linear	HG WATER
U	23E0775-45 - 1		-0.0293	211	ppb	06 Jun 2023 13:43:33	Linear	HG WATER
C	SEQ-CCV - 1		91.9% 4.5931	14470	ppb	06 Jun 2023 13:45:24	Linear	HG WATER
C	SEQ-CCB - 1		-0.0838	43	ppb	06 Jun 2023 13:47:15	Linear	HG WATER
U	23E0623-04RE1 - 1		0.8887	3043	ppb	06 Jun 2023 13:49:05	Linear	HG WATER
C	SEQ-CCV - 1		(L)87.5% 4.3765	13802	ppb	06 Jun 2023 13:50:56	Linear	HG WATER
C	SEQ-CCV - 1		91.8% 4.5918	14466	ppb	06 Jun 2023 13:56:14	Linear	HG WATER
C	SEQ-CCV - 1		90.4% 4.5204	14246	ppb	06 Jun 2023 13:58:22	Linear	HG WATER
C	SEQ-CCB - 1		-0.0971	2	ppb	06 Jun 2023 14:00:13	Linear	HG WATER

HYDRA II #2
B3F0121
S3F0089
RUN BY: ES1
06/06/2023

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.	Cup Acti
1	1	B3F0121-BLK1	7470/245.1	1.0000	1.0000	
1	2	B3F0121-BS1	5.0 PPB	1.0000	1.0000	
1	3	23F0145-02		1.0000	1.0000	
1	4	23F0153-02		1.0000	1.0000	
1	5	B3F0121-MS4	23F0153-02	1.0000	1.0000	
1	6	B3F0121-MSD4	23F0153-02	1.0000	1.0000	
1	7	23E0623-01		1.0000	1.0000	
1	8	23E0623-02		1.0000	1.0000	
1	9	23E0623-03		1.0000	1.0000	
1	10	23E0623-04		1.0000	1.0000	
1	11	23E0775-21		1.0000	1.0000	
1	12	B3F0121-MS1	23E0775-21	1.0000	1.0000	
1	13	B3F0121-MSD1	23E0775-21	1.0000	1.0000	
1	14	23E0775-22		1.0000	1.0000	
1	15	B3F0121-MS2	23E0775-22	1.0000	1.0000	
1	16	B3F0121-MSD2	23E0775-22	1.0000	1.0000	
1	17	23E0775-33		1.0000	1.0000	
1	18	23E0775-34		1.0000	1.0000	
1	19	23E0775-35		1.0000	1.0000	
1	20	23E0775-36		1.0000	1.0000	
1	21	23E0775-37		1.0000	1.0000	
1	22	23E0775-38		1.0000	1.0000	
1	23	B3F0121-MS3	23E0775-38	1.0000	1.0000	
1	24	B3F0121-MSD3	23E0775-38	1.0000	1.0000	
1	25	23E0775-39		1.0000	1.0000	
1	26	23E0775-40		1.0000	1.0000	
1	27	23E0775-41		1.0000	1.0000	
1	28	23E0775-42		1.0000	1.0000	
1	29	23E0775-43		1.0000	1.0000	
1	30	23E0775-45		1.0000	1.0000	
1	31	23E0623-04RE1		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 # B3F0121 Time in: 11:00:00AM Time out: 1(1:00:00 PM

Date: 06/05/23 **Prepared by:** SAS/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: HG

1 - FORM I
ANALYSIS DATA SHEET

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01	File ID:	060723L-042
Sampled:	05/25/23 13:10	Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:29
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
				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

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03	File ID:	060723L-043
Sampled:	05/25/23 16:20	Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:31
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
				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

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04	File ID:	060723L-044
Sampled:	05/26/23 12:30	Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:32
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
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

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05	File ID:	060823L-020
Sampled:	05/26/23 11:05	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:30
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06	File ID:	060823L-021
Sampled:	05/26/23 13:55	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:32
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07	File ID:	060823L-022
Sampled:	05/27/23 11:25	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:34
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08	File ID:	060823L-025
Sampled:	05/27/23 13:05	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:40
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09	File ID:	060823L-026
Sampled:	05/27/23 15:05	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:42
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10	File ID:	060823L-027
Sampled:	05/27/23 11:01	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:43
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11	File ID:	060823L-028
Sampled:	05/27/23 15:00	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:45
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12	File ID:	060823L-029
Sampled:	05/27/23 17:28	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:47
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13	File ID:	060823L-030
Sampled:	05/27/23 16:35	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:49
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

52847WW11R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-14	File ID:	060823L-031
Sampled:	05/28/23 10:20	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:51
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

528LHSMW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-15	File ID:	060823L-032
Sampled:	05/28/23 11:30	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:53
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

528487WW43

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-16	File ID:	060823L-033
Sampled:	05/28/23 14:00	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:54
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

528487WW23

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-17	File ID:	060823L-034
Sampled:	05/28/23 15:30	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:56
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
				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

52847WW19

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-18	File ID:	060723L-045
Sampled:	05/28/23 15:20	Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:34
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
				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	J1, U

1 - FORM I
ANALYSIS DATA SHEET

52947WW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-19	File ID:	060823L-037
Sampled:	05/29/23 11:50	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 12:02
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

528LHSMW55R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-20	File ID:	060823L-038
Sampled:	05/28/23 10:12	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 12:04
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21	File ID:	060823L-039
Sampled:	05/28/23 12:07	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 12:06
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

529LHSMW46R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22	File ID:	060923L-015
Sampled:	05/29/23 09:30	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:30
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

529LHSMW44

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-23	File ID:	060823L-042
Sampled:	05/29/23 14:00	Prepared:	06/07/23 11:53	Analyzed:	06/08/23 12:11
Solids:		Preparation:	245-7470_HG_PREP	Dilution:	1
Initial/Final:	50 ml / 50 ml				
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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

529LHSMW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-24	File ID:	060923L-018
Sampled:	05/29/23 15:25	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:35
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

52947WW56

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-25	File ID:	060923L-019
Sampled:	05/29/23 16:26	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:37
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	0.00020	0.00040	0.00050	J

1 - FORM I
ANALYSIS DATA SHEET

52947WW52

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-26	File ID:	060923L-020
Sampled:	05/29/23 09:30	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:39
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

52947WW55

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-27	File ID:	060923L-021
Sampled:	05/29/23 11:10	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:41
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

52947WW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-28	File ID:	060923L-022
Sampled:	05/29/23 14:31	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:43
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

529DUP1

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-29	File ID:	060923L-025
Sampled:	05/29/23 12:30	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:48
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

529DUP2

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-30	File ID:	060923L-026
Sampled:	05/29/23 16:26	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:50
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

53047WW58

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-38	File ID:	060923L-027
Sampled:	05/30/23 15:57	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:52
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

530LHSMW43R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-39	File ID:	060923L-030
Sampled:	05/30/23 13:40	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:58
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

53047WW09

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-40	File ID:	060923L-031
Sampled:	05/30/23 12:00	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 07:59
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

Blank

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-BLK1	File ID:	060723L-015
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 07:33
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
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:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-BS1	File ID:	060723L-016
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 07:35
		Preparation:	245-7470_HG_PREP	Dilution:	1

Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00516	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MS1	File ID:	060723L-024
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 07:55
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00212	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MS2	File ID:	060723L-031
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:08
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00209	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MS3	File ID:	060723L-046
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:36
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00254	0.00020	0.00040	0.00050	S

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MSD1	File ID:	060723L-027
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:01
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00232	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MSD2	File ID:	060723L-032
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:10
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00229	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MSD3	File ID:	060723L-047
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:38
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00247	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

53047WW39

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-42	File ID:	060923L-033
Sampled:	05/30/23 09:55	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 08:03
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

53047WW06

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-43	File ID:	060923L-034
Sampled:	05/30/23 13:30	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 08:05
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

530DUP3

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-45	File ID:	060923L-037
Sampled:	05/30/23 16:00	Prepared:	06/08/23 13:57	Analyzed:	06/09/23 08:10
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

Blank

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-BLK1	File ID:	060723L-015
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 07:33
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
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:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-BS1	File ID:	060723L-016
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 07:35
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00516	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MS1	File ID:	060723L-024
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 07:55
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00212	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MS2	File ID:	060723L-031
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:08
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00209	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MS3	File ID:	060723L-046
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:36
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00254	0.00020	0.00040	0.00050	S

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MSD1	File ID:	060723L-027
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:01
		Preparation:	245-7470_HG_PREP	Dilution:	1

Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00232	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MSD2	File ID:	060723L-032
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:10
		Preparation:	245-7470_HG_PREP	Dilution:	1

Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00229	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0179-MSD3	File ID:	060723L-047
		Prepared:	06/06/23 14:52	Analyzed:	06/07/23 08:38
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0179	Sequence:	S3F0099	Calibration:	EF30026
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00247	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0209-BLK1	File ID:	060823L-013
		Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:10
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
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:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0209-BS1	File ID:	060823L-014
		Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:12
		Preparation:	245-7470_HG_PREP	Dilution:	1

Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00477	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0209-MS1	File ID:	060823L-018
		Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:27
		Preparation:	245-7470_HG_PREP	Dilution:	1

Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00222	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0209-MS2	File ID:	060823L-040
		Prepared:	06/07/23 11:53	Analyzed:	06/08/23 12:07
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00220	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0209-MSD1	File ID:	060823L-019
		Prepared:	06/07/23 11:53	Analyzed:	06/08/23 11:29
		Preparation:	245-7470_HG_PREP	Dilution:	1

Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033	Instrument:	Hg Hydra II # 2

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00210	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Water	Laboratory ID:	B3F0209-MSD2	File ID:	060823L-041
		Prepared:	06/07/23 11:53	Analyzed:	06/08/23 12:09
		Preparation:	245-7470_HG_PREP	Dilution:	1
Batch:	B3F0209	Sequence:	S3F0134	Calibration:	EF30033
Instrument:	Hg Hydra II # 2				

CAS NO.	COMPOUND	CONC. (mg/L)	MDL	LOD	LOQ	Q
7439-97-6	Mercury, Dissolved	0.00220	0.00020	0.00040	0.00050	

1 - FORM I
ANALYSIS DATA SHEET

Blank

Laboratory:	Sterling Labs			SDG:	23E0775
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:	23E0775
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:	23E0775
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:	23E0775
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:	23E0775
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:	23E0775
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	

INITIAL AND CONTINUING CALIBRATION CHECK

SW7470A

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30026
		Sequence:	S3F0099

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0099-ICV1	Mercury, Dissolved (dissolved)	5.000	5.48	110	ug/L	+/- 10.00%
S3F0099-CCV1	Mercury, Dissolved (dissolved)	5.000	5.16	103	ug/L	+/- 10.00%
S3F0099-ICV2	Mercury, Dissolved (dissolved)	5.000	5.13	103	ug/L	+/- 10.00%
S3F0099-CCV2	Mercury, Dissolved (dissolved)	5.000	4.92	98.5	ug/L	+/- 10.00%
S3F0099-CCV3	Mercury, Dissolved (dissolved)	5.000	5.12	102	ug/L	+/- 10.00%
S3F0099-CCV4	Mercury, Dissolved (dissolved)	5.000	5.21	104	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW7470A

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30033
		Sequence:	S3F0134

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
S3F0134-ICV1	Mercury, Dissolved (dissolved)	5.000	5.13	103	ug/L	+/- 10.00%
S3F0134-CCV1	Mercury, Dissolved (dissolved)	5.000	5.24	105	ug/L	+/- 10.00%
S3F0134-CCV2	Mercury, Dissolved (dissolved)	5.000	4.84	96.9	ug/L	+/- 10.00%
S3F0134-CCV3	Mercury, Dissolved (dissolved)	5.000	4.85	97.0	ug/L	+/- 10.00%
S3F0134-CCV4	Mercury, Dissolved (dissolved)	5.000	4.65	93.1	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW7470A

Laboratory:	Sterling Labs	SDG:	23E0775
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%

LOQ Check

SW7470A

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B3F0179-MRL1	Mercury, Dissolved (dissolved)	0.0005000	0.00051	102	mg/L	70 - 130

LOQ Check

SW7470A

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2		

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
B3F0209-MRL1	Mercury, Dissolved (dissolved)	0.0005000	0.00042	84.7	mg/L	70 - 130

LOQ Check

SW7470A

Laboratory:	Sterling Labs	SDG:	23E0775
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

FORM 3 - Blank Summary

SW7470A

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30026
Sequence:	S3F0099		

Lab Sample ID	Analyte	Found	Units	LOQ	Qual
S3F0099-ICB1	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0099-CCB1	Mercury, Dissolved (dissolved)		ug/L	0.500	U
B3F0179-BLK1	Mercury, Dissolved (dissolved)		mg/L	0.00050	U
S3F0099-CCB2	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0099-CCB3	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0099-CCB4	Mercury, Dissolved (dissolved)		ug/L	0.500	U

FORM 3 - Blank Summary

SW7470A

Laboratory:	Sterling Labs	SDG:	23E0775
Client:	HDR	Project:	Longhorn AAP
Instrument ID:	Hg Hydra II # 2	Calibration:	EF30033
Sequence:	S3F0134		

Lab Sample ID	Analyte	Found	Units	LOQ	Qual
S3F0134-ICB1	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0134-CCB1	Mercury, Dissolved (dissolved)		ug/L	0.500	U
B3F0209-BLK1	Mercury, Dissolved (dissolved)		mg/L	0.00050	U
S3F0134-CCB2	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0134-CCB3	Mercury, Dissolved (dissolved)		ug/L	0.500	U
S3F0134-CCB4	Mercury, Dissolved (dissolved)		ug/L	0.500	U

FORM 3 - Blank Summary

SW7470A

Laboratory:	Sterling Labs	SDG:	23E0775
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

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0179	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0179-MS1
		Source Sample ID:	23F0133-01

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	0.00038	0.00212	87.0	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	0.00232	97.4	9.34	20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0179	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0179-MS2
		Source Sample ID:	23E0744-01

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	ND	0.00209	105	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	0.00229	114	8.84	20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

52847WW19

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0179	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0179-MS3
		Source Sample ID:	23E0775-18

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.		QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	ND	0.00254	127	*	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	0.00247	123	2.80	20	75 - 125

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spike

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0209	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0209-MS1
		Source Sample ID:	23F0213-01

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	ND	0.00222	111	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	0.00210	105	5.27	20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

528LHSMW56R

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Analysis Method:	SW7470A
Prep Batch:	B3F0209	Prep Method:	245-7470_HG_PREP
Percent Solids:		Laboratory ID:	B3F0209-MS2
		Source Sample ID:	23E0775-21

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.002000	ND	0.00220	110	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	0.00220	110	0.145	20	75 - 125

* Values outside of QC limits

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

529LHSMW46R

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

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

53047WW58

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

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

LCS / LCS DUPLICATE RECOVERY

SW7470A

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Prep Method:	245-7470_HG_PREP
Prep Batch:	B3F0179	Lab Sample ID:	B3F0179-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.005000	0.00516	103	87.6 - 112

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW7470A

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

Matrix:	Water	Prep Method:	245-7470_HG_PREP
Prep Batch:	B3F0209	Lab Sample ID:	B3F0209-BS1

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Mercury, Dissolved (dissolved)	0.005000	0.00477	95.5	87.6 - 112

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW7470A

Client: HDR
Project: Longhorn AAP
SDG: 23E0775

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

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/07/2023

B3F0179

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
245.1_MERCURY
7470_MERCURY_DISSOLVED
7470_MERCURY_TCLP

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
B3F0179-BLK1	06/06/23 14:52	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
B3F0179-BS1	06/06/23 14:52	50	50	3050521		250		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
B3F0179-LBK1	06/06/23 14:52	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
B3F0179-MRL1	06/06/23 14:52	50	50	3050520		200		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
B3F0179-MS1	06/06/23 14:52	50	50	3050521	23F0133-01	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
B3F0179-MS2	06/06/23 14:52	50	50	3050521	23E0744-01	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
B3F0179-MS3	06/06/23 14:52	50	50	3050521	23E0775-18	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
B3F0179-MSD1	06/06/23 14:52	50	50	3050521	23F0133-01	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
B3F0179-MSD2	06/06/23 14:52	50	50	3050521	23E0744-01	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
B3F0179-MSD3	06/06/23 14:52	50	50	3050521	23E0775-18	100		
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
23E0744-01 A	06/06/23 14:52	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury, Mercury, Dissolved								
23E0744-02 A	06/06/23 14:52	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								
23E0769-01 A 01	06/06/23 14:52	50	50					
Position: **Hot Block:** Hot Block 24 # 3 **Temperature:** 95 **pH:** :								**Prepared By**: ES1
Special Analytes: Mercury								

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/07/2023

B3F0179

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
245.1_MERCURY
7470_MERCURY_DISSOLVED
7470_MERCURY_TCLP

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0769-02 A 01	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0769-03 A 01	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0769-04 A 01	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0769-05 A 01	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-01 E	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-03 E	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-04 E	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-18 J	06/06/23 14:52	50	50					Added for BatchQC in: B3F0179 BatchQC
Position:	**Hot Block:**	**Temperature:**	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Mercury, Dissolved							
23F0133-01 A 01	06/06/23 14:52	50	50					Added for BatchQC in: B3F0179 BatchQC
Position:	**Hot Block:**	**Temperature:**	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Mercury, Dissolved							
23F0143-01 A 01	06/06/23 14:52	25	50					Dilution required due to the KMnO4 requirement in the SOP
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/07/2023

B3F0179

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
245.1_MERCURY
7470_MERCURY_DISSOLVED
7470_MERCURY_TCLP

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23F0143-02 A 01	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0183-01 A	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0183-02 A	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0183-03 A	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0184-01 A	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0184-02 A	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0184-03 A	06/06/23 14:52	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 95	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/07/2023

B3F0179

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses

245.1_MERCURY
7470_MERCURY_DISSOLVED
7470_MERCURY_TCLP

Surrogate Solution(s)

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

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

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/22/2023

B3F0209

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
245.1_MERCURY
7470_MERCURY_DISSOLVED

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
B3F0209-BLK1	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0209-BS1	06/07/23 11:53	50	50	3050521		250		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0209-MRL1	06/07/23 11:53	50	50	3050520		200		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0209-MS1	06/07/23 11:53	50	50	3050521	23F0213-01	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0209-MS2	06/07/23 11:53	50	50	3050521	23E0775-21	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0209-MSD1	06/07/23 11:53	50	50	3050521	23F0213-01	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
B3F0209-MSD2	06/07/23 11:53	50	50	3050521	23E0775-21	100		
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
23E0775-05 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-06 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-07 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-08 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-09 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/22/2023

B3F0209

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses
245.1_MERCURY
7470_MERCURY_DISSOLVED

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-10 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-11 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-12 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-13 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-14 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-15 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-16 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-17 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-19 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-20 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23E0775-21 J	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							

PREPARATION BENCH SHEET
ME

Print Date/Time: 06/22/2023

B3F0209

(Continued)

Matrix: Water

Prepared using: ME - 245-7470_HG_PREP

Analyses

245.1_MERCURY
7470_MERCURY_DISSOLVED

Surrogate Solution(s)

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	ul Surr	Comments
23E0775-21RE1 J	06/07/23 11:53	50	50					Added for BatchQC in: B3F0209 BatchQC
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23E0775-23 E	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, Dissolved							
23F0211-01 A	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0211-03 A	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury							
23F0213-01 A	06/07/23 11:53	50	50					
Position:	**Hot Block:** Hot Block 24 # 3	**Temperature:** 93	**pH:** :					**Prepared By**: ES1
Special Analytes:	Mercury, 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

PREPARATION BENCH SHEET
ME

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

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

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

ANALYSIS SEQUENCE SUMMARY

Dissolved Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0099 Instrument: Hg Hydra II # 2
Calibration: EF30026

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check (STD # 3050553)	S3F0099-ICV1	060723L-007	06/07/23 07:16
Initial Cal Blank	S3F0099-ICB1	060723L-008	06/07/23 07:18
Calibration Check (STD # 3060344)	S3F0099-CCV1	060723L-009	06/07/23 07:20
Calibration Blank	S3F0099-CCB1	060723L-010	06/07/23 07:21
MRL Check	B3F0179-MRL1	060723L-011	06/07/23 07:23
Instrument RL Check (STD # 3050555)	S3F0099-CRL1	060723L-012	06/07/23 07:25
Initial Cal Check (STD # 3050553)	S3F0099-ICV2	060723L-013	06/07/23 07:28
Blank	B3F0179-BLK1	060723L-015	06/07/23 07:33
LCS	B3F0179-BS1	060723L-016	06/07/23 07:35
Leach Fluid Blank	B3F0179-LBK1	060723L-017	06/07/23 07:42
Matrix Spike	B3F0179-MS1	060723L-024	06/07/23 07:55
Calibration Check (STD # 3060344)	S3F0099-CCV2	060723L-025	06/07/23 07:57
Calibration Blank	S3F0099-CCB2	060723L-026	06/07/23 07:59
Matrix Spike Dup	B3F0179-MSD1	060723L-027	06/07/23 08:01
Matrix Spike	B3F0179-MS2	060723L-031	06/07/23 08:08
Matrix Spike Dup	B3F0179-MSD2	060723L-032	06/07/23 08:10
Calibration Check (STD # 3060344)	S3F0099-CCV3	060723L-037	06/07/23 08:19
Calibration Blank	S3F0099-CCB3	060723L-038	06/07/23 08:21
52547WW48	23E0775-01	060723L-042	06/07/23 08:29
52647WW50	23E0775-03	060723L-043	06/07/23 08:31
52647WW37	23E0775-04	060723L-044	06/07/23 08:32
52847WW19	23E0775-18	060723L-045	06/07/23 08:34
52847WW19	B3F0179-MS3	060723L-046	06/07/23 08:36
52847WW19	B3F0179-MSD3	060723L-047	06/07/23 08:38
Calibration Check (STD # 3060344)	S3F0099-CCV4	060723L-048	06/07/23 08:40
Calibration Blank	S3F0099-CCB4	060723L-049	06/07/23 08:42

ANALYSIS SEQUENCE SUMMARY

Dissolved Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0134 Instrument: Hg Hydra II # 2
Calibration: EF30033

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check (STD # 3050553)	S3F0134-ICV1	060823L-007	06/08/23 10:51
Initial Cal Blank	S3F0134-ICB1	060823L-008	06/08/23 10:53
Calibration Check (STD # 3060344)	S3F0134-CCV1	060823L-009	06/08/23 10:55
Calibration Blank	S3F0134-CCB1	060823L-010	06/08/23 10:57
MRL Check	B3F0209-MRL1	060823L-011	06/08/23 11:06
Instrument RL Check (STD # 3050555)	S3F0134-CRL1	060823L-012	06/08/23 11:08
Blank	B3F0209-BLK1	060823L-013	06/08/23 11:10
LCS	B3F0209-BS1	060823L-014	06/08/23 11:12
Matrix Spike	B3F0209-MS1	060823L-018	06/08/23 11:27
Matrix Spike Dup	B3F0209-MSD1	060823L-019	06/08/23 11:29
52647WW51	23E0775-05	060823L-020	06/08/23 11:30
52747WW53	23E0775-06	060823L-021	06/08/23 11:32
52747WW59	23E0775-07	060823L-022	06/08/23 11:34
Calibration Check (STD # 3060344)	S3F0134-CCV2	060823L-023	06/08/23 11:36
Calibration Blank	S3F0134-CCB2	060823L-024	06/08/23 11:38
52747WW40	23E0775-08	060823L-025	06/08/23 11:40
52747WW41	23E0775-09	060823L-026	06/08/23 11:42
527LHSMW60	23E0775-10	060823L-027	06/08/23 11:43
527LHSMW54	23E0775-11	060823L-028	06/08/23 11:45
52747WW42	23E0775-12	060823L-029	06/08/23 11:47
52747WW26R	23E0775-13	060823L-030	06/08/23 11:49
52847WW11R	23E0775-14	060823L-031	06/08/23 11:51
528LHSMW57	23E0775-15	060823L-032	06/08/23 11:53
528487WW43	23E0775-16	060823L-033	06/08/23 11:54
528487WW23	23E0775-17	060823L-034	06/08/23 11:56
Calibration Check (STD # 3060344)	S3F0134-CCV3	060823L-035	06/08/23 11:58
Calibration Blank	S3F0134-CCB3	060823L-036	06/08/23 12:00
52947WW57	23E0775-19	060823L-037	06/08/23 12:02
528LHSMW55R	23E0775-20	060823L-038	06/08/23 12:04
528LHSMW56R	23E0775-21	060823L-039	06/08/23 12:06
528LHSMW56R	B3F0209-MS2	060823L-040	06/08/23 12:07
528LHSMW56R	B3F0209-MSD2	060823L-041	06/08/23 12:09
529LHSMW44	23E0775-23	060823L-042	06/08/23 12:11

ANALYSIS SEQUENCE SUMMARY

Dissolved Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence:	S3F0134	Instrument:	Hg Hydra II # 2
Calibration:	EF30033		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check (STD # 3060344)	S3F0134-CCV4	060823L-043	06/08/23 12:15
Calibration Blank	S3F0134-CCB4	060823L-044	06/08/23 12:17

ANALYSIS SEQUENCE SUMMARY

Dissolved Mercury by CVAA

Client: HDR
Project: Longhorn AAP

Sequence: S3F0153 Instrument: Hg Hydra II # 2
Calibration: EF30039

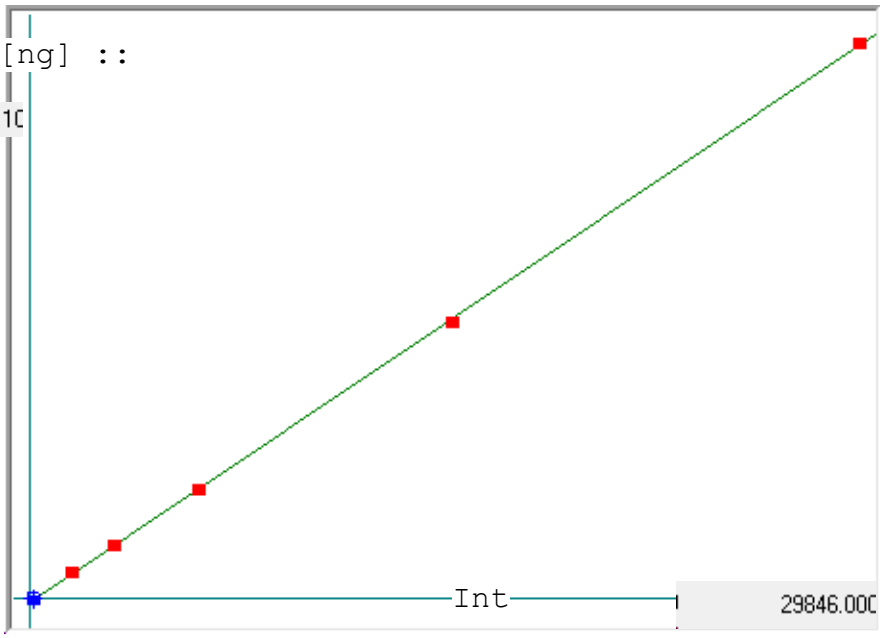
Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check (STD # 3050553)	S3F0153-ICV1	060923L-007	06/09/23 07:03
Initial Cal Blank	S3F0153-ICB1	060923L-008	06/09/23 07:05
Calibration Check (STD # 3060344)	S3F0153-CCV1	060923L-009	06/09/23 07:07
Calibration Blank	S3F0153-CCB1	060923L-010	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
529LHSMW46R	23E0775-22	060923L-015	06/09/23 07:30
529LHSMW46R	B3F0270-MS1	060923L-016	06/09/23 07:32
529LHSMW46R	B3F0270-MSD1	060923L-017	06/09/23 07:33
529LHSMW41	23E0775-24	060923L-018	06/09/23 07:35
52947WW56	23E0775-25	060923L-019	06/09/23 07:37
52947WW52	23E0775-26	060923L-020	06/09/23 07:39
52947WW55	23E0775-27	060923L-021	06/09/23 07:41
52947WW54	23E0775-28	060923L-022	06/09/23 07:43
Calibration Check (STD # 3060344)	S3F0153-CCV2	060923L-023	06/09/23 07:45
Calibration Blank	S3F0153-CCB2	060923L-024	06/09/23 07:46
529DUP1	23E0775-29	060923L-025	06/09/23 07:48
529DUP2	23E0775-30	060923L-026	06/09/23 07:50
53047WW58	23E0775-38	060923L-027	06/09/23 07:52
53047WW58	B3F0270-MS2	060923L-028	06/09/23 07:54
53047WW58	B3F0270-MSD2	060923L-029	06/09/23 07:56
530LHSMW43R	23E0775-39	060923L-030	06/09/23 07:58
53047WW09	23E0775-40	060923L-031	06/09/23 07:59
53047WW14	23E0775-41	060923L-032	06/09/23 08:01
53047WW39	23E0775-42	060923L-033	06/09/23 08:03
53047WW06	23E0775-43	060923L-034	06/09/23 08:05
Calibration Check (STD # 3060344)	S3F0153-CCV3	060923L-035	06/09/23 08:07
Calibration Blank	S3F0153-CCB3	060923L-036	06/09/23 08:09
530DUP3	23E0775-45	060923L-037	06/09/23 08:10
Calibration Check (STD # 3060344)	S3F0153-CCV4	060923L-043	06/09/23 08:22
Calibration Blank	S3F0153-CCB4	060923L-044	06/09/23 08:23

EF30026

True value for cal standard	Measured concentration of the cal std,	% Relative Error	Recovery Acceptance range		Recovery Evaluation
ppm	ppm	%	Low%	High%	
0.5	0.474	-5.20	-30	30	TRUE
1	0.972	-2.80	-30	30	TRUE
2	2.008	0.40	-30	30	TRUE
5	5.058	1.16	-10	10	TRUE
10	9.973	-0.27	-10	10	TRUE

HG WATER

Linear



A= 0.0000e+000

B= 3.3593e-004

C= -5.3341e-002

Rho= 0.9999596

Accept=Accepted

Accepted Date=

06/07/23 07:16

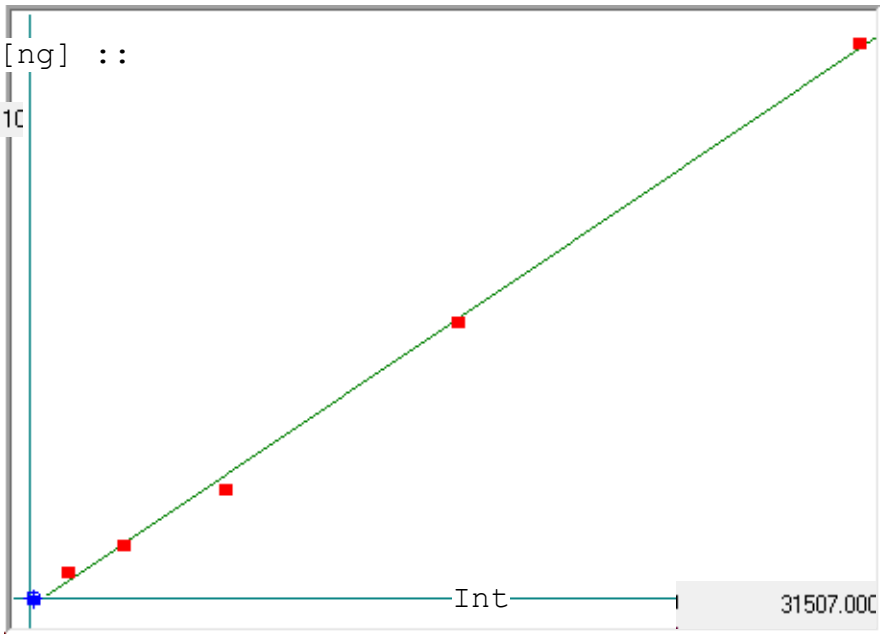
Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Blank	0.000	0.015	0.015	204	0.000	204				
0.5	0.500	0.474	-0.026	1571	0.0 %	1571				
1	1.000	0.972	-0.028	3051	0.0 %	3051				
2	2.000	2.008	0.008	6135	0.0 %	6135				
5	5.000	5.058	0.058	15217	0.0 %	15217				
10	10.000	9.973	-0.027	29846	0.0 %	29846				

EF30033

True value for cal standard	Measured concentration of the cal std,	% Relative Error	Recovery Acceptance range		Recovery Evaluation
ppm	ppm	%	Low%	High%	
0.5	0.353	-29.40	-30	30	TRUE
1	1.009	0.90	-30	30	TRUE
2	2.243	12.15	-30	30	TRUE
	5.068	1.36	-10	10	TRUE
10	9.914	-0.86	-10	10	TRUE

HG WATER

Linear



A= 0.0000e+000

B= 3.1895e-004

C= -1.3526e-001

Rho= 0.9993142

Accept=Accepted

Accepted Date=

06/08/23 10:51

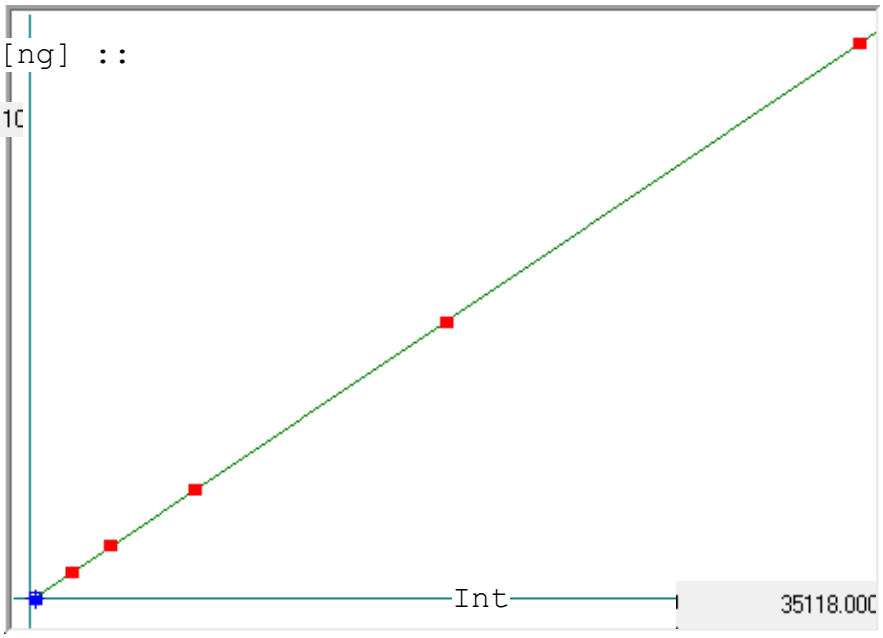
Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
Blank	0.000	-0.087	-0.087	152	0.000	152				
0.5	0.500	0.353	-0.147	1531	0.0 %	1531				
1	1.000	1.009	0.009	3587	0.0 %	3587				
2	2.000	2.243	0.243	7457	0.0 %	7457				
5	5.000	5.068	0.068	16314	0.0 %	16314				
10	10.000	9.914	-0.086	31507	0.0 %	31507				

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
	5.017	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				

Method: HG WATER Operator: IGORELIK Date of Analysis: 06 Jun 2023 15:04:39

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Date	Curve Type	Method
S	Blank - 1		-	204	ppb	07 Jun 2023 07:05:14	-	HG WATER
S	0.5 - 1		-	1571	ppb	07 Jun 2023 07:07:06	-	HG WATER
S	1 - 1		-	3051	ppb	07 Jun 2023 07:08:59	-	HG WATER
S	2 - 1		-	6135	ppb	07 Jun 2023 07:10:51	-	HG WATER
S	5 - 1		-	15217	ppb	07 Jun 2023 07:12:43	-	HG WATER
S	10 - 1		-	29846	ppb	07 Jun 2023 07:14:34	-	HG WATER
C	SEQ-ICV - 1		(H)109.6% 5.4817	16477	ppb	07 Jun 2023 07:16:25	Linear	HG WATER
C	SEQ-ICB - 1		-0.0594	-18	ppb	07 Jun 2023 07:18:15	Linear	HG WATER
C	SEQ-CCV - 1		103.3% 5.1643	15532	ppb	07 Jun 2023 07:20:05	Linear	HG WATER
C	SEQ-CCB - 1		-0.0496	11	ppb	07 Jun 2023 07:21:56	Linear	HG WATER
C	SEQ-MRL - 1		102.3% 0.5117	1682	ppb	07 Jun 2023 07:23:47	Linear	HG WATER
C	SEQ-CRL - 1		103.1% 0.5154	1693	ppb	07 Jun 2023 07:25:36	Linear	HG WATER
C	SEQ-ICV - 1		102.7% 5.1341	15442	ppb	07 Jun 2023 07:28:18	Linear	HG WATER
C	SEQ-ICV - 1		104.9% 5.2469	15778	ppb	07 Jun 2023 07:30:50	Linear	HG WATER
U	B3F0179-BLK1 - 1	7470 DISS/TCLP/245.1	0.0007	161	ppb	07 Jun 2023 07:33:29	Linear	HG WATER
U	B3F0179-BS1 - 1	5.0 PPB	5.1633	15529	ppb	07 Jun 2023 07:35:19	Linear	HG WATER
U	B3F0179-LBK1 - 1	B3F0135	-0.0456	23	ppb	07 Jun 2023 07:42:53	Linear	HG WATER
U	23E0769-01 - 1		-0.0510	7	ppb	07 Jun 2023 07:44:43	Linear	HG WATER
U	23E0769-02 - 1		-0.0493	12	ppb	07 Jun 2023 07:46:33	Linear	HG WATER
U	23E0769-03 - 1		-0.0500	10	ppb	07 Jun 2023 07:48:23	Linear	HG WATER
U	23E0769-04 - 1		-0.0460	22	ppb	07 Jun 2023 07:50:14	Linear	HG WATER
U	23E0769-05 - 1		-0.0436	29	ppb	07 Jun 2023 07:52:05	Linear	HG WATER
U	23F0133-01 - 1		0.3753	1276	ppb	07 Jun 2023 07:53:56	Linear	HG WATER
U	B3F0179-MS1 - 1	23F0133-01	2.1154	6456	ppb	07 Jun 2023 07:55:48	Linear	HG WATER
C	SEQ-CCV - 1		98.5% 4.9241	14817	ppb	07 Jun 2023 07:57:40	Linear	HG WATER
C	SEQ-CCB - 1		-0.0480	16	ppb	07 Jun 2023 07:59:31	Linear	HG WATER
U	B3F0179-MSD1 - 1	23F0133-01	2.3227	7073	ppb	07 Jun 2023 08:01:22	Linear	HG WATER
U	23F0143-01 - 1		-0.0033	149	ppb	07 Jun 2023 08:03:13	Linear	HG WATER
U	23F0143-02 - 1		-0.1141	-181	ppb	07 Jun 2023 08:05:06	Linear	HG WATER
U	23E0744-01 - 1		-0.0547	-4	ppb	07 Jun 2023 08:06:57	Linear	HG WATER
U	B3F0179-MS2 - 1	23E0744-01	2.0919	6386	ppb	07 Jun 2023 08:08:47	Linear	HG WATER
U	B3F0179-MSD2 - 1	23E0744-01	2.2854	6962	ppb	07 Jun 2023 08:10:38	Linear	HG WATER
U	23E0744-02 - 1		0.0316	253	ppb	07 Jun 2023 08:12:29	Linear	HG WATER
U	23F0183-01 - 1		-0.0530	1	ppb	07 Jun 2023 08:14:19	Linear	HG WATER
U	23F0183-02 - 1		-0.0584	-15	ppb	07 Jun 2023 08:16:10	Linear	HG WATER
U	23F0183-03 - 1		-0.0533	0	ppb	07 Jun 2023 08:18:01	Linear	HG WATER
C	SEQ-CCV - 1		102.5% 5.1247	15414	ppb	07 Jun 2023 08:19:52	Linear	HG WATER
C	SEQ-CCB - 1		-0.0332	60	ppb	07 Jun 2023 08:21:44	Linear	HG WATER
U	23F0184-01 - 1		-0.0066	139	ppb	07 Jun 2023 08:23:34	Linear	HG WATER
U	23F0184-02 - 1		-0.0157	112	ppb	07 Jun 2023 08:25:25	Linear	HG WATER
U	23F0184-03 - 1		0.0018	164	ppb	07 Jun 2023 08:27:17	Linear	HG WATER
U	23E0775-01 - 1		-0.0554	-6	ppb	07 Jun 2023 08:29:09	Linear	HG WATER
U	23E0775-03 - 1		-0.2653	-631	ppb	07 Jun 2023 08:31:02	Linear	HG WATER
U	23E0775-04 - 1		0.0908	429	ppb	07 Jun 2023 08:32:53	Linear	HG WATER
U	23E0775-18 - 1		0.1267	536	ppb	07 Jun 2023 08:34:44	Linear	HG WATER
U	B3F0179-MS3 - 1	23E0775-18	2.5357	7707	ppb	07 Jun 2023 08:36:35	Linear	HG WATER
U	B3F0179-MSD3 - 1	23E0775-18	2.4658	7499	ppb	07 Jun 2023 08:38:26	Linear	HG WATER
C	SEQ-CCV - 1		104.3% 5.2144	15681	ppb	07 Jun 2023 08:40:16	Linear	HG WATER
C	SEQ-CCB - 1		-0.0406	38	ppb	07 Jun 2023 08:42:08	Linear	HG WATER

HYDRA II #2
B3F0179
S3F0099
RUN BY: ES1
06/07/2023

Rack	Cup	Sample ID	Extended ID	Wt.	Vol.	Cup Actio
1	1	B3F0179-BLK1	7470 DISS/TCLP/	1.0000	1.0000	
1	2	B3F0179-BS1	5.0 PPB	1.0000	1.0000	
1	3	B3F0179-LBK1	B3F0135	1.0000	1.0000	
1	4	23E0769-01		1.0000	1.0000	
1	5	23E0769-02		1.0000	1.0000	
1	6	23E0769-03		1.0000	1.0000	
1	7	23E0769-04		1.0000	1.0000	
1	8	23E0769-05		1.0000	1.0000	
1	9	23F0133-01		1.0000	1.0000	
1	10	B3F0179-MS1	23F0133-01	1.0000	1.0000	
1	11	B3F0179-MSD1	23F0133-01	1.0000	1.0000	
1	12	23F0143-01		1.0000	1.0000	
1	13	23F0143-02		1.0000	1.0000	
1	14	23E0744-01		1.0000	1.0000	
1	15	B3F0179-MS2	23E0744-01	1.0000	1.0000	
1	16	B3F0179-MSD2	23E0744-01	1.0000	1.0000	
1	17	23E0744-02		1.0000	1.0000	
1	18	23F0183-01		1.0000	1.0000	
1	19	23F0183-02		1.0000	1.0000	
1	20	23F0183-03		1.0000	1.0000	
1	21	23F0184-01		1.0000	1.0000	
1	22	23F0184-02		1.0000	1.0000	
1	23	23F0184-03		1.0000	1.0000	
1	24	23E0775-01		1.0000	1.0000	
1	25	23E0775-03		1.0000	1.0000	
1	26	23E0775-04		1.0000	1.0000	
1	27	23E0775-18		1.0000	1.0000	
1	28	B3F0179-MS3	23E0775-18	1.0000	1.0000	
1	29	B3F0179-MSD3	23E0775-18	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 # B3F0121 Time in: 7:00:00AM Time out: 1(9:00:00 AM

Date: 06/07/23 **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: 07 Jun 2023 12:01:22

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Date	Curve Type	Method
S	Blank - 1		-	152	ppb	08 Jun 2023 10:40:32	-	HG WATER
S	0.5 - 1		-	1531	ppb	08 Jun 2023 10:42:24	-	HG WATER
S	1 - 1		-	3587	ppb	08 Jun 2023 10:44:16	-	HG WATER
S	2 - 1		-	7457	ppb	08 Jun 2023 10:46:09	-	HG WATER
S	5 - 1		-	16314	ppb	08 Jun 2023 10:48:00	-	HG WATER
S	10 - 1		-	31507	ppb	08 Jun 2023 10:49:51	-	HG WATER
C	SEQ-ICV - 1		102.5% 5.1267	16498	ppb	08 Jun 2023 10:51:42	Linear	HG WATER
C	SEQ-ICB - 1		-0.1346	2	ppb	08 Jun 2023 10:53:32	Linear	HG WATER
C	SEQ-CCV - 1		104.9% 5.2447	16868	ppb	08 Jun 2023 10:55:22	Linear	HG WATER
C	SEQ-CCB - 1		-0.1241	35	ppb	08 Jun 2023 10:57:14	Linear	HG WATER
C	SEQ-MRL - 1		84.7% 0.4235	1752	ppb	08 Jun 2023 11:06:33	Linear	HG WATER
C	SEQ-CRL - 1		83.9% 0.4194	1739	ppb	08 Jun 2023 11:08:23	Linear	HG WATER
U	B3F0209-BLK1 - 1	7470 DISS / 245.1	-0.0775	181	ppb	08 Jun 2023 11:10:13	Linear	HG WATER
U	B3F0209-BS1 - 1	5.0 PPB	4.7736	15391	ppb	08 Jun 2023 11:12:03	Linear	HG WATER
U	23F0211-01 - 1		-0.1149	64	ppb	08 Jun 2023 11:21:39	Linear	HG WATER
U	23F0211-03 - 1		-0.0520	261	ppb	08 Jun 2023 11:23:29	Linear	HG WATER
U	23F0213-01 - 1		-0.0759	186	ppb	08 Jun 2023 11:25:19	Linear	HG WATER
U	B3F0209-MS1 - 1	23F0213-01	2.2186	7380	ppb	08 Jun 2023 11:27:09	Linear	HG WATER
U	B3F0209-MSD1 - 1	23F0213-01	2.1047	7023	ppb	08 Jun 2023 11:29:00	Linear	HG WATER
U	23E0775-05 - 1		-0.1196	49	ppb	08 Jun 2023 11:30:51	Linear	HG WATER
U	23E0775-06 - 1		-0.1177	55	ppb	08 Jun 2023 11:32:43	Linear	HG WATER
U	23E0775-07 - 1		-0.1120	73	ppb	08 Jun 2023 11:34:34	Linear	HG WATER
C	SEQ-CCV - 1		96.9% 4.8445	15613	ppb	08 Jun 2023 11:36:26	Linear	HG WATER
C	SEQ-CCB - 1		-0.1292	19	ppb	08 Jun 2023 11:38:18	Linear	HG WATER
U	23E0775-08 - 1		-0.1215	43	ppb	08 Jun 2023 11:40:08	Linear	HG WATER
U	23E0775-09 - 1		-0.1225	40	ppb	08 Jun 2023 11:42:00	Linear	HG WATER
U	23E0775-10 - 1		-0.1231	38	ppb	08 Jun 2023 11:43:53	Linear	HG WATER
U	23E0775-11 - 1		-0.1289	20	ppb	08 Jun 2023 11:45:44	Linear	HG WATER
U	23E0775-12 - 1		-0.1231	38	ppb	08 Jun 2023 11:47:35	Linear	HG WATER
U	23E0775-13 - 1		-0.1225	40	ppb	08 Jun 2023 11:49:25	Linear	HG WATER
U	23E0775-14 - 1		-0.1225	40	ppb	08 Jun 2023 11:51:16	Linear	HG WATER
U	23E0775-15 - 1		-0.1311	13	ppb	08 Jun 2023 11:53:07	Linear	HG WATER
U	23E0775-16 - 1		-0.1225	40	ppb	08 Jun 2023 11:54:58	Linear	HG WATER
U	23E0775-17 - 1		-0.1324	9	ppb	08 Jun 2023 11:56:49	Linear	HG WATER
C	SEQ-CCV - 1		97.0% 4.8486	15626	ppb	08 Jun 2023 11:58:40	Linear	HG WATER
C	SEQ-CCB - 1		-0.1267	27	ppb	08 Jun 2023 12:00:32	Linear	HG WATER
U	23E0775-19 - 1		-0.1247	33	ppb	08 Jun 2023 12:02:22	Linear	HG WATER
U	23E0775-20 - 1		-0.1292	19	ppb	08 Jun 2023 12:04:14	Linear	HG WATER
U	23E0775-21 - 1		-0.1270	26	ppb	08 Jun 2023 12:06:05	Linear	HG WATER
U	B3F0209-MS2 - 1	23E0775-21	2.2017	7327	ppb	08 Jun 2023 12:07:57	Linear	HG WATER
U	B3F0209-MSD2 - 1	23E0775-21	2.1985	7317	ppb	08 Jun 2023 12:09:50	Linear	HG WATER
U	23E0775-23 - 1		-0.1311	13	ppb	08 Jun 2023 12:11:41	Linear	HG WATER
C	SEQ-CCV - 1		93.1% 4.6534	15014	ppb	08 Jun 2023 12:15:22	Linear	HG WATER
C	SEQ-CCB - 1		-0.1353	0	ppb	08 Jun 2023 12:17:14	Linear	HG WATER

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

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

Analysis Class: VOA

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01	File ID:	G2230606016.D
Sampled:	05/25/23 13:10	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 16:53
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*	*0.850*	*0.0650*	*0.200*	*0.500*	
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*	*0.500*	*0.0832*	*0.200*	*0.500*	
75-34-3	*1,1-Dichloroethane*	*2.18*	*0.0669*	*0.200*	*0.500*	
75-35-4	*1,1-Dichloroethene*	*32.2*	*0.0954*	*0.200*	*0.500*	*E*
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*	*1.56*	*0.106*	*0.300*	*0.600*	
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*	*0.260*	*0.0700*	*0.200*	*0.500*	*J*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01	File ID:	G2230606016.D
Sampled:	05/25/23 13:10	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 16:53
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*2.82*	*0.518*	*2.00*	*4.00*	*J*
71-43-2	*Benzene*	*0.260*	*0.0507*	*0.200*	*0.500*	*J*
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*	*5.43*	*0.101*	*0.300*	*0.600*	
74-87-3	*Chloromethane*	*0.310*	*0.192*	*0.500*	*1.00*	*J*
156-59-2	*cis-1,2-Dichloroethene*	*403*	*0.103*	*0.300*	*0.600*	*E*
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*	*0.100*	*0.0300*	*0.100*	*0.200*	*J*
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

SW8260B/D

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01	File ID:	G2230606016.D
Sampled:	05/25/23 13:10	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 16:53
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*0.120*	*0.0416*	*0.200*	*0.500*	*J*
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*	*3.00*	*0.178*	*0.500*	*1.00*	*Q*
108-88-3	*Toluene*	*0.280*	*0.0572*	*0.200*	*0.500*	*J*
156-60-5	*trans-1,2-Dichloroethene*	*4.59*	*0.0855*	*0.200*	*0.500*	
10061-02-6	*trans-1,3-Dichloropropene*		*0.0587*	*0.200*	*0.500*	*U*
79-01-6	*Trichloroethene*	*2300*	*0.0781*	*0.200*	*0.500*	*B, E*
75-69-4	*Trichlorofluoromethane*		*0.0505*	*0.200*	*0.500*	*U*
75-01-4	*Vinyl chloride*	*6.01*	*0.129*	*0.500*	*1.00*	

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606016.D
Acq On : 06 Jun 2023 16:53
Operator : PO1
Sample : 23E0775-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 07 08:55:13 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

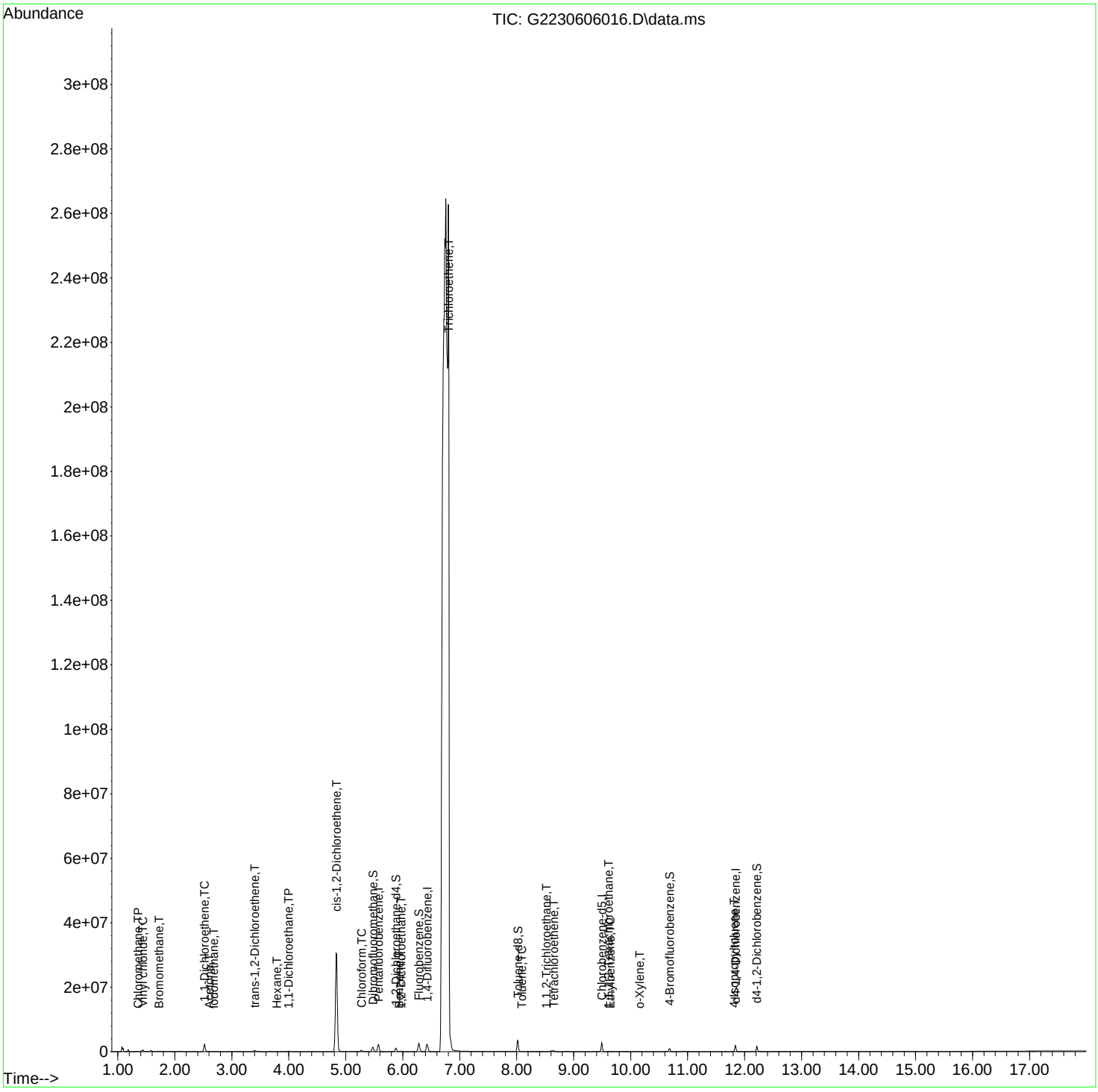
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.575	168	18766795	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.428	114	25962661	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	16385104	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	5395666	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.477	111	9133993	22.12	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 110.60%			
43) 1,2-Dichloroethane-d4	5.881	65	7948999	19.48	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%			
49) Fluorobenzene	6.285	96	28858442	19.51	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.55%			
64) Toluene-d8	8.019	98	22577580	21.86	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 109.30%			
81) 4-Bromofluorobenzene	10.685	174	3066783	12.04	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.40%#			
97) d4-1,2-Dichlorobenzene	12.217	152	4593610	19.80	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.00%			
Target Compounds						Qvalue
3) Chloromethane	1.354	50	126820	0.31	ug/L	98
4) Vinyl chloride	1.444	62	2216497	6.01	ug/L	100
5) Bromomethane	1.722	94	83105	0.08	ug/L #	81
10) 1,1-Dichloroethene	2.523	61	12900459	32.23	ug/L	85
12) Acetone	2.606	43	383181	2.82	ug/L	92
13) Iodomethane	2.678	142	72230	0.17	ug/L #	87
18) Methylene chloride	3.062	49	251354	Below Cal		84
20) trans-1,2-Dichloroethene	3.399	61	1866887	4.59	ug/L	86
21) Methyl tert-butyl ether	3.443	73	961309	Below Cal		94
22) Hexane	3.791	57	208619	0.58	ug/L	81
23) 1,1-Dichloroethane	3.996	63	1176786	2.18	ug/L	95
28) cis-1,2-Dichloroethene	4.836	61	189080988	402.60	ug/L	73
37) Chloroform	5.275	83	3349919	5.43	ug/L	100
44) 1,2-Dichloroethane	5.973	62	718290	1.56	ug/L	94
48) Benzene	5.943	78	332612	0.26	ug/L	100
50) Trichloroethene	6.807	95	783744891	2299.09	ug/L #	42
62) 1,1,2-Trichloroethane	8.520	97	171992	0.50	ug/L	90
65) Toluene	8.087	91	357222	0.28	ug/L	96
67) Tetrachloroethene	8.647	166	983870	3.00	ug/L	94
73) 1,1,1,2-Tetrachloroethane	9.614	131	238334	0.85	ug/L	94
74) Ethylbenzene	9.643	91	186075	0.10	ug/L	90
79) o-Xylene	10.160	91	77506	0.12	ug/L #	68
95) 4-Isopropyltoluene	11.819	119	159330	0.26	ug/L #	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606016.D
Acq On : 06 Jun 2023 16:53
Operator : PO1
Sample : 23E0775-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 07 08:55:13 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606016.D
Acq On : 06 Jun 2023 16:53
Operator : PO1
Sample : 23E0775-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 07 08:55:13 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	5.575	168	18766795	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.428	114	25962661	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.495	117	16385104	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	5395666	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.477	111	9133993	22.12	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 110.60%				
43) 1,2-Dichloroethane-d4	5.881	65	7948999	19.48	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%				
49) Fluorobenzene	6.285	96	28858442	19.51	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.55%				
64) Toluene-d8	8.019	98	22577580	21.86	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 109.30%				
81) 4-Bromofluorobenzene	10.685	174	3066783	12.04	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 120.40%#				
97) d4-1,2-Dichlorobenzene	12.217	152	4593610	19.80	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.00%				
Target Compounds							Qvalue
3) Chloromethane	1.354	50	126820	0.31	ug/L		98
4) Vinyl chloride	1.444	62	2216497	6.01	ug/L		100
5) Bromomethane	1.722	94	83105	0.08	ug/L	#	81
8) Ethyl ether	2.522	59	445464	1.72	ug/L	#	13
9) Acrolein	2.450	56	9060	Below Cal		#	20
10) 1,1-Dichloroethene	2.523	61	12900459	32.23	ug/L		85
12) Acetone	2.606	43	383181	2.82	ug/L		92
13) Iodomethane	2.678	142	72230	0.17	ug/L	#	87
14) Carbon disulfide	2.739	76	222061	0.17	ug/L	#	74
15) Isopropanol	2.785	45	100525	6.67	ug/L	#	56
16) acetonitrile	2.974	41	32763	Below Cal		#	1
17) 3-Chloro-1-propene	2.739	76	222066	1.10	ug/L	#	53
18) Methylene chloride	3.062	49	251354	Below Cal			84
20) trans-1,2-Dichloroethene	3.399	61	1866887	4.59	ug/L		86
21) Methyl tert-butyl ether	3.443	73	961309	Below Cal			94
22) Hexane	3.791	57	208619	0.58	ug/L		81
23) 1,1-Dichloroethane	3.996	63	1176786	2.18	ug/L		95
28) cis-1,2-Dichloroethene	4.836	61	189080988	402.60	ug/L		73
29) 2-Butanone	4.837	72	1525183	32.32	ug/L	#	42
31) Ethyl acetate	5.009	61	83495	1.27	ug/L	#	45
33) 1-Bromopropane	5.266	41	33160	0.05	ug/L	#	29
35) Methacrylonitrile	5.339	67	54528	0.19	ug/L	#	25
36) Tetrahydrofuran	5.274	42	52662	Below Cal		#	49
37) Chloroform	5.275	83	3349919	5.43	ug/L		100
40) Cyclohexane	5.572	84	439511	0.87	ug/L	#	32
41) 1-Chlorobutane	5.569	56	252584	0.43	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	1016734	2.31	ug/L	#	38
44) 1,2-Dichloroethane	5.973	62	718290	1.56	ug/L		94

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606016.D
Acq On : 06 Jun 2023 16:53
Operator : PO1
Sample : 23E0775-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 07 08:55:13 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

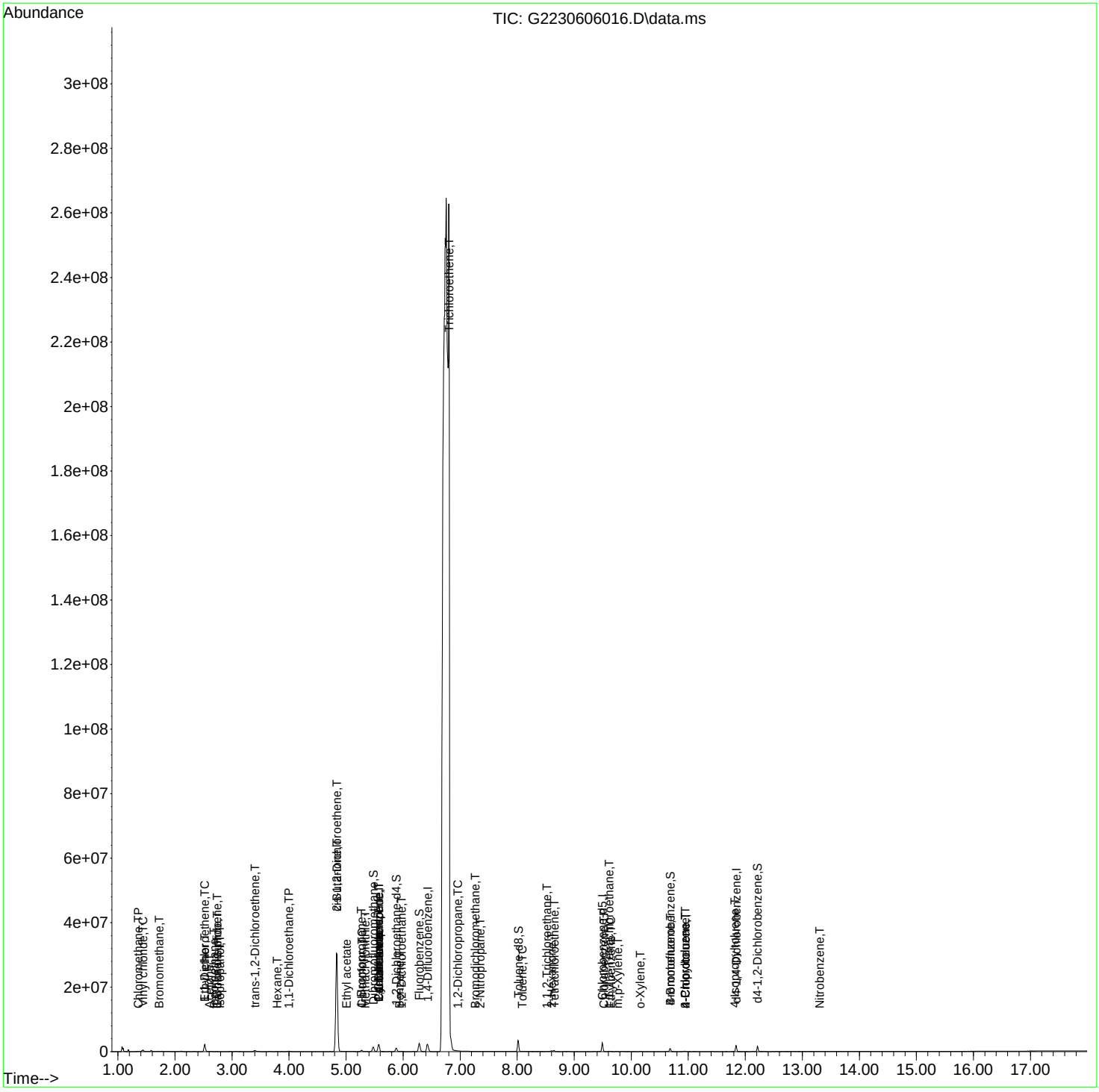
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	Carbon tetrachloride	5.575	117	1527651	3.26	ug/L	#	16
48)	Benzene	5.943	78	332612	0.26	ug/L		100
50)	Trichloroethene	6.807	95	783744891	2299.09	ug/L	#	42
52)	1,2-Dichloropropane	6.957	63	43656	0.07	ug/L	#	57
56)	Bromodichloromethane	7.263	83	51030	0.05	ug/L	#	85
57)	2-Nitropropane	7.352	43	38044	0.12	ug/L	#	47
60)	4-Methyl-2-pentanone	8.018	43	80692	Below Cal		#	1
62)	1,1,2-Trichloroethane	8.520	97	171992	0.50	ug/L		90
65)	Toluene	8.087	91	357222	0.28	ug/L		96
67)	Tetrachloroethene	8.647	166	983870	3.00	ug/L		94
69)	2-Hexanone	8.608	43	1188605	7.02	ug/L	#	68
72)	Chlorobenzene	9.519	112	64716	0.09	ug/L	#	1
73)	1,1,1,2-Tetrachloroethane	9.614	131	238334	0.85	ug/L		94
74)	Ethylbenzene	9.643	91	186075	0.10	ug/L		90
75)	m,p-Xylene	9.765	91	37509	0.04	ug/L	#	36
79)	o-Xylene	10.160	91	77506	0.12	ug/L	#	68
82)	Bromobenzene	10.681	77	28120	0.10	ug/L	#	1
86)	n-Propylbenzene	10.947	91	18828	0.02	ug/L	#	58
87)	2-Chlorotoluene	10.947	91	15806	0.03	ug/L	#	47
88)	4-Chlorotoluene	10.947	91	32120	0.05	ug/L	#	50
95)	4-Isopropyltoluene	11.819	119	159330	0.26	ug/L	#	83
102)	Nitrobenzene	13.307	77	21803	1.13	ug/L	#	32

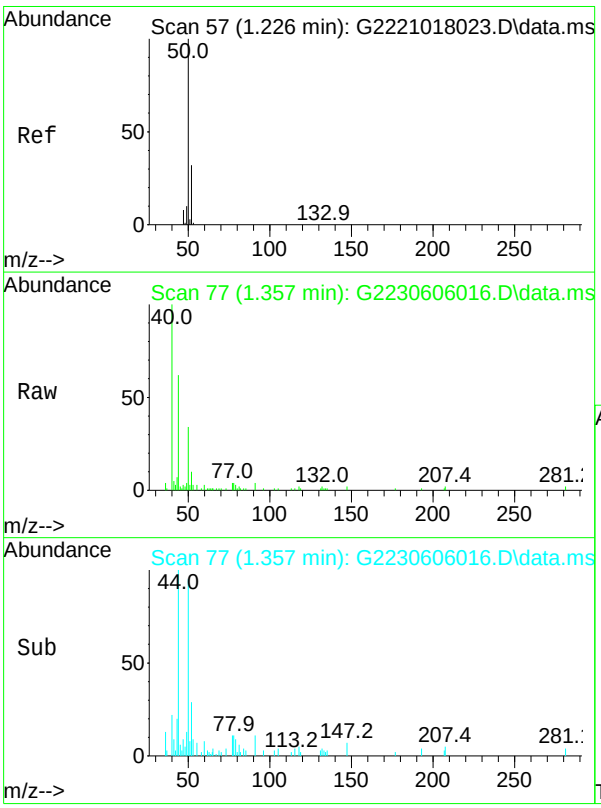
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606016.D
Acq On : 06 Jun 2023 16:53
Operator : PO1
Sample : 23E0775-01
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 07 08:55:13 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

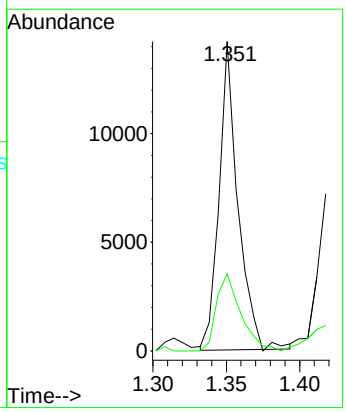


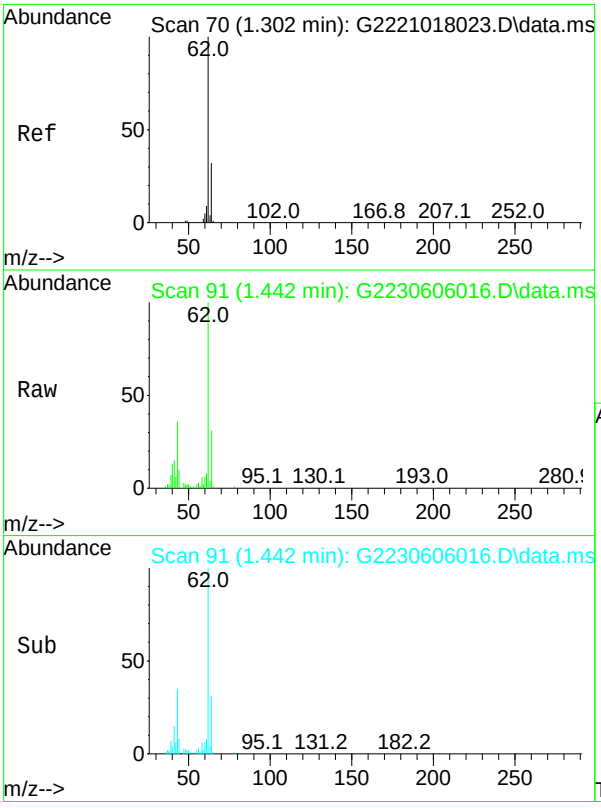


#3
Chloromethane
Concen: 0.31 ug/L
RT: 1.354 min Scan# 77
Delta R.T. -0.000 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 50 Resp: 126820

Ion	Ratio	Lower	Upper
50	100		
52	31.8	3.2	63.2

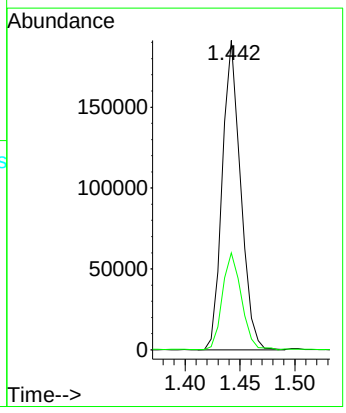


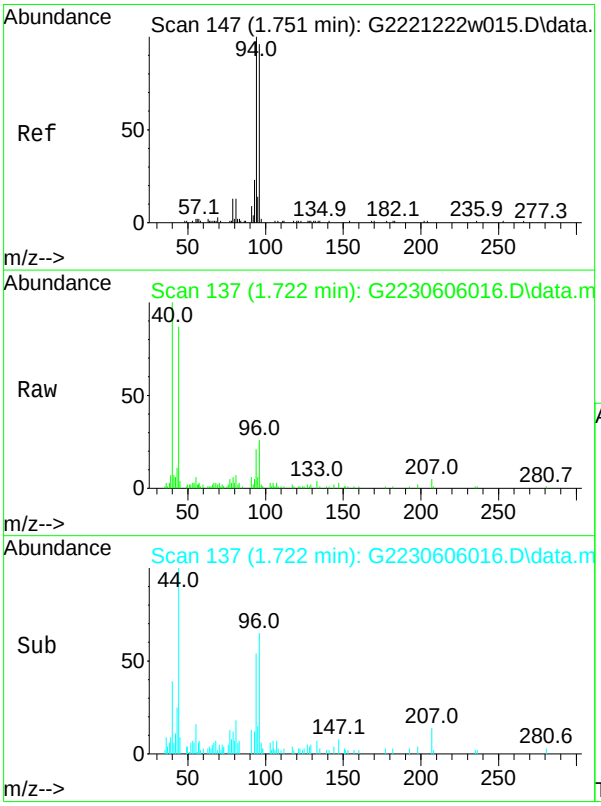


#4
Vinyl chloride
Concen: 6.01 ug/L
RT: 1.444 min Scan# 91
Delta R.T. -0.002 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 62 Resp: 2216497

Ion	Ratio	Lower	Upper
62	100		
64	31.9	2.1	62.1

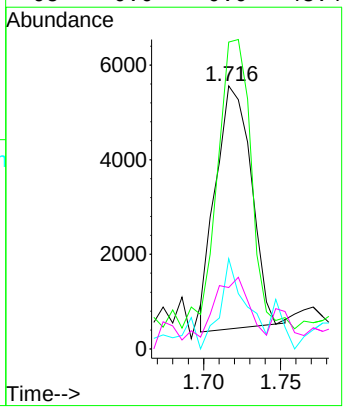


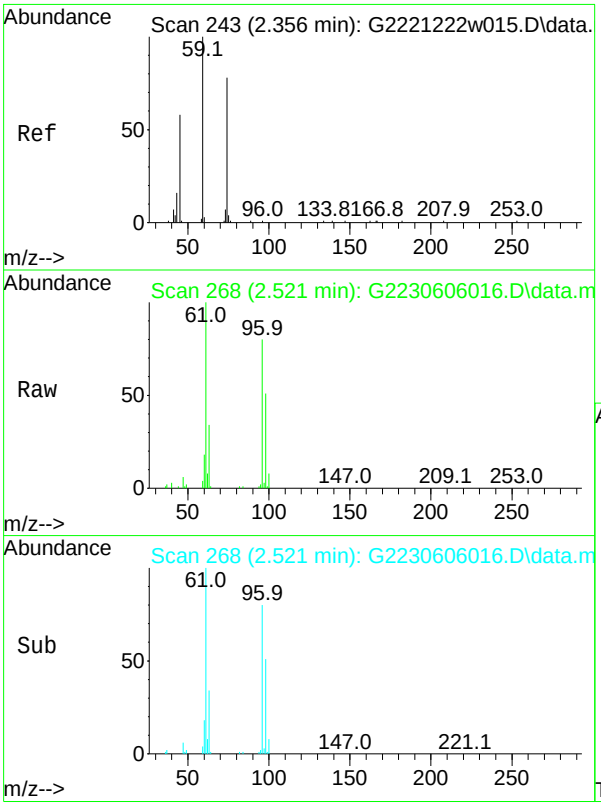


#5
Bromomethane
Concen: 0.08 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 94 Resp: 83105

Ion	Ratio	Lower	Upper
94	100		
96	110.3	65.6	125.6
93	33.3	0.0	49.5
95	0.0	0.0	43.4

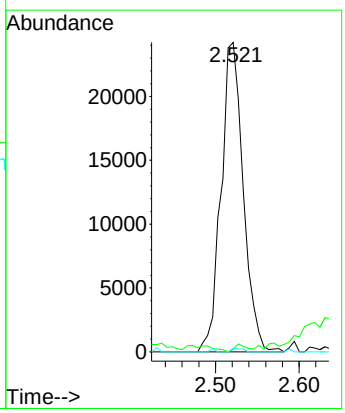


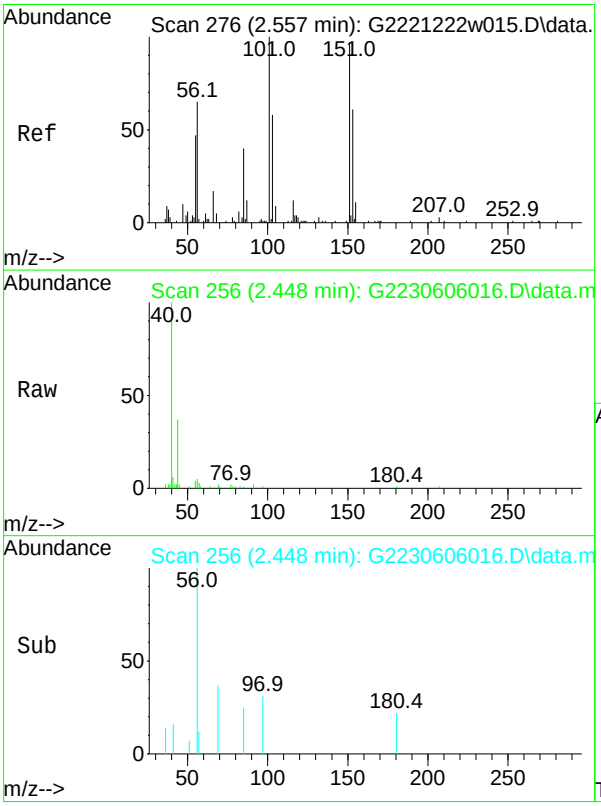


#8
Ethyl ether
Concen: 1.72 ug/L
RT: 2.522 min Scan# 268
Delta R.T. 0.204 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 59 Resp: 445464

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

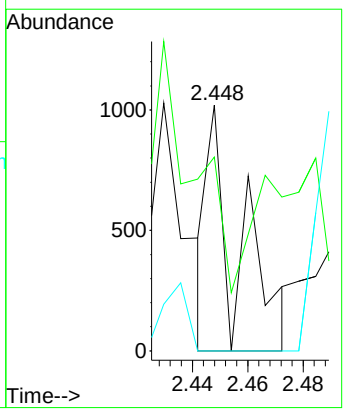


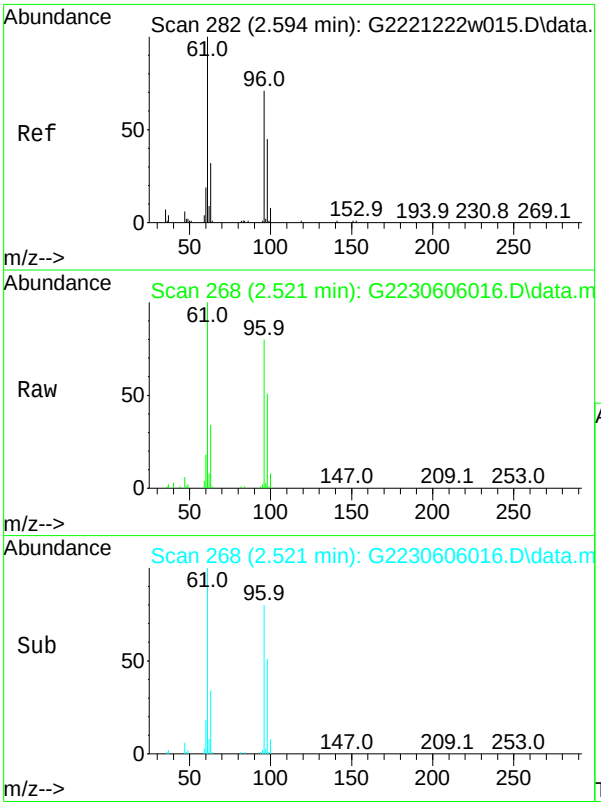


#9
Acrolein
Concen: Below Cal
RT: 2.450 min Scan# 256
Delta R.T. 0.011 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 56 Resp: 9060

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

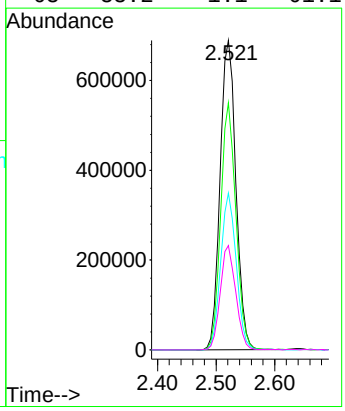


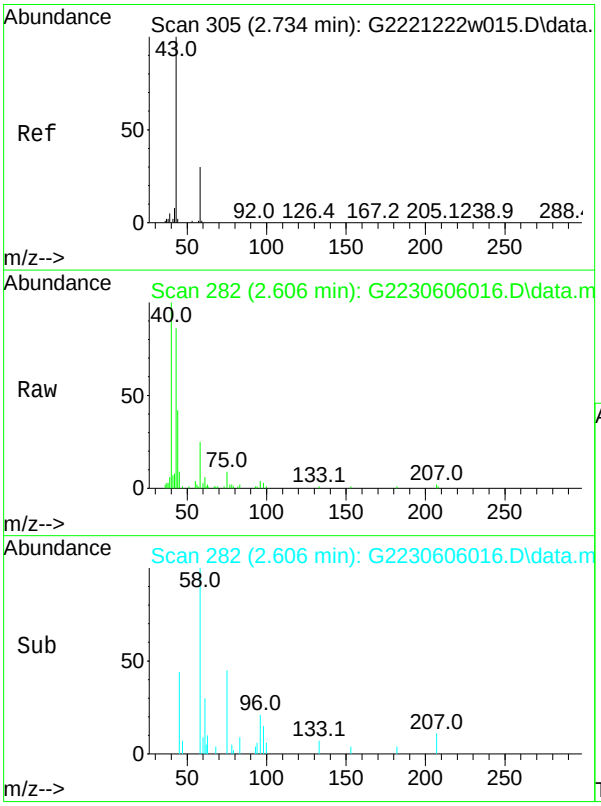


#10
1,1-Dichloroethene
Concen: 32.23 ug/L
RT: 2.523 min Scan# 268
Delta R.T. -0.000 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 61 Resp:12900459

Ion	Ratio	Lower	Upper
61	100		
96	76.9	32.7	92.7
98	49.7	9.3	69.3
63	33.2	1.1	61.1

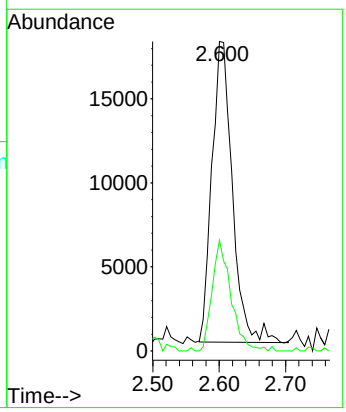


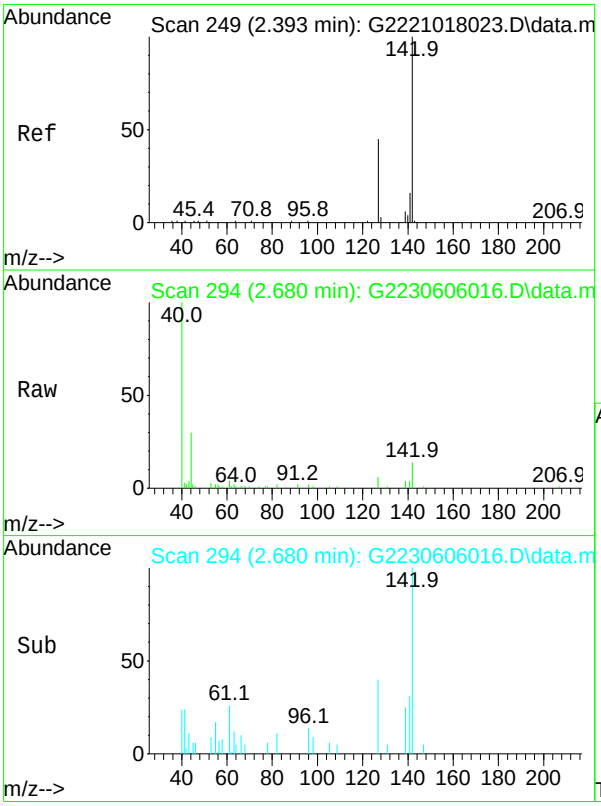


#12
Acetone
Concen: 2.82 ug/L
RT: 2.606 min Scan# 282
Delta R.T. -0.002 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 43 Resp: 383181

Ion	Ratio	Lower	Upper
43	100		
58	33.9	0.0	59.7

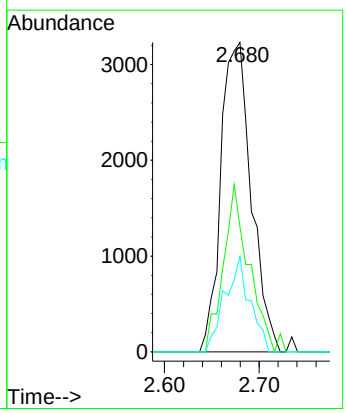


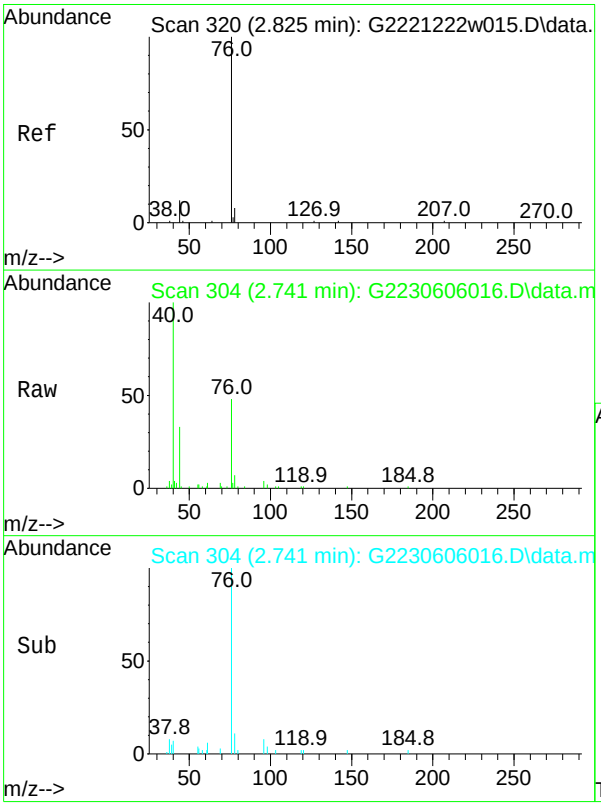


#13
Iodomethane
Concen: 0.17 ug/L
RT: 2.678 min Scan# 294
Delta R.T. 0.002 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion:142 Resp: 72230

Ion	Ratio	Lower	Upper
142	100		
127	45.9	13.3	73.3
141	0.0	0.0	45.3

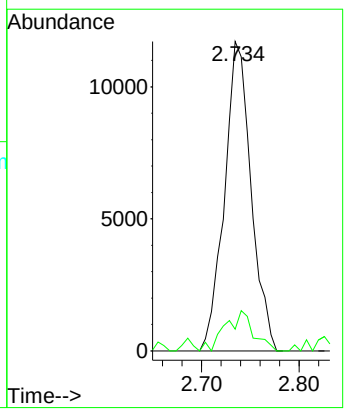


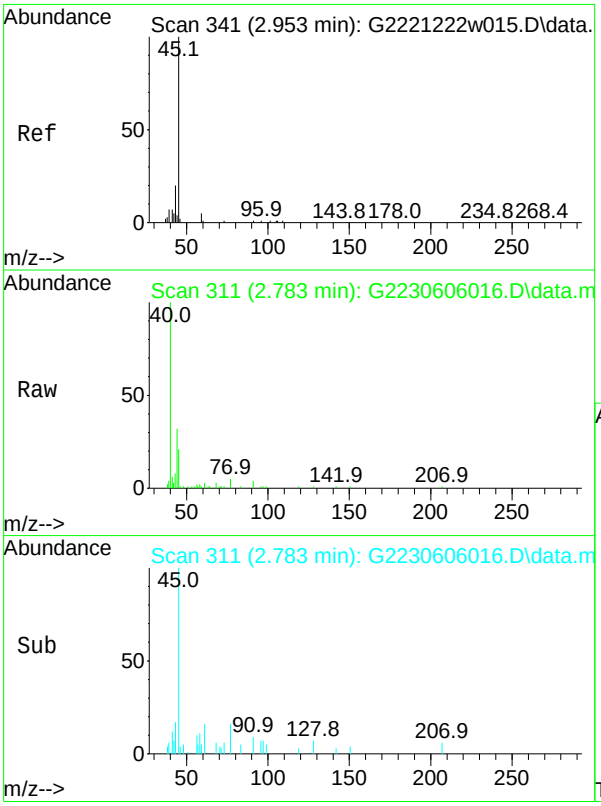


#14
Carbon disulfide
Concen: 0.17 ug/L
RT: 2.739 min Scan# 304
Delta R.T. 0.000 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 76 Resp: 222061

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

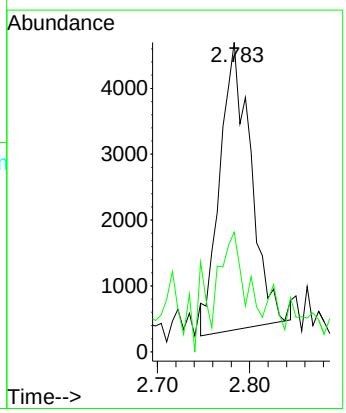


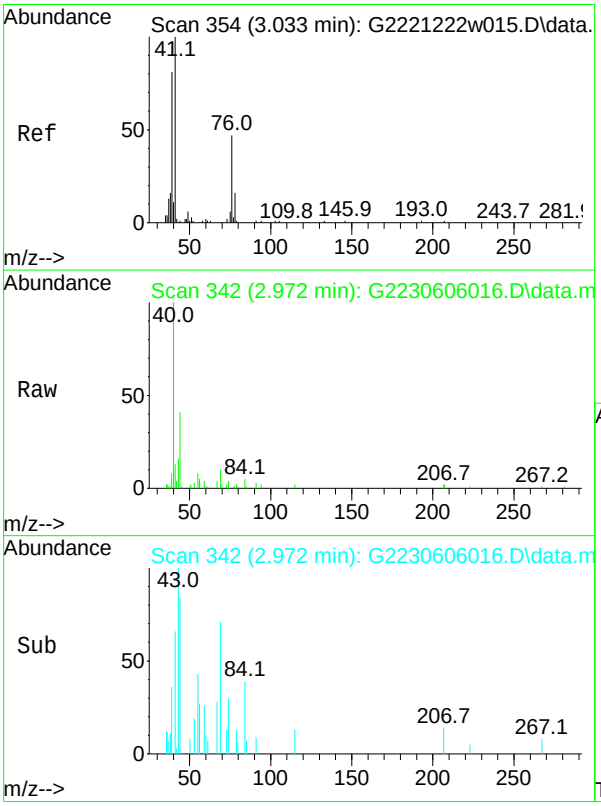


#15
Isopropanol
Concen: 6.67 ug/L
RT: 2.785 min Scan# 311
Delta R.T. -0.007 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 45 Resp: 100525

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

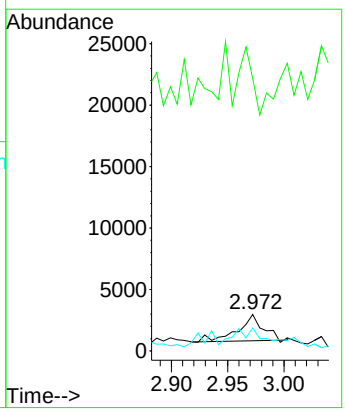


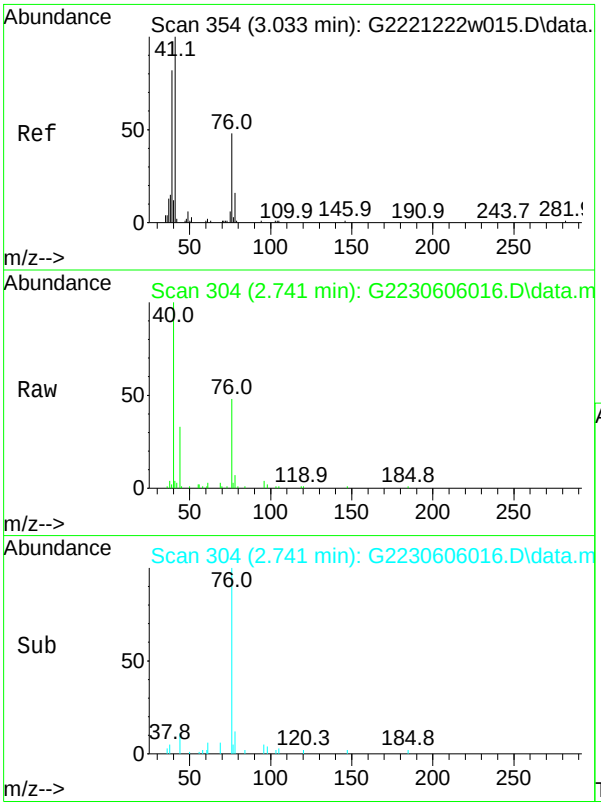


#16
acetonitrile
Concen: Below Cal
RT: 2.974 min Scan# 342
Delta R.T. 0.056 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 41 Resp: 32763

Ion	Ratio	Lower	Upper
41	100		
40	243.2	0.0	54.0#
39	0.0	27.5	87.5#

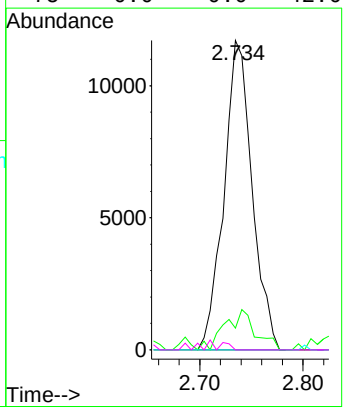


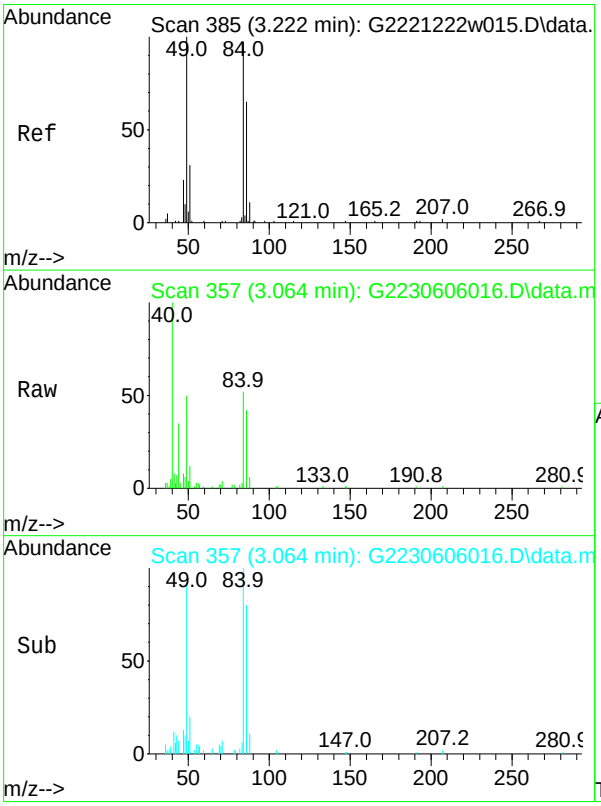


#17
3-Chloro-1-propene
Concen: 1.10 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.181 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 76 Resp: 222066

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

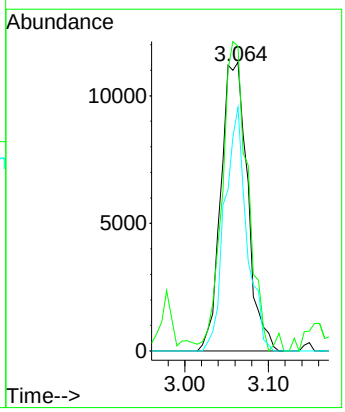


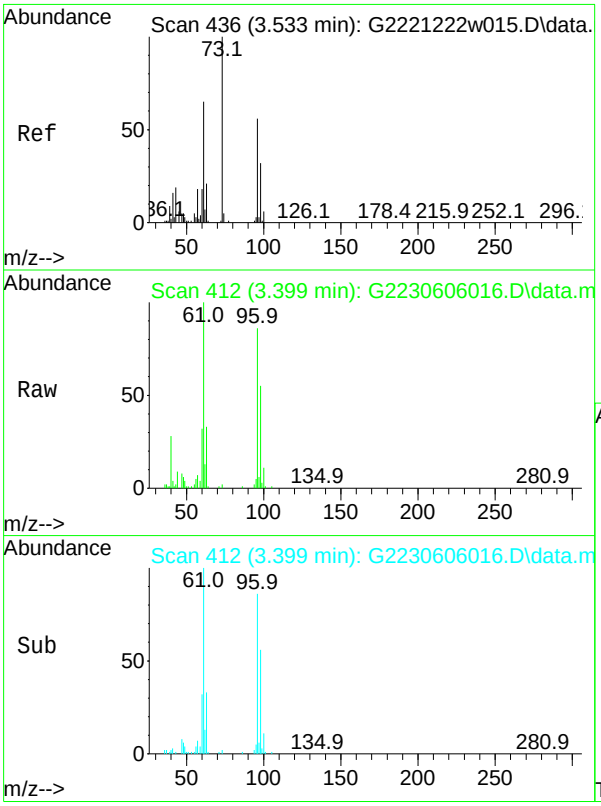


#18
Methylene chloride
Concen: Below Cal
RT: 3.062 min Scan# 357
Delta R.T. -0.000 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 49 Resp: 251354

Ion	Ratio	Lower	Upper
49	100		
84	100.2	57.9	117.9
86	70.2	24.9	84.9

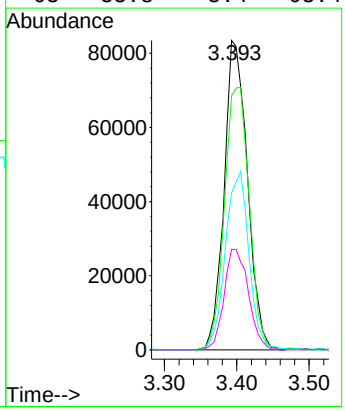


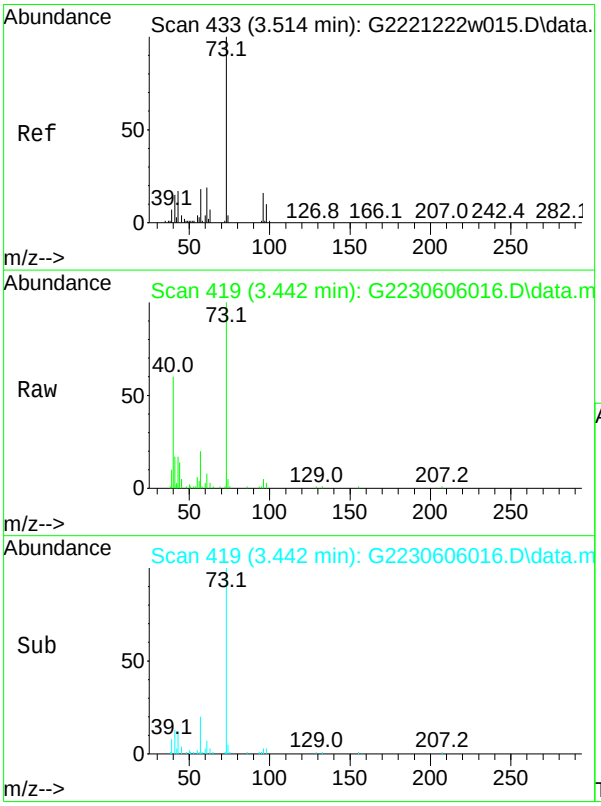


#20
trans-1,2-Dichloroethene
Concen: 4.59 ug/L
RT: 3.399 min Scan# 412
Delta R.T. -0.002 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 61 Resp: 1866887

Ion	Ratio	Lower	Upper
61	100		
96	90.2	45.2	105.2
98	58.4	17.2	77.2
63	33.8	3.4	63.4

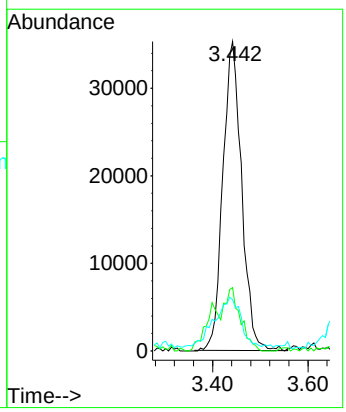


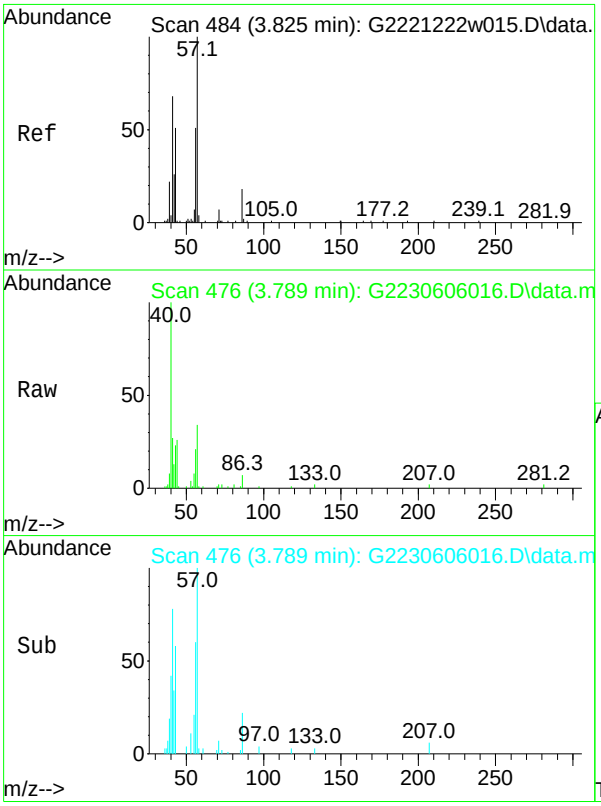


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.443 min Scan# 419
Delta R.T. -0.003 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 73 Resp: 961309

Ion	Ratio	Lower	Upper
73	100		
57	18.6	0.0	51.7
41	22.7	0.0	50.6

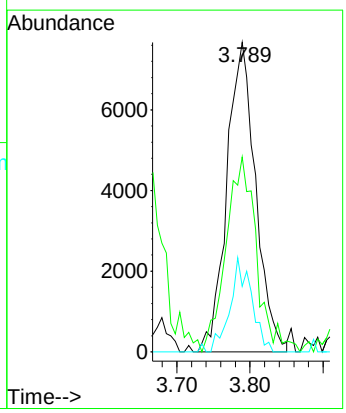


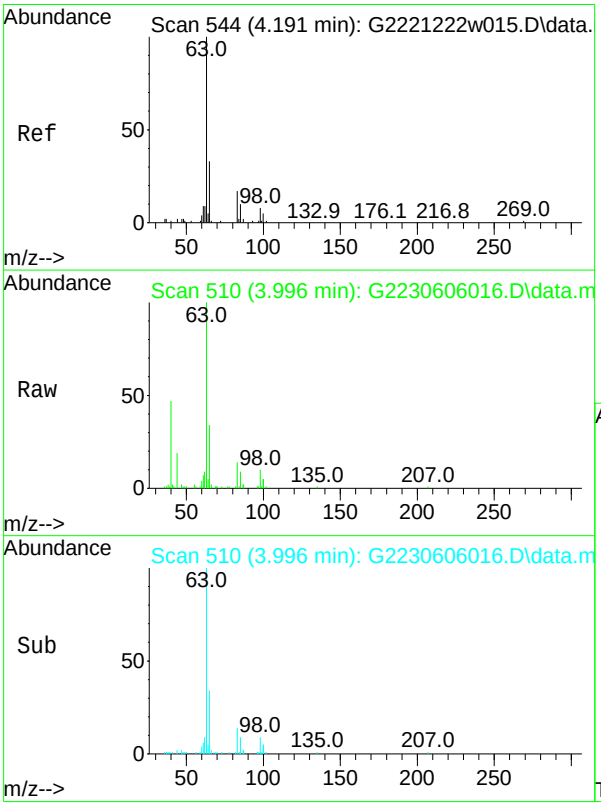


#22
Hexane
Concen: 0.58 ug/L
RT: 3.791 min Scan# 476
Delta R.T. 0.001 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 57 Resp: 208619

Ion	Ratio	Lower	Upper
57	100		
56	65.2	20.4	80.4
86	23.2	0.0	48.1

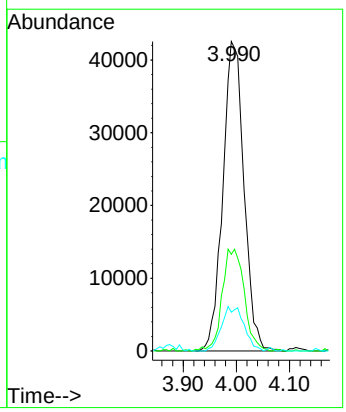


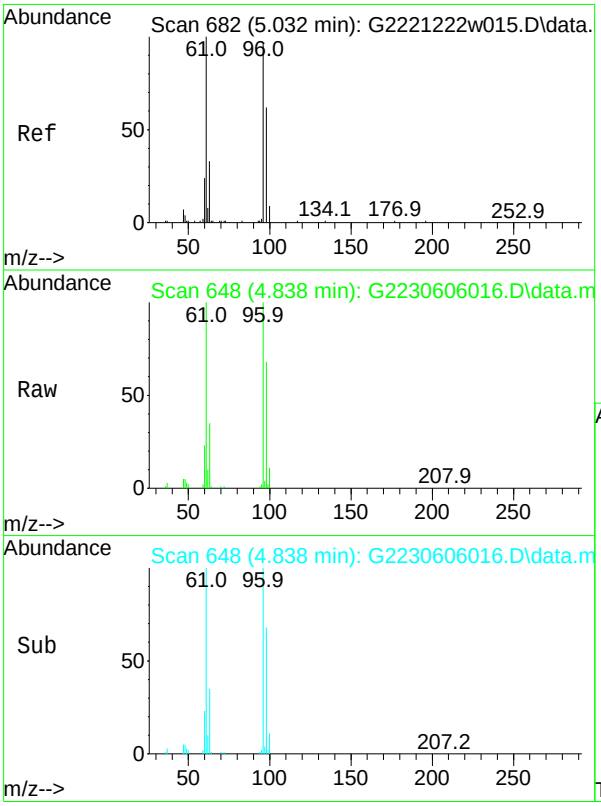


#23
1,1-Dichloroethane
Concen: 2.18 ug/L
RT: 3.996 min Scan# 510
Delta R.T. -0.002 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 63 Resp: 1176786

Ion	Ratio	Lower	Upper
63	100		
65	33.5	1.1	61.1
83	15.3	0.0	42.9

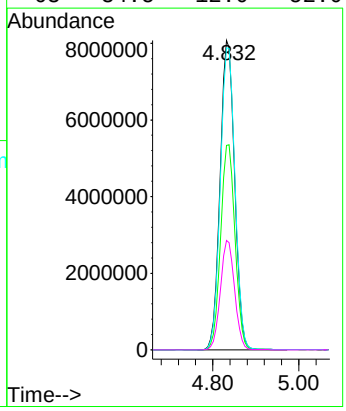


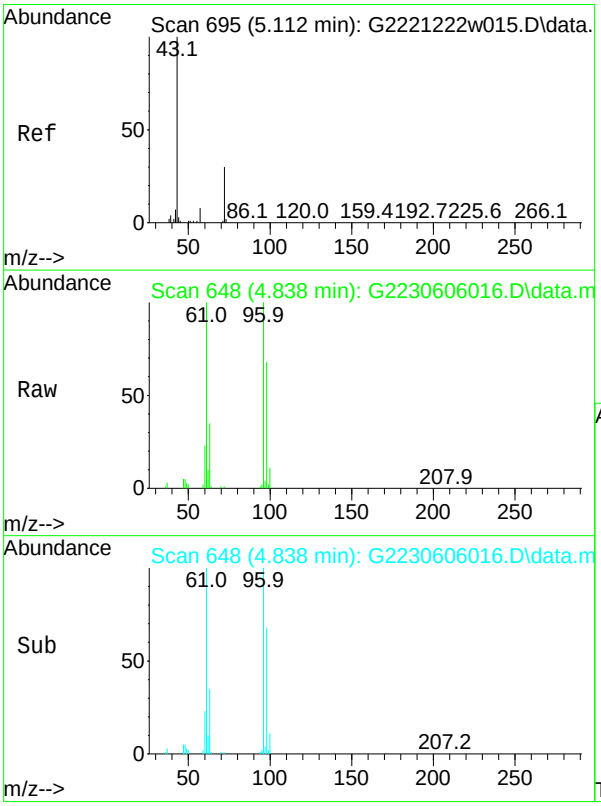


#28
cis-1,2-Dichloroethene
Concen: 402.60 ug/L
RT: 4.836 min Scan# 648
Delta R.T. 0.000 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 61 Resp:189080988

Ion	Ratio	Lower	Upper
61	100		
98	65.8	15.9	75.9
96	98.7	39.6	99.6
63	34.5	12.0	52.0

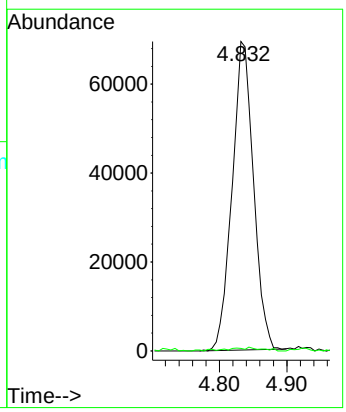


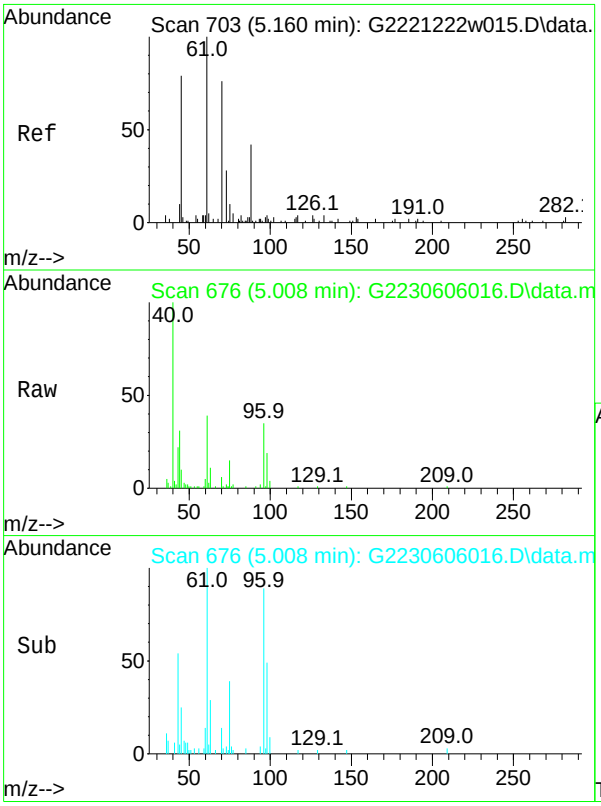


#29
2-Butanone
Concen: 32.32 ug/L
RT: 4.837 min Scan# 648
Delta R.T. -0.082 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 72 Resp: 1525183

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

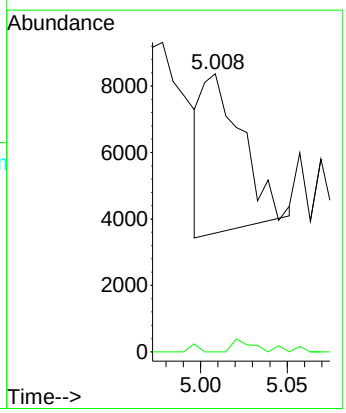


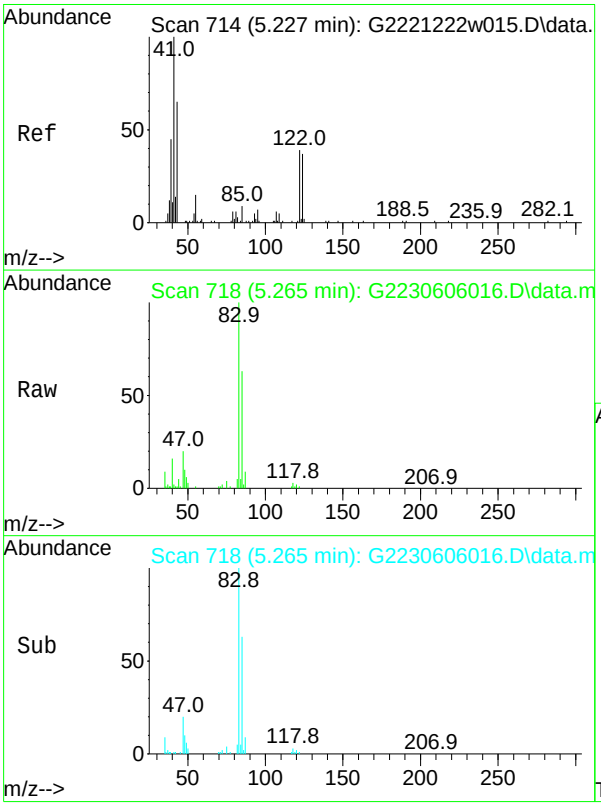


#31
Ethyl acetate
Concen: 1.27 ug/L
RT: 5.009 min Scan# 676
Delta R.T. -0.013 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 61 Resp: 83495

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

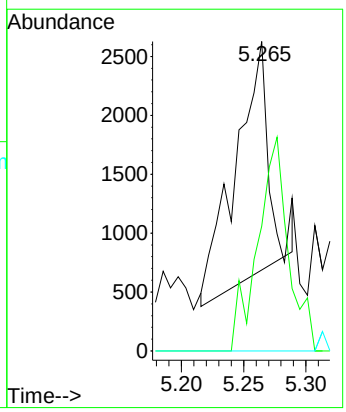


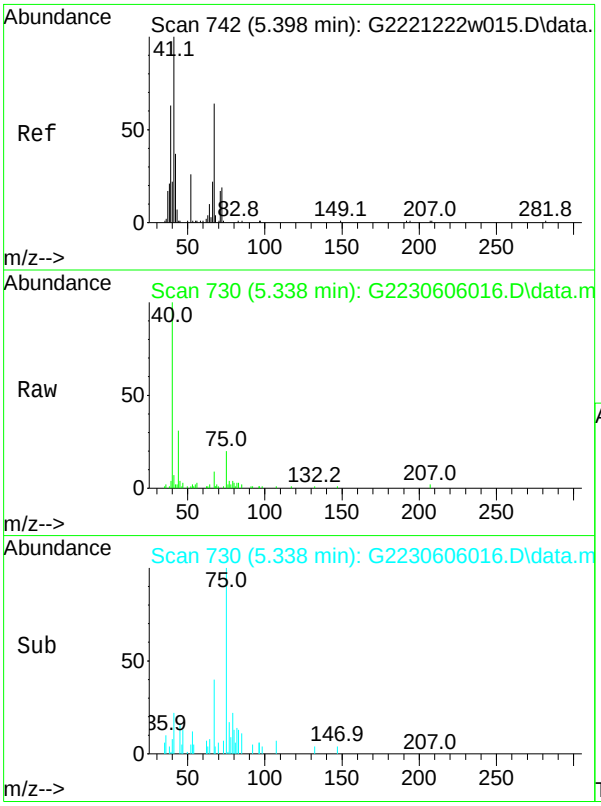


#33
1-Bromopropane
Concen: 0.05 ug/L
RT: 5.266 min Scan# 718
Delta R.T. 0.190 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 41 Resp: 33160

Ion	Ratio	Lower	Upper
41	100		
122	83.9	5.6	65.6#
124	0.0	3.8	63.8#

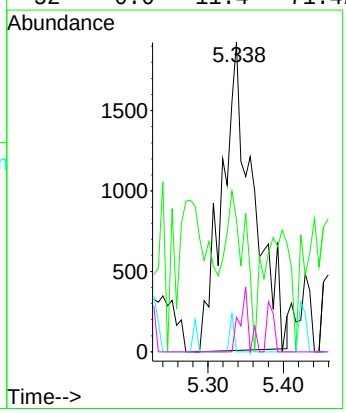


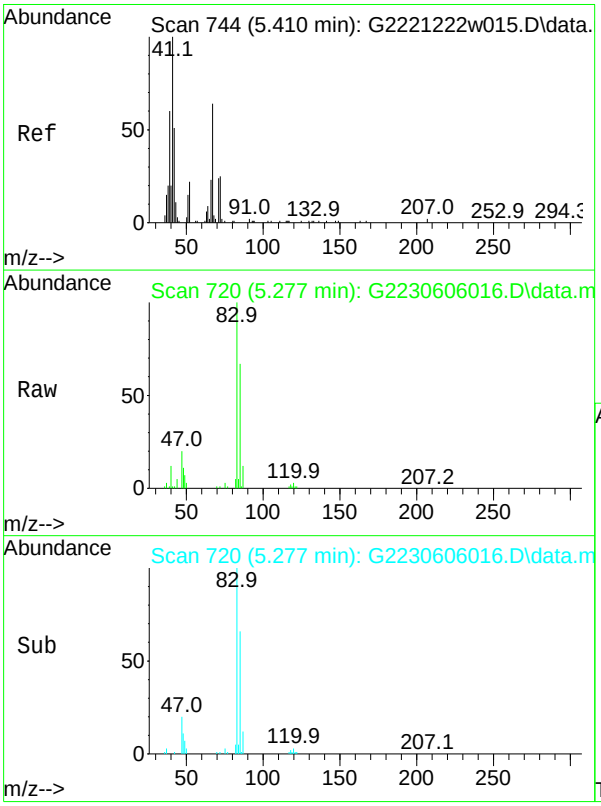


#35
Methacrylonitrile
Concen: 0.19 ug/L
RT: 5.339 min Scan# 730
Delta R.T. 0.162 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 67 Resp: 54528

Ion	Ratio	Lower	Upper
67	100		
39	0.0	22.4	122.4#
66	0.0	5.8	65.8#
52	0.0	11.4	71.4#

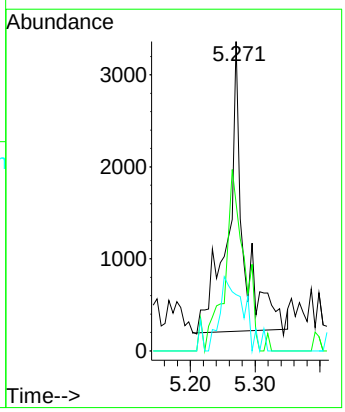


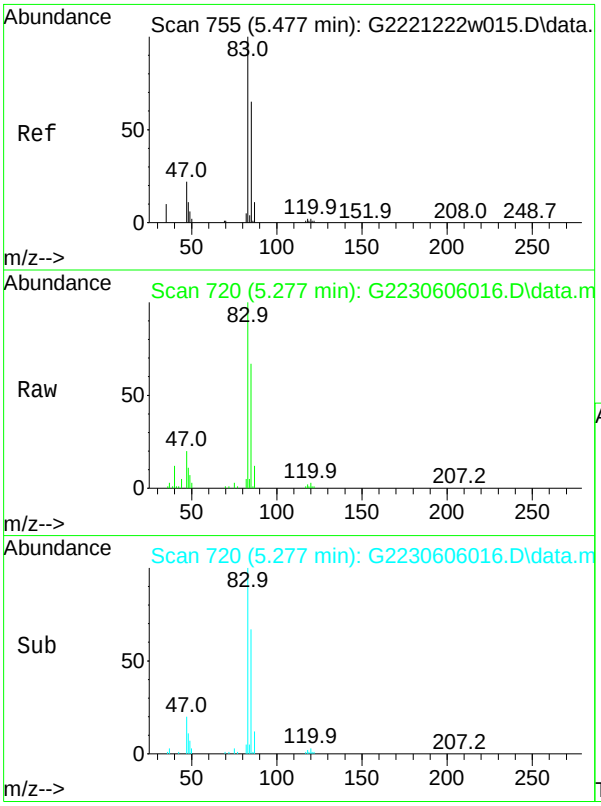


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.274 min Scan# 720
Delta R.T. 0.013 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 42 Resp: 52662

Ion	Ratio	Lower	Upper
42	100		
72	72.6	18.8	78.8
71	0.0	14.7	74.7#

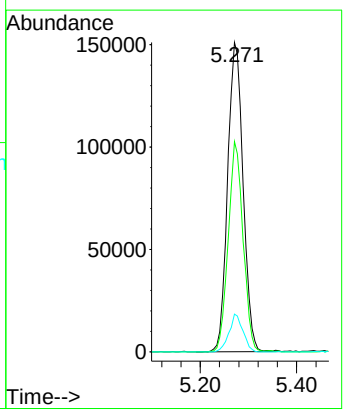


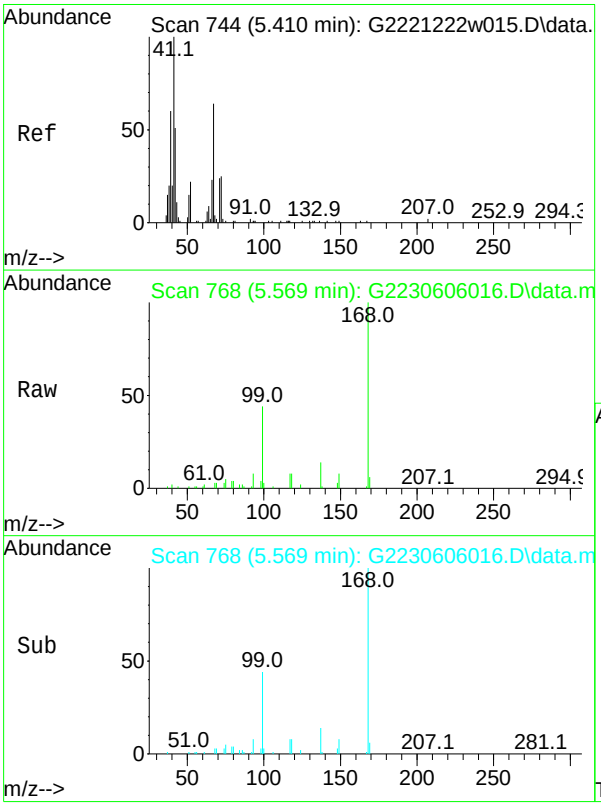


#37
Chloroform
Concen: 5.43 ug/L
RT: 5.275 min Scan# 720
Delta R.T. -0.001 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 83 Resp: 3349919

Ion	Ratio	Lower	Upper
83	100		
85	65.2	35.4	95.4
87	11.0	0.0	40.8

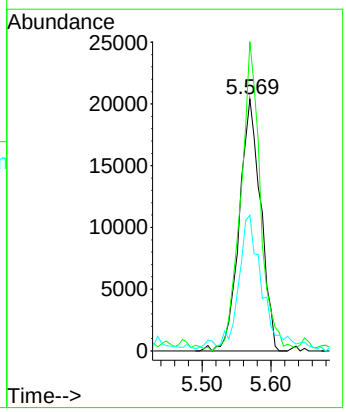


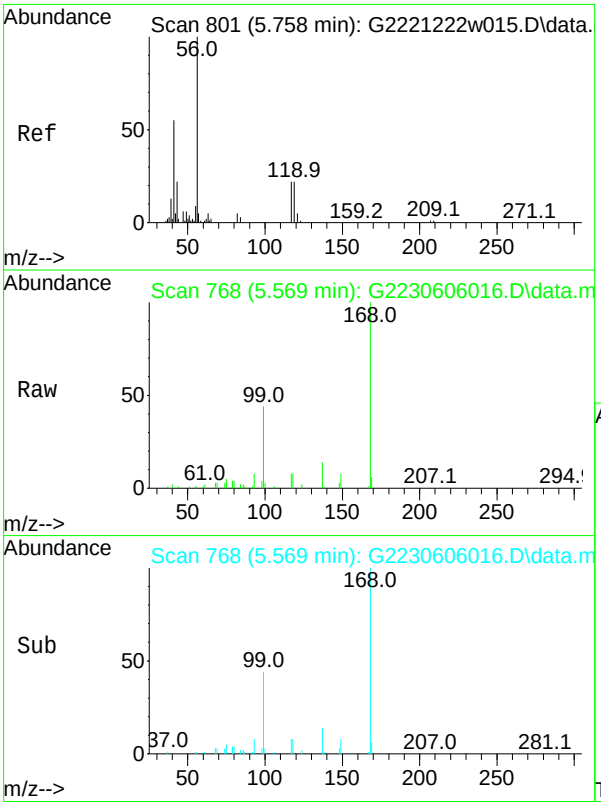


#40
Cyclohexane
Concen: 0.87 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 84 Resp: 439511

Ion	Ratio	Lower	Upper
84	100		
69	113.1	6.8	66.8#
56	59.2	79.1	139.1#

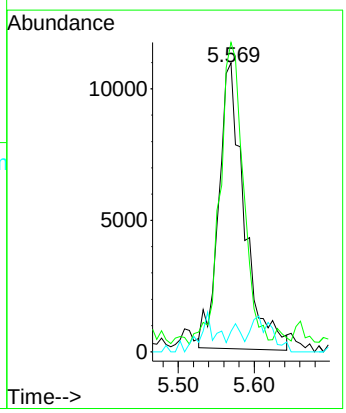


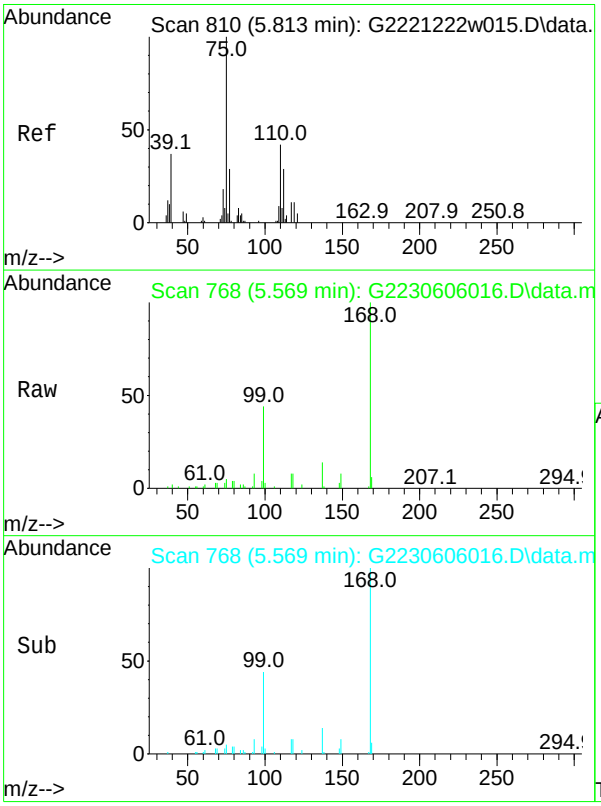


#41
1-Chlorobutane
Concen: 0.43 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 56 Resp: 252584

Ion	Ratio	Lower	Upper
56	100		
55	89.6	0.0	41.0#
57	0.0	0.0	35.7

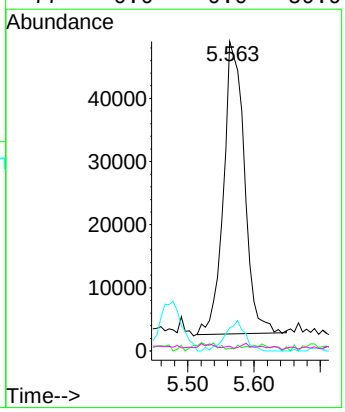


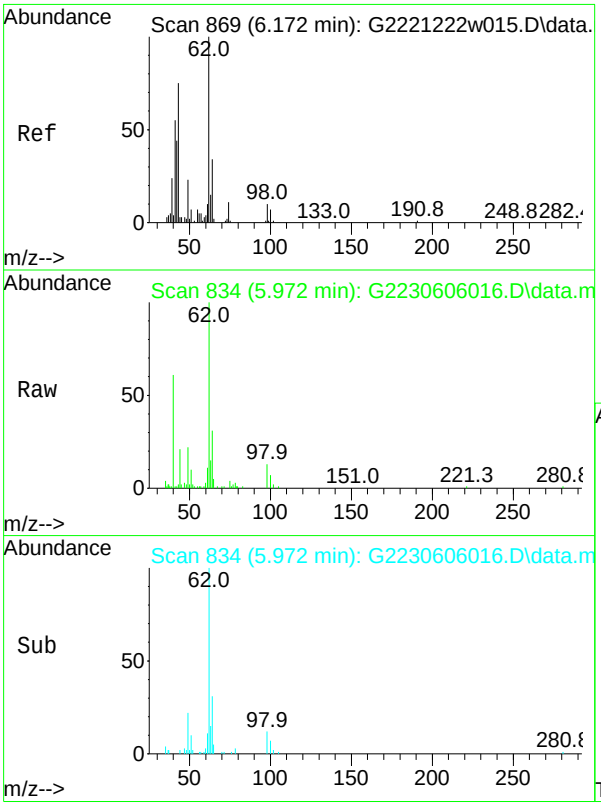


#42
1,1-Dichloropropene
Concen: 2.31 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 75 Resp: 1016734

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

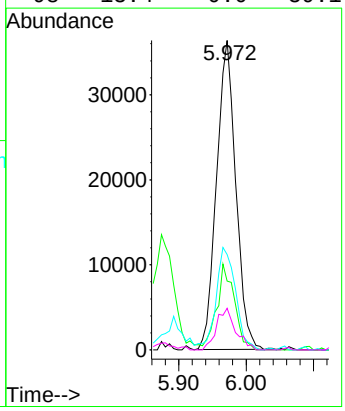


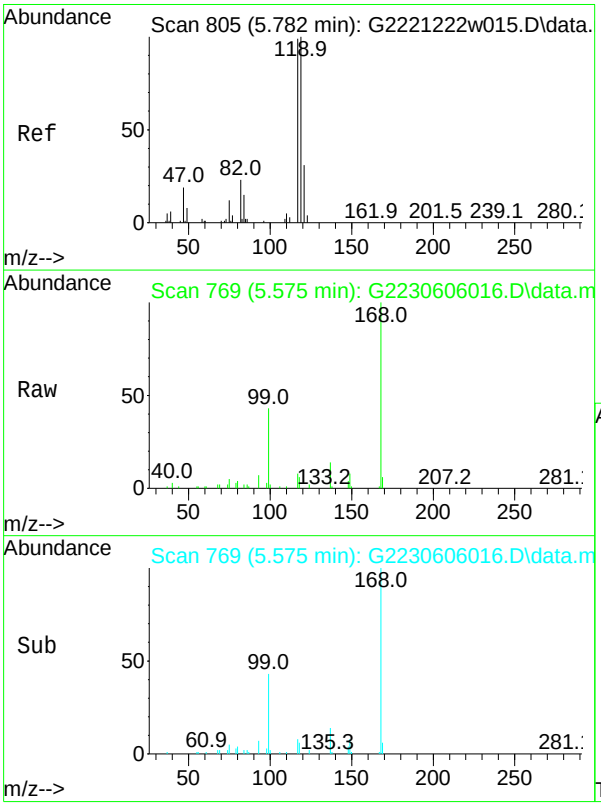


#44
1,2-Dichloroethane
Concen: 1.56 ug/L
RT: 5.973 min Scan# 834
Delta R.T. 0.002 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 62 Resp: 718290

Ion	Ratio	Lower	Upper
62	100		
49	25.6	0.2	60.2
64	33.7	3.0	63.0
98	13.4	0.0	39.1

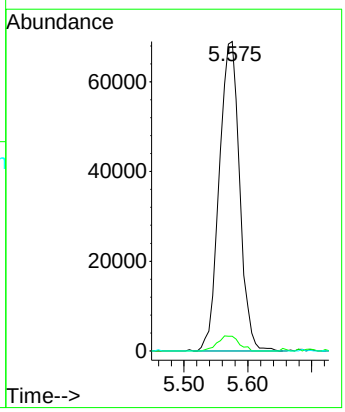


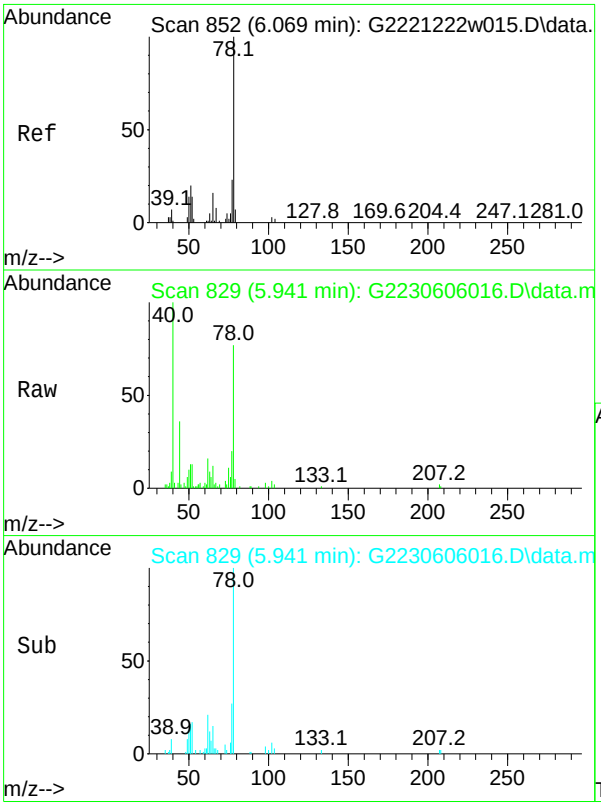


#47
Carbon tetrachloride
Concen: 3.26 ug/L
RT: 5.575 min Scan# 769
Delta R.T. -0.105 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion:117 Resp: 1527651

Ion	Ratio	Lower	Upper
117	100		
119	5.2	66.4	126.4#
121	0.0	0.4	60.4#

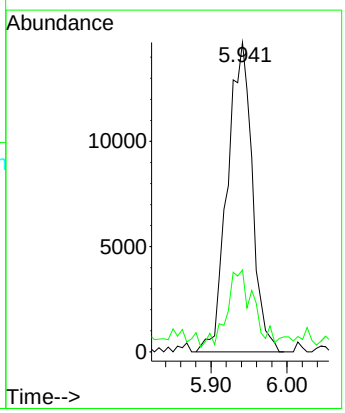


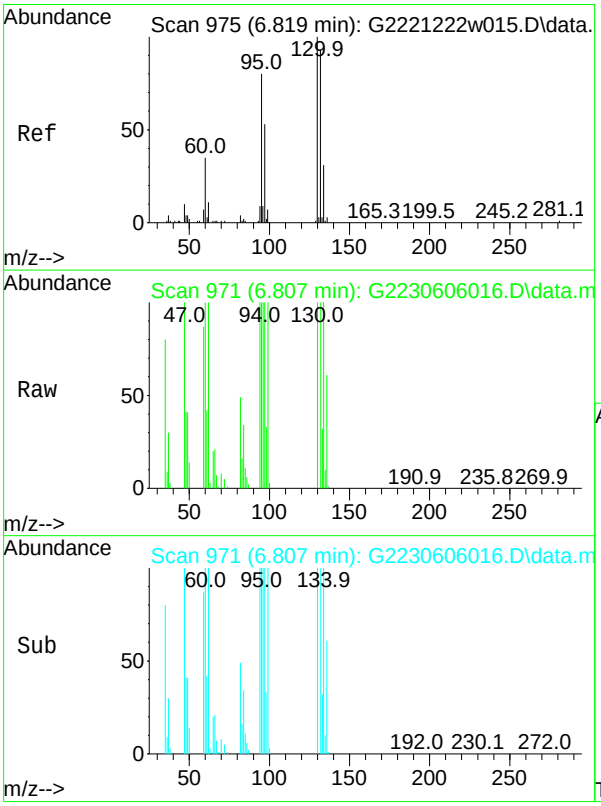


#48
Benzene
Concen: 0.26 ug/L
RT: 5.943 min Scan# 829
Delta R.T. 0.008 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 78 Resp: 332612

Ion	Ratio	Lower	Upper
78	100		
77	23.9	0.0	53.8

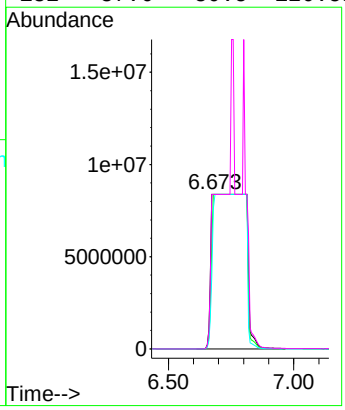


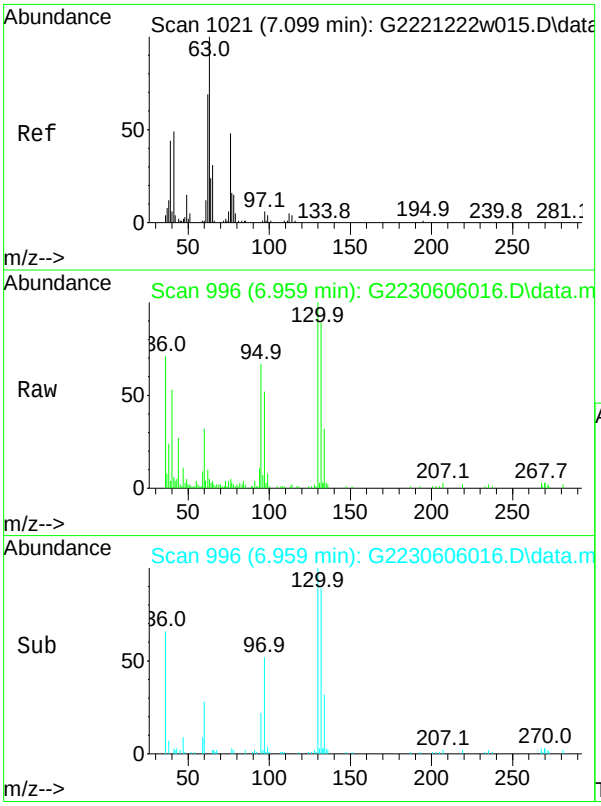


#50
Trichloroethene
Concen: 2299.09 ug/L
RT: 6.807 min Scan# 971
Delta R.T. 0.111 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 95 Resp:783744891

Ion	Ratio	Lower	Upper
95	100		
97	96.6	35.5	95.5#
60	93.7	14.8	74.8#
132	37.6	80.5	120.5#

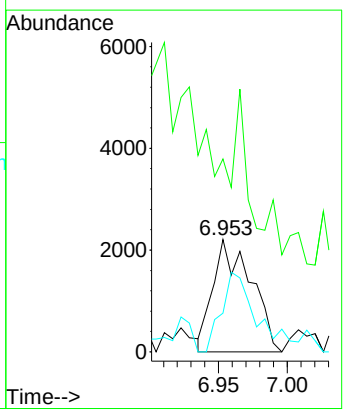


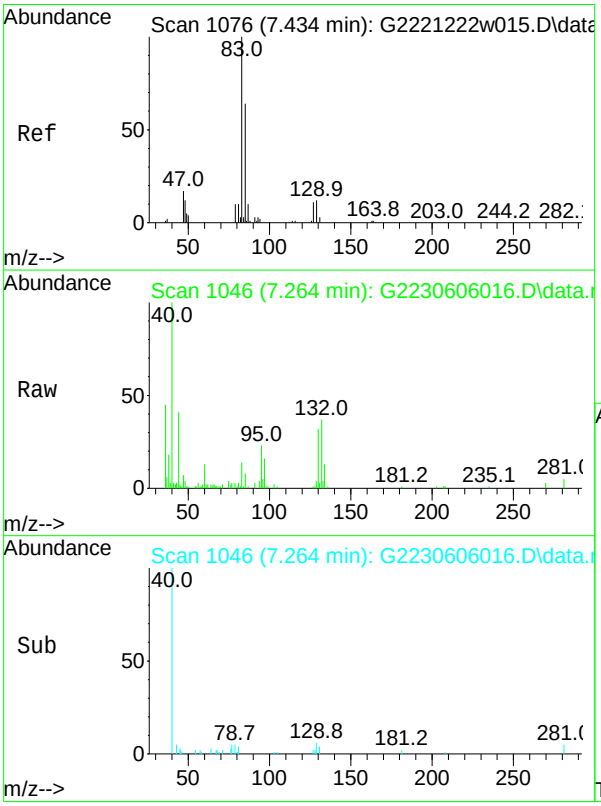


#52
1,2-Dichloropropane
Concen: 0.07 ug/L
RT: 6.957 min Scan# 996
Delta R.T. 0.011 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 63 Resp: 43656

Ion	Ratio	Lower	Upper
63	100		
62	41.7	35.2	95.2
76	0.0	10.7	70.7#

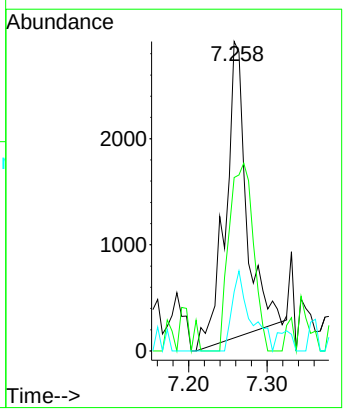


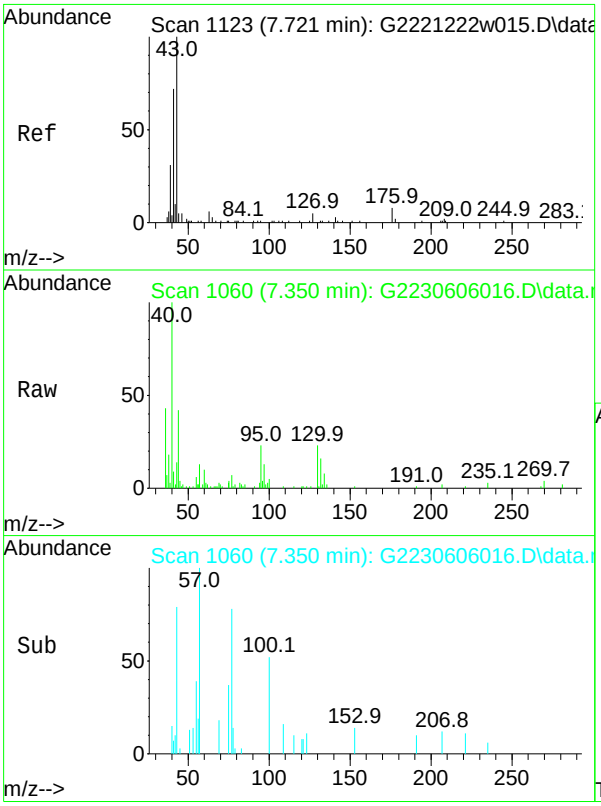


#56
Bromodichloromethane
Concen: 0.05 ug/L
RT: 7.263 min Scan# 1046
Delta R.T. 0.004 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 83 Resp: 51030

Ion	Ratio	Lower	Upper
83	100		
85	74.0	34.5	94.5
129	0.0	0.0	42.3

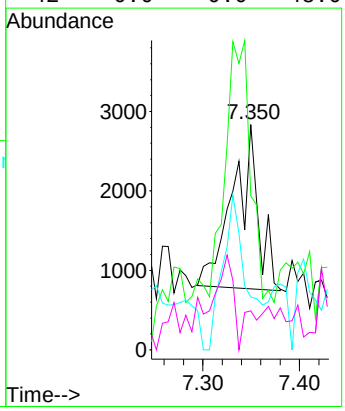


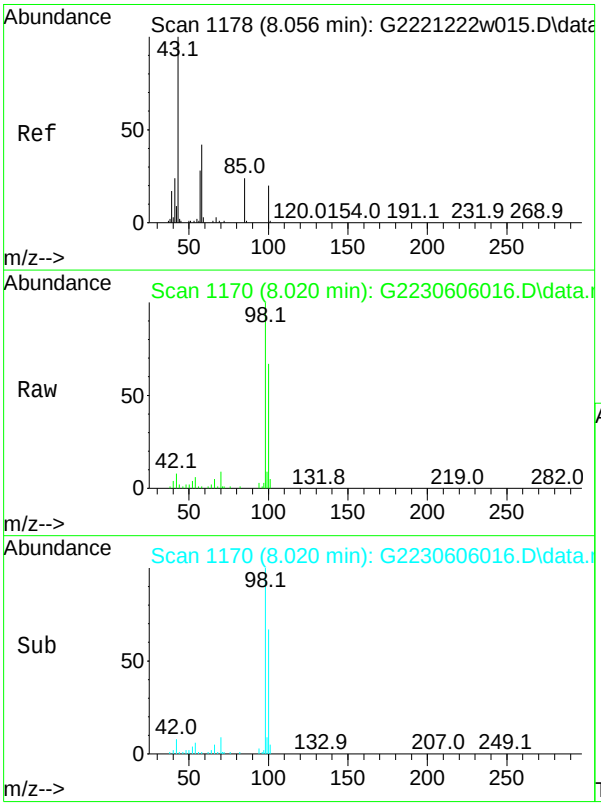


#57
2-Nitropropane
Concen: 0.12 ug/L
RT: 7.352 min Scan# 1060
Delta R.T. -0.172 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 43 Resp: 38044

Ion	Ratio	Lower	Upper
43	100		
41	155.2	58.2	118.2#
39	37.2	3.1	63.1
42	0.0	0.0	48.0

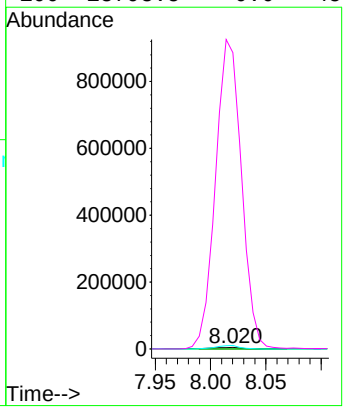


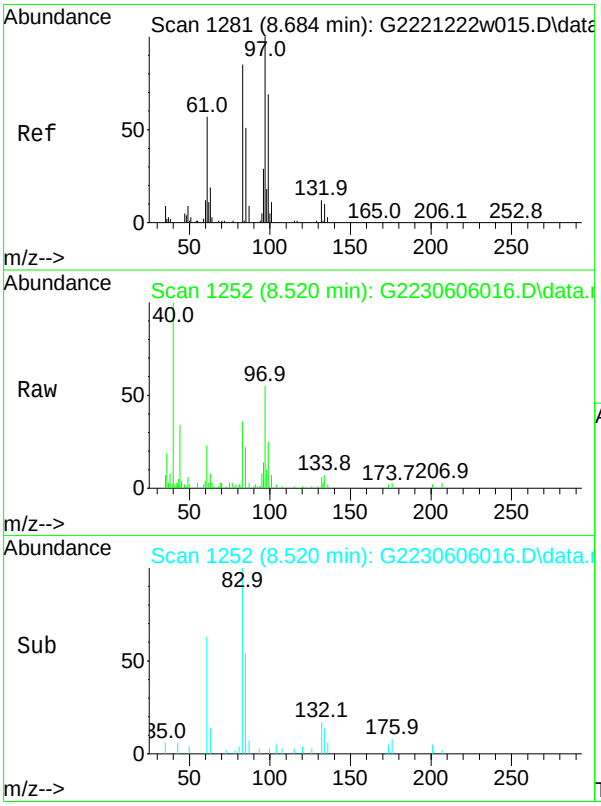


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.018 min Scan# 1170
Delta R.T. 0.074 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 43 Resp: 80692

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	195.7	37.0	37.0#
100	18798.5	0.0	45.2#

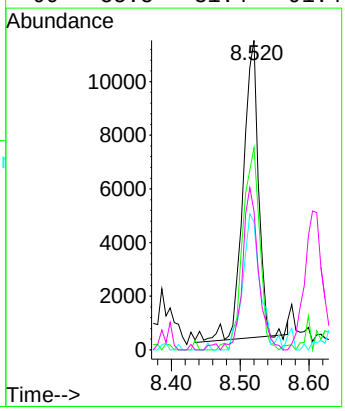


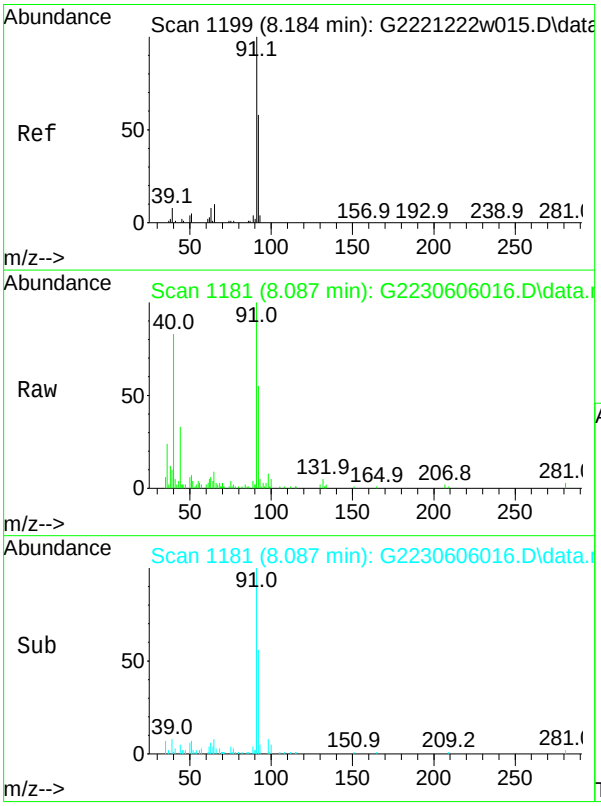


#62
1,1,2-Trichloroethane
Concen: 0.50 ug/L
RT: 8.520 min Scan# 1252
Delta R.T. 0.001 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 97 Resp: 171992

Ion	Ratio	Lower	Upper
97	100		
83	72.8	53.8	113.8
61	52.0	29.0	89.0
99	55.5	31.4	91.4

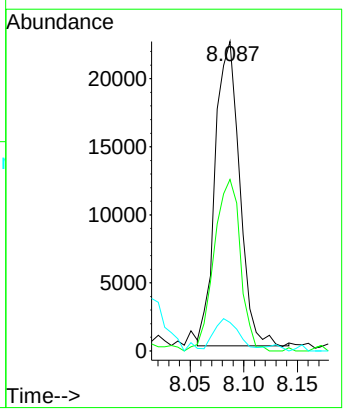


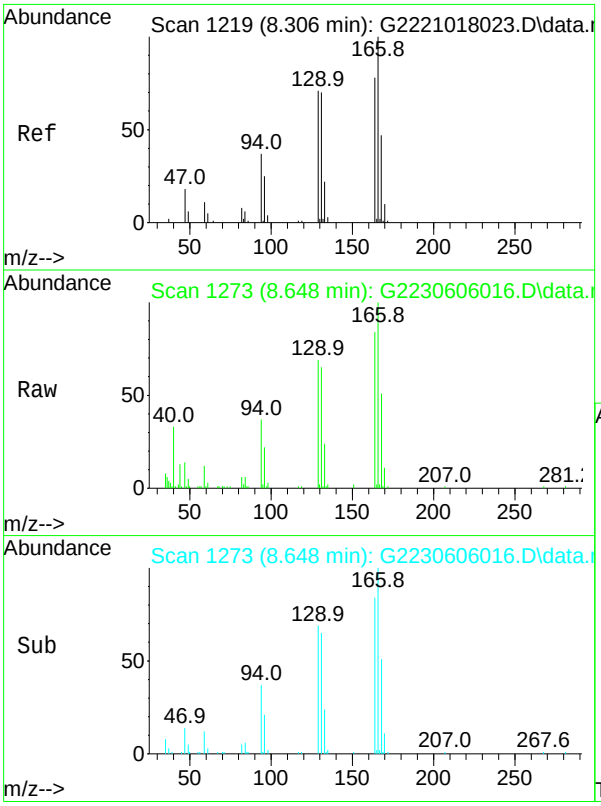


#65
Toluene
Concen: 0.28 ug/L
RT: 8.087 min Scan# 1181
Delta R.T. 0.001 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 91 Resp: 357222

Ion	Ratio	Lower	Upper
91	100		
92	60.3	27.5	87.5
65	8.8	0.0	41.4

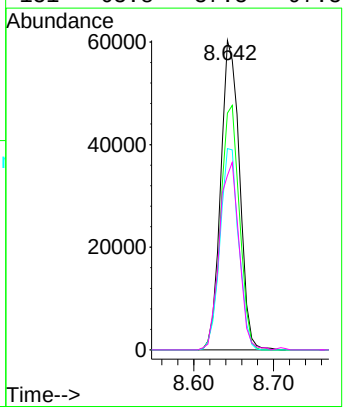


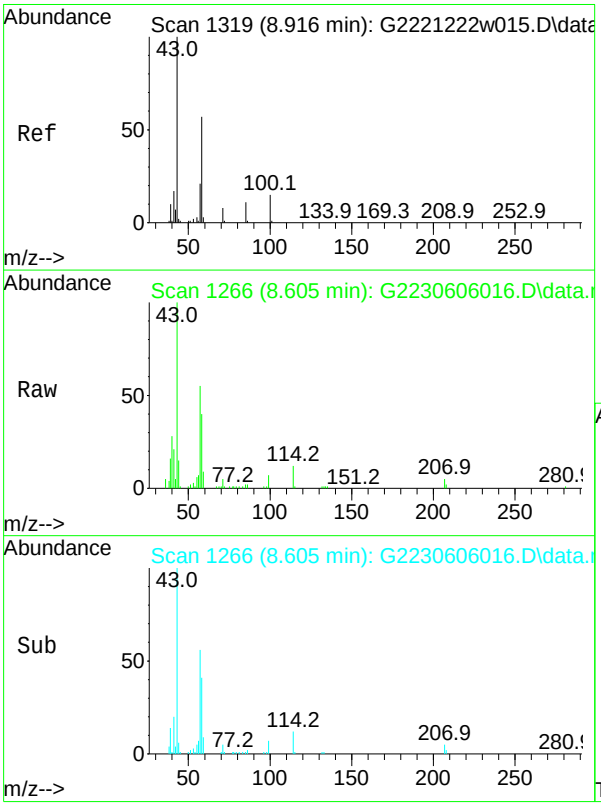


#67
Tetrachloroethene
Concen: 3.00 ug/L
RT: 8.647 min Scan# 1273
Delta R.T. -0.001 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion:166 Resp: 983870

Ion	Ratio	Lower	Upper
166	100		
164	78.7	44.8	104.8
129	64.4	40.6	100.6
131	63.8	37.3	97.3

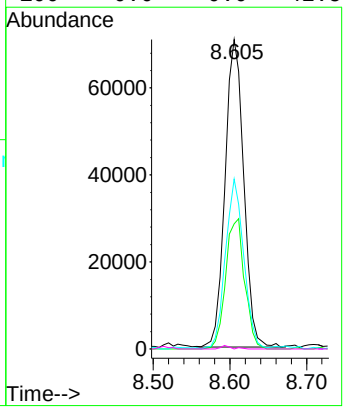


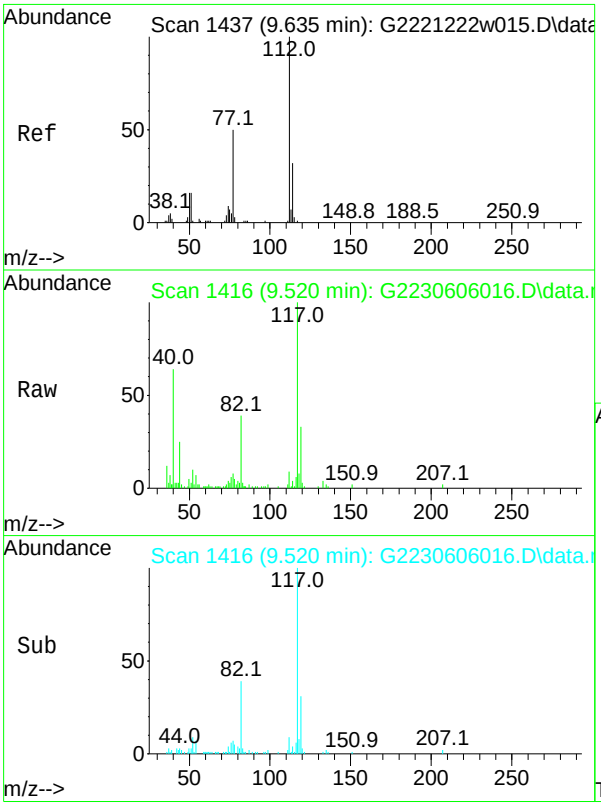


#69
2-Hexanone
Concen: 7.02 ug/L
RT: 8.608 min Scan# 1266
Delta R.T. -0.201 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 43 Resp: 1188605

Ion	Ratio	Lower	Upper
43	100		
58	43.1	25.2	85.2
57	53.2	0.0	49.3#
100	0.0	0.0	42.5

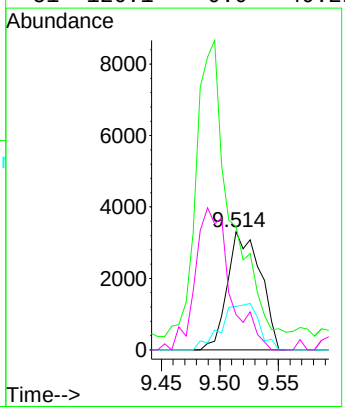


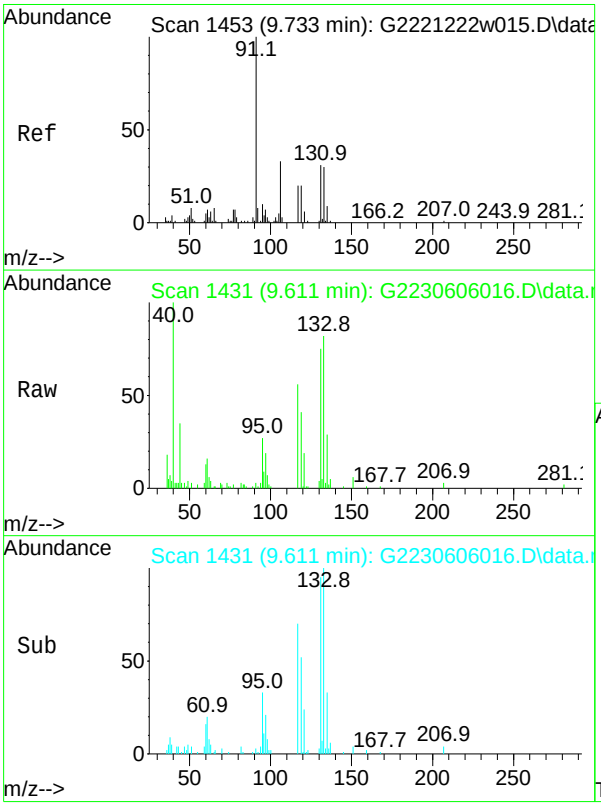


#72
Chlorobenzene
Concen: 0.09 ug/L
RT: 9.519 min Scan# 1416
Delta R.T. -0.005 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion:112 Resp: 64716

Ion	Ratio	Lower	Upper
112	100		
77	250.3	27.8	87.8#
114	0.0	3.4	63.4#
51	126.1	0.0	49.2#

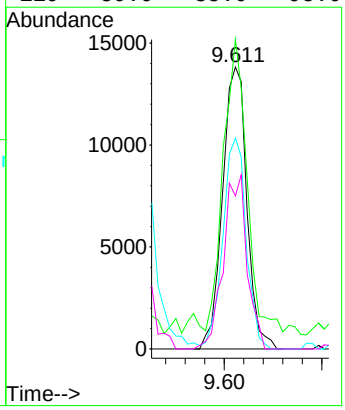


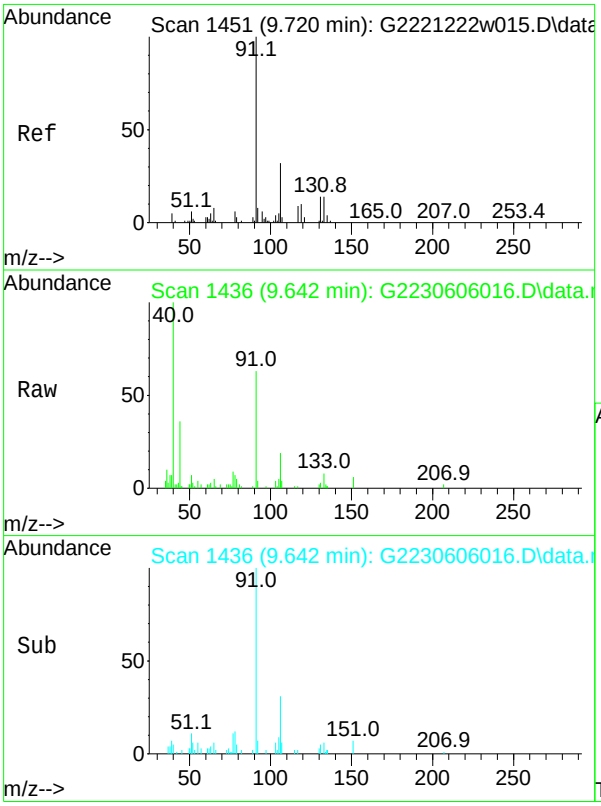


#73
1,1,1,2-Tetrachloroethane
Concen: 0.85 ug/L
RT: 9.614 min Scan# 1431
Delta R.T. 0.000 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion:131 Resp: 238334

Ion	Ratio	Lower	Upper
131	100		
133	99.0	63.2	123.2
117	72.0	37.8	97.8
119	59.9	35.0	95.0

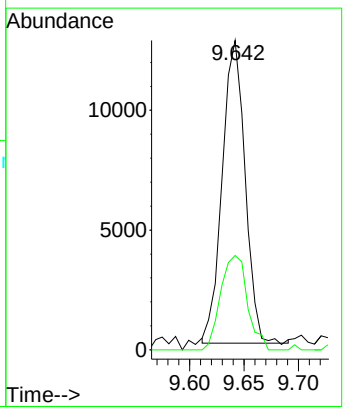


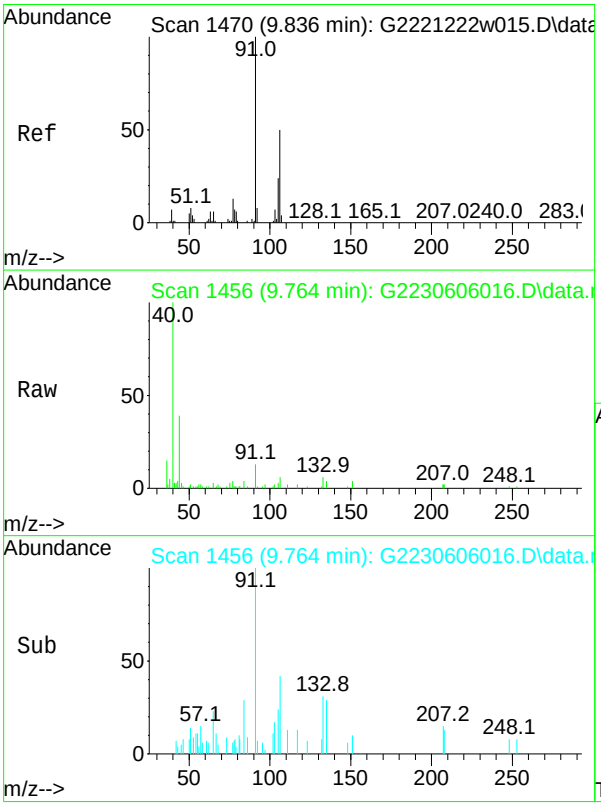


#74
Ethylbenzene
Concen: 0.10 ug/L
RT: 9.643 min Scan# 1436
Delta R.T. 0.000 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 91 Resp: 186075

Ion	Ratio	Lower	Upper
91	100		
106	36.3	0.8	60.8

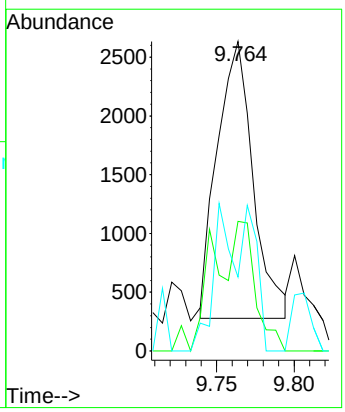


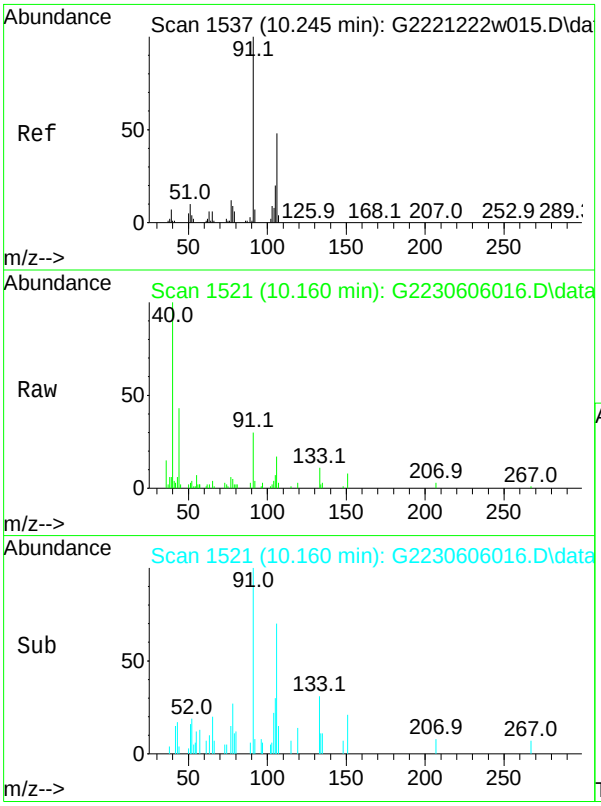


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.765 min Scan# 1456
Delta R.T. 0.001 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 91 Resp: 37509

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

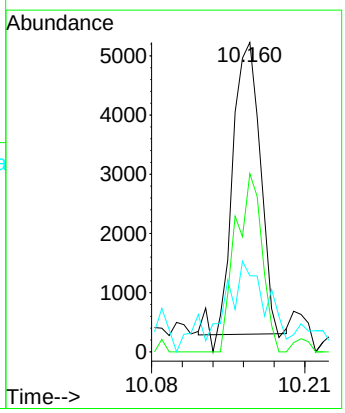


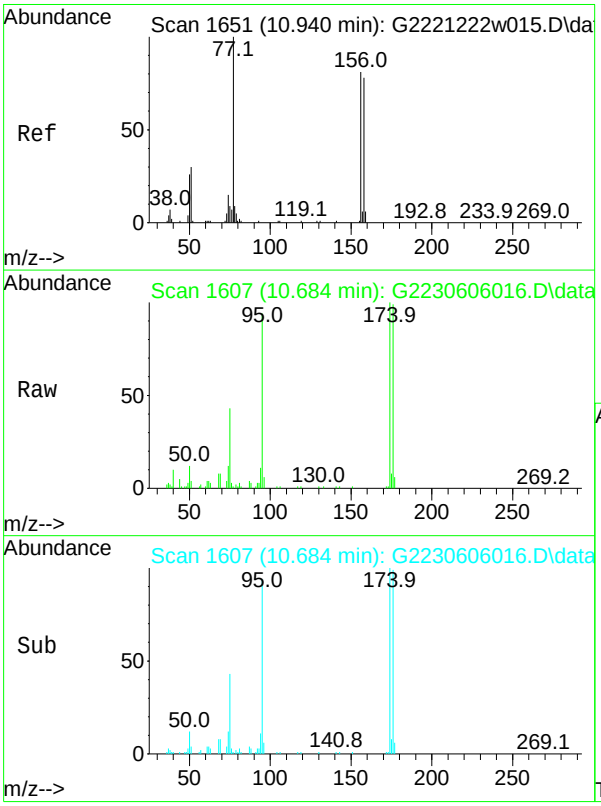


#79
o-Xylene
Concen: 0.12 ug/L
RT: 10.160 min Scan# 1521
Delta R.T. -0.001 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 91 Resp: 77506

Ion	Ratio	Lower	Upper
91	100		
106	59.5	16.2	76.2
105	0.0	0.0	56.7

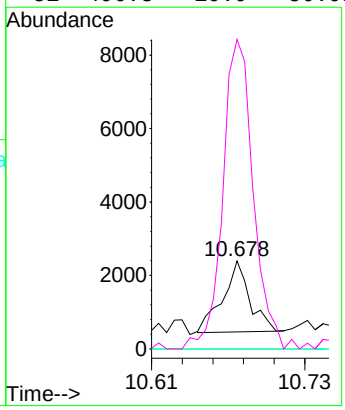


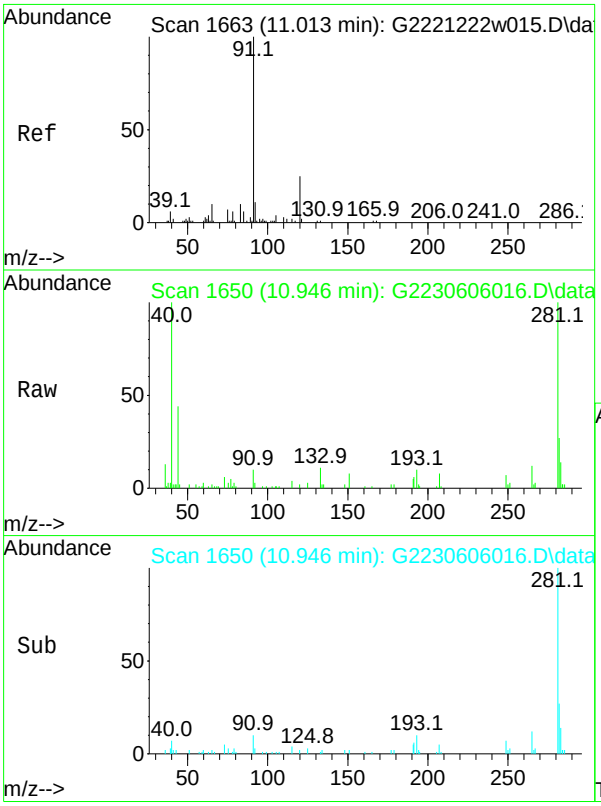


#82
Bromobenzene
Concen: 0.10 ug/L
RT: 10.681 min Scan# 1607
Delta R.T. -0.147 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 77 Resp: 28120

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	496.3	10.9	50.9#

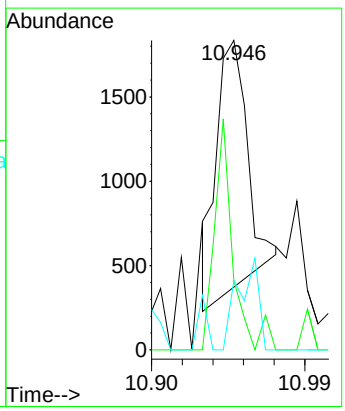


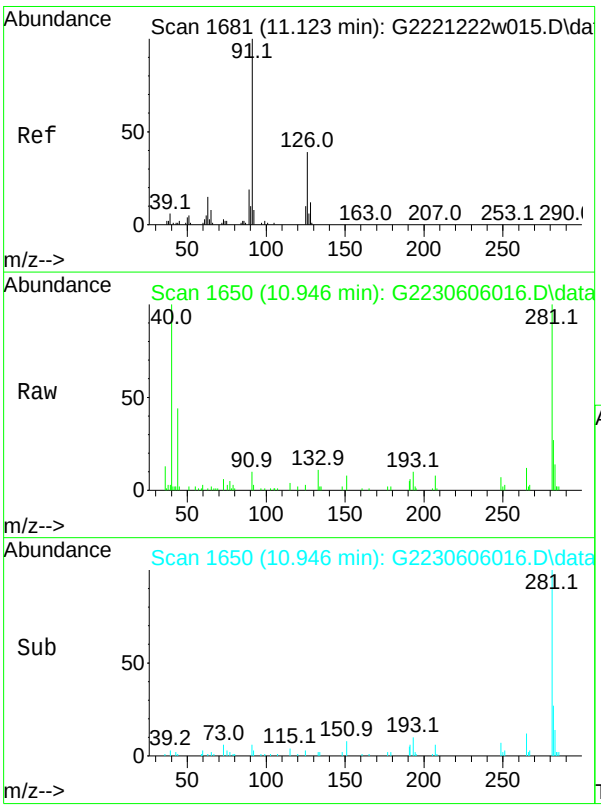


#86
n-Propylbenzene
Concen: 0.02 ug/L
RT: 10.947 min Scan# 1650
Delta R.T. -0.002 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 91 Resp: 18828

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.3
65	0.0	0.0	40.3

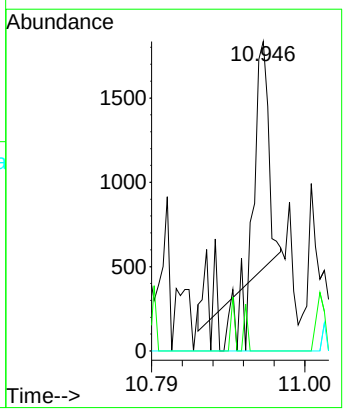


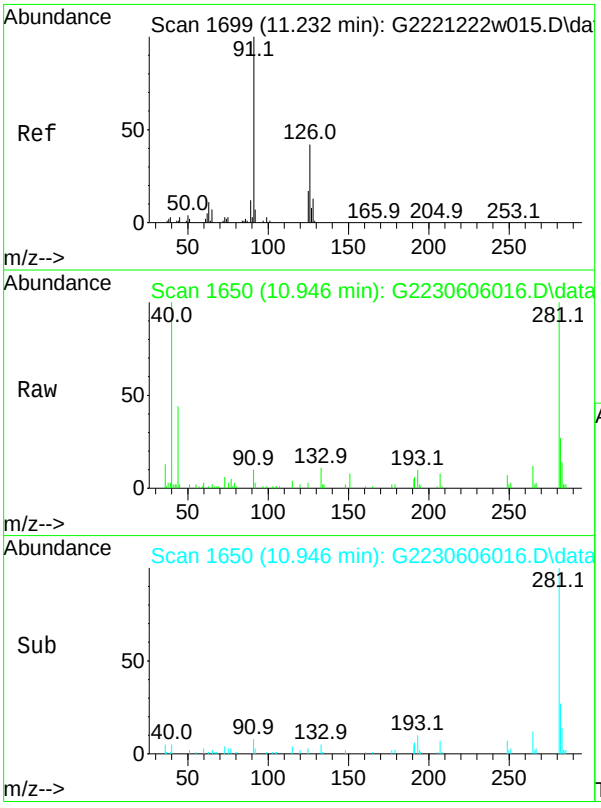


#87
2-Chlorotoluene
Concen: 0.03 ug/L
RT: 10.947 min Scan# 1650
Delta R.T. -0.081 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 91 Resp: 15806

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

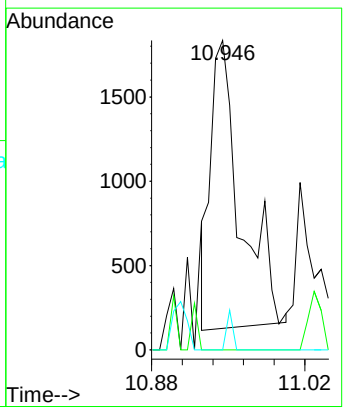


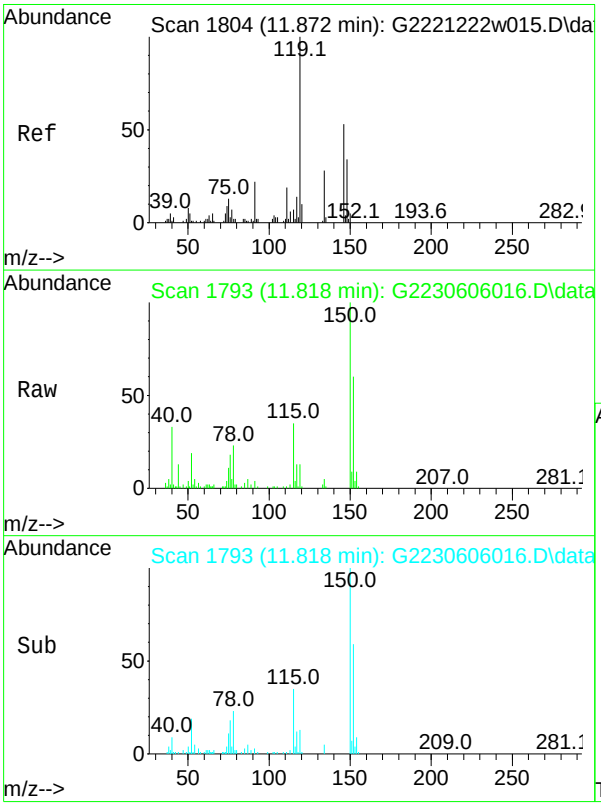


#88
4-Chlorotoluene
Concen: 0.05 ug/L
RT: 10.947 min Scan# 1650
Delta R.T. -0.190 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 91 Resp: 32120

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.7	60.7#
127	0.0	0.0	36.1

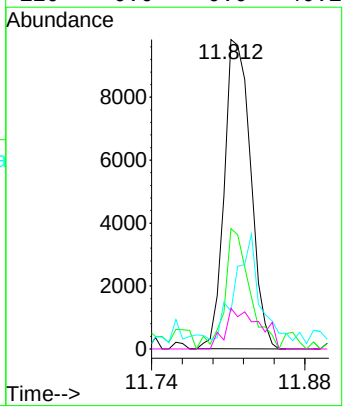


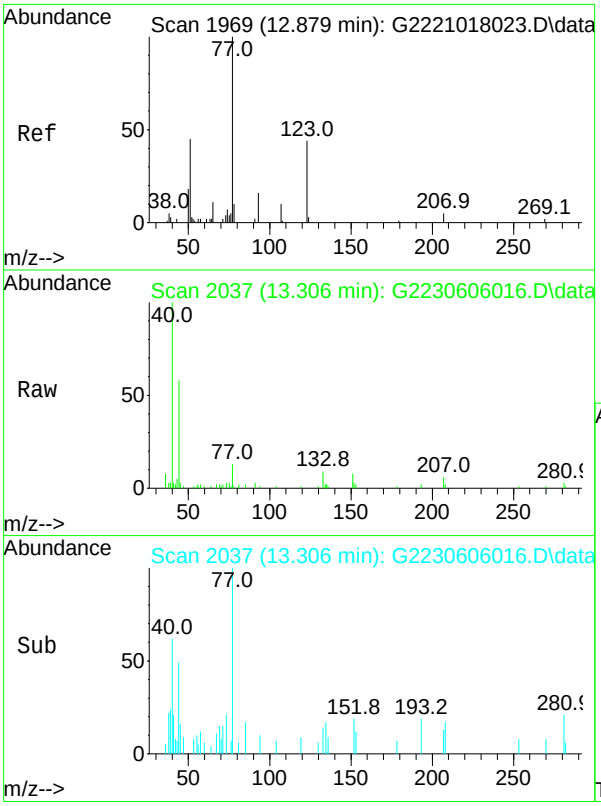


#95
4-Isopropyltoluene
Concen: 0.26 ug/L
RT: 11.819 min Scan# 1793
Delta R.T. -0.004 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion:119 Resp: 159330

Ion	Ratio	Lower	Upper
119	100		
134	33.2	0.0	56.2
91	30.2	0.0	52.5
120	0.0	0.0	40.1

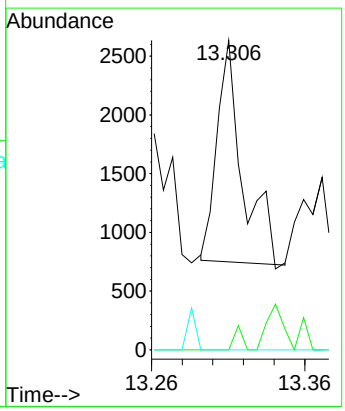




#102
Nitrobenzene
Concen: 1.13 ug/L
RT: 13.307 min Scan# 2037
Delta R.T. 0.079 min
Lab File: G2230606016.D
Acq: 06 Jun 2023 16:53

Tgt Ion: 77 Resp: 21803

Ion	Ratio	Lower	Upper
77	100		
51	0.0	13.2	73.2#
123	0.0	15.2	75.2#



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01RE1	File ID:	G2230607008.D
Sampled:	05/25/23 13:10	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 17:44
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		13.0	40.0	100	U
71-55-6	1,1,1-Trichloroethane		17.5	40.0	100	U
79-34-5	1,1,2,2-Tetrachloroethane		12.4	40.0	100	U
79-00-5	1,1,2-Trichloroethane		16.6	40.0	100	U
75-34-3	1,1-Dichloroethane		13.4	40.0	100	U
75-35-4	1,1-Dichloroethene		19.1	40.0	100	U
563-58-6	1,1-Dichloropropene		14.0	40.0	100	U
87-61-6	1,2,3-Trichlorobenzene		20.4	40.0	100	U
96-18-4	1,2,3-Trichloropropane		18.3	40.0	100	U
120-82-1	1,2,4-Trichlorobenzene		20.5	60.0	120	U
95-63-6	1,2,4-Trimethylbenzene		13.2	40.0	100	U
96-12-8	1,2-Dibromo-3-chloropropane		26.0	100	200	U
106-93-4	1,2-Dibromoethane		10.6	40.0	100	U
95-50-1	1,2-Dichlorobenzene		12.6	40.0	100	U
107-06-2	1,2-Dichloroethane		21.2	60.0	120	U
78-87-5	1,2-Dichloropropane		20.5	60.0	120	U
108-67-8	1,3,5-Trimethylbenzene		10.0	40.0	100	U
541-73-1	1,3-Dichlorobenzene		14.5	40.0	100	U
142-28-9	1,3-Dichloropropane		13.6	40.0	100	U
106-46-7	1,4-Dichlorobenzene		18.4	40.0	100	U
594-20-7	2,2-Dichloropropane		18.4	40.0	100	U
78-93-3	2-Butanone		66.0	140	350	U
95-49-8	2-Chlorotoluene		14.7	40.0	100	U
591-78-6	2-Hexanone		14.3	140	350	U
106-43-4	4-Chlorotoluene		18.4	40.0	100	U
99-87-6	4-Isopropyltoluene		14.0	40.0	100	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01RE1	File ID:	G2230607008.D
Sampled:	05/25/23 13:10	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 17:44
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		27.0	140	350	U
67-64-1	Acetone		104	400	800	U
71-43-2	Benzene		10.1	40.0	100	U
108-86-1	Bromobenzene		17.0	40.0	100	U
74-97-5	Bromochloromethane		13.4	40.0	100	U
75-27-4	Bromodichloromethane		10.6	40.0	100	U
75-25-2	Bromoform		20.6	40.0	100	U
74-83-9	Bromomethane		32.0	100	200	U
75-15-0	Carbon disulfide		28.0	100	200	U
56-23-5	Carbon tetrachloride		16.9	40.0	100	U
108-90-7	Chlorobenzene		13.0	40.0	100	U
75-00-3	Chloroethane		31.1	40.0	100	U
67-66-3	Chloroform		20.3	60.0	120	U
74-87-3	Chloromethane		38.4	100	200	U
156-59-2	cis-1,2-Dichloroethene	384	20.5	60.0	120	D
10061-01-5	cis-1,3-Dichloropropene		11.7	40.0	100	U
124-48-1	Dibromochloromethane		15.2	40.0	100	U
74-95-3	Dibromomethane		16.3	40.0	100	U
75-71-8	Dichlorodifluoromethane		25.9	100	200	U
100-41-4	Ethylbenzene		6.00	20.0	40.0	U
87-68-3	Hexachlorobutadiene		20.0	40.0	100	U
98-82-8	Isopropylbenzene		11.0	40.0	100	U
179601-23-1	m,p-Xylene		17.8	80.0	200	U
1634-04-4	Methyl tert-butyl ether		10.6	40.0	100	U
75-09-2	Methylene chloride		44.7	100	200	U
104-51-8	n-Butylbenzene		26.0	100	200	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01RE1	File ID:	G2230607008.D
Sampled:	05/25/23 13:10	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 17:44
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		12.6	40.0	100	U
91-20-3	Naphthalene		14.0	40.0	100	U
95-47-6	o-Xylene		8.32	40.0	100	U
135-98-8	sec-Butylbenzene		12.0	40.0	100	U
100-42-5	Styrene		9.06	20.0	40.0	U
98-06-6	tert-Butylbenzene		9.06	40.0	100	U
127-18-4	*Tetrachloroethene*		*35.7*	*100*	*200*	*Q, U*
108-88-3	Toluene		11.4	40.0	100	U
156-60-5	trans-1,2-Dichloroethene		17.1	40.0	100	U
10061-02-6	trans-1,3-Dichloropropene		11.7	40.0	100	U
79-01-6	*Trichloroethene*	*84900*	*15.6*	*40.0*	*100*	*B, D, E*
75-69-4	Trichlorofluoromethane		10.1	40.0	100	U
75-01-4	Vinyl chloride		25.8	100	200	U

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607008.D
Acq On : 07 Jun 2023 17:44
Operator : PO1
Sample : 23E0775-01RE1
Misc : 200
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 08 09:18:45 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

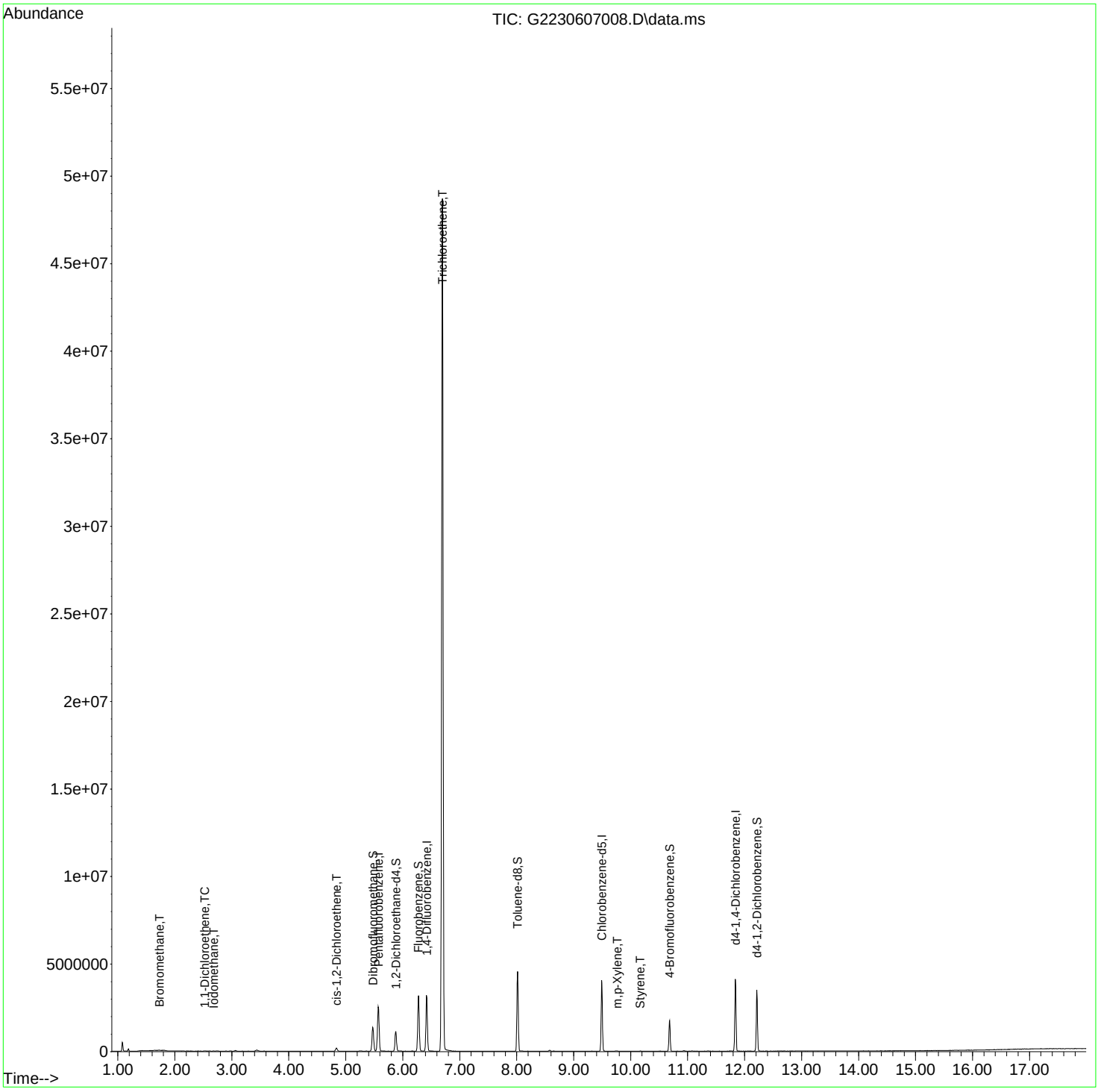
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.574	168	20467949	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.422	114	27663236	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.495	117	24055061	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11464608	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	8696343	19.31	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.55%				
43) 1,2-Dichloroethane-d4	5.879	65	7943785	17.85	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.25%				
49) Fluorobenzene	6.279	96	30968205	19.65	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%				
64) Toluene-d8	8.017	98	29795385	19.65	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%				
81) 4-Bromofluorobenzene	10.685	174	5421882	10.02	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.20%				
97) d4-1,2-Dichlorobenzene	12.218	152	9962584	20.21	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.05%				
Target Compounds							Qvalue
5) Bromomethane	1.726	94	83233	0.05	ug/L	#	82
10) 1,1-Dichloroethene	2.527	61	71019	0.08	ug/L	#	70
13) Iodomethane	2.684	142	62197	0.13	ug/L	#	73
18) Methylene chloride	3.065	49	164037	Below Cal			68
21) Methyl tert-butyl ether	3.441	73	893313	Below Cal			93
28) cis-1,2-Dichloroethene	4.838	61	1028544	1.92	ug/L		75
50) Trichloroethene	6.697	95	154200265	424.47	ug/L		93
65) Toluene	8.086	91	53342	Below Cal		#	89
75) m,p-Xylene	9.762	91	70807	0.05	ug/L	#	73
76) Styrene	10.169	104	28100	0.02	ug/L	#	29

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607008.D
Acq On : 07 Jun 2023 17:44
Operator : PO1
Sample : 23E0775-01RE1
Misc : 200
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 08 09:18:45 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607008.D
Acq On : 07 Jun 2023 17:44
Operator : PO1
Sample : 23E0775-01RE1
Misc : 200
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 08 09:18:45 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	5.574	168	20467949	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.422	114	27663236	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	24055061	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11464608	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	8696343	19.31	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.55%			
43) 1,2-Dichloroethane-d4	5.879	65	7943785	17.85	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.25%			
49) Fluorobenzene	6.279	96	30968205	19.65	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%			
64) Toluene-d8	8.017	98	29795385	19.65	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%			
81) 4-Bromofluorobenzene	10.685	174	5421882	10.02	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.20%			
97) d4-1,2-Dichlorobenzene	12.218	152	9962584	20.21	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.05%			
Target Compounds						Qvalue
5) Bromomethane	1.726	94	83233	0.05	ug/L #	82
7) Trichlorofluoromethane	2.037	101	857	0.00	ug/L #	16
9) Acrolein	2.438	56	12596	Below Cal	#	20
10) 1,1-Dichloroethene	2.527	61	71019	0.08	ug/L #	70
12) Acetone	2.613	43	83228	Below Cal	#	45
13) Iodomethane	2.684	142	62197	0.13	ug/L #	73
14) Carbon disulfide	2.744	76	186478	0.11	ug/L #	74
17) 3-Chloro-1-propene	2.744	76	186468	0.83	ug/L #	53
18) Methylene chloride	3.065	49	164037	Below Cal		68
21) Methyl tert-butyl ether	3.441	73	893313	Below Cal		93
28) cis-1,2-Dichloroethene	4.838	61	1028544	1.92	ug/L	75
31) Ethyl acetate	4.838	61	1024998	16.71	ug/L #	45
33) 1-Bromopropane	5.251	41	55701	0.14	ug/L #	40
36) Tetrahydrofuran	5.258	42	87310	0.27	ug/L	87
37) Chloroform	5.286	83	34080	0.05	ug/L #	25
40) Cyclohexane	5.570	84	456268	0.83	ug/L #	36
41) 1-Chlorobutane	5.573	56	286235	0.45	ug/L #	1
42) 1,1-Dichloropropene	5.572	75	1072700	2.24	ug/L #	37
44) 1,2-Dichloroethane	5.971	62	27370	Below Cal	#	47
47) Carbon tetrachloride	5.573	117	1652777	3.31	ug/L #	16
48) Benzene	5.935	78	38759	0.03	ug/L #	52
50) Trichloroethene	6.697	95	154200265	424.47	ug/L	93
52) 1,2-Dichloropropane	6.697	63	461857	1.40	ug/L #	1
60) 4-Methyl-2-pentanone	8.016	43	92035	Below Cal	#	1
65) Toluene	8.086	91	53342	Below Cal	#	89
72) Chlorobenzene	9.523	112	19452	0.02	ug/L #	1
74) Ethylbenzene	9.642	91	35060	Below Cal	#	44
75) m,p-Xylene	9.762	91	70807	0.05	ug/L #	73

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607008.D
Acq On : 07 Jun 2023 17:44
Operator : PO1
Sample : 23E0775-01RE1
Misc : 200
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 08 09:18:45 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

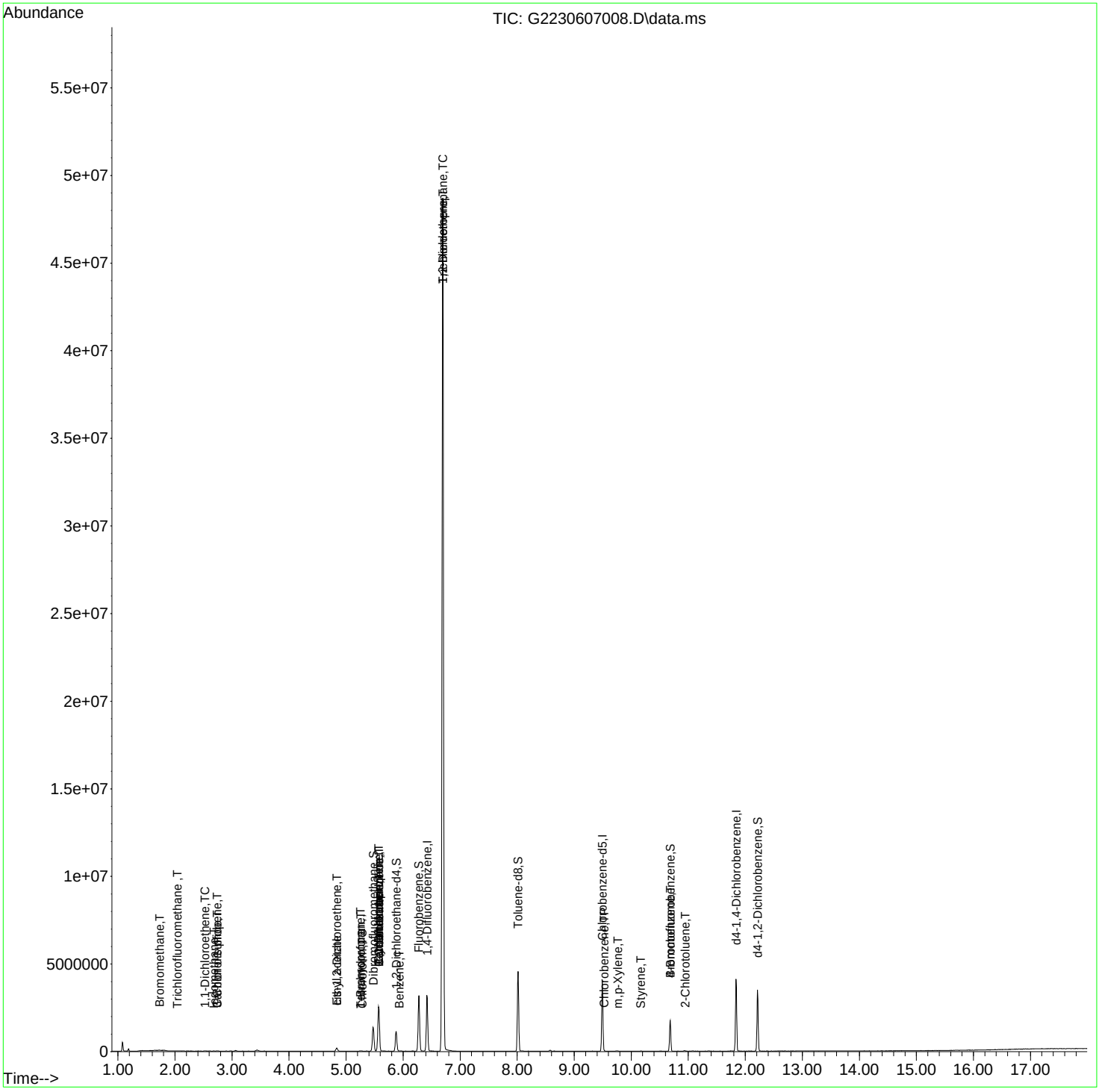
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
76) Styrene	10.169	104	28100	0.02	ug/L	#	29
82) Bromobenzene	10.685	77	31186	0.05	ug/L	#	1
87) 2-Chlorotoluene	10.948	91	22807	0.02	ug/L	#	47
99) n-Butylbenzene	12.217	91	41767	Below Cal		#	58

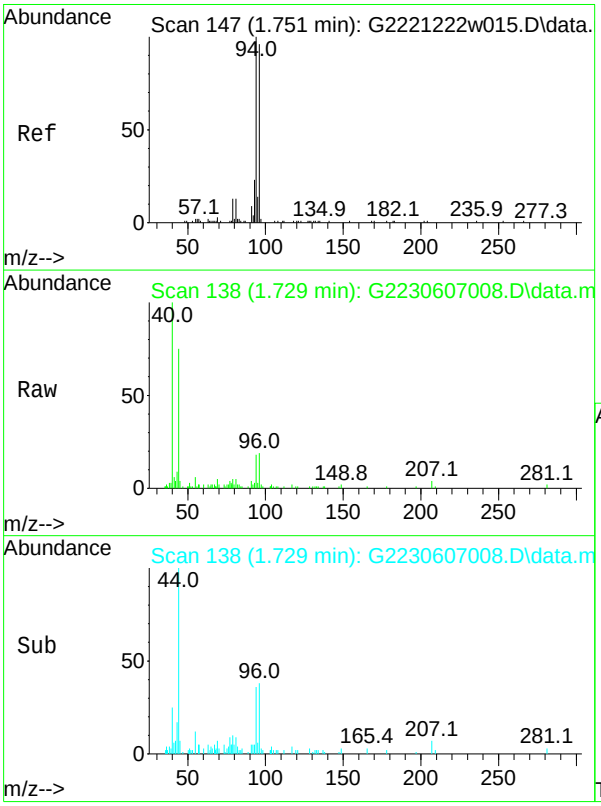
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607008.D
Acq On : 07 Jun 2023 17:44
Operator : PO1
Sample : 23E0775-01RE1
Misc : 200
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 08 09:18:45 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

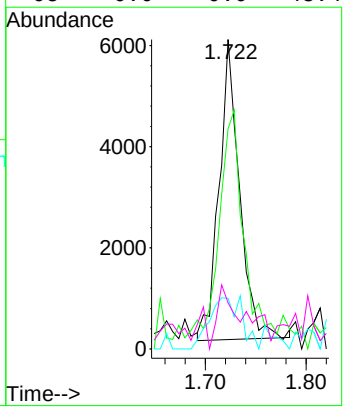


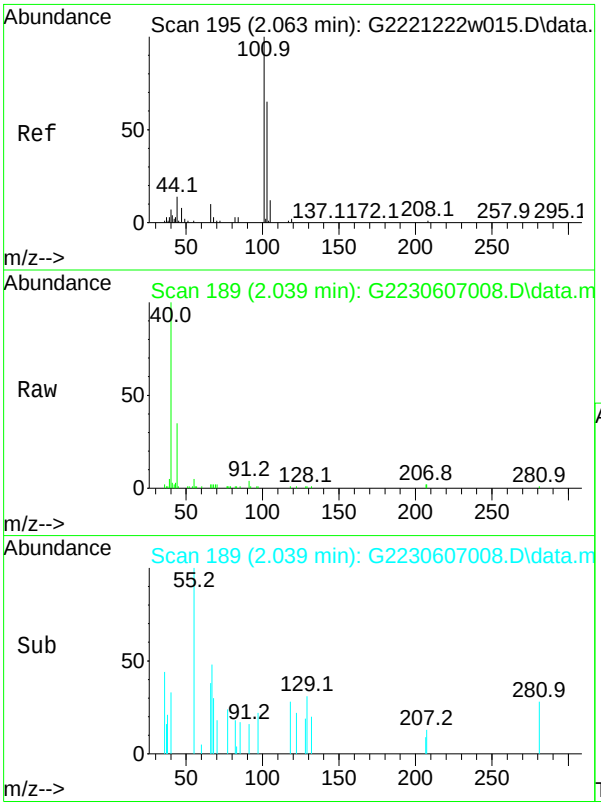


#5
Bromomethane
Concen: 0.05 ug/L
RT: 1.726 min Scan# 138
Delta R.T. 0.012 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 94 Resp: 83233

Ion	Ratio	Lower	Upper
94	100		
96	85.5	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

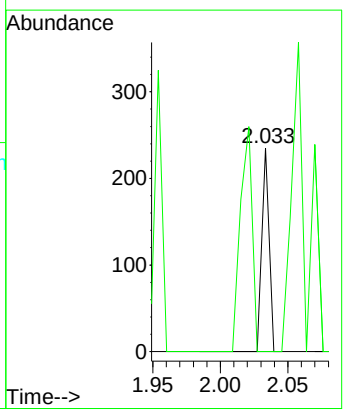


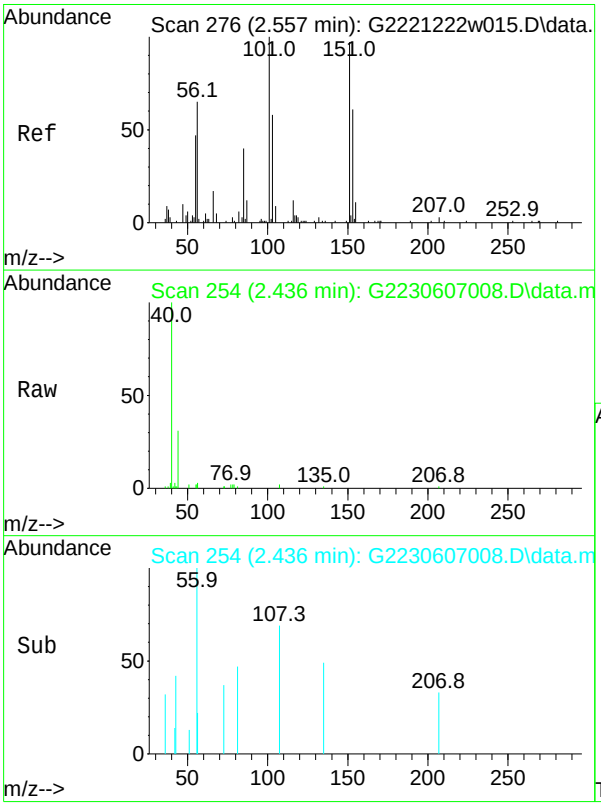


#7
Trichlorofluoromethane
Concen: 0.00 ug/L
RT: 2.037 min Scan# 189
Delta R.T. 0.007 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion:101 Resp: 857

Ion	Ratio	Lower	Upper
101	100		
103	0.0	36.9	96.9#

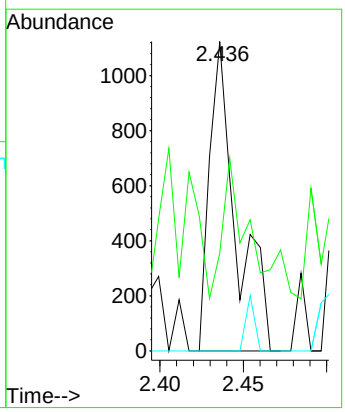


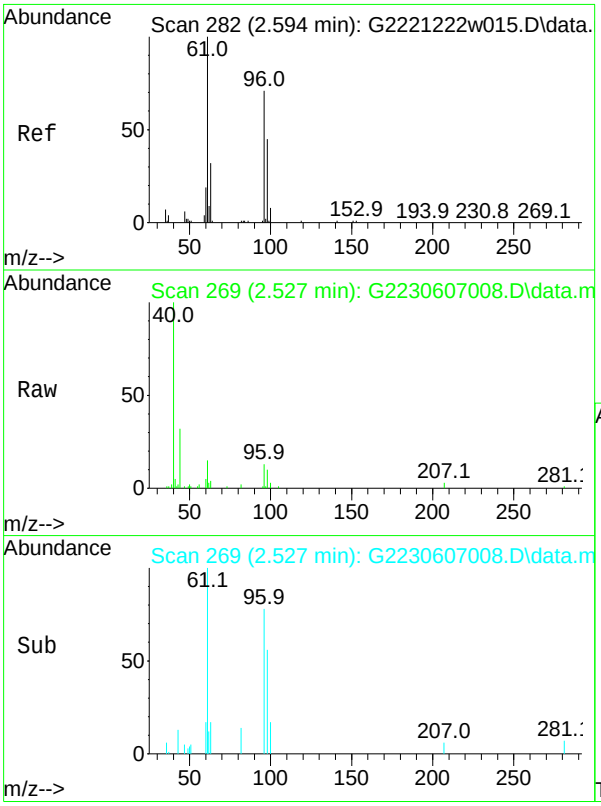


#9
Acrolein
Concen: Below Cal
RT: 2.438 min Scan# 254
Delta R.T. -0.001 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 56 Resp: 12596

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

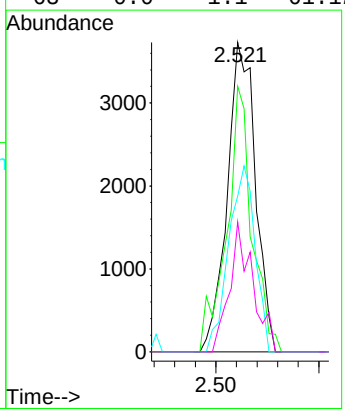


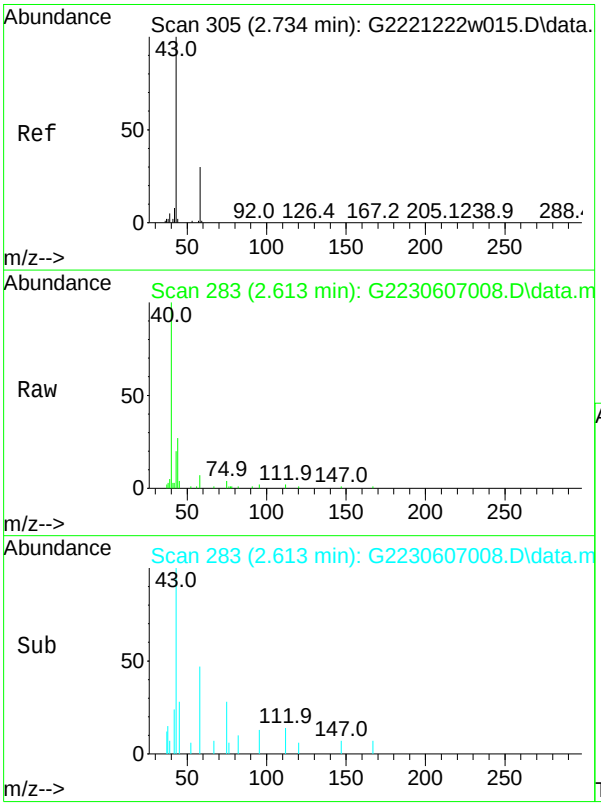


#10
1,1-Dichloroethene
Concen: 0.08 ug/L
RT: 2.527 min Scan# 269
Delta R.T. 0.004 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 61 Resp: 71019

Ion	Ratio	Lower	Upper
61	100		
96	76.6	32.7	92.7
98	56.2	9.3	69.3
63	0.0	1.1	61.1#

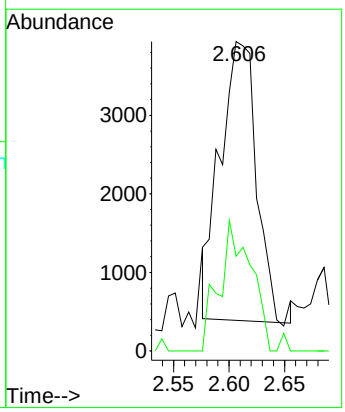


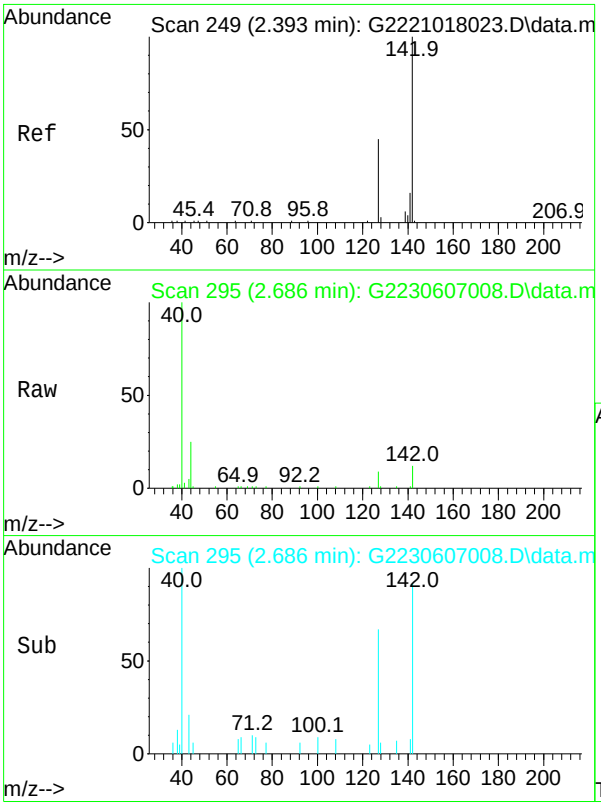


#12
Acetone
Concen: Below Cal
RT: 2.613 min Scan# 283
Delta R.T. 0.005 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 43 Resp: 83228

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

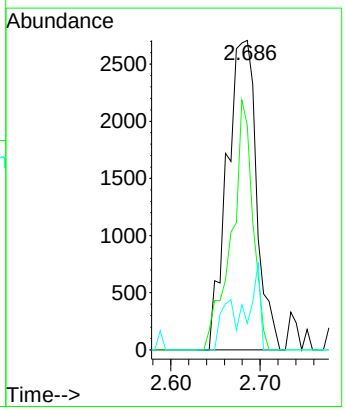


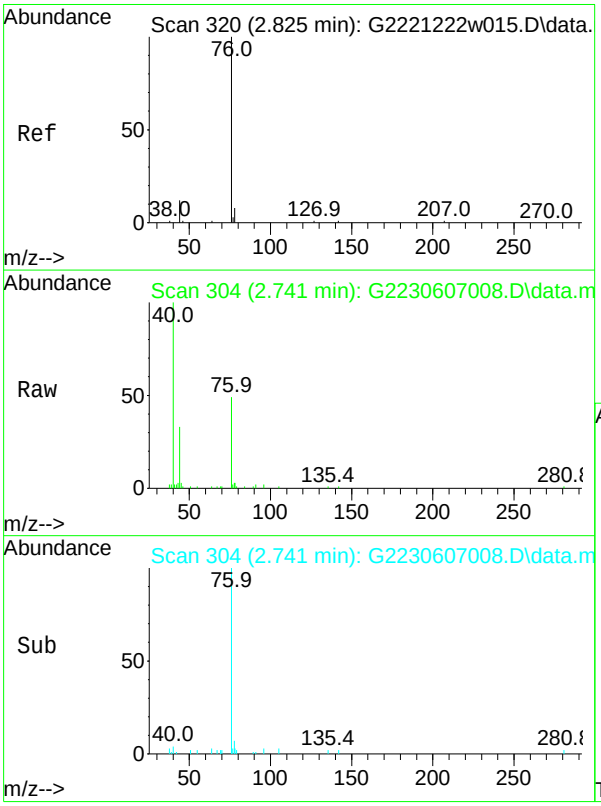


#13
Iodomethane
Concen: 0.13 ug/L
RT: 2.684 min Scan# 295
Delta R.T. 0.007 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion:142 Resp: 62197

Ion	Ratio	Lower	Upper
142	100		
127	58.1	13.3	73.3
141	0.0	0.0	45.3

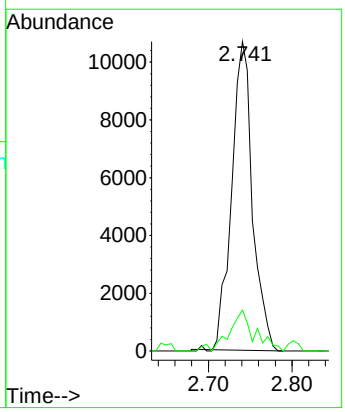


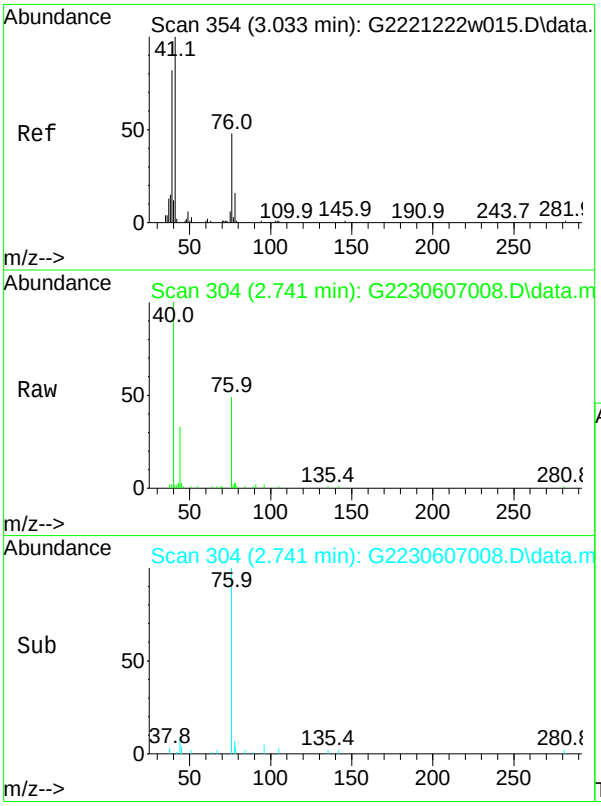


#14
Carbon disulfide
Concen: 0.11 ug/L
RT: 2.744 min Scan# 304
Delta R.T. 0.005 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 76 Resp: 186478

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

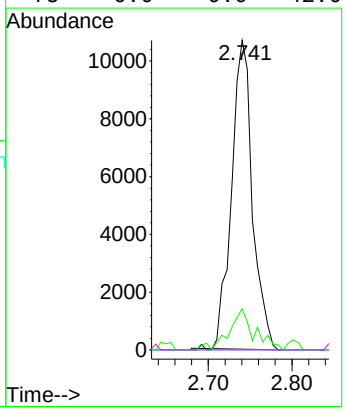


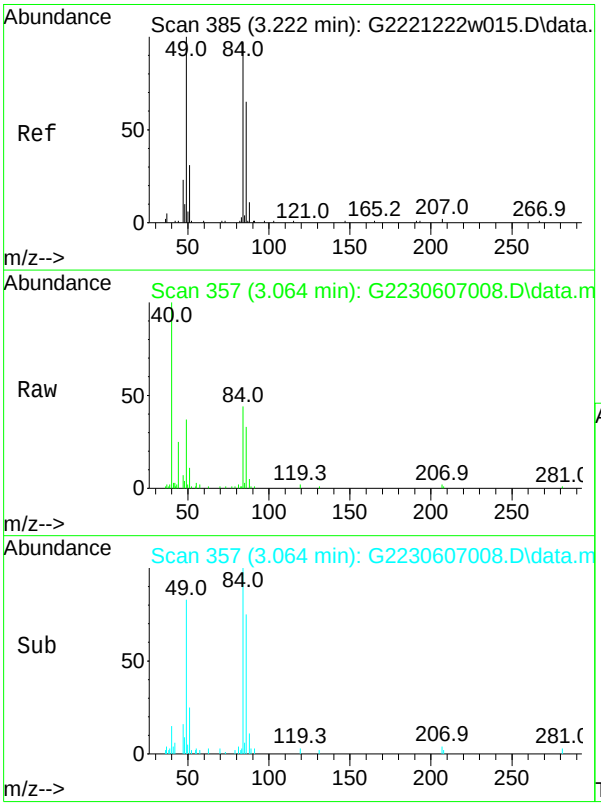


#17
3-Chloro-1-propene
Concen: 0.83 ug/L
RT: 2.744 min Scan# 304
Delta R.T. -0.176 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 76 Resp: 186468

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

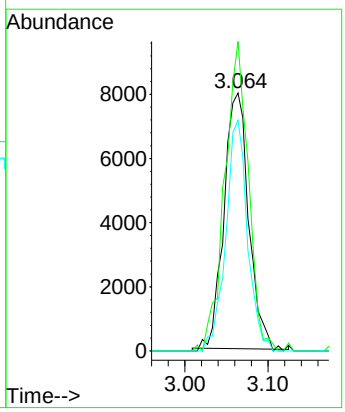


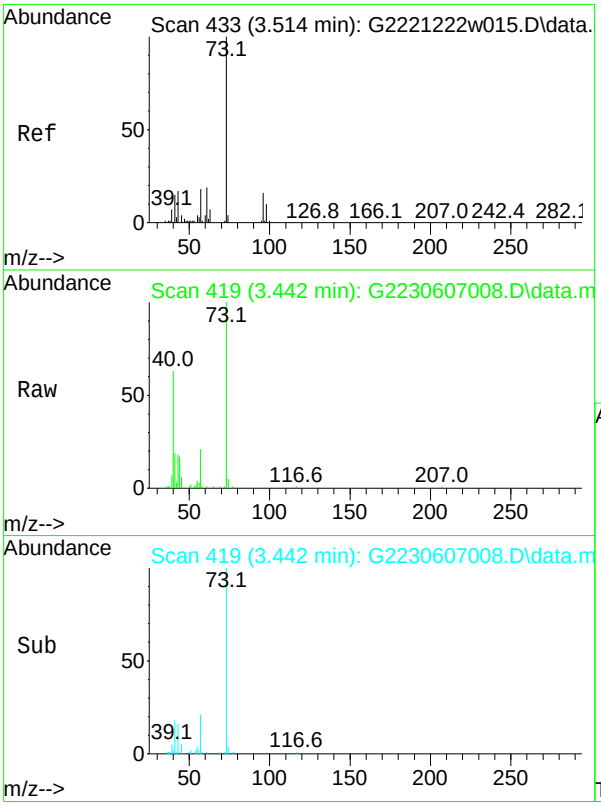


#18
Methylene chloride
Concen: Below Cal
RT: 3.065 min Scan# 357
Delta R.T. 0.003 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 49 Resp: 164037

Ion	Ratio	Lower	Upper
49	100		
84	115.5	57.9	117.9
86	79.8	24.9	84.9

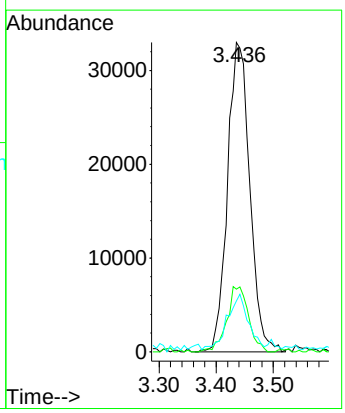


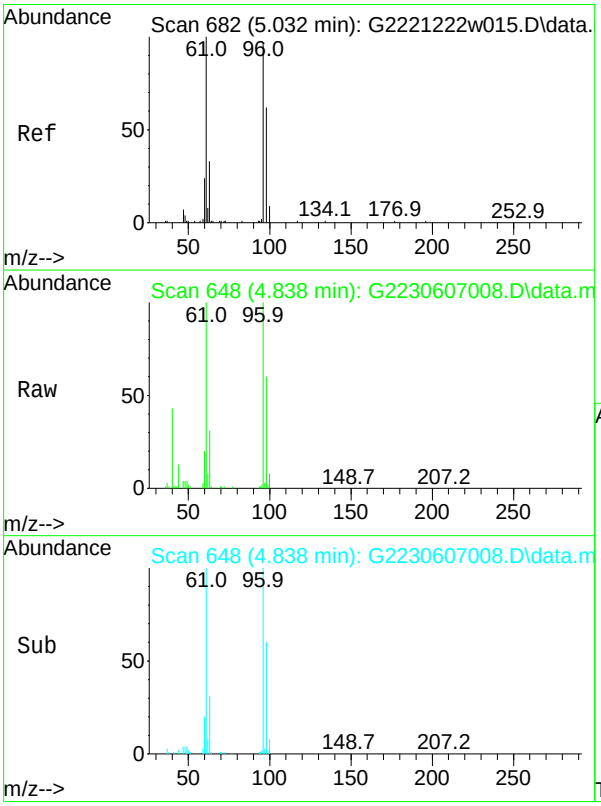


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.441 min Scan# 419
Delta R.T. -0.005 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 73 Resp: 893313

Ion	Ratio	Lower	Upper
73	100		
57	20.6	0.0	51.7
41	15.1	0.0	50.6

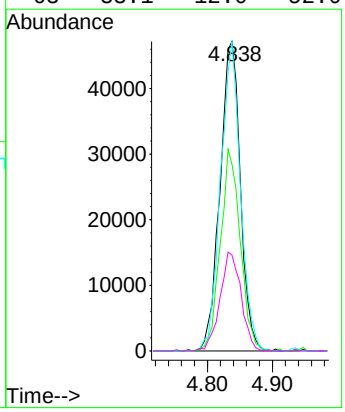


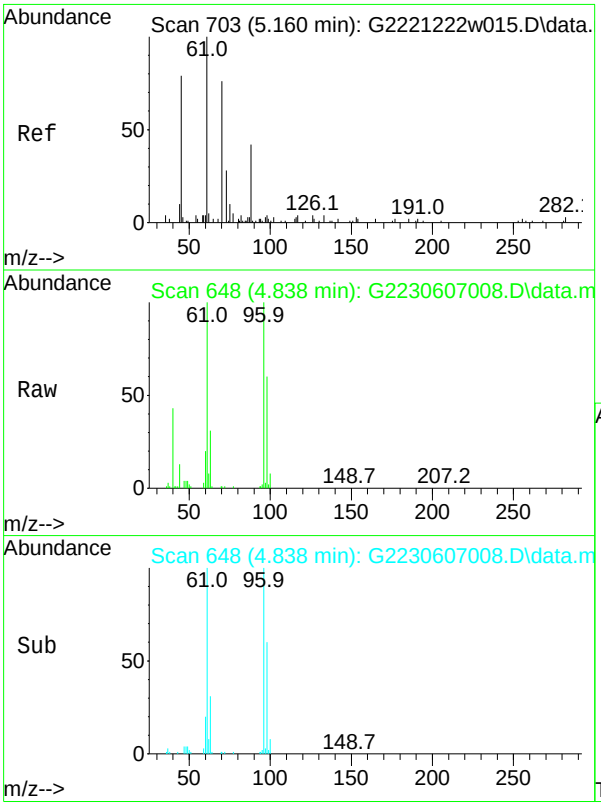


#28
cis-1,2-Dichloroethene
Concen: 1.92 ug/L
RT: 4.838 min Scan# 648
Delta R.T. 0.002 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 61 Resp: 1028544

Ion	Ratio	Lower	Upper
61	100		
98	63.6	15.9	75.9
96	97.1	39.6	99.6
63	33.1	12.0	52.0

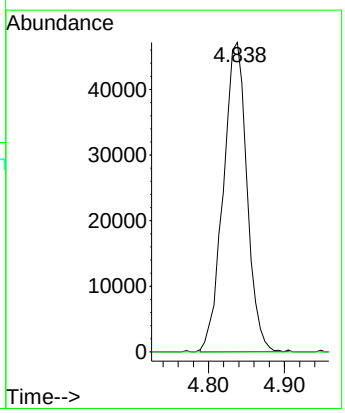


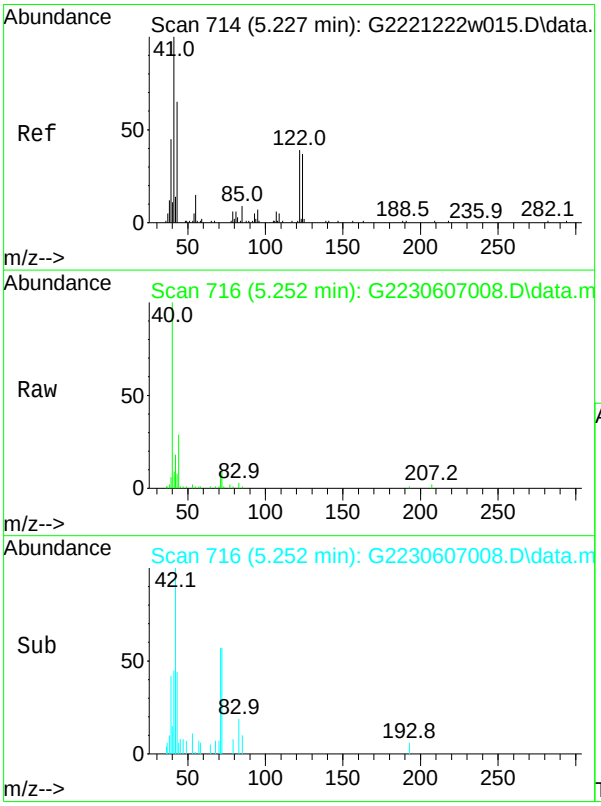


#31
Ethyl acetate
Concen: 16.71 ug/L
RT: 4.838 min Scan# 648
Delta R.T. -0.184 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 61 Resp: 1024998

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

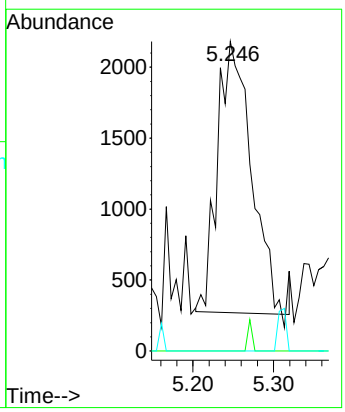


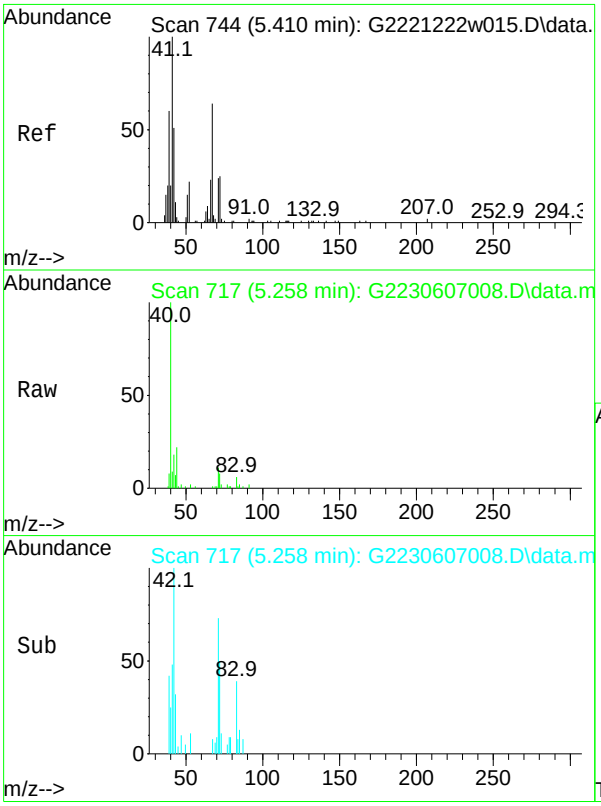


#33
1-Bromopropane
Concen: 0.14 ug/L
RT: 5.251 min Scan# 716
Delta R.T. 0.175 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 41 Resp: 55701

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

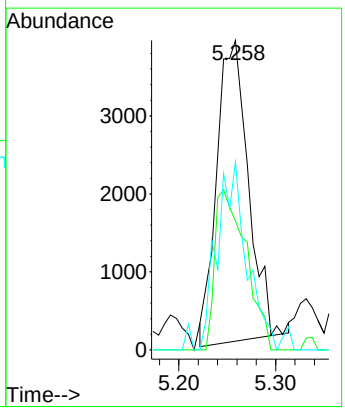


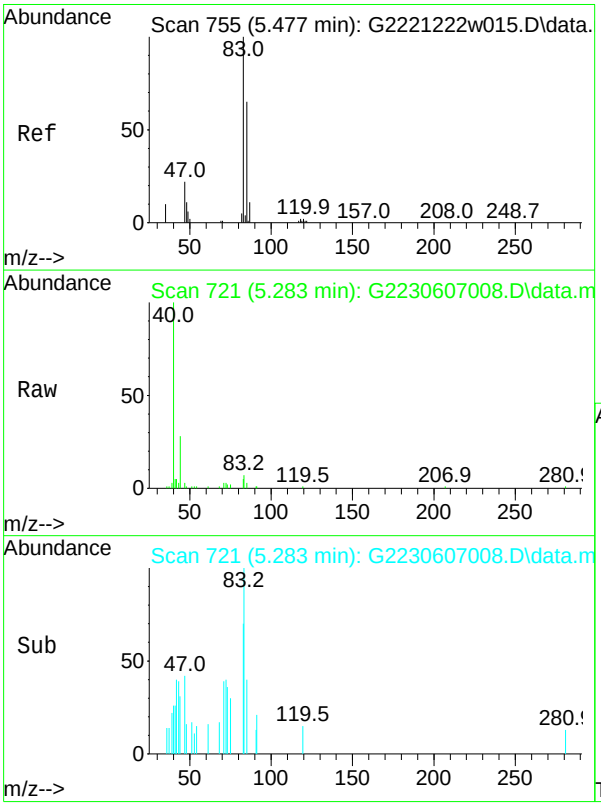


#36
Tetrahydrofuran
Concen: 0.27 ug/L
RT: 5.258 min Scan# 717
Delta R.T. -0.003 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 42 Resp: 87310

Ion	Ratio	Lower	Upper
42	100		
72	52.5	18.8	78.8
71	58.4	14.7	74.7

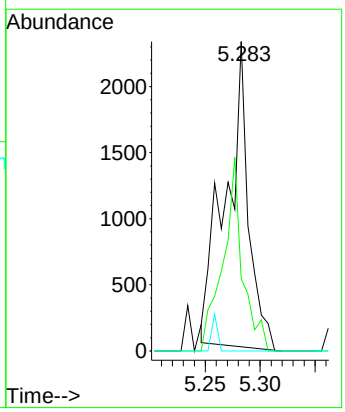


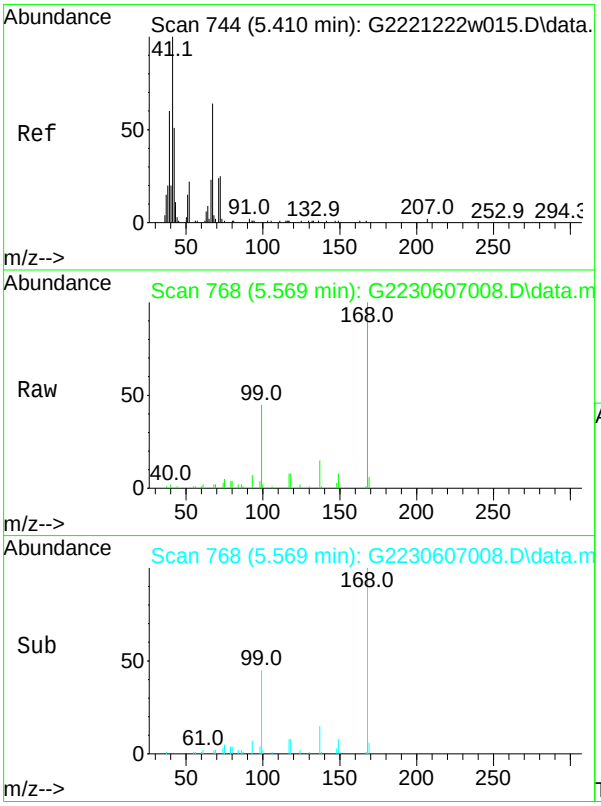


#37
Chloroform
Concen: 0.05 ug/L
RT: 5.286 min Scan# 721
Delta R.T. 0.010 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 83 Resp: 34080

Ion	Ratio	Lower	Upper
83	100		
85	0.0	35.4	95.4#
87	0.0	0.0	40.8

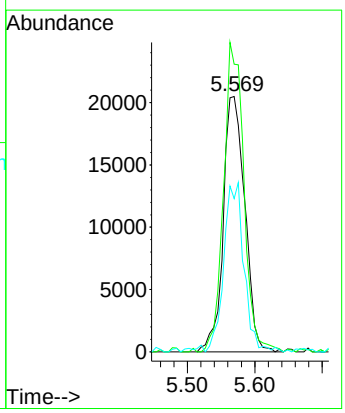


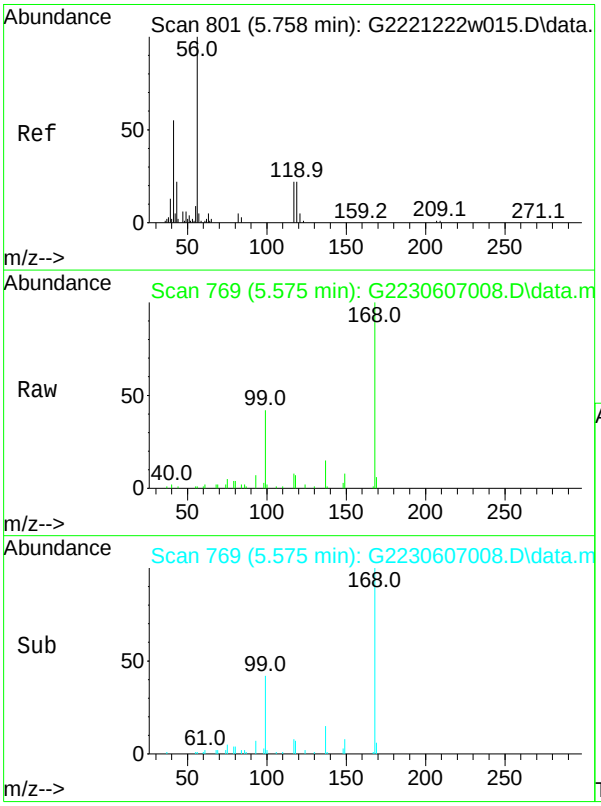


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 84 Resp: 456268

Ion	Ratio	Lower	Upper
84	100		
69	111.1	6.8	66.8#
56	64.0	79.1	139.1#

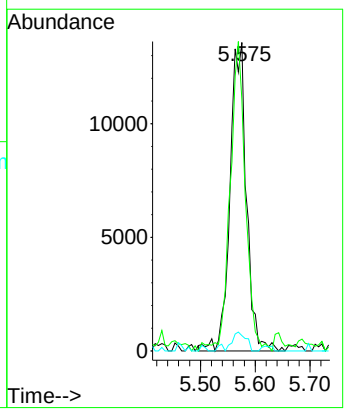


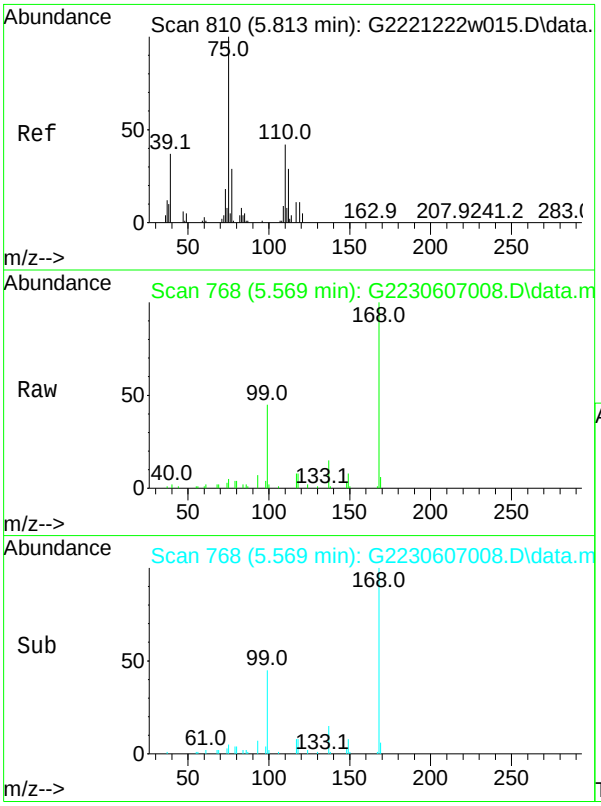


#41
1-Chlorobutane
Concen: 0.45 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.057 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 56 Resp: 286235

Ion	Ratio	Lower	Upper
56	100		
55	87.8	0.0	41.0#
57	0.0	0.0	35.7

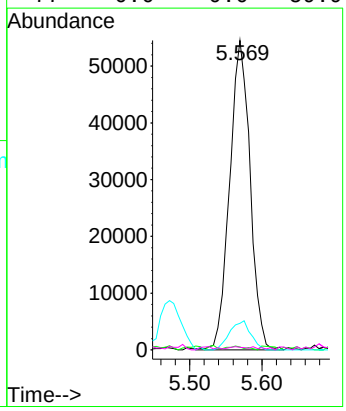


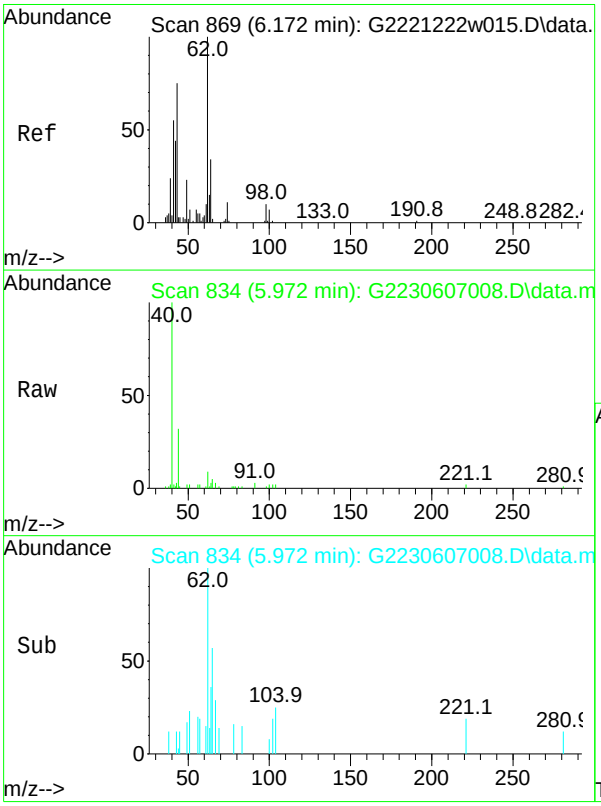


#42
1,1-Dichloropropene
Concen: 2.24 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.117 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 75 Resp: 1072700

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	9.7	9.1	69.1
77	0.0	0.0	59.9

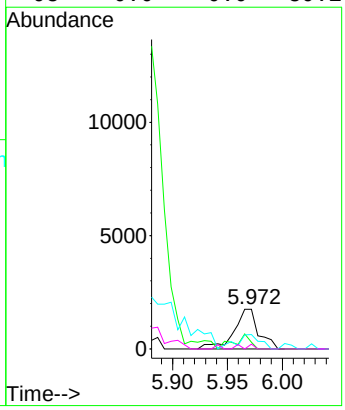


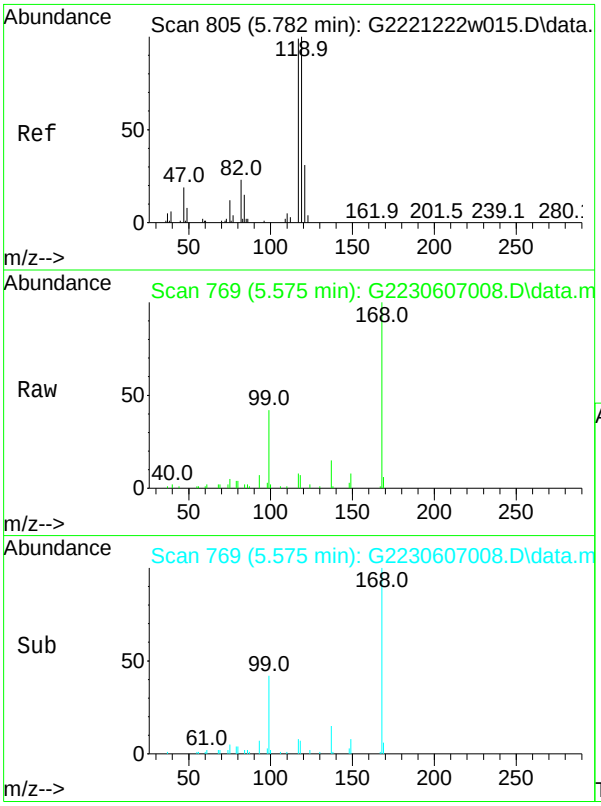


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.971 min Scan# 834
Delta R.T. -0.000 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 62 Resp: 27370

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

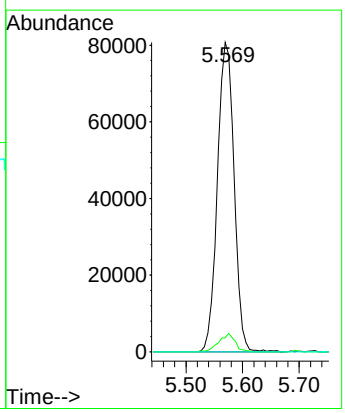


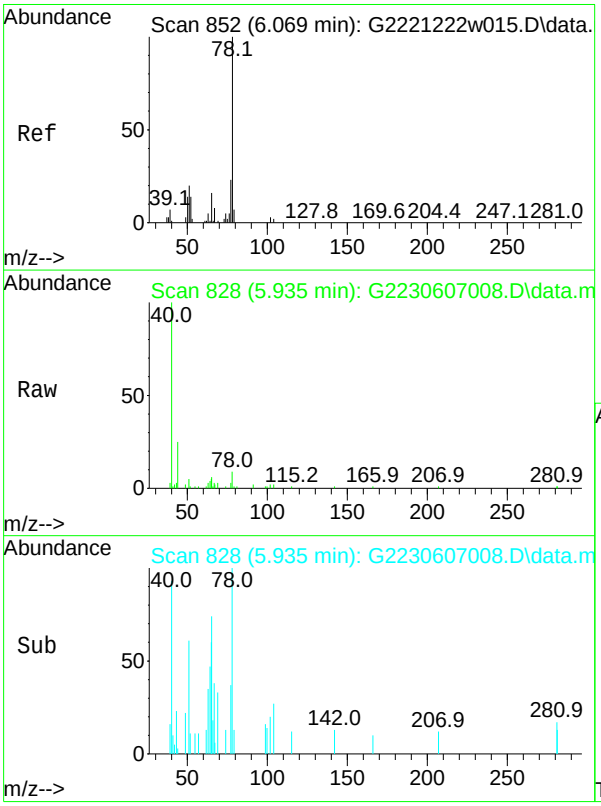


#47
Carbon tetrachloride
Concen: 3.31 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.107 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion:117 Resp: 1652777

Ion	Ratio	Lower	Upper
117	100		
119	5.8	66.4	126.4#
121	0.0	0.4	60.4#

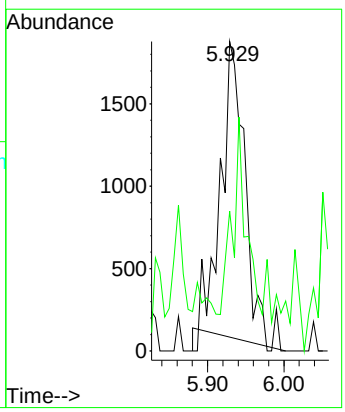


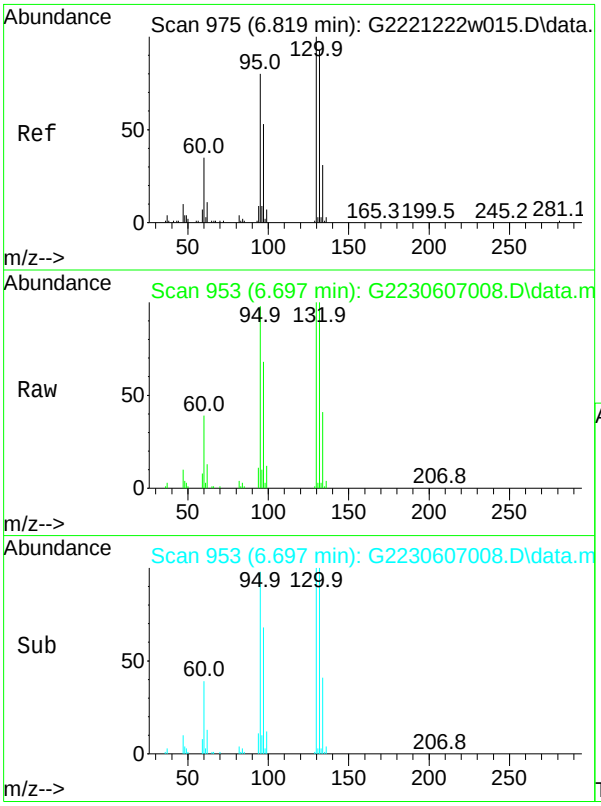


#48
Benzene
Concen: 0.03 ug/L
RT: 5.935 min Scan# 828
Delta R.T. -0.000 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 78 Resp: 38759

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

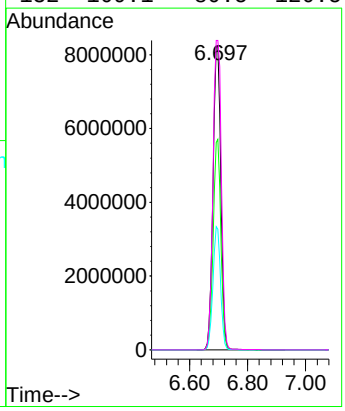


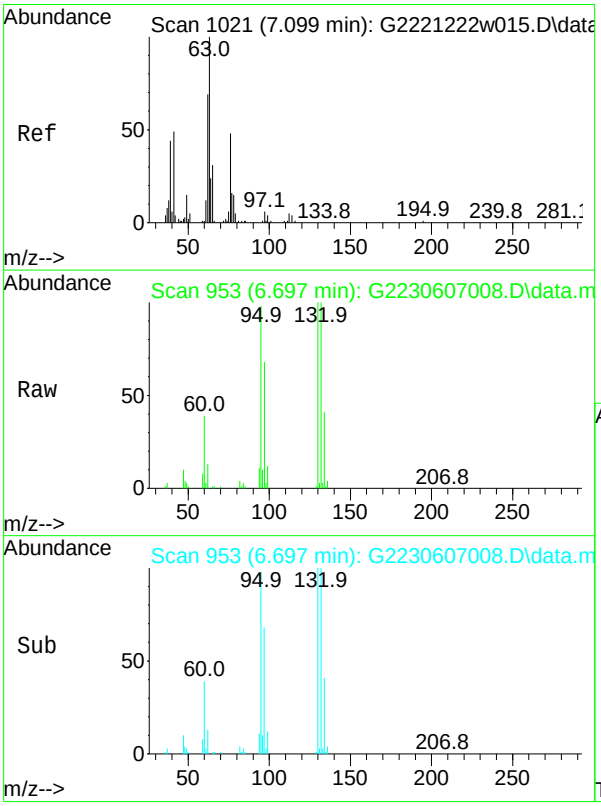


#50
Trichloroethene
Concen: 424.47 ug/L
RT: 6.697 min Scan# 953
Delta R.T. 0.001 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 95 Resp:154200265

Ion	Ratio	Lower	Upper
95	100		
97	67.5	35.5	95.5
60	39.2	14.8	74.8
132	109.1	80.5	120.5

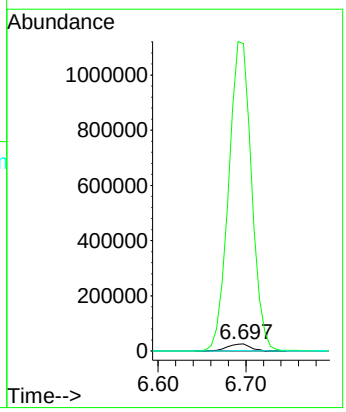


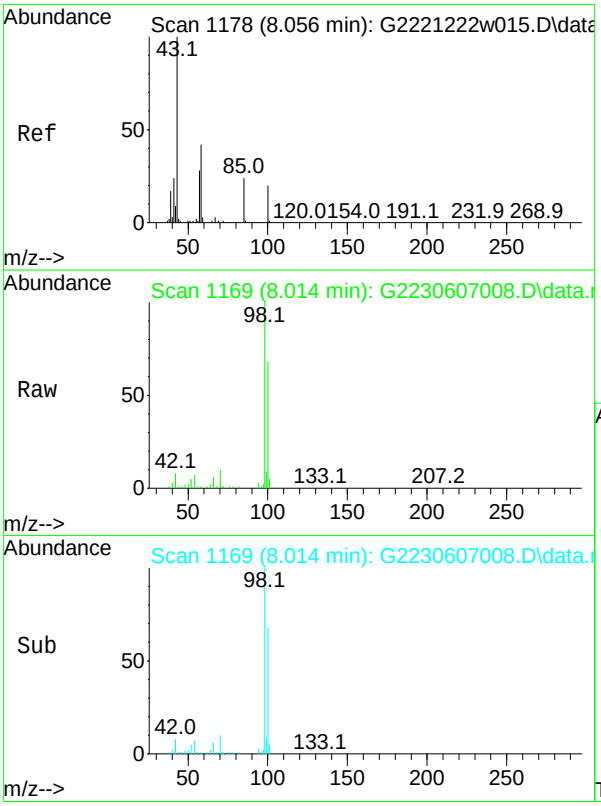


#52
1,2-Dichloropropane
Concen: 1.40 ug/L
RT: 6.697 min Scan# 953
Delta R.T. -0.249 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 63 Resp: 461857

Ion	Ratio	Lower	Upper
63	100		
62	4390.5	35.2	95.2#
76	0.0	10.7	70.7#

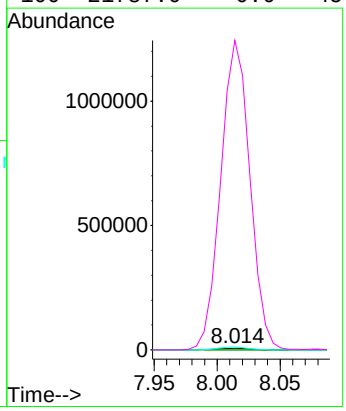


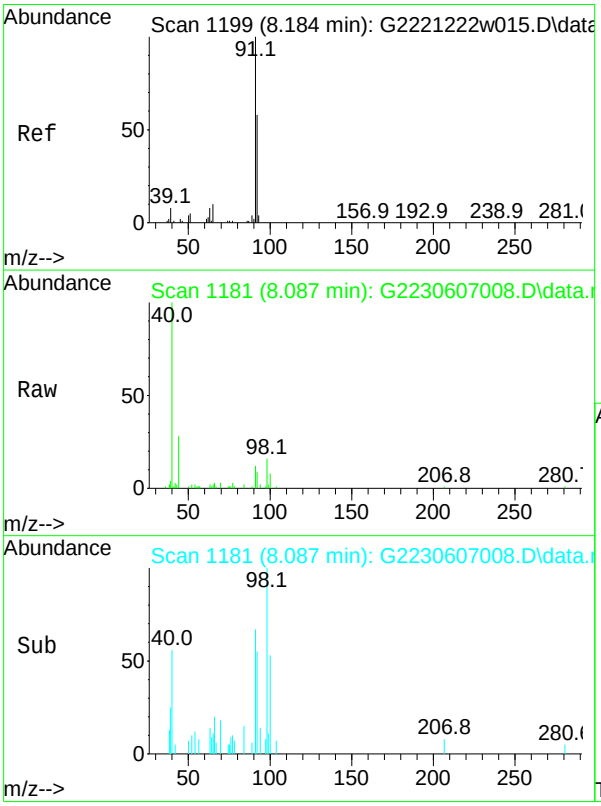


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 43 Resp: 92035

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	204.0	37.0	37.0#
100	21787.0	0.0	45.2#

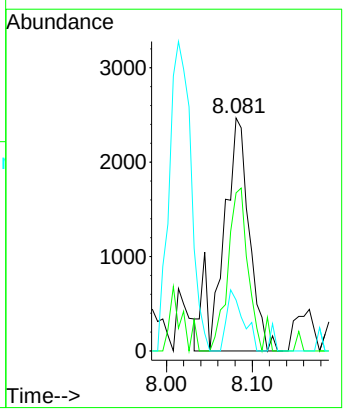


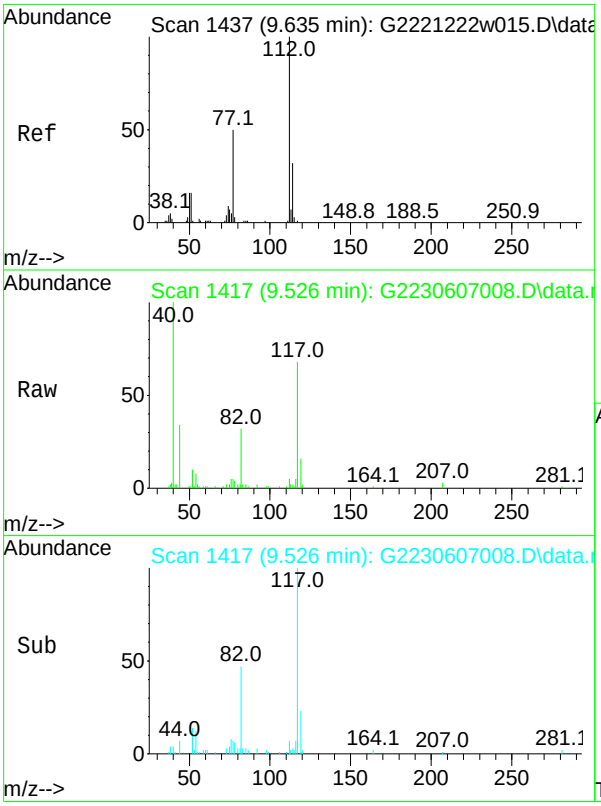


#65
Toluene
Concen: Below Cal
RT: 8.086 min Scan# 1181
Delta R.T. 0.000 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 91 Resp: 53342

Ion	Ratio	Lower	Upper
91	100		
92	51.8	27.5	87.5
65	0.0	0.0	41.4

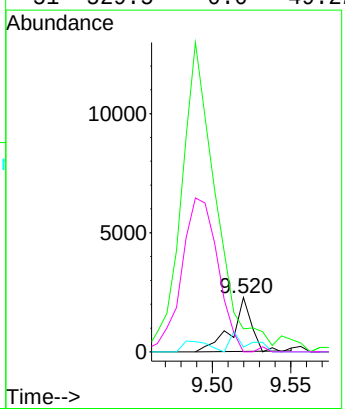


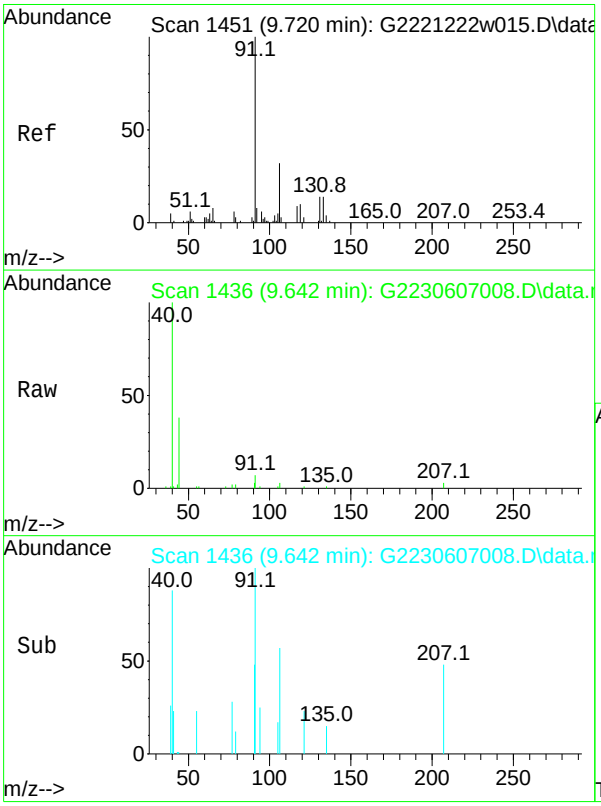


#72
Chlorobenzene
Concen: 0.02 ug/L
RT: 9.523 min Scan# 1417
Delta R.T. -0.001 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion:112 Resp: 19452

Ion	Ratio	Lower	Upper
112	100		
77	1022.4	27.8	87.8#
114	0.0	3.4	63.4#
51	529.5	0.0	49.2#

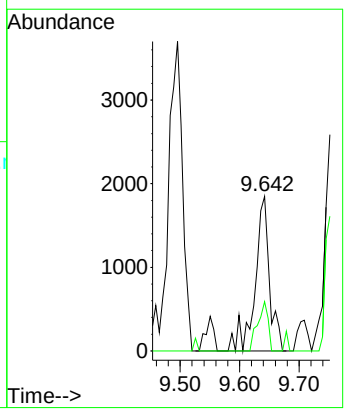


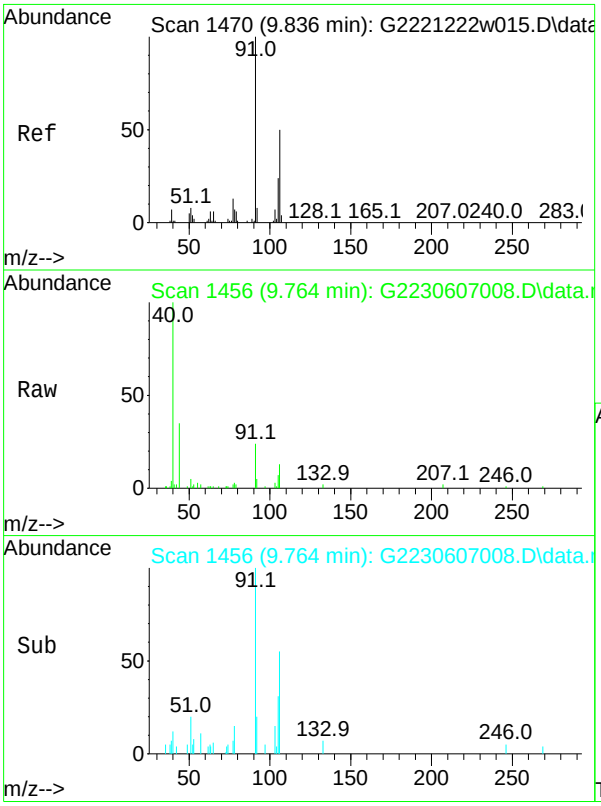


#74
Ethylbenzene
Concen: Below Cal
RT: 9.642 min Scan# 1436
Delta R.T. -0.001 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 91 Resp: 35060

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

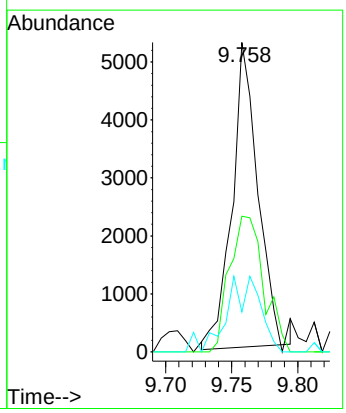


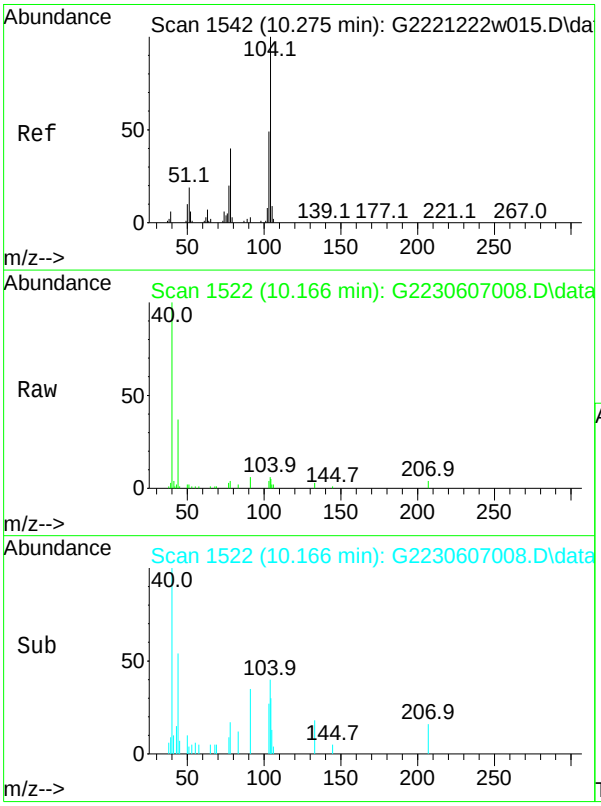


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.762 min Scan# 1456
Delta R.T. -0.002 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 91 Resp: 70807

Ion	Ratio	Lower	Upper
91	100		
106	61.0	19.0	79.0
105	0.0	0.0	52.7

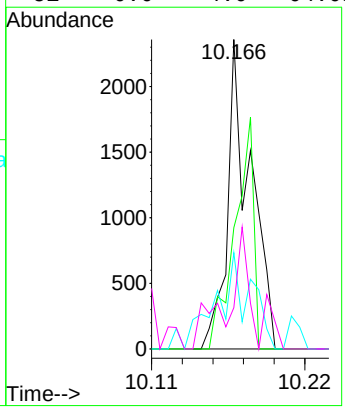


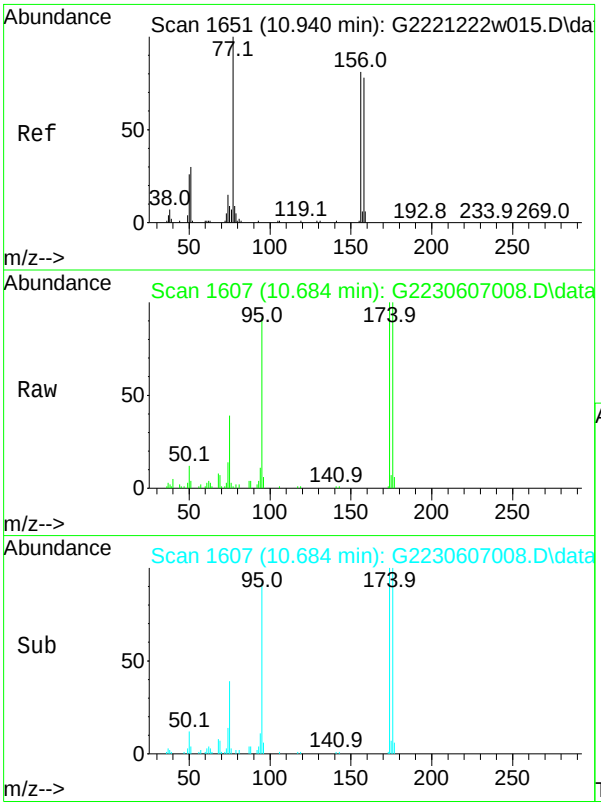


#76
Styrene
Concen: 0.02 ug/L
RT: 10.169 min Scan# 1522
Delta R.T. -0.008 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion:104 Resp: 28100

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

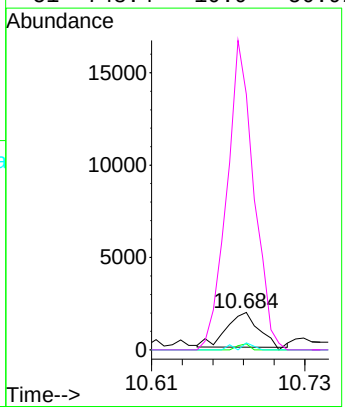


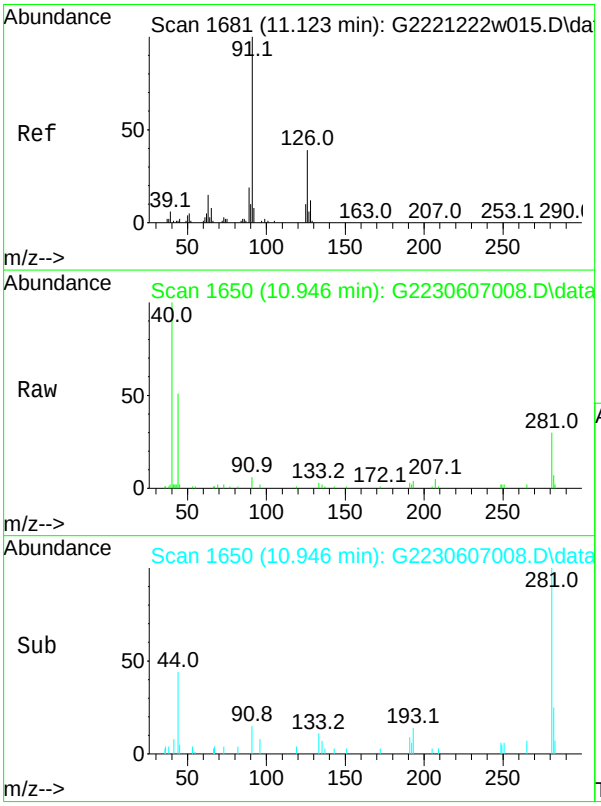


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.685 min Scan# 1607
Delta R.T. -0.143 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 77 Resp: 31186

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	748.4	10.9	50.9#

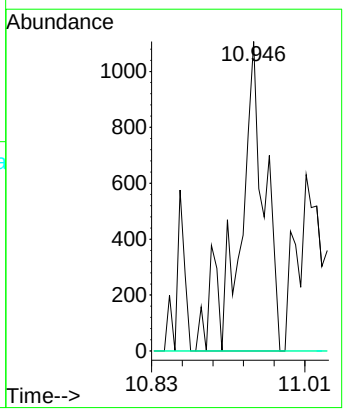


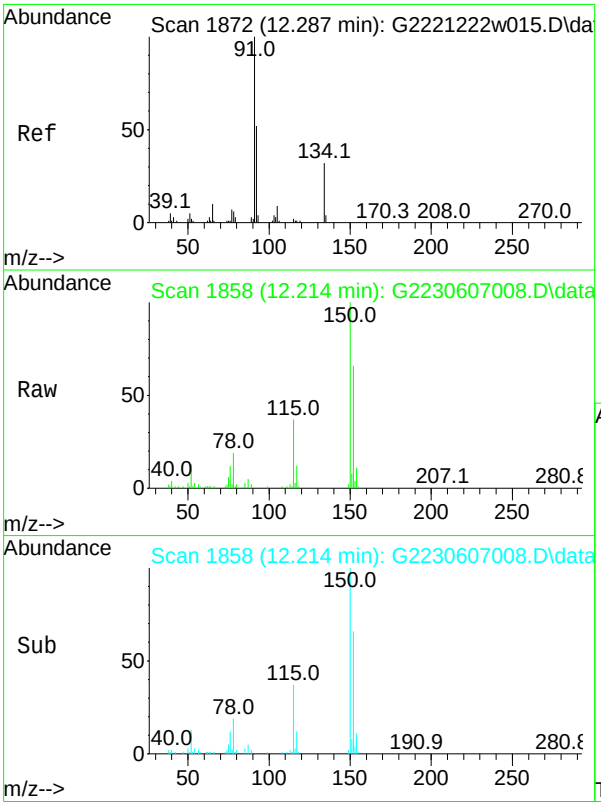


#87
2-Chlorotoluene
Concen: 0.02 ug/L
RT: 10.948 min Scan# 1650
Delta R.T. -0.080 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 91 Resp: 22807

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

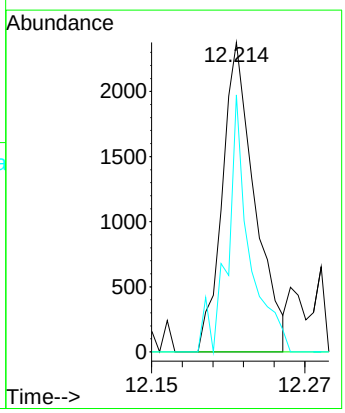




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.217 min Scan# 1858
Delta R.T. -0.014 min
Lab File: G2230607008.D
Acq: 07 Jun 2023 17:44

Tgt Ion: 91 Resp: 41767

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	50.2	0.0	56.6



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01RE2	File ID:	G2230608017.D
Sampled:	05/25/23 13:10	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 15:54
		Preparation:	5030_W	Dilution:	10000
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*650*	*2000*	*5000*	*U*
71-55-6	*1,1,1-Trichloroethane*		*877*	*2000*	*5000*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*621*	*2000*	*5000*	*U*
79-00-5	*1,1,2-Trichloroethane*		*832*	*2000*	*5000*	*U*
75-34-3	*1,1-Dichloroethane*		*669*	*2000*	*5000*	*U*
75-35-4	*1,1-Dichloroethene*		*954*	*2000*	*5000*	*U*
563-58-6	*1,1-Dichloropropene*		*699*	*2000*	*5000*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*1020*	*2000*	*5000*	*U*
96-18-4	*1,2,3-Trichloropropane*		*913*	*2000*	*5000*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*1020*	*3000*	*6000*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*661*	*2000*	*5000*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*1300*	*5000*	*10000*	*U*
106-93-4	*1,2-Dibromoethane*		*531*	*2000*	*5000*	*U*
95-50-1	*1,2-Dichlorobenzene*		*630*	*2000*	*5000*	*U*
107-06-2	*1,2-Dichloroethane*		*1060*	*3000*	*6000*	*U*
78-87-5	*1,2-Dichloropropane*		*1020*	*3000*	*6000*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*500*	*2000*	*5000*	*U*
541-73-1	*1,3-Dichlorobenzene*		*724*	*2000*	*5000*	*U*
142-28-9	*1,3-Dichloropropane*		*680*	*2000*	*5000*	*U*
106-46-7	*1,4-Dichlorobenzene*		*920*	*2000*	*5000*	*U*
594-20-7	*2,2-Dichloropropane*		*920*	*2000*	*5000*	*U*
78-93-3	*2-Butanone*		*3300*	*7000*	*17500*	*U*
95-49-8	*2-Chlorotoluene*		*733*	*2000*	*5000*	*U*
591-78-6	*2-Hexanone*		*716*	*7000*	*17500*	*U*
106-43-4	*4-Chlorotoluene*		*921*	*2000*	*5000*	*U*
99-87-6	*4-Isopropyltoluene*		*700*	*2000*	*5000*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01RE2	File ID:	G2230608017.D
Sampled:	05/25/23 13:10	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 15:54
		Preparation:	5030_W	Dilution:	10000
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*1350*	*7000*	*17500*	*U*
67-64-1	*Acetone*		*5180*	*20000*	*40000*	*U*
71-43-2	*Benzene*		*507*	*2000*	*5000*	*U*
108-86-1	*Bromobenzene*		*848*	*2000*	*5000*	*U*
74-97-5	*Bromochloromethane*		*669*	*2000*	*5000*	*U*
75-27-4	*Bromodichloromethane*		*531*	*2000*	*5000*	*U*
75-25-2	*Bromoform*		*1030*	*2000*	*5000*	*U*
74-83-9	*Bromomethane*		*1600*	*5000*	*10000*	*U*
75-15-0	*Carbon disulfide*		*1400*	*5000*	*10000*	*U*
56-23-5	*Carbon tetrachloride*		*844*	*2000*	*5000*	*U*
108-90-7	*Chlorobenzene*		*650*	*2000*	*5000*	*U*
75-00-3	*Chloroethane*		*1550*	*2000*	*5000*	*U*
67-66-3	*Chloroform*		*1010*	*3000*	*6000*	*U*
74-87-3	*Chloromethane*		*1920*	*5000*	*10000*	*U*
156-59-2	*cis-1,2-Dichloroethene*		*1030*	*3000*	*6000*	*U*
10061-01-5	*cis-1,3-Dichloropropene*		*587*	*2000*	*5000*	*U*
124-48-1	*Dibromochloromethane*		*759*	*2000*	*5000*	*U*
74-95-3	*Dibromomethane*		*817*	*2000*	*5000*	*U*
75-71-8	*Dichlorodifluoromethane*		*1300*	*5000*	*10000*	*U*
100-41-4	*Ethylbenzene*		*300*	*1000*	*2000*	*U*
87-68-3	*Hexachlorobutadiene*		*1000*	*2000*	*5000*	*U*
98-82-8	*Isopropylbenzene*		*549*	*2000*	*5000*	*U*
179601-23-1	*m,p-Xylene*		*889*	*4000*	*10000*	*U*
1634-04-4	*Methyl tert-butyl ether*		*530*	*2000*	*5000*	*U*
75-09-2	*Methylene chloride*		*2240*	*5000*	*10000*	*U*
104-51-8	*n-Butylbenzene*		*1300*	*5000*	*10000*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW48

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-01RE2	File ID:	G2230608017.D
Sampled:	05/25/23 13:10	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 15:54
		Preparation:	5030_W	Dilution:	10000
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*630*	*2000*	*5000*	*U*
91-20-3	*Naphthalene*		*700*	*2000*	*5000*	*U*
95-47-6	*o-Xylene*		*416*	*2000*	*5000*	*U*
135-98-8	*sec-Butylbenzene*		*598*	*2000*	*5000*	*U*
100-42-5	*Styrene*		*453*	*1000*	*2000*	*U*
98-06-6	*tert-Butylbenzene*		*453*	*2000*	*5000*	*U*
127-18-4	Tetrachloroethene		1780	5000	10000	U
108-88-3	*Toluene*		*572*	*2000*	*5000*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*855*	*2000*	*5000*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*587*	*2000*	*5000*	*U*
79-01-6	Trichloroethene	10000	781	2000	5000	D
75-69-4	*Trichlorofluoromethane*		*505*	*2000*	*5000*	*U*
75-01-4	*Vinyl chloride*		*1290*	*5000*	*10000*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608017.D
Acq On : 08 Jun 2023 15:54
Operator : PO1
Sample : 23E0775-01RE2
Misc : 10000
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 16:53:28 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

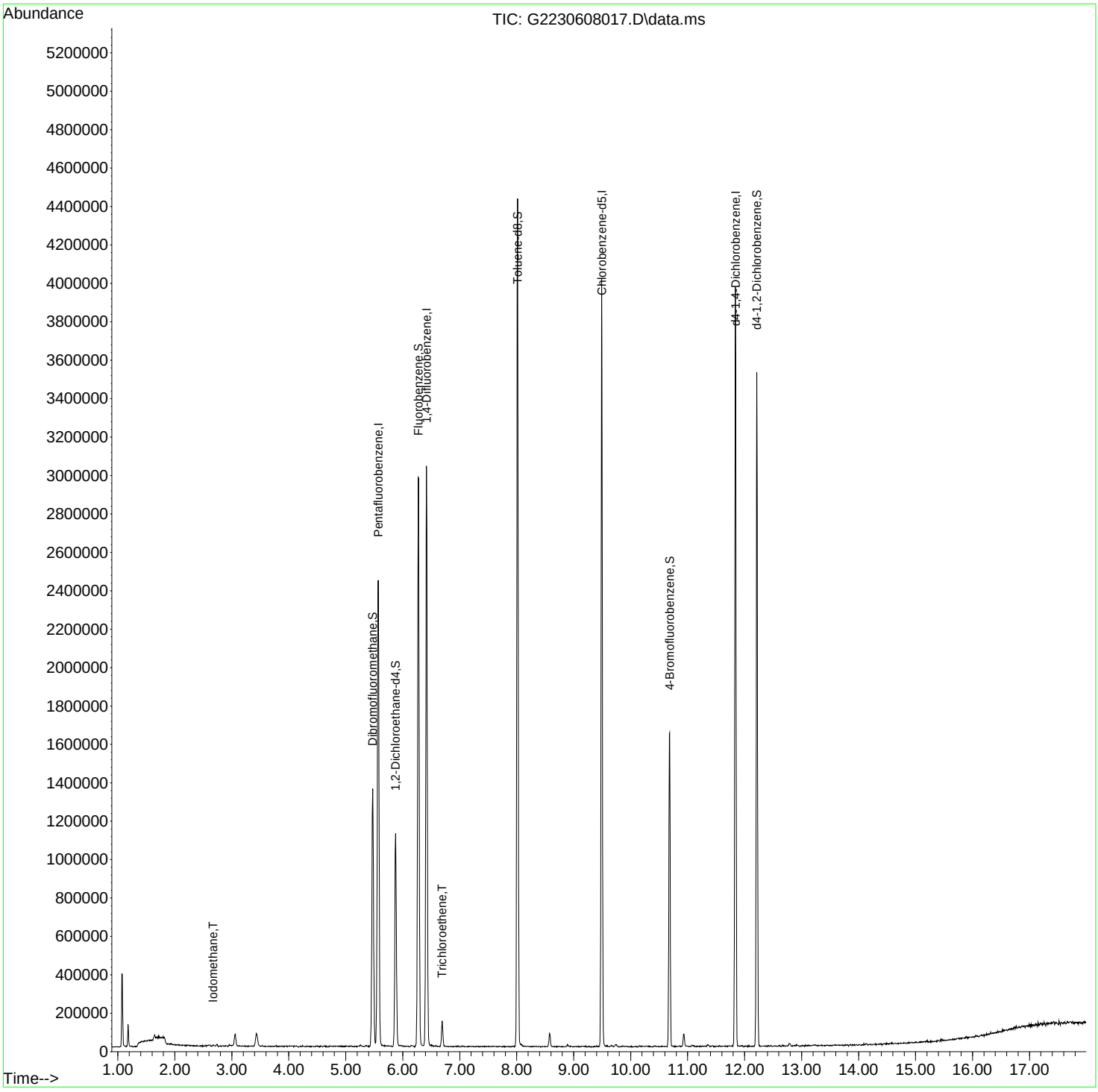
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	19409504	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	26342653	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	23448090	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11150541	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	8338939	19.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%			
43) 1,2-Dichloroethane-d4	5.876	65	7818422	18.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.60%			
49) Fluorobenzene	6.276	96	29380103	19.57	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.85%			
64) Toluene-d8	8.016	98	28537911	19.31	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.55%			
81) 4-Bromofluorobenzene	10.685	174	5226916	9.93	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.30%			
97) d4-1,2-Dichlorobenzene	12.217	152	9718228	20.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.35%			
Target Compounds						Qvalue
5) Bromomethane	1.720	94	57552	Below Cal	#	81
13) Iodomethane	2.670	142	48631	0.11	ug/L #	41
18) Methylene chloride	3.061	49	321346	Below Cal	#	69
21) Methyl tert-butyl ether	3.434	73	899564	Below Cal		90
36) Tetrahydrofuran	5.262	42	43644	Below Cal	#	30
50) Trichloroethene	6.694	95	375573	1.00	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608017.D
Acq On : 08 Jun 2023 15:54
Operator : PO1
Sample : 23E0775-01RE2
Misc : 10000
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 16:53:28 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608017.D
Acq On : 08 Jun 2023 15:54
Operator : PO1
Sample : 23E0775-01RE2
Misc : 10000
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 16:53:28 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

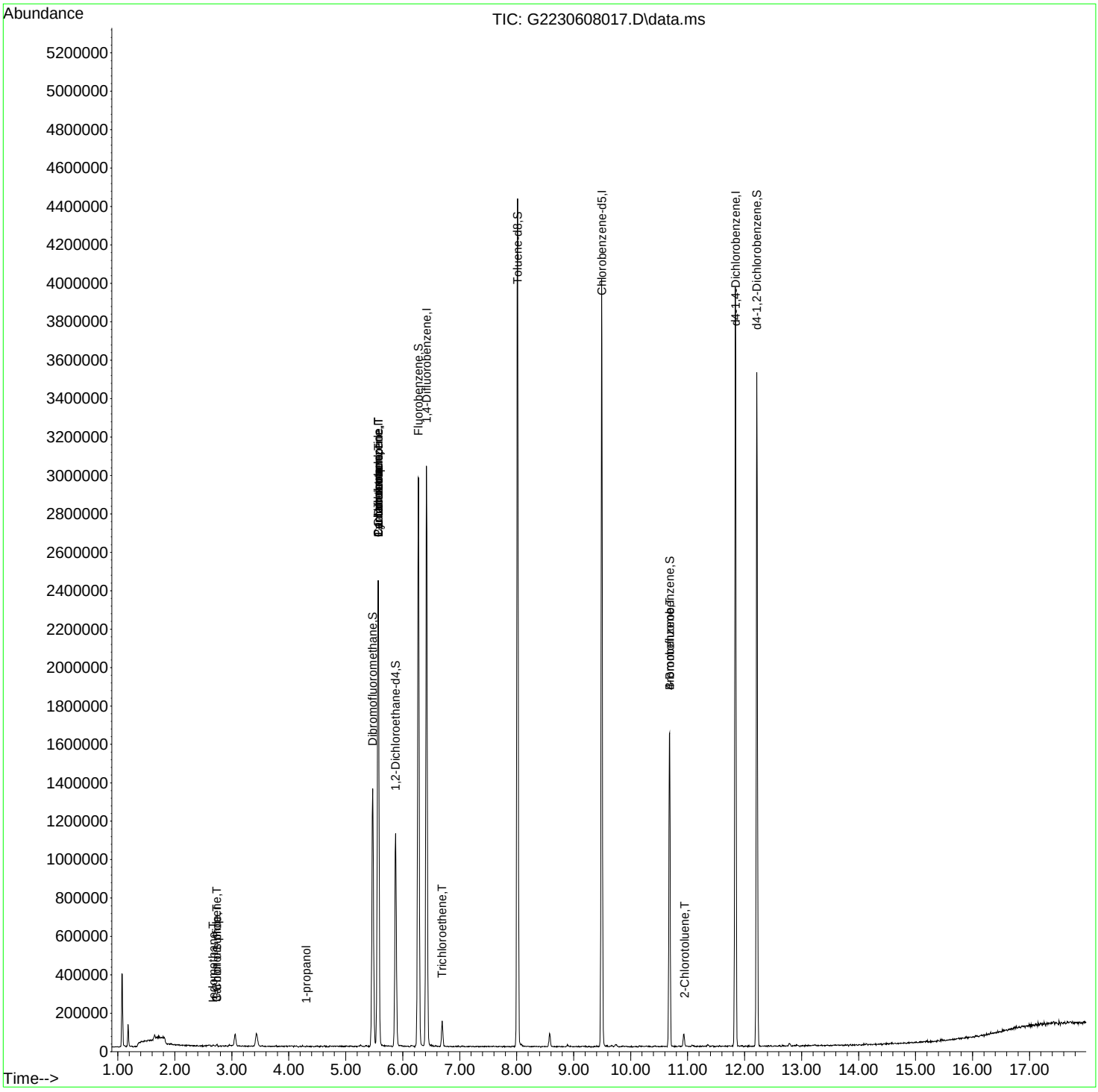
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	19409504	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	26342653	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	23448090	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11150541	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	8338939	19.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%			
43) 1,2-Dichloroethane-d4	5.876	65	7818422	18.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.60%			
49) Fluorobenzene	6.276	96	29380103	19.57	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.85%			
64) Toluene-d8	8.016	98	28537911	19.31	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.55%			
81) 4-Bromofluorobenzene	10.685	174	5226916	9.93	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.30%			
97) d4-1,2-Dichlorobenzene	12.217	152	9718228	20.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.35%			
Target Compounds						Qvalue
5) Bromomethane	1.720	94	57552	Below Cal	#	81
12) Acetone	2.604	43	68640	Below Cal	#	45
13) Iodomethane	2.670	142	48631	0.11	ug/L #	41
14) Carbon disulfide	2.737	76	92129	0.01	ug/L #	74
17) 3-Chloro-1-propene	2.737	76	92129	0.39	ug/L #	53
18) Methylene chloride	3.061	49	321346	Below Cal	#	69
21) Methyl tert-butyl ether	3.434	73	899564	Below Cal		90
26) 1-propanol	4.310	59	767	0.38	ug/L #	100
36) Tetrahydrofuran	5.262	42	43644	Below Cal	#	30
40) Cyclohexane	5.568	84	426288	0.82	ug/L #	30
41) 1-Chlorobutane	5.568	56	249329	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.569	75	975807	2.14	ug/L #	38
47) Carbon tetrachloride	5.571	117	1566354	3.30	ug/L #	16
50) Trichloroethene	6.694	95	375573	1.00	ug/L	88
60) 4-Methyl-2-pentanone	8.012	43	78815	Below Cal	#	1
74) Ethylbenzene	9.490	91	55623	Below Cal	#	44
82) Bromobenzene	10.686	77	30327	0.05	ug/L #	1
87) 2-Chlorotoluene	10.949	91	16700	0.02	ug/L #	47
99) n-Butylbenzene	12.214	91	42814	Below Cal	#	53

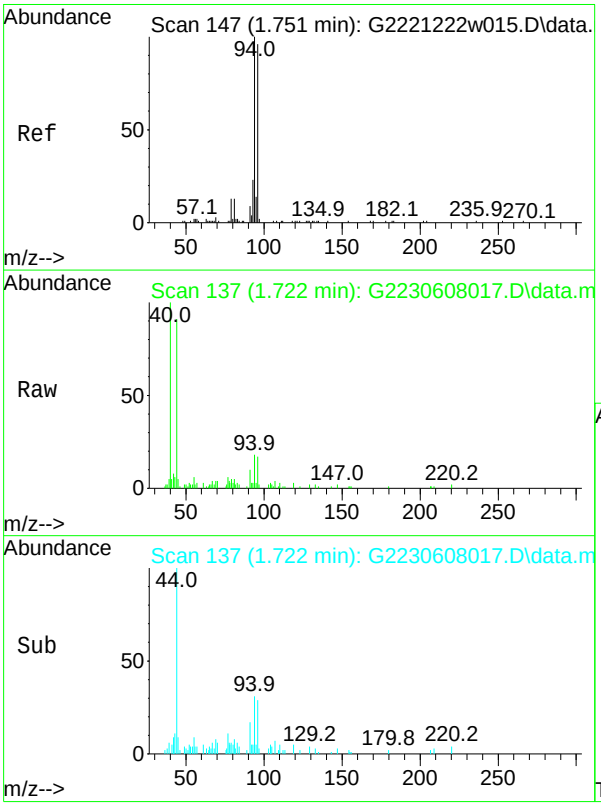
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608017.D
Acq On : 08 Jun 2023 15:54
Operator : PO1
Sample : 23E0775-01RE2
Misc : 10000
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 16:53:28 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

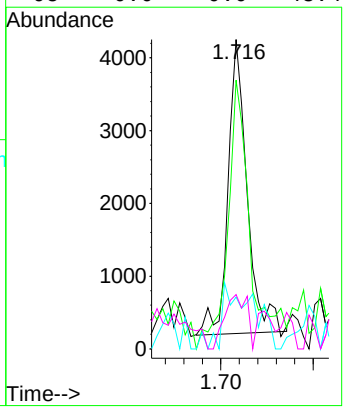


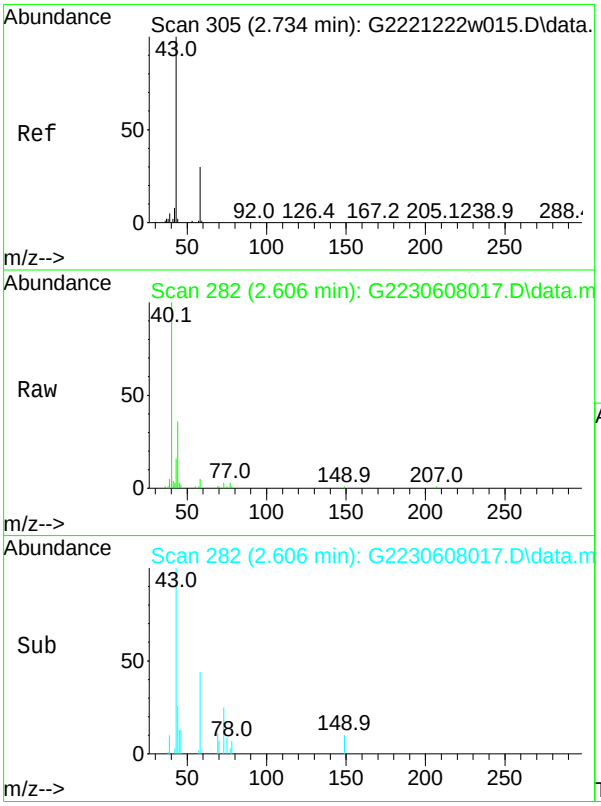


#5
Bromomethane
Concen: Below Cal
RT: 1.720 min Scan# 137
Delta R.T. 0.006 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 94 Resp: 57552

Ion	Ratio	Lower	Upper
94	100		
96	107.9	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

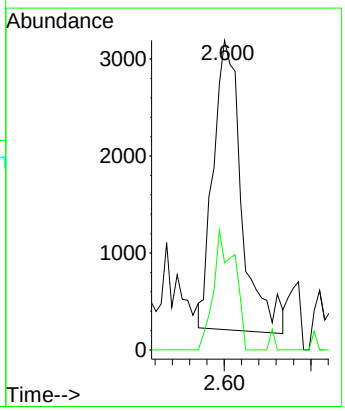


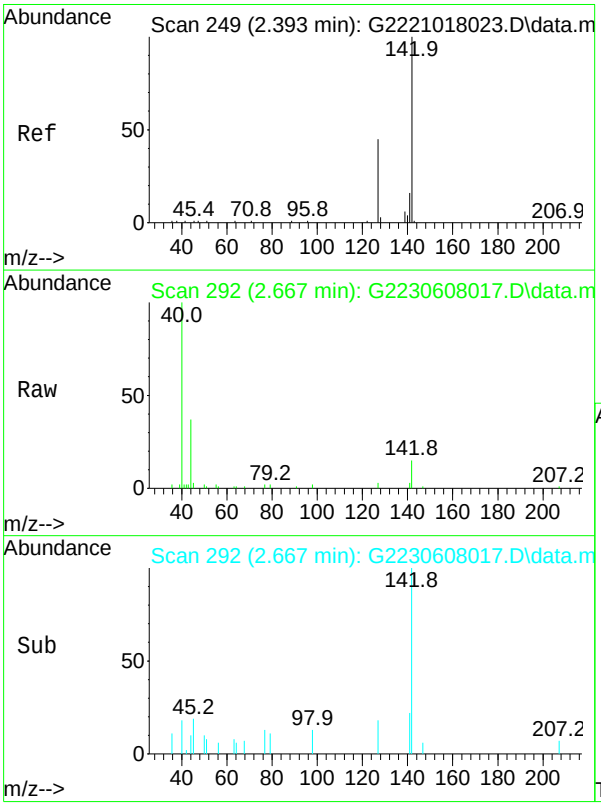


#12
Acetone
Concen: Below Cal
RT: 2.604 min Scan# 282
Delta R.T. -0.004 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 43 Resp: 68640

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

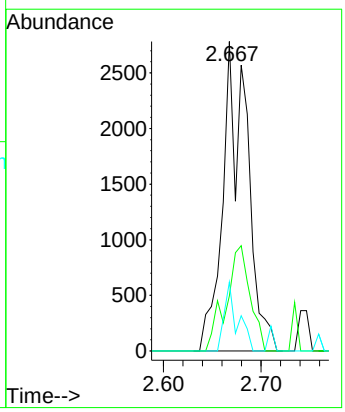


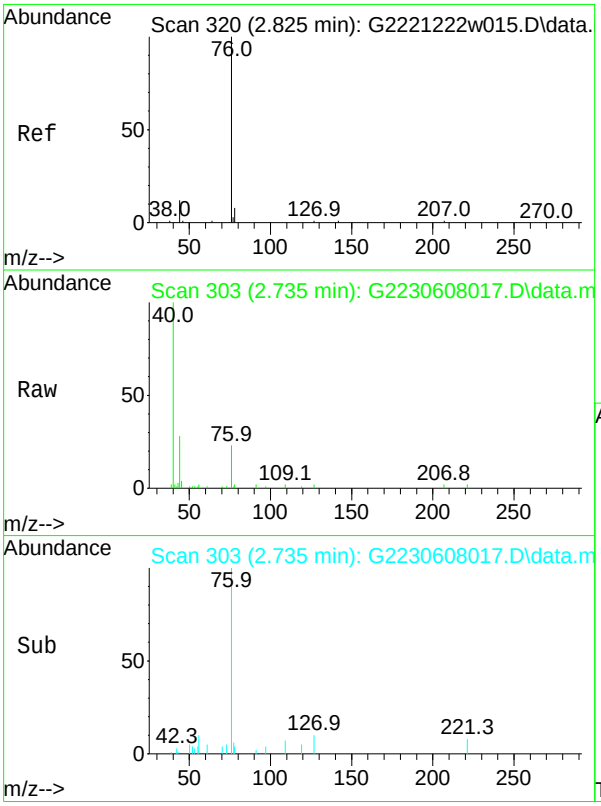


#13
Iodomethane
Concen: 0.11 ug/L
RT: 2.670 min Scan# 292
Delta R.T. -0.006 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion:142 Resp: 48631

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

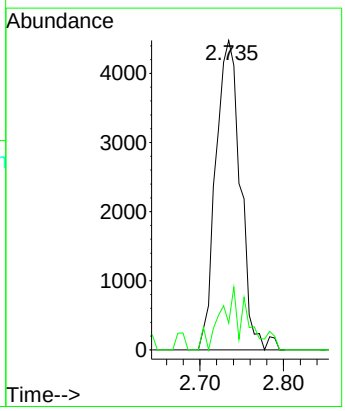


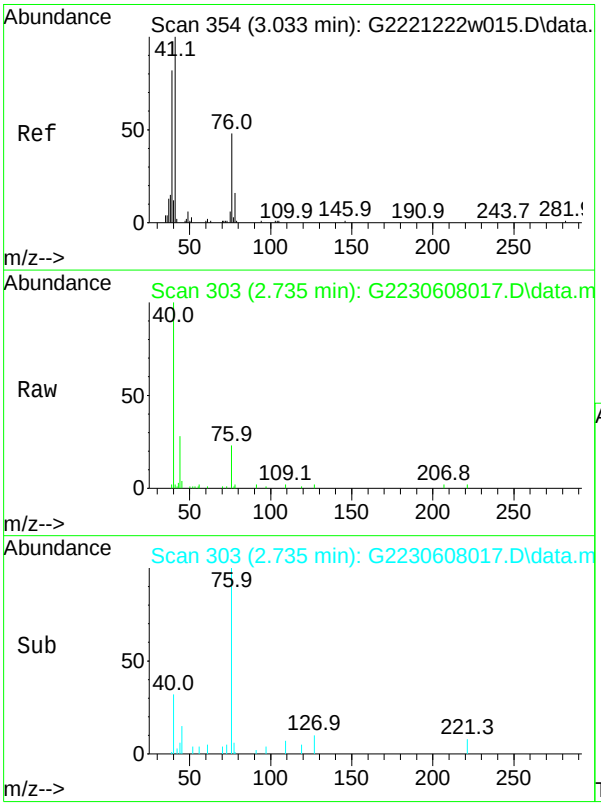


#14
Carbon disulfide
Concen: 0.01 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.002 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 76 Resp: 92129

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

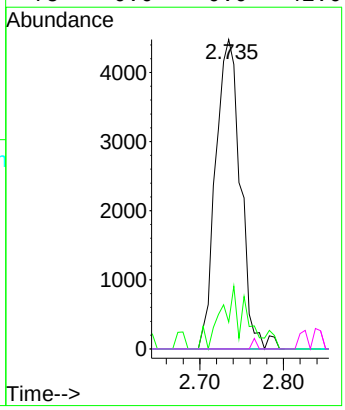


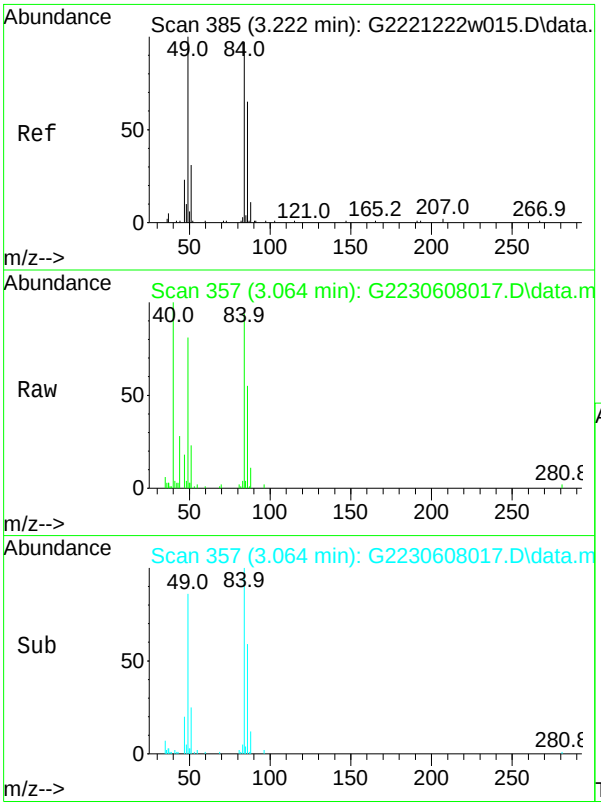


#17
3-Chloro-1-propene
Concen: 0.39 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.183 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 76 Resp: 92129

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

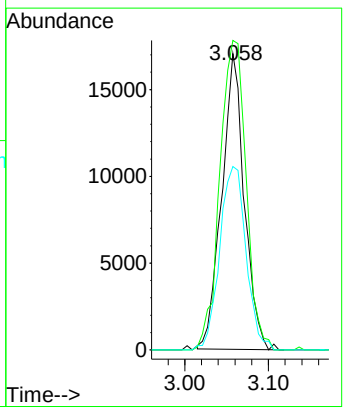


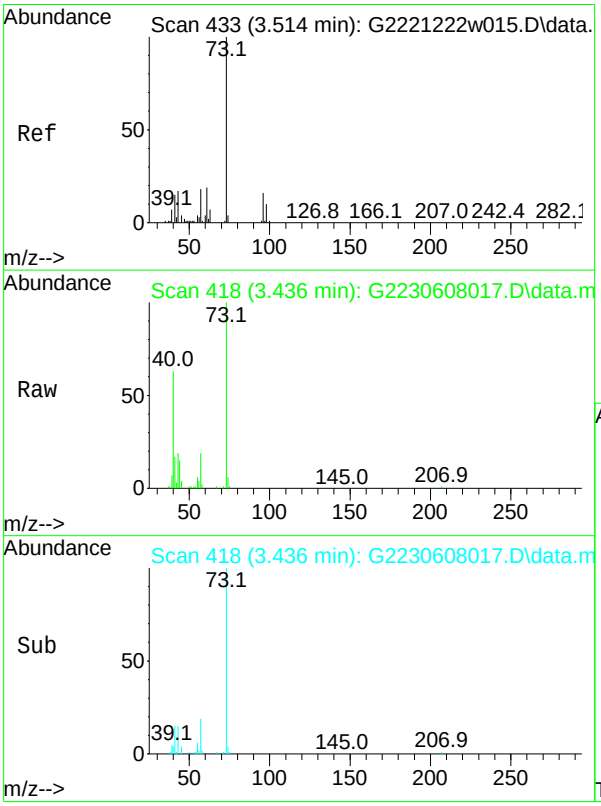


#18
Methylene chloride
Concen: Below Cal
RT: 3.061 min Scan# 357
Delta R.T. -0.001 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 49 Resp: 321346

Ion	Ratio	Lower	Upper
49	100		
84	121.4	57.9	117.9#
86	72.2	24.9	84.9

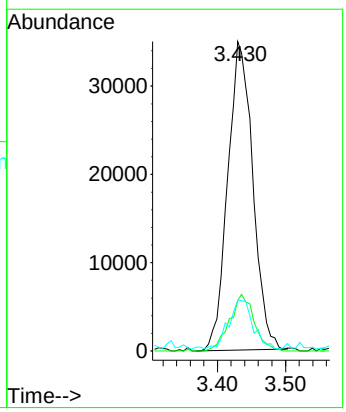


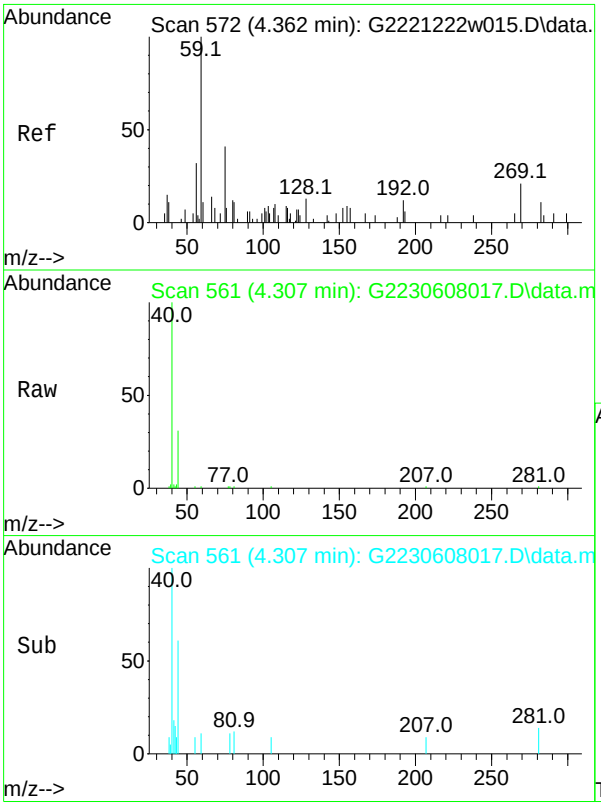


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.434 min Scan# 418
Delta R.T. -0.012 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 73 Resp: 899564

Ion	Ratio	Lower	Upper
73	100		
57	18.0	0.0	51.7
41	15.0	0.0	50.6

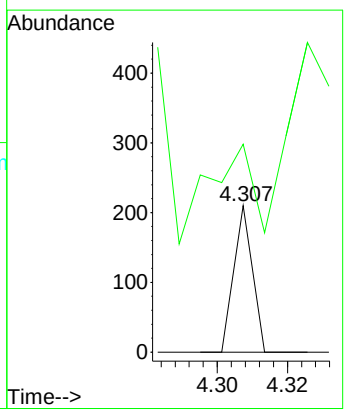


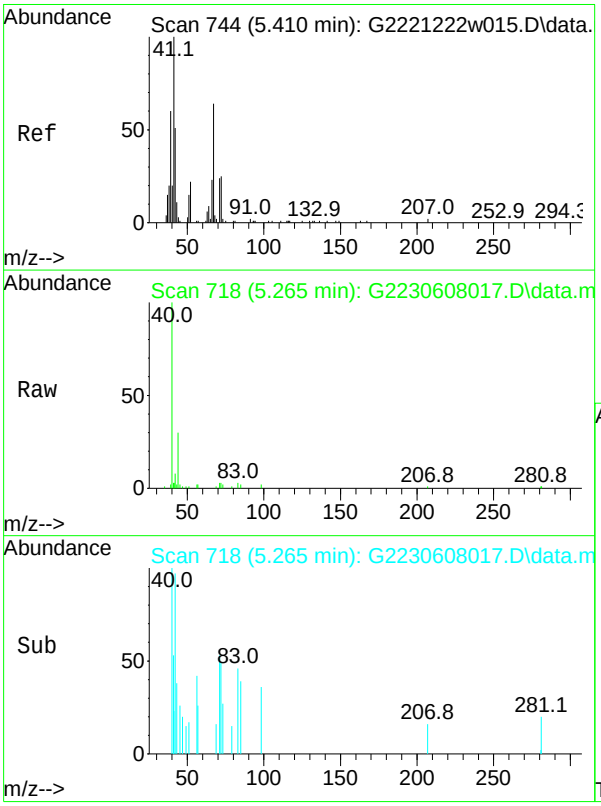


#26
1-propanol
Concen: 0.38 ug/L
RT: 4.310 min Scan# 561
Delta R.T. 0.021 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 59 Resp: 767

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

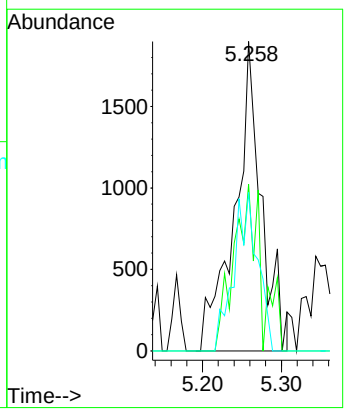


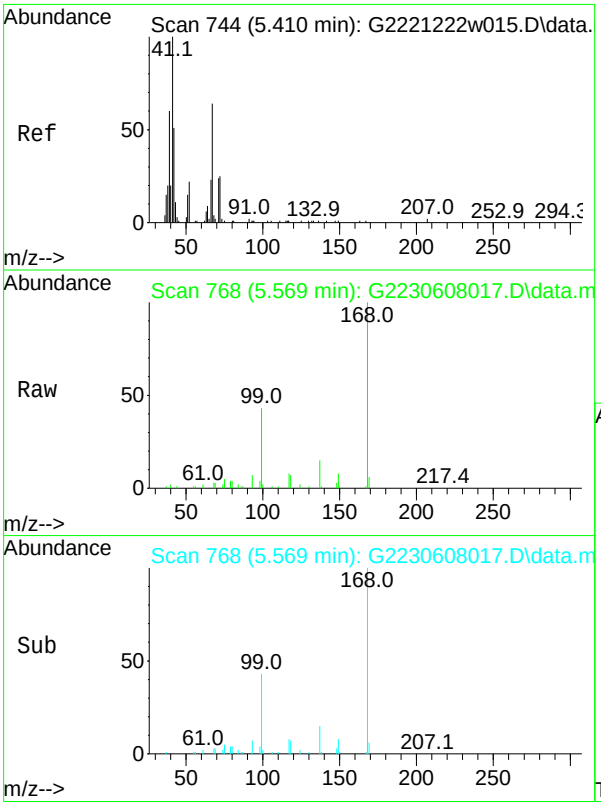


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.262 min Scan# 718
Delta R.T. 0.001 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 42 Resp: 43644

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

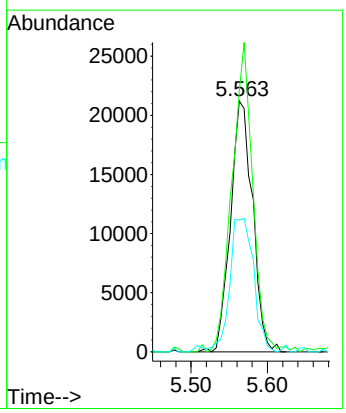


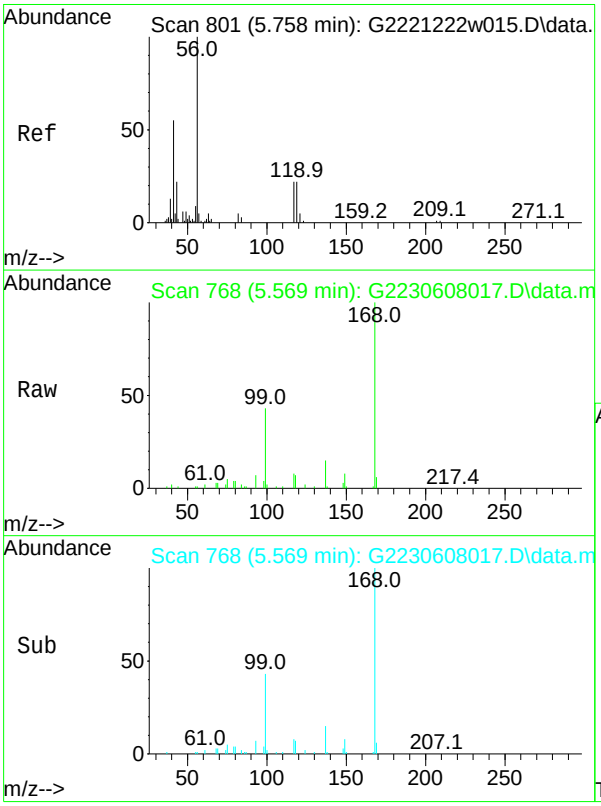


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 84 Resp: 426288

Ion	Ratio	Lower	Upper
84	100		
69	115.0	6.8	66.8#
56	57.5	79.1	139.1#

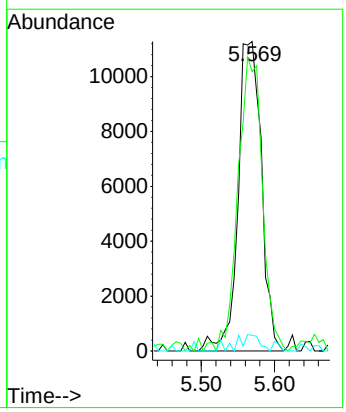


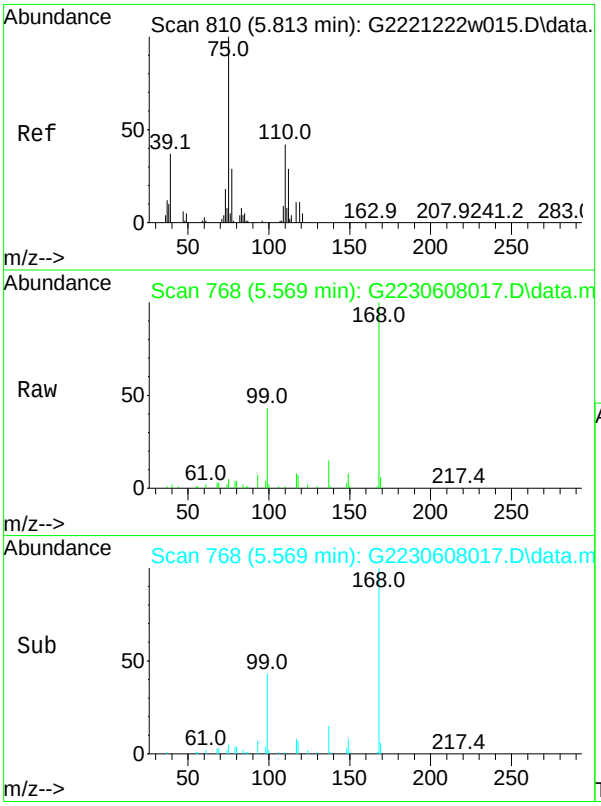


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.062 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 56 Resp: 249329

Ion	Ratio	Lower	Upper
56	100		
55	95.5	0.0	41.0#
57	0.0	0.0	35.7

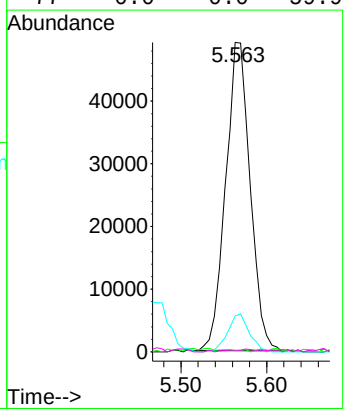


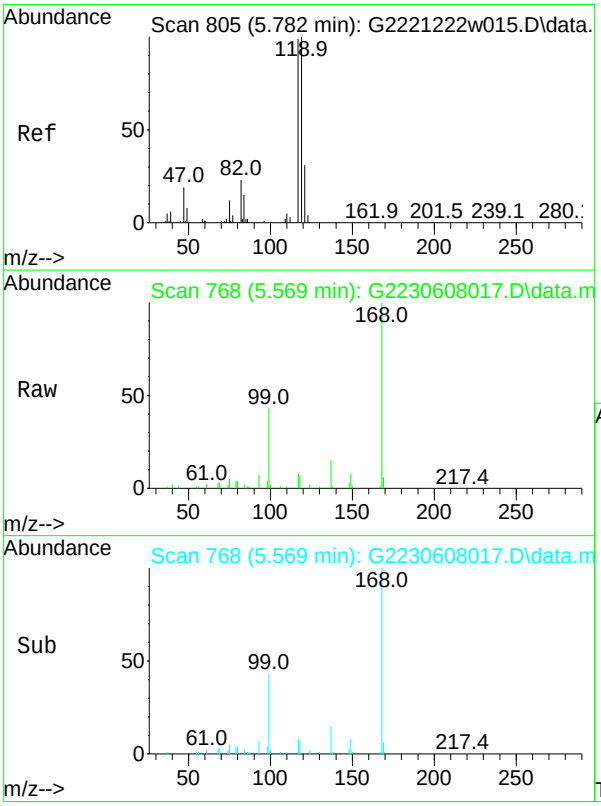


#42
1,1-Dichloropropene
Concen: 2.14 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 75 Resp: 975807

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

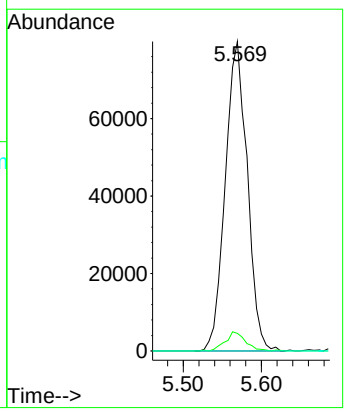


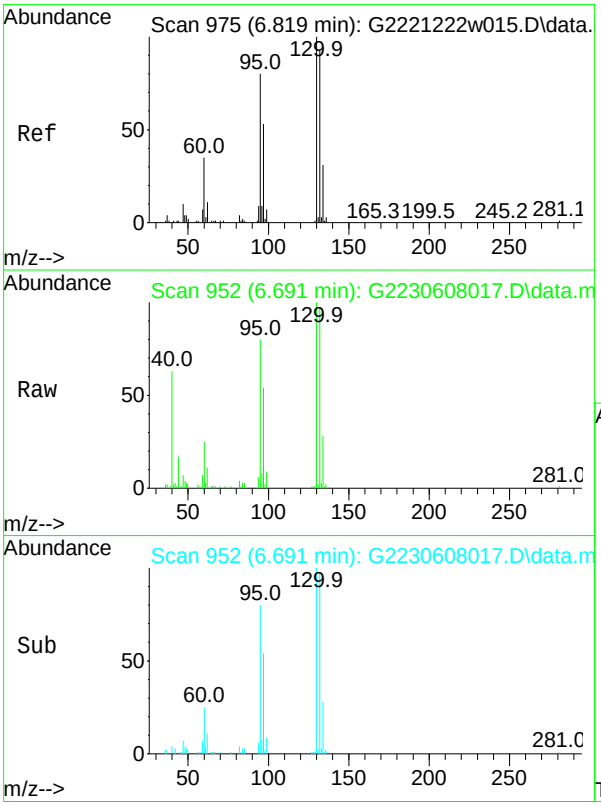


#47
Carbon tetrachloride
Concen: 3.30 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion:117 Resp: 1566354

Ion	Ratio	Lower	Upper
117	100		
119	5.4	66.4	126.4#
121	0.0	0.4	60.4#

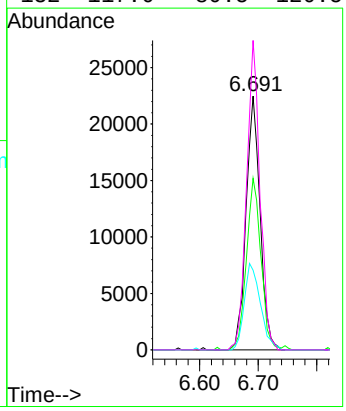


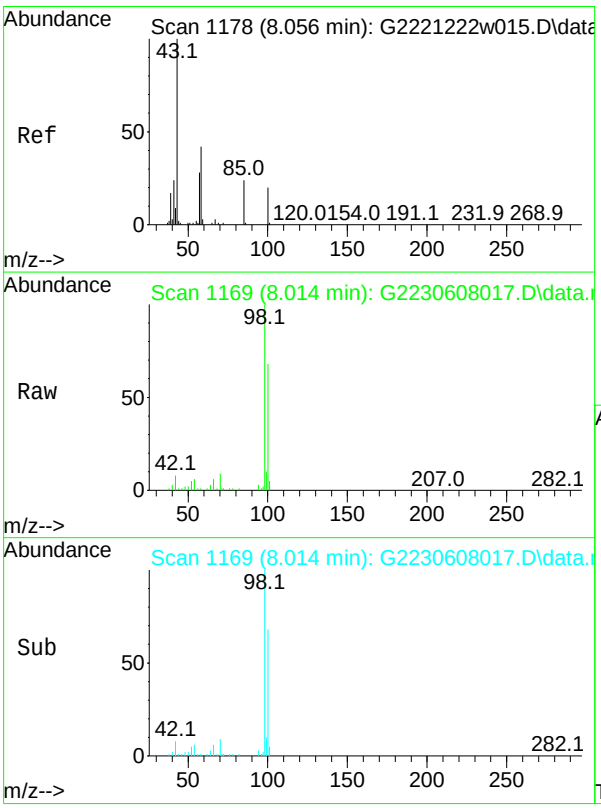


#50
Trichloroethene
Concen: 1.00 ug/L
RT: 6.694 min Scan# 952
Delta R.T. -0.002 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 95 Resp: 375573

Ion	Ratio	Lower	Upper
95	100		
97	70.5	35.5	95.5
60	38.9	14.8	74.8
132	117.0	80.5	120.5

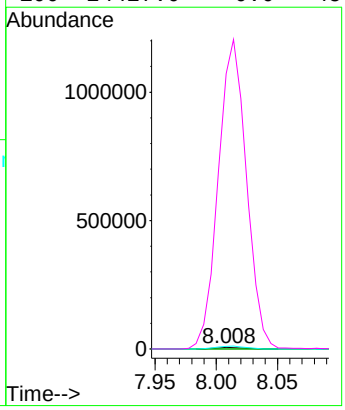


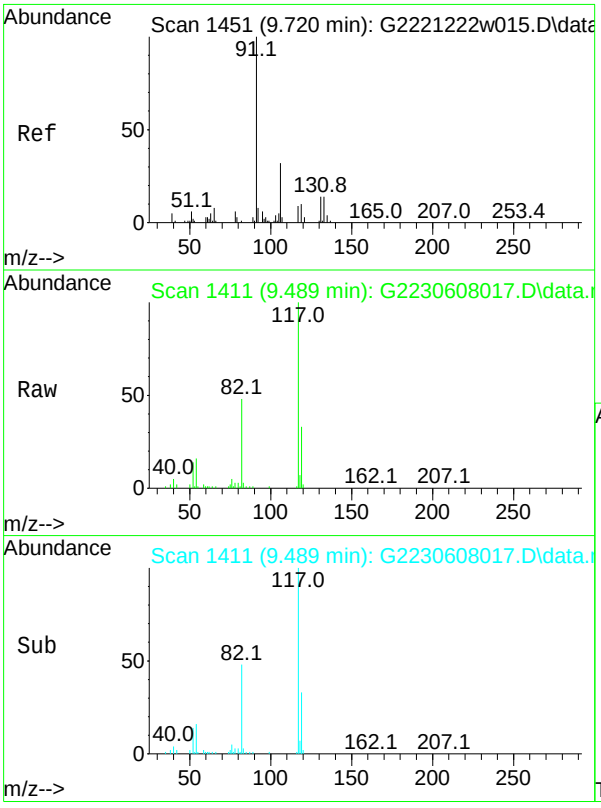


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 43 Resp: 78815

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	232.3	37.0	37.0#
100	24427.0	0.0	45.2#

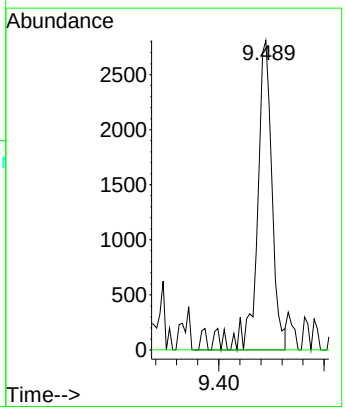


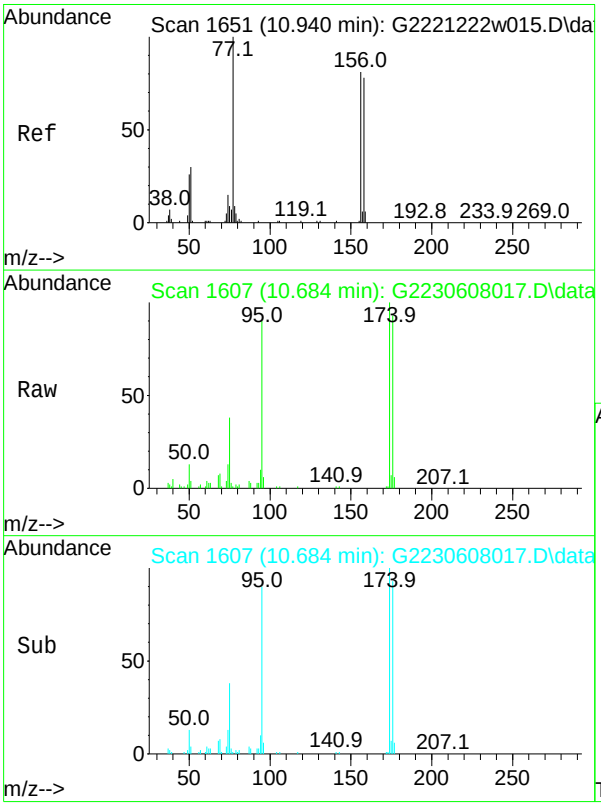


#74
Ethylbenzene
Concen: Below Cal
RT: 9.490 min Scan# 1411
Delta R.T. -0.153 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 91 Resp: 55623

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

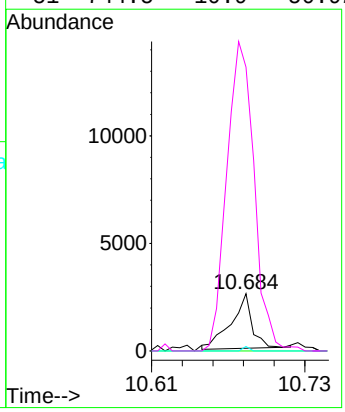


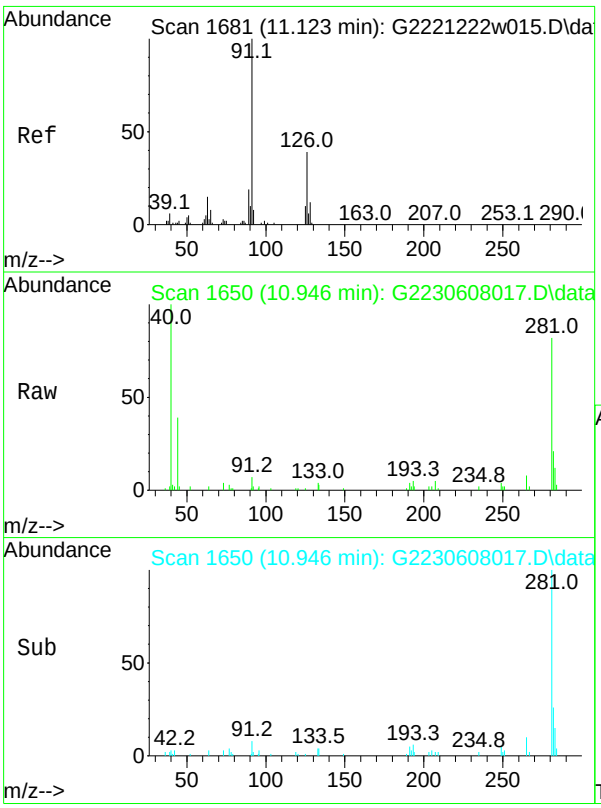


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.686 min Scan# 1607
Delta R.T. -0.142 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 77 Resp: 30327

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	744.5	10.9	50.9#

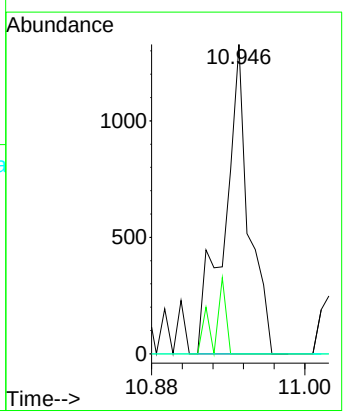


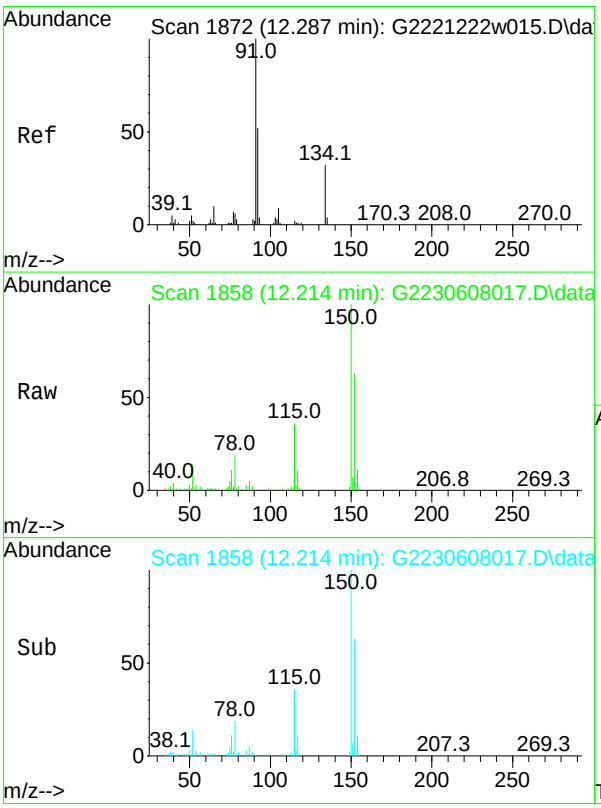


#87
2-Chlorotoluene
Concen: 0.02 ug/L
RT: 10.949 min Scan# 1650
Delta R.T. -0.079 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 91 Resp: 16700

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

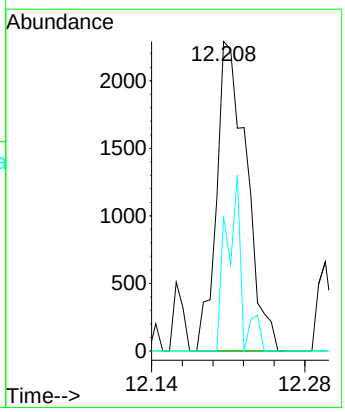




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.214 min Scan# 1858
Delta R.T. -0.017 min
Lab File: G2230608017.D
Acq: 08 Jun 2023 15:54

Tgt Ion: 91 Resp: 42814

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

52547WW49

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-02	File ID:	G2230606017.D
Sampled:	05/25/23 14:45	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 17:18
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.190	0.0669	0.200	0.500	J
75-35-4	1,1-Dichloroethene	1.56	0.0954	0.200	0.500	
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	0.270	0.0700	0.200	0.500	J

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW49

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-02	File ID:	G2230606017.D
Sampled:	05/25/23 14:45	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 17:18
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	6.48	0.518	2.00	4.00	
71-43-2	Benzene	0.260	0.0507	0.200	0.500	J
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	0.160	0.500	1.00	J
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*	*0.220*	*0.101*	*0.300*	*0.600*	*J*
74-87-3	Chloromethane		0.192	0.500	1.00	U
156-59-2	*cis-1,2-Dichloroethene*	*704*	*0.103*	*0.300*	*0.600*	*E*
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	1.33	0.0300	0.100	0.200	
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

SW8260B/D

52547WW49

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-02	File ID:	G2230606017.D
Sampled:	05/25/23 14:45	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 17:18
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.0800	0.0453	0.100	0.200	J
98-06-6	tert-Butylbenzene		0.0453	0.200	0.500	U
127-18-4	*Tetrachloroethene*		*0.178*	*0.500*	*1.00*	*Q, U*
108-88-3	Toluene	0.180	0.0572	0.200	0.500	J
156-60-5	trans-1,2-Dichloroethene	3.97	0.0855	0.200	0.500	
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	*Trichloroethene*	*743*	*0.0781*	*0.200*	*0.500*	*B, E*
75-69-4	Trichlorofluoromethane		0.0505	0.200	0.500	U
75-01-4	Vinyl chloride	0.730	0.129	0.500	1.00	J

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606017.D
Acq On : 06 Jun 2023 17:18
Operator : PO1
Sample : 23E0775-02
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 07 09:17:59 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

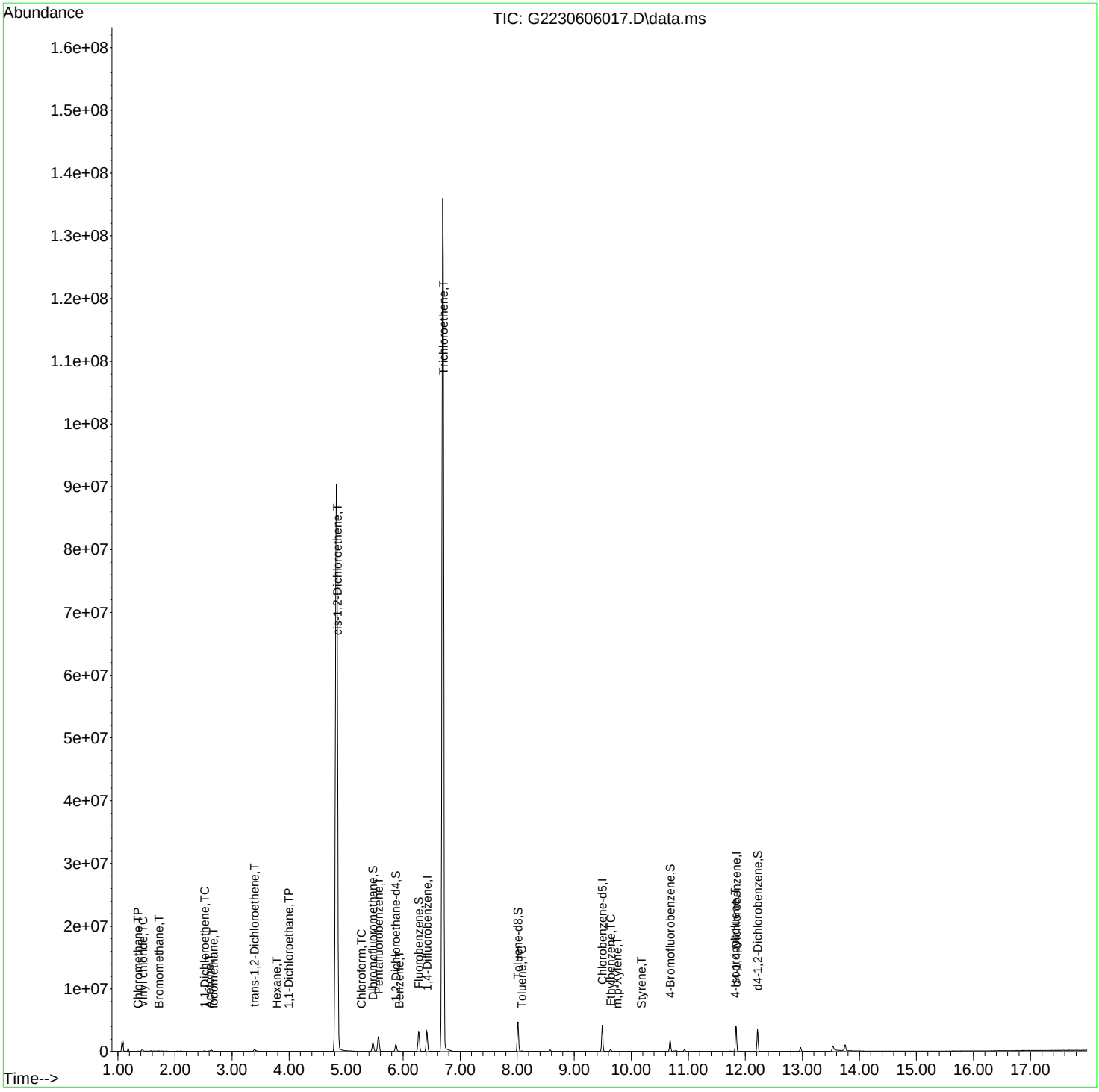
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	19080120	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	28053782	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24529245	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11346292	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	8791712	20.94	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.70%			
43) 1,2-Dichloroethane-d4	5.876	65	7833804	18.88	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.40%			
49) Fluorobenzene	6.276	96	31465946	19.68	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.40%			
64) Toluene-d8	8.015	98	30314534	19.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.05%			
81) 4-Bromofluorobenzene	10.685	174	5413143	10.10	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.00%			
97) d4-1,2-Dichlorobenzene	12.217	152	9939048	20.37	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.85%			
Target Compounds						Qvalue
3) Chloromethane	1.350	50	90819	0.18	ug/L	83
4) Vinyl chloride	1.441	62	272804	0.73	ug/L #	26
5) Bromomethane	1.717	94	103852	0.16	ug/L #	85
10) 1,1-Dichloroethene	2.519	61	665880	1.56	ug/L	84
12) Acetone	2.599	43	699255	6.48	ug/L	78
13) Iodomethane	2.673	142	93304	0.21	ug/L #	89
18) Methylene chloride	3.062	49	127996	Below Cal		74
20) trans-1,2-Dichloroethene	3.395	61	1640206	3.97	ug/L	86
21) Methyl tert-butyl ether	3.436	73	946480	Below Cal		97
22) Hexane	3.784	57	182871	0.48	ug/L	93
23) 1,1-Dichloroethane	3.995	63	144202	0.19	ug/L #	51
28) cis-1,2-Dichloroethene	4.849	61	336058358	703.87	ug/L #	47
37) Chloroform	5.273	83	136219	0.22	ug/L #	92
48) Benzene	5.933	78	368946	0.26	ug/L	99
50) Trichloroethene	6.709	95	273846457	743.39	ug/L #	79
65) Toluene	8.083	91	386558	0.18	ug/L	98
74) Ethylbenzene	9.641	91	2270015	1.33	ug/L	95
75) m,p-Xylene	9.760	91	73305	0.06	ug/L #	73
76) Styrene	10.175	104	89225	0.08	ug/L #	81
95) 4-Isopropyltoluene	11.823	119	342077	0.27	ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606017.D
Acq On : 06 Jun 2023 17:18
Operator : PO1
Sample : 23E0775-02
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 07 09:17:59 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606017.D
Acq On : 06 Jun 2023 17:18
Operator : PO1
Sample : 23E0775-02
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 07 09:17:59 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	19080120	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	28053782	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24529245	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11346292	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.473	111	8791712	20.94	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.70%				
43) 1,2-Dichloroethane-d4	5.876	65	7833804	18.88	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.40%				
49) Fluorobenzene	6.276	96	31465946	19.68	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.40%				
64) Toluene-d8	8.015	98	30314534	19.61	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.05%				
81) 4-Bromofluorobenzene	10.685	174	5413143	10.10	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.00%				
97) d4-1,2-Dichlorobenzene	12.217	152	9939048	20.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.85%				
Target Compounds							Qvalue
3) Chloromethane	1.350	50	90819	0.18	ug/L		83
4) Vinyl chloride	1.441	62	272804	0.73	ug/L	#	26
5) Bromomethane	1.717	94	103852	0.16	ug/L	#	85
9) Acrolein	2.340	56	9583	Below Cal		#	1
10) 1,1-Dichloroethene	2.519	61	665880	1.56	ug/L		84
12) Acetone	2.599	43	699255	6.48	ug/L		78
13) Iodomethane	2.673	142	93304	0.21	ug/L	#	89
14) Carbon disulfide	2.732	76	216251	0.16	ug/L	#	74
15) Isopropanol	2.774	45	127186	8.31	ug/L	#	56
16) acetonitrile	2.957	41	49568	Below Cal		#	37
17) 3-Chloro-1-propene	2.732	76	216253	1.05	ug/L	#	53
18) Methylene chloride	3.062	49	127996	Below Cal			74
20) trans-1,2-Dichloroethene	3.395	61	1640206	3.97	ug/L		86
21) Methyl tert-butyl ether	3.436	73	946480	Below Cal			97
22) Hexane	3.784	57	182871	0.48	ug/L		93
23) 1,1-Dichloroethane	3.995	63	144202	0.19	ug/L	#	51
28) cis-1,2-Dichloroethene	4.849	61	336058358	703.87	ug/L	#	47
29) 2-Butanone	4.913	72	45191	0.39	ug/L	#	42
31) Ethyl acetate	4.851	61	336713335	5971.71	ug/L	#	45
35) Methacrylonitrile	5.321	67	36621	0.08	ug/L	#	25
37) Chloroform	5.273	83	136219	0.22	ug/L	#	92
40) Cyclohexane	5.569	84	435834	0.85	ug/L	#	35
41) 1-Chlorobutane	5.569	56	266967	0.45	ug/L	#	1
42) 1,1-Dichloropropene	5.568	75	1005726	2.25	ug/L	#	37
44) 1,2-Dichloroethane	5.966	62	64168	0.04	ug/L	#	47
47) Carbon tetrachloride	5.571	117	1480792	2.93	ug/L	#	16
48) Benzene	5.933	78	368946	0.26	ug/L		99
50) Trichloroethene	6.709	95	273846457	743.39	ug/L	#	79

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606017.D
Acq On : 06 Jun 2023 17:18
Operator : PO1
Sample : 23E0775-02
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 07 09:17:59 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

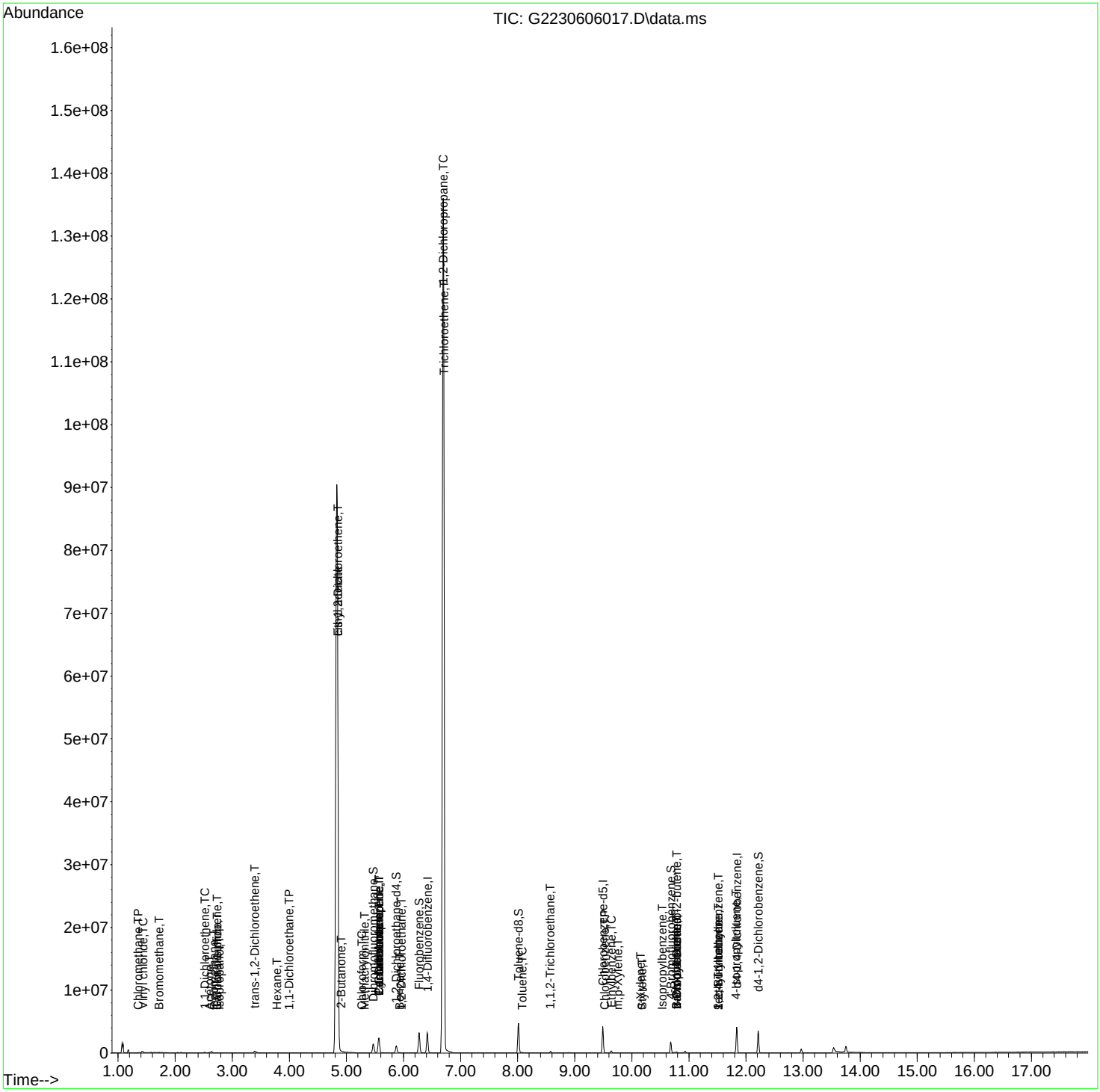
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) 1,2-Dichloropropane	6.696	63	2151407	6.73	ug/L	#	1
60) 4-Methyl-2-pentanone	7.938	43	82895	Below Cal		#	69
62) 1,1,2-Trichloroethane	8.569	97	43135	0.12	ug/L	#	15
65) Toluene	8.083	91	386558	0.18	ug/L		98
69) 2-Hexanone	8.896	43	44517	Below Cal		#	1
72) Chlorobenzene	9.523	112	22436	0.02	ug/L	#	1
74) Ethylbenzene	9.641	91	2270015	1.33	ug/L		95
75) m,p-Xylene	9.760	91	73305	0.06	ug/L	#	73
76) Styrene	10.175	104	89225	0.08	ug/L	#	81
79) o-Xylene	10.155	91	32878	0.02	ug/L	#	37
80) Isopropylbenzene	10.533	105	33865	0.02	ug/L	#	58
82) Bromobenzene	10.784	77	112324	0.18	ug/L	#	31
85) trans-1,4-Dichloro-2-b...	10.789	53	51449	0.39	ug/L	#	52
86) n-Propylbenzene	10.785	91	163147	0.09	ug/L	#	43
87) 2-Chlorotoluene	10.785	91	162717	0.15	ug/L	#	47
90) 2-ethyl-1-toluene	11.512	105	59567	0.04	ug/L	#	51
92) 1,2,4-Trimethylbenzene	11.512	105	59632	0.05	ug/L	#	32
93) sec-Butylbenzene	11.512	105	44622	0.03	ug/L	#	58
95) 4-Isopropyltoluene	11.823	119	342077	0.27	ug/L		89
99) n-Butylbenzene	12.217	91	40278	Below Cal		#	53

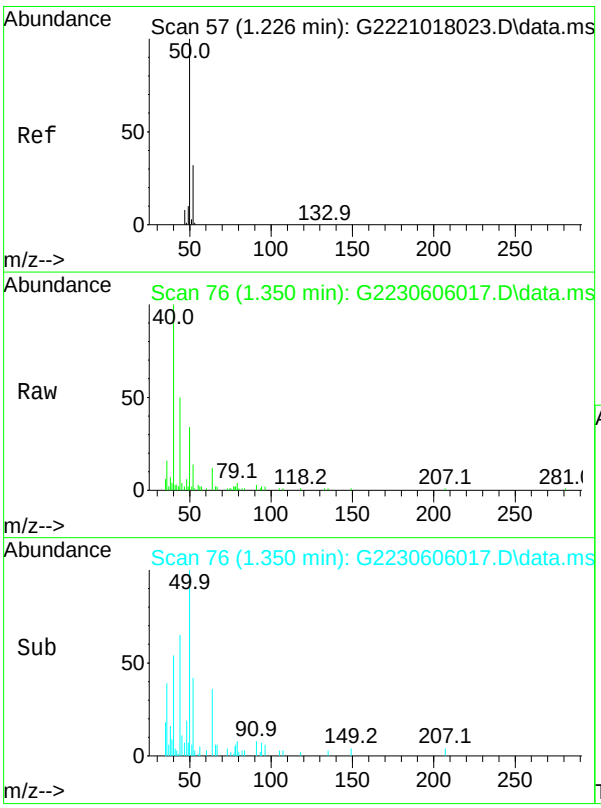
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606017.D
Acq On : 06 Jun 2023 17:18
Operator : PO1
Sample : 23E0775-02
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 07 09:17:59 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

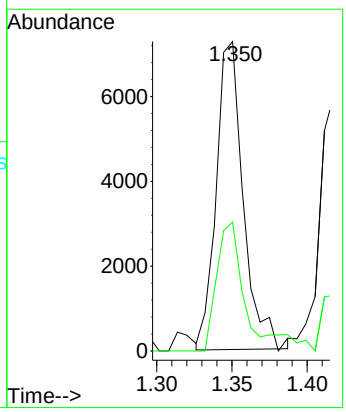


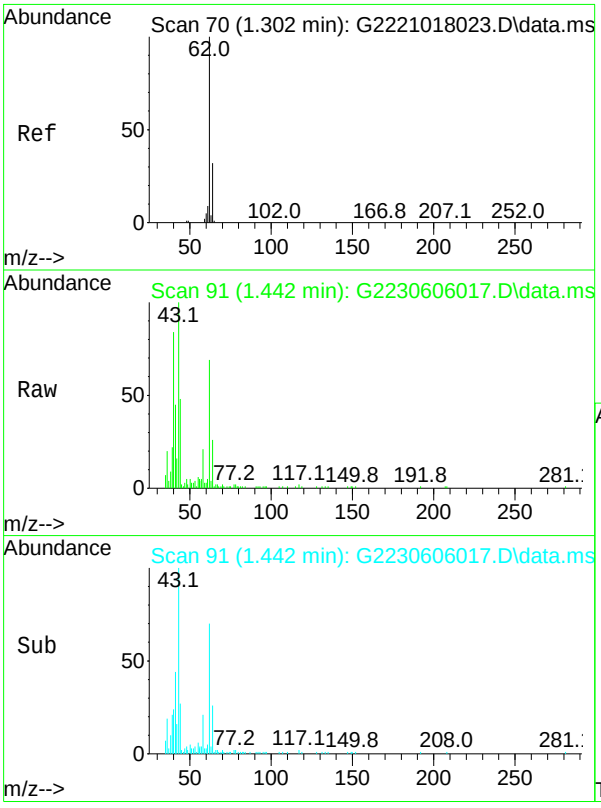


#3
Chloromethane
Concen: 0.18 ug/L
RT: 1.350 min Scan# 76
Delta R.T. -0.004 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 50 Resp: 90819

Ion	Ratio	Lower	Upper
50	100		
52	42.6	3.2	63.2

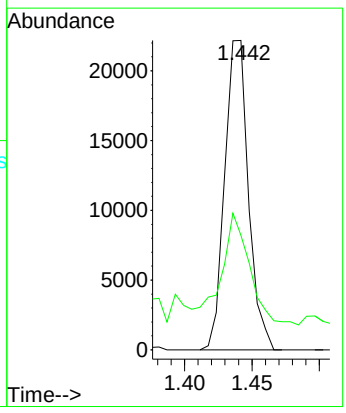


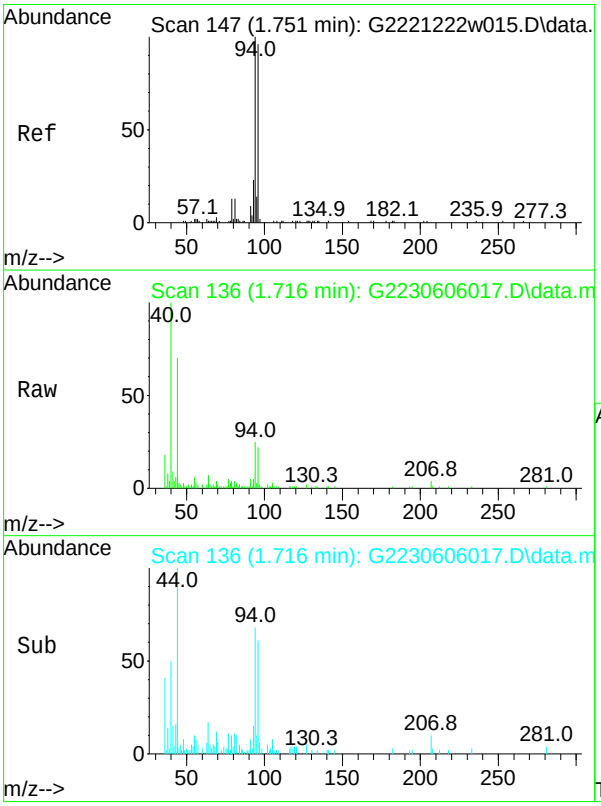


#4
Vinyl chloride
Concen: 0.73 ug/L
RT: 1.441 min Scan# 91
Delta R.T. -0.005 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 62 Resp: 272804

Ion	Ratio	Lower	Upper
62	100		
64	73.7	2.1	62.1#

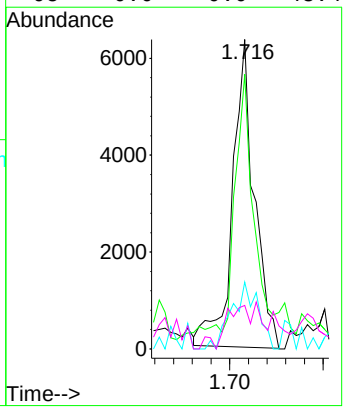


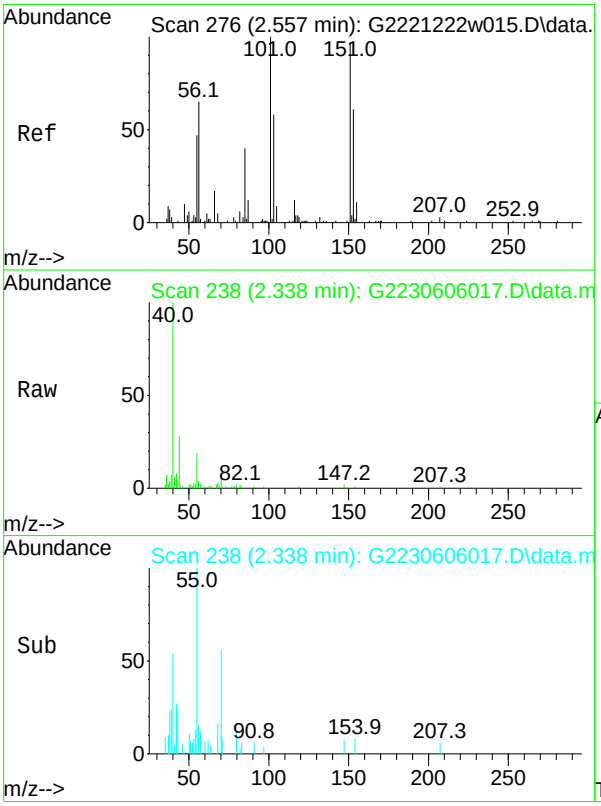


#5
Bromomethane
Concen: 0.16 ug/L
RT: 1.717 min Scan# 136
Delta R.T. 0.003 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 94 Resp: 103852

Ion	Ratio	Lower	Upper
94	100		
96	88.6	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

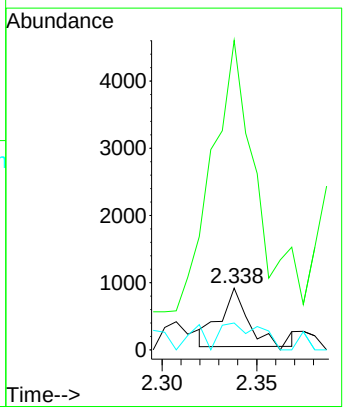


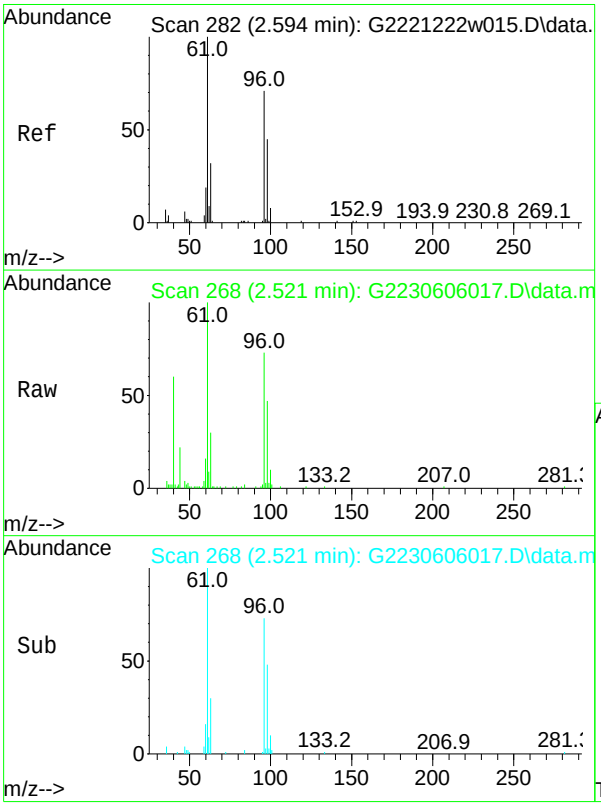


#9
Acrolein
Concen: Below Cal
RT: 2.340 min Scan# 238
Delta R.T. -0.099 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 56 Resp: 9583

Ion	Ratio	Lower	Upper
56	100		
55	742.8	43.5	103.5#
37	0.0	0.0	40.5

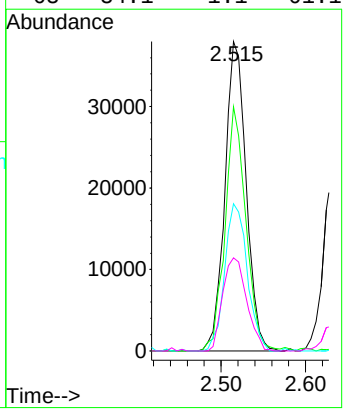


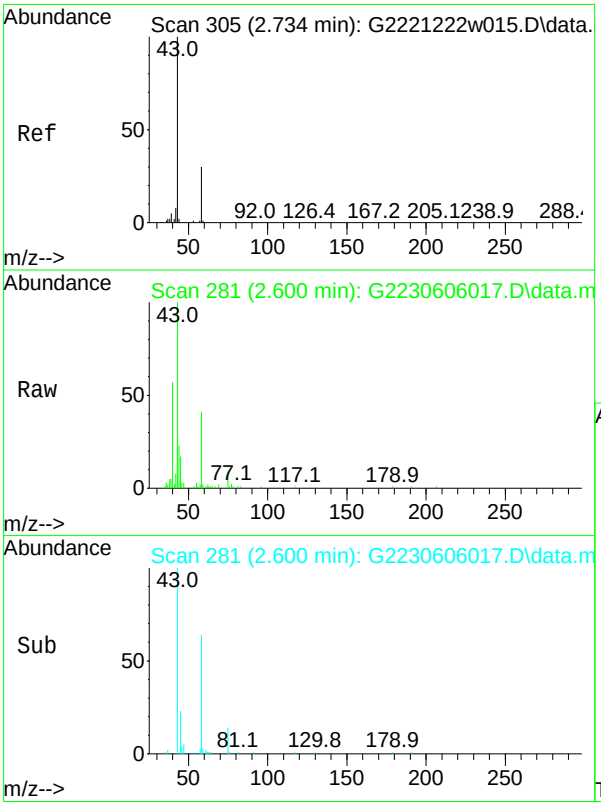


#10
1,1-Dichloroethene
Concen: 1.56 ug/L
RT: 2.519 min Scan# 268
Delta R.T. -0.004 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 61 Resp: 665880

Ion	Ratio	Lower	Upper
61	100		
96	77.5	32.7	92.7
98	50.8	9.3	69.3
63	34.1	1.1	61.1

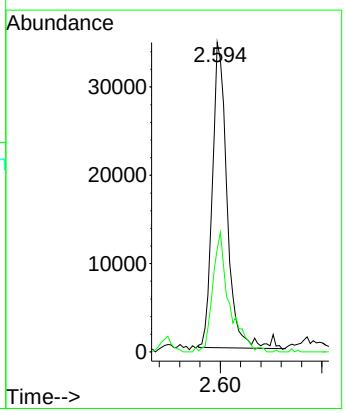


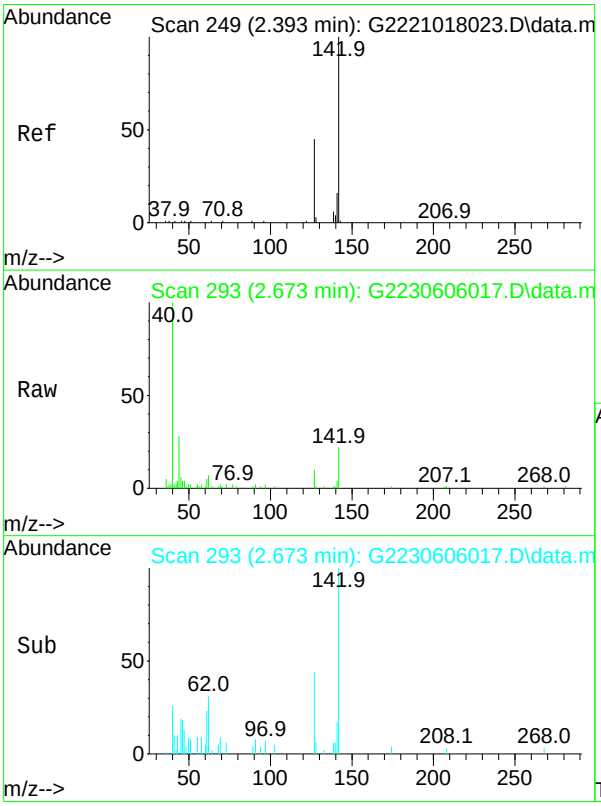


#12
Acetone
Concen: 6.48 ug/L
RT: 2.599 min Scan# 281
Delta R.T. -0.009 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 43 Resp: 699255

Ion	Ratio	Lower	Upper
43	100		
58	41.4	0.0	59.7

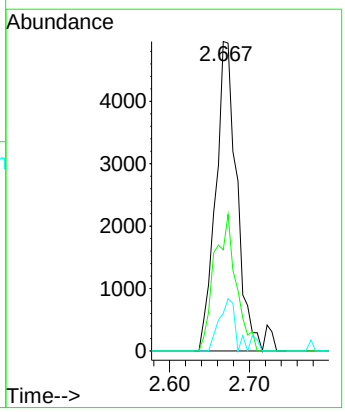


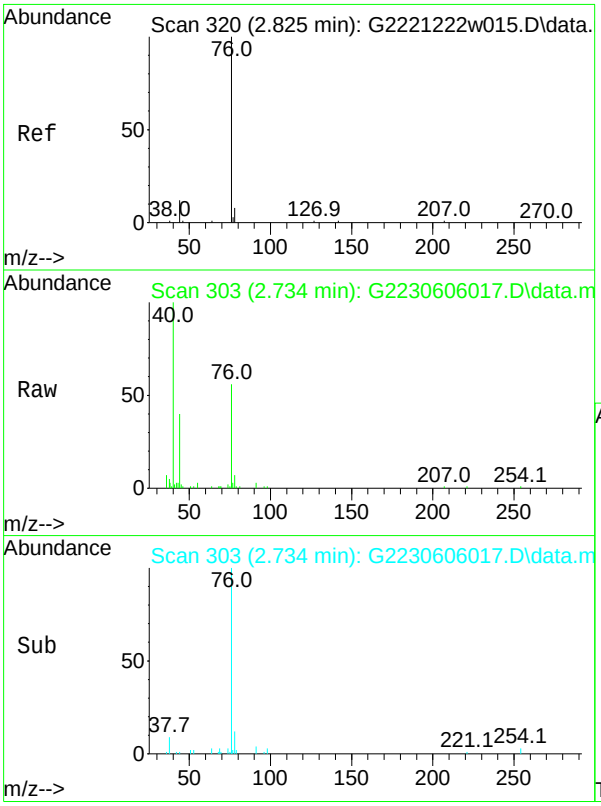


#13
Iodomethane
Concen: 0.21 ug/L
RT: 2.673 min Scan# 293
Delta R.T. -0.003 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion:142 Resp: 93304

Ion	Ratio	Lower	Upper
142	100		
127	44.3	13.3	73.3
141	0.0	0.0	45.3

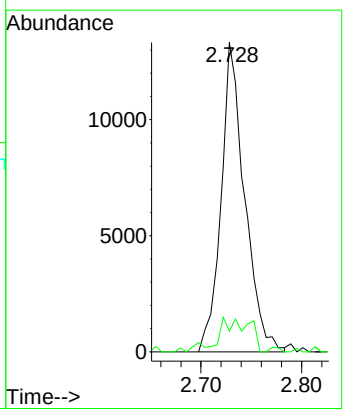


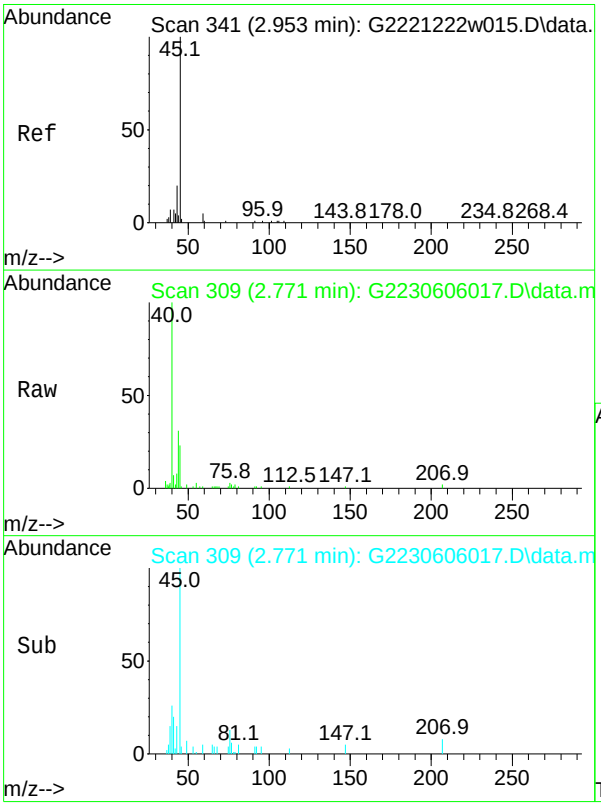


#14
Carbon disulfide
Concen: 0.16 ug/L
RT: 2.732 min Scan# 303
Delta R.T. -0.007 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 76 Resp: 216251

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

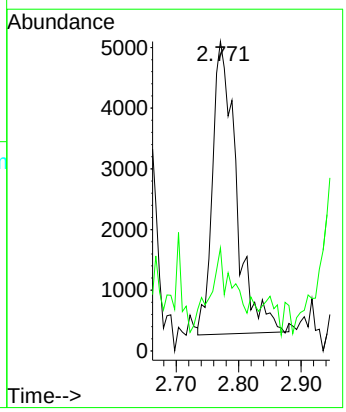


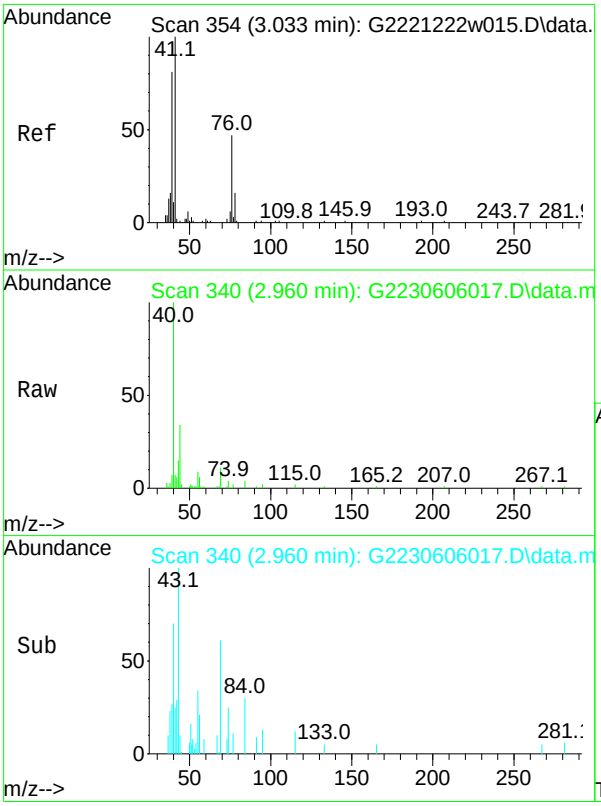


#15
Isopropanol
Concen: 8.31 ug/L
RT: 2.774 min Scan# 309
Delta R.T. -0.018 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 45 Resp: 127186

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

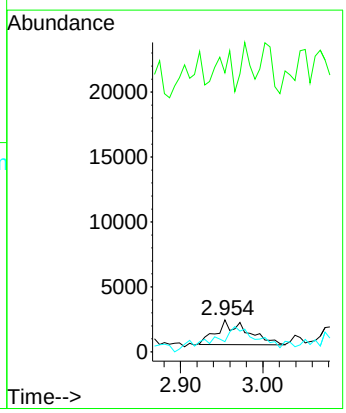


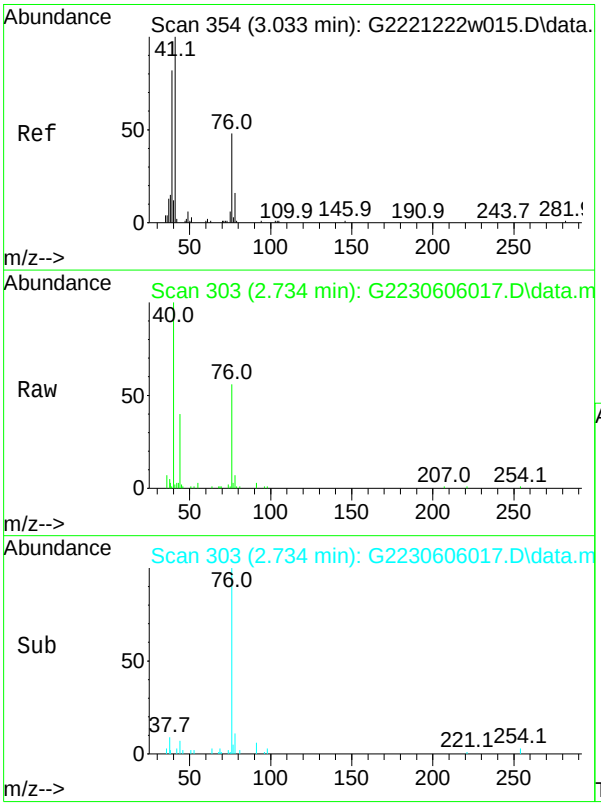


#16
acetonitrile
Concen: Below Cal
RT: 2.957 min Scan# 340
Delta R.T. 0.039 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 41 Resp: 49568

Ion	Ratio	Lower	Upper
41	100		
40	84.4	0.0	54.0#
39	85.7	27.5	87.5

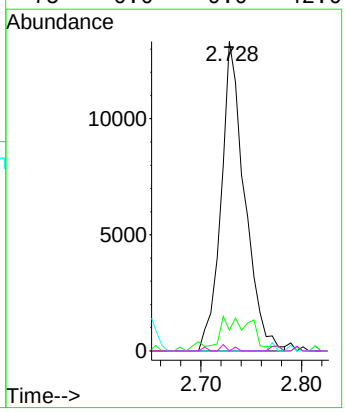


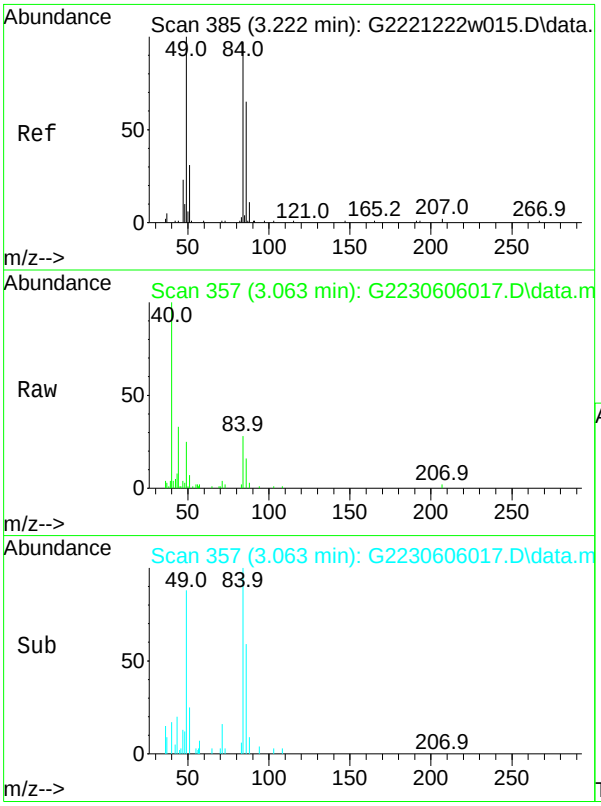


#17
3-Chloro-1-propene
Concen: 1.05 ug/L
RT: 2.732 min Scan# 303
Delta R.T. -0.188 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 76 Resp: 216253

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

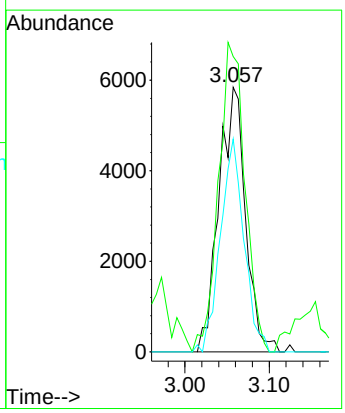


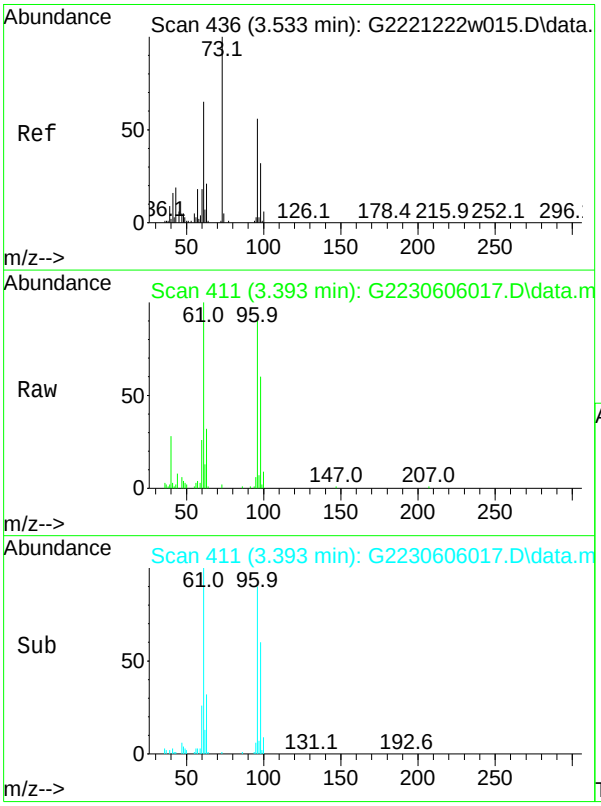


#18
Methylene chloride
Concen: Below Cal
RT: 3.062 min Scan# 357
Delta R.T. 0.000 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 49 Resp: 127996

Ion	Ratio	Lower	Upper
49	100		
84	114.5	57.9	117.9
86	70.2	24.9	84.9

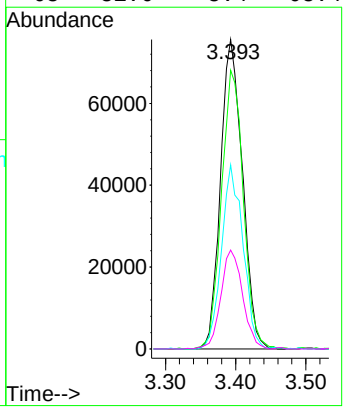


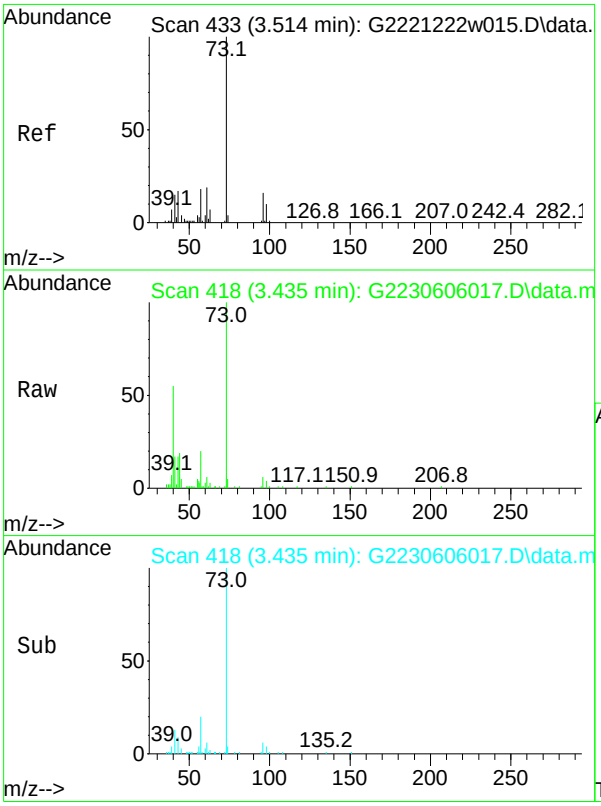


#20
trans-1,2-Dichloroethene
Concen: 3.97 ug/L
RT: 3.395 min Scan# 411
Delta R.T. -0.006 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 61 Resp: 1640206

Ion	Ratio	Lower	Upper
61	100		
96	89.9	45.2	105.2
98	58.5	17.2	77.2
63	31.6	3.4	63.4

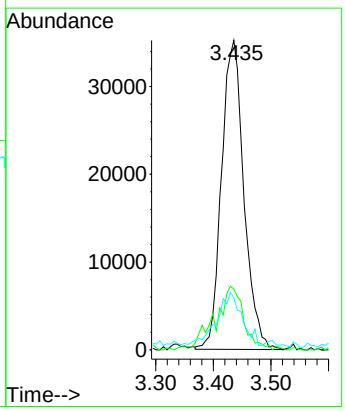


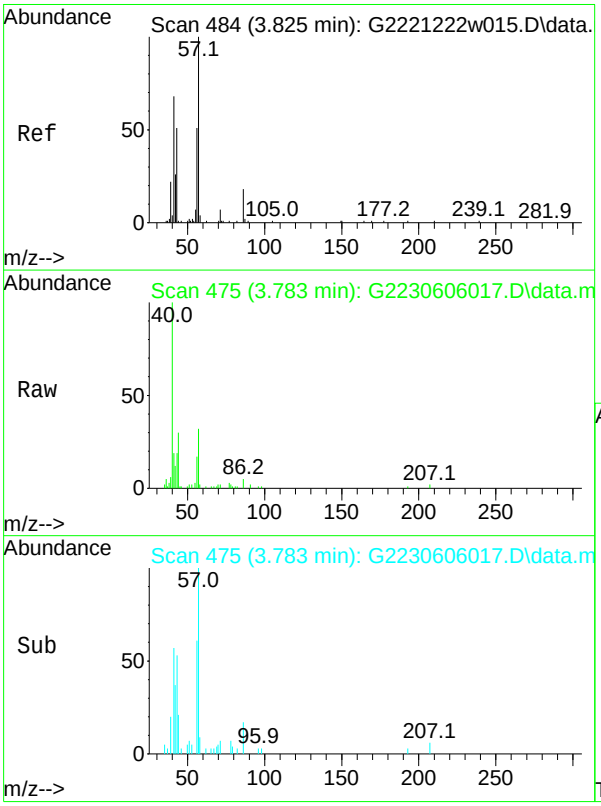


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.436 min Scan# 418
Delta R.T. -0.010 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 73 Resp: 946480

Ion	Ratio	Lower	Upper
73	100		
57	23.7	0.0	51.7
41	19.6	0.0	50.6

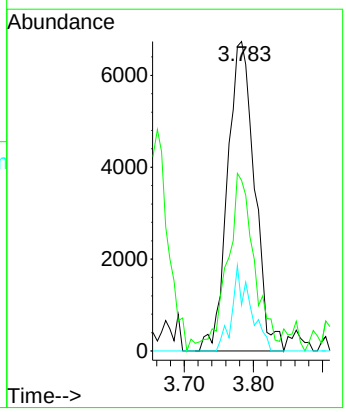


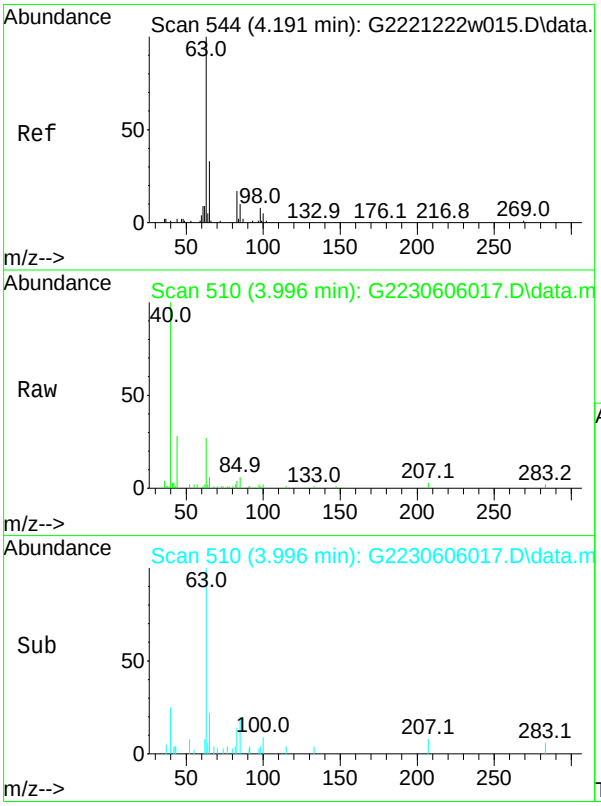


#22
Hexane
Concen: 0.48 ug/L
RT: 3.784 min Scan# 475
Delta R.T. -0.006 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 57 Resp: 182871

Ion	Ratio	Lower	Upper
57	100		
56	56.8	20.4	80.4
86	18.8	0.0	48.1

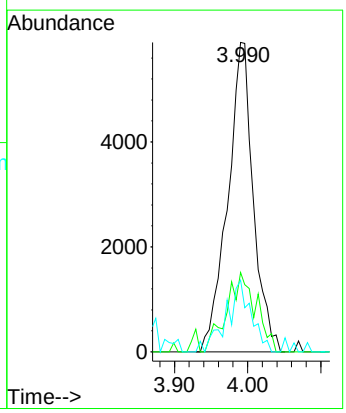


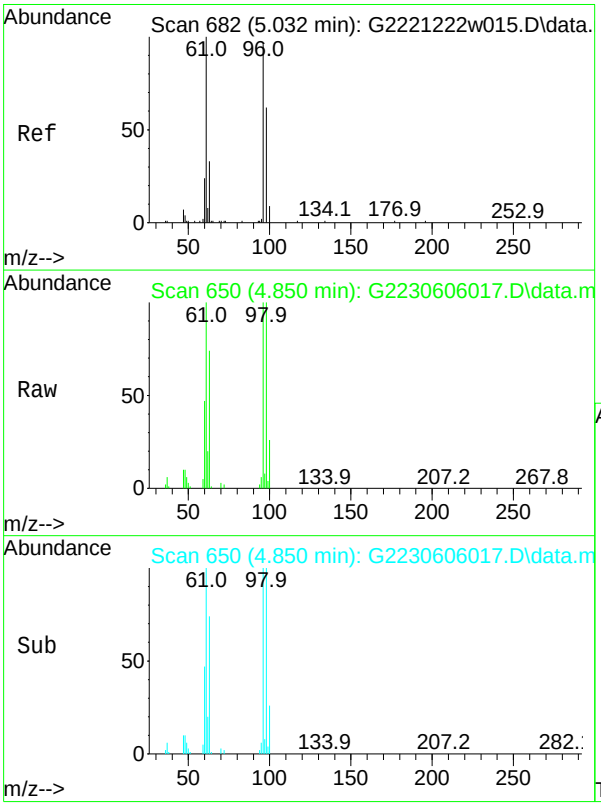


#23
1,1-Dichloroethane
Concen: 0.19 ug/L
RT: 3.995 min Scan# 510
Delta R.T. -0.003 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 63 Resp: 144202

Ion	Ratio	Lower	Upper
63	100		
65	0.0	1.1	61.1#
83	0.0	0.0	42.9

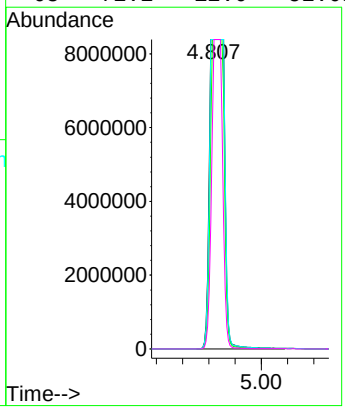


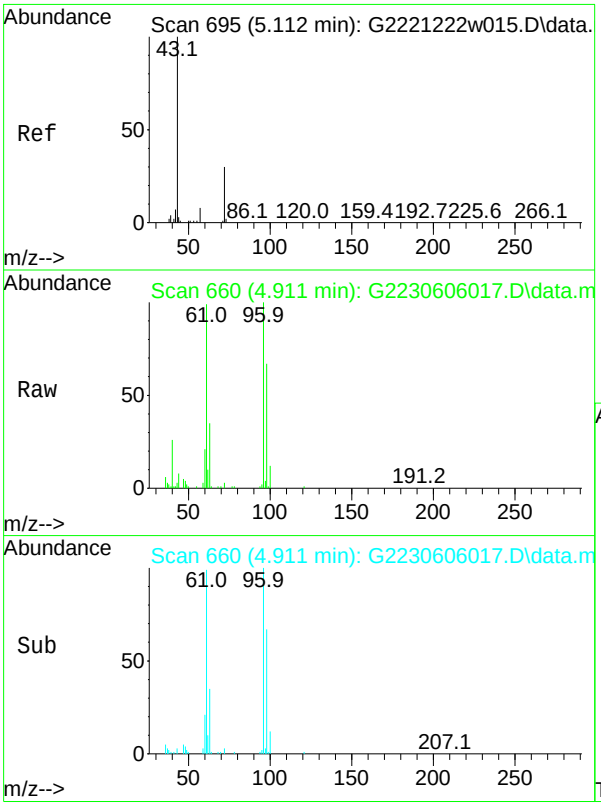


#28
cis-1,2-Dichloroethene
Concen: 703.87 ug/L
RT: 4.849 min Scan# 650
Delta R.T. 0.013 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 61 Resp:336058358

Ion	Ratio	Lower	Upper
61	100		
98	89.4	15.9	75.9#
96	99.3	39.6	99.6
63	72.2	12.0	52.0#

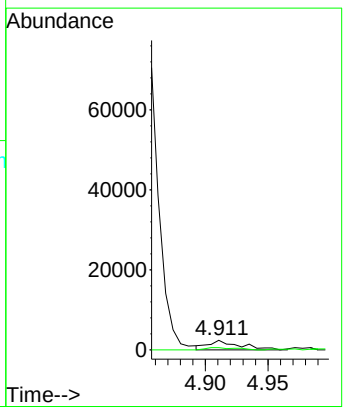


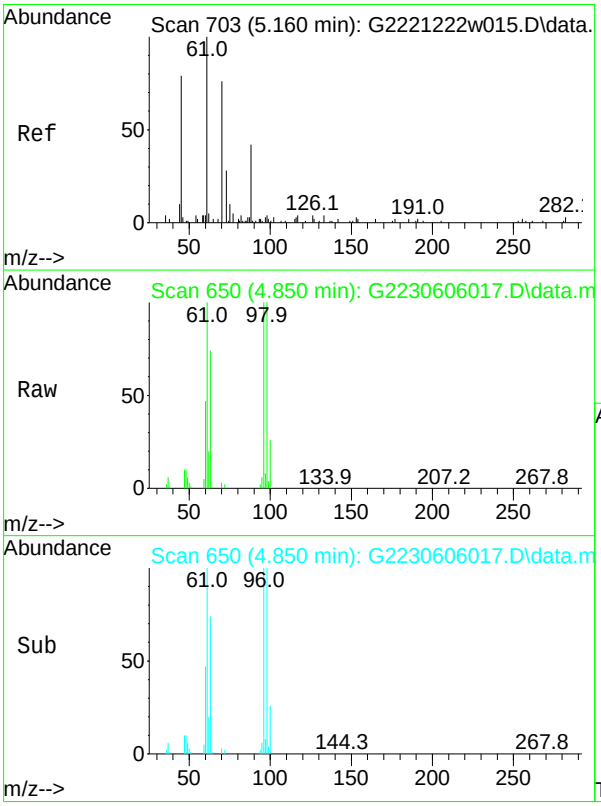


#29
2-Butanone
Concen: 0.39 ug/L
RT: 4.913 min Scan# 660
Delta R.T. -0.006 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 72 Resp: 45191

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

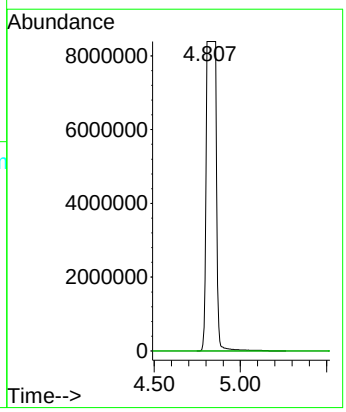


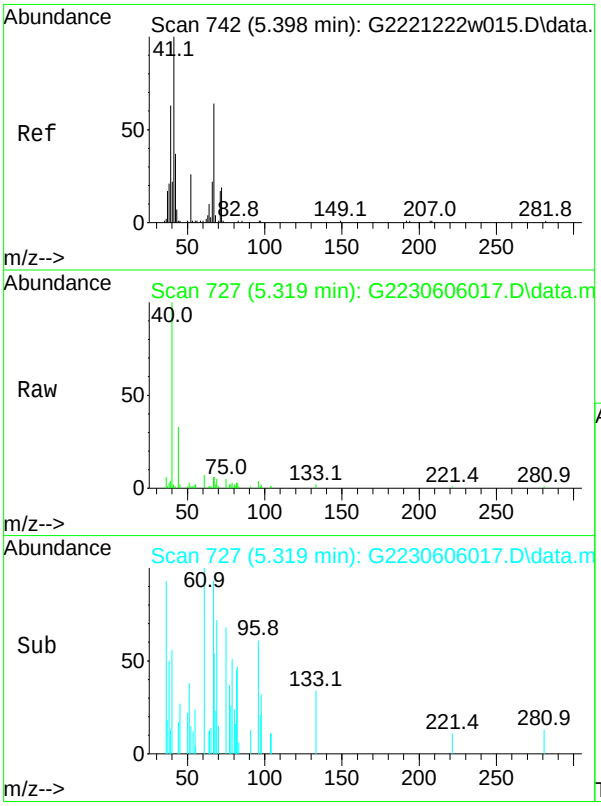


#31
Ethyl acetate
Concen: 5971.71 ug/L
RT: 4.851 min Scan# 650
Delta R.T. -0.171 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 61 Resp:336713335

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

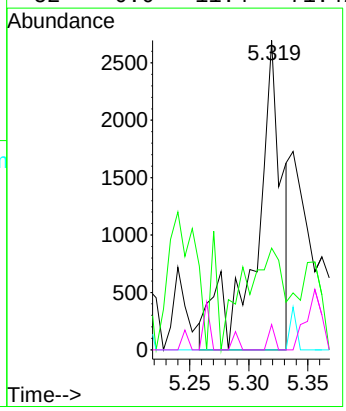


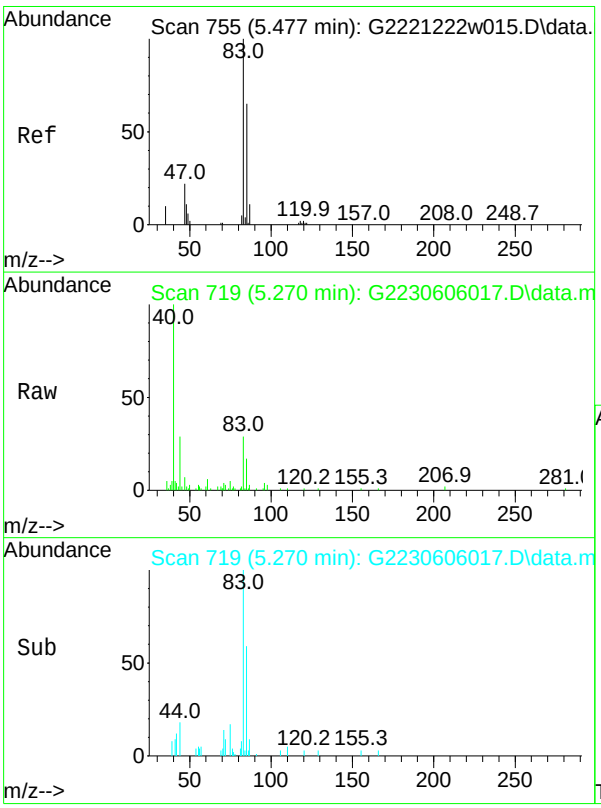


#35
Methacrylonitrile
Concen: 0.08 ug/L
RT: 5.321 min Scan# 727
Delta R.T. 0.144 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 67 Resp: 36621

Ion	Ratio	Lower	Upper
67	100		
39	0.0	22.4	122.4#
66	0.0	5.8	65.8#
52	0.0	11.4	71.4#

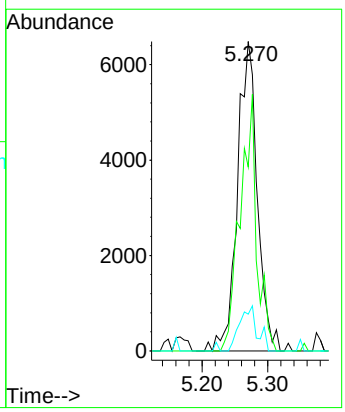


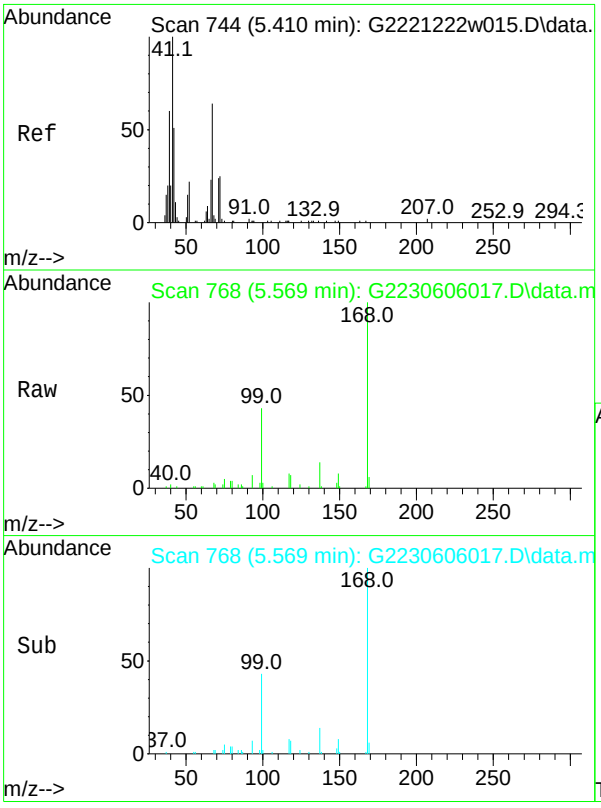


#37
Chloroform
Concen: 0.22 ug/L
RT: 5.273 min Scan# 719
Delta R.T. -0.003 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 83 Resp: 136219

Ion	Ratio	Lower	Upper
83	100		
85	69.4	35.4	95.4
87	0.0	0.0	40.8

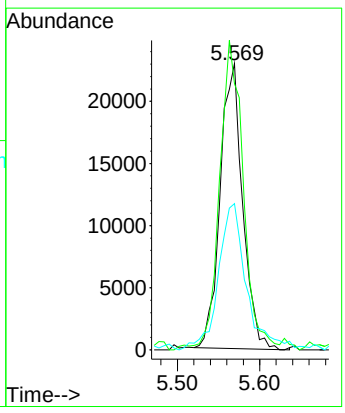


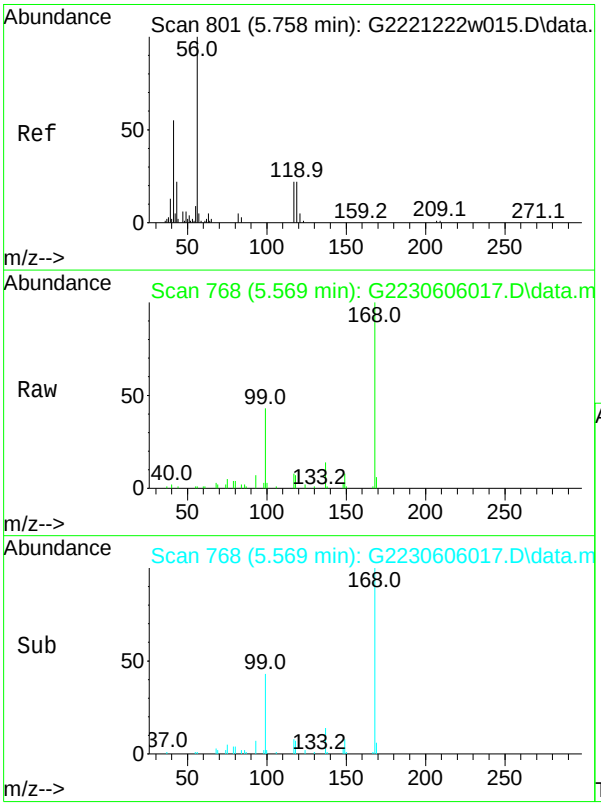


#40
Cyclohexane
Concen: 0.85 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 84 Resp: 435834

Ion	Ratio	Lower	Upper
84	100		
69	113.6	6.8	66.8#
56	62.9	79.1	139.1#

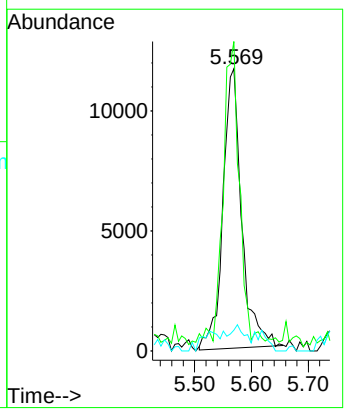


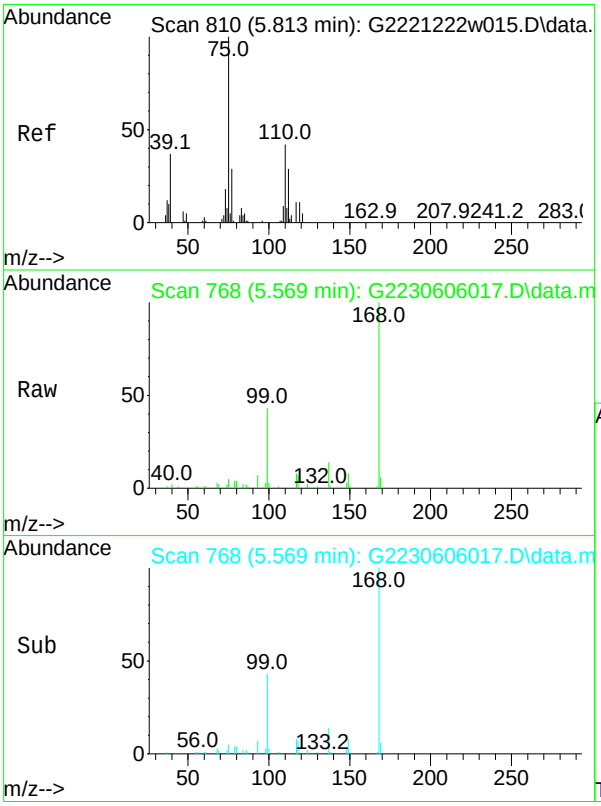


#41
1-Chlorobutane
Concen: 0.45 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 56 Resp: 266967

Ion	Ratio	Lower	Upper
56	100		
55	89.3	0.0	41.0#
57	0.0	0.0	35.7

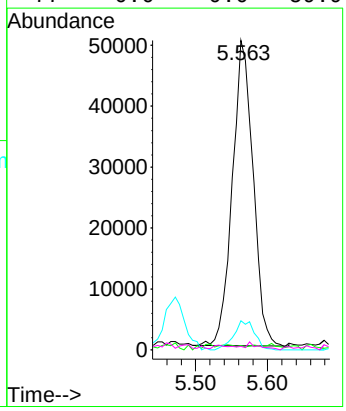


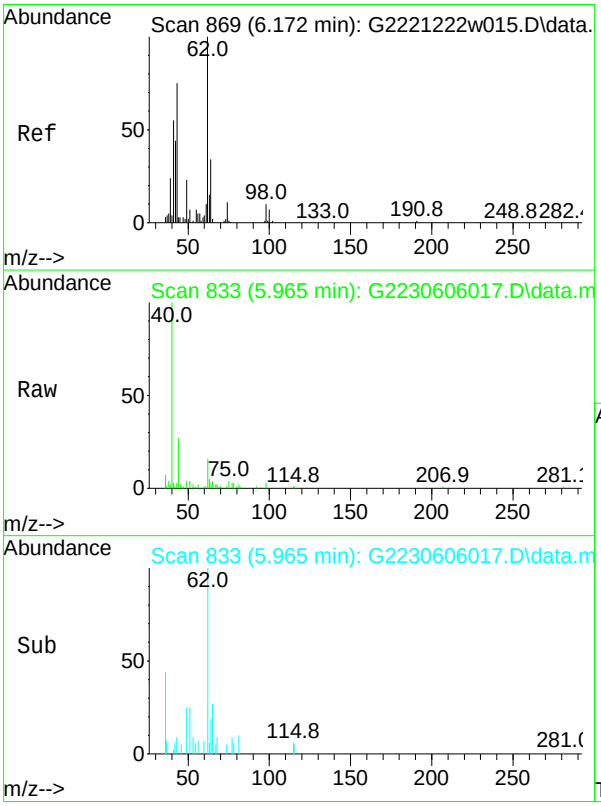


#42
1,1-Dichloropropene
Concen: 2.25 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 75 Resp: 1005726

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	9.6	9.1	69.1
77	0.0	0.0	59.9

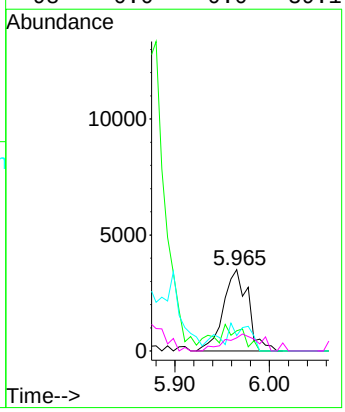


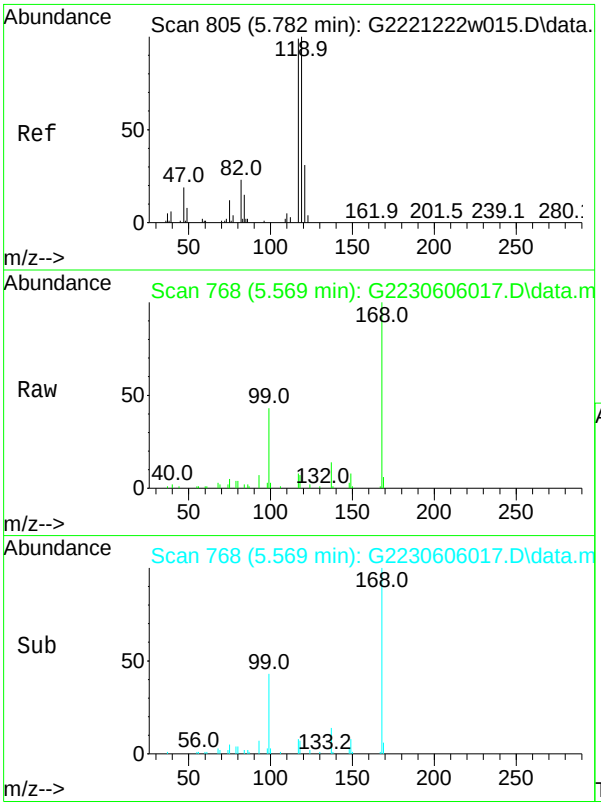


#44
1,2-Dichloroethane
Concen: 0.04 ug/L
RT: 5.966 min Scan# 833
Delta R.T. -0.005 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 62 Resp: 64168

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

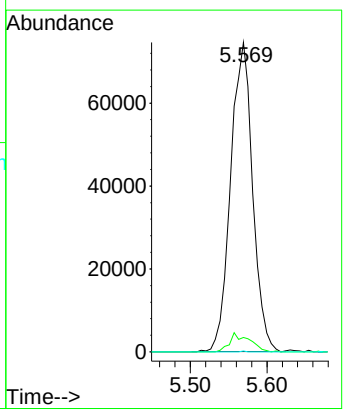


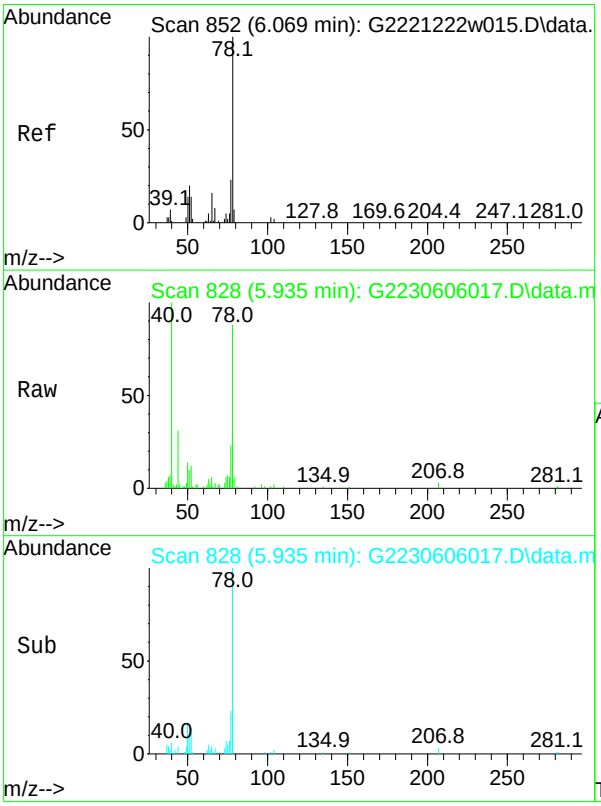


#47
Carbon tetrachloride
Concen: 2.93 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion:117 Resp: 1480792

Ion	Ratio	Lower	Upper
117	100		
119	5.6	66.4	126.4#
121	0.0	0.4	60.4#

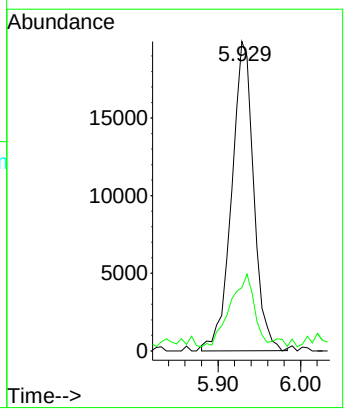


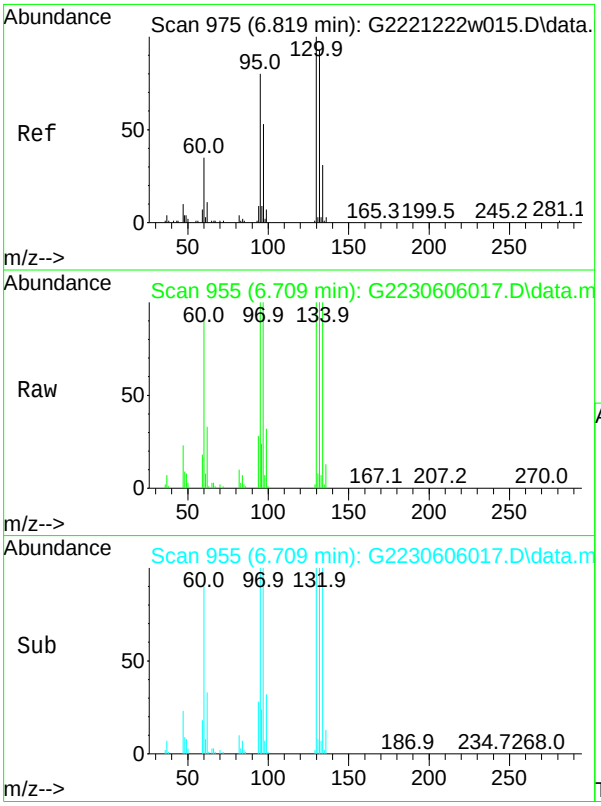


#48
Benzene
Concen: 0.26 ug/L
RT: 5.933 min Scan# 828
Delta R.T. -0.002 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 78 Resp: 368946

Ion	Ratio	Lower	Upper
78	100		
77	23.5	0.0	53.8

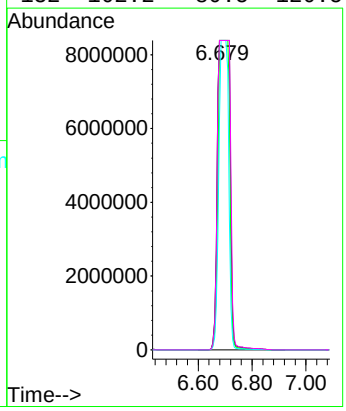


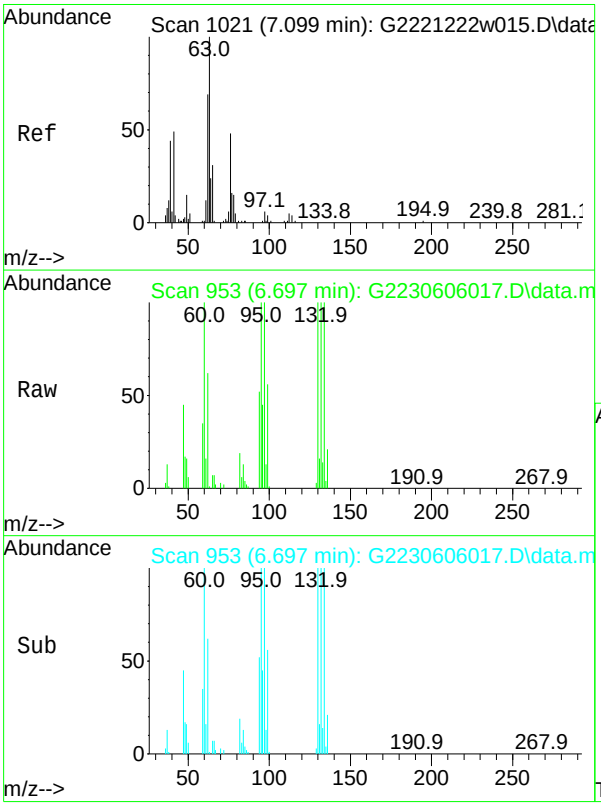


#50
Trichloroethene
Concen: 743.39 ug/L
RT: 6.709 min Scan# 955
Delta R.T. 0.013 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 95 Resp:273846457

Ion	Ratio	Lower	Upper
95	100		
97	90.5	35.5	95.5
60	76.2	14.8	74.8#
132	102.2	80.5	120.5

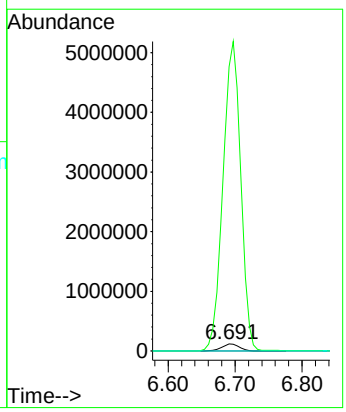


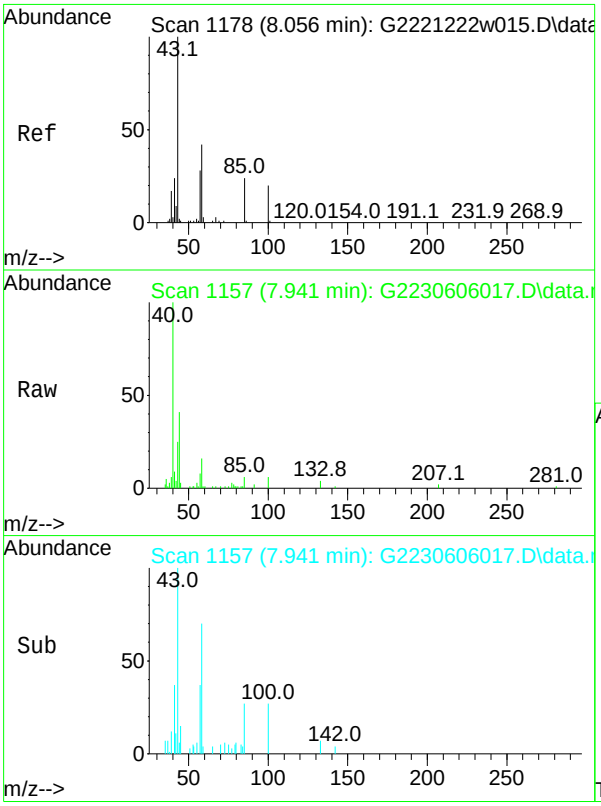


#52
1,2-Dichloropropane
Concen: 6.73 ug/L
RT: 6.696 min Scan# 953
Delta R.T. -0.250 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 63 Resp: 2151407

Ion	Ratio	Lower	Upper
63	100		
62	4451.7	35.2	95.2#
76	0.0	10.7	70.7#

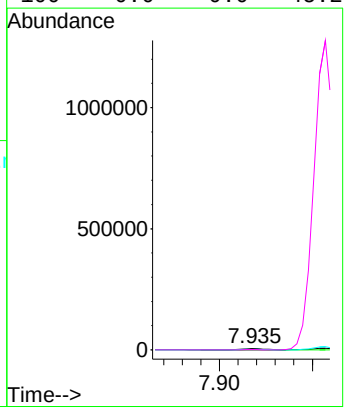


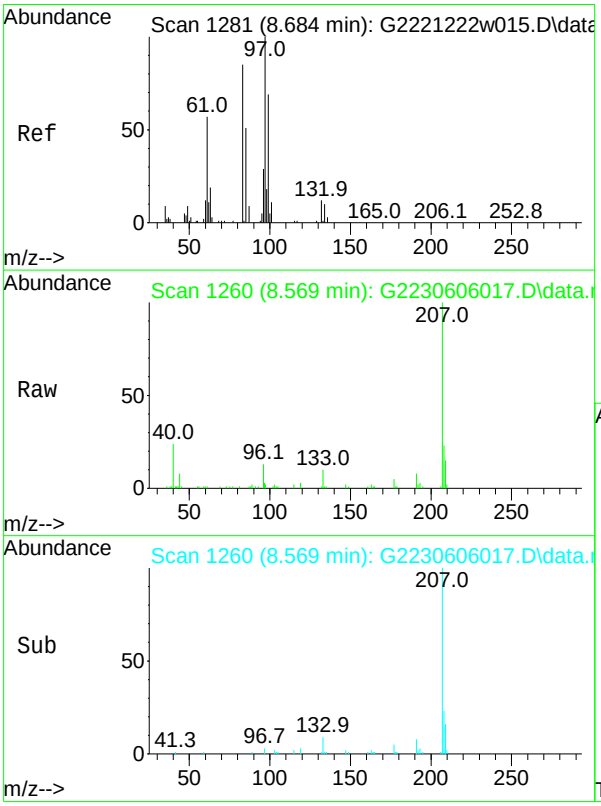


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 7.938 min Scan# 1157
Delta R.T. -0.006 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 43 Resp: 82895

Ion	Ratio	Lower	Upper
43	100		
85	34.0	0.0	47.7
58	52.0	37.0	37.0#
100	0.0	0.0	45.2

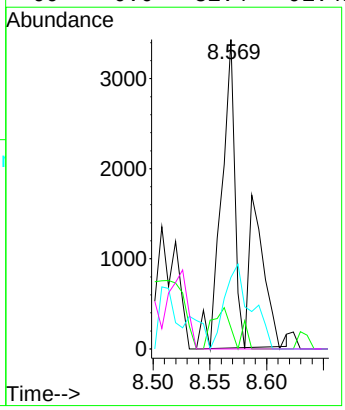


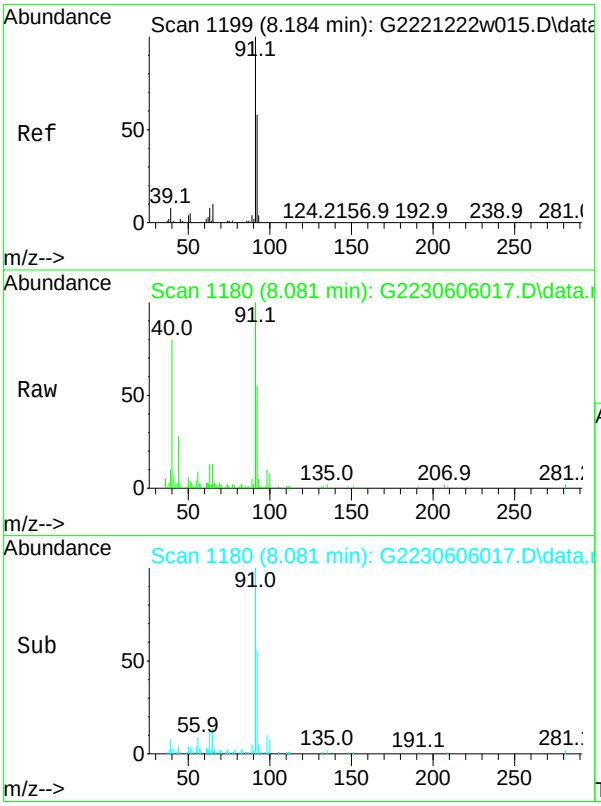


#62
1,1,2-Trichloroethane
Concen: 0.12 ug/L
RT: 8.569 min Scan# 1260
Delta R.T. 0.050 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 97 Resp: 43135

Ion	Ratio	Lower	Upper
97	100		
83	0.0	53.8	113.8#
61	0.0	29.0	89.0#
99	0.0	31.4	91.4#

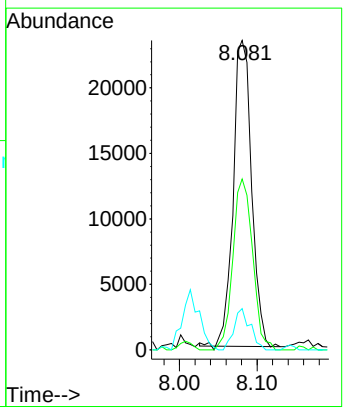


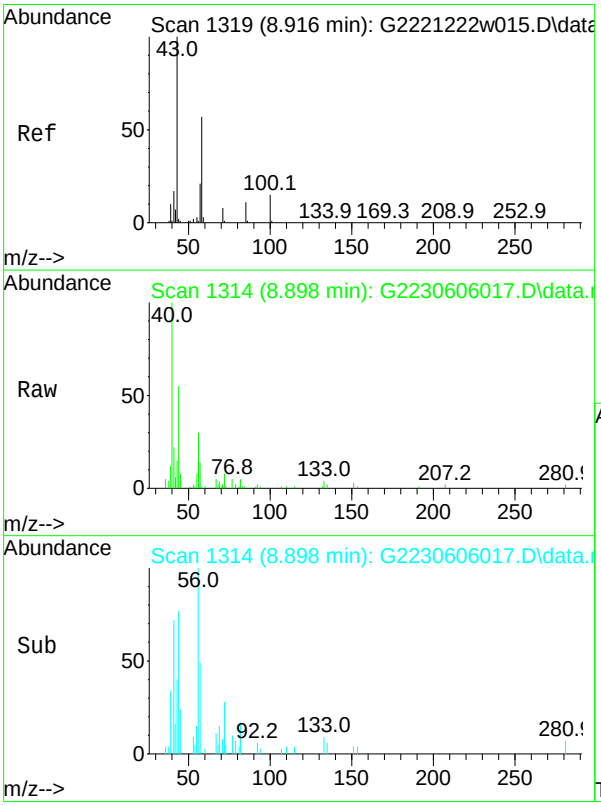


#65
Toluene
Concen: 0.18 ug/L
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 91 Resp: 386558

Ion	Ratio	Lower	Upper
91	100		
92	59.5	27.5	87.5
65	11.9	0.0	41.4

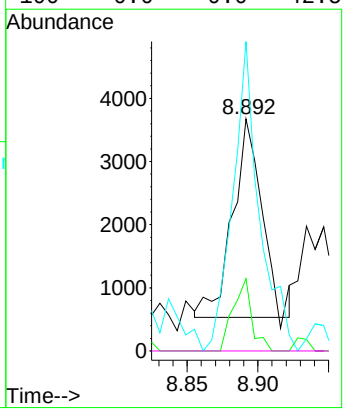


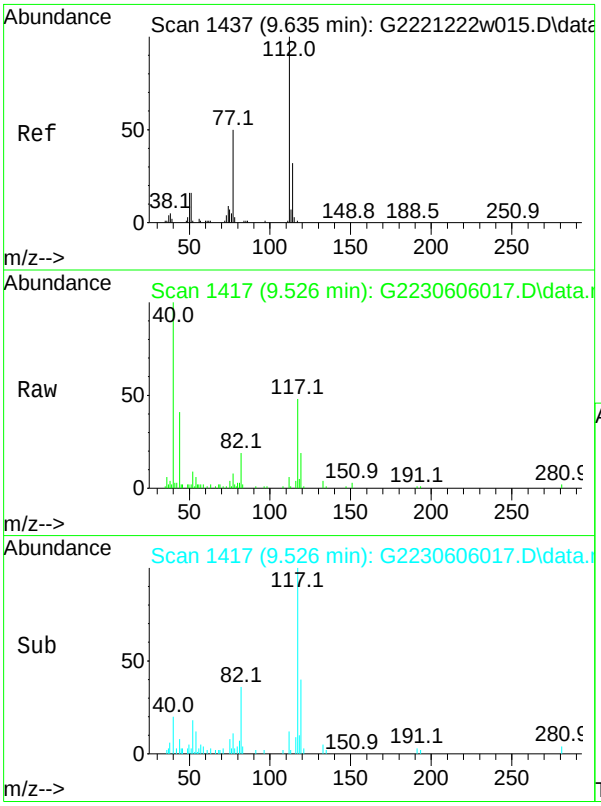


#69
2-Hexanone
Concen: Below Cal
RT: 8.896 min Scan# 1314
Delta R.T. 0.087 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 43 Resp: 44517

Ion	Ratio	Lower	Upper
43	100		
58	0.0	25.2	85.2#
57	142.0	0.0	49.3#
100	0.0	0.0	42.5

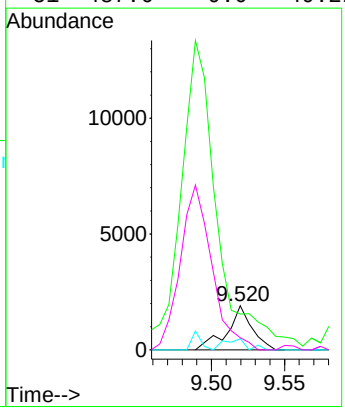


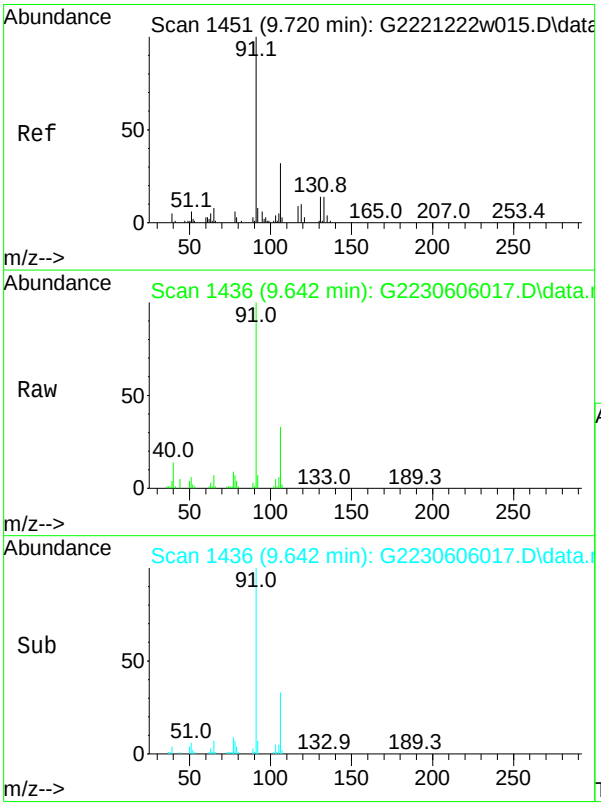


#72
Chlorobenzene
Concen: 0.02 ug/L
RT: 9.523 min Scan# 1417
Delta R.T. -0.001 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion:112 Resp: 22436

Ion	Ratio	Lower	Upper
112	100		
77	982.1	27.8	87.8#
114	0.0	3.4	63.4#
51	487.6	0.0	49.2#

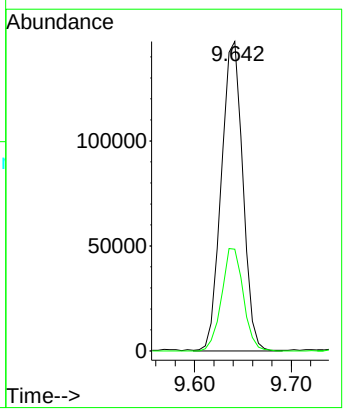


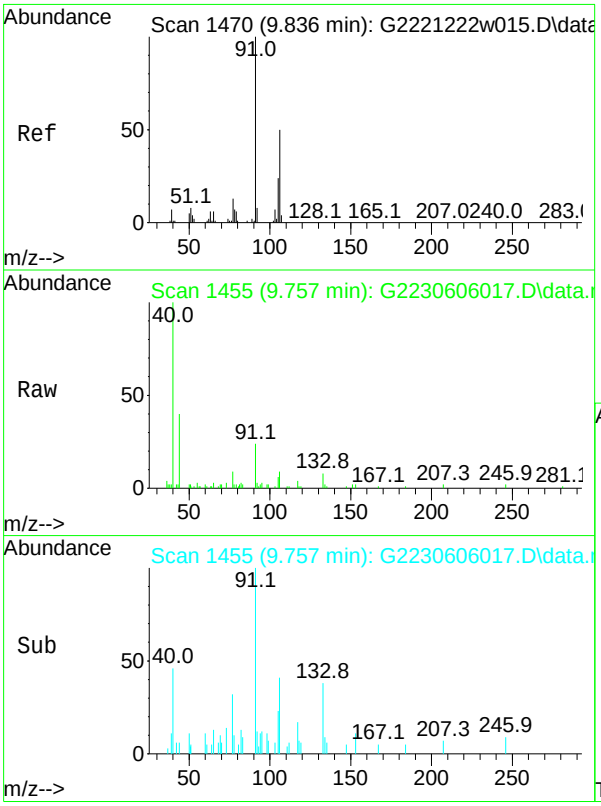


#74
Ethylbenzene
Concen: 1.33 ug/L
RT: 9.641 min Scan# 1436
Delta R.T. -0.002 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 91 Resp: 2270015

Ion	Ratio	Lower	Upper
91	100		
106	33.4	0.8	60.8

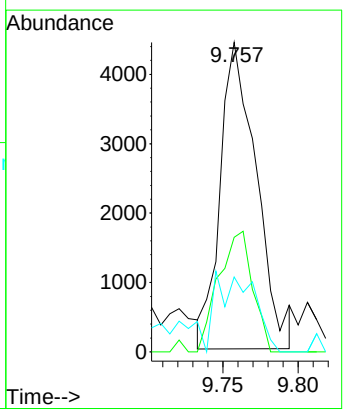


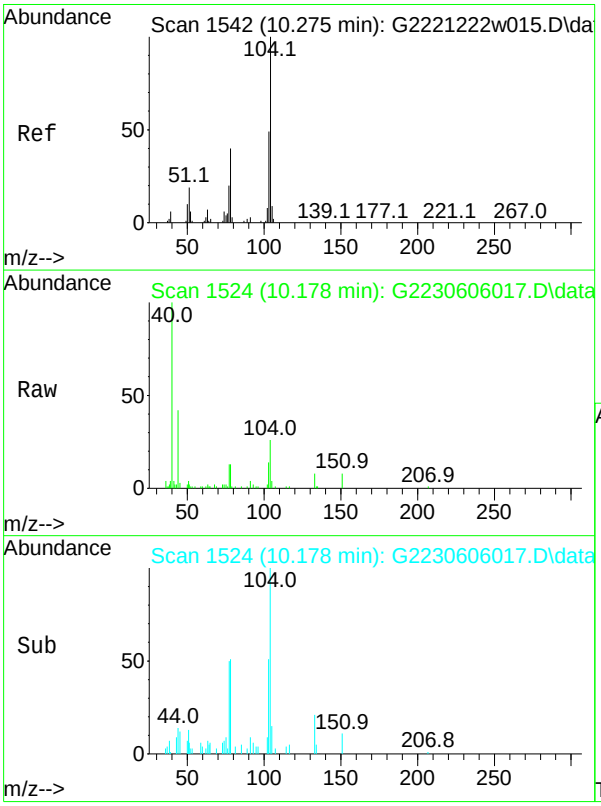


#75
m,p-Xylene
Concen: 0.06 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 91 Resp: 73305

Ion	Ratio	Lower	Upper
91	100		
106	37.4	19.0	79.0
105	0.0	0.0	52.7

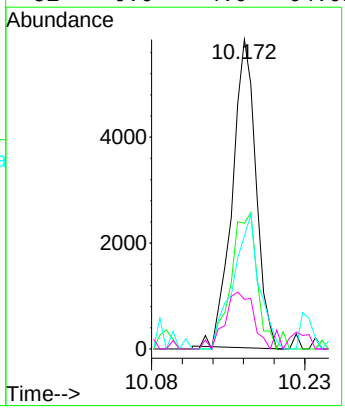


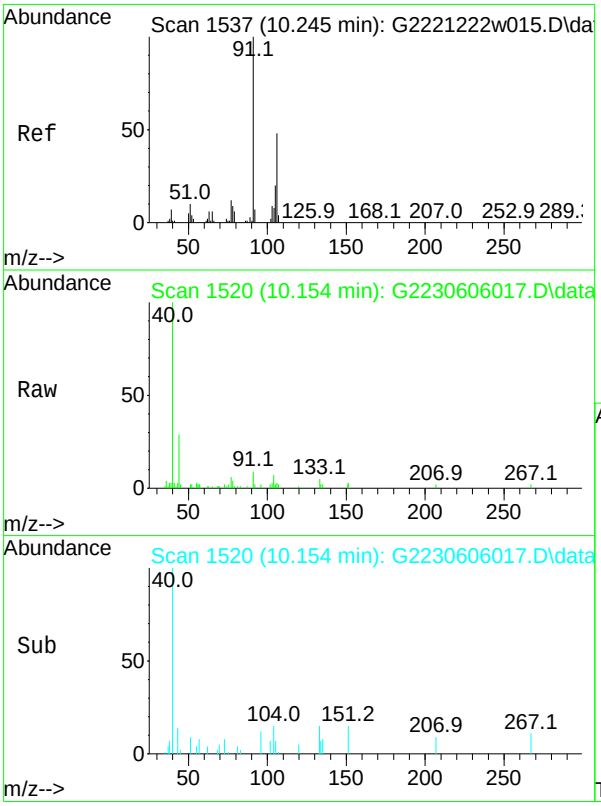


#76
Styrene
Concen: 0.08 ug/L
RT: 10.175 min Scan# 1524
Delta R.T. -0.002 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion:104 Resp: 89225

Ion	Ratio	Lower	Upper
104	100		
103	49.7	25.2	85.2
78	47.7	19.6	79.6
51	0.0	4.0	64.0#

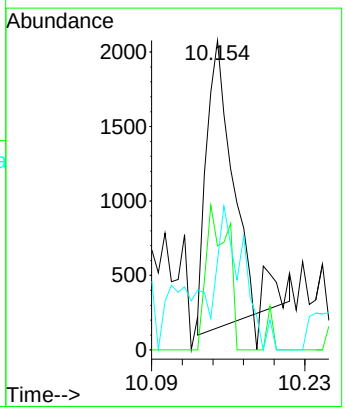


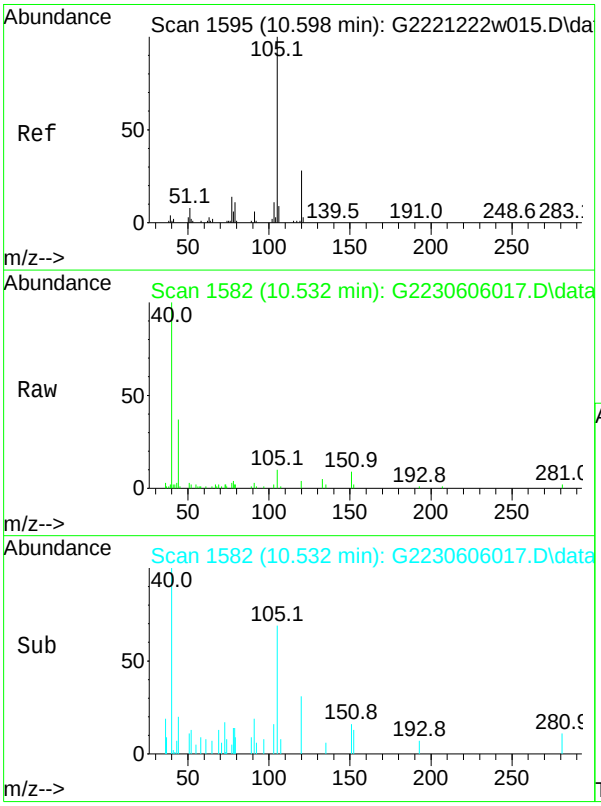


#79
o-Xylene
Concen: 0.02 ug/L
RT: 10.155 min Scan# 1520
Delta R.T. -0.006 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 91 Resp: 32878

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.2	76.2#
105	0.0	0.0	56.7

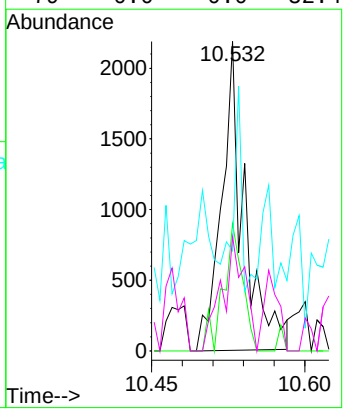


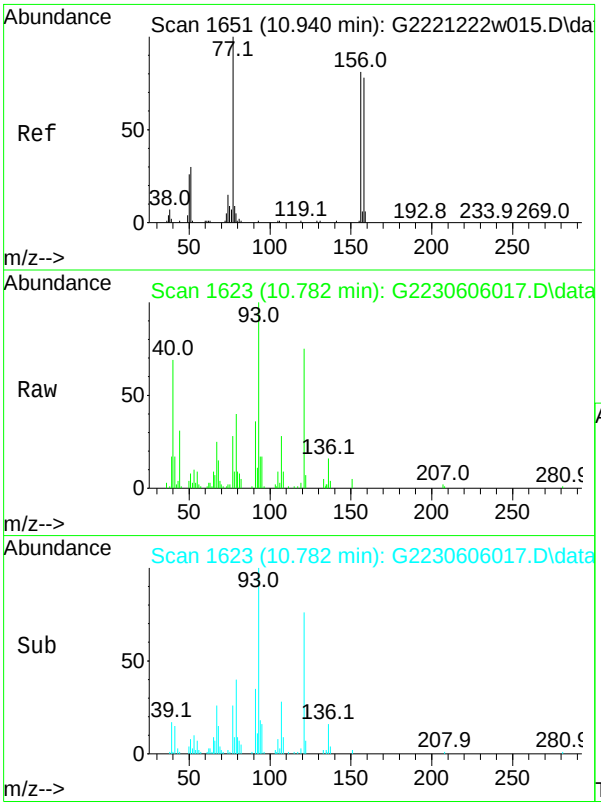


#80
Isopropylbenzene
Concen: 0.02 ug/L
RT: 10.533 min Scan# 1582
Delta R.T. -0.004 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion:105 Resp: 33865

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

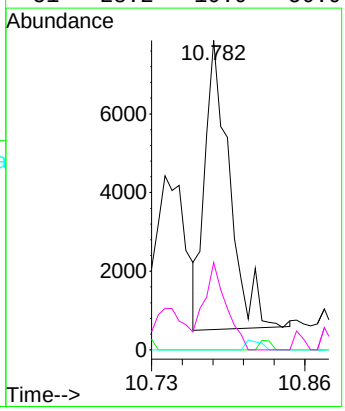


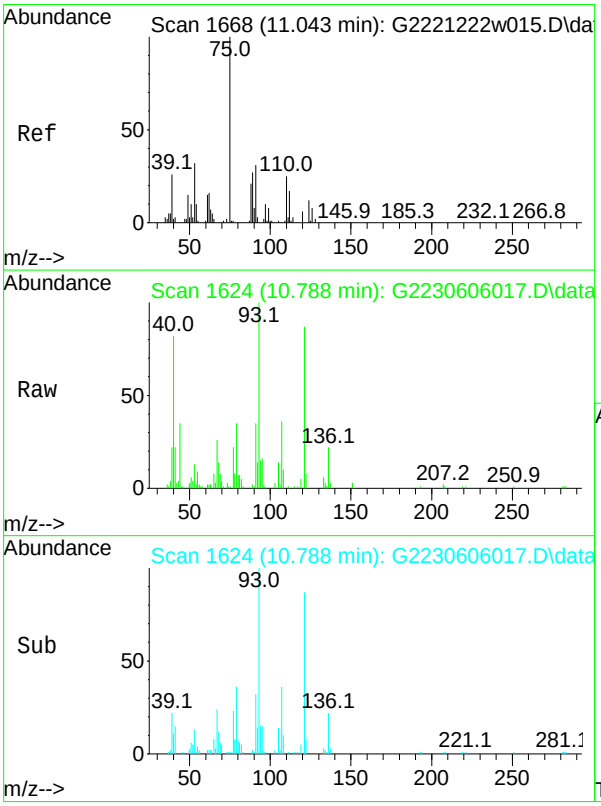


#82
Bromobenzene
Concen: 0.18 ug/L
RT: 10.784 min Scan# 1623
Delta R.T. -0.044 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 77 Resp: 112324

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	28.2	10.9	50.9

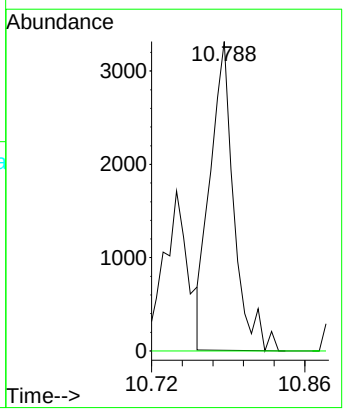


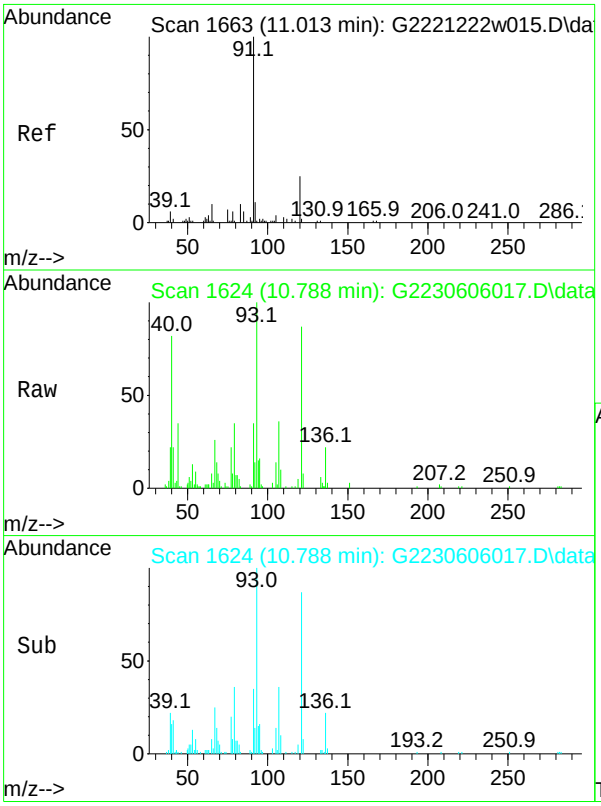


#85
trans-1,4-Dichloro-2-butene
Concen: 0.39 ug/L
RT: 10.789 min Scan# 1624
Delta R.T. -0.113 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 53 Resp: 51449

Ion	Ratio	Lower	Upper
53	100		
124	0.0	0.0	53.8

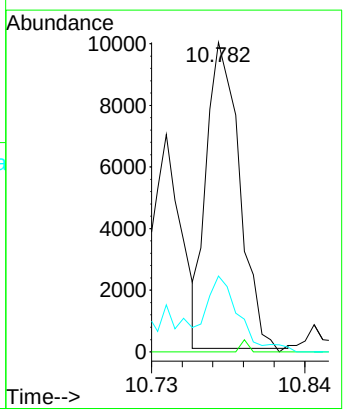


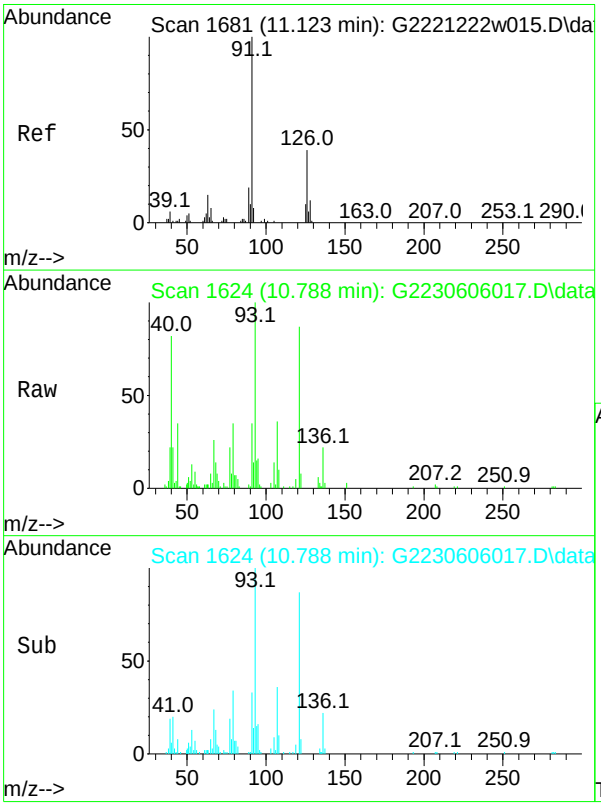


#86
n-Propylbenzene
Concen: 0.09 ug/L
RT: 10.785 min Scan# 1624
Delta R.T. -0.164 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 91 Resp: 163147

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.3
65	39.8	0.0	40.3

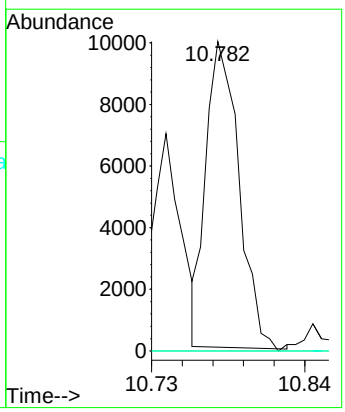


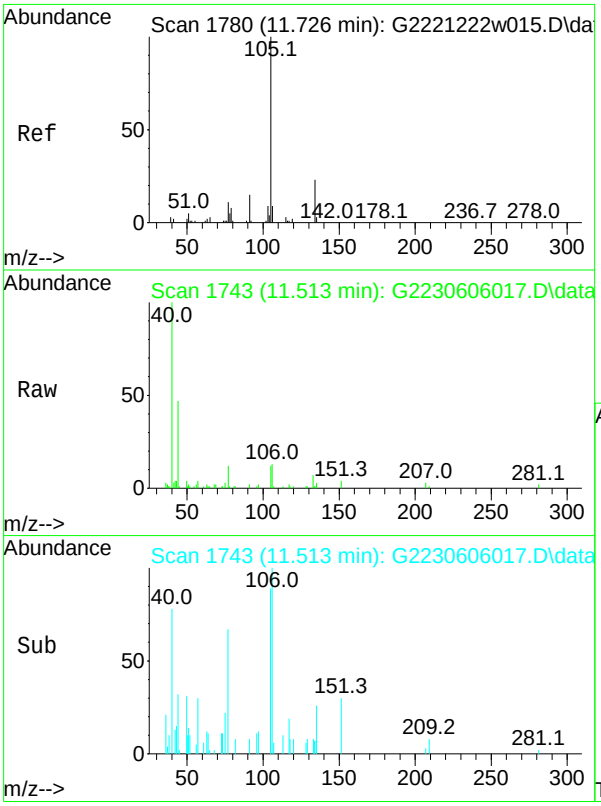


#87
2-Chlorotoluene
Concen: 0.15 ug/L
RT: 10.785 min Scan# 1624
Delta R.T. -0.243 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 91 Resp: 162717

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

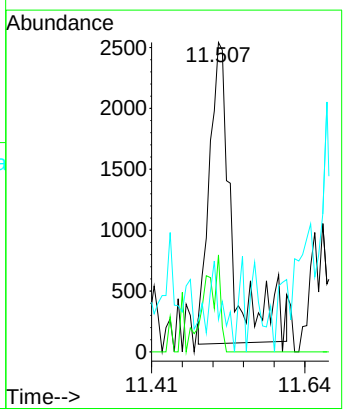


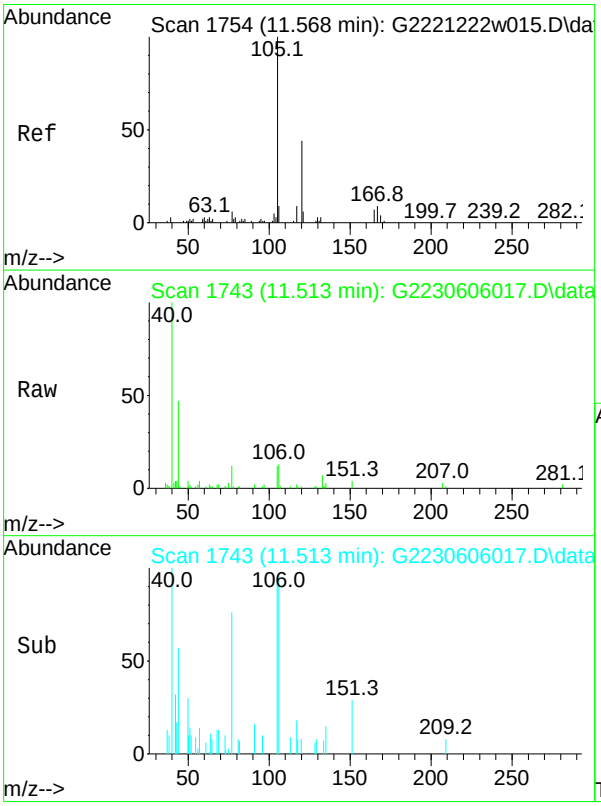


#90
2-ethyl-1-toluene
Concen: 0.04 ug/L
RT: 11.512 min Scan# 1743
Delta R.T. 0.183 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion:105 Resp: 59567

Ion	Ratio	Lower	Upper
105	100		
120	0.0	0.8	60.8#
91	0.0	0.0	42.3

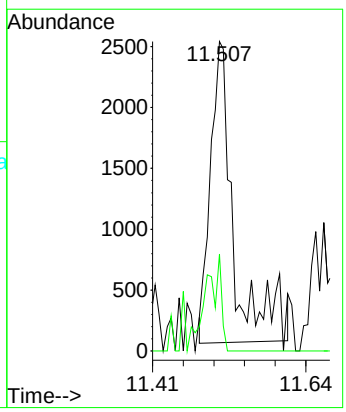


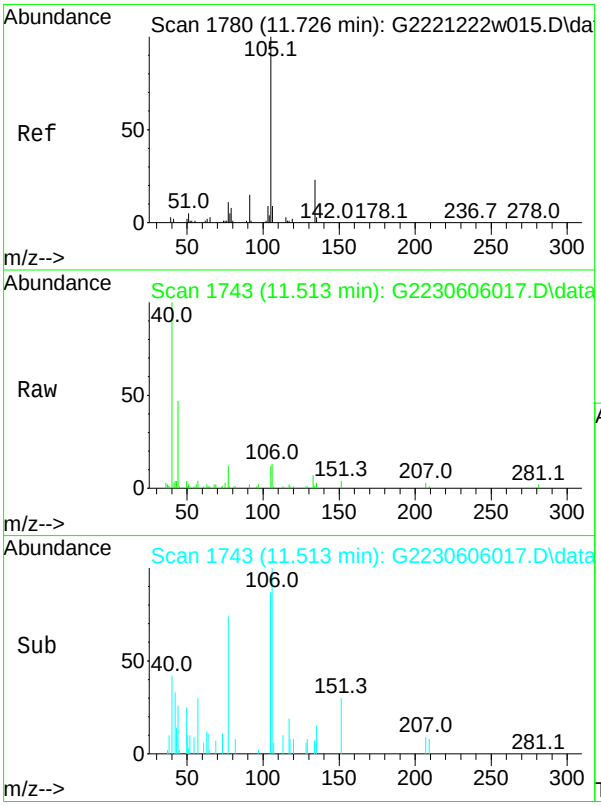


#92
1,2,4-Trimethylbenzene
Concen: 0.05 ug/L
RT: 11.512 min Scan# 1743
Delta R.T. 0.010 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion:105 Resp: 59632

Ion	Ratio	Lower	Upper
105	100		
120	0.0	14.4	74.4#

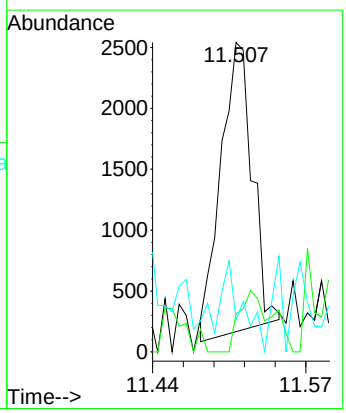


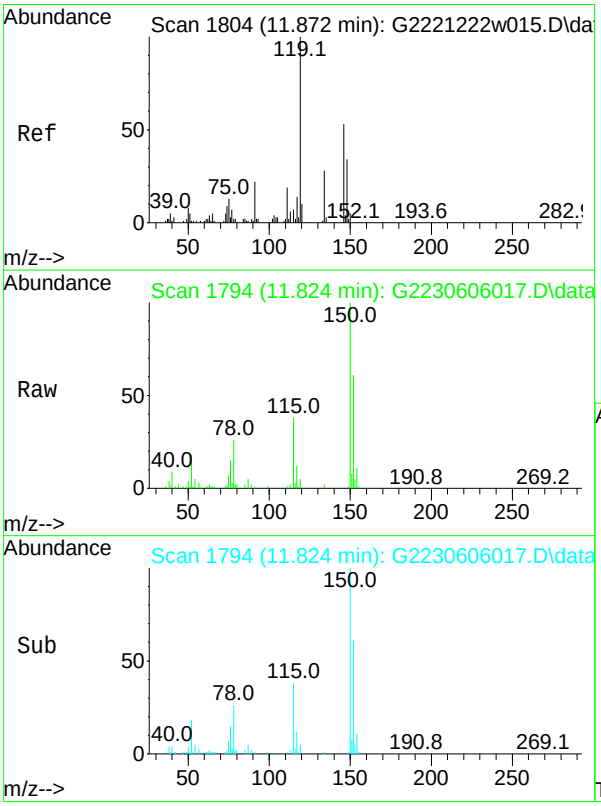


#93
sec-Butylbenzene
Concen: 0.03 ug/L
RT: 11.512 min Scan# 1743
Delta R.T. -0.161 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion:105 Resp: 44622

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	50.7
91	0.0	0.0	46.0

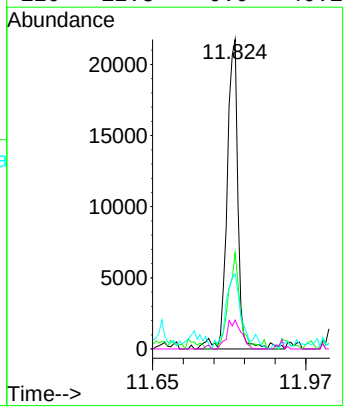


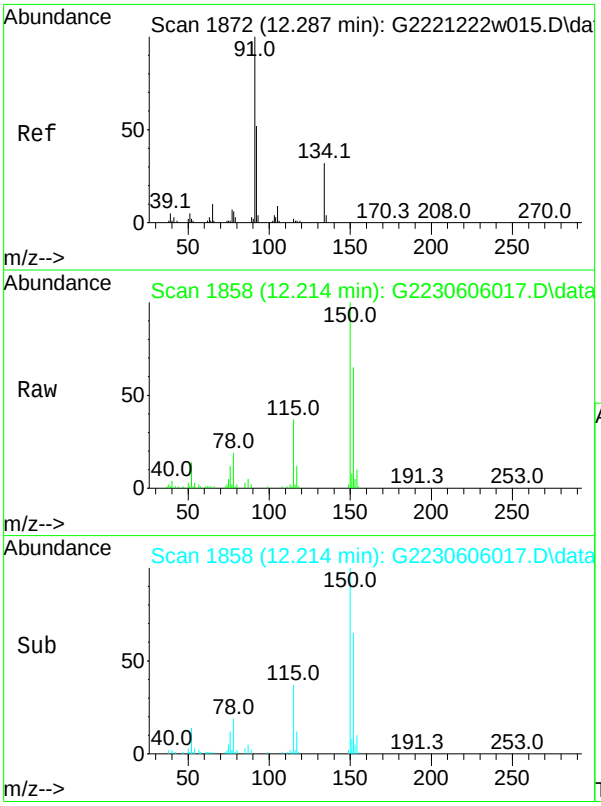


#95
4-Isopropyltoluene
Concen: 0.27 ug/L
RT: 11.823 min Scan# 1794
Delta R.T. -0.000 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion:119 Resp: 342077

Ion	Ratio	Lower	Upper
119	100		
134	34.2	0.0	56.2
91	25.8	0.0	52.5
120	12.3	0.0	40.1

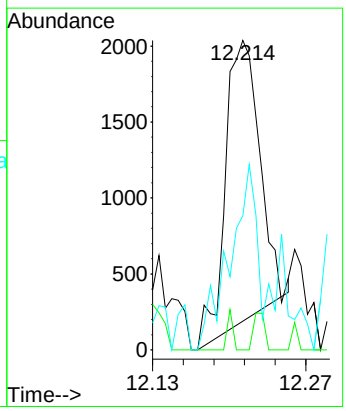




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.217 min Scan# 1858
Delta R.T. -0.014 min
Lab File: G2230606017.D
Acq: 06 Jun 2023 17:18

Tgt Ion: 91 Resp: 40278

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

52547WW49

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-02RE1	File ID:	G2230607009.D
Sampled:	05/25/23 14:45	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 18:09
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*13.0*	*40.0*	*100*	*U*
71-55-6	*1,1,1-Trichloroethane*		*17.5*	*40.0*	*100*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*12.4*	*40.0*	*100*	*U*
79-00-5	*1,1,2-Trichloroethane*		*16.6*	*40.0*	*100*	*U*
75-34-3	*1,1-Dichloroethane*		*13.4*	*40.0*	*100*	*U*
75-35-4	*1,1-Dichloroethene*		*19.1*	*40.0*	*100*	*U*
563-58-6	*1,1-Dichloropropene*		*14.0*	*40.0*	*100*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*20.4*	*40.0*	*100*	*U*
96-18-4	*1,2,3-Trichloropropane*		*18.3*	*40.0*	*100*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*20.5*	*60.0*	*120*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*13.2*	*40.0*	*100*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*26.0*	*100*	*200*	*U*
106-93-4	*1,2-Dibromoethane*		*10.6*	*40.0*	*100*	*U*
95-50-1	*1,2-Dichlorobenzene*		*12.6*	*40.0*	*100*	*U*
107-06-2	*1,2-Dichloroethane*		*21.2*	*60.0*	*120*	*U*
78-87-5	*1,2-Dichloropropane*		*20.5*	*60.0*	*120*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*10.0*	*40.0*	*100*	*U*
541-73-1	*1,3-Dichlorobenzene*		*14.5*	*40.0*	*100*	*U*
142-28-9	*1,3-Dichloropropane*		*13.6*	*40.0*	*100*	*U*
106-46-7	*1,4-Dichlorobenzene*		*18.4*	*40.0*	*100*	*U*
594-20-7	*2,2-Dichloropropane*		*18.4*	*40.0*	*100*	*U*
78-93-3	*2-Butanone*		*66.0*	*140*	*350*	*U*
95-49-8	*2-Chlorotoluene*		*14.7*	*40.0*	*100*	*U*
591-78-6	*2-Hexanone*		*14.3*	*140*	*350*	*U*
106-43-4	*4-Chlorotoluene*		*18.4*	*40.0*	*100*	*U*
99-87-6	*4-Isopropyltoluene*		*14.0*	*40.0*	*100*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW49

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-02RE1	File ID:	G2230607009.D
Sampled:	05/25/23 14:45	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 18:09
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*27.0*	*140*	*350*	*U*
67-64-1	*Acetone*		*104*	*400*	*800*	*U*
71-43-2	*Benzene*		*10.1*	*40.0*	*100*	*U*
108-86-1	*Bromobenzene*		*17.0*	*40.0*	*100*	*U*
74-97-5	*Bromochloromethane*		*13.4*	*40.0*	*100*	*U*
75-27-4	*Bromodichloromethane*		*10.6*	*40.0*	*100*	*U*
75-25-2	*Bromoform*		*20.6*	*40.0*	*100*	*U*
74-83-9	*Bromomethane*		*32.0*	*100*	*200*	*U*
75-15-0	*Carbon disulfide*		*28.0*	*100*	*200*	*U*
56-23-5	*Carbon tetrachloride*		*16.9*	*40.0*	*100*	*U*
108-90-7	*Chlorobenzene*		*13.0*	*40.0*	*100*	*U*
75-00-3	*Chloroethane*		*31.1*	*40.0*	*100*	*U*
67-66-3	Chloroform		20.3	60.0	120	U
74-87-3	*Chloromethane*		*38.4*	*100*	*200*	*U*
156-59-2	cis-1,2-Dichloroethene	2300	20.5	60.0	120	D
10061-01-5	*cis-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
124-48-1	*Dibromochloromethane*		*15.2*	*40.0*	*100*	*U*
74-95-3	*Dibromomethane*		*16.3*	*40.0*	*100*	*U*
75-71-8	*Dichlorodifluoromethane*		*25.9*	*100*	*200*	*U*
100-41-4	*Ethylbenzene*		*6.00*	*20.0*	*40.0*	*U*
87-68-3	*Hexachlorobutadiene*		*20.0*	*40.0*	*100*	*U*
98-82-8	*Isopropylbenzene*		*11.0*	*40.0*	*100*	*U*
179601-23-1	*m,p-Xylene*		*17.8*	*80.0*	*200*	*U*
1634-04-4	*Methyl tert-butyl ether*		*10.6*	*40.0*	*100*	*U*
75-09-2	*Methylene chloride*		*44.7*	*100*	*200*	*U*
104-51-8	*n-Butylbenzene*		*26.0*	*100*	*200*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW49

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-02RE1	File ID:	G2230607009.D
Sampled:	05/25/23 14:45	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 18:09
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*12.6*	*40.0*	*100*	*U*
91-20-3	*Naphthalene*		*14.0*	*40.0*	*100*	*U*
95-47-6	*o-Xylene*		*8.32*	*40.0*	*100*	*U*
135-98-8	*sec-Butylbenzene*		*12.0*	*40.0*	*100*	*U*
100-42-5	*Styrene*		*9.06*	*20.0*	*40.0*	*U*
98-06-6	*tert-Butylbenzene*		*9.06*	*40.0*	*100*	*U*
127-18-4	*Tetrachloroethene*		*35.7*	*100*	*200*	*Q, U*
108-88-3	*Toluene*		*11.4*	*40.0*	*100*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*17.1*	*40.0*	*100*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
79-01-6	*Trichloroethene*	*3200*	*15.6*	*40.0*	*100*	*B, D*
75-69-4	*Trichlorofluoromethane*		*10.1*	*40.0*	*100*	*U*
75-01-4	*Vinyl chloride*		*25.8*	*100*	*200*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607009.D
Acq On : 07 Jun 2023 18:09
Operator : PO1
Sample : 23E0775-02RE1
Misc : 200
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 09:26:34 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

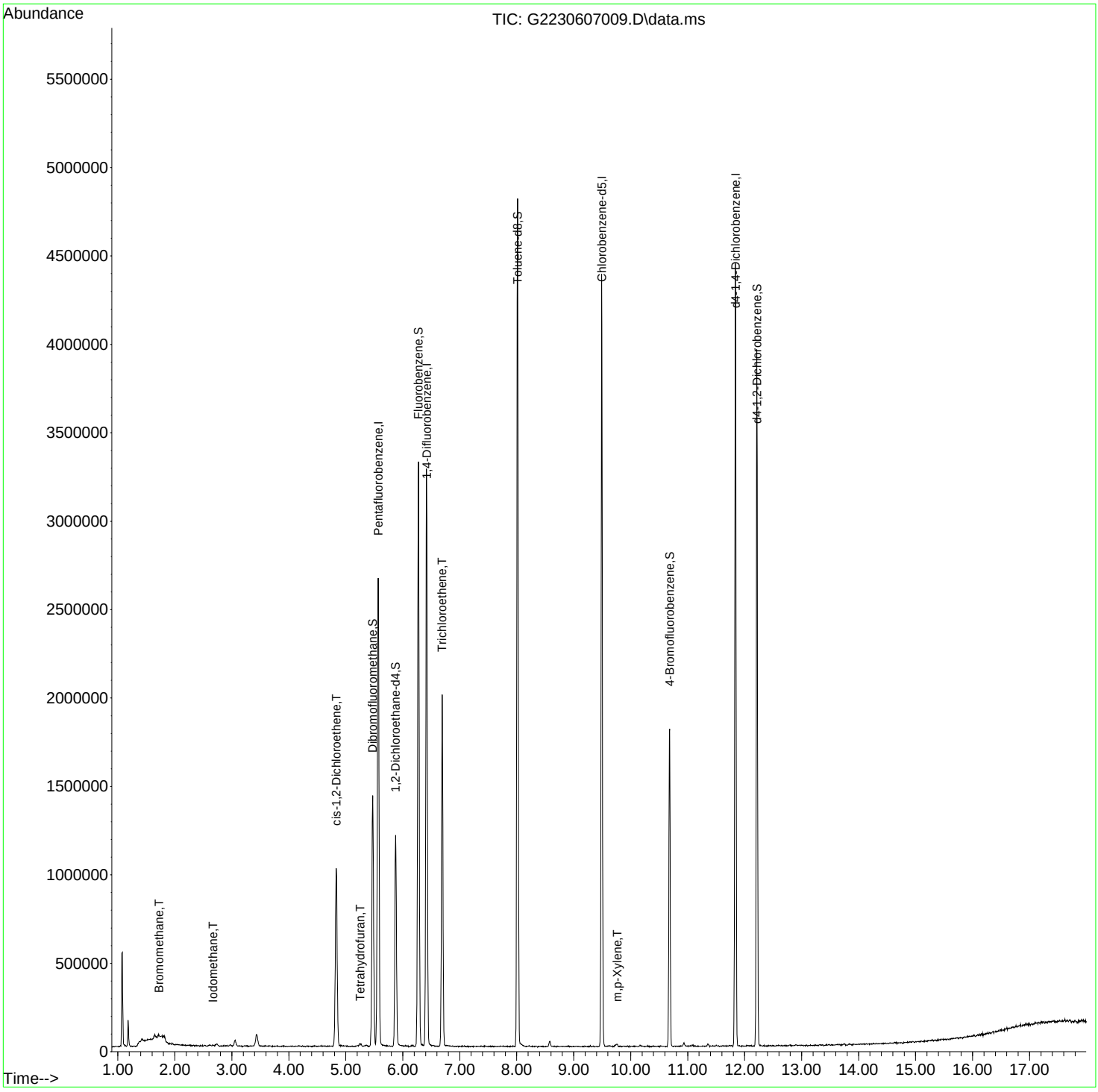
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	21196995	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	29140448	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	25512768	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	12675529	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8929950	19.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.70%				
43) 1,2-Dichloroethane-d4	5.877	65	8481428	18.40	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.00%				
49) Fluorobenzene	6.277	96	32433617	19.53	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.65%				
64) Toluene-d8	8.016	98	31144041	19.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%				
81) 4-Bromofluorobenzene	10.685	174	5599876	9.36	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.60%				
97) d4-1,2-Dichlorobenzene	12.217	152	11116837	20.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.95%				
Target Compounds							Qvalue
5) Bromomethane	1.721	94	77252	0.02	ug/L	#	74
13) Iodomethane	2.668	142	63944	0.13	ug/L	#	41
18) Methylene chloride	3.056	49	187898	Below Cal			84
21) Methyl tert-butyl ether	3.435	73	916017	Below Cal			94
28) cis-1,2-Dichloroethene	4.834	61	6144450	11.50	ug/L		75
36) Tetrahydrofuran	5.252	42	75969m	0.13	ug/L		
50) Trichloroethene	6.694	95	6151104	16.00	ug/L		91
65) Toluene	8.086	91	59135	Below Cal		#	30
75) m,p-Xylene	9.764	91	78460	0.06	ug/L	#	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607009.D
Acq On : 07 Jun 2023 18:09
Operator : PO1
Sample : 23E0775-02RE1
Misc : 200
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 09:26:34 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607009.D
Acq On : 07 Jun 2023 18:09
Operator : PO1
Sample : 23E0775-02RE1
Misc : 200
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 09:26:34 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	21196995	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	29140448	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	25512768	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	12675529	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8929950	19.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.70%				
43) 1,2-Dichloroethane-d4	5.877	65	8481428	18.40	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.00%				
49) Fluorobenzene	6.277	96	32433617	19.53	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.65%				
64) Toluene-d8	8.016	98	31144041	19.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%				
81) 4-Bromofluorobenzene	10.685	174	5599876	9.36	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 93.60%				
97) d4-1,2-Dichlorobenzene	12.217	152	11116837	20.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.95%				
Target Compounds							Qvalue
5) Bromomethane	1.721	94	77252	0.02	ug/L	#	74
9) Acrolein	2.456	56	11169	Below Cal		#	20
12) Acetone	2.611	43	92668	Below Cal		#	45
13) Iodomethane	2.668	142	63944	0.13	ug/L	#	41
14) Carbon disulfide	2.736	76	164511	0.08	ug/L	#	74
17) 3-Chloro-1-propene	2.736	76	165300	0.70	ug/L	#	53
18) Methylene chloride	3.056	49	187898	Below Cal			84
21) Methyl tert-butyl ether	3.435	73	916017	Below Cal			94
26) 1-propanol	4.237	59	606	0.27	ug/L	#	100
28) cis-1,2-Dichloroethene	4.834	61	6144450	11.50	ug/L		75
29) 2-Butanone	4.844	72	50319	0.40	ug/L	#	42
31) Ethyl acetate	4.834	61	6129302	97.62	ug/L	#	45
33) 1-Bromopropane	5.248	41	46661	0.09	ug/L	#	40
36) Tetrahydrofuran	5.255	42	104405	0.40	ug/L		93
40) Cyclohexane	5.568	84	483753	0.85	ug/L	#	32
41) 1-Chlorobutane	5.567	56	273646	0.41	ug/L	#	1
42) 1,1-Dichloropropene	5.568	75	1087486	2.19	ug/L	#	37
47) Carbon tetrachloride	5.572	117	1690342	3.21	ug/L	#	16
48) Benzene	5.926	78	39297	0.03	ug/L	#	52
50) Trichloroethene	6.694	95	6151104	16.00	ug/L		91
60) 4-Methyl-2-pentanone	8.010	43	98824	Below Cal		#	1
65) Toluene	8.086	91	59135	Below Cal		#	30
74) Ethylbenzene	9.645	91	35924	Below Cal		#	44
75) m,p-Xylene	9.764	91	78460	0.06	ug/L	#	80
82) Bromobenzene	10.679	77	42098	0.06	ug/L	#	1
99) n-Butylbenzene	12.217	91	38102	Below Cal		#	53

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607009.D
Acq On : 07 Jun 2023 18:09
Operator : PO1
Sample : 23E0775-02RE1
Misc : 200
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 09:26:34 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

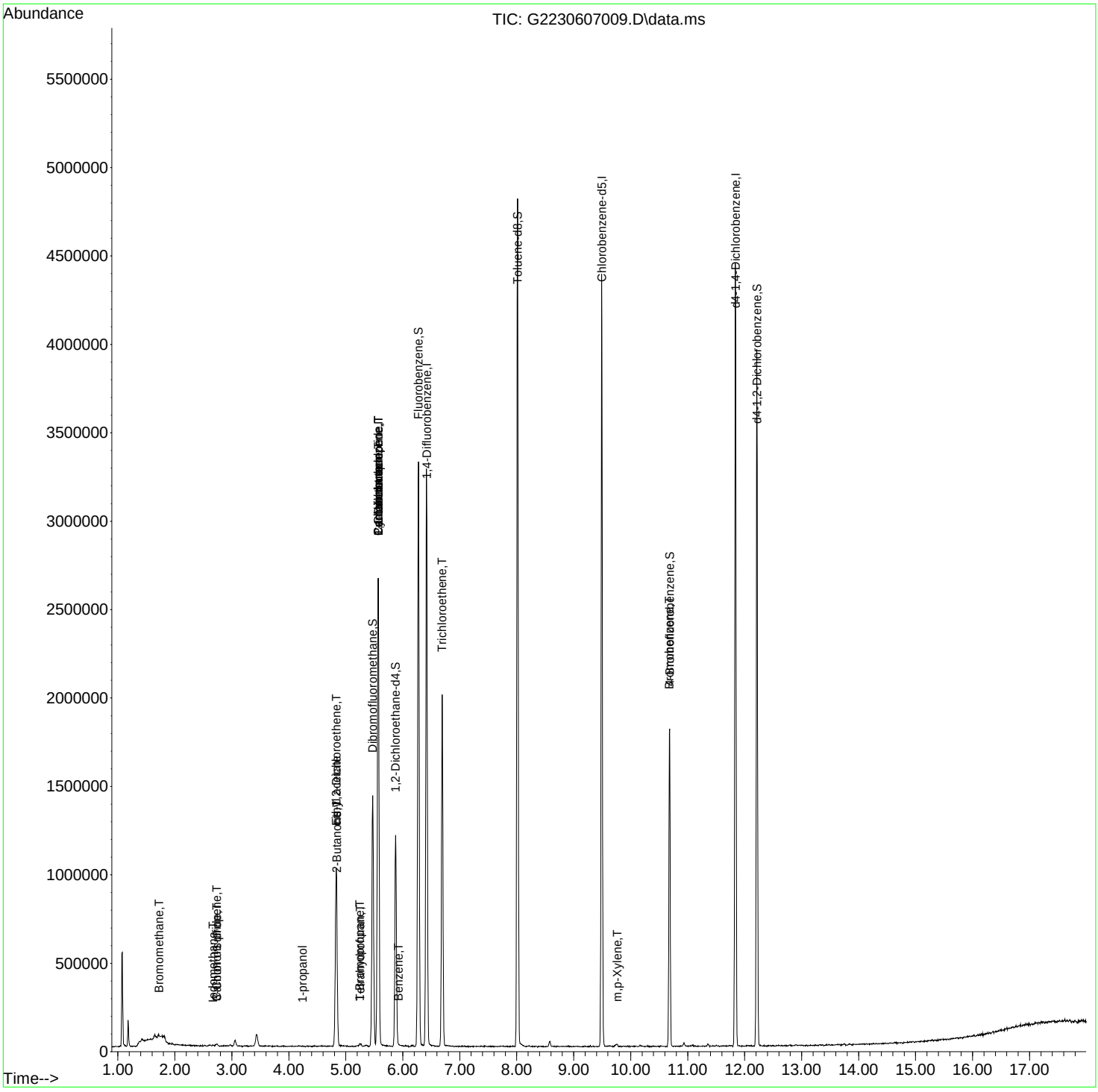
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

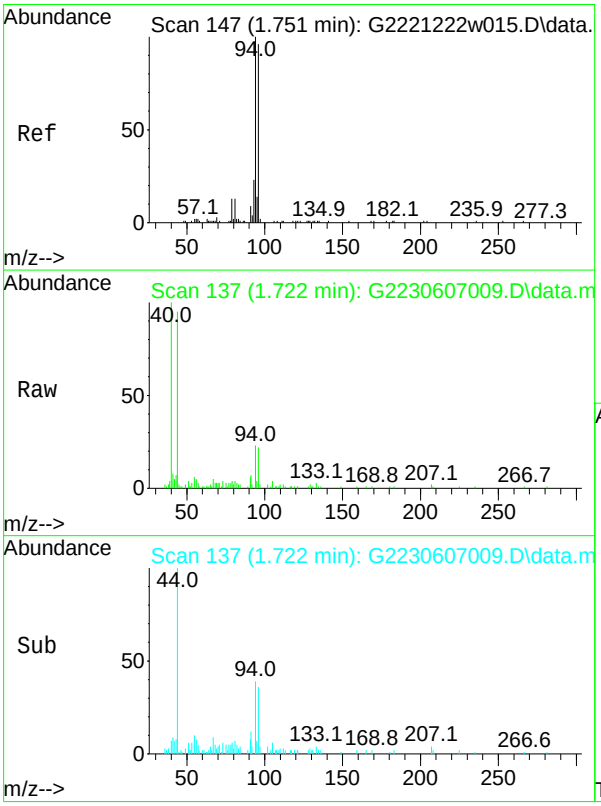
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607009.D
Acq On : 07 Jun 2023 18:09
Operator : PO1
Sample : 23E0775-02RE1
Misc : 200
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 09:26:34 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

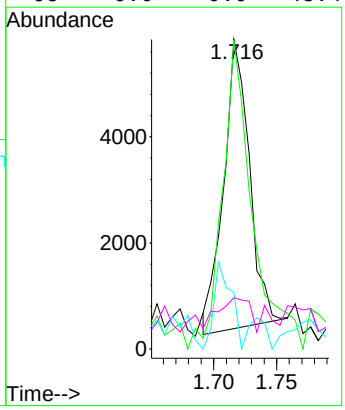


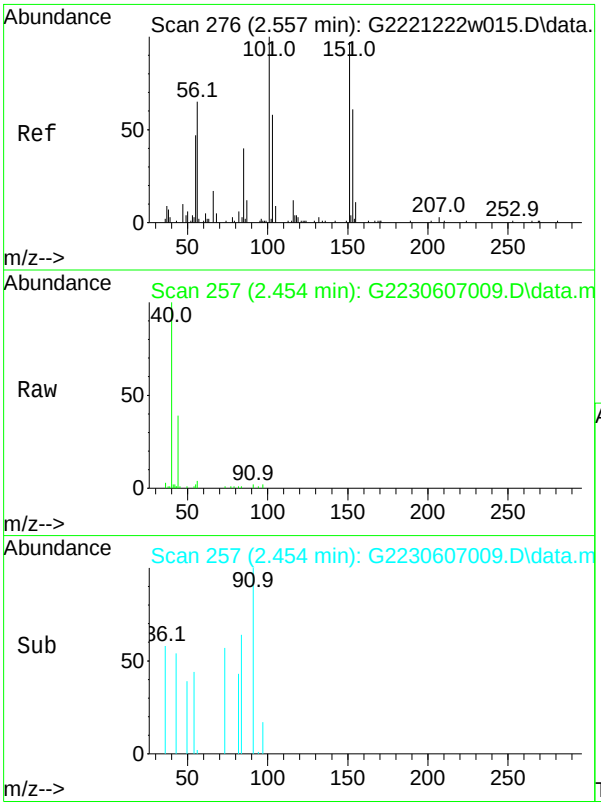


#5
Bromomethane
Concen: 0.02 ug/L
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 94 Resp: 77252

Ion	Ratio	Lower	Upper
94	100		
96	116.8	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

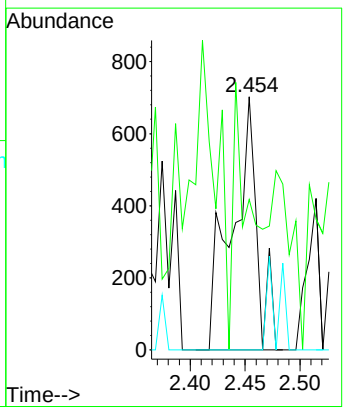


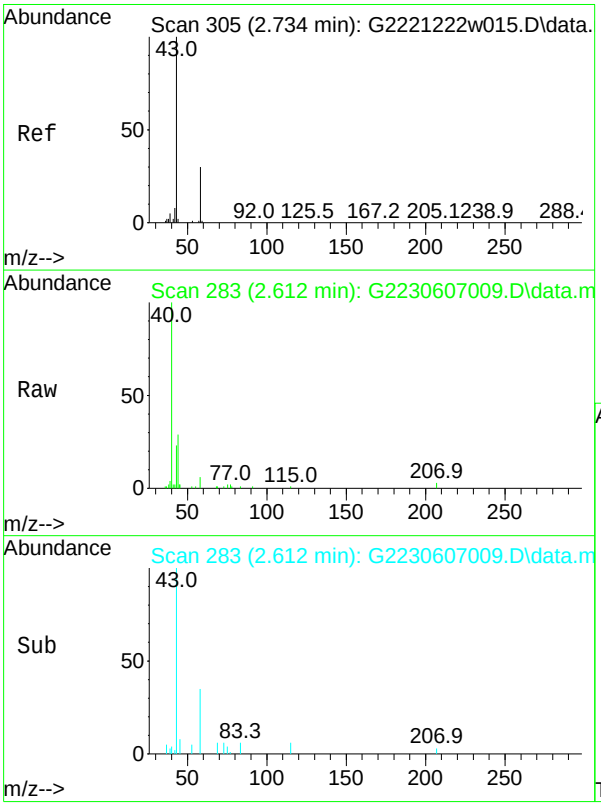


#9
Acrolein
Concen: Below Cal
RT: 2.456 min Scan# 257
Delta R.T. 0.017 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 56 Resp: 11169

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

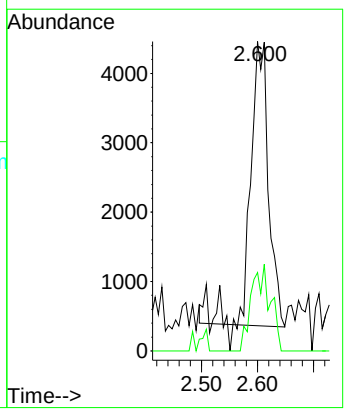


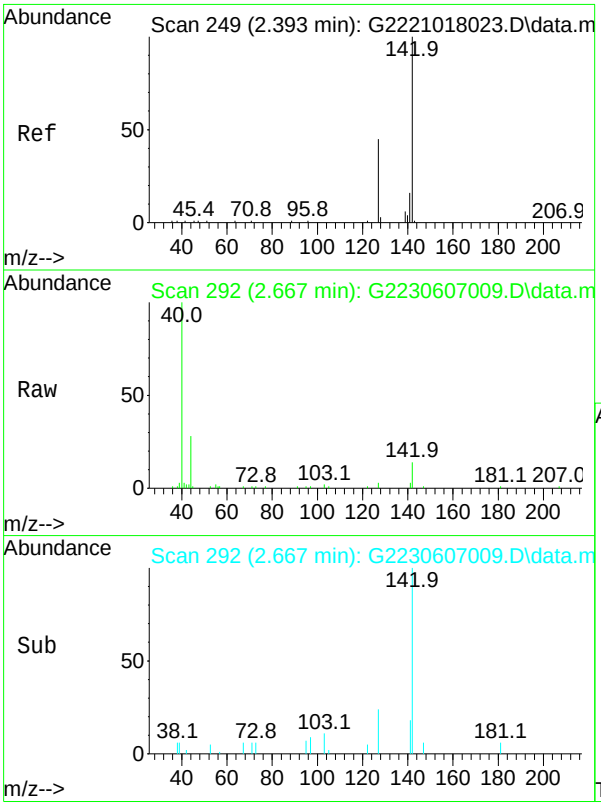


#12
Acetone
Concen: Below Cal
RT: 2.611 min Scan# 283
Delta R.T. 0.003 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 43 Resp: 92668

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

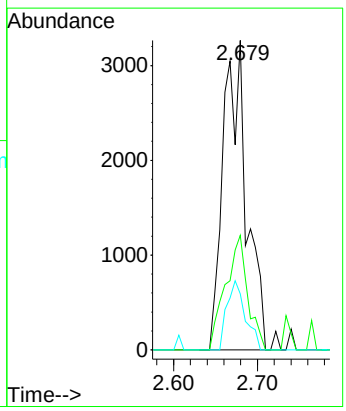


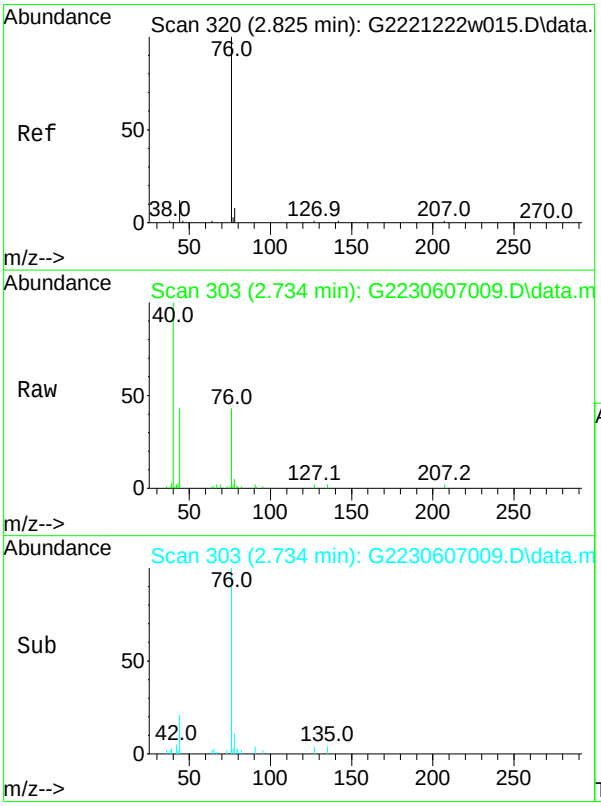


#13
Iodomethane
Concen: 0.13 ug/L
RT: 2.668 min Scan# 292
Delta R.T. -0.008 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion:142 Resp: 63944

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

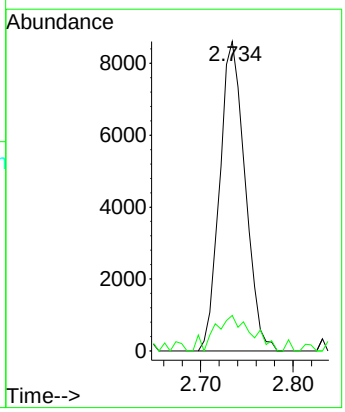


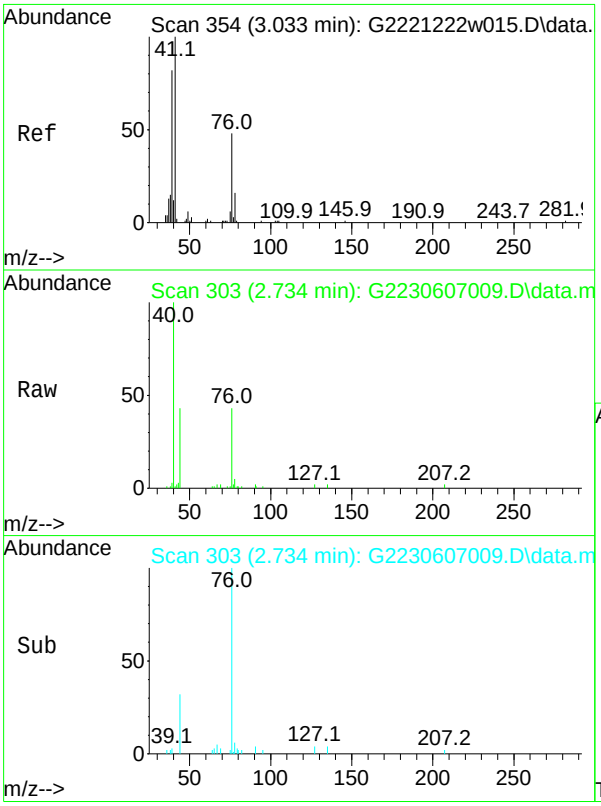


#14
Carbon disulfide
Concen: 0.08 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.003 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 76 Resp: 164511

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

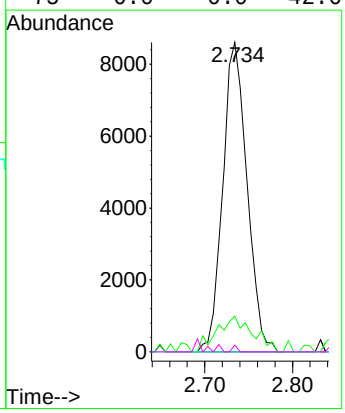


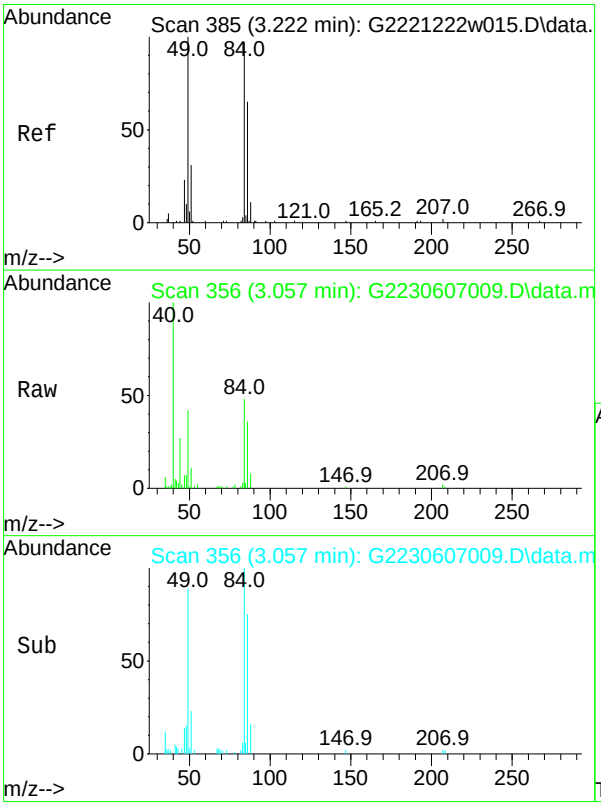


#17
3-Chloro-1-propene
Concen: 0.70 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.184 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 76 Resp: 165300

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

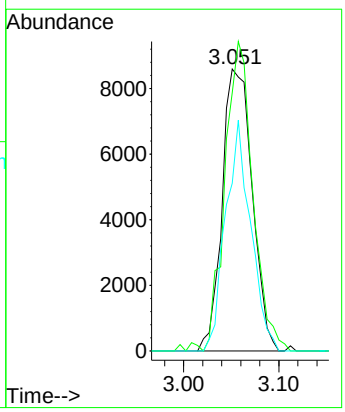


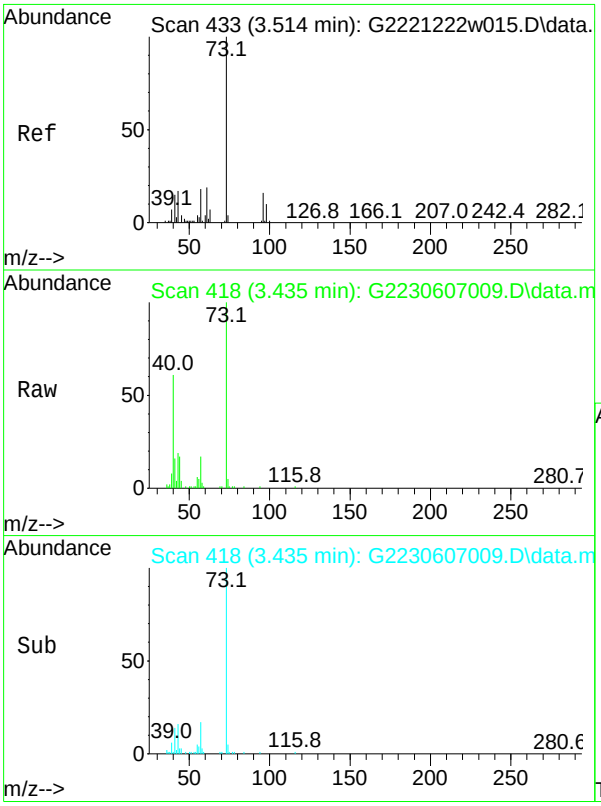


#18
Methylene chloride
Concen: Below Cal
RT: 3.056 min Scan# 356
Delta R.T. -0.006 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 49 Resp: 187898

Ion	Ratio	Lower	Upper
49	100		
84	100.4	57.9	117.9
86	68.6	24.9	84.9

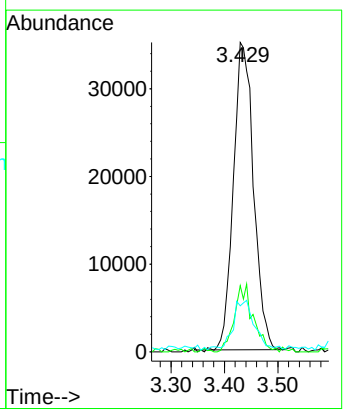


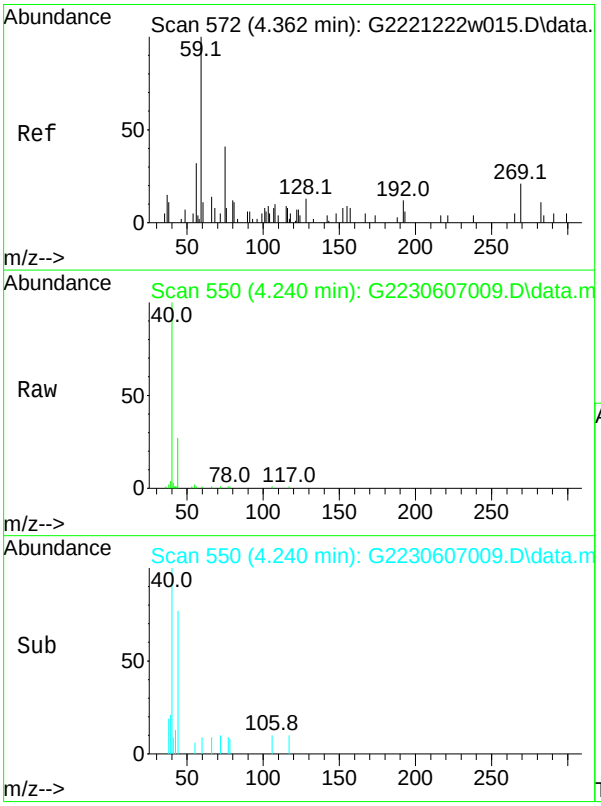


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.435 min Scan# 418
Delta R.T. -0.011 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 73 Resp: 916017

Ion	Ratio	Lower	Upper
73	100		
57	20.0	0.0	51.7
41	16.4	0.0	50.6

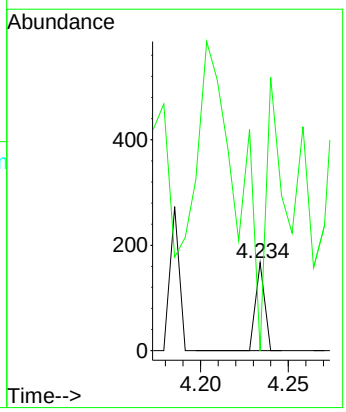


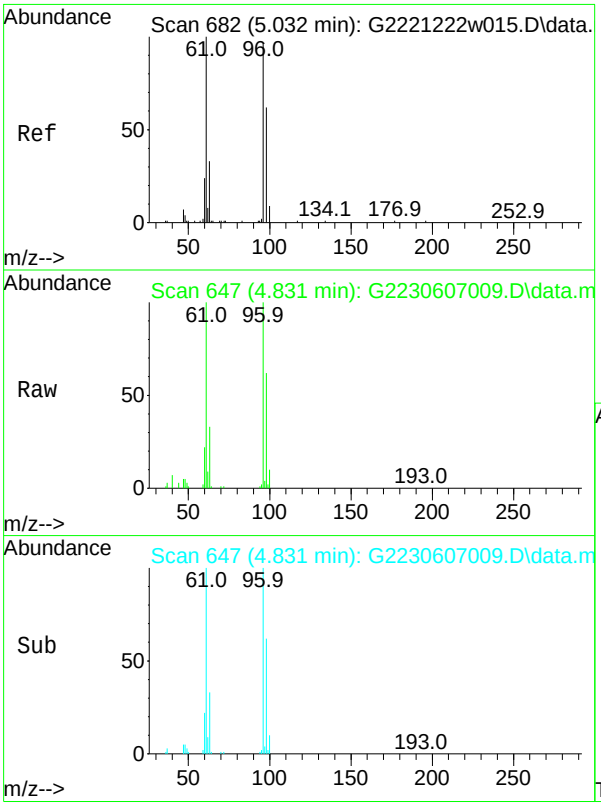


#26
1-propanol
Concen: 0.27 ug/L
RT: 4.237 min Scan# 550
Delta R.T. -0.052 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 59 Resp: 606

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

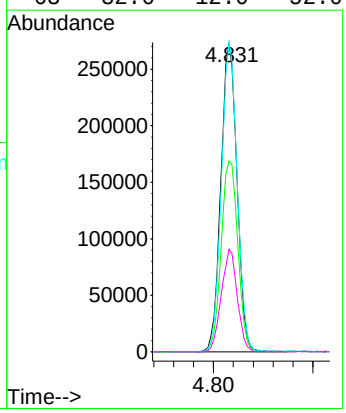


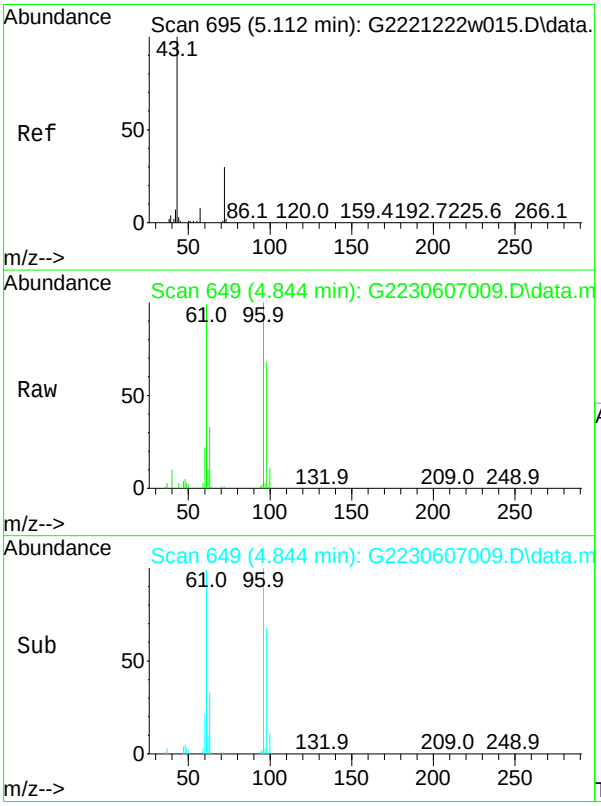


#28
cis-1,2-Dichloroethene
Concen: 11.50 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.002 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 61 Resp: 6144450

Ion	Ratio	Lower	Upper
61	100		
98	63.8	15.9	75.9
96	98.3	39.6	99.6
63	32.6	12.0	52.0

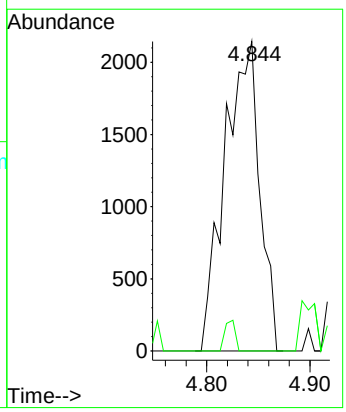


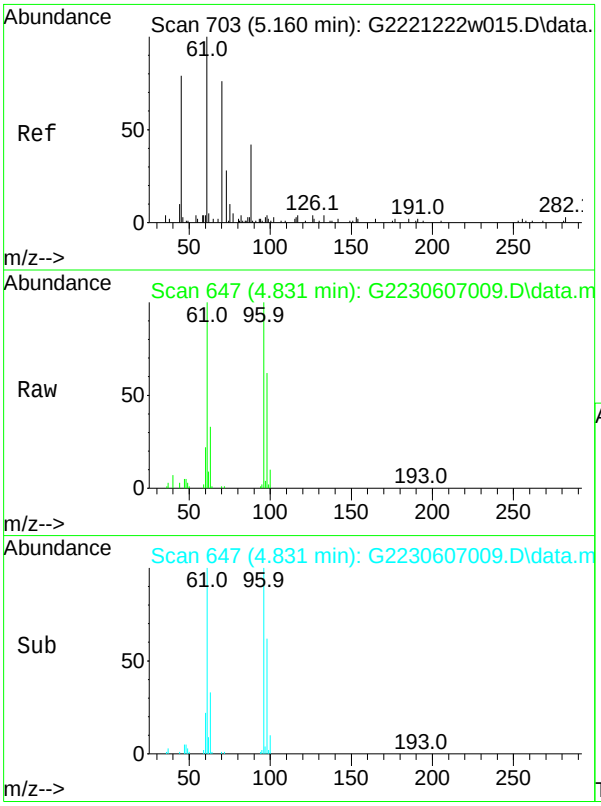


#29
2-Butanone
Concen: 0.40 ug/L
RT: 4.844 min Scan# 649
Delta R.T. -0.075 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 72 Resp: 50319

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

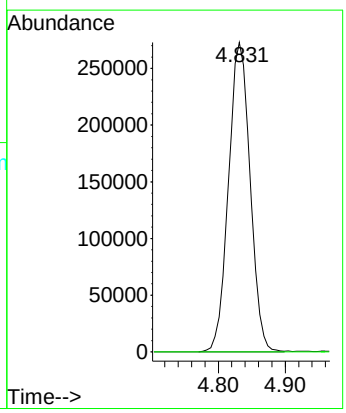


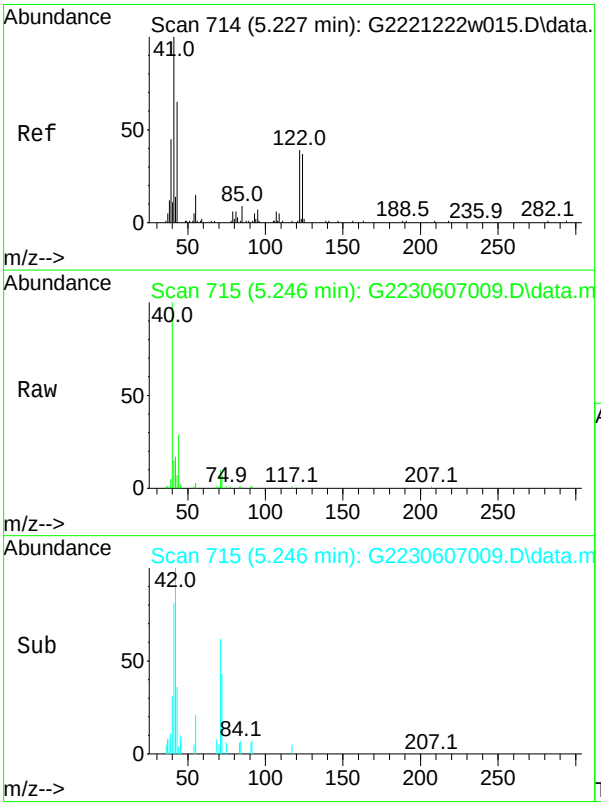


#31
Ethyl acetate
Concen: 97.62 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.188 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 61 Resp: 6129302

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

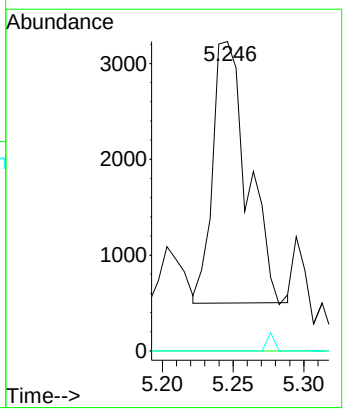


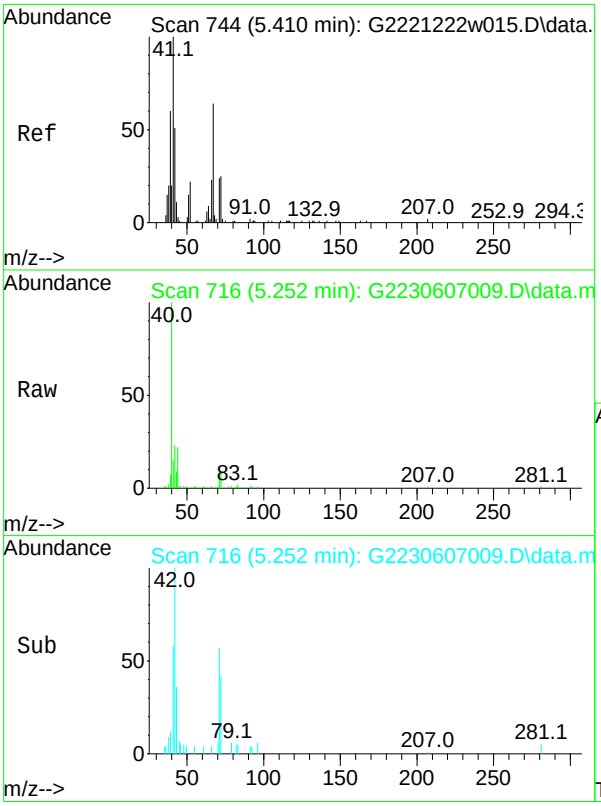


#33
1-Bromopropane
Concen: 0.09 ug/L
RT: 5.248 min Scan# 715
Delta R.T. 0.172 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 41 Resp: 46661

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

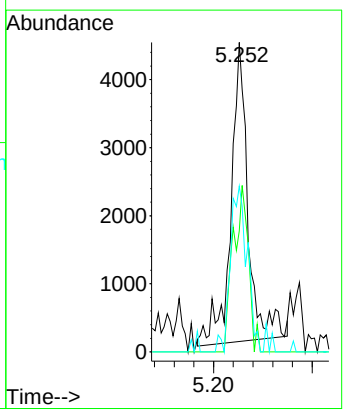


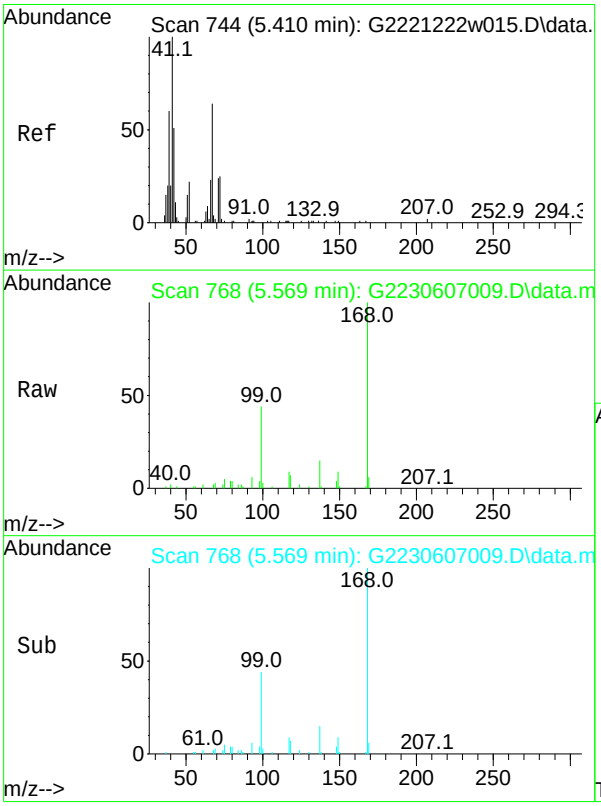


#36
Tetrahydrofuran
Concen: 0.40 ug/L
RT: 5.255 min Scan# 716
Delta R.T. -0.006 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 42 Resp: 104405

Ion	Ratio	Lower	Upper
42	100		
72	50.3	18.8	78.8
71	52.9	14.7	74.7

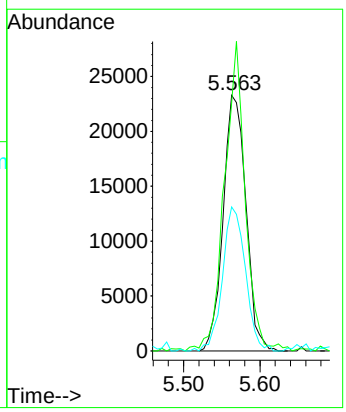


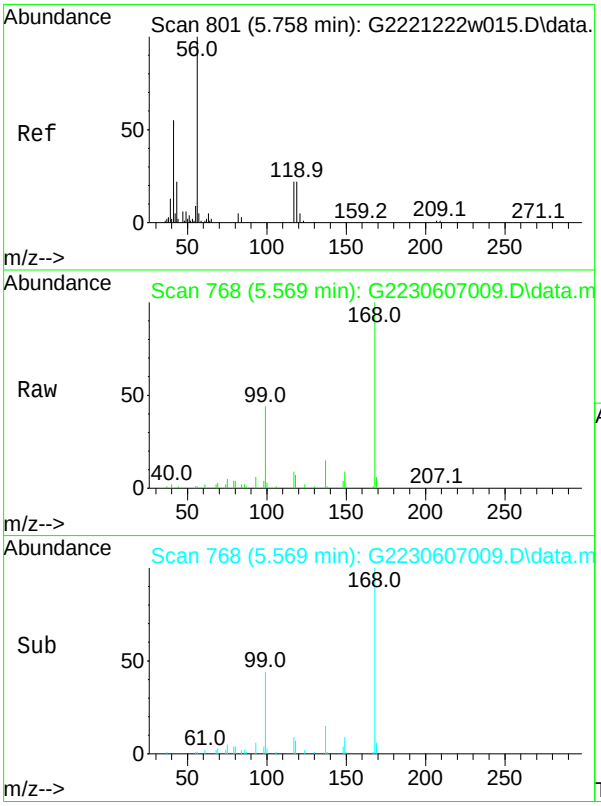


#40
Cyclohexane
Concen: 0.85 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 84 Resp: 483753

Ion	Ratio	Lower	Upper
84	100		
69	108.0	6.8	66.8#
56	56.6	79.1	139.1#

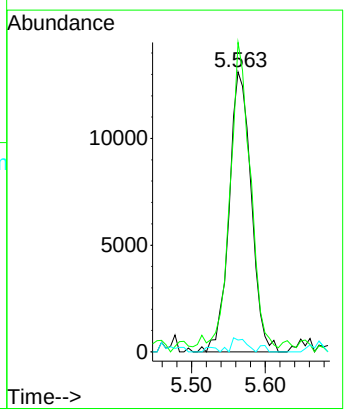


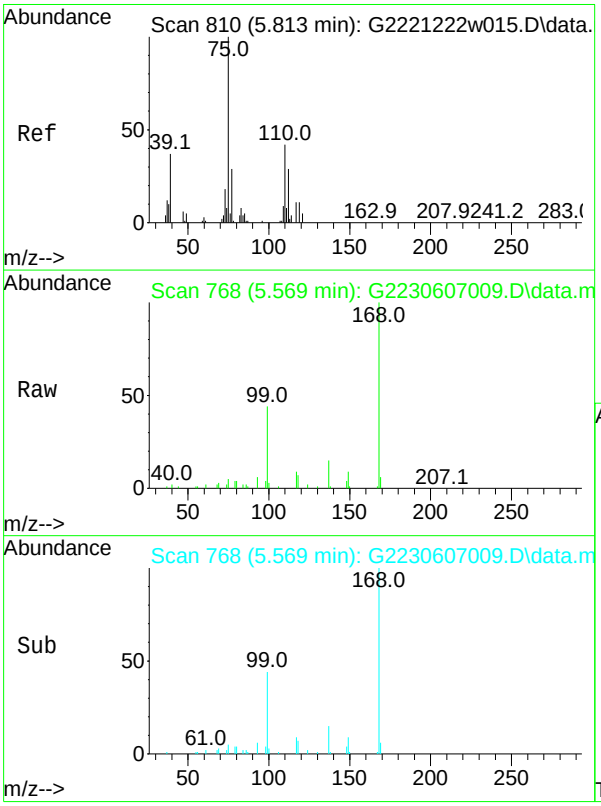


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 56 Resp: 273646

Ion	Ratio	Lower	Upper
56	100		
55	100.5	0.0	41.0#
57	0.0	0.0	35.7

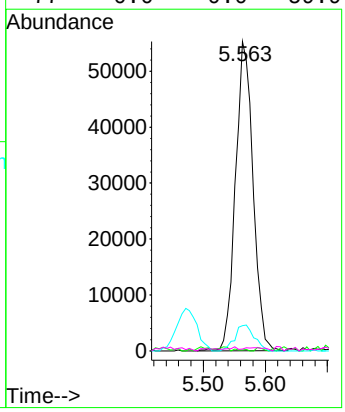


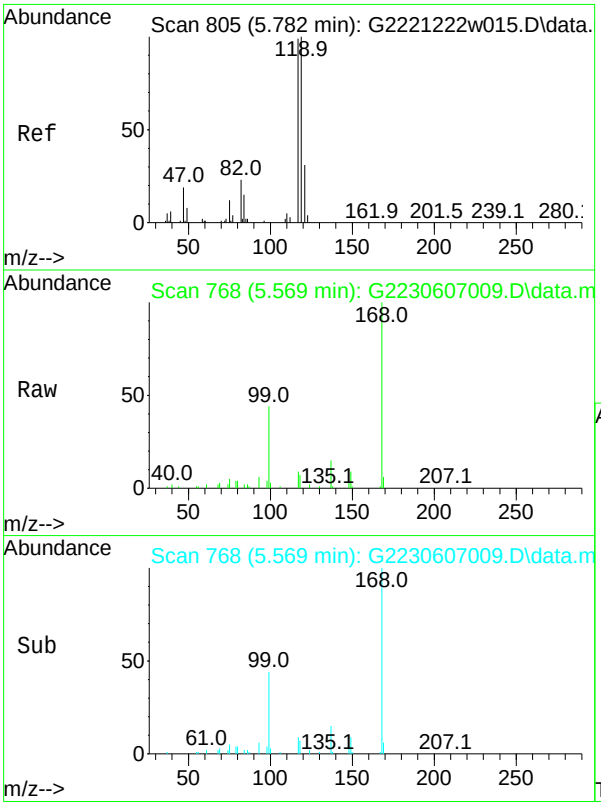


#42
1,1-Dichloropropene
Concen: 2.19 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 75 Resp: 1087486

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	9.3	9.1	69.1
77	0.0	0.0	59.9

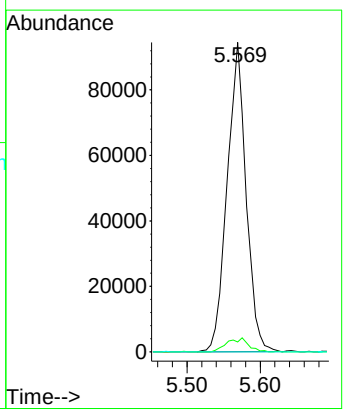


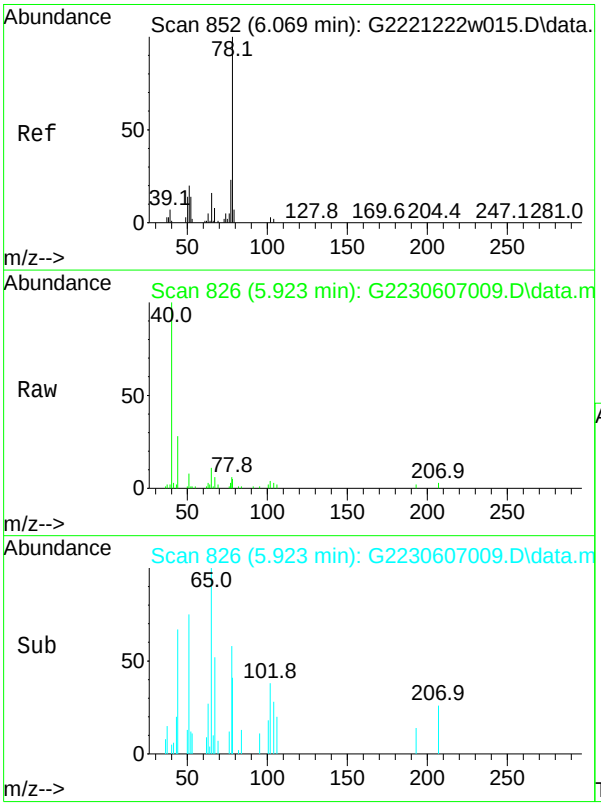


#47
Carbon tetrachloride
Concen: 3.21 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.108 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion:117 Resp: 1690342

Ion	Ratio	Lower	Upper
117	100		
119	5.1	66.4	126.4#
121	0.0	0.4	60.4#

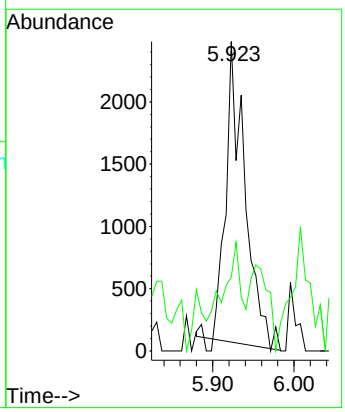


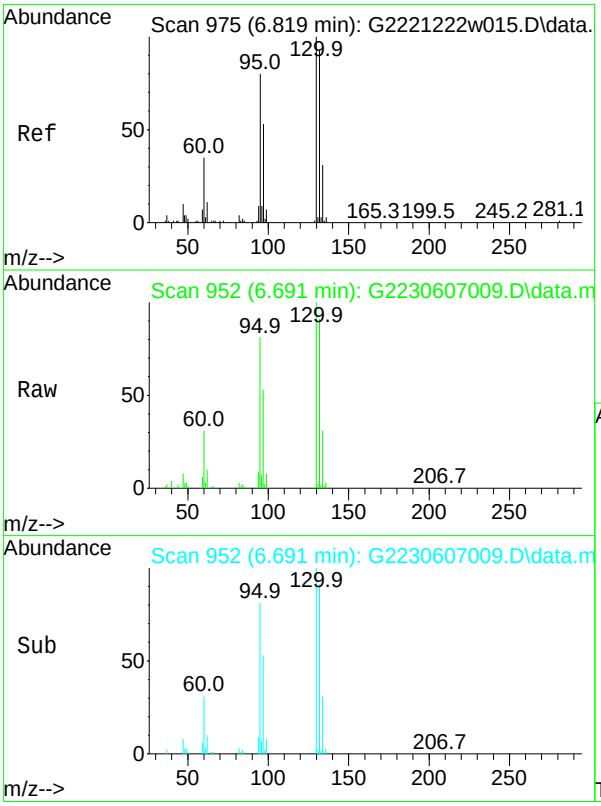


#48
Benzene
Concen: 0.03 ug/L
RT: 5.926 min Scan# 826
Delta R.T. -0.009 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 78 Resp: 39297

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

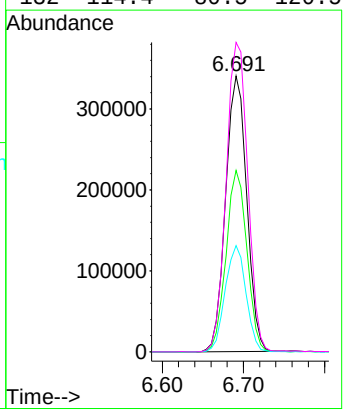


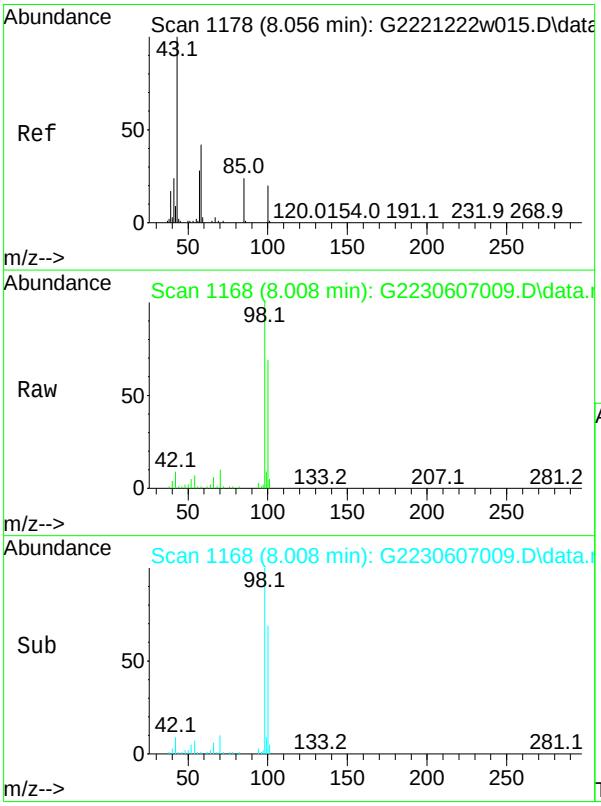


#50
Trichloroethene
Concen: 16.00 ug/L
RT: 6.694 min Scan# 952
Delta R.T. -0.002 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 95 Resp: 6151104

Ion	Ratio	Lower	Upper
95	100		
97	65.2	35.5	95.5
60	38.0	14.8	74.8
132	114.4	80.5	120.5

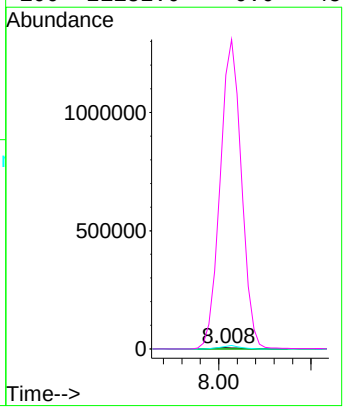


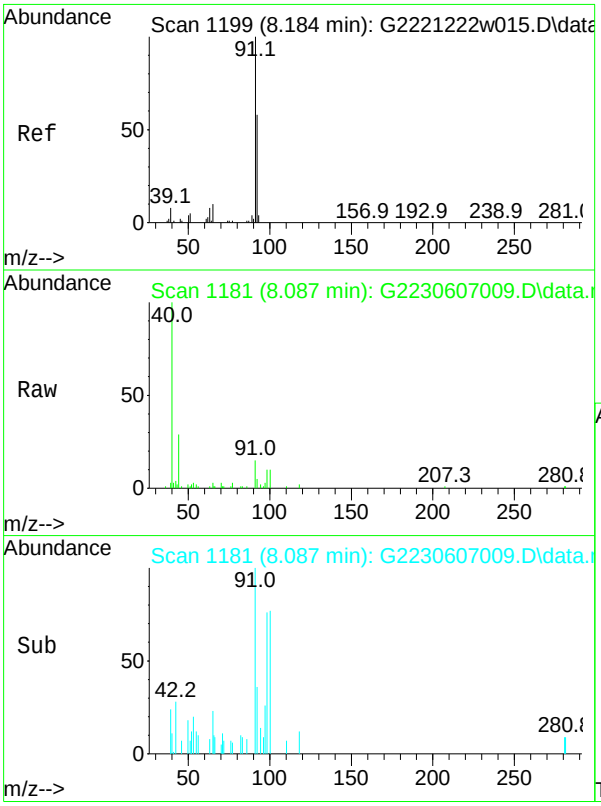


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.010 min Scan# 1168
Delta R.T. 0.066 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 43 Resp: 98824

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	218.0	37.0	37.0#
100	21182.0	0.0	45.2#

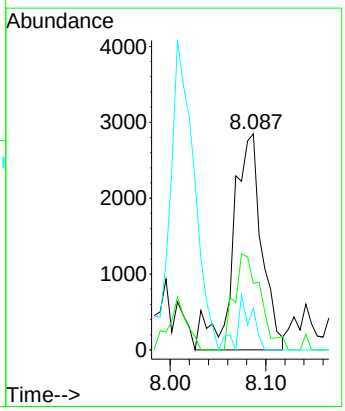


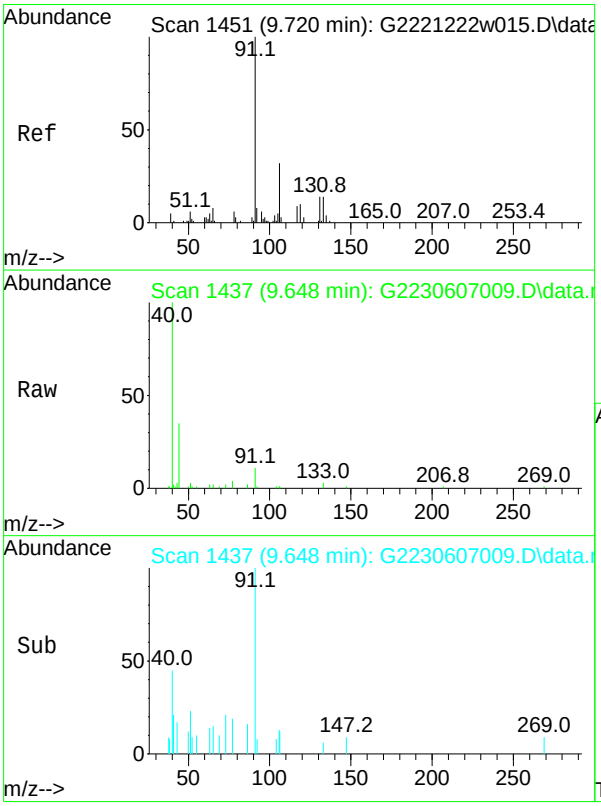


#65
Toluene
Concen: Below Cal
RT: 8.086 min Scan# 1181
Delta R.T. -0.000 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 91 Resp: 59135

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

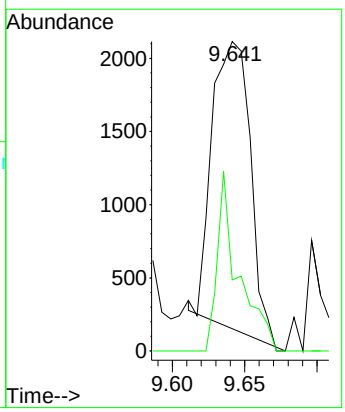


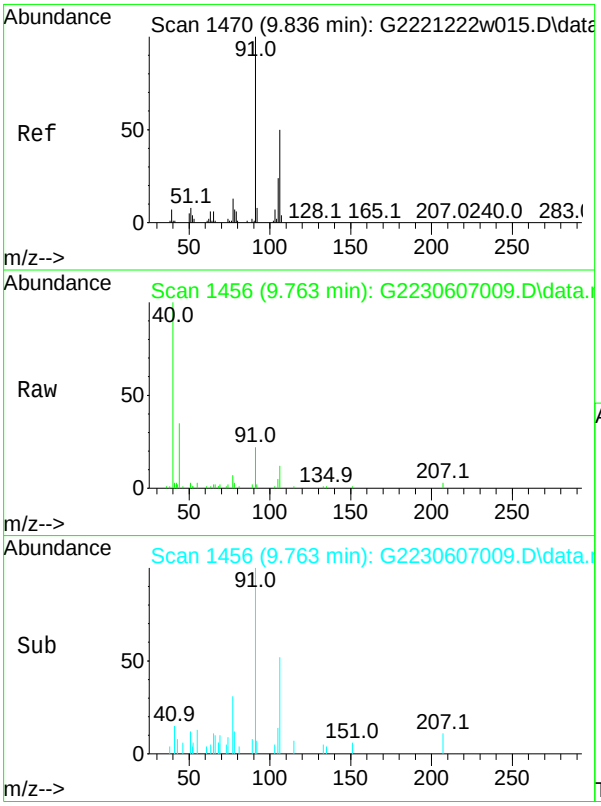


#74
Ethylbenzene
Concen: Below Cal
RT: 9.645 min Scan# 1437
Delta R.T. 0.002 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 91 Resp: 35924

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

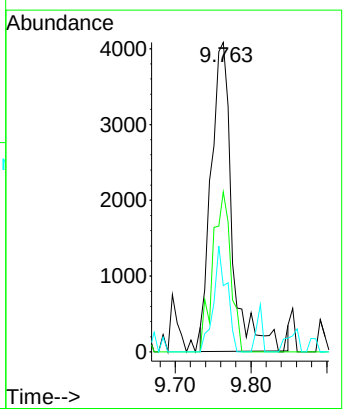


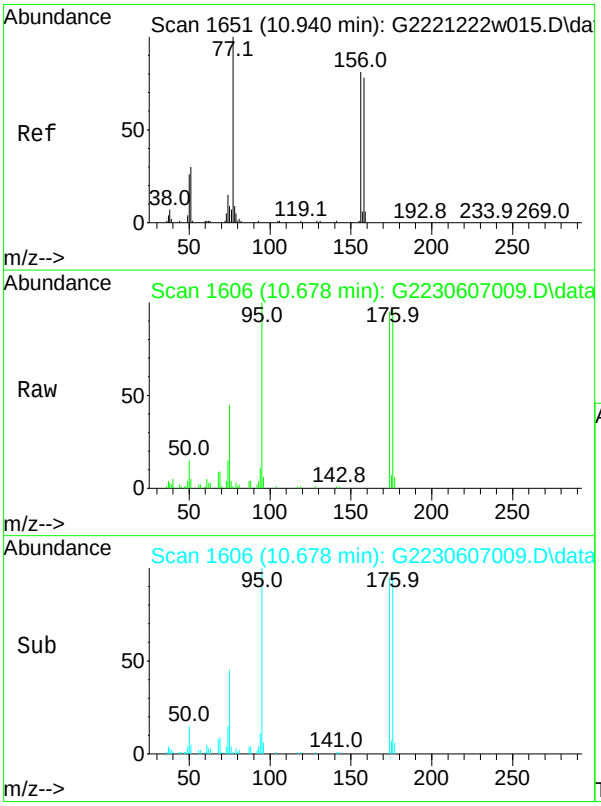


#75
m,p-Xylene
Concen: 0.06 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. -0.000 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 91 Resp: 78460

Ion	Ratio	Lower	Upper
91	100		
106	44.1	19.0	79.0
105	0.0	0.0	52.7

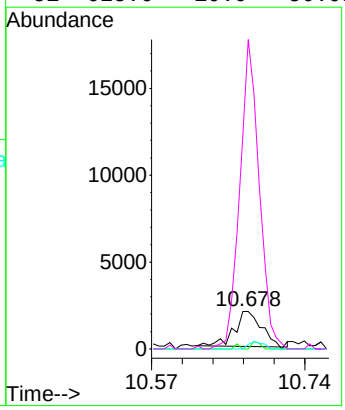


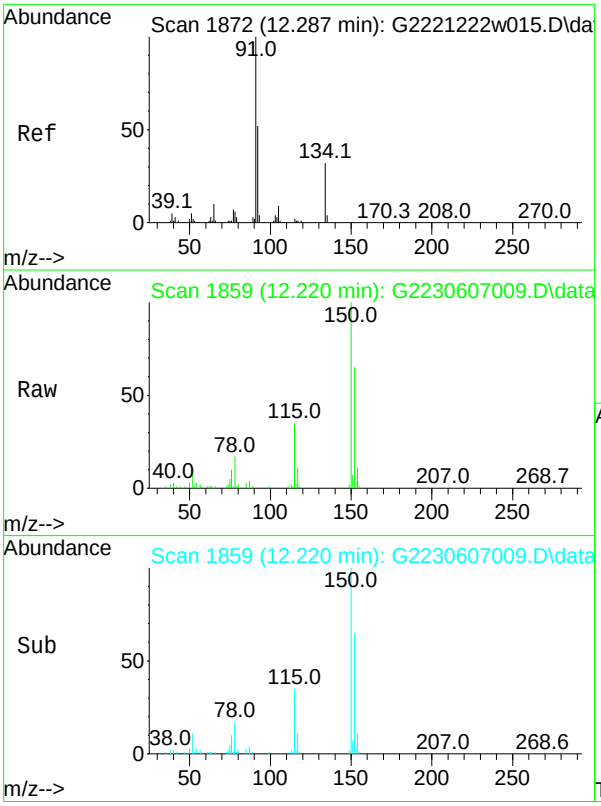


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.679 min Scan# 1606
Delta R.T. -0.149 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 77 Resp: 42098

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	625.0	10.9	50.9#

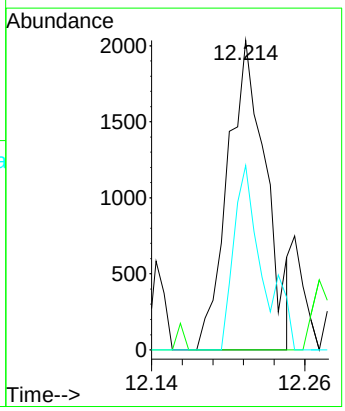




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.217 min Scan# 1859
Delta R.T. -0.014 min
Lab File: G2230607009.D
Acq: 07 Jun 2023 18:09

Tgt Ion: 91 Resp: 38102

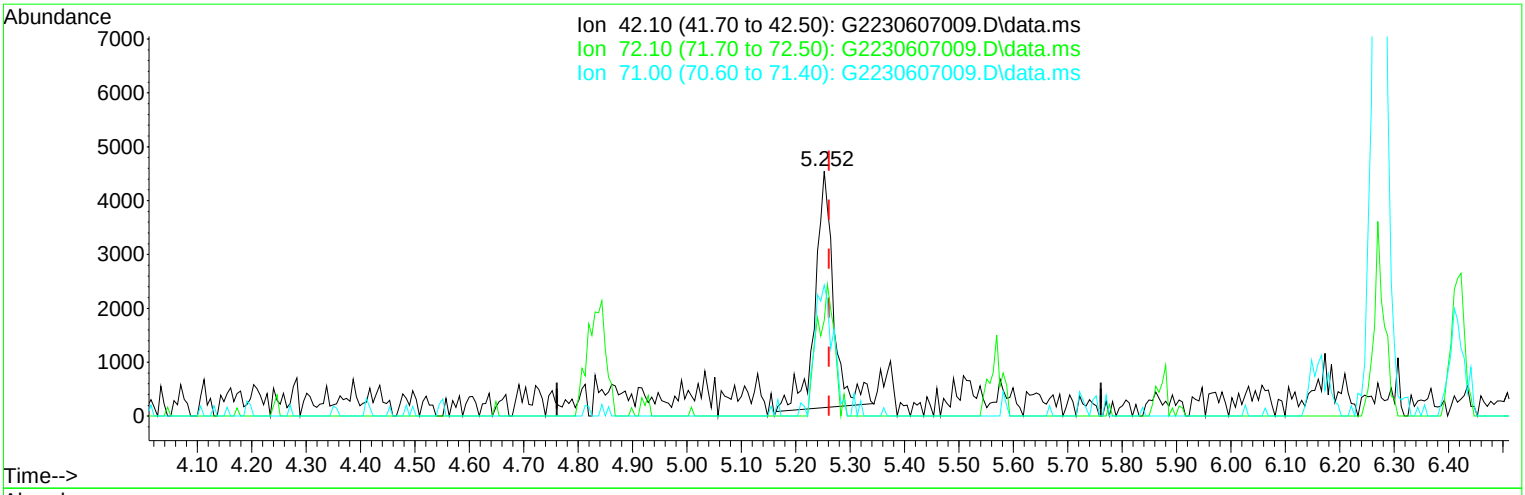
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

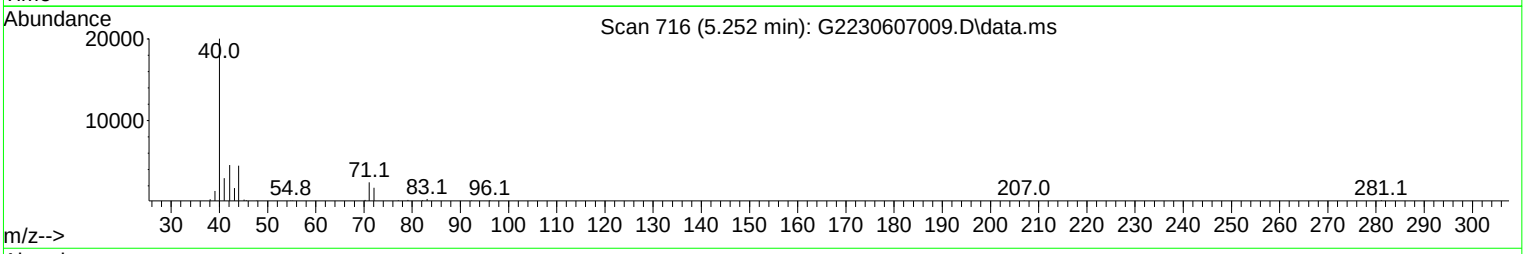


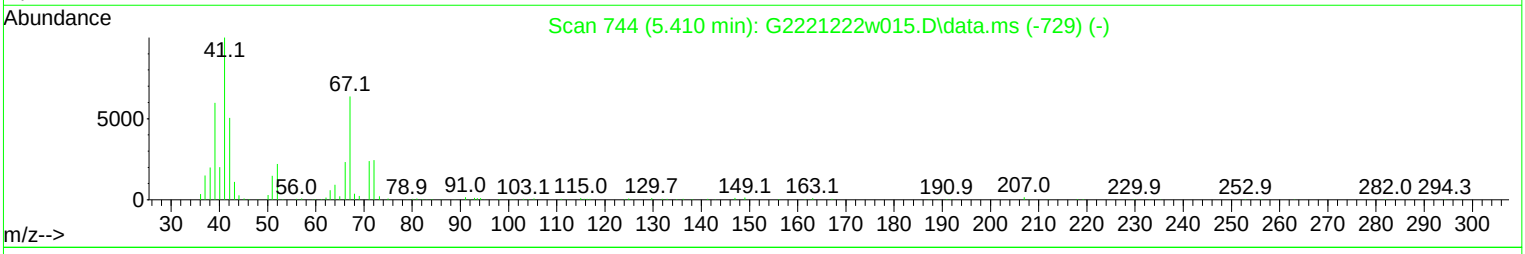
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607009.D
Acq On : 07 Jun 2023 18:09
Operator : PO1
Sample : 23E0775-02RE1
Misc : 200
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 09:26:34 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: G2230607009.D\data.ms

(36) Tetrahydrofuran (T)

5.255min (-0.006) 0.40 ug/L

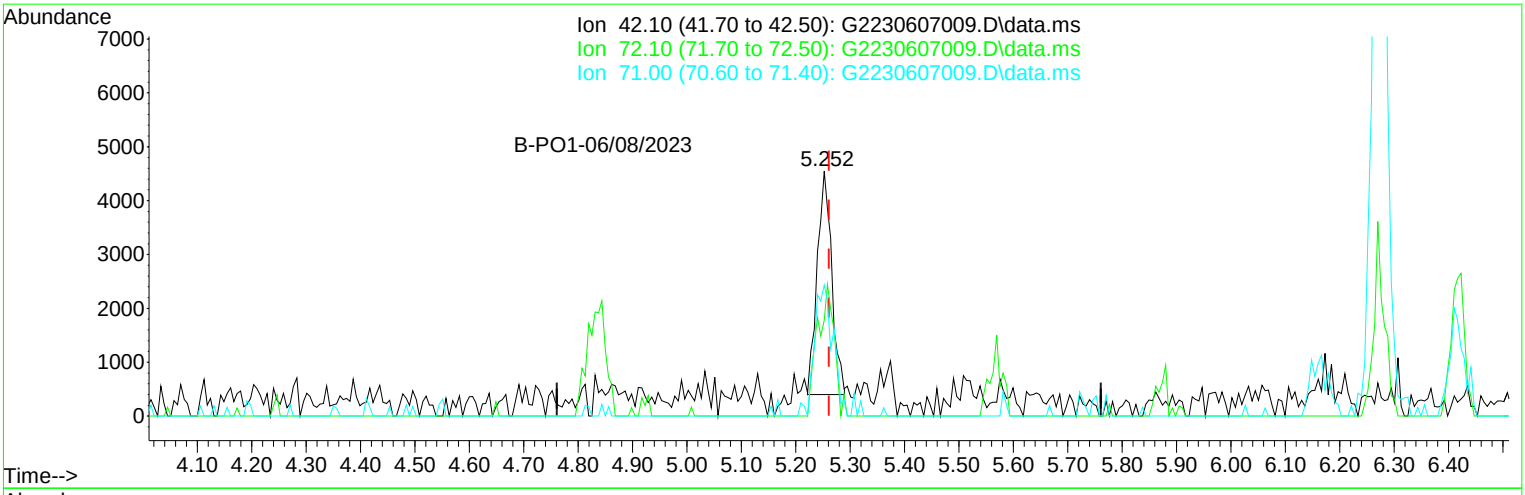
response 104405

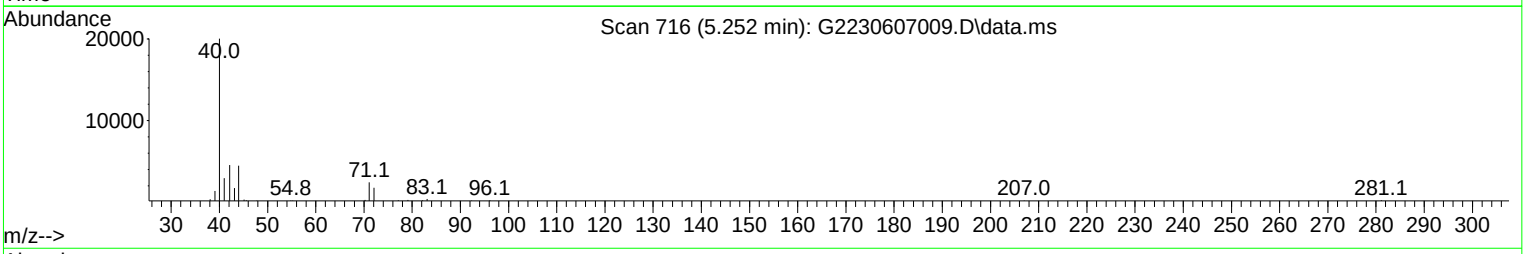
Ion	Exp%	Act%
42.10	100.00	100.00
72.10	48.80	50.29
71.00	44.70	52.85
0.00	0.00	0.00

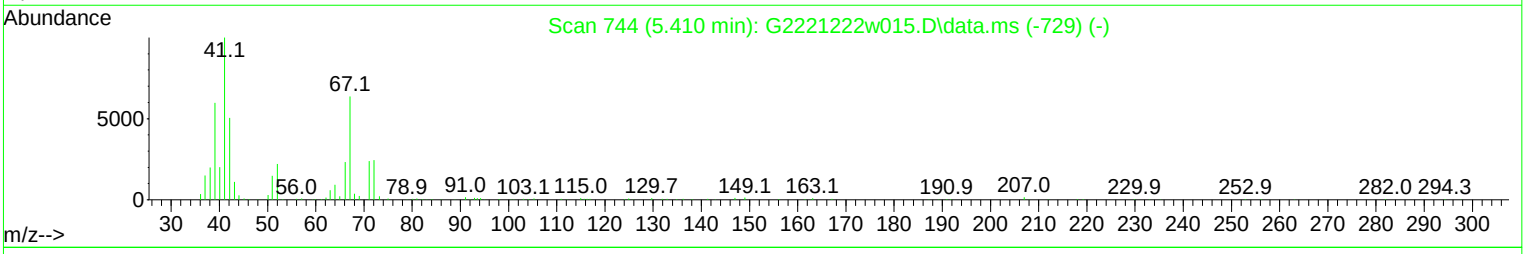
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607009.D
Acq On : 07 Jun 2023 18:09
Operator : PO1
Sample : 23E0775-02RE1
Misc : 200
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 09:26:34 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: G2230607009.D\data.ms

(36) Tetrahydrofuran (T)

5.252min (-0.009) 0.13 ug/L m

response 75969

Ion	Exp%	Act%
42.10	100.00	100.00
72.10	48.80	69.11
71.00	44.70	72.64
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW49

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-02RE2	File ID:	G2230608013.D
Sampled:	05/25/23 14:45	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 14:14
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*26.0*	*80.0*	*200*	*U*
71-55-6	*1,1,1-Trichloroethane*		*35.1*	*80.0*	*200*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*24.8*	*80.0*	*200*	*U*
79-00-5	*1,1,2-Trichloroethane*		*33.3*	*80.0*	*200*	*U*
75-34-3	*1,1-Dichloroethane*		*26.8*	*80.0*	*200*	*U*
75-35-4	*1,1-Dichloroethene*		*38.2*	*80.0*	*200*	*U*
563-58-6	*1,1-Dichloropropene*		*28.0*	*80.0*	*200*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*40.8*	*80.0*	*200*	*U*
96-18-4	*1,2,3-Trichloropropane*		*36.5*	*80.0*	*200*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*41.0*	*120*	*240*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*26.4*	*80.0*	*200*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*52.0*	*200*	*400*	*U*
106-93-4	*1,2-Dibromoethane*		*21.2*	*80.0*	*200*	*U*
95-50-1	*1,2-Dichlorobenzene*		*25.2*	*80.0*	*200*	*U*
107-06-2	*1,2-Dichloroethane*		*42.4*	*120*	*240*	*U*
78-87-5	*1,2-Dichloropropane*		*40.9*	*120*	*240*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*20.0*	*80.0*	*200*	*U*
541-73-1	*1,3-Dichlorobenzene*		*29.0*	*80.0*	*200*	*U*
142-28-9	*1,3-Dichloropropane*		*27.2*	*80.0*	*200*	*U*
106-46-7	*1,4-Dichlorobenzene*		*36.8*	*80.0*	*200*	*U*
594-20-7	*2,2-Dichloropropane*		*36.8*	*80.0*	*200*	*U*
78-93-3	*2-Butanone*		*132*	*280*	*700*	*U*
95-49-8	*2-Chlorotoluene*		*29.3*	*80.0*	*200*	*U*
591-78-6	*2-Hexanone*		*28.6*	*280*	*700*	*U*
106-43-4	*4-Chlorotoluene*		*36.8*	*80.0*	*200*	*U*
99-87-6	*4-Isopropyltoluene*		*28.0*	*80.0*	*200*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW49

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-02RE2	File ID:	G2230608013.D
Sampled:	05/25/23 14:45	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 14:14
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*54.0*	*280*	*700*	*U*
67-64-1	*Acetone*		*207*	*800*	*1600*	*U*
71-43-2	*Benzene*		*20.3*	*80.0*	*200*	*U*
108-86-1	*Bromobenzene*		*33.9*	*80.0*	*200*	*U*
74-97-5	*Bromochloromethane*		*26.8*	*80.0*	*200*	*U*
75-27-4	*Bromodichloromethane*		*21.2*	*80.0*	*200*	*U*
75-25-2	*Bromoform*		*41.3*	*80.0*	*200*	*U*
74-83-9	*Bromomethane*		*64.1*	*200*	*400*	*U*
75-15-0	*Carbon disulfide*		*56.0*	*200*	*400*	*U*
56-23-5	*Carbon tetrachloride*		*33.8*	*80.0*	*200*	*U*
108-90-7	*Chlorobenzene*		*26.0*	*80.0*	*200*	*U*
75-00-3	*Chloroethane*		*62.2*	*80.0*	*200*	*U*
67-66-3	*Chloroform*		*40.5*	*120*	*240*	*U*
74-87-3	*Chloromethane*		*76.8*	*200*	*400*	*U*
156-59-2	*cis-1,2-Dichloroethene*	*2160*	*41.0*	*120*	*240*	*D*
10061-01-5	*cis-1,3-Dichloropropene*		*23.5*	*80.0*	*200*	*U*
124-48-1	*Dibromochloromethane*		*30.4*	*80.0*	*200*	*U*
74-95-3	*Dibromomethane*		*32.7*	*80.0*	*200*	*U*
75-71-8	*Dichlorodifluoromethane*		*51.8*	*200*	*400*	*U*
100-41-4	*Ethylbenzene*		*12.0*	*40.0*	*80.0*	*U*
87-68-3	*Hexachlorobutadiene*		*40.0*	*80.0*	*200*	*U*
98-82-8	*Isopropylbenzene*		*22.0*	*80.0*	*200*	*U*
179601-23-1	*m,p-Xylene*		*35.6*	*160*	*400*	*U*
1634-04-4	*Methyl tert-butyl ether*		*21.2*	*80.0*	*200*	*U*
75-09-2	*Methylene chloride*		*89.4*	*200*	*400*	*U*
104-51-8	*n-Butylbenzene*		*52.0*	*200*	*400*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52547WW49

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-02RE2	File ID:	G2230608013.D
Sampled:	05/25/23 14:45	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 14:14
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*25.2*	*80.0*	*200*	*U*
91-20-3	*Naphthalene*		*28.0*	*80.0*	*200*	*U*
95-47-6	*o-Xylene*		*16.6*	*80.0*	*200*	*U*
135-98-8	*sec-Butylbenzene*		*23.9*	*80.0*	*200*	*U*
100-42-5	*Styrene*		*18.1*	*40.0*	*80.0*	*U*
98-06-6	*tert-Butylbenzene*		*18.1*	*80.0*	*200*	*U*
127-18-4	Tetrachloroethene		71.3	200	400	U
108-88-3	*Toluene*		*22.9*	*80.0*	*200*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*34.2*	*80.0*	*200*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*23.5*	*80.0*	*200*	*U*
79-01-6	Trichloroethene	2760	31.2	80.0	200	D
75-69-4	*Trichlorofluoromethane*		*20.2*	*80.0*	*200*	*U*
75-01-4	*Vinyl chloride*		*51.6*	*200*	*400*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608013.D
Acq On : 08 Jun 2023 14:14
Operator : PO1
Sample : 23E0775-02RE2
Misc : 400
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 08 16:33:31 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

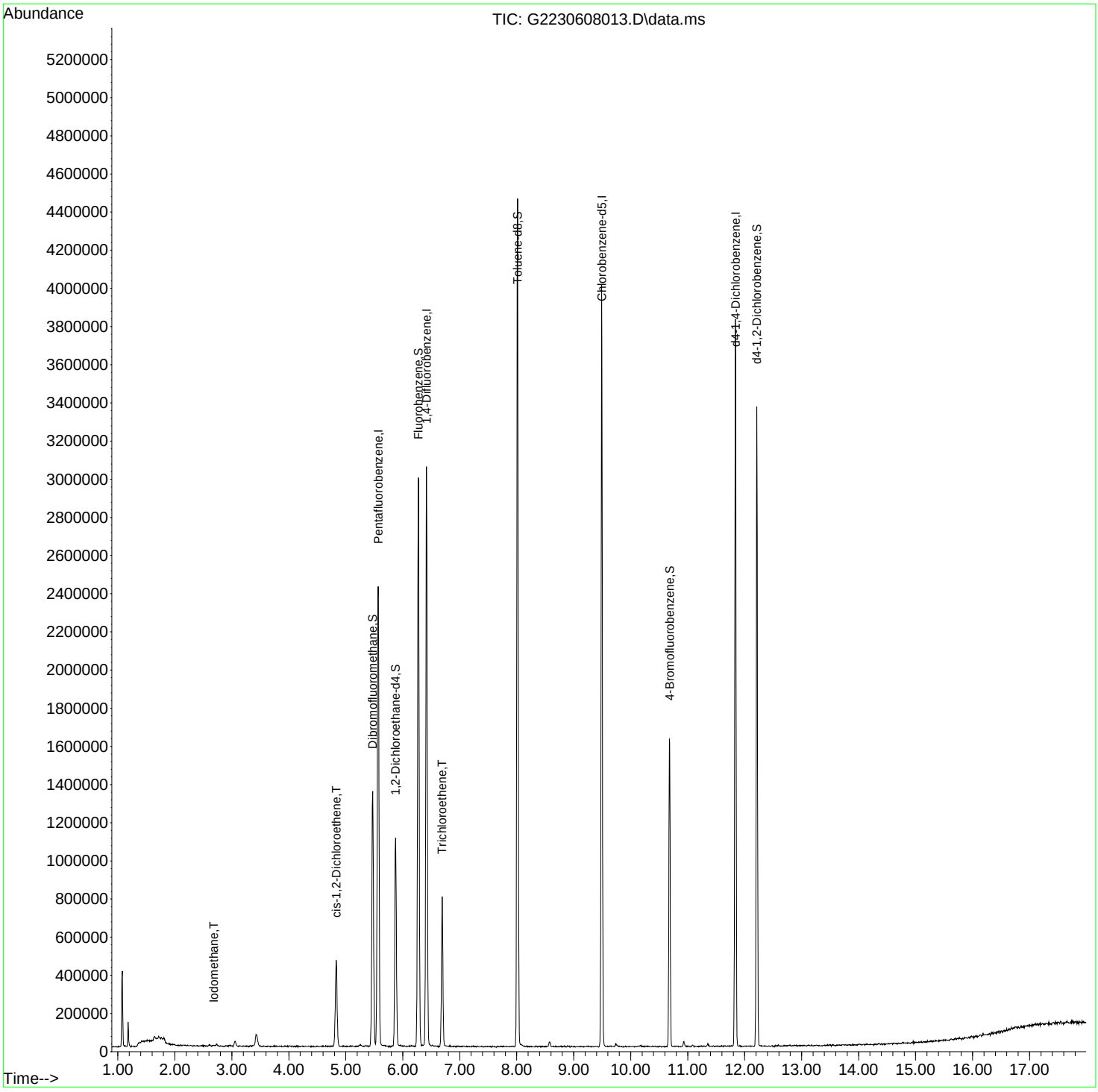
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	19529578	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	26462031	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	23507649	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10950571	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	8425035	19.60	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.00%			
43) 1,2-Dichloroethane-d4	5.876	65	7846067	18.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.35%			
49) Fluorobenzene	6.276	96	29548953	19.60	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.00%			
64) Toluene-d8	8.015	98	28736194	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
81) 4-Bromofluorobenzene	10.685	174	5097899	9.86	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	9414787	19.99	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.95%			
Target Compounds						Qvalue
5) Bromomethane	1.720	94	62542	Below Cal	#	84
13) Iodomethane	2.677	142	62725	0.14	ug/L #	41
18) Methylene chloride	3.061	49	127369	Below Cal	#	65
21) Methyl tert-butyl ether	3.433	73	889326	Below Cal		93
28) cis-1,2-Dichloroethene	4.833	61	2680000	5.40	ug/L	76
50) Trichloroethene	6.693	95	2422971	6.89	ug/L	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608013.D
Acq On : 08 Jun 2023 14:14
Operator : PO1
Sample : 23E0775-02RE2
Misc : 400
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 08 16:33:31 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608013.D
Acq On : 08 Jun 2023 14:14
Operator : PO1
Sample : 23E0775-02RE2
Misc : 400
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 08 16:33:31 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

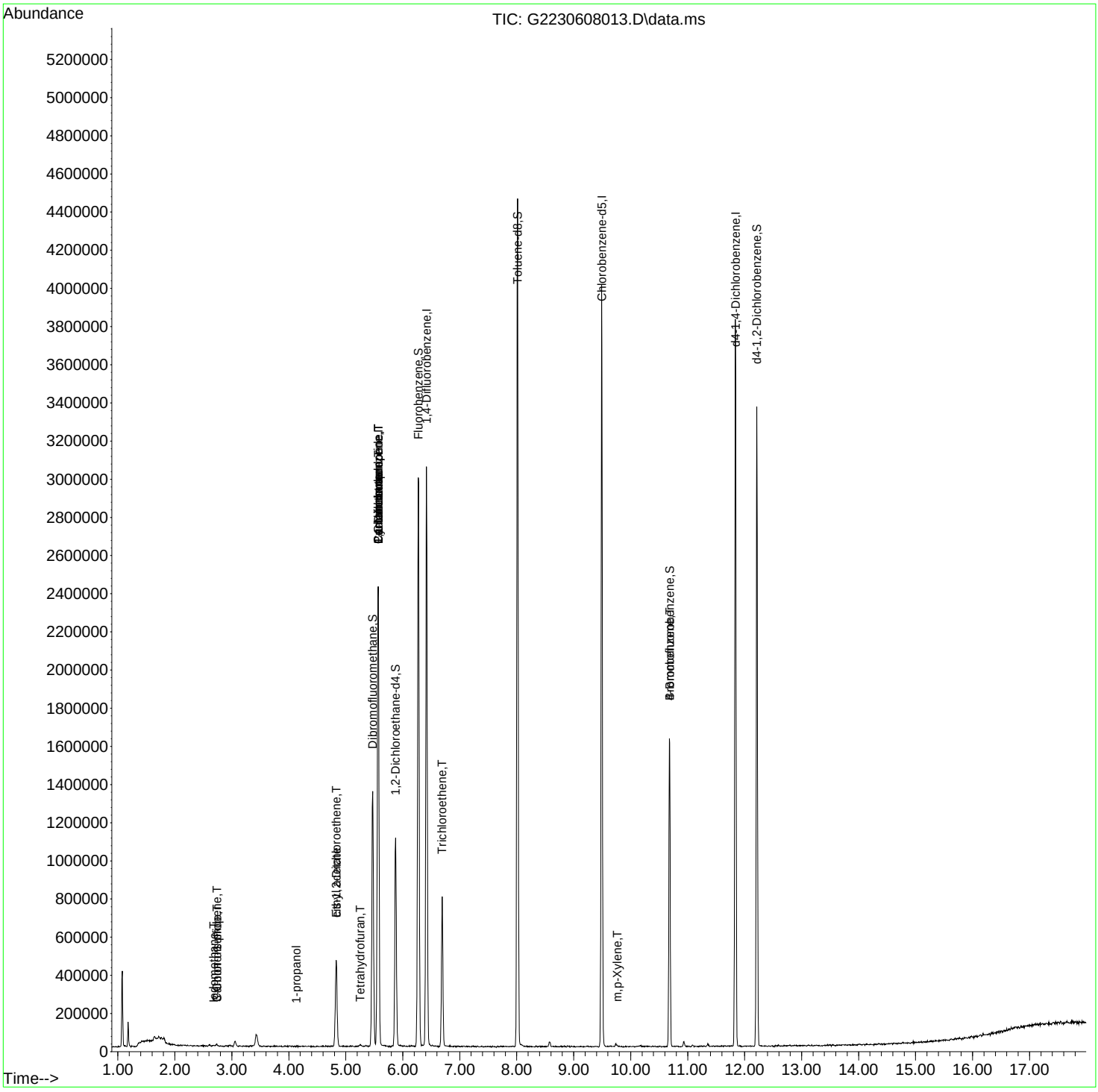
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	19529578	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	26462031	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	23507649	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10950571	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	8425035	19.60	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.00%			
43) 1,2-Dichloroethane-d4	5.876	65	7846067	18.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.35%			
49) Fluorobenzene	6.276	96	29548953	19.60	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.00%			
64) Toluene-d8	8.015	98	28736194	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
81) 4-Bromofluorobenzene	10.685	174	5097899	9.86	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	9414787	19.99	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.95%			
Target Compounds						Qvalue
5) Bromomethane	1.720	94	62542	Below Cal	#	84
12) Acetone	2.602	43	76709	Below Cal	#	45
13) Iodomethane	2.677	142	62725	0.14	ug/L #	41
14) Carbon disulfide	2.738	76	139941	0.07	ug/L #	74
17) 3-Chloro-1-propene	2.738	76	139942	0.63	ug/L #	53
18) Methylene chloride	3.061	49	127369	Below Cal	#	65
21) Methyl tert-butyl ether	3.433	73	889326	Below Cal		93
26) 1-propanol	4.133	59	1560	0.77	ug/L #	100
28) cis-1,2-Dichloroethene	4.833	61	2680000	5.40	ug/L	76
31) Ethyl acetate	4.834	61	2666939	45.97	ug/L #	45
36) Tetrahydrofuran	5.251	42	59254	0.03	ug/L #	63
40) Cyclohexane	5.568	84	439524	0.84	ug/L #	32
41) 1-Chlorobutane	5.571	56	248263	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.568	75	1014470	2.22	ug/L #	38
47) Carbon tetrachloride	5.569	117	1536461	3.22	ug/L #	16
50) Trichloroethene	6.693	95	2422971	6.89	ug/L	90
60) 4-Methyl-2-pentanone	8.015	43	98471	Below Cal	#	1
74) Ethylbenzene	9.644	91	33930	Below Cal	#	44
75) m,p-Xylene	9.762	91	54544	0.04	ug/L #	36
82) Bromobenzene	10.684	77	36742	0.06	ug/L #	1
99) n-Butylbenzene	12.220	91	38506	Below Cal	#	53

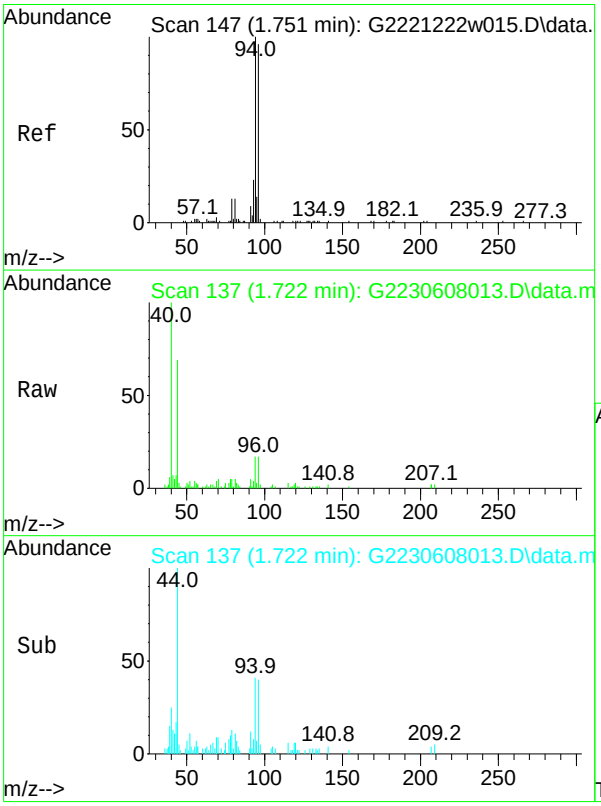
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608013.D
Acq On : 08 Jun 2023 14:14
Operator : PO1
Sample : 23E0775-02RE2
Misc : 400
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 08 16:33:31 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

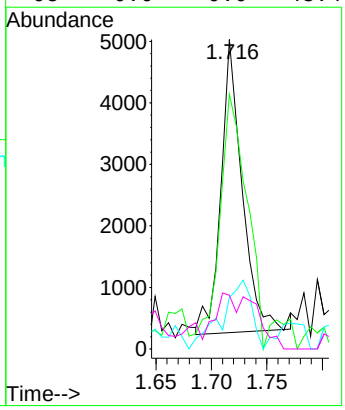


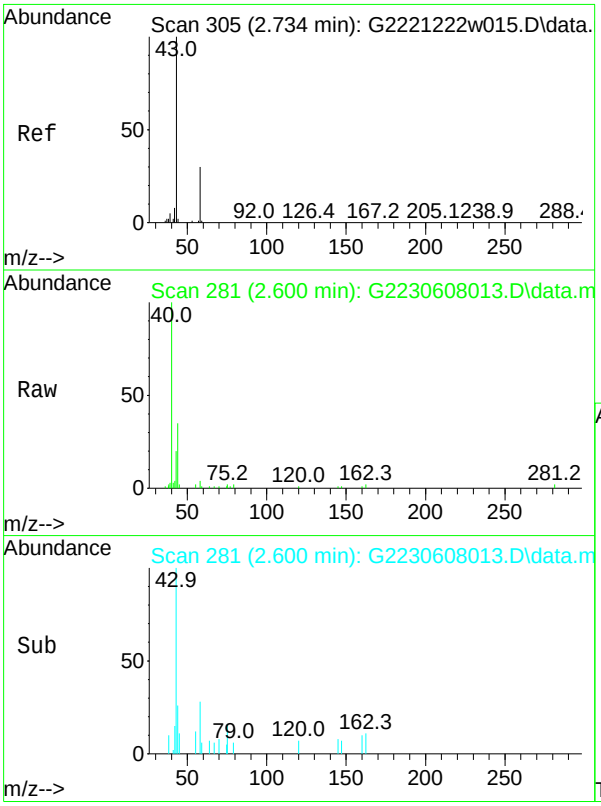


#5
Bromomethane
Concen: Below Cal
RT: 1.720 min Scan# 137
Delta R.T. 0.006 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 94 Resp: 62542

Ion	Ratio	Lower	Upper
94	100		
96	103.4	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

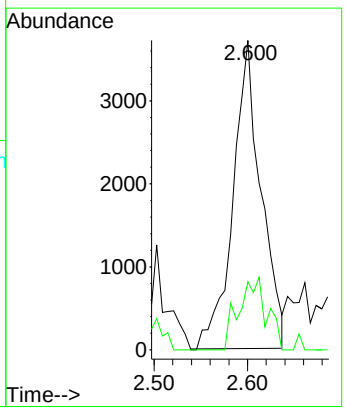


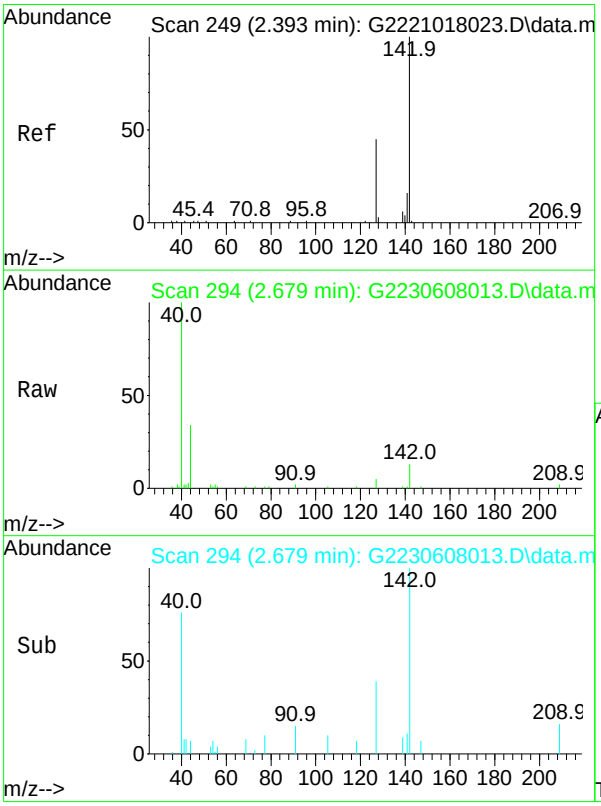


#12
Acetone
Concen: Below Cal
RT: 2.602 min Scan# 281
Delta R.T. -0.006 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 43 Resp: 76709

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

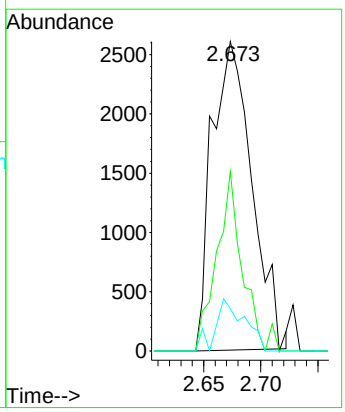


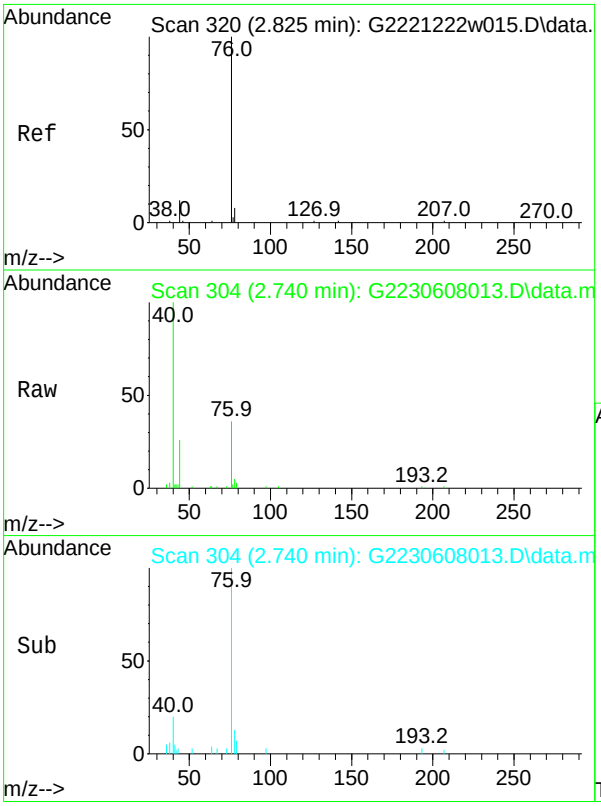


#13
Iodomethane
Concen: 0.14 ug/L
RT: 2.677 min Scan# 294
Delta R.T. 0.001 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion:142 Resp: 62725

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

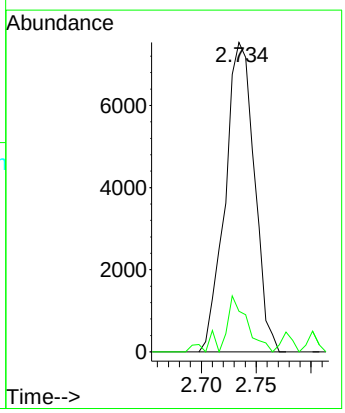


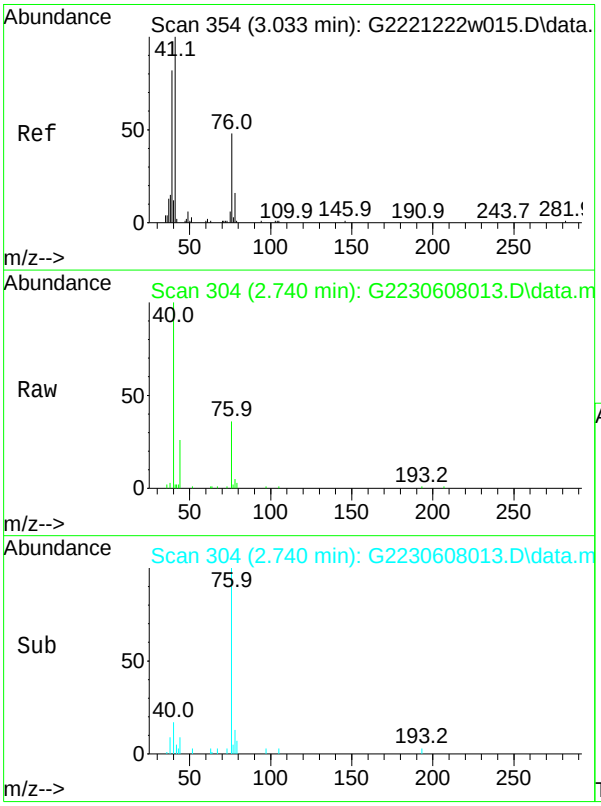


#14
Carbon disulfide
Concen: 0.07 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.001 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 76 Resp: 139941

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

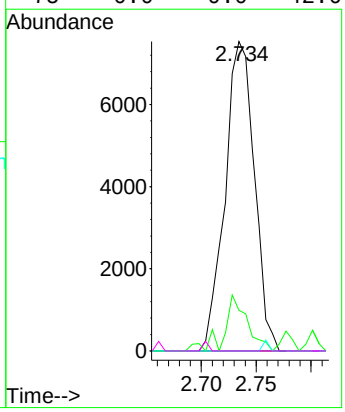


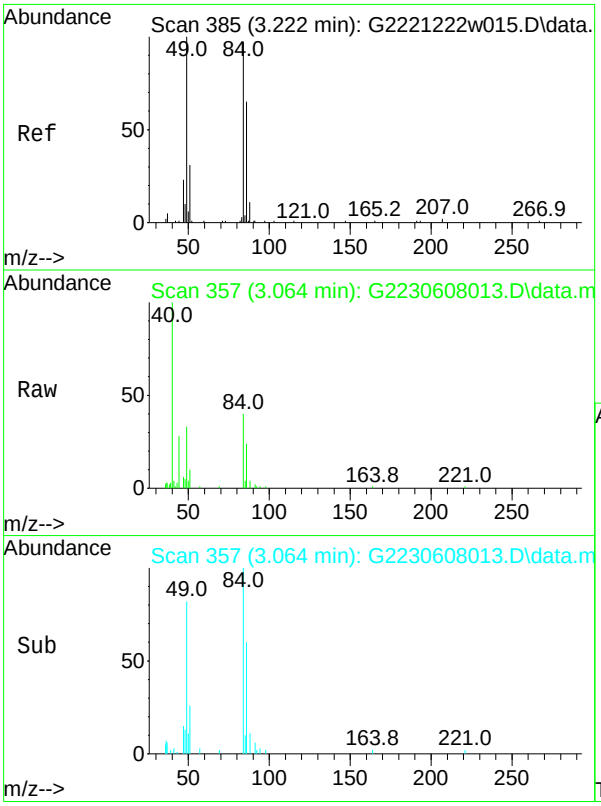


#17
3-Chloro-1-propene
Concen: 0.63 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.182 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 76 Resp: 139942

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

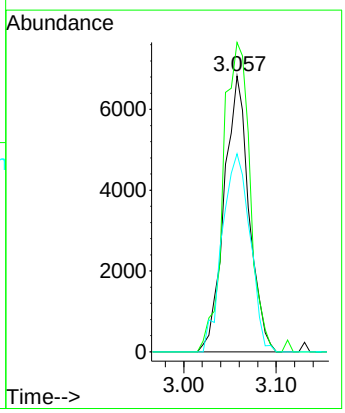


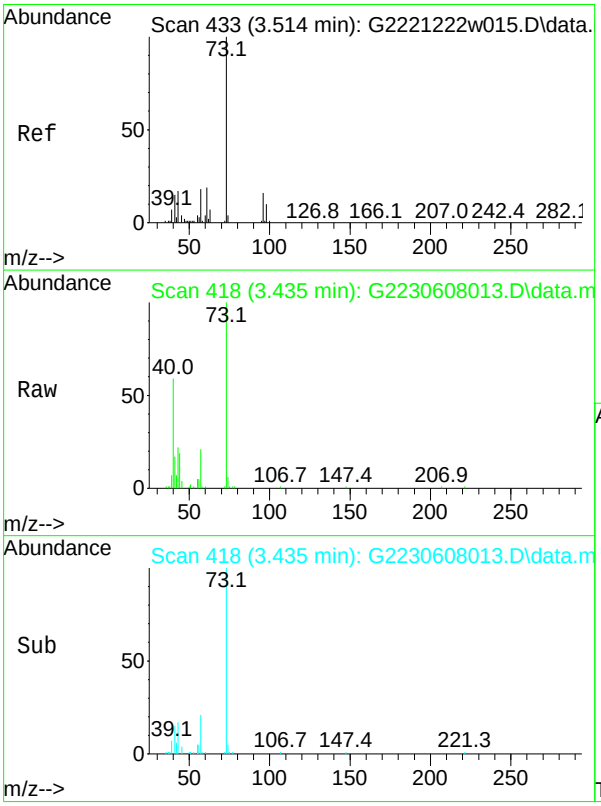


#18
Methylene chloride
Concen: Below Cal
RT: 3.061 min Scan# 357
Delta R.T. -0.001 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 49 Resp: 127369

Ion	Ratio	Lower	Upper
49	100		
84	120.3	57.9	117.9#
86	80.5	24.9	84.9

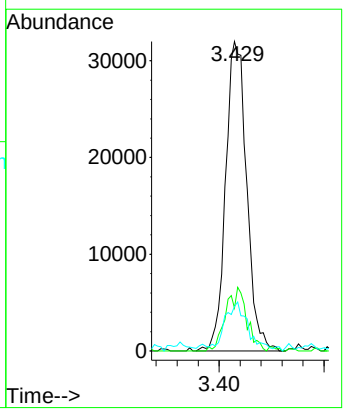


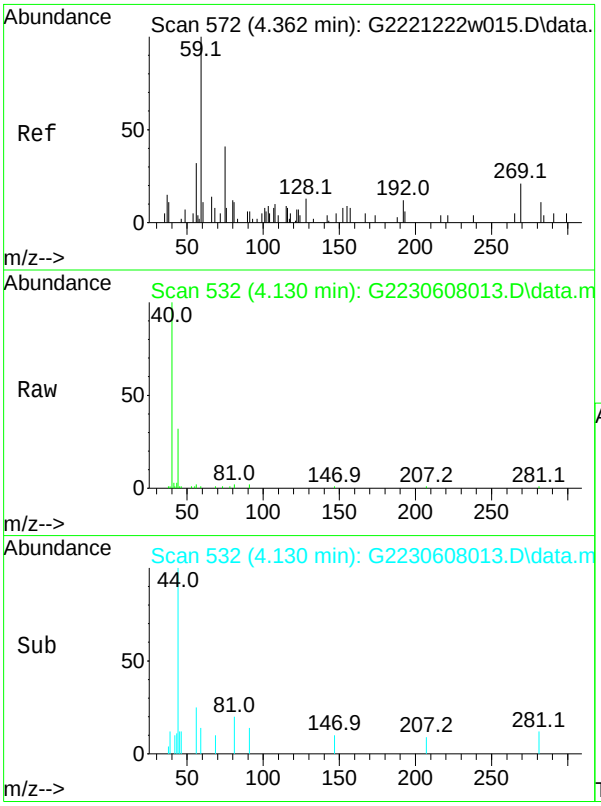


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.433 min Scan# 418
Delta R.T. -0.013 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 73 Resp: 889326

Ion	Ratio	Lower	Upper
73	100		
57	20.4	0.0	51.7
41	15.2	0.0	50.6

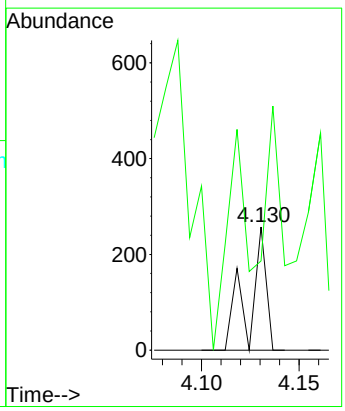


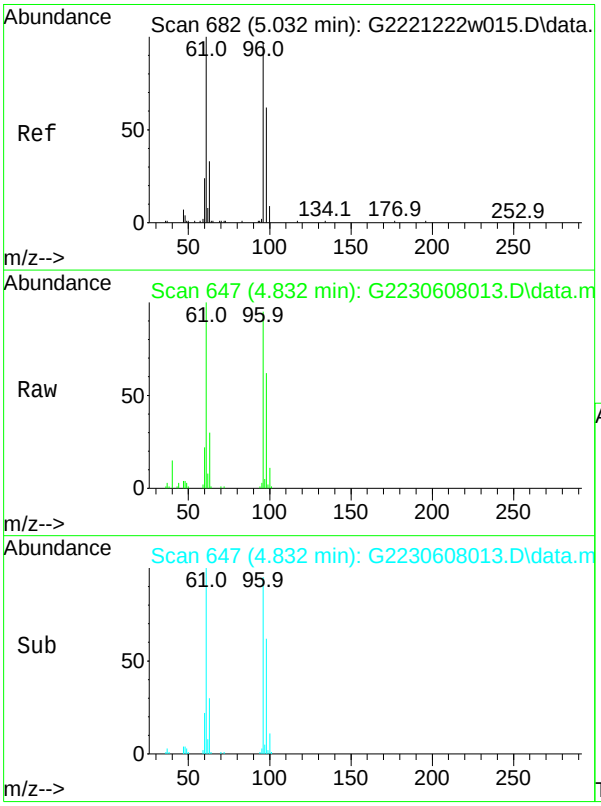


#26
1-propanol
Concen: 0.77 ug/L
RT: 4.133 min Scan# 532
Delta R.T. -0.156 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 59 Resp: 1560

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

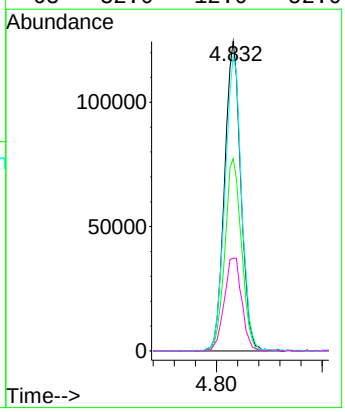


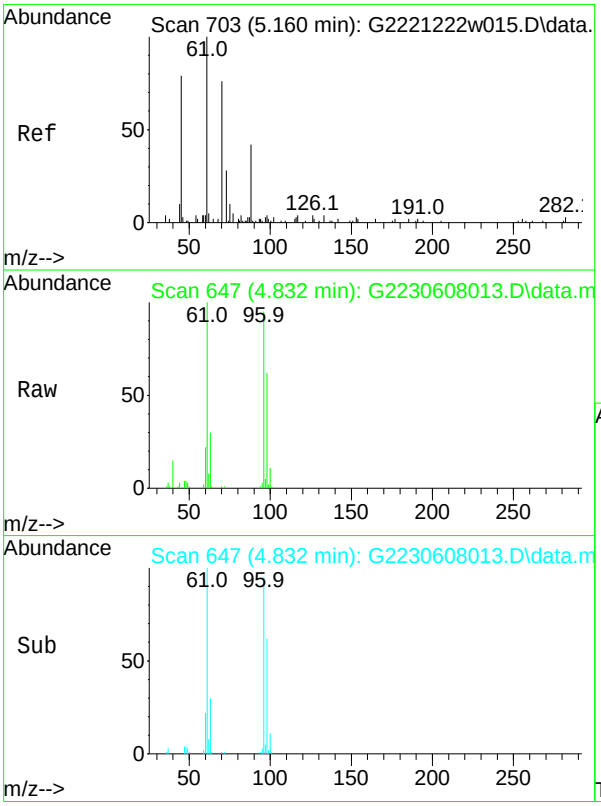


#28
cis-1,2-Dichloroethene
Concen: 5.40 ug/L
RT: 4.833 min Scan# 647
Delta R.T. -0.003 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 61 Resp: 2680000

Ion	Ratio	Lower	Upper
61	100		
98	62.9	15.9	75.9
96	96.7	39.6	99.6
63	32.0	12.0	52.0

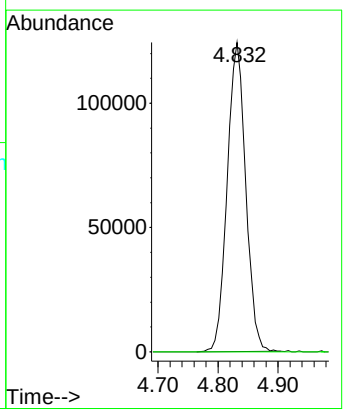


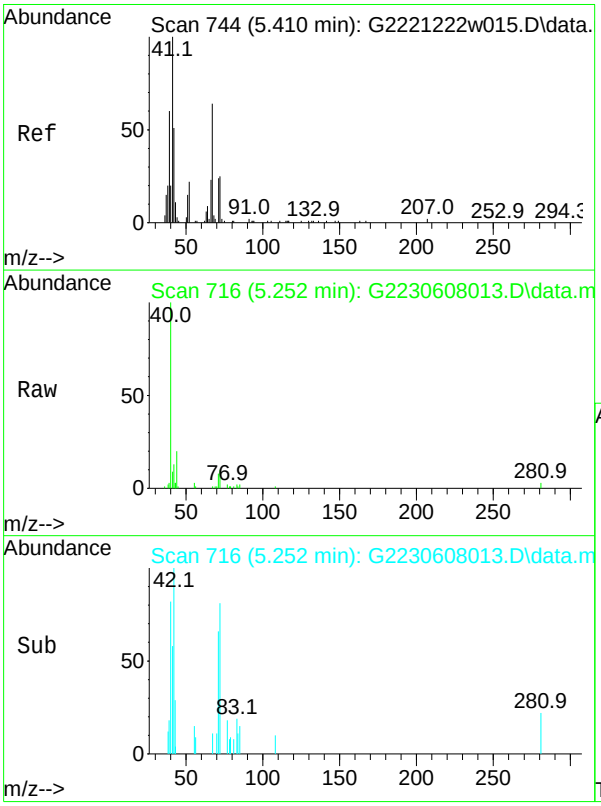


#31
Ethyl acetate
Concen: 45.97 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.188 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 61 Resp: 2666939

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

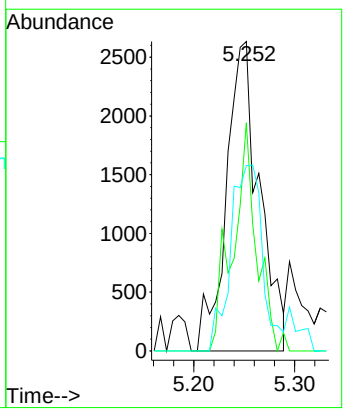


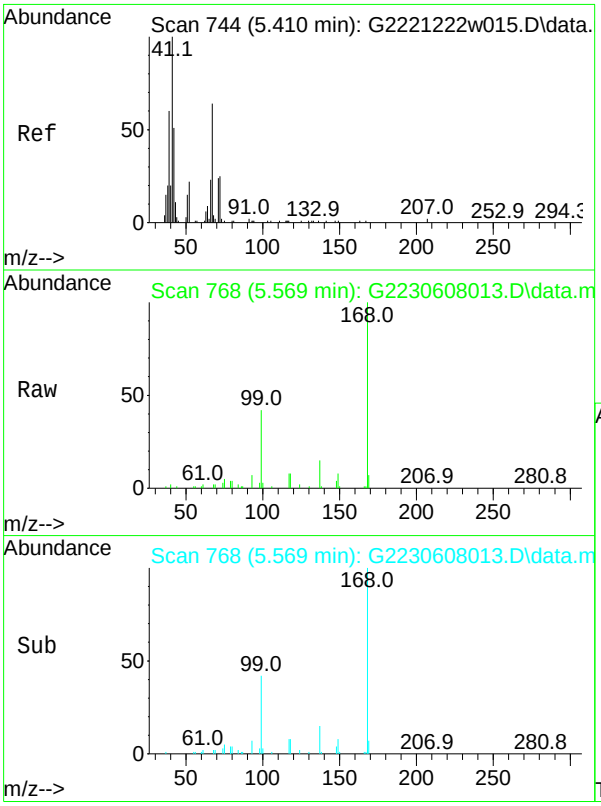


#36
Tetrahydrofuran
Concen: 0.03 ug/L
RT: 5.251 min Scan# 716
Delta R.T. -0.010 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 42 Resp: 59254

Ion	Ratio	Lower	Upper
42	100		
72	54.0	18.8	78.8
71	0.0	14.7	74.7#

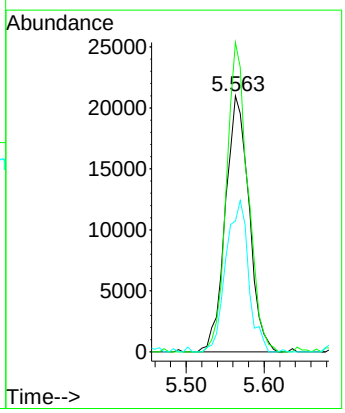


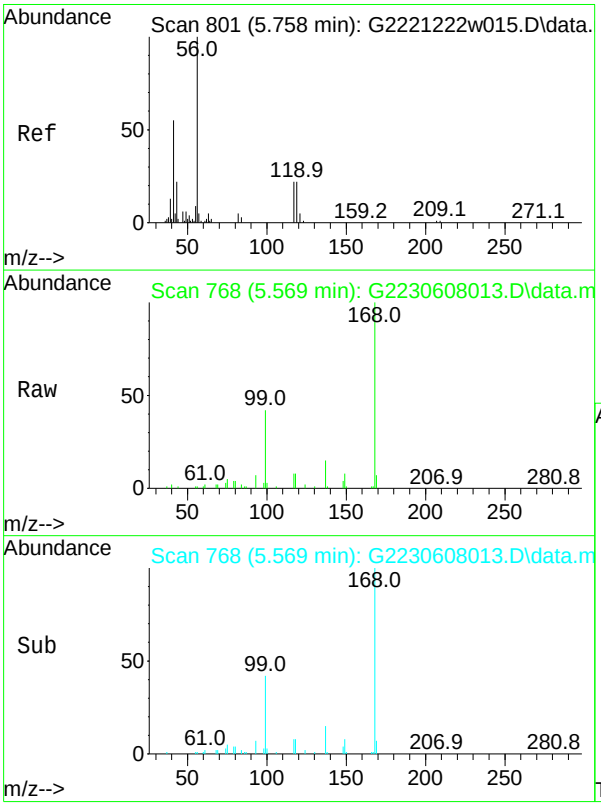


#40
Cyclohexane
Concen: 0.84 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 84 Resp: 439524

Ion	Ratio	Lower	Upper
84	100		
69	109.8	6.8	66.8#
56	56.5	79.1	139.1#

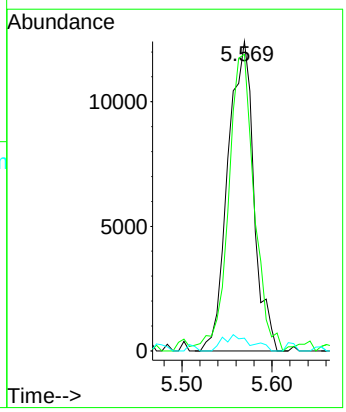


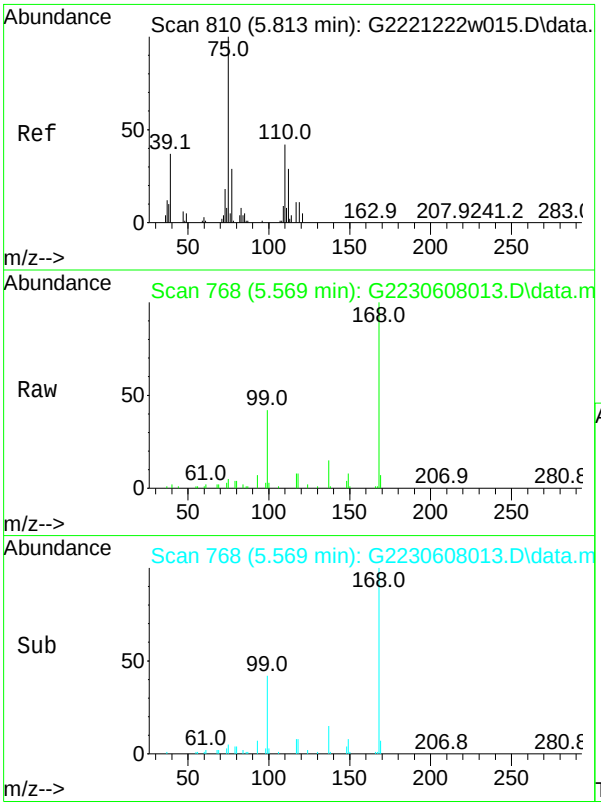


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.059 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 56 Resp: 248263

Ion	Ratio	Lower	Upper
56	100		
55	94.6	0.0	41.0#
57	0.0	0.0	35.7

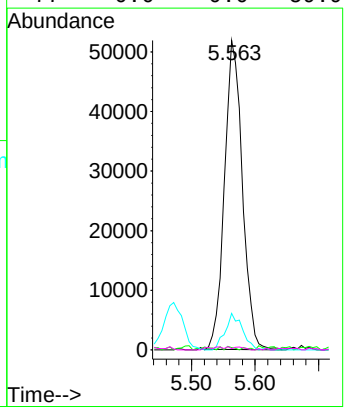


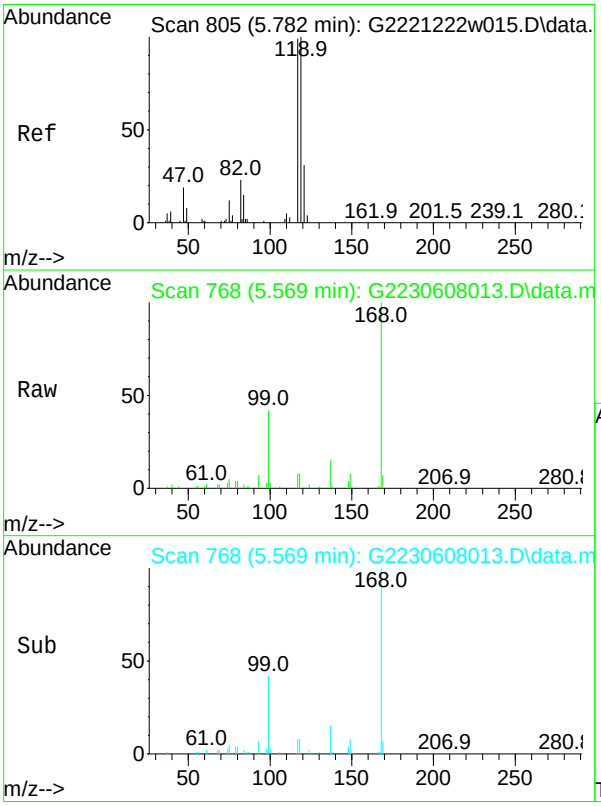


#42
1,1-Dichloropropene
Concen: 2.22 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 75 Resp: 1014470

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

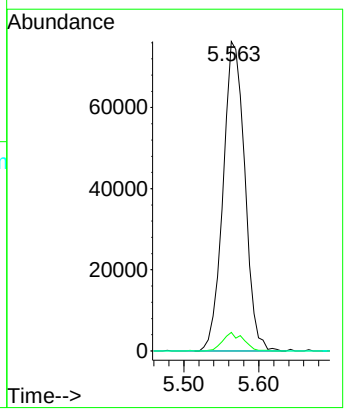


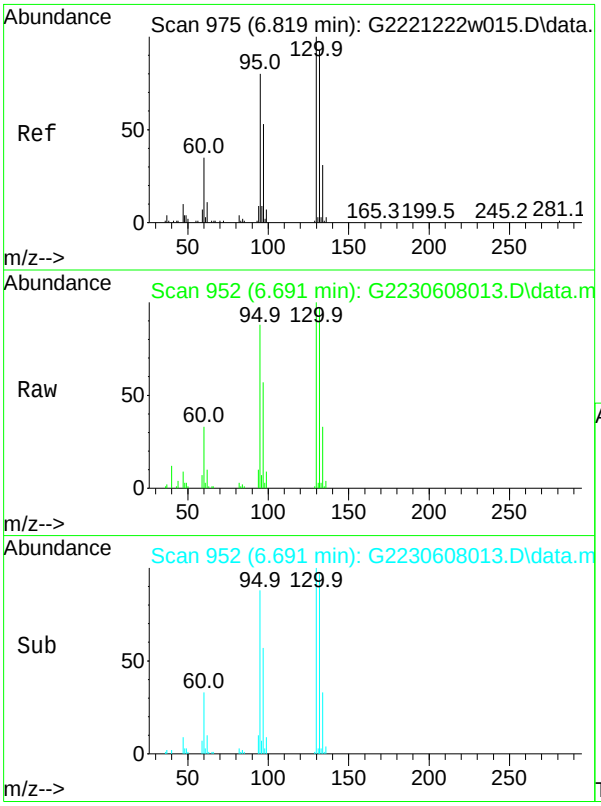


#47
Carbon tetrachloride
Concen: 3.22 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.111 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion:117 Resp: 1536461

Ion	Ratio	Lower	Upper
117	100		
119	5.7	66.4	126.4#
121	0.0	0.4	60.4#

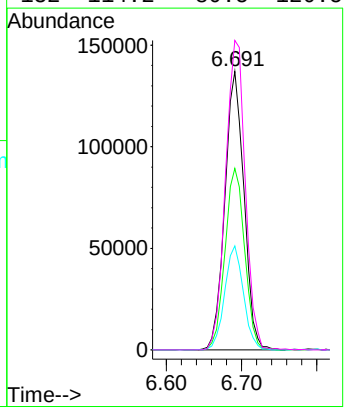


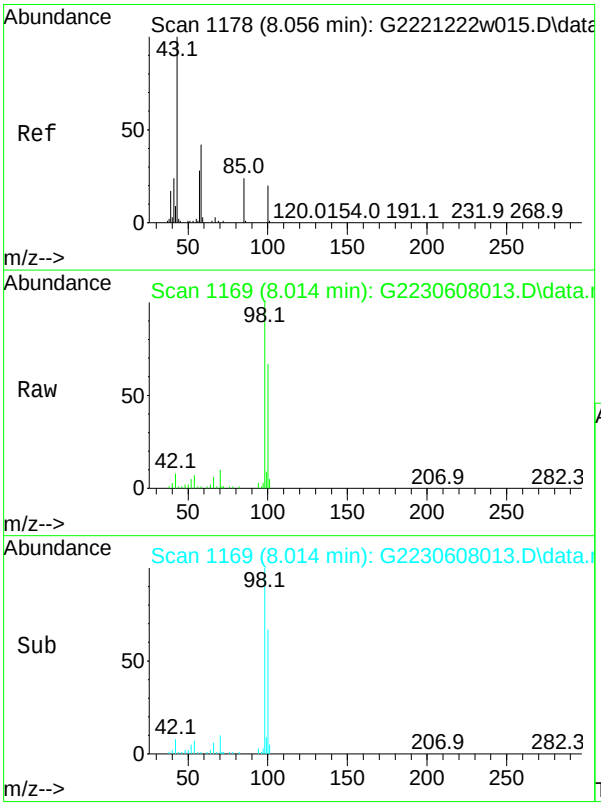


#50
Trichloroethene
Concen: 6.89 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 95 Resp: 2422971

Ion	Ratio	Lower	Upper
95	100		
97	66.7	35.5	95.5
60	36.6	14.8	74.8
132	114.2	80.5	120.5

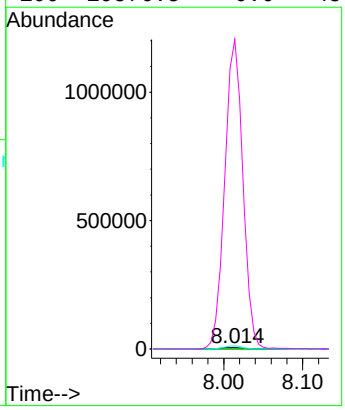


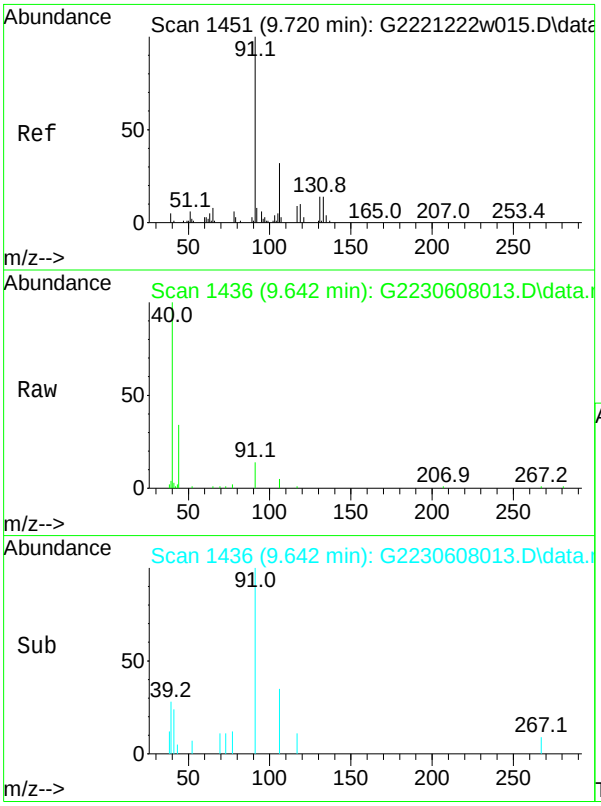


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 43 Resp: 98471

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	201.8	37.0	37.0#
100	19576.5	0.0	45.2#

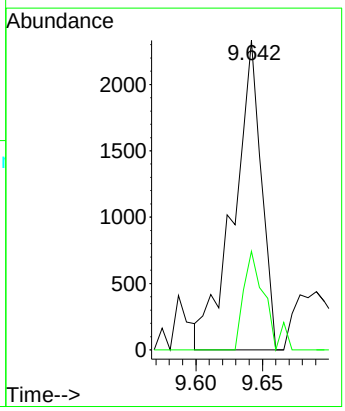


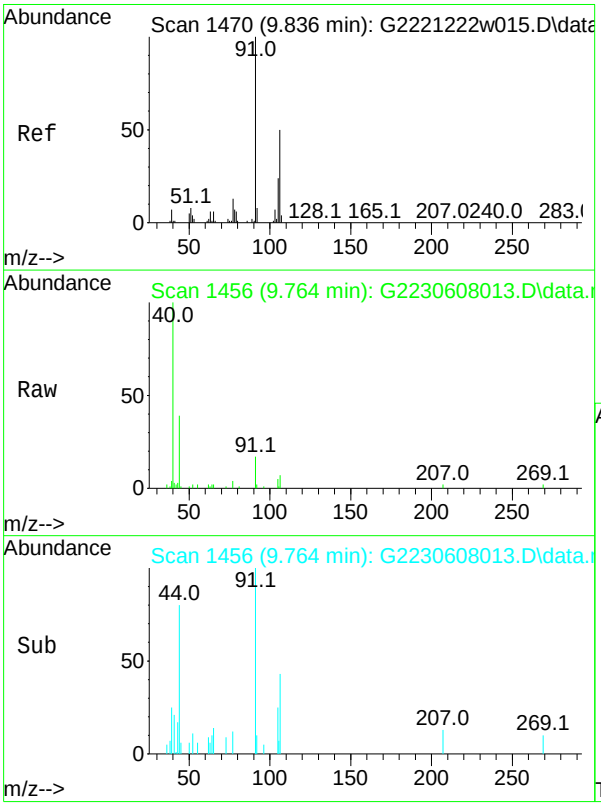


#74
Ethylbenzene
Concen: Below Cal
RT: 9.644 min Scan# 1436
Delta R.T. 0.001 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 91 Resp: 33930

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

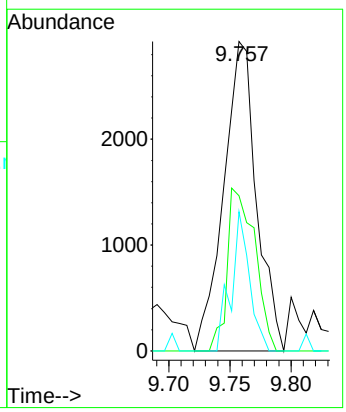


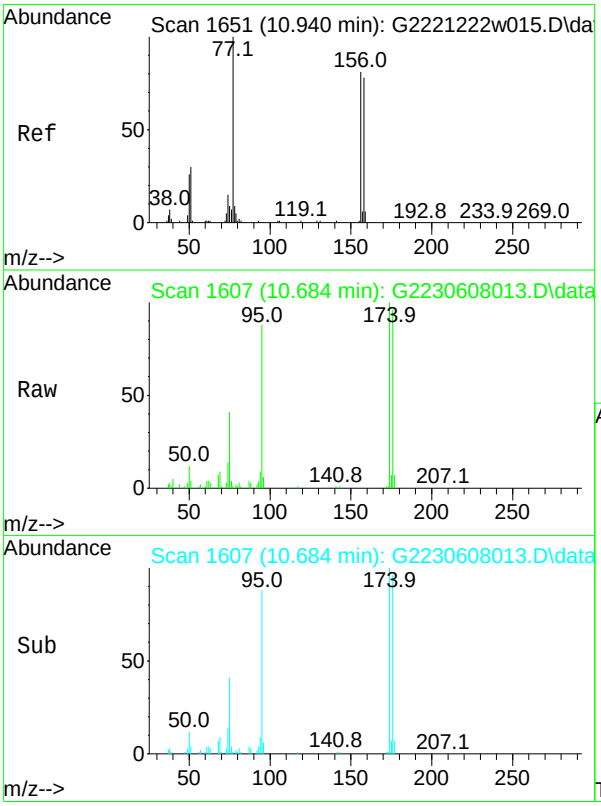


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.762 min Scan# 1456
Delta R.T. -0.002 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 91 Resp: 54544

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

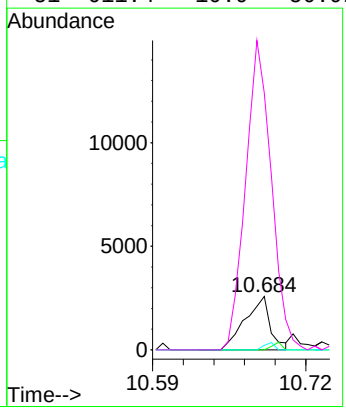


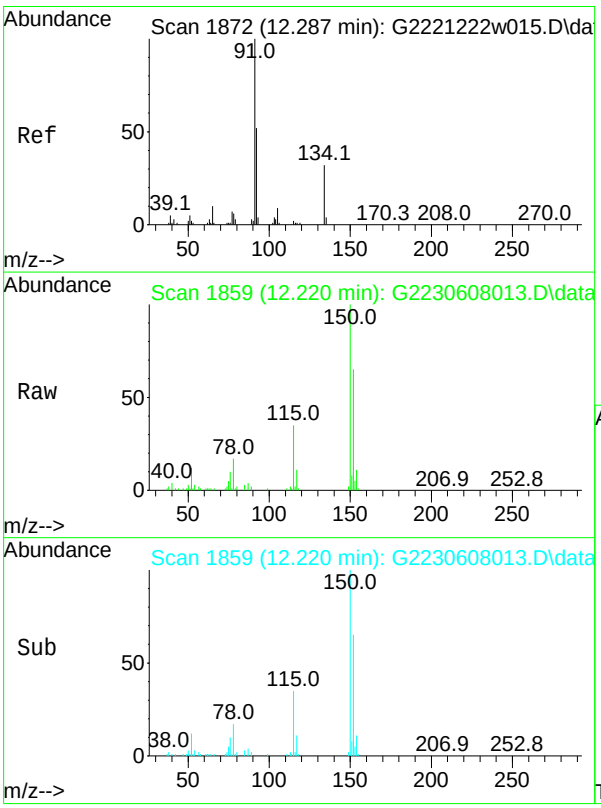


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.684 min Scan# 1607
Delta R.T. -0.144 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 77 Resp: 36742

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	611.4	10.9	50.9#

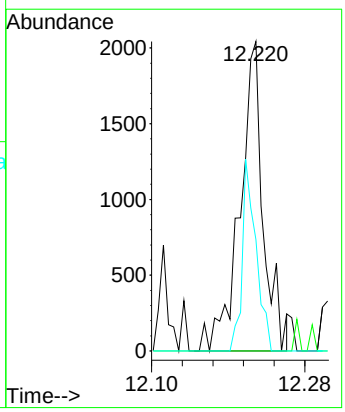




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.220 min Scan# 1859
Delta R.T. -0.011 min
Lab File: G2230608013.D
Acq: 08 Jun 2023 14:14

Tgt Ion: 91 Resp: 38506

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

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03	File ID:	G2230606018.D
Sampled:	05/25/23 16:20	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 17:43
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03	File ID:	G2230606018.D
Sampled:	05/25/23 16:20	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 17:43
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	2.37	0.518	2.00	4.00	J
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	0.170	0.160	0.500	1.00	J
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	0.290	0.192	0.500	1.00	J
156-59-2	*cis-1,2-Dichloroethene*	*31.9*	*0.103*	*0.300*	*0.600*	*E*
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

SW8260B/D

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03	File ID:	G2230606018.D
Sampled:	05/25/23 16:20	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 17:43
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, U*
108-88-3	Toluene		0.0572	0.200	0.500	U
156-60-5	trans-1,2-Dichloroethene	0.250	0.0855	0.200	0.500	J
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	*Trichloroethene*	*19.4*	*0.0781*	*0.200*	*0.500*	*B*
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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606018.D
Acq On : 06 Jun 2023 17:43
Operator : PO1
Sample : 23E0775-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 07 09:22:49 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

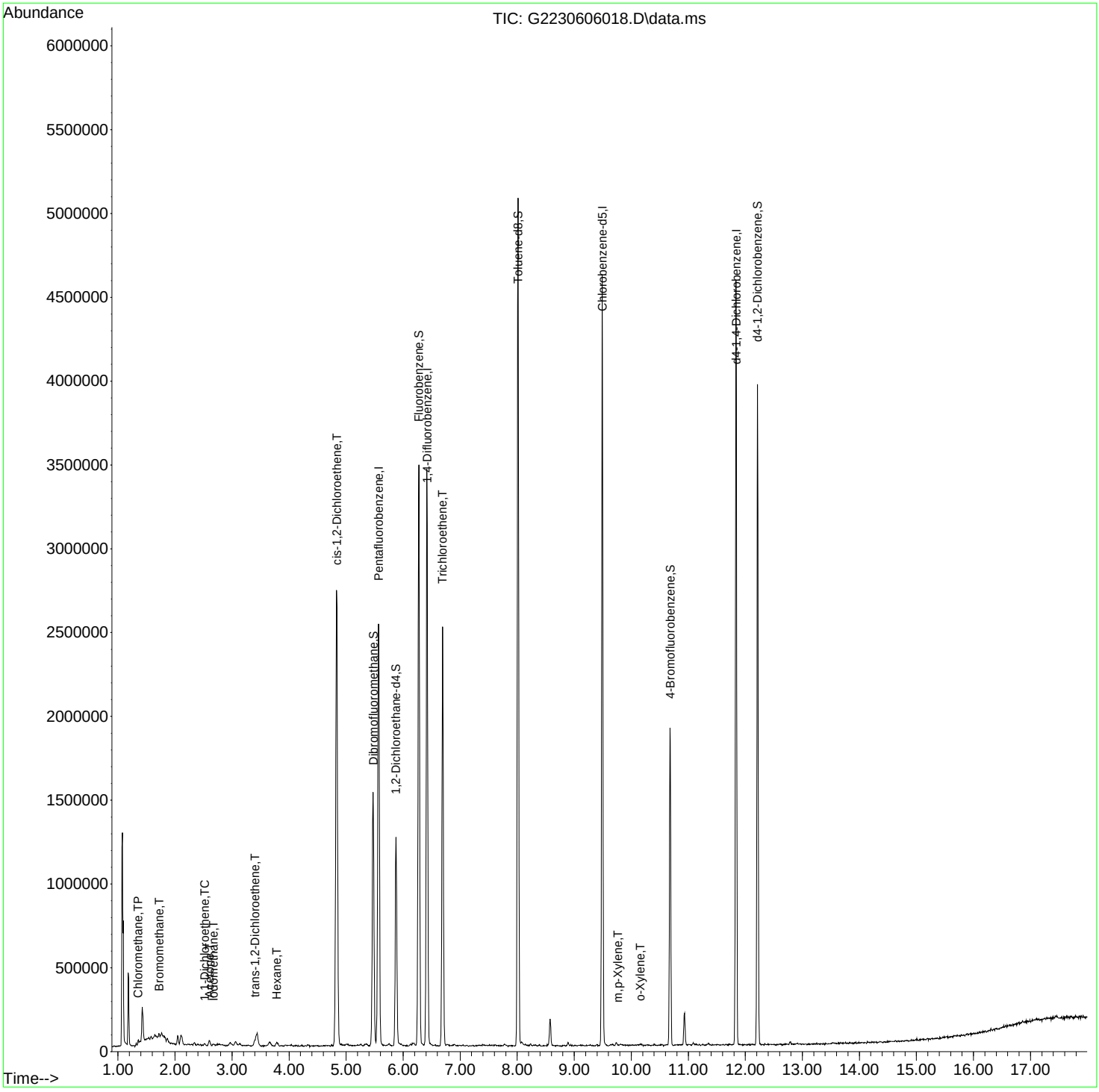
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	20189104	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	29790268	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	26708653	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	12571040	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	9546412	21.49	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 107.45%				
43) 1,2-Dichloroethane-d4	5.877	65	8811612	20.07	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.35%				
49) Fluorobenzene	6.277	96	33375399	19.66	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.30%				
64) Toluene-d8	8.016	98	32785705	19.48	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%				
81) 4-Bromofluorobenzene	10.684	174	5923533	9.98	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%				
97) d4-1,2-Dichlorobenzene	12.217	152	11011454	20.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.85%				
Target Compounds							Qvalue
3) Chloromethane	1.350	50	129873m	0.29	ug/L		
5) Bromomethane	1.723	94	110986	0.17	ug/L	#	81
10) 1,1-Dichloroethene	2.522	61	51495	0.04	ug/L	#	57
12) Acetone	2.606	43	371701	2.37	ug/L		96
13) Iodomethane	2.674	142	87282	0.19	ug/L	#	84
18) Methylene chloride	3.062	49	129267	Below Cal			75
20) trans-1,2-Dichloroethene	3.401	61	109250	0.25	ug/L	#	75
21) Methyl tert-butyl ether	3.441	73	1034433	Below Cal			94
22) Hexane	3.784	57	141495	0.33	ug/L	#	82
28) cis-1,2-Dichloroethene	4.835	61	16154446	31.90	ug/L	#	73
50) Trichloroethene	6.694	95	7608196	19.37	ug/L		91
65) Toluene	8.088	91	63167	Below Cal		#	90
74) Ethylbenzene	9.642	91	32182	Below Cal		#	44
75) m,p-Xylene	9.764	91	33171	0.02	ug/L	#	36
79) o-Xylene	10.160	91	25381	0.02	ug/L	#	37

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606018.D
Acq On : 06 Jun 2023 17:43
Operator : PO1
Sample : 23E0775-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 07 09:22:49 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606018.D
Acq On : 06 Jun 2023 17:43
Operator : PO1
Sample : 23E0775-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 07 09:22:49 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	5.572	168	20189104	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	29790268	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	26708653	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	12571040	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	9546412	21.49	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 107.45%				
43) 1,2-Dichloroethane-d4	5.877	65	8811612	20.07	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.35%				
49) Fluorobenzene	6.277	96	33375399	19.66	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.30%				
64) Toluene-d8	8.016	98	32785705	19.48	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%				
81) 4-Bromofluorobenzene	10.684	174	5923533	9.98	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.80%				
97) d4-1,2-Dichlorobenzene	12.217	152	11011454	20.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.85%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	123031	0.27	ug/L		97
4) Vinyl chloride	1.446	62	26460	0.07	ug/L	#	43
5) Bromomethane	1.723	94	110986	0.17	ug/L	#	81
10) 1,1-Dichloroethene	2.522	61	51495	0.04	ug/L	#	57
12) Acetone	2.606	43	371701	2.37	ug/L		96
13) Iodomethane	2.674	142	87282	0.19	ug/L	#	84
14) Carbon disulfide	2.739	76	106202	0.02	ug/L	#	74
15) Isopropanol	2.782	45	111181	6.86	ug/L	#	56
16) acetonitrile	2.969	41	41606	Below Cal		#	1
17) 3-Chloro-1-propene	2.739	76	106193	0.44	ug/L	#	53
18) Methylene chloride	3.062	49	129267	Below Cal			75
20) trans-1,2-Dichloroethene	3.401	61	109250	0.25	ug/L	#	75
21) Methyl tert-butyl ether	3.441	73	1034433	Below Cal			94
22) Hexane	3.784	57	141495	0.33	ug/L	#	82
28) cis-1,2-Dichloroethene	4.835	61	16154446	31.90	ug/L	#	73
29) 2-Butanone	4.837	72	121127	1.86	ug/L	#	42
31) Ethyl acetate	4.835	61	16212835	271.52	ug/L	#	45
35) Methacrylonitrile	5.330	67	35298	0.06	ug/L	#	25
40) Cyclohexane	5.567	84	444456	0.82	ug/L	#	37
41) 1-Chlorobutane	5.569	56	298070	0.47	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	1014832	2.14	ug/L	#	38
44) 1,2-Dichloroethane	5.966	62	44181	Below Cal		#	47
47) Carbon tetrachloride	5.572	117	1649194	3.07	ug/L	#	16
48) Benzene	5.938	78	60663	0.04	ug/L	#	52
50) Trichloroethene	6.694	95	7608196	19.37	ug/L		91
60) 4-Methyl-2-pentanone	8.013	43	103944	Below Cal		#	1
65) Toluene	8.088	91	63167	Below Cal		#	90
69) 2-Hexanone	8.895	43	27244	Below Cal		#	38

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606018.D
Acq On : 06 Jun 2023 17:43
Operator : PO1
Sample : 23E0775-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 07 09:22:49 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

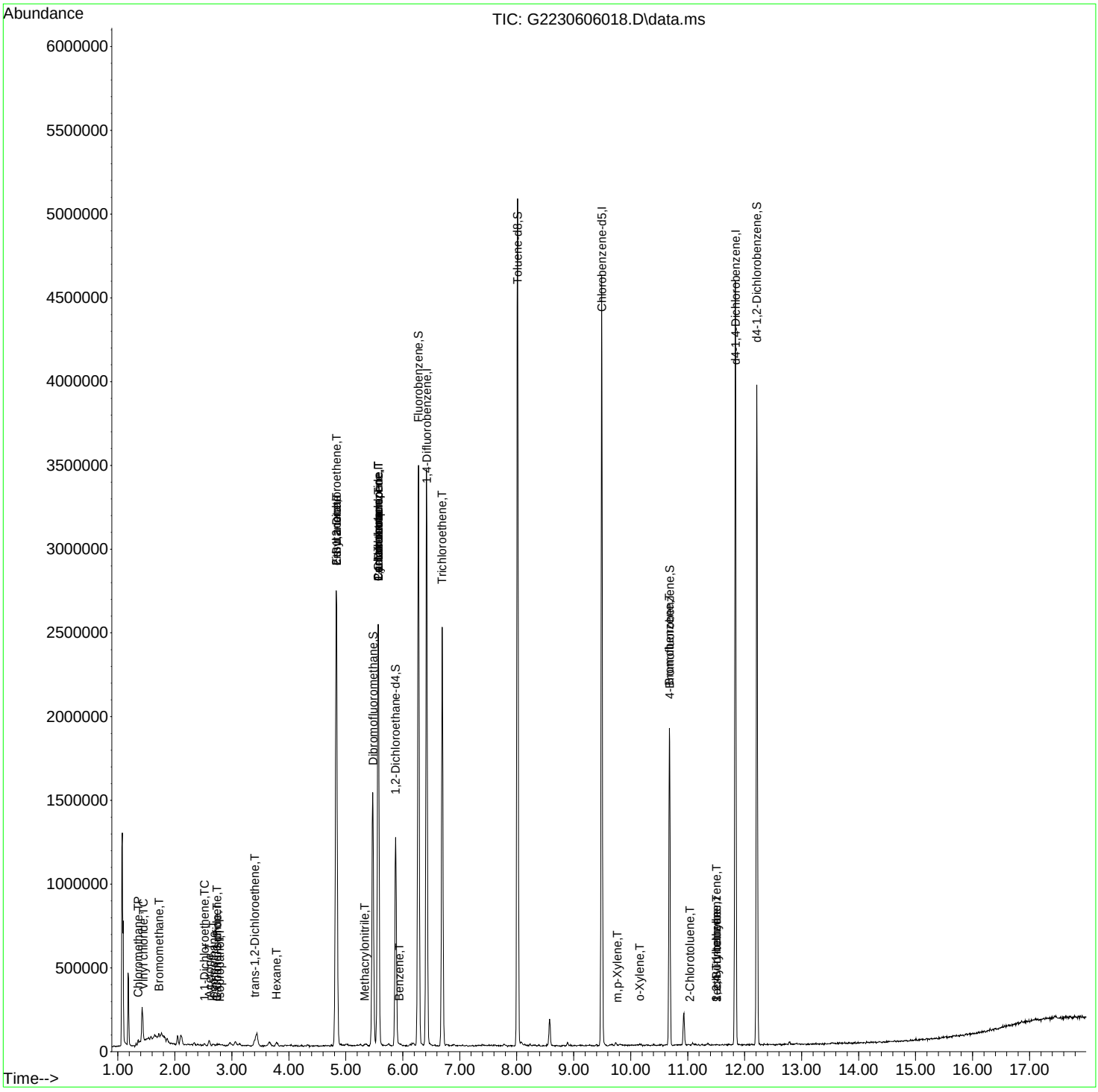
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
74) Ethylbenzene	9.642	91	32182	Below Cal #	44
75) m,p-Xylene	9.764	91	33171	0.02 ug/L #	36
79) o-Xylene	10.160	91	25381	0.02 ug/L #	37
82) Bromobenzene	10.680	77	28081	0.04 ug/L #	1
87) 2-Chlorotoluene	11.035	91	8182	0.01 ug/L #	47
90) 2-ethyl-1-toluene	11.506	105	25611	0.02 ug/L #	51
92) 1,2,4-Trimethylbenzene	11.506	105	18420	0.01 ug/L #	32
93) sec-Butylbenzene	11.506	105	39590	0.02 ug/L #	58
99) n-Butylbenzene	12.214	91	36418	Below Cal #	53

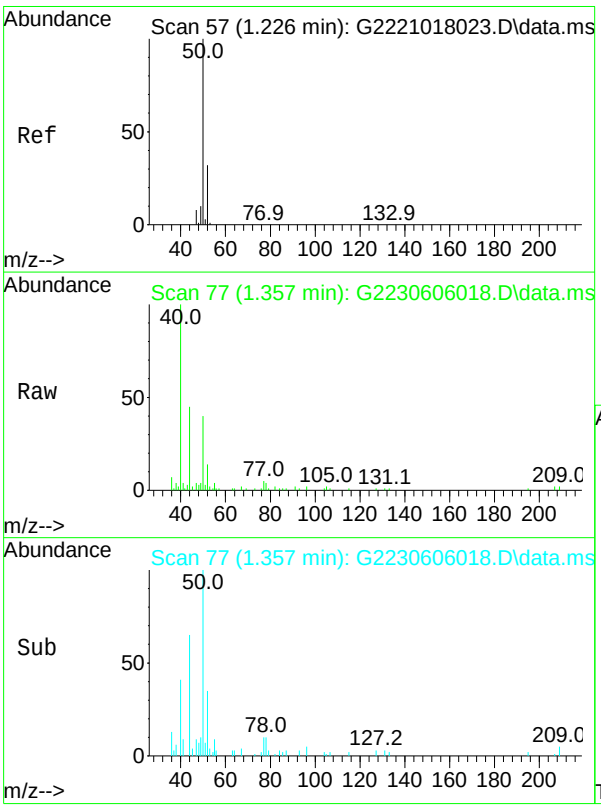
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606018.D
Acq On : 06 Jun 2023 17:43
Operator : PO1
Sample : 23E0775-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 07 09:22:49 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

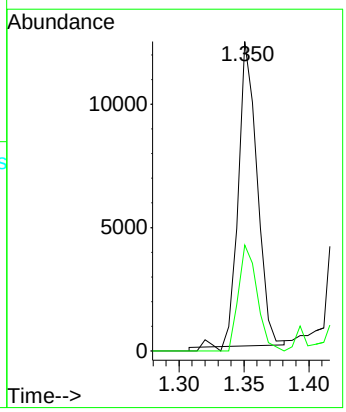


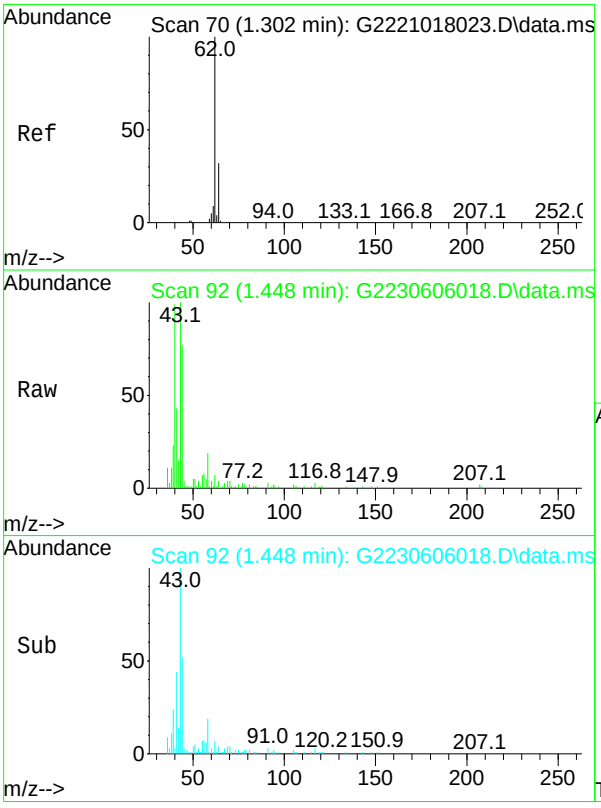


#3
Chloromethane
Concen: 0.27 ug/L
RT: 1.355 min Scan# 77
Delta R.T. 0.001 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 50 Resp: 123031

Ion	Ratio	Lower	Upper
50	100		
52	34.6	3.2	63.2

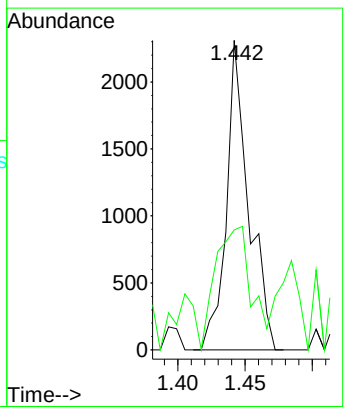


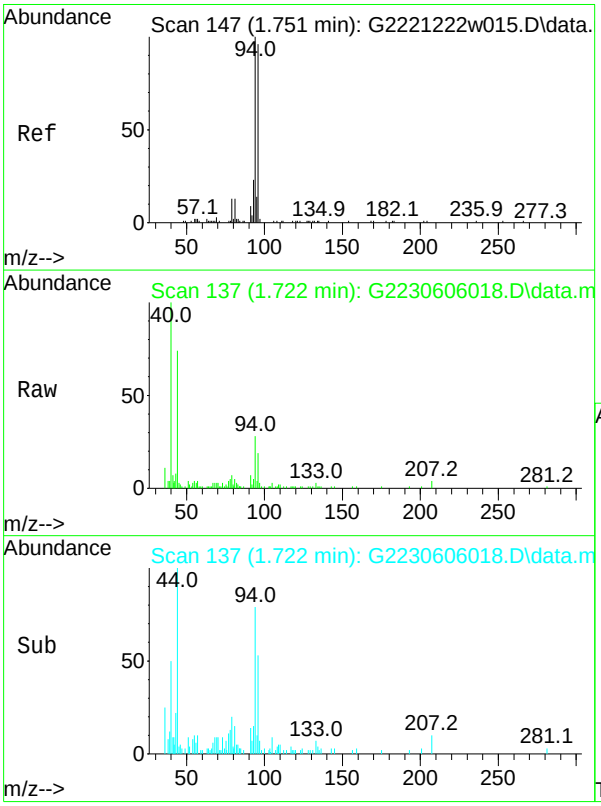


#4
Vinyl chloride
Concen: 0.07 ug/L
RT: 1.446 min Scan# 92
Delta R.T. -0.000 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 62 Resp: 26460

Ion	Ratio	Lower	Upper
62	100		
64	0.0	2.1	62.1#

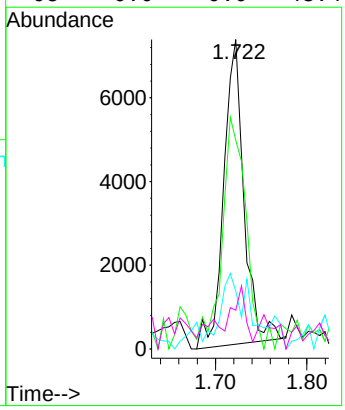


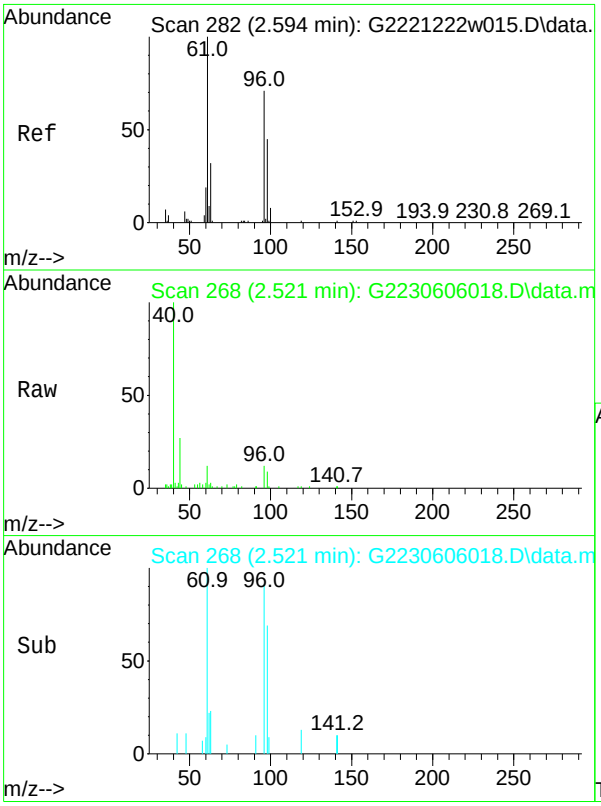


#5
Bromomethane
Concen: 0.17 ug/L
RT: 1.723 min Scan# 137
Delta R.T. 0.009 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 94 Resp: 110986

Ion	Ratio	Lower	Upper
94	100		
96	84.3	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

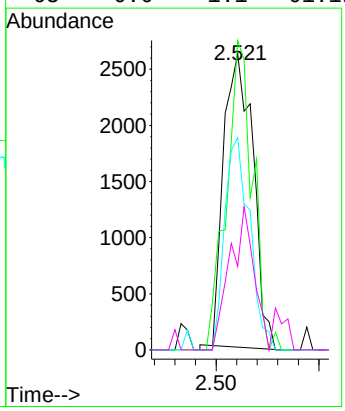


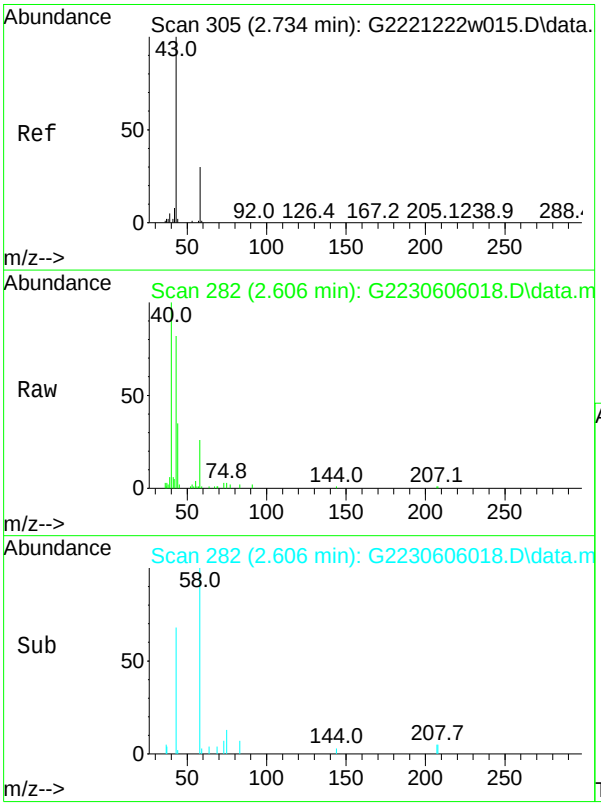


#10
1,1-Dichloroethene
Concen: 0.04 ug/L
RT: 2.522 min Scan# 268
Delta R.T. -0.001 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 61 Resp: 51495

Ion	Ratio	Lower	Upper
61	100		
96	94.4	32.7	92.7#
98	61.9	9.3	69.3
63	0.0	1.1	61.1#

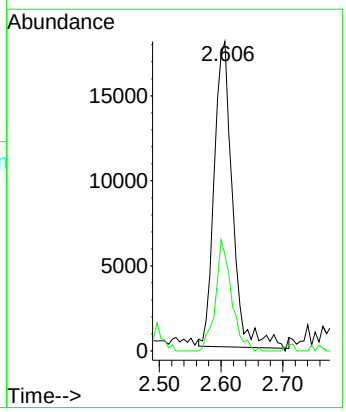


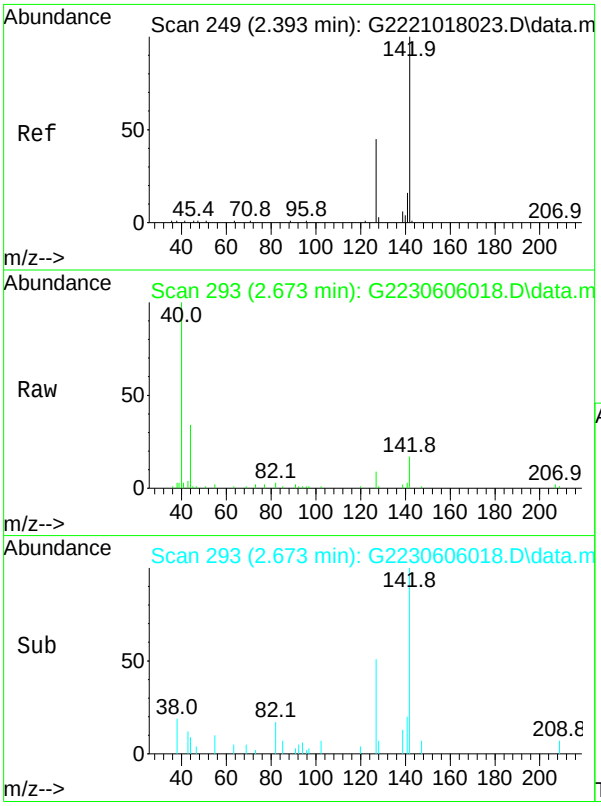


#12
Acetone
Concen: 2.37 ug/L
RT: 2.606 min Scan# 282
Delta R.T. -0.002 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 43 Resp: 371701

Ion	Ratio	Lower	Upper
43	100		
58	32.0	0.0	59.7

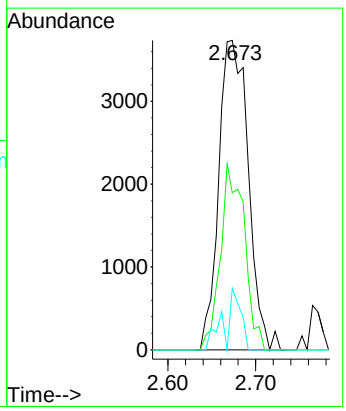


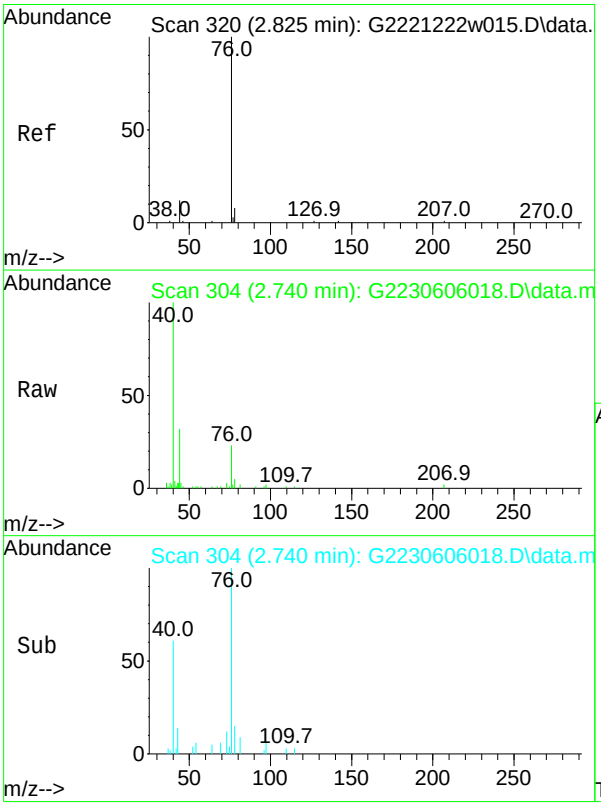


#13
Iodomethane
Concen: 0.19 ug/L
RT: 2.674 min Scan# 293
Delta R.T. -0.002 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion:142 Resp: 87282

Ion	Ratio	Lower	Upper
142	100		
127	48.9	13.3	73.3
141	0.0	0.0	45.3

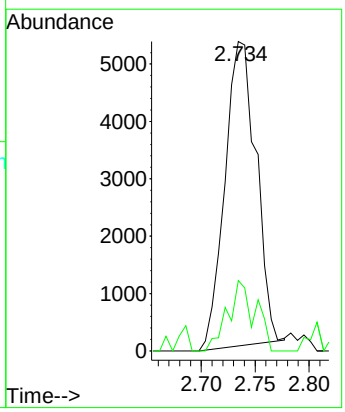


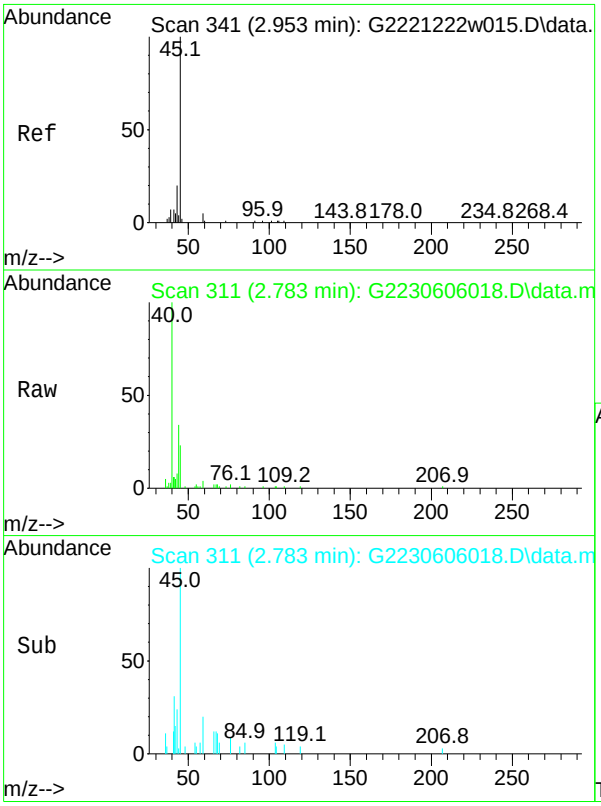


#14
Carbon disulfide
Concen: 0.02 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.000 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 76 Resp: 106202

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

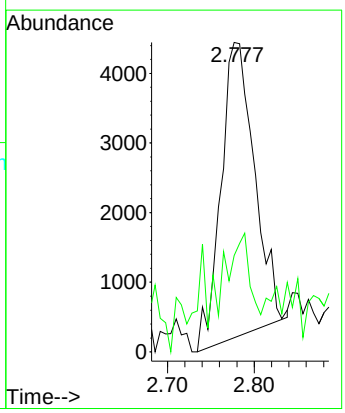


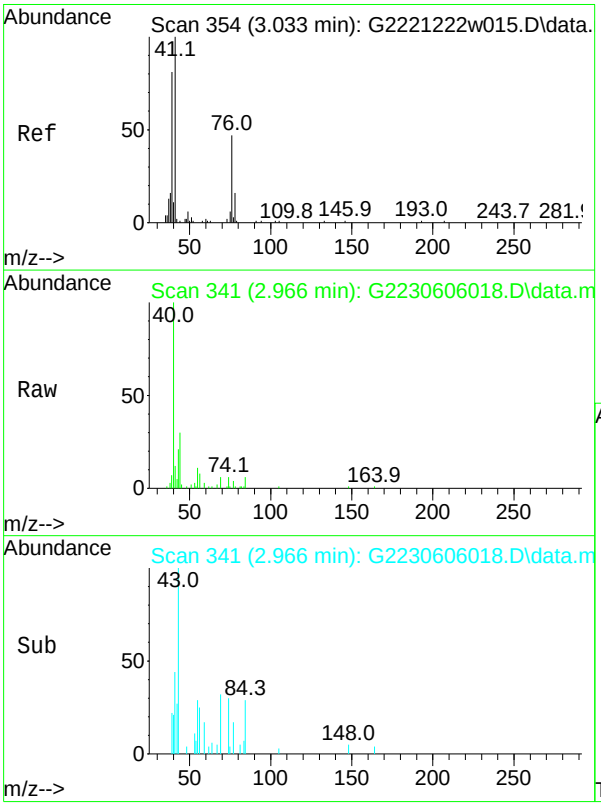


#15
Isopropanol
Concen: 6.86 ug/L
RT: 2.782 min Scan# 311
Delta R.T. -0.010 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 45 Resp: 111181

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

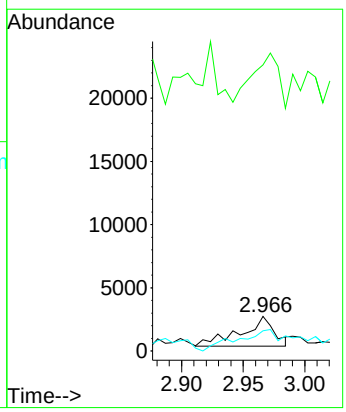


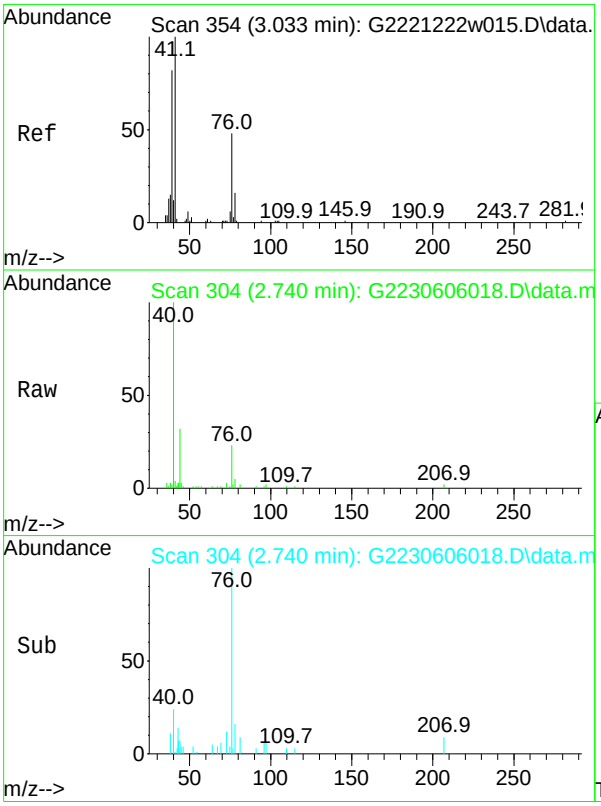


#16
acetonitrile
Concen: Below Cal
RT: 2.969 min Scan# 341
Delta R.T. 0.051 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 41 Resp: 41606

Ion	Ratio	Lower	Upper
41	100		
40	236.9	0.0	54.0#
39	131.5	27.5	87.5#

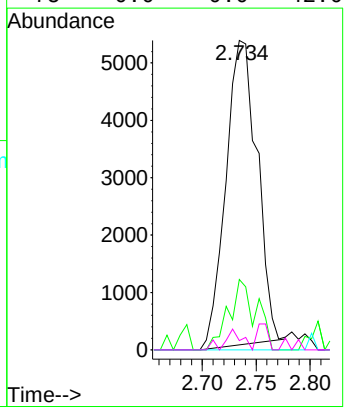


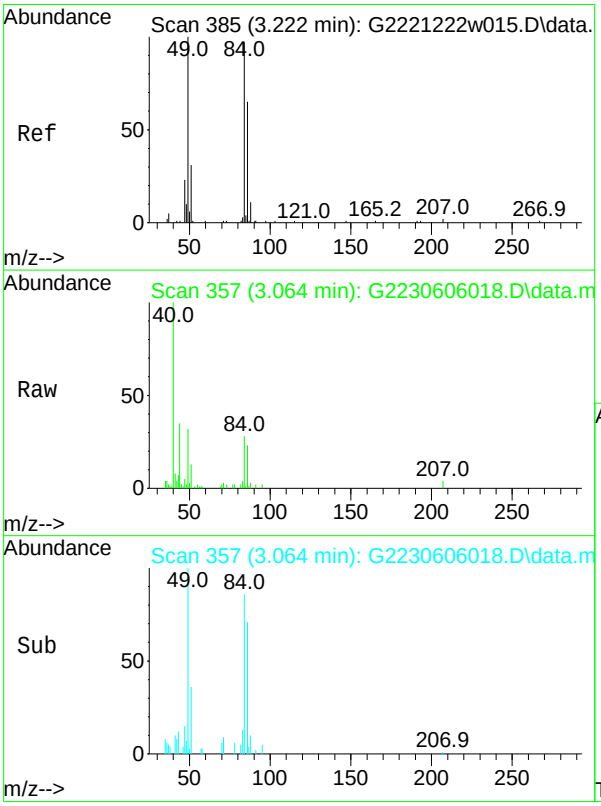


#17
3-Chloro-1-propene
Concen: 0.44 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.181 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 76 Resp: 106193

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

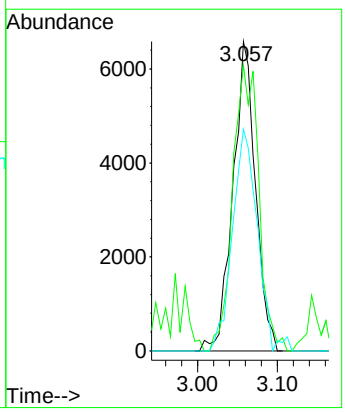


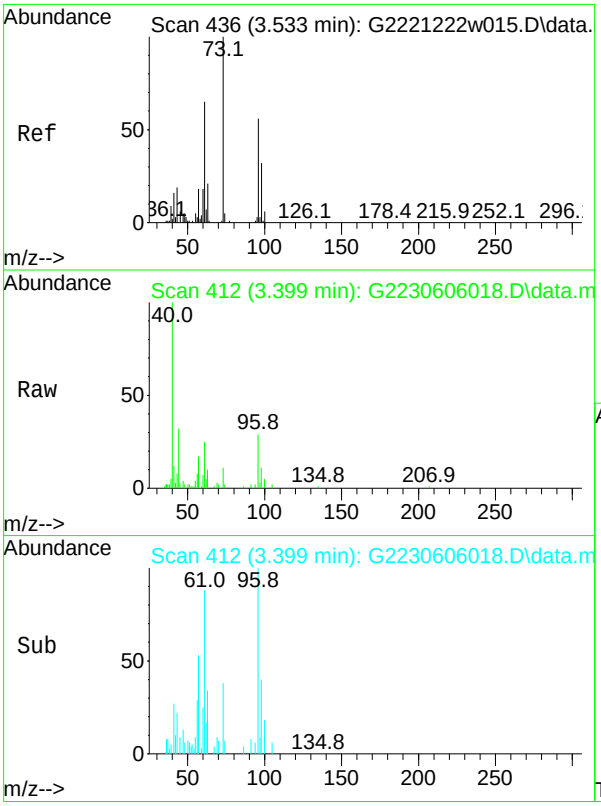


#18
Methylene chloride
Concen: Below Cal
RT: 3.062 min Scan# 357
Delta R.T. -0.000 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 49 Resp: 129267

Ion	Ratio	Lower	Upper
49	100		
84	106.1	57.9	117.9
86	79.3	24.9	84.9

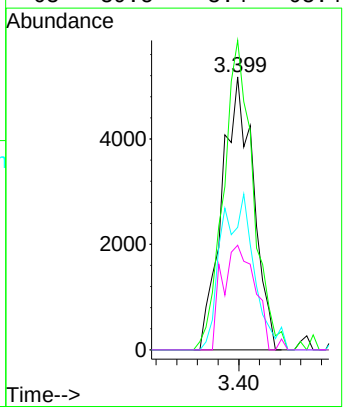


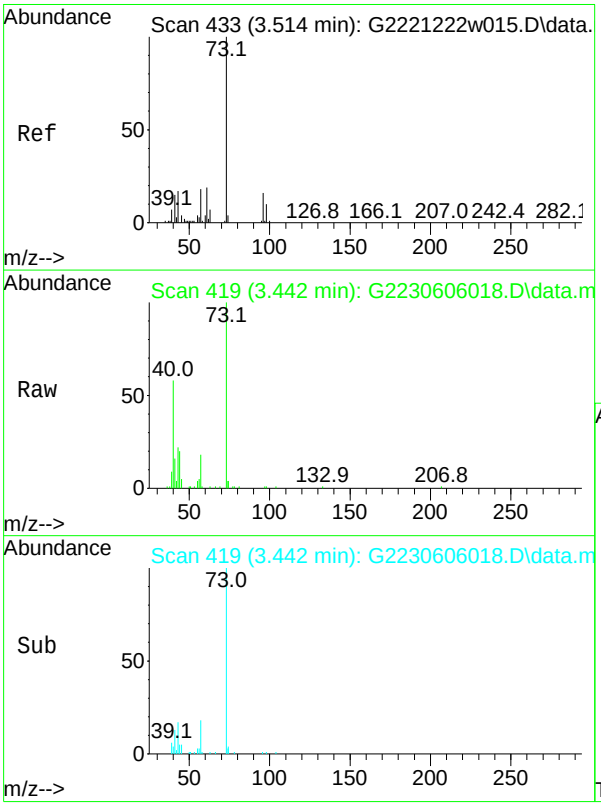


#20
trans-1,2-Dichloroethene
Concen: 0.25 ug/L
RT: 3.401 min Scan# 412
Delta R.T. 0.000 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 61 Resp: 109250

Ion	Ratio	Lower	Upper
61	100		
96	106.9	45.2	105.2#
98	35.9	17.2	77.2
63	39.5	3.4	63.4

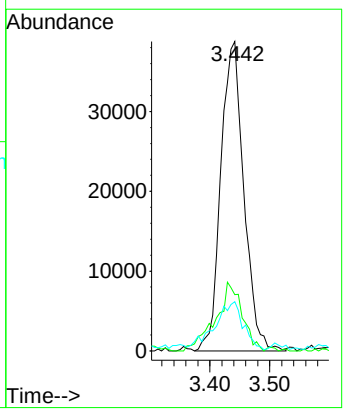


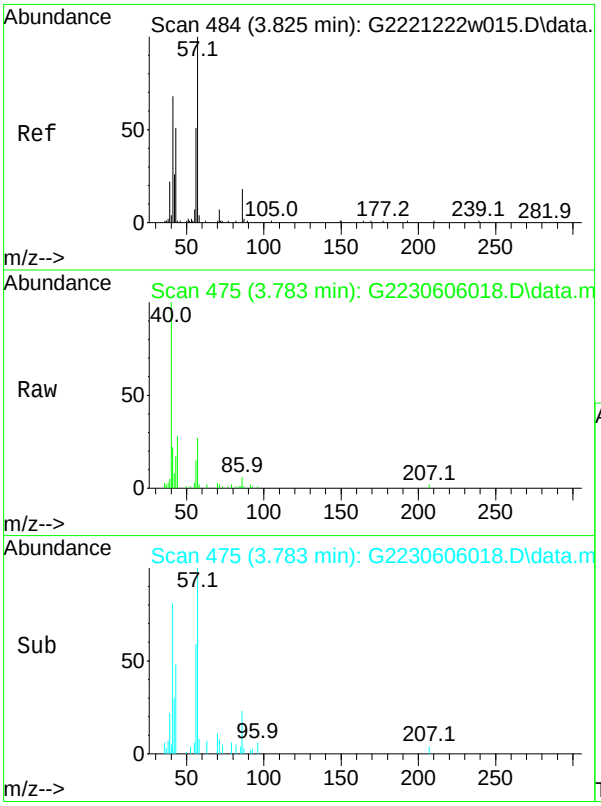


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.441 min Scan# 419
Delta R.T. -0.005 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 73 Resp: 1034433

Ion	Ratio	Lower	Upper
73	100		
57	25.3	0.0	51.7
41	18.6	0.0	50.6

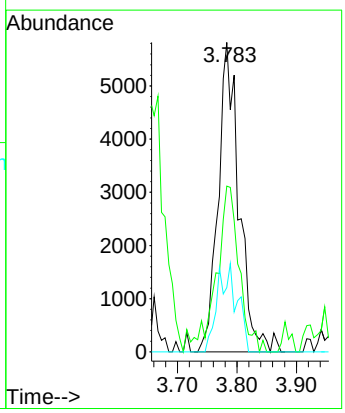


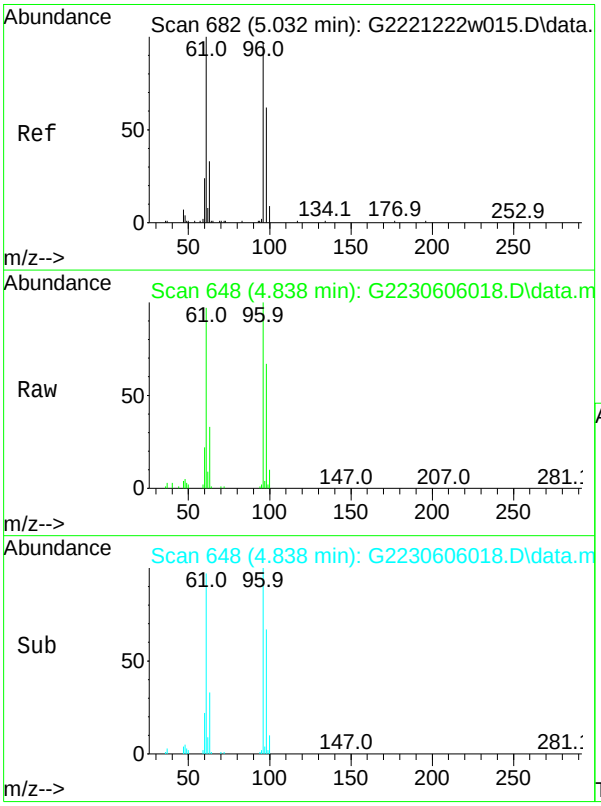


#22
Hexane
Concen: 0.33 ug/L
RT: 3.784 min Scan# 475
Delta R.T. -0.006 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 57 Resp: 141495

Ion	Ratio	Lower	Upper
57	100		
56	57.6	20.4	80.4
86	0.0	0.0	48.1

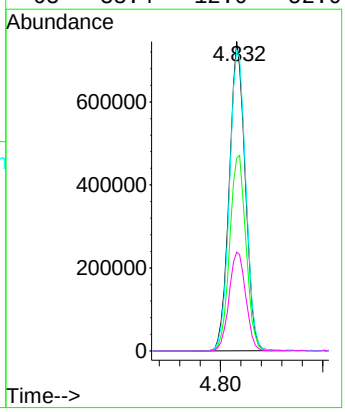


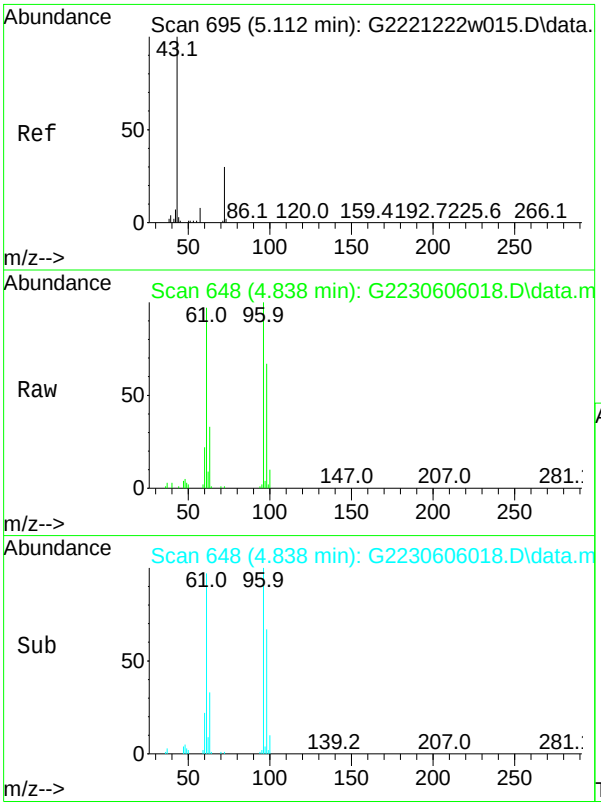


#28
cis-1,2-Dichloroethene
Concen: 31.90 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.001 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 61 Resp:16154446

Ion	Ratio	Lower	Upper
61	100		
98	64.4	15.9	75.9
96	99.7	39.6	99.6#
63	33.4	12.0	52.0

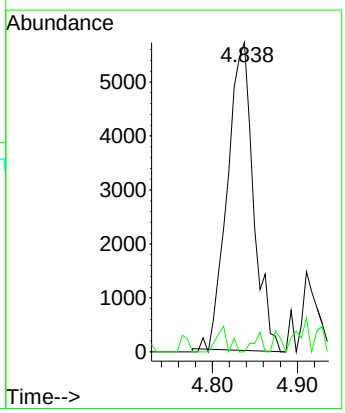


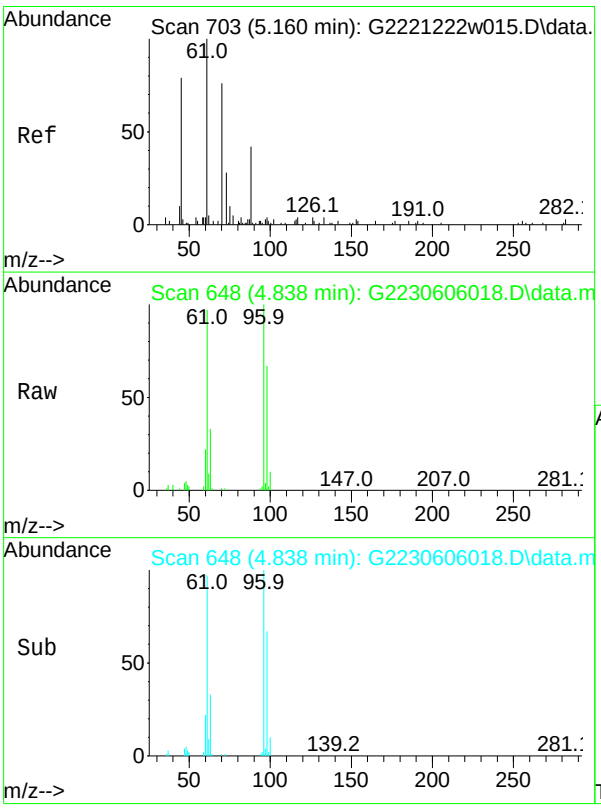


#29
2-Butanone
Concen: 1.86 ug/L
RT: 4.837 min Scan# 648
Delta R.T. -0.082 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 72 Resp: 121127

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

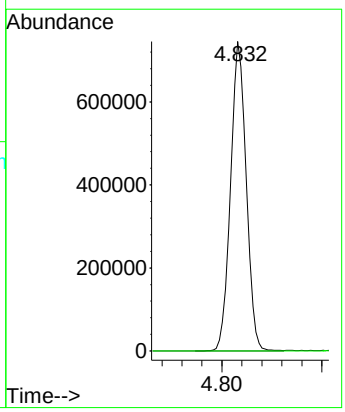


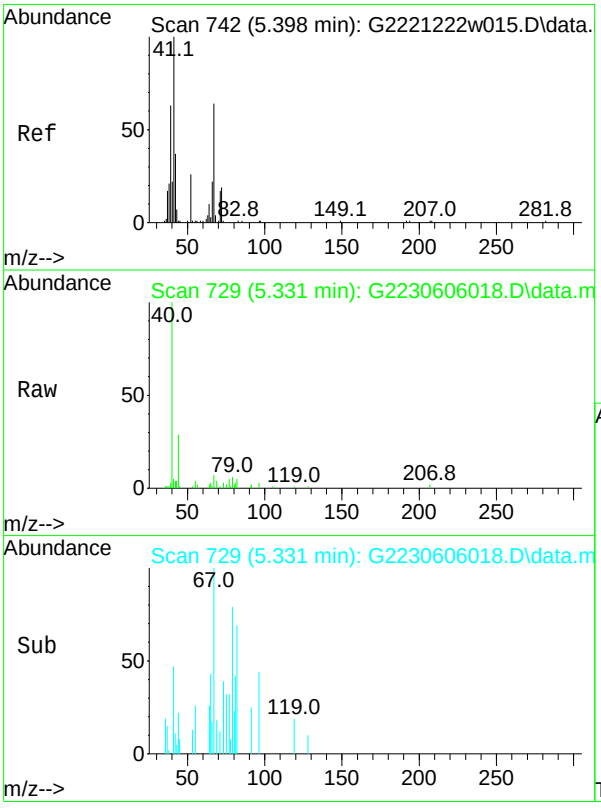


#31
Ethyl acetate
Concen: 271.52 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.187 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 61 Resp:16212835

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

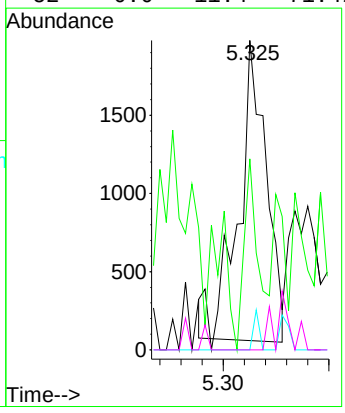


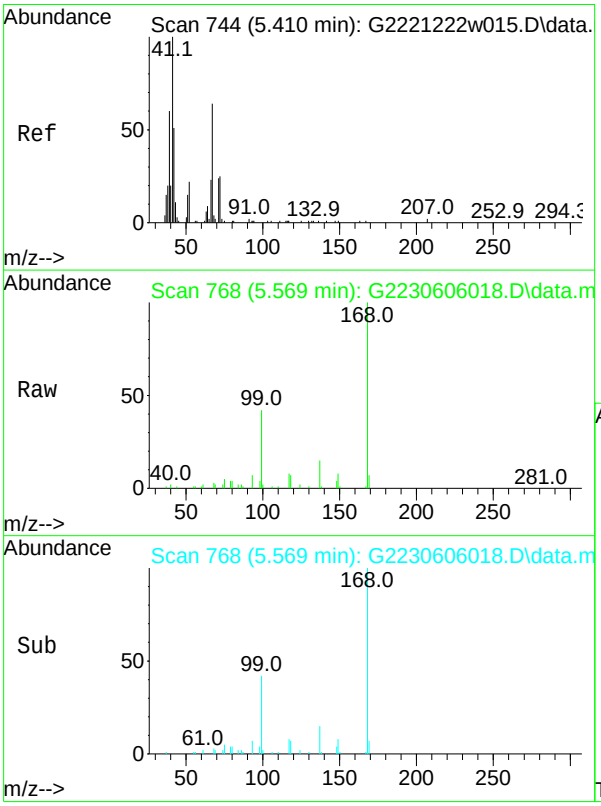


#35
Methacrylonitrile
Concen: 0.06 ug/L
RT: 5.330 min Scan# 729
Delta R.T. 0.153 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 67 Resp: 35298

Ion	Ratio	Lower	Upper
67	100		
39	0.0	22.4	122.4#
66	0.0	5.8	65.8#
52	0.0	11.4	71.4#

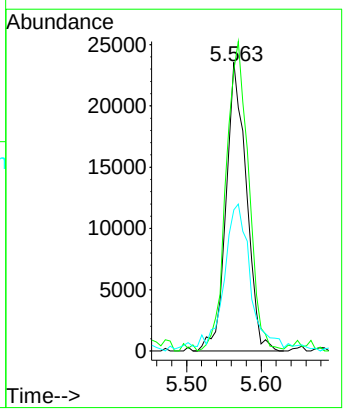


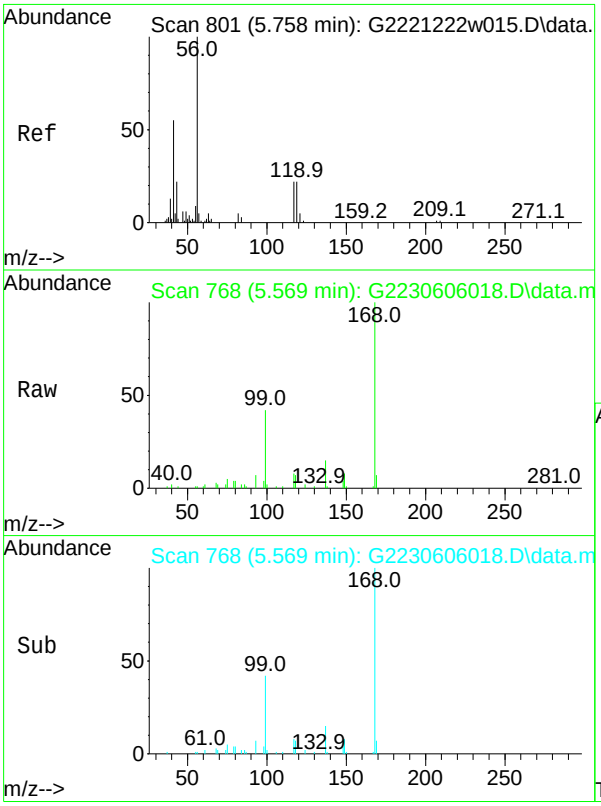


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.567 min Scan# 768
Delta R.T. 0.033 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 84 Resp: 444456

Ion	Ratio	Lower	Upper
84	100		
69	117.3	6.8	66.8#
56	68.5	79.1	139.1#

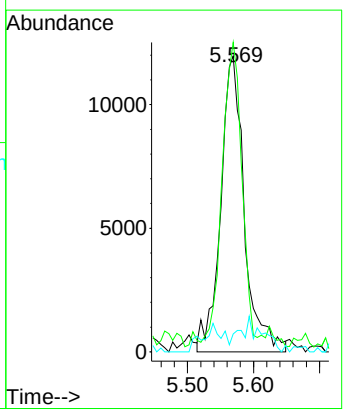


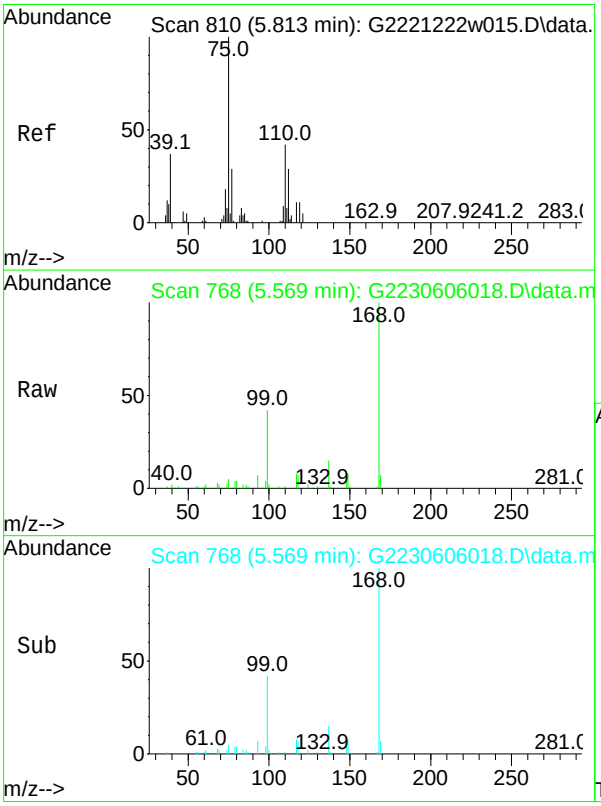


#41
1-Chlorobutane
Concen: 0.47 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 56 Resp: 298070

Ion	Ratio	Lower	Upper
56	100		
55	87.8	0.0	41.0#
57	0.0	0.0	35.7

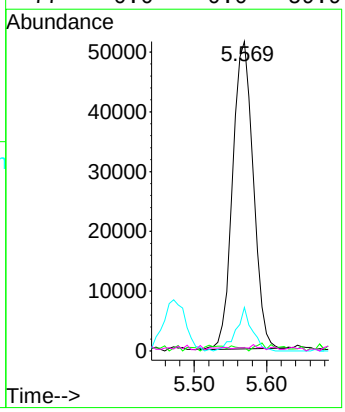


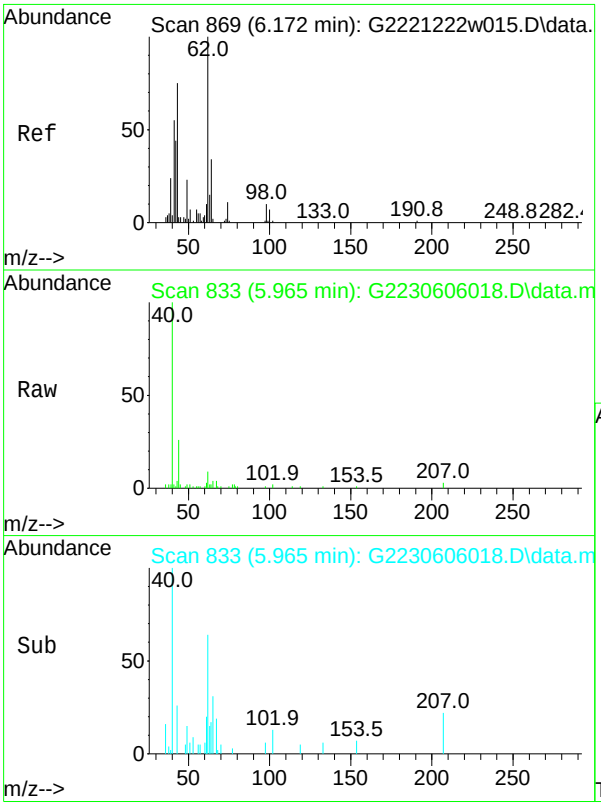


#42
1,1-Dichloropropene
Concen: 2.14 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 75 Resp: 1014832

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.9	9.1	69.1
77	0.0	0.0	59.9

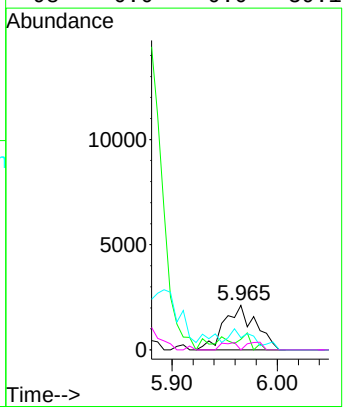


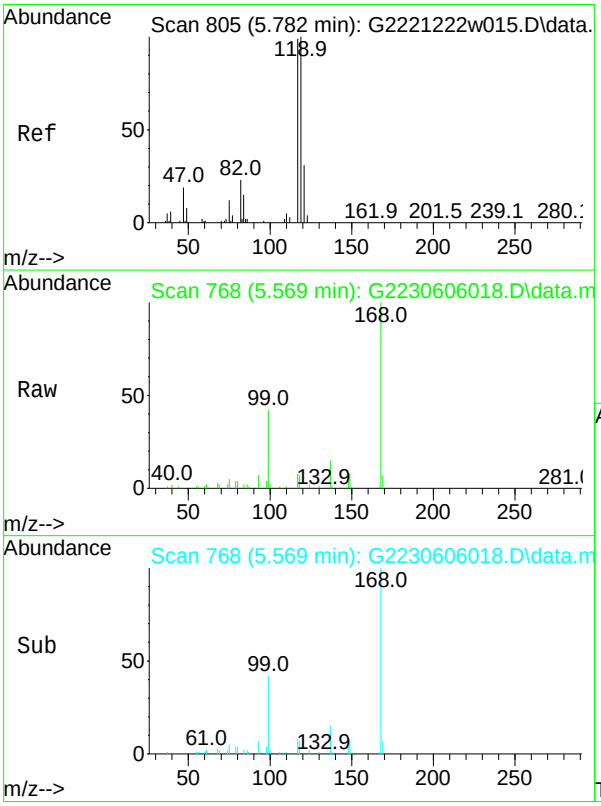


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.966 min Scan# 833
Delta R.T. -0.005 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 62 Resp: 44181

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

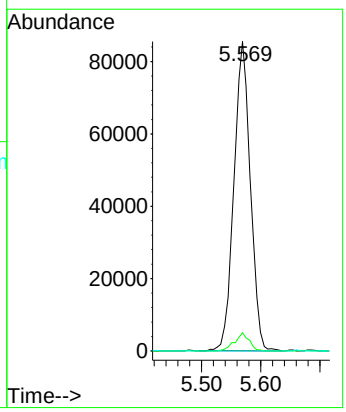


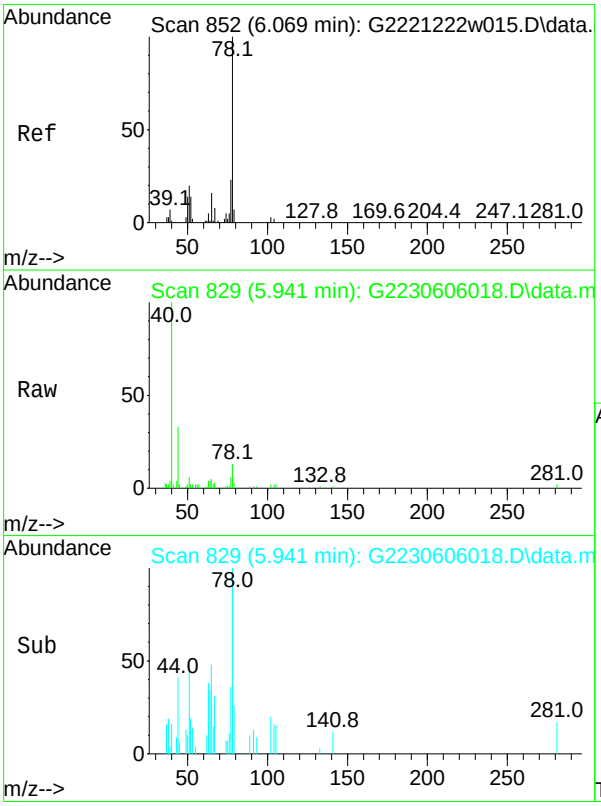


#47
Carbon tetrachloride
Concen: 3.07 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.108 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion:117 Resp: 1649194

Ion	Ratio	Lower	Upper
117	100		
119	5.2	66.4	126.4#
121	0.0	0.4	60.4#

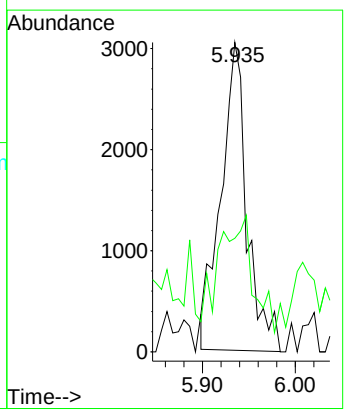


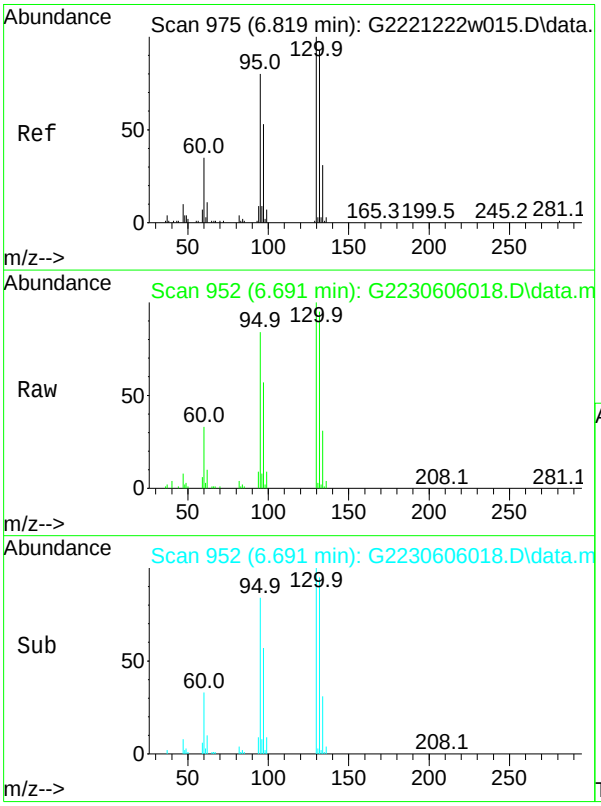


#48
Benzene
Concen: 0.04 ug/L
RT: 5.938 min Scan# 829
Delta R.T. 0.003 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 78 Resp: 60663

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

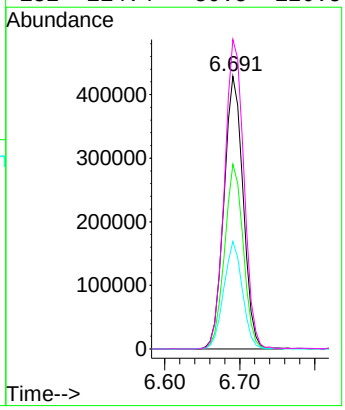


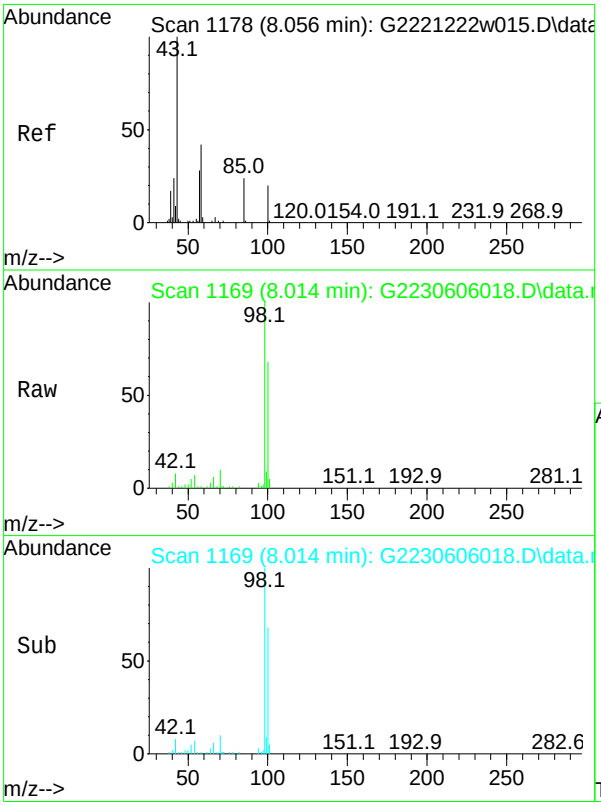


#50
Trichloroethene
Concen: 19.37 ug/L
RT: 6.694 min Scan# 952
Delta R.T. -0.002 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 95 Resp: 7608196

Ion	Ratio	Lower	Upper
95	100		
97	66.1	35.5	95.5
60	38.4	14.8	74.8
132	114.4	80.5	120.5

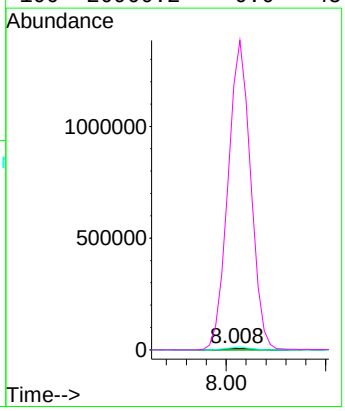


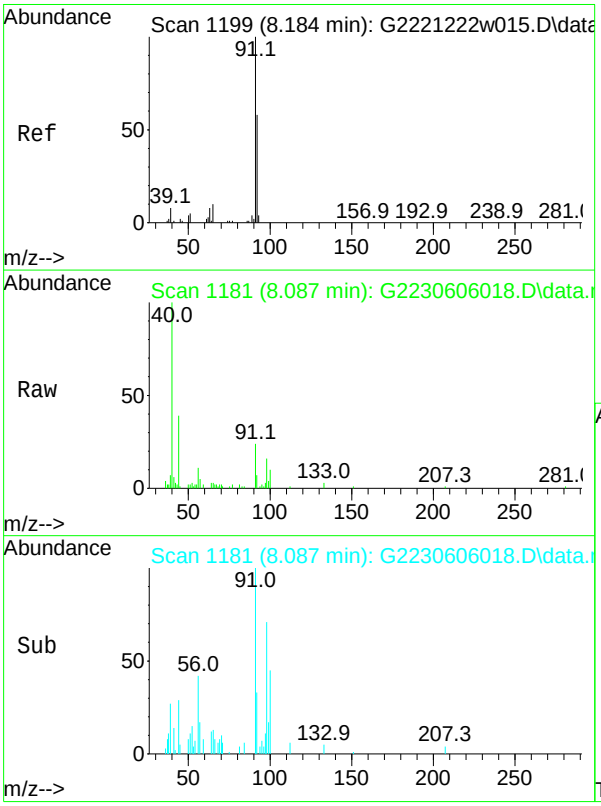


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 43 Resp: 103944

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	185.8	37.0	37.0#
100	20960.2	0.0	45.2#

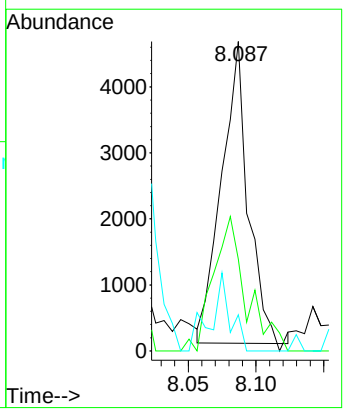


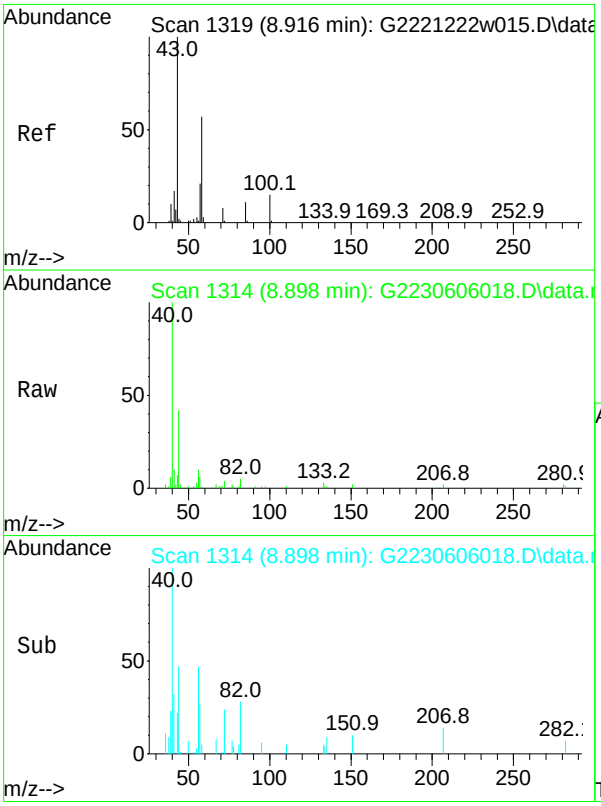


#65
Toluene
Concen: Below Cal
RT: 8.088 min Scan# 1181
Delta R.T. 0.002 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 91 Resp: 63167

Ion	Ratio	Lower	Upper
91	100		
92	52.9	27.5	87.5
65	0.0	0.0	41.4

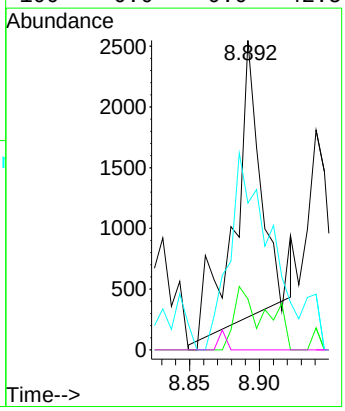


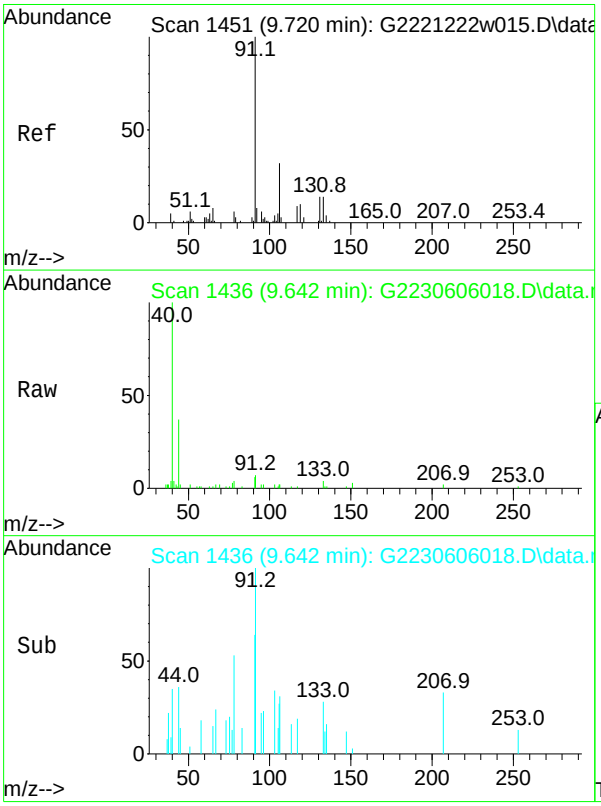


#69
2-Hexanone
Concen: Below Cal
RT: 8.895 min Scan# 1314
Delta R.T. 0.086 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 43 Resp: 27244

Ion	Ratio	Lower	Upper
43	100		
58	0.0	25.2	85.2#
57	0.0	0.0	49.3
100	0.0	0.0	42.5

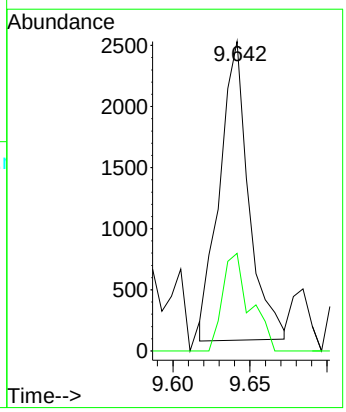


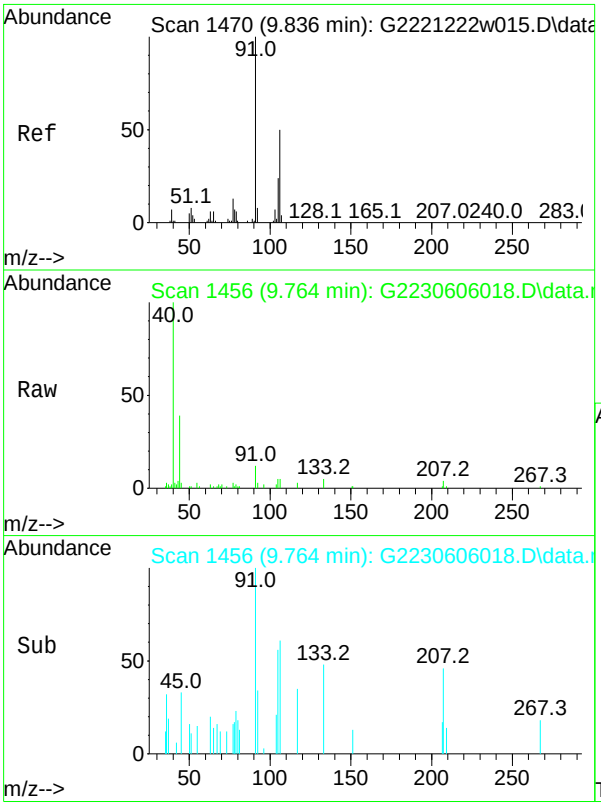


#74
Ethylbenzene
Concen: Below Cal
RT: 9.642 min Scan# 1436
Delta R.T. -0.001 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 91 Resp: 32182

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

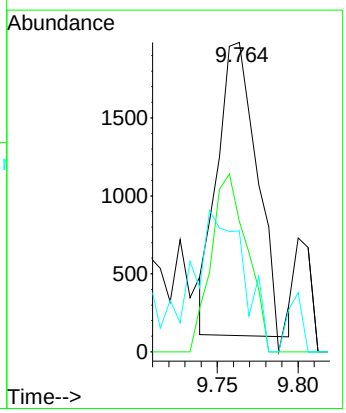


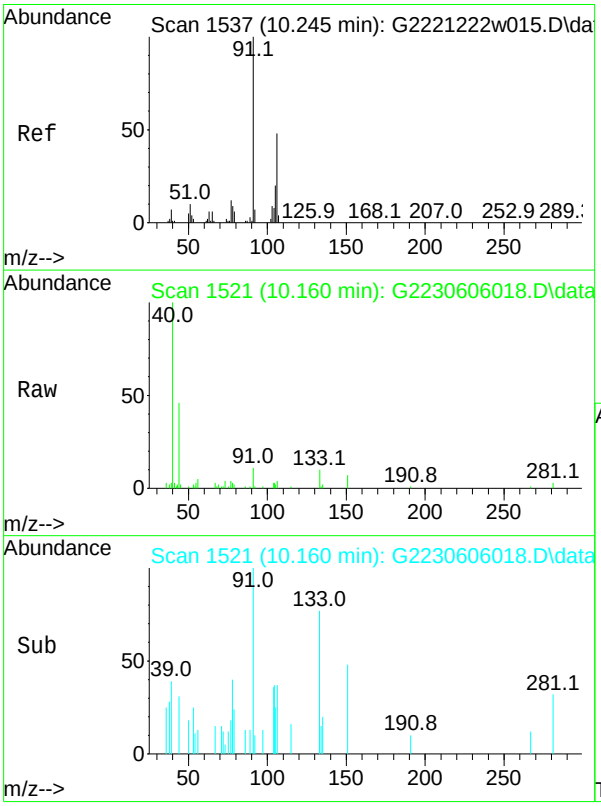


#75
m,p-Xylene
Concen: 0.02 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. -0.000 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 91 Resp: 33171

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

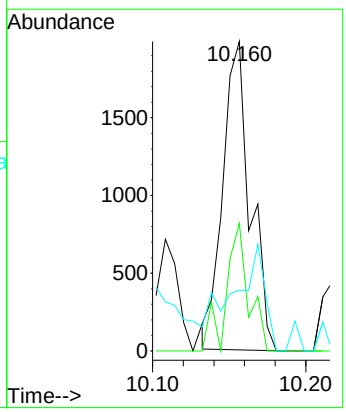


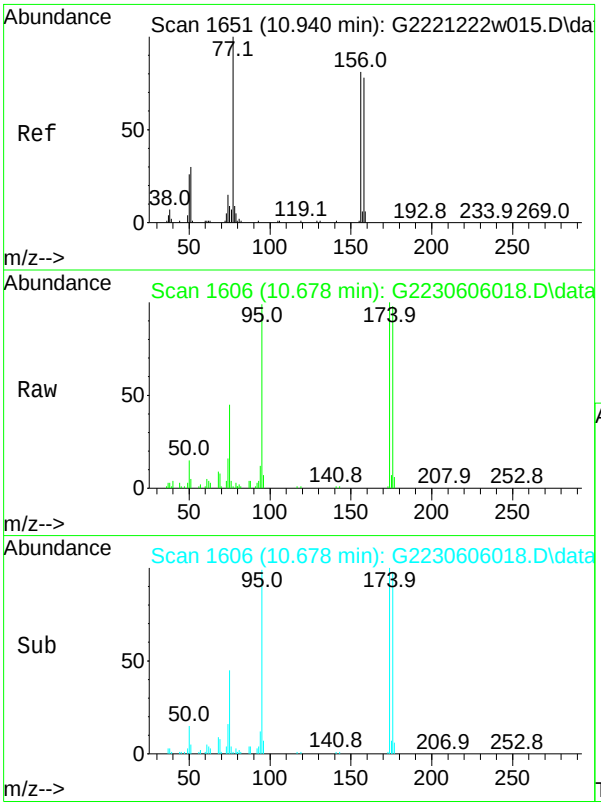


#79
o-Xylene
Concen: 0.02 ug/L
RT: 10.160 min Scan# 1521
Delta R.T. -0.001 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 91 Resp: 25381

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.2	76.2#
105	0.0	0.0	56.7

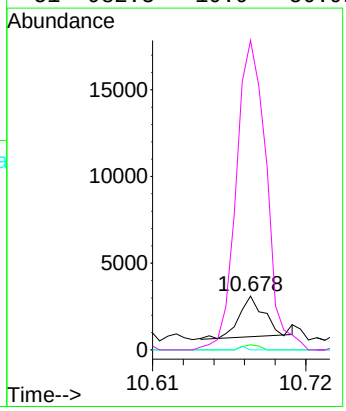


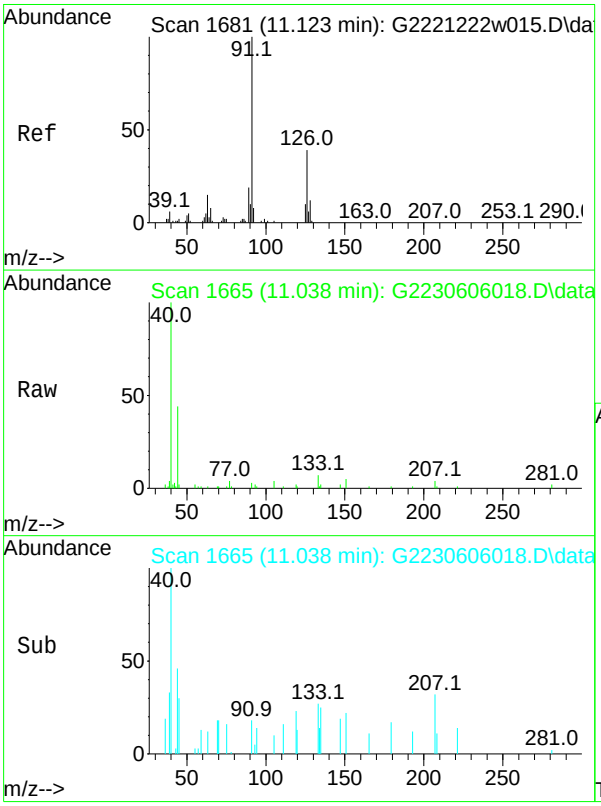


#82
Bromobenzene
Concen: 0.04 ug/L
RT: 10.680 min Scan# 1606
Delta R.T. -0.148 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 77 Resp: 28081

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	982.3	10.9	50.9#

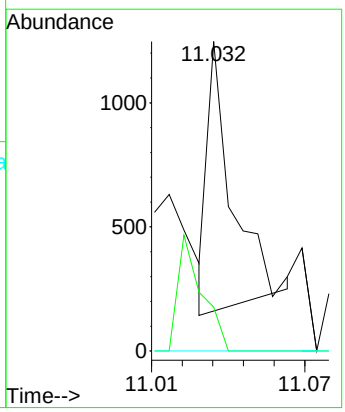


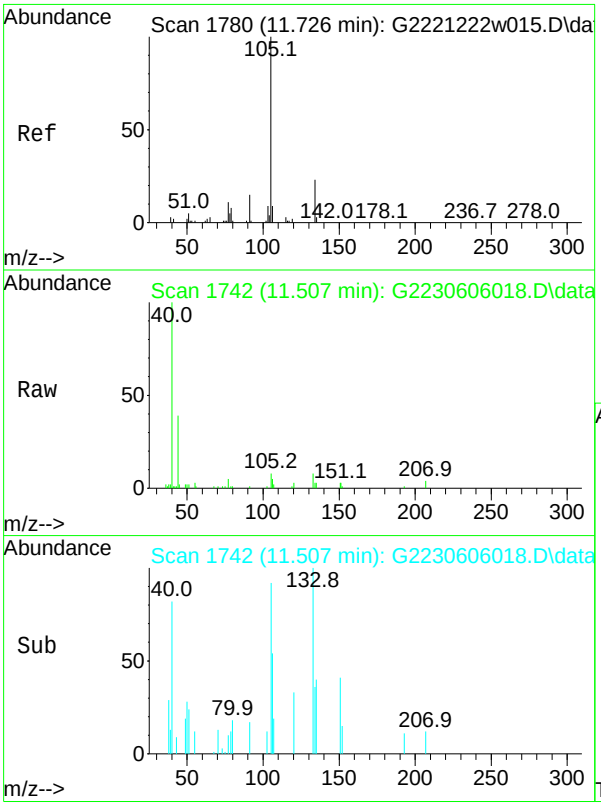


#87
2-Chlorotoluene
Concen: 0.01 ug/L
RT: 11.035 min Scan# 1665
Delta R.T. 0.007 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 91 Resp: 8182

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

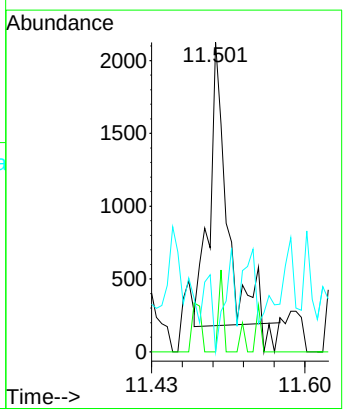


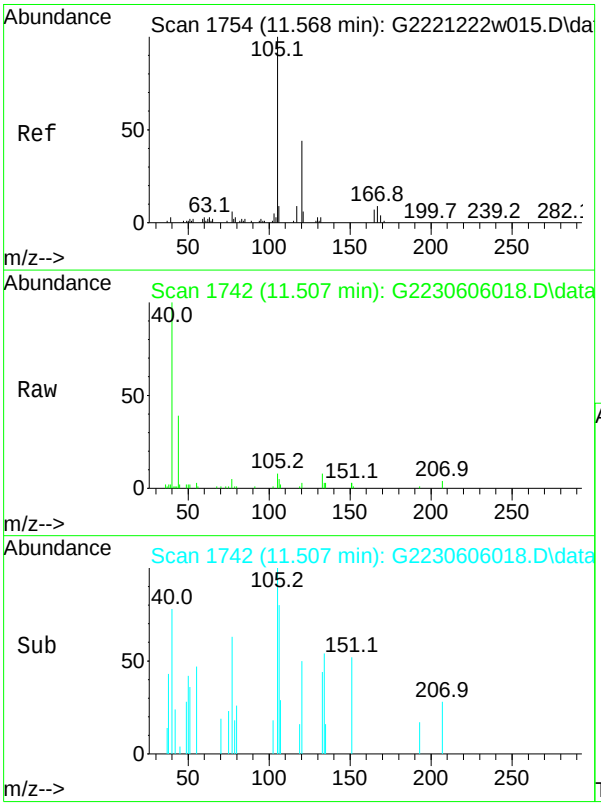


#90
2-ethyl-1-toluene
Concen: 0.02 ug/L
RT: 11.506 min Scan# 1742
Delta R.T. 0.177 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion:105 Resp: 25611

Ion	Ratio	Lower	Upper
105	100		
120	0.0	0.8	60.8#
91	0.0	0.0	42.3

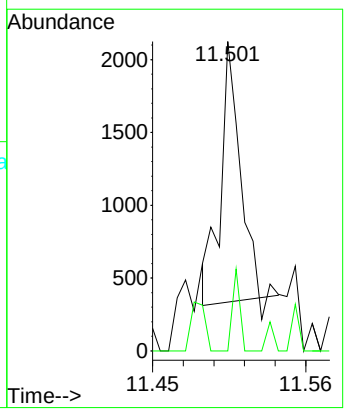


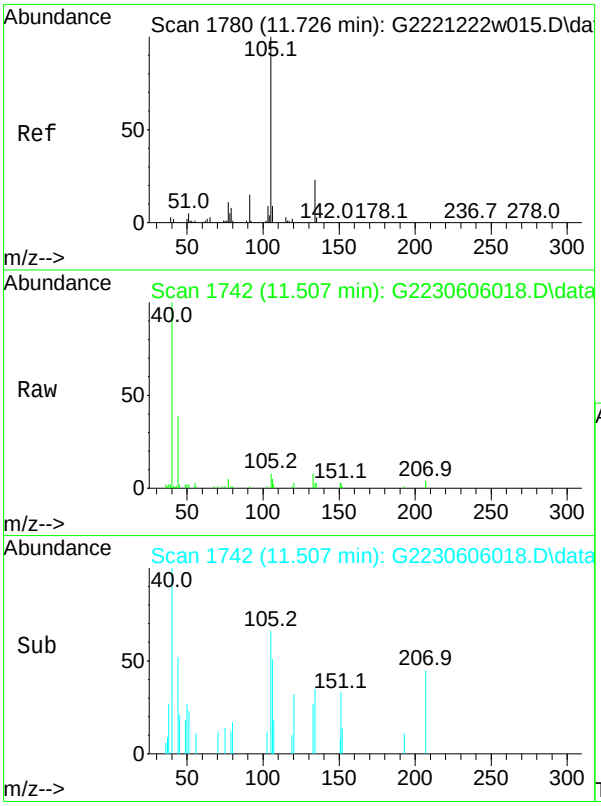


#92
1,2,4-Trimethylbenzene
Concen: 0.01 ug/L
RT: 11.506 min Scan# 1742
Delta R.T. 0.004 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion:105 Resp: 18420

Ion	Ratio	Lower	Upper
105	100		
120	0.0	14.4	74.4#

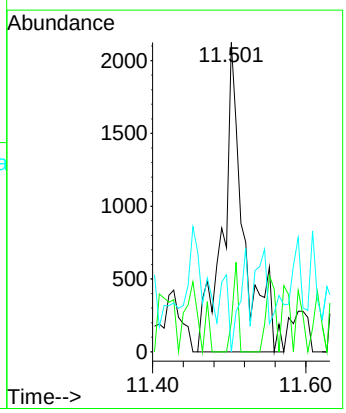


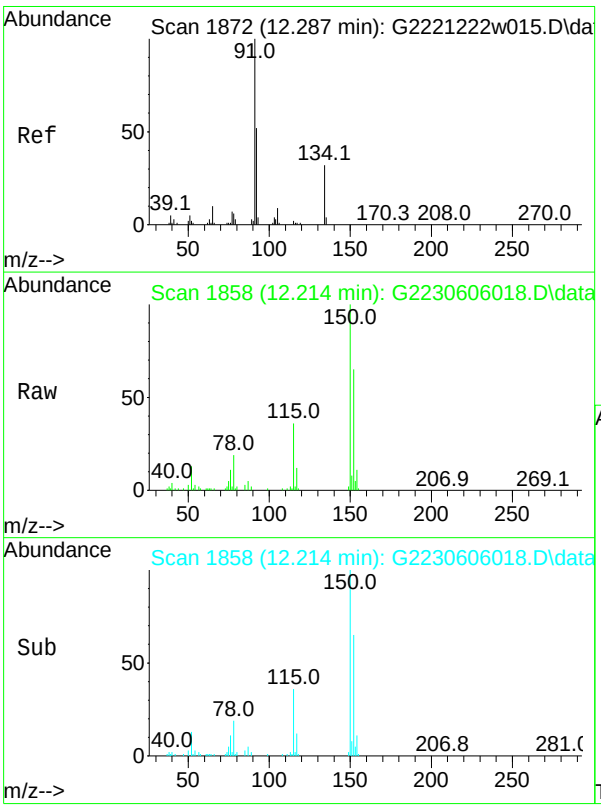


#93
sec-Butylbenzene
Concen: 0.02 ug/L
RT: 11.506 min Scan# 1742
Delta R.T. -0.167 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion:105 Resp: 39590

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	50.7
91	0.0	0.0	46.0

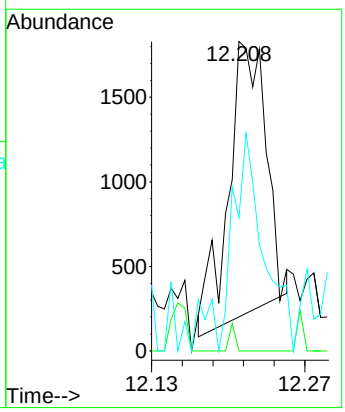




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.214 min Scan# 1858
Delta R.T. -0.017 min
Lab File: G2230606018.D
Acq: 06 Jun 2023 17:43

Tgt Ion: 91 Resp: 36418

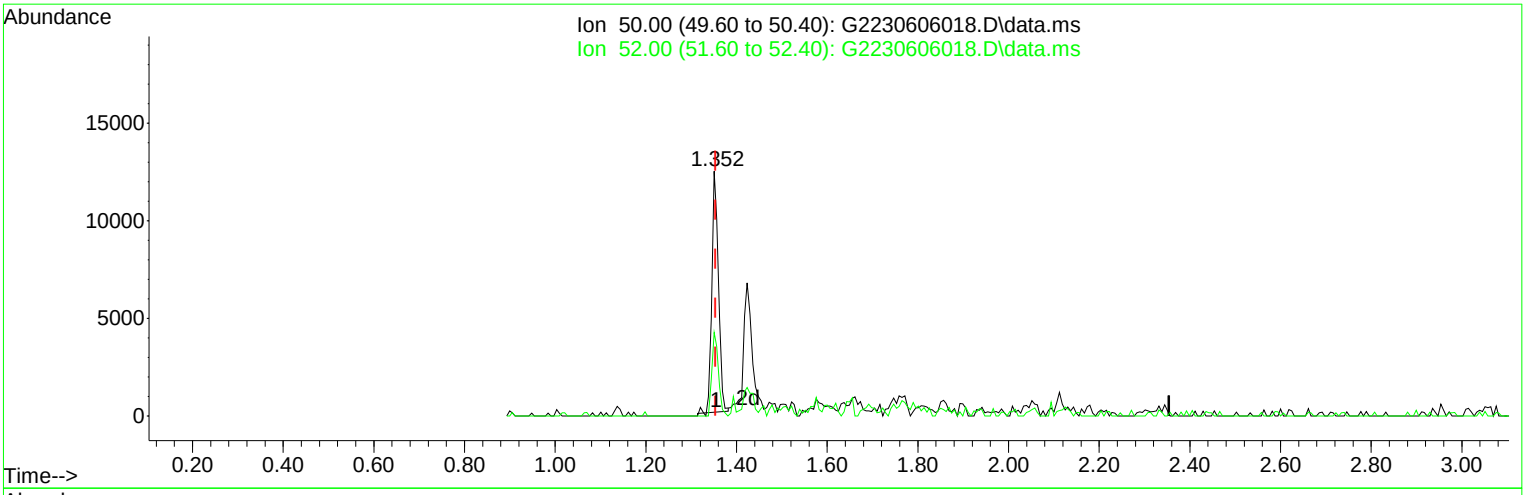
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

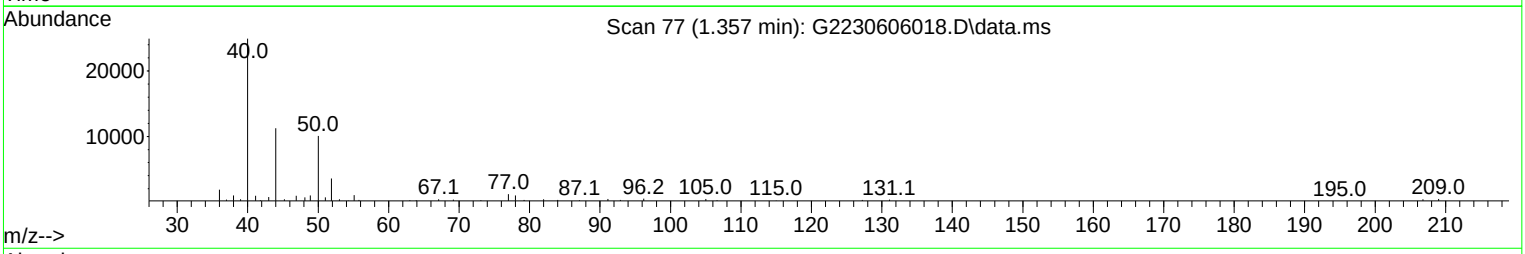


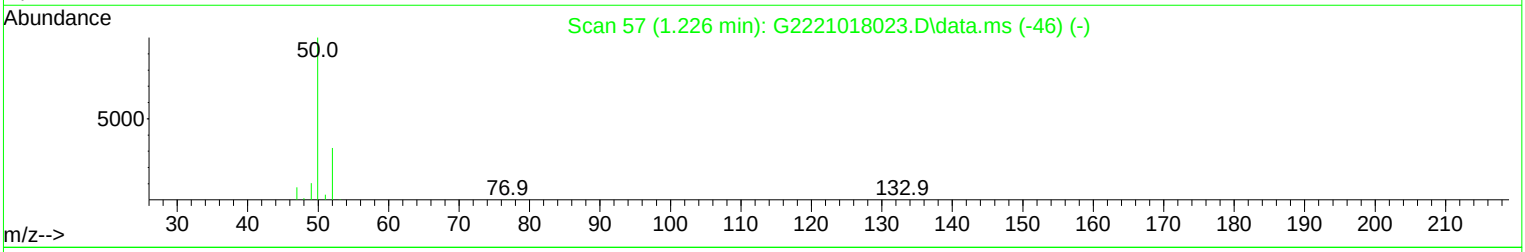
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606018.D
Acq On : 06 Jun 2023 17:43
Operator : PO1
Sample : 23E0775-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 07 09:22:49 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: G2230606018.D\data.ms

(3) Chloromethane (TP)

1.355min (+ 0.001) 0.27 ug/L

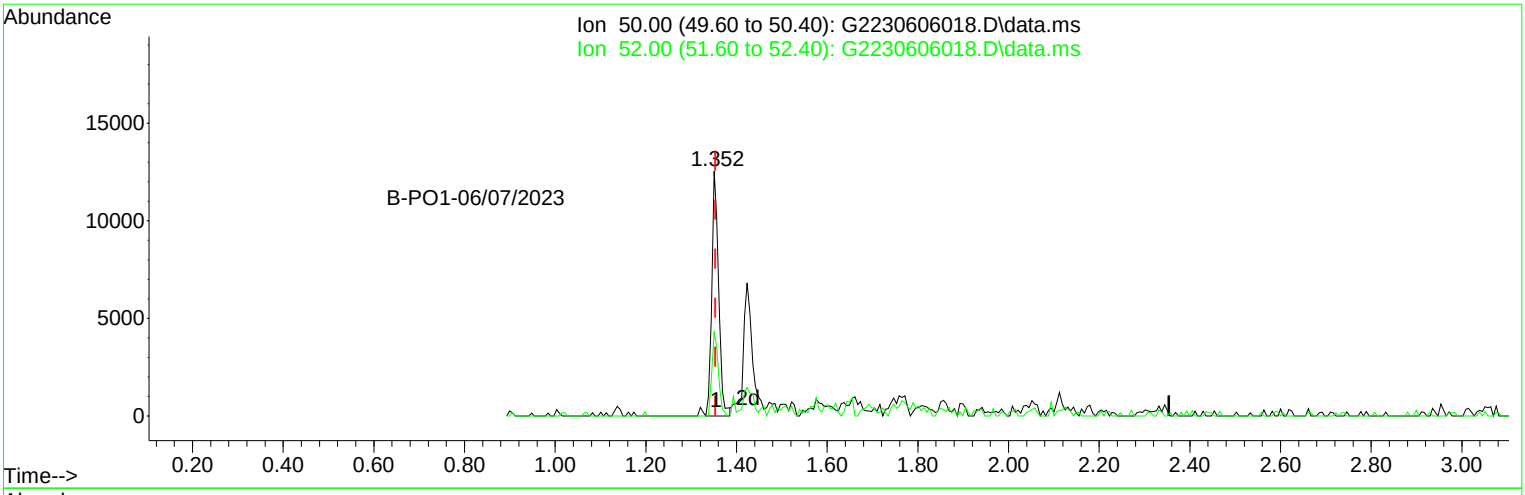
response 123031

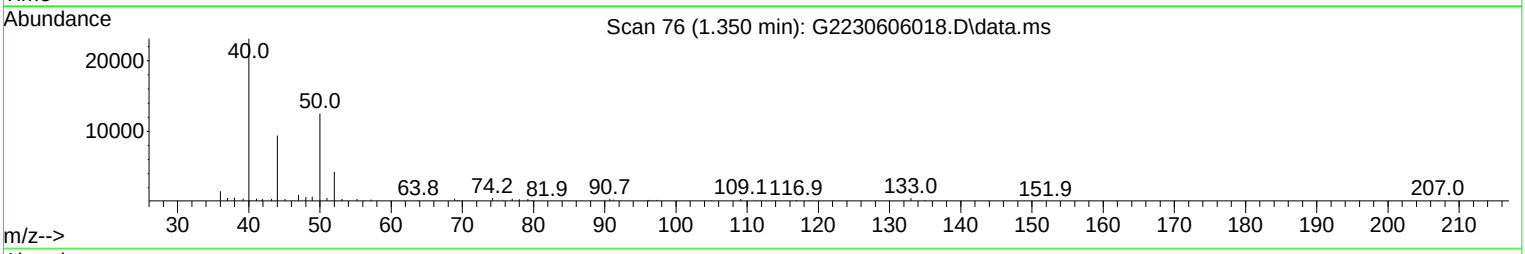
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.20	34.65
0.00	0.00	0.00
0.00	0.00	0.00

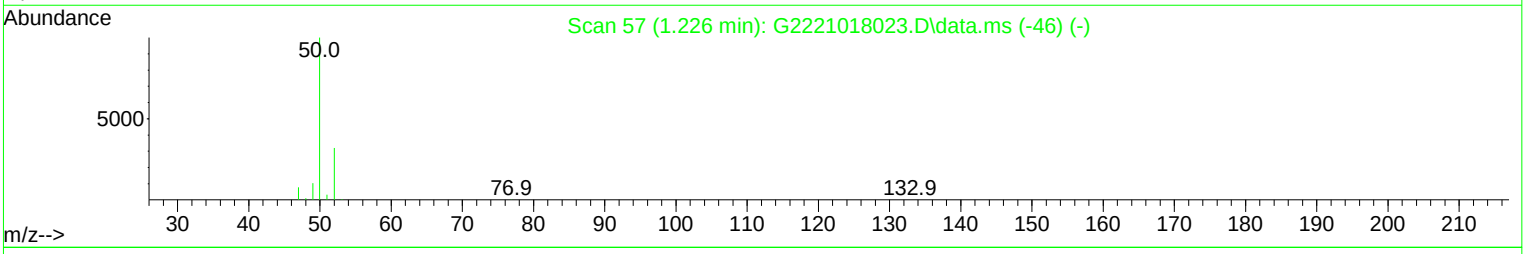
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606018.D
Acq On : 06 Jun 2023 17:43
Operator : PO1
Sample : 23E0775-03
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 07 09:22:49 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: G2230606018.D\data.ms

(3) Chloromethane (TP)

1.350min (-0.004) 0.29 ug/L m

response 129873

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.20	32.82
0.00	0.00	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03RE1	File ID:	G2230607017.D
Sampled:	05/25/23 16:20	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 21:30
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03RE1	File ID:	G2230607017.D
Sampled:	05/25/23 16:20	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 21:30
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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	27.5	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*	*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

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03RE1	File ID:	G2230607017.D
Sampled:	05/25/23 16:20	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 21:30
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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*	*0.220*	*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*	*6.70*	*0.156*	*0.400*	*1.00*	*B, 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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607017.D
Acq On : 07 Jun 2023 21:30
Operator : PO1
Sample : 23E0775-03RE1
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 09:51:48 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

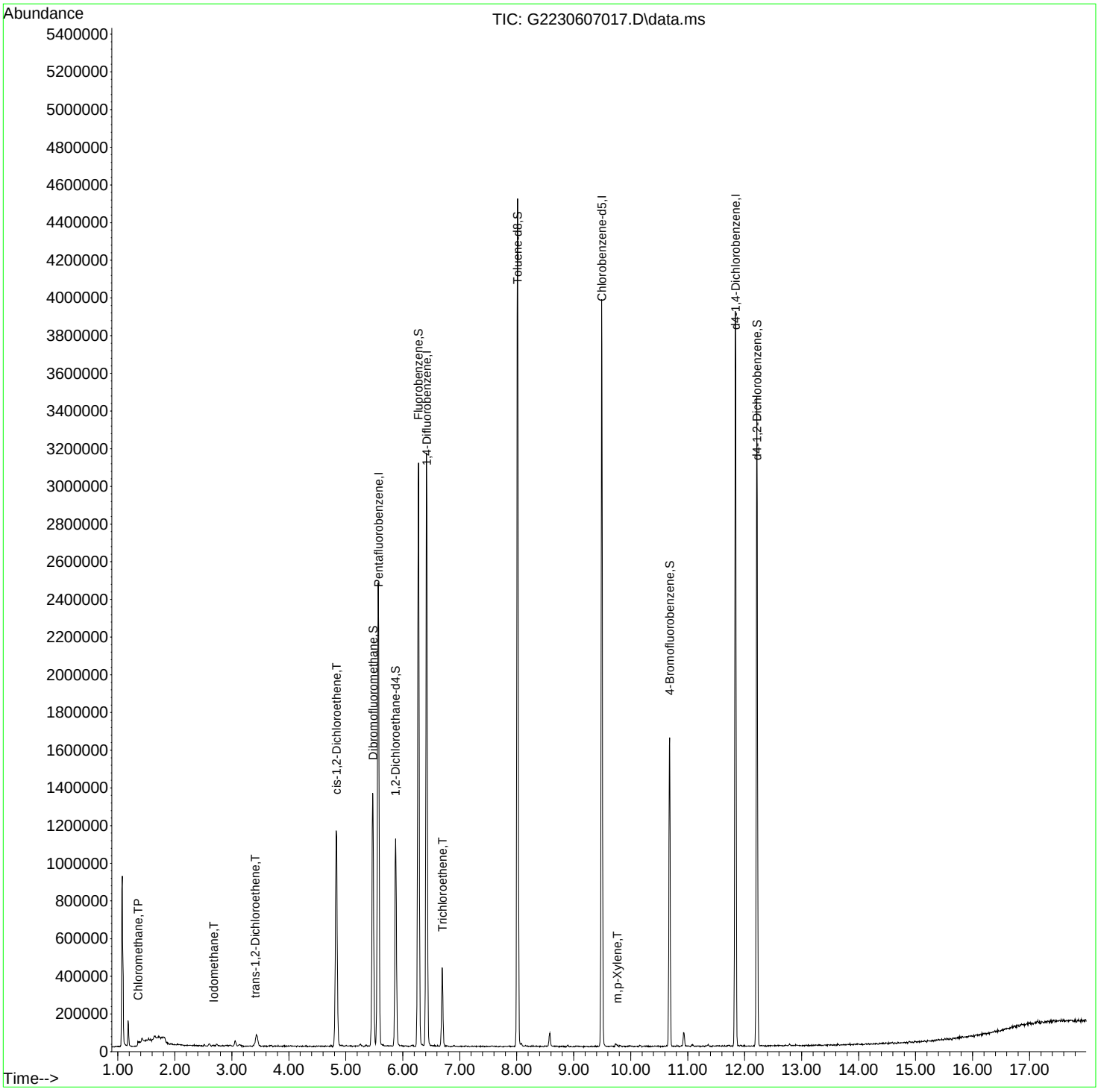
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	19711657	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	27085656	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	23585282	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11059134	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	8475432	19.54	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.70%			
43) 1,2-Dichloroethane-d4	5.877	65	7794742	18.18	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.90%			
49) Fluorobenzene	6.277	96	29889607	19.37	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%			
64) Toluene-d8	8.016	98	28866958	19.42	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%			
81) 4-Bromofluorobenzene	10.685	174	5185871	9.93	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.30%			
97) d4-1,2-Dichlorobenzene	12.218	152	9587577	20.16	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.80%			
Target Compounds						Qvalue
3) Chloromethane	1.354	50	78622	0.14	ug/L	96
5) Bromomethane	1.723	94	57954	Below Cal	#	17
12) Acetone	2.604	43	127298	Below Cal		82
13) Iodomethane	2.678	142	32813	0.07	ug/L #	41
18) Methylene chloride	3.056	49	140669	Below Cal		76
20) trans-1,2-Dichloroethene	3.408	61	46557	0.11	ug/L #	40
21) Methyl tert-butyl ether	3.437	73	870258	Below Cal		92
28) cis-1,2-Dichloroethene	4.836	61	6823586	13.75	ug/L	74
50) Trichloroethene	6.694	95	1221594	3.35	ug/L	90
75) m,p-Xylene	9.763	91	39068	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607017.D
Acq On : 07 Jun 2023 21:30
Operator : PO1
Sample : 23E0775-03RE1
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 09:51:48 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607017.D
Acq On : 07 Jun 2023 21:30
Operator : PO1
Sample : 23E0775-03RE1
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 09:51:48 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	19711657	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	27085656	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	23585282	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11059134	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	8475432	19.54	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.70%				
43) 1,2-Dichloroethane-d4	5.877	65	7794742	18.18	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.90%				
49) Fluorobenzene	6.277	96	29889607	19.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%				
64) Toluene-d8	8.016	98	28866958	19.42	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%				
81) 4-Bromofluorobenzene	10.685	174	5185871	9.93	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.30%				
97) d4-1,2-Dichlorobenzene	12.218	152	9587577	20.16	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.80%				
Target Compounds							Qvalue
3) Chloromethane	1.354	50	78622	0.14	ug/L		96
5) Bromomethane	1.723	94	57954	Below Cal		#	17
12) Acetone	2.604	43	127298	Below Cal			82
13) Iodomethane	2.678	142	32813	0.07	ug/L	#	41
14) Carbon disulfide	2.743	76	132178	0.06	ug/L	#	74
17) 3-Chloro-1-propene	2.743	76	131393	0.58	ug/L	#	53
18) Methylene chloride	3.056	49	140669	Below Cal			76
20) trans-1,2-Dichloroethene	3.408	61	46557	0.11	ug/L	#	40
21) Methyl tert-butyl ether	3.437	73	870258	Below Cal			92
28) cis-1,2-Dichloroethene	4.836	61	6823586	13.75	ug/L		74
29) 2-Butanone	4.836	72	58015	0.63	ug/L	#	42
31) Ethyl acetate	4.836	61	6823647	116.91	ug/L	#	45
33) 1-Bromopropane	5.254	41	40465	0.08	ug/L	#	40
36) Tetrahydrofuran	5.259	42	65240	0.08	ug/L	#	63
40) Cyclohexane	5.570	84	424212	0.80	ug/L	#	33
41) 1-Chlorobutane	5.571	56	254311	0.41	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	1033733	2.24	ug/L	#	38
47) Carbon tetrachloride	5.570	117	1590909	3.26	ug/L	#	16
48) Benzene	5.944	78	36569	0.03	ug/L	#	52
50) Trichloroethene	6.694	95	1221594	3.35	ug/L		90
60) 4-Methyl-2-pentanone	8.013	43	99444	Below Cal		#	1
65) Toluene	8.085	91	33898	Below Cal		#	30
74) Ethylbenzene	9.763	91	39424	Below Cal		#	44
75) m,p-Xylene	9.763	91	39068	0.03	ug/L	#	36
82) Bromobenzene	10.681	77	48935	0.08	ug/L	#	1
99) n-Butylbenzene	12.218	91	33244	Below Cal		#	53

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607017.D
Acq On : 07 Jun 2023 21:30
Operator : PO1
Sample : 23E0775-03RE1
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 09:51:48 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

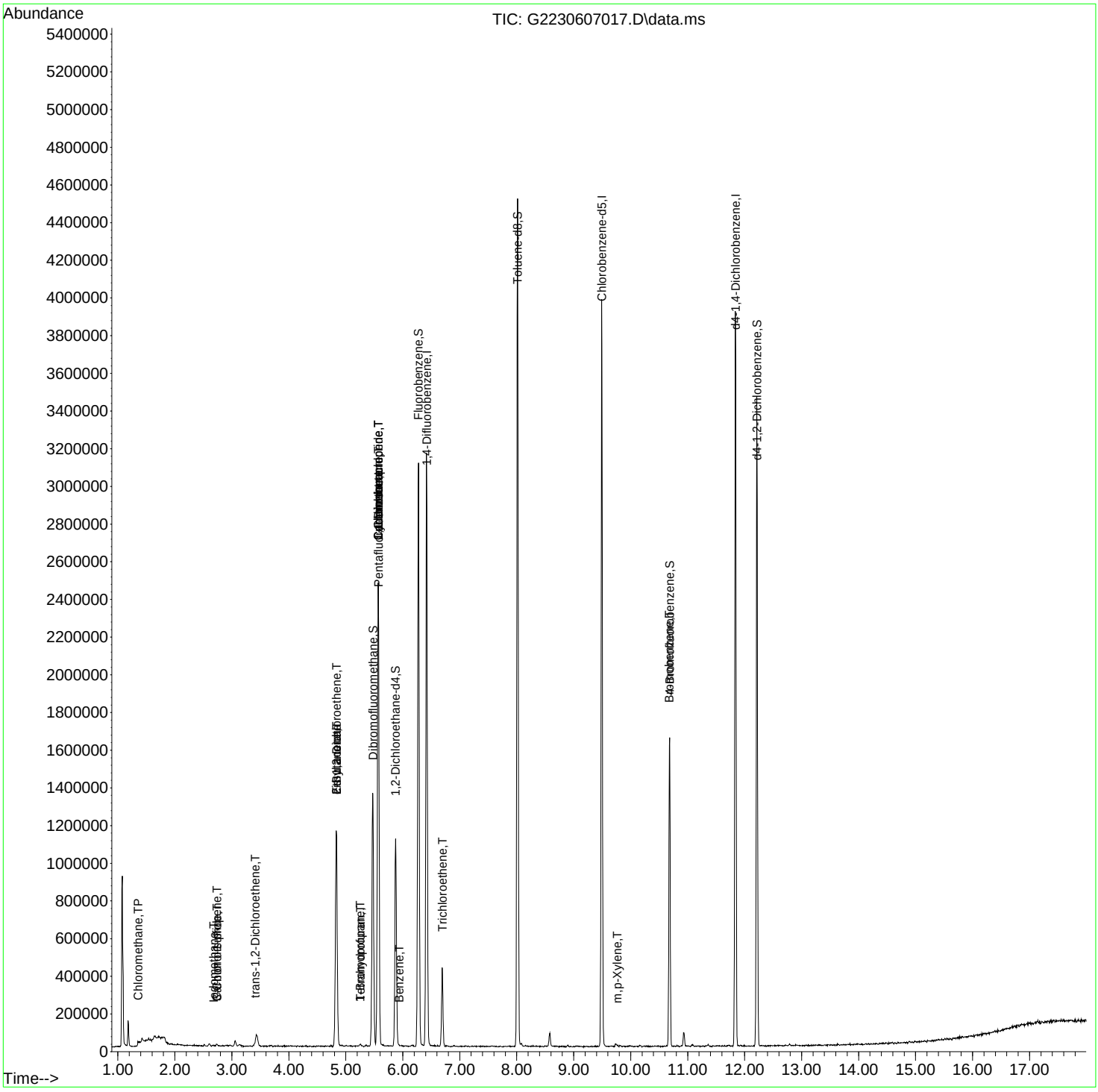
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

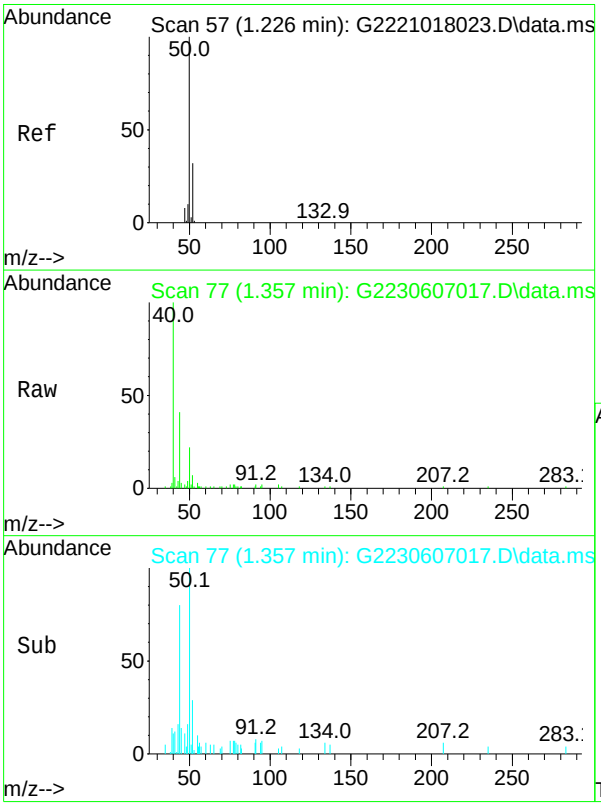
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607017.D
Acq On : 07 Jun 2023 21:30
Operator : PO1
Sample : 23E0775-03RE1
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 08 09:51:48 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

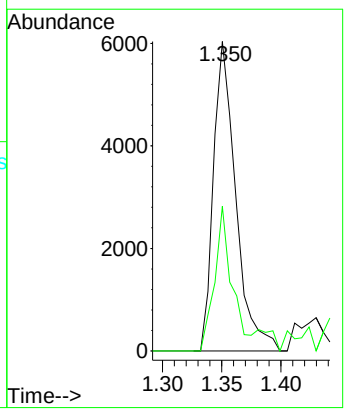


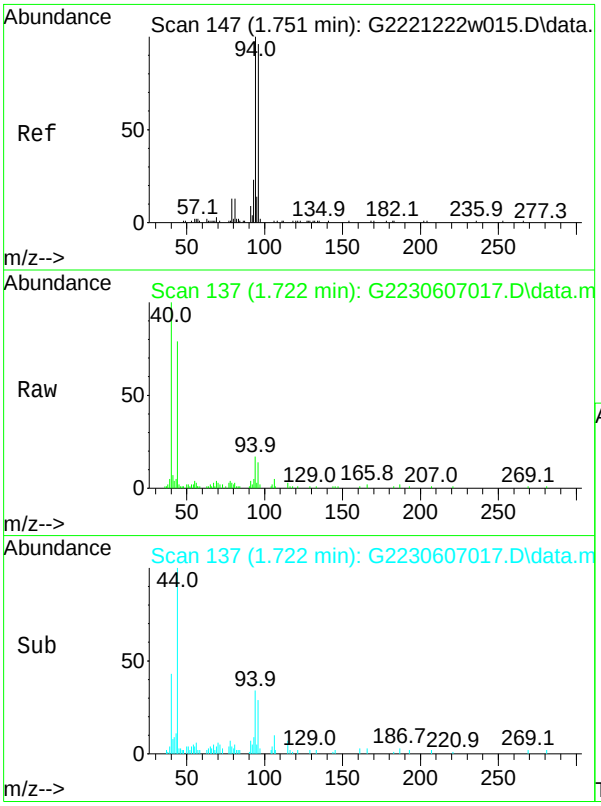


#3
Chloromethane
Concen: 0.14 ug/L
RT: 1.354 min Scan# 77
Delta R.T. -0.000 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 50 Resp: 78622

Ion	Ratio	Lower	Upper
50	100		
52	30.7	3.2	63.2

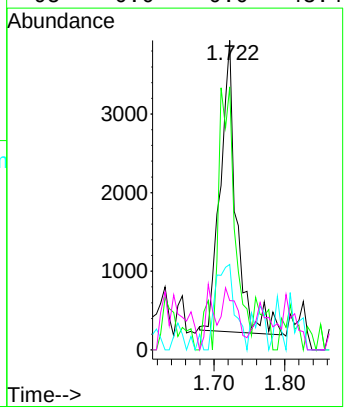


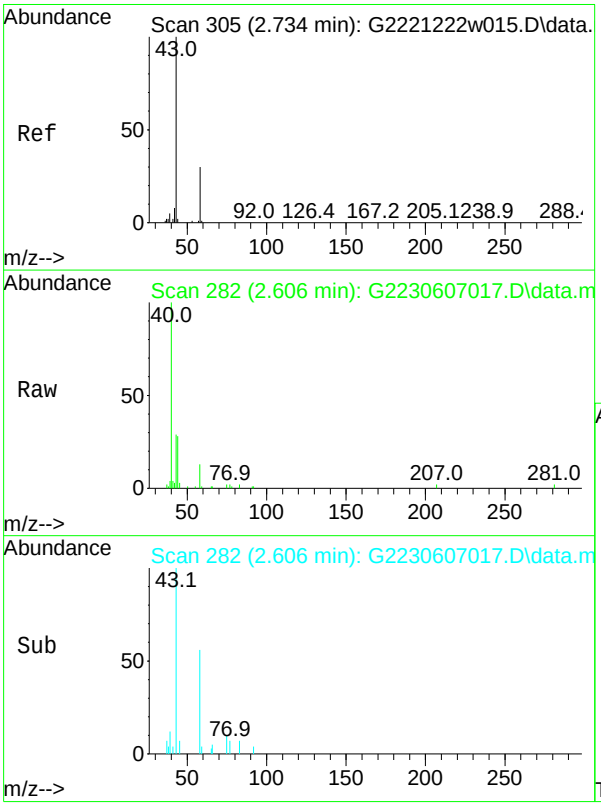


#5
Bromomethane
Concen: Below Cal
RT: 1.723 min Scan# 137
Delta R.T. 0.009 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 94 Resp: 57954

Ion	Ratio	Lower	Upper
94	100		
96	0.0	65.6	125.6#
93	0.0	0.0	49.5
95	0.0	0.0	43.4

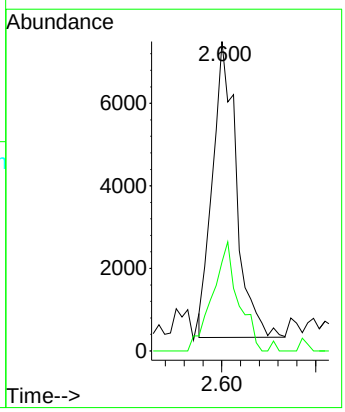


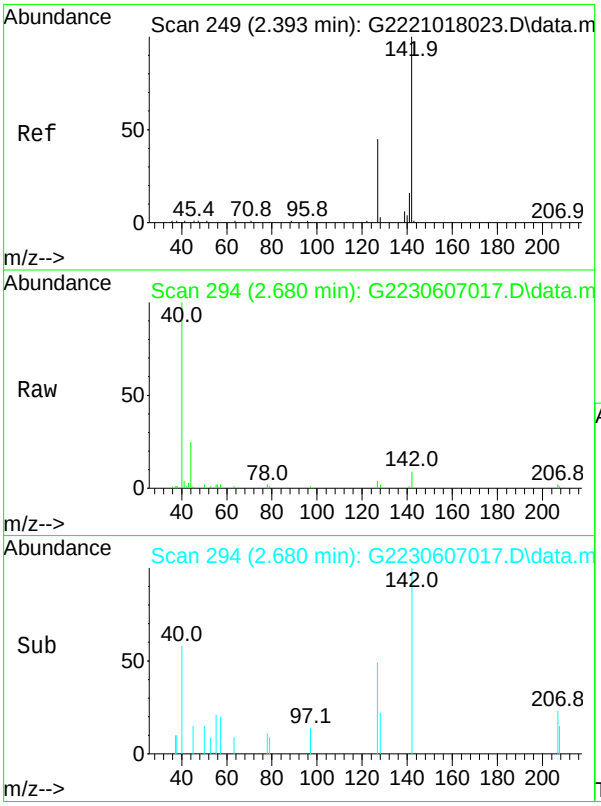


#12
Acetone
Concen: Below Cal
RT: 2.604 min Scan# 282
Delta R.T. -0.004 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 43 Resp: 127298

Ion	Ratio	Lower	Upper
43	100		
58	39.6	0.0	59.7

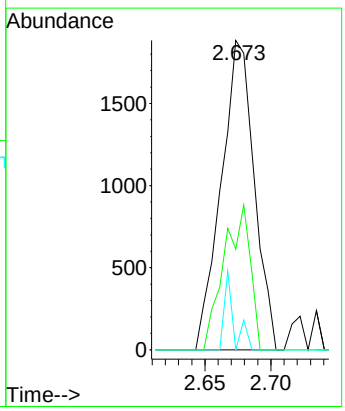


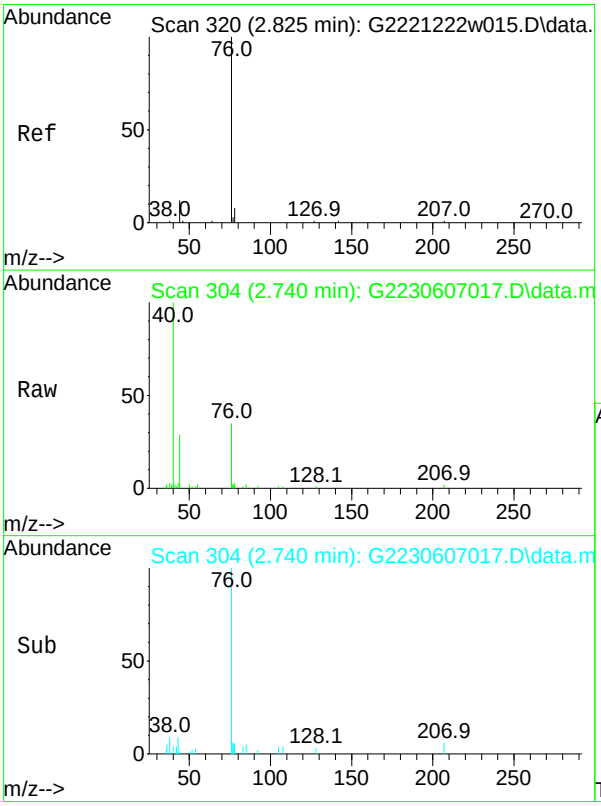


#13
Iodomethane
Concen: 0.07 ug/L
RT: 2.678 min Scan# 294
Delta R.T. 0.002 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion:142 Resp: 32813

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

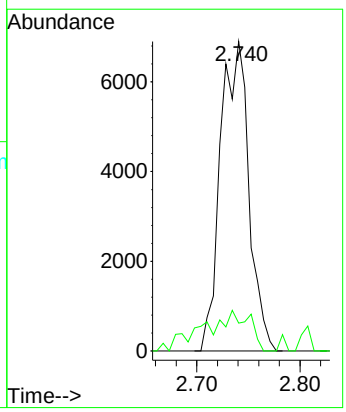


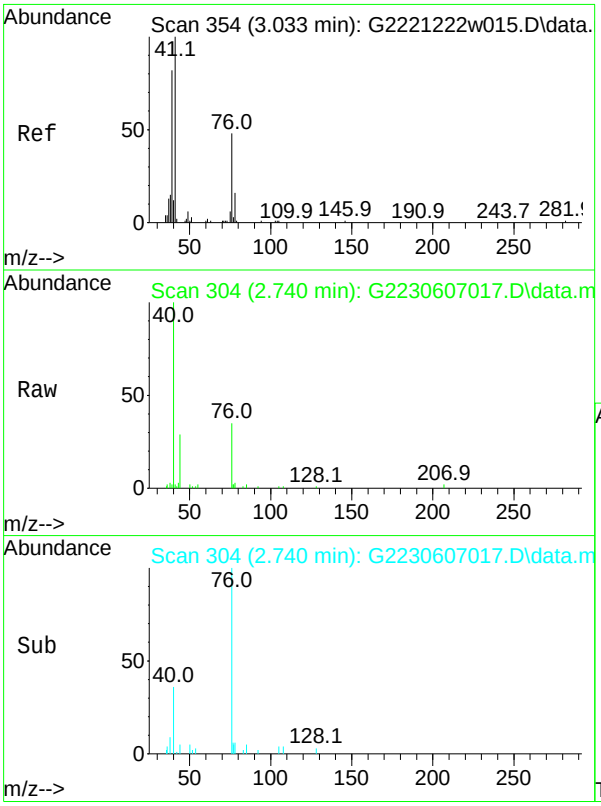


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.743 min Scan# 304
Delta R.T. 0.004 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 76 Resp: 132178

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

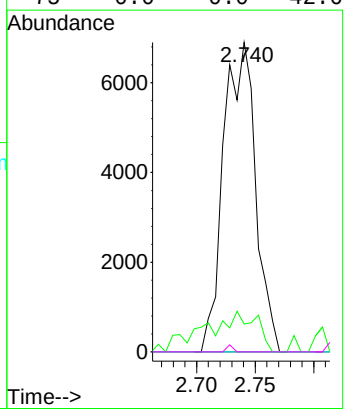


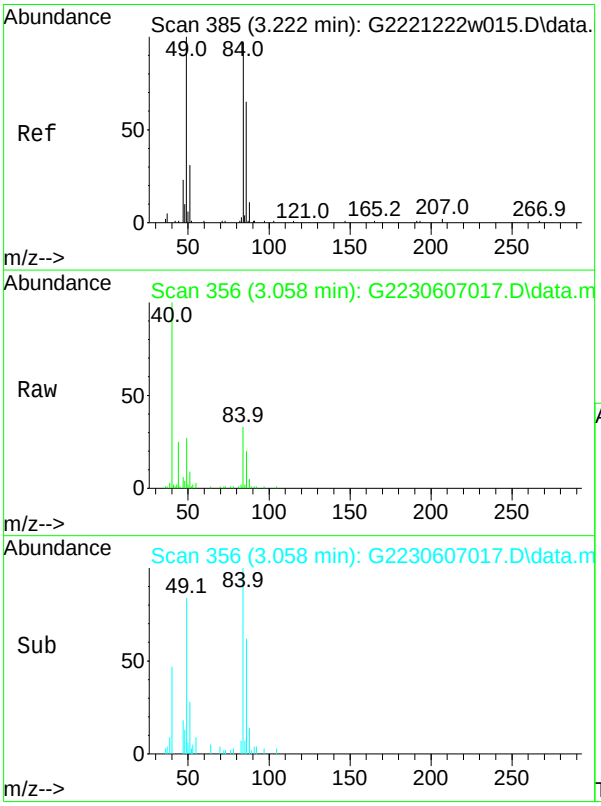


#17
3-Chloro-1-propene
Concen: 0.58 ug/L
RT: 2.743 min Scan# 304
Delta R.T. -0.177 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 76 Resp: 131393

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

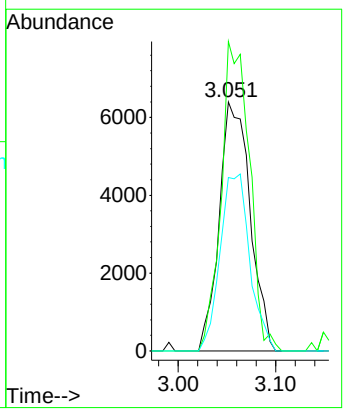


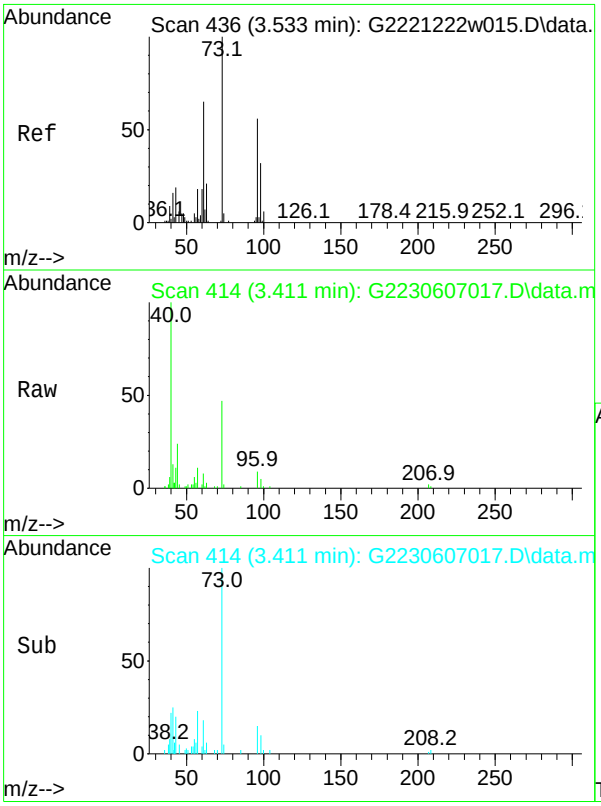


#18
Methylene chloride
Concen: Below Cal
RT: 3.056 min Scan# 356
Delta R.T. -0.006 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 49 Resp: 140669

Ion	Ratio	Lower	Upper
49	100		
84	113.7	57.9	117.9
86	68.2	24.9	84.9

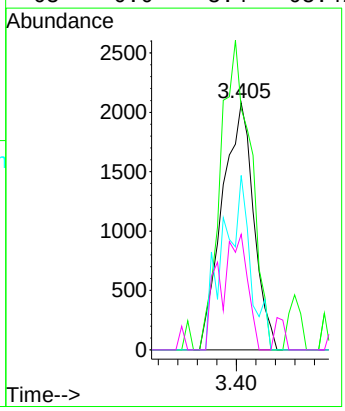


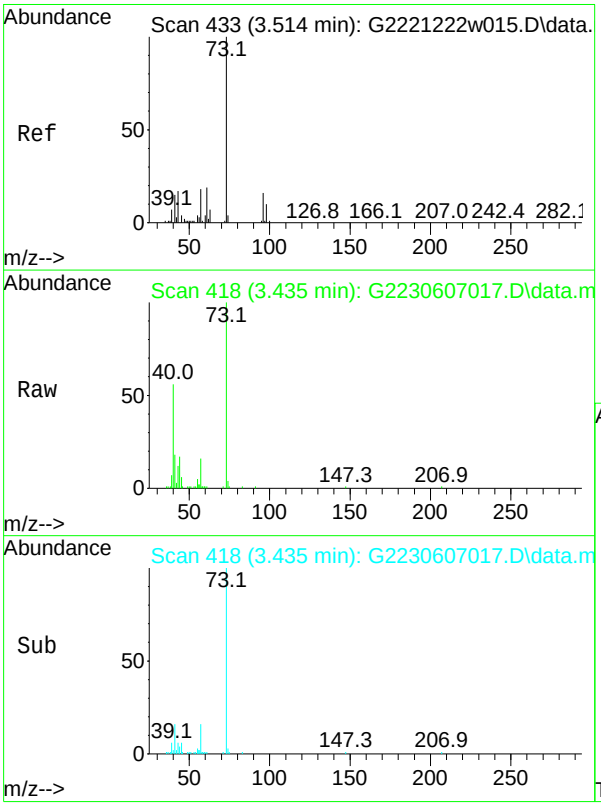


#20
trans-1,2-Dichloroethene
Concen: 0.11 ug/L
RT: 3.408 min Scan# 414
Delta R.T. 0.007 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 61 Resp: 46557

Ion	Ratio	Lower	Upper
61	100		
96	120.5	45.2	105.2#
98	0.0	17.2	77.2#
63	0.0	3.4	63.4#

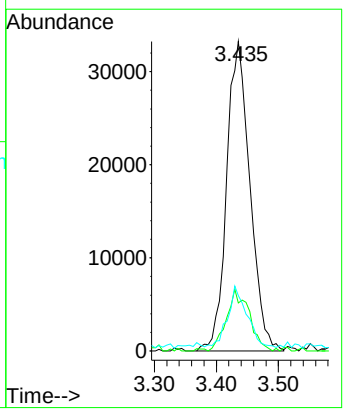


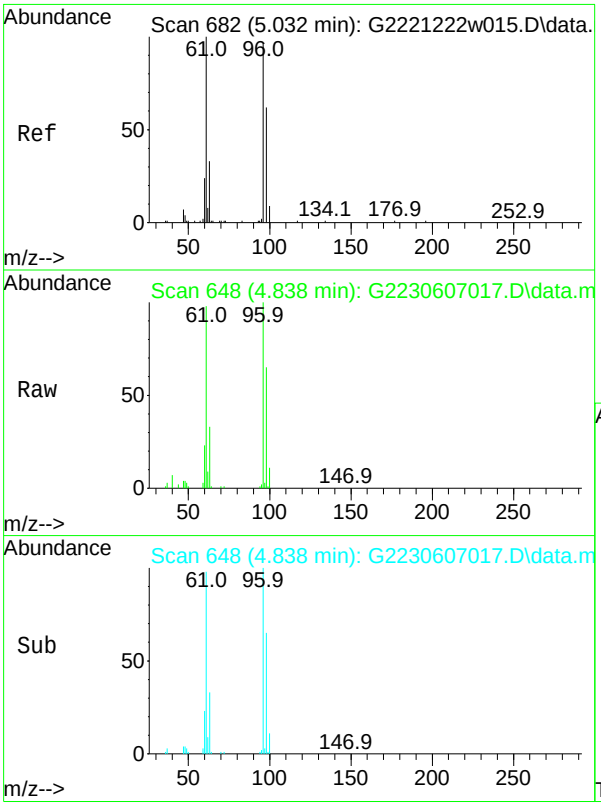


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 73 Resp: 870258

Ion	Ratio	Lower	Upper
73	100		
57	18.8	0.0	51.7
41	15.9	0.0	50.6

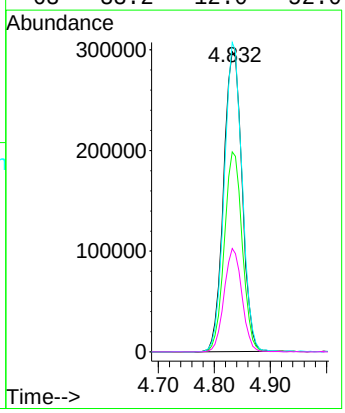


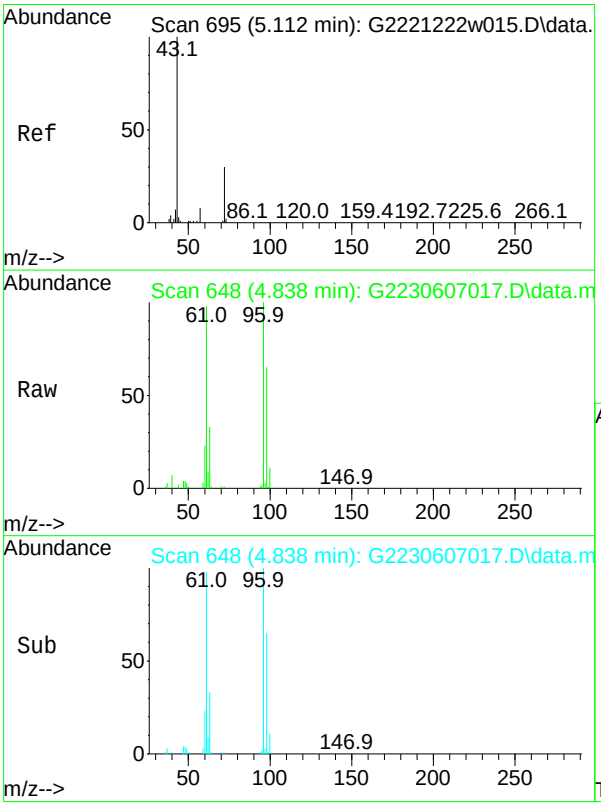


#28
cis-1,2-Dichloroethene
Concen: 13.75 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.000 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 61 Resp: 6823586

Ion	Ratio	Lower	Upper
61	100		
98	64.5	15.9	75.9
96	99.4	39.6	99.6
63	33.2	12.0	52.0

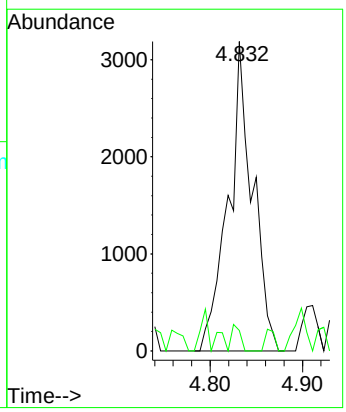


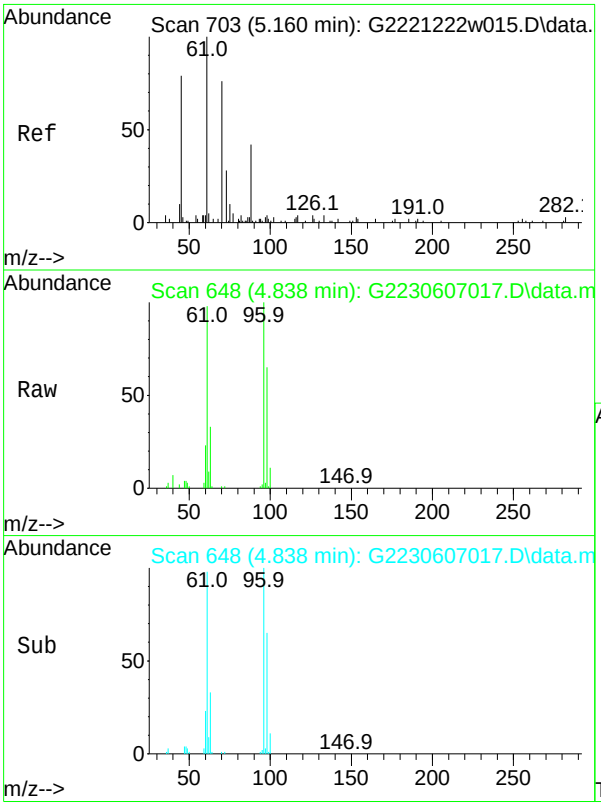


#29
2-Butanone
Concen: 0.63 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.083 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 72 Resp: 58015

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

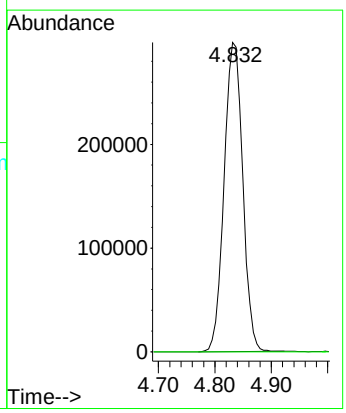


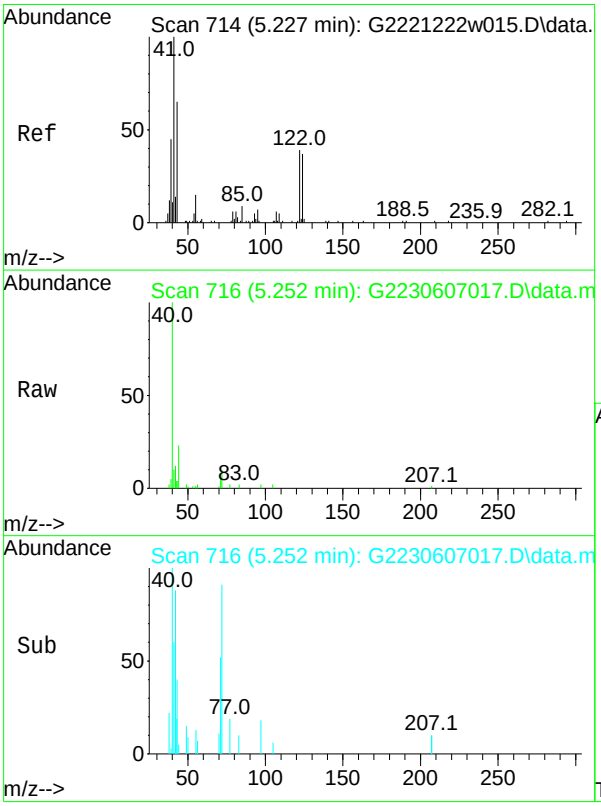


#31
Ethyl acetate
Concen: 116.91 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 61 Resp: 6823647

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

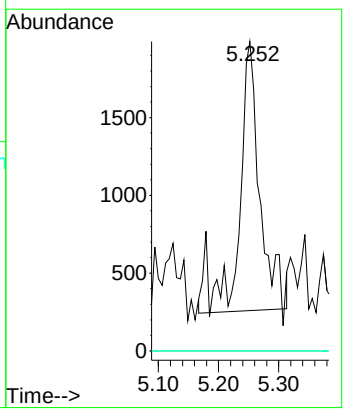


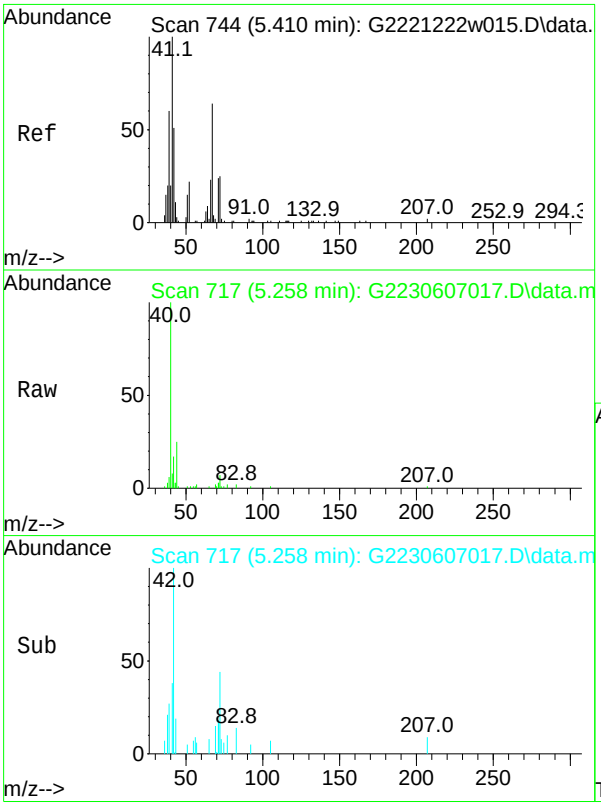


#33
1-Bromopropane
Concen: 0.08 ug/L
RT: 5.254 min Scan# 716
Delta R.T. 0.178 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 41 Resp: 40465

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

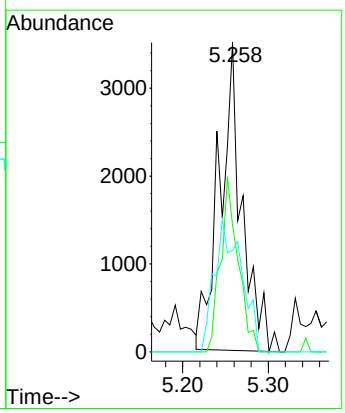


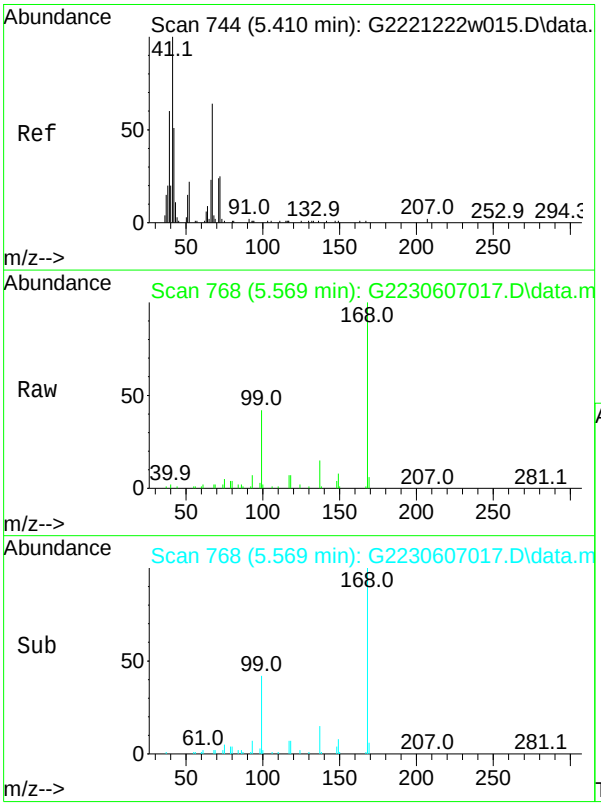


#36
Tetrahydrofuran
Concen: 0.08 ug/L
RT: 5.259 min Scan# 717
Delta R.T. -0.002 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 42 Resp: 65240

Ion	Ratio	Lower	Upper
42	100		
72	43.9	18.8	78.8
71	0.0	14.7	74.7#

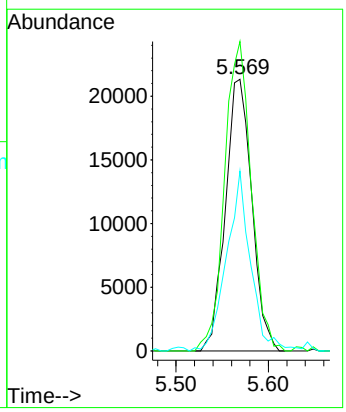


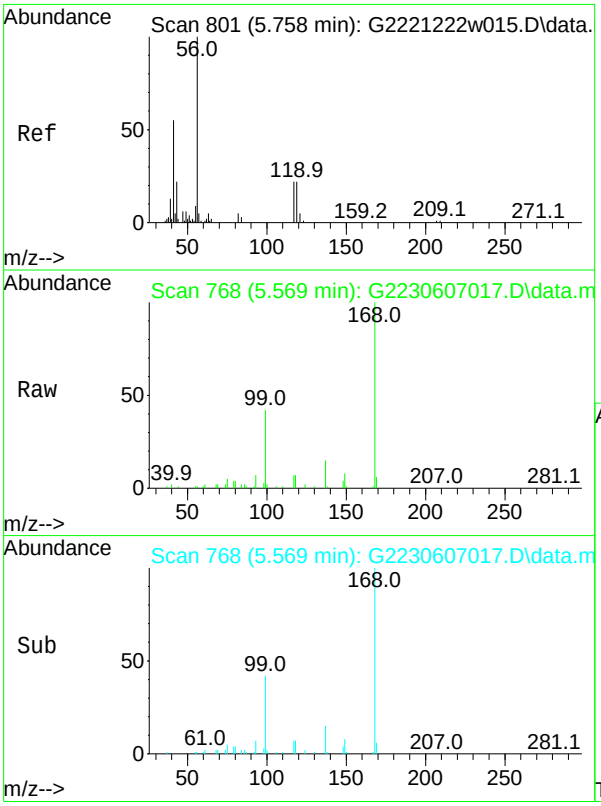


#40
Cyclohexane
Concen: 0.80 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 84 Resp: 424212

Ion	Ratio	Lower	Upper
84	100		
69	114.8	6.8	66.8#
56	60.8	79.1	139.1#

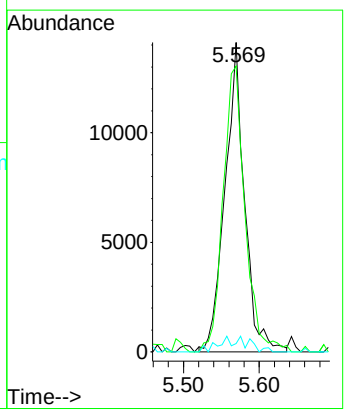


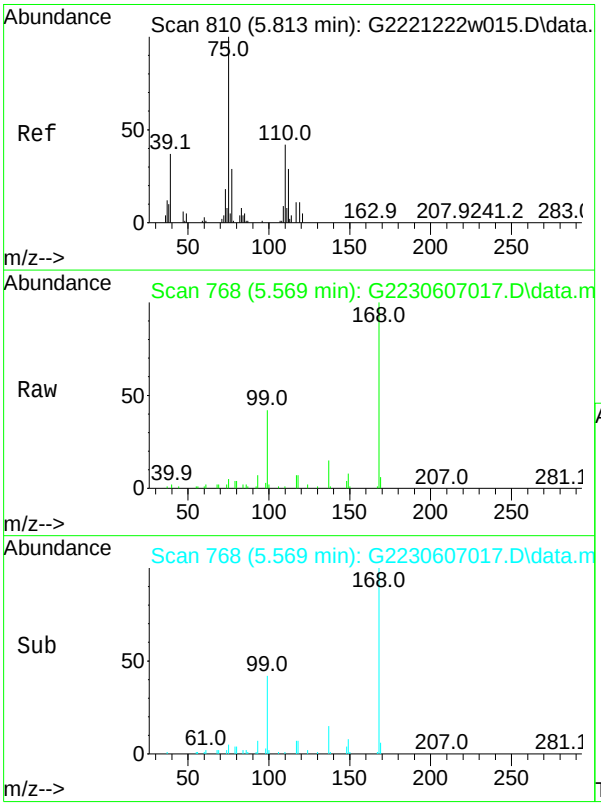


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.059 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 56 Resp: 254311

Ion	Ratio	Lower	Upper
56	100		
55	103.1	0.0	41.0#
57	0.0	0.0	35.7

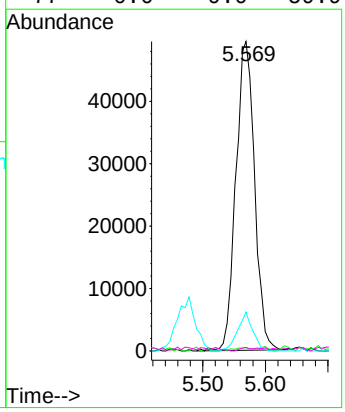


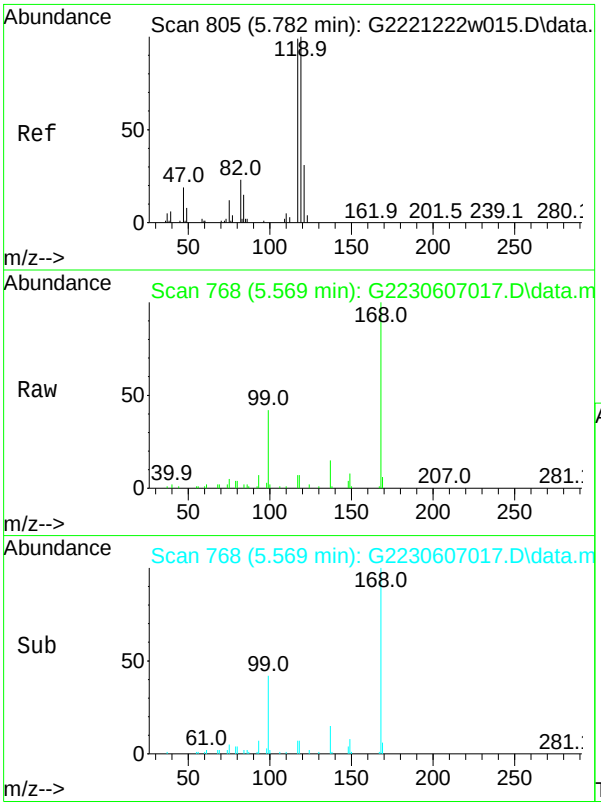


#42
1,1-Dichloropropene
Concen: 2.24 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 75 Resp: 1033733

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

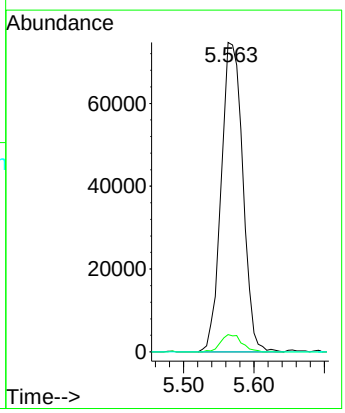


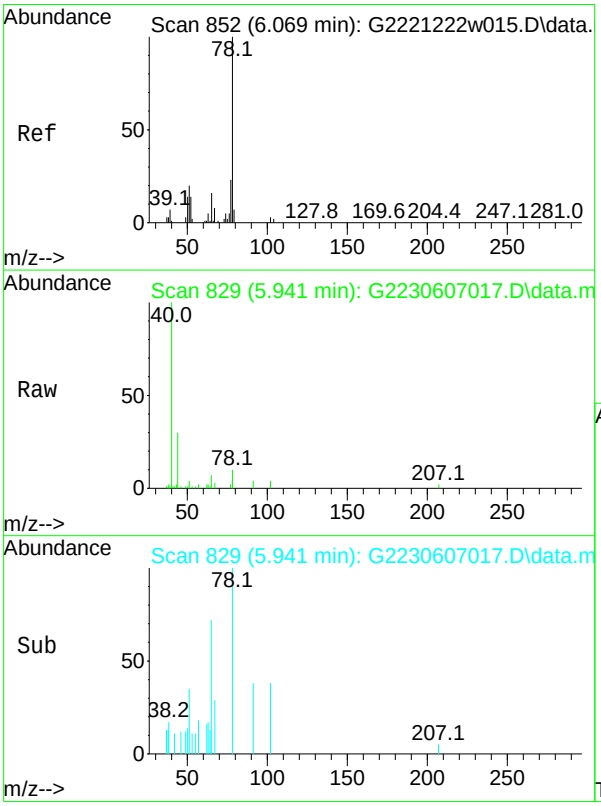


#47
Carbon tetrachloride
Concen: 3.26 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion:117 Resp: 1590909

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

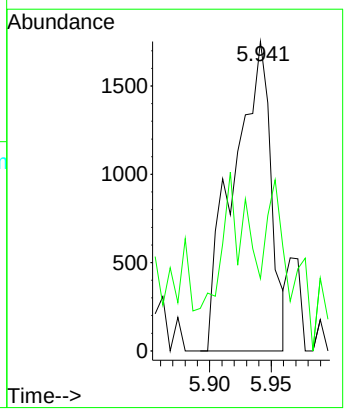


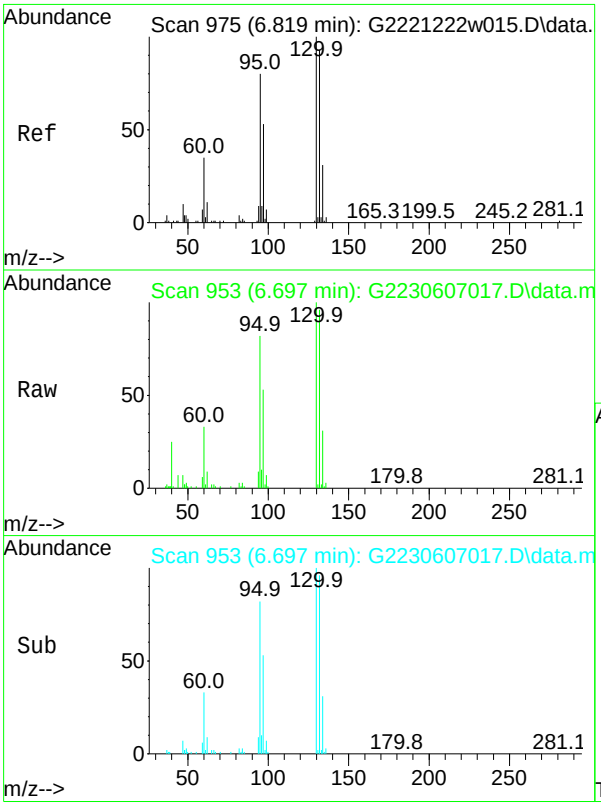


#48
Benzene
Concen: 0.03 ug/L
RT: 5.944 min Scan# 829
Delta R.T. 0.009 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 78 Resp: 36569

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

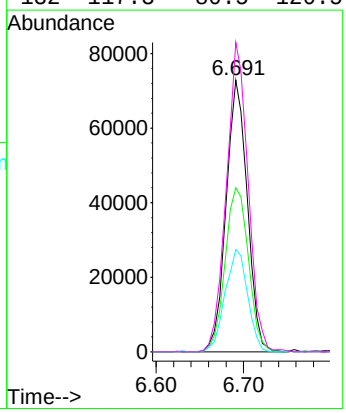


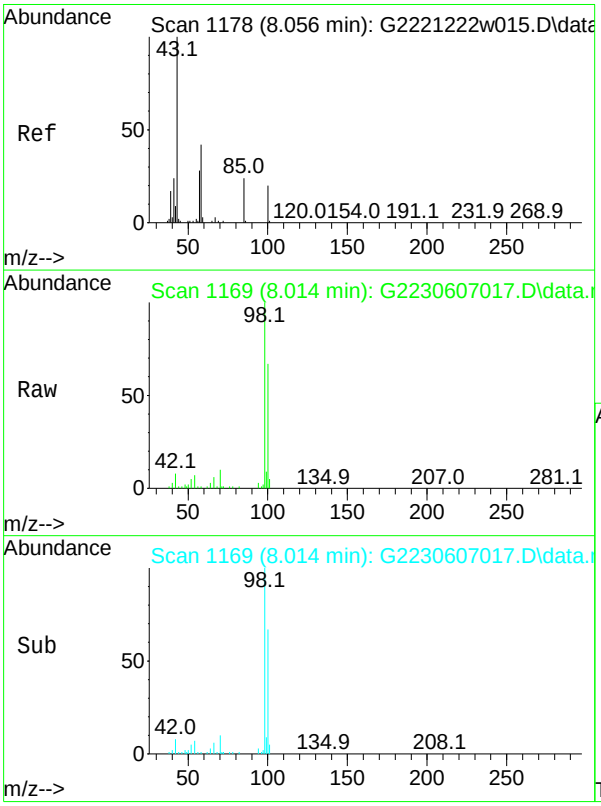


#50
Trichloroethene
Concen: 3.35 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 95 Resp: 1221594

Ion	Ratio	Lower	Upper
95	100		
97	66.9	35.5	95.5
60	40.2	14.8	74.8
132	117.3	80.5	120.5

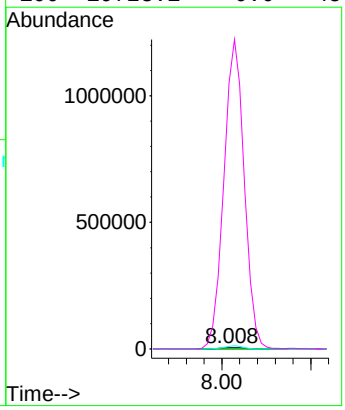


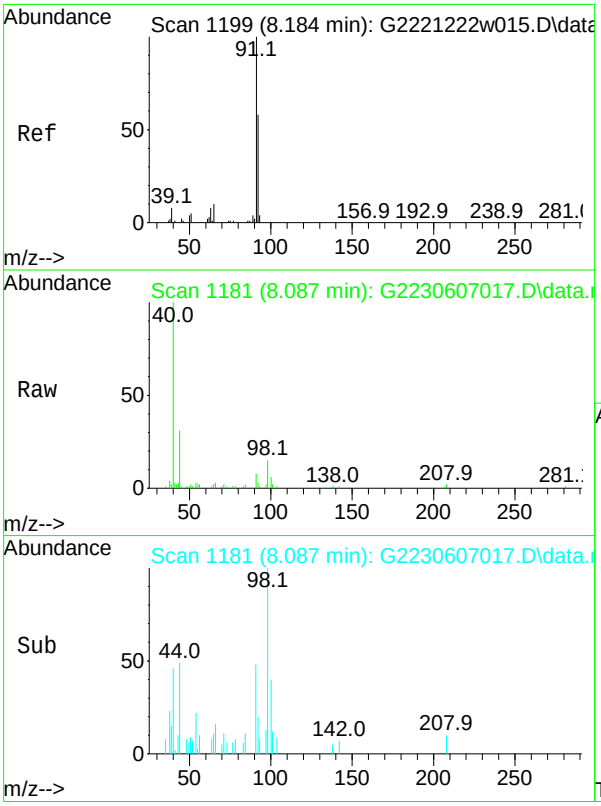


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 43 Resp: 99444

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	185.9	37.0	37.0#
100	19723.1	0.0	45.2#

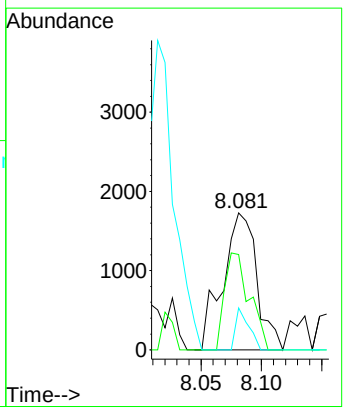


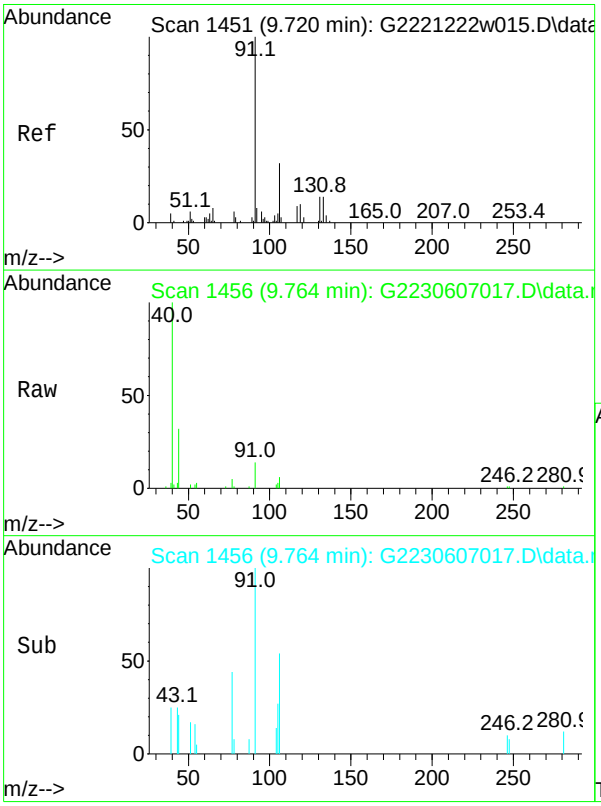


#65
Toluene
Concen: Below Cal
RT: 8.085 min Scan# 1181
Delta R.T. -0.001 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 91 Resp: 33898

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

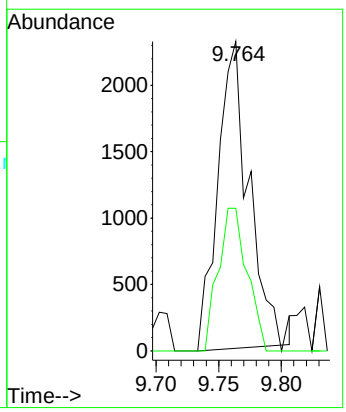


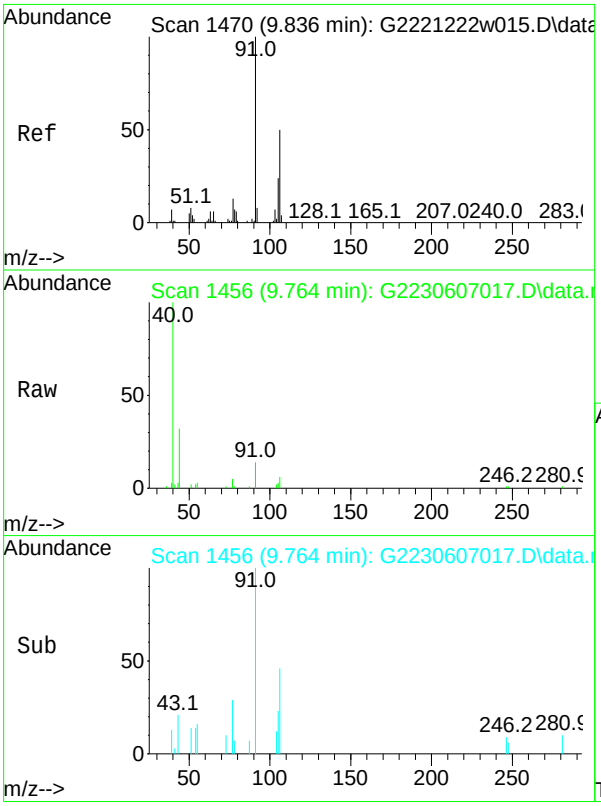


#74
Ethylbenzene
Concen: Below Cal
RT: 9.763 min Scan# 1456
Delta R.T. 0.120 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 91 Resp: 39424

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

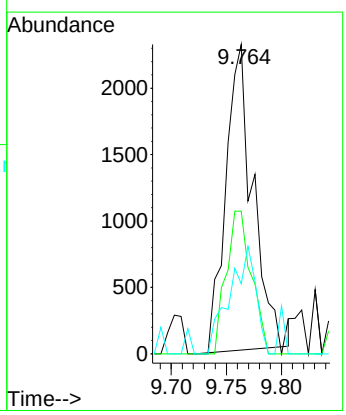


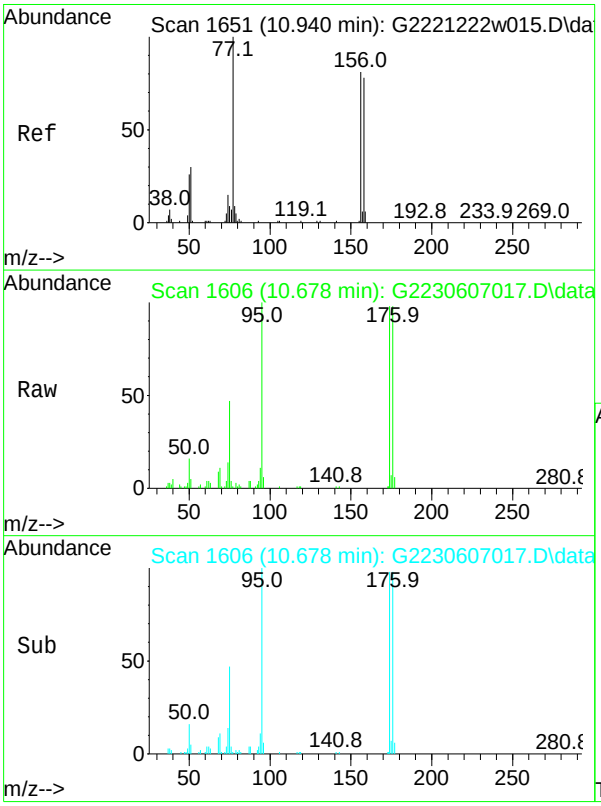


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.763 min Scan# 1456
Delta R.T. -0.001 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 91 Resp: 39068

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

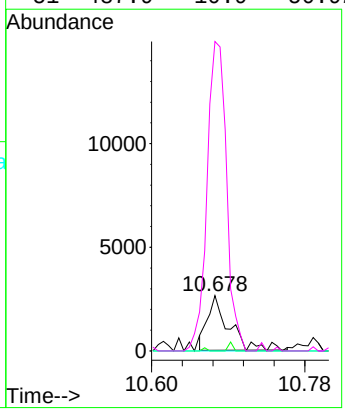


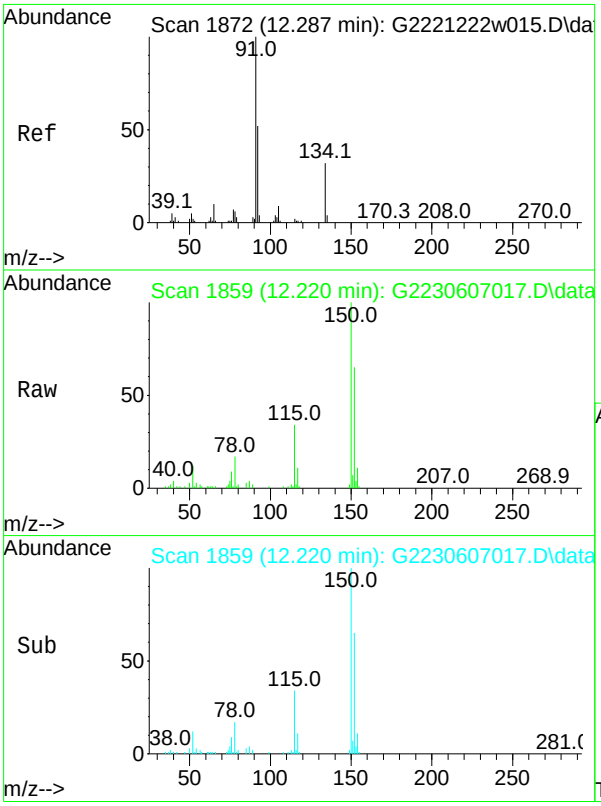


#82
Bromobenzene
Concen: 0.08 ug/L
RT: 10.681 min Scan# 1606
Delta R.T. -0.147 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 77 Resp: 48935

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	487.9	10.9	50.9#

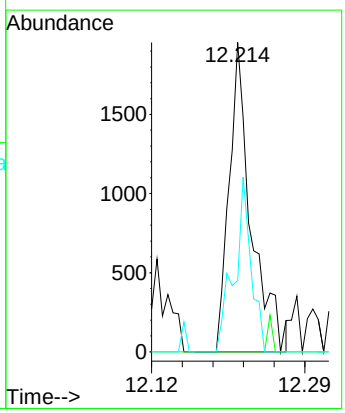




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.218 min Scan# 1859
Delta R.T. -0.013 min
Lab File: G2230607017.D
Acq: 07 Jun 2023 21:30

Tgt Ion: 91 Resp: 33244

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

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03RE2	File ID:	G2230608016.D
Sampled:	05/25/23 16:20	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 15:29
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03RE2	File ID:	G2230608016.D
Sampled:	05/25/23 16:20	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 15:29
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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*	*23.5*	*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

52647WW50

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-03RE2	File ID:	G2230608016.D
Sampled:	05/25/23 16:20	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 15:29
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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	7.00	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608016.D
Acq On : 08 Jun 2023 15:29
Operator : PO1
Sample : 23E0775-03RE2
Misc : 10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 16:51:05 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

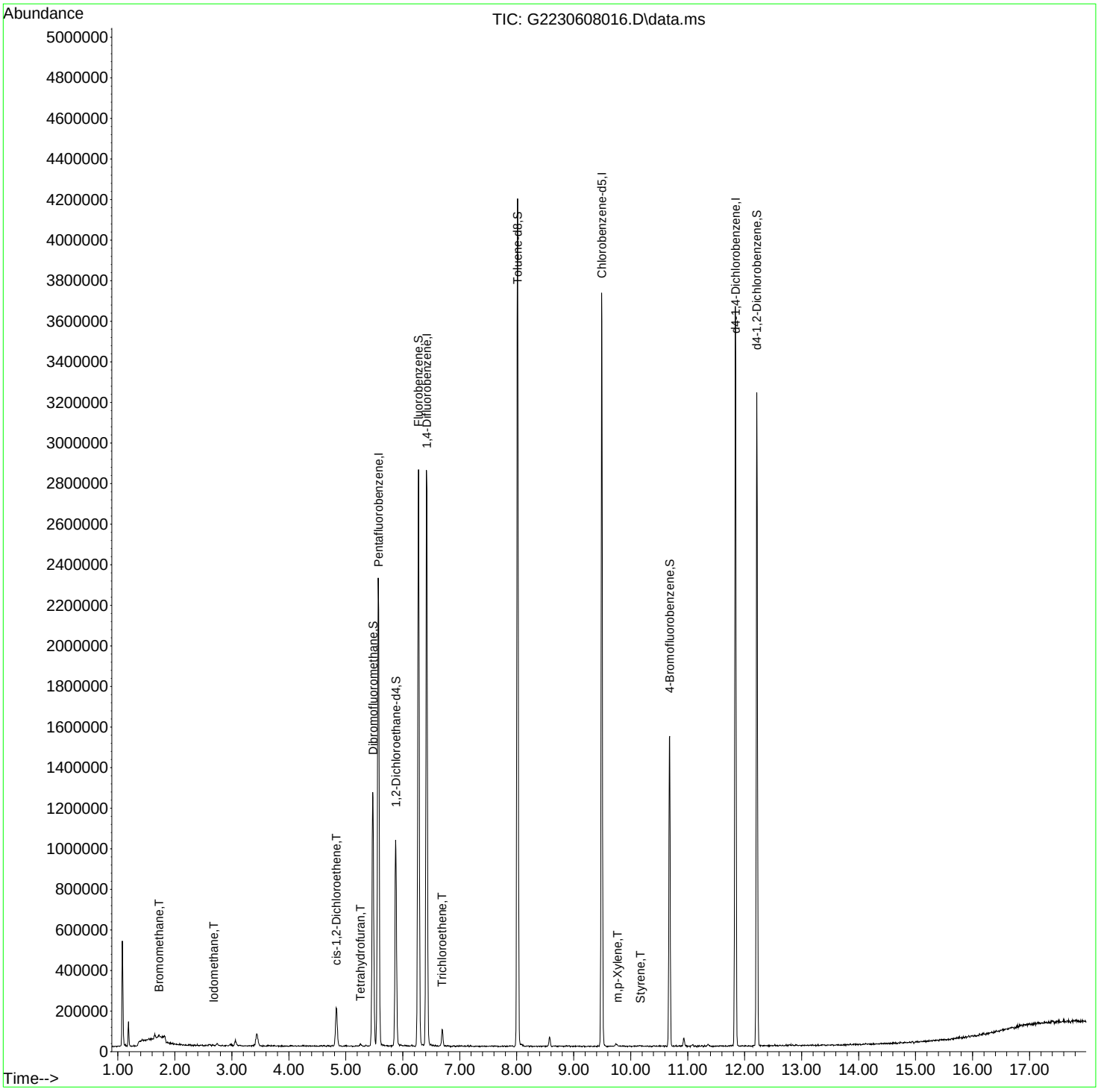
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.574	168	18512346	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.422	114	25132549	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.495	117	22034225	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10599305	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	7876203	19.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%				
43) 1,2-Dichloroethane-d4	5.878	65	7166733	17.80	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.00%				
49) Fluorobenzene	6.278	96	27807782	19.42	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%				
64) Toluene-d8	8.016	98	27115856	19.52	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%				
81) 4-Bromofluorobenzene	10.685	174	4945457	9.88	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.80%				
97) d4-1,2-Dichlorobenzene	12.217	152	9091276	19.94	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.70%				
Target Compounds							Qvalue
5) Bromomethane	1.722	94	64785	0.01	ug/L	#	83
13) Iodomethane	2.688	142	40938	0.09	ug/L	#	41
18) Methylene chloride	3.063	49	133267	Below Cal			72
21) Methyl tert-butyl ether	3.441	73	808167	Below Cal			95
28) cis-1,2-Dichloroethene	4.835	61	1127558	2.35	ug/L	#	74
36) Tetrahydrofuran	5.257	42	71405	0.19	ug/L	#	41
50) Trichloroethene	6.693	95	256421	0.70	ug/L		94
65) Toluene	8.086	91	37676	Below Cal		#	30
75) m,p-Xylene	9.768	91	51974	0.04	ug/L	#	36
76) Styrene	10.170	104	21105	0.02	ug/L	#	29

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608016.D
Acq On : 08 Jun 2023 15:29
Operator : PO1
Sample : 23E0775-03RE2
Misc : 10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 16:51:05 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608016.D
Acq On : 08 Jun 2023 15:29
Operator : PO1
Sample : 23E0775-03RE2
Misc : 10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 16:51:05 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

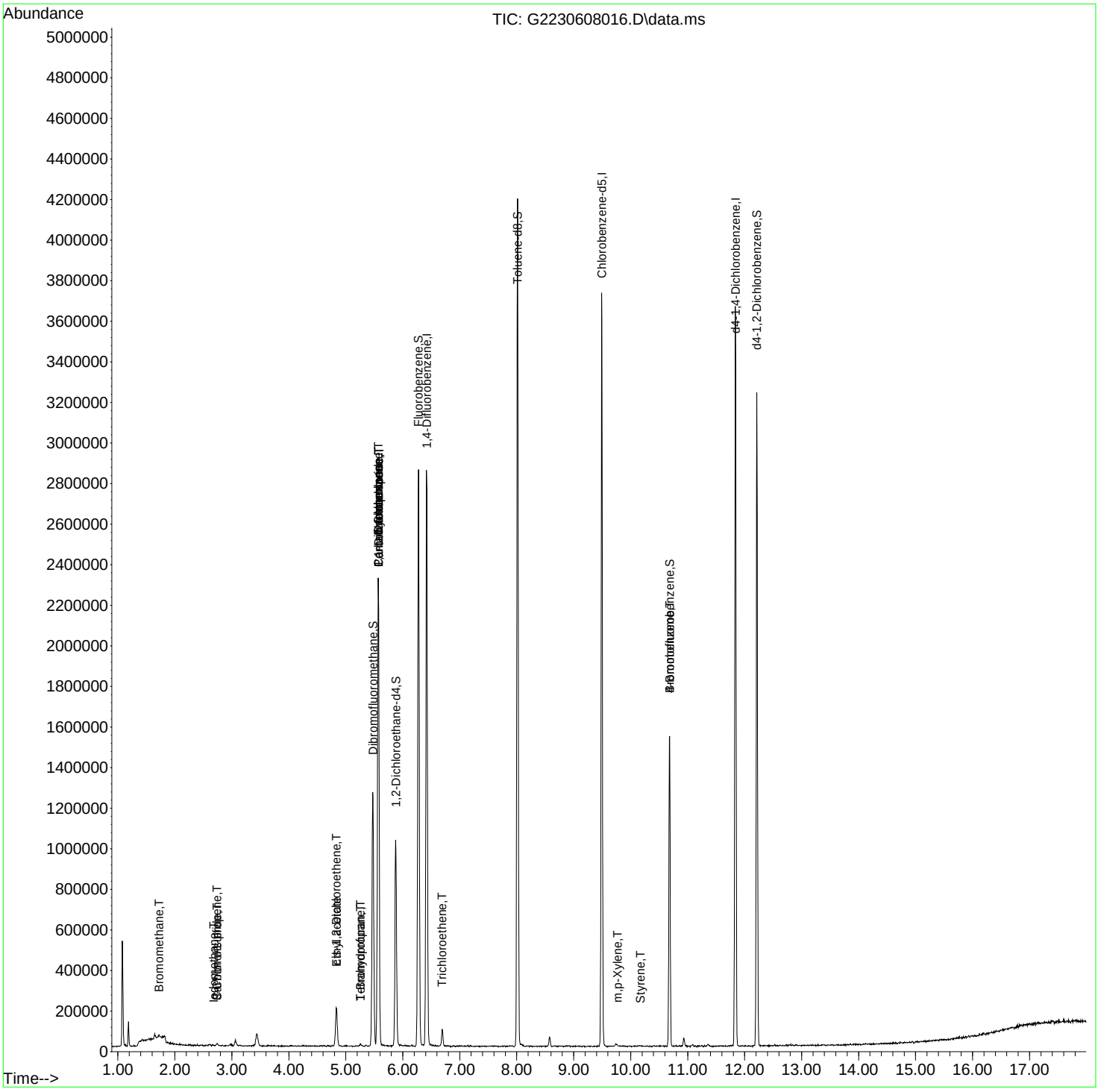
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.574	168	18512346	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.422	114	25132549	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.495	117	22034225	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10599305	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	7876203	19.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%				
43) 1,2-Dichloroethane-d4	5.878	65	7166733	17.80	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.00%				
49) Fluorobenzene	6.278	96	27807782	19.42	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%				
64) Toluene-d8	8.016	98	27115856	19.52	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%				
81) 4-Bromofluorobenzene	10.685	174	4945457	9.88	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.80%				
97) d4-1,2-Dichlorobenzene	12.217	152	9091276	19.94	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.70%				
Target Compounds							Qvalue
5) Bromomethane	1.722	94	64785	0.01	ug/L	#	83
12) Acetone	2.605	43	66032	Below Cal		#	45
13) Iodomethane	2.688	142	40938	0.09	ug/L	#	41
14) Carbon disulfide	2.742	76	121191	0.05	ug/L	#	74
17) 3-Chloro-1-propene	2.742	76	121189	0.57	ug/L	#	53
18) Methylene chloride	3.063	49	133267	Below Cal			72
21) Methyl tert-butyl ether	3.441	73	808167	Below Cal			95
28) cis-1,2-Dichloroethene	4.835	61	1127558	2.35	ug/L	#	74
31) Ethyl acetate	4.835	61	1127560	20.37	ug/L	#	45
33) 1-Bromopropane	5.259	41	36307	0.07	ug/L	#	40
36) Tetrahydrofuran	5.257	42	71405	0.19	ug/L	#	41
40) Cyclohexane	5.569	84	389398	0.78	ug/L	#	27
41) 1-Chlorobutane	5.571	56	224169	0.39	ug/L	#	1
42) 1,1-Dichloropropene	5.573	75	979659	2.26	ug/L	#	38
47) Carbon tetrachloride	5.574	117	1443572	3.18	ug/L	#	16
50) Trichloroethene	6.693	95	256421	0.70	ug/L		94
60) 4-Methyl-2-pentanone	8.012	43	103296	Below Cal		#	1
65) Toluene	8.086	91	37676	Below Cal		#	30
74) Ethylbenzene	9.771	91	53916	Below Cal		#	44
75) m,p-Xylene	9.768	91	51974	0.04	ug/L	#	36
76) Styrene	10.170	104	21105	0.02	ug/L	#	29
82) Bromobenzene	10.687	77	35562	0.06	ug/L	#	1
99) n-Butylbenzene	12.218	91	31824	Below Cal		#	53

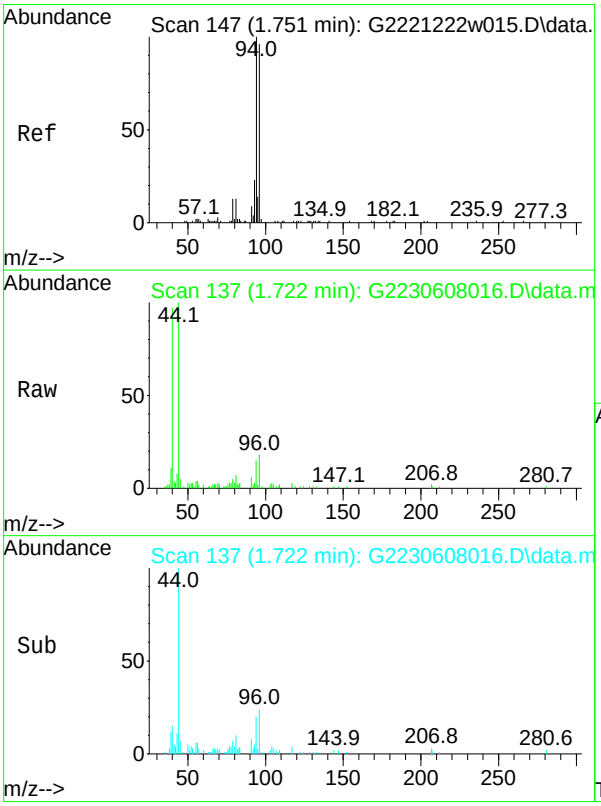
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608016.D
Acq On : 08 Jun 2023 15:29
Operator : PO1
Sample : 23E0775-03RE2
Misc : 10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 16:51:05 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

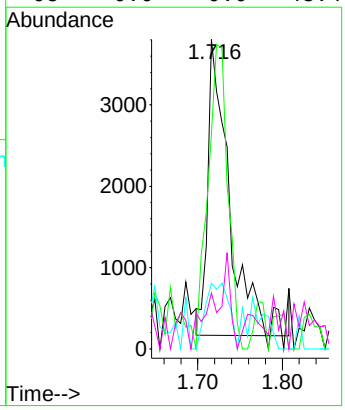


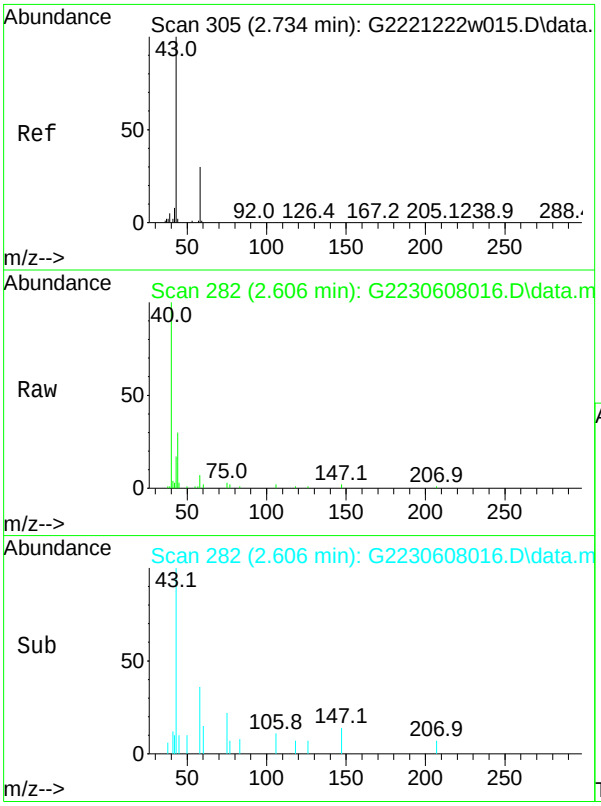


#5
Bromomethane
Concen: 0.01 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 94 Resp: 64785

Ion	Ratio	Lower	Upper
94	100		
96	86.9	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

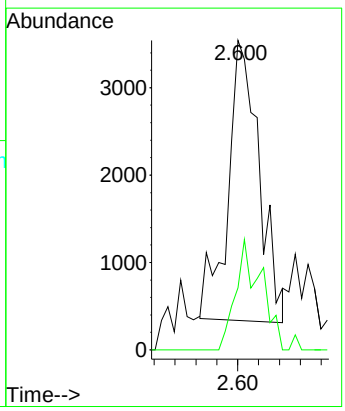


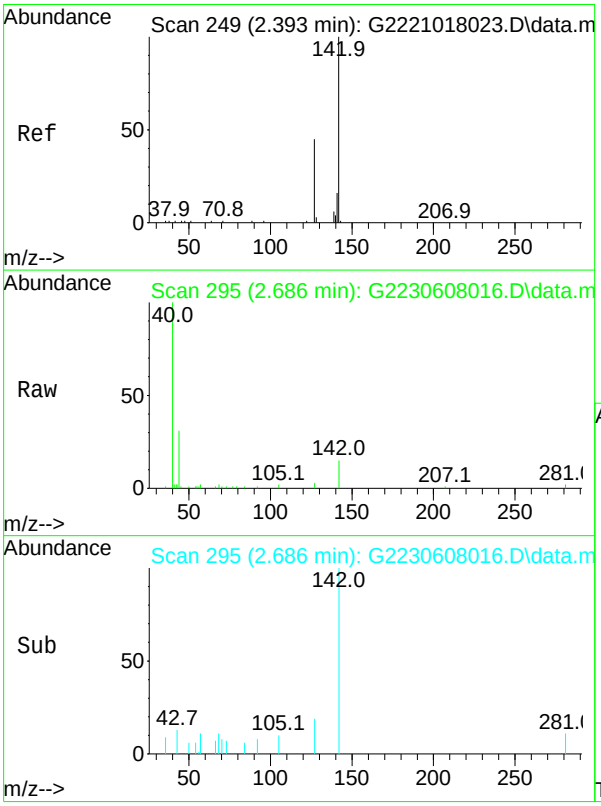


#12
Acetone
Concen: Below Cal
RT: 2.605 min Scan# 282
Delta R.T. -0.003 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 43 Resp: 66032

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

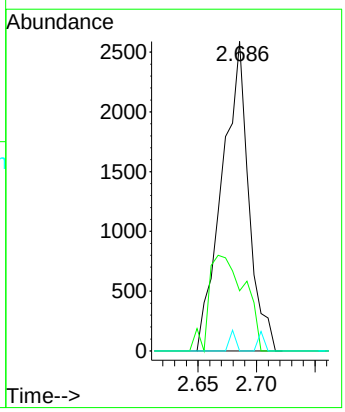


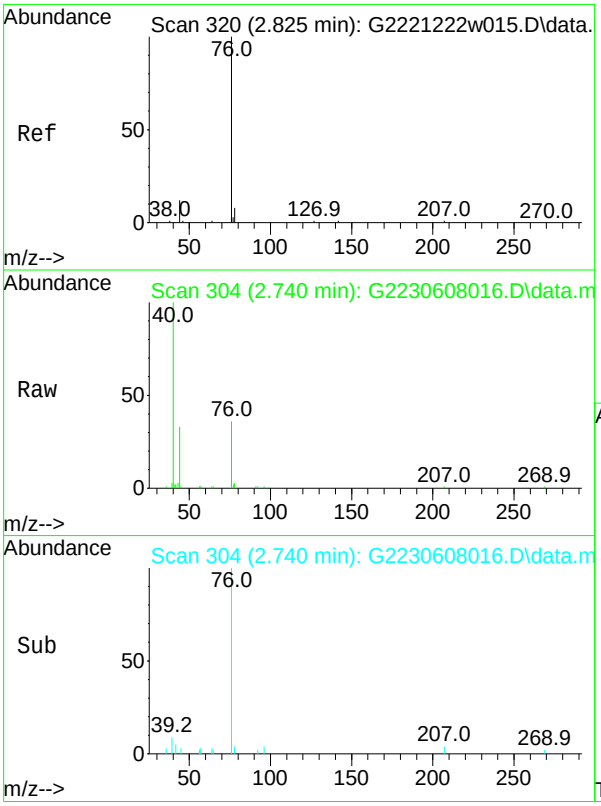


#13
Iodomethane
Concen: 0.09 ug/L
RT: 2.688 min Scan# 295
Delta R.T. 0.011 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion:142 Resp: 40938

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

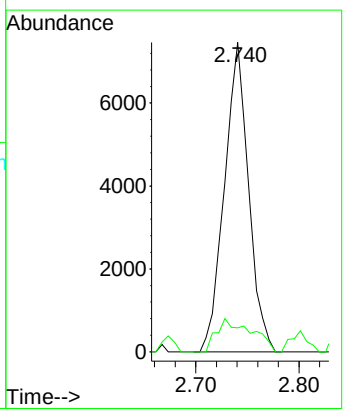


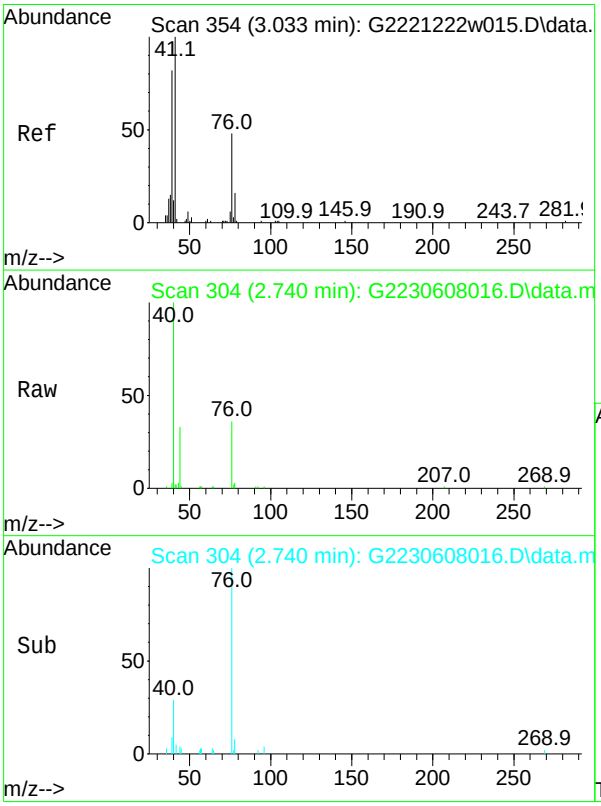


#14
Carbon disulfide
Concen: 0.05 ug/L
RT: 2.742 min Scan# 304
Delta R.T. 0.003 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 76 Resp: 121191

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

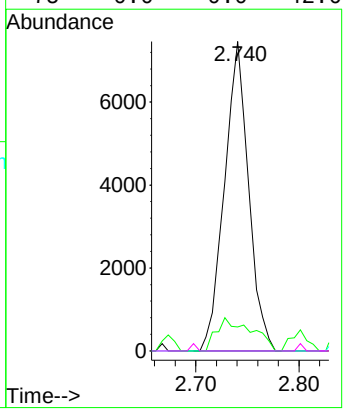


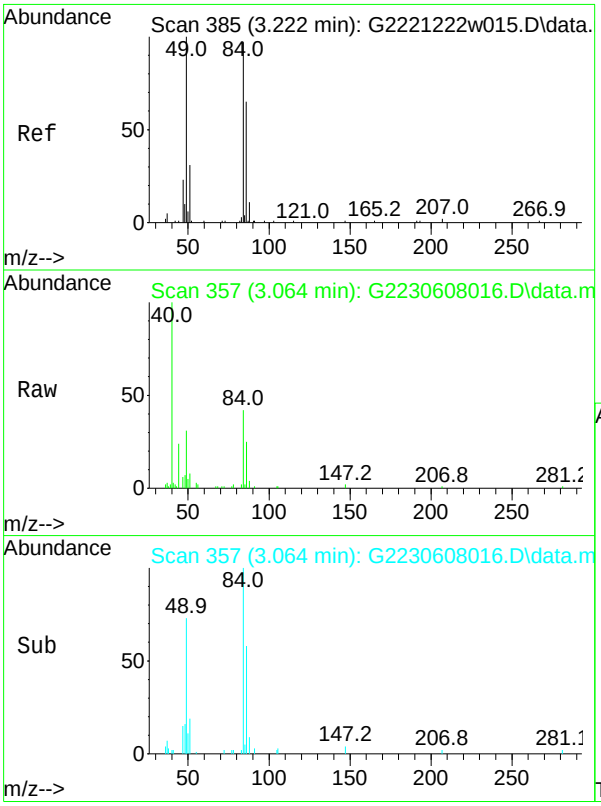


#17
3-Chloro-1-propene
Concen: 0.57 ug/L
RT: 2.742 min Scan# 304
Delta R.T. -0.178 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 76 Resp: 121189

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

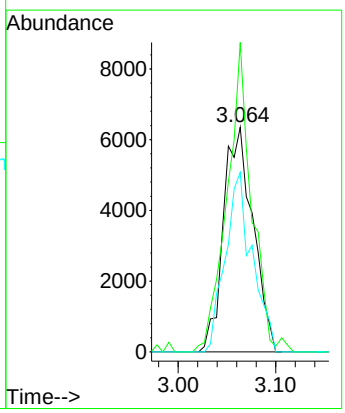


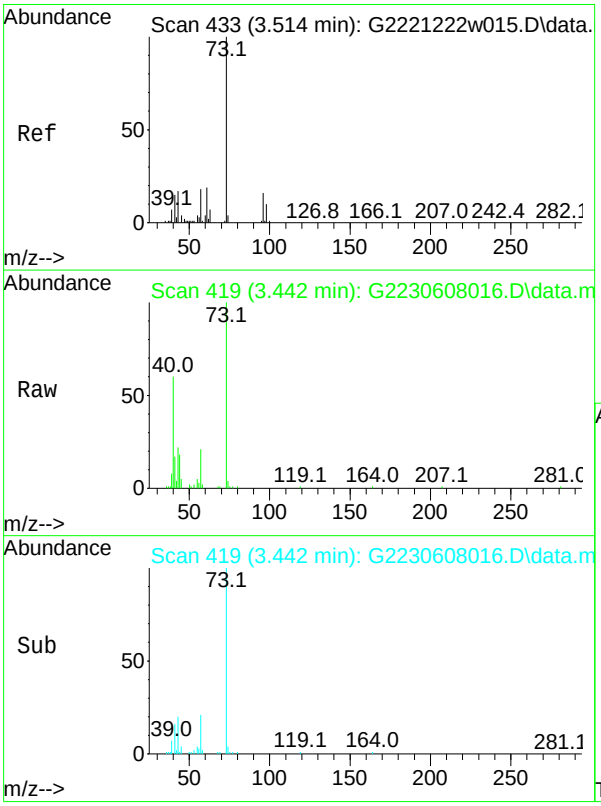


#18
Methylene chloride
Concen: Below Cal
RT: 3.063 min Scan# 357
Delta R.T. 0.001 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 49 Resp: 133267

Ion	Ratio	Lower	Upper
49	100		
84	115.6	57.9	117.9
86	72.8	24.9	84.9

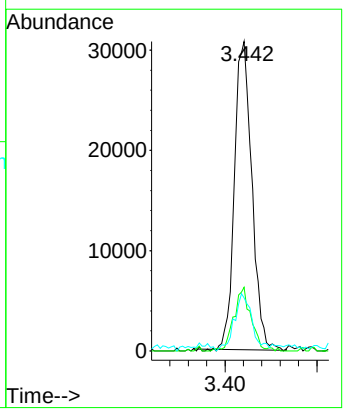


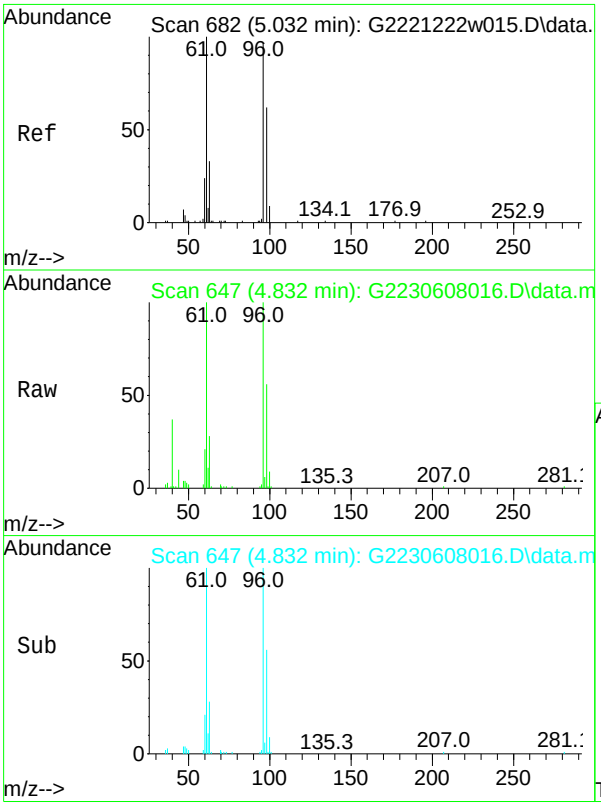


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.441 min Scan# 419
Delta R.T. -0.005 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 73 Resp: 808167

Ion	Ratio	Lower	Upper
73	100		
57	20.6	0.0	51.7
41	17.3	0.0	50.6

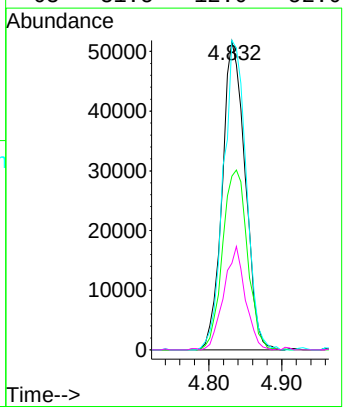


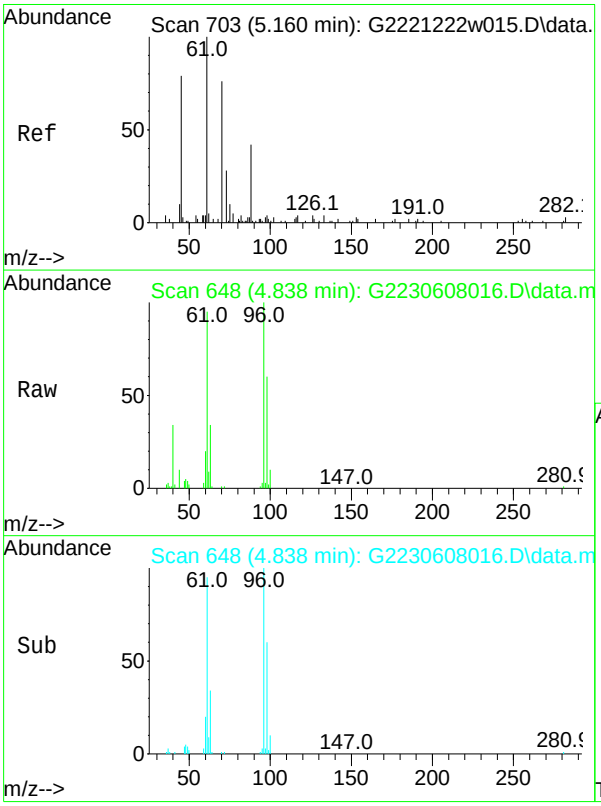


#28
cis-1,2-Dichloroethene
Concen: 2.35 ug/L
RT: 4.835 min Scan# 647
Delta R.T. -0.001 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 61 Resp: 1127558

Ion	Ratio	Lower	Upper
61	100		
98	63.1	15.9	75.9
96	99.9	39.6	99.6#
63	31.5	12.0	52.0

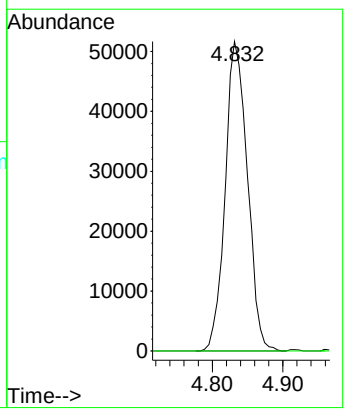


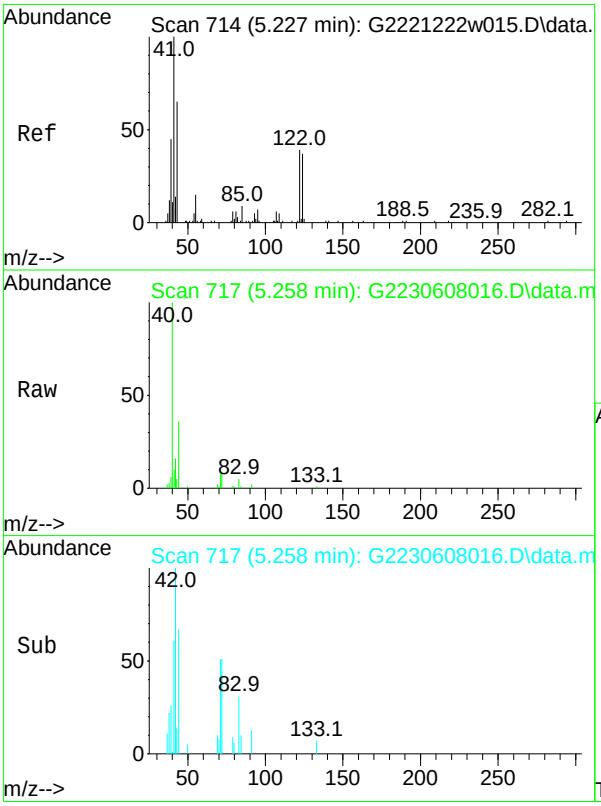


#31
Ethyl acetate
Concen: 20.37 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.187 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 61 Resp: 1127560

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

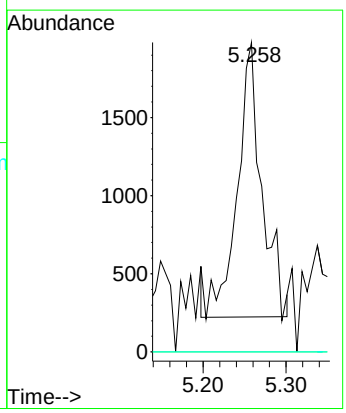


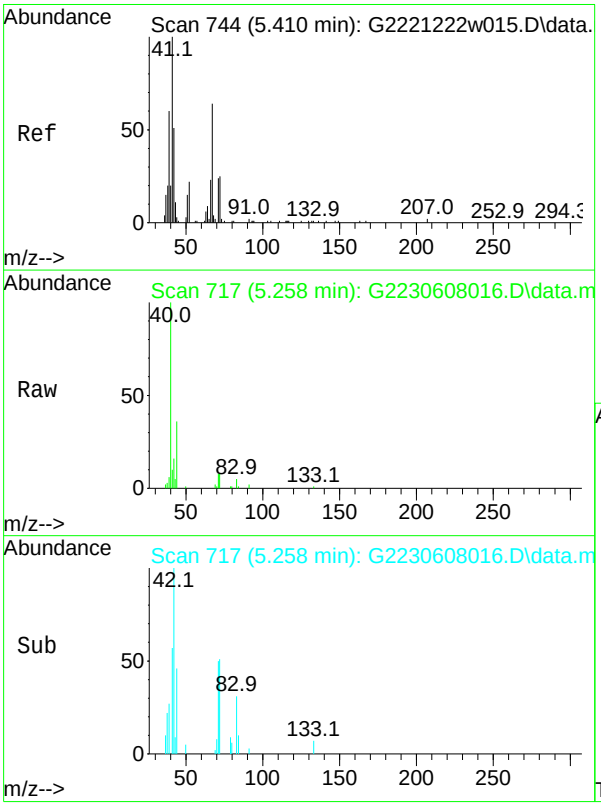


#33
1-Bromopropane
Concen: 0.07 ug/L
RT: 5.259 min Scan# 717
Delta R.T. 0.183 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 41 Resp: 36307

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

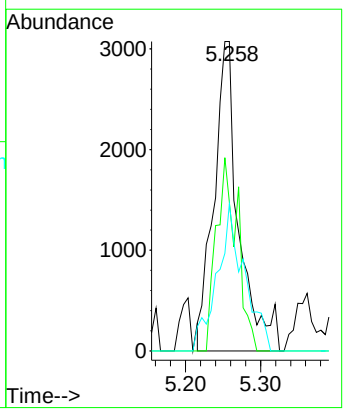


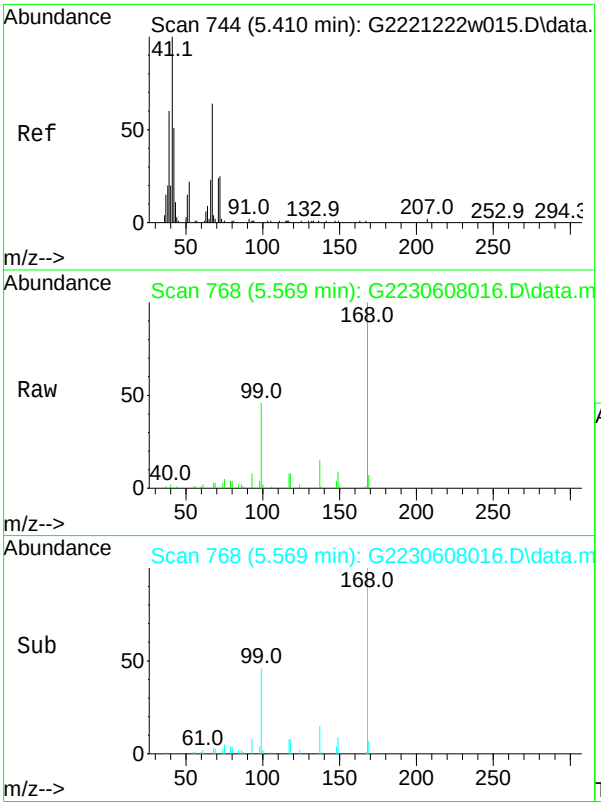


#36
Tetrahydrofuran
Concen: 0.19 ug/L
RT: 5.257 min Scan# 717
Delta R.T. -0.004 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 42 Resp: 71405

Ion	Ratio	Lower	Upper
42	100		
72	15.0	18.8	78.8#
71	0.0	14.7	74.7#

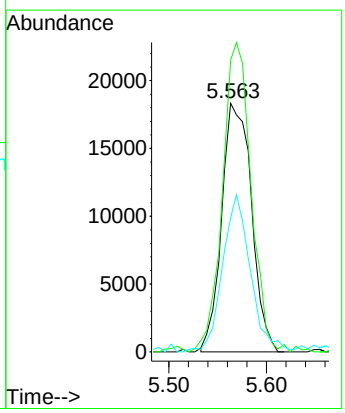


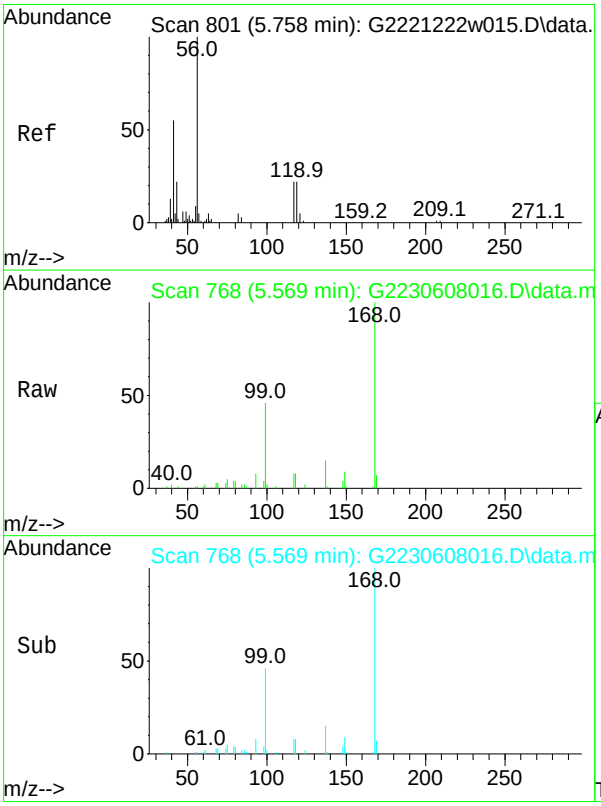


#40
Cyclohexane
Concen: 0.78 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 84 Resp: 389398

Ion	Ratio	Lower	Upper
84	100		
69	119.4	6.8	66.8#
56	55.7	79.1	139.1#

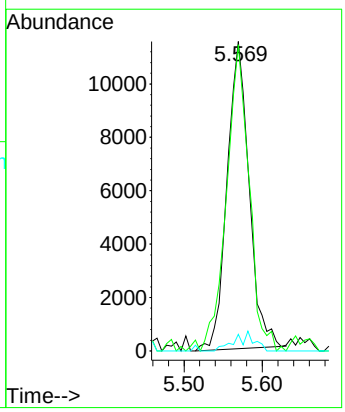


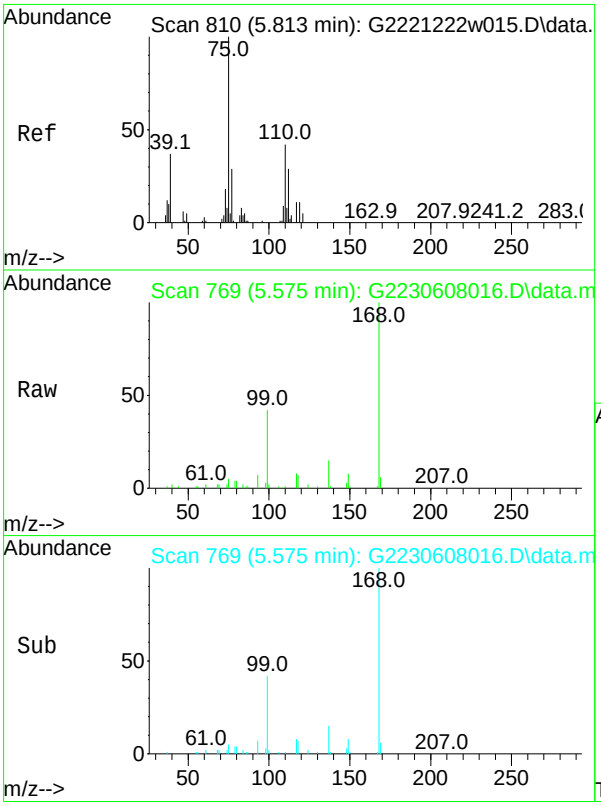


#41
1-Chlorobutane
Concen: 0.39 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.059 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 56 Resp: 224169

Ion	Ratio	Lower	Upper
56	100		
55	100.2	0.0	41.0#
57	0.0	0.0	35.7

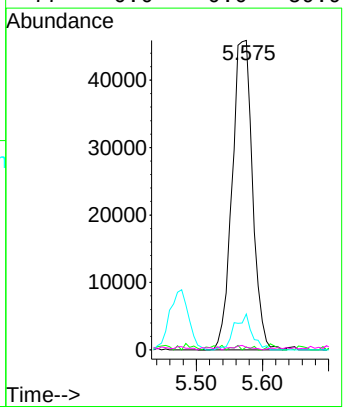


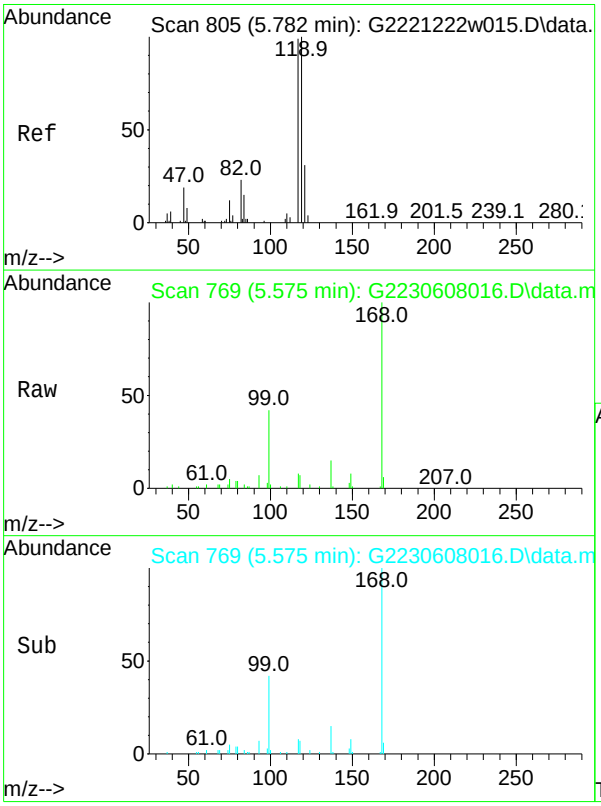


#42
1,1-Dichloropropene
Concen: 2.26 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.116 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 75 Resp: 979659

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.1	9.1	69.1
77	0.0	0.0	59.9

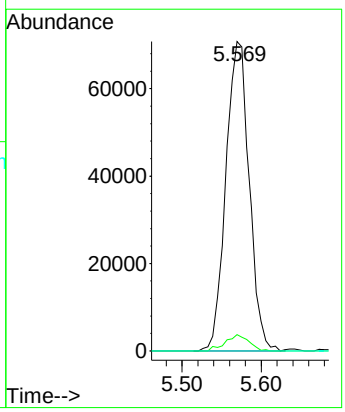


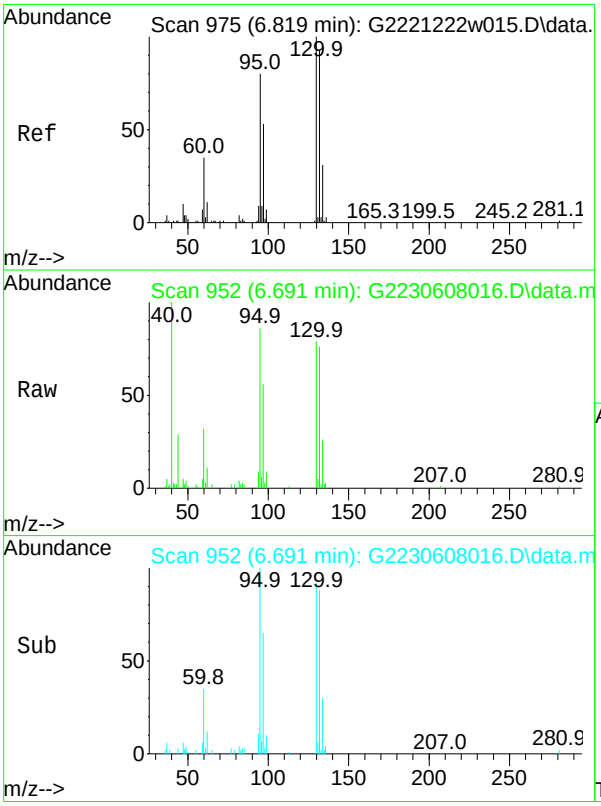


#47
Carbon tetrachloride
Concen: 3.18 ug/L
RT: 5.574 min Scan# 769
Delta R.T. -0.106 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion:117 Resp: 1443572

Ion	Ratio	Lower	Upper
117	100		
119	5.3	66.4	126.4#
121	0.0	0.4	60.4#

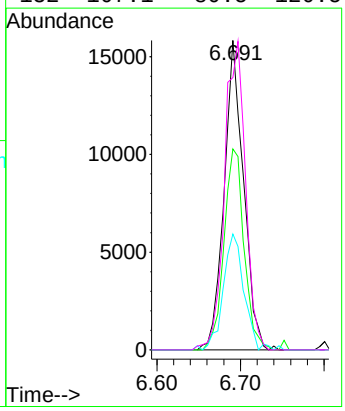


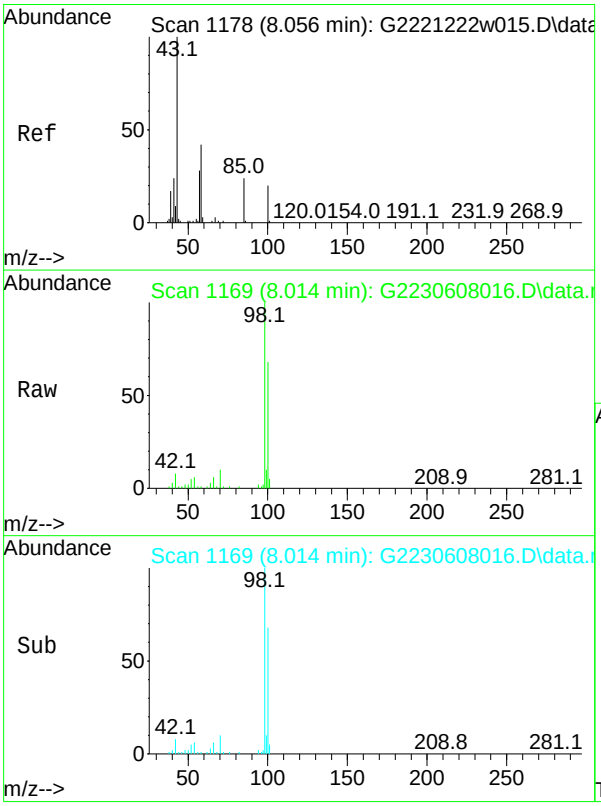


#50
Trichloroethene
Concen: 0.70 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 95 Resp: 256421

Ion	Ratio	Lower	Upper
95	100		
97	67.3	35.5	95.5
60	39.6	14.8	74.8
132	107.1	80.5	120.5

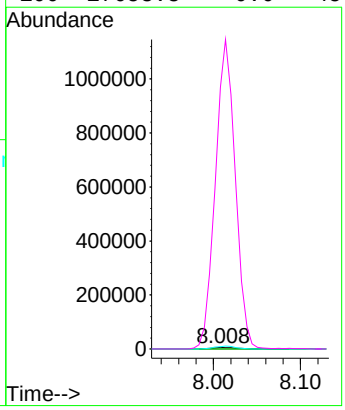


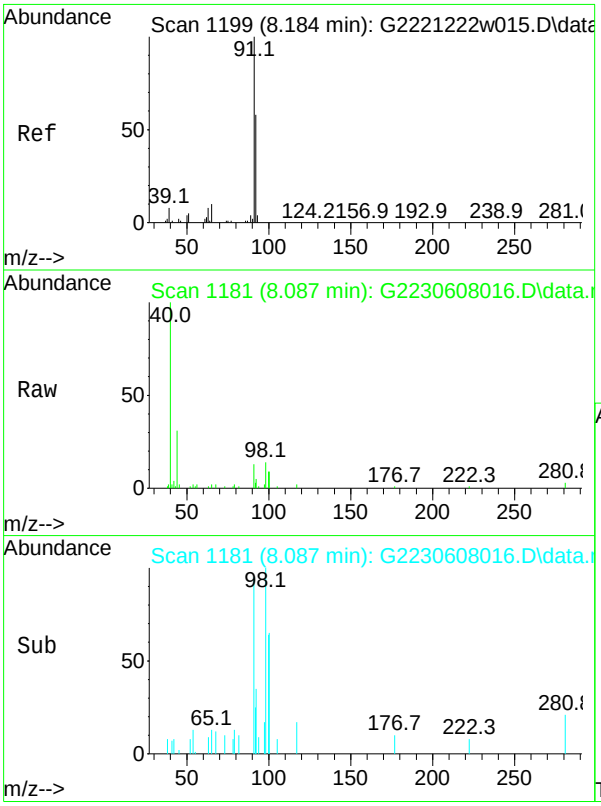


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 43 Resp: 103296

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	172.8	37.0	37.0#
100	17653.3	0.0	45.2#

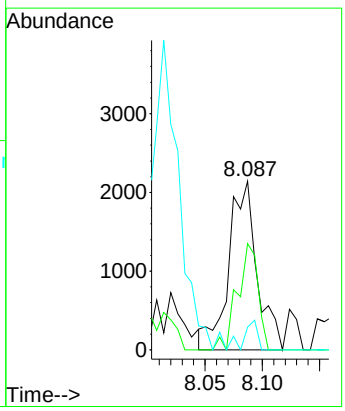


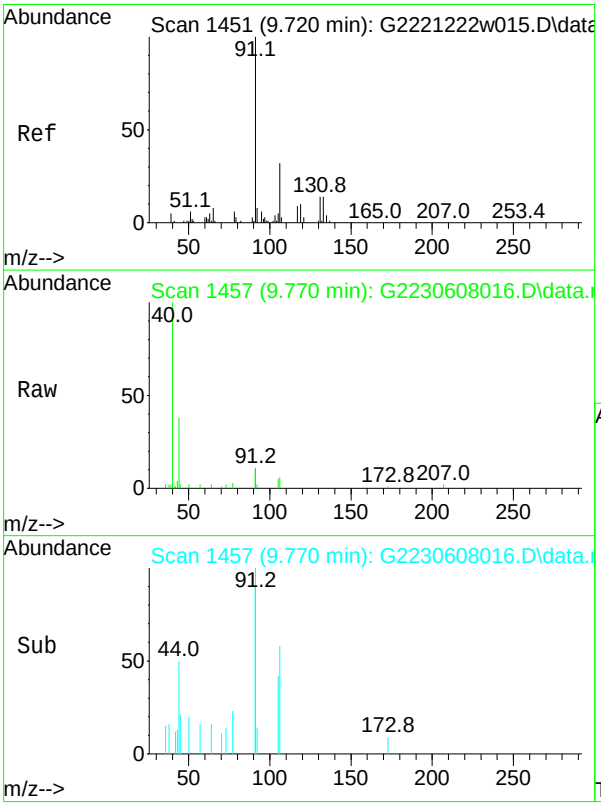


#65
Toluene
Concen: Below Cal
RT: 8.086 min Scan# 1181
Delta R.T. 0.000 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 91 Resp: 37676

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

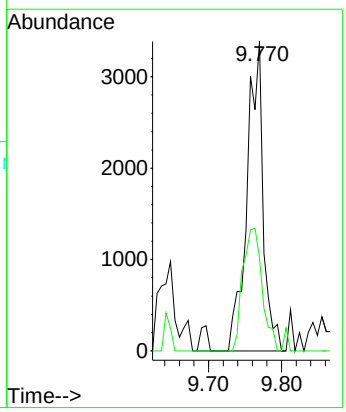


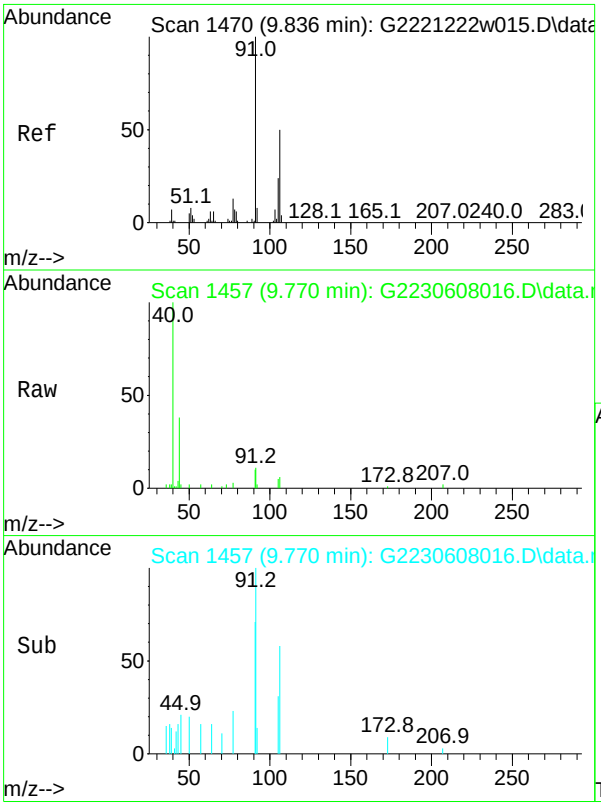


#74
Ethylbenzene
Concen: Below Cal
RT: 9.771 min Scan# 1457
Delta R.T. 0.128 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 91 Resp: 53916

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

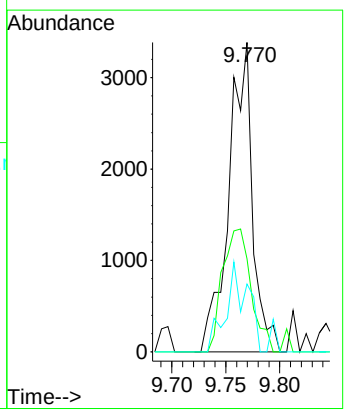


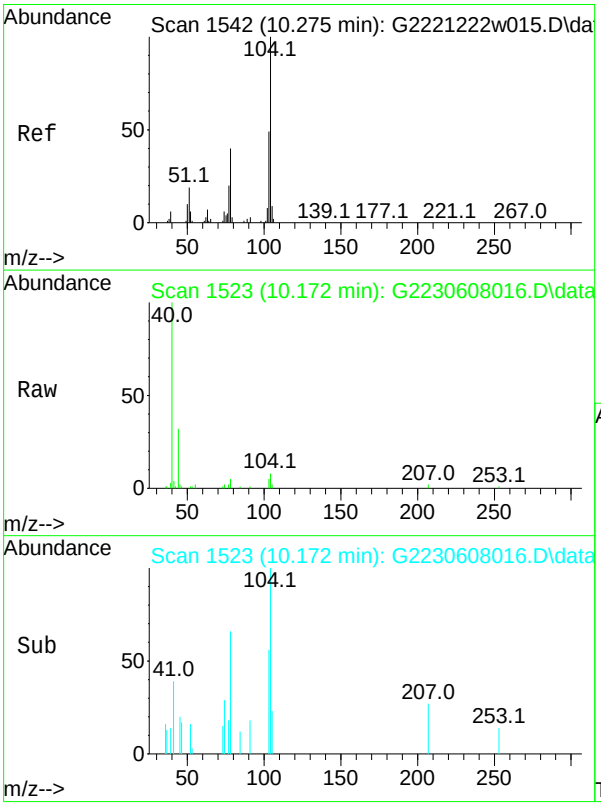


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.768 min Scan# 1457
Delta R.T. 0.004 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 91 Resp: 51974

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

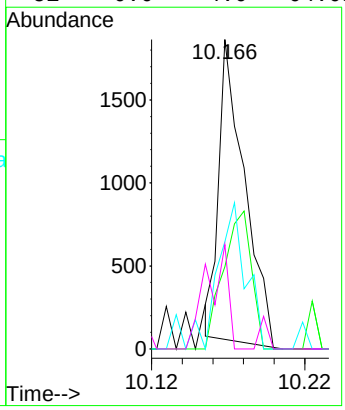


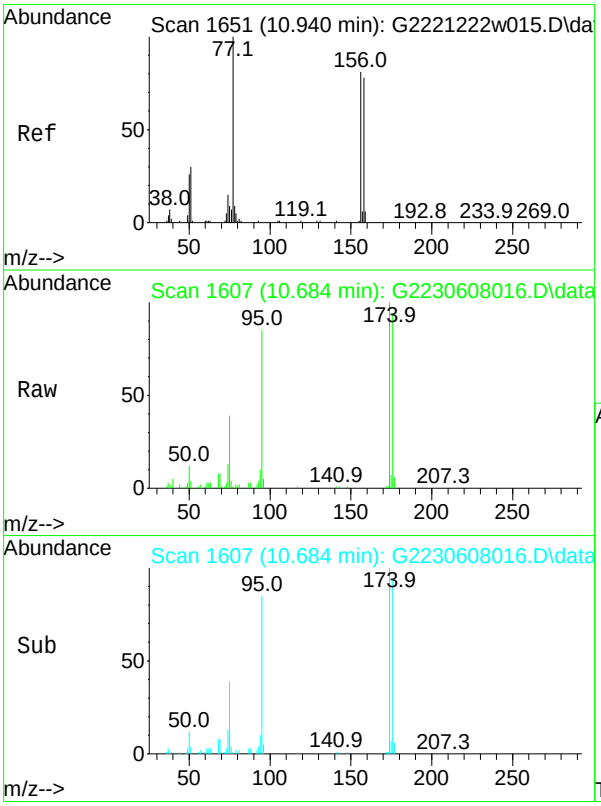


#76
Styrene
Concen: 0.02 ug/L
RT: 10.170 min Scan# 1523
Delta R.T. -0.007 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion:104 Resp: 21105

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

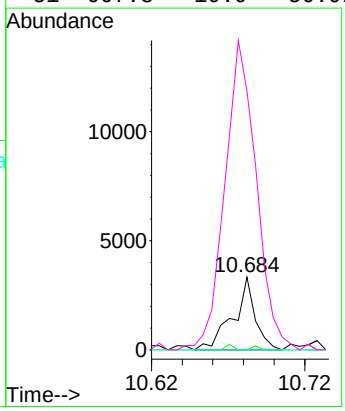


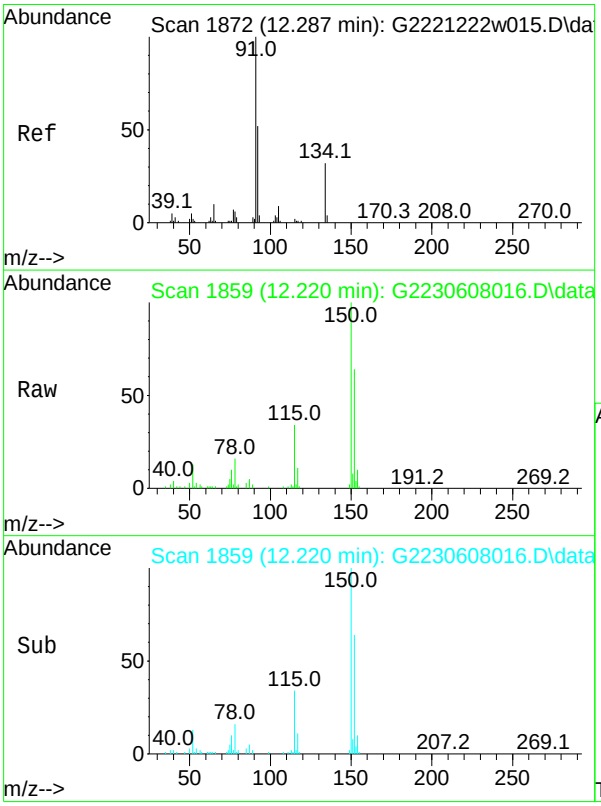


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.687 min Scan# 1607
Delta R.T. -0.141 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 77 Resp: 35562

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	607.8	10.9	50.9#

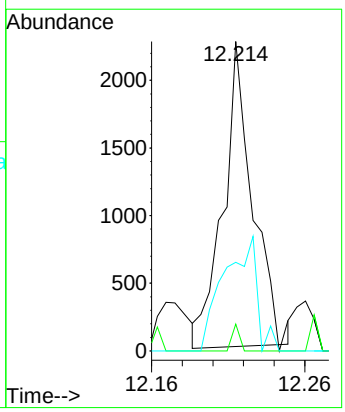




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.218 min Scan# 1859
Delta R.T. -0.013 min
Lab File: G2230608016.D
Acq: 08 Jun 2023 15:29

Tgt Ion: 91 Resp: 31824

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

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04	File ID:	G2230606019.D
Sampled:	05/26/23 12:30	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 18:08
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.350	0.0954	0.200	0.500	J
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	0.800	0.330	0.700	1.75	J
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

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04	File ID:	G2230606019.D
Sampled:	05/26/23 12:30	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 18:08
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	13.8	0.518	2.00	4.00	
71-43-2	Benzene	0.160	0.0507	0.200	0.500	J
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	0.440	0.192	0.500	1.00	J
156-59-2	cis-1,2-Dichloroethene	23.0	0.103	0.300	0.600	
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

SW8260B/D

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04	File ID:	G2230606019.D
Sampled:	05/26/23 12:30	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 18:08
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, U*
108-88-3	Toluene	0.0600	0.0572	0.200	0.500	J
156-60-5	trans-1,2-Dichloroethene	0.690	0.0855	0.200	0.500	
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	*Trichloroethene*	*413*	*0.0781*	*0.200*	*0.500*	*B, E*
75-69-4	Trichlorofluoromethane		0.0505	0.200	0.500	U
75-01-4	Vinyl chloride	0.350	0.129	0.500	1.00	J

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606019.D
Acq On : 06 Jun 2023 18:08
Operator : PO1
Sample : 23E0775-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 07 09:26:53 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

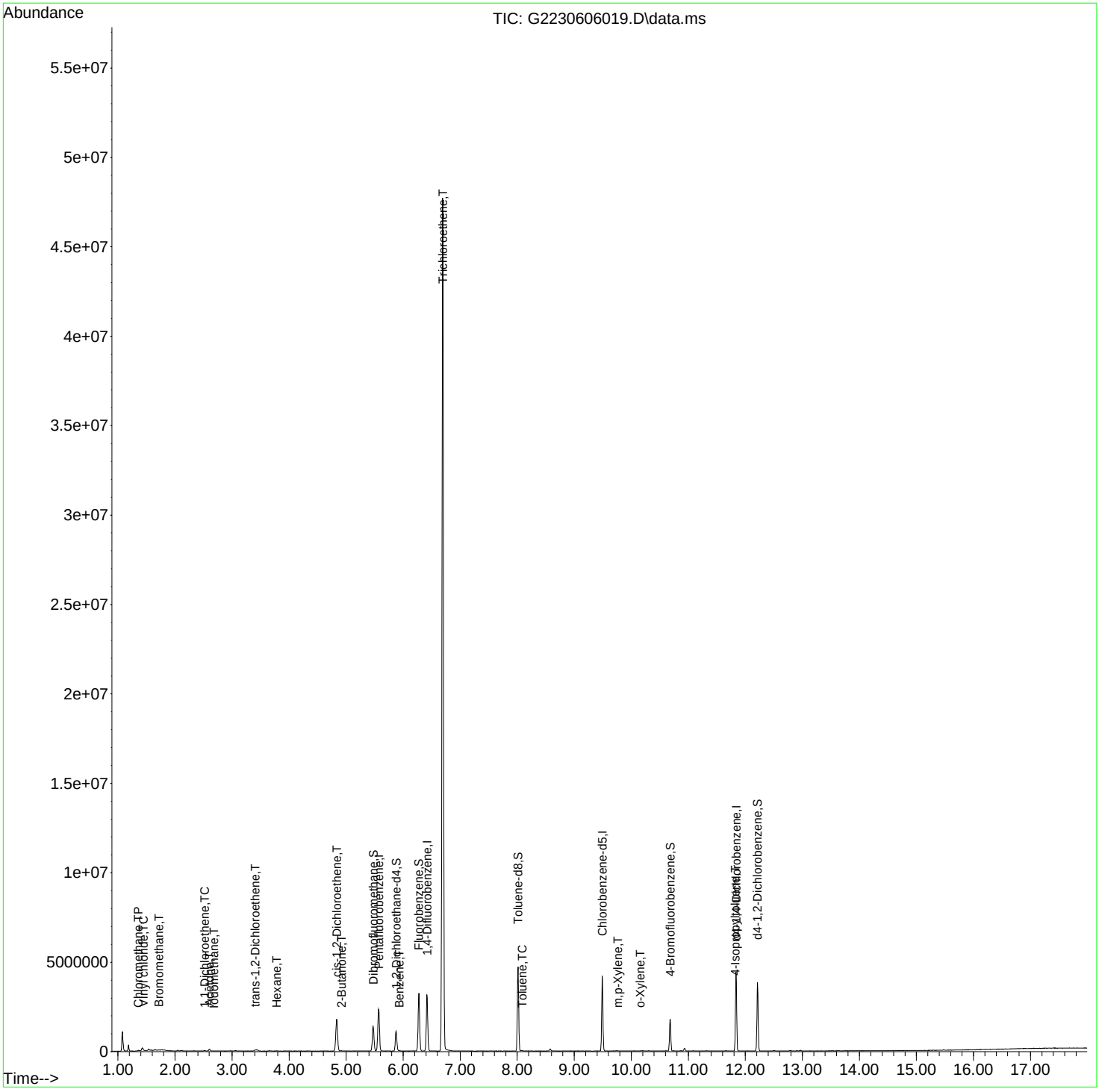
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.573	168	18806771	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	27635565	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24661235	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	12463859	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	8789011	21.24	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 106.20%				
43) 1,2-Dichloroethane-d4	5.878	65	7982429	19.52	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%				
49) Fluorobenzene	6.278	96	31071094	19.73	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.65%				
64) Toluene-d8	8.016	98	30143016	19.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%				
81) 4-Bromofluorobenzene	10.684	174	5624216	9.56	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.60%				
97) d4-1,2-Dichlorobenzene	12.217	152	10944273	20.42	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.10%				
Target Compounds							Qvalue
3) Chloromethane	1.356	50	169563	0.44	ug/L		95
4) Vinyl chloride	1.446	62	129105	0.35	ug/L		81
5) Bromomethane	1.716	94	89744m	0.11	ug/L		
10) 1,1-Dichloroethene	2.524	61	173225	0.35	ug/L		81
12) Acetone	2.605	43	1301017	13.80	ug/L		95
13) Iodomethane	2.681	142	64750	0.15	ug/L	#	41
18) Methylene chloride	3.062	49	140939	Below Cal			83
20) trans-1,2-Dichloroethene	3.403	61	282814	0.69	ug/L		84
21) Methyl tert-butyl ether	3.439	73	915381	Below Cal			96
22) Hexane	3.785	57	96206	0.22	ug/L	#	50
28) cis-1,2-Dichloroethene	4.836	61	10866555	23.01	ug/L		76
29) 2-Butanone	4.921	72	63363	0.80	ug/L	#	42
48) Benzene	5.932	78	224848	0.16	ug/L		98
50) Trichloroethene	6.695	95	150003149	413.33	ug/L		93
65) Toluene	8.085	91	210185	0.06	ug/L	#	91
69) 2-Hexanone	8.803	43	59294	Below Cal		#	55
75) m,p-Xylene	9.762	91	78623	0.06	ug/L	#	84
79) o-Xylene	10.158	91	41989	0.03	ug/L	#	37
95) 4-Isopropyltoluene	11.822	119	63117	0.04	ug/L	#	19

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606019.D
Acq On : 06 Jun 2023 18:08
Operator : PO1
Sample : 23E0775-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 07 09:26:53 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606019.D
Acq On : 06 Jun 2023 18:08
Operator : PO1
Sample : 23E0775-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 07 09:26:53 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	5.573	168	18806771	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	27635565	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24661235	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	12463859	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	8789011	21.24	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 106.20%				
43) 1,2-Dichloroethane-d4	5.878	65	7982429	19.52	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%				
49) Fluorobenzene	6.278	96	31071094	19.73	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.65%				
64) Toluene-d8	8.016	98	30143016	19.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%				
81) 4-Bromofluorobenzene	10.684	174	5624216	9.56	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.60%				
97) d4-1,2-Dichlorobenzene	12.217	152	10944273	20.42	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.10%				
Target Compounds							Qvalue
3) Chloromethane	1.356	50	169563	0.44	ug/L		95
4) Vinyl chloride	1.446	62	129105	0.35	ug/L		81
5) Bromomethane	1.722	94	77654	0.06	ug/L	#	84
9) Acrolein	2.285	56	6346	Below Cal		#	20
10) 1,1-Dichloroethene	2.524	61	173225	0.35	ug/L		81
12) Acetone	2.605	43	1301017	13.80	ug/L		95
13) Iodomethane	2.681	142	64750	0.15	ug/L	#	41
14) Carbon disulfide	2.739	76	81931	0.00	ug/L	#	74
15) Isopropanol	2.787	45	47547	3.15	ug/L	#	56
17) 3-Chloro-1-propene	2.738	76	81934	0.35	ug/L	#	53
18) Methylene chloride	3.062	49	140939	Below Cal			83
20) trans-1,2-Dichloroethene	3.403	61	282814	0.69	ug/L		84
21) Methyl tert-butyl ether	3.439	73	915381	Below Cal			96
22) Hexane	3.785	57	96206	0.22	ug/L	#	50
26) 1-propanol	4.157	59	1338	0.68	ug/L	#	100
28) cis-1,2-Dichloroethene	4.836	61	10866555	23.01	ug/L		76
29) 2-Butanone	4.921	72	63363	0.80	ug/L	#	42
31) Ethyl acetate	4.836	61	10862465	195.22	ug/L	#	45
40) Cyclohexane	5.570	84	411021	0.81	ug/L	#	41
41) 1-Chlorobutane	5.569	56	234592	0.40	ug/L	#	1
42) 1,1-Dichloropropene	5.572	75	969918	2.20	ug/L	#	38
44) 1,2-Dichloroethane	5.973	62	36817	Below Cal		#	47
47) Carbon tetrachloride	5.573	117	1529841	3.07	ug/L	#	16
48) Benzene	5.932	78	224848	0.16	ug/L		98
50) Trichloroethene	6.695	95	150003149	413.33	ug/L		93
57) 2-Nitropropane	7.329	43	41348	0.12	ug/L	#	71
60) 4-Methyl-2-pentanone	7.943	43	68498	Below Cal		#	49
65) Toluene	8.085	91	210185	0.06	ug/L	#	91

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606019.D
Acq On : 06 Jun 2023 18:08
Operator : PO1
Sample : 23E0775-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 07 09:26:53 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

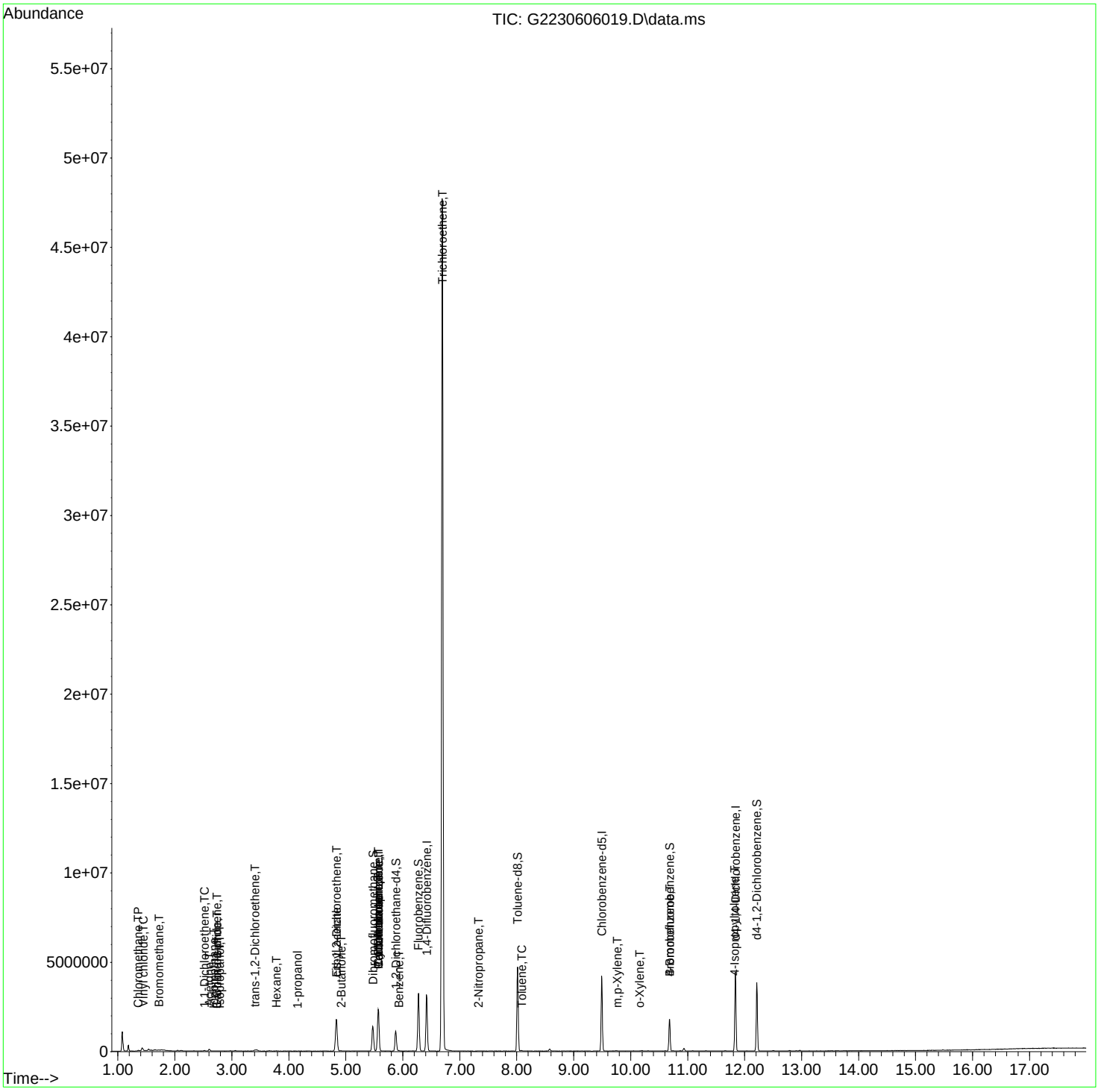
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
69)	2-Hexanone	8.803	43	59294	Below Cal		#	55
74)	Ethylbenzene	9.644	91	66235	Below Cal			100
75)	m,p-Xylene	9.762	91	78623	0.06	ug/L	#	84
79)	o-Xylene	10.158	91	41989	0.03	ug/L	#	37
82)	Bromobenzene	10.682	77	26326	0.04	ug/L	#	1
95)	4-Isopropyltoluene	11.822	119	63117	0.04	ug/L	#	19
99)	n-Butylbenzene	12.220	91	49944	Below Cal		#	53
105)	Naphthalene	14.090	128	21425	Below Cal		#	69

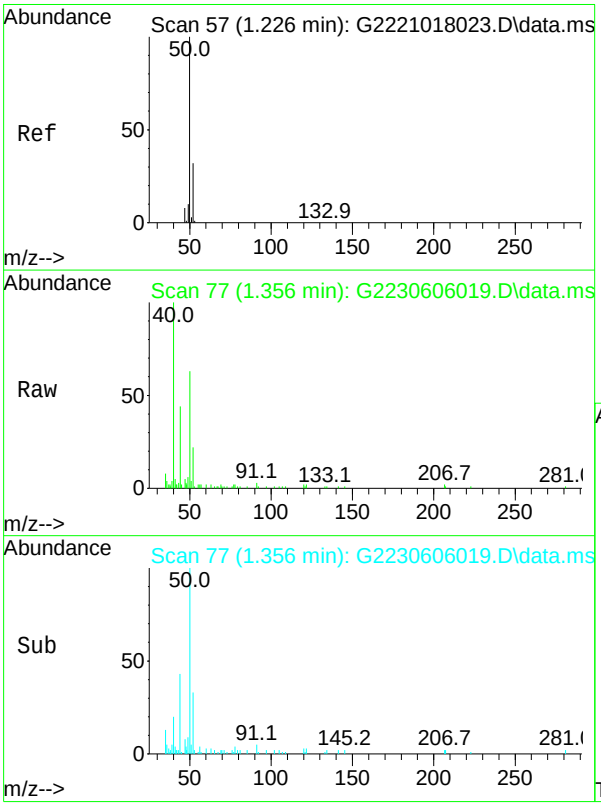
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606019.D
Acq On : 06 Jun 2023 18:08
Operator : PO1
Sample : 23E0775-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 07 09:26:53 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

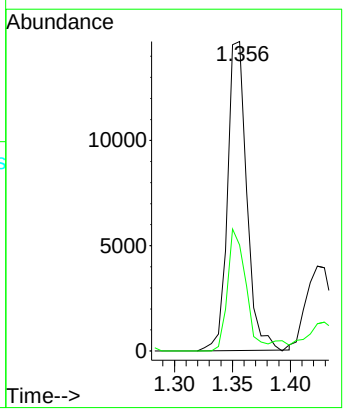


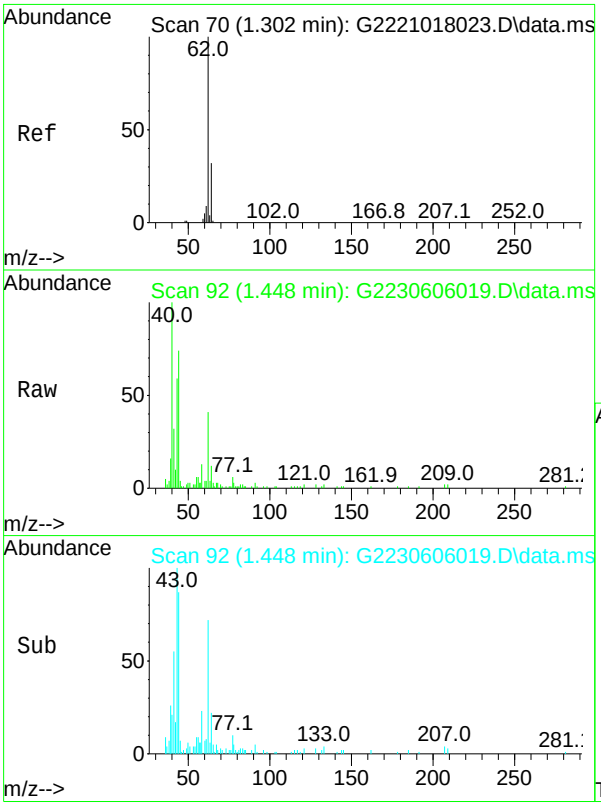


#3
Chloromethane
Concen: 0.44 ug/L
RT: 1.356 min Scan# 77
Delta R.T. 0.002 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 50 Resp: 169563

Ion	Ratio	Lower	Upper
50	100		
52	35.9	3.2	63.2

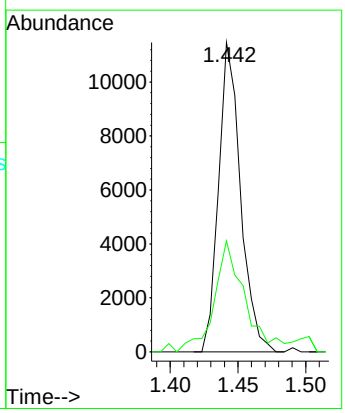


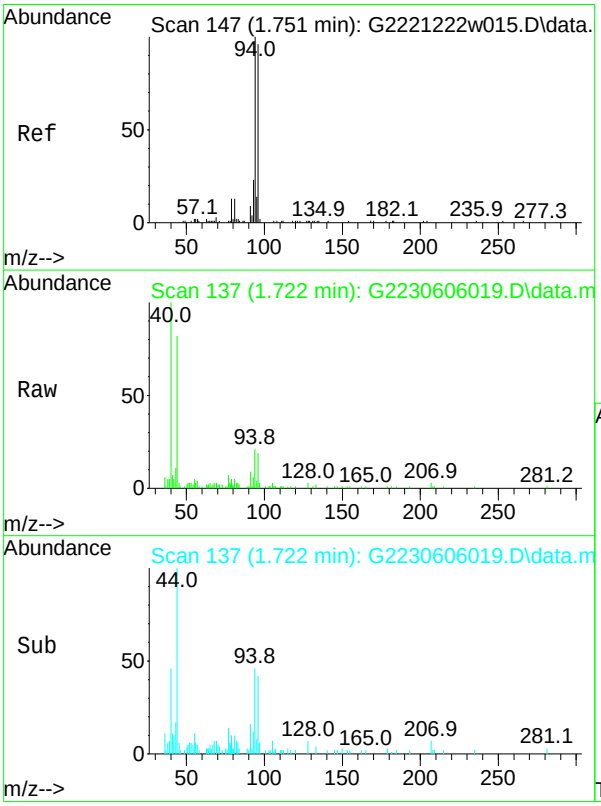


#4
Vinyl chloride
Concen: 0.35 ug/L
RT: 1.446 min Scan# 92
Delta R.T. -0.000 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 62 Resp: 129105

Ion	Ratio	Lower	Upper
62	100		
64	42.8	2.1	62.1

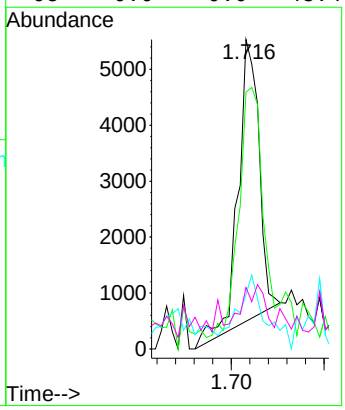


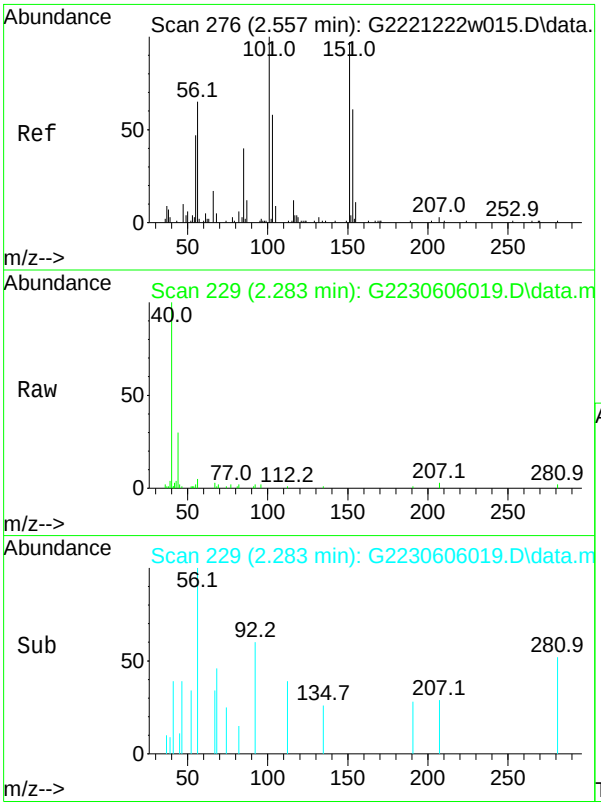


#5
Bromomethane
Concen: 0.06 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 94 Resp: 77654

Ion	Ratio	Lower	Upper
94	100		
96	87.4	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

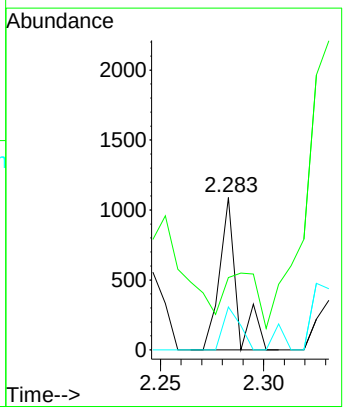


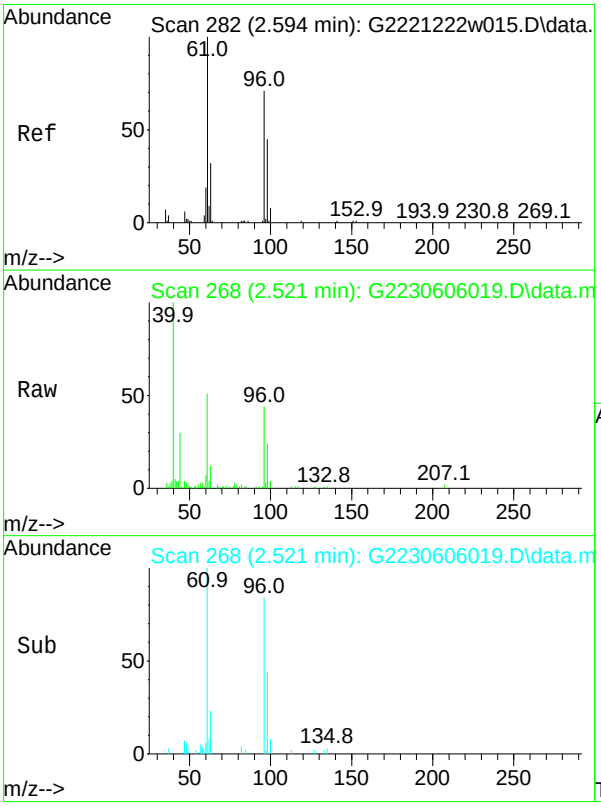


#9
Acrolein
Concen: Below Cal
RT: 2.285 min Scan# 229
Delta R.T. -0.154 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 56 Resp: 6346

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

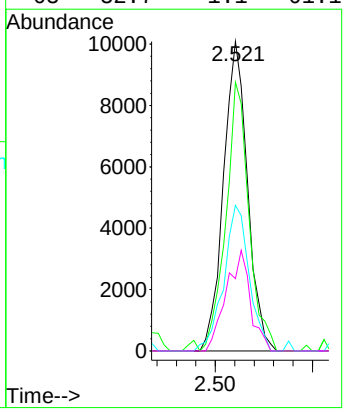


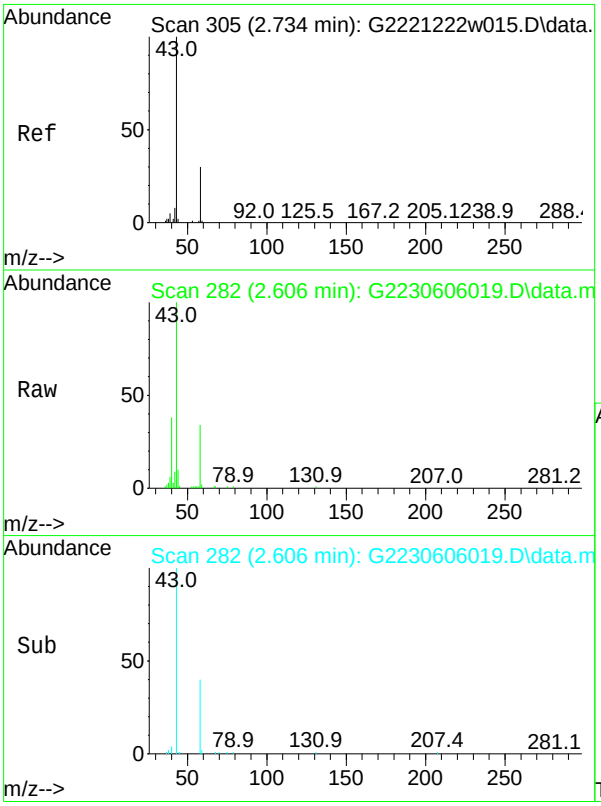


#10
1,1-Dichloroethene
Concen: 0.35 ug/L
RT: 2.524 min Scan# 268
Delta R.T. 0.001 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 61 Resp: 173225

Ion	Ratio	Lower	Upper
61	100		
96	84.3	32.7	92.7
98	49.7	9.3	69.3
63	32.7	1.1	61.1

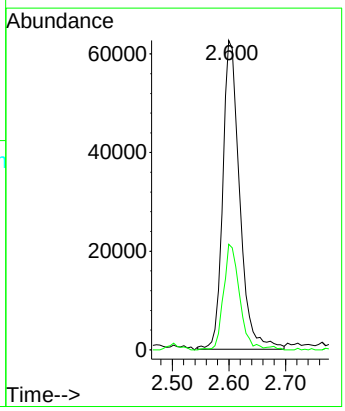


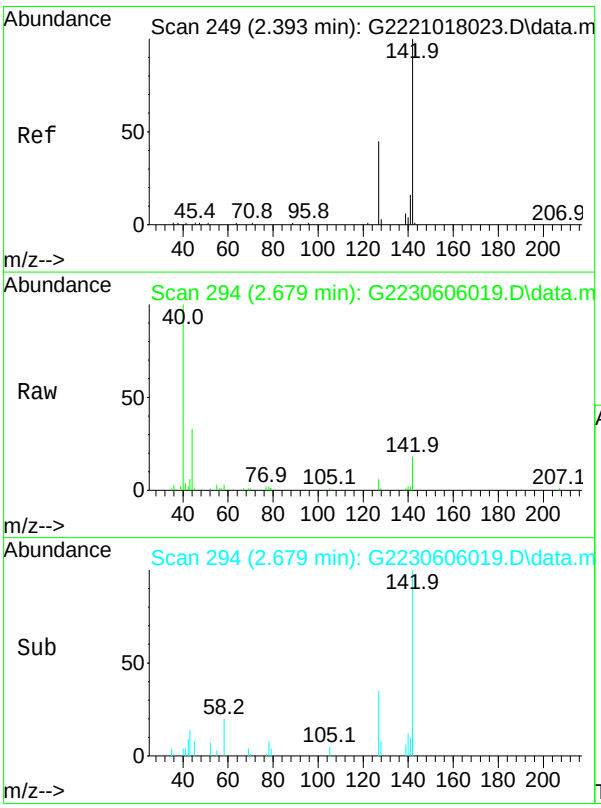


#12
Acetone
Concen: 13.80 ug/L
RT: 2.605 min Scan# 282
Delta R.T. -0.003 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 43 Resp: 1301017

Ion	Ratio	Lower	Upper
43	100		
58	32.3	0.0	59.7

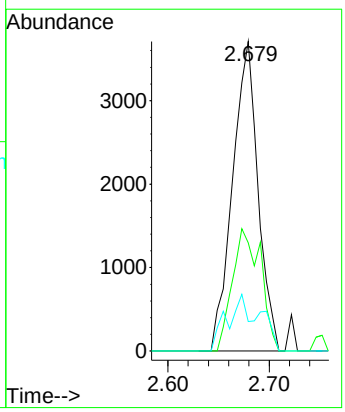


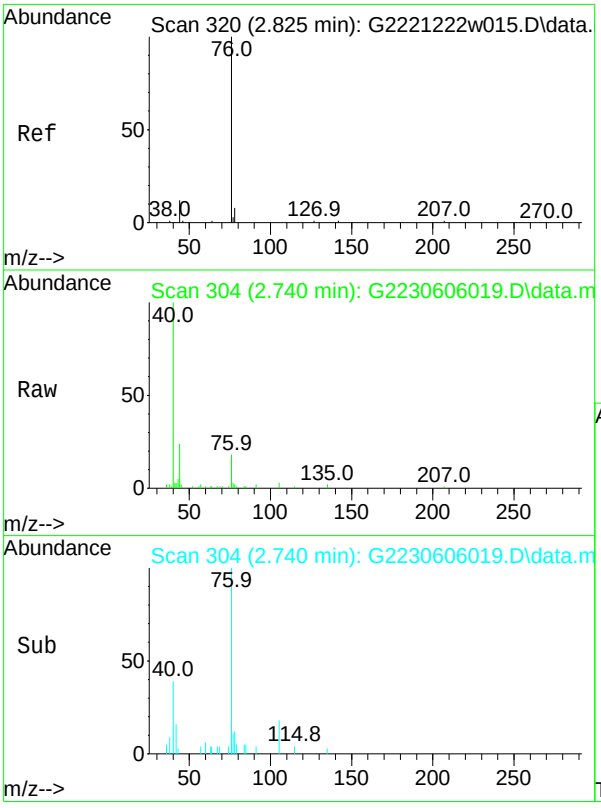


#13
Iodomethane
Concen: 0.15 ug/L
RT: 2.681 min Scan# 294
Delta R.T. 0.005 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion:142 Resp: 64750

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

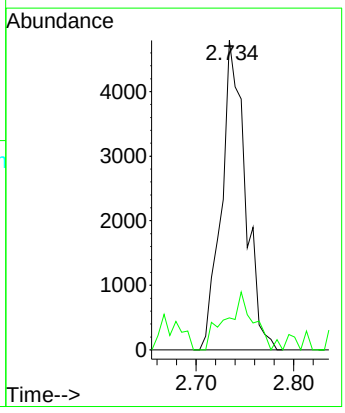


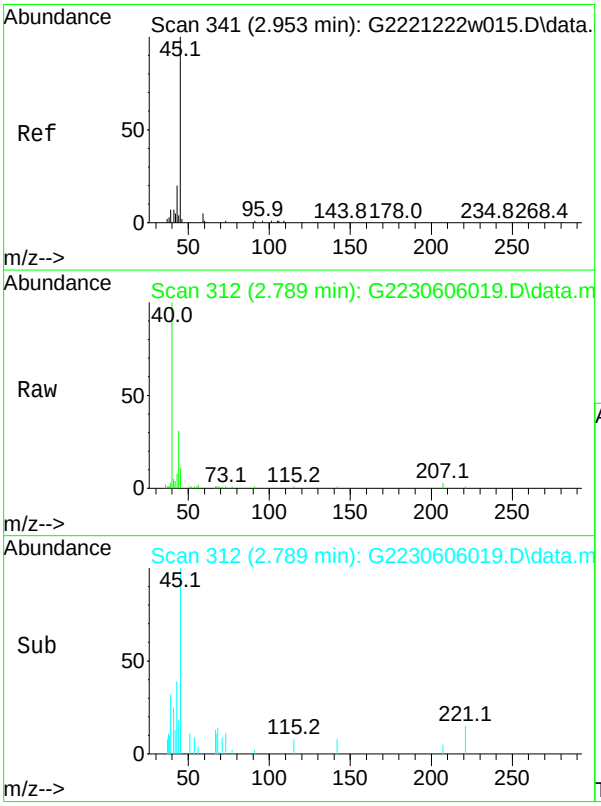


#14
Carbon disulfide
Concen: 0.00 ug/L
RT: 2.739 min Scan# 304
Delta R.T. 0.000 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 76 Resp: 81931

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

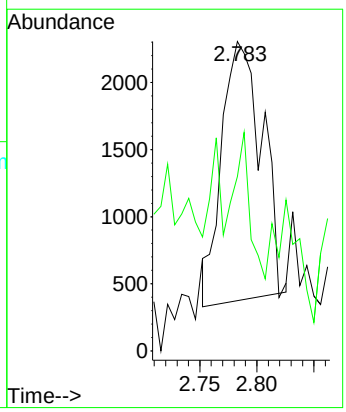


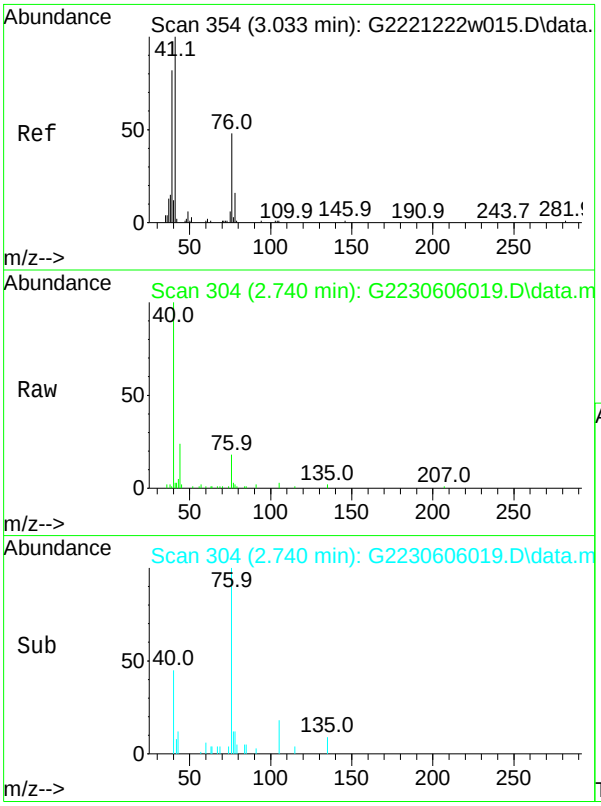


#15
Isopropanol
Concen: 3.15 ug/L
RT: 2.787 min Scan# 312
Delta R.T. -0.005 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 45 Resp: 47547

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

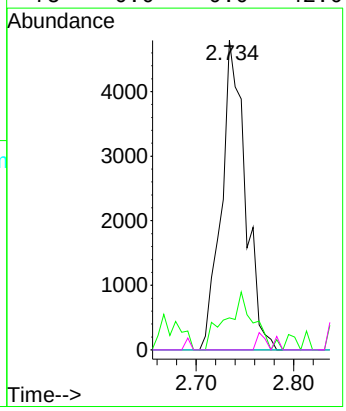


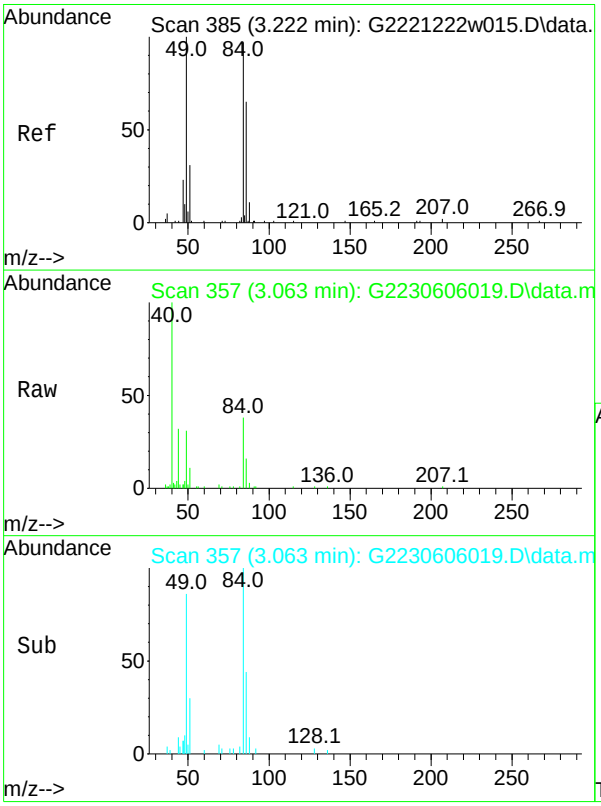


#17
3-Chloro-1-propene
Concen: 0.35 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.182 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 76 Resp: 81934

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

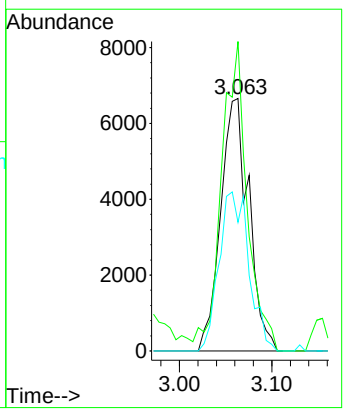


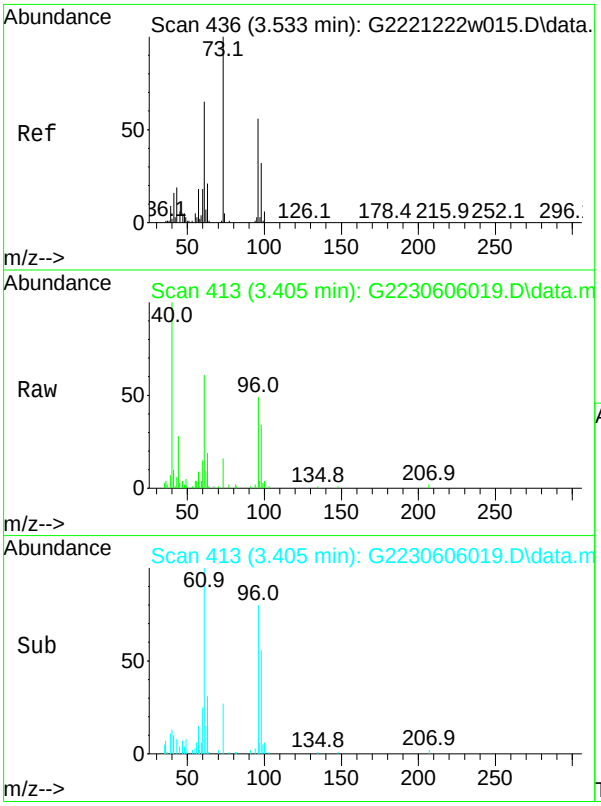


#18
Methylene chloride
Concen: Below Cal
RT: 3.062 min Scan# 357
Delta R.T. -0.000 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 49 Resp: 140939

Ion	Ratio	Lower	Upper
49	100		
84	103.6	57.9	117.9
86	66.8	24.9	84.9

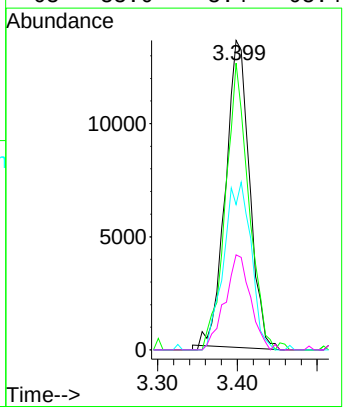


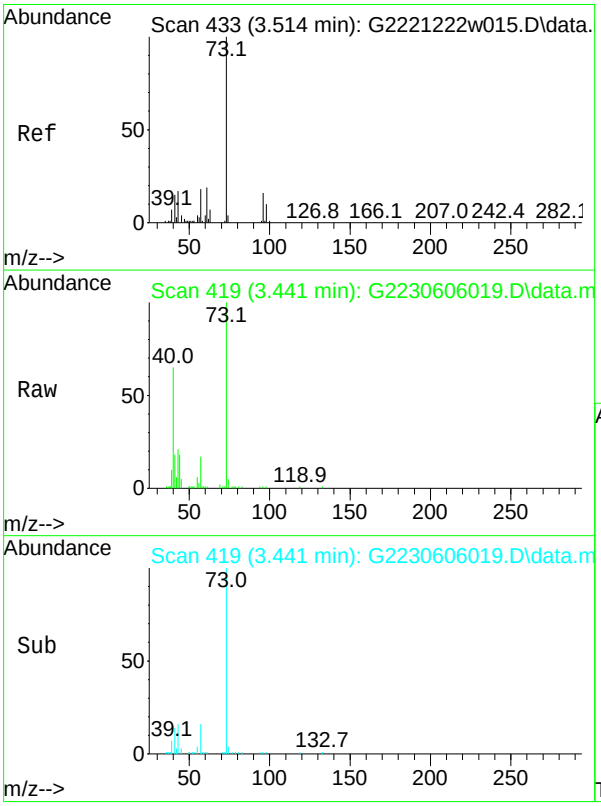


#20
trans-1,2-Dichloroethene
Concen: 0.69 ug/L
RT: 3.403 min Scan# 413
Delta R.T. 0.002 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 61 Resp: 282814

Ion	Ratio	Lower	Upper
61	100		
96	90.7	45.2	105.2
98	62.1	17.2	77.2
63	33.0	3.4	63.4

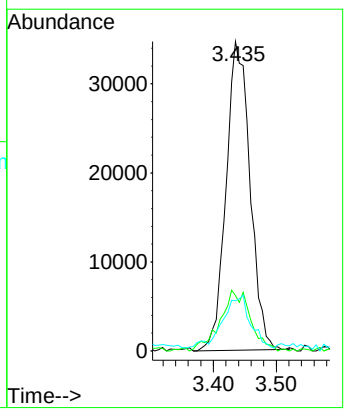


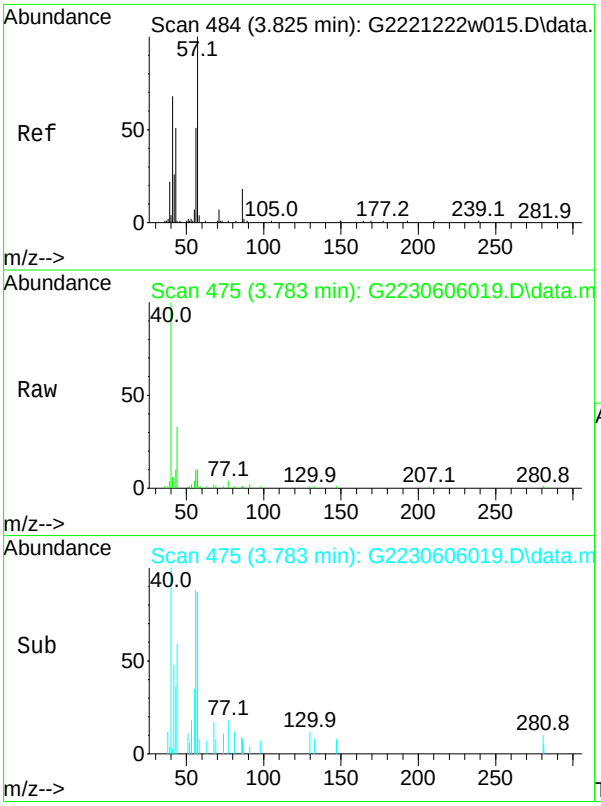


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.439 min Scan# 419
Delta R.T. -0.007 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 73 Resp: 915381

Ion	Ratio	Lower	Upper
73	100		
57	24.8	0.0	51.7
41	19.5	0.0	50.6

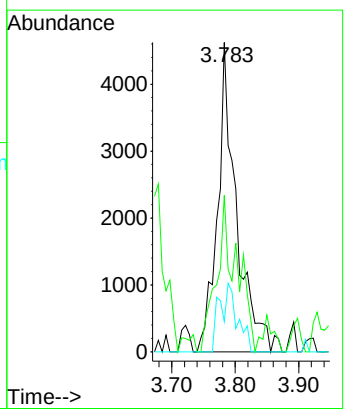


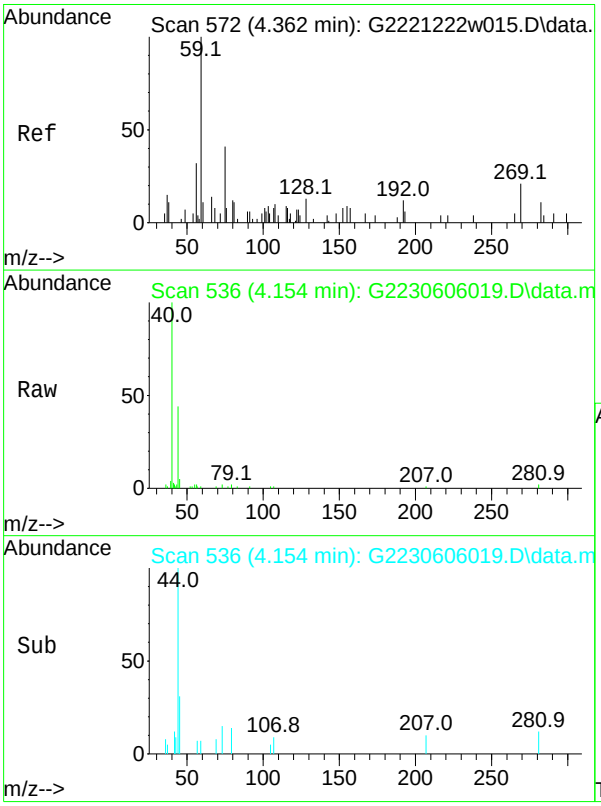


#22
Hexane
Concen: 0.22 ug/L
RT: 3.785 min Scan# 475
Delta R.T. -0.005 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 57 Resp: 96206

Ion	Ratio	Lower	Upper
57	100		
56	13.5	20.4	80.4#
86	0.0	0.0	48.1

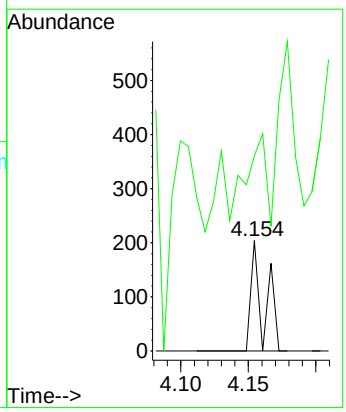


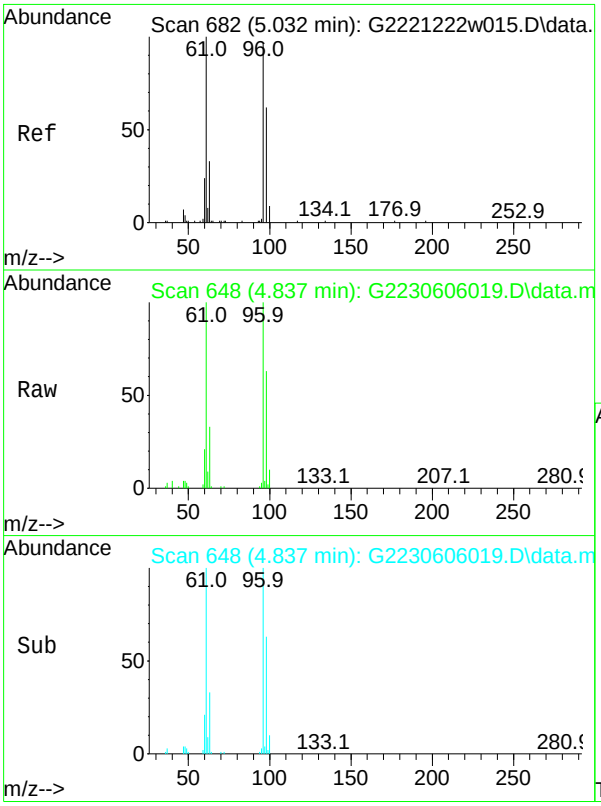


#26
1-propanol
Concen: 0.68 ug/L
RT: 4.157 min Scan# 536
Delta R.T. -0.132 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 59 Resp: 1338

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

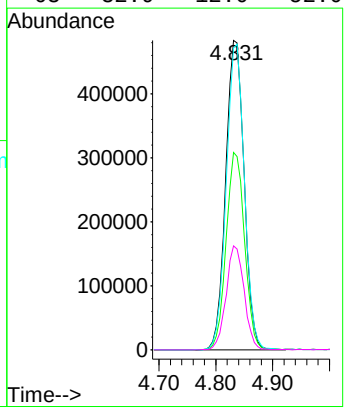


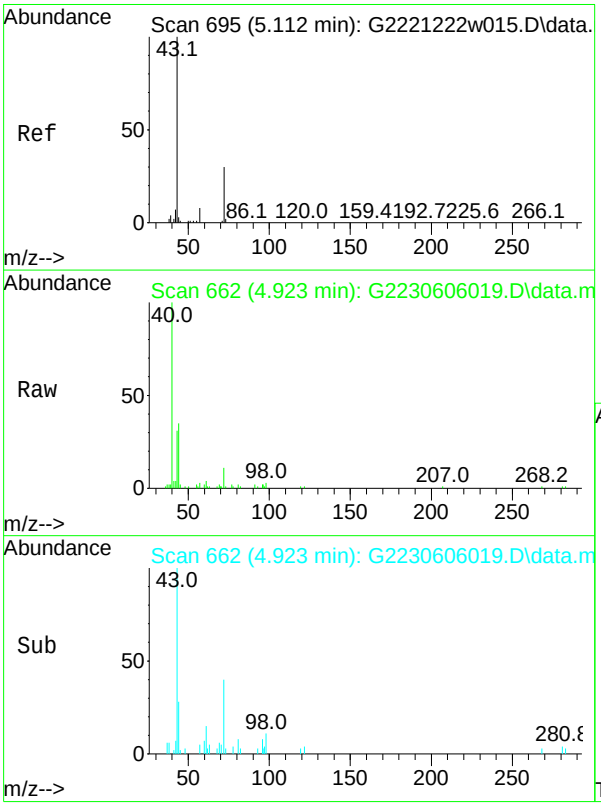


#28
cis-1,2-Dichloroethene
Concen: 23.01 ug/L
RT: 4.836 min Scan# 648
Delta R.T. 0.000 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 61 Resp:10866555

Ion	Ratio	Lower	Upper
61	100		
98	63.5	15.9	75.9
96	96.9	39.6	99.6
63	32.9	12.0	52.0

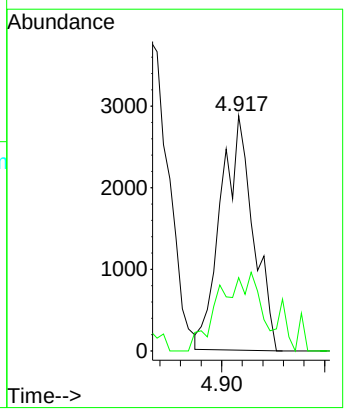


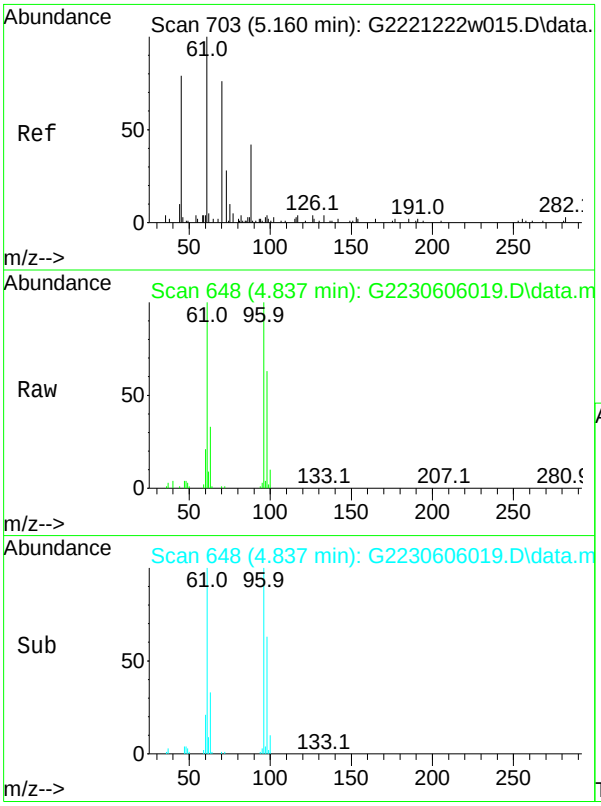


#29
2-Butanone
Concen: 0.80 ug/L
RT: 4.921 min Scan# 662
Delta R.T. 0.002 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 72 Resp: 63363

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

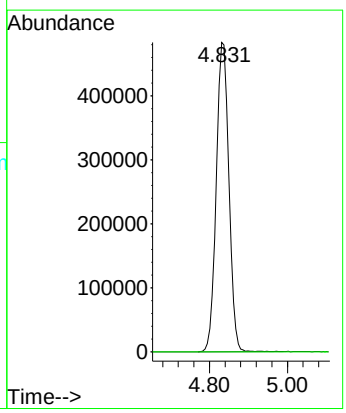


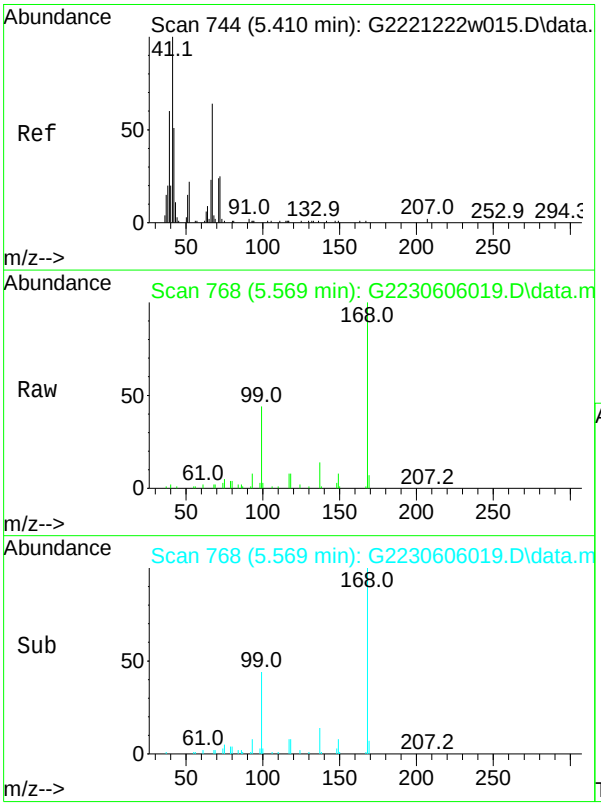


#31
Ethyl acetate
Concen: 195.22 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 61 Resp:10862465

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

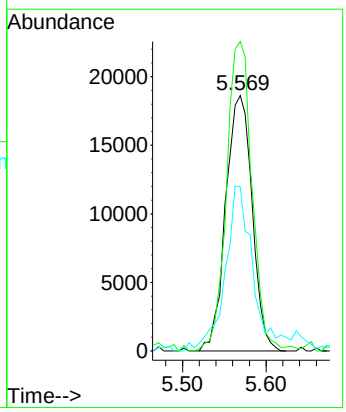


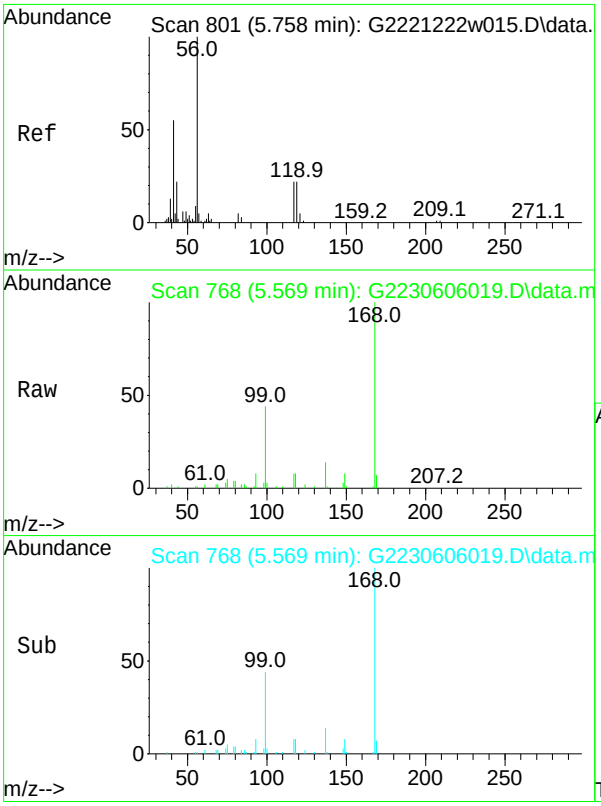


#40
Cyclohexane
Concen: 0.81 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 84 Resp: 411021

Ion	Ratio	Lower	Upper
84	100		
69	115.7	6.8	66.8#
56	72.7	79.1	139.1#

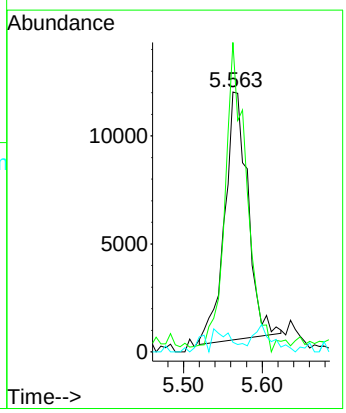


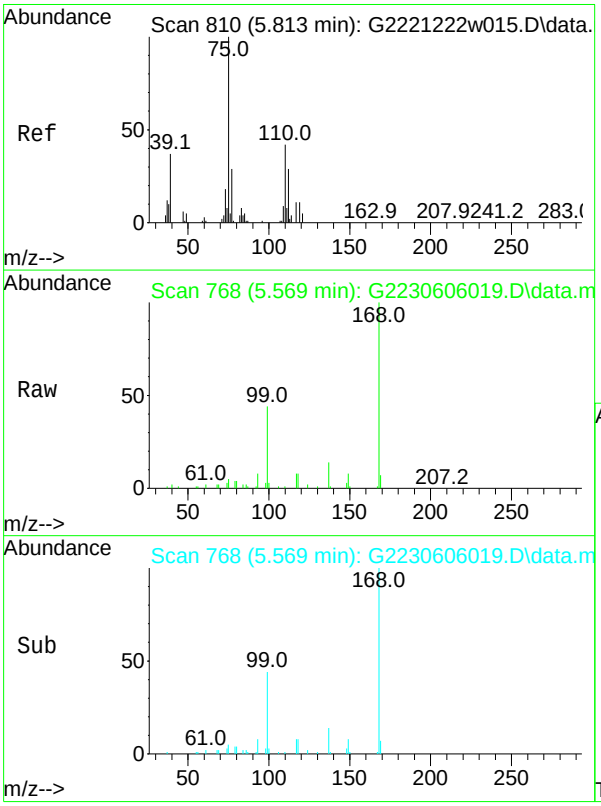


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 56 Resp: 234592

Ion	Ratio	Lower	Upper
56	100		
55	112.3	0.0	41.0#
57	0.0	0.0	35.7

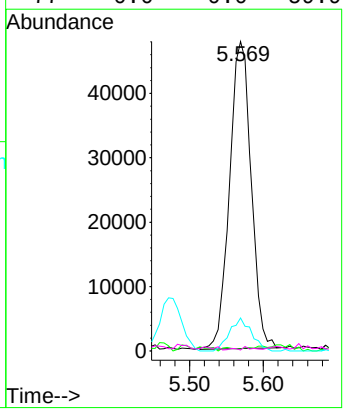


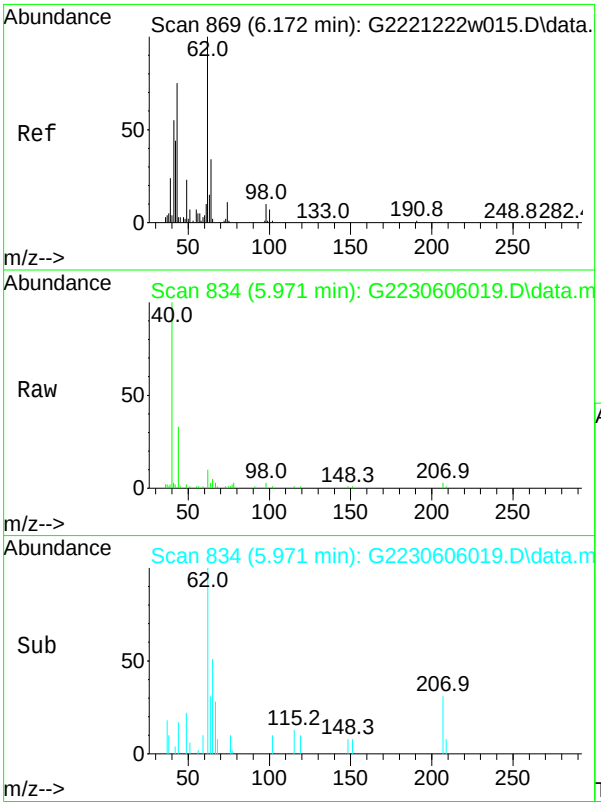


#42
1,1-Dichloropropene
Concen: 2.20 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.117 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 75 Resp: 969918

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

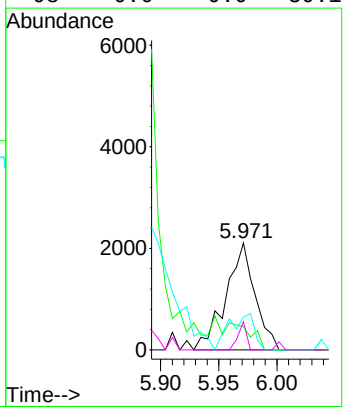


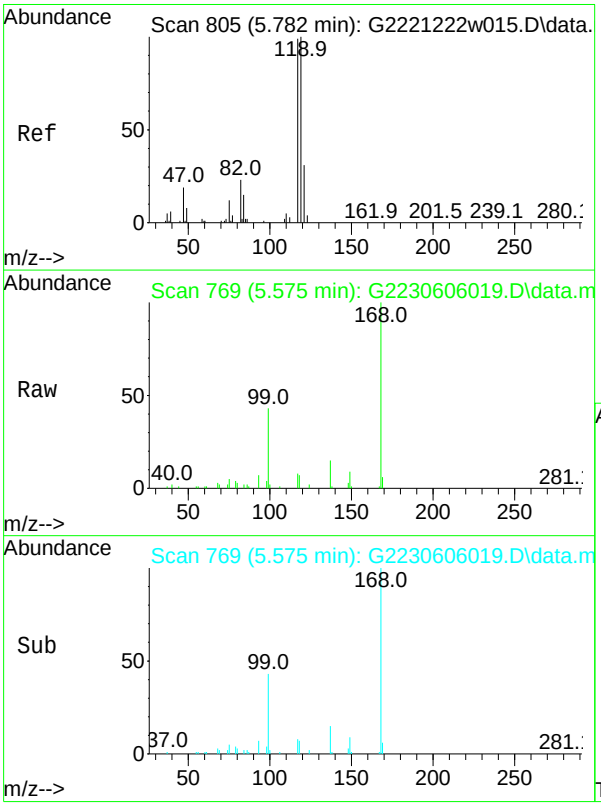


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.973 min Scan# 834
Delta R.T. 0.002 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 62 Resp: 36817

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

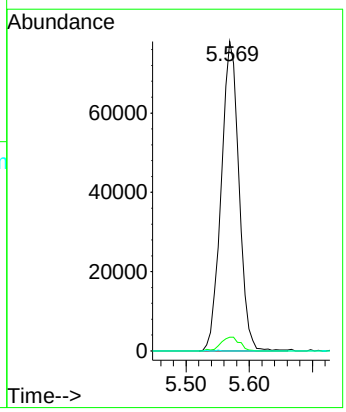


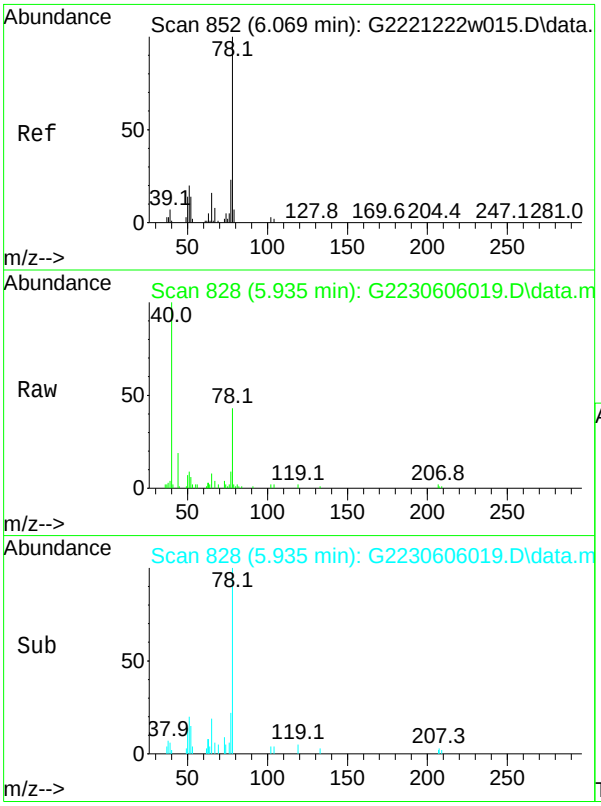


#47
Carbon tetrachloride
Concen: 3.07 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.107 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion:117 Resp: 1529841

Ion	Ratio	Lower	Upper
117	100		
119	4.8	66.4	126.4#
121	0.0	0.4	60.4#

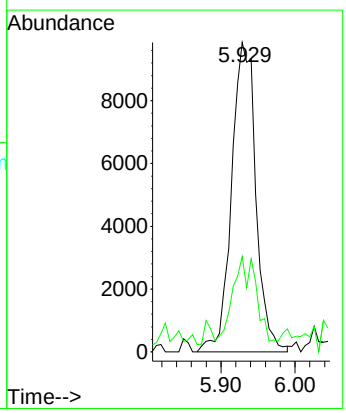


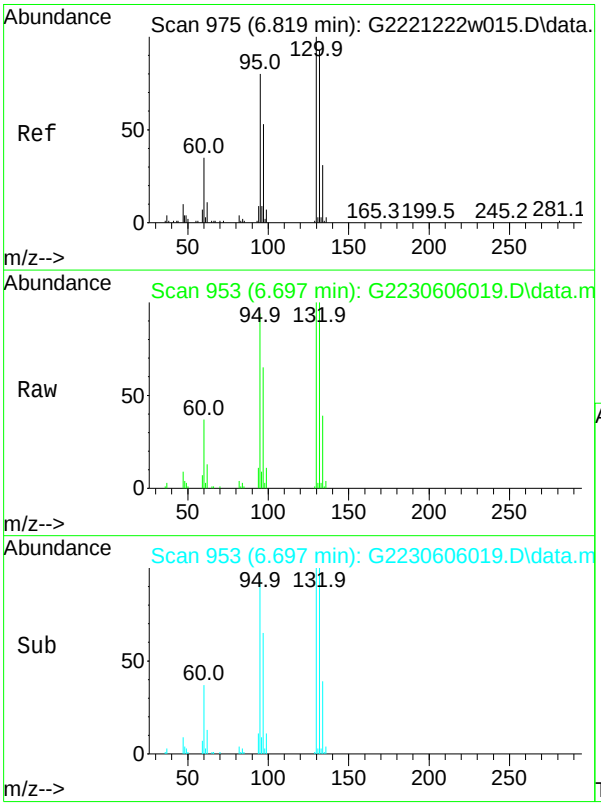


#48
Benzene
Concen: 0.16 ug/L
RT: 5.932 min Scan# 828
Delta R.T. -0.003 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 78 Resp: 224848

Ion	Ratio	Lower	Upper
78	100		
77	24.6	0.0	53.8

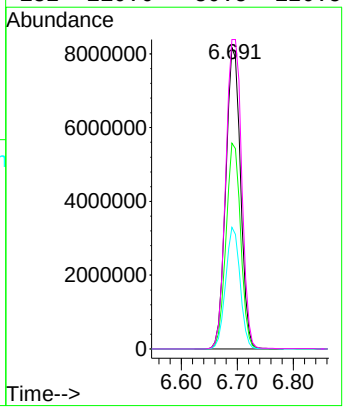


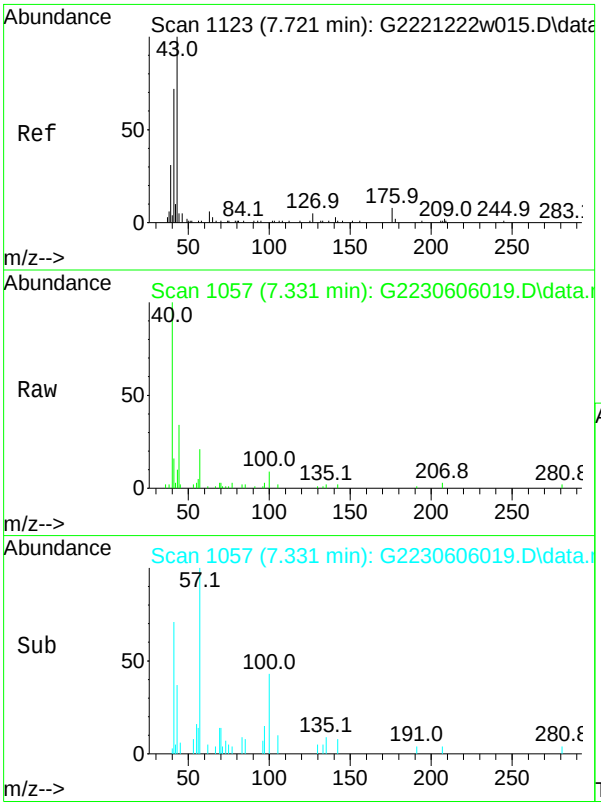


#50
Trichloroethene
Concen: 413.33 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 95 Resp:150003149

Ion	Ratio	Lower	Upper
95	100		
97	67.5	35.5	95.5
60	39.3	14.8	74.8
132	110.6	80.5	120.5

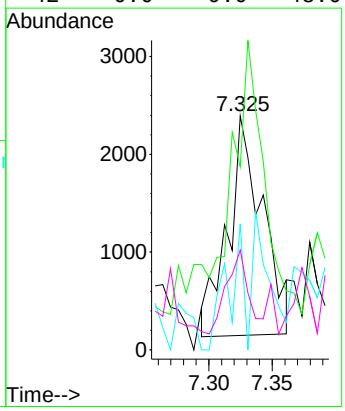


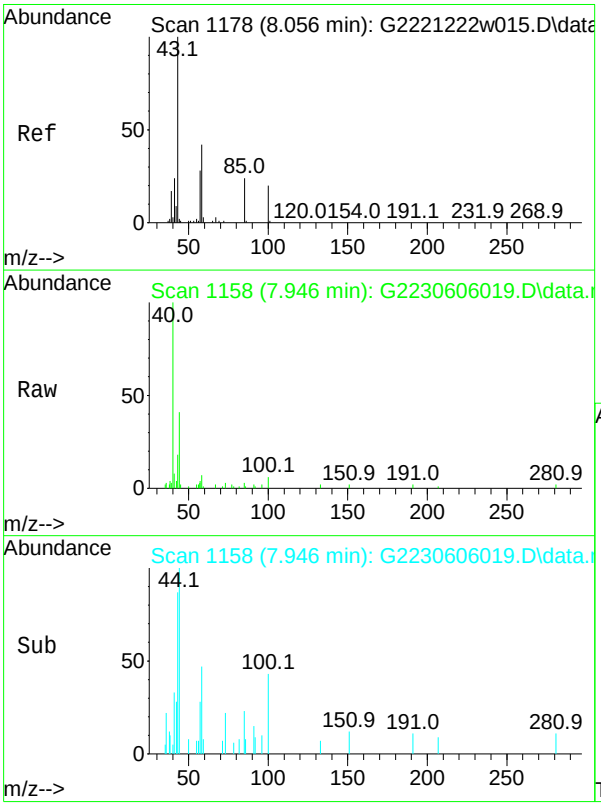


#57
2-Nitropropane
Concen: 0.12 ug/L
RT: 7.329 min Scan# 1057
Delta R.T. -0.195 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 43 Resp: 41348

Ion	Ratio	Lower	Upper
43	100		
41	102.0	58.2	118.2
39	0.0	3.1	63.1#
42	0.0	0.0	48.0

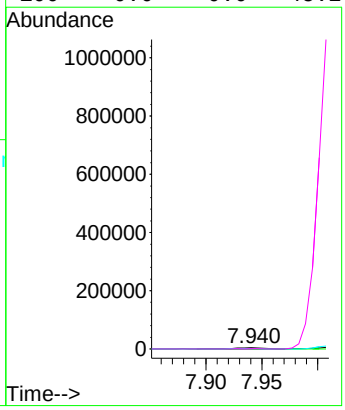


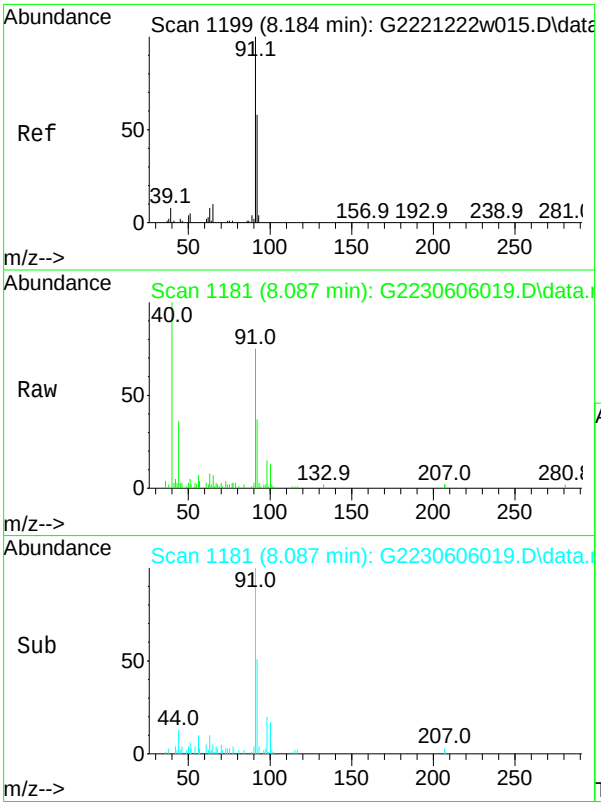


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 7.943 min Scan# 1158
Delta R.T. -0.001 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 43 Resp: 68498

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	0.0	37.0	37.0#
100	0.0	0.0	45.2

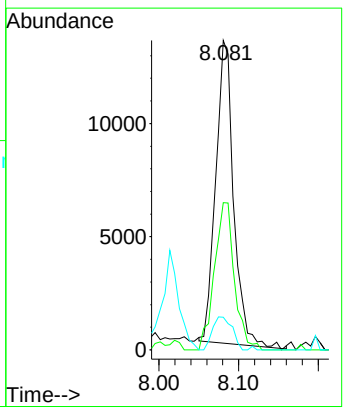


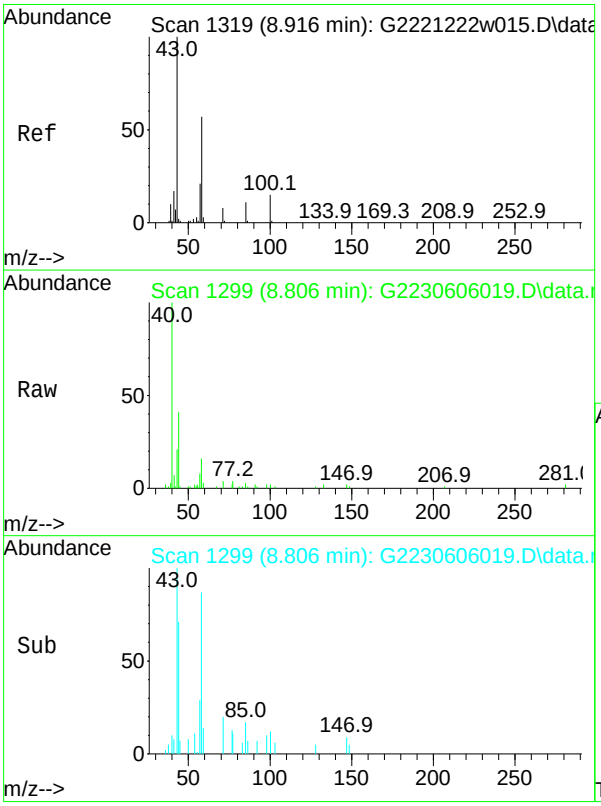


#65
Toluene
Concen: 0.06 ug/L
RT: 8.085 min Scan# 1181
Delta R.T. -0.001 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 91 Resp: 210185

Ion	Ratio	Lower	Upper
91	100		
92	53.9	27.5	87.5
65	0.0	0.0	41.4

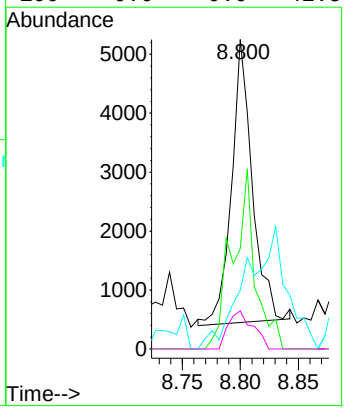


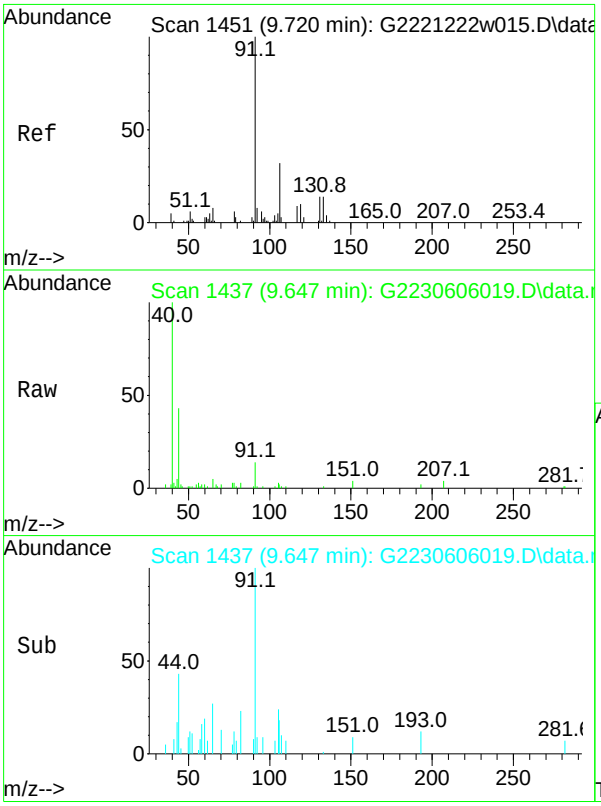


#69
2-Hexanone
Concen: Below Cal
RT: 8.803 min Scan# 1299
Delta R.T. -0.006 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 43 Resp: 59294

Ion	Ratio	Lower	Upper
43	100		
58	70.0	25.2	85.2
57	75.6	0.0	49.3#
100	0.0	0.0	42.5

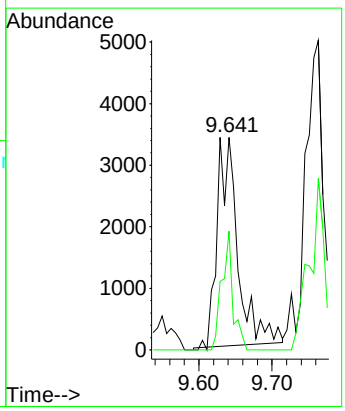


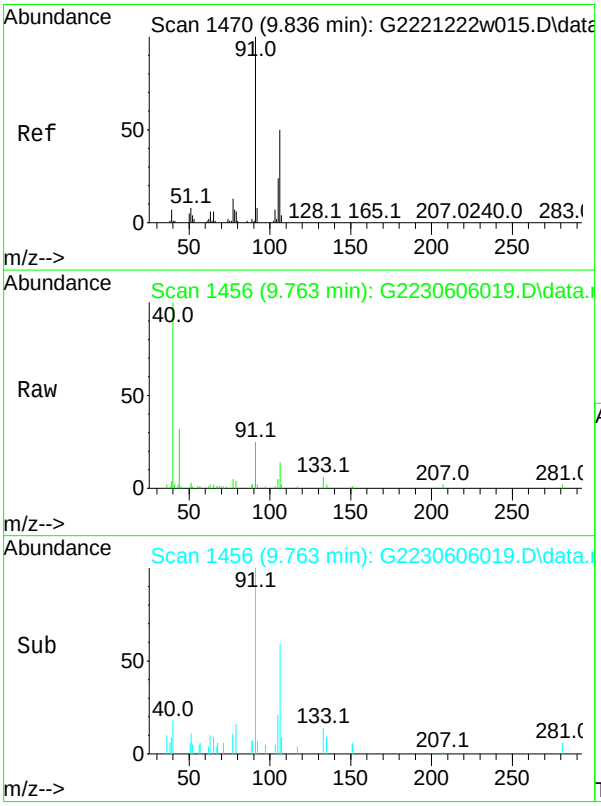


#74
Ethylbenzene
Concen: Below Cal
RT: 9.644 min Scan# 1437
Delta R.T. 0.001 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 91 Resp: 66235

Ion	Ratio	Lower	Upper
91	100		
106	30.6	0.8	60.8

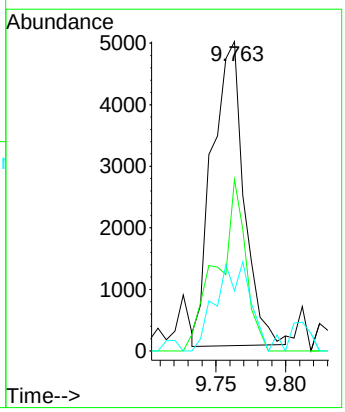


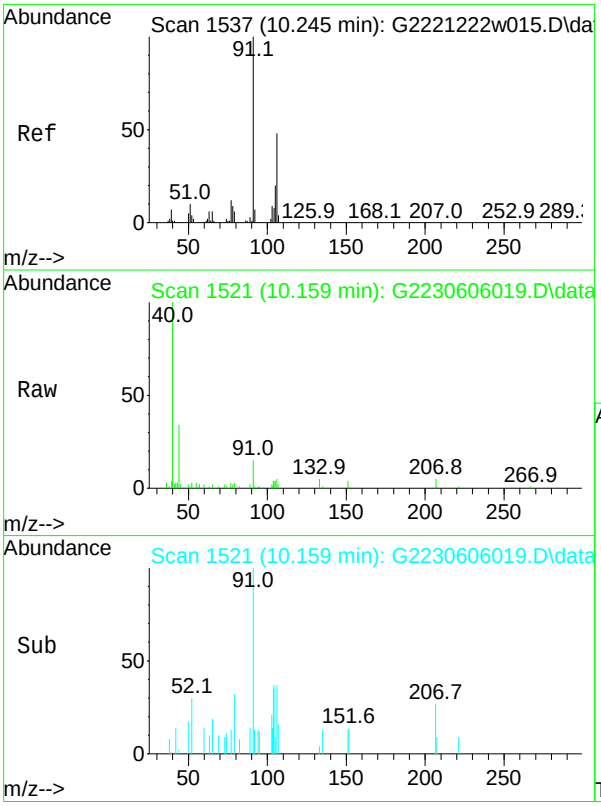


#75
m,p-Xylene
Concen: 0.06 ug/L
RT: 9.762 min Scan# 1456
Delta R.T. -0.002 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 91 Resp: 78623

Ion	Ratio	Lower	Upper
91	100		
106	50.3	19.0	79.0
105	0.0	0.0	52.7

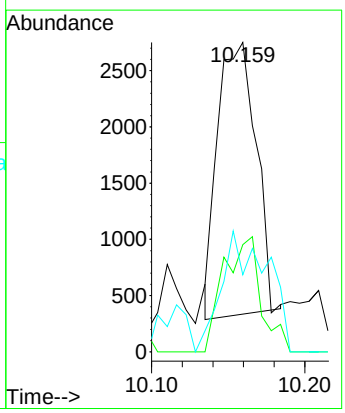


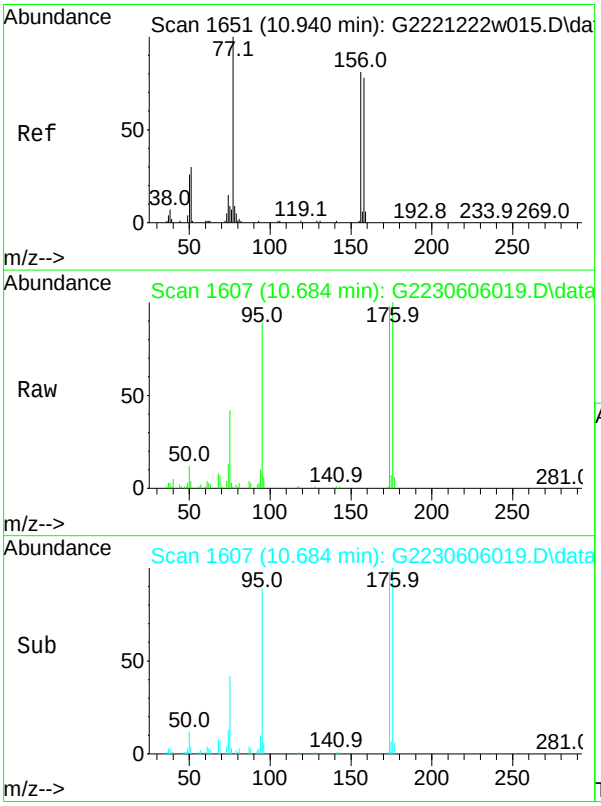


#79
o-Xylene
Concen: 0.03 ug/L
RT: 10.158 min Scan# 1521
Delta R.T. -0.003 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 91 Resp: 41989

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.2	76.2#
105	0.0	0.0	56.7

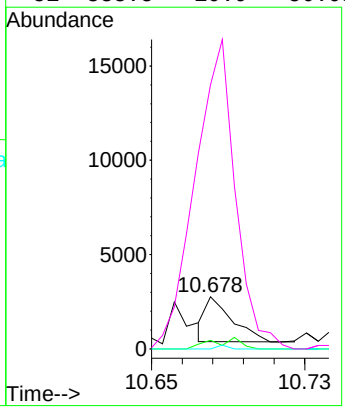


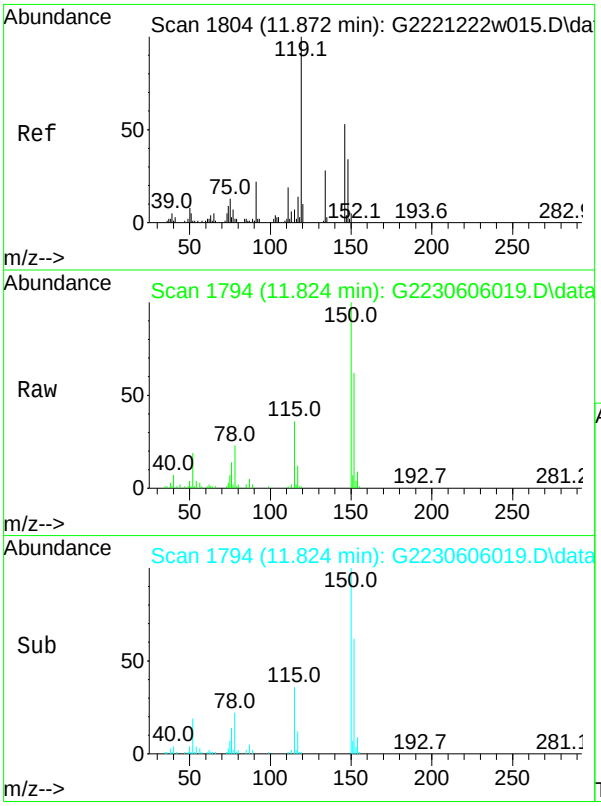


#82
Bromobenzene
Concen: 0.04 ug/L
RT: 10.682 min Scan# 1607
Delta R.T. -0.146 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 77 Resp: 26326

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	888.5	10.9	50.9#

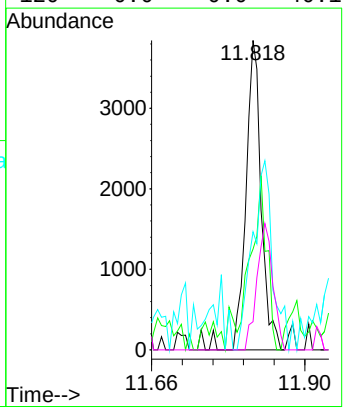


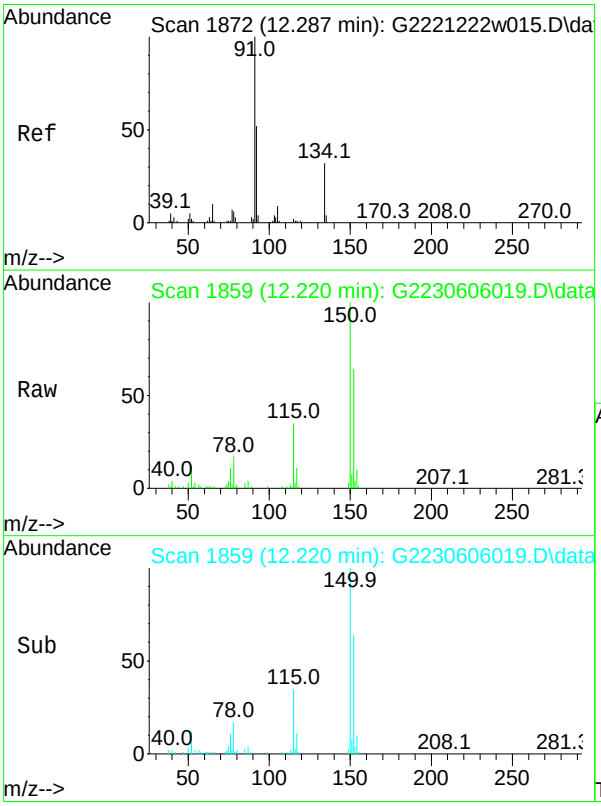


#95
4-Isopropyltoluene
Concen: 0.04 ug/L
RT: 11.822 min Scan# 1794
Delta R.T. -0.001 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion:119 Resp: 63117

Ion	Ratio	Lower	Upper
119	100		
134	57.8	0.0	56.2#
91	83.3	0.0	52.5#
120	0.0	0.0	40.1

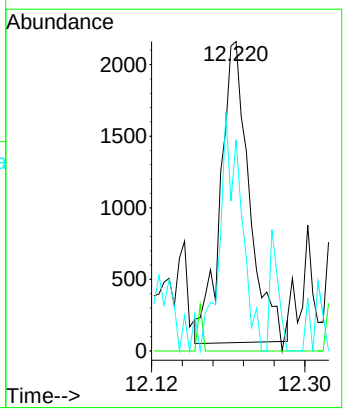


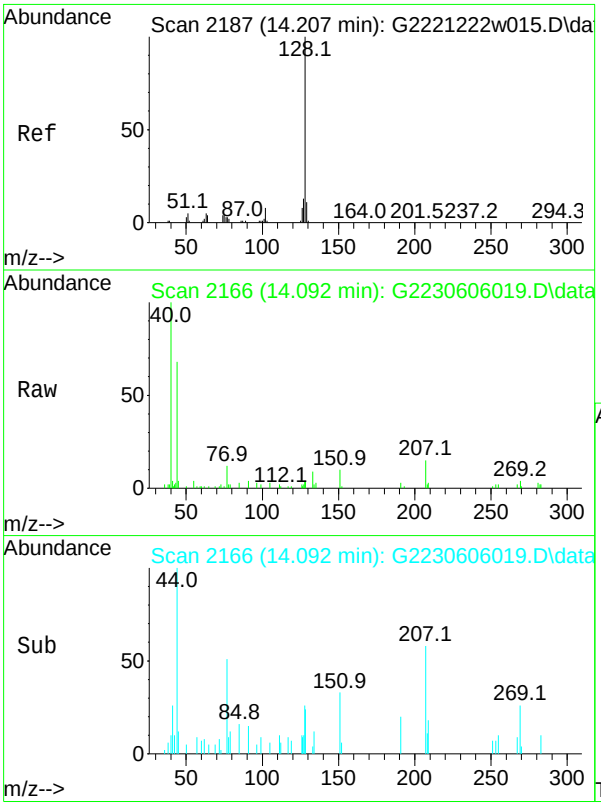


#99
n-Butylbenzene
Concen: Below Cal
RT: 12.220 min Scan# 1859
Delta R.T. -0.011 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion: 91 Resp: 49944

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

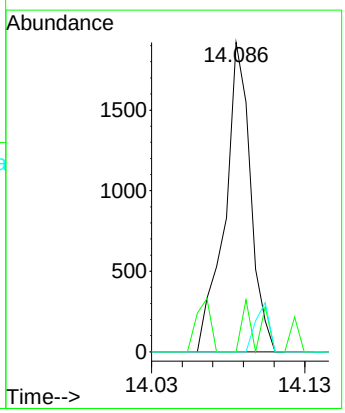




#105
Naphthalene
Concen: Below Cal
RT: 14.090 min Scan# 2166
Delta R.T. -0.001 min
Lab File: G2230606019.D
Acq: 06 Jun 2023 18:08

Tgt Ion:128 Resp: 21425

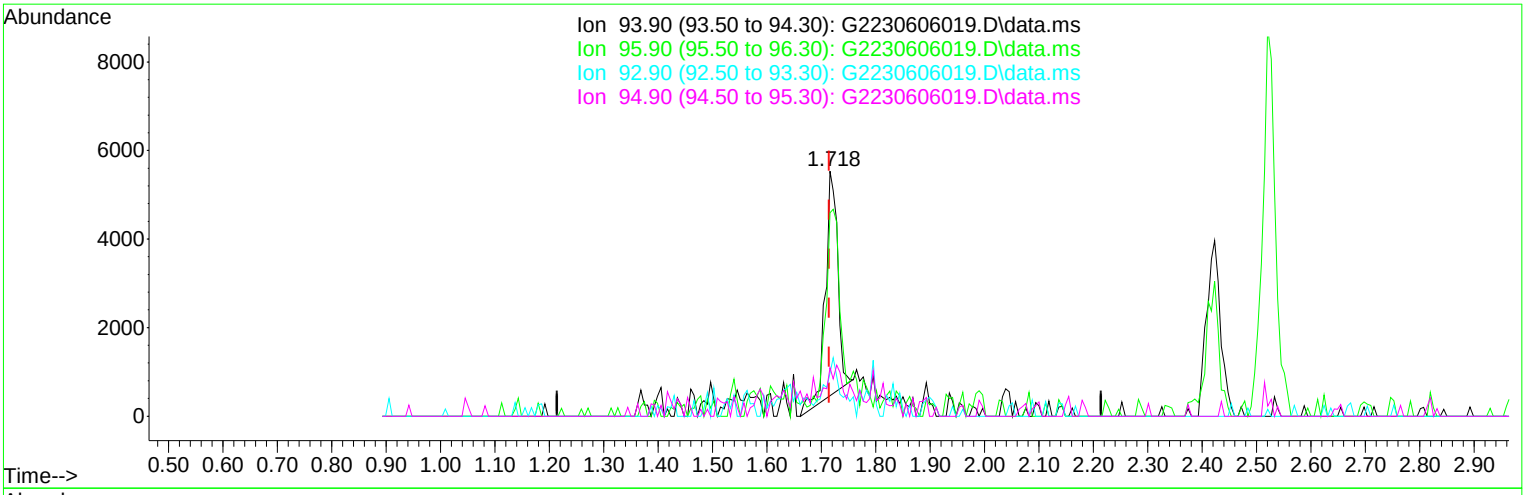
Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.2
129	0.0	0.0	40.9

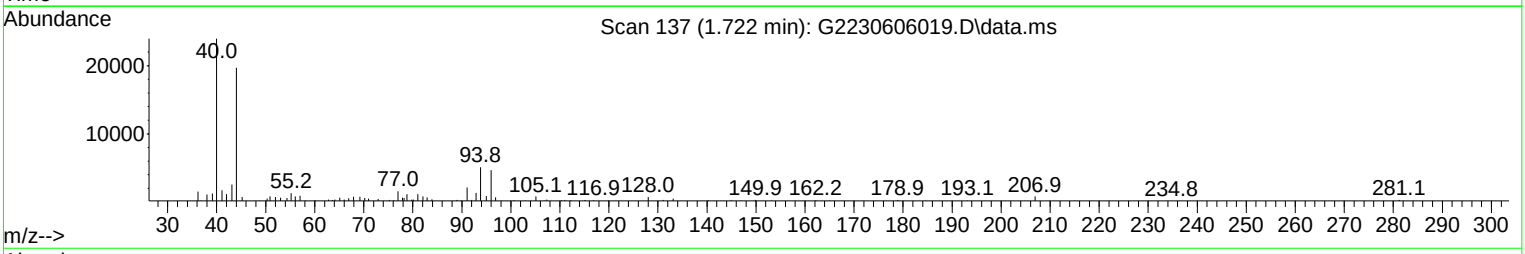


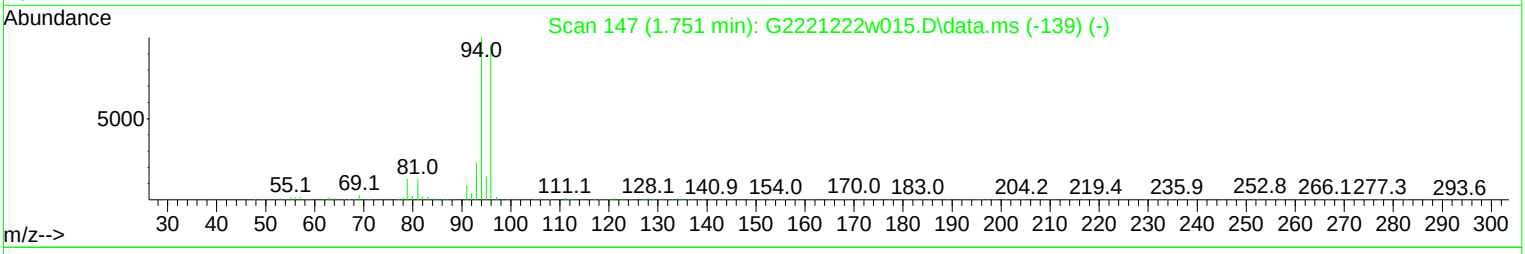
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606019.D
Acq On : 06 Jun 2023 18:08
Operator : PO1
Sample : 23E0775-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 07 09:26:53 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







TIC: G2230606019.D\data.ms

(5) Bromomethane (T)

1.722min (+ 0.008) 0.06 ug/L

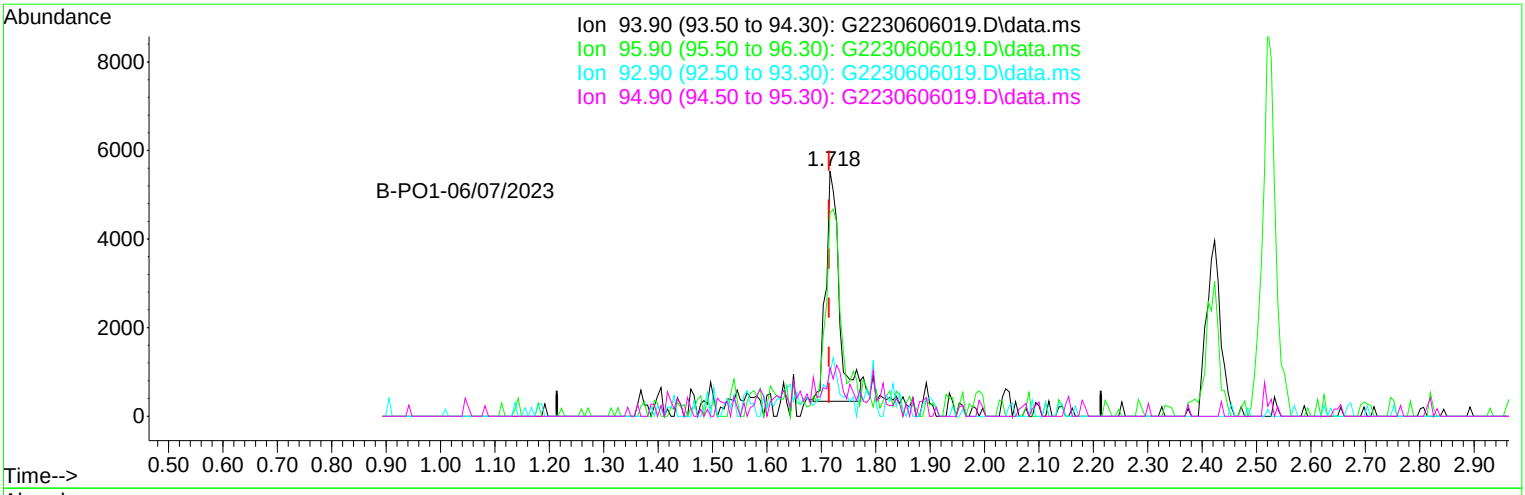
response 77654

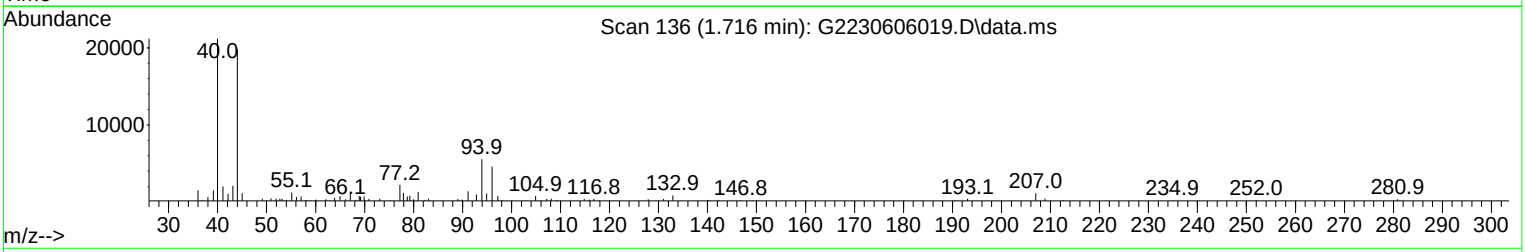
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	87.37
92.90	19.50	0.00
94.90	13.40	0.00

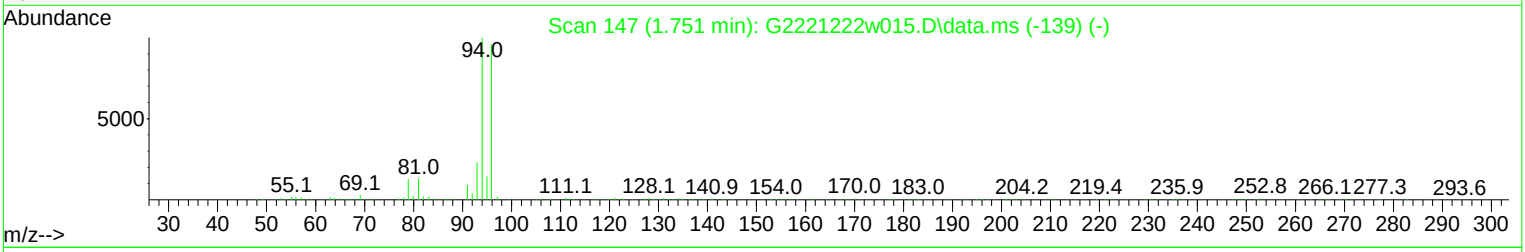
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606019.D
Acq On : 06 Jun 2023 18:08
Operator : PO1
Sample : 23E0775-04
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 07 09:26:53 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







TIC: G2230606019.D\data.ms

(5) Bromomethane (T)

1.716min (+ 0.002) 0.11 ug/L m

response 89744

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	75.60
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04RE1	File ID:	G2230607014.D
Sampled:	05/26/23 12:30	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 20:15
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*3.25*	*10.0*	*25.0*	*U*
71-55-6	*1,1,1-Trichloroethane*		*4.38*	*10.0*	*25.0*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*3.10*	*10.0*	*25.0*	*U*
79-00-5	*1,1,2-Trichloroethane*		*4.16*	*10.0*	*25.0*	*U*
75-34-3	*1,1-Dichloroethane*		*3.34*	*10.0*	*25.0*	*U*
75-35-4	*1,1-Dichloroethene*		*4.77*	*10.0*	*25.0*	*U*
563-58-6	*1,1-Dichloropropene*		*3.50*	*10.0*	*25.0*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*5.10*	*10.0*	*25.0*	*U*
96-18-4	*1,2,3-Trichloropropane*		*4.56*	*10.0*	*25.0*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*5.12*	*15.0*	*30.0*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*3.30*	*10.0*	*25.0*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*6.50*	*25.0*	*50.0*	*U*
106-93-4	*1,2-Dibromoethane*		*2.66*	*10.0*	*25.0*	*U*
95-50-1	*1,2-Dichlorobenzene*		*3.15*	*10.0*	*25.0*	*U*
107-06-2	*1,2-Dichloroethane*		*5.30*	*15.0*	*30.0*	*U*
78-87-5	*1,2-Dichloropropane*		*5.12*	*15.0*	*30.0*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*2.50*	*10.0*	*25.0*	*U*
541-73-1	*1,3-Dichlorobenzene*		*3.62*	*10.0*	*25.0*	*U*
142-28-9	*1,3-Dichloropropane*		*3.40*	*10.0*	*25.0*	*U*
106-46-7	*1,4-Dichlorobenzene*		*4.60*	*10.0*	*25.0*	*U*
594-20-7	*2,2-Dichloropropane*		*4.60*	*10.0*	*25.0*	*U*
78-93-3	*2-Butanone*		*16.5*	*35.0*	*87.5*	*U*
95-49-8	*2-Chlorotoluene*		*3.66*	*10.0*	*25.0*	*U*
591-78-6	*2-Hexanone*		*3.58*	*35.0*	*87.5*	*U*
106-43-4	*4-Chlorotoluene*		*4.60*	*10.0*	*25.0*	*U*
99-87-6	*4-Isopropyltoluene*		*3.50*	*10.0*	*25.0*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04RE1	File ID:	G2230607014.D
Sampled:	05/26/23 12:30	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 20:15
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*6.75*	*35.0*	*87.5*	*U*
67-64-1	*Acetone*		*25.9*	*100*	*200*	*U*
71-43-2	*Benzene*		*2.54*	*10.0*	*25.0*	*U*
108-86-1	*Bromobenzene*		*4.24*	*10.0*	*25.0*	*U*
74-97-5	*Bromochloromethane*		*3.34*	*10.0*	*25.0*	*U*
75-27-4	*Bromodichloromethane*		*2.66*	*10.0*	*25.0*	*U*
75-25-2	*Bromoform*		*5.16*	*10.0*	*25.0*	*U*
74-83-9	*Bromomethane*		*8.01*	*25.0*	*50.0*	*U*
75-15-0	*Carbon disulfide*		*7.00*	*25.0*	*50.0*	*U*
56-23-5	*Carbon tetrachloride*		*4.22*	*10.0*	*25.0*	*U*
108-90-7	*Chlorobenzene*		*3.25*	*10.0*	*25.0*	*U*
75-00-3	*Chloroethane*		*7.77*	*10.0*	*25.0*	*U*
67-66-3	*Chloroform*		*5.06*	*15.0*	*30.0*	*U*
74-87-3	*Chloromethane*		*9.60*	*25.0*	*50.0*	*U*
156-59-2	*cis-1,2-Dichloroethene*	*16.0*	*5.13*	*15.0*	*30.0*	*J, D*
10061-01-5	*cis-1,3-Dichloropropene*		*2.94*	*10.0*	*25.0*	*U*
124-48-1	*Dibromochloromethane*		*3.80*	*10.0*	*25.0*	*U*
74-95-3	*Dibromomethane*		*4.08*	*10.0*	*25.0*	*U*
75-71-8	*Dichlorodifluoromethane*		*6.48*	*25.0*	*50.0*	*U*
100-41-4	*Ethylbenzene*		*1.50*	*5.00*	*10.0*	*U*
87-68-3	*Hexachlorobutadiene*		*5.00*	*10.0*	*25.0*	*U*
98-82-8	*Isopropylbenzene*		*2.74*	*10.0*	*25.0*	*U*
179601-23-1	*m,p-Xylene*		*4.44*	*20.0*	*50.0*	*U*
1634-04-4	*Methyl tert-butyl ether*		*2.65*	*10.0*	*25.0*	*U*
75-09-2	*Methylene chloride*		*11.2*	*25.0*	*50.0*	*U*
104-51-8	*n-Butylbenzene*		*6.50*	*25.0*	*50.0*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04RE1	File ID:	G2230607014.D
Sampled:	05/26/23 12:30	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 20:15
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*3.15*	*10.0*	*25.0*	*U*
91-20-3	*Naphthalene*		*3.50*	*10.0*	*25.0*	*U*
95-47-6	*o-Xylene*		*2.08*	*10.0*	*25.0*	*U*
135-98-8	*sec-Butylbenzene*		*2.99*	*10.0*	*25.0*	*U*
100-42-5	*Styrene*		*2.26*	*5.00*	*10.0*	*U*
98-06-6	*tert-Butylbenzene*		*2.26*	*10.0*	*25.0*	*U*
127-18-4	*Tetrachloroethene*		*8.92*	*25.0*	*50.0*	*Q, U*
108-88-3	*Toluene*		*2.86*	*10.0*	*25.0*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*4.28*	*10.0*	*25.0*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*2.94*	*10.0*	*25.0*	*U*
79-01-6	*Trichloroethene*	*426*	*3.90*	*10.0*	*25.0*	*B, D*
75-69-4	*Trichlorofluoromethane*		*2.52*	*10.0*	*25.0*	*U*
75-01-4	*Vinyl chloride*		*6.44*	*25.0*	*50.0*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607014.D
Acq On : 07 Jun 2023 20:15
Operator : PO1
Sample : 23E0775-04RE1
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:45:52 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

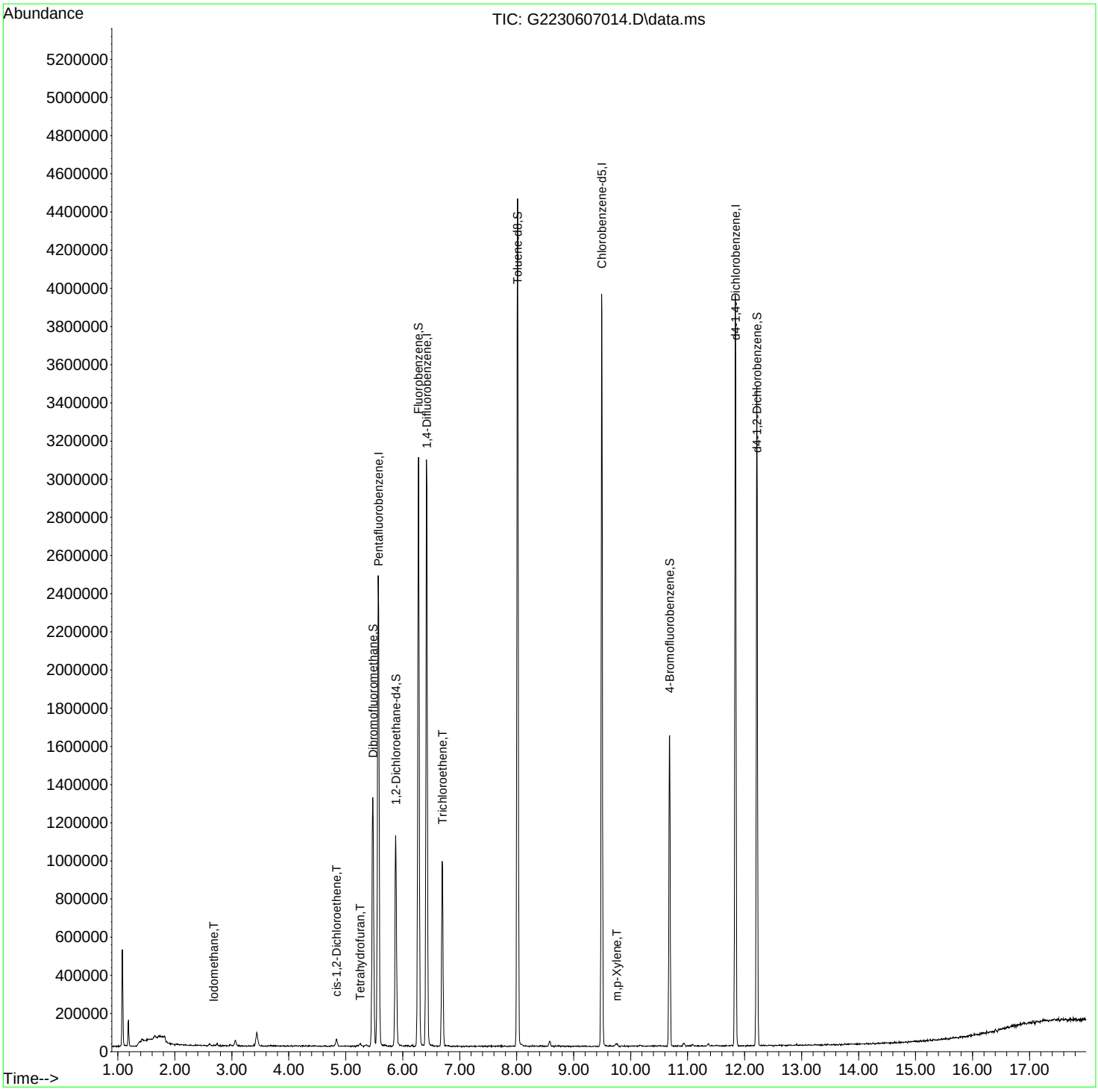
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	19707401	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	26915146	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	23753338	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11235928	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	8340644	19.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%			
43) 1,2-Dichloroethane-d4	5.878	65	7592773	17.72	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.60%			
49) Fluorobenzene	6.278	96	29801192	19.43	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%			
64) Toluene-d8	8.017	98	28965559	19.35	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.75%			
81) 4-Bromofluorobenzene	10.685	174	5163407	9.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%			
97) d4-1,2-Dichlorobenzene	12.218	152	9842755	20.37	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.85%			
Target Compounds						Qvalue
13) Iodomethane	2.688	142	38957	0.08	ug/L #	41
18) Methylene chloride	3.067	49	159998	Below Cal		71
21) Methyl tert-butyl ether	3.440	73	844609	Below Cal		95
28) cis-1,2-Dichloroethene	4.838	61	200548	0.32	ug/L #	65
36) Tetrahydrofuran	5.255	42	84872	0.28	ug/L	88
50) Trichloroethene	6.696	95	3039101	8.52	ug/L	91
75) m,p-Xylene	9.761	91	54833	0.04	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607014.D
Acq On : 07 Jun 2023 20:15
Operator : PO1
Sample : 23E0775-04RE1
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:45:52 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607014.D
Acq On : 07 Jun 2023 20:15
Operator : PO1
Sample : 23E0775-04RE1
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:45:52 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	5.573	168	19707401	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	26915146	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.495	117	23753338	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11235928	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	8340644	19.23	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%				
43) 1,2-Dichloroethane-d4	5.878	65	7592773	17.72	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.60%				
49) Fluorobenzene	6.278	96	29801192	19.43	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%				
64) Toluene-d8	8.017	98	28965559	19.35	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.75%				
81) 4-Bromofluorobenzene	10.685	174	5163407	9.73	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%				
97) d4-1,2-Dichlorobenzene	12.218	152	9842755	20.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.85%				
Target Compounds							Qvalue
5) Bromomethane	1.727	94	65941	Below Cal		#	91
8) Ethyl ether	2.304	59	947	Below Cal		#	13
9) Acrolein	2.421	56	3583	Below Cal		#	20
12) Acetone	2.609	43	94147	Below Cal			92
13) Iodomethane	2.688	142	38957	0.08	ug/L	#	41
14) Carbon disulfide	2.743	76	154124	0.08	ug/L	#	74
17) 3-Chloro-1-propene	2.743	76	154127	0.70	ug/L	#	53
18) Methylene chloride	3.067	49	159998	Below Cal			71
21) Methyl tert-butyl ether	3.440	73	844609	Below Cal			95
26) 1-propanol	4.376	59	780	0.38	ug/L	#	100
28) cis-1,2-Dichloroethene	4.838	61	200548	0.32	ug/L	#	65
31) Ethyl acetate	4.838	61	200542	3.21	ug/L	#	45
33) 1-Bromopropane	5.254	41	50850	0.13	ug/L	#	40
36) Tetrahydrofuran	5.255	42	84872	0.28	ug/L		88
40) Cyclohexane	5.572	84	420149	0.79	ug/L	#	29
41) 1-Chlorobutane	5.571	56	242262	0.39	ug/L	#	1
42) 1,1-Dichloropropene	5.572	75	1021627	2.21	ug/L	#	38
47) Carbon tetrachloride	5.573	117	1632861	3.36	ug/L	#	16
48) Benzene	5.927	78	38966	0.03	ug/L	#	52
50) Trichloroethene	6.696	95	3039101	8.52	ug/L		91
60) 4-Methyl-2-pentanone	8.015	43	94186	Below Cal		#	1
65) Toluene	8.086	91	53045	Below Cal		#	30
74) Ethylbenzene	9.761	91	54823	Below Cal			60
75) m,p-Xylene	9.761	91	54833	0.04	ug/L	#	36
82) Bromobenzene	10.688	77	35037	0.06	ug/L	#	1
99) n-Butylbenzene	12.211	91	32674	Below Cal		#	53

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607014.D
Acq On : 07 Jun 2023 20:15
Operator : PO1
Sample : 23E0775-04RE1
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:45:52 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

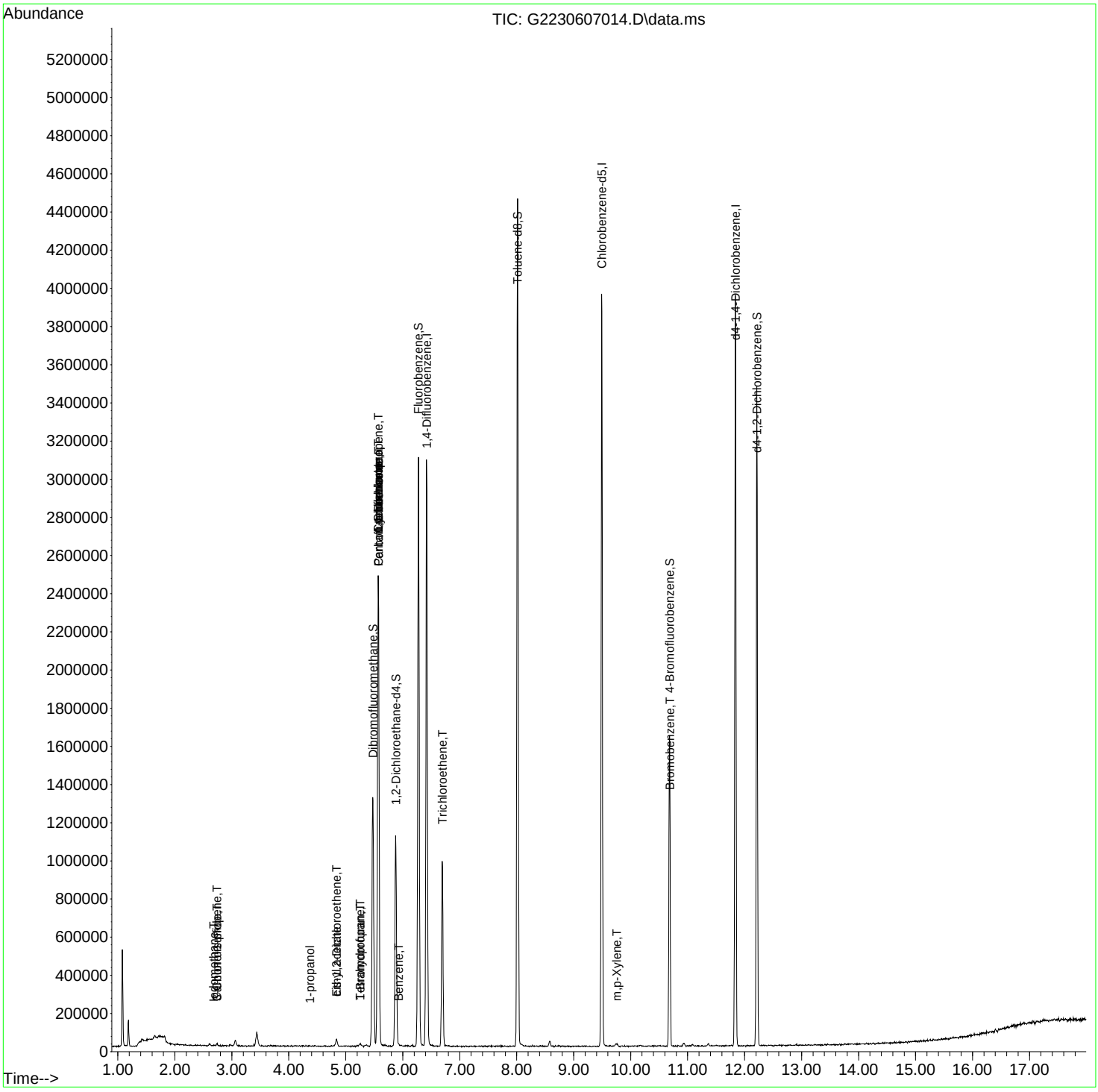
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

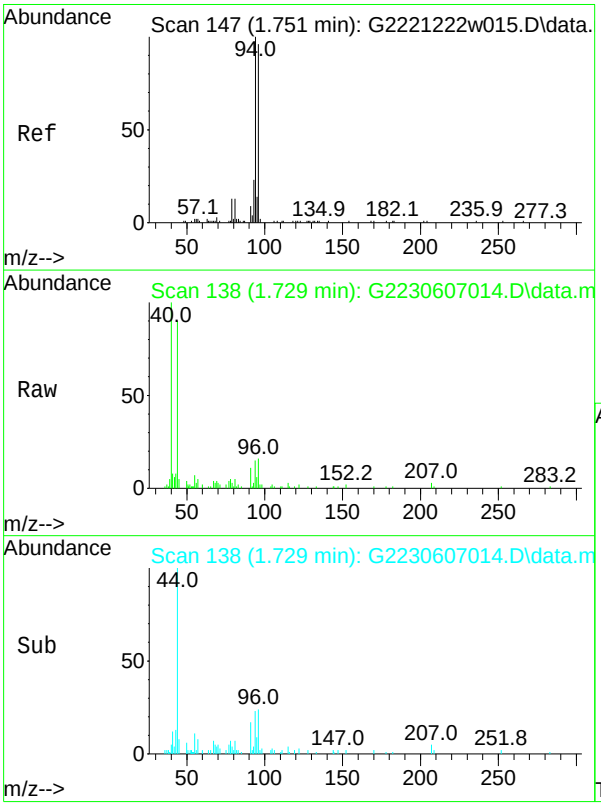
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607014.D
Acq On : 07 Jun 2023 20:15
Operator : PO1
Sample : 23E0775-04RE1
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:45:52 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

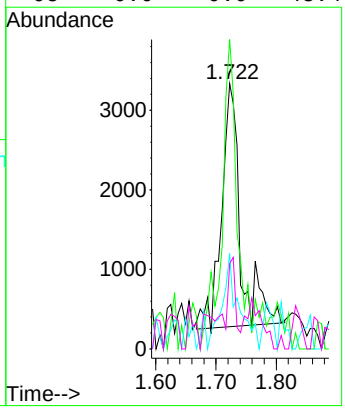


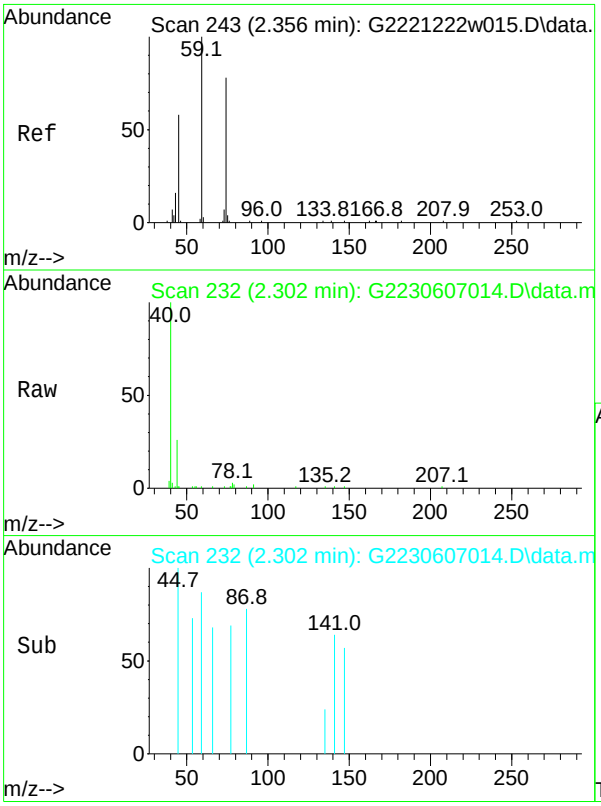


#5
Bromomethane
Concen: Below Cal
RT: 1.727 min Scan# 138
Delta R.T. 0.013 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 94 Resp: 65941

Ion	Ratio	Lower	Upper
94	100		
96	95.9	65.6	125.6
93	34.9	0.0	49.5
95	0.0	0.0	43.4

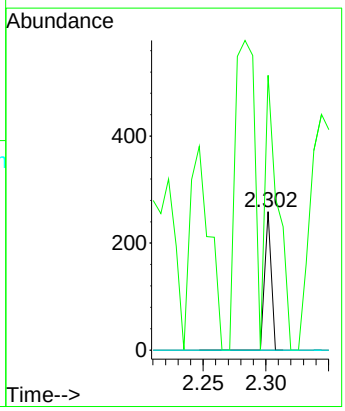


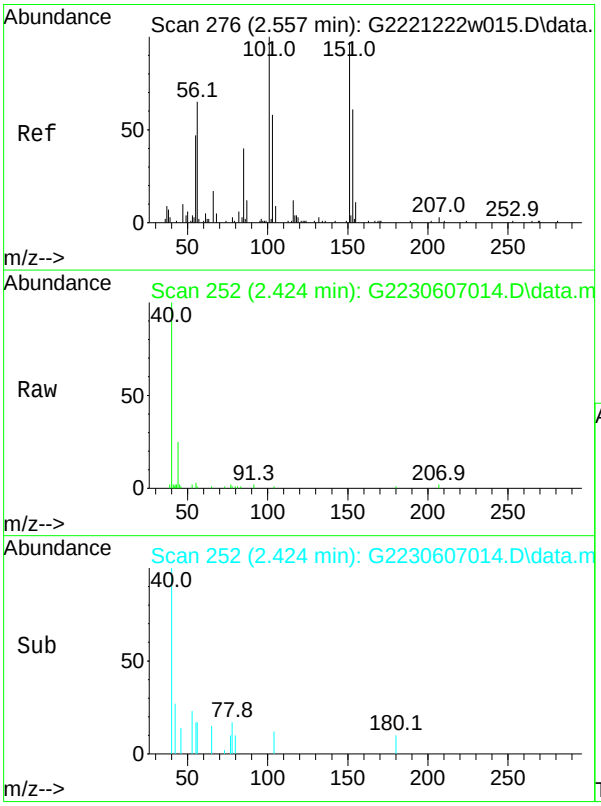


#8
Ethyl ether
Concen: Below Cal
RT: 2.304 min Scan# 232
Delta R.T. -0.014 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 59 Resp: 947

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

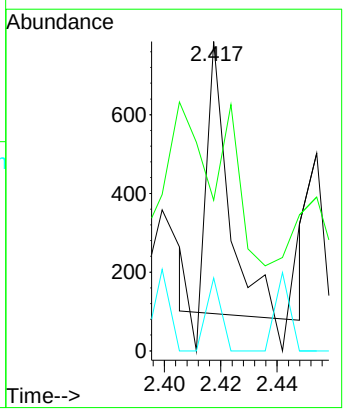


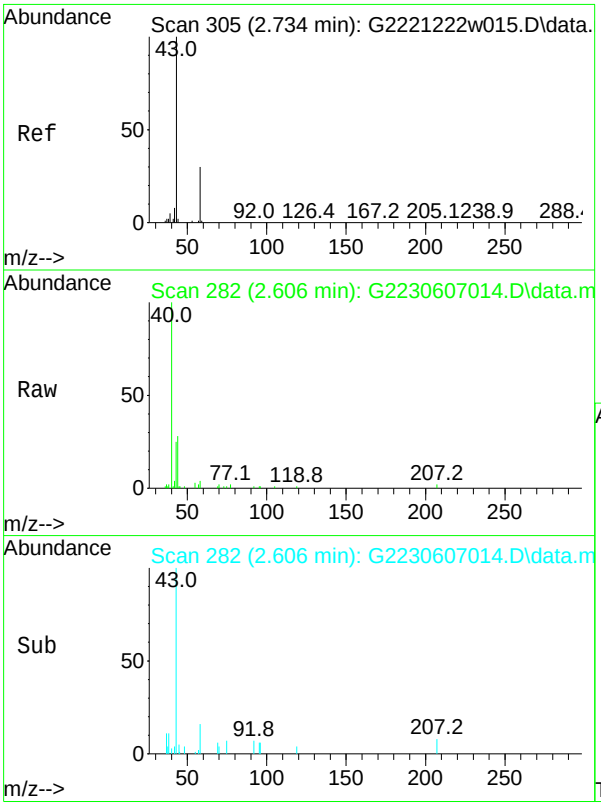


#9
Acrolein
Concen: Below Cal
RT: 2.421 min Scan# 252
Delta R.T. -0.018 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 56 Resp: 3583

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

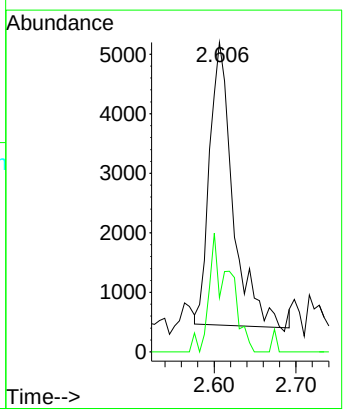


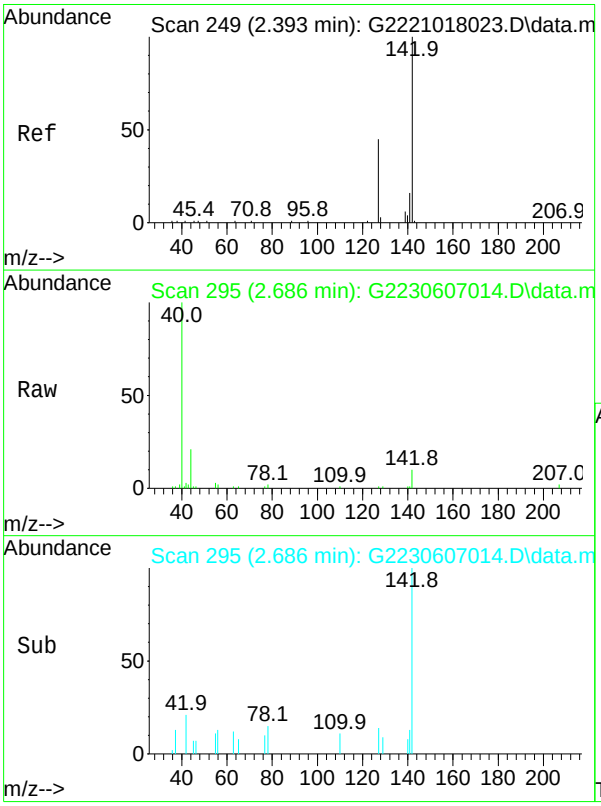


#12
Acetone
Concen: Below Cal
RT: 2.609 min Scan# 282
Delta R.T. 0.001 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 43 Resp: 94147

Ion	Ratio	Lower	Upper
43	100		
58	33.8	0.0	59.7

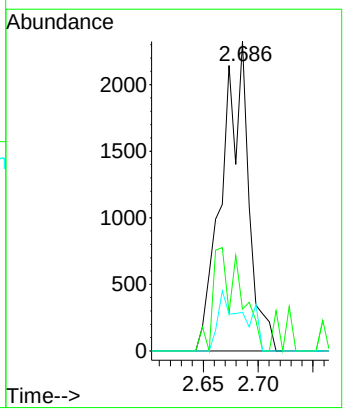


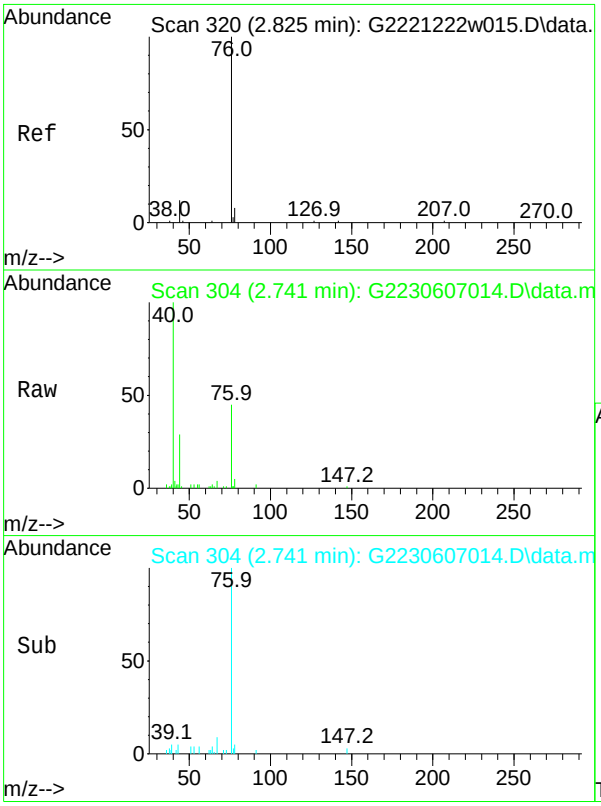


#13
Iodomethane
Concen: 0.08 ug/L
RT: 2.688 min Scan# 295
Delta R.T. 0.012 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion:142 Resp: 38957

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

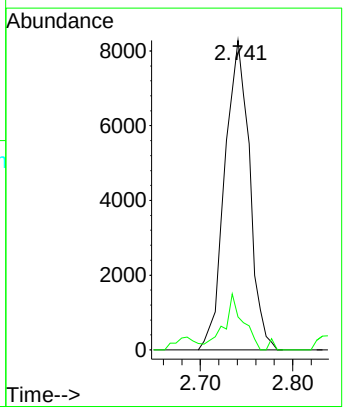


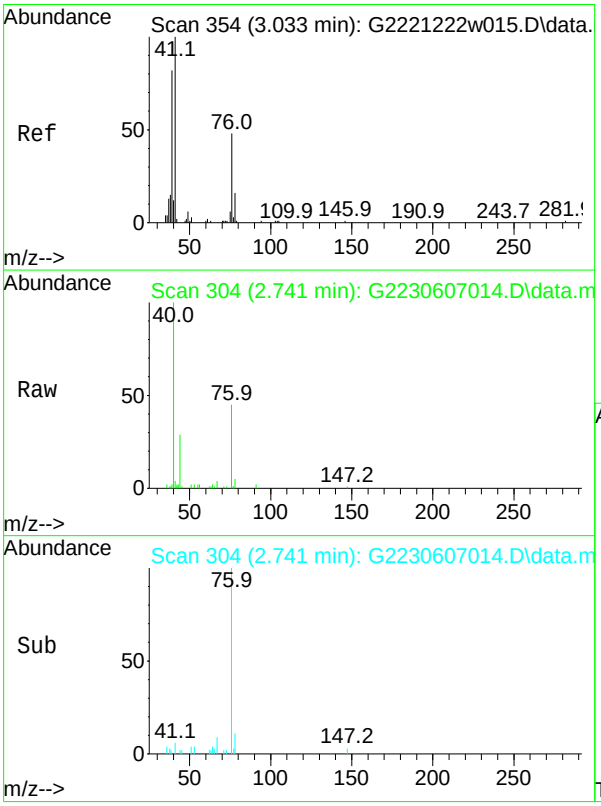


#14
Carbon disulfide
Concen: 0.08 ug/L
RT: 2.743 min Scan# 304
Delta R.T. 0.004 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 76 Resp: 154124

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

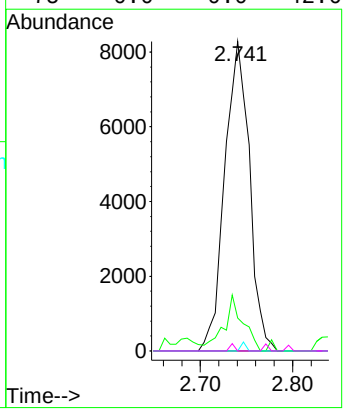


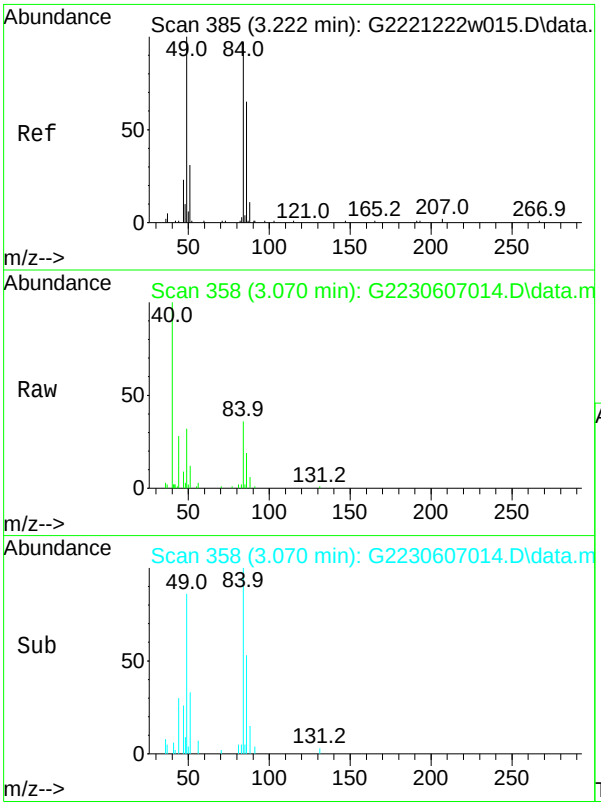


#17
3-Chloro-1-propene
Concen: 0.70 ug/L
RT: 2.743 min Scan# 304
Delta R.T. -0.177 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 76 Resp: 154127

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

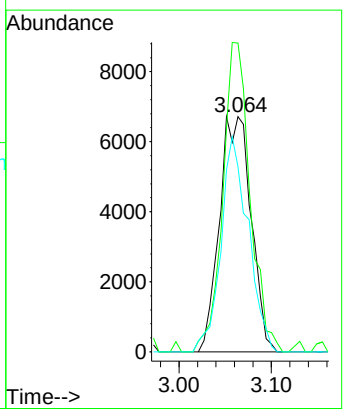


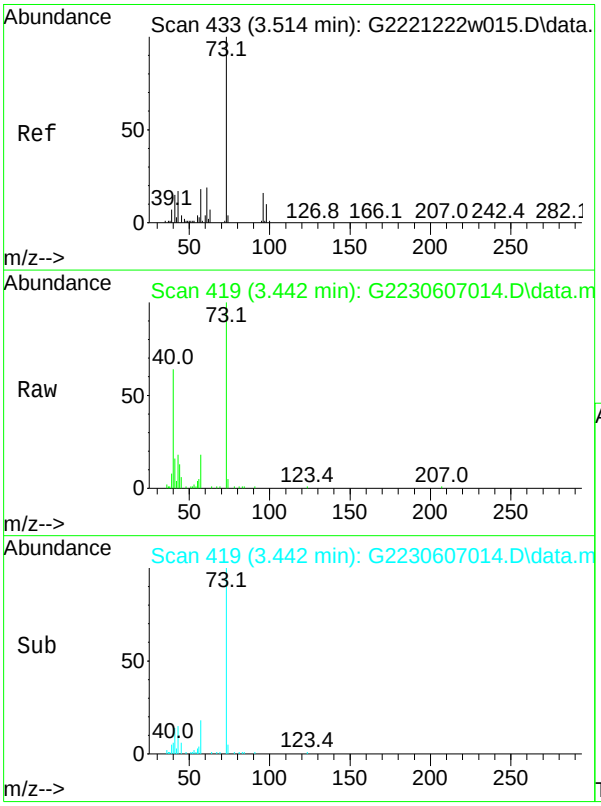


#18
Methylene chloride
Concen: Below Cal
RT: 3.067 min Scan# 358
Delta R.T. 0.005 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 49 Resp: 159998

Ion	Ratio	Lower	Upper
49	100		
84	113.3	57.9	117.9
86	78.7	24.9	84.9

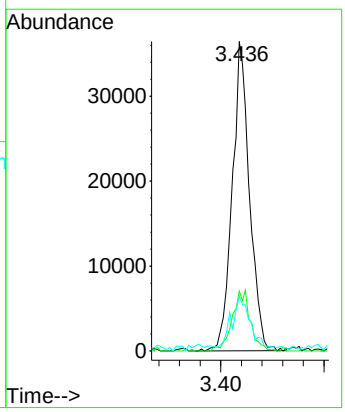


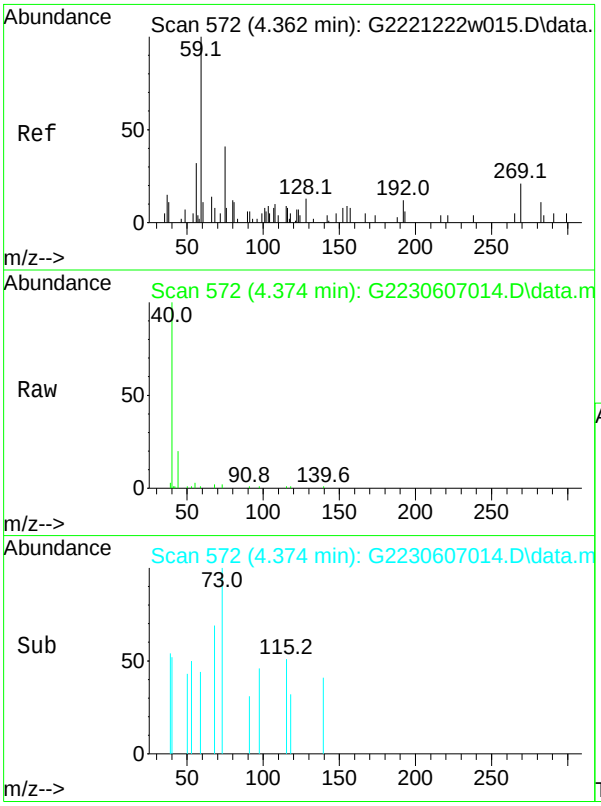


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.440 min Scan# 419
Delta R.T. -0.006 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 73 Resp: 844609

Ion	Ratio	Lower	Upper
73	100		
57	20.5	0.0	51.7
41	17.0	0.0	50.6

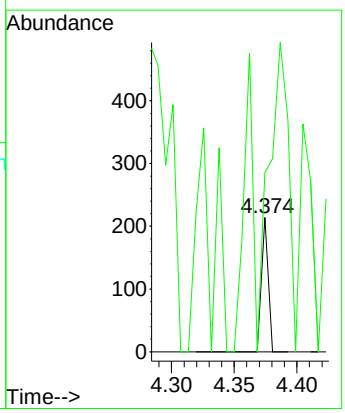


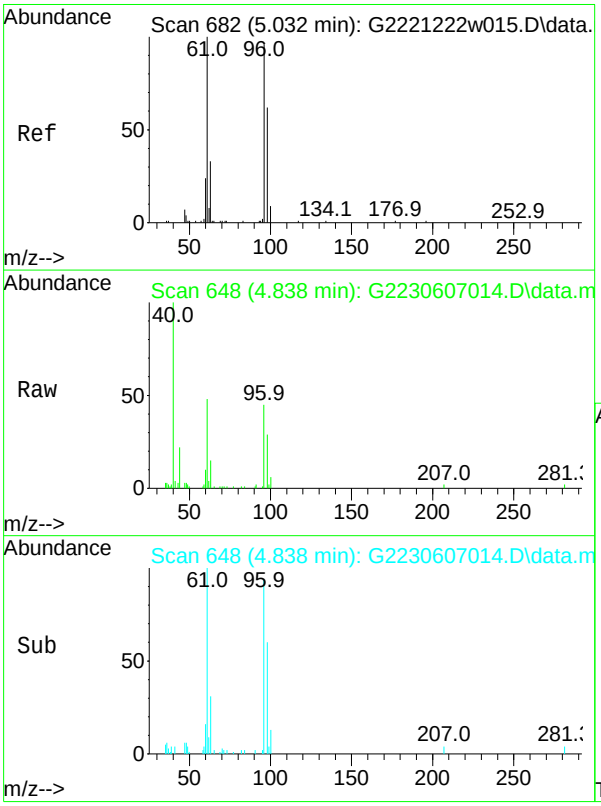


#26
1-propanol
Concen: 0.38 ug/L
RT: 4.376 min Scan# 572
Delta R.T. 0.087 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 59 Resp: 780

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

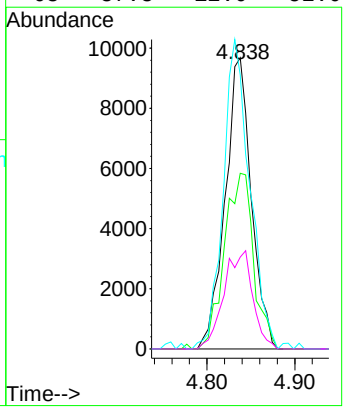


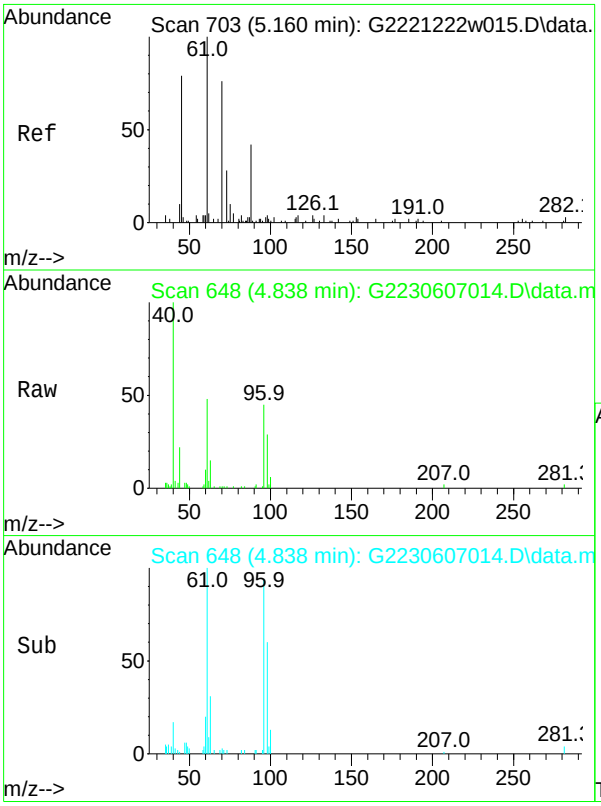


#28
cis-1,2-Dichloroethene
Concen: 0.32 ug/L
RT: 4.838 min Scan# 648
Delta R.T. 0.002 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 61 Resp: 200548

Ion	Ratio	Lower	Upper
61	100		
98	67.3	15.9	75.9
96	108.7	39.6	99.6#
63	37.3	12.0	52.0

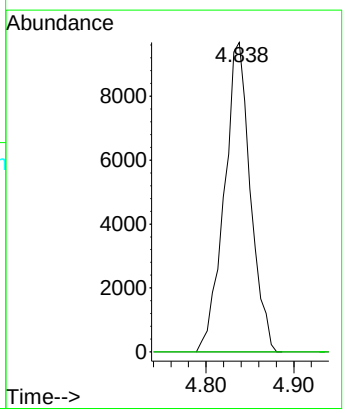


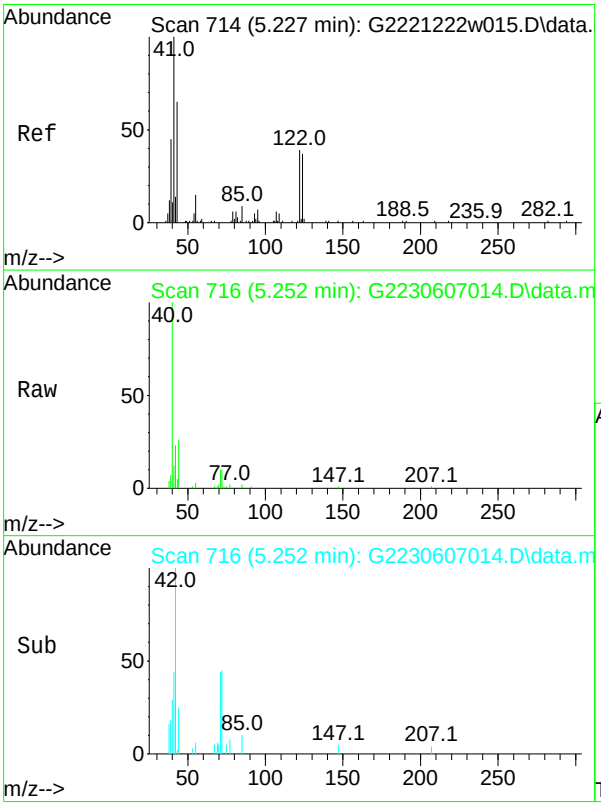


#31
Ethyl acetate
Concen: 3.21 ug/L
RT: 4.838 min Scan# 648
Delta R.T. -0.184 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 61 Resp: 200542

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

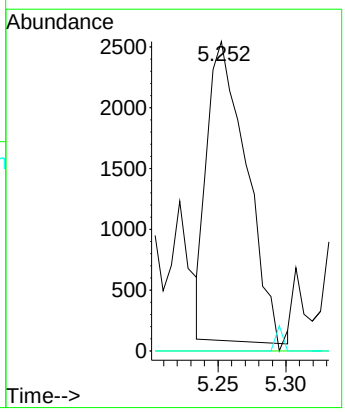


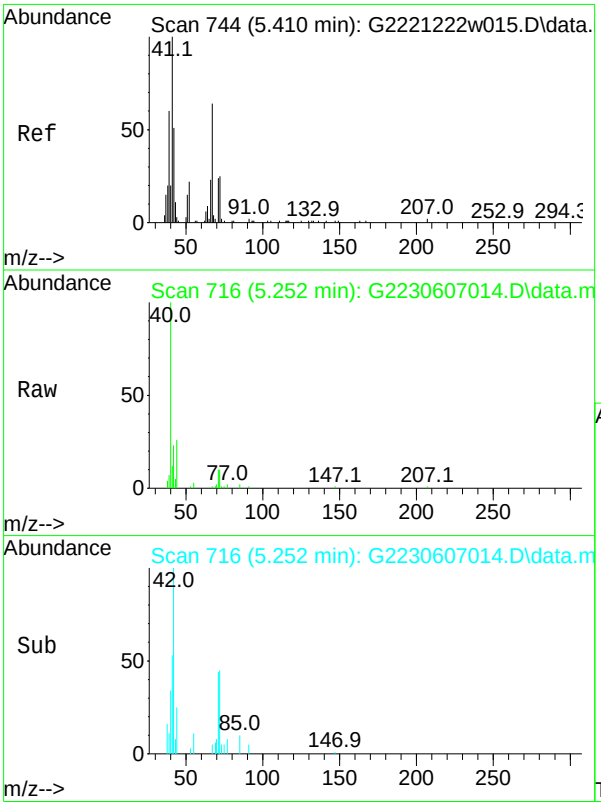


#33
1-Bromopropane
Concen: 0.13 ug/L
RT: 5.254 min Scan# 716
Delta R.T. 0.178 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 41 Resp: 50850

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

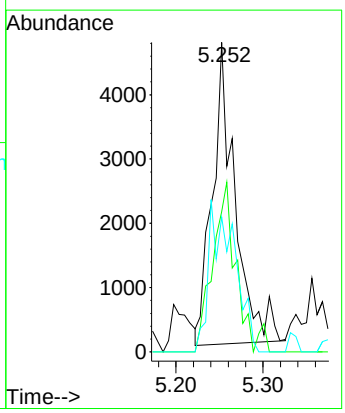


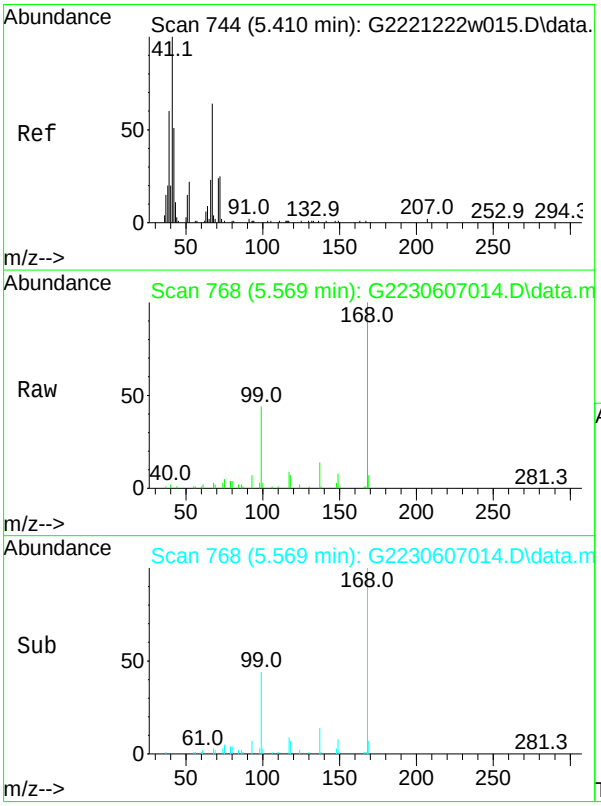


#36
Tetrahydrofuran
Concen: 0.28 ug/L
RT: 5.255 min Scan# 716
Delta R.T. -0.006 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 42 Resp: 84872

Ion	Ratio	Lower	Upper
42	100		
72	53.2	18.8	78.8
71	56.9	14.7	74.7

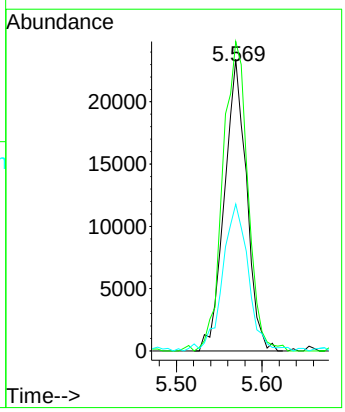


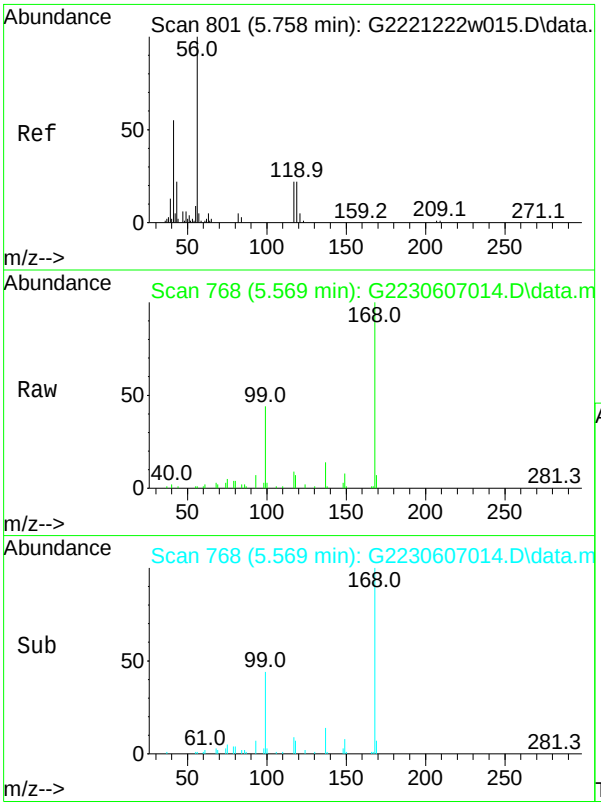


#40
Cyclohexane
Concen: 0.79 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 84 Resp: 420149

Ion	Ratio	Lower	Upper
84	100		
69	119.8	6.8	66.8#
56	58.5	79.1	139.1#

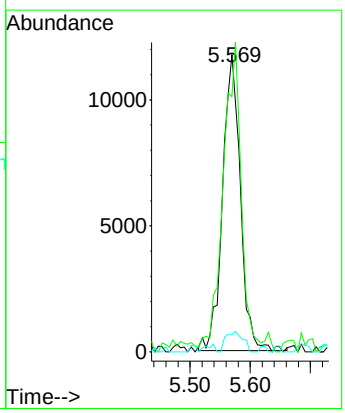


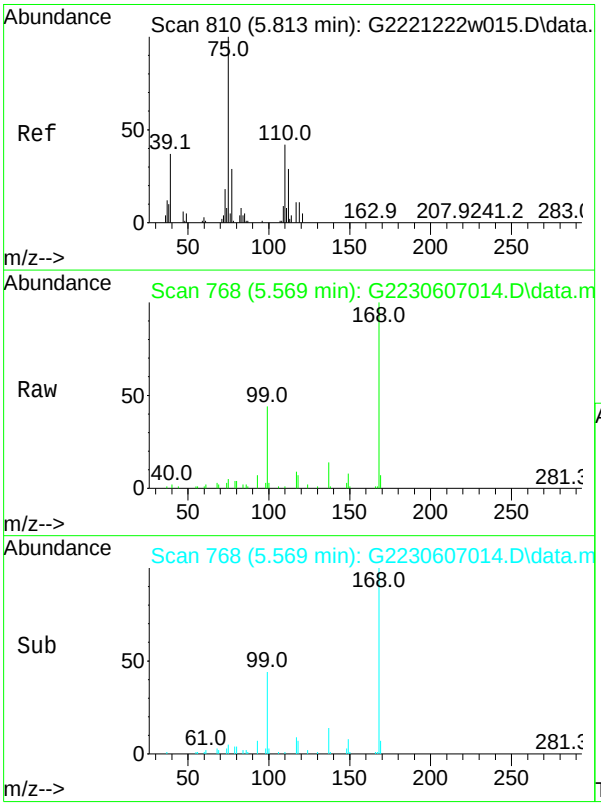


#41
1-Chlorobutane
Concen: 0.39 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.059 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 56 Resp: 242262

Ion	Ratio	Lower	Upper
56	100		
55	99.6	0.0	41.0#
57	0.0	0.0	35.7

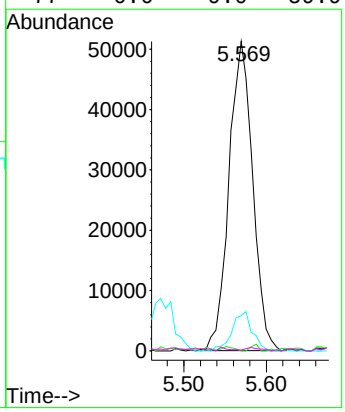


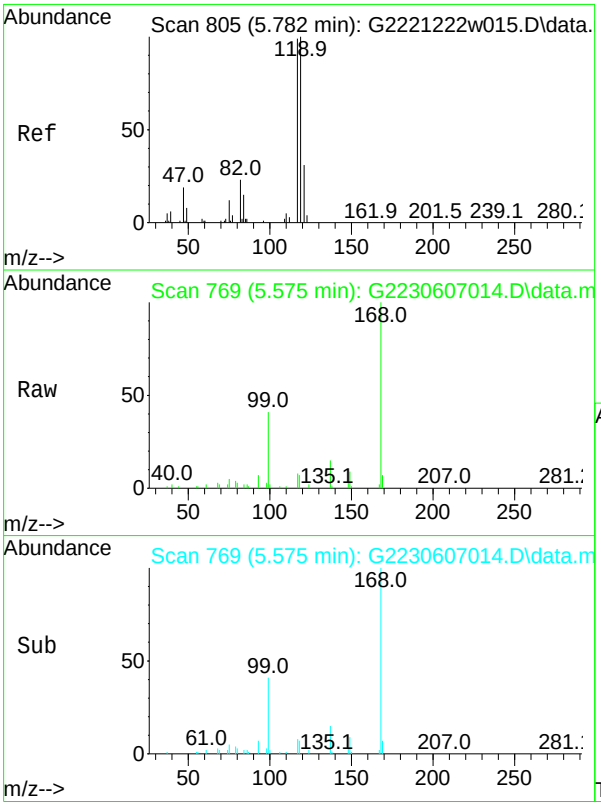


#42
1,1-Dichloropropene
Concen: 2.21 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.117 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 75 Resp: 1021627

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.9	9.1	69.1
77	0.0	0.0	59.9

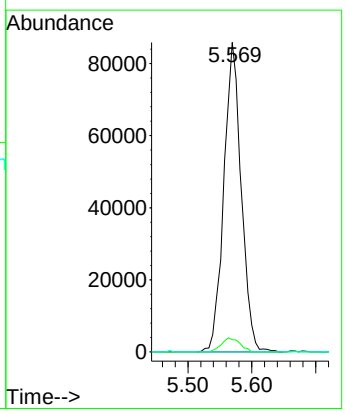


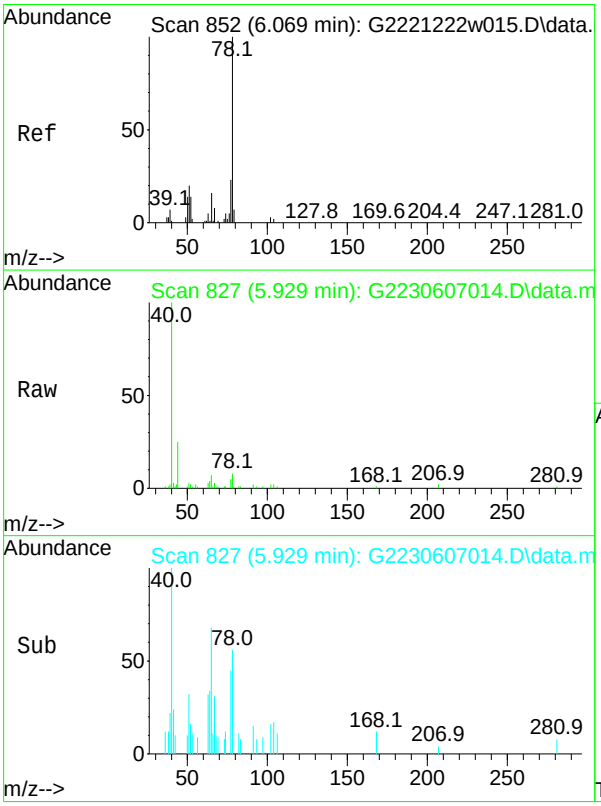


#47
Carbon tetrachloride
Concen: 3.36 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.107 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion:117 Resp: 1632861

Ion	Ratio	Lower	Upper
117	100		
119	4.8	66.4	126.4#
121	0.0	0.4	60.4#

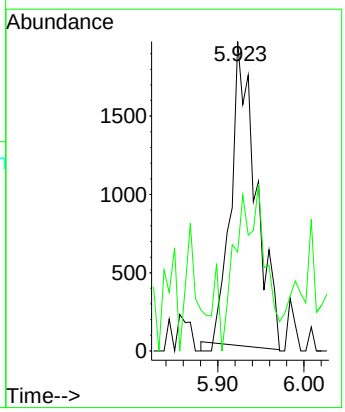


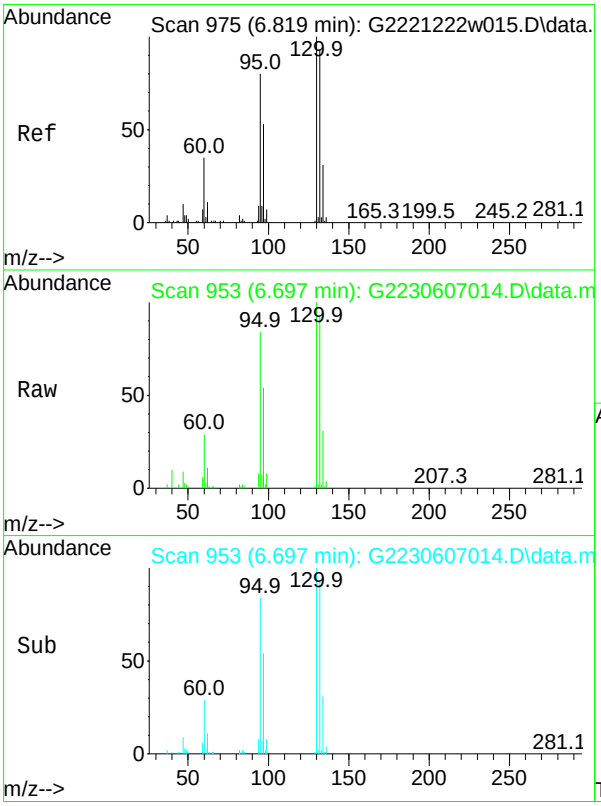


#48
Benzene
Concen: 0.03 ug/L
RT: 5.927 min Scan# 827
Delta R.T. -0.008 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 78 Resp: 38966

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

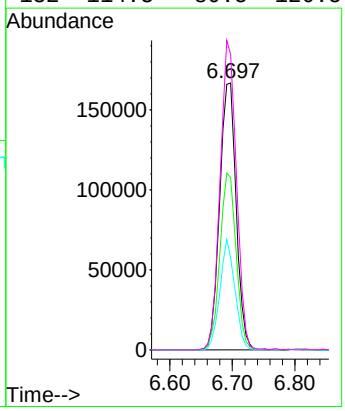


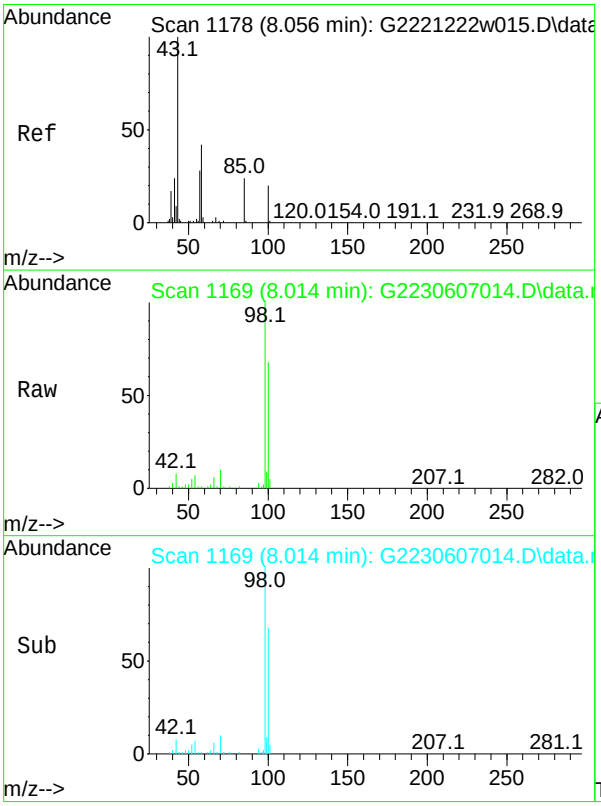


#50
Trichloroethene
Concen: 8.52 ug/L
RT: 6.696 min Scan# 953
Delta R.T. 0.000 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 95 Resp: 3039101

Ion	Ratio	Lower	Upper
95	100		
97	65.2	35.5	95.5
60	37.6	14.8	74.8
132	114.3	80.5	120.5

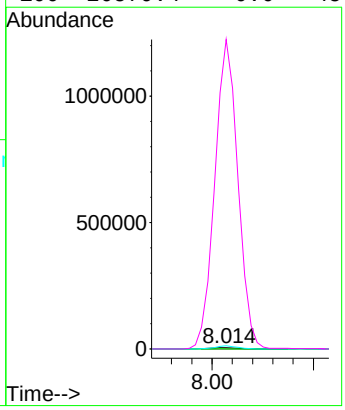


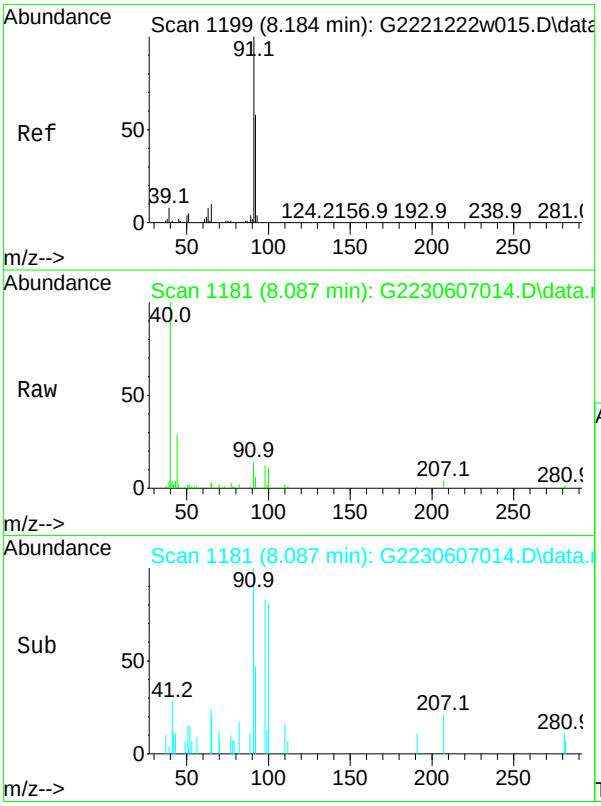


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 43 Resp: 94186

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	201.4	37.0	37.0#
100	20579.4	0.0	45.2#

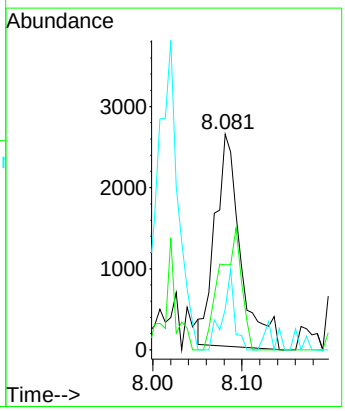


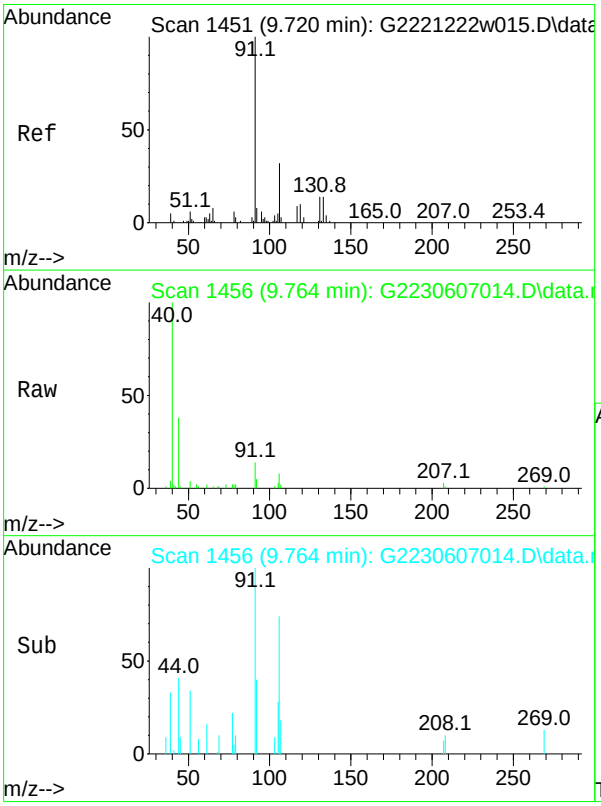


#65
Toluene
Concen: Below Cal
RT: 8.086 min Scan# 1181
Delta R.T. -0.000 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 91 Resp: 53045

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

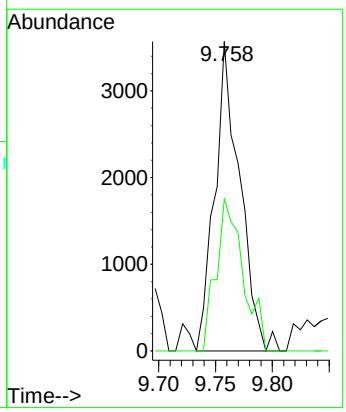


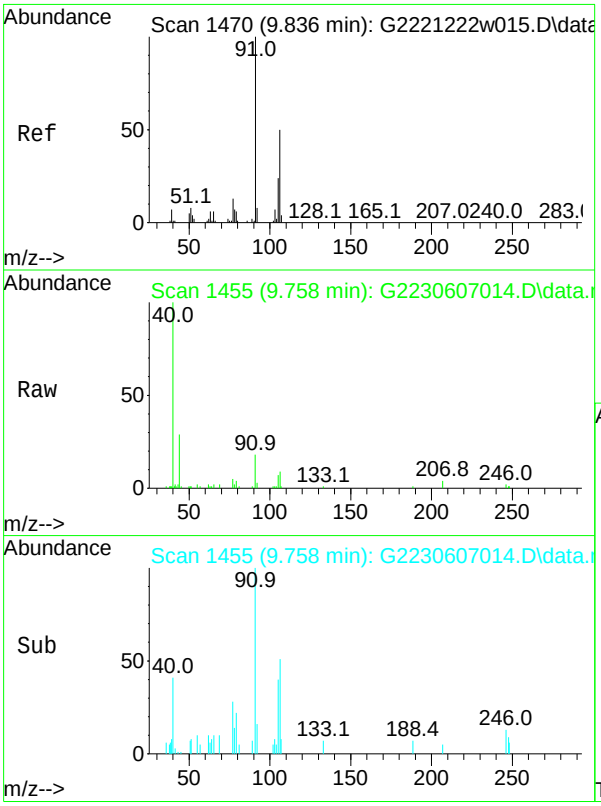


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 91 Resp: 54823

Ion	Ratio	Lower	Upper
91	100		
106	52.9	0.8	60.8

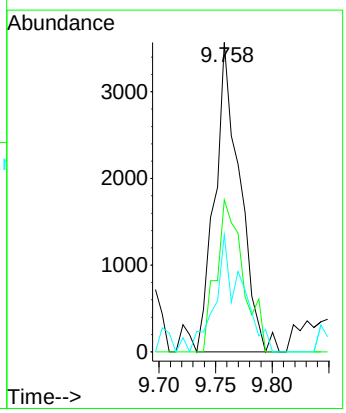


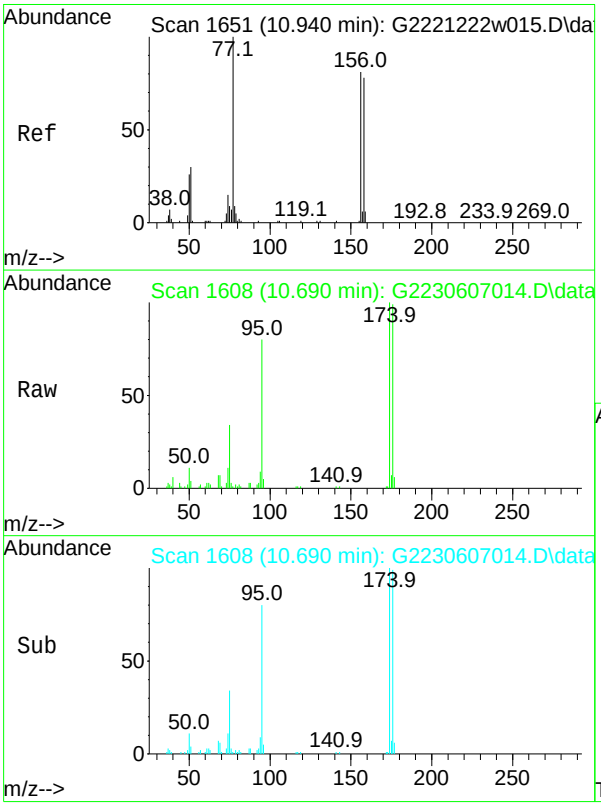


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.761 min Scan# 1455
Delta R.T. -0.003 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 91 Resp: 54833

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

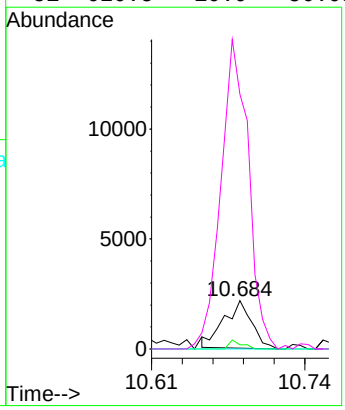


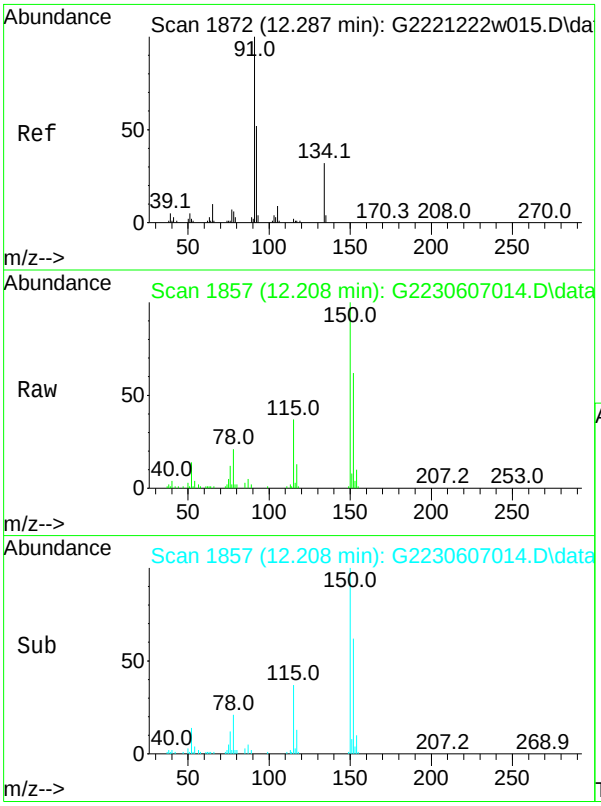


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.688 min Scan# 1608
Delta R.T. -0.140 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 77 Resp: 35037

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	620.5	10.9	50.9#

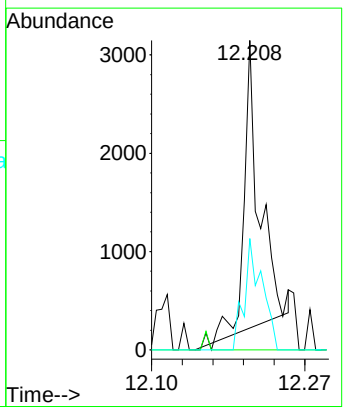




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.211 min Scan# 1857
Delta R.T. -0.020 min
Lab File: G2230607014.D
Acq: 07 Jun 2023 20:15

Tgt Ion: 91 Resp: 32674

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

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04RE2	File ID:	G2230608014.D
Sampled:	05/26/23 12:30	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 14:39
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*3.25*	*10.0*	*25.0*	*U*
71-55-6	*1,1,1-Trichloroethane*		*4.38*	*10.0*	*25.0*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*3.10*	*10.0*	*25.0*	*U*
79-00-5	*1,1,2-Trichloroethane*		*4.16*	*10.0*	*25.0*	*U*
75-34-3	*1,1-Dichloroethane*		*3.34*	*10.0*	*25.0*	*U*
75-35-4	*1,1-Dichloroethene*		*4.77*	*10.0*	*25.0*	*U*
563-58-6	*1,1-Dichloropropene*		*3.50*	*10.0*	*25.0*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*5.10*	*10.0*	*25.0*	*U*
96-18-4	*1,2,3-Trichloropropane*		*4.56*	*10.0*	*25.0*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*5.12*	*15.0*	*30.0*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*3.30*	*10.0*	*25.0*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*6.50*	*25.0*	*50.0*	*U*
106-93-4	*1,2-Dibromoethane*		*2.66*	*10.0*	*25.0*	*U*
95-50-1	*1,2-Dichlorobenzene*		*3.15*	*10.0*	*25.0*	*U*
107-06-2	*1,2-Dichloroethane*		*5.30*	*15.0*	*30.0*	*U*
78-87-5	*1,2-Dichloropropane*		*5.12*	*15.0*	*30.0*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*2.50*	*10.0*	*25.0*	*U*
541-73-1	*1,3-Dichlorobenzene*		*3.62*	*10.0*	*25.0*	*U*
142-28-9	*1,3-Dichloropropane*		*3.40*	*10.0*	*25.0*	*U*
106-46-7	*1,4-Dichlorobenzene*		*4.60*	*10.0*	*25.0*	*U*
594-20-7	*2,2-Dichloropropane*		*4.60*	*10.0*	*25.0*	*U*
78-93-3	*2-Butanone*		*16.5*	*35.0*	*87.5*	*U*
95-49-8	*2-Chlorotoluene*		*3.66*	*10.0*	*25.0*	*U*
591-78-6	*2-Hexanone*		*3.58*	*35.0*	*87.5*	*U*
106-43-4	*4-Chlorotoluene*		*4.60*	*10.0*	*25.0*	*U*
99-87-6	*4-Isopropyltoluene*		*3.50*	*10.0*	*25.0*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04RE2	File ID:	G2230608014.D
Sampled:	05/26/23 12:30	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 14:39
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*6.75*	*35.0*	*87.5*	*U*
67-64-1	*Acetone*		*25.9*	*100*	*200*	*U*
71-43-2	*Benzene*		*2.54*	*10.0*	*25.0*	*U*
108-86-1	*Bromobenzene*		*4.24*	*10.0*	*25.0*	*U*
74-97-5	*Bromochloromethane*		*3.34*	*10.0*	*25.0*	*U*
75-27-4	*Bromodichloromethane*		*2.66*	*10.0*	*25.0*	*U*
75-25-2	*Bromoform*		*5.16*	*10.0*	*25.0*	*U*
74-83-9	*Bromomethane*		*8.01*	*25.0*	*50.0*	*U*
75-15-0	*Carbon disulfide*		*7.00*	*25.0*	*50.0*	*U*
56-23-5	*Carbon tetrachloride*		*4.22*	*10.0*	*25.0*	*U*
108-90-7	*Chlorobenzene*		*3.25*	*10.0*	*25.0*	*U*
75-00-3	*Chloroethane*		*7.77*	*10.0*	*25.0*	*U*
67-66-3	*Chloroform*		*5.06*	*15.0*	*30.0*	*U*
74-87-3	*Chloromethane*		*9.60*	*25.0*	*50.0*	*U*
156-59-2	*cis-1,2-Dichloroethene*	*15.0*	*5.13*	*15.0*	*30.0*	*J, D*
10061-01-5	*cis-1,3-Dichloropropene*		*2.94*	*10.0*	*25.0*	*U*
124-48-1	*Dibromochloromethane*		*3.80*	*10.0*	*25.0*	*U*
74-95-3	*Dibromomethane*		*4.08*	*10.0*	*25.0*	*U*
75-71-8	*Dichlorodifluoromethane*		*6.48*	*25.0*	*50.0*	*U*
100-41-4	*Ethylbenzene*		*1.50*	*5.00*	*10.0*	*U*
87-68-3	*Hexachlorobutadiene*		*5.00*	*10.0*	*25.0*	*U*
98-82-8	*Isopropylbenzene*		*2.74*	*10.0*	*25.0*	*U*
179601-23-1	*m,p-Xylene*		*4.44*	*20.0*	*50.0*	*U*
1634-04-4	*Methyl tert-butyl ether*		*2.65*	*10.0*	*25.0*	*U*
75-09-2	*Methylene chloride*		*11.2*	*25.0*	*50.0*	*U*
104-51-8	*n-Butylbenzene*		*6.50*	*25.0*	*50.0*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW37

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-04RE2	File ID:	G2230608014.D
Sampled:	05/26/23 12:30	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 14:39
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*3.15*	*10.0*	*25.0*	*U*
91-20-3	*Naphthalene*		*3.50*	*10.0*	*25.0*	*U*
95-47-6	*o-Xylene*		*2.08*	*10.0*	*25.0*	*U*
135-98-8	*sec-Butylbenzene*		*2.99*	*10.0*	*25.0*	*U*
100-42-5	*Styrene*		*2.26*	*5.00*	*10.0*	*U*
98-06-6	*tert-Butylbenzene*		*2.26*	*10.0*	*25.0*	*U*
127-18-4	Tetrachloroethene		8.92	25.0	50.0	U
108-88-3	*Toluene*		*2.86*	*10.0*	*25.0*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*4.28*	*10.0*	*25.0*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*2.94*	*10.0*	*25.0*	*U*
79-01-6	Trichloroethene	420	3.90	10.0	25.0	D
75-69-4	*Trichlorofluoromethane*		*2.52*	*10.0*	*25.0*	*U*
75-01-4	*Vinyl chloride*		*6.44*	*25.0*	*50.0*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608014.D
Acq On : 08 Jun 2023 14:39
Operator : PO1
Sample : 23E0775-04RE2
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 16:38:09 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

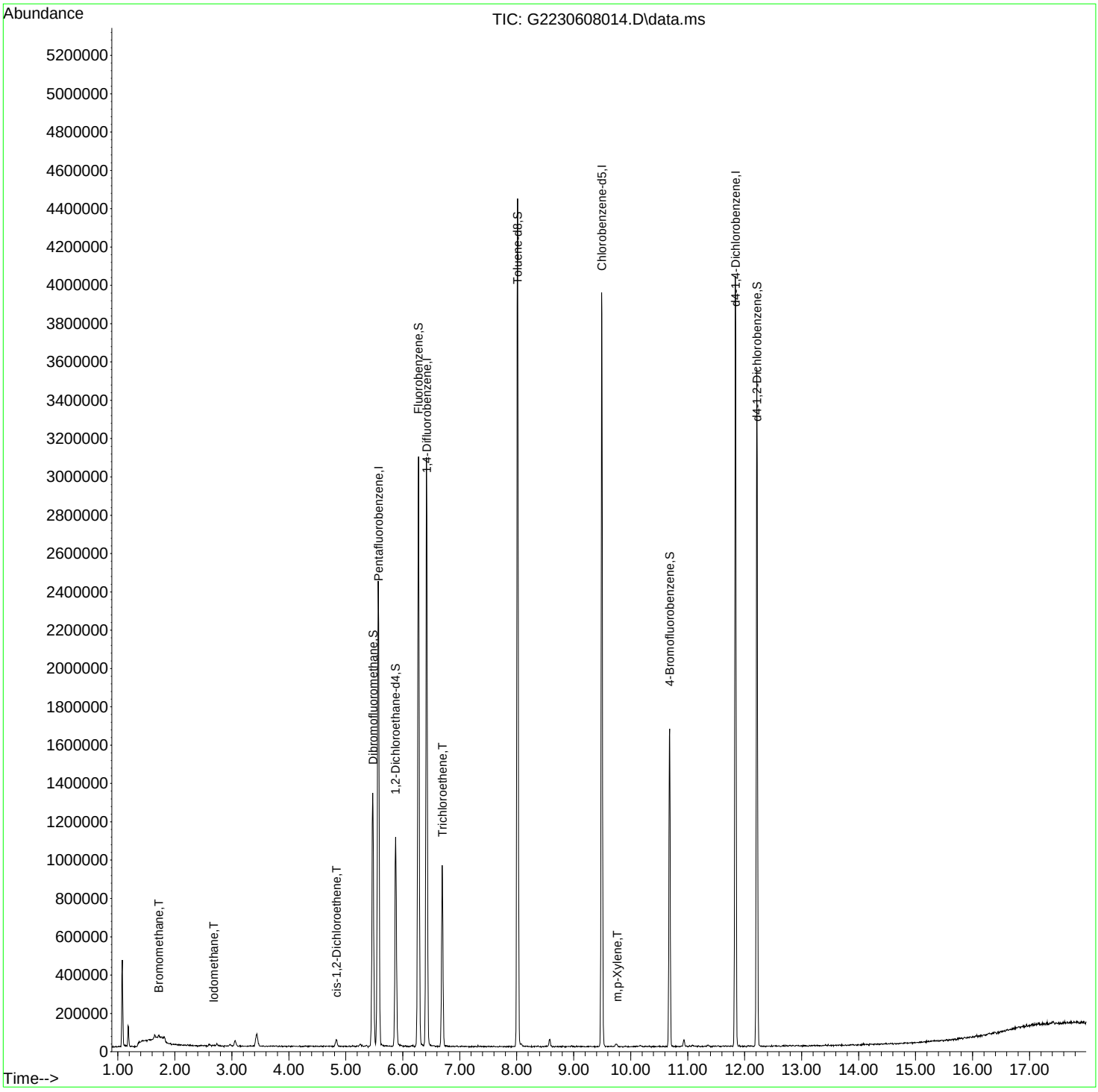
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	19690698	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	26650667	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	23874196	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11404449	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	8359950	19.29	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%			
43) 1,2-Dichloroethane-d4	5.877	65	7717825	18.02	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.10%			
49) Fluorobenzene	6.278	96	29597144	19.49	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%			
64) Toluene-d8	8.016	98	28765088	19.12	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.60%			
81) 4-Bromofluorobenzene	10.685	174	5239002	9.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%			
97) d4-1,2-Dichlorobenzene	12.218	152	9993523	20.38	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.90%			
Target Compounds						Qvalue
5) Bromomethane	1.716	94	69393m	0.01	ug/L	
13) Iodomethane	2.679	142	66440	0.14	ug/L #	41
18) Methylene chloride	3.060	49	145834	Below Cal	#	68
21) Methyl tert-butyl ether	3.439	73	868147	Below Cal		94
28) cis-1,2-Dichloroethene	4.836	61	188637	0.30	ug/L #	59
50) Trichloroethene	6.694	95	2965006	8.39	ug/L	91
65) Toluene	8.084	91	40872	Below Cal	#	30
75) m,p-Xylene	9.765	91	60891	0.05	ug/L #	81

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608014.D
Acq On : 08 Jun 2023 14:39
Operator : PO1
Sample : 23E0775-04RE2
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 16:38:09 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608014.D
Acq On : 08 Jun 2023 14:39
Operator : PO1
Sample : 23E0775-04RE2
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 16:38:09 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

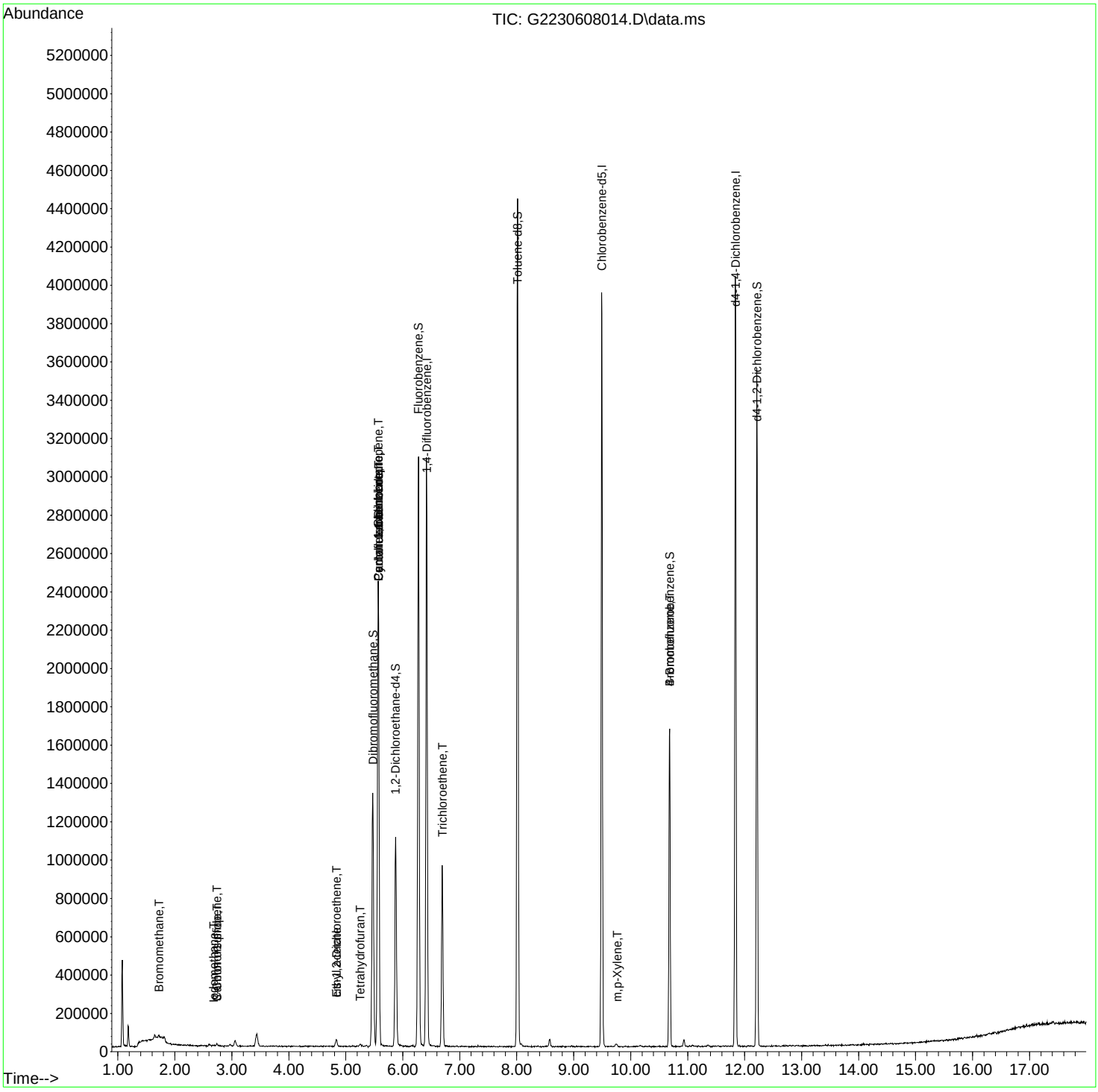
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.573	168	19690698	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	26650667	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.495	117	23874196	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11404449	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	8359950	19.29	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%				
43) 1,2-Dichloroethane-d4	5.877	65	7717825	18.02	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.10%				
49) Fluorobenzene	6.278	96	29597144	19.49	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%				
64) Toluene-d8	8.016	98	28765088	19.12	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.60%				
81) 4-Bromofluorobenzene	10.685	174	5239002	9.73	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%				
97) d4-1,2-Dichlorobenzene	12.218	152	9993523	20.38	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.90%				
Target Compounds							Qvalue
5) Bromomethane	1.721	94	83940	0.07	ug/L	#	88
9) Acrolein	2.248	56	4670	Below Cal		#	20
12) Acetone	2.599	43	90678	Below Cal		#	45
13) Iodomethane	2.679	142	66440	0.14	ug/L	#	41
14) Carbon disulfide	2.739	76	144729	0.07	ug/L	#	74
17) 3-Chloro-1-propene	2.739	76	144726	0.65	ug/L	#	53
18) Methylene chloride	3.060	49	145834	Below Cal		#	68
21) Methyl tert-butyl ether	3.439	73	868147	Below Cal			94
28) cis-1,2-Dichloroethene	4.836	61	188637	0.30	ug/L	#	59
31) Ethyl acetate	4.836	61	188642	3.00	ug/L	#	45
36) Tetrahydrofuran	5.255	42	96389	0.40	ug/L		90
40) Cyclohexane	5.576	84	438942	0.83	ug/L	#	31
41) 1-Chlorobutane	5.570	56	245160	0.40	ug/L	#	1
42) 1,1-Dichloropropene	5.571	75	1018542	2.21	ug/L	#	38
47) Carbon tetrachloride	5.573	117	1550146	3.22	ug/L	#	16
50) Trichloroethene	6.694	95	2965006	8.39	ug/L		91
60) 4-Methyl-2-pentanone	8.014	43	77834	Below Cal		#	1
65) Toluene	8.084	91	40872	Below Cal		#	30
74) Ethylbenzene	9.765	91	60301	Below Cal			73
75) m,p-Xylene	9.765	91	60891	0.05	ug/L	#	81
82) Bromobenzene	10.686	77	27306	0.04	ug/L	#	1
99) n-Butylbenzene	12.220	91	39684	Below Cal		#	53

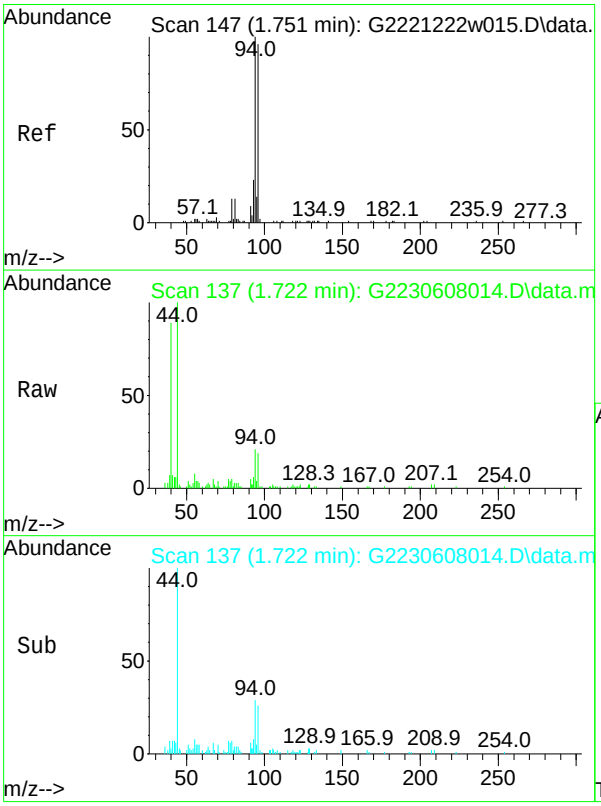
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608014.D
Acq On : 08 Jun 2023 14:39
Operator : PO1
Sample : 23E0775-04RE2
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 16:38:09 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

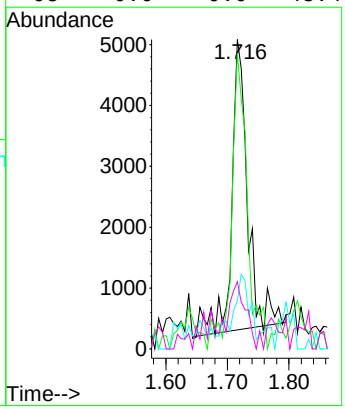


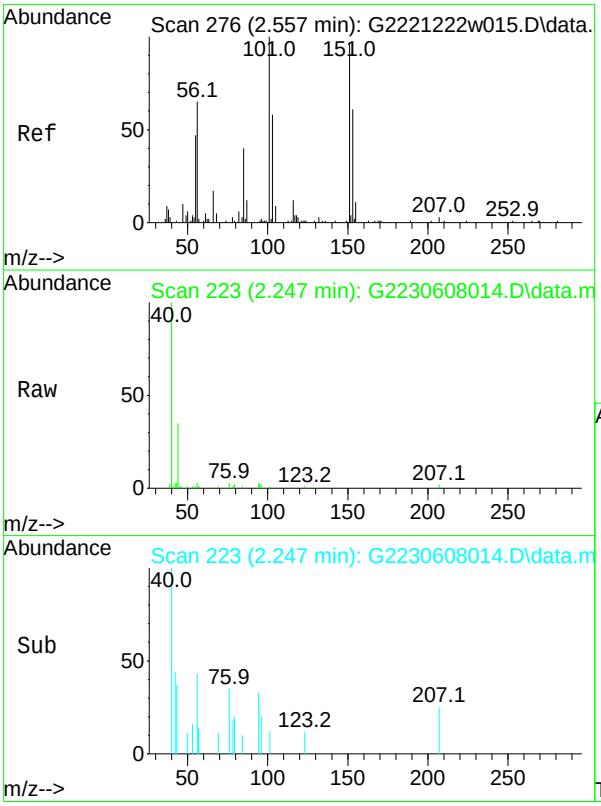


#5
Bromomethane
Concen: 0.07 ug/L
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 94 Resp: 83940

Ion	Ratio	Lower	Upper
94	100		
96	92.6	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

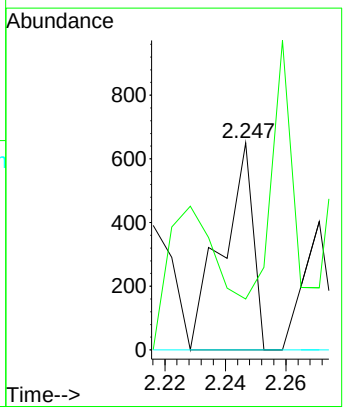


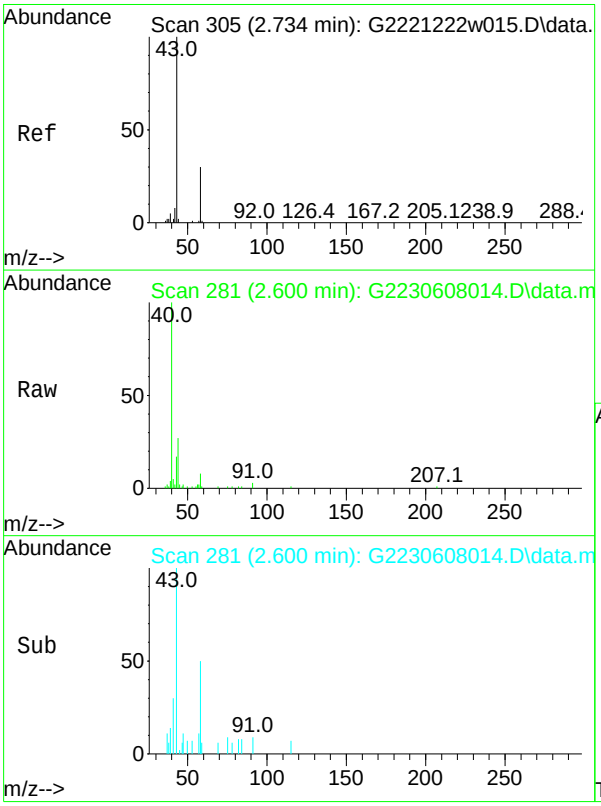


#9
Acrolein
Concen: Below Cal
RT: 2.248 min Scan# 223
Delta R.T. -0.191 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 56 Resp: 4670

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

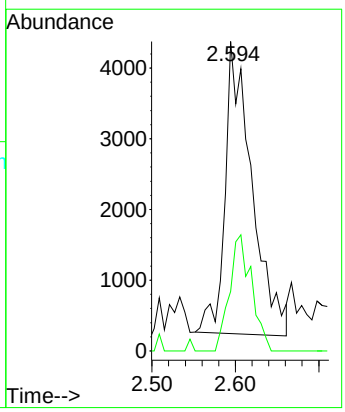


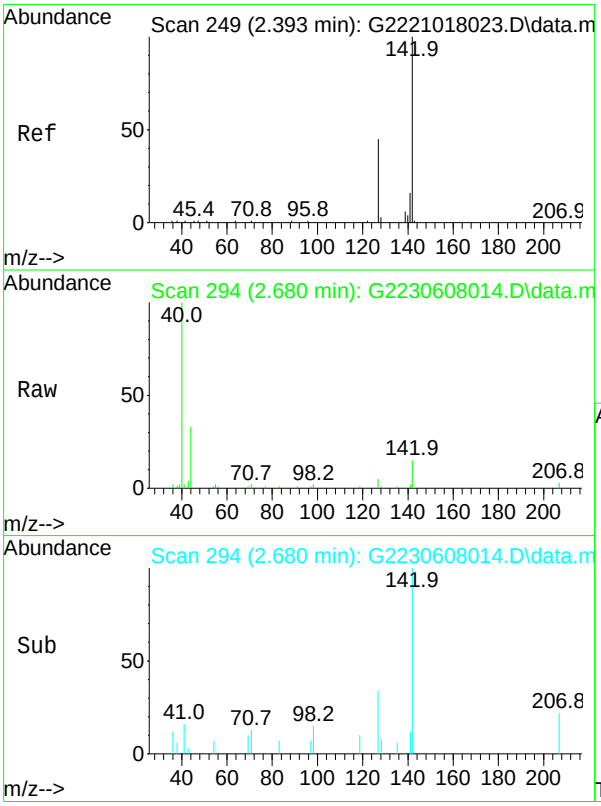


#12
Acetone
Concen: Below Cal
RT: 2.599 min Scan# 281
Delta R.T. -0.009 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 43 Resp: 90678

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

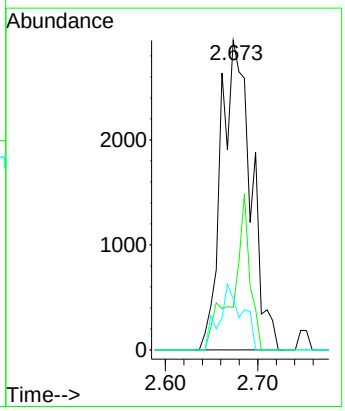


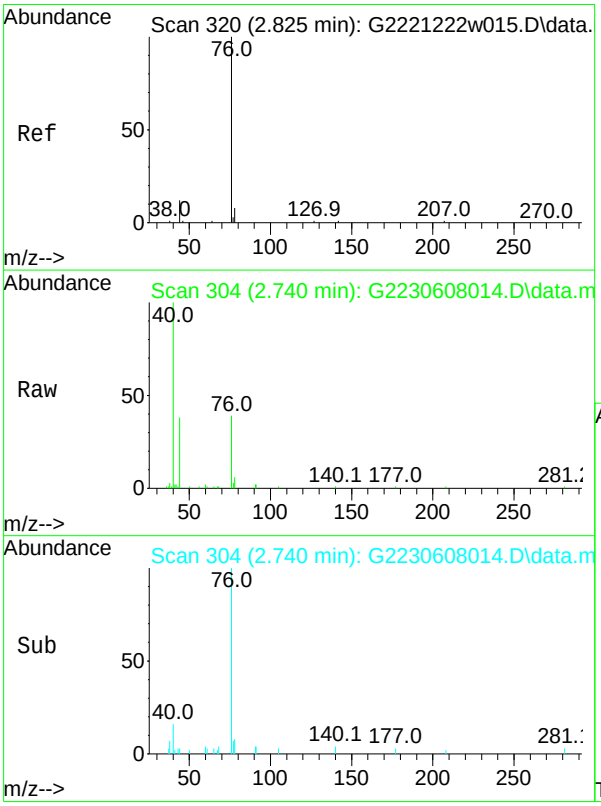


#13
Iodomethane
Concen: 0.14 ug/L
RT: 2.679 min Scan# 294
Delta R.T. 0.003 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion:142 Resp: 66440

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

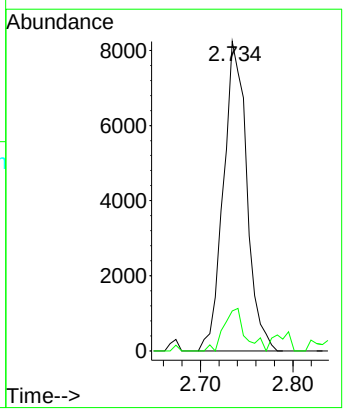


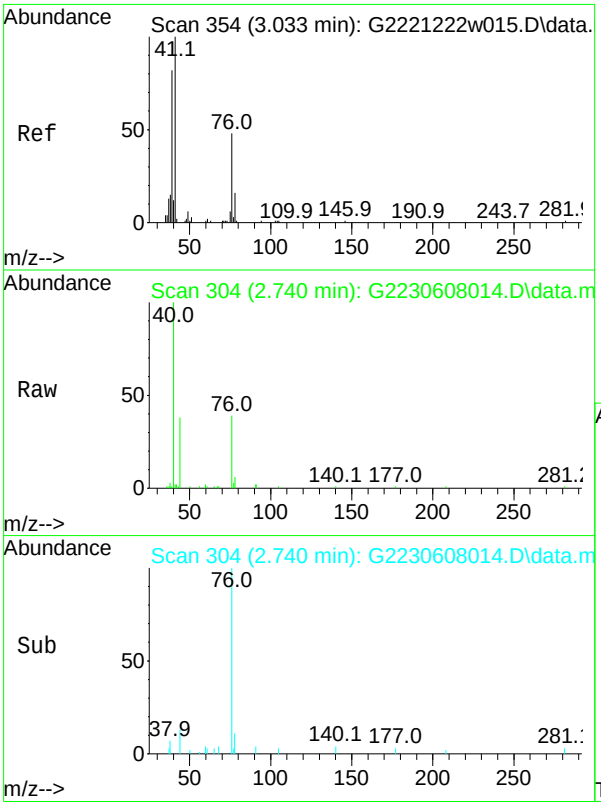


#14
Carbon disulfide
Concen: 0.07 ug/L
RT: 2.739 min Scan# 304
Delta R.T. 0.000 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 76 Resp: 144729

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

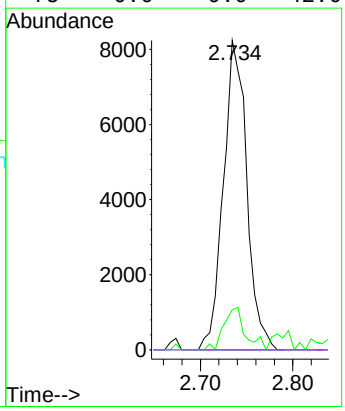


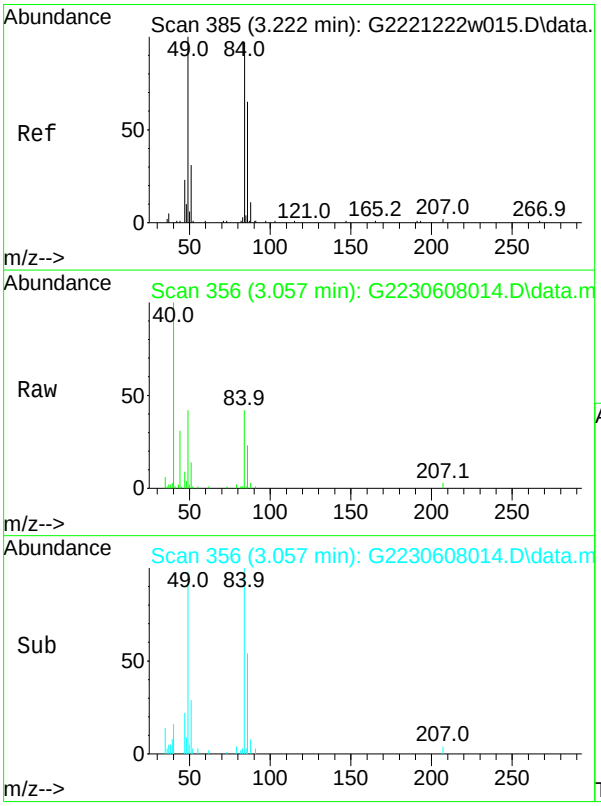


#17
3-Chloro-1-propene
Concen: 0.65 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.181 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 76 Resp: 144726

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

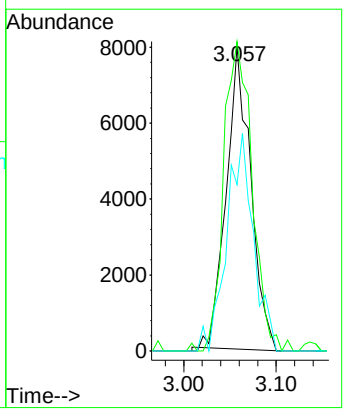


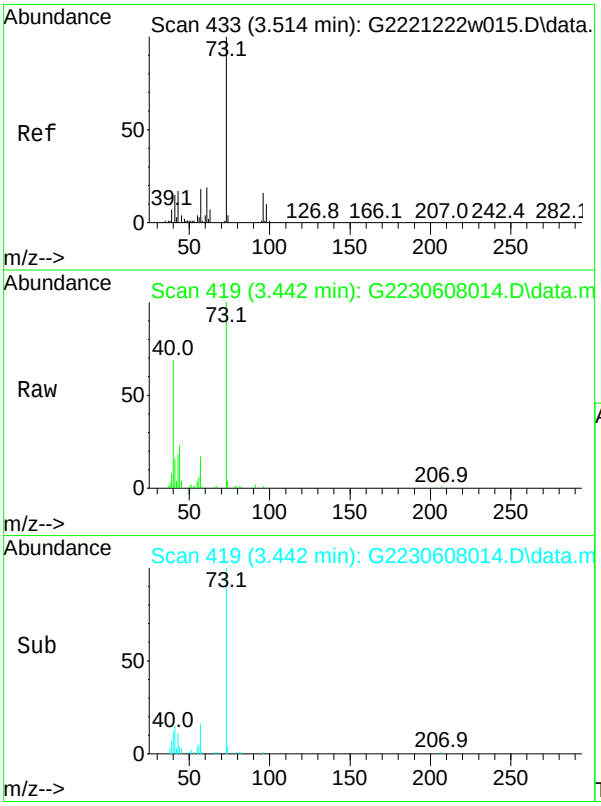


#18
Methylene chloride
Concen: Below Cal
RT: 3.060 min Scan# 356
Delta R.T. -0.002 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 49 Resp: 145834

Ion	Ratio	Lower	Upper
49	100		
84	119.7	57.9	117.9#
86	74.9	24.9	84.9

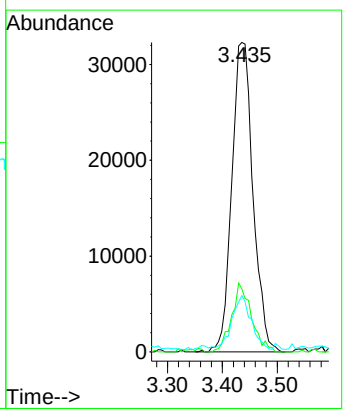


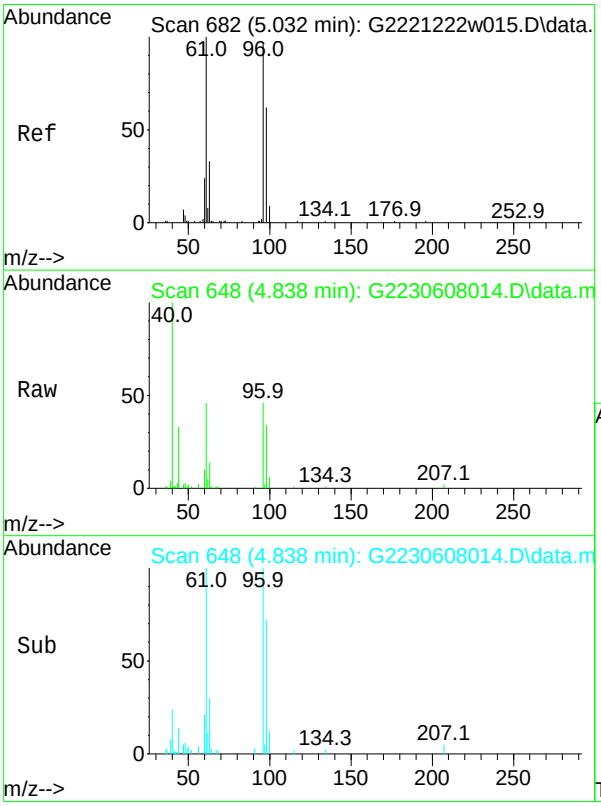


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.439 min Scan# 419
Delta R.T. -0.007 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 73 Resp: 868147

Ion	Ratio	Lower	Upper
73	100		
57	20.8	0.0	51.7
41	15.5	0.0	50.6

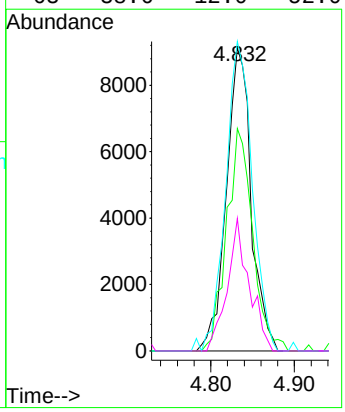


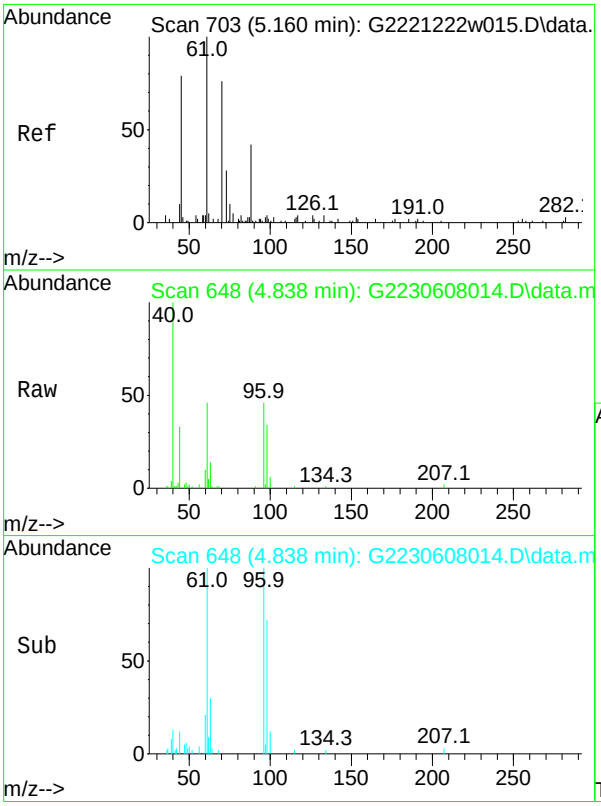


#28
cis-1,2-Dichloroethene
Concen: 0.30 ug/L
RT: 4.836 min Scan# 648
Delta R.T. 0.000 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 61 Resp: 188637

Ion	Ratio	Lower	Upper
61	100		
98	77.1	15.9	75.9#
96	110.2	39.6	99.6#
63	38.6	12.0	52.0

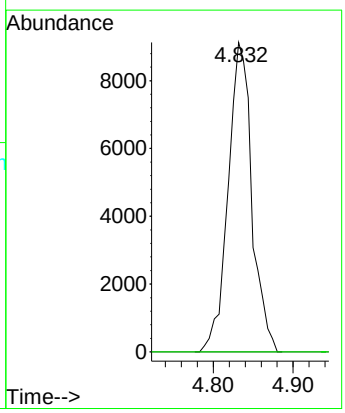


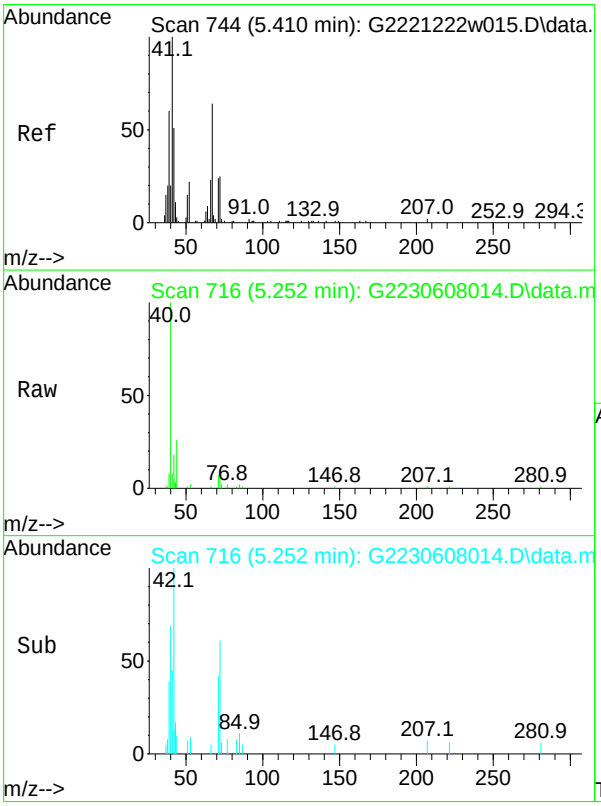


#31
Ethyl acetate
Concen: 3.00 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 61 Resp: 188642

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

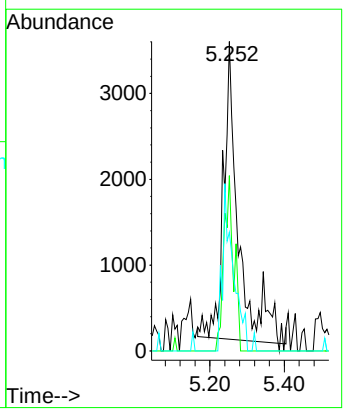


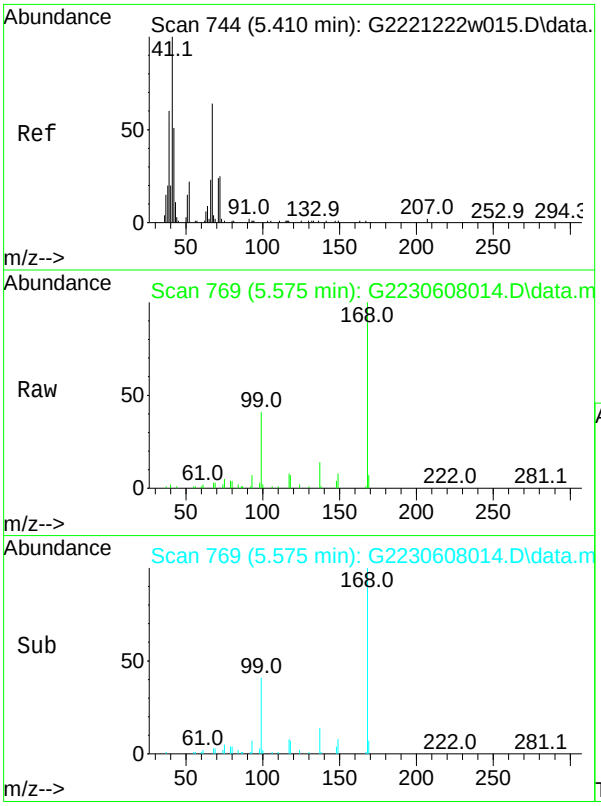


#36
Tetrahydrofuran
Concen: 0.40 ug/L
RT: 5.255 min Scan# 716
Delta R.T. -0.006 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 42 Resp: 96389

Ion	Ratio	Lower	Upper
42	100		
72	39.3	18.8	78.8
71	40.7	14.7	74.7

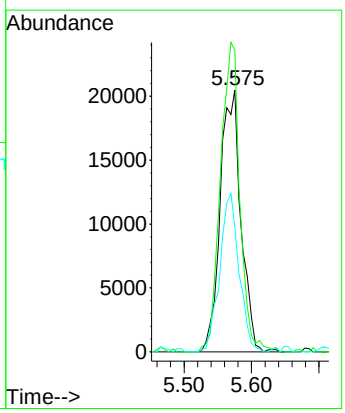


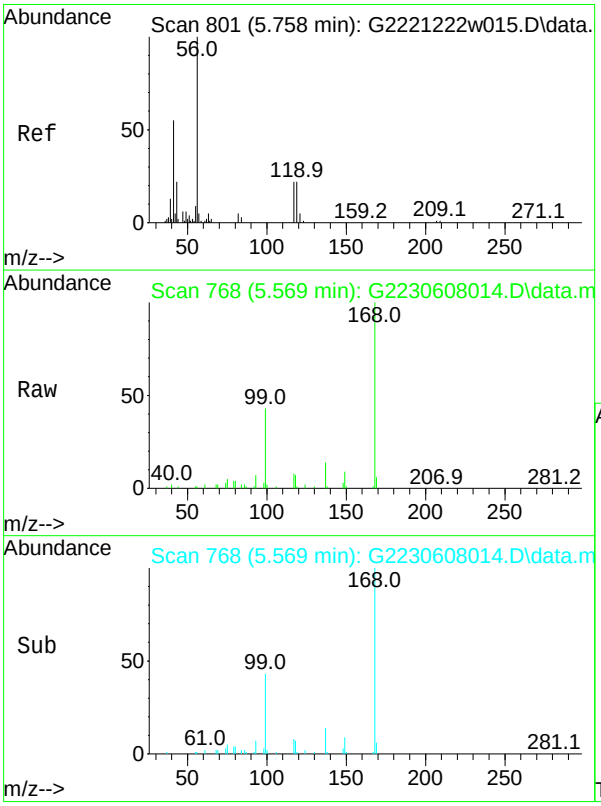


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.576 min Scan# 769
Delta R.T. 0.042 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 84 Resp: 438942

Ion	Ratio	Lower	Upper
84	100		
69	110.5	6.8	66.8#
56	56.3	79.1	139.1#

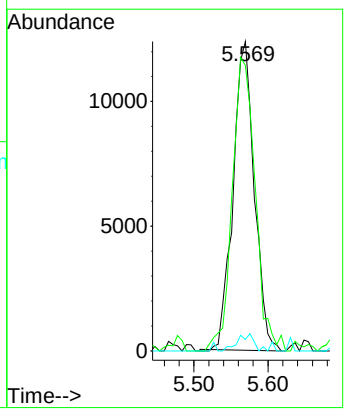


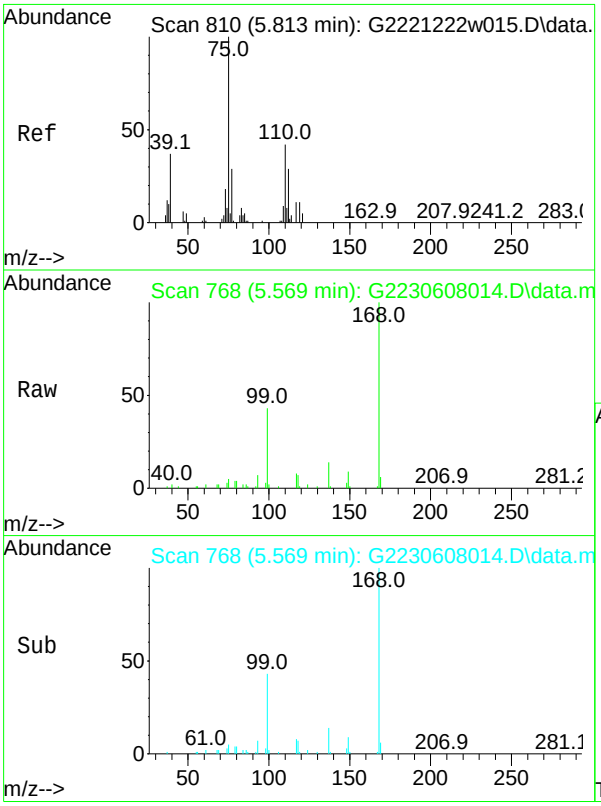


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 56 Resp: 245160

Ion	Ratio	Lower	Upper
56	100		
55	105.5	0.0	41.0#
57	0.0	0.0	35.7

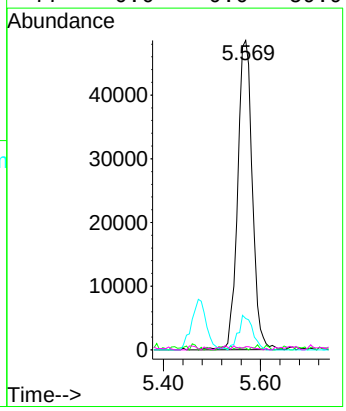


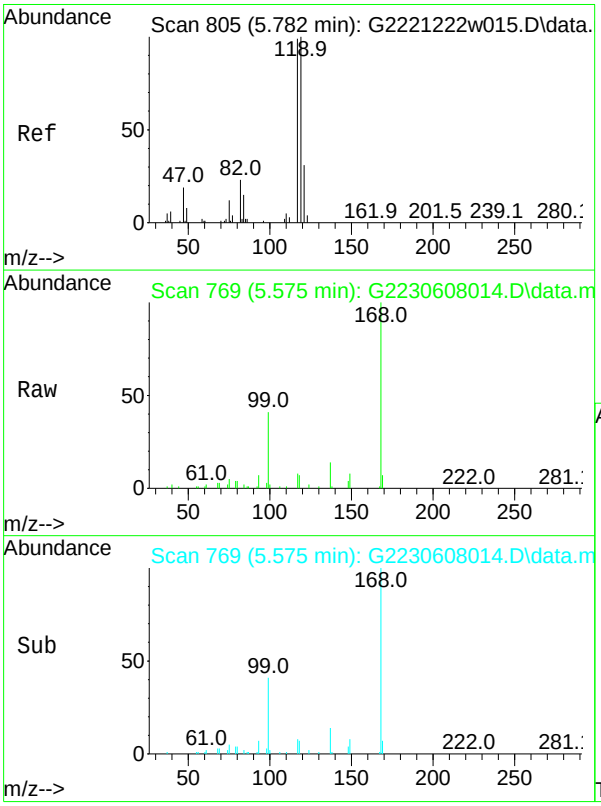


#42
1,1-Dichloropropene
Concen: 2.21 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 75 Resp: 1018542

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

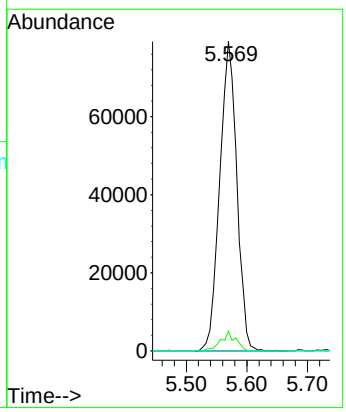


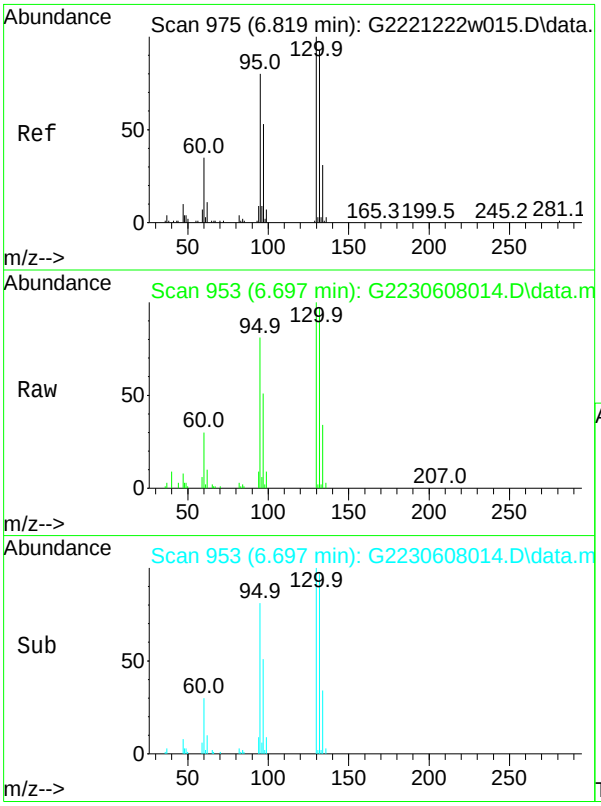


#47
Carbon tetrachloride
Concen: 3.22 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.107 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion:117 Resp: 1550146

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

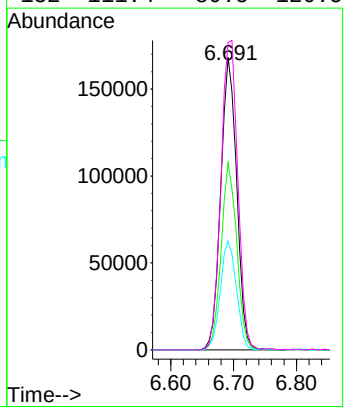


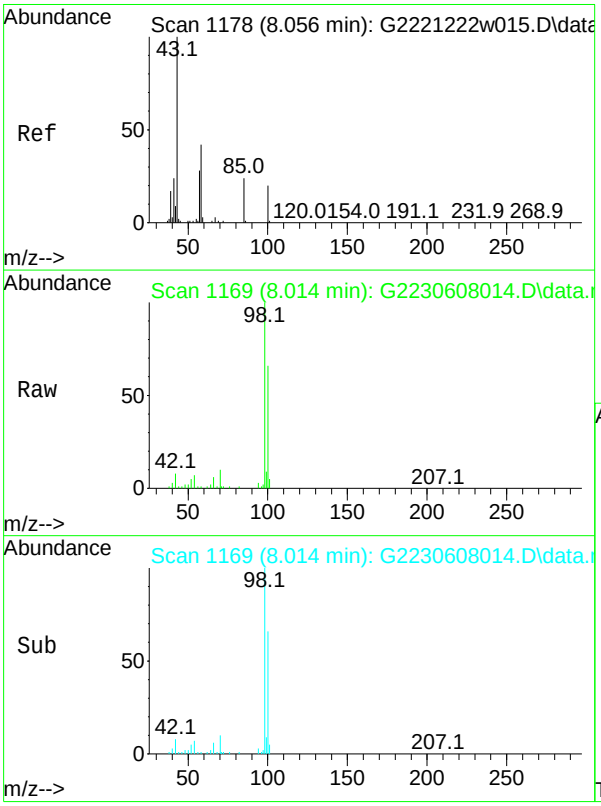


#50
Trichloroethene
Concen: 8.39 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 95 Resp: 2965006

Ion	Ratio	Lower	Upper
95	100		
97	62.5	35.5	95.5
60	37.3	14.8	74.8
132	111.4	80.5	120.5

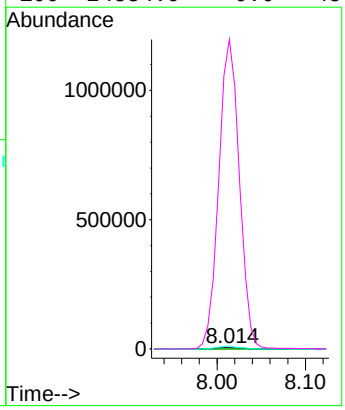


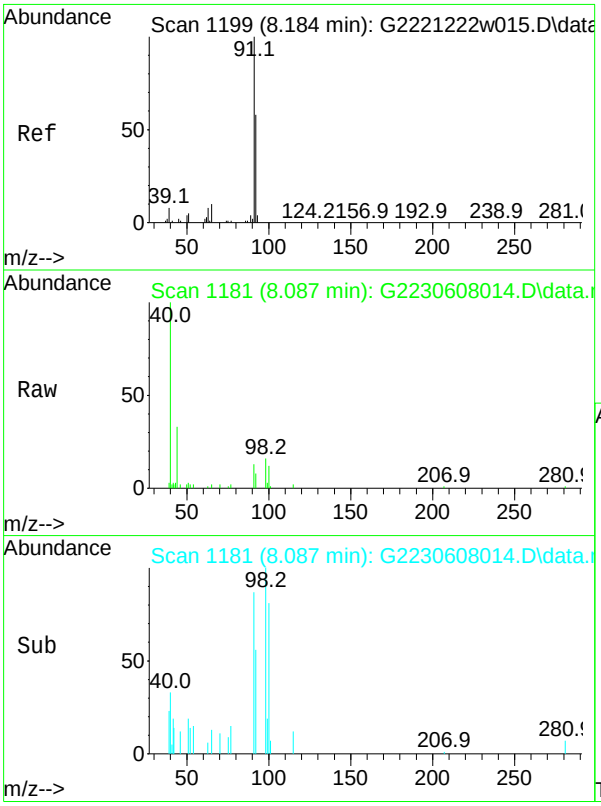


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 43 Resp: 77834

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	240.0	37.0	37.0#
100	24884.9	0.0	45.2#

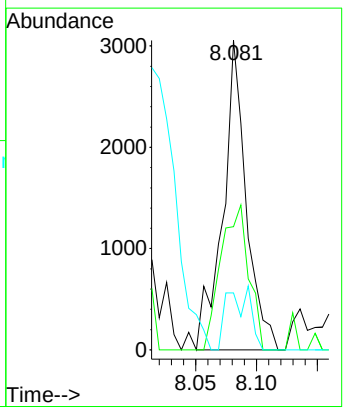


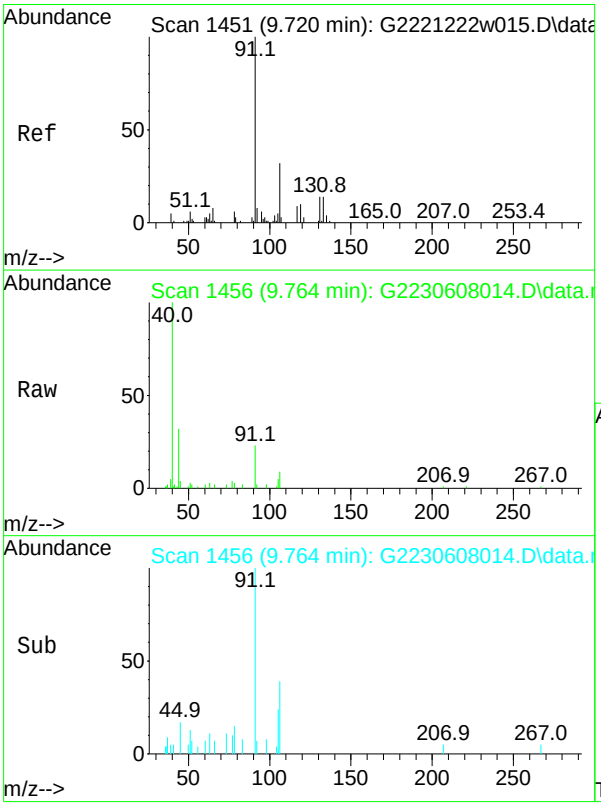


#65
Toluene
Concen: Below Cal
RT: 8.084 min Scan# 1181
Delta R.T. -0.002 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 91 Resp: 40872

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

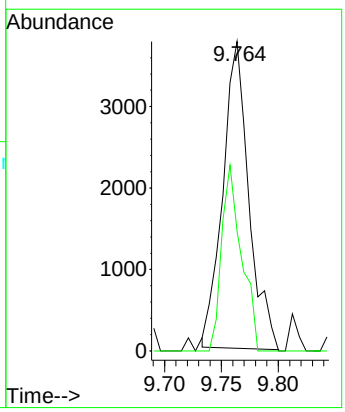


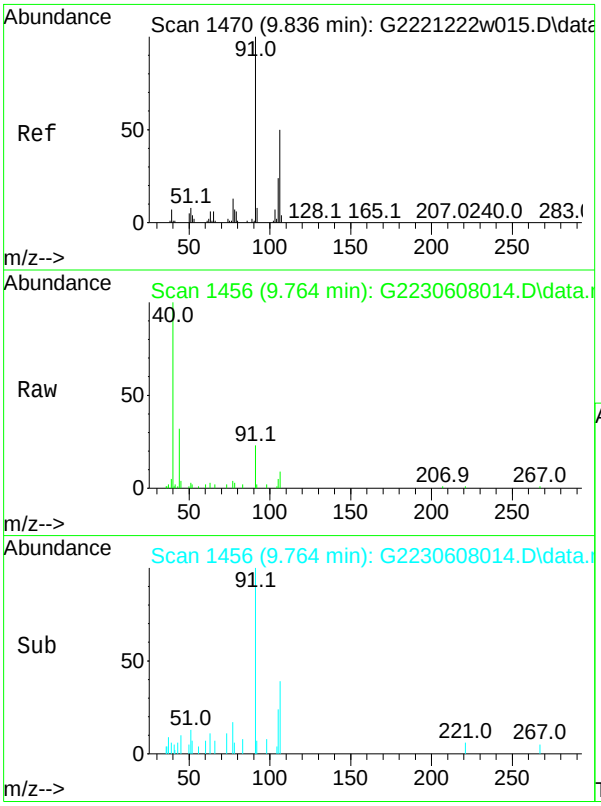


#74
Ethylbenzene
Concen: Below Cal
RT: 9.765 min Scan# 1456
Delta R.T. 0.122 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 91 Resp: 60301

Ion	Ratio	Lower	Upper
91	100		
106	45.8	0.8	60.8

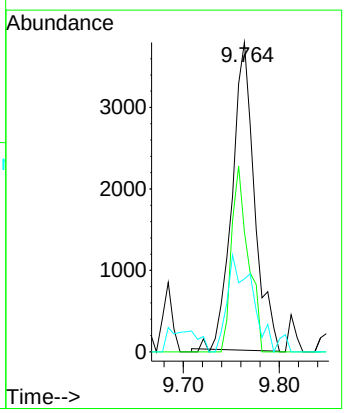


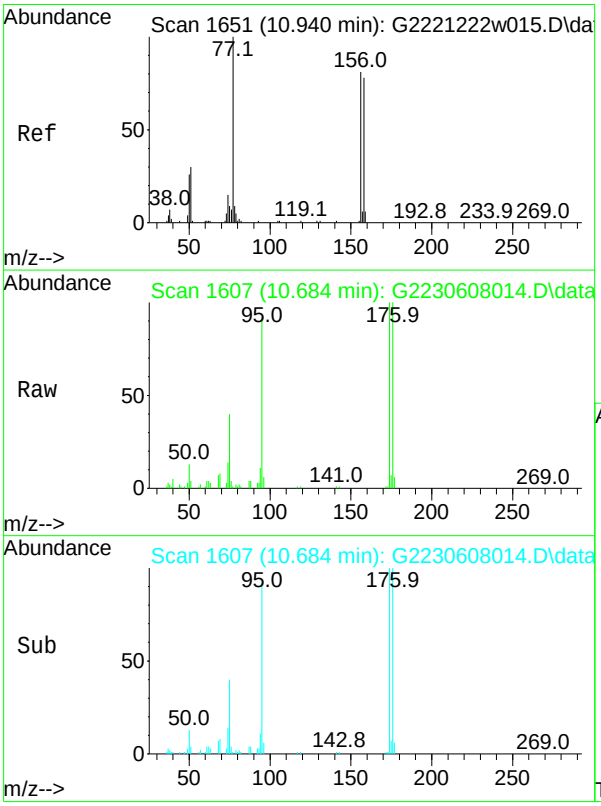


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.765 min Scan# 1456
Delta R.T. 0.001 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 91 Resp: 60891

Ion	Ratio	Lower	Upper
91	100		
106	45.4	19.0	79.0
105	0.0	0.0	52.7

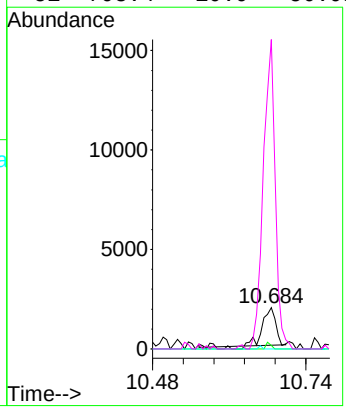


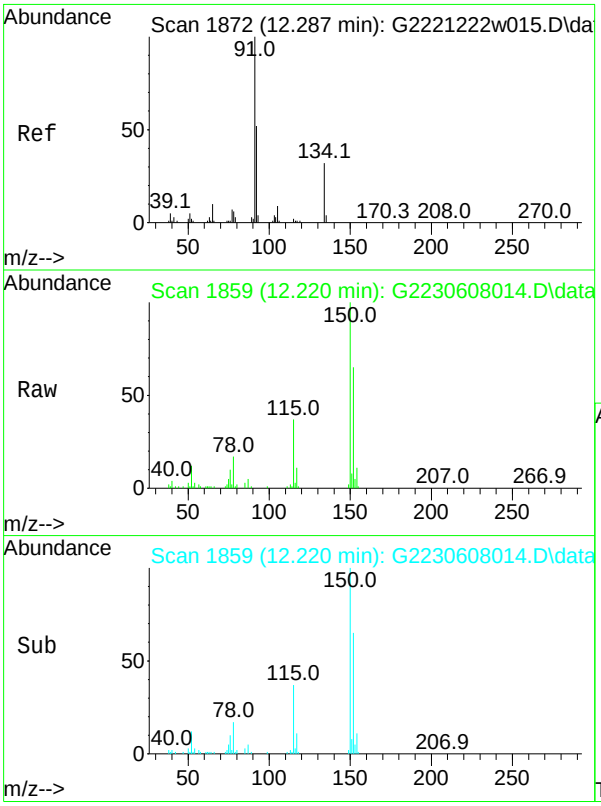


#82
Bromobenzene
Concen: 0.04 ug/L
RT: 10.686 min Scan# 1607
Delta R.T. -0.142 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 77 Resp: 27306

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	798.4	10.9	50.9#

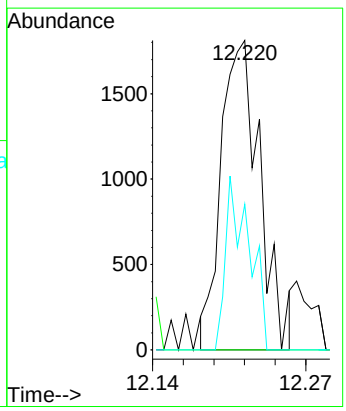




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.220 min Scan# 1859
Delta R.T. -0.011 min
Lab File: G2230608014.D
Acq: 08 Jun 2023 14:39

Tgt Ion: 91 Resp: 39684

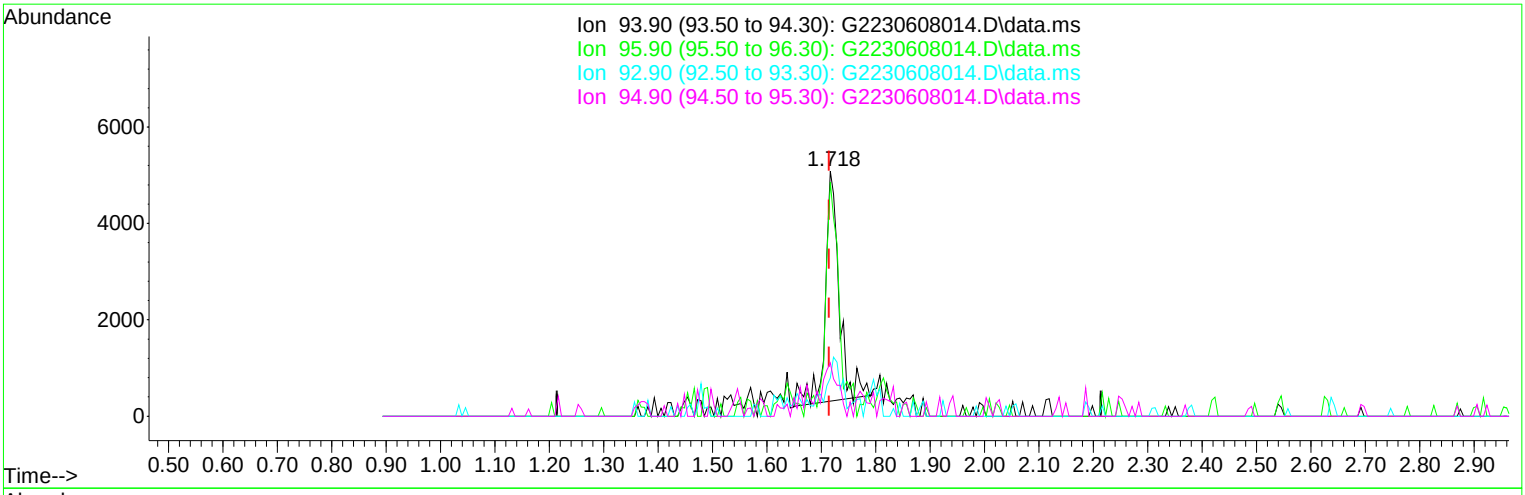
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

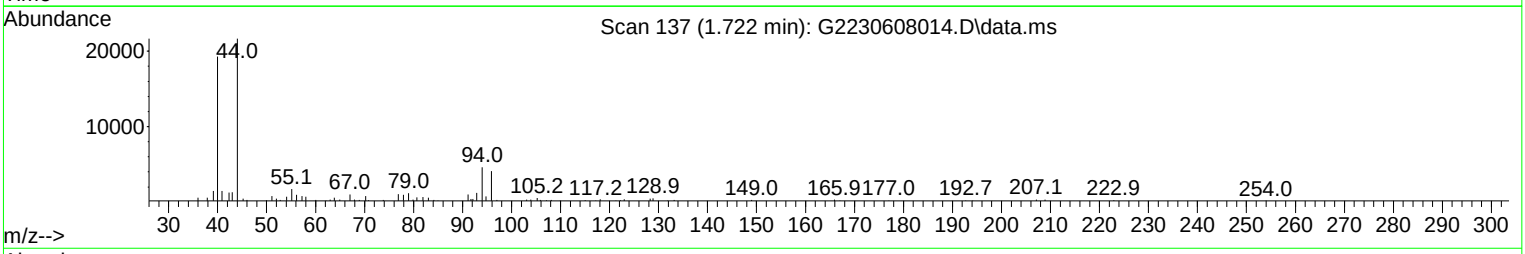


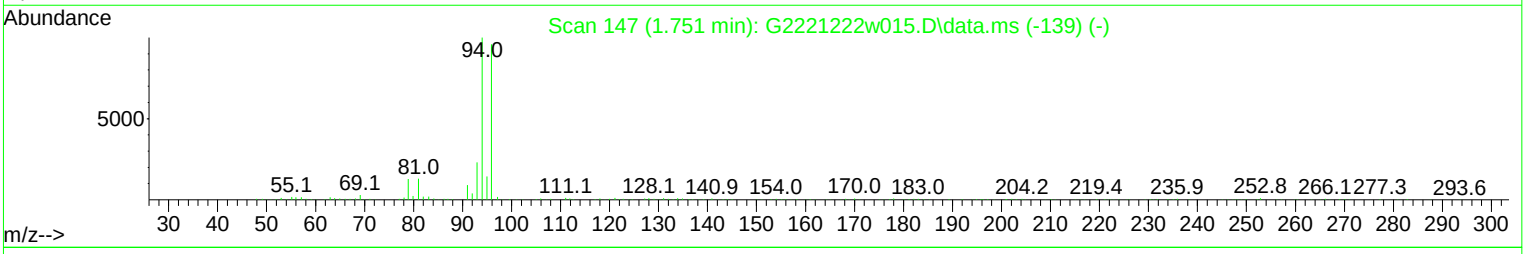
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608014.D
Acq On : 08 Jun 2023 14:39
Operator : PO1
Sample : 23E0775-04RE2
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 16:38:09 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: G2230608014.D\data.ms

(5) Bromomethane (T)

1.721min (+ 0.007) 0.07 ug/L

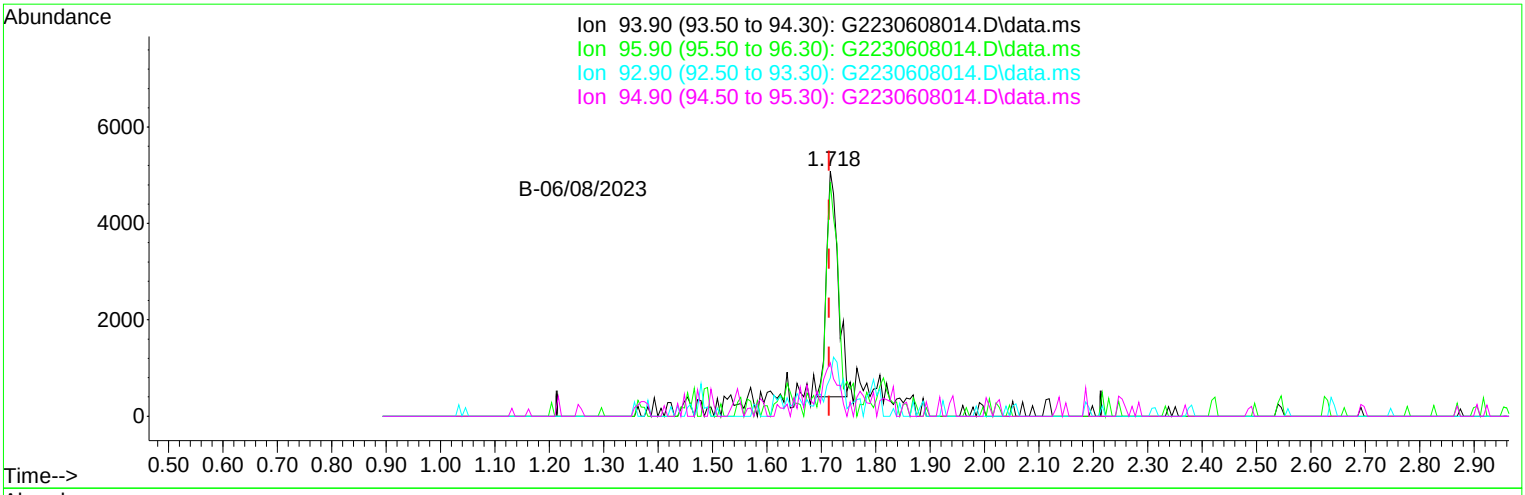
response 83940

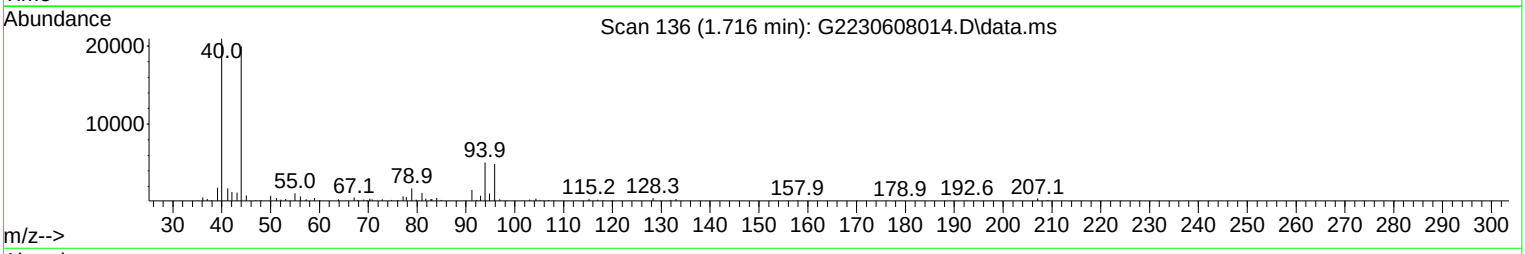
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	92.55
92.90	19.50	0.00
94.90	13.40	0.00

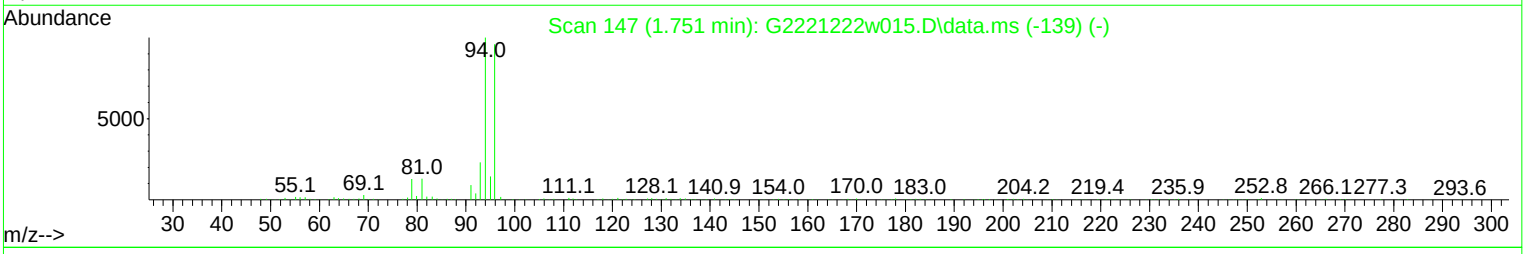
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608014.D
Acq On : 08 Jun 2023 14:39
Operator : PO1
Sample : 23E0775-04RE2
Misc : 50
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 16:38:09 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: G2230608014.D\data.ms

(5) Bromomethane (T)

1.716min (+ 0.002) 0.01 ug/L m

response 69393

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	111.96
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05	File ID:	G2230606020.D
Sampled:	05/26/23 11:05	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 18:33
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.110	0.0832	0.200	0.500	J
75-34-3	1,1-Dichloroethane	0.240	0.0669	0.200	0.500	J
75-35-4	1,1-Dichloroethene	5.26	0.0954	0.200	0.500	
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

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05	File ID:	G2230606020.D
Sampled:	05/26/23 11:05	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 18:33
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.720	0.518	2.00	4.00	J
71-43-2	Benzene	0.270	0.0507	0.200	0.500	J
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*	*0.200*	*0.101*	*0.300*	*0.600*	*J*
74-87-3	Chloromethane		0.192	0.500	1.00	U
156-59-2	*cis-1,2-Dichloroethene*	*343*	*0.103*	*0.300*	*0.600*	*E*
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

SW8260B/D

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05	File ID:	G2230606020.D
Sampled:	05/26/23 11:05	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 18:33
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, U*
108-88-3	Toluene		0.0572	0.200	0.500	U
156-60-5	trans-1,2-Dichloroethene	1.98	0.0855	0.200	0.500	
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	*Trichloroethene*	*949*	*0.0781*	*0.200*	*0.500*	*B, E*
75-69-4	Trichlorofluoromethane		0.0505	0.200	0.500	U
75-01-4	Vinyl chloride	0.810	0.129	0.500	1.00	J

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606020.D
Acq On : 06 Jun 2023 18:33
Operator : PO1
Sample : 23E0775-05
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 07 09:32:33 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

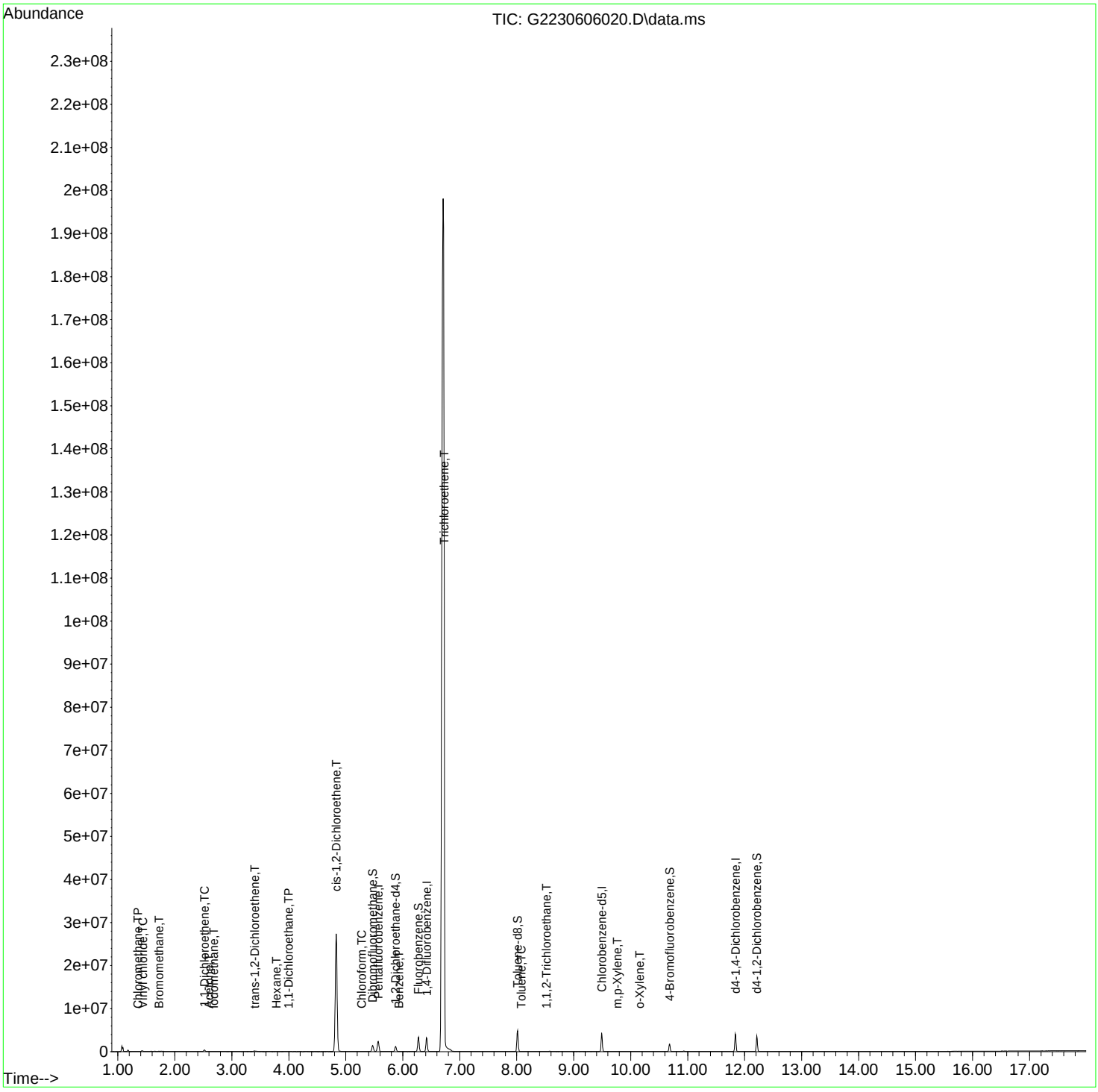
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	19103228	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	29055425	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	25249210	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11678729	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	8995741	21.40	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 107.00%			
43) 1,2-Dichloroethane-d4	5.876	65	8138811	19.59	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%			
49) Fluorobenzene	6.277	96	32534201	19.65	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%			
64) Toluene-d8	8.016	98	31536292	19.82	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.10%			
81) 4-Bromofluorobenzene	10.685	174	5491095	9.96	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	10101130	20.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.55%			
Target Compounds						Qvalue
3) Chloromethane	1.350	50	66322	0.11	ug/L	84
4) Vinyl chloride	1.441	62	303086	0.81	ug/L	100
5) Bromomethane	1.722	94	81874m	0.07	ug/L	
10) 1,1-Dichloroethene	2.520	61	2172247	5.26	ug/L	87
12) Acetone	2.603	43	211908	0.72	ug/L	94
13) Iodomethane	2.676	142	61300	0.14	ug/L #	41
18) Methylene chloride	3.059	49	139153	Below Cal		83
20) trans-1,2-Dichloroethene	3.398	61	820735	1.98	ug/L	87
21) Methyl tert-butyl ether	3.436	73	996948	Below Cal		95
22) Hexane	3.784	57	78095	0.16	ug/L #	64
23) 1,1-Dichloroethane	3.996	63	171226	0.24	ug/L #	81
28) cis-1,2-Dichloroethene	4.833	61	164069519	343.18	ug/L	73
37) Chloroform	5.277	83	128522	0.20	ug/L #	86
48) Benzene	5.932	78	386756	0.27	ug/L	93
50) Trichloroethene	6.725	95	362210373	949.39	ug/L #	76
62) 1,1,2-Trichloroethane	8.517	97	43144	0.11	ug/L #	68
65) Toluene	8.082	91	148610	0.02	ug/L #	90
75) m,p-Xylene	9.761	91	52036	0.04	ug/L #	36
79) o-Xylene	10.161	91	29534	0.02	ug/L #	37

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606020.D
Acq On : 06 Jun 2023 18:33
Operator : PO1
Sample : 23E0775-05
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 07 09:32:33 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606020.D
Acq On : 06 Jun 2023 18:33
Operator : PO1
Sample : 23E0775-05
Misc :
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Quant Time: Jun 07 09:32:33 2023
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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	19103228	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	29055425	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.493	117	25249210	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11678729	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.473	111	8995741	21.40	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 107.00%				
43) 1,2-Dichloroethane-d4	5.876	65	8138811	19.59	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%				
49) Fluorobenzene	6.277	96	32534201	19.65	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.25%				
64) Toluene-d8	8.016	98	31536292	19.82	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.10%				
81) 4-Bromofluorobenzene	10.685	174	5491095	9.96	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%				
97) d4-1,2-Dichlorobenzene	12.217	152	10101130	20.11	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.55%				
Target Compounds							Qvalue
3) Chloromethane	1.350	50	66322	0.11	ug/L		84
4) Vinyl chloride	1.441	62	303086	0.81	ug/L		100
5) Bromomethane	1.721	94	72721	0.03	ug/L	#	84
8) Ethyl ether	2.516	59	70996	0.20	ug/L	#	13
9) Acrolein	2.329	56	9103	Below Cal		#	1
10) 1,1-Dichloroethene	2.520	61	2172247	5.26	ug/L		87
12) Acetone	2.603	43	211908	0.72	ug/L		94
13) Iodomethane	2.676	142	61300	0.14	ug/L	#	41
14) Carbon disulfide	2.736	76	171853	0.11	ug/L	#	74
15) Isopropanol	2.770	45	107699	7.02	ug/L	#	56
17) 3-Chloro-1-propene	2.736	76	171849	0.82	ug/L	#	53
18) Methylene chloride	3.059	49	139153	Below Cal			83
20) trans-1,2-Dichloroethene	3.398	61	820735	1.98	ug/L		87
21) Methyl tert-butyl ether	3.436	73	996948	Below Cal			95
22) Hexane	3.784	57	78095	0.16	ug/L	#	64
23) 1,1-Dichloroethane	3.996	63	171226	0.24	ug/L	#	81
26) 1-propanol	4.267	59	579	0.29	ug/L	#	100
28) cis-1,2-Dichloroethene	4.833	61	164069519	343.18	ug/L		73
29) 2-Butanone	4.832	72	1321474	27.43	ug/L	#	42
31) Ethyl acetate	5.030	61	34594	0.38	ug/L	#	45
36) Tetrahydrofuran	5.258	42	32108	Below Cal		#	30
37) Chloroform	5.277	83	128522	0.20	ug/L	#	86
40) Cyclohexane	5.569	84	426167	0.83	ug/L	#	30
41) 1-Chlorobutane	5.567	56	255928	0.43	ug/L	#	1
42) 1,1-Dichloropropene	5.568	75	1021898	2.28	ug/L	#	38
44) 1,2-Dichloroethane	5.970	62	42669	Below Cal		#	47
47) Carbon tetrachloride	5.569	117	1542352	2.94	ug/L	#	17
48) Benzene	5.932	78	386756	0.27	ug/L		93

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606020.D
Acq On : 06 Jun 2023 18:33
Operator : PO1
Sample : 23E0775-05
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 07 09:32:33 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

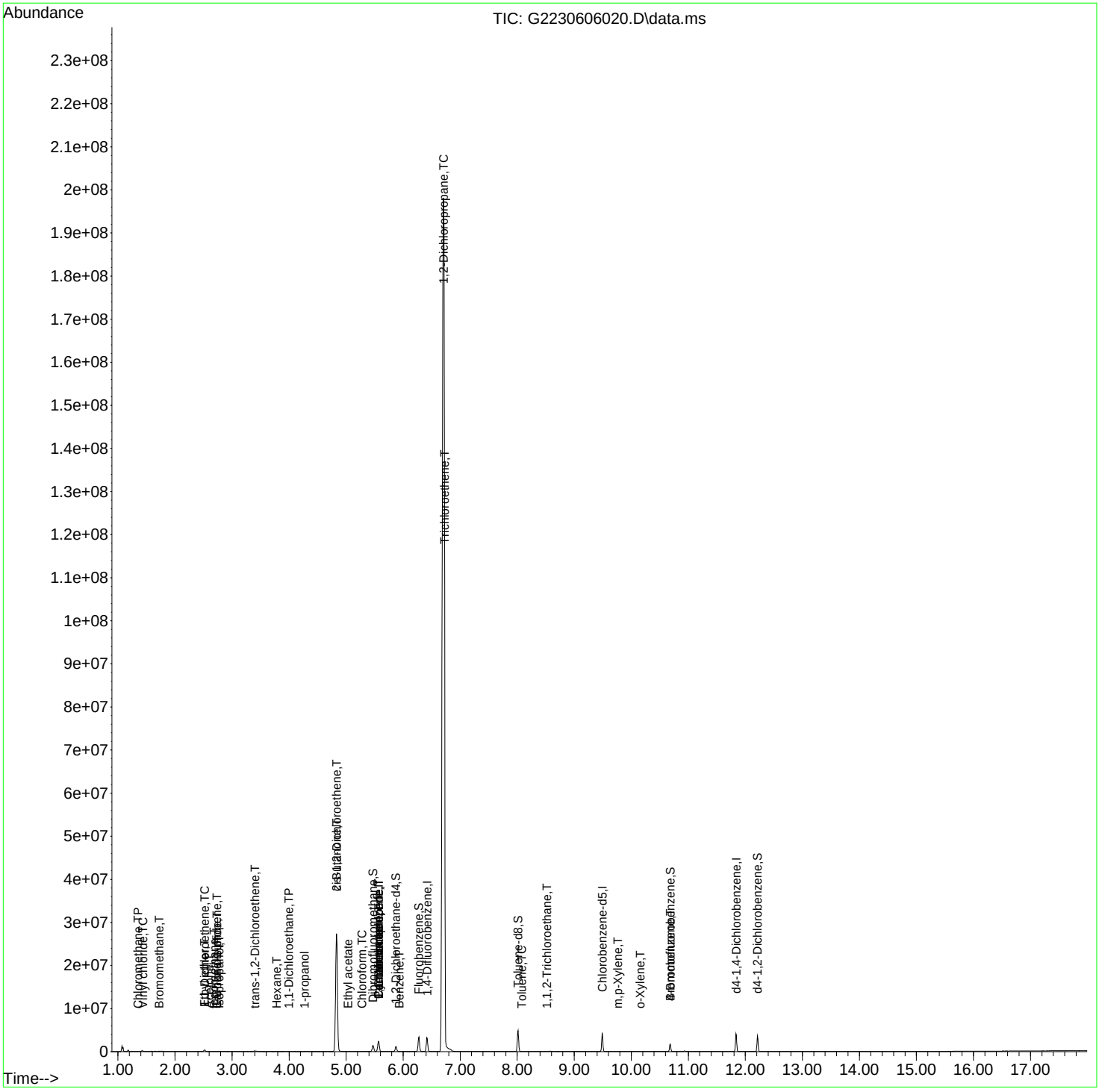
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
50) Trichloroethene	6.725	95	362210373	949.39 ug/L #	76
52) 1,2-Dichloropropane	6.708	63	5955009	18.11 ug/L #	1
60) 4-Methyl-2-pentanone	8.012	43	104326	Below Cal #	1
62) 1,1,2-Trichloroethane	8.517	97	43144	0.11 ug/L #	68
65) Toluene	8.082	91	148610	0.02 ug/L #	90
69) 2-Hexanone	8.609	43	48029	Below Cal #	26
74) Ethylbenzene	9.638	91	39725	Below Cal #	44
75) m,p-Xylene	9.761	91	52036	0.04 ug/L #	36
79) o-Xylene	10.161	91	29534	0.02 ug/L #	37
82) Bromobenzene	10.682	77	36652	0.06 ug/L #	1
99) n-Butylbenzene	12.221	91	42918	Below Cal #	53

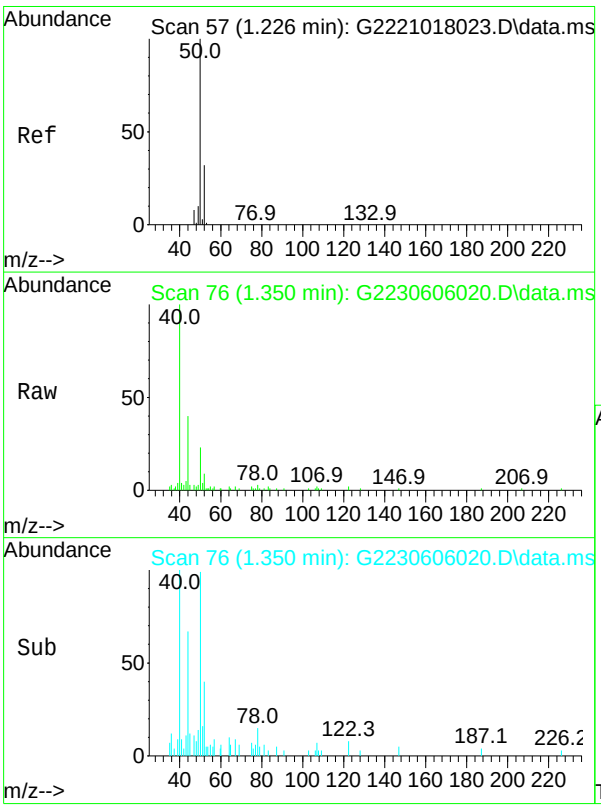
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606020.D
Acq On : 06 Jun 2023 18:33
Operator : PO1
Sample : 23E0775-05
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 07 09:32:33 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

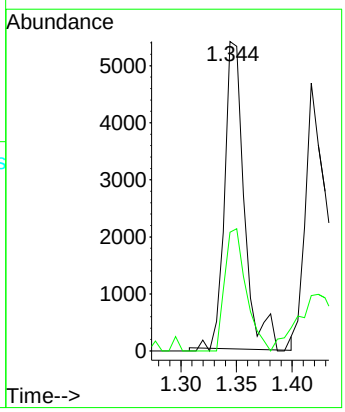


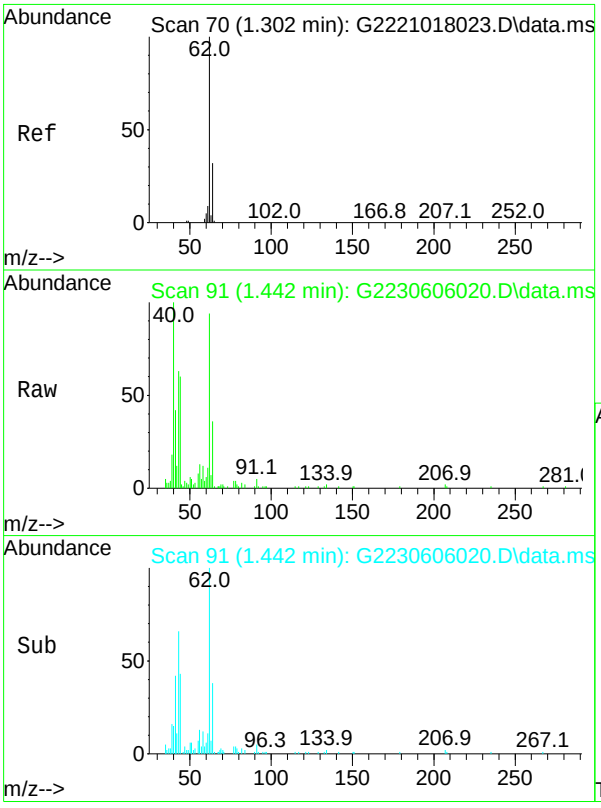


#3
Chloromethane
Concen: 0.11 ug/L
RT: 1.350 min Scan# 76
Delta R.T. -0.004 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 50 Resp: 66322

Ion	Ratio	Lower	Upper
50	100		
52	42.2	3.2	63.2

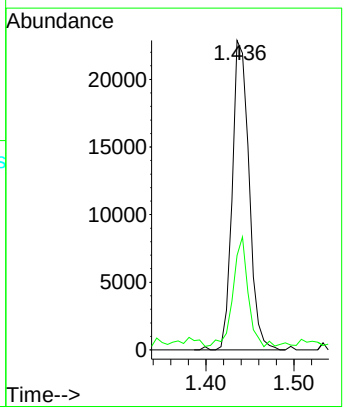


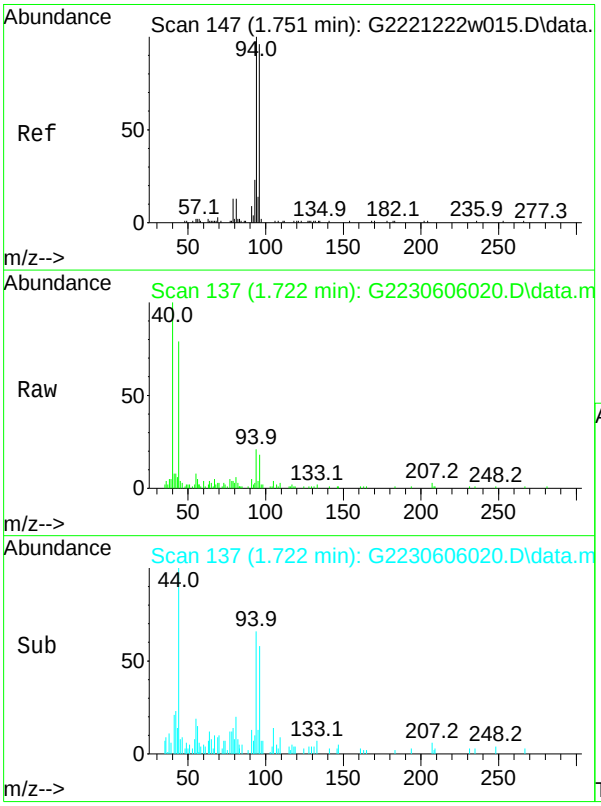


#4
Vinyl chloride
Concen: 0.81 ug/L
RT: 1.441 min Scan# 91
Delta R.T. -0.005 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 62 Resp: 303086

Ion	Ratio	Lower	Upper
62	100		
64	31.9	2.1	62.1

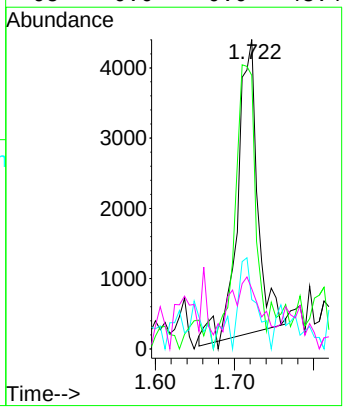


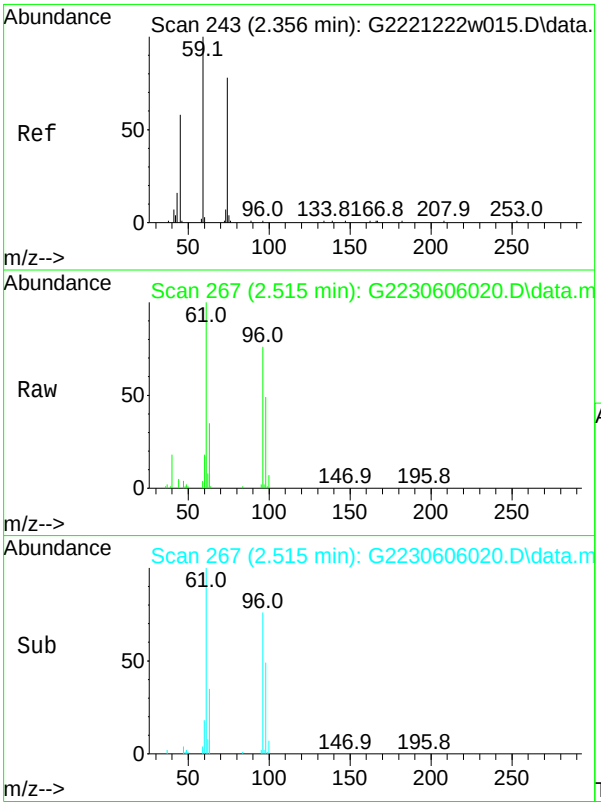


#5
Bromomethane
Concen: 0.03 ug/L
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 94 Resp: 72721

Ion	Ratio	Lower	Upper
94	100		
96	87.2	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

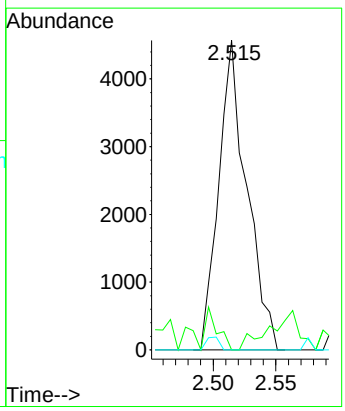


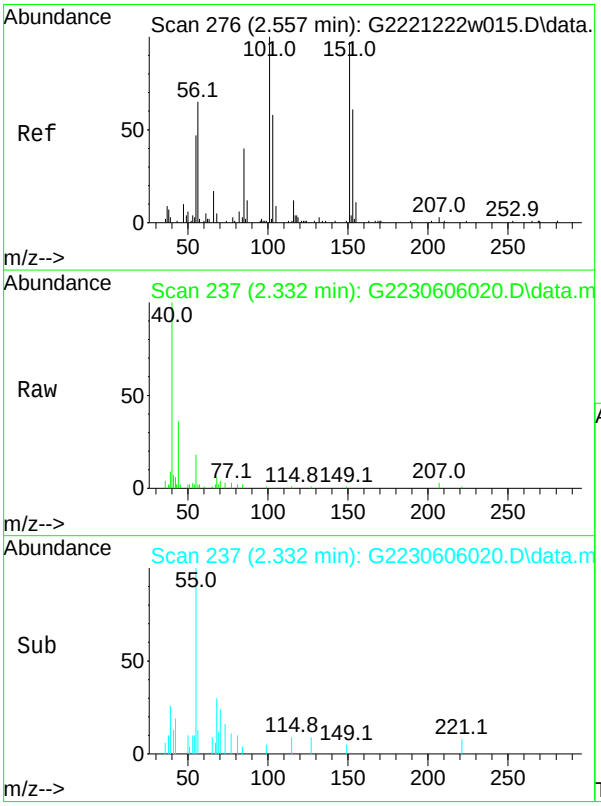


#8
Ethyl ether
Concen: 0.20 ug/L
RT: 2.516 min Scan# 267
Delta R.T. 0.198 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 59 Resp: 70996

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

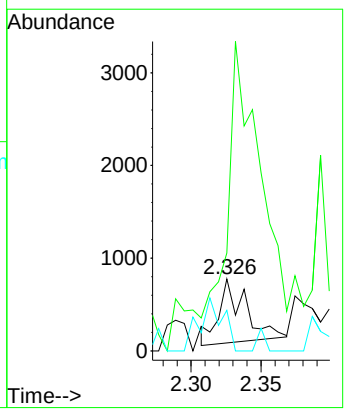


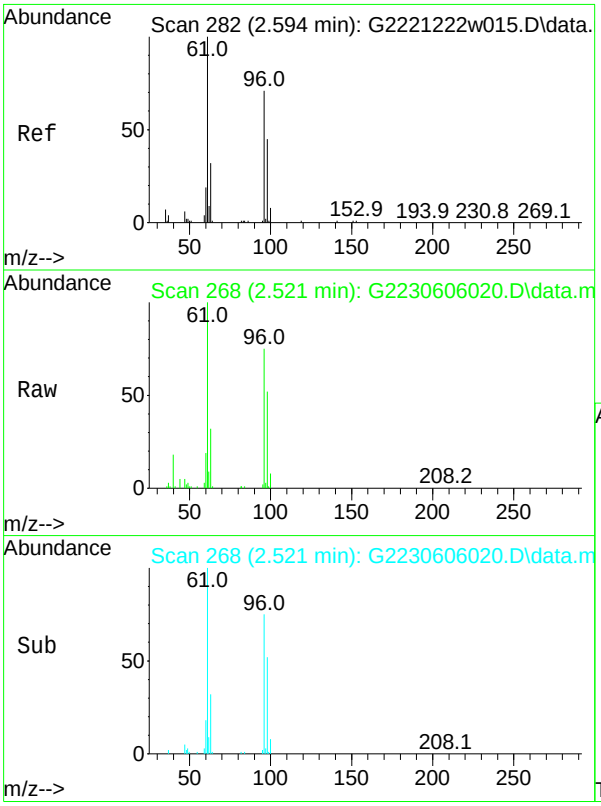


#9
Acrolein
Concen: Below Cal
RT: 2.329 min Scan# 237
Delta R.T. -0.110 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 56 Resp: 9103

Ion	Ratio	Lower	Upper
56	100		
55	563.0	43.5	103.5#
37	0.0	0.0	40.5

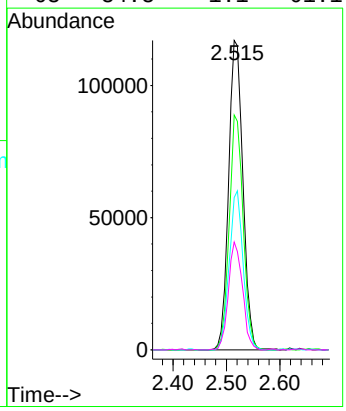


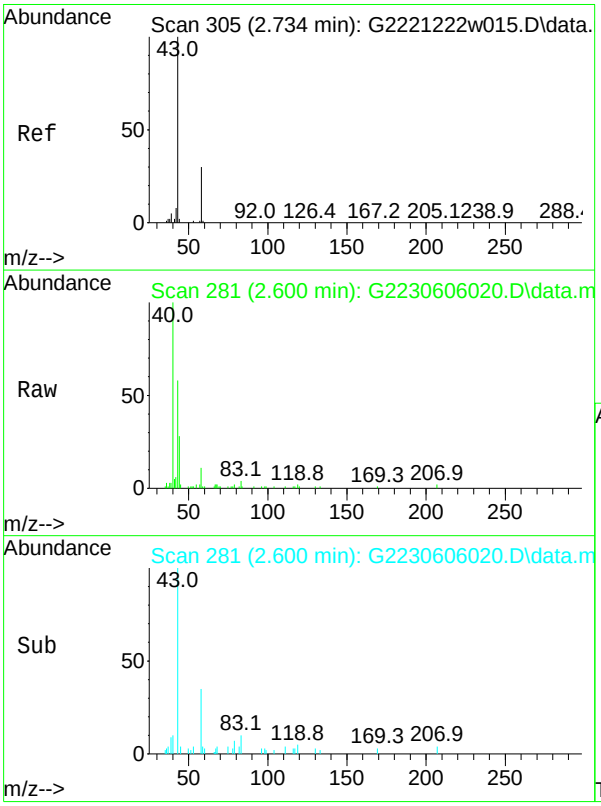


#10
1,1-Dichloroethene
Concen: 5.26 ug/L
RT: 2.520 min Scan# 268
Delta R.T. -0.003 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 61 Resp: 2172247

Ion	Ratio	Lower	Upper
61	100		
96	73.8	32.7	92.7
98	49.9	9.3	69.3
63	34.3	1.1	61.1

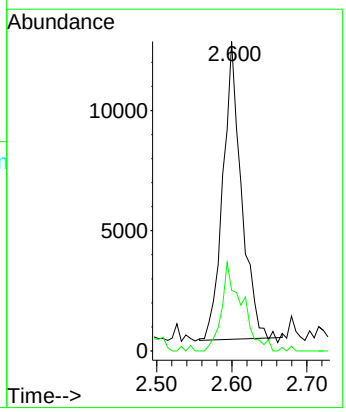


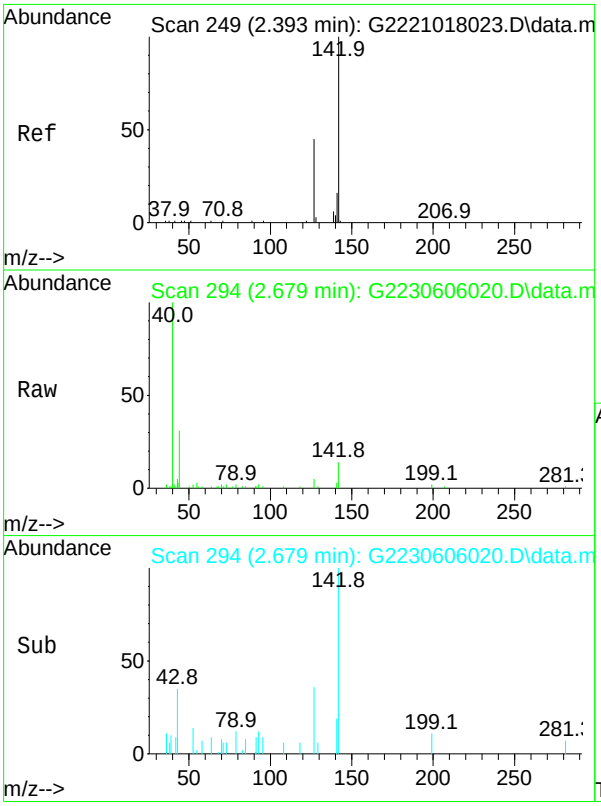


#12
Acetone
Concen: 0.72 ug/L
RT: 2.603 min Scan# 281
Delta R.T. -0.005 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 43 Resp: 211908

Ion	Ratio	Lower	Upper
43	100		
58	33.1	0.0	59.7

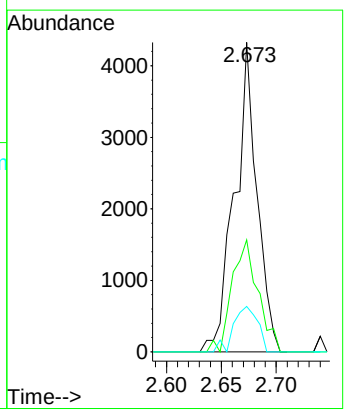


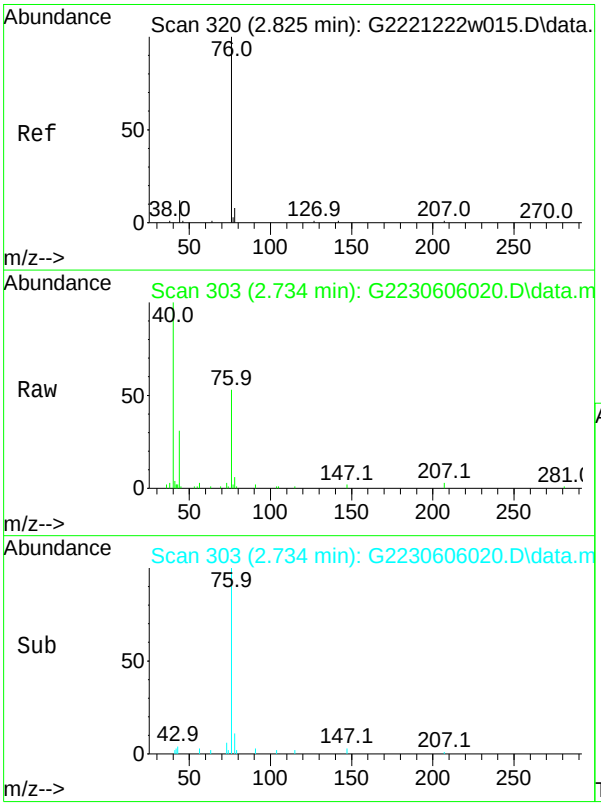


#13
Iodomethane
Concen: 0.14 ug/L
RT: 2.676 min Scan# 294
Delta R.T. 0.000 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion:142 Resp: 61300

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

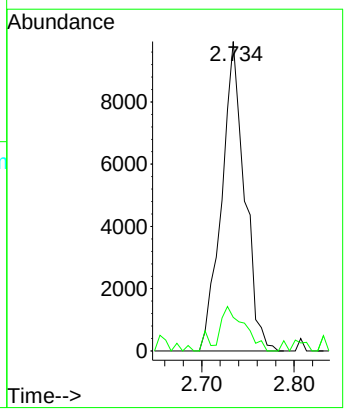


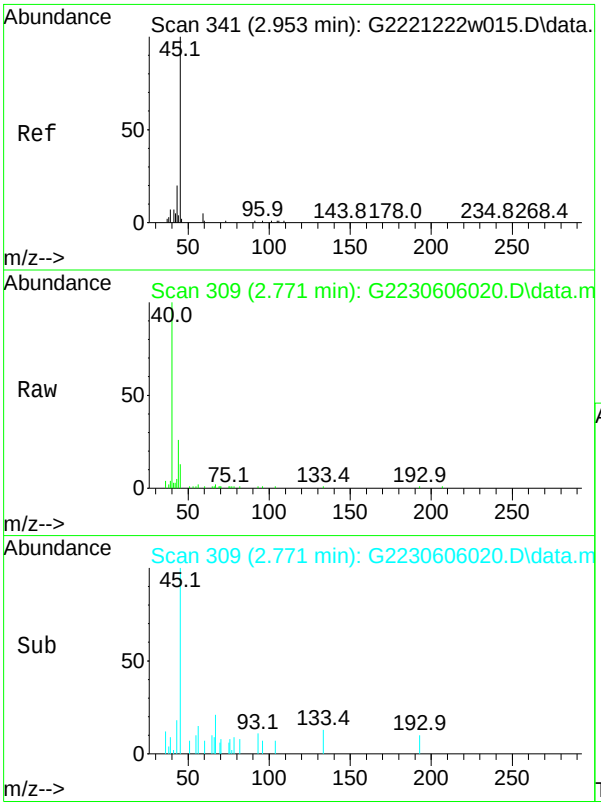


#14
Carbon disulfide
Concen: 0.11 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.003 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 76 Resp: 171853

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

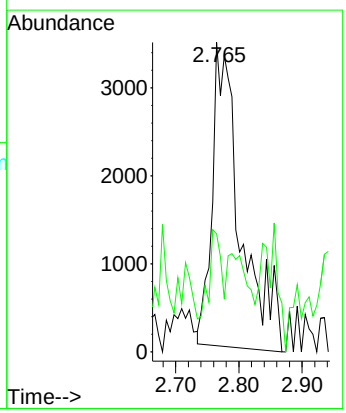


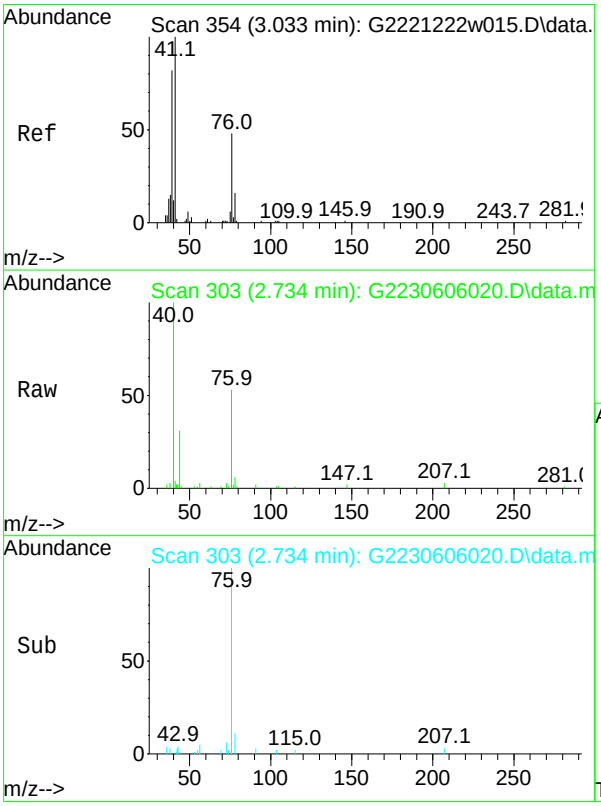


#15
Isopropanol
Concen: 7.02 ug/L
RT: 2.770 min Scan# 309
Delta R.T. -0.022 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 45 Resp: 107699

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

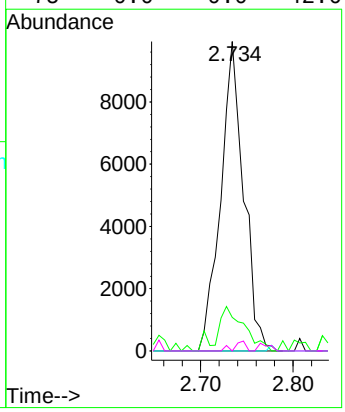


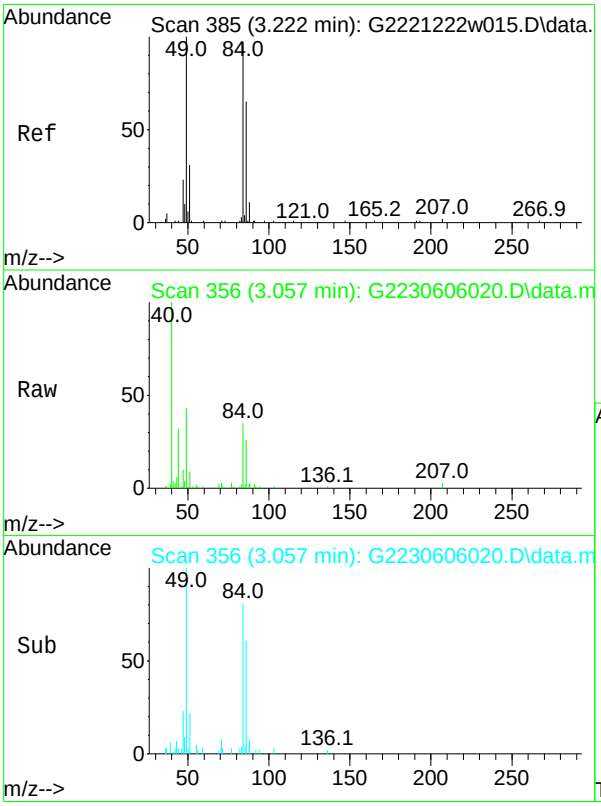


#17
3-Chloro-1-propene
Concen: 0.82 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.184 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 76 Resp: 171849

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

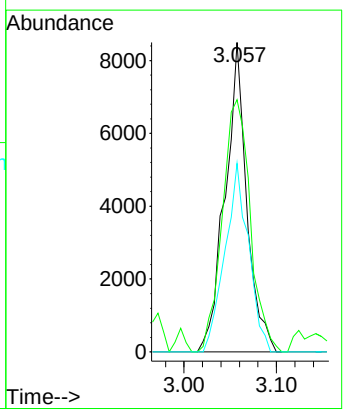


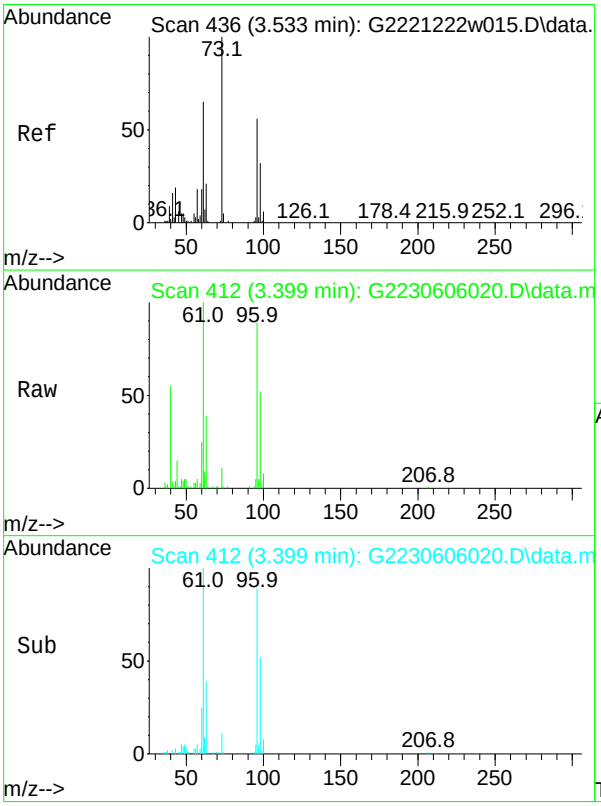


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 49 Resp: 139153

Ion	Ratio	Lower	Upper
49	100		
84	104.5	57.9	117.9
86	66.1	24.9	84.9

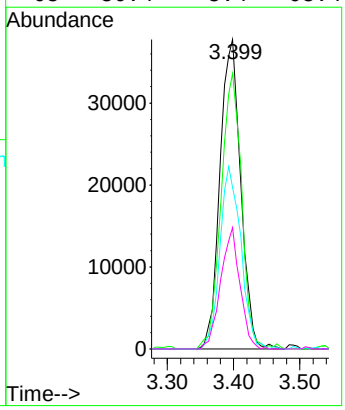


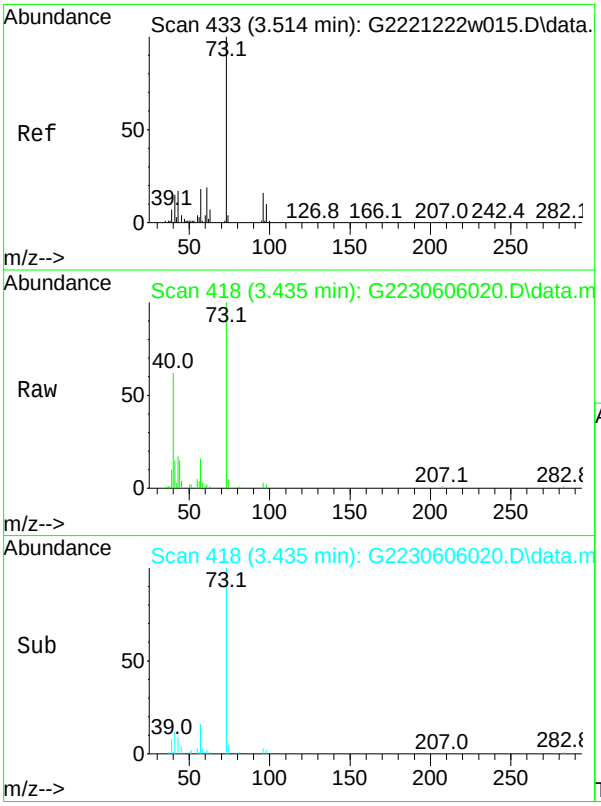


#20
trans-1,2-Dichloroethene
Concen: 1.98 ug/L
RT: 3.398 min Scan# 412
Delta R.T. -0.003 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 61 Resp: 820735

Ion	Ratio	Lower	Upper
61	100		
96	86.5	45.2	105.2
98	59.5	17.2	77.2
63	36.4	3.4	63.4

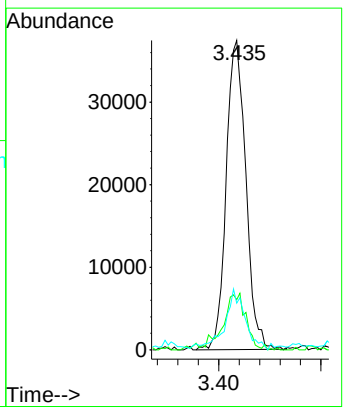


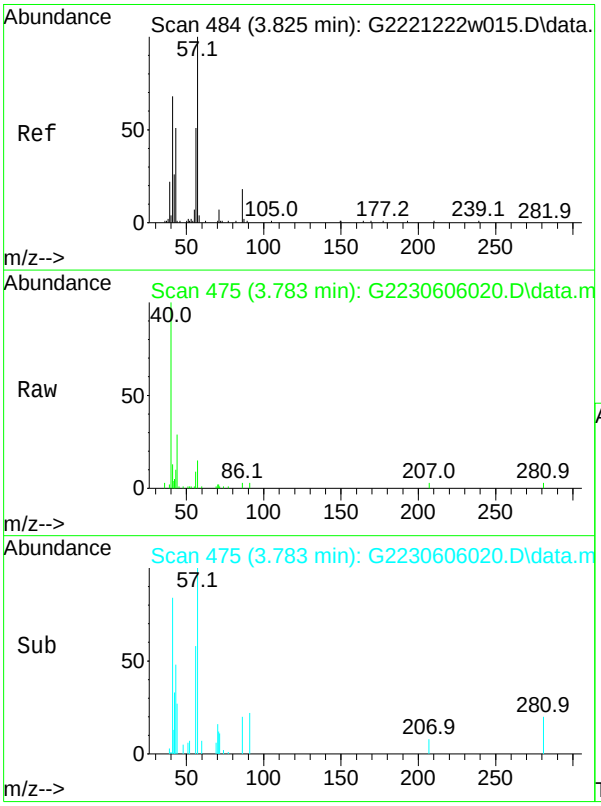


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.436 min Scan# 418
Delta R.T. -0.010 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 73 Resp: 996948

Ion	Ratio	Lower	Upper
73	100		
57	20.9	0.0	51.7
41	16.4	0.0	50.6

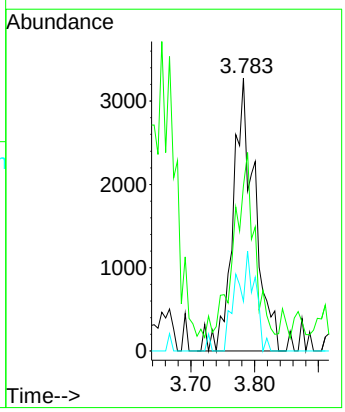


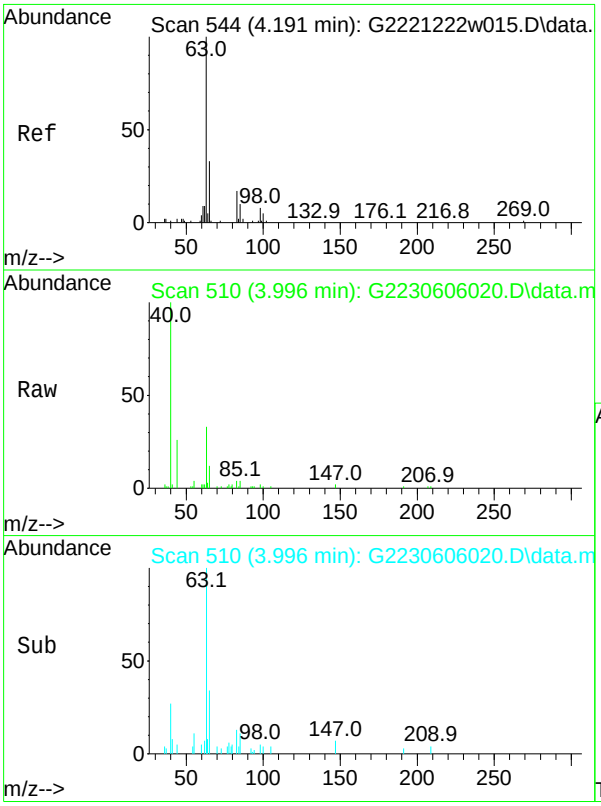


#22
Hexane
Concen: 0.16 ug/L
RT: 3.784 min Scan# 475
Delta R.T. -0.006 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 57 Resp: 78095

Ion	Ratio	Lower	Upper
57	100		
56	73.9	20.4	80.4
86	0.0	0.0	48.1

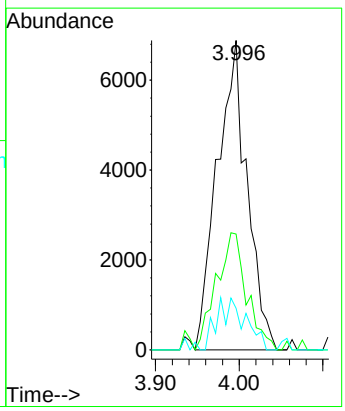


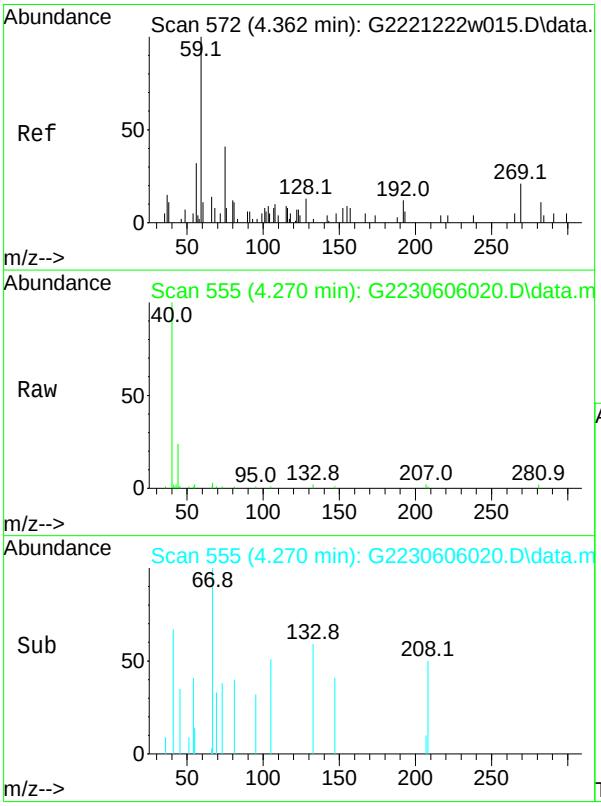


#23
1,1-Dichloroethane
Concen: 0.24 ug/L
RT: 3.996 min Scan# 510
Delta R.T. -0.002 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 63 Resp: 171226

Ion	Ratio	Lower	Upper
63	100		
65	38.1	1.1	61.1
83	0.0	0.0	42.9

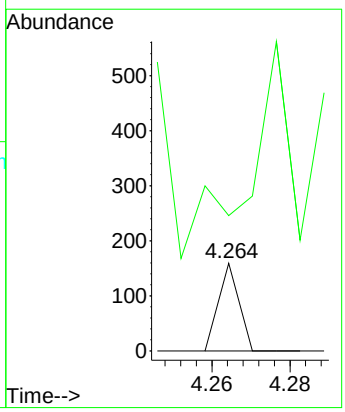


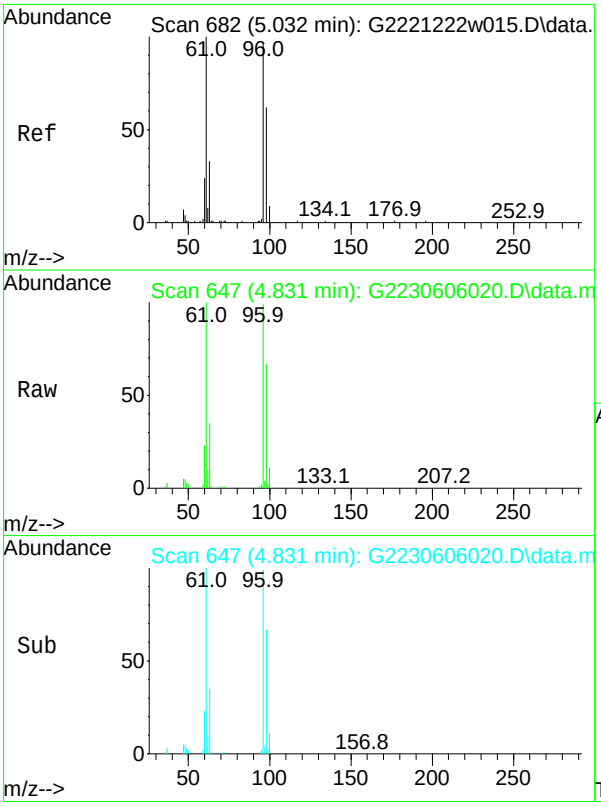


#26
1-propanol
Concen: 0.29 ug/L
RT: 4.267 min Scan# 555
Delta R.T. -0.022 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 59 Resp: 579

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

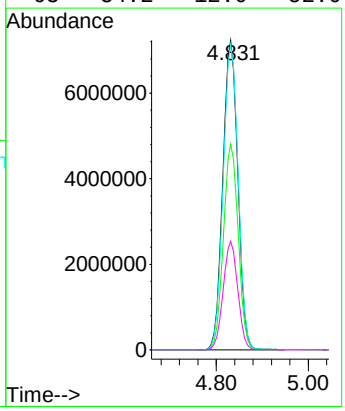


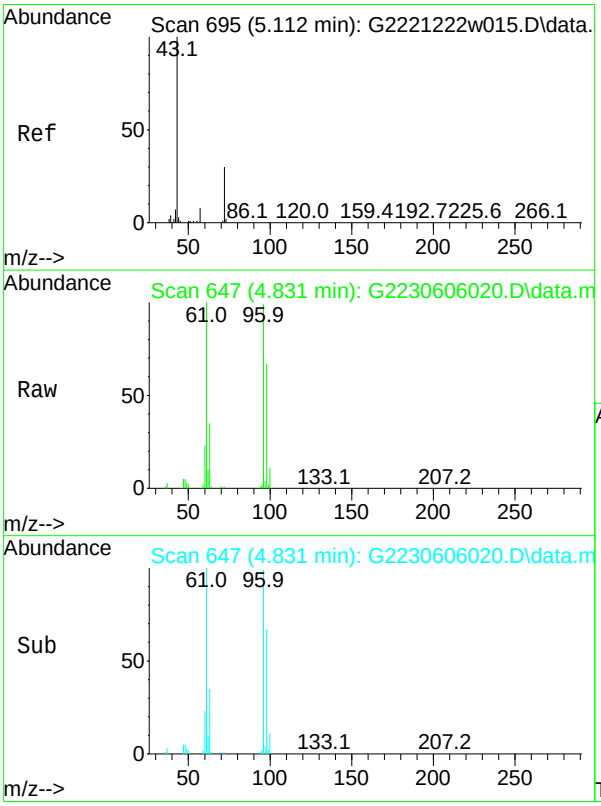


#28
cis-1,2-Dichloroethene
Concen: 343.18 ug/L
RT: 4.833 min Scan# 647
Delta R.T. -0.003 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 61 Resp:164069519

Ion	Ratio	Lower	Upper
61	100		
98	65.6	15.9	75.9
96	99.0	39.6	99.6
63	34.2	12.0	52.0

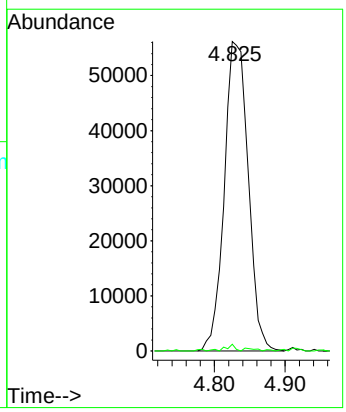


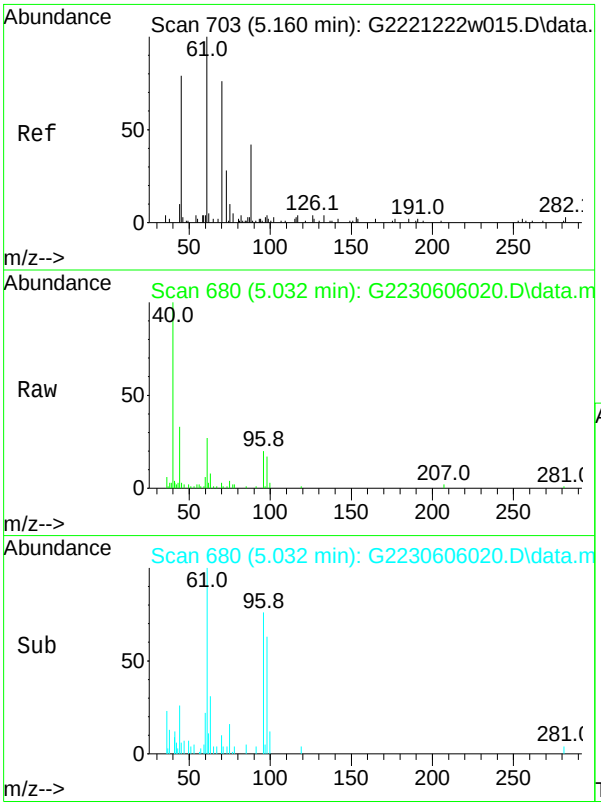


#29
2-Butanone
Concen: 27.43 ug/L
RT: 4.832 min Scan# 647
Delta R.T. -0.087 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 72 Resp: 1321474

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

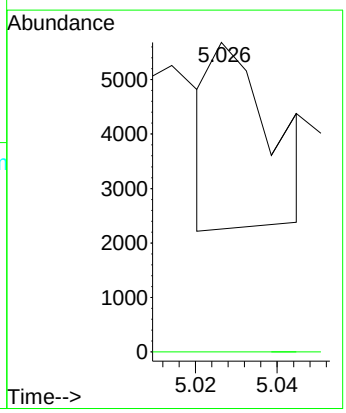


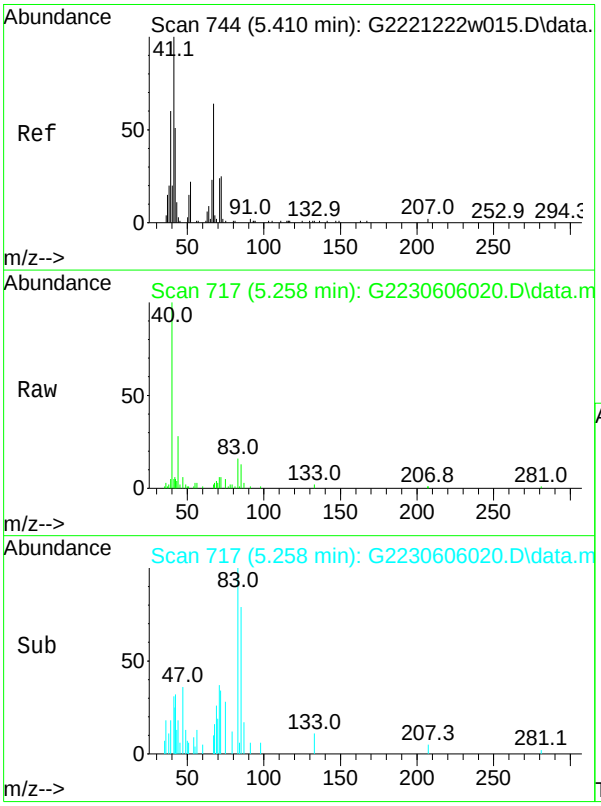


#31
Ethyl acetate
Concen: 0.38 ug/L
RT: 5.030 min Scan# 680
Delta R.T. 0.008 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 61 Resp: 34594

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

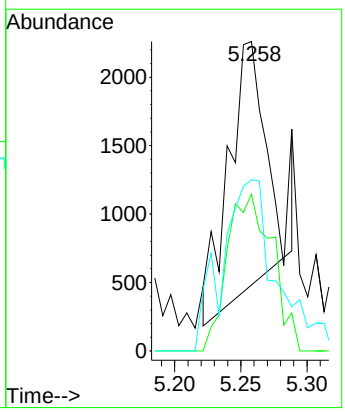


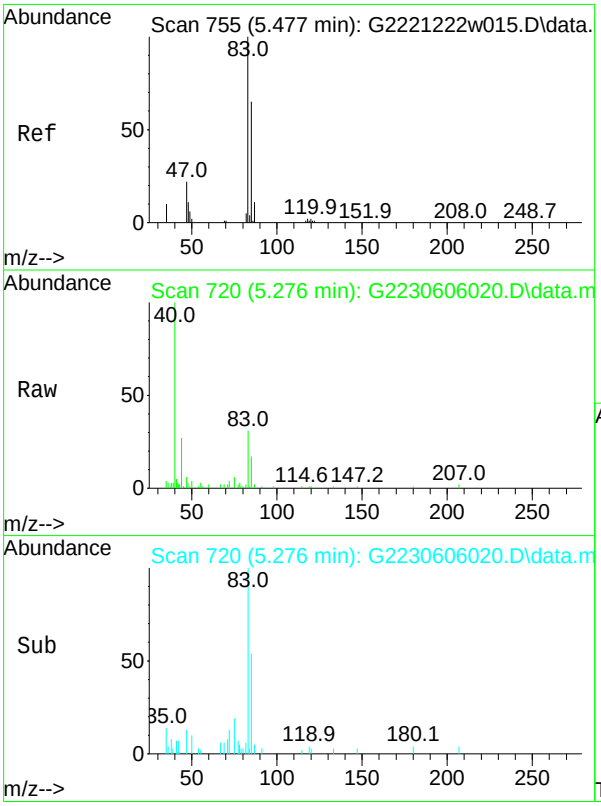


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.258 min Scan# 717
Delta R.T. -0.003 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 42 Resp: 32108

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

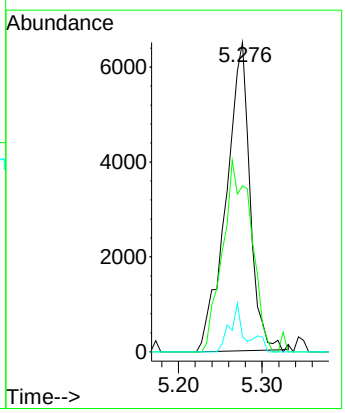


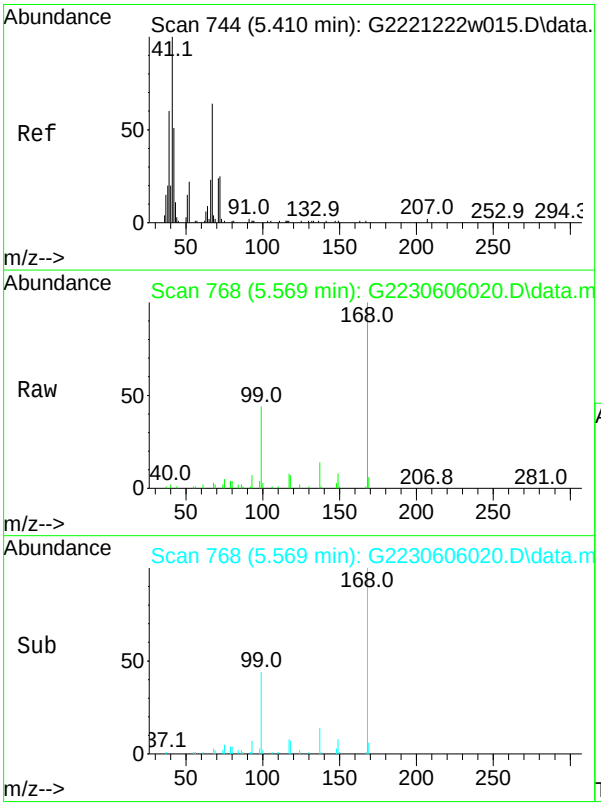


#37
Chloroform
Concen: 0.20 ug/L
RT: 5.277 min Scan# 720
Delta R.T. 0.001 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 83 Resp: 128522

Ion	Ratio	Lower	Upper
83	100		
85	74.9	35.4	95.4
87	0.0	0.0	40.8

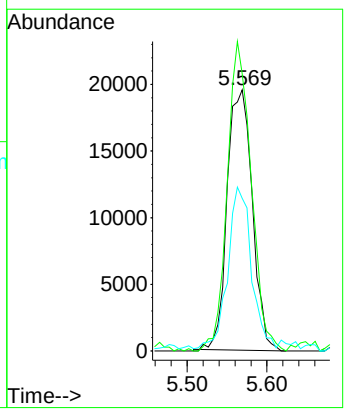


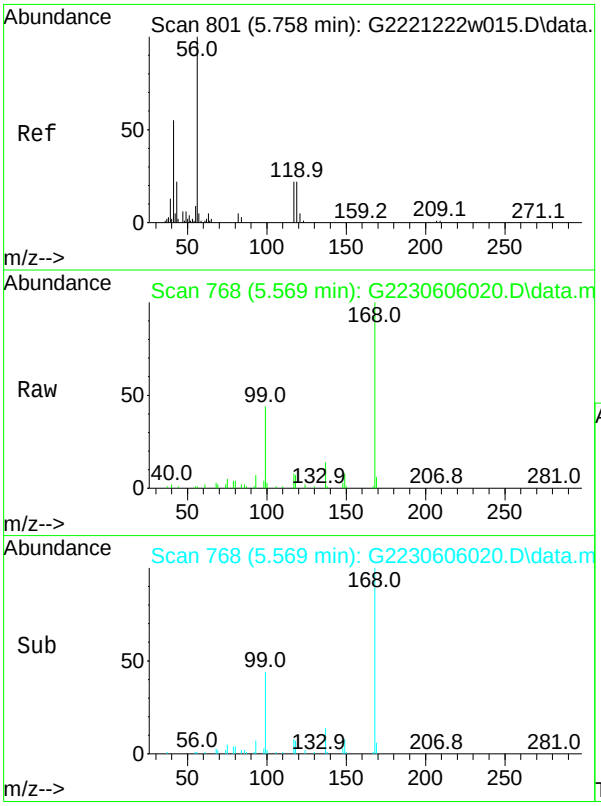


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 84 Resp: 426167

Ion	Ratio	Lower	Upper
84	100		
69	113.6	6.8	66.8#
56	56.7	79.1	139.1#

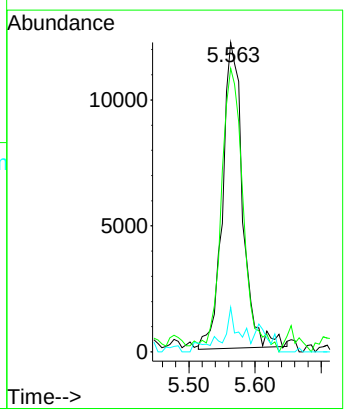


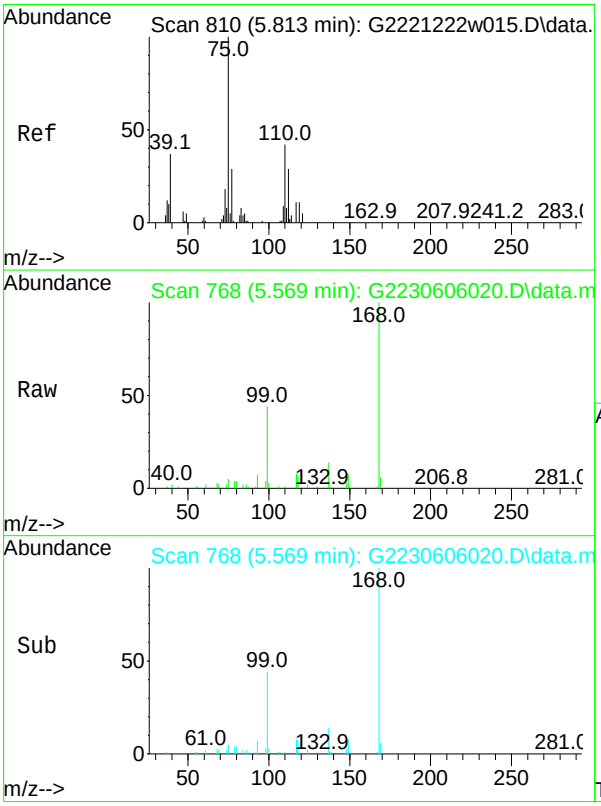


#41
1-Chlorobutane
Concen: 0.43 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 56 Resp: 255928

Ion	Ratio	Lower	Upper
56	100		
55	95.3	0.0	41.0#
57	0.0	0.0	35.7

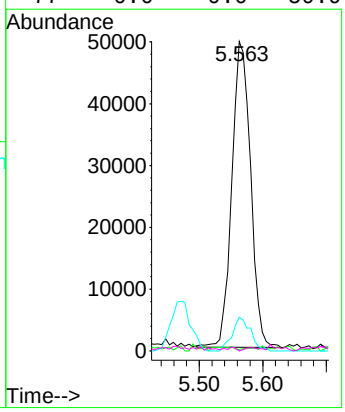


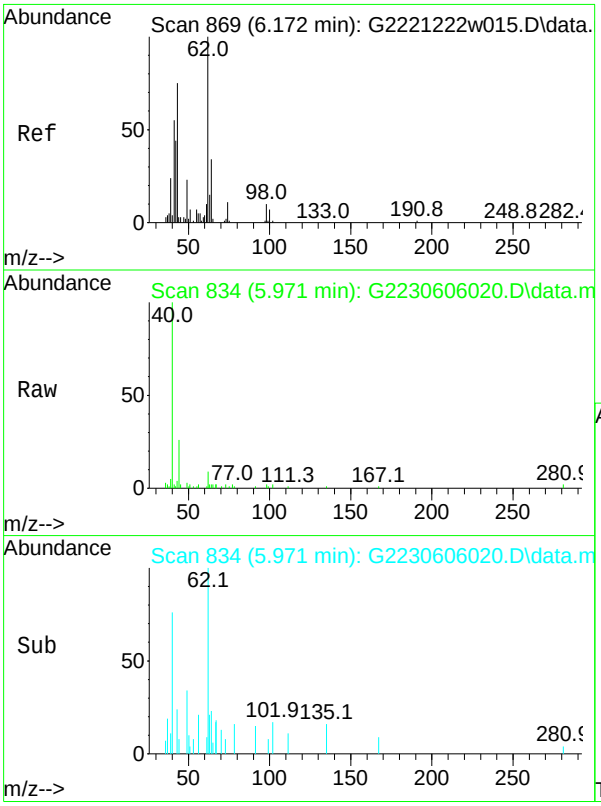


#42
1,1-Dichloropropene
Concen: 2.28 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 75 Resp: 1021898

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

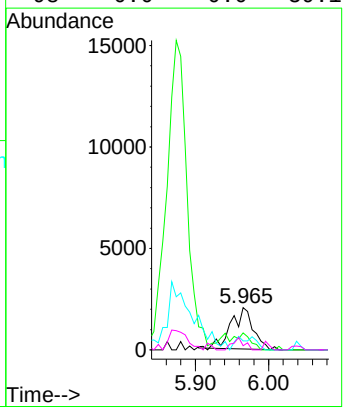


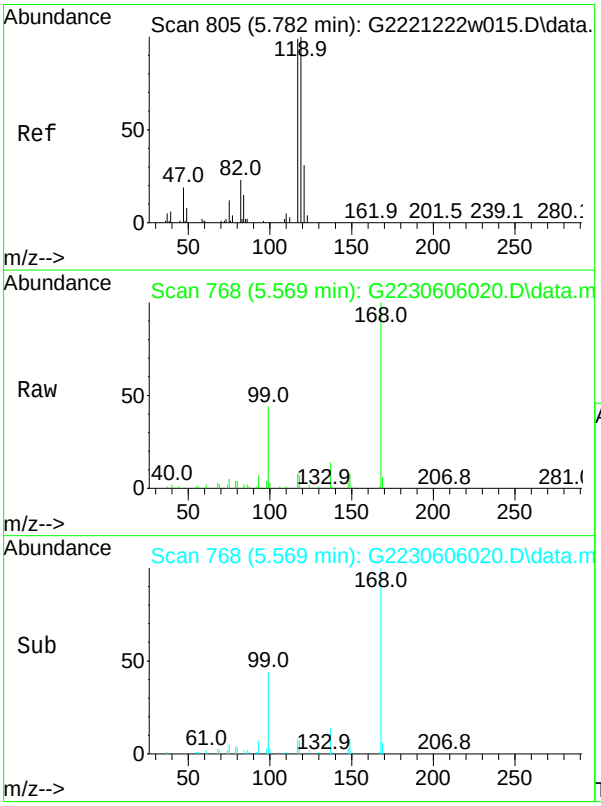


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.970 min Scan# 834
Delta R.T. -0.001 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 62 Resp: 42669

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

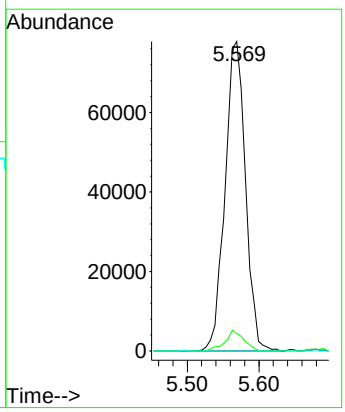


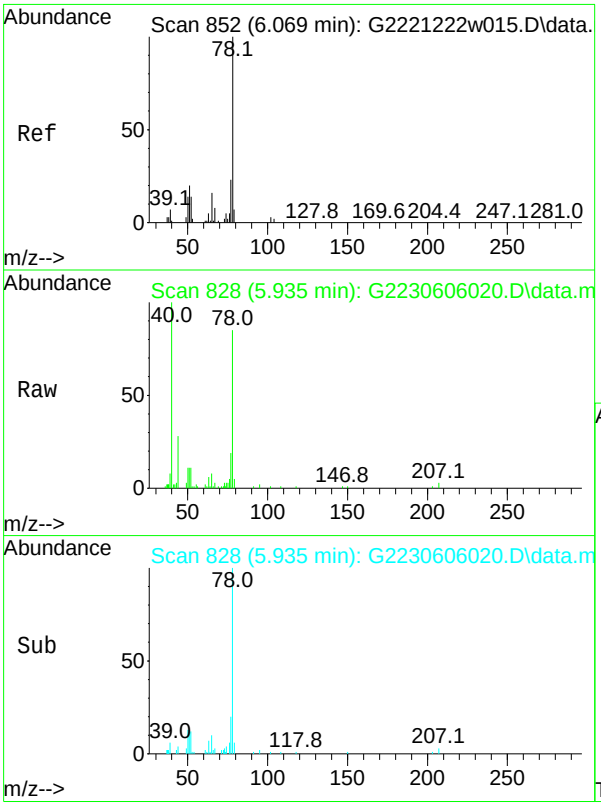


#47
Carbon tetrachloride
Concen: 2.94 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.111 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion:117 Resp: 1542352

Ion	Ratio	Lower	Upper
117	100		
119	6.1	66.4	126.4#
121	0.0	0.4	60.4#

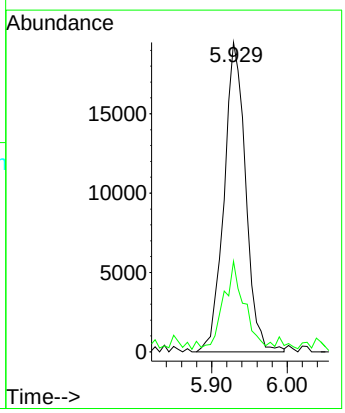


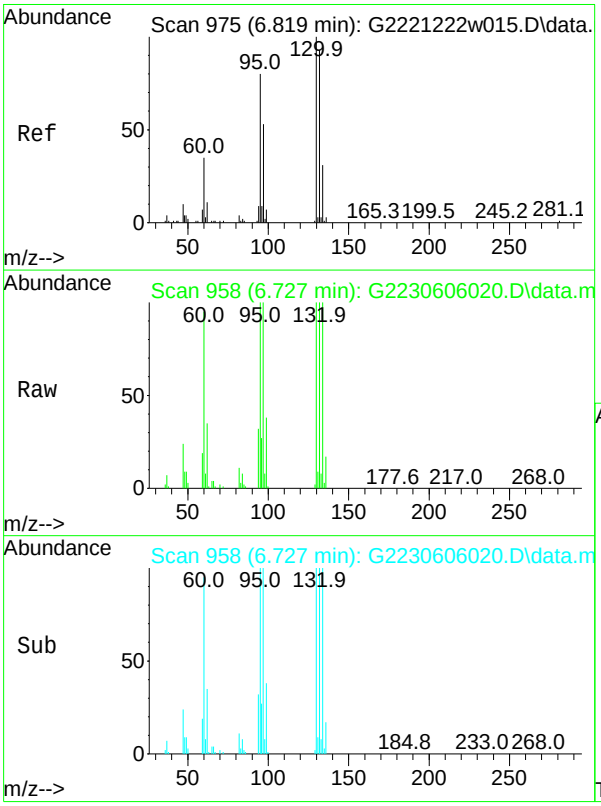


#48
Benzene
Concen: 0.27 ug/L
RT: 5.932 min Scan# 828
Delta R.T. -0.003 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 78 Resp: 386756

Ion	Ratio	Lower	Upper
78	100		
77	27.3	0.0	53.8

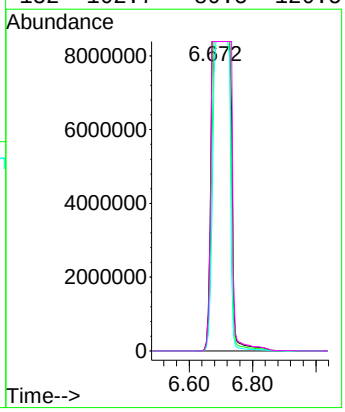


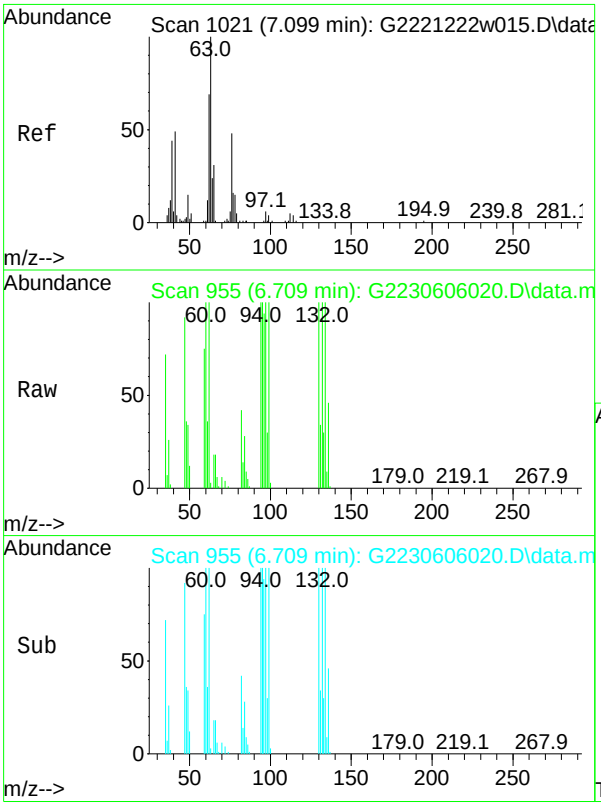


#50
Trichloroethene
Concen: 949.39 ug/L
RT: 6.725 min Scan# 958
Delta R.T. 0.029 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 95 Resp:362210373

Ion	Ratio	Lower	Upper
95	100		
97	92.2	35.5	95.5
60	84.3	14.8	74.8#
132	102.7	80.5	120.5

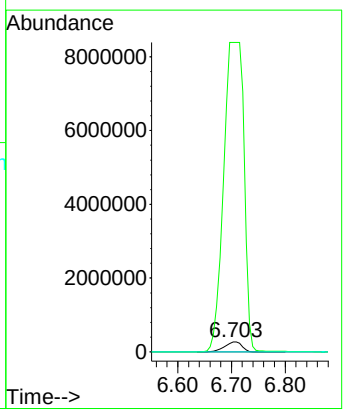


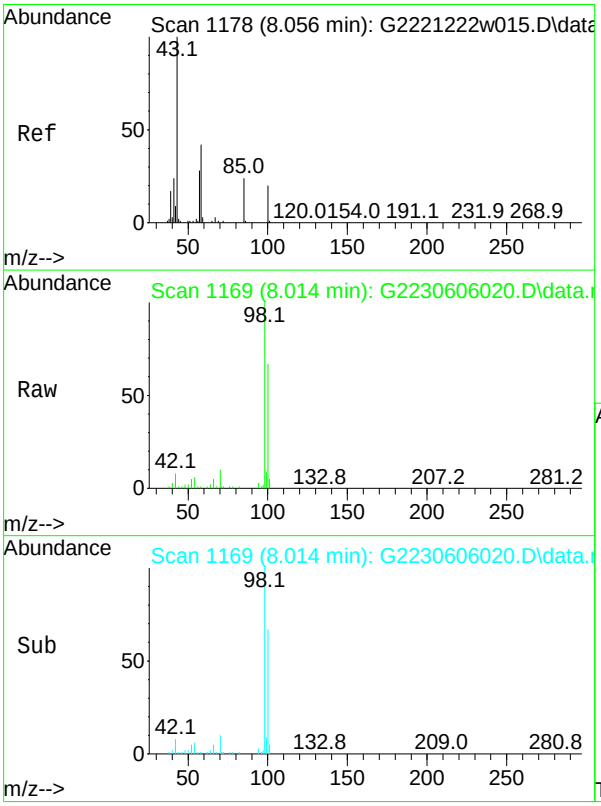


#52
1,2-Dichloropropane
Concen: 18.11 ug/L
RT: 6.708 min Scan# 955
Delta R.T. -0.238 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 63 Resp: 5955009

Ion	Ratio	Lower	Upper
63	100		
62	3712.2	35.2	95.2#
76	0.0	10.7	70.7#

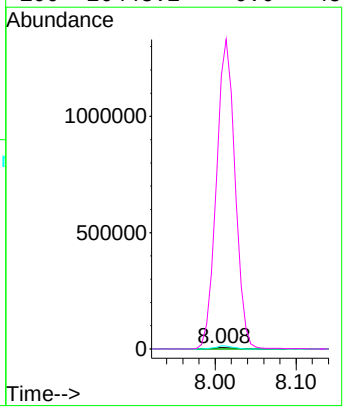


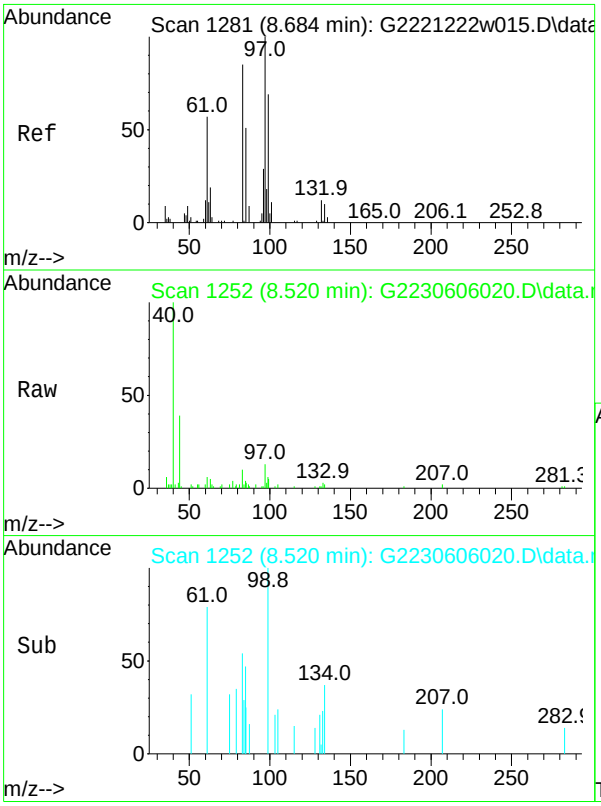


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 43 Resp: 104326

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	191.6	37.0	37.0#
100	20443.2	0.0	45.2#

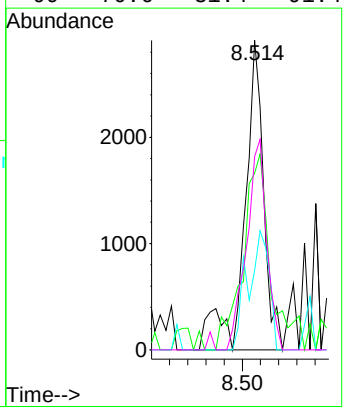


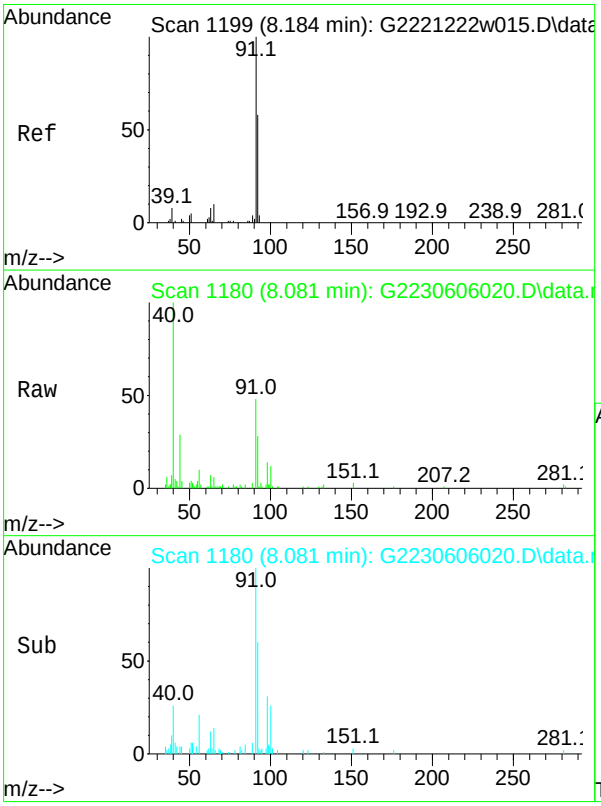


#62
1,1,2-Trichloroethane
Concen: 0.11 ug/L
RT: 8.517 min Scan# 1252
Delta R.T. -0.002 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 97 Resp: 43144

Ion	Ratio	Lower	Upper
97	100		
83	95.1	53.8	113.8
61	0.0	29.0	89.0#
99	70.6	31.4	91.4

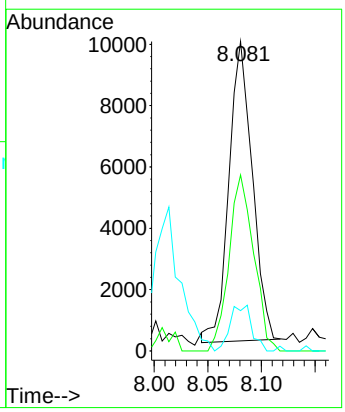


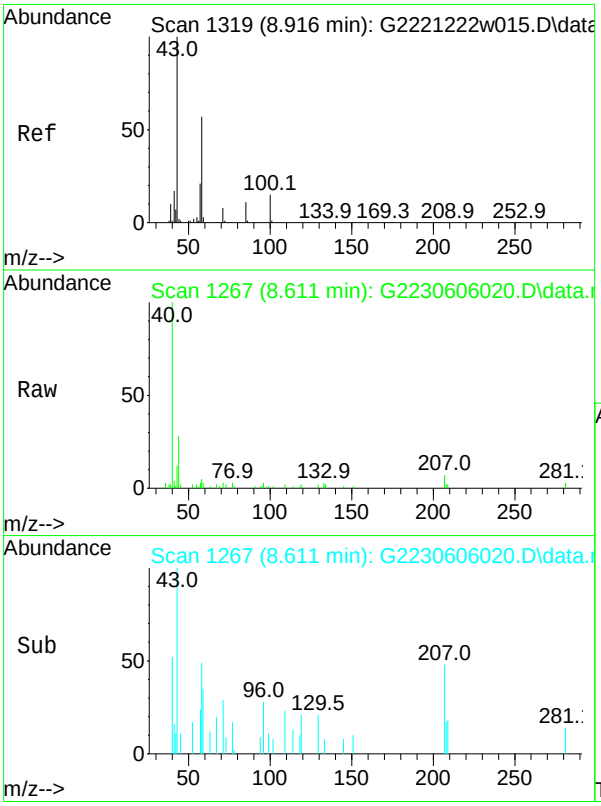


#65
Toluene
Concen: 0.02 ug/L
RT: 8.082 min Scan# 1180
Delta R.T. -0.004 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 91 Resp: 148610

Ion	Ratio	Lower	Upper
91	100		
92	61.9	27.5	87.5
65	0.0	0.0	41.4

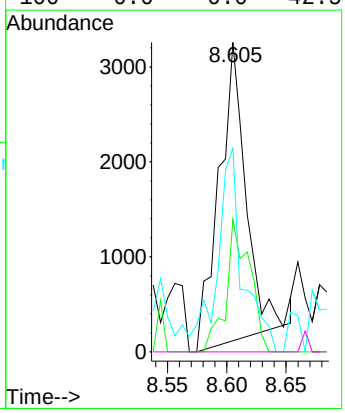


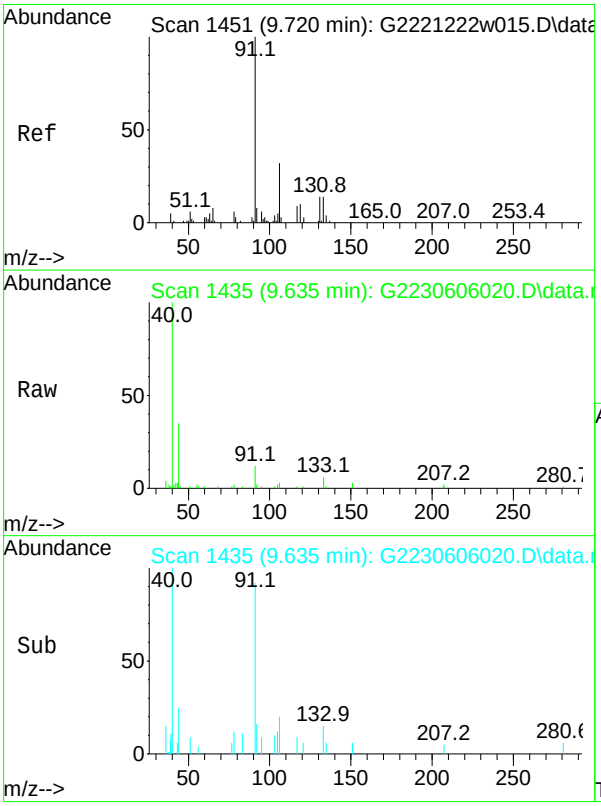


#69
2-Hexanone
Concen: Below Cal
RT: 8.609 min Scan# 1267
Delta R.T. -0.200 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 43 Resp: 48029

Ion	Ratio	Lower	Upper
43	100		
58	0.0	25.2	85.2#
57	62.9	0.0	49.3#
100	0.0	0.0	42.5

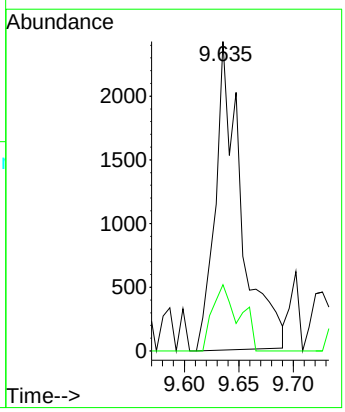


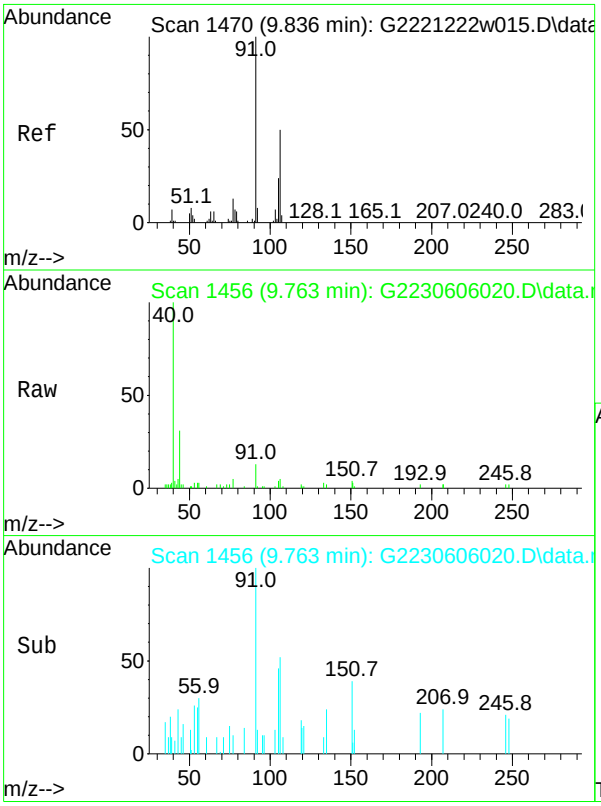


#74
Ethylbenzene
Concen: Below Cal
RT: 9.638 min Scan# 1435
Delta R.T. -0.005 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 91 Resp: 39725

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

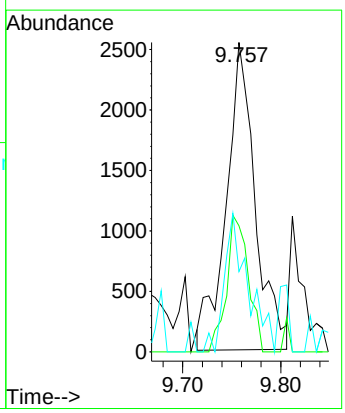


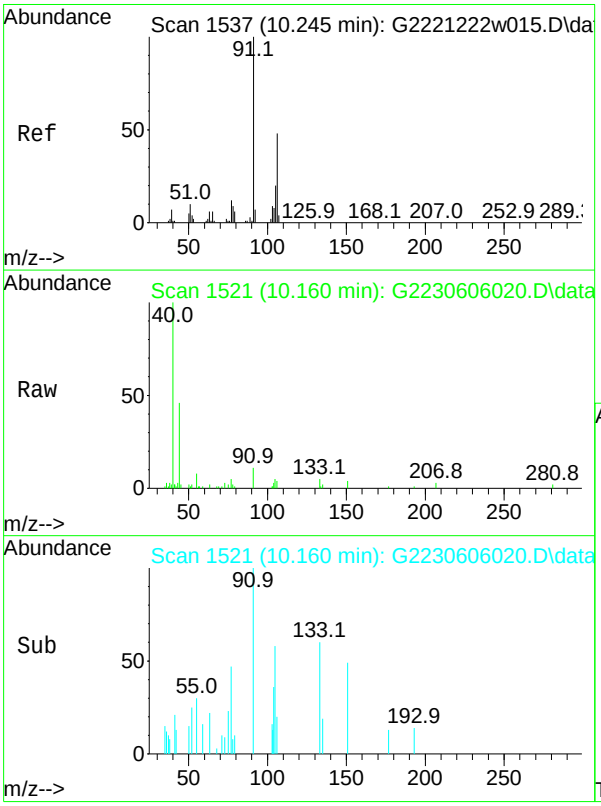


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.761 min Scan# 1456
Delta R.T. -0.003 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 91 Resp: 52036

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

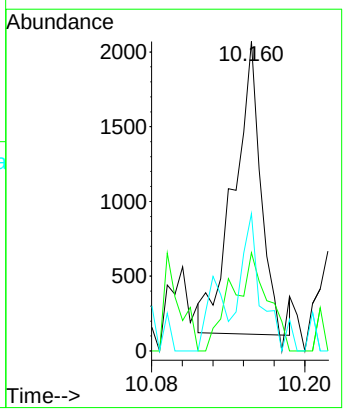


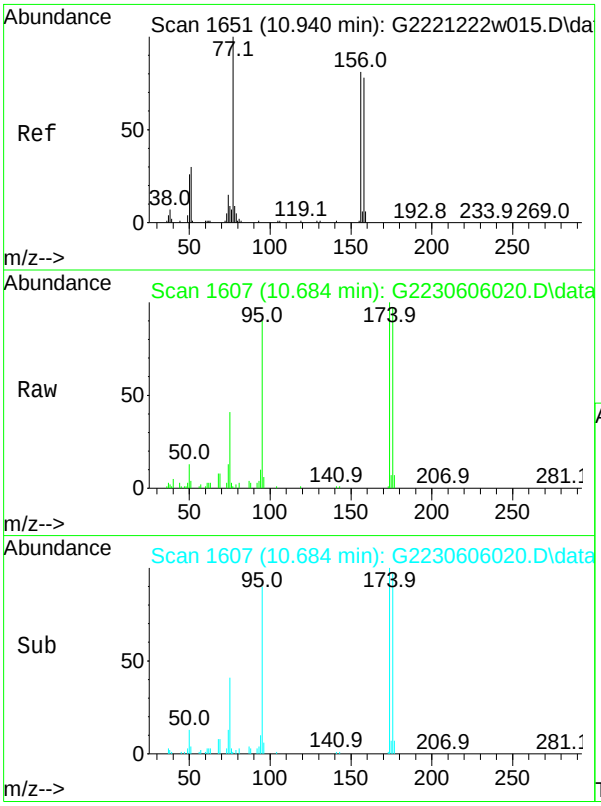


#79
o-Xylene
Concen: 0.02 ug/L
RT: 10.161 min Scan# 1521
Delta R.T. 0.000 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 91 Resp: 29534

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.2	76.2#
105	0.0	0.0	56.7

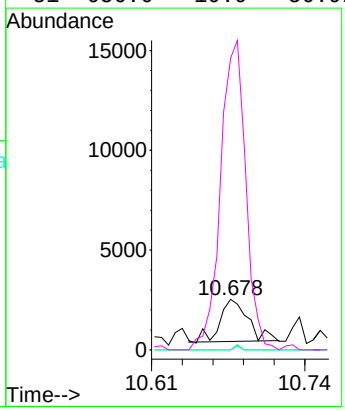


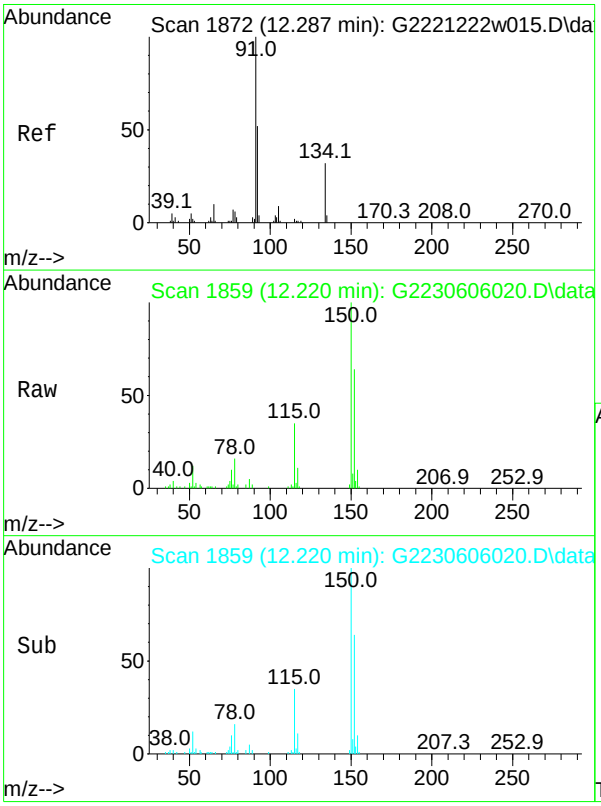


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.682 min Scan# 1607
Delta R.T. -0.146 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 77 Resp: 36652

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	656.0	10.9	50.9#

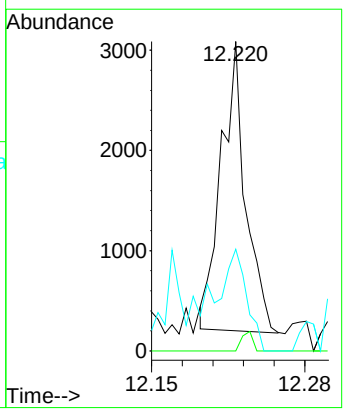




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.221 min Scan# 1859
Delta R.T. -0.010 min
Lab File: G2230606020.D
Acq: 06 Jun 2023 18:33

Tgt Ion: 91 Resp: 42918

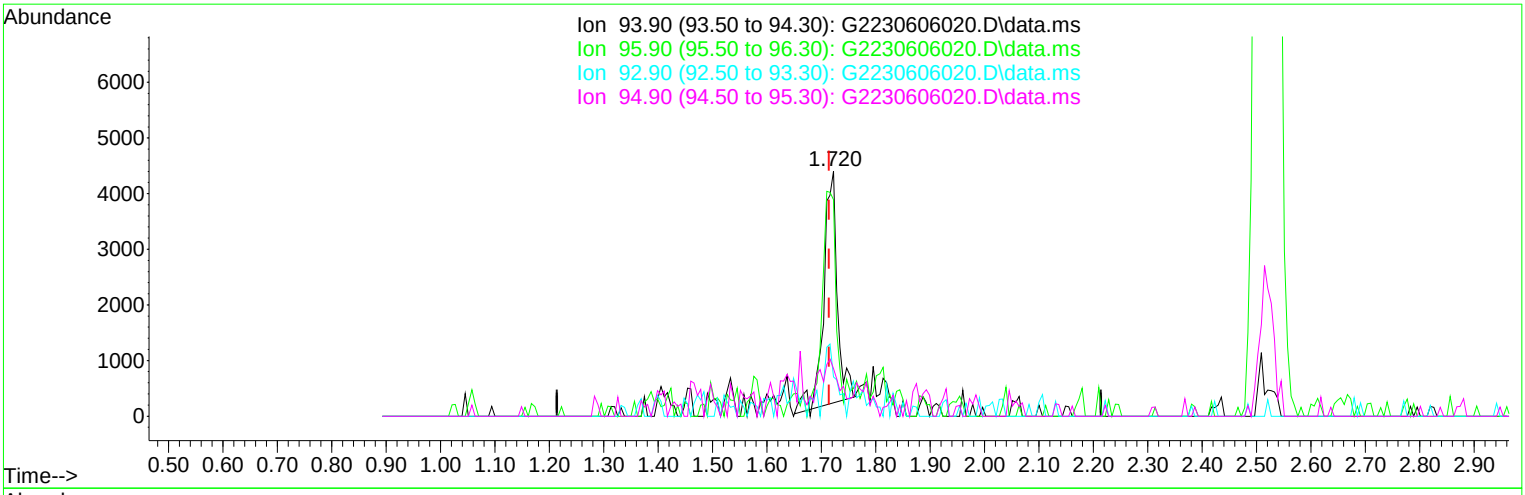
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

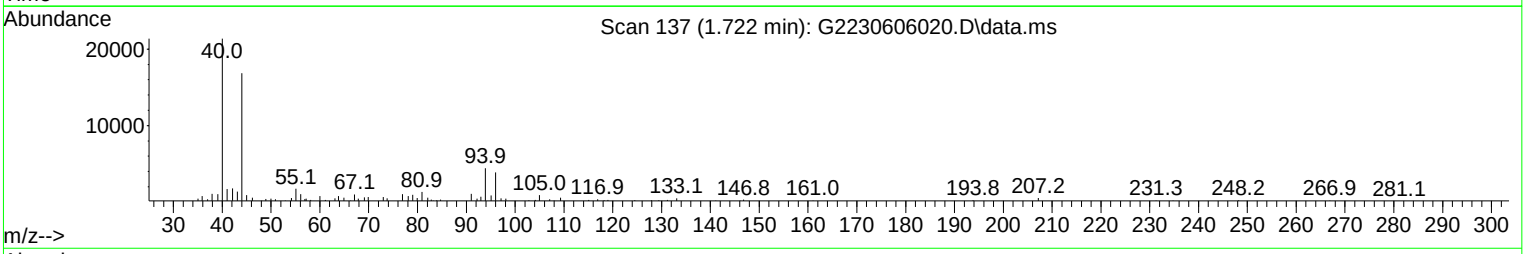


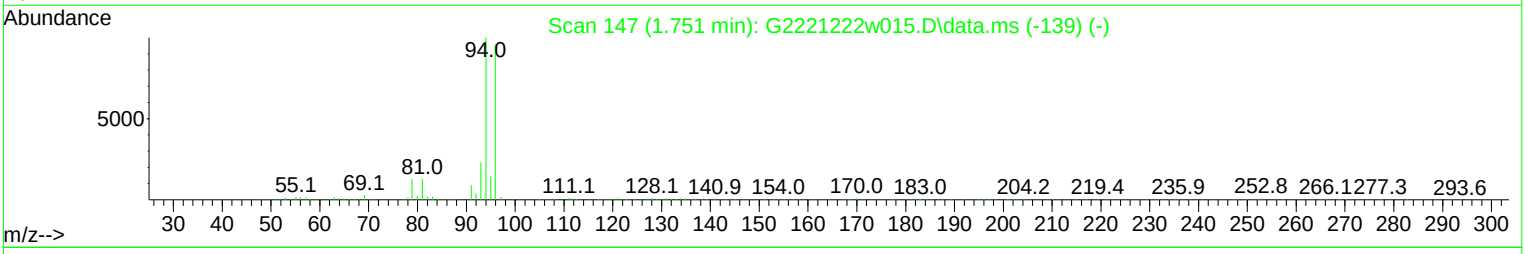
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606020.D
Acq On : 06 Jun 2023 18:33
Operator : PO1
Sample : 23E0775-05
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 07 09:32:33 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: G2230606020.D\data.ms

(5) Bromomethane (T)

1.721min (+ 0.007) 0.03 ug/L

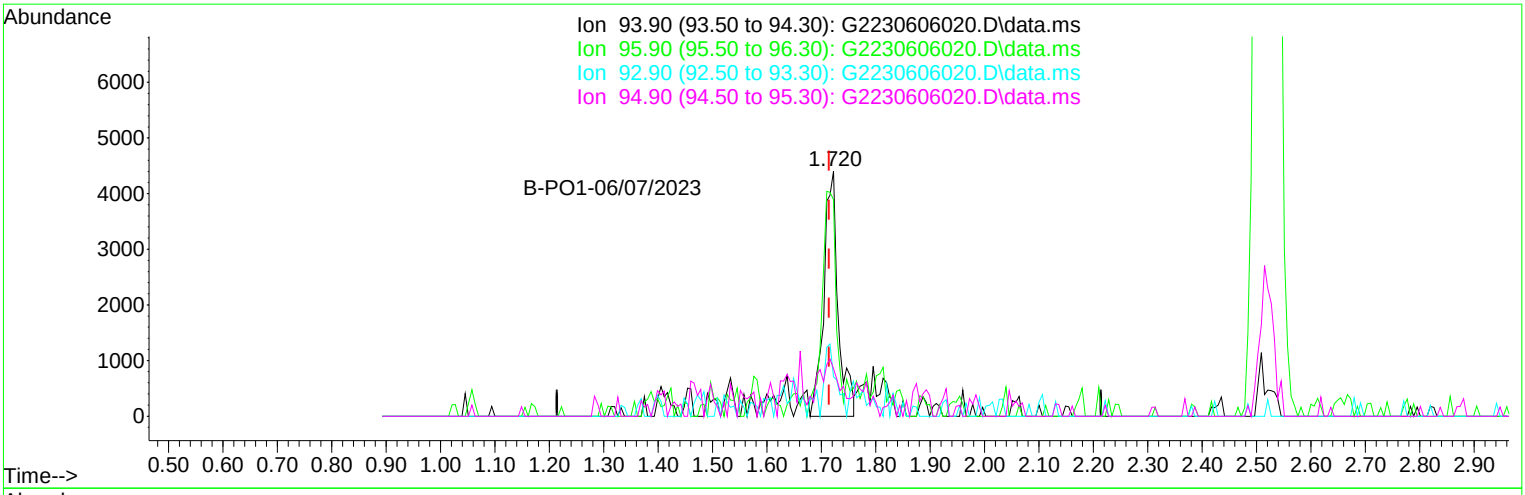
response 72721

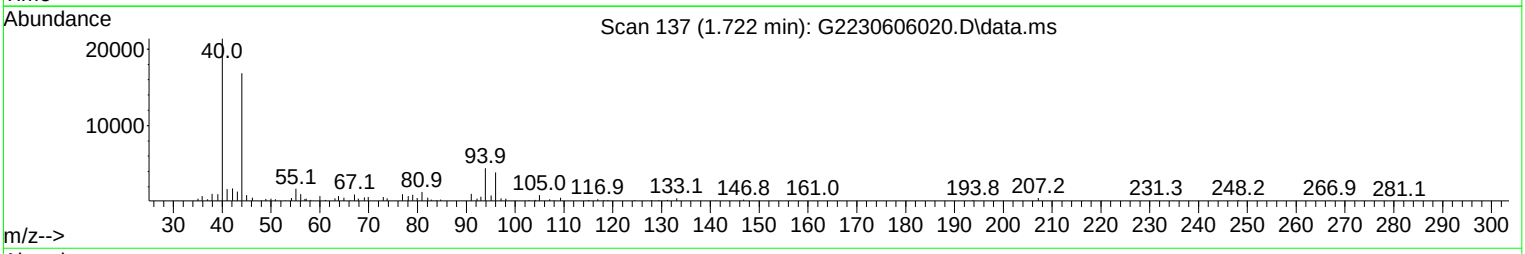
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	87.17
92.90	19.50	0.00
94.90	13.40	0.00

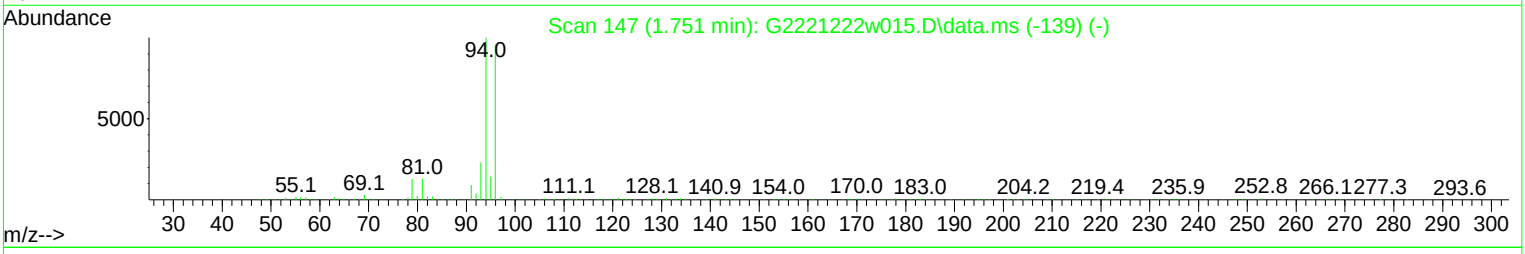
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606020.D
Acq On : 06 Jun 2023 18:33
Operator : PO1
Sample : 23E0775-05
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 07 09:32:33 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: G2230606020.D\data.ms

(5) Bromomethane (T)

1.722min (+ 0.008) 0.07 ug/L m

response 81874

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	77.42
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05RE1	File ID:	G2230607010.D
Sampled:	05/26/23 11:05	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 18:34
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*13.0*	*40.0*	*100*	*U*
71-55-6	*1,1,1-Trichloroethane*		*17.5*	*40.0*	*100*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*12.4*	*40.0*	*100*	*U*
79-00-5	*1,1,2-Trichloroethane*		*16.6*	*40.0*	*100*	*U*
75-34-3	*1,1-Dichloroethane*		*13.4*	*40.0*	*100*	*U*
75-35-4	*1,1-Dichloroethene*		*19.1*	*40.0*	*100*	*U*
563-58-6	*1,1-Dichloropropene*		*14.0*	*40.0*	*100*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*20.4*	*40.0*	*100*	*U*
96-18-4	*1,2,3-Trichloropropane*		*18.3*	*40.0*	*100*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*20.5*	*60.0*	*120*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*13.2*	*40.0*	*100*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*26.0*	*100*	*200*	*U*
106-93-4	*1,2-Dibromoethane*		*10.6*	*40.0*	*100*	*U*
95-50-1	*1,2-Dichlorobenzene*		*12.6*	*40.0*	*100*	*U*
107-06-2	*1,2-Dichloroethane*		*21.2*	*60.0*	*120*	*U*
78-87-5	*1,2-Dichloropropane*		*20.5*	*60.0*	*120*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*10.0*	*40.0*	*100*	*U*
541-73-1	*1,3-Dichlorobenzene*		*14.5*	*40.0*	*100*	*U*
142-28-9	*1,3-Dichloropropane*		*13.6*	*40.0*	*100*	*U*
106-46-7	*1,4-Dichlorobenzene*		*18.4*	*40.0*	*100*	*U*
594-20-7	*2,2-Dichloropropane*		*18.4*	*40.0*	*100*	*U*
78-93-3	*2-Butanone*		*66.0*	*140*	*350*	*U*
95-49-8	*2-Chlorotoluene*		*14.7*	*40.0*	*100*	*U*
591-78-6	*2-Hexanone*		*14.3*	*140*	*350*	*U*
106-43-4	*4-Chlorotoluene*		*18.4*	*40.0*	*100*	*U*
99-87-6	*4-Isopropyltoluene*		*14.0*	*40.0*	*100*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05RE1	File ID:	G2230607010.D
Sampled:	05/26/23 11:05	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 18:34
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*27.0*	*140*	*350*	*U*
67-64-1	*Acetone*		*104*	*400*	*800*	*U*
71-43-2	*Benzene*		*10.1*	*40.0*	*100*	*U*
108-86-1	*Bromobenzene*		*17.0*	*40.0*	*100*	*U*
74-97-5	*Bromochloromethane*		*13.4*	*40.0*	*100*	*U*
75-27-4	*Bromodichloromethane*		*10.6*	*40.0*	*100*	*U*
75-25-2	*Bromoform*		*20.6*	*40.0*	*100*	*U*
74-83-9	*Bromomethane*		*32.0*	*100*	*200*	*U*
75-15-0	*Carbon disulfide*		*28.0*	*100*	*200*	*U*
56-23-5	*Carbon tetrachloride*		*16.9*	*40.0*	*100*	*U*
108-90-7	*Chlorobenzene*		*13.0*	*40.0*	*100*	*U*
75-00-3	*Chloroethane*		*31.1*	*40.0*	*100*	*U*
67-66-3	Chloroform		20.3	60.0	120	U
74-87-3	*Chloromethane*		*38.4*	*100*	*200*	*U*
156-59-2	cis-1,2-Dichloroethene	264	20.5	60.0	120	D
10061-01-5	*cis-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
124-48-1	*Dibromochloromethane*		*15.2*	*40.0*	*100*	*U*
74-95-3	*Dibromomethane*		*16.3*	*40.0*	*100*	*U*
75-71-8	*Dichlorodifluoromethane*		*25.9*	*100*	*200*	*U*
100-41-4	*Ethylbenzene*		*6.00*	*20.0*	*40.0*	*U*
87-68-3	*Hexachlorobutadiene*		*20.0*	*40.0*	*100*	*U*
98-82-8	*Isopropylbenzene*		*11.0*	*40.0*	*100*	*U*
179601-23-1	*m,p-Xylene*		*17.8*	*80.0*	*200*	*U*
1634-04-4	*Methyl tert-butyl ether*		*10.6*	*40.0*	*100*	*U*
75-09-2	*Methylene chloride*		*44.7*	*100*	*200*	*U*
104-51-8	*n-Butylbenzene*		*26.0*	*100*	*200*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05RE1	File ID:	G2230607010.D
Sampled:	05/26/23 11:05	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 18:34
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*12.6*	*40.0*	*100*	*U*
91-20-3	*Naphthalene*		*14.0*	*40.0*	*100*	*U*
95-47-6	*o-Xylene*		*8.32*	*40.0*	*100*	*U*
135-98-8	*sec-Butylbenzene*		*12.0*	*40.0*	*100*	*U*
100-42-5	*Styrene*		*9.06*	*20.0*	*40.0*	*U*
98-06-6	*tert-Butylbenzene*		*9.06*	*40.0*	*100*	*U*
127-18-4	*Tetrachloroethene*		*35.7*	*100*	*200*	*Q, U*
108-88-3	*Toluene*		*11.4*	*40.0*	*100*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*17.1*	*40.0*	*100*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
79-01-6	*Trichloroethene*	*6290*	*15.6*	*40.0*	*100*	*B, D, E*
75-69-4	*Trichlorofluoromethane*		*10.1*	*40.0*	*100*	*U*
75-01-4	*Vinyl chloride*		*25.8*	*100*	*200*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607010.D
Acq On : 07 Jun 2023 18:34
Operator : PO1
Sample : 23E0775-05RE1
Misc : 200
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 09:29:04 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

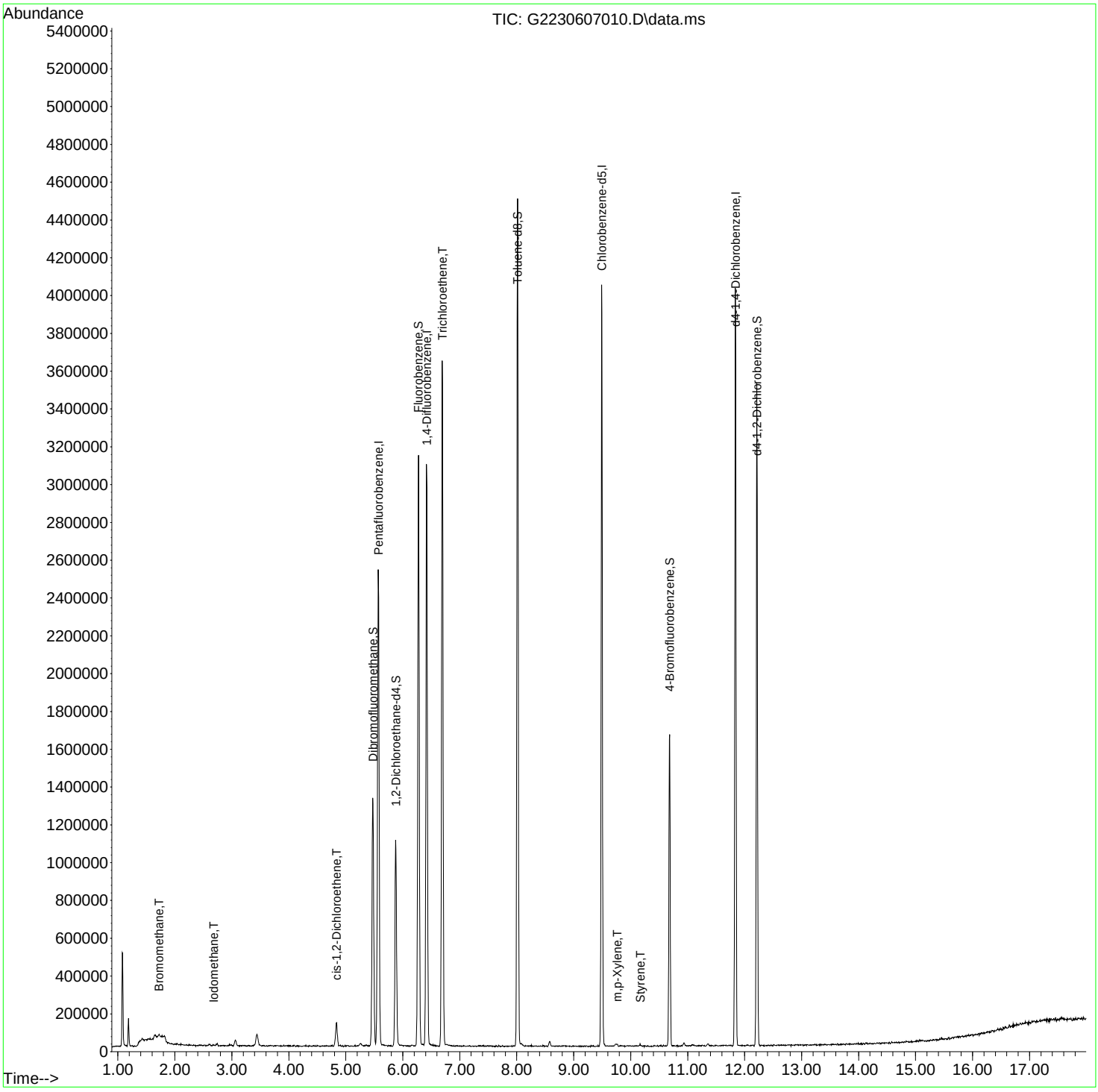
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.574	168	19961636	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.422	114	27294571	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	23693587	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11325262	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.477	111	8363492	19.04	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.20%			
43) 1,2-Dichloroethane-d4	5.879	65	7637738	17.59	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.95%			
49) Fluorobenzene	6.278	96	30329393	19.50	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.50%			
64) Toluene-d8	8.017	98	29442984	19.72	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.60%			
81) 4-Bromofluorobenzene	10.685	174	5253756	9.82	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.20%			
97) d4-1,2-Dichlorobenzene	12.218	152	9872557	20.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.35%			
Target Compounds						Qvalue
5) Bromomethane	1.725	94	79964	0.05	ug/L #	88
13) Iodomethane	2.682	142	57329	0.12	ug/L #	41
18) Methylene chloride	3.064	49	156204	Below Cal		73
21) Methyl tert-butyl ether	3.443	73	870347	Below Cal		90
28) cis-1,2-Dichloroethene	4.836	61	699475	1.32	ug/L #	70
50) Trichloroethene	6.695	95	11290898	31.43	ug/L	90
75) m,p-Xylene	9.764	91	65213	0.05	ug/L #	83
76) Styrene	10.172	104	32451	0.03	ug/L #	29

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607010.D
Acq On : 07 Jun 2023 18:34
Operator : PO1
Sample : 23E0775-05RE1
Misc : 200
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 09:29:04 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607010.D
Acq On : 07 Jun 2023 18:34
Operator : PO1
Sample : 23E0775-05RE1
Misc : 200
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 09:29:04 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	19961636	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.422	114	27294571	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	23693587	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11325262	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.477	111	8363492	19.04	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.20%				
43) 1,2-Dichloroethane-d4	5.879	65	7637738	17.59	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.95%				
49) Fluorobenzene	6.278	96	30329393	19.50	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.50%				
64) Toluene-d8	8.017	98	29442984	19.72	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.60%				
81) 4-Bromofluorobenzene	10.685	174	5253756	9.82	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.20%				
97) d4-1,2-Dichlorobenzene	12.218	152	9872557	20.27	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.35%				
Target Compounds							Qvalue
5) Bromomethane	1.725	94	79964	0.05	ug/L	#	88
12) Acetone	2.609	43	75040	Below Cal		#	45
13) Iodomethane	2.682	142	57329	0.12	ug/L	#	41
14) Carbon disulfide	2.743	76	139068	0.06	ug/L	#	74
17) 3-Chloro-1-propene	2.743	76	139681	0.62	ug/L	#	53
18) Methylene chloride	3.064	49	156204	Below Cal			73
21) Methyl tert-butyl ether	3.443	73	870347	Below Cal			90
26) 1-propanol	4.053	59	708	0.34	ug/L	#	100
28) cis-1,2-Dichloroethene	4.836	61	699475	1.32	ug/L	#	70
31) Ethyl acetate	4.836	61	699475	11.62	ug/L	#	45
33) 1-Bromopropane	5.249	41	53956	0.14	ug/L	#	40
36) Tetrahydrofuran	5.255	42	102414	0.44	ug/L		92
40) Cyclohexane	5.569	84	439748	0.82	ug/L	#	30
41) 1-Chlorobutane	5.574	56	260750	0.42	ug/L	#	1
42) 1,1-Dichloropropene	5.572	75	1020873	2.18	ug/L	#	37
47) Carbon tetrachloride	5.574	117	1554020	3.16	ug/L	#	17
48) Benzene	5.934	78	35154	0.03	ug/L	#	52
50) Trichloroethene	6.695	95	11290898	31.43	ug/L		90
52) 1,2-Dichloropropane	6.699	63	41497	0.06	ug/L	#	1
60) 4-Methyl-2-pentanone	8.017	43	95556	Below Cal		#	1
65) Toluene	8.083	91	47557	Below Cal		#	30
74) Ethylbenzene	9.765	91	65238	Below Cal			63
75) m,p-Xylene	9.764	91	65213	0.05	ug/L	#	83
76) Styrene	10.172	104	32451	0.03	ug/L	#	29
82) Bromobenzene	10.685	77	32535	0.05	ug/L	#	1
99) n-Butylbenzene	12.216	91	39248	Below Cal		#	53

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607010.D
Acq On : 07 Jun 2023 18:34
Operator : PO1
Sample : 23E0775-05RE1
Misc : 200
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 09:29:04 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

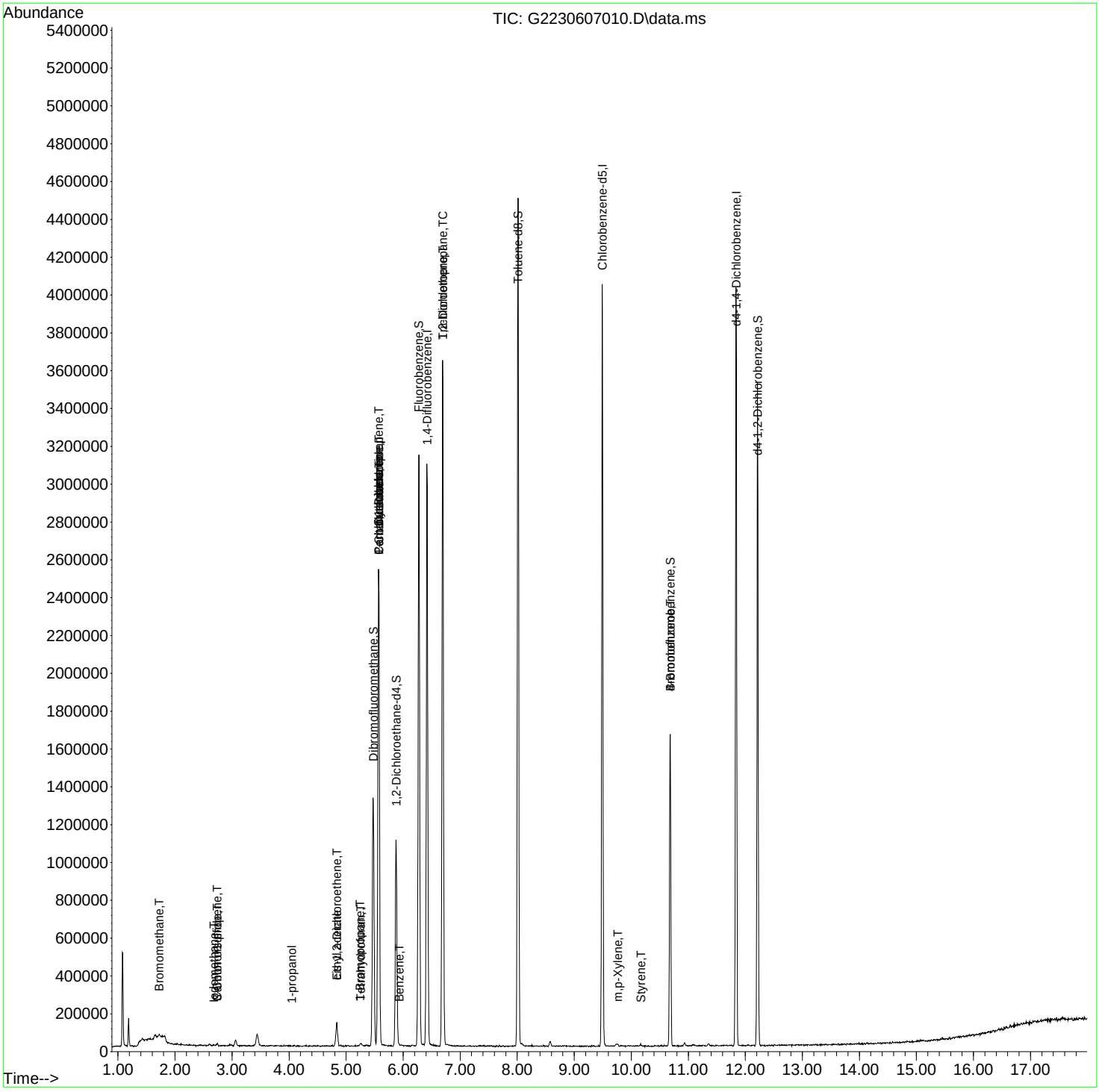
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

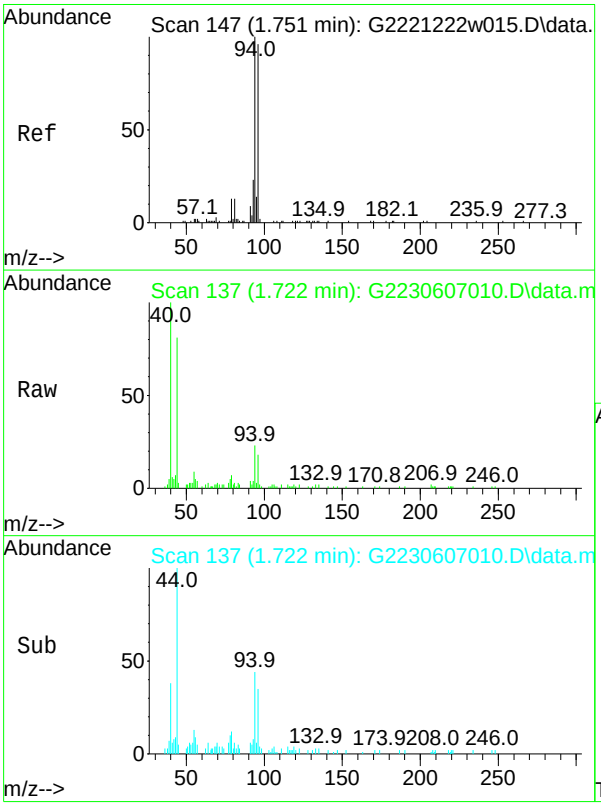
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607010.D
Acq On : 07 Jun 2023 18:34
Operator : PO1
Sample : 23E0775-05RE1
Misc : 200
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 09:29:04 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

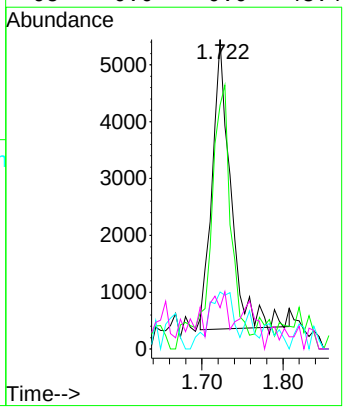


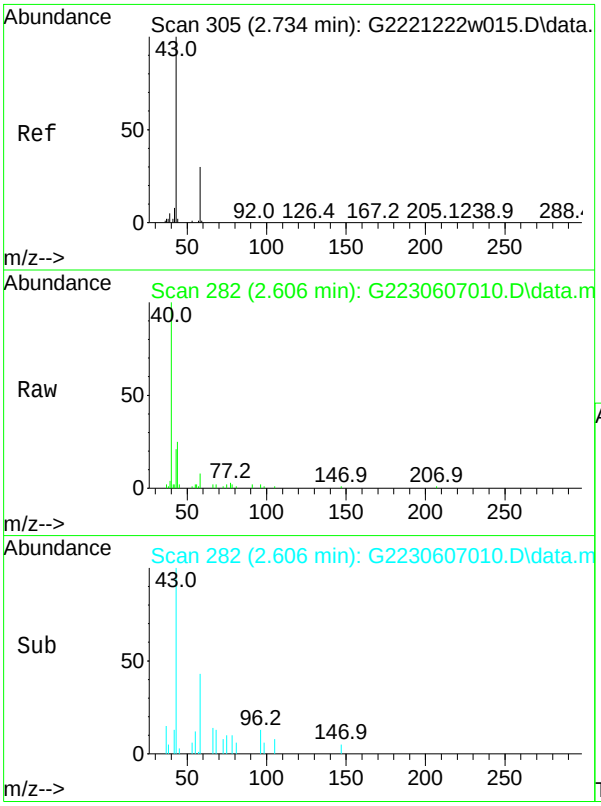


#5
Bromomethane
Concen: 0.05 ug/L
RT: 1.725 min Scan# 137
Delta R.T. 0.011 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 94 Resp: 79964

Ion	Ratio	Lower	Upper
94	100		
96	93.5	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

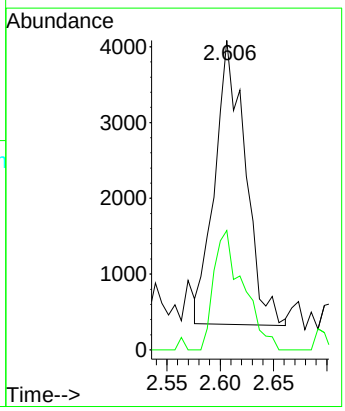


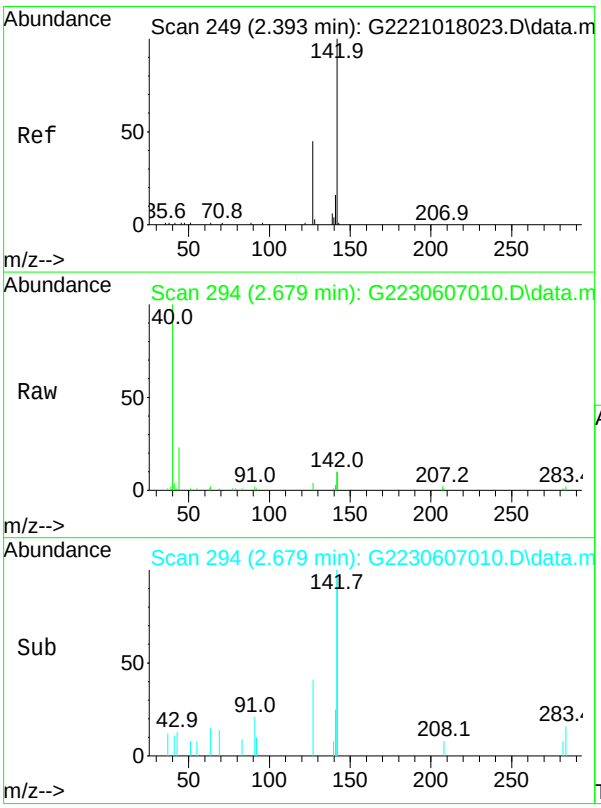


#12
Acetone
Concen: Below Cal
RT: 2.609 min Scan# 282
Delta R.T. 0.001 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 43 Resp: 75040

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

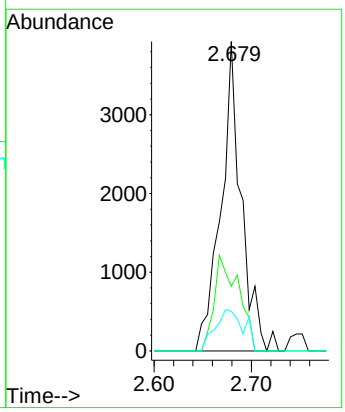


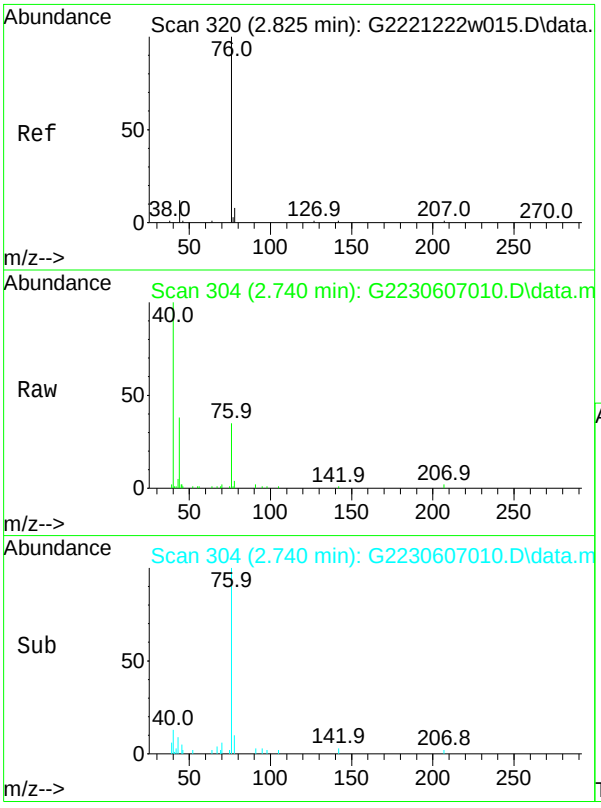


#13
Iodomethane
Concen: 0.12 ug/L
RT: 2.682 min Scan# 294
Delta R.T. 0.006 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion:142 Resp: 57329

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

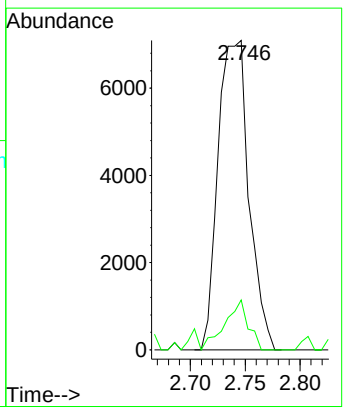


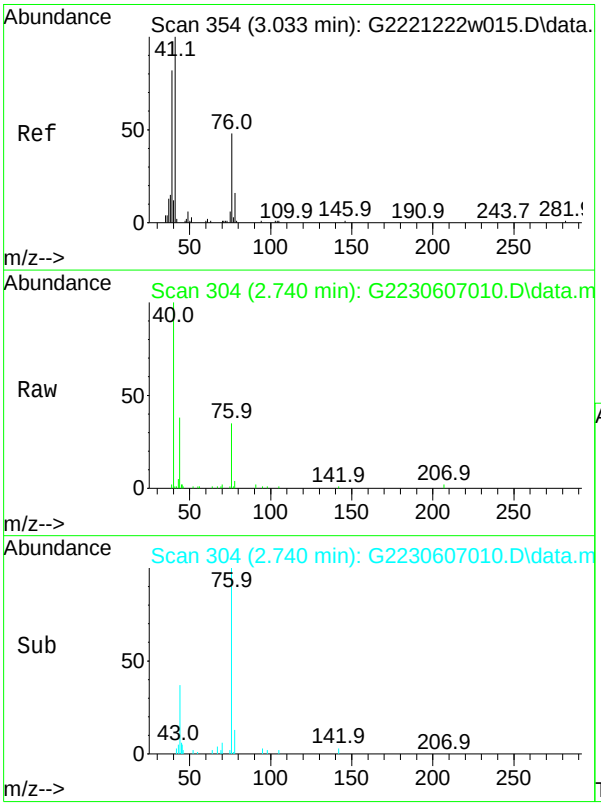


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.743 min Scan# 304
Delta R.T. 0.004 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 76 Resp: 139068

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

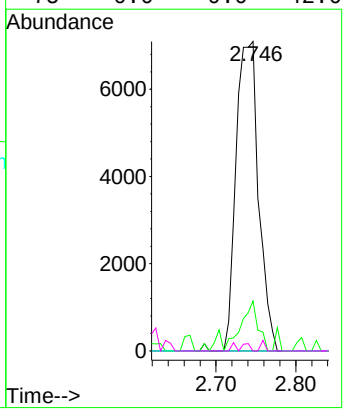


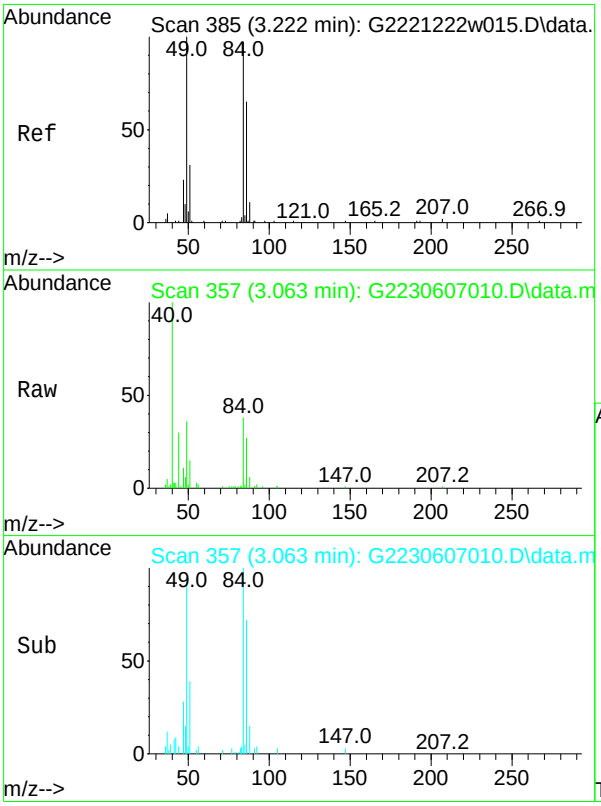


#17
3-Chloro-1-propene
Concen: 0.62 ug/L
RT: 2.743 min Scan# 304
Delta R.T. -0.177 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 76 Resp: 139681

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

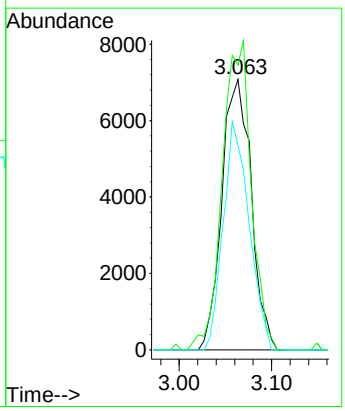


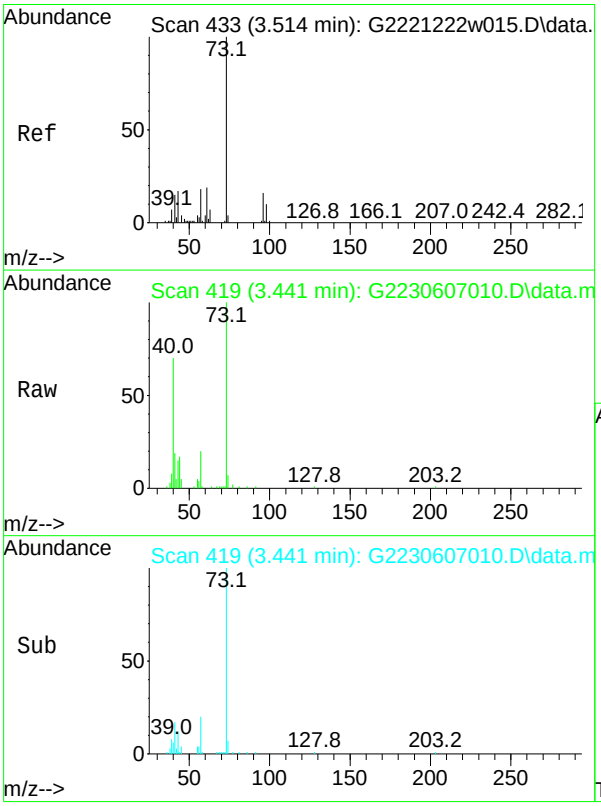


#18
Methylene chloride
Concen: Below Cal
RT: 3.064 min Scan# 357
Delta R.T. 0.002 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 49 Resp: 156204

Ion	Ratio	Lower	Upper
49	100		
84	112.6	57.9	117.9
86	74.5	24.9	84.9

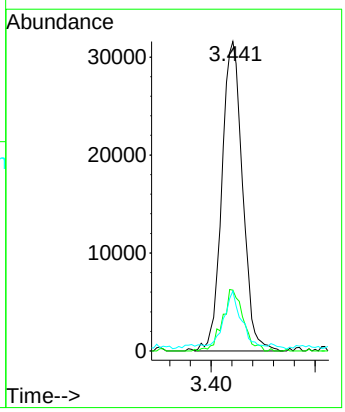


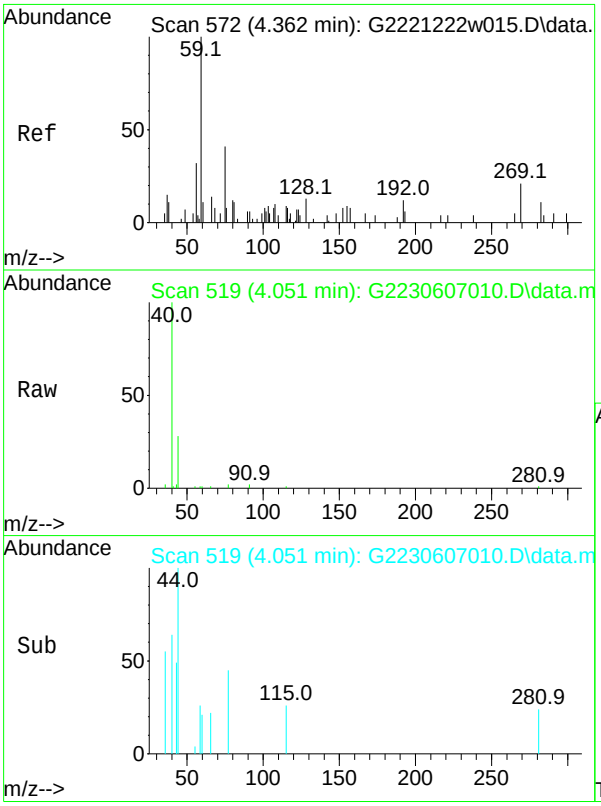


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.443 min Scan# 419
Delta R.T. -0.003 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 73 Resp: 870347

Ion	Ratio	Lower	Upper
73	100		
57	19.1	0.0	51.7
41	13.7	0.0	50.6

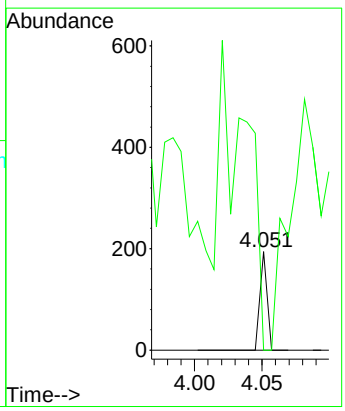


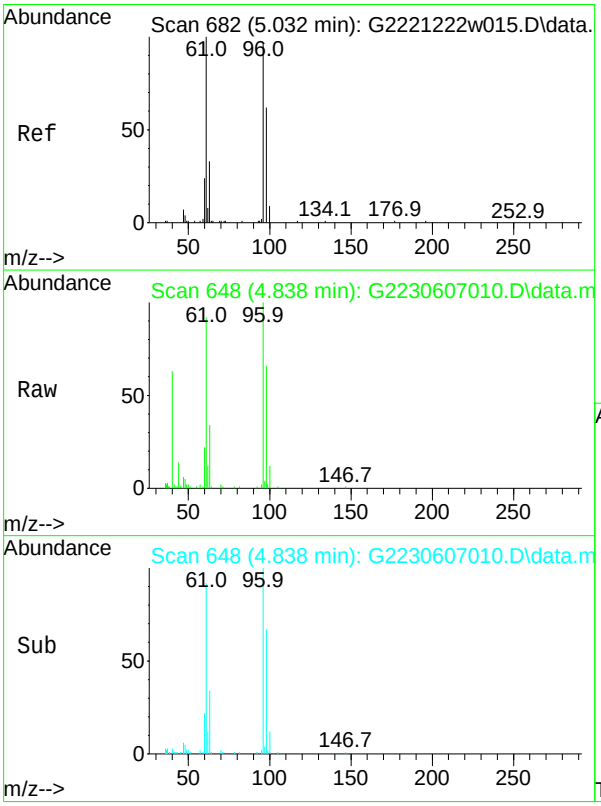


#26
1-propanol
Concen: 0.34 ug/L
RT: 4.053 min Scan# 519
Delta R.T. -0.236 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 59 Resp: 708

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

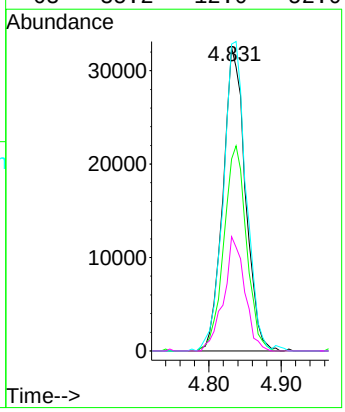


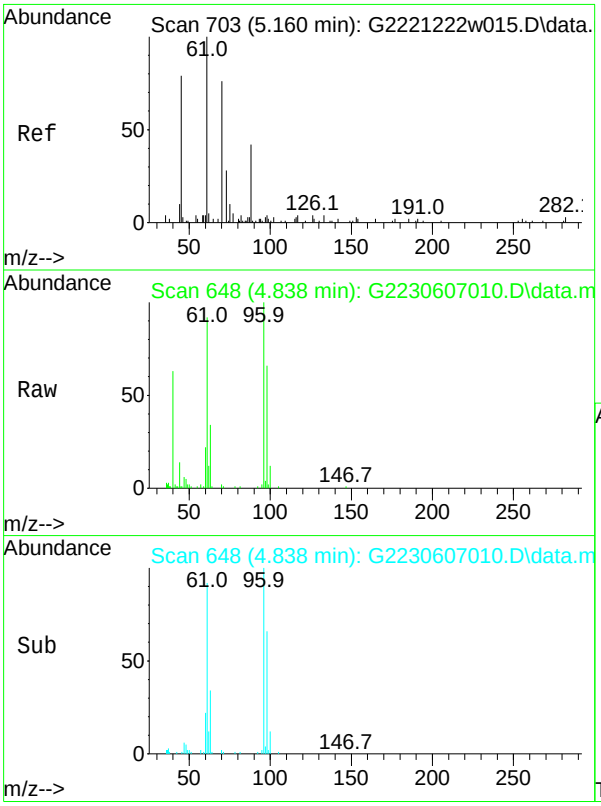


#28
cis-1,2-Dichloroethene
Concen: 1.32 ug/L
RT: 4.836 min Scan# 648
Delta R.T. 0.000 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 61 Resp: 699475

Ion	Ratio	Lower	Upper
61	100		
98	68.2	15.9	75.9
96	101.8	39.6	99.6#
63	35.2	12.0	52.0

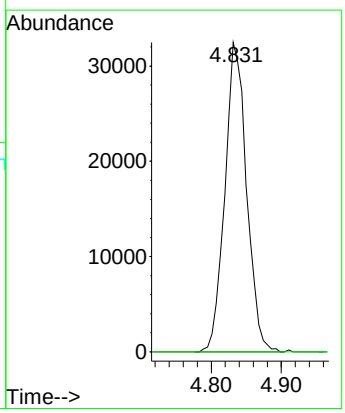


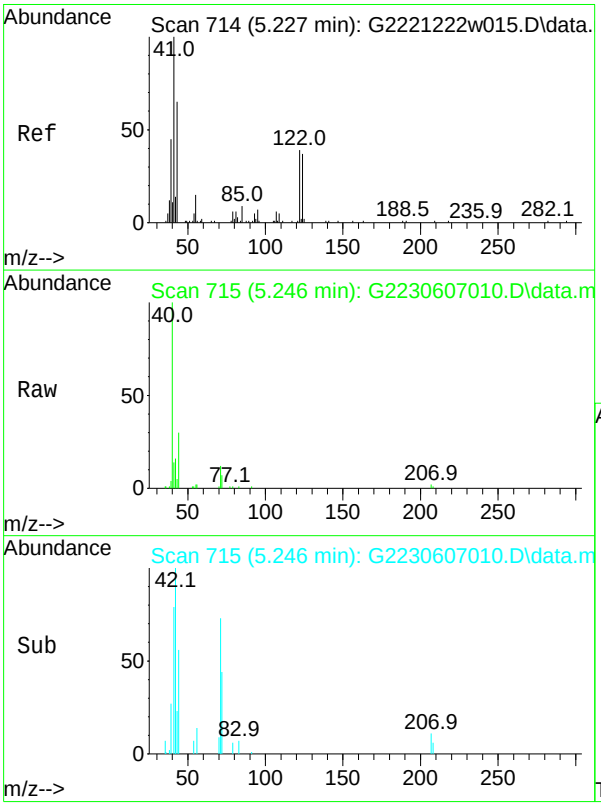


#31
Ethyl acetate
Concen: 11.62 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 61 Resp: 699475

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

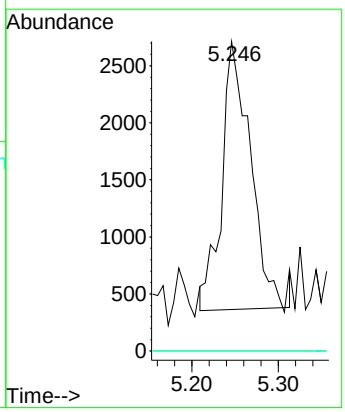


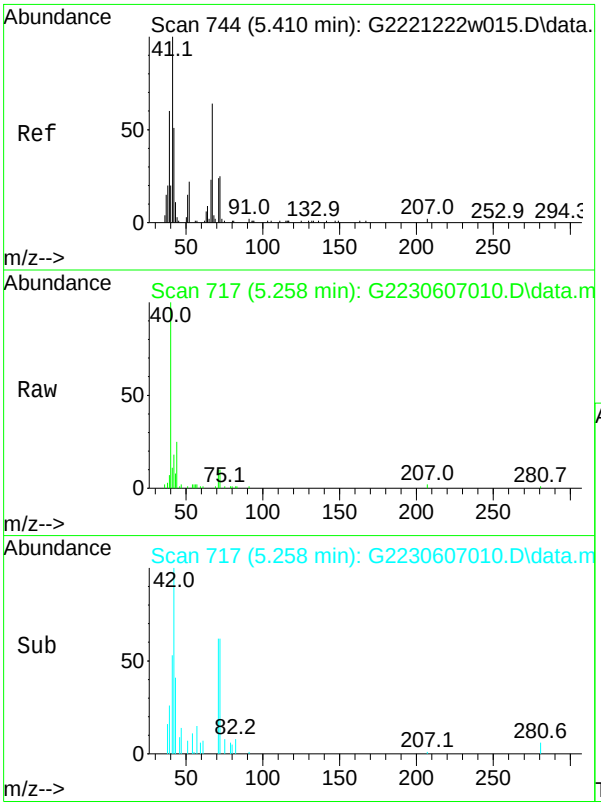


#33
1-Bromopropane
Concen: 0.14 ug/L
RT: 5.249 min Scan# 715
Delta R.T. 0.173 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 41 Resp: 53956

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

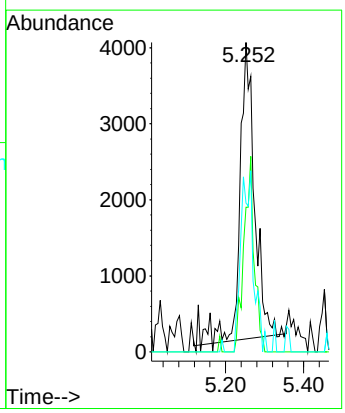


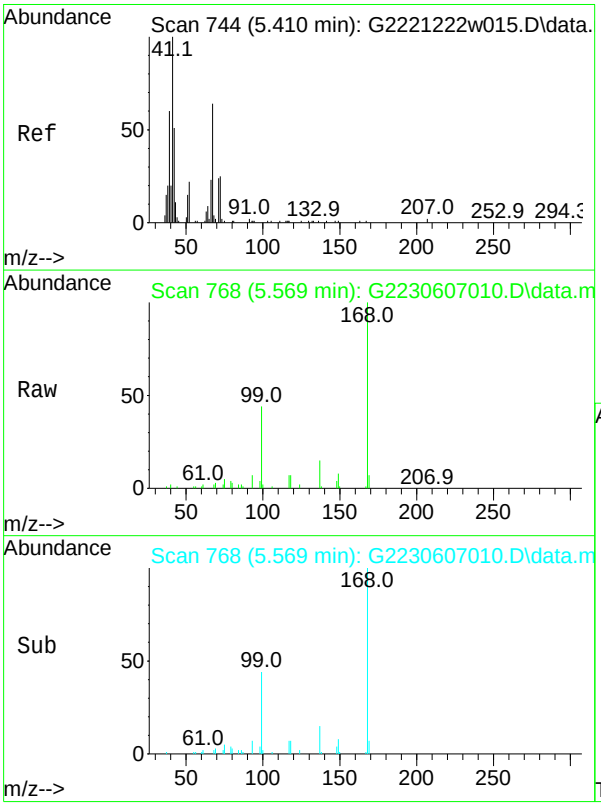


#36
Tetrahydrofuran
Concen: 0.44 ug/L
RT: 5.255 min Scan# 717
Delta R.T. -0.006 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 42 Resp: 102414

Ion	Ratio	Lower	Upper
42	100		
72	45.6	18.8	78.8
71	52.8	14.7	74.7

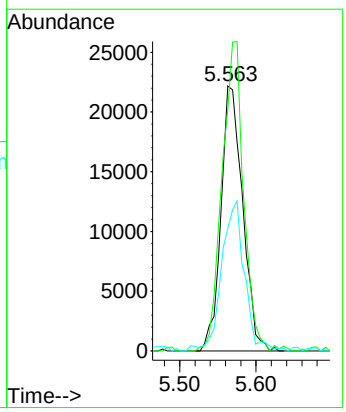


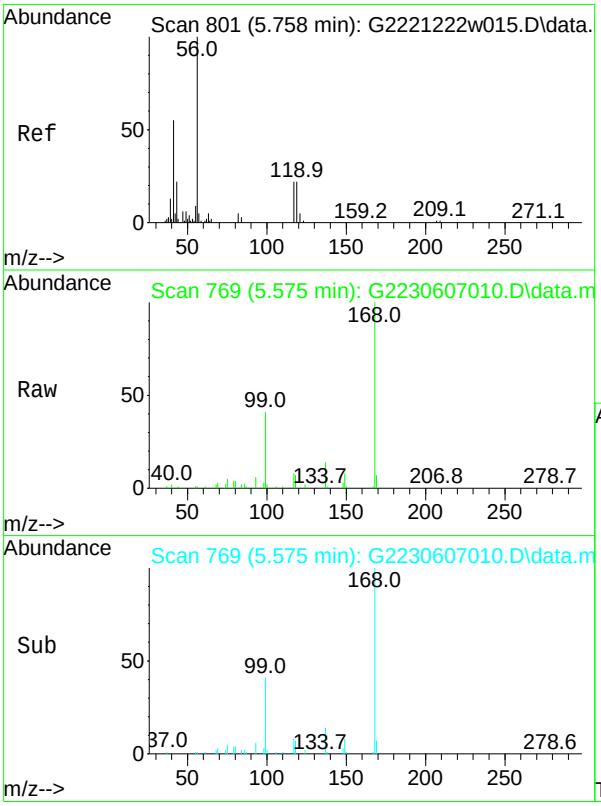


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 84 Resp: 439748

Ion	Ratio	Lower	Upper
84	100		
69	115.7	6.8	66.8#
56	57.7	79.1	139.1#

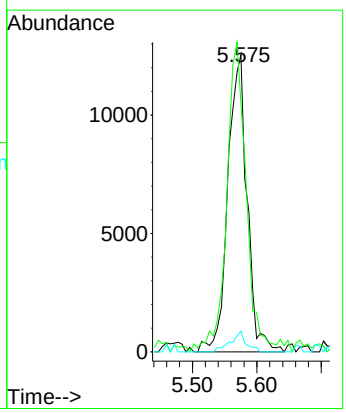


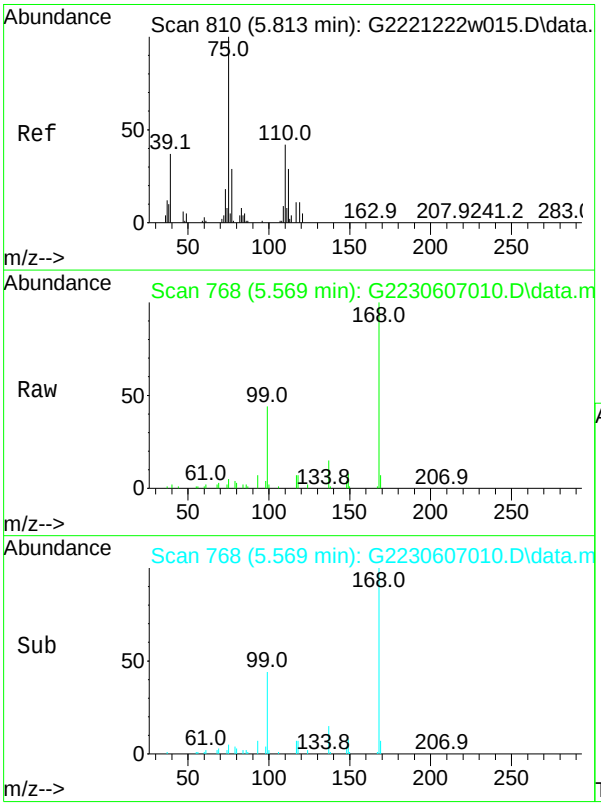


#41
1-Chlorobutane
Concen: 0.42 ug/L
RT: 5.574 min Scan# 769
Delta R.T. -0.056 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 56 Resp: 260750

Ion	Ratio	Lower	Upper
56	100		
55	96.8	0.0	41.0#
57	0.0	0.0	35.7

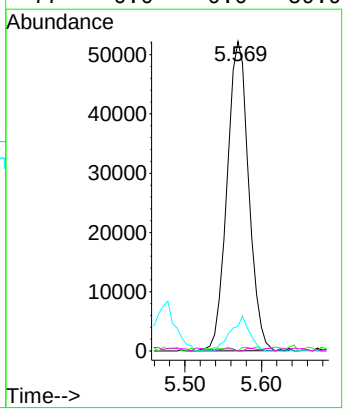


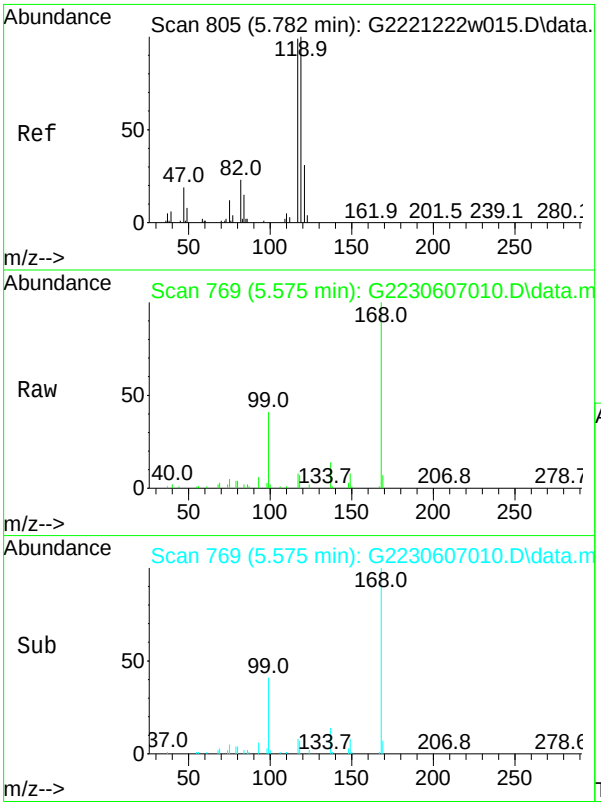


#42
1,1-Dichloropropene
Concen: 2.18 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.117 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 75 Resp: 1020873

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	9.7	9.1	69.1
77	0.0	0.0	59.9

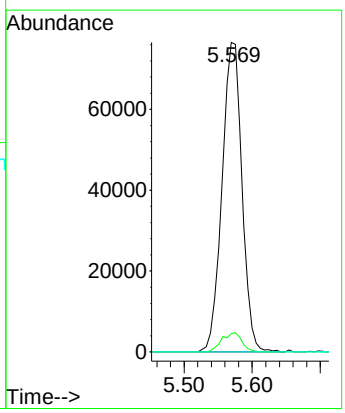


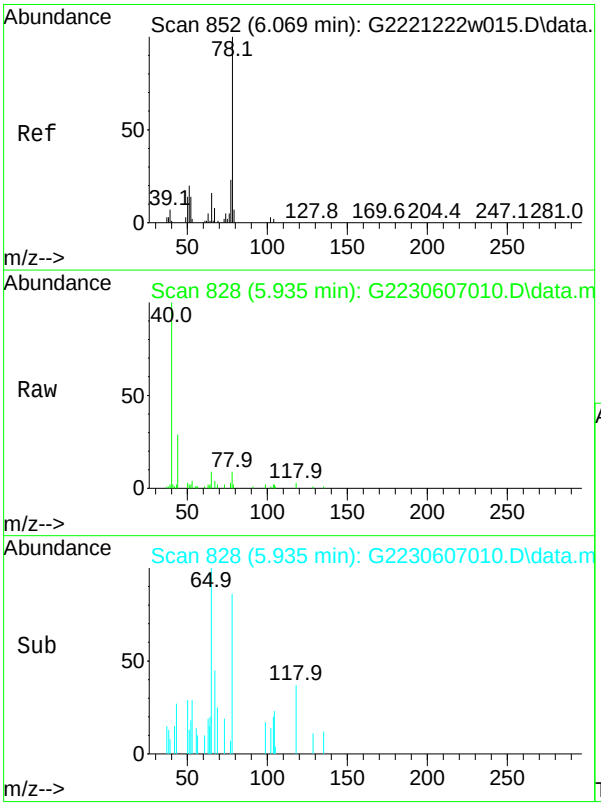


#47
Carbon tetrachloride
Concen: 3.16 ug/L
RT: 5.574 min Scan# 769
Delta R.T. -0.106 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion:117 Resp: 1554020

Ion	Ratio	Lower	Upper
117	100		
119	6.3	66.4	126.4#
121	0.0	0.4	60.4#

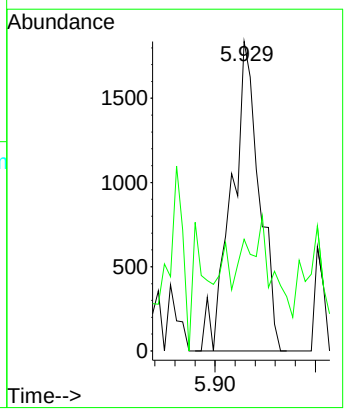


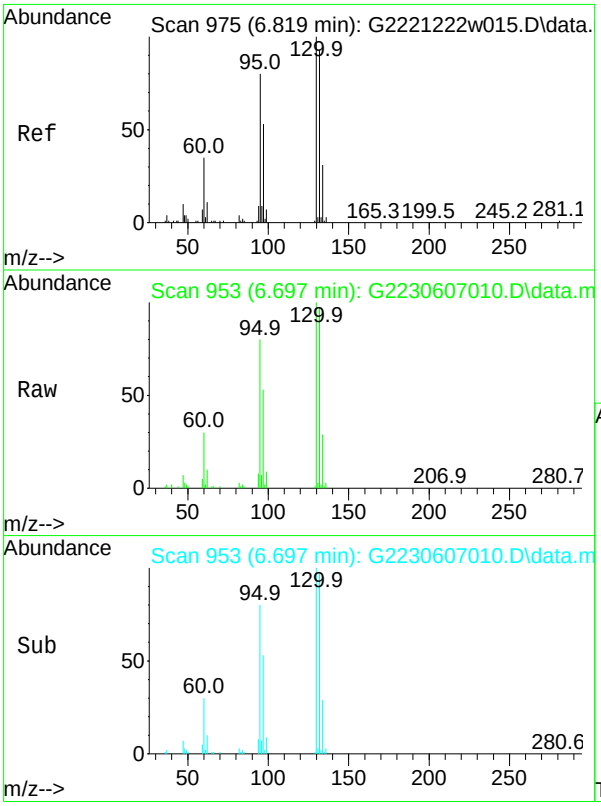


#48
Benzene
Concen: 0.03 ug/L
RT: 5.934 min Scan# 828
Delta R.T. -0.001 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 78 Resp: 35154

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

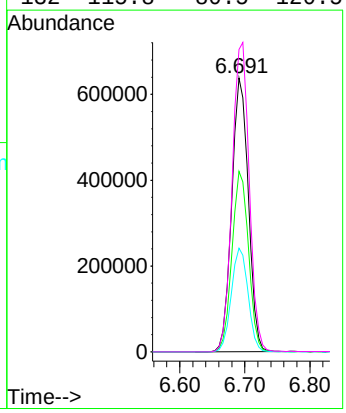


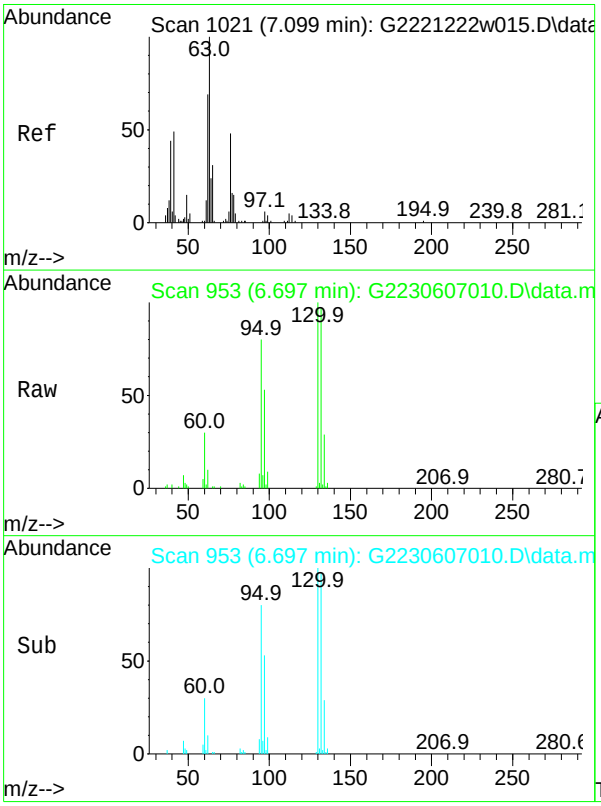


#50
Trichloroethene
Concen: 31.43 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 95 Resp:11290898

Ion	Ratio	Lower	Upper
95	100		
97	65.8	35.5	95.5
60	38.2	14.8	74.8
132	115.8	80.5	120.5

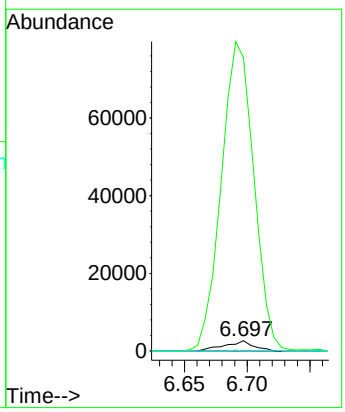


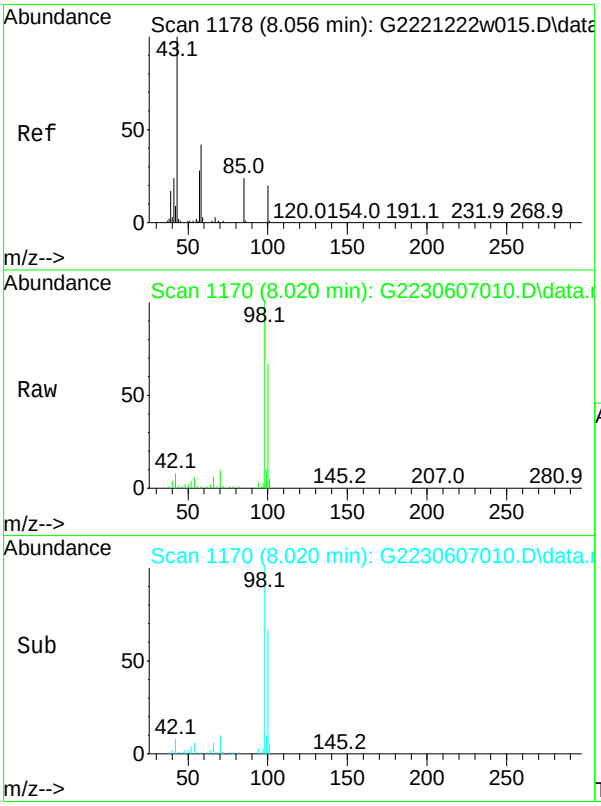


#52
1,2-Dichloropropane
Concen: 0.06 ug/L
RT: 6.699 min Scan# 953
Delta R.T. -0.247 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 63 Resp: 41497

Ion	Ratio	Lower	Upper
63	100		
62	3468.0	35.2	95.2#
76	0.0	10.7	70.7#

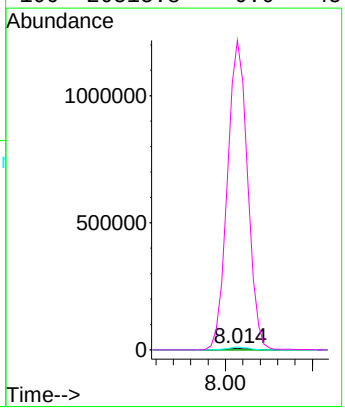


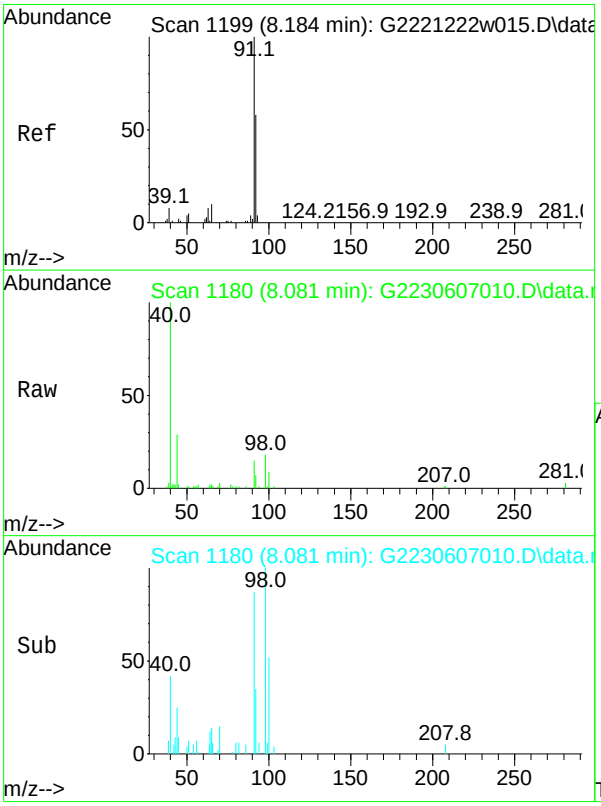


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.017 min Scan# 1170
Delta R.T. 0.073 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 43 Resp: 95556

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	190.5	37.0	37.0#
100	20515.8	0.0	45.2#

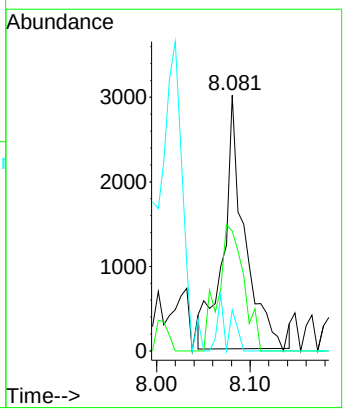


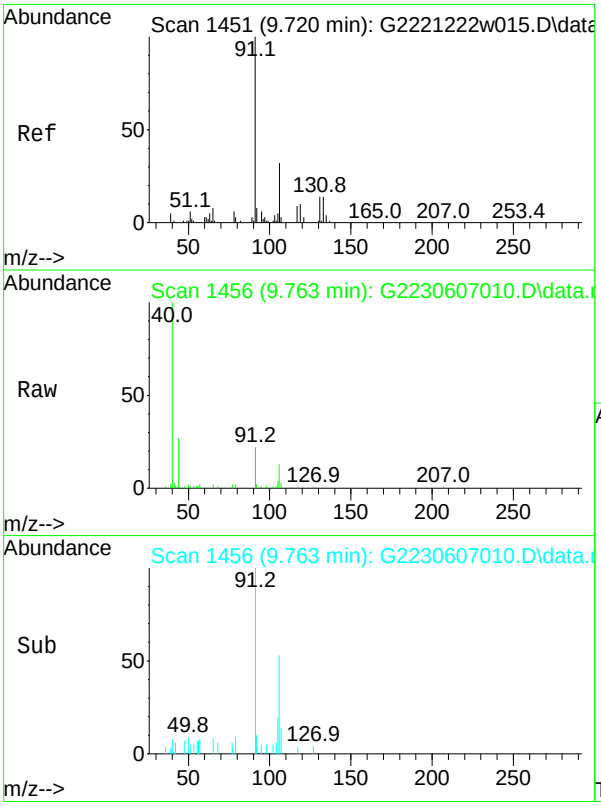


#65
Toluene
Concen: Below Cal
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 91 Resp: 47557

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

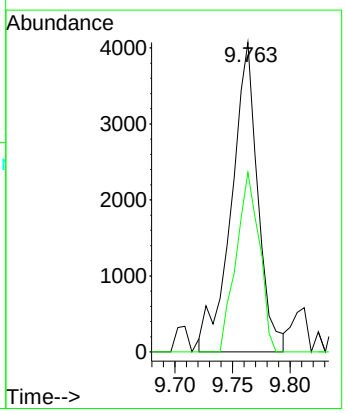


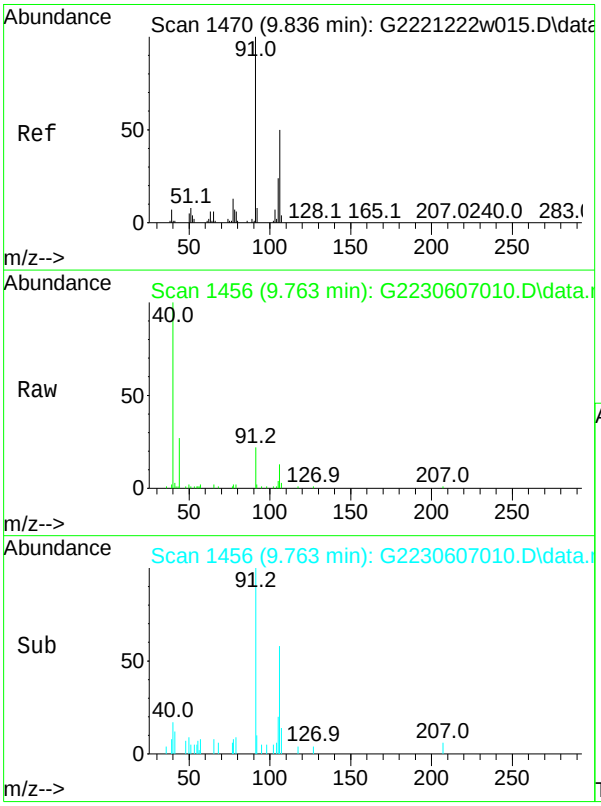


#74
Ethylbenzene
Concen: Below Cal
RT: 9.765 min Scan# 1456
Delta R.T. 0.122 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 91 Resp: 65238

Ion	Ratio	Lower	Upper
91	100		
106	50.9	0.8	60.8

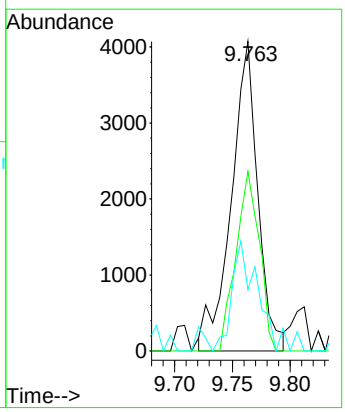


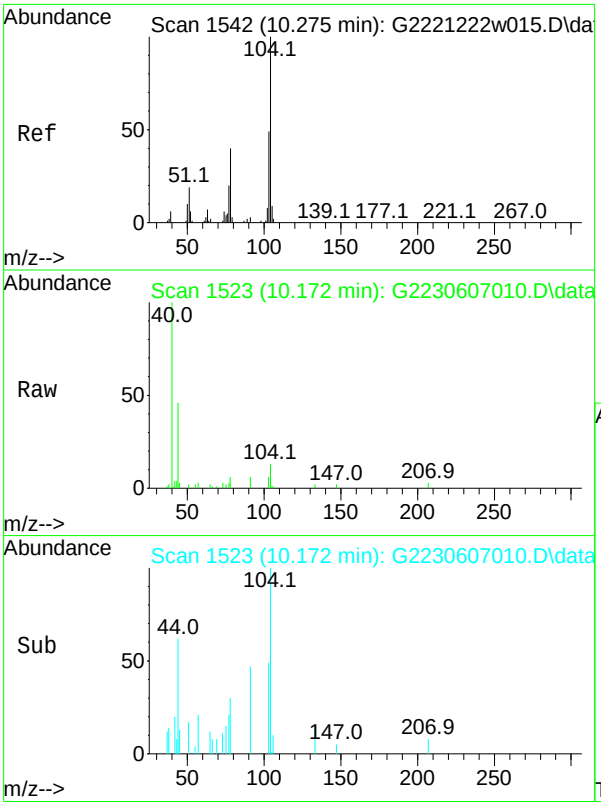


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. 0.000 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 91 Resp: 65213

Ion	Ratio	Lower	Upper
91	100		
106	50.9	19.0	79.0
105	0.0	0.0	52.7

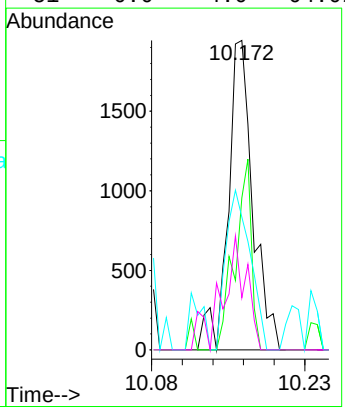


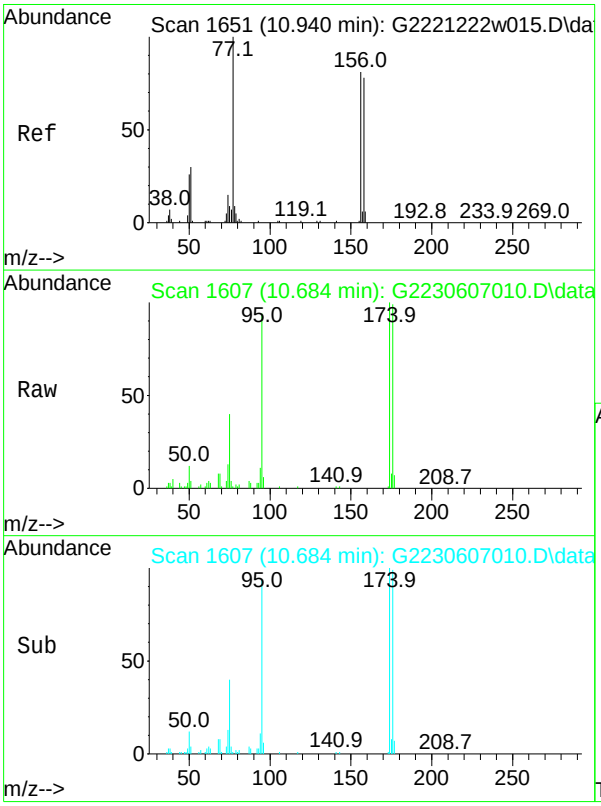


#76
Styrene
Concen: 0.03 ug/L
RT: 10.172 min Scan# 1523
Delta R.T. -0.005 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion:104 Resp: 32451

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

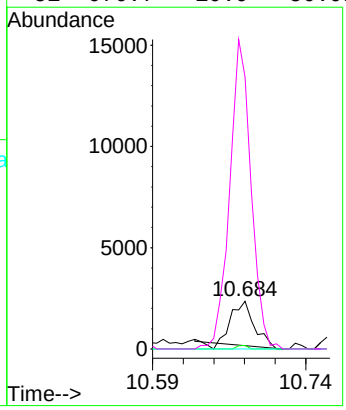


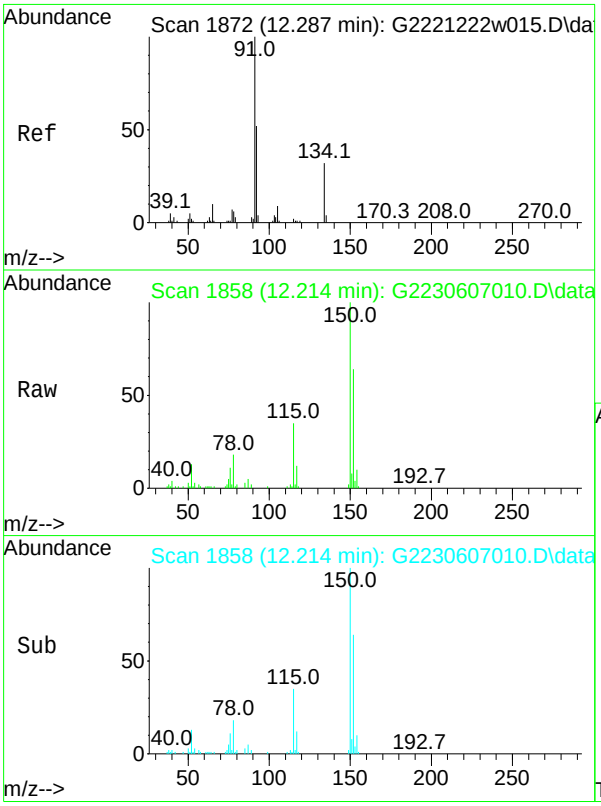


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.685 min Scan# 1607
Delta R.T. -0.143 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 77 Resp: 32535

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	676.7	10.9	50.9#

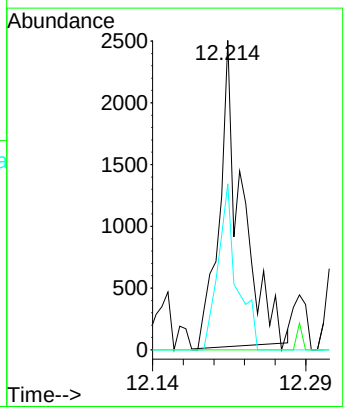




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.216 min Scan# 1858
Delta R.T. -0.015 min
Lab File: G2230607010.D
Acq: 07 Jun 2023 18:34

Tgt Ion: 91 Resp: 39248

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

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05RE2	File ID:	G2230608015.D
Sampled:	05/26/23 11:05	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 15:04
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*26.0*	*80.0*	*200*	*U*
71-55-6	*1,1,1-Trichloroethane*		*35.1*	*80.0*	*200*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*24.8*	*80.0*	*200*	*U*
79-00-5	*1,1,2-Trichloroethane*		*33.3*	*80.0*	*200*	*U*
75-34-3	*1,1-Dichloroethane*		*26.8*	*80.0*	*200*	*U*
75-35-4	*1,1-Dichloroethene*		*38.2*	*80.0*	*200*	*U*
563-58-6	*1,1-Dichloropropene*		*28.0*	*80.0*	*200*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*40.8*	*80.0*	*200*	*U*
96-18-4	*1,2,3-Trichloropropane*		*36.5*	*80.0*	*200*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*41.0*	*120*	*240*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*26.4*	*80.0*	*200*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*52.0*	*200*	*400*	*U*
106-93-4	*1,2-Dibromoethane*		*21.2*	*80.0*	*200*	*U*
95-50-1	*1,2-Dichlorobenzene*		*25.2*	*80.0*	*200*	*U*
107-06-2	*1,2-Dichloroethane*		*42.4*	*120*	*240*	*U*
78-87-5	*1,2-Dichloropropane*		*40.9*	*120*	*240*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*20.0*	*80.0*	*200*	*U*
541-73-1	*1,3-Dichlorobenzene*		*29.0*	*80.0*	*200*	*U*
142-28-9	*1,3-Dichloropropane*		*27.2*	*80.0*	*200*	*U*
106-46-7	*1,4-Dichlorobenzene*		*36.8*	*80.0*	*200*	*U*
594-20-7	*2,2-Dichloropropane*		*36.8*	*80.0*	*200*	*U*
78-93-3	*2-Butanone*		*132*	*280*	*700*	*U*
95-49-8	*2-Chlorotoluene*		*29.3*	*80.0*	*200*	*U*
591-78-6	*2-Hexanone*		*28.6*	*280*	*700*	*U*
106-43-4	*4-Chlorotoluene*		*36.8*	*80.0*	*200*	*U*
99-87-6	*4-Isopropyltoluene*		*28.0*	*80.0*	*200*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05RE2	File ID:	G2230608015.D
Sampled:	05/26/23 11:05	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 15:04
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*54.0*	*280*	*700*	*U*
67-64-1	*Acetone*		*207*	*800*	*1600*	*U*
71-43-2	*Benzene*		*20.3*	*80.0*	*200*	*U*
108-86-1	*Bromobenzene*		*33.9*	*80.0*	*200*	*U*
74-97-5	*Bromochloromethane*		*26.8*	*80.0*	*200*	*U*
75-27-4	*Bromodichloromethane*		*21.2*	*80.0*	*200*	*U*
75-25-2	*Bromoform*		*41.3*	*80.0*	*200*	*U*
74-83-9	*Bromomethane*		*64.1*	*200*	*400*	*U*
75-15-0	*Carbon disulfide*		*56.0*	*200*	*400*	*U*
56-23-5	*Carbon tetrachloride*		*33.8*	*80.0*	*200*	*U*
108-90-7	*Chlorobenzene*		*26.0*	*80.0*	*200*	*U*
75-00-3	*Chloroethane*		*62.2*	*80.0*	*200*	*U*
67-66-3	*Chloroform*		*40.5*	*120*	*240*	*U*
74-87-3	*Chloromethane*		*76.8*	*200*	*400*	*U*
156-59-2	*cis-1,2-Dichloroethene*	*292*	*41.0*	*120*	*240*	*D*
10061-01-5	*cis-1,3-Dichloropropene*		*23.5*	*80.0*	*200*	*U*
124-48-1	*Dibromochloromethane*		*30.4*	*80.0*	*200*	*U*
74-95-3	*Dibromomethane*		*32.7*	*80.0*	*200*	*U*
75-71-8	*Dichlorodifluoromethane*		*51.8*	*200*	*400*	*U*
100-41-4	*Ethylbenzene*		*12.0*	*40.0*	*80.0*	*U*
87-68-3	*Hexachlorobutadiene*		*40.0*	*80.0*	*200*	*U*
98-82-8	*Isopropylbenzene*		*22.0*	*80.0*	*200*	*U*
179601-23-1	*m,p-Xylene*		*35.6*	*160*	*400*	*U*
1634-04-4	*Methyl tert-butyl ether*		*21.2*	*80.0*	*200*	*U*
75-09-2	*Methylene chloride*		*89.4*	*200*	*400*	*U*
104-51-8	*n-Butylbenzene*		*52.0*	*200*	*400*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52647WW51

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-05RE2	File ID:	G2230608015.D
Sampled:	05/26/23 11:05	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 15:04
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*25.2*	*80.0*	*200*	*U*
91-20-3	*Naphthalene*		*28.0*	*80.0*	*200*	*U*
95-47-6	*o-Xylene*		*16.6*	*80.0*	*200*	*U*
135-98-8	*sec-Butylbenzene*		*23.9*	*80.0*	*200*	*U*
100-42-5	*Styrene*		*18.1*	*40.0*	*80.0*	*U*
98-06-6	*tert-Butylbenzene*		*18.1*	*80.0*	*200*	*U*
127-18-4	Tetrachloroethene		71.3	200	400	U
108-88-3	*Toluene*		*22.9*	*80.0*	*200*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*34.2*	*80.0*	*200*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*23.5*	*80.0*	*200*	*U*
79-01-6	Trichloroethene	6950	31.2	80.0	200	D
75-69-4	*Trichlorofluoromethane*		*20.2*	*80.0*	*200*	*U*
75-01-4	*Vinyl chloride*		*51.6*	*200*	*400*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608015.D
Acq On : 08 Jun 2023 15:04
Operator : PO1
Sample : 23E0775-05RE2
Misc : 400
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 16:49:01 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

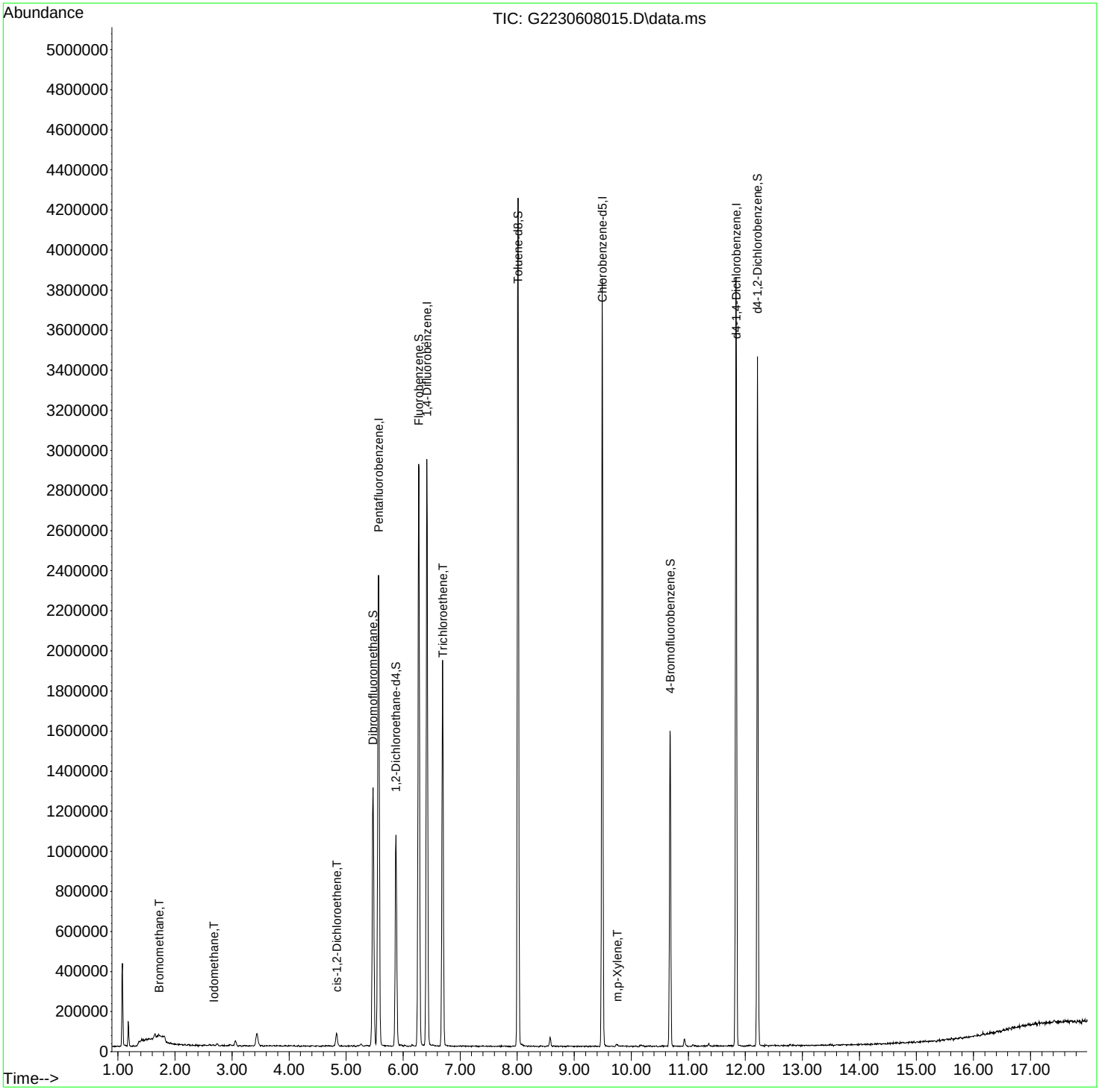
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	18948841	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25692758	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22477640	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11054695	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8020972	19.23	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%				
43) 1,2-Dichloroethane-d4	5.876	65	7357644	17.85	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.25%				
49) Fluorobenzene	6.276	96	28572456	19.52	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%				
64) Toluene-d8	8.016	98	27520873	19.42	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%				
81) 4-Bromofluorobenzene	10.685	174	4996793	9.57	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.70%				
97) d4-1,2-Dichlorobenzene	12.216	152	9583875	20.16	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.80%				
Target Compounds							Qvalue
5) Bromomethane	1.724	94	79606	0.06	ug/L	#	88
13) Iodomethane	2.678	142	49259	0.11	ug/L	#	41
18) Methylene chloride	3.062	49	136212	Below Cal		#	71
21) Methyl tert-butyl ether	3.440	73	869300	Below Cal			91
28) cis-1,2-Dichloroethene	4.835	61	387787	0.73	ug/L		76
50) Trichloroethene	6.694	95	5887838	17.37	ug/L		91
65) Toluene	8.090	91	42333	Below Cal		#	30
75) m,p-Xylene	9.760	91	43891	0.04	ug/L	#	71

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608015.D
Acq On : 08 Jun 2023 15:04
Operator : PO1
Sample : 23E0775-05RE2
Misc : 400
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 16:49:01 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608015.D
Acq On : 08 Jun 2023 15:04
Operator : PO1
Sample : 23E0775-05RE2
Misc : 400
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 16:49:01 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

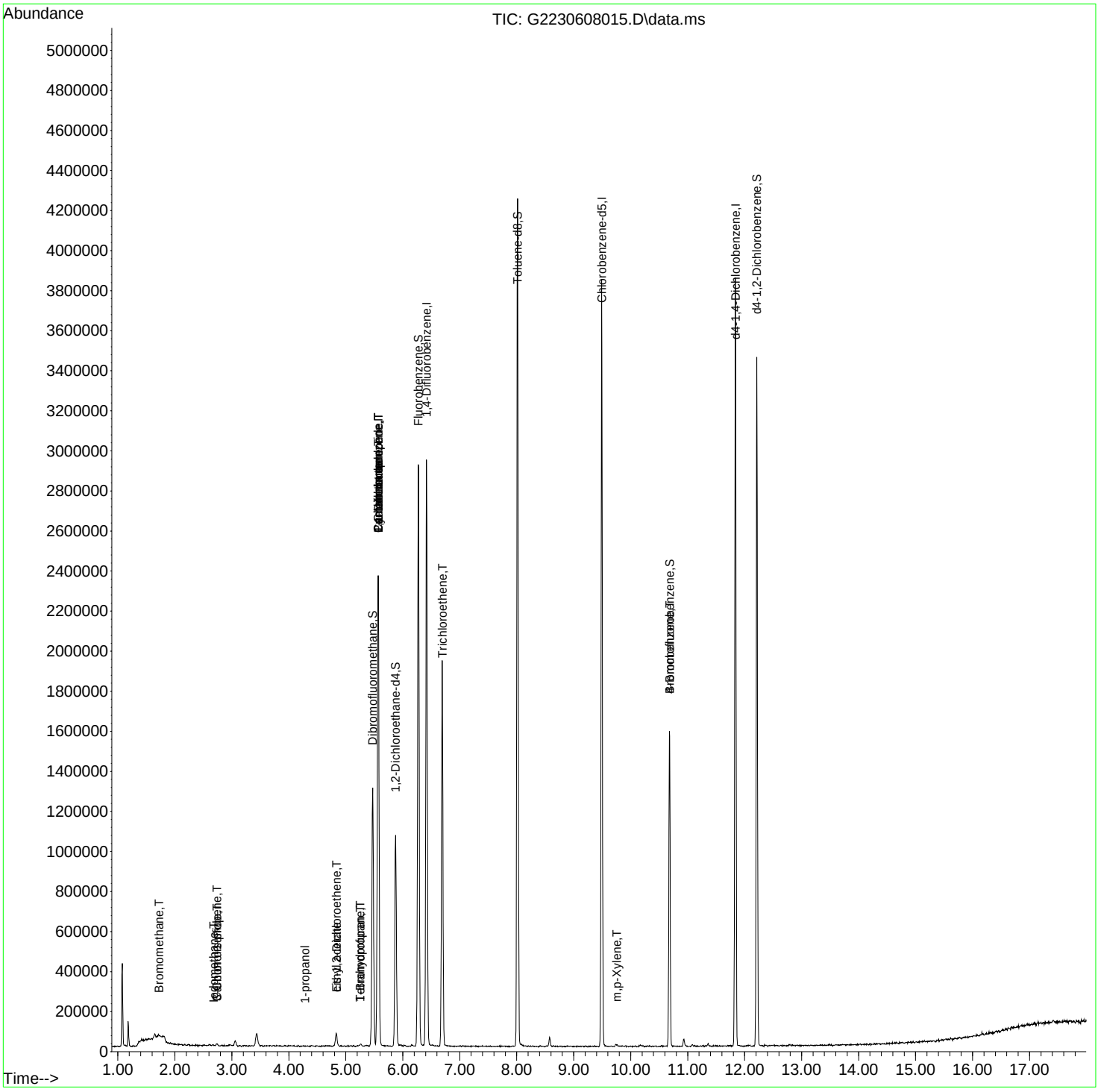
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	18948841	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	25692758	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22477640	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11054695	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	8020972	19.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%			
43) 1,2-Dichloroethane-d4	5.876	65	7357644	17.85	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.25%			
49) Fluorobenzene	6.276	96	28572456	19.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.60%			
64) Toluene-d8	8.016	98	27520873	19.42	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.10%			
81) 4-Bromofluorobenzene	10.685	174	4996793	9.57	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.70%			
97) d4-1,2-Dichlorobenzene	12.216	152	9583875	20.16	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.80%			
Target Compounds						Qvalue
5) Bromomethane	1.724	94	79606	0.06	ug/L #	88
12) Acetone	2.603	43	48459	Below Cal	#	45
13) Iodomethane	2.678	142	49259	0.11	ug/L #	41
14) Carbon disulfide	2.741	76	132931	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.741	76	132931	0.62	ug/L #	53
18) Methylene chloride	3.062	49	136212	Below Cal	#	71
21) Methyl tert-butyl ether	3.440	73	869300	Below Cal		91
26) 1-propanol	4.285	59	577	0.29	ug/L #	100
28) cis-1,2-Dichloroethene	4.835	61	387787	0.73	ug/L	76
31) Ethyl acetate	4.835	61	387787	6.69	ug/L #	45
33) 1-Bromopropane	5.249	41	37966	0.07	ug/L #	40
36) Tetrahydrofuran	5.250	42	66241	0.12	ug/L	83
40) Cyclohexane	5.569	84	407720	0.80	ug/L #	30
41) 1-Chlorobutane	5.571	56	244794	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.570	75	986113	2.22	ug/L #	38
47) Carbon tetrachloride	5.570	117	1539458	3.32	ug/L #	16
50) Trichloroethene	6.694	95	5887838	17.37	ug/L	91
60) 4-Methyl-2-pentanone	8.014	43	77134	Below Cal	#	1
65) Toluene	8.090	91	42333	Below Cal	#	30
74) Ethylbenzene	9.761	91	36819	Below Cal	#	18
75) m,p-Xylene	9.760	91	43891	0.04	ug/L #	71
82) Bromobenzene	10.681	77	45705	0.08	ug/L #	1

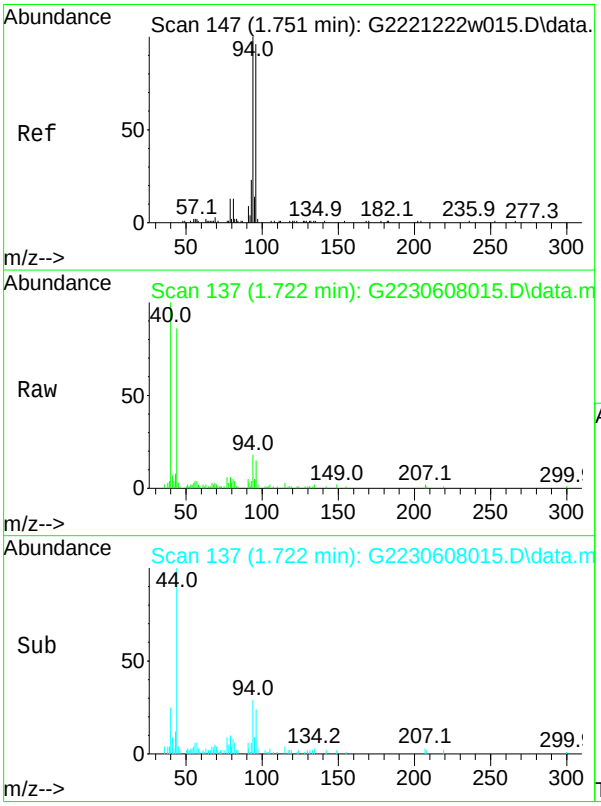
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608015.D
Acq On : 08 Jun 2023 15:04
Operator : PO1
Sample : 23E0775-05RE2
Misc : 400
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 16:49:01 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

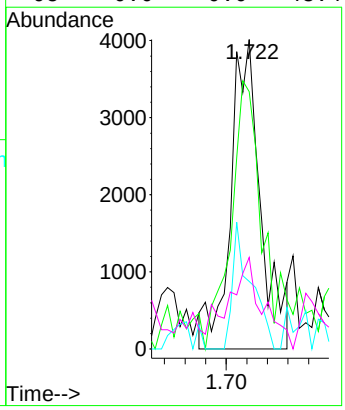


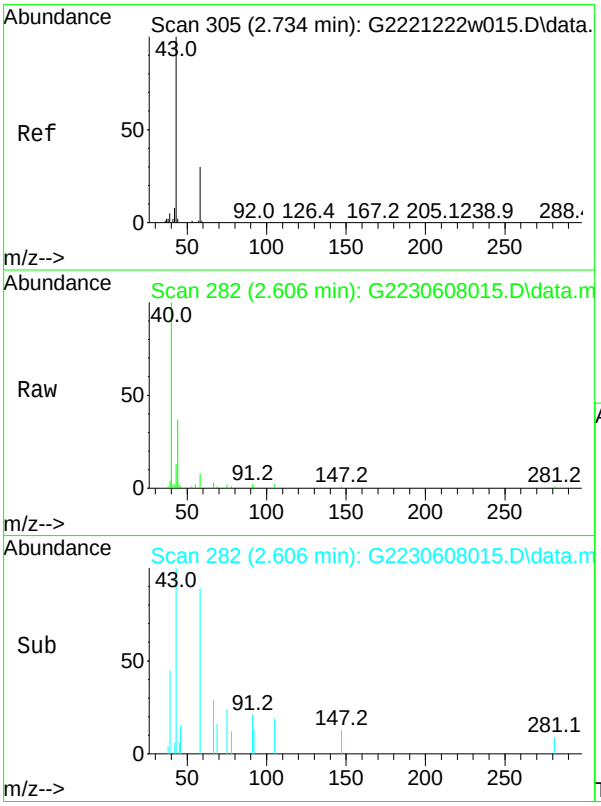


#5
Bromomethane
Concen: 0.06 ug/L
RT: 1.724 min Scan# 137
Delta R.T. 0.010 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 94 Resp: 79606

Ion	Ratio	Lower	Upper
94	100		
96	93.0	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

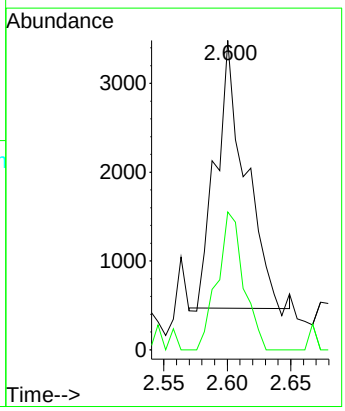


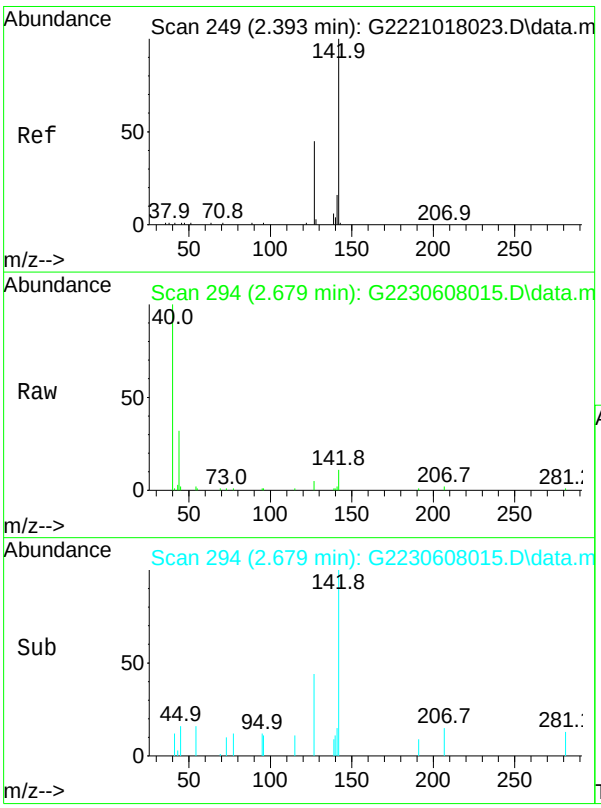


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 282
Delta R.T. -0.005 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 43 Resp: 48459

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

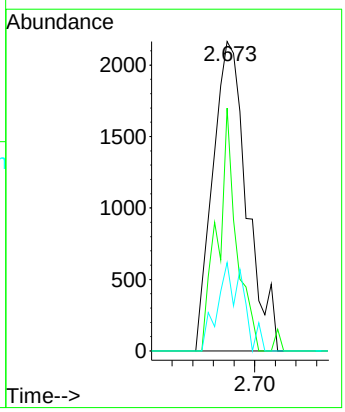


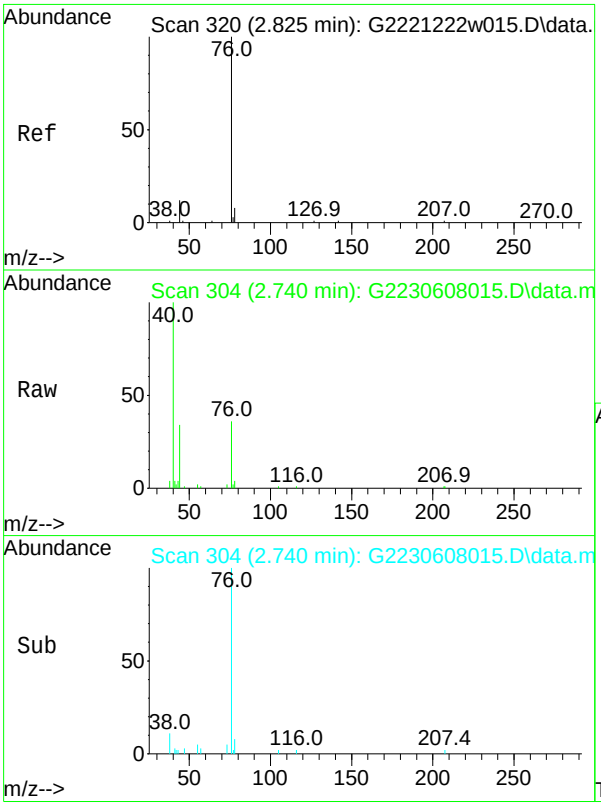


#13
Iodomethane
Concen: 0.11 ug/L
RT: 2.678 min Scan# 294
Delta R.T. 0.002 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion:142 Resp: 49259

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

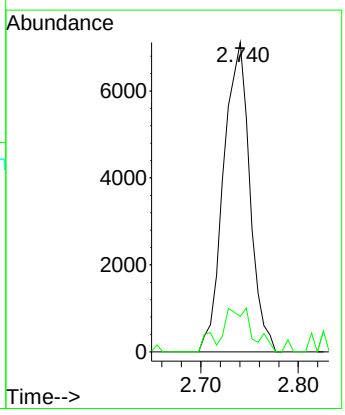


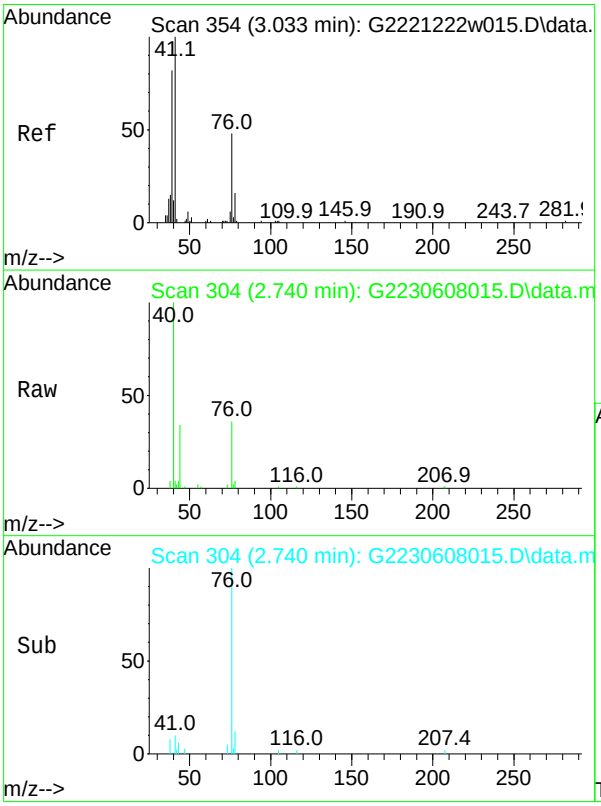


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 76 Resp: 132931

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

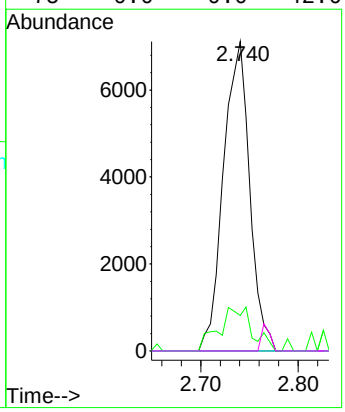


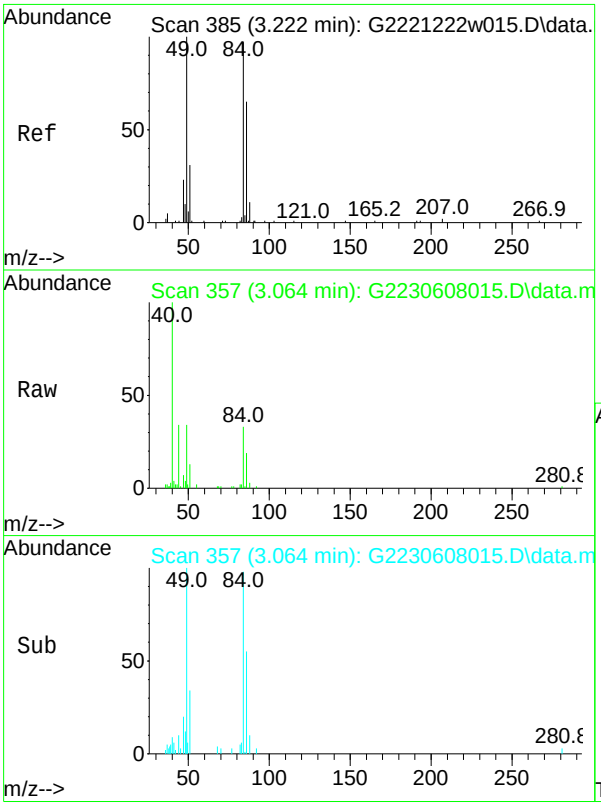


#17
3-Chloro-1-propene
Concen: 0.62 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 76 Resp: 132931

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

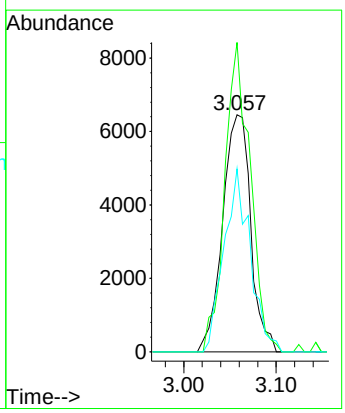


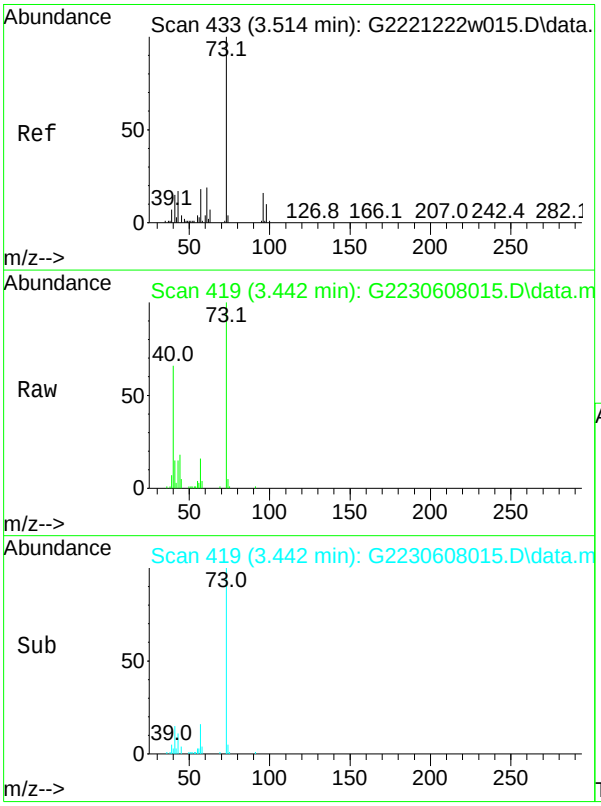


#18
Methylene chloride
Concen: Below Cal
RT: 3.062 min Scan# 357
Delta R.T. -0.000 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 49 Resp: 136212

Ion	Ratio	Lower	Upper
49	100		
84	118.2	57.9	117.9#
86	72.5	24.9	84.9

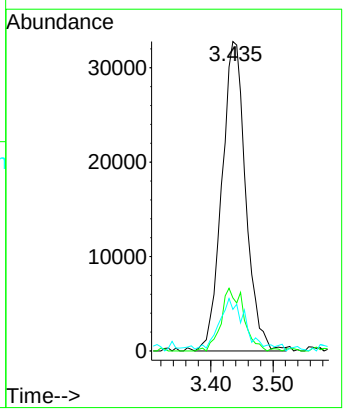


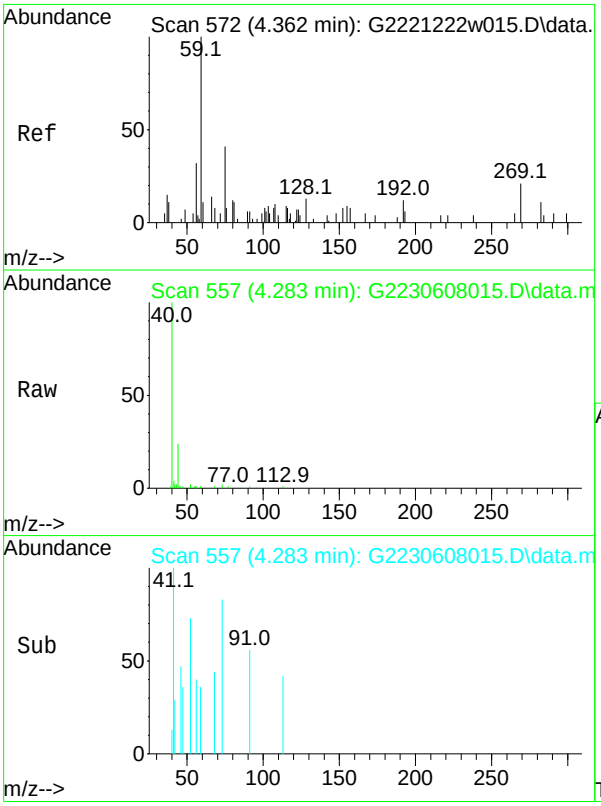


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.440 min Scan# 419
Delta R.T. -0.006 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 73 Resp: 869300

Ion	Ratio	Lower	Upper
73	100		
57	19.2	0.0	51.7
41	15.1	0.0	50.6

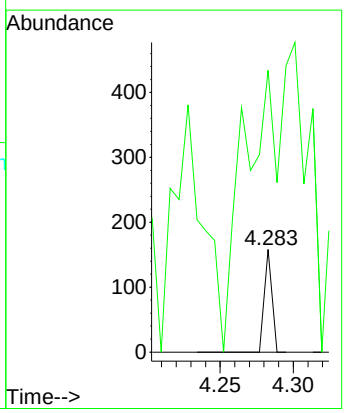


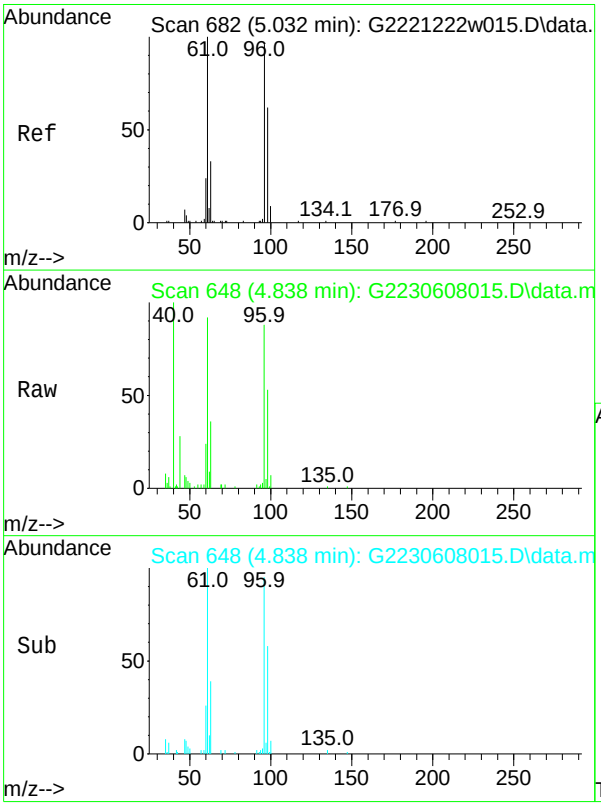


#26
1-propanol
Concen: 0.29 ug/L
RT: 4.285 min Scan# 557
Delta R.T. -0.004 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 59 Resp: 577

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

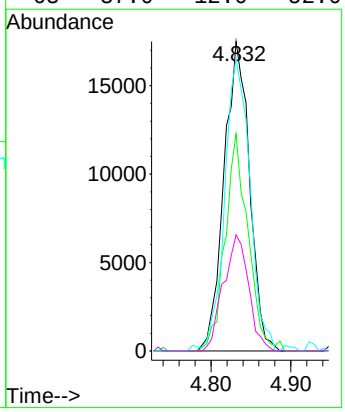


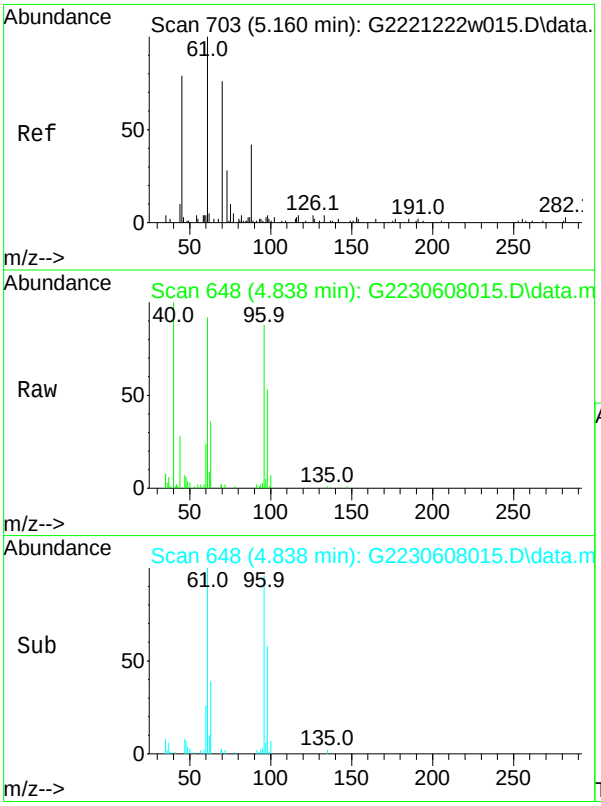


#28
cis-1,2-Dichloroethene
Concen: 0.73 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.001 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 61 Resp: 387787

Ion	Ratio	Lower	Upper
61	100		
98	63.3	15.9	75.9
96	93.7	39.6	99.6
63	37.0	12.0	52.0

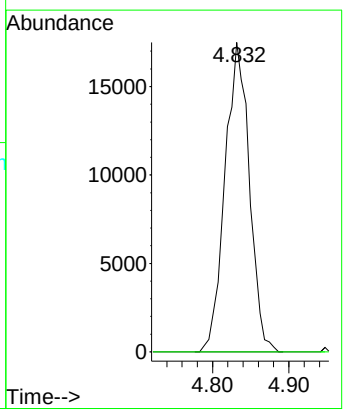


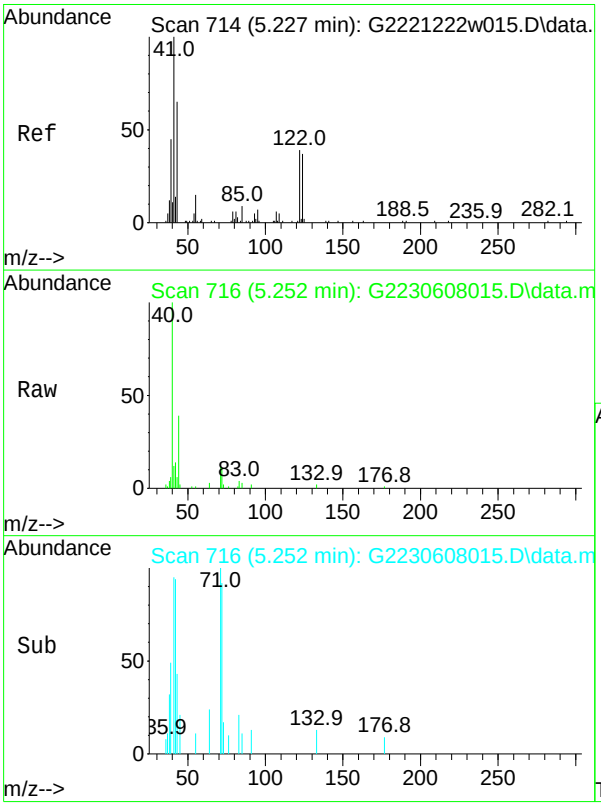


#31
Ethyl acetate
Concen: 6.69 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.187 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 61 Resp: 387787

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

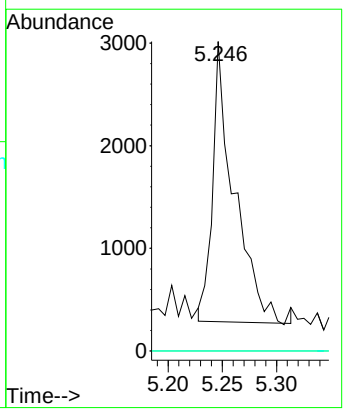


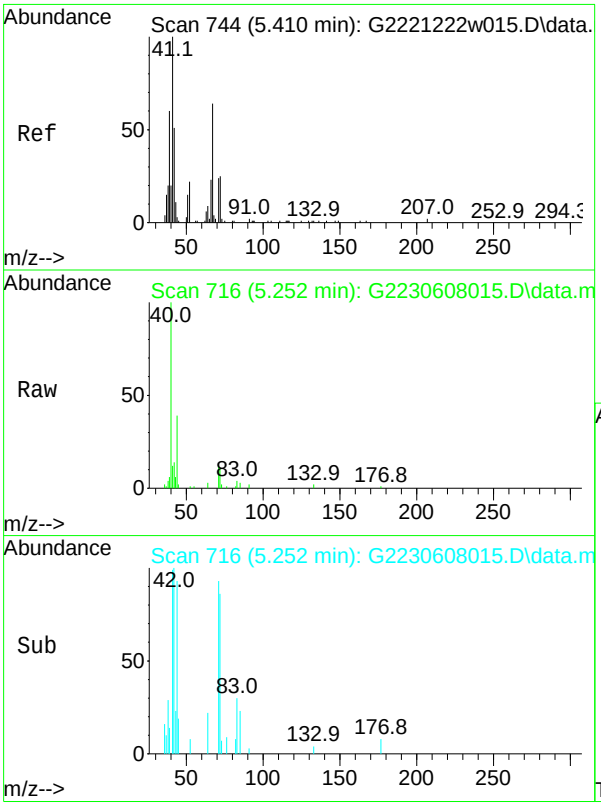


#33
1-Bromopropane
Concen: 0.07 ug/L
RT: 5.249 min Scan# 716
Delta R.T. 0.173 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 41 Resp: 37966

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

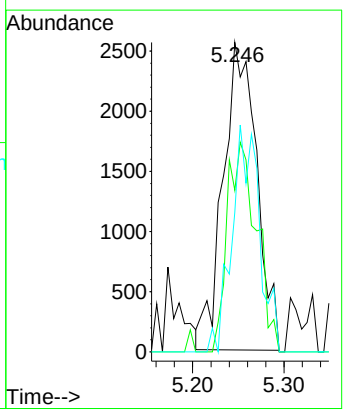


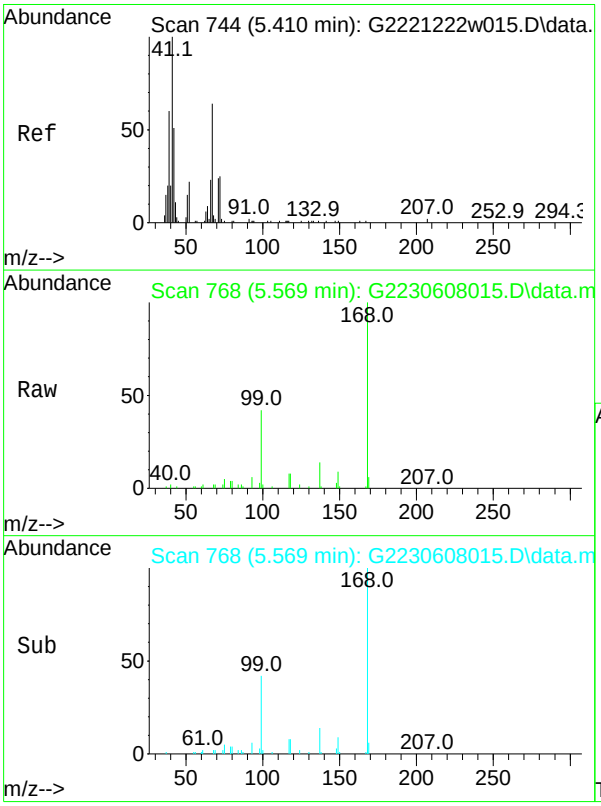


#36
Tetrahydrofuran
Concen: 0.12 ug/L
RT: 5.250 min Scan# 716
Delta R.T. -0.011 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 42 Resp: 66241

Ion	Ratio	Lower	Upper
42	100		
72	58.7	18.8	78.8
71	57.6	14.7	74.7

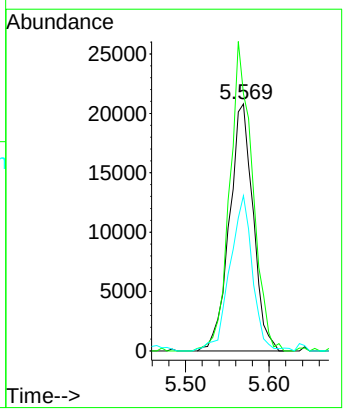


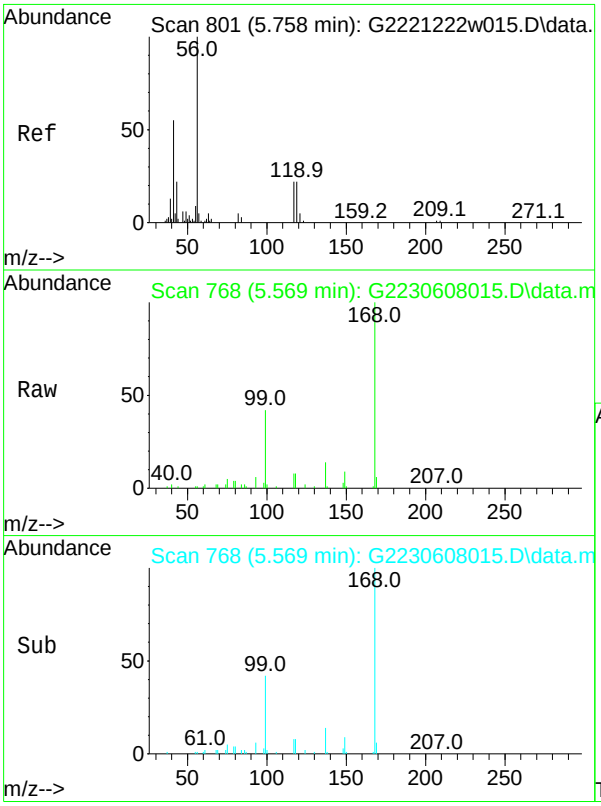


#40
Cyclohexane
Concen: 0.80 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 84 Resp: 407720

Ion	Ratio	Lower	Upper
84	100		
69	120.6	6.8	66.8#
56	61.0	79.1	139.1#

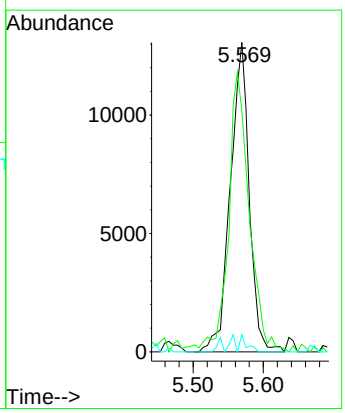


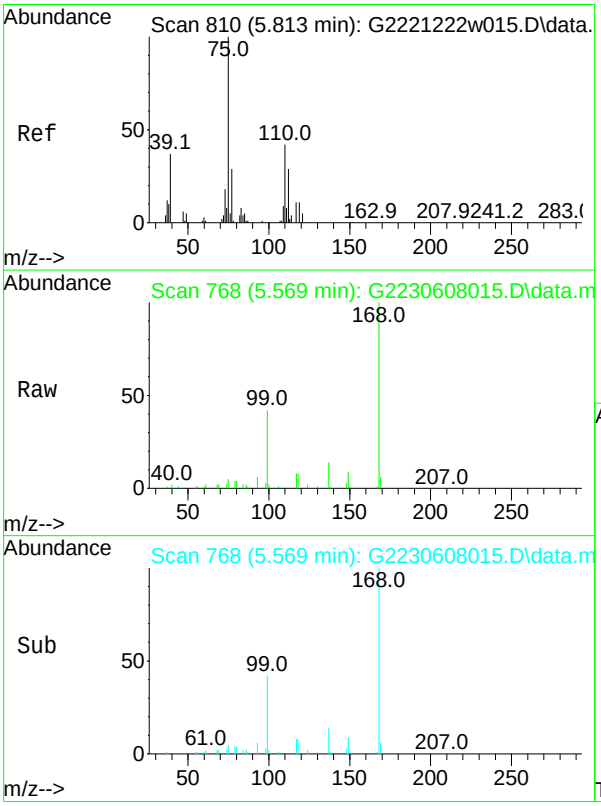


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.059 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 56 Resp: 244794

Ion	Ratio	Lower	Upper
56	100		
55	95.3	0.0	41.0#
57	0.0	0.0	35.7

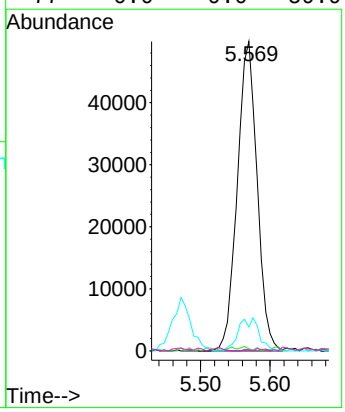


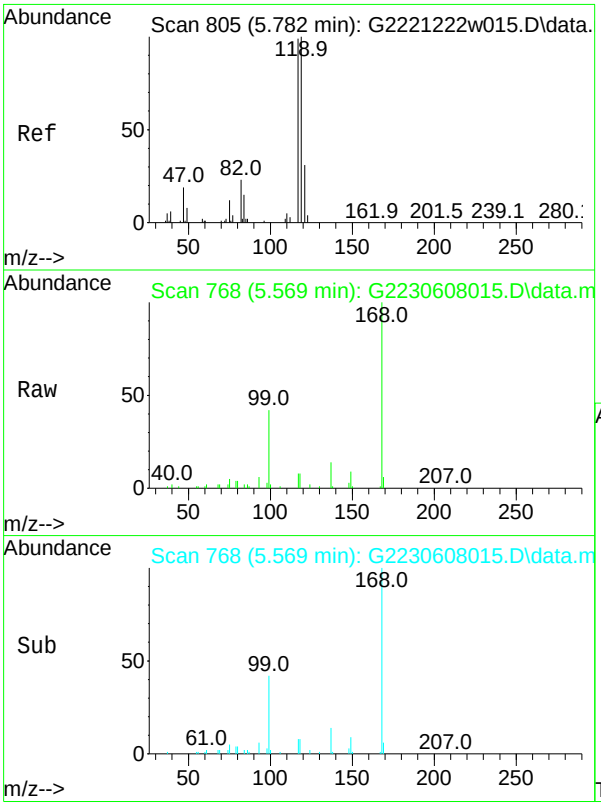


#42
1,1-Dichloropropene
Concen: 2.22 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 75 Resp: 986113

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

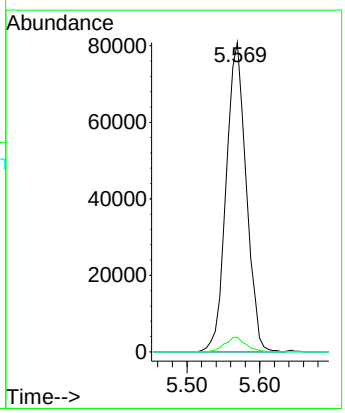


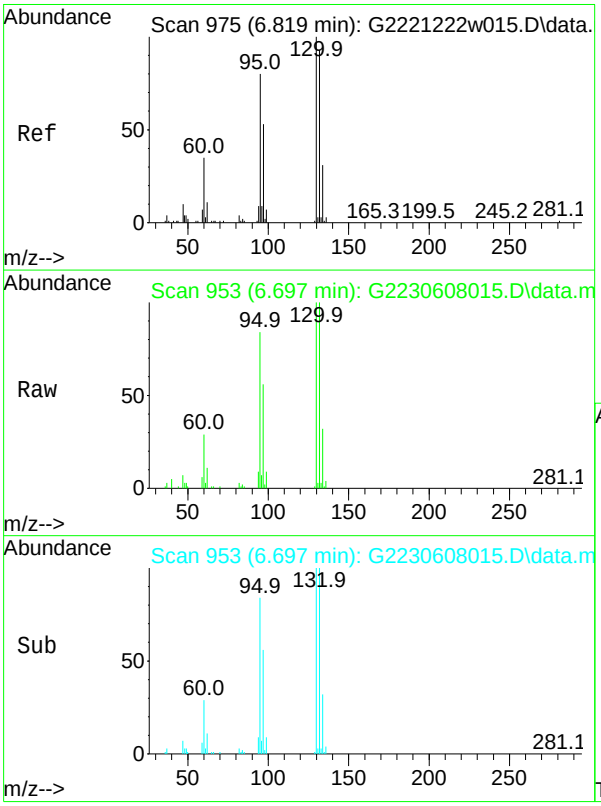


#47
Carbon tetrachloride
Concen: 3.32 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion:117 Resp: 1539458

Ion	Ratio	Lower	Upper
117	100		
119	5.0	66.4	126.4#
121	0.0	0.4	60.4#

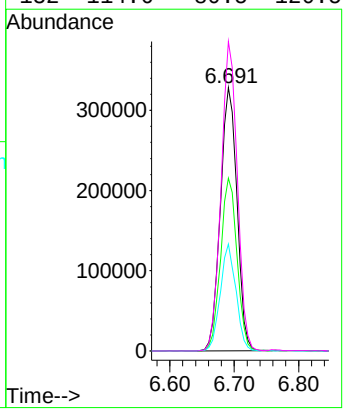


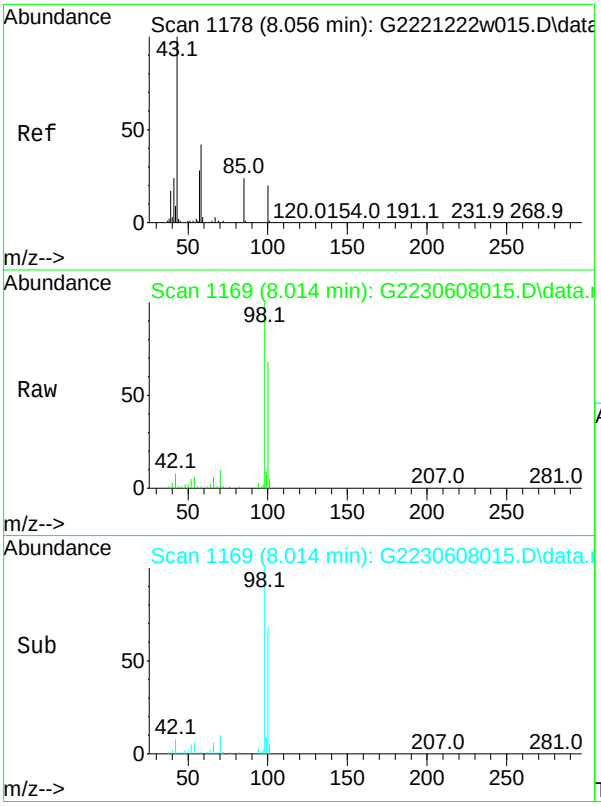


#50
Trichloroethene
Concen: 17.37 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 95 Resp: 5887838

Ion	Ratio	Lower	Upper
95	100		
97	64.9	35.5	95.5
60	38.3	14.8	74.8
132	114.6	80.5	120.5

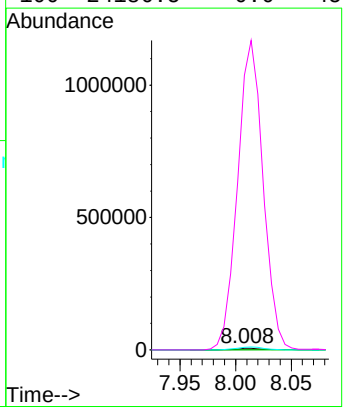


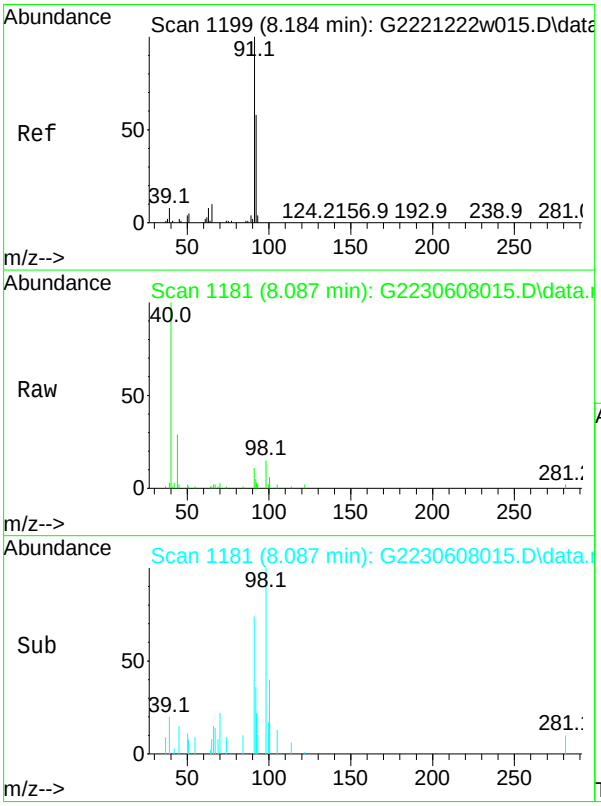


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 43 Resp: 77134

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	241.2	37.0	37.0#
100	24186.5	0.0	45.2#

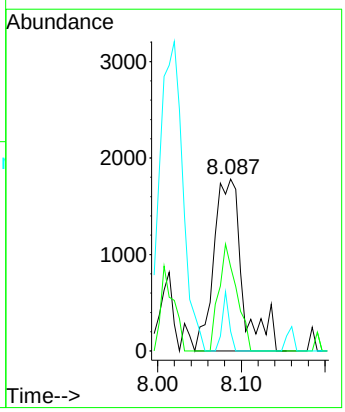


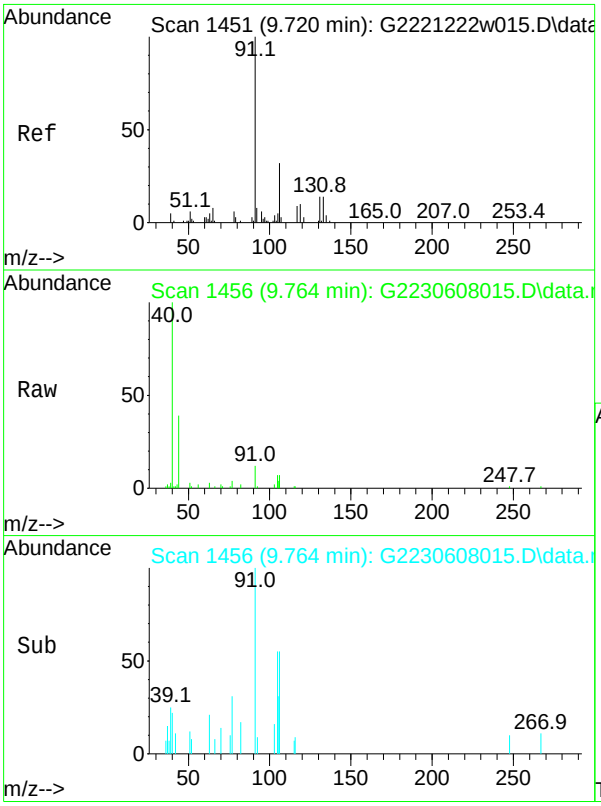


#65
Toluene
Concen: Below Cal
RT: 8.090 min Scan# 1181
Delta R.T. 0.004 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 91 Resp: 42333

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

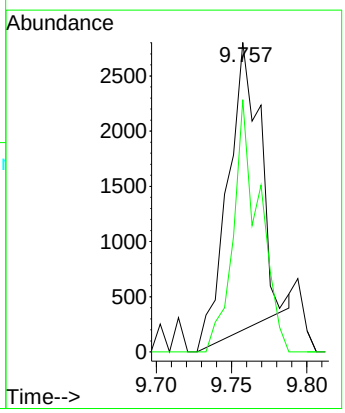


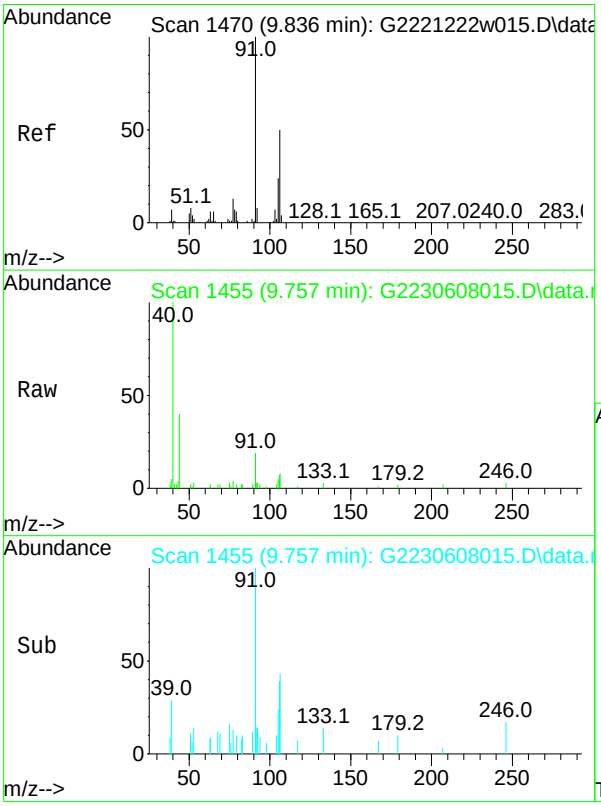


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 91 Resp: 36819

Ion	Ratio	Lower	Upper
91	100		
106	75.5	0.8	60.8#

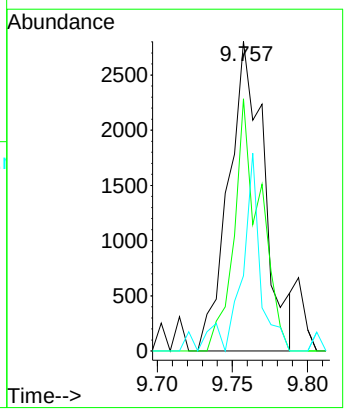


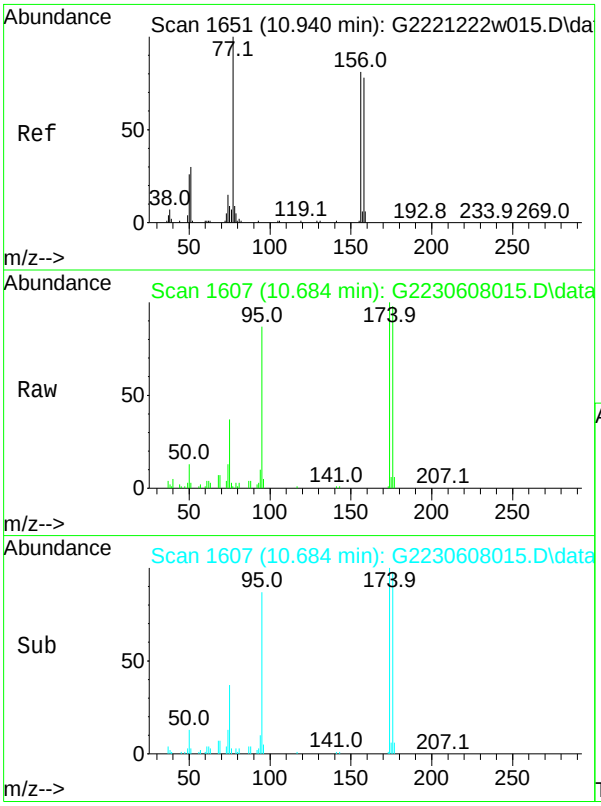


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 91 Resp: 43891

Ion	Ratio	Lower	Upper
91	100		
106	63.3	19.0	79.0
105	0.0	0.0	52.7

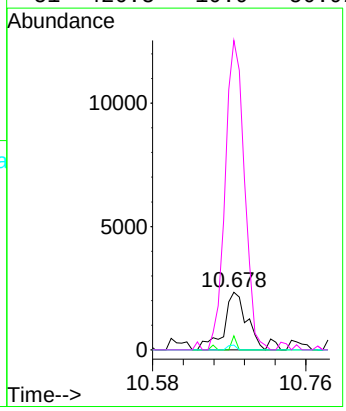




#82
Bromobenzene
Concen: 0.08 ug/L
RT: 10.681 min Scan# 1607
Delta R.T. -0.147 min
Lab File: G2230608015.D
Acq: 08 Jun 2023 15:04

Tgt Ion: 77 Resp: 45705

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	426.3	10.9	50.9#



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06	File ID:	G2230606021.D
Sampled:	05/26/23 13:55	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 18:58
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.120	0.0832	0.200	0.500	J
75-34-3	1,1-Dichloroethane		0.0669	0.200	0.500	U
75-35-4	1,1-Dichloroethene	5.20	0.0954	0.200	0.500	
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

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06	File ID:	G2230606021.D
Sampled:	05/26/23 13:55	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 18:58
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.0700	0.0507	0.200	0.500	J
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*	*86.2*	*0.103*	*0.300*	*0.600*	*E*
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

SW8260B/D

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06	File ID:	G2230606021.D
Sampled:	05/26/23 13:55	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 18:58
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, U*
108-88-3	Toluene		0.0572	0.200	0.500	U
156-60-5	trans-1,2-Dichloroethene	3.04	0.0855	0.200	0.500	
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	*Trichloroethene*	*1050*	*0.0781*	*0.200*	*0.500*	*B, E*
75-69-4	Trichlorofluoromethane		0.0505	0.200	0.500	U
75-01-4	Vinyl chloride	0.460	0.129	0.500	1.00	J

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606021.D
Acq On : 06 Jun 2023 18:58
Operator : PO1
Sample : 23E0775-06
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 07 09:37:11 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

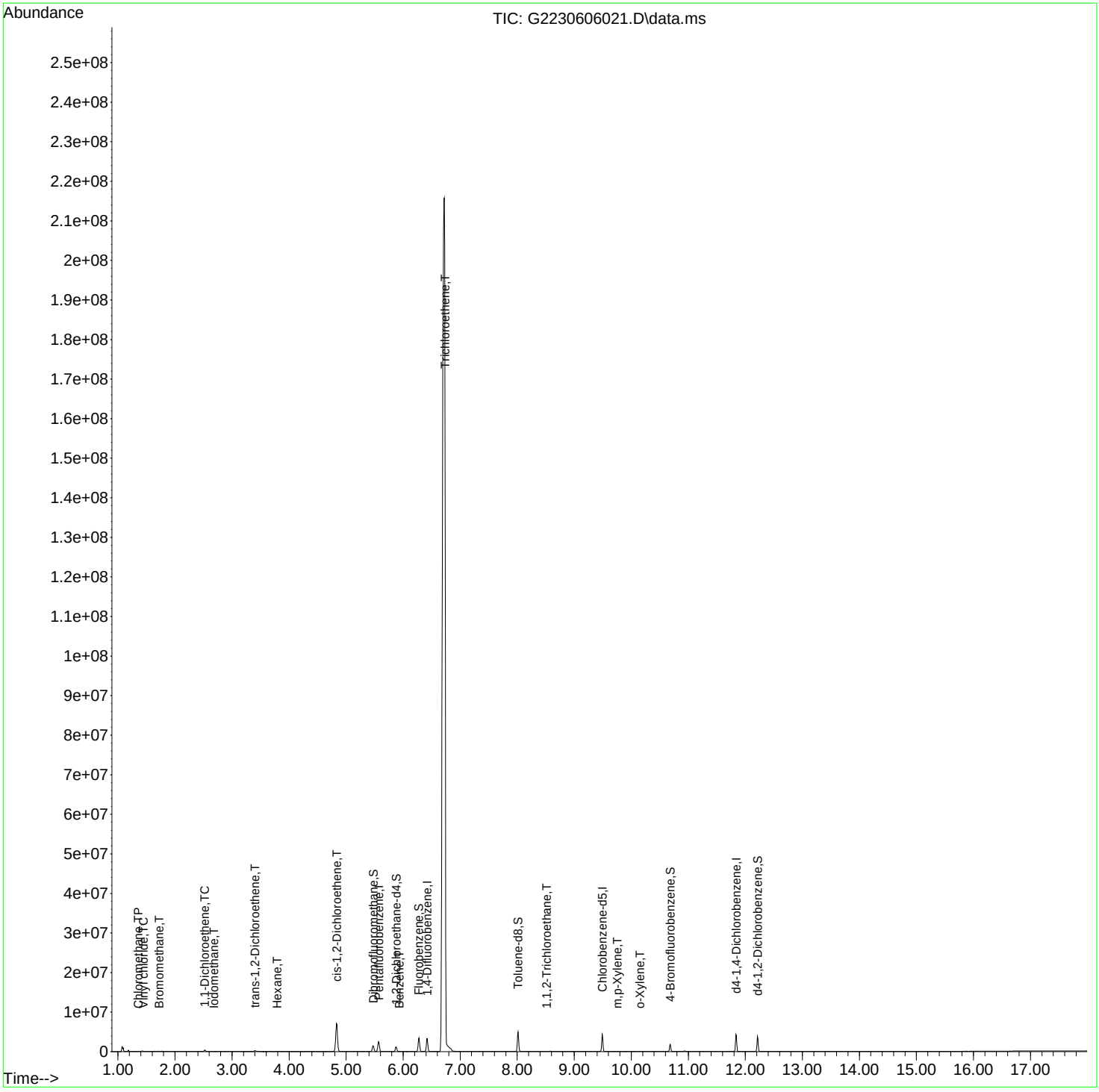
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	20002187	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.422	114	29815300	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	25974844	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	12273886	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	9241666	20.99	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.95%			
43) 1,2-Dichloroethane-d4	5.878	65	8563231	19.68	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.40%			
49) Fluorobenzene	6.278	96	33706375	19.84	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.20%			
64) Toluene-d8	8.016	98	31754610	19.40	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.00%			
81) 4-Bromofluorobenzene	10.684	174	5863797	10.12	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.20%			
97) d4-1,2-Dichlorobenzene	12.218	152	10692202	20.26	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.30%			
Target Compounds						Qvalue
3) Chloromethane	1.355	50	52196	0.05	ug/L	66
4) Vinyl chloride	1.445	62	182281	0.46	ug/L	88
5) Bromomethane	1.722	94	87549m	0.08	ug/L	
10) 1,1-Dichloroethene	2.523	61	2249953	5.20	ug/L	87
12) Acetone	2.606	43	122830	Below Cal		84
13) Iodomethane	2.677	142	82060	0.18	ug/L #	41
18) Methylene chloride	3.059	49	142346	Below Cal		75
20) trans-1,2-Dichloroethene	3.400	61	1316680	3.04	ug/L	83
21) Methyl tert-butyl ether	3.439	73	1043710	Below Cal		93
22) Hexane	3.787	57	63291	0.11	ug/L #	36
28) cis-1,2-Dichloroethene	4.835	61	43171579	86.18	ug/L	75
48) Benzene	5.934	78	101100	0.07	ug/L #	52
50) Trichloroethene	6.735	95	411663772	1051.52	ug/L #	74
62) 1,1,2-Trichloroethane	8.511	97	45361	0.12	ug/L #	50
65) Toluene	8.081	91	81888	Below Cal	#	93
75) m,p-Xylene	9.755	91	49818	0.04	ug/L #	36
79) o-Xylene	10.154	91	45259m	0.03	ug/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606021.D
Acq On : 06 Jun 2023 18:58
Operator : PO1
Sample : 23E0775-06
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 07 09:37:11 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606021.D
Acq On : 06 Jun 2023 18:58
Operator : PO1
Sample : 23E0775-06
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 07 09:37:11 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	20002187	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.422	114	29815300	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	25974844	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	12273886	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	9241666	20.99	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.95%				
43) 1,2-Dichloroethane-d4	5.878	65	8563231	19.68	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.40%				
49) Fluorobenzene	6.278	96	33706375	19.84	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.20%				
64) Toluene-d8	8.016	98	31754610	19.40	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.00%				
81) 4-Bromofluorobenzene	10.684	174	5863797	10.12	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.20%				
97) d4-1,2-Dichlorobenzene	12.218	152	10692202	20.26	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.30%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	52196	0.05	ug/L		66
4) Vinyl chloride	1.445	62	182281	0.46	ug/L		88
5) Bromomethane	1.722	94	97133	0.12	ug/L	#	84
8) Ethyl ether	2.523	59	76624	0.21	ug/L	#	13
10) 1,1-Dichloroethene	2.523	61	2249953	5.20	ug/L		87
12) Acetone	2.606	43	122830	Below Cal			84
13) Iodomethane	2.677	142	82060	0.18	ug/L	#	41
14) Carbon disulfide	2.738	76	109521	0.03	ug/L	#	74
17) 3-Chloro-1-propene	2.738	76	109521	0.47	ug/L	#	53
18) Methylene chloride	3.059	49	142346	Below Cal			75
20) trans-1,2-Dichloroethene	3.400	61	1316680	3.04	ug/L		83
21) Methyl tert-butyl ether	3.439	73	1043710	Below Cal			93
22) Hexane	3.787	57	63291	0.11	ug/L	#	36
28) cis-1,2-Dichloroethene	4.835	61	43171579	86.18	ug/L		75
29) 2-Butanone	4.832	72	334621	6.21	ug/L	#	42
31) Ethyl acetate	4.944	61	51285	0.63	ug/L	#	45
37) Chloroform	5.271	83	45387	0.07	ug/L	#	25
40) Cyclohexane	5.572	84	457182	0.85	ug/L	#	34
41) 1-Chlorobutane	5.569	56	276490	0.44	ug/L	#	1
42) 1,1-Dichloropropene	5.571	75	1020065	2.17	ug/L	#	38
44) 1,2-Dichloroethane	5.967	62	31300	Below Cal		#	47
47) Carbon tetrachloride	5.571	117	1566984	2.91	ug/L	#	16
48) Benzene	5.934	78	101100	0.07	ug/L	#	52
50) Trichloroethene	6.735	95	411663772	1051.52	ug/L	#	74
52) 1,2-Dichloropropane	6.718	63	8699610	25.82	ug/L	#	1
60) 4-Methyl-2-pentanone	8.016	43	113063	Below Cal		#	1
62) 1,1,2-Trichloroethane	8.511	97	45361	0.12	ug/L	#	50
65) Toluene	8.081	91	81888	Below Cal		#	93

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606021.D
Acq On : 06 Jun 2023 18:58
Operator : PO1
Sample : 23E0775-06
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 07 09:37:11 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

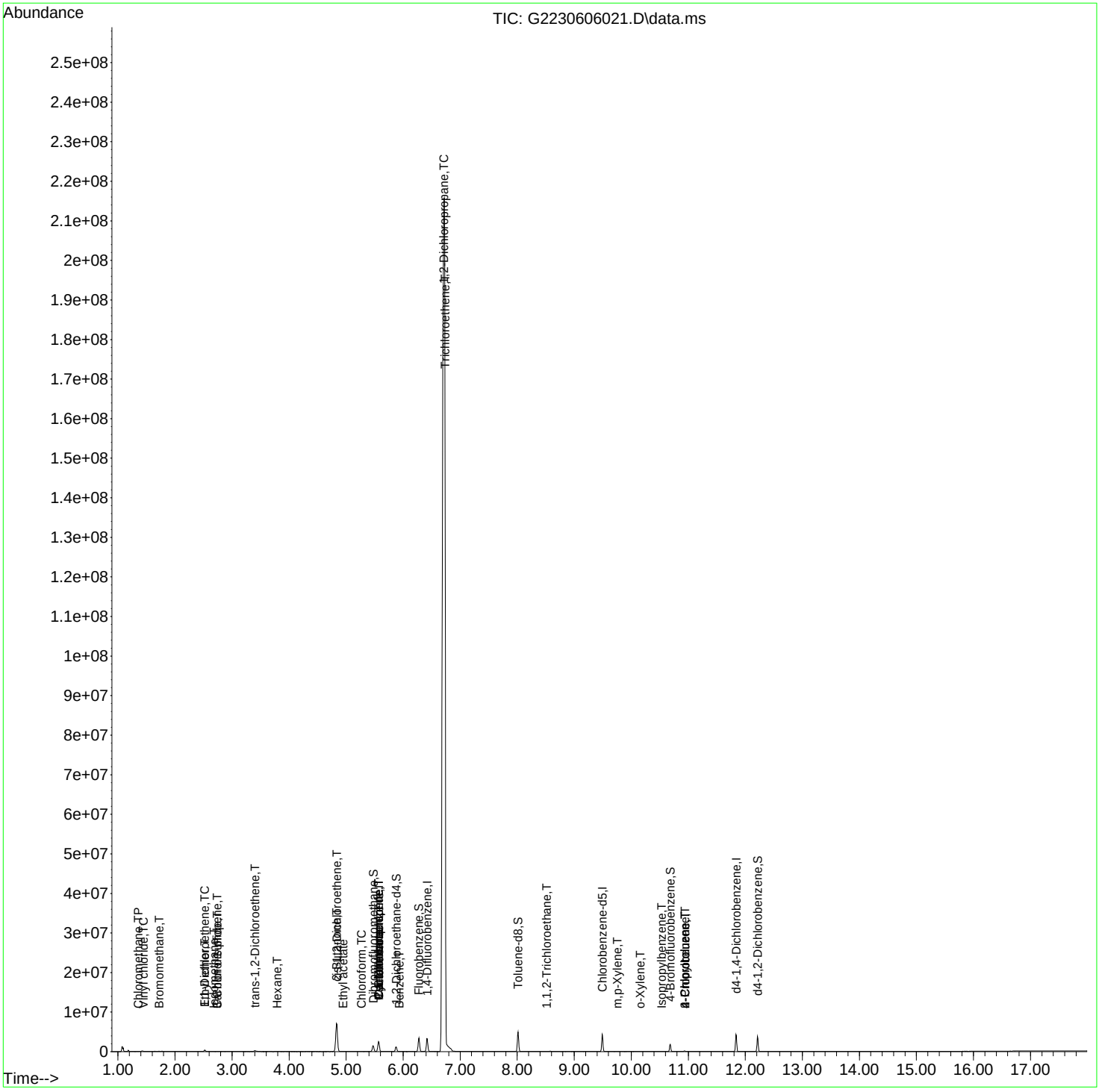
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
74) Ethylbenzene	9.640	91	41905	Below Cal		#	44
75) m,p-Xylene	9.755	91	49818	0.04	ug/L	#	36
79) o-Xylene	10.159	91	37525	0.02	ug/L	#	37
80) Isopropylbenzene	10.534	105	27567	0.02	ug/L	#	58
86) n-Propylbenzene	10.941	91	35394	0.02	ug/L	#	58
87) 2-Chlorotoluene	10.942	91	33409	0.03	ug/L	#	47
88) 4-Chlorotoluene	10.942	91	34169	0.03	ug/L	#	50

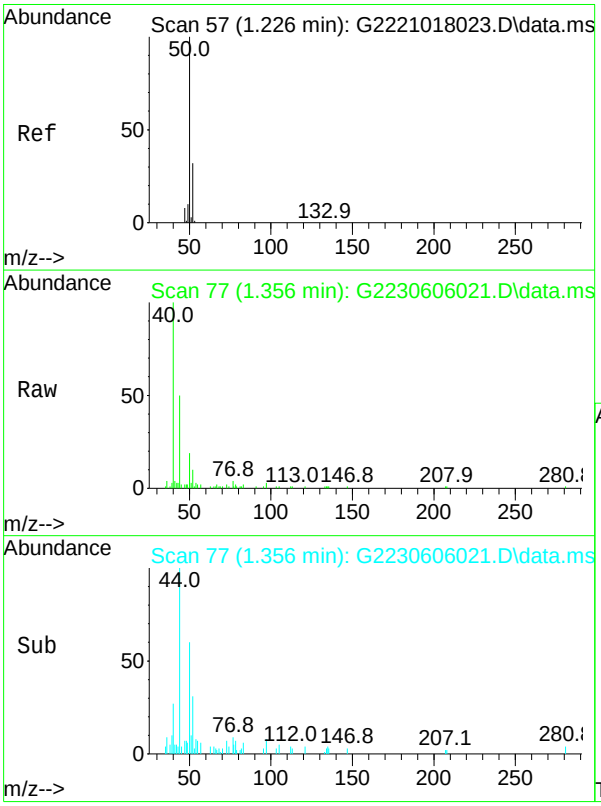
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606021.D
Acq On : 06 Jun 2023 18:58
Operator : PO1
Sample : 23E0775-06
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 07 09:37:11 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

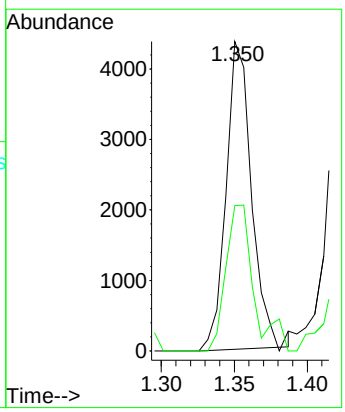


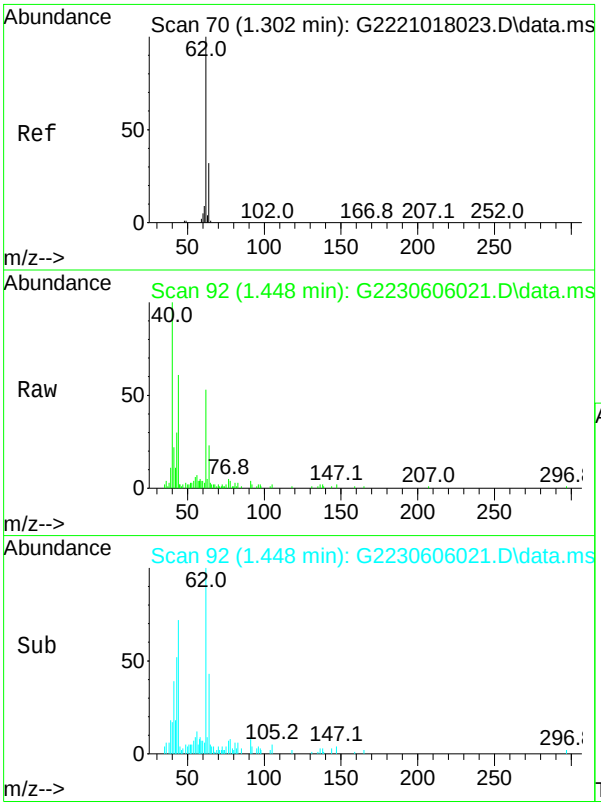


#3
Chloromethane
Concen: 0.05 ug/L
RT: 1.355 min Scan# 77
Delta R.T. 0.001 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 50 Resp: 52196

Ion	Ratio	Lower	Upper
50	100		
52	52.4	3.2	63.2

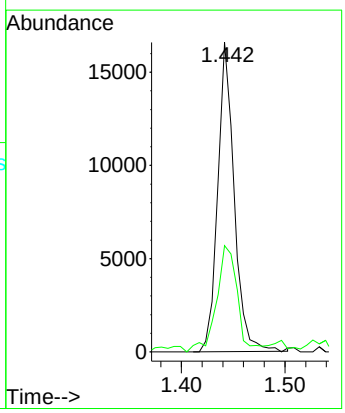


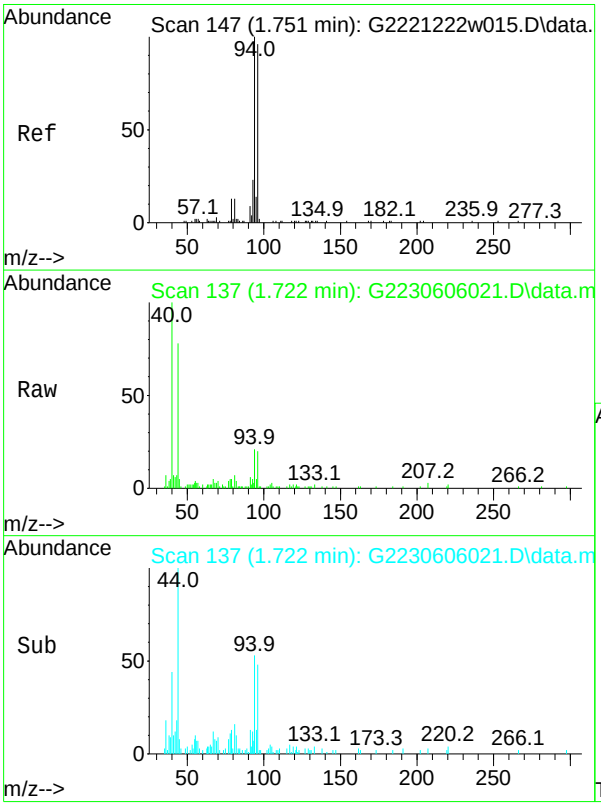


#4
Vinyl chloride
Concen: 0.46 ug/L
RT: 1.445 min Scan# 92
Delta R.T. -0.001 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 62 Resp: 182281

Ion	Ratio	Lower	Upper
62	100		
64	38.6	2.1	62.1

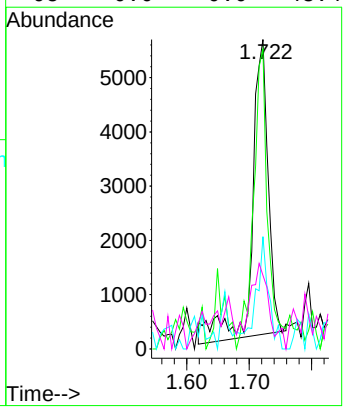


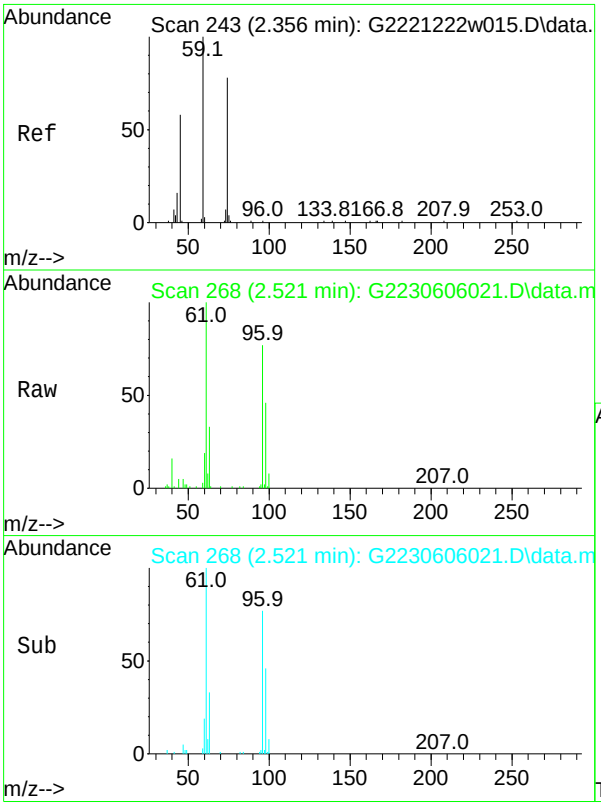


#5
Bromomethane
Concen: 0.12 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 94 Resp: 97133

Ion	Ratio	Lower	Upper
94	100		
96	87.5	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

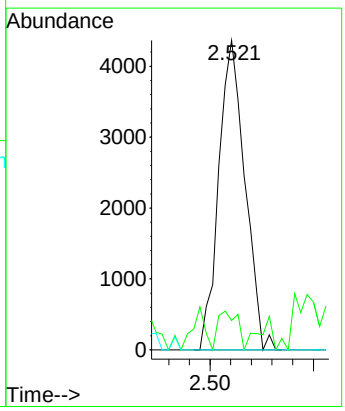


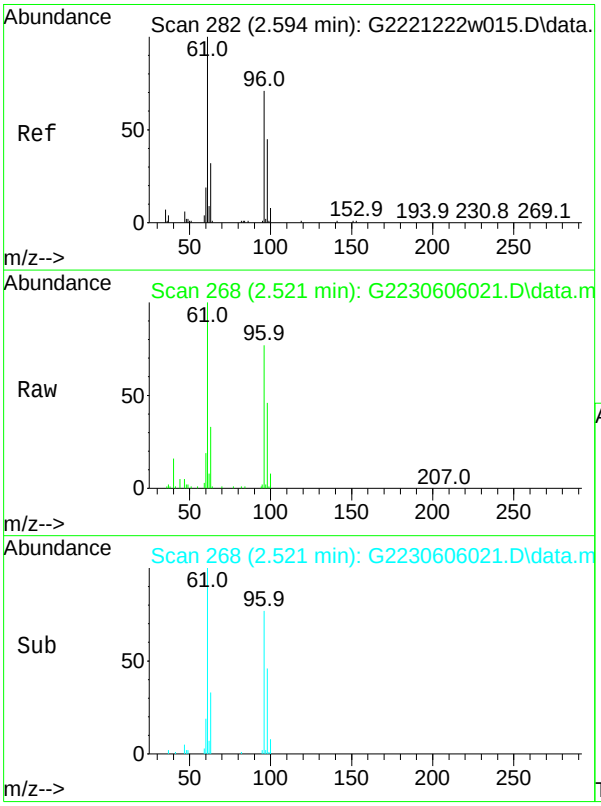


#8
Ethyl ether
Concen: 0.21 ug/L
RT: 2.523 min Scan# 268
Delta R.T. 0.205 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 59 Resp: 76624

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

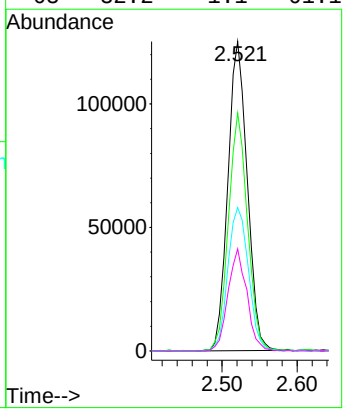


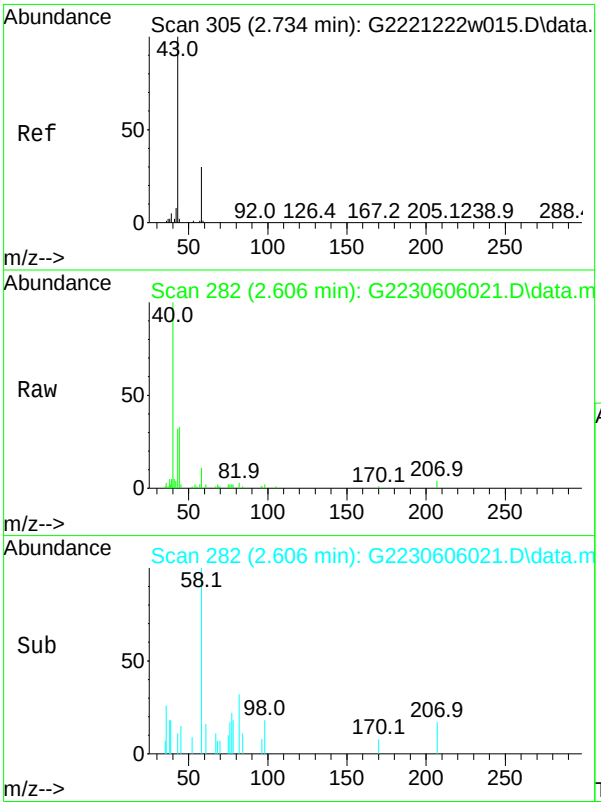


#10
1,1-Dichloroethene
Concen: 5.20 ug/L
RT: 2.523 min Scan# 268
Delta R.T. -0.000 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 61 Resp: 2249953

Ion	Ratio	Lower	Upper
61	100		
96	76.0	32.7	92.7
98	49.3	9.3	69.3
63	32.2	1.1	61.1

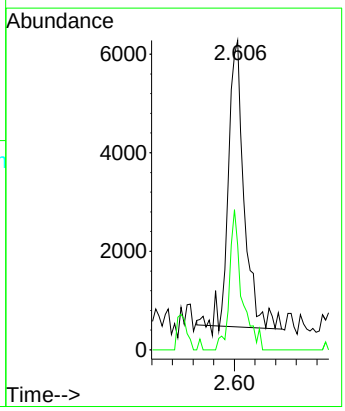


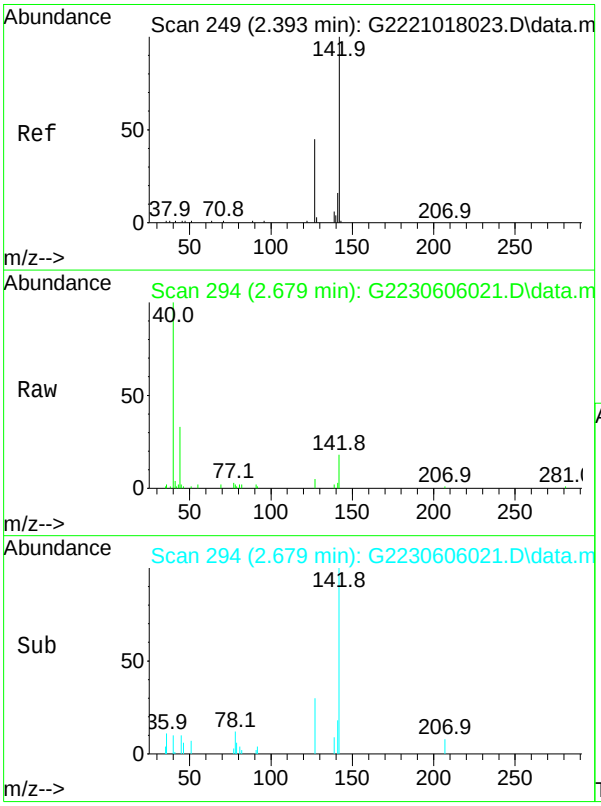


#12
Acetone
Concen: Below Cal
RT: 2.606 min Scan# 282
Delta R.T. -0.002 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 43 Resp: 122830

Ion	Ratio	Lower	Upper
43	100		
58	38.5	0.0	59.7

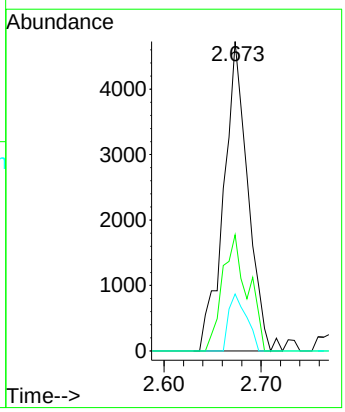


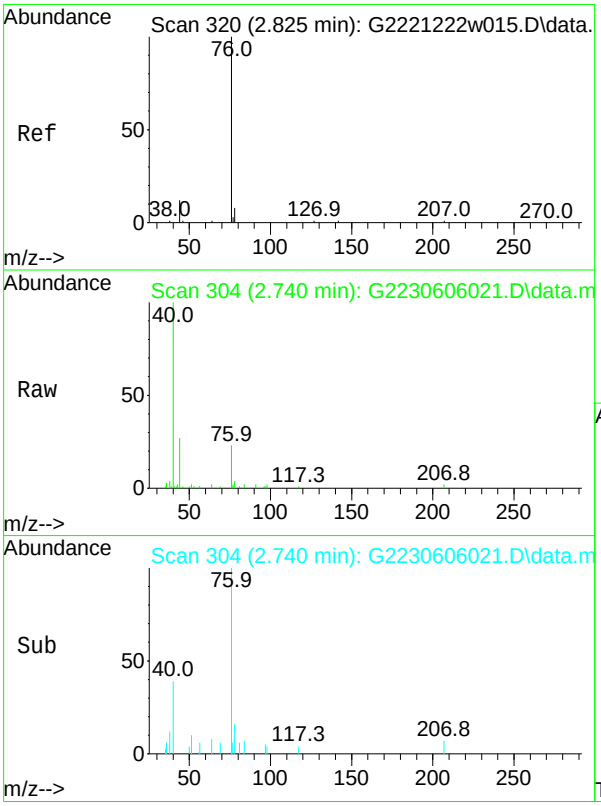


#13
Iodomethane
Concen: 0.18 ug/L
RT: 2.677 min Scan# 294
Delta R.T. 0.001 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion:142 Resp: 82060

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

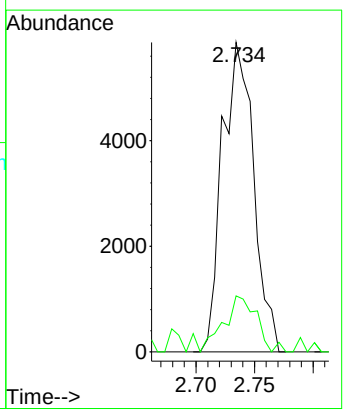


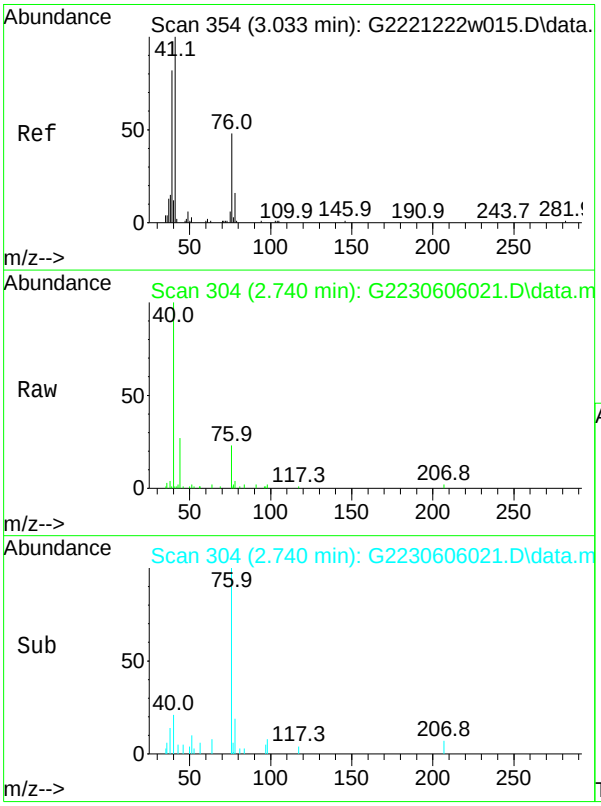


#14
Carbon disulfide
Concen: 0.03 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.001 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 76 Resp: 109521

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

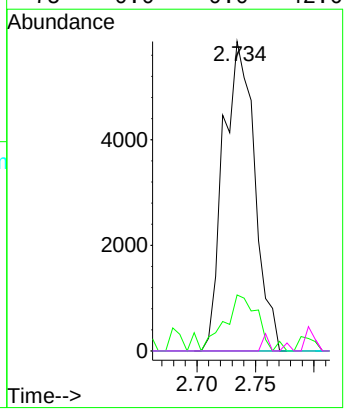


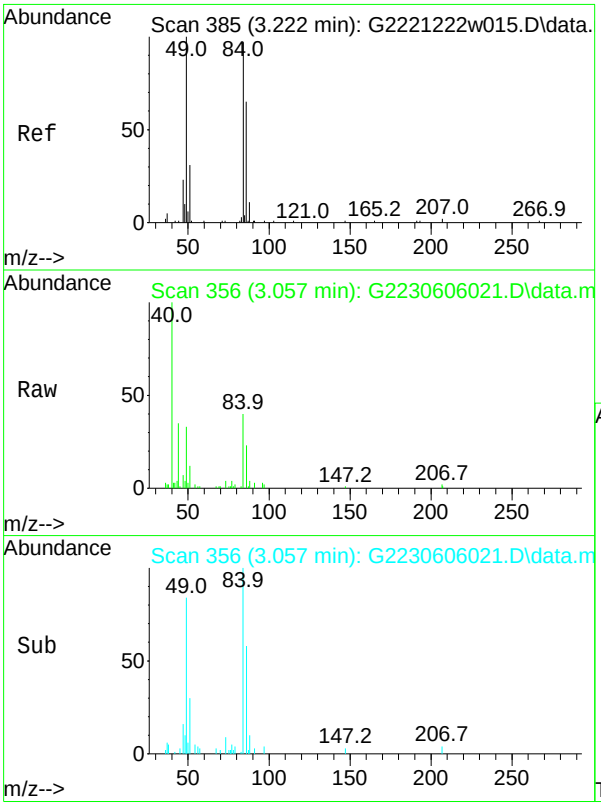


#17
3-Chloro-1-propene
Concen: 0.47 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.182 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 76 Resp: 109521

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

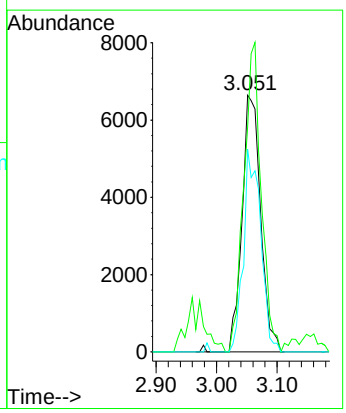


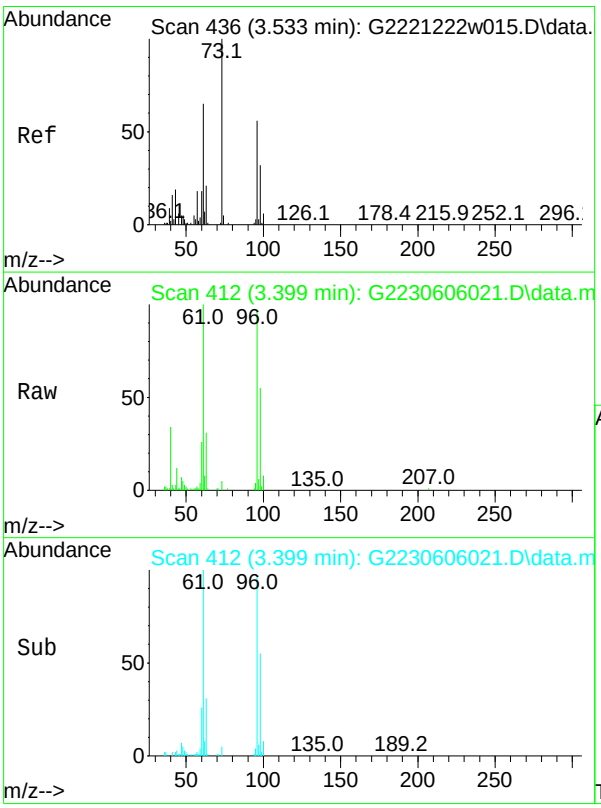


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 49 Resp: 142346

Ion	Ratio	Lower	Upper
49	100		
84	111.5	57.9	117.9
86	72.7	24.9	84.9

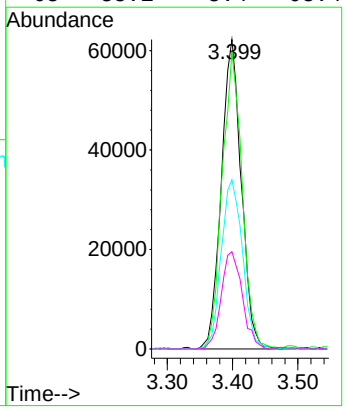


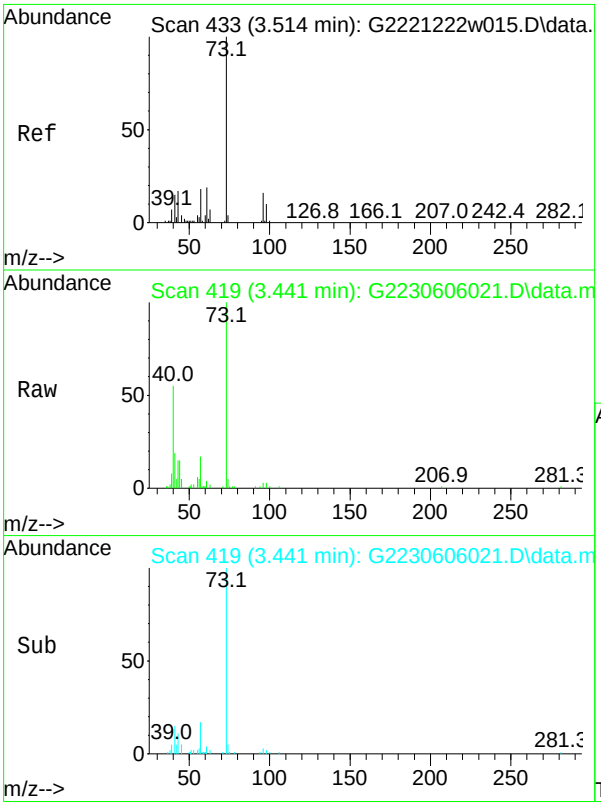


#20
trans-1,2-Dichloroethene
Concen: 3.04 ug/L
RT: 3.400 min Scan# 412
Delta R.T. -0.001 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 61 Resp: 1316680

Ion	Ratio	Lower	Upper
61	100		
96	96.5	45.2	105.2
98	58.3	17.2	77.2
63	33.1	3.4	63.4

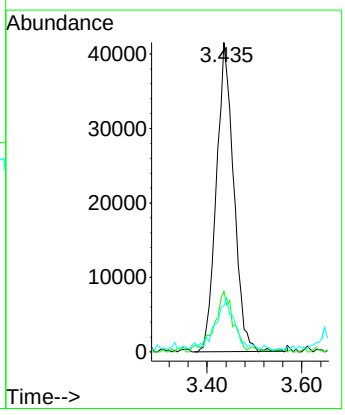


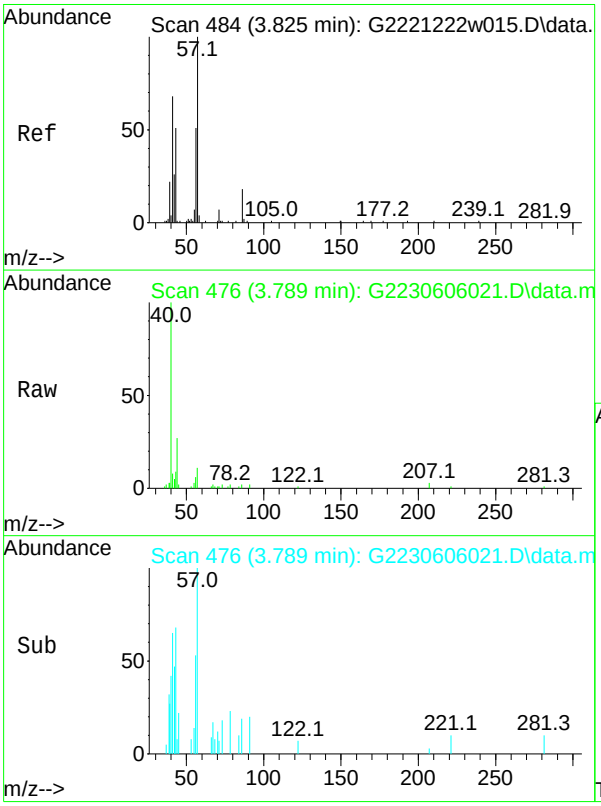


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.439 min Scan# 419
Delta R.T. -0.007 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 73 Resp: 1043710

Ion	Ratio	Lower	Upper
73	100		
57	18.6	0.0	51.7
41	17.1	0.0	50.6

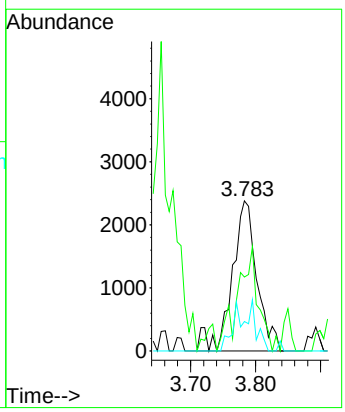


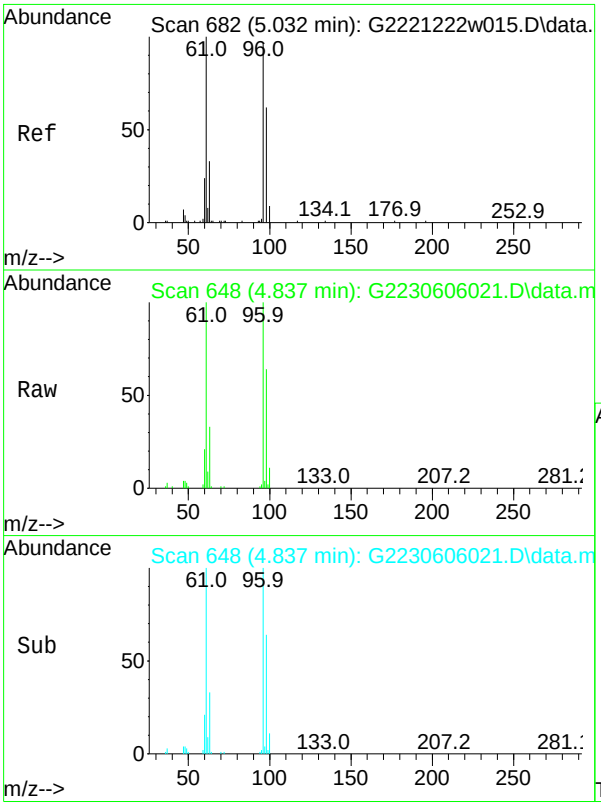


#22
Hexane
Concen: 0.11 ug/L
RT: 3.787 min Scan# 476
Delta R.T. -0.003 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 57 Resp: 63291

Ion	Ratio	Lower	Upper
57	100		
56	0.0	20.4	80.4#
86	0.0	0.0	48.1

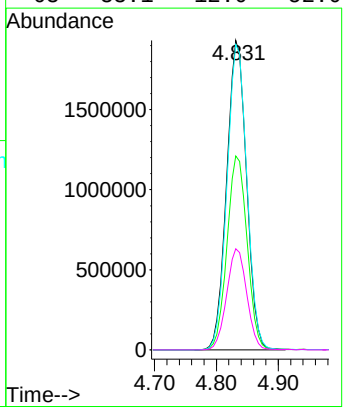


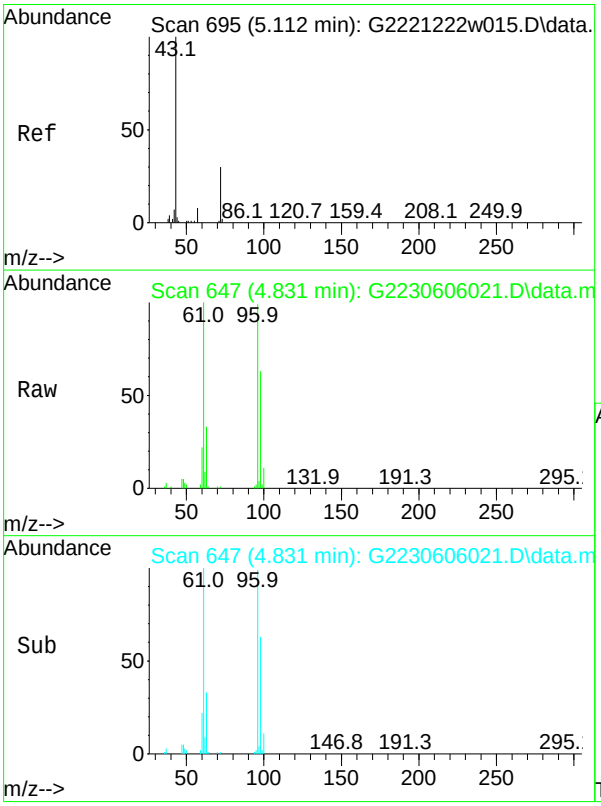


#28
cis-1,2-Dichloroethene
Concen: 86.18 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.001 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 61 Resp:43171579

Ion	Ratio	Lower	Upper
61	100		
98	63.3	15.9	75.9
96	98.8	39.6	99.6
63	33.1	12.0	52.0

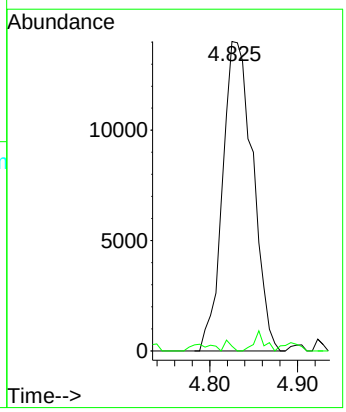


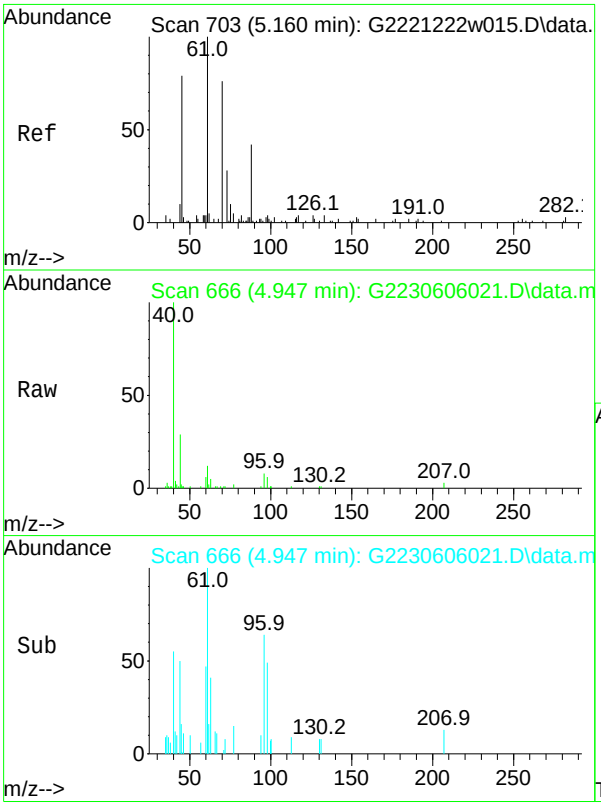


#29
2-Butanone
Concen: 6.21 ug/L
RT: 4.832 min Scan# 647
Delta R.T. -0.087 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 72 Resp: 334621

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

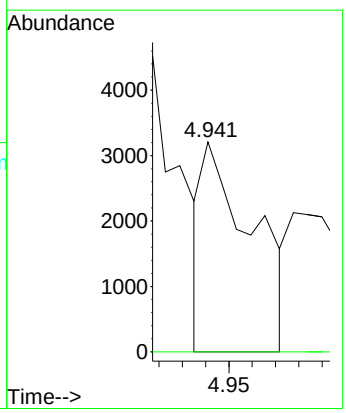


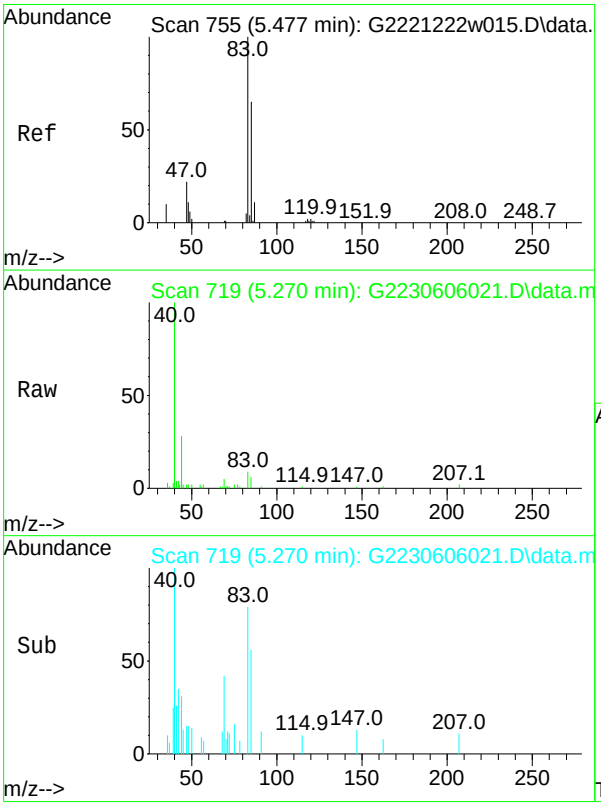


#31
Ethyl acetate
Concen: 0.63 ug/L
RT: 4.944 min Scan# 666
Delta R.T. -0.078 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 61 Resp: 51285

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

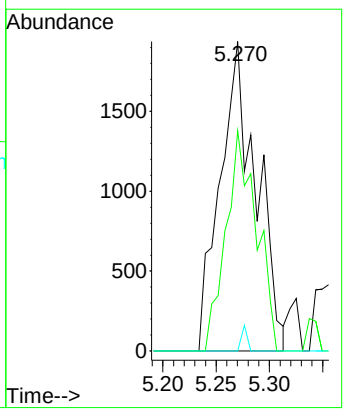


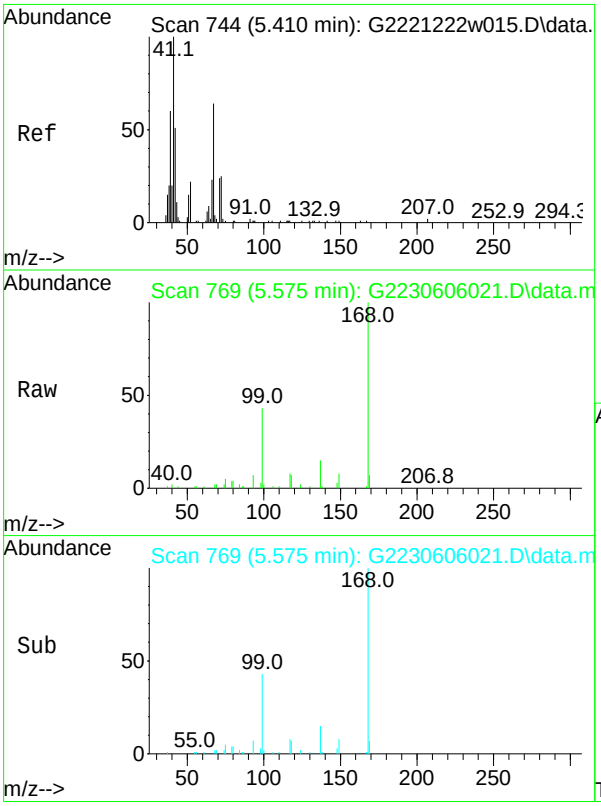


#37
Chloroform
Concen: 0.07 ug/L
RT: 5.271 min Scan# 719
Delta R.T. -0.005 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 83 Resp: 45387

Ion	Ratio	Lower	Upper
83	100		
85	0.0	35.4	95.4#
87	0.0	0.0	40.8

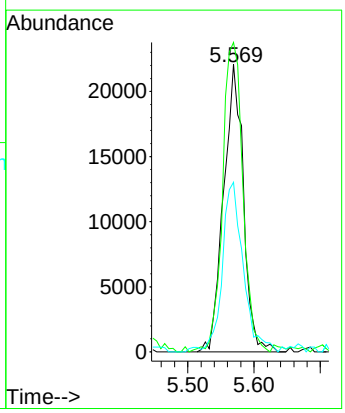


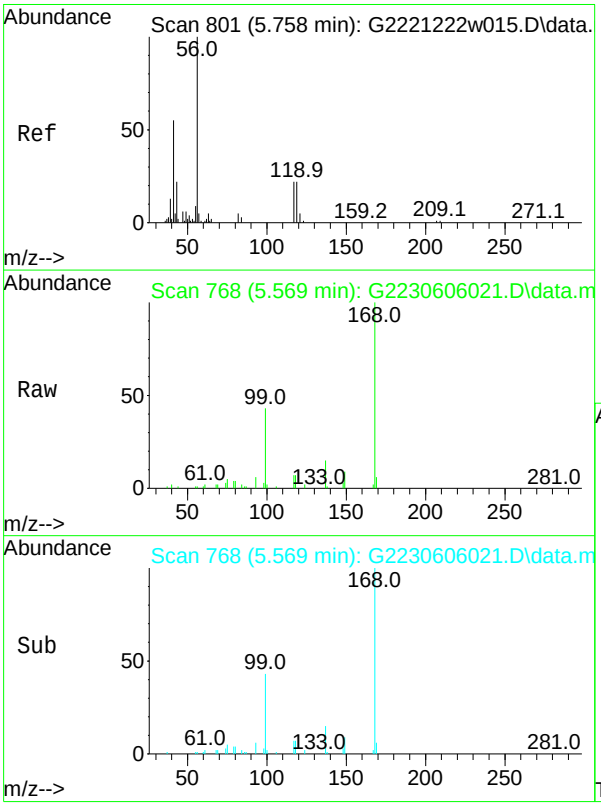


#40
Cyclohexane
Concen: 0.85 ug/L
RT: 5.572 min Scan# 769
Delta R.T. 0.038 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 84 Resp: 457182

Ion	Ratio	Lower	Upper
84	100		
69	109.2	6.8	66.8#
56	59.4	79.1	139.1#

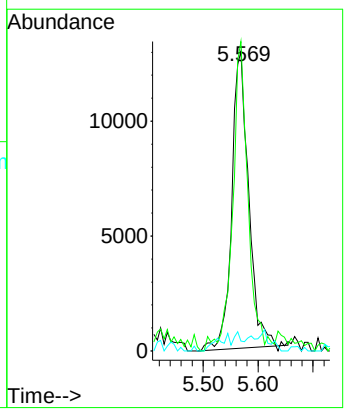


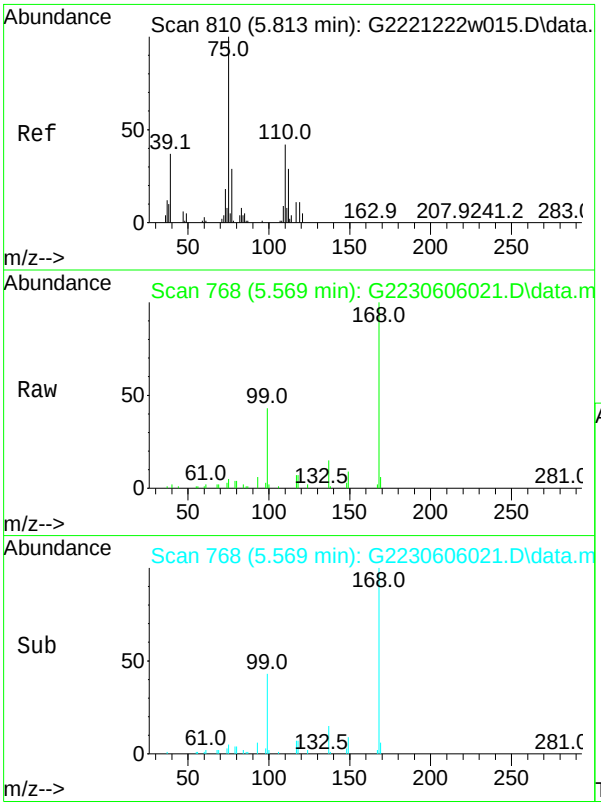


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 56 Resp: 276490

Ion	Ratio	Lower	Upper
56	100		
55	90.7	0.0	41.0#
57	0.0	0.0	35.7

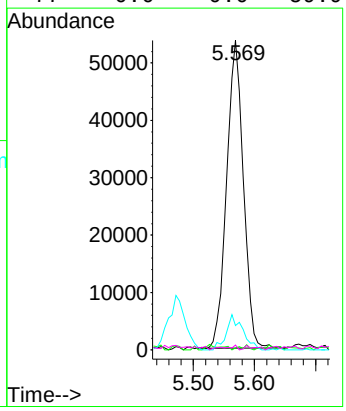


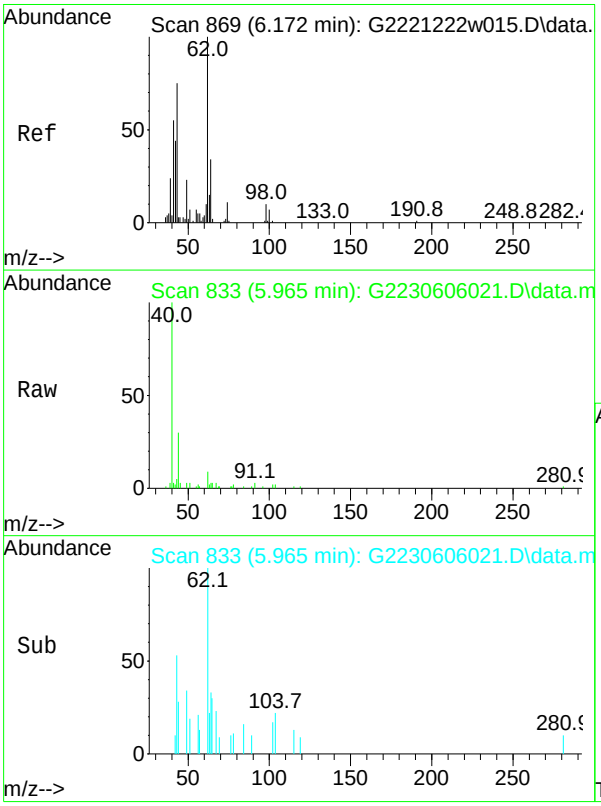


#42
1,1-Dichloropropene
Concen: 2.17 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 75 Resp: 1020065

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.4	9.1	69.1
77	0.0	0.0	59.9

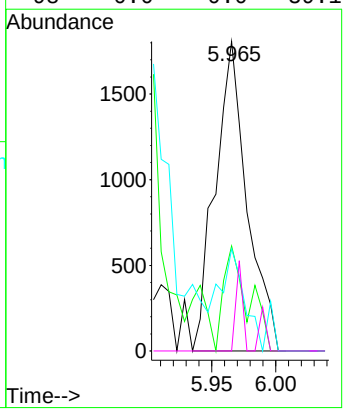


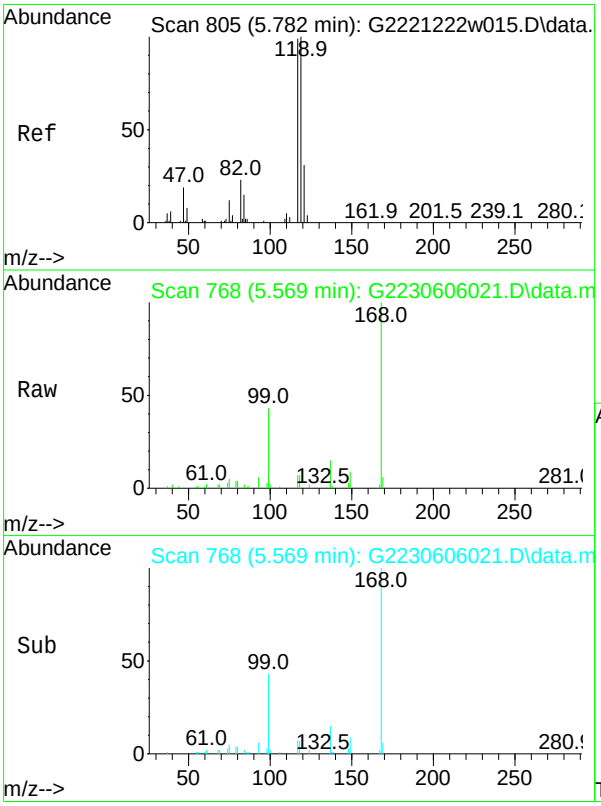


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.967 min Scan# 833
Delta R.T. -0.004 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 62 Resp: 31300

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

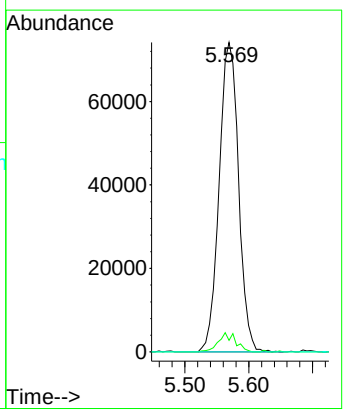


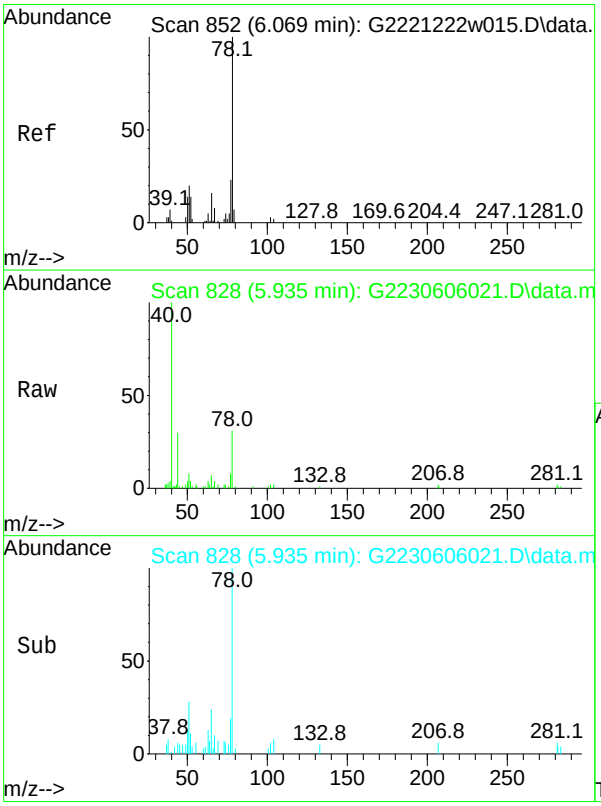


#47
Carbon tetrachloride
Concen: 2.91 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion:117 Resp: 1566984

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

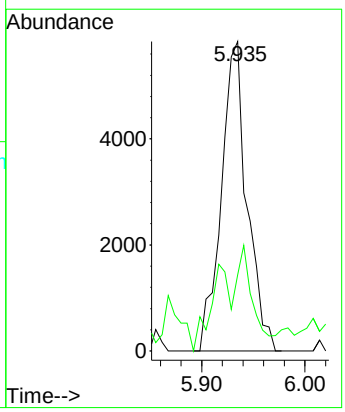


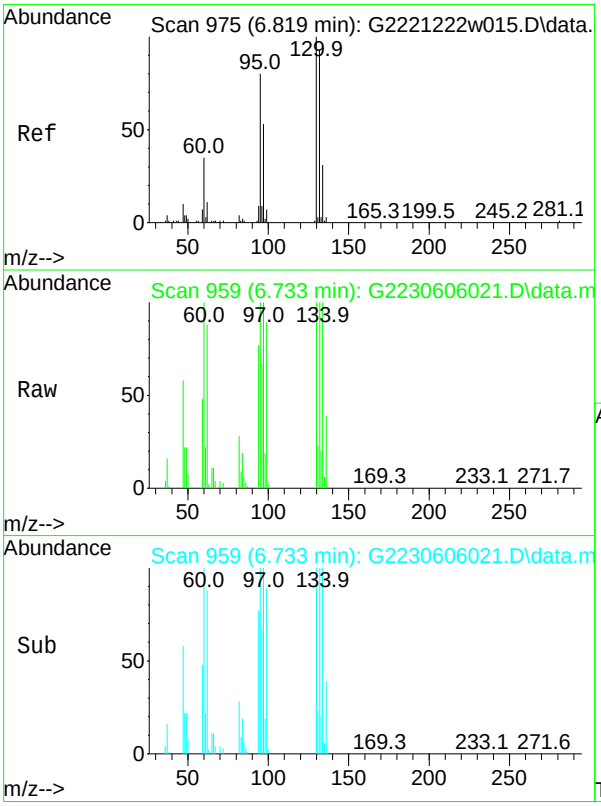


#48
Benzene
Concen: 0.07 ug/L
RT: 5.934 min Scan# 828
Delta R.T. -0.001 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 78 Resp: 101100

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

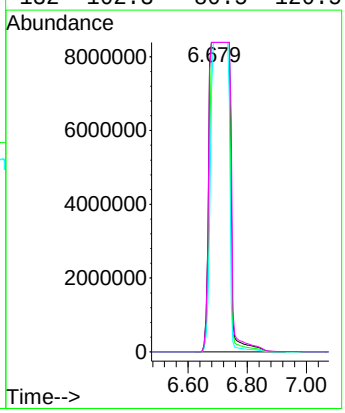


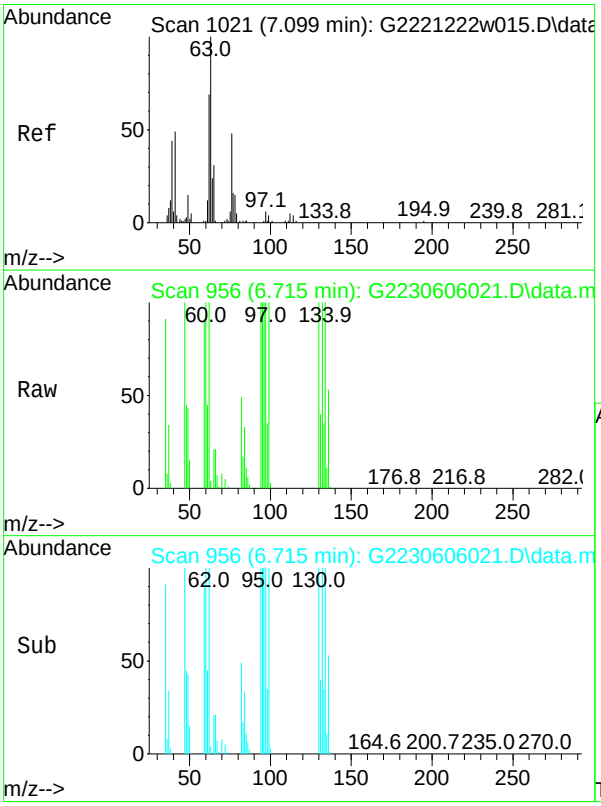


#50
Trichloroethene
Concen: 1051.52 ug/L
RT: 6.735 min Scan# 959
Delta R.T. 0.039 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 95 Resp:411663772

Ion	Ratio	Lower	Upper
95	100		
97	93.9	35.5	95.5
60	86.5	14.8	74.8#
132	102.3	80.5	120.5

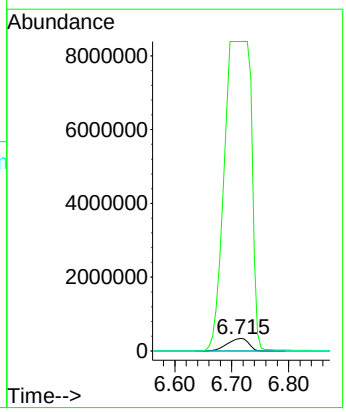


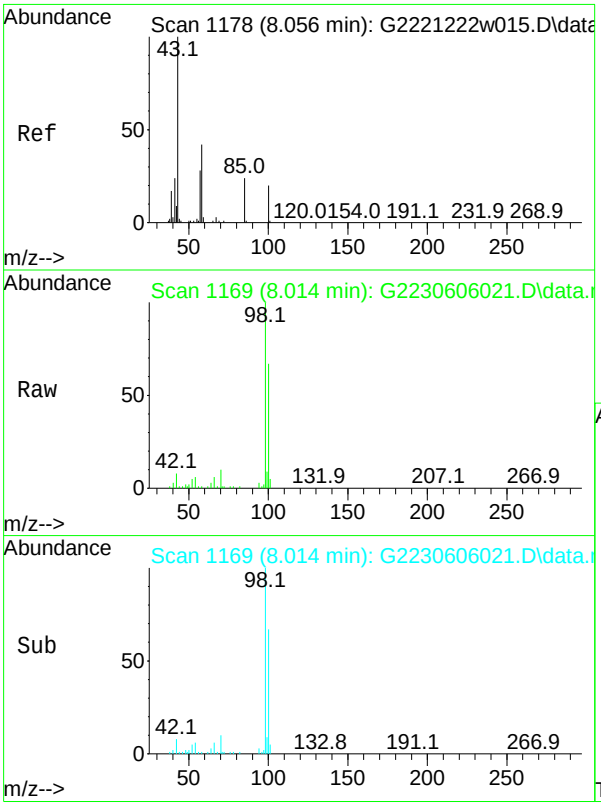


#52
1,2-Dichloropropane
Concen: 25.82 ug/L
RT: 6.718 min Scan# 956
Delta R.T. -0.228 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 63 Resp: 8699610

Ion	Ratio	Lower	Upper
63	100		
62	3192.4	35.2	95.2#
76	0.6	10.7	70.7#

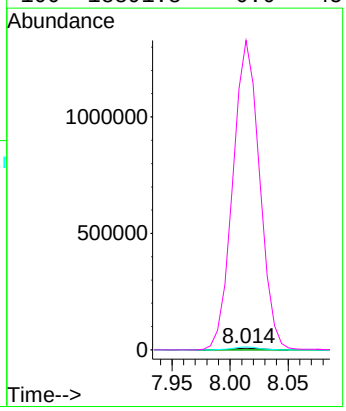


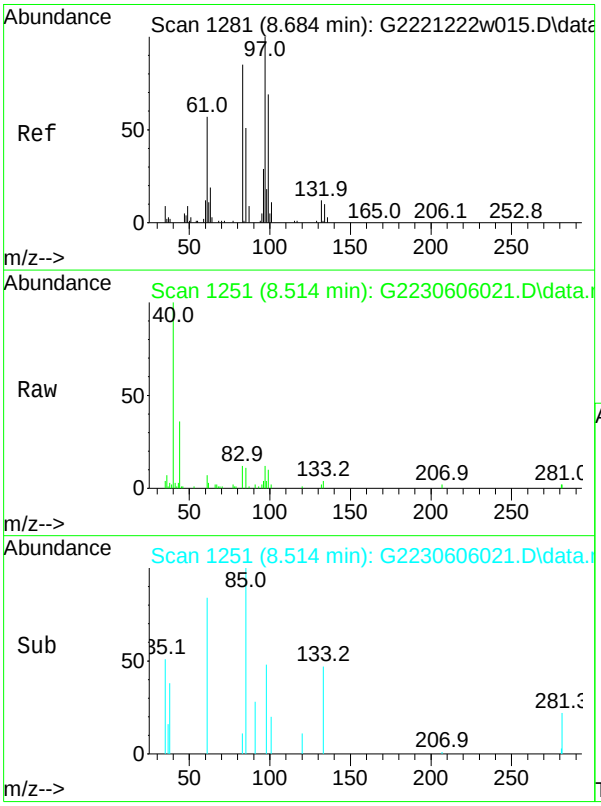


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 43 Resp: 113063

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	181.5	37.0	37.0#
100	18891.8	0.0	45.2#

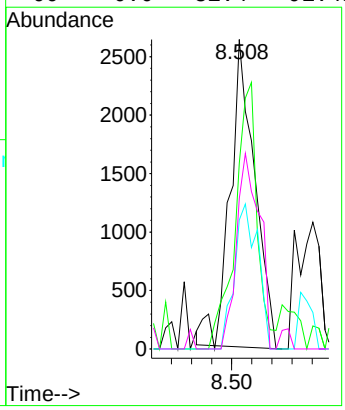


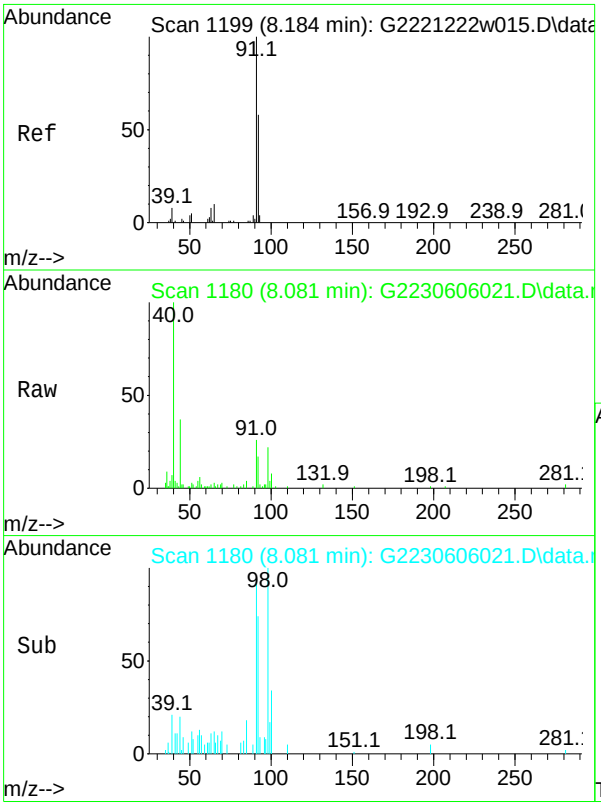


#62
1,1,2-Trichloroethane
Concen: 0.12 ug/L
RT: 8.511 min Scan# 1251
Delta R.T. -0.008 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 97 Resp: 45361

Ion	Ratio	Lower	Upper
97	100		
83	75.8	53.8	113.8
61	0.0	29.0	89.0#
99	0.0	31.4	91.4#

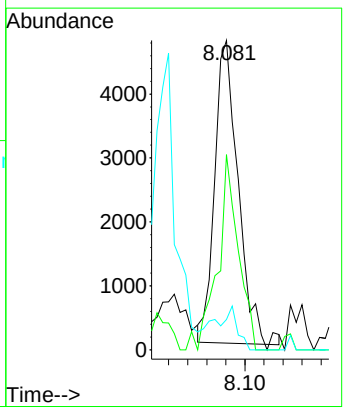


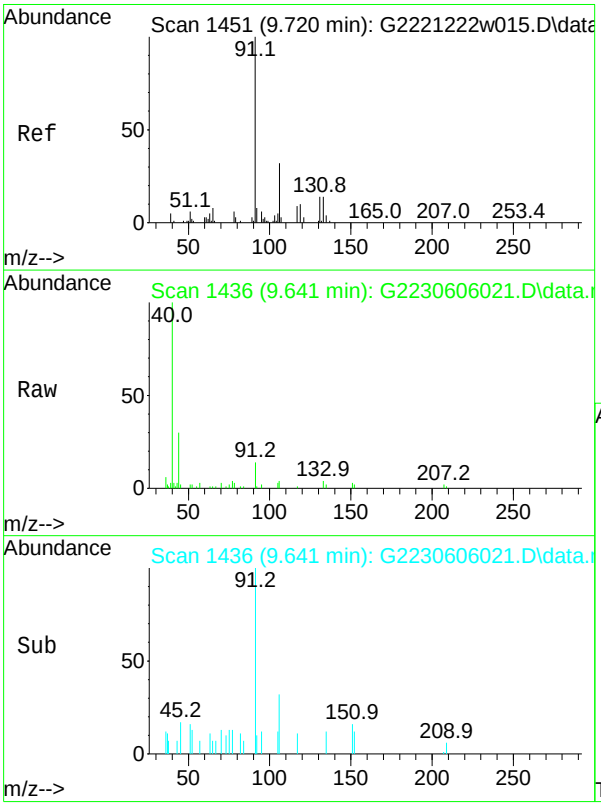


#65
Toluene
Concen: Below Cal
RT: 8.081 min Scan# 1180
Delta R.T. -0.005 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 91 Resp: 81888

Ion	Ratio	Lower	Upper
91	100		
92	56.0	27.5	87.5
65	0.0	0.0	41.4

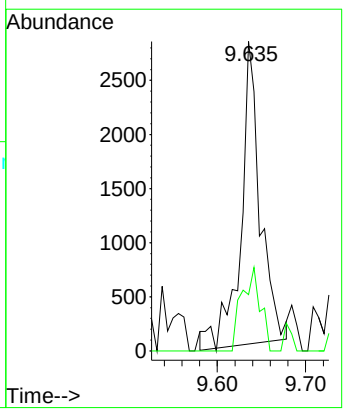


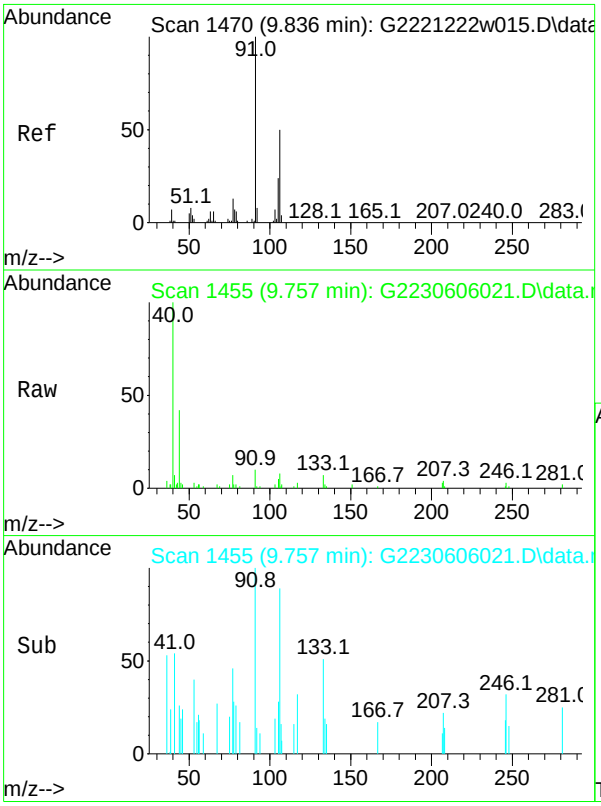


#74
Ethylbenzene
Concen: Below Cal
RT: 9.640 min Scan# 1436
Delta R.T. -0.003 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 91 Resp: 41905

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

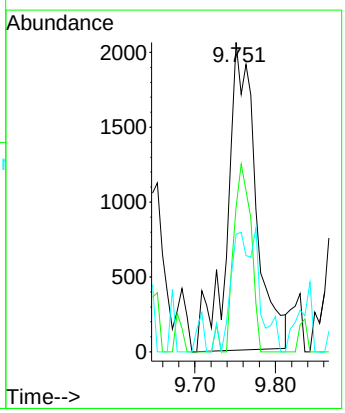


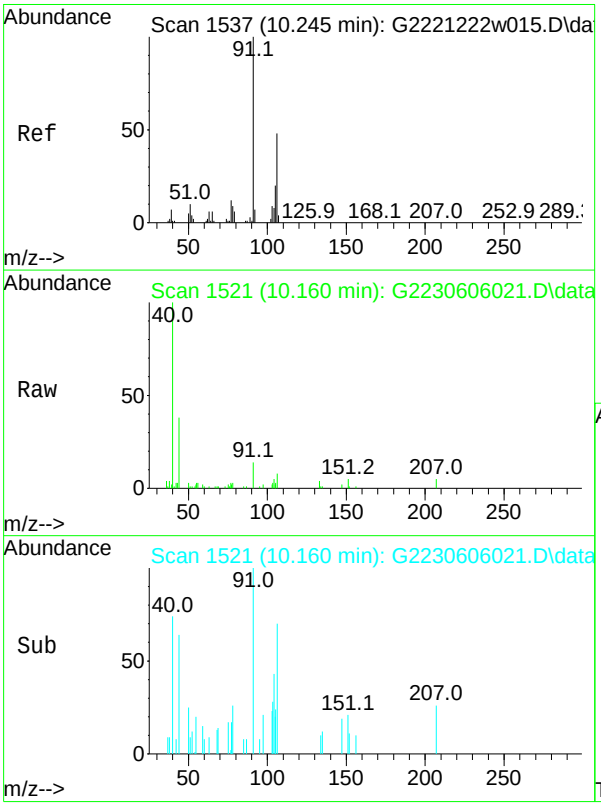


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.755 min Scan# 1455
Delta R.T. -0.009 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 91 Resp: 49818

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

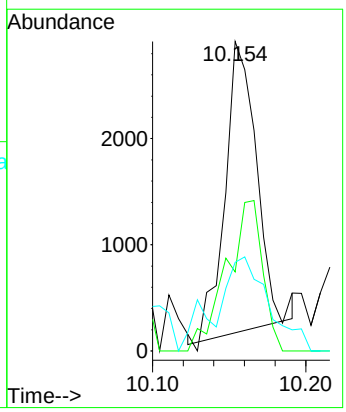


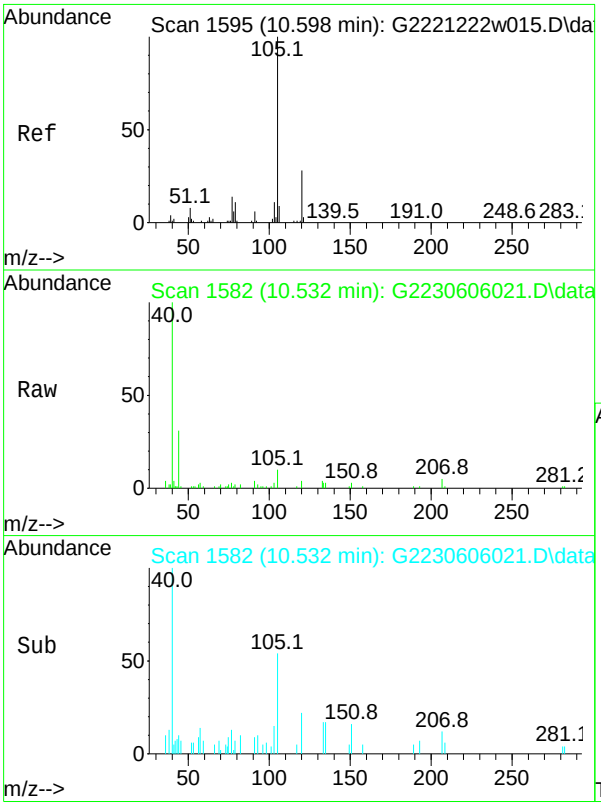


#79
o-Xylene
Concen: 0.02 ug/L
RT: 10.159 min Scan# 1521
Delta R.T. -0.002 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 91 Resp: 37525

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.2	76.2#
105	0.0	0.0	56.7

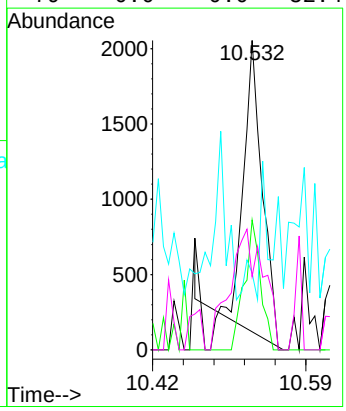


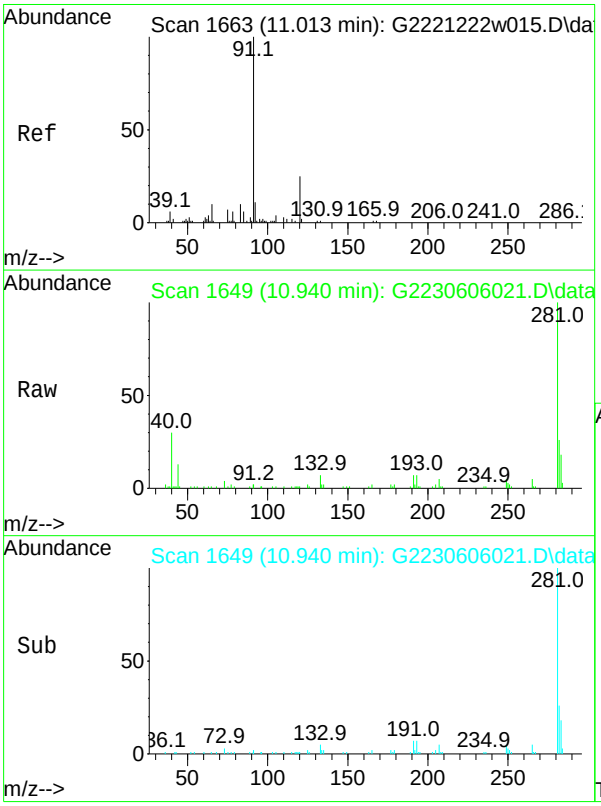


#80
Isopropylbenzene
Concen: 0.02 ug/L
RT: 10.534 min Scan# 1582
Delta R.T. -0.003 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion:105 Resp: 27567

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

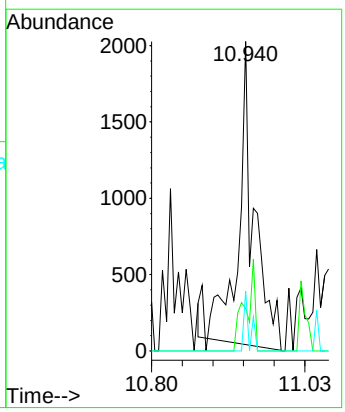


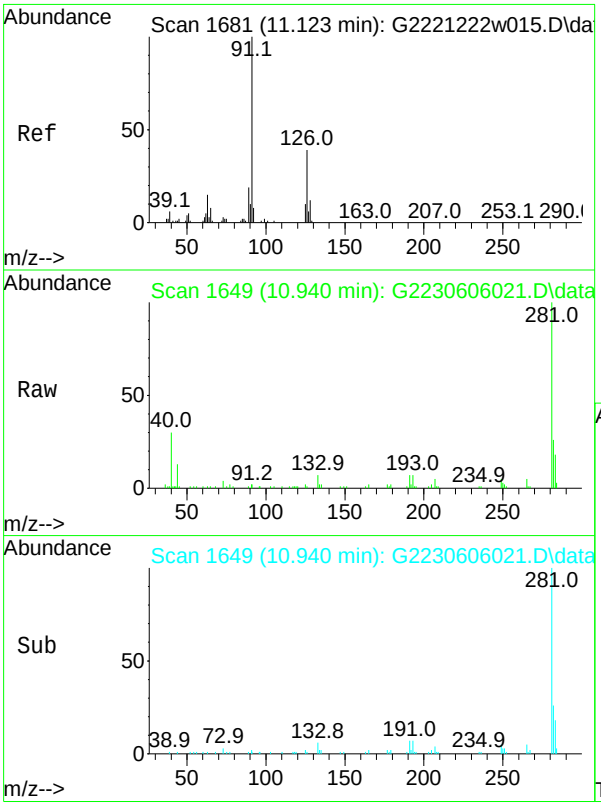


#86
n-Propylbenzene
Concen: 0.02 ug/L
RT: 10.941 min Scan# 1649
Delta R.T. -0.008 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 91 Resp: 35394

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.3
65	0.0	0.0	40.3

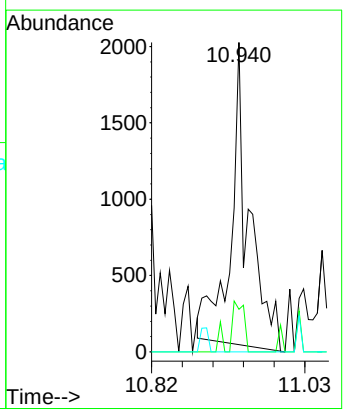


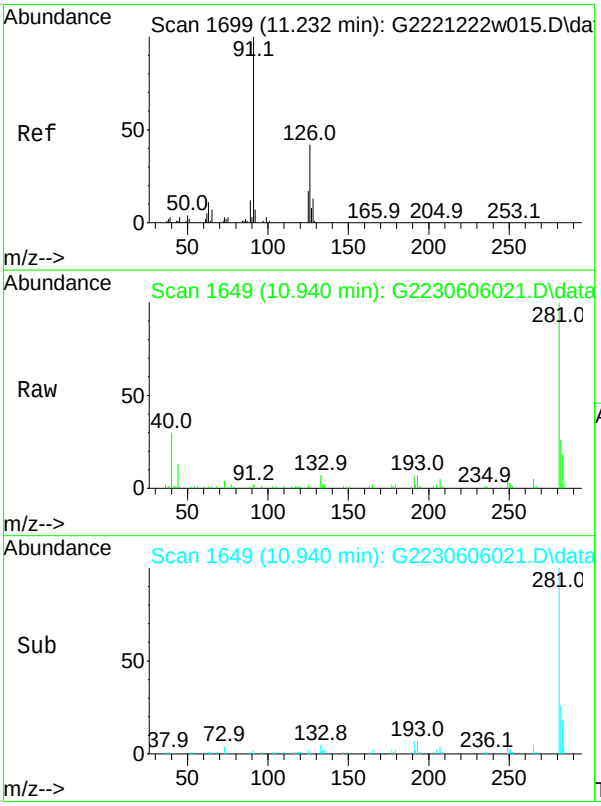


#87
2-Chlorotoluene
Concen: 0.03 ug/L
RT: 10.942 min Scan# 1649
Delta R.T. -0.086 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 91 Resp: 33409

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

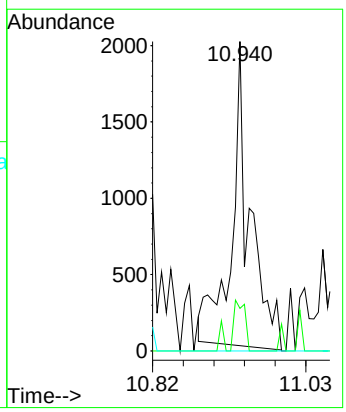




#88
4-Chlorotoluene
Concen: 0.03 ug/L
RT: 10.942 min Scan# 1649
Delta R.T. -0.195 min
Lab File: G2230606021.D
Acq: 06 Jun 2023 18:58

Tgt Ion: 91 Resp: 34169

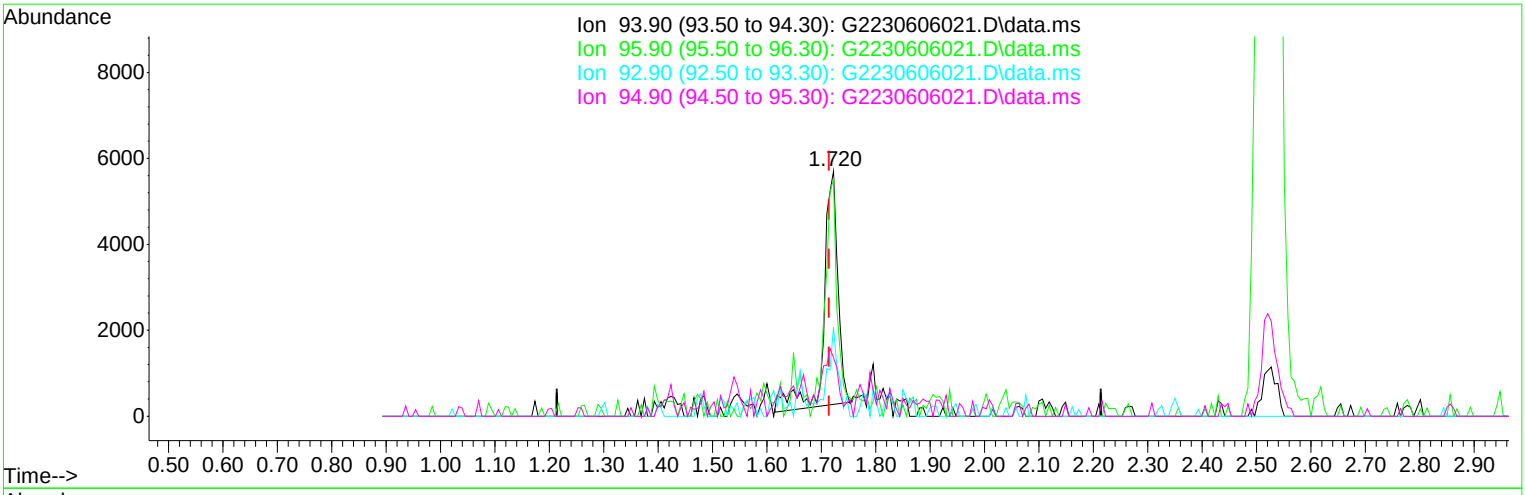
Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.7	60.7#
127	0.0	0.0	36.1

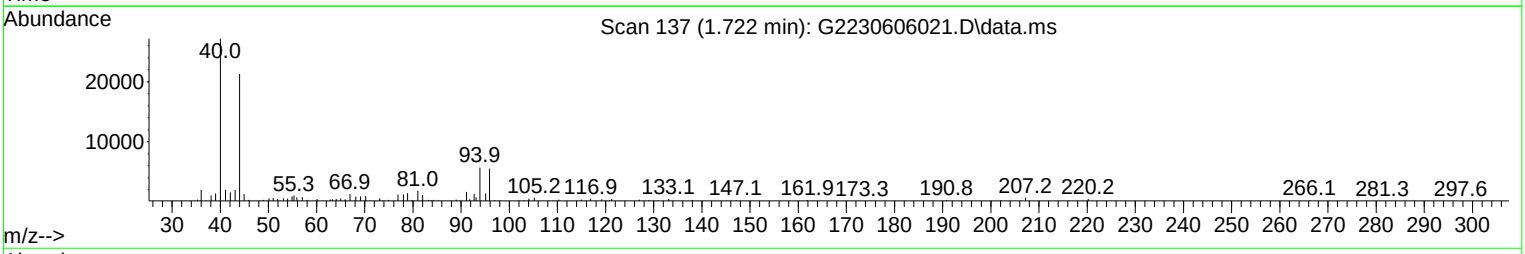


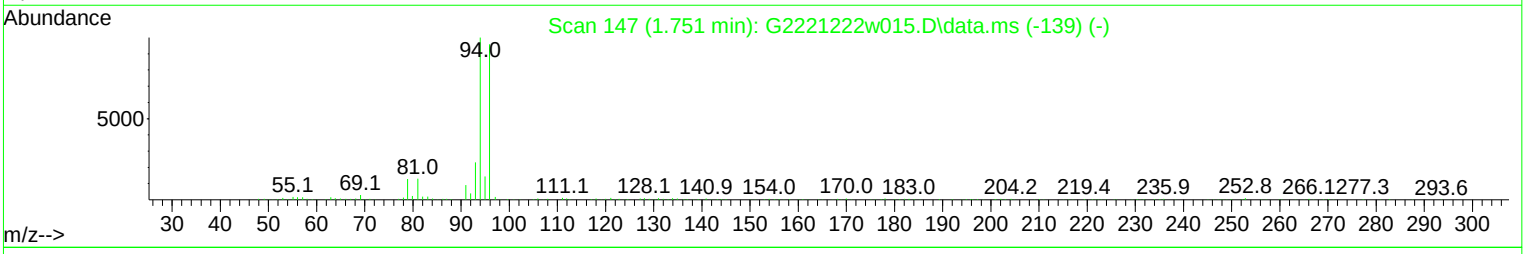
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606021.D
Acq On : 06 Jun 2023 18:58
Operator : PO1
Sample : 23E0775-06
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 07 09:37:11 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: G2230606021.D\data.ms

(5) Bromomethane (T)

1.722min (+ 0.008) 0.12 ug/L

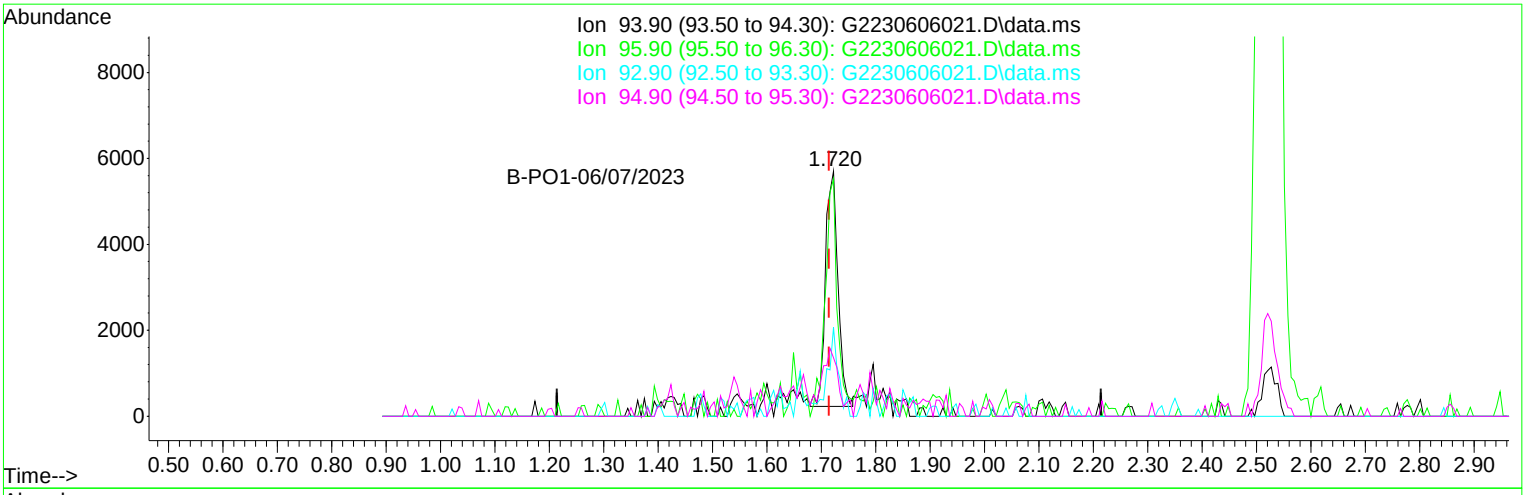
response 97133

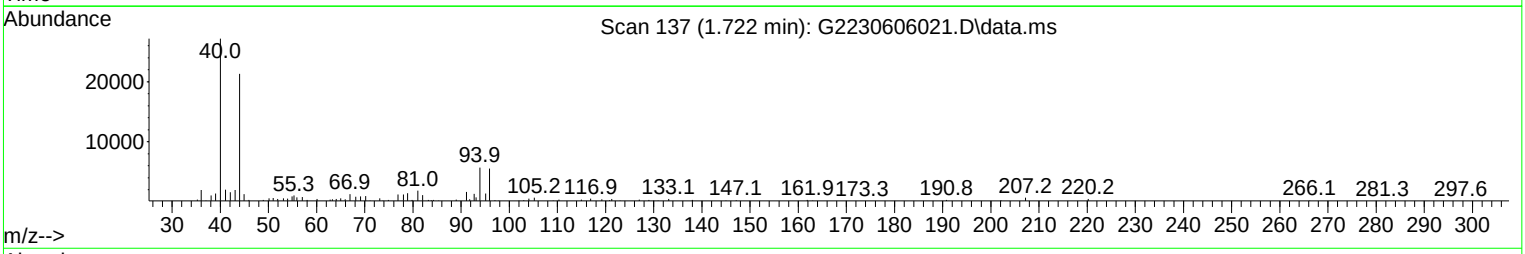
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	87.48
92.90	19.50	0.00
94.90	13.40	0.00

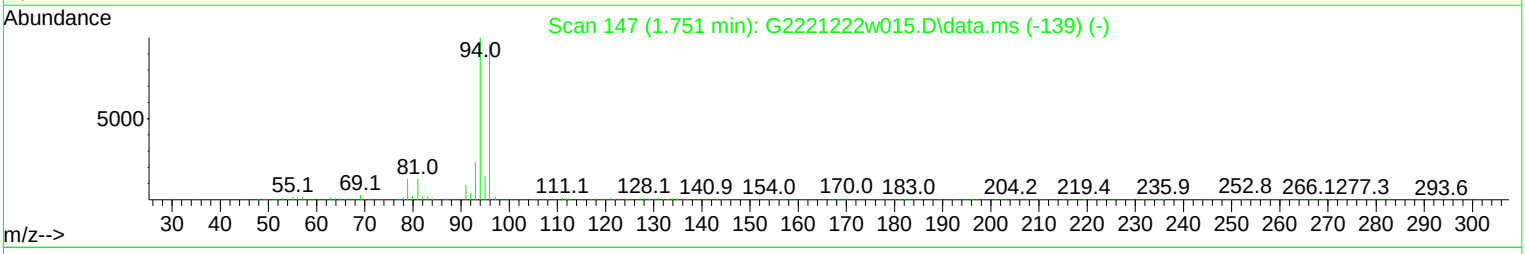
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606021.D
Acq On : 06 Jun 2023 18:58
Operator : PO1
Sample : 23E0775-06
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 07 09:37:11 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: G2230606021.D\data.ms

(5) Bromomethane (T)

1.722min (+ 0.008) 0.08 ug/L m

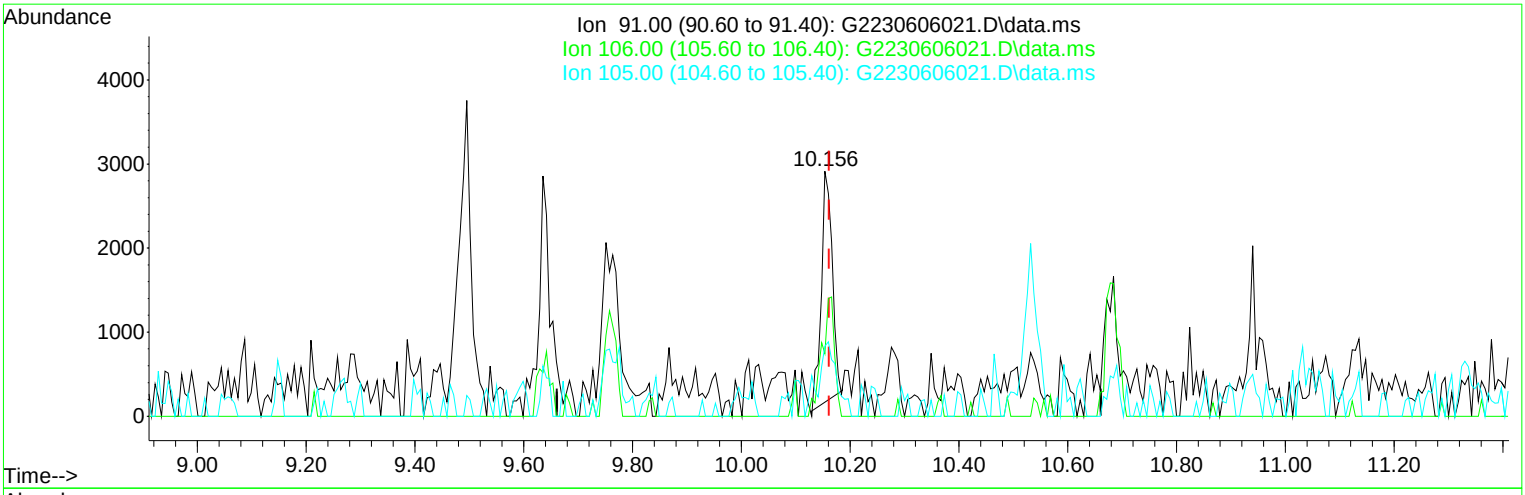
response 87549

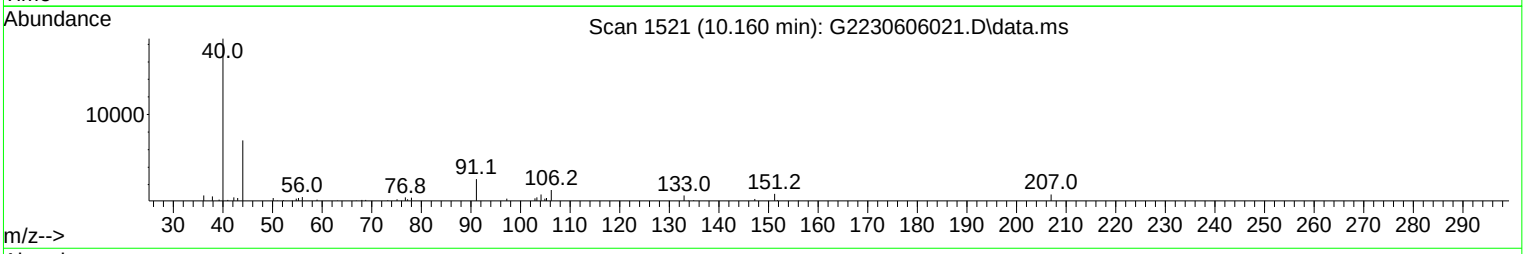
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	97.05
92.90	19.50	0.00
94.90	13.40	0.00

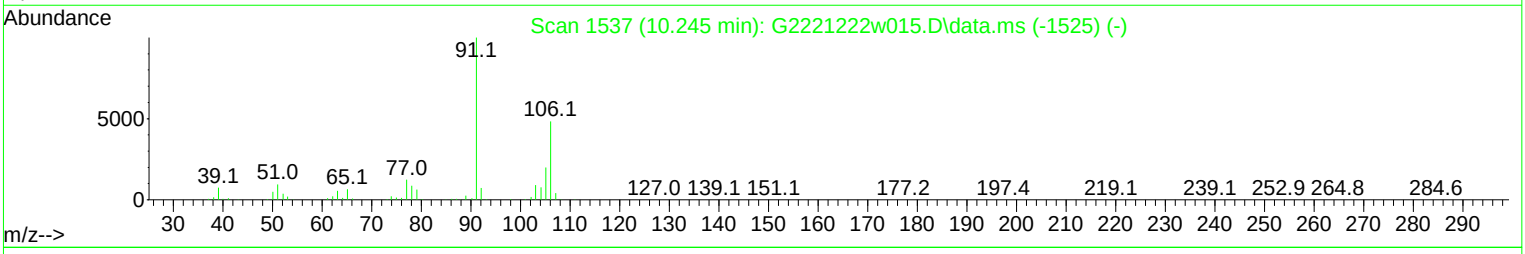
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606021.D
Acq On : 06 Jun 2023 18:58
Operator : PO1
Sample : 23E0775-06
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 07 09:37:11 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: G2230606021.D\data.ms

(79) o-Xylene (T)

10.159min (-0.002) 0.02 ug/L

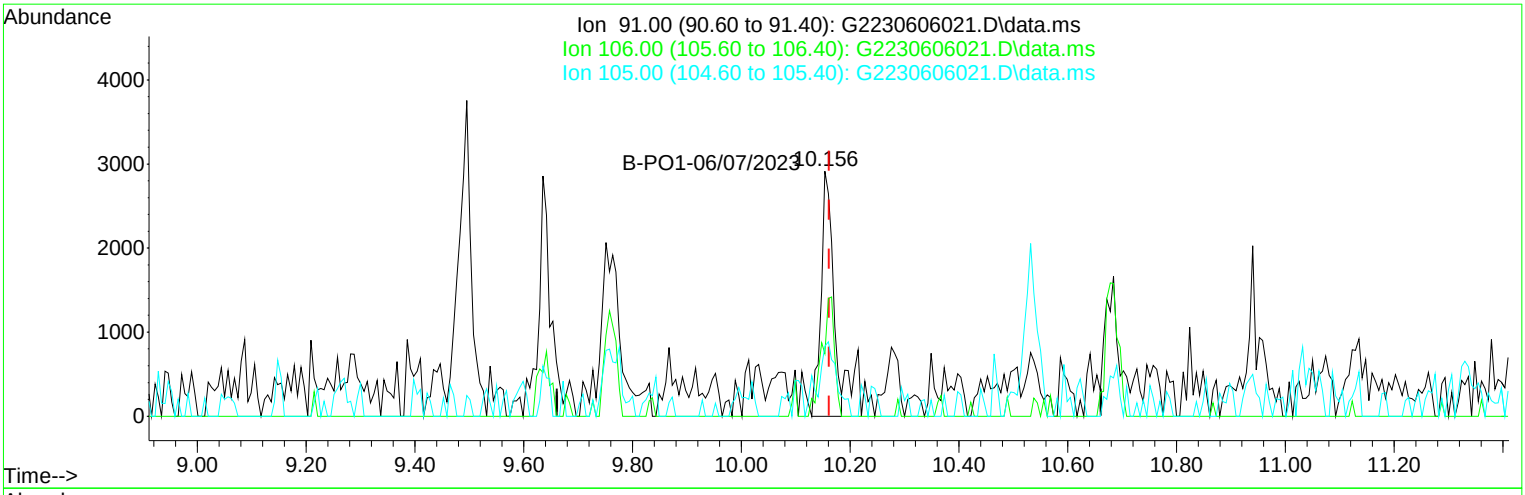
response 37525

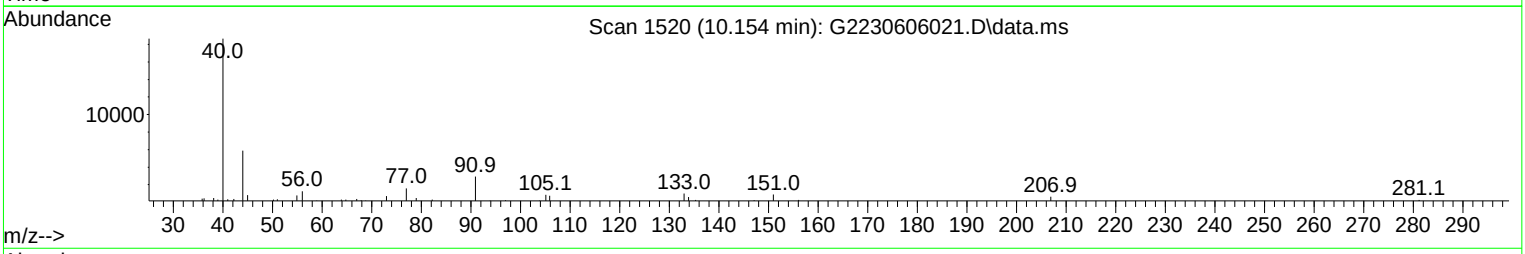
Ion	Exp%	Act%
91.00	100.00	100.00
106.00	46.20	0.00#
105.00	26.70	0.00
0.00	0.00	0.00

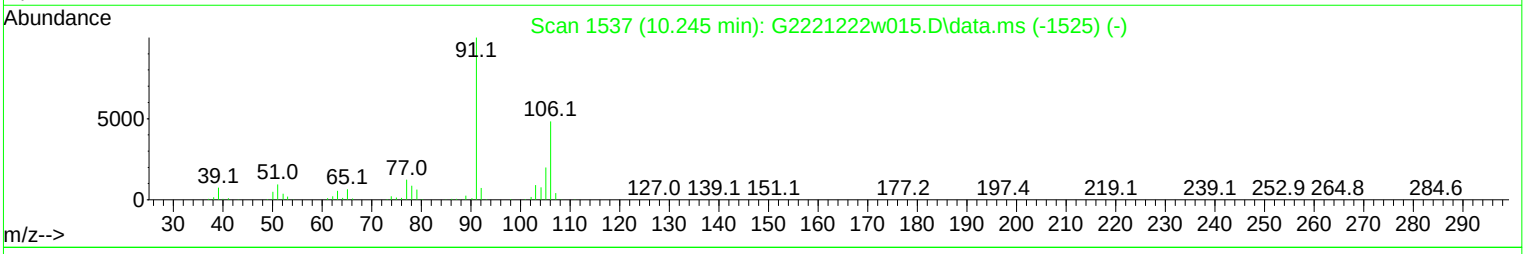
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606021.D
Acq On : 06 Jun 2023 18:58
Operator : PO1
Sample : 23E0775-06
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 07 09:37:11 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: G2230606021.D\data.ms

(79) o-Xylene (T)

10.154min (-0.007) 0.03 ug/L m

response 45259

Ion	Exp%	Act%
91.00	100.00	100.00
106.00	46.20	0.00#
105.00	26.70	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06RE1	File ID:	G2230607011.D
Sampled:	05/26/23 13:55	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 19:00
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*13.0*	*40.0*	*100*	*U*
71-55-6	*1,1,1-Trichloroethane*		*17.5*	*40.0*	*100*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*12.4*	*40.0*	*100*	*U*
79-00-5	*1,1,2-Trichloroethane*		*16.6*	*40.0*	*100*	*U*
75-34-3	*1,1-Dichloroethane*		*13.4*	*40.0*	*100*	*U*
75-35-4	*1,1-Dichloroethene*		*19.1*	*40.0*	*100*	*U*
563-58-6	*1,1-Dichloropropene*		*14.0*	*40.0*	*100*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*20.4*	*40.0*	*100*	*U*
96-18-4	*1,2,3-Trichloropropane*		*18.3*	*40.0*	*100*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*20.5*	*60.0*	*120*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*13.2*	*40.0*	*100*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*26.0*	*100*	*200*	*U*
106-93-4	*1,2-Dibromoethane*		*10.6*	*40.0*	*100*	*U*
95-50-1	*1,2-Dichlorobenzene*		*12.6*	*40.0*	*100*	*U*
107-06-2	*1,2-Dichloroethane*		*21.2*	*60.0*	*120*	*U*
78-87-5	*1,2-Dichloropropane*		*20.5*	*60.0*	*120*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*10.0*	*40.0*	*100*	*U*
541-73-1	*1,3-Dichlorobenzene*		*14.5*	*40.0*	*100*	*U*
142-28-9	*1,3-Dichloropropane*		*13.6*	*40.0*	*100*	*U*
106-46-7	*1,4-Dichlorobenzene*		*18.4*	*40.0*	*100*	*U*
594-20-7	*2,2-Dichloropropane*		*18.4*	*40.0*	*100*	*U*
78-93-3	*2-Butanone*		*66.0*	*140*	*350*	*U*
95-49-8	*2-Chlorotoluene*		*14.7*	*40.0*	*100*	*U*
591-78-6	*2-Hexanone*		*14.3*	*140*	*350*	*U*
106-43-4	*4-Chlorotoluene*		*18.4*	*40.0*	*100*	*U*
99-87-6	*4-Isopropyltoluene*		*14.0*	*40.0*	*100*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06RE1	File ID:	G2230607011.D
Sampled:	05/26/23 13:55	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 19:00
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*27.0*	*140*	*350*	*U*
67-64-1	*Acetone*		*104*	*400*	*800*	*U*
71-43-2	*Benzene*		*10.1*	*40.0*	*100*	*U*
108-86-1	*Bromobenzene*		*17.0*	*40.0*	*100*	*U*
74-97-5	*Bromochloromethane*		*13.4*	*40.0*	*100*	*U*
75-27-4	*Bromodichloromethane*		*10.6*	*40.0*	*100*	*U*
75-25-2	*Bromoform*		*20.6*	*40.0*	*100*	*U*
74-83-9	*Bromomethane*		*32.0*	*100*	*200*	*U*
75-15-0	*Carbon disulfide*		*28.0*	*100*	*200*	*U*
56-23-5	*Carbon tetrachloride*		*16.9*	*40.0*	*100*	*U*
108-90-7	*Chlorobenzene*		*13.0*	*40.0*	*100*	*U*
75-00-3	*Chloroethane*		*31.1*	*40.0*	*100*	*U*
67-66-3	*Chloroform*		*20.3*	*60.0*	*120*	*U*
74-87-3	*Chloromethane*		*38.4*	*100*	*200*	*U*
156-59-2	cis-1,2-Dichloroethene	66.0	20.5	60.0	120	J, D
10061-01-5	*cis-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
124-48-1	*Dibromochloromethane*		*15.2*	*40.0*	*100*	*U*
74-95-3	*Dibromomethane*		*16.3*	*40.0*	*100*	*U*
75-71-8	*Dichlorodifluoromethane*		*25.9*	*100*	*200*	*U*
100-41-4	*Ethylbenzene*		*6.00*	*20.0*	*40.0*	*U*
87-68-3	*Hexachlorobutadiene*		*20.0*	*40.0*	*100*	*U*
98-82-8	*Isopropylbenzene*		*11.0*	*40.0*	*100*	*U*
179601-23-1	*m,p-Xylene*		*17.8*	*80.0*	*200*	*U*
1634-04-4	*Methyl tert-butyl ether*		*10.6*	*40.0*	*100*	*U*
75-09-2	*Methylene chloride*		*44.7*	*100*	*200*	*U*
104-51-8	*n-Butylbenzene*		*26.0*	*100*	*200*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06RE1	File ID:	G2230607011.D
Sampled:	05/26/23 13:55	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 19:00
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*12.6*	*40.0*	*100*	*U*
91-20-3	*Naphthalene*		*14.0*	*40.0*	*100*	*U*
95-47-6	*o-Xylene*		*8.32*	*40.0*	*100*	*U*
135-98-8	*sec-Butylbenzene*		*12.0*	*40.0*	*100*	*U*
100-42-5	*Styrene*		*9.06*	*20.0*	*40.0*	*U*
98-06-6	*tert-Butylbenzene*		*9.06*	*40.0*	*100*	*U*
127-18-4	*Tetrachloroethene*		*35.7*	*100*	*200*	*Q, U*
108-88-3	*Toluene*		*11.4*	*40.0*	*100*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*17.1*	*40.0*	*100*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
79-01-6	*Trichloroethene*	*10300*	*15.6*	*40.0*	*100*	*B, D, E*
75-69-4	*Trichlorofluoromethane*		*10.1*	*40.0*	*100*	*U*
75-01-4	*Vinyl chloride*		*25.8*	*100*	*200*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607011.D
Acq On : 07 Jun 2023 19:00
Operator : PO1
Sample : 23E0775-06RE1
Misc : 200
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 08 09:35:24 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

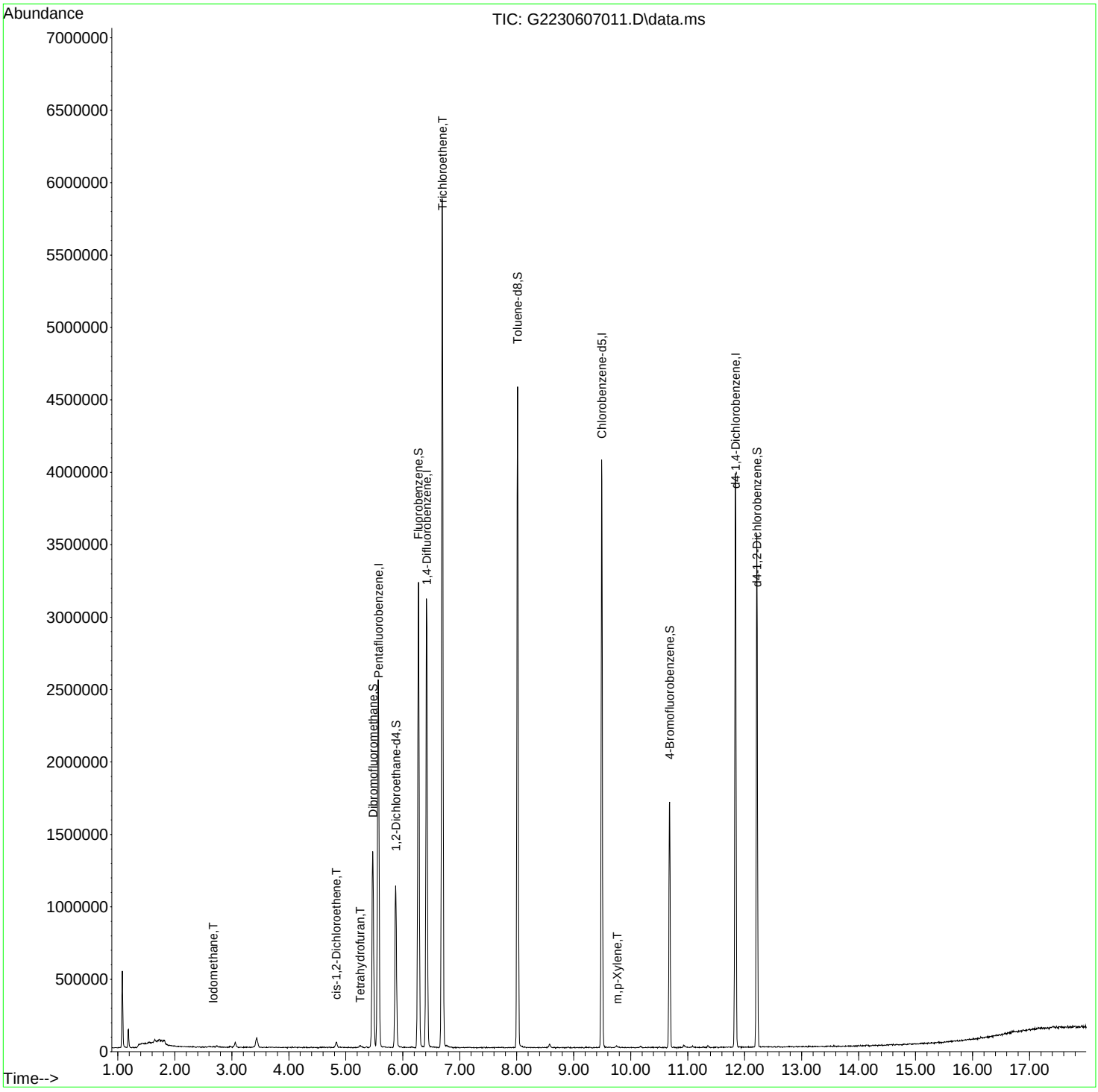
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	20127011	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	27160784	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24172132	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11436976	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	8461440	19.10	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.50%			
43) 1,2-Dichloroethane-d4	5.878	65	8023900	18.33	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.65%			
49) Fluorobenzene	6.278	96	30555601	19.74	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.70%			
64) Toluene-d8	8.017	98	29495156	19.36	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%			
81) 4-Bromofluorobenzene	10.685	174	5374367	9.95	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.50%			
97) d4-1,2-Dichlorobenzene	12.217	152	9933154	20.19	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.95%			
Target Compounds						Qvalue
13) Iodomethane	2.675	142	44880	0.10	ug/L #	41
18) Methylene chloride	3.060	49	157393	Below Cal	#	64
21) Methyl tert-butyl ether	3.438	73	860023	Below Cal		94
28) cis-1,2-Dichloroethene	4.834	61	207178	0.33	ug/L	70
36) Tetrahydrofuran	5.254	42	71345	0.13	ug/L	78
50) Trichloroethene	6.695	95	18314018	51.27	ug/L	90
75) m,p-Xylene	9.762	91	60201	0.05	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607011.D
Acq On : 07 Jun 2023 19:00
Operator : PO1
Sample : 23E0775-06RE1
Misc : 200
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 08 09:35:24 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607011.D
Acq On : 07 Jun 2023 19:00
Operator : PO1
Sample : 23E0775-06RE1
Misc : 200
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 08 09:35:24 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

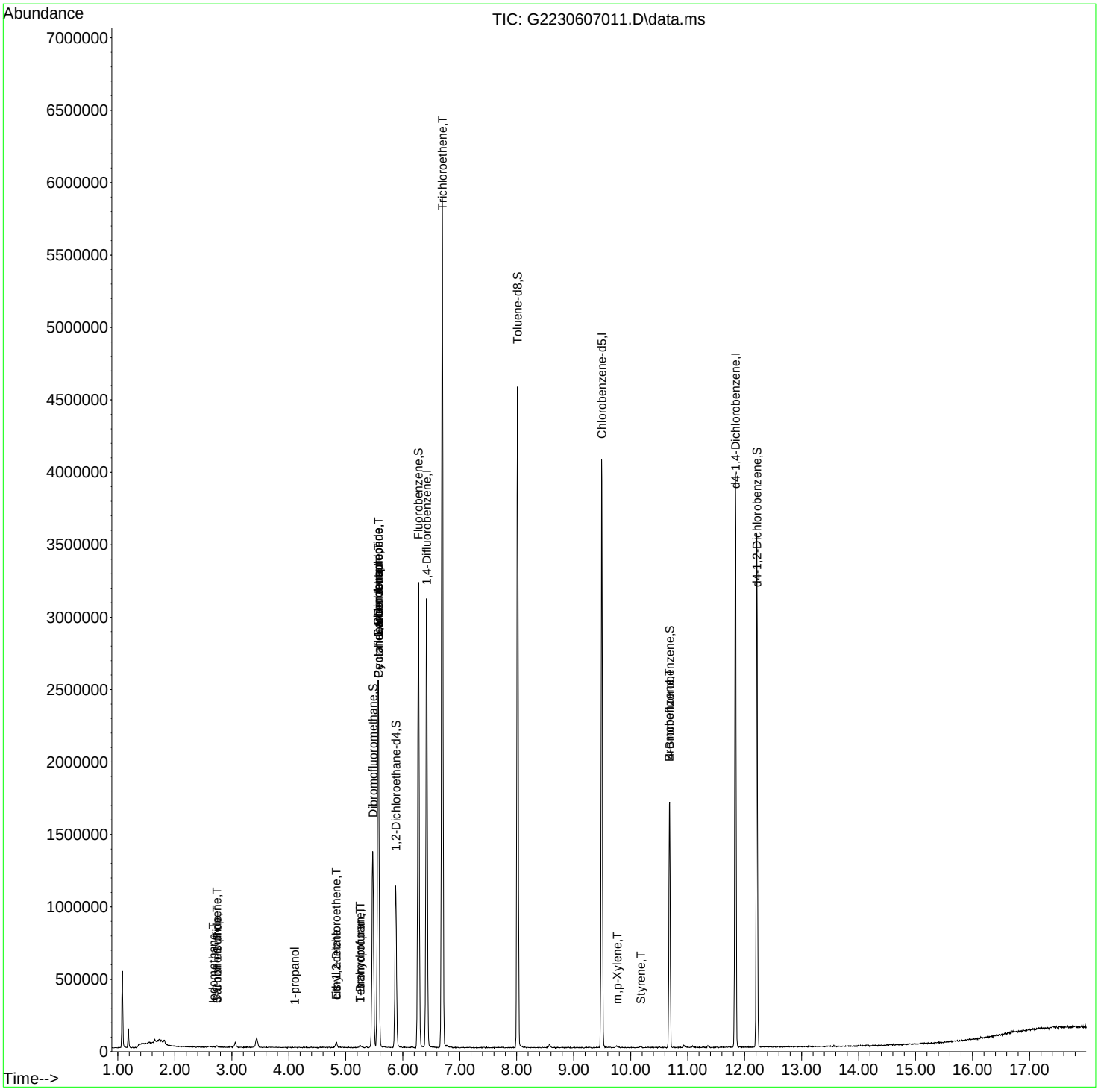
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	20127011	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	27160784	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24172132	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11436976	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	8461440	19.10	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.50%				
43) 1,2-Dichloroethane-d4	5.878	65	8023900	18.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.65%				
49) Fluorobenzene	6.278	96	30555601	19.74	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.70%				
64) Toluene-d8	8.017	98	29495156	19.36	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%				
81) 4-Bromofluorobenzene	10.685	174	5374367	9.95	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.50%				
97) d4-1,2-Dichlorobenzene	12.217	152	9933154	20.19	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.95%				
Target Compounds							Qvalue
5) Bromomethane	1.726	94	55260	Below Cal		#	83
12) Acetone	2.608	43	100507	Below Cal		#	45
13) Iodomethane	2.675	142	44880	0.10	ug/L	#	41
14) Carbon disulfide	2.741	76	155915	0.08	ug/L	#	74
17) 3-Chloro-1-propene	2.741	76	155918	0.69	ug/L	#	53
18) Methylene chloride	3.060	49	157393	Below Cal		#	64
21) Methyl tert-butyl ether	3.438	73	860023	Below Cal			94
26) 1-propanol	4.108	59	904	0.43	ug/L	#	100
28) cis-1,2-Dichloroethene	4.834	61	207178	0.33	ug/L		70
31) Ethyl acetate	4.834	61	207176	3.25	ug/L	#	45
33) 1-Bromopropane	5.254	41	49044	0.11	ug/L	#	40
36) Tetrahydrofuran	5.254	42	71345	0.13	ug/L		78
40) Cyclohexane	5.573	84	416613	0.77	ug/L	#	29
41) 1-Chlorobutane	5.571	56	259547	0.41	ug/L	#	1
42) 1,1-Dichloropropene	5.571	75	1025320	2.17	ug/L	#	38
47) Carbon tetrachloride	5.571	117	1574823	3.21	ug/L	#	16
50) Trichloroethene	6.695	95	18314018	51.27	ug/L		90
60) 4-Methyl-2-pentanone	8.014	43	93626	Below Cal		#	1
65) Toluene	8.086	91	34818	Below Cal		#	82
74) Ethylbenzene	9.763	91	62137	Below Cal		#	44
75) m,p-Xylene	9.762	91	60201	0.05	ug/L	#	36
76) Styrene	10.177	104	27506	0.02	ug/L	#	29
82) Bromobenzene	10.679	77	36579	0.06	ug/L	#	1
99) n-Butylbenzene	12.212	91	40831	Below Cal		#	53

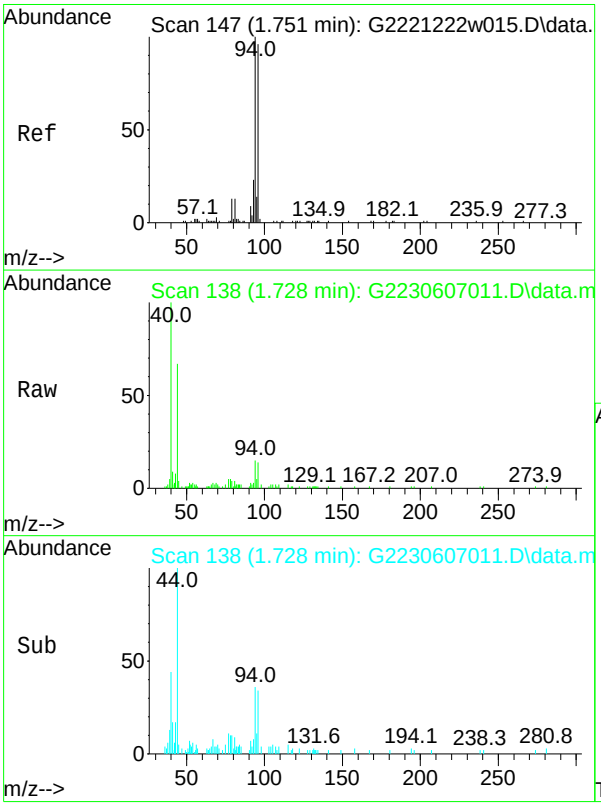
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607011.D
Acq On : 07 Jun 2023 19:00
Operator : PO1
Sample : 23E0775-06RE1
Misc : 200
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 08 09:35:24 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

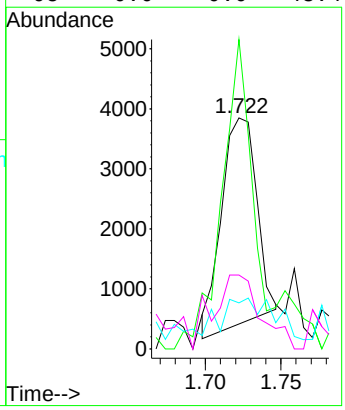


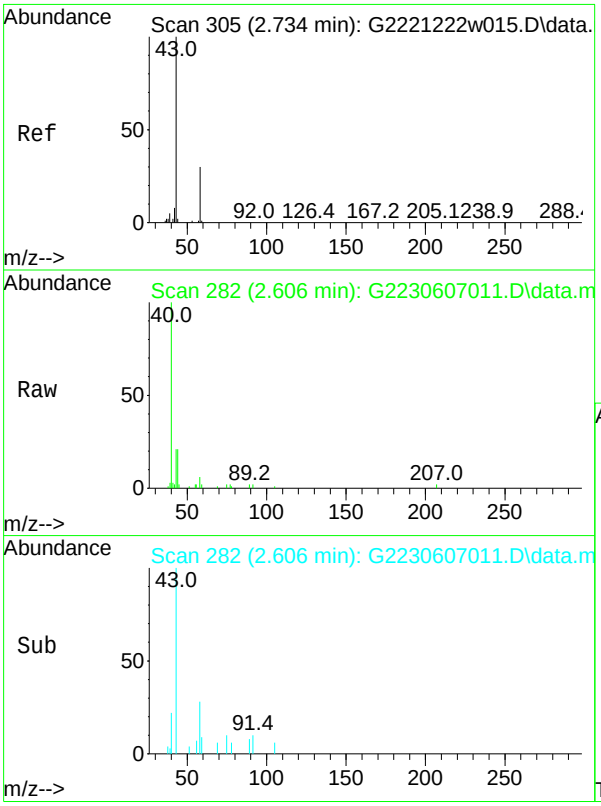


#5
Bromomethane
Concen: Below Cal
RT: 1.726 min Scan# 138
Delta R.T. 0.012 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 94 Resp: 55260

Ion	Ratio	Lower	Upper
94	100		
96	105.0	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

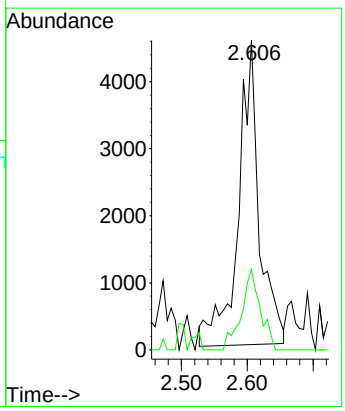


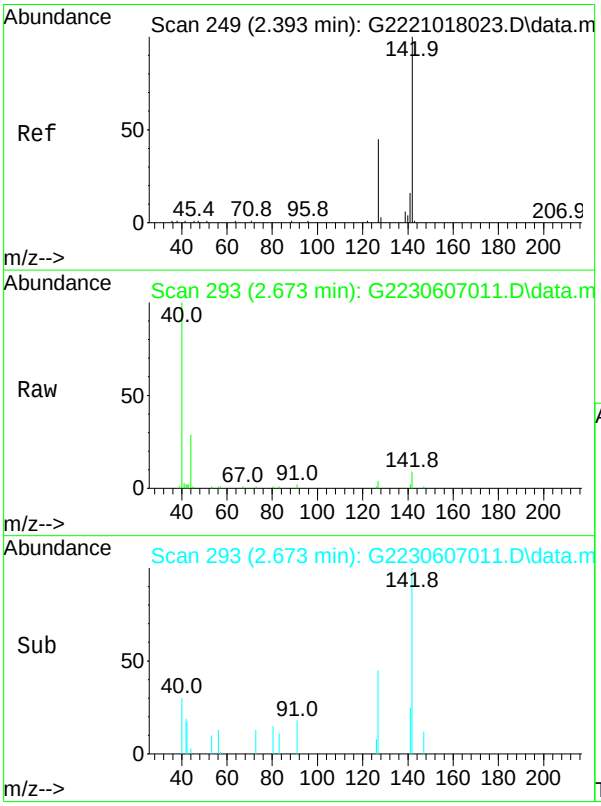


#12
Acetone
Concen: Below Cal
RT: 2.608 min Scan# 282
Delta R.T. -0.000 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 43 Resp: 100507

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

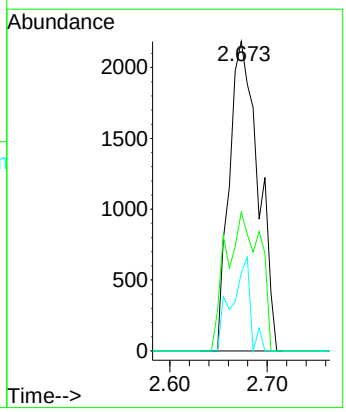


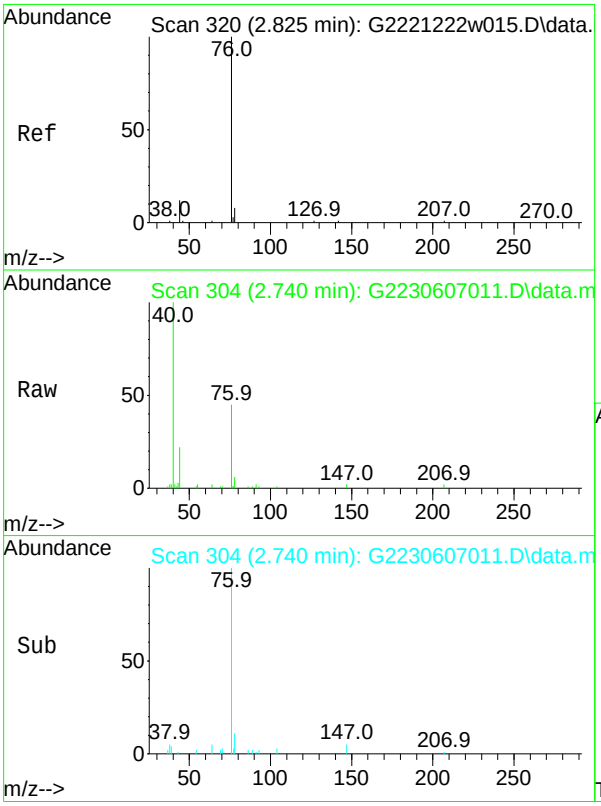


#13
Iodomethane
Concen: 0.10 ug/L
RT: 2.675 min Scan# 293
Delta R.T. -0.001 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion:142 Resp: 44880

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

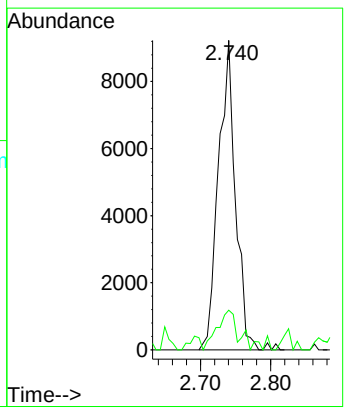


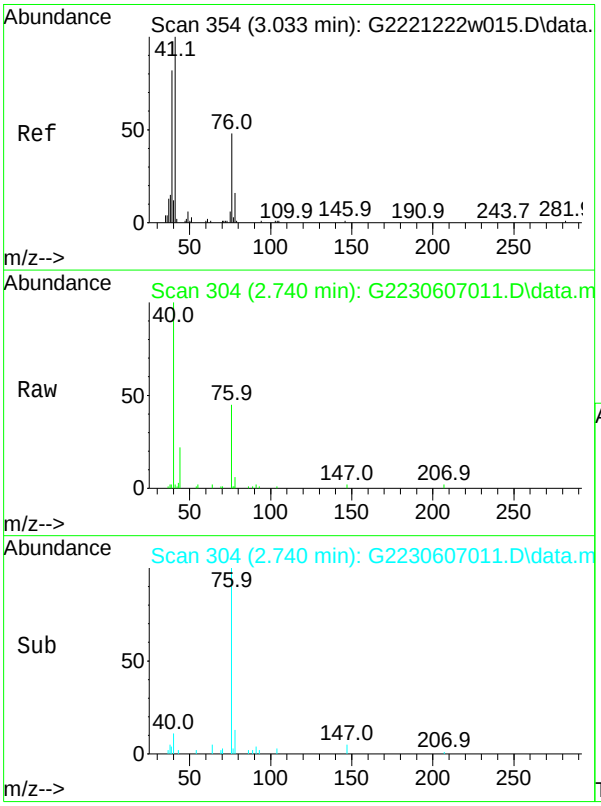


#14
Carbon disulfide
Concen: 0.08 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 76 Resp: 155915

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

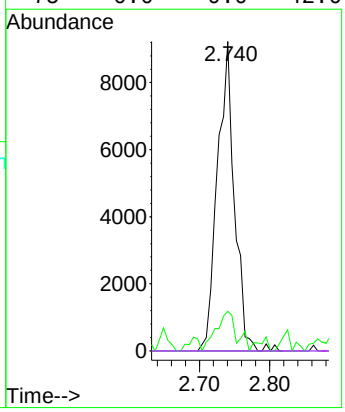


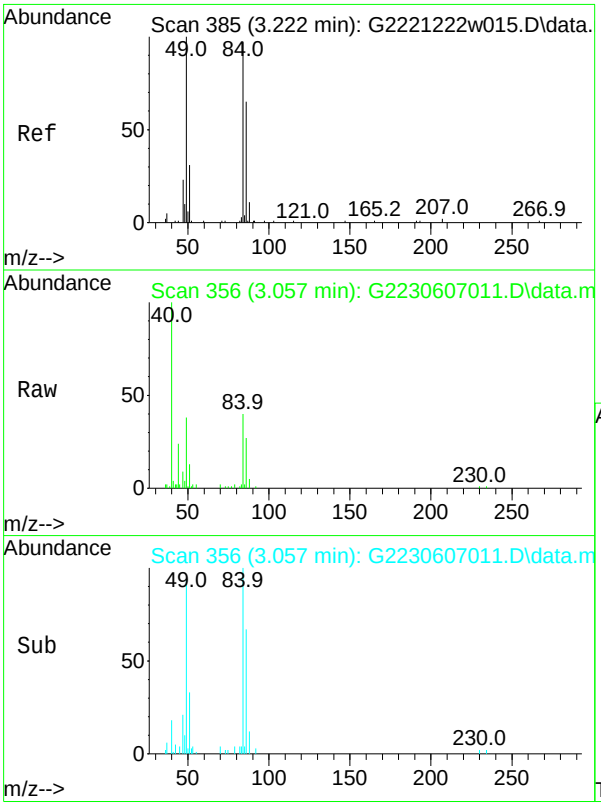


#17
3-Chloro-1-propene
Concen: 0.69 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 76 Resp: 155918

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

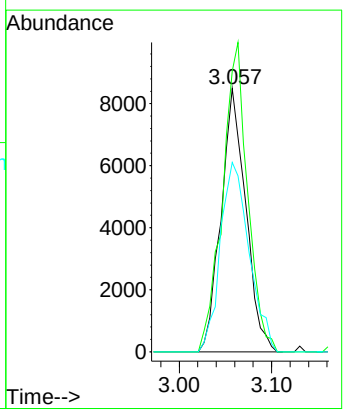


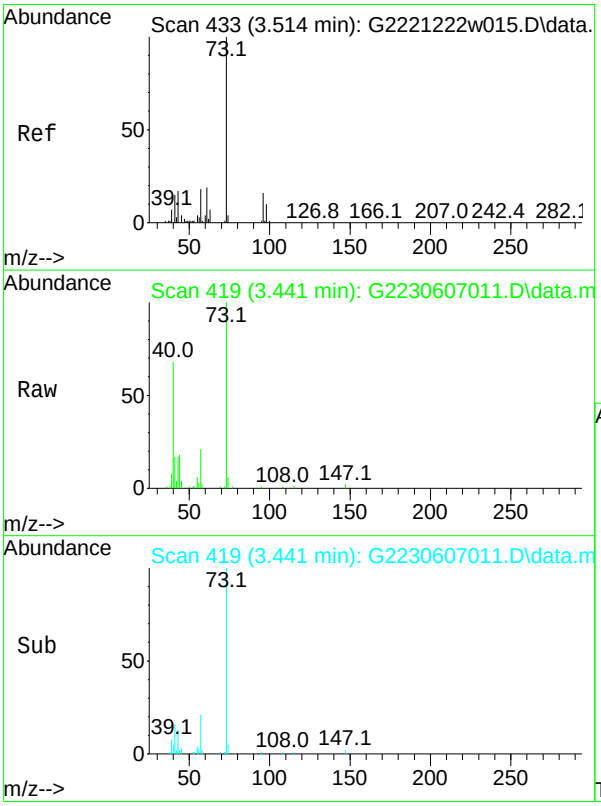


#18
Methylene chloride
Concen: Below Cal
RT: 3.060 min Scan# 356
Delta R.T. -0.002 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 49 Resp: 157393

Ion	Ratio	Lower	Upper
49	100		
84	119.3	57.9	117.9#
86	84.1	24.9	84.9

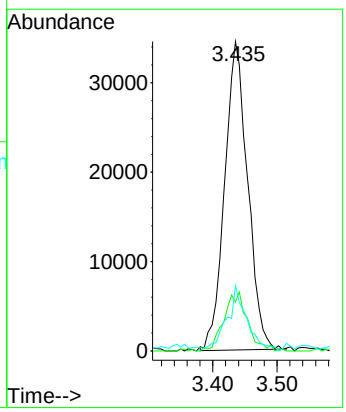


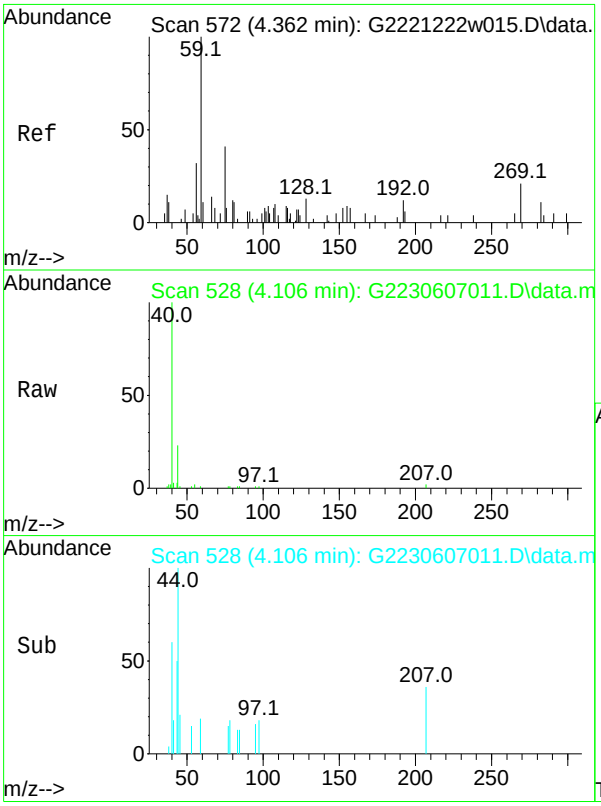


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.438 min Scan# 419
Delta R.T. -0.008 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 73 Resp: 860023

Ion	Ratio	Lower	Upper
73	100		
57	19.6	0.0	51.7
41	17.3	0.0	50.6

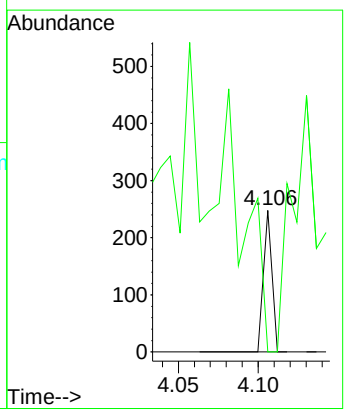


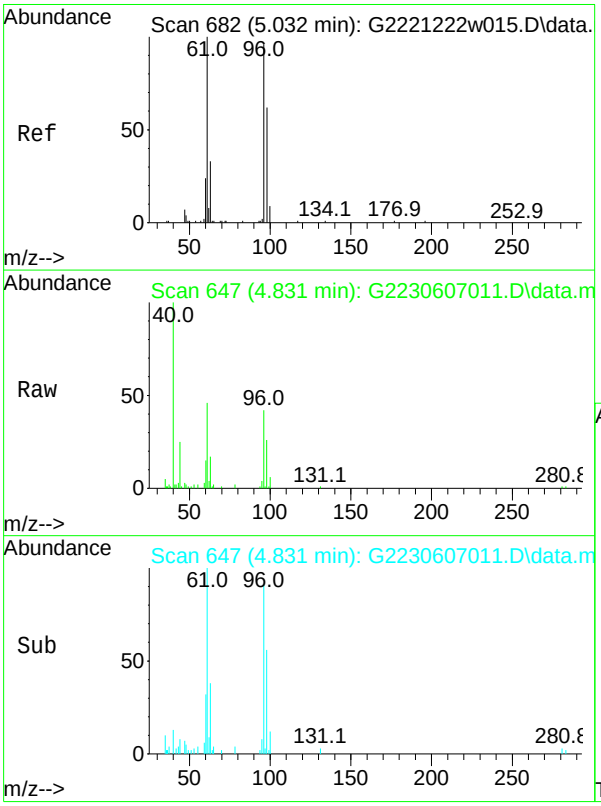


#26
1-propanol
Concen: 0.43 ug/L
RT: 4.108 min Scan# 528
Delta R.T. -0.181 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 59 Resp: 904

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

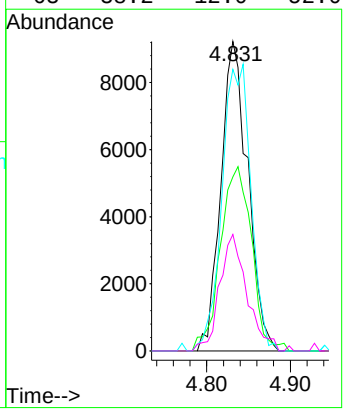


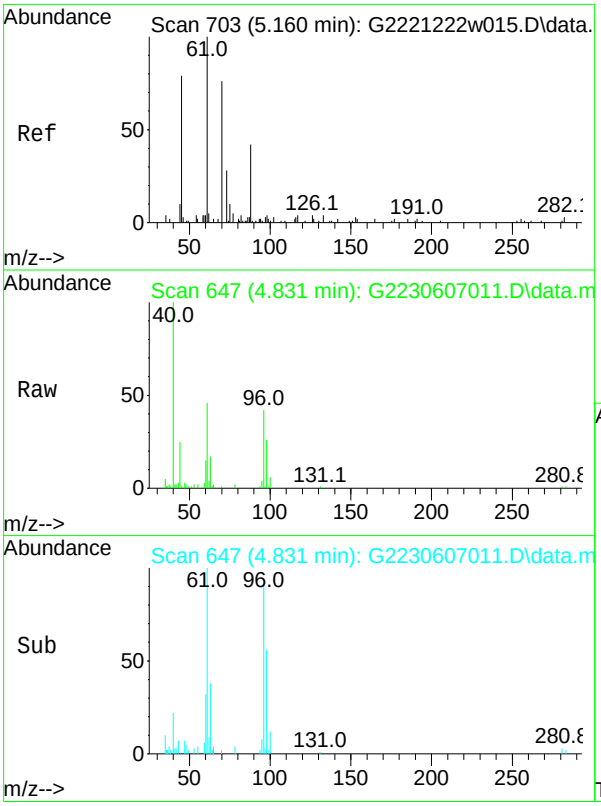


#28
cis-1,2-Dichloroethene
Concen: 0.33 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.002 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 61 Resp: 207178

Ion	Ratio	Lower	Upper
61	100		
98	68.9	15.9	75.9
96	99.2	39.6	99.6
63	38.2	12.0	52.0

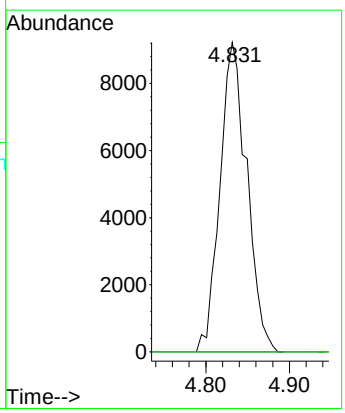


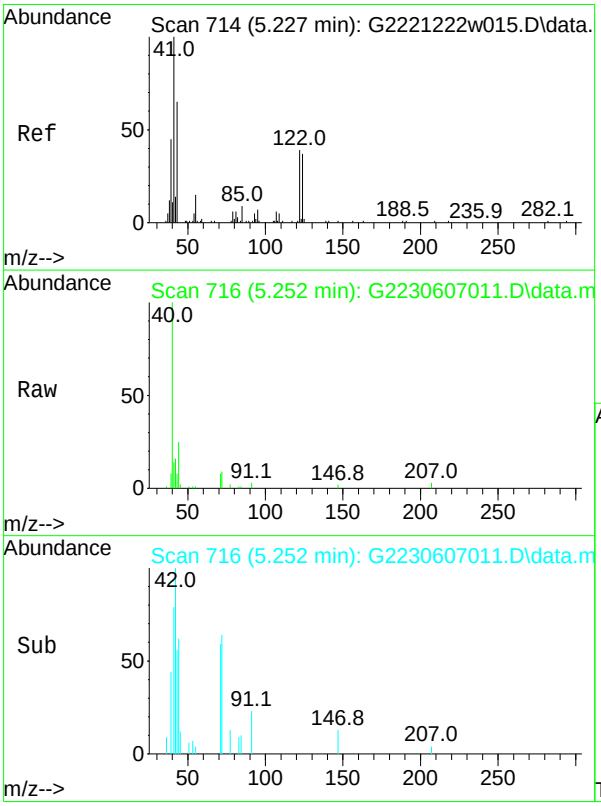


#31
Ethyl acetate
Concen: 3.25 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.188 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 61 Resp: 207176

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

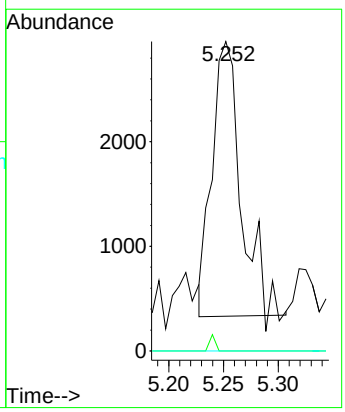


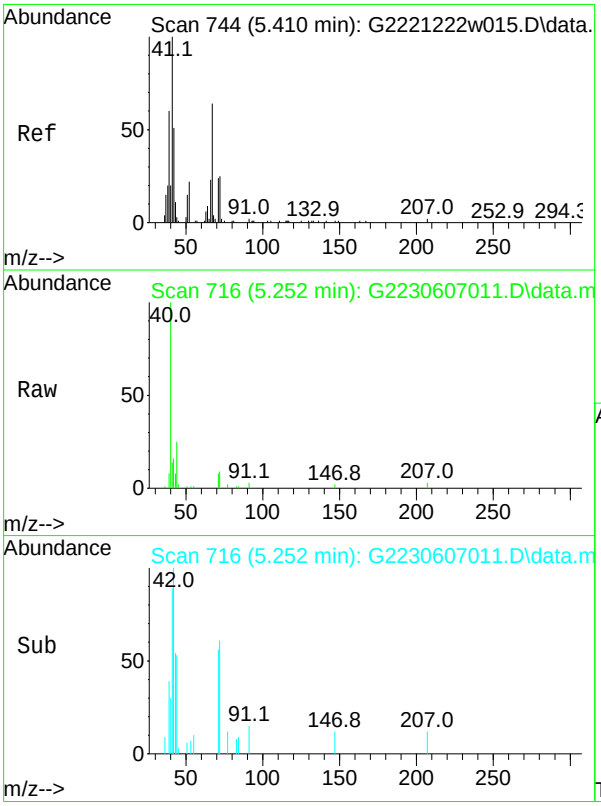


#33
1-Bromopropane
Concen: 0.11 ug/L
RT: 5.254 min Scan# 716
Delta R.T. 0.178 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 41 Resp: 49044

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

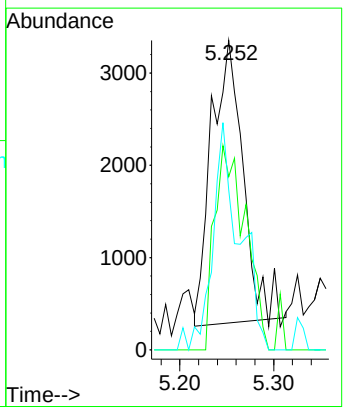


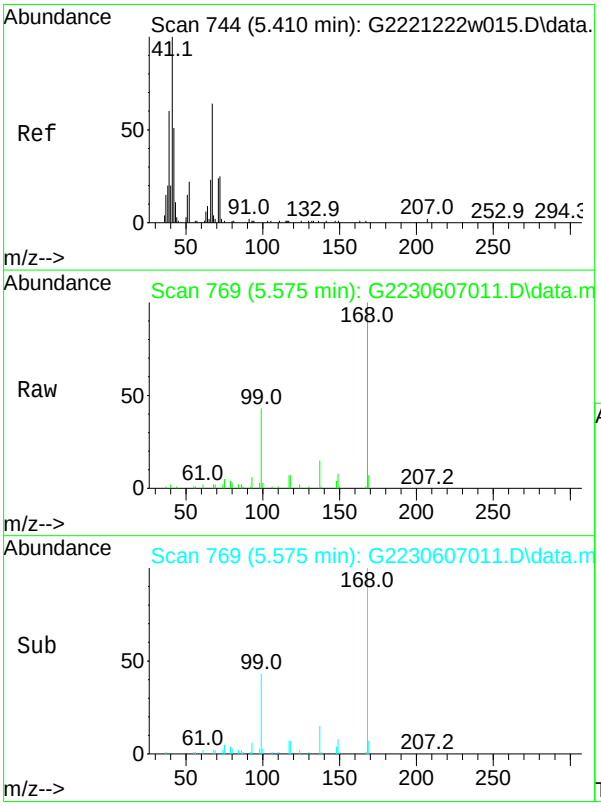


#36
Tetrahydrofuran
Concen: 0.13 ug/L
RT: 5.254 min Scan# 716
Delta R.T. -0.007 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 42 Resp: 71345

Ion	Ratio	Lower	Upper
42	100		
72	71.1	18.8	78.8
71	50.9	14.7	74.7

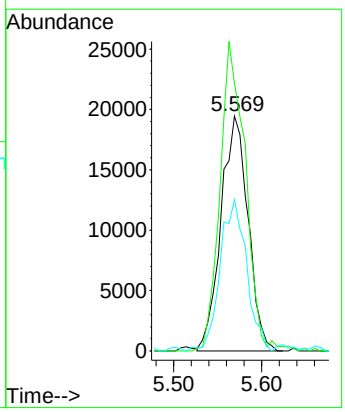


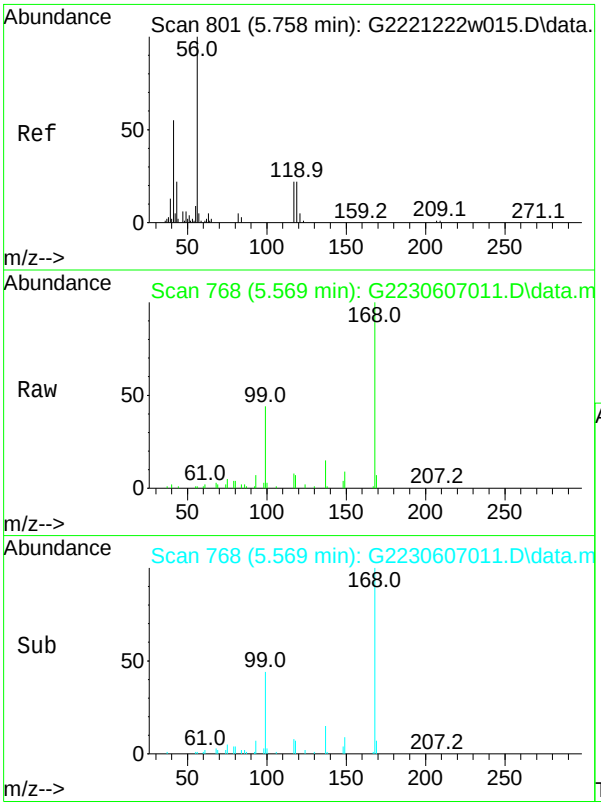


#40
Cyclohexane
Concen: 0.77 ug/L
RT: 5.573 min Scan# 769
Delta R.T. 0.039 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 84 Resp: 416613

Ion	Ratio	Lower	Upper
84	100		
69	124.0	6.8	66.8#
56	62.0	79.1	139.1#

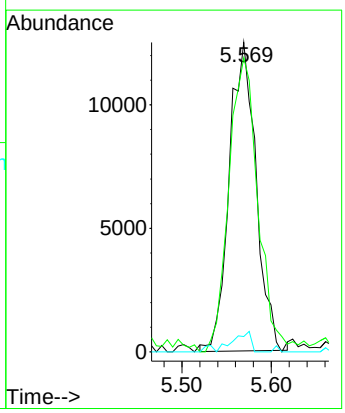


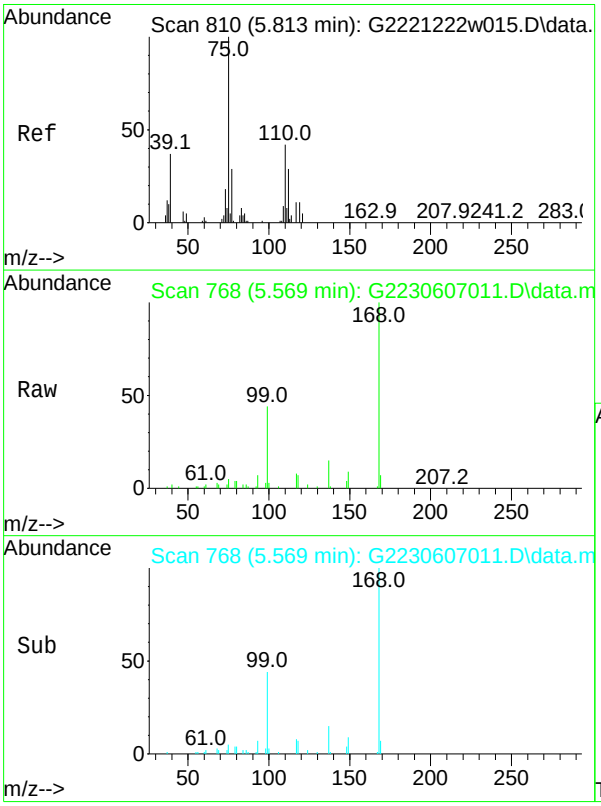


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.059 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 56 Resp: 259547

Ion	Ratio	Lower	Upper
56	100		
55	95.4	0.0	41.0#
57	0.0	0.0	35.7

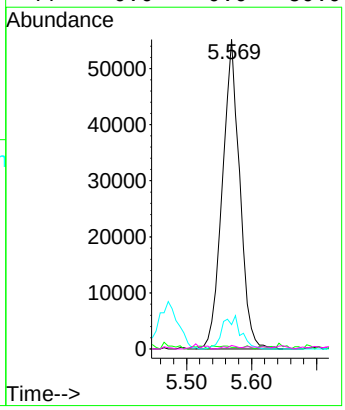


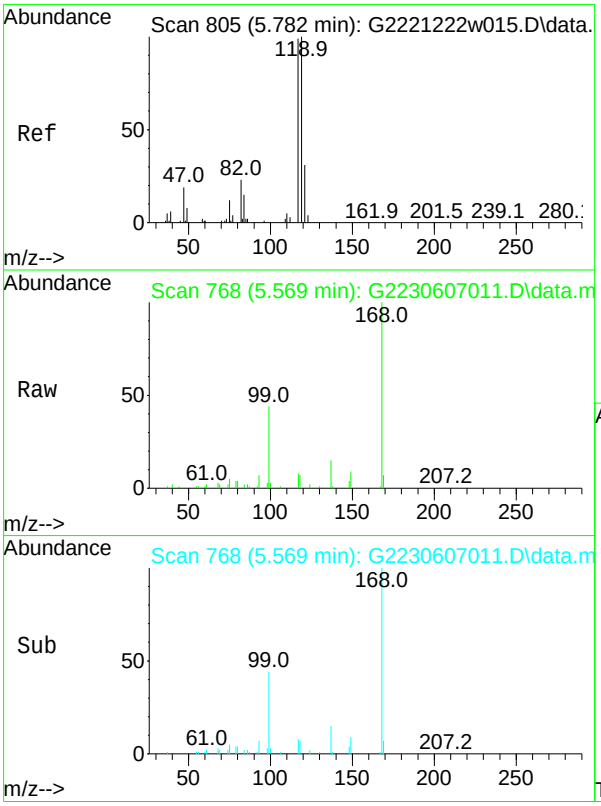


#42
1,1-Dichloropropene
Concen: 2.17 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 75 Resp: 1025320

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

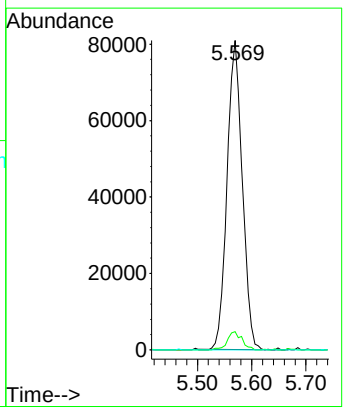


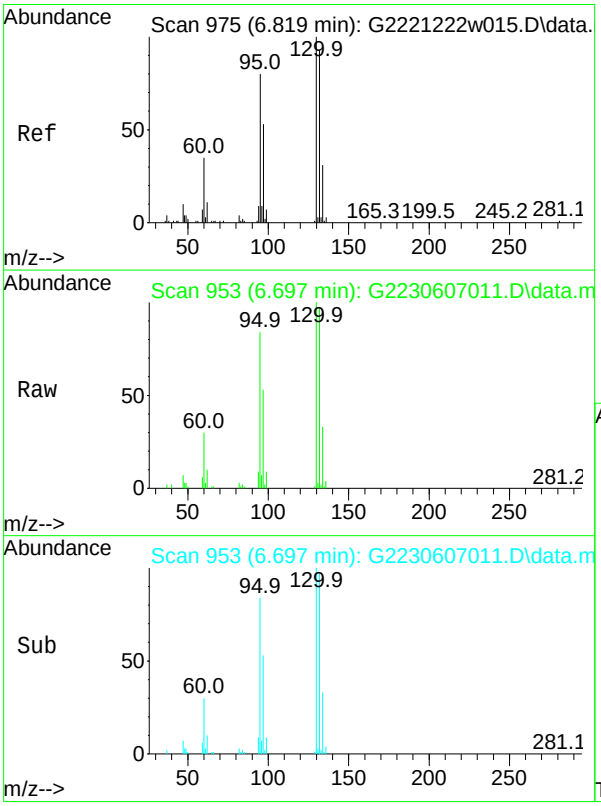


#47
Carbon tetrachloride
Concen: 3.21 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion:117 Resp: 1574823

Ion	Ratio	Lower	Upper
117	100		
119	5.6	66.4	126.4#
121	0.0	0.4	60.4#

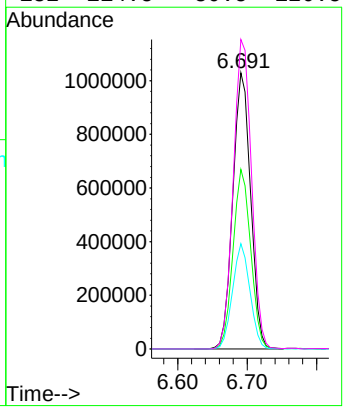


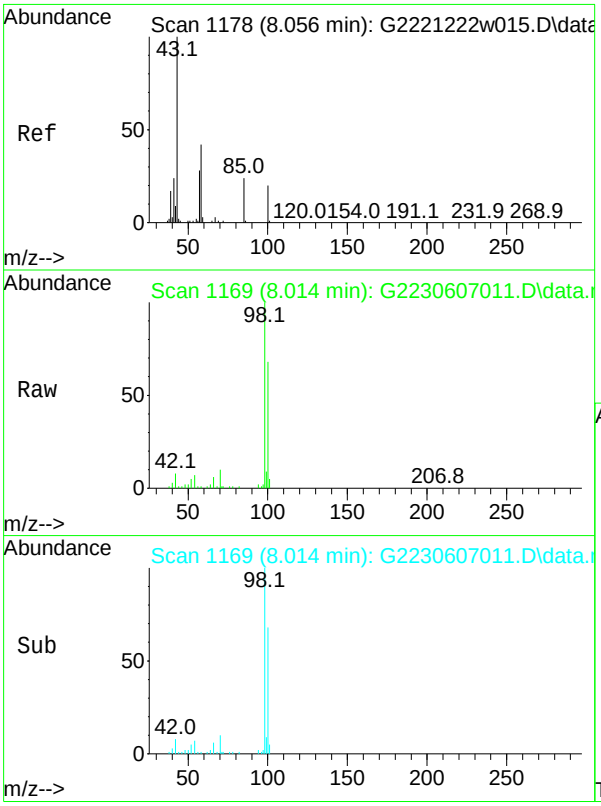


#50
Trichloroethene
Concen: 51.27 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 95 Resp:18314018

Ion	Ratio	Lower	Upper
95	100		
97	64.6	35.5	95.5
60	37.1	14.8	74.8
132	114.5	80.5	120.5

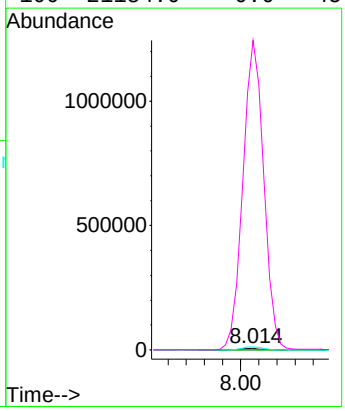


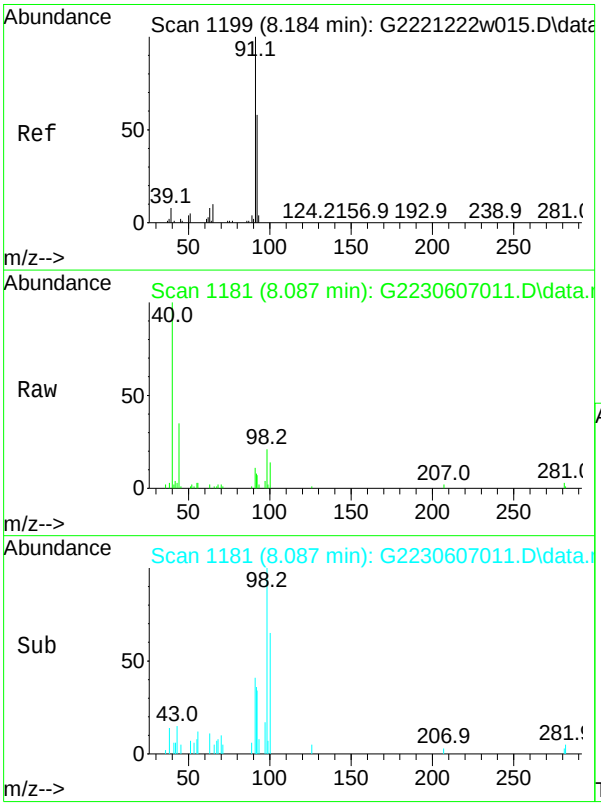


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 43 Resp: 93626

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	206.4	37.0	37.0#
100	21184.0	0.0	45.2#

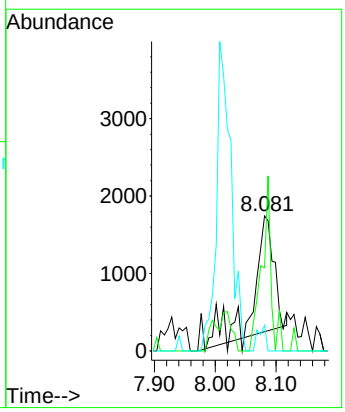


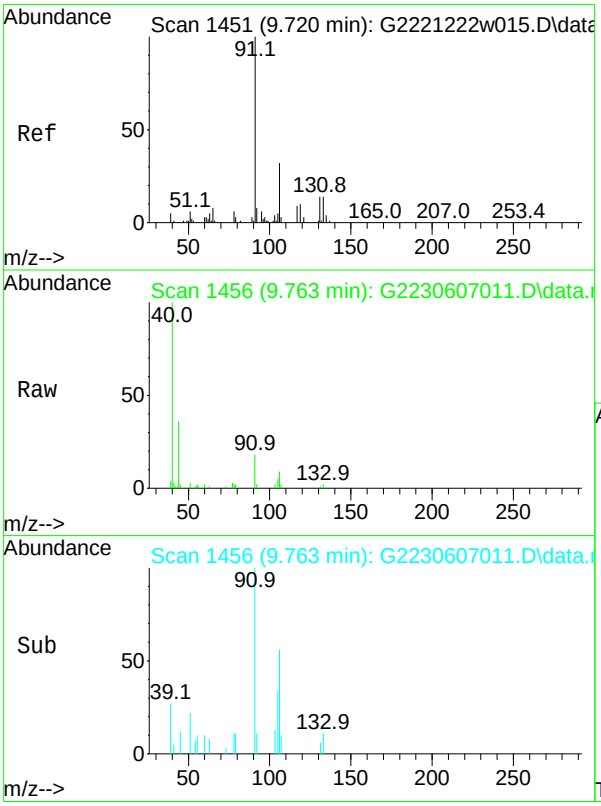


#65
Toluene
Concen: Below Cal
RT: 8.086 min Scan# 1181
Delta R.T. -0.000 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 91 Resp: 34818

Ion	Ratio	Lower	Upper
91	100		
92	68.9	27.5	87.5
65	0.0	0.0	41.4

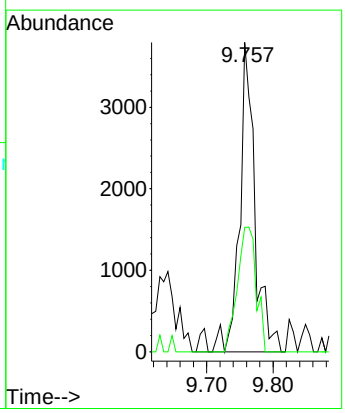


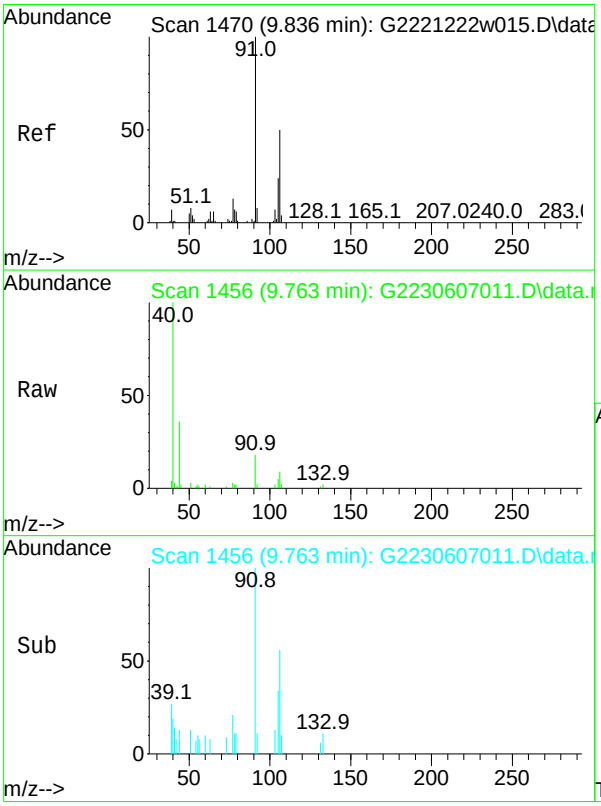


#74
Ethylbenzene
Concen: Below Cal
RT: 9.763 min Scan# 1456
Delta R.T. 0.120 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 91 Resp: 62137

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

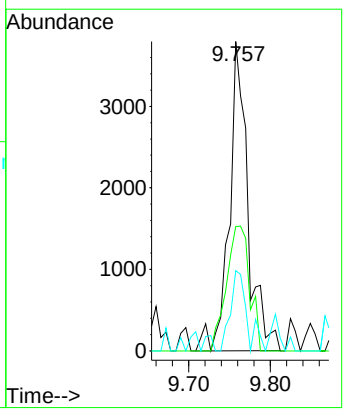


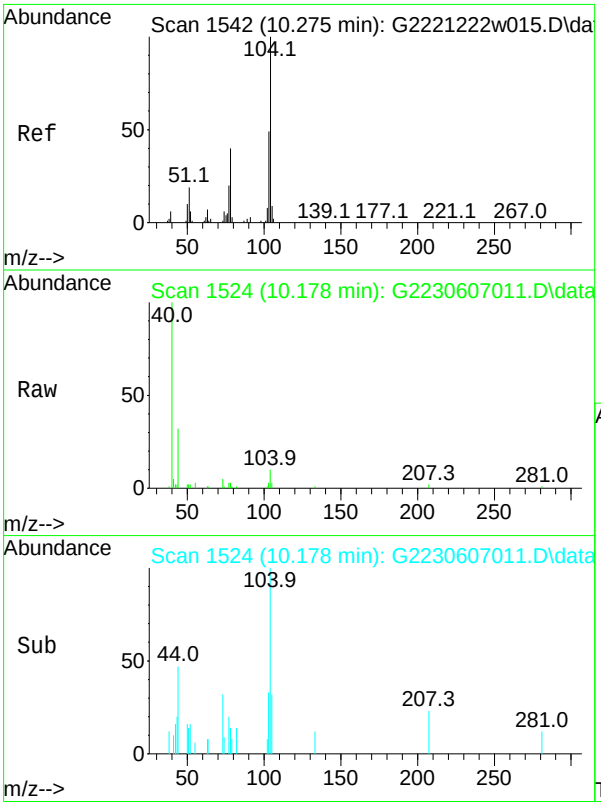


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.762 min Scan# 1456
Delta R.T. -0.002 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 91 Resp: 60201

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

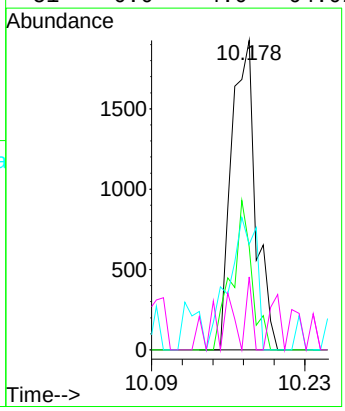


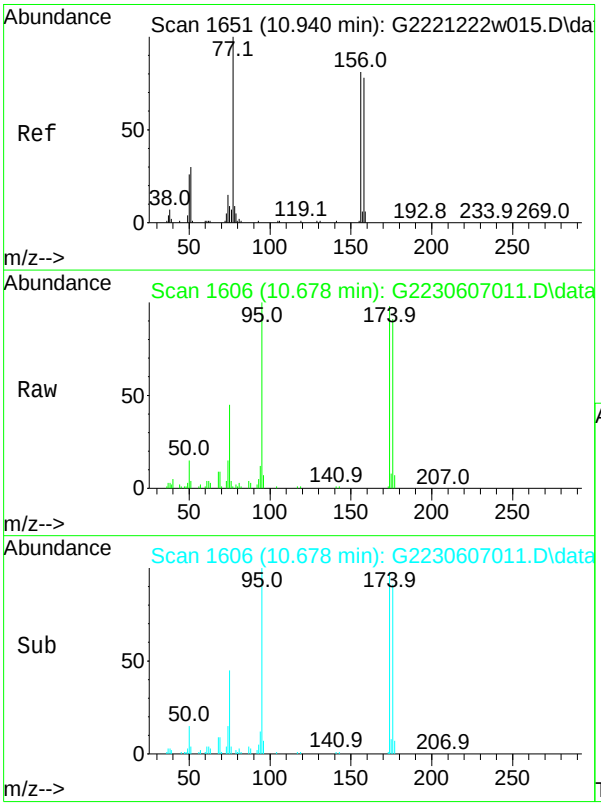


#76
Styrene
Concen: 0.02 ug/L
RT: 10.177 min Scan# 1524
Delta R.T. -0.000 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion:104 Resp: 27506

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

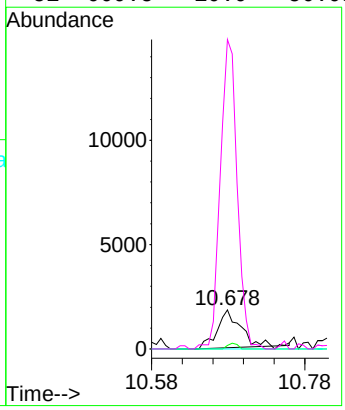


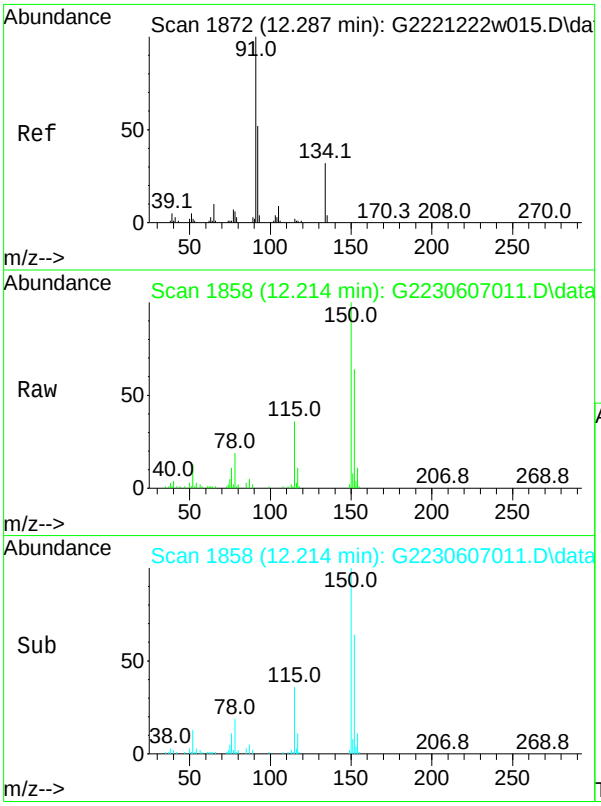


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.679 min Scan# 1606
Delta R.T. -0.149 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 77 Resp: 36579

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	609.5	10.9	50.9#

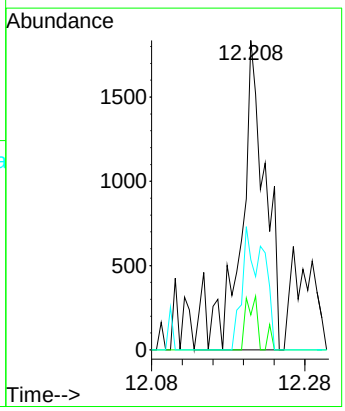




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.212 min Scan# 1858
Delta R.T. -0.019 min
Lab File: G2230607011.D
Acq: 07 Jun 2023 19:00

Tgt Ion: 91 Resp: 40831

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

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06RE2	File ID:	G2230608018.D
Sampled:	05/26/23 13:55	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 16:19
		Preparation:	5030_W	Dilution:	1000
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*65.0*	*200*	*500*	*U*
71-55-6	*1,1,1-Trichloroethane*		*87.7*	*200*	*500*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*62.1*	*200*	*500*	*U*
79-00-5	*1,1,2-Trichloroethane*		*83.2*	*200*	*500*	*U*
75-34-3	*1,1-Dichloroethane*		*66.9*	*200*	*500*	*U*
75-35-4	*1,1-Dichloroethene*		*95.4*	*200*	*500*	*U*
563-58-6	*1,1-Dichloropropene*		*69.9*	*200*	*500*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*102*	*200*	*500*	*U*
96-18-4	*1,2,3-Trichloropropane*		*91.3*	*200*	*500*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*102*	*300*	*600*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*66.1*	*200*	*500*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*130*	*500*	*1000*	*U*
106-93-4	*1,2-Dibromoethane*		*53.1*	*200*	*500*	*U*
95-50-1	*1,2-Dichlorobenzene*		*63.0*	*200*	*500*	*U*
107-06-2	*1,2-Dichloroethane*		*106*	*300*	*600*	*U*
78-87-5	*1,2-Dichloropropane*		*102*	*300*	*600*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*50.0*	*200*	*500*	*U*
541-73-1	*1,3-Dichlorobenzene*		*72.4*	*200*	*500*	*U*
142-28-9	*1,3-Dichloropropane*		*68.0*	*200*	*500*	*U*
106-46-7	*1,4-Dichlorobenzene*		*92.0*	*200*	*500*	*U*
594-20-7	*2,2-Dichloropropane*		*92.0*	*200*	*500*	*U*
78-93-3	*2-Butanone*		*330*	*700*	*1750*	*U*
95-49-8	*2-Chlorotoluene*		*73.3*	*200*	*500*	*U*
591-78-6	*2-Hexanone*		*71.6*	*700*	*1750*	*U*
106-43-4	*4-Chlorotoluene*		*92.1*	*200*	*500*	*U*
99-87-6	*4-Isopropyltoluene*		*70.0*	*200*	*500*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06RE2	File ID:	G2230608018.D
Sampled:	05/26/23 13:55	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 16:19
		Preparation:	5030_W	Dilution:	1000
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*135*	*700*	*1750*	*U*
67-64-1	*Acetone*		*518*	*2000*	*4000*	*U*
71-43-2	*Benzene*		*50.7*	*200*	*500*	*U*
108-86-1	*Bromobenzene*		*84.8*	*200*	*500*	*U*
74-97-5	*Bromochloromethane*		*66.9*	*200*	*500*	*U*
75-27-4	*Bromodichloromethane*		*53.1*	*200*	*500*	*U*
75-25-2	*Bromoform*		*103*	*200*	*500*	*U*
74-83-9	*Bromomethane*		*160*	*500*	*1000*	*U*
75-15-0	*Carbon disulfide*		*140*	*500*	*1000*	*U*
56-23-5	*Carbon tetrachloride*		*84.4*	*200*	*500*	*U*
108-90-7	*Chlorobenzene*		*65.0*	*200*	*500*	*U*
75-00-3	*Chloroethane*		*155*	*200*	*500*	*U*
67-66-3	*Chloroform*		*101*	*300*	*600*	*U*
74-87-3	*Chloromethane*		*192*	*500*	*1000*	*U*
156-59-2	*cis-1,2-Dichloroethene*		*103*	*300*	*600*	*U*
10061-01-5	*cis-1,3-Dichloropropene*		*58.7*	*200*	*500*	*U*
124-48-1	*Dibromochloromethane*		*75.9*	*200*	*500*	*U*
74-95-3	*Dibromomethane*		*81.7*	*200*	*500*	*U*
75-71-8	*Dichlorodifluoromethane*		*130*	*500*	*1000*	*U*
100-41-4	*Ethylbenzene*		*30.0*	*100*	*200*	*U*
87-68-3	*Hexachlorobutadiene*		*100*	*200*	*500*	*U*
98-82-8	*Isopropylbenzene*		*54.9*	*200*	*500*	*U*
179601-23-1	*m,p-Xylene*		*88.9*	*400*	*1000*	*U*
1634-04-4	*Methyl tert-butyl ether*		*53.0*	*200*	*500*	*U*
75-09-2	*Methylene chloride*		*224*	*500*	*1000*	*U*
104-51-8	*n-Butylbenzene*		*130*	*500*	*1000*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW53

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-06RE2	File ID:	G2230608018.D
Sampled:	05/26/23 13:55	Prepared:	06/08/23 12:00	Analyzed:	06/08/23 16:19
		Preparation:	5030_W	Dilution:	1000
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*63.0*	*200*	*500*	*U*
91-20-3	*Naphthalene*		*70.0*	*200*	*500*	*U*
95-47-6	*o-Xylene*		*41.6*	*200*	*500*	*U*
135-98-8	*sec-Butylbenzene*		*59.8*	*200*	*500*	*U*
100-42-5	*Styrene*		*45.3*	*100*	*200*	*U*
98-06-6	*tert-Butylbenzene*		*45.3*	*200*	*500*	*U*
127-18-4	Tetrachloroethene		178	500	1000	U
108-88-3	*Toluene*		*57.2*	*200*	*500*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*85.5*	*200*	*500*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*58.7*	*200*	*500*	*U*
79-01-6	Trichloroethene	1040	78.1	200	500	D
75-69-4	*Trichlorofluoromethane*		*50.5*	*200*	*500*	*U*
75-01-4	*Vinyl chloride*		*129*	*500*	*1000*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608018.D
Acq On : 08 Jun 2023 16:19
Operator : PO1
Sample : 23E0775-06RE2
Misc : 1000
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 08 16:59:15 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

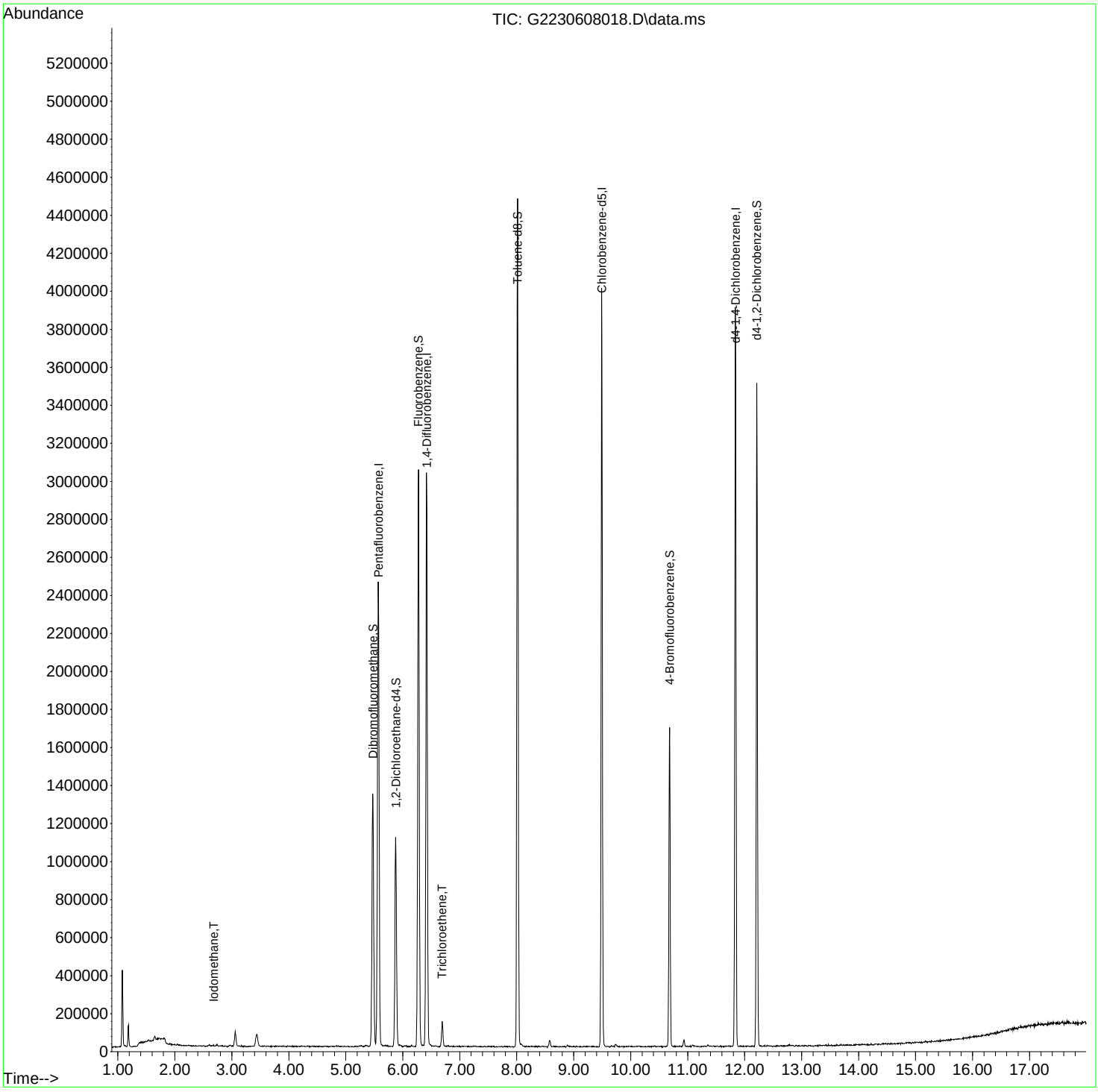
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	19445984	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	26576314	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	23539417	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11060803	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	8391557	19.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.05%			
43) 1,2-Dichloroethane-d4	5.878	65	7787608	18.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.05%			
49) Fluorobenzene	6.278	96	29421181	19.43	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%			
64) Toluene-d8	8.016	98	28759757	19.38	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%			
81) 4-Bromofluorobenzene	10.685	174	5200201	9.96	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	9711155	20.42	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.10%			
Target Compounds						Qvalue
13) Iodomethane	2.678	142	33725	0.07	ug/L #	41
18) Methylene chloride	3.062	49	361677	Below Cal		72
21) Methyl tert-butyl ether	3.441	73	904091	Below Cal		94
50) Trichloroethene	6.693	95	389517	1.04	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608018.D
Acq On : 08 Jun 2023 16:19
Operator : PO1
Sample : 23E0775-06RE2
Misc : 1000
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 08 16:59:15 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608018.D
Acq On : 08 Jun 2023 16:19
Operator : PO1
Sample : 23E0775-06RE2
Misc : 1000
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 08 16:59:15 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

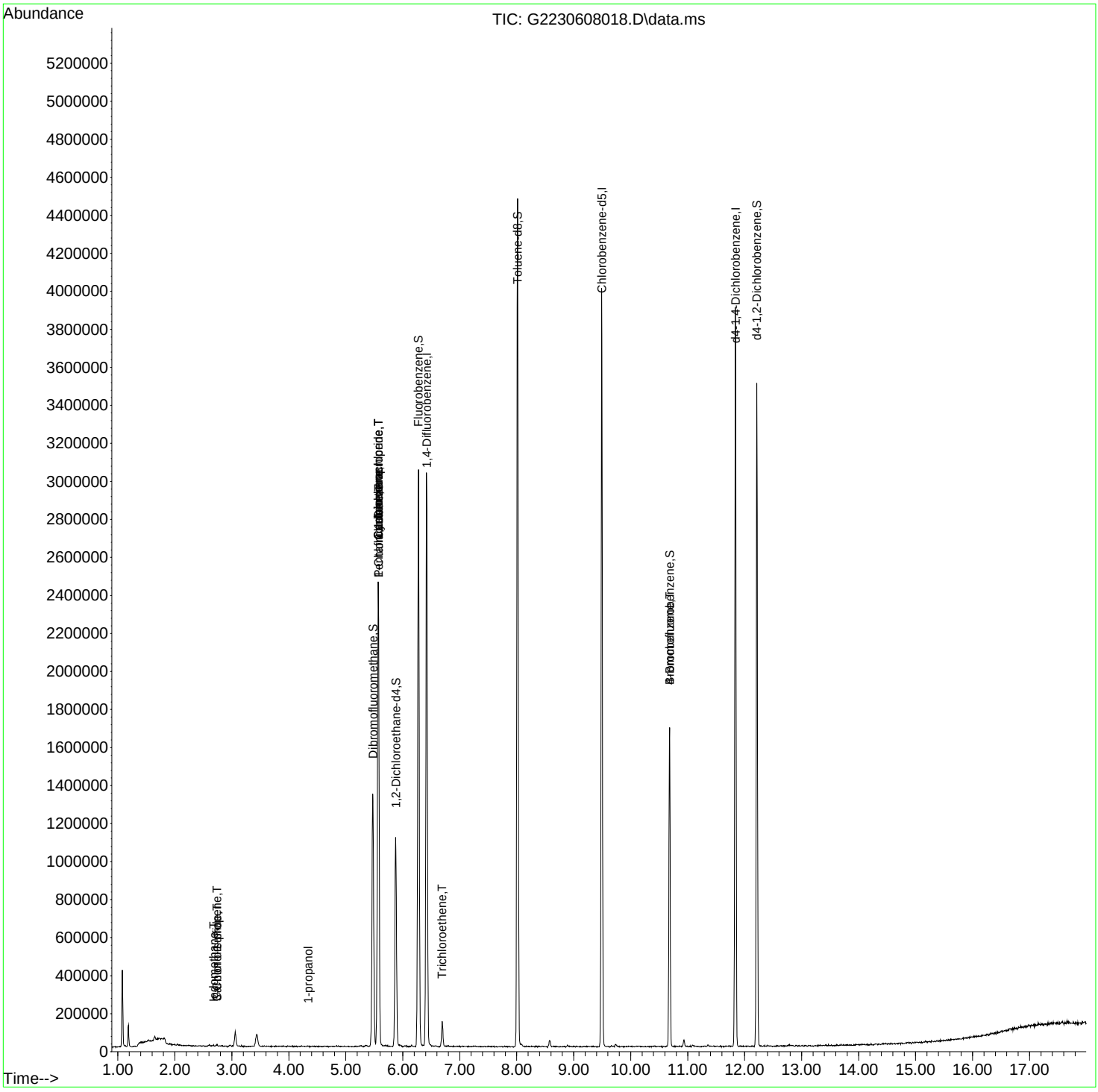
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.573	168	19445984	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	26576314	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	23539417	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11060803	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	8391557	19.61	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.05%				
43) 1,2-Dichloroethane-d4	5.878	65	7787608	18.41	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.05%				
49) Fluorobenzene	6.278	96	29421181	19.43	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%				
64) Toluene-d8	8.016	98	28759757	19.38	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%				
81) 4-Bromofluorobenzene	10.685	174	5200201	9.96	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%				
97) d4-1,2-Dichlorobenzene	12.217	152	9711155	20.42	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.10%				
Target Compounds							Qvalue
5) Bromomethane	1.723	94	47316	Below Cal	#		67
9) Acrolein	2.427	56	11116	Below Cal	#		20
12) Acetone	2.608	43	65836	Below Cal	#		45
13) Iodomethane	2.678	142	33725	0.07	ug/L	#	41
14) Carbon disulfide	2.738	76	92745	0.01	ug/L	#	74
17) 3-Chloro-1-propene	2.738	76	92750	0.40	ug/L	#	53
18) Methylene chloride	3.062	49	361677	Below Cal			72
21) Methyl tert-butyl ether	3.441	73	904091	Below Cal			94
26) 1-propanol	4.340	59	588	0.29	ug/L	#	100
40) Cyclohexane	5.568	84	434276	0.83	ug/L	#	30
41) 1-Chlorobutane	5.574	56	242267	0.40	ug/L	#	1
42) 1,1-Dichloropropene	5.571	75	1009676	2.21	ug/L	#	38
47) Carbon tetrachloride	5.571	117	1577408	3.29	ug/L	#	16
50) Trichloroethene	6.693	95	389517	1.04	ug/L		93
60) 4-Methyl-2-pentanone	8.014	43	103025	Below Cal	#		1
74) Ethylbenzene	9.485	91	58192	Below Cal	#		44
82) Bromobenzene	10.687	77	29265	0.05	ug/L	#	1
99) n-Butylbenzene	12.211	91	30961	Below Cal	#		53

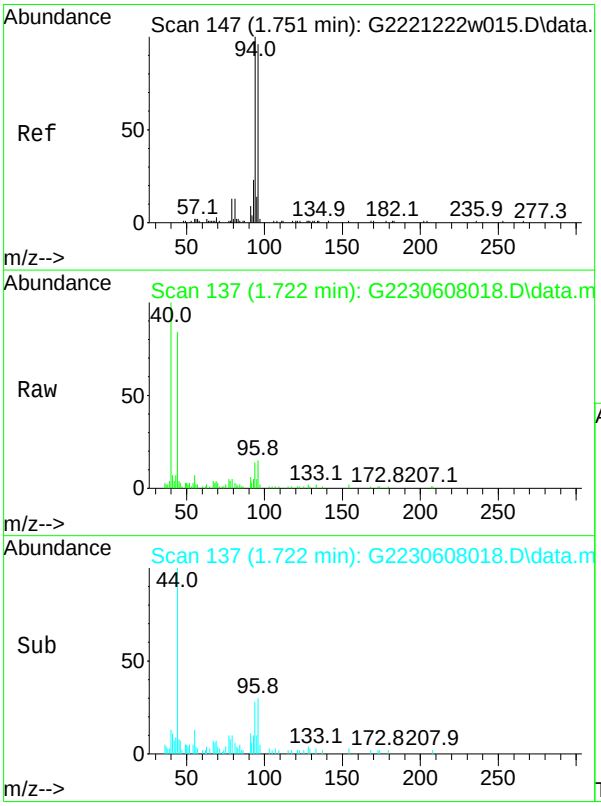
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608018.D
Acq On : 08 Jun 2023 16:19
Operator : PO1
Sample : 23E0775-06RE2
Misc : 1000
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 08 16:59:15 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

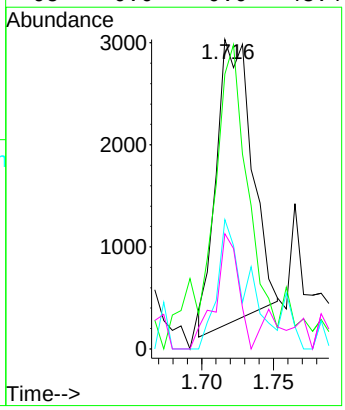


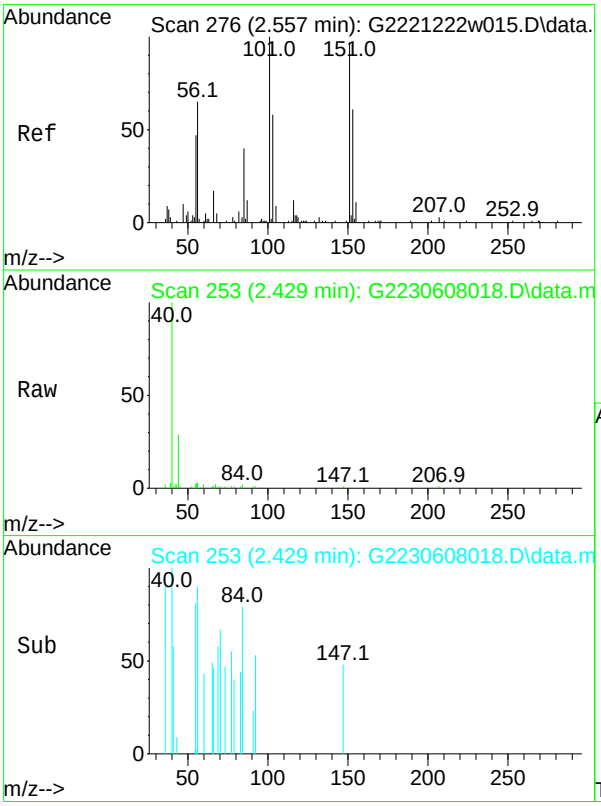


#5
Bromomethane
Concen: Below Cal
RT: 1.723 min Scan# 137
Delta R.T. 0.009 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 94 Resp: 47316

Ion	Ratio	Lower	Upper
94	100		
96	125.2	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

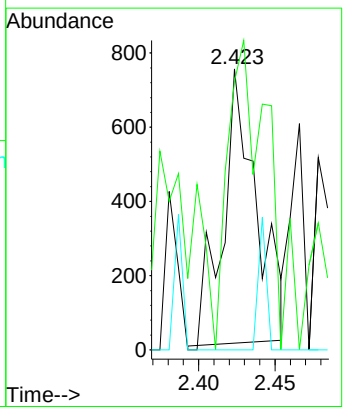


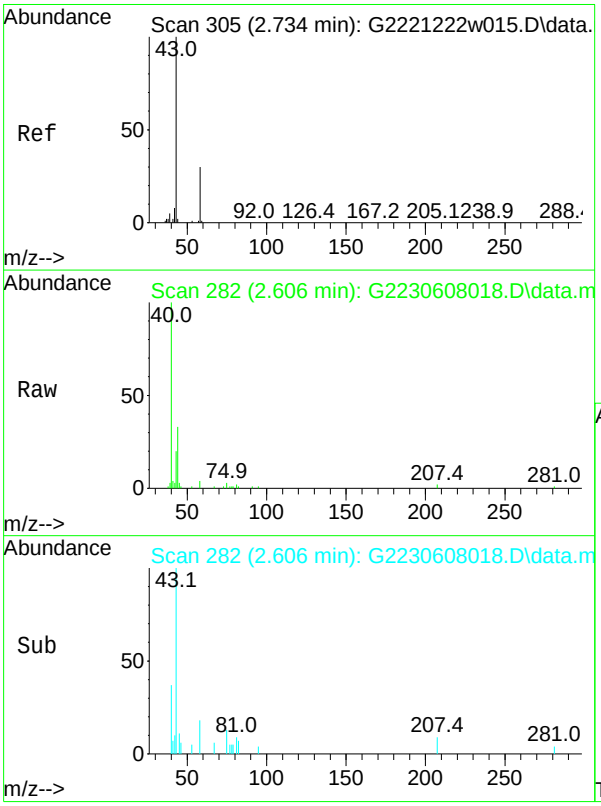


#9
Acrolein
Concen: Below Cal
RT: 2.427 min Scan# 253
Delta R.T. -0.012 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 56 Resp: 11116

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

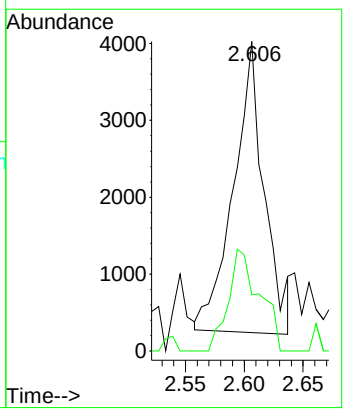


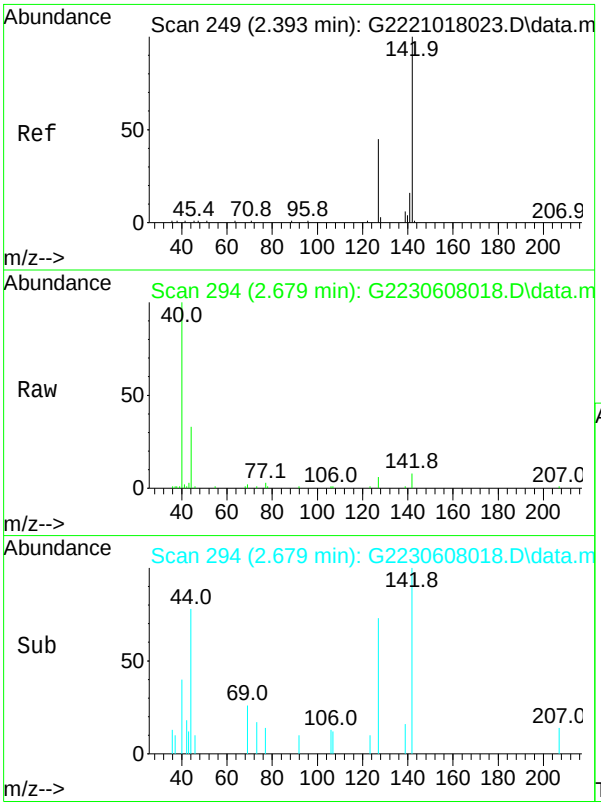


#12
Acetone
Concen: Below Cal
RT: 2.608 min Scan# 282
Delta R.T. -0.000 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 43 Resp: 65836

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

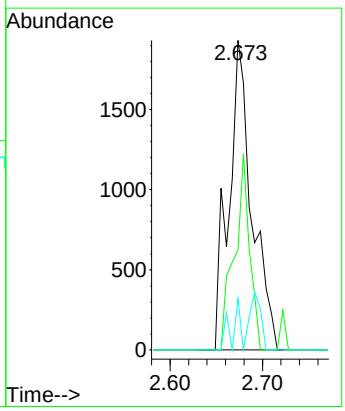


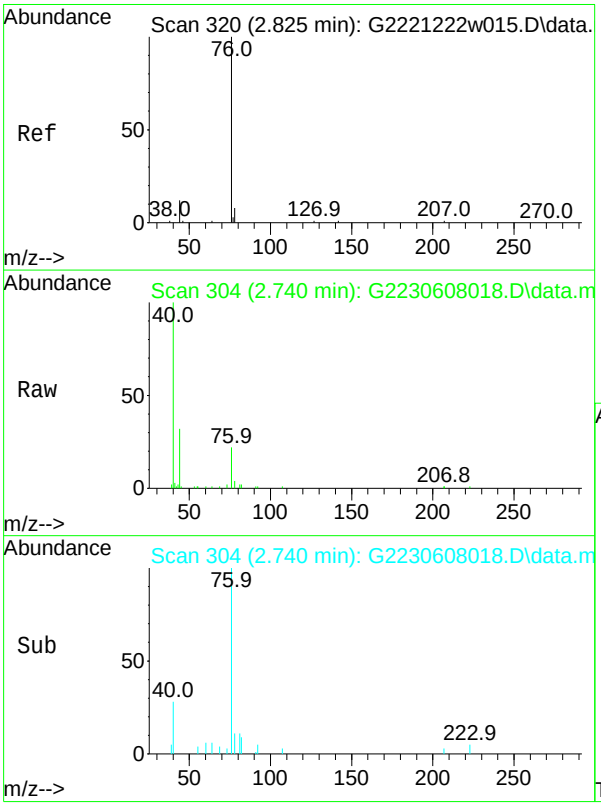


#13
Iodomethane
Concen: 0.07 ug/L
RT: 2.678 min Scan# 294
Delta R.T. 0.002 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion:142 Resp: 33725

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

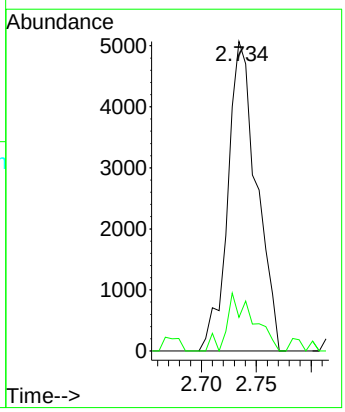


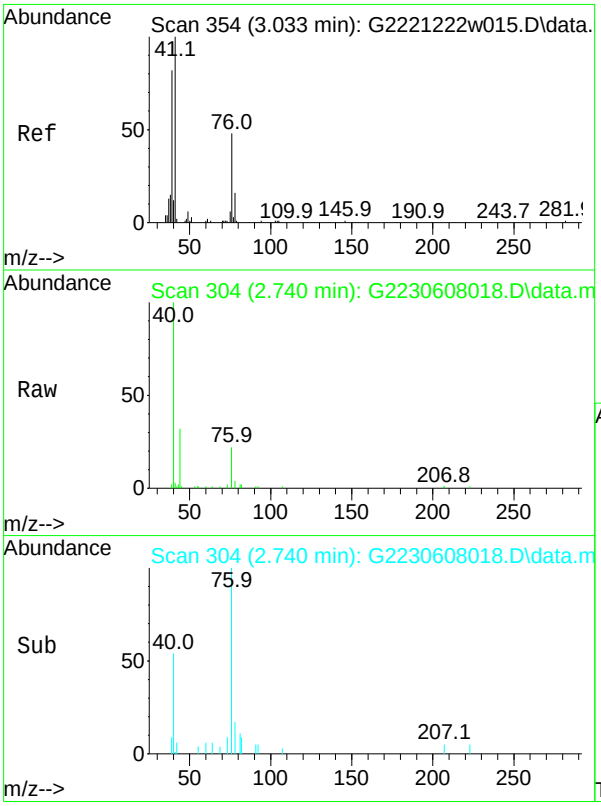


#14
Carbon disulfide
Concen: 0.01 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.001 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 76 Resp: 92745

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

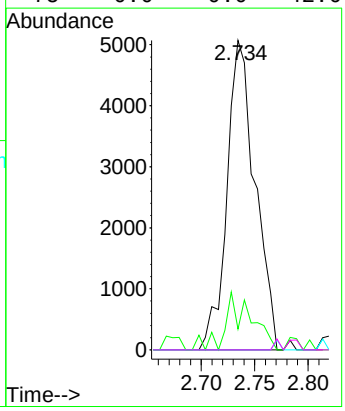


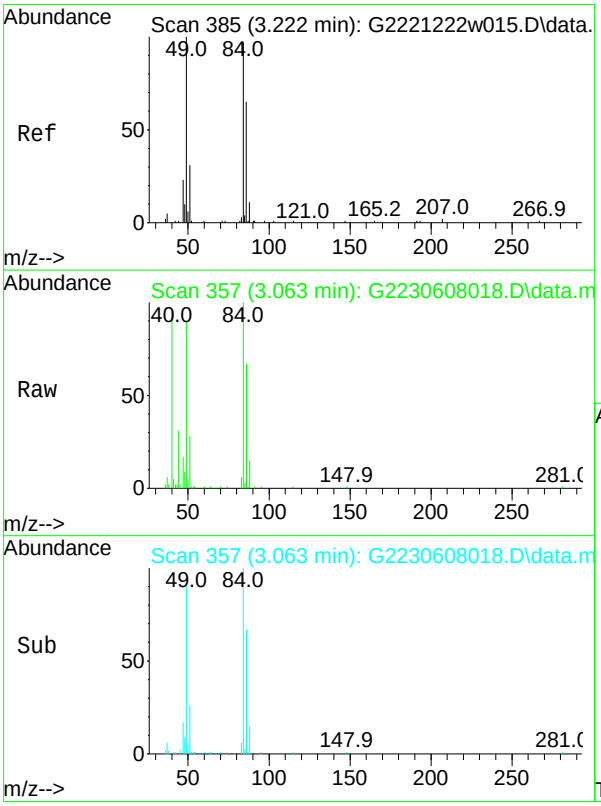


#17
3-Chloro-1-propene
Concen: 0.40 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.182 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 76 Resp: 92750

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

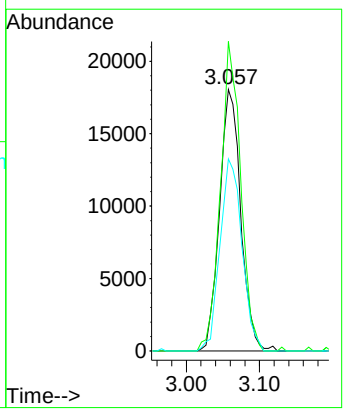


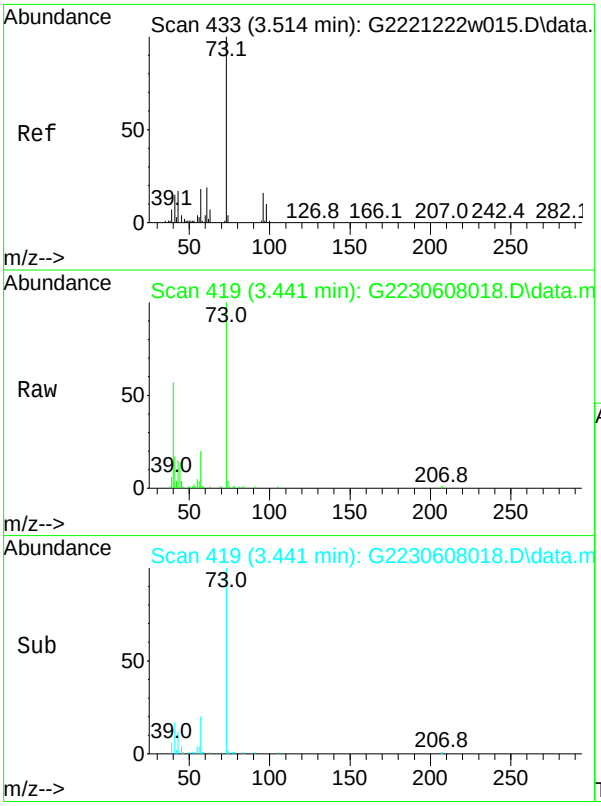


#18
Methylene chloride
Concen: Below Cal
RT: 3.062 min Scan# 357
Delta R.T. -0.000 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 49 Resp: 361677

Ion	Ratio	Lower	Upper
49	100		
84	113.0	57.9	117.9
86	76.1	24.9	84.9

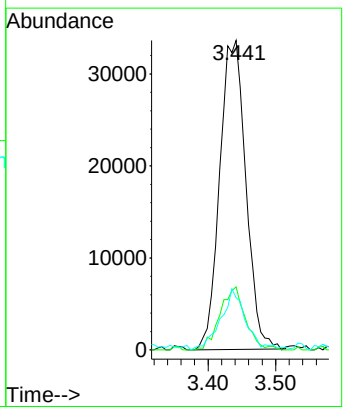


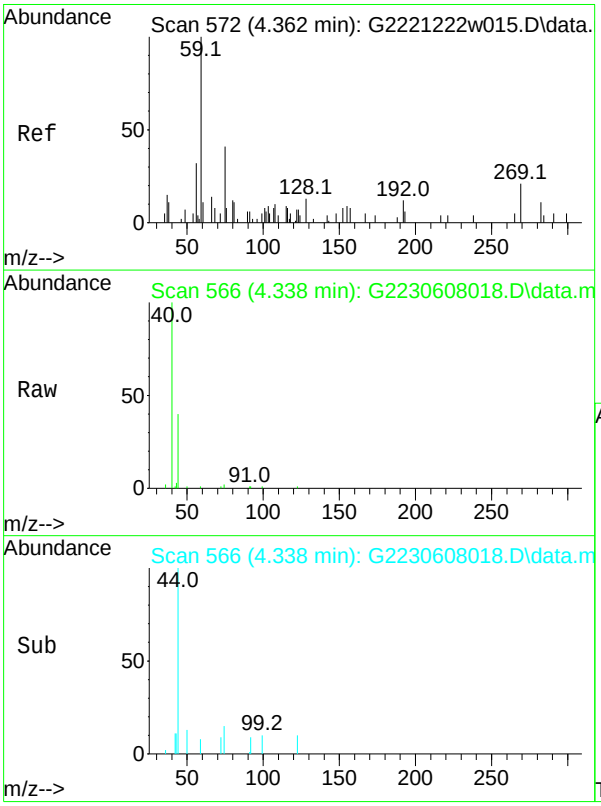


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.441 min Scan# 419
Delta R.T. -0.005 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 73 Resp: 904091

Ion	Ratio	Lower	Upper
73	100		
57	20.2	0.0	51.7
41	16.7	0.0	50.6

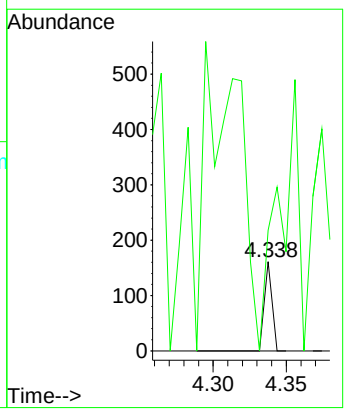


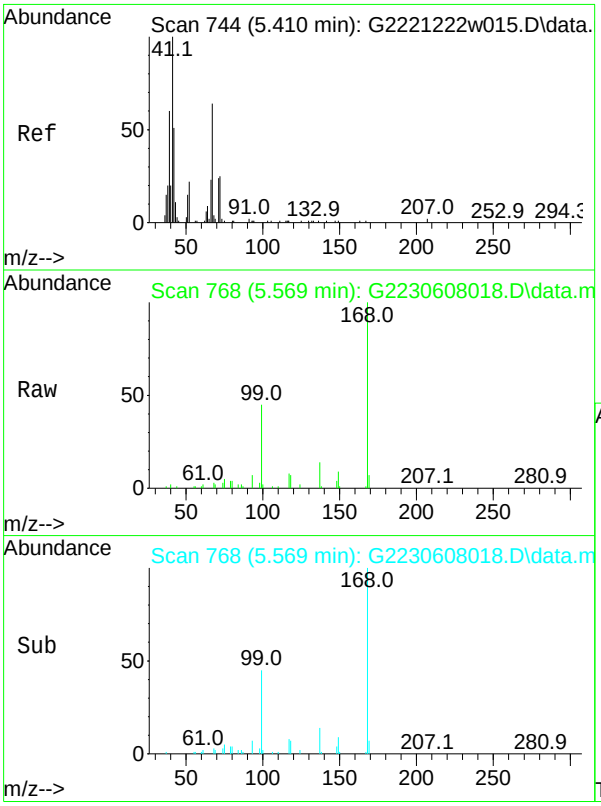


#26
1-propanol
Concen: 0.29 ug/L
RT: 4.340 min Scan# 566
Delta R.T. 0.051 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 59 Resp: 588

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

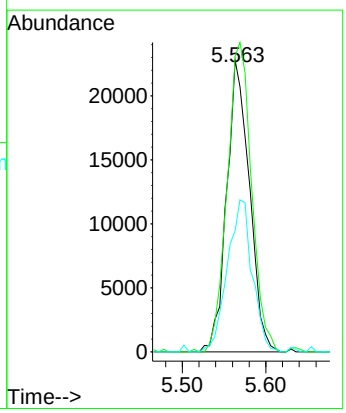


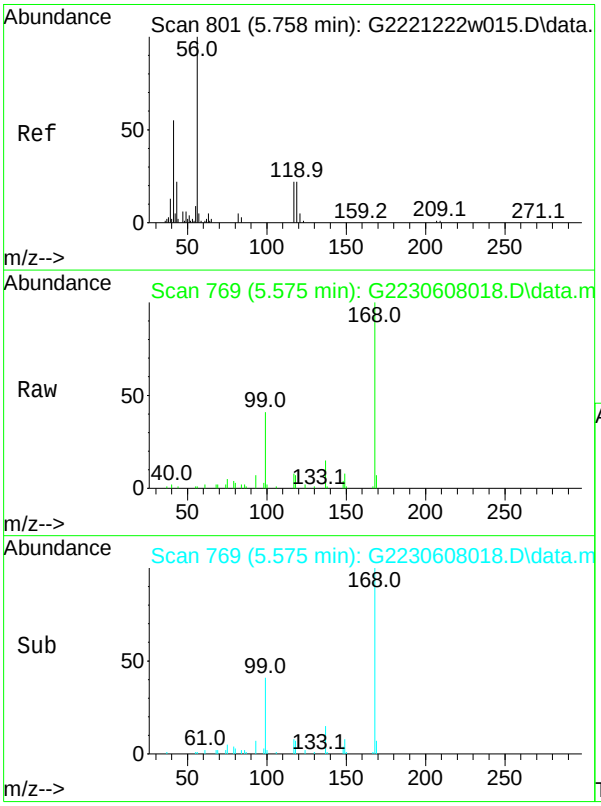


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 84 Resp: 434276

Ion	Ratio	Lower	Upper
84	100		
69	113.3	6.8	66.8#
56	56.9	79.1	139.1#

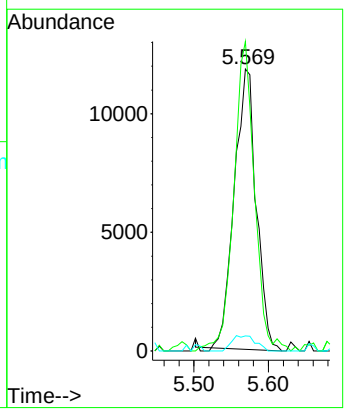


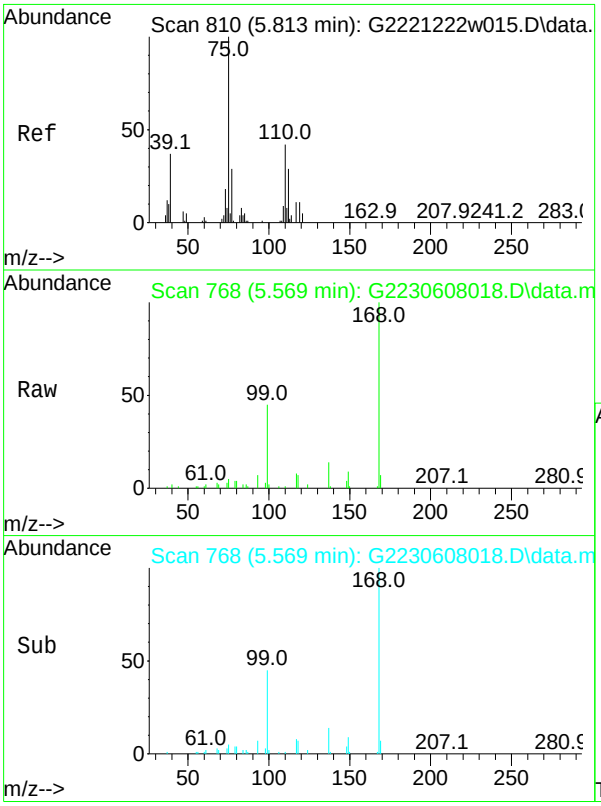


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.574 min Scan# 769
Delta R.T. -0.056 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 56 Resp: 242267

Ion	Ratio	Lower	Upper
56	100		
55	103.7	0.0	41.0#
57	0.0	0.0	35.7

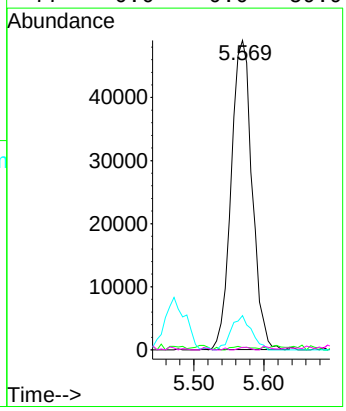


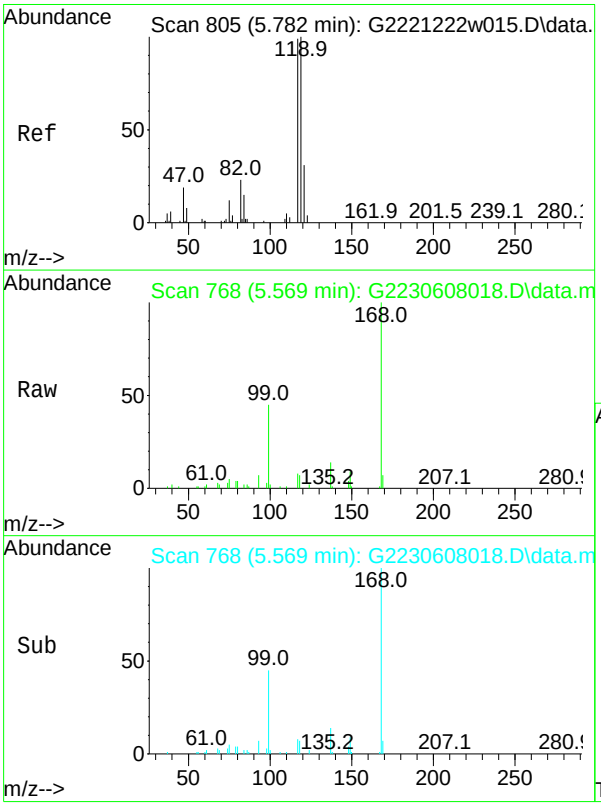


#42
1,1-Dichloropropene
Concen: 2.21 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 75 Resp: 1009676

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.6	9.1	69.1
77	0.0	0.0	59.9

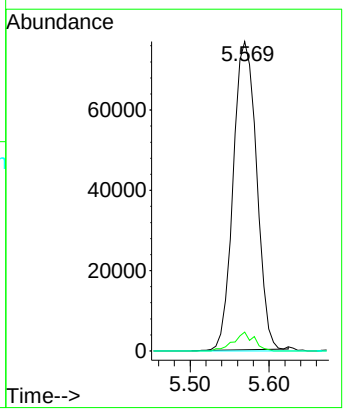


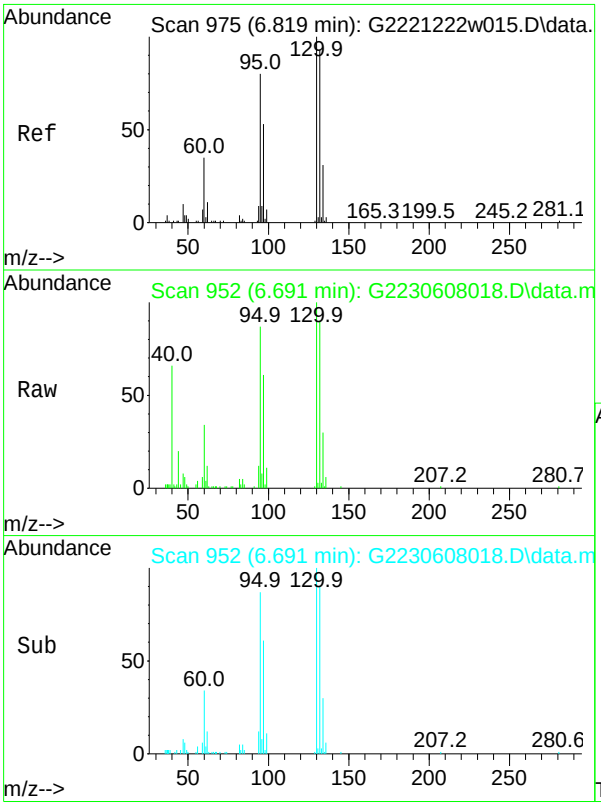


#47
Carbon tetrachloride
Concen: 3.29 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion:117 Resp: 1577408

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

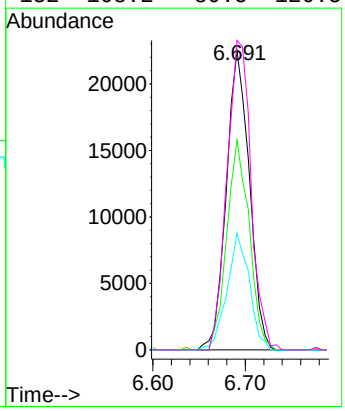


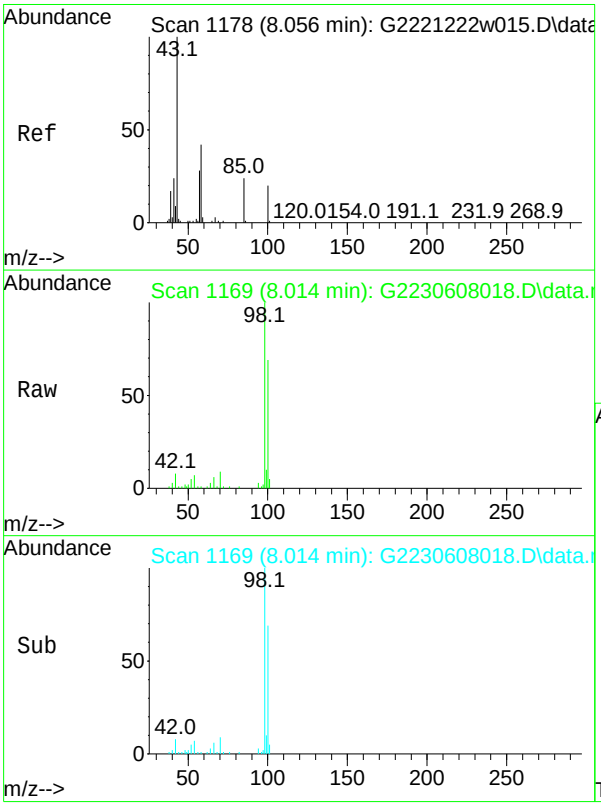


#50
Trichloroethene
Concen: 1.04 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 95 Resp: 389517

Ion	Ratio	Lower	Upper
95	100		
97	68.2	35.5	95.5
60	37.9	14.8	74.8
132	108.2	80.5	120.5

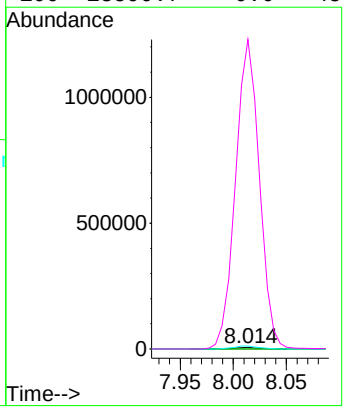


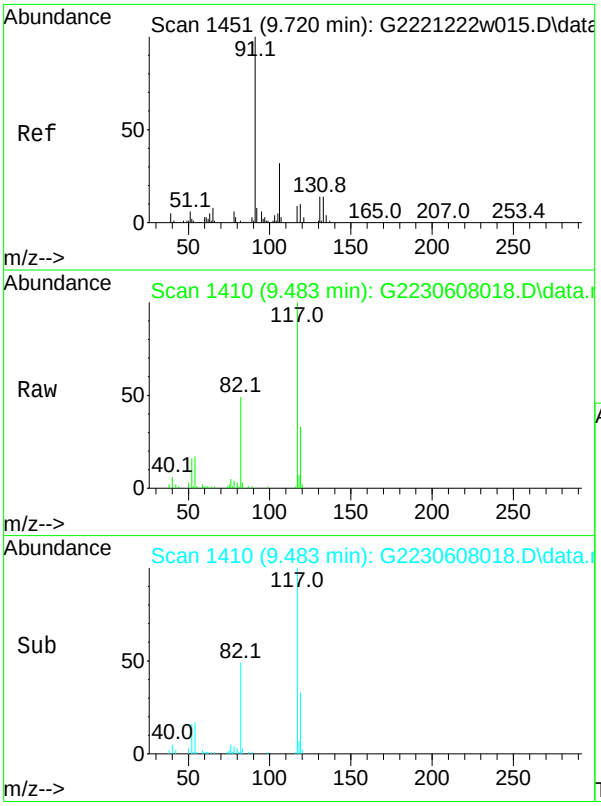


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 43 Resp: 103025

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	180.4	37.0	37.0#
100	18599.7	0.0	45.2#

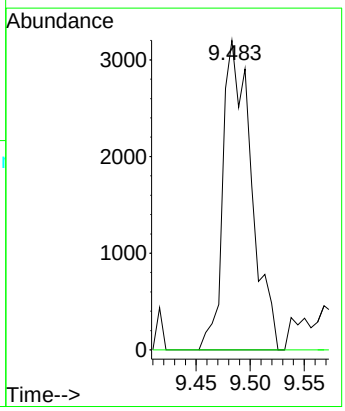


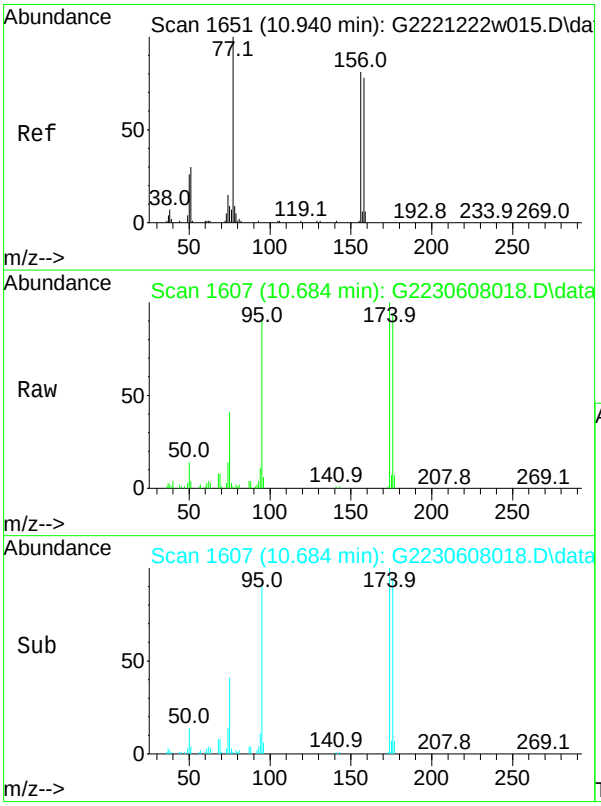


#74
Ethylbenzene
Concen: Below Cal
RT: 9.485 min Scan# 1410
Delta R.T. -0.158 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 91 Resp: 58192

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

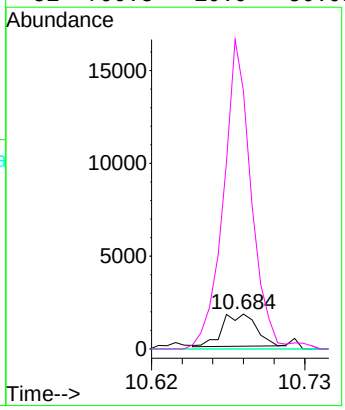


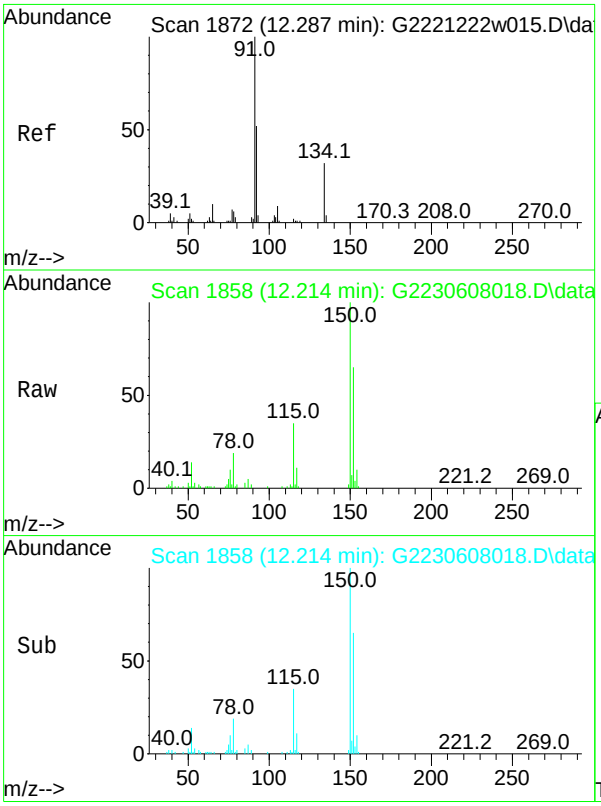


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.687 min Scan# 1607
Delta R.T. -0.141 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 77 Resp: 29265

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	790.8	10.9	50.9#

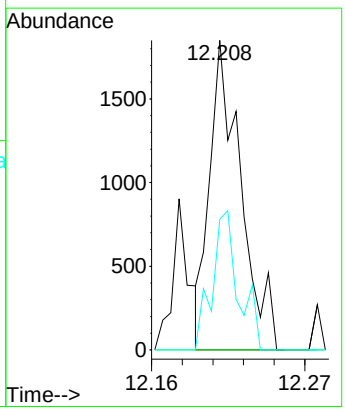




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.211 min Scan# 1858
Delta R.T. -0.020 min
Lab File: G2230608018.D
Acq: 08 Jun 2023 16:19

Tgt Ion: 91 Resp: 30961

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

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07	File ID:	G2230606022.D
Sampled:	05/27/23 11:25	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 19:22
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	1.10	0.0954	0.200	0.500	
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

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07	File ID:	G2230606022.D
Sampled:	05/27/23 11:25	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 19:22
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	8.10	0.518	2.00	4.00	
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	2.30	0.103	0.300	0.600	
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

SW8260B/D

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07	File ID:	G2230606022.D
Sampled:	05/27/23 11:25	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 19:22
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, U*
108-88-3	Toluene	2.99	0.0572	0.200	0.500	
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*	*141*	*0.0781*	*0.200*	*0.500*	*B, E*
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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606022.D
Acq On : 06 Jun 2023 19:22
Operator : PO1
Sample : 23E0775-07
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 07 09:41:01 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

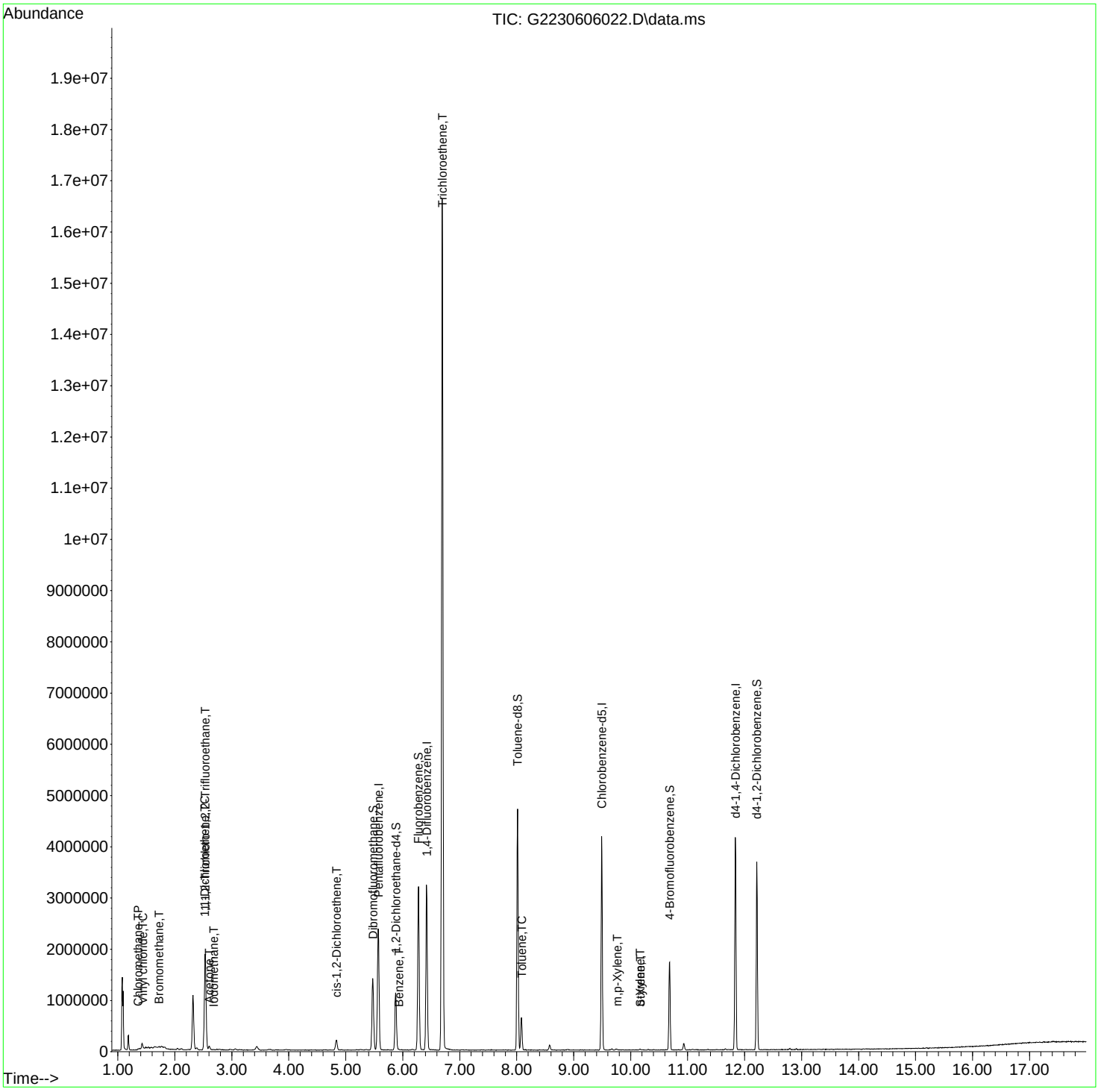
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.573	168	19001174	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	27738931	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24290475	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11798836	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	8788879	21.02	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 105.10%				
43) 1,2-Dichloroethane-d4	5.877	65	7929904	19.19	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.95%				
49) Fluorobenzene	6.278	96	30892001	19.54	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.70%				
64) Toluene-d8	8.017	98	29800714	19.46	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%				
81) 4-Bromofluorobenzene	10.685	174	5371126	9.64	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.40%				
97) d4-1,2-Dichlorobenzene	12.217	152	10327309	20.35	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.75%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	73883	0.13	ug/L		95
4) Vinyl chloride	1.444	62	31871	0.09	ug/L	#	43
5) Bromomethane	1.722	94	65284	0.00	ug/L	#	68
10) 1,1-Dichloroethene	2.525	61	479431	1.10	ug/L		85
11) 1,1,2-Trichloro-1,2,2-...	2.535	101	7888623	25.36	ug/L		95
12) Acetone	2.607	43	833177	8.10	ug/L		90
13) Iodomethane	2.683	142	57649	0.13	ug/L	#	41
18) Methylene chloride	3.061	49	111186	Below Cal		#	68
21) Methyl tert-butyl ether	3.439	73	943607	Below Cal			96
28) cis-1,2-Dichloroethene	4.836	61	1135408	2.30	ug/L	#	70
48) Benzene	5.936	78	61694	0.04	ug/L	#	52
50) Trichloroethene	6.695	95	51482794	141.28	ug/L		91
65) Toluene	8.084	91	4557552	2.99	ug/L		97
74) Ethylbenzene	9.642	91	49177	Below Cal		#	44
75) m,p-Xylene	9.762	91	64874	0.05	ug/L	#	76
76) Styrene	10.170	104	34969	0.03	ug/L	#	29
79) o-Xylene	10.166	91	51662	0.04	ug/L	#	37

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606022.D
Acq On : 06 Jun 2023 19:22
Operator : PO1
Sample : 23E0775-07
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 07 09:41:01 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606022.D
Acq On : 06 Jun 2023 19:22
Operator : PO1
Sample : 23E0775-07
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 07 09:41:01 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	5.573	168	19001174	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	27738931	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24290475	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11798836	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	8788879	21.02	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 105.10%				
43) 1,2-Dichloroethane-d4	5.877	65	7929904	19.19	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.95%				
49) Fluorobenzene	6.278	96	30892001	19.54	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.70%				
64) Toluene-d8	8.017	98	29800714	19.46	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%				
81) 4-Bromofluorobenzene	10.685	174	5371126	9.64	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.40%				
97) d4-1,2-Dichlorobenzene	12.217	152	10327309	20.35	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.75%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.184	85	30758	0.08	ug/L	#	42
3) Chloromethane	1.355	50	73883	0.13	ug/L		95
4) Vinyl chloride	1.444	62	31871	0.09	ug/L	#	43
5) Bromomethane	1.722	94	65284	0.00	ug/L	#	68
8) Ethyl ether	2.320	59	33863	0.05	ug/L	#	13
10) 1,1-Dichloroethene	2.525	61	479431	1.10	ug/L		85
11) 1,1,2-Trichloro-1,2,2-...	2.535	101	7888623	25.36	ug/L		95
12) Acetone	2.607	43	833177	8.10	ug/L		90
13) Iodomethane	2.683	142	57649	0.13	ug/L	#	41
14) Carbon disulfide	2.740	76	150043	0.08	ug/L	#	74
15) Isopropanol	2.781	45	214340	14.06	ug/L	#	56
17) 3-Chloro-1-propene	2.740	76	150041	0.71	ug/L	#	53
18) Methylene chloride	3.061	49	111186	Below Cal		#	68
21) Methyl tert-butyl ether	3.439	73	943607	Below Cal			96
26) 1-propanol	4.237	59	664	0.34	ug/L	#	100
28) cis-1,2-Dichloroethene	4.836	61	1135408	2.30	ug/L	#	70
31) Ethyl acetate	4.836	61	1136135	20.00	ug/L	#	45
37) Chloroform	5.271	83	28034	0.04	ug/L	#	25
40) Cyclohexane	5.572	84	432147	0.85	ug/L	#	34
41) 1-Chlorobutane	5.570	56	254570	0.43	ug/L	#	1
42) 1,1-Dichloropropene	5.572	75	937941	2.10	ug/L	#	38
47) Carbon tetrachloride	5.572	117	1547760	3.09	ug/L	#	16
48) Benzene	5.936	78	61694	0.04	ug/L	#	52
50) Trichloroethene	6.695	95	51482794	141.28	ug/L		91
60) 4-Methyl-2-pentanone	8.013	43	98615	Below Cal		#	1
65) Toluene	8.084	91	4557552	2.99	ug/L		97
69) 2-Hexanone	8.807	43	32650	Below Cal		#	38
74) Ethylbenzene	9.642	91	49177	Below Cal		#	44

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606022.D
Acq On : 06 Jun 2023 19:22
Operator : PO1
Sample : 23E0775-07
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 07 09:41:01 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

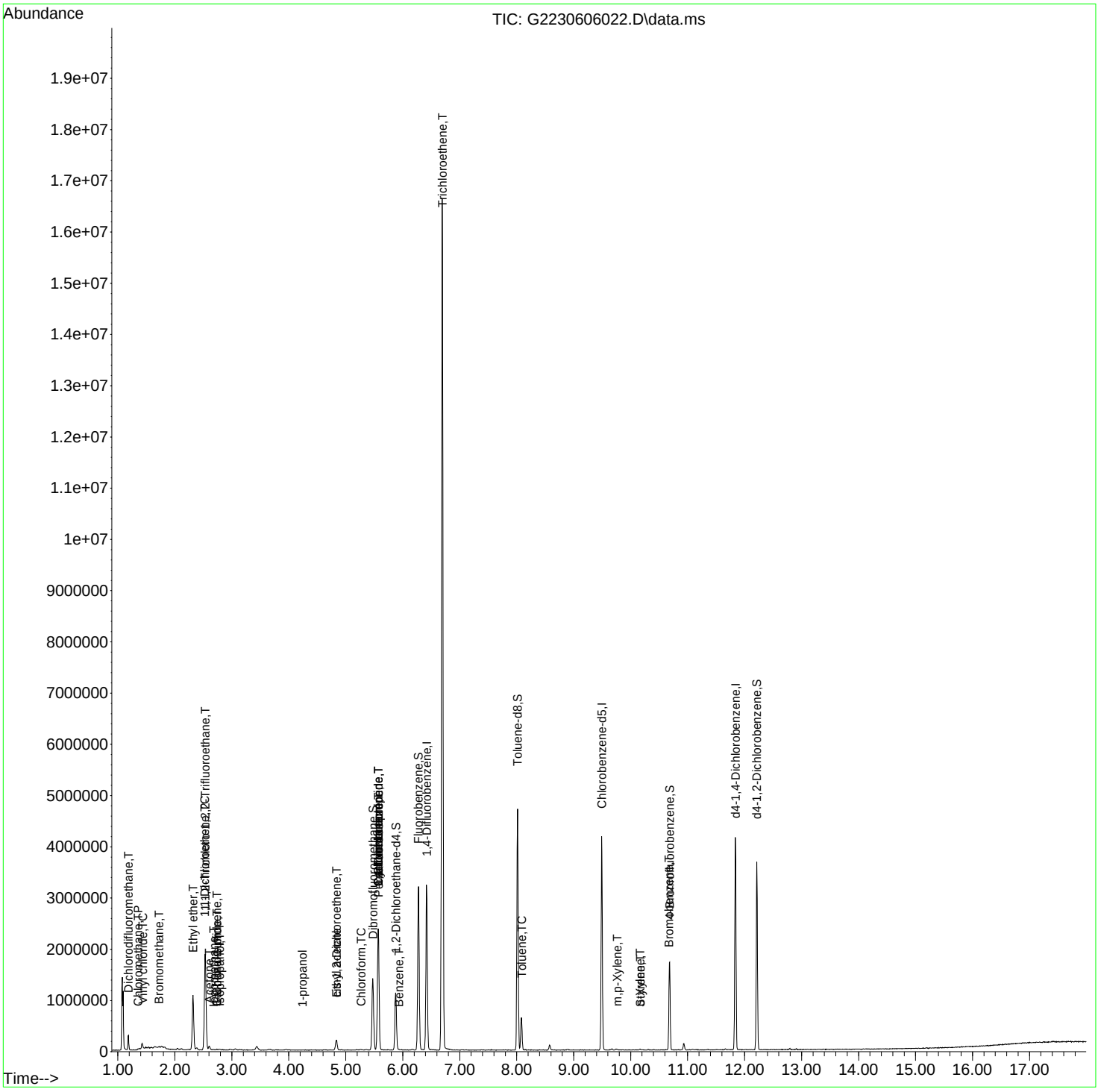
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
75) m,p-Xylene	9.762	91	64874	0.05	ug/L	#	76
76) Styrene	10.170	104	34969	0.03	ug/L	#	29
79) o-Xylene	10.166	91	51662	0.04	ug/L	#	37
82) Bromobenzene	10.675	77	31418	0.05	ug/L	#	1
99) n-Butylbenzene	12.218	91	54519	Below Cal		#	53

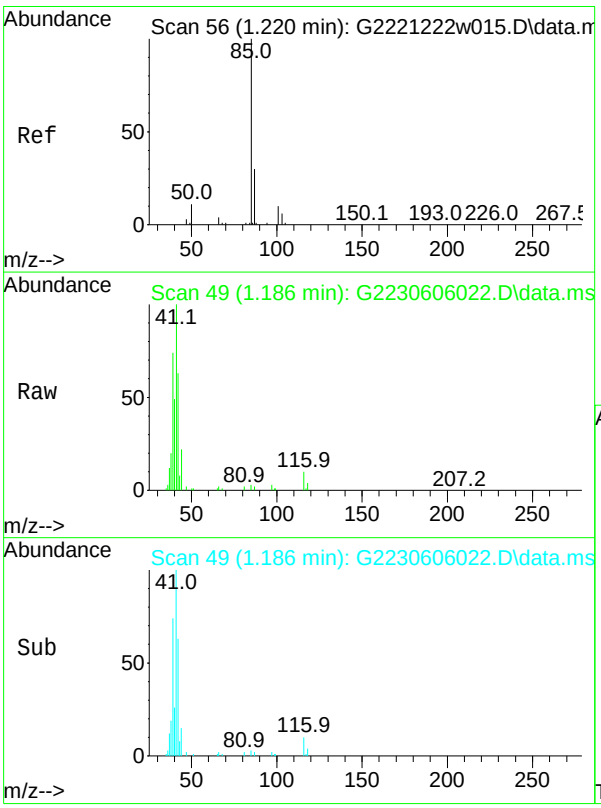
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606022.D
Acq On : 06 Jun 2023 19:22
Operator : PO1
Sample : 23E0775-07
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 07 09:41:01 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

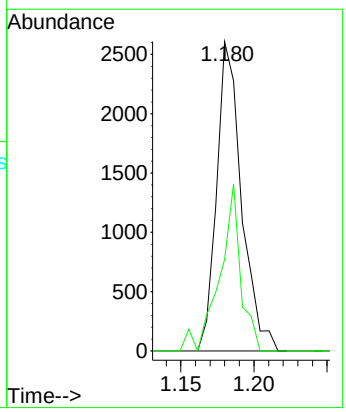


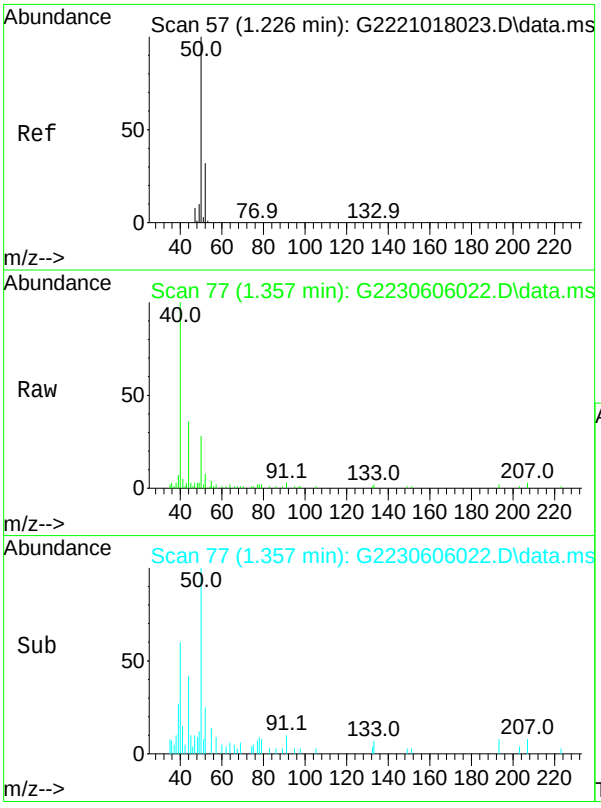


#2
Dichlorodifluoromethane
Concen: 0.08 ug/L
RT: 1.184 min Scan# 49
Delta R.T. -0.029 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 85 Resp: 30758

Ion	Ratio	Lower	Upper
85	100		
87	0.0	2.3	62.3#

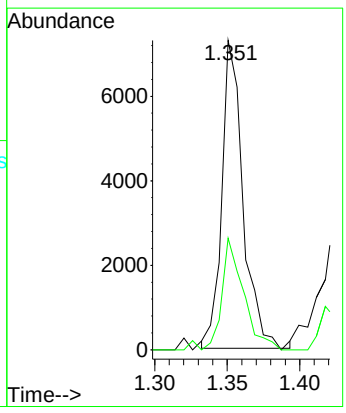


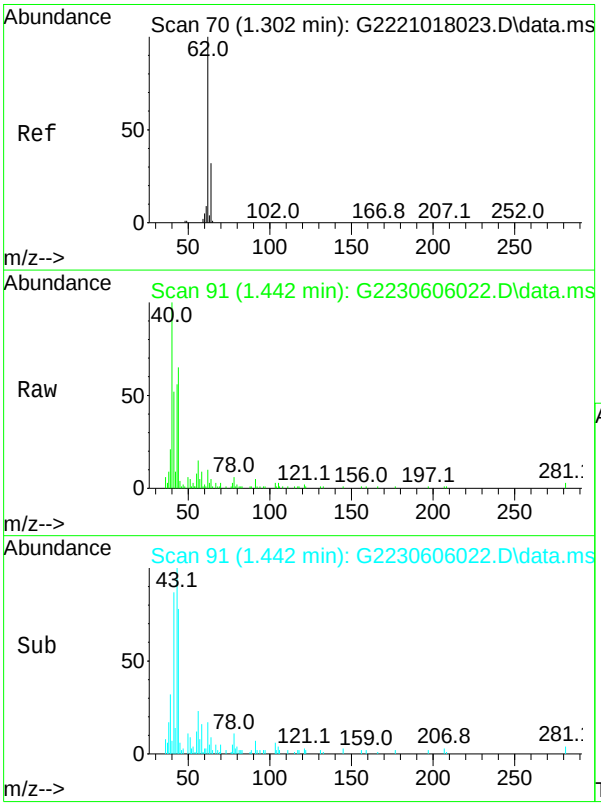


#3
Chloromethane
Concen: 0.13 ug/L
RT: 1.355 min Scan# 77
Delta R.T. 0.001 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 50 Resp: 73883

Ion	Ratio	Lower	Upper
50	100		
52	36.0	3.2	63.2

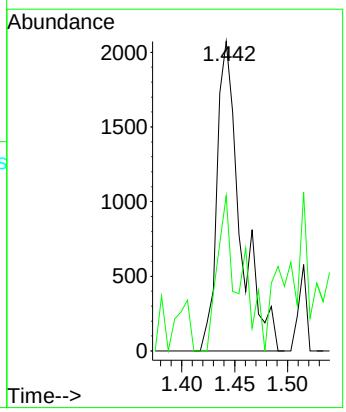


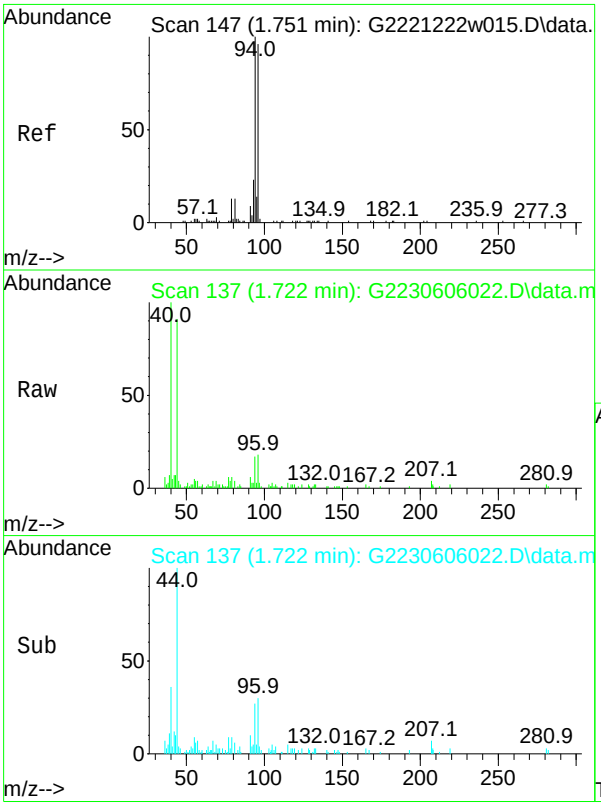


#4
Vinyl chloride
Concen: 0.09 ug/L
RT: 1.444 min Scan# 91
Delta R.T. -0.002 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 62 Resp: 31871

Ion	Ratio	Lower	Upper
62	100		
64	0.0	2.1	62.1#

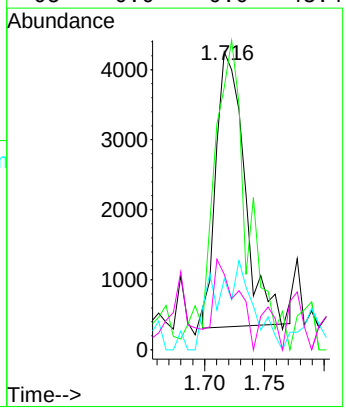


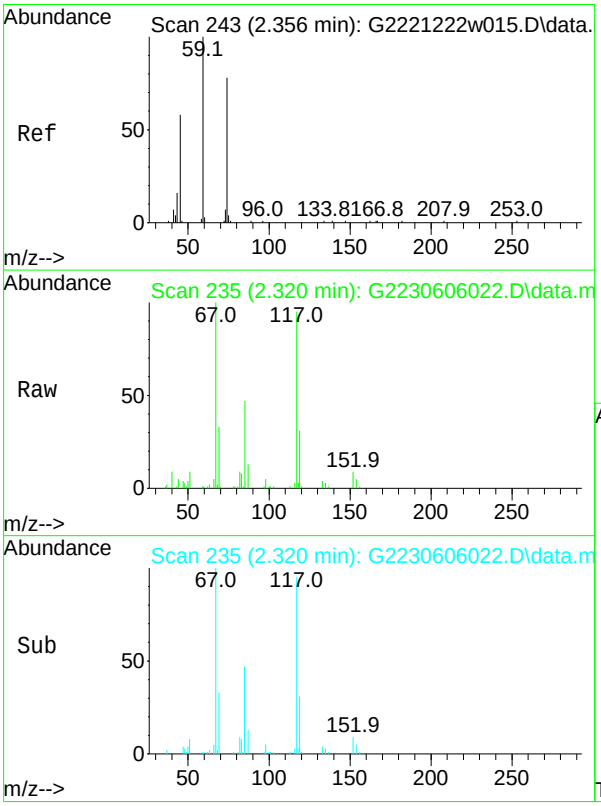


#5
Bromomethane
Concen: 0.00 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 94 Resp: 65284

Ion	Ratio	Lower	Upper
94	100		
96	124.5	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

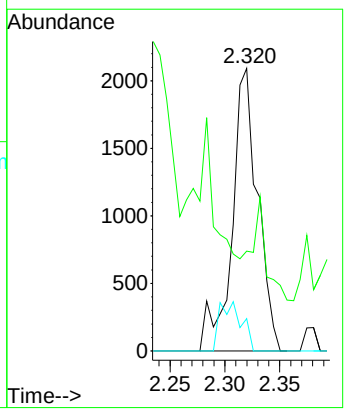


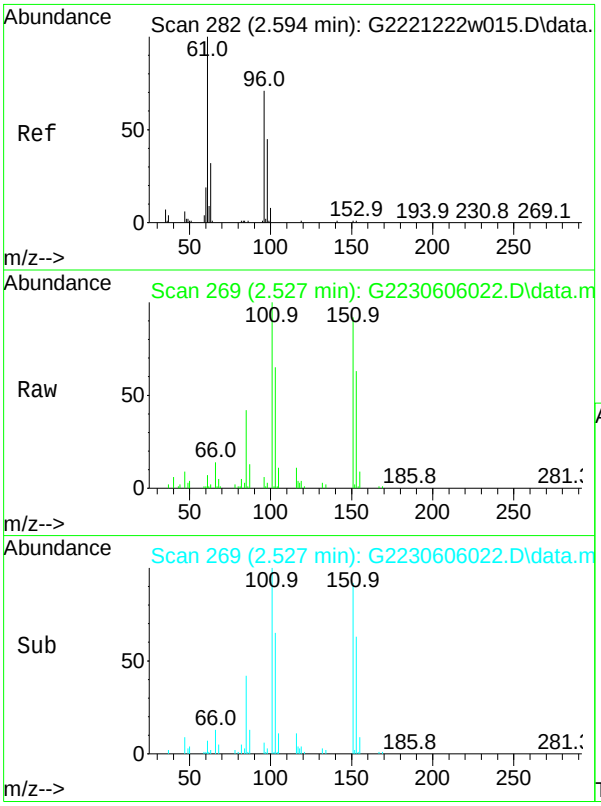


#8
Ethyl ether
Concen: 0.05 ug/L
RT: 2.320 min Scan# 235
Delta R.T. 0.002 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 59 Resp: 33863

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

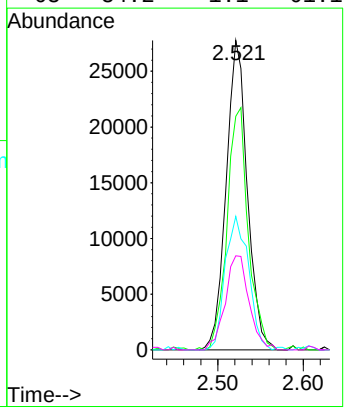


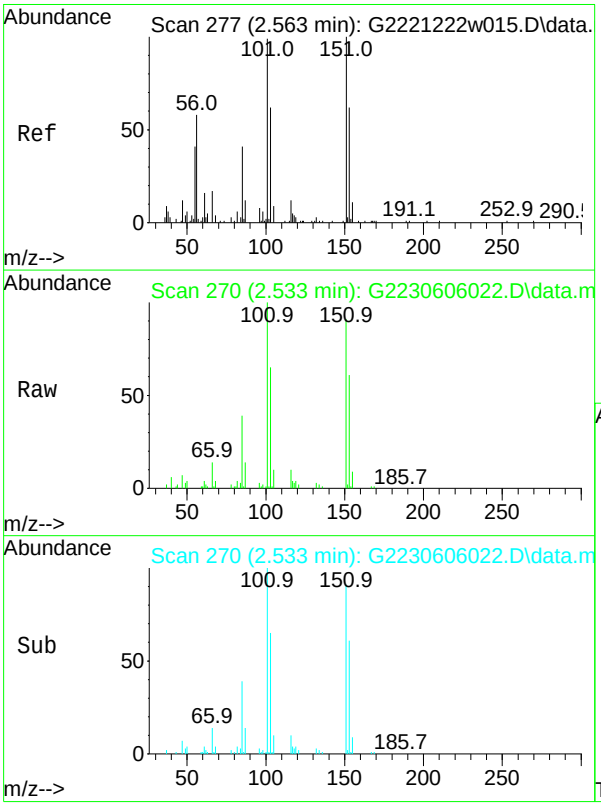


#10
1,1-Dichloroethene
Concen: 1.10 ug/L
RT: 2.525 min Scan# 269
Delta R.T. 0.002 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 61 Resp: 479431

Ion	Ratio	Lower	Upper
61	100		
96	78.4	32.7	92.7
98	48.0	9.3	69.3
63	34.2	1.1	61.1

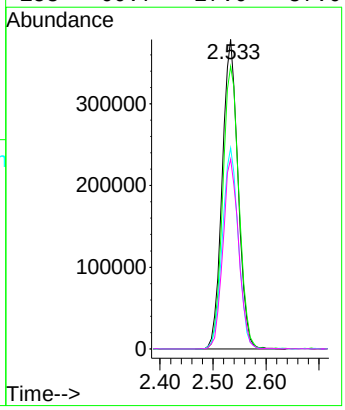


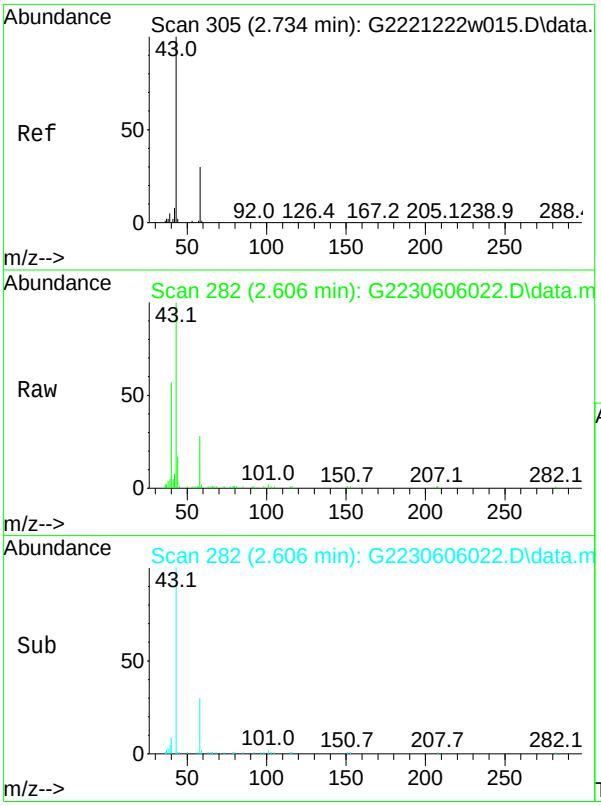


#11
1,1,2-Trichloro-1,2,2-Trifluoroethane
Concen: 25.36 ug/L
RT: 2.535 min Scan# 270
Delta R.T. 0.001 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion:101 Resp: 7888623

Ion	Ratio	Lower	Upper
101	100		
151	92.8	56.0	116.0
103	65.3	35.7	95.7
153	60.7	27.0	87.0

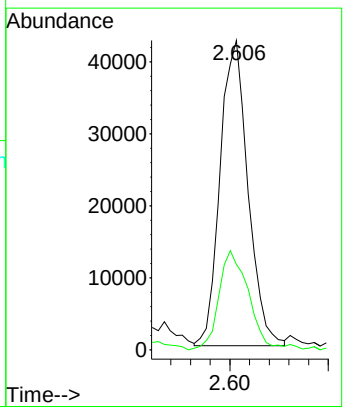


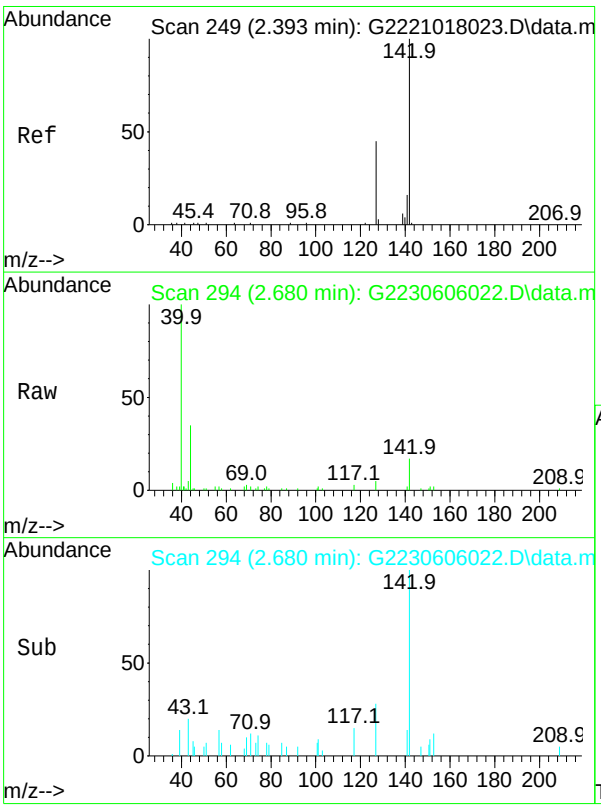


#12
Acetone
Concen: 8.10 ug/L
RT: 2.607 min Scan# 282
Delta R.T. -0.001 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 43 Resp: 833177

Ion	Ratio	Lower	Upper
43	100		
58	35.0	0.0	59.7

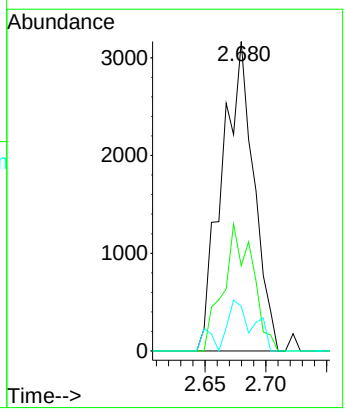


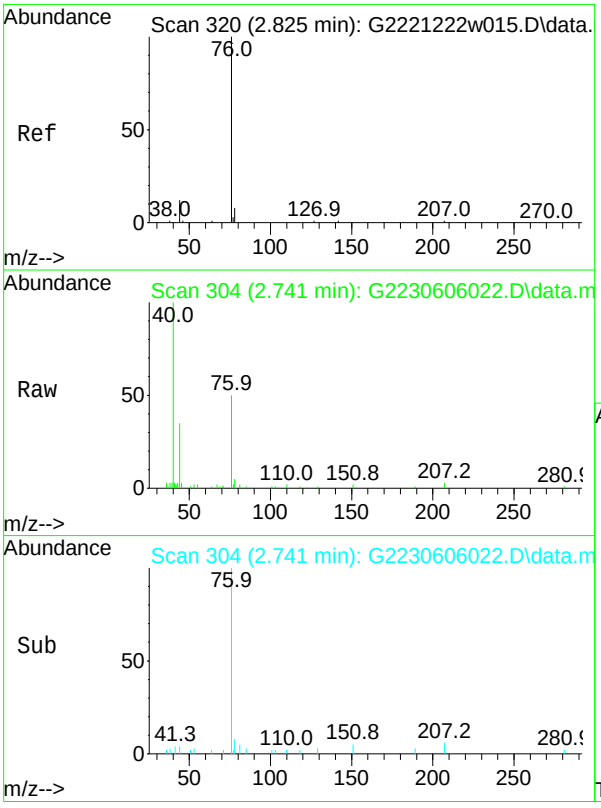


#13
Iodomethane
Concen: 0.13 ug/L
RT: 2.683 min Scan# 294
Delta R.T. 0.006 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion:142 Resp: 57649

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

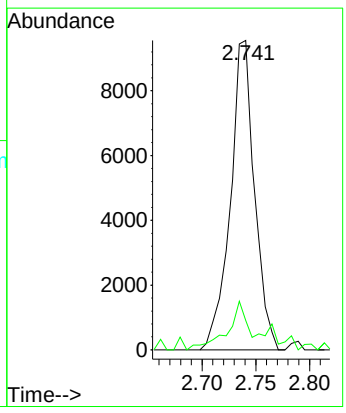


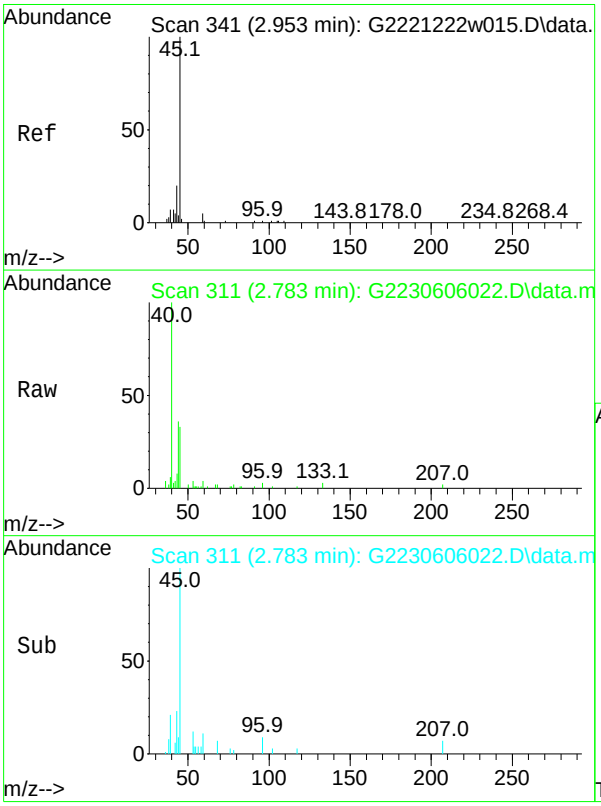


#14
Carbon disulfide
Concen: 0.08 ug/L
RT: 2.740 min Scan# 304
Delta R.T. 0.001 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 76 Resp: 150043

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

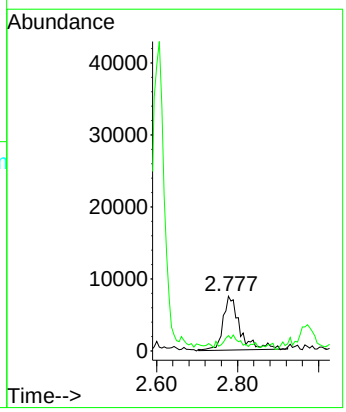


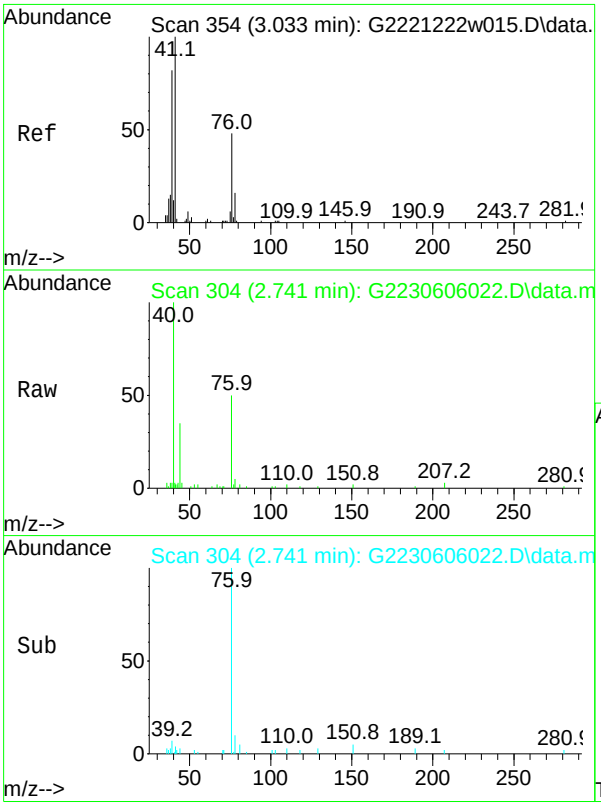


#15
Isopropanol
Concen: 14.06 ug/L
RT: 2.781 min Scan# 311
Delta R.T. -0.011 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 45 Resp: 214340

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

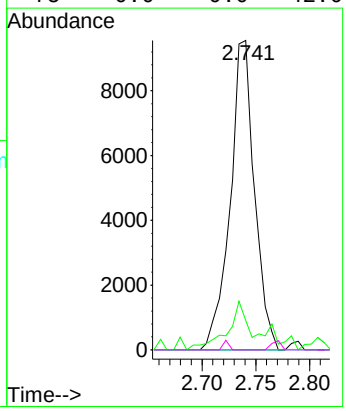


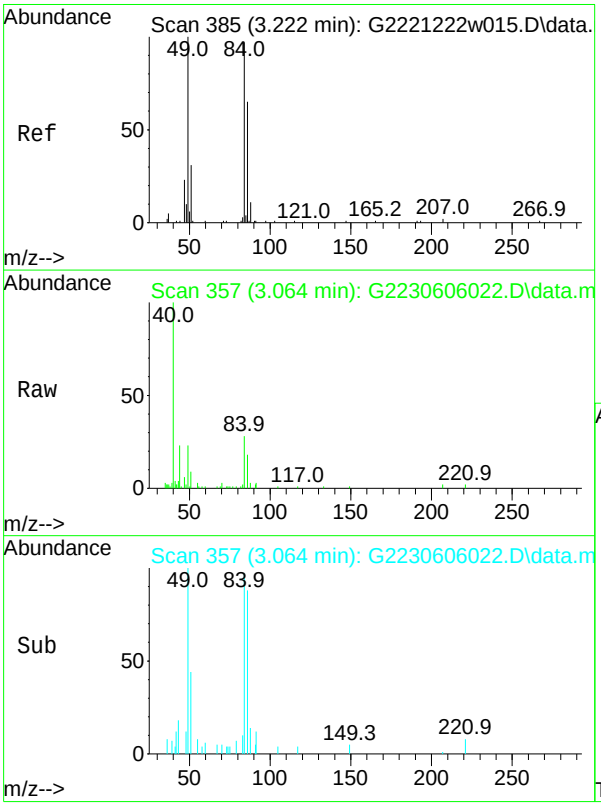


#17
3-Chloro-1-propene
Concen: 0.71 ug/L
RT: 2.740 min Scan# 304
Delta R.T. -0.180 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 76 Resp: 150041

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

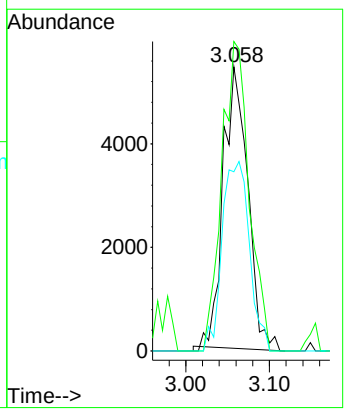


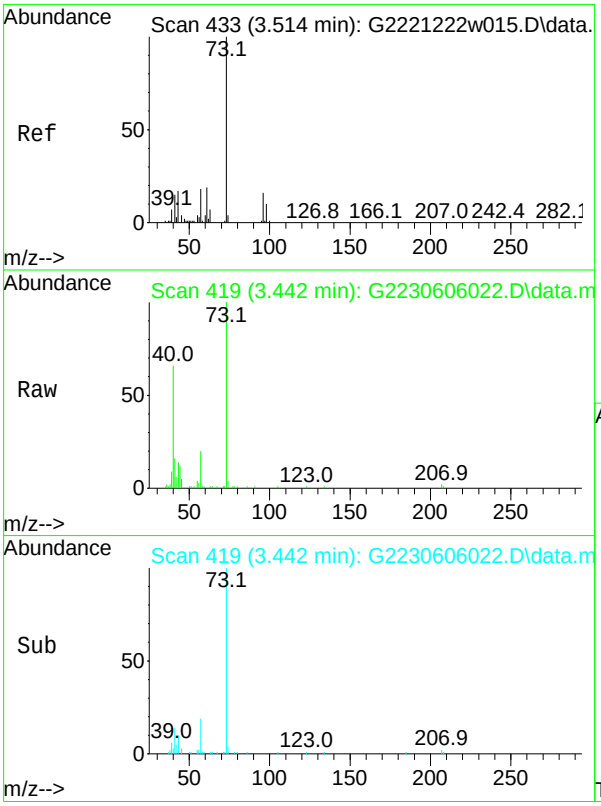


#18
Methylene chloride
Concen: Below Cal
RT: 3.061 min Scan# 357
Delta R.T. -0.001 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 49 Resp: 111186

Ion	Ratio	Lower	Upper
49	100		
84	122.2	57.9	117.9#
86	72.0	24.9	84.9

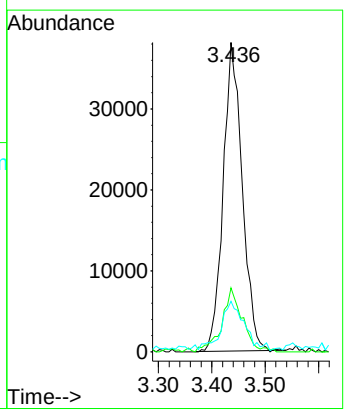


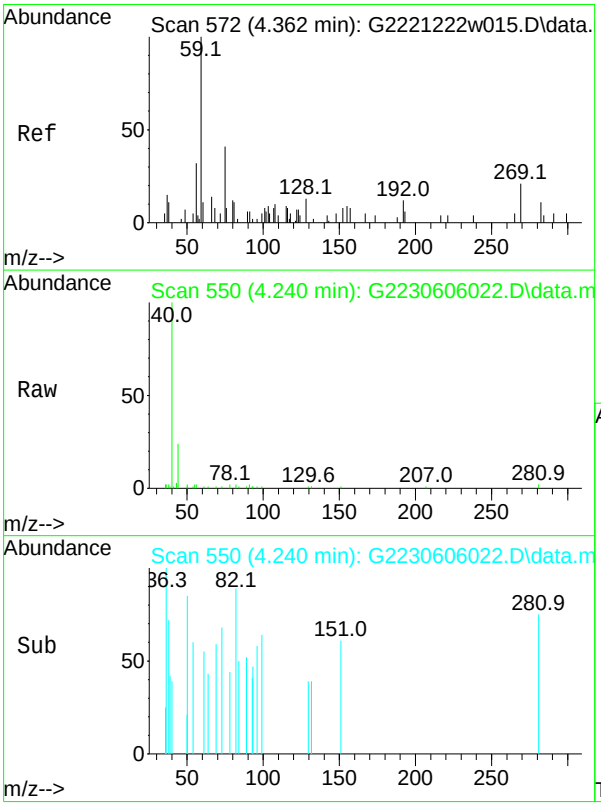


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.439 min Scan# 419
Delta R.T. -0.007 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 73 Resp: 943607

Ion	Ratio	Lower	Upper
73	100		
57	22.5	0.0	51.7
41	17.6	0.0	50.6

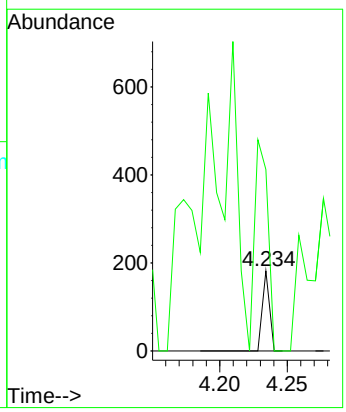


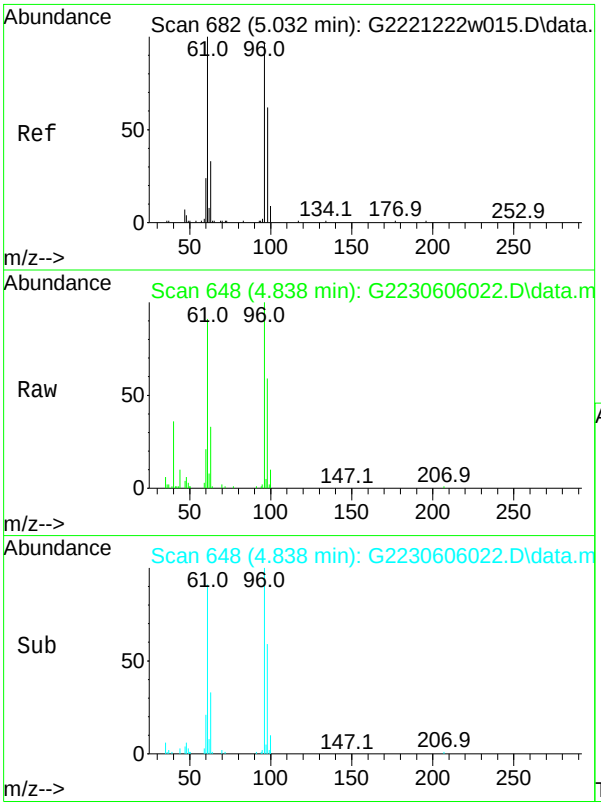


#26
1-propanol
Concen: 0.34 ug/L
RT: 4.237 min Scan# 550
Delta R.T. -0.052 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 59 Resp: 664

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

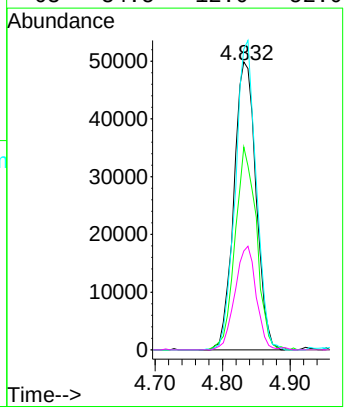


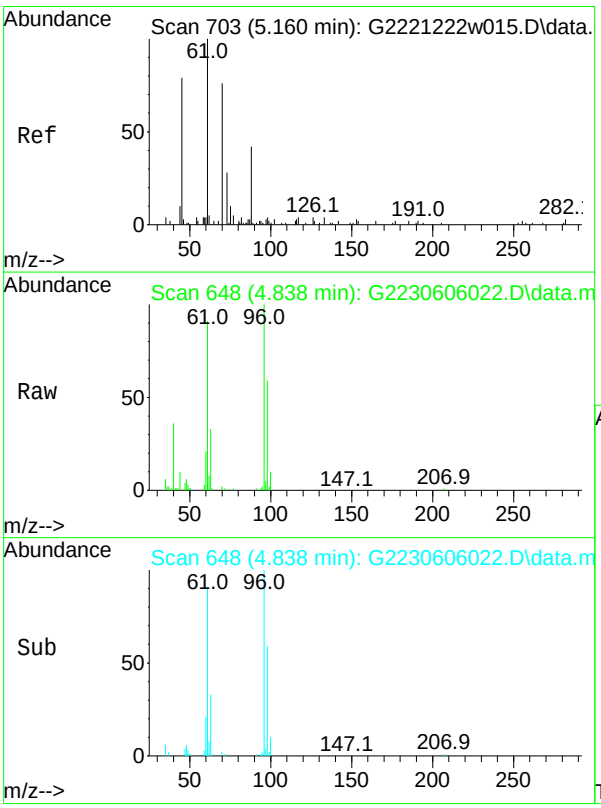


#28
cis-1,2-Dichloroethene
Concen: 2.30 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.000 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 61 Resp: 1135408

Ion	Ratio	Lower	Upper
61	100		
98	68.3	15.9	75.9
96	101.0	39.6	99.6#
63	34.5	12.0	52.0

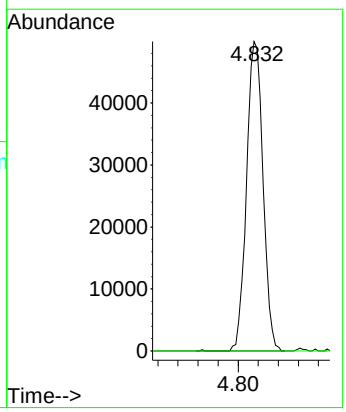


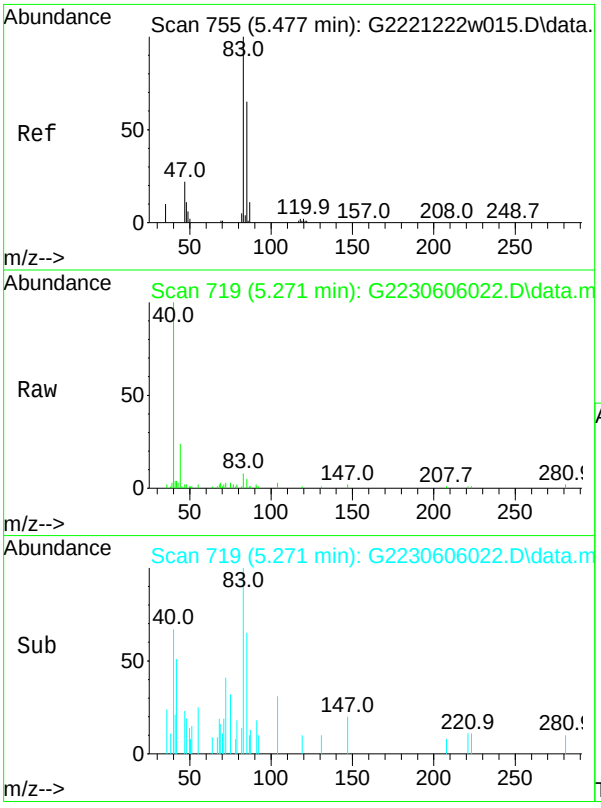


#31
Ethyl acetate
Concen: 20.00 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 61 Resp: 1136135

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

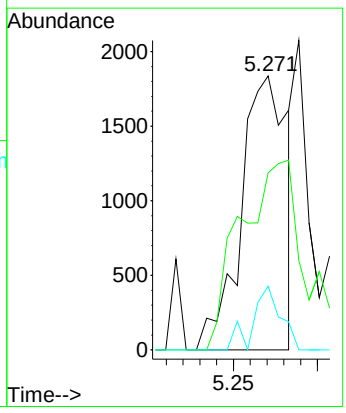


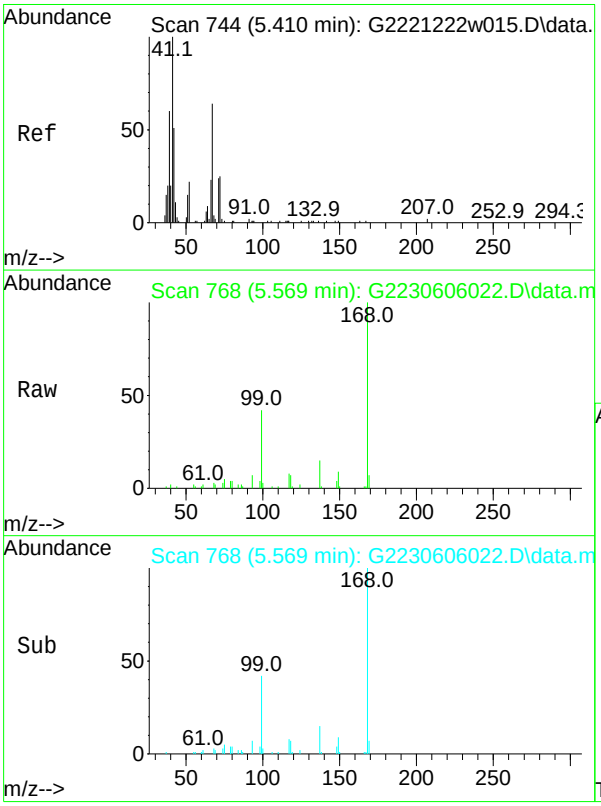


#37
Chloroform
Concen: 0.04 ug/L
RT: 5.271 min Scan# 719
Delta R.T. -0.005 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 83 Resp: 28034

Ion	Ratio	Lower	Upper
83	100		
85	0.0	35.4	95.4#
87	0.0	0.0	40.8

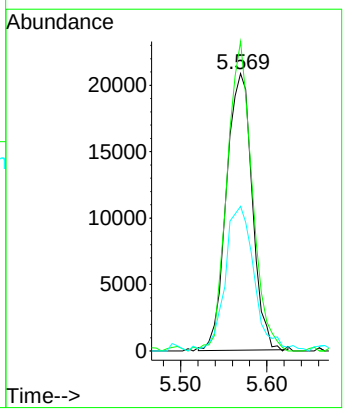


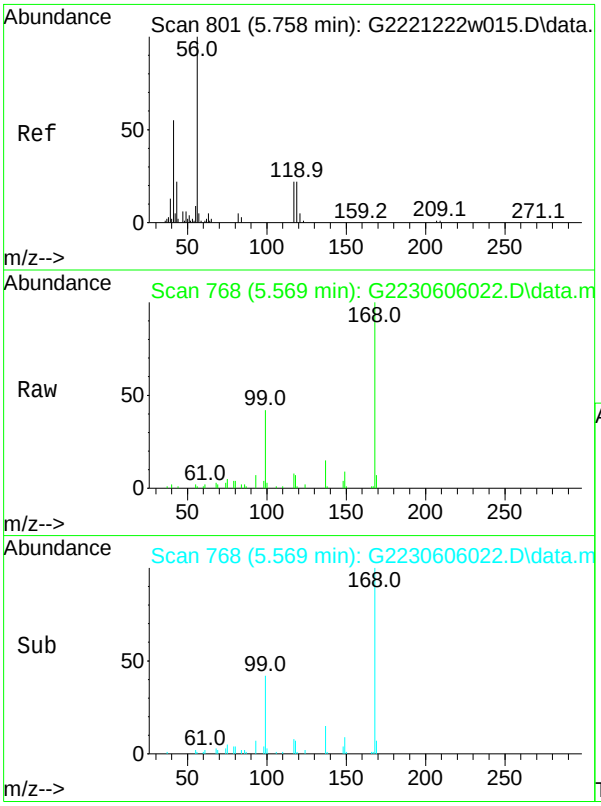


#40
Cyclohexane
Concen: 0.85 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 84 Resp: 432147

Ion	Ratio	Lower	Upper
84	100		
69	108.8	6.8	66.8#
56	59.3	79.1	139.1#

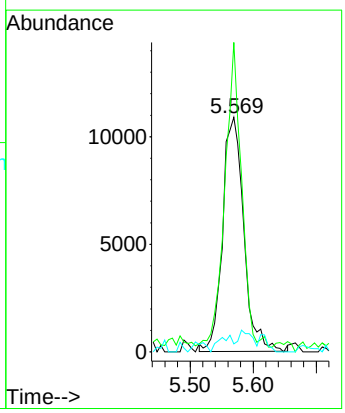


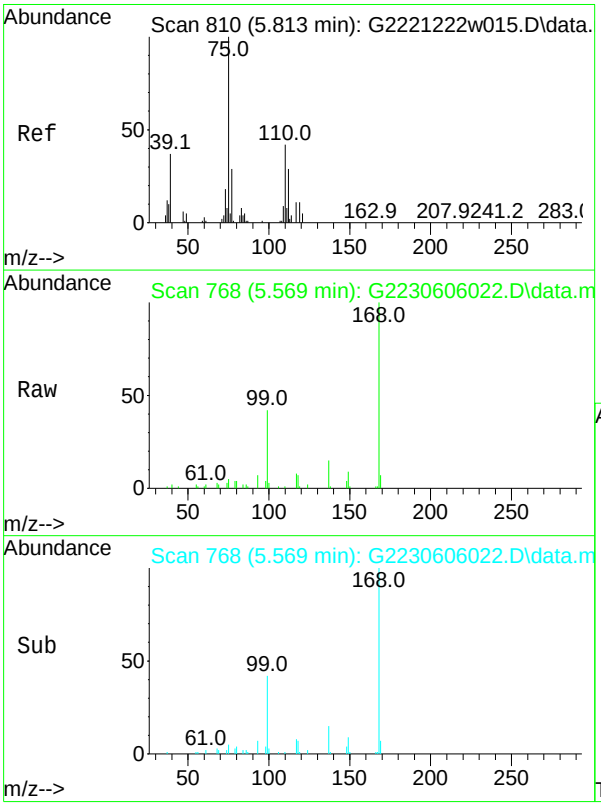


#41
1-Chlorobutane
Concen: 0.43 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 56 Resp: 254570

Ion	Ratio	Lower	Upper
56	100		
55	97.6	0.0	41.0#
57	0.0	0.0	35.7

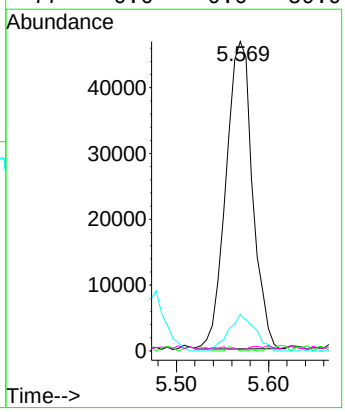


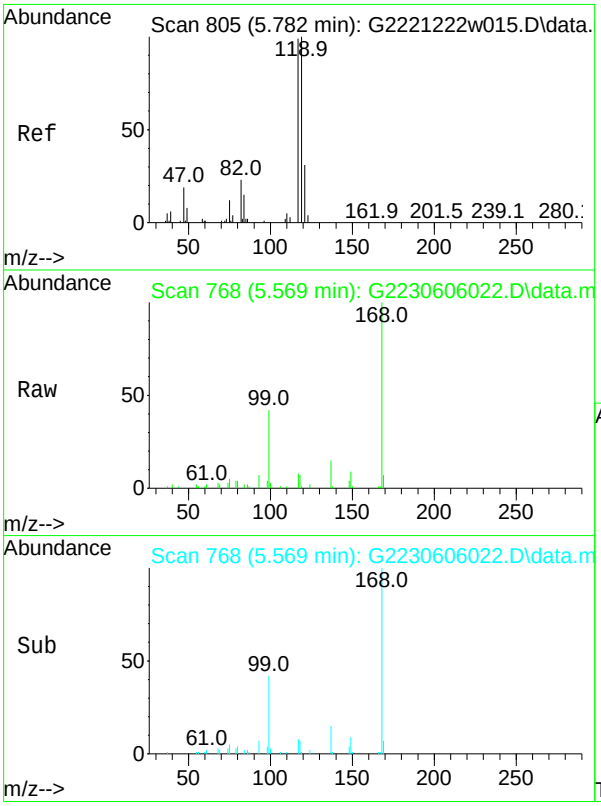


#42
1,1-Dichloropropene
Concen: 2.10 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.117 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 75 Resp: 937941

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.8	9.1	69.1
77	0.0	0.0	59.9

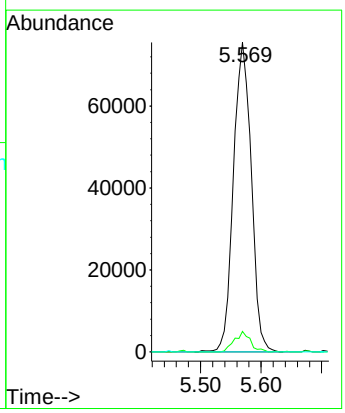


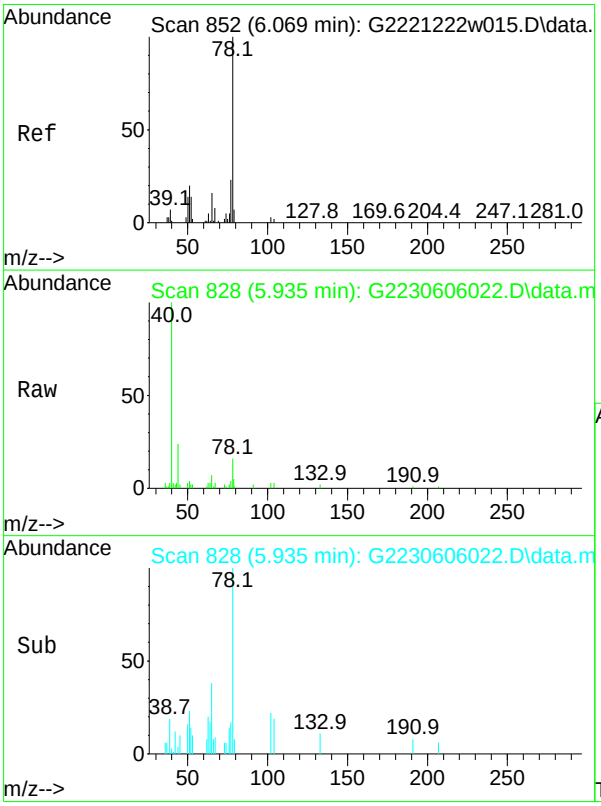


#47
Carbon tetrachloride
Concen: 3.09 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.108 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion:117 Resp: 1547760

Ion	Ratio	Lower	Upper
117	100		
119	6.0	66.4	126.4#
121	0.0	0.4	60.4#

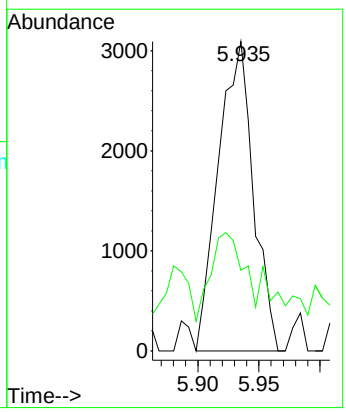


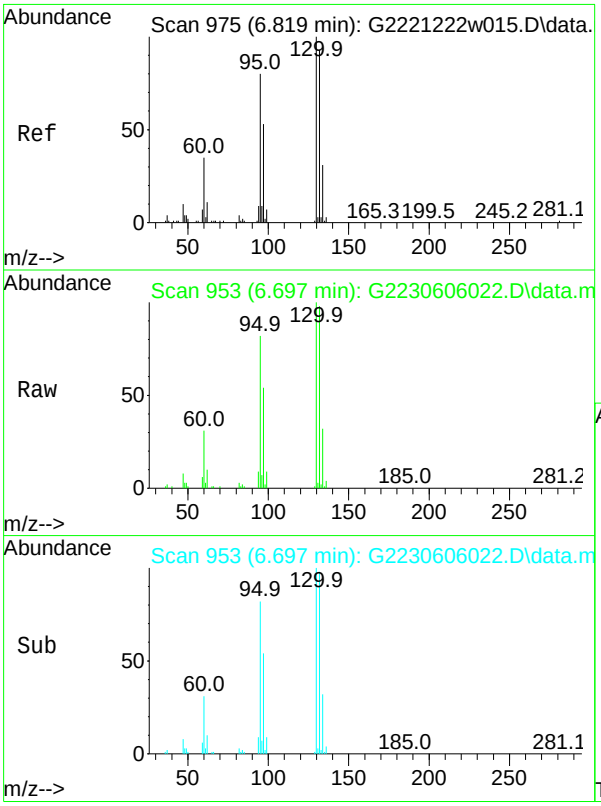


#48
Benzene
Concen: 0.04 ug/L
RT: 5.936 min Scan# 828
Delta R.T. 0.001 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 78 Resp: 61694

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

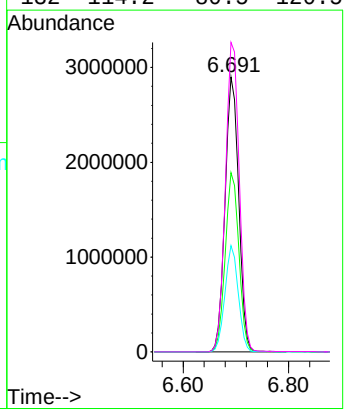


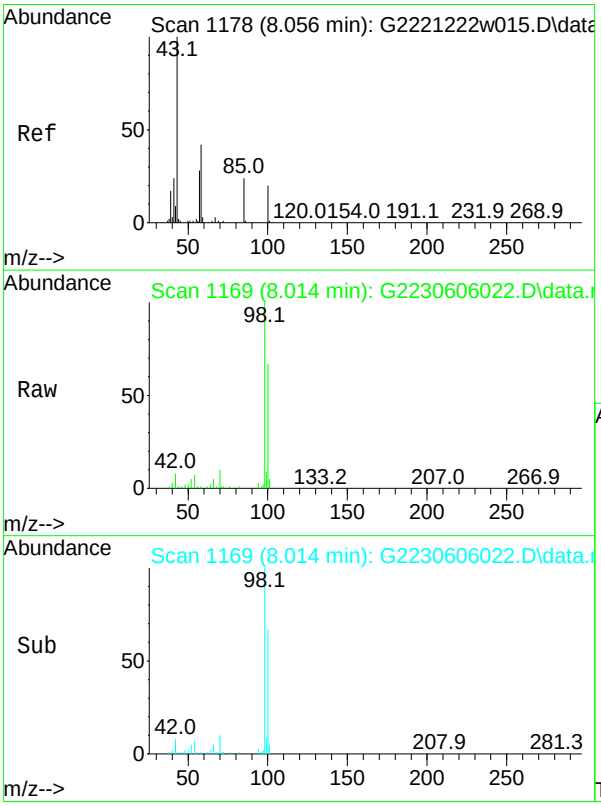


#50
Trichloroethene
Concen: 141.28 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 95 Resp:51482794

Ion	Ratio	Lower	Upper
95	100		
97	65.2	35.5	95.5
60	37.8	14.8	74.8
132	114.2	80.5	120.5

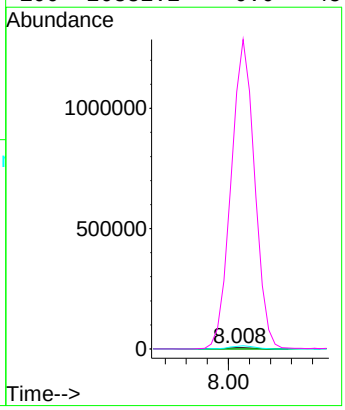


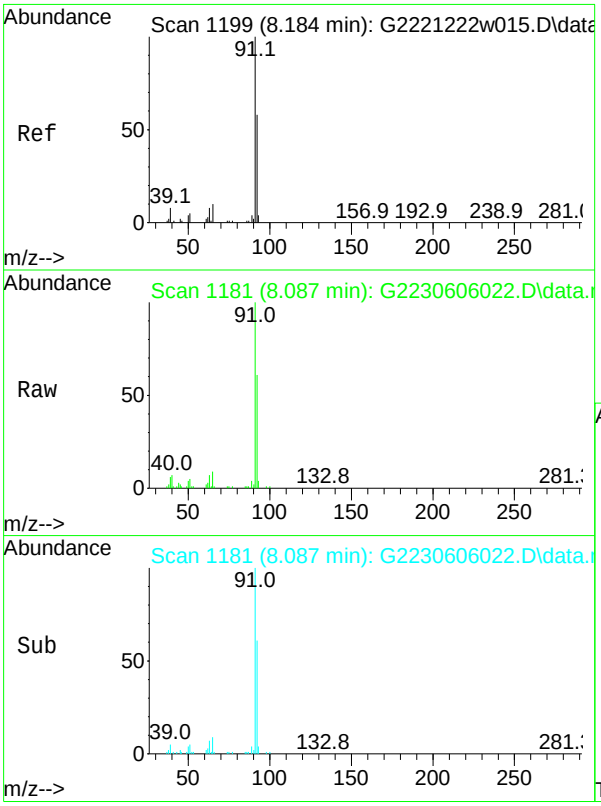


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 43 Resp: 98615

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	203.3	37.0	37.0#
100	20332.2	0.0	45.2#

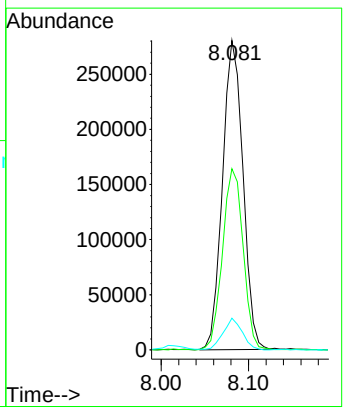


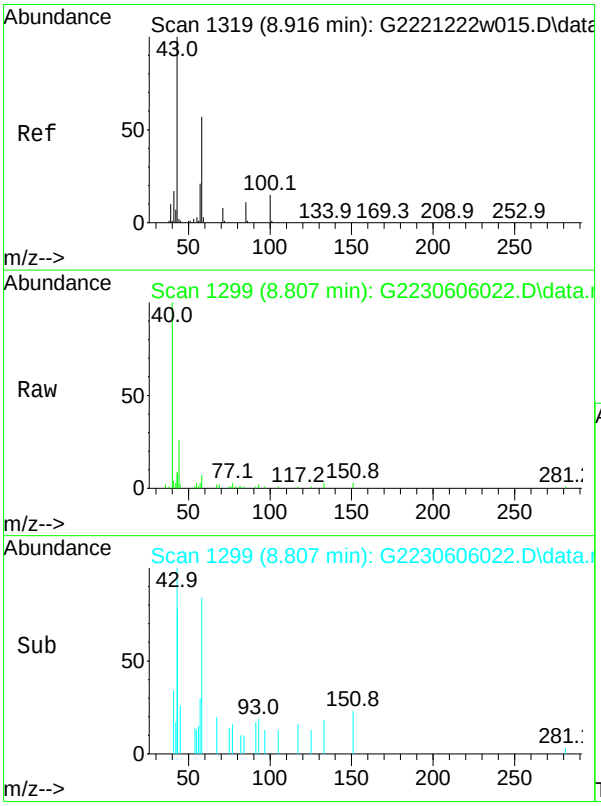


#65
Toluene
Concen: 2.99 ug/L
RT: 8.084 min Scan# 1181
Delta R.T. -0.002 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 91 Resp: 4557552

Ion	Ratio	Lower	Upper
91	100		
92	59.1	27.5	87.5
65	9.6	0.0	41.4

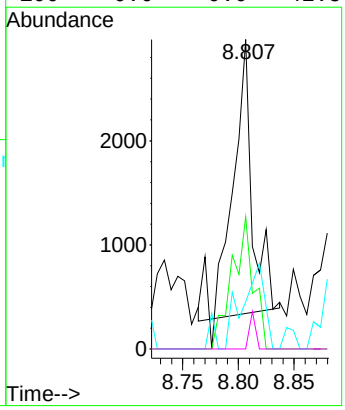


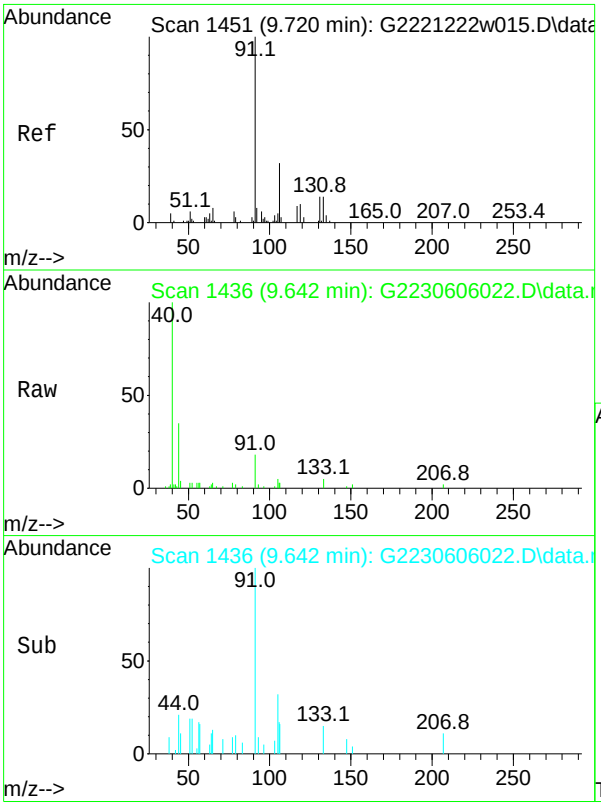


#69
2-Hexanone
Concen: Below Cal
RT: 8.807 min Scan# 1299
Delta R.T. -0.002 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 43 Resp: 32650

Ion	Ratio	Lower	Upper
43	100		
58	0.0	25.2	85.2#
57	0.0	0.0	49.3
100	0.0	0.0	42.5

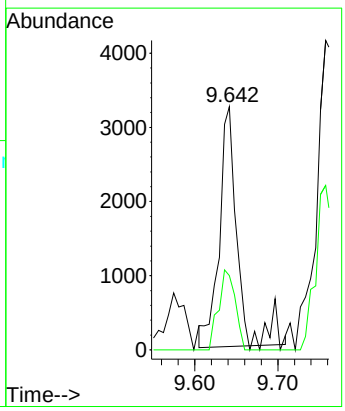


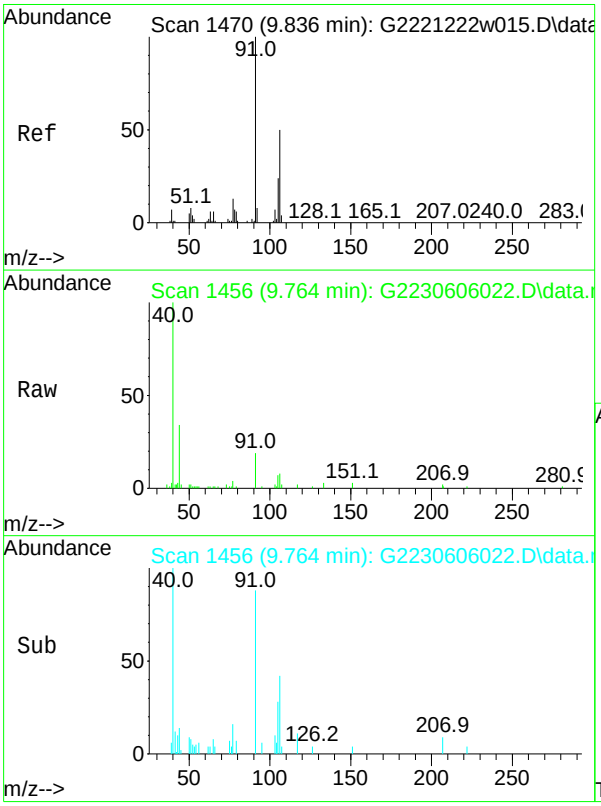


#74
Ethylbenzene
Concen: Below Cal
RT: 9.642 min Scan# 1436
Delta R.T. -0.001 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 91 Resp: 49177

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

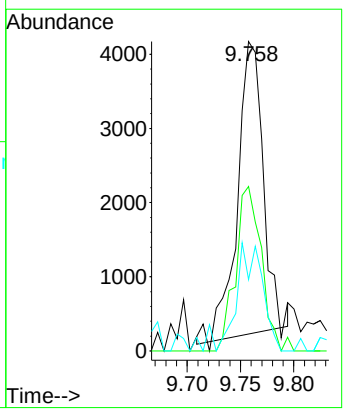


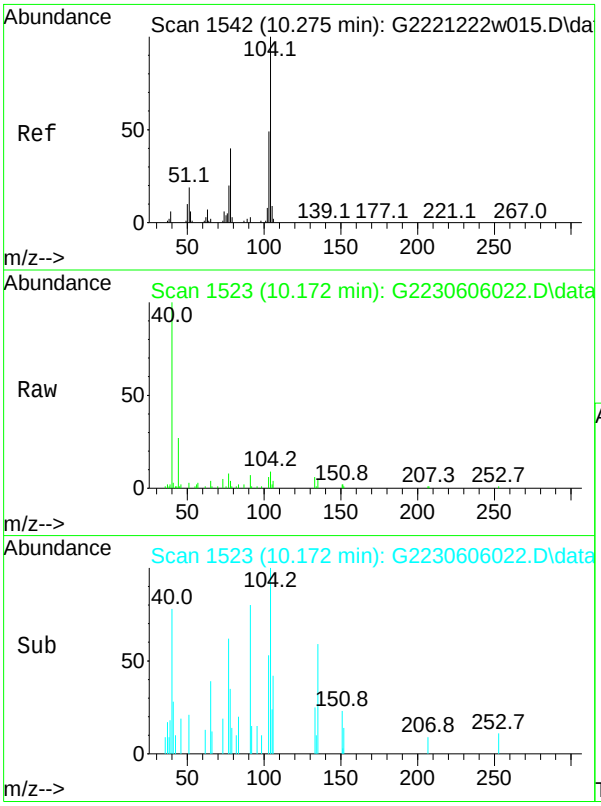


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.762 min Scan# 1456
Delta R.T. -0.002 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 91 Resp: 64874

Ion	Ratio	Lower	Upper
91	100		
106	57.7	19.0	79.0
105	0.0	0.0	52.7

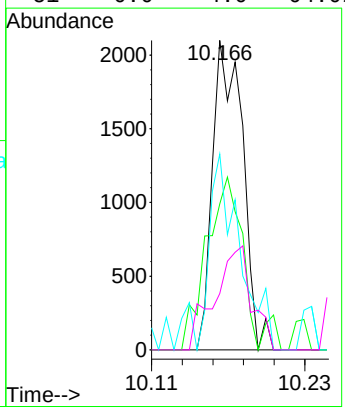


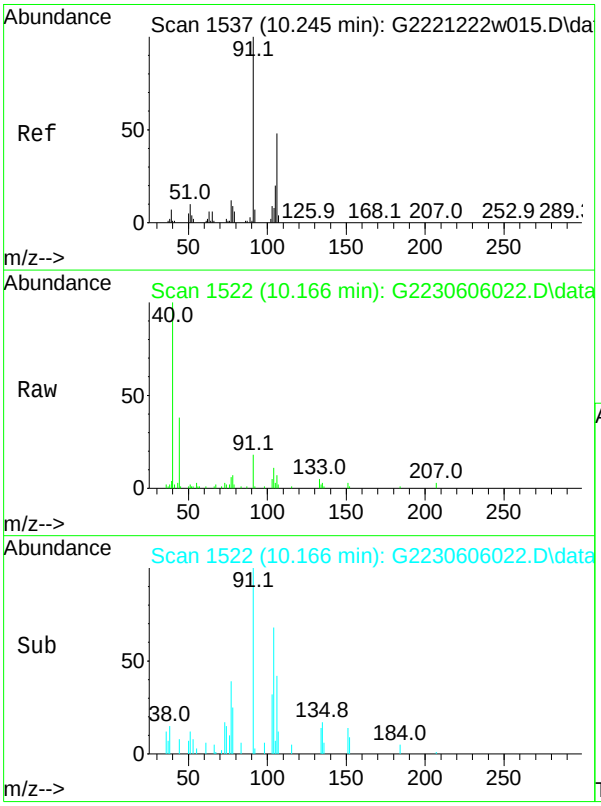


#76
Styrene
Concen: 0.03 ug/L
RT: 10.170 min Scan# 1523
Delta R.T. -0.007 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion:104 Resp: 34969

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

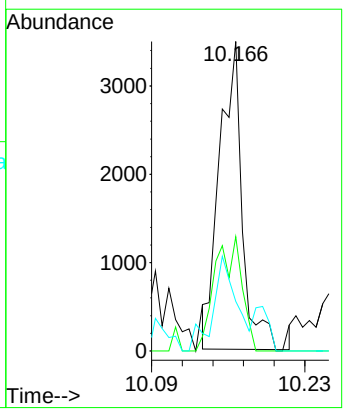


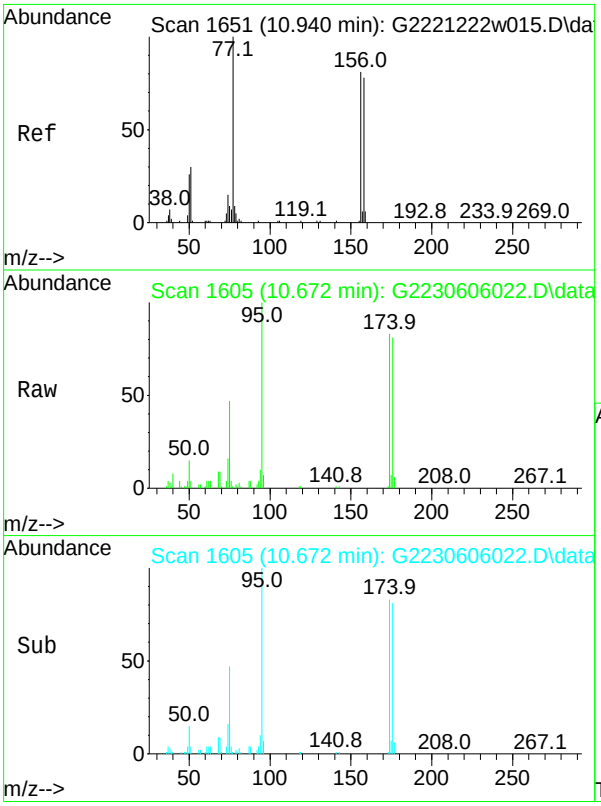


#79
o-Xylene
Concen: 0.04 ug/L
RT: 10.166 min Scan# 1522
Delta R.T. 0.005 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 91 Resp: 51662

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.2	76.2#
105	0.0	0.0	56.7

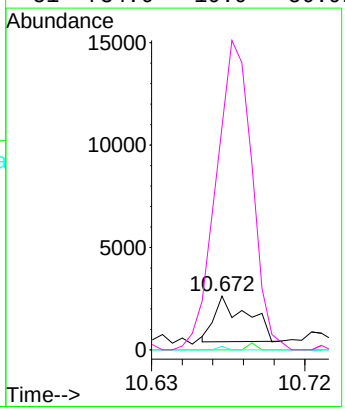


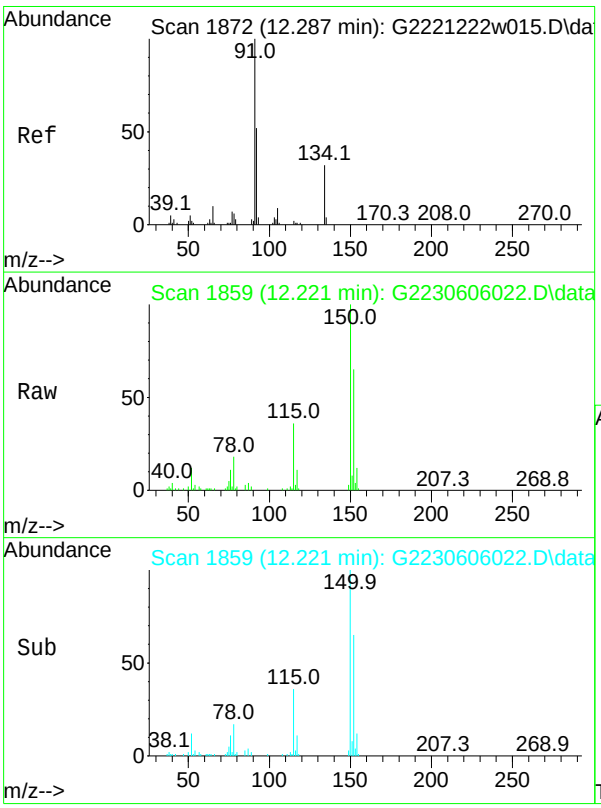


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.675 min Scan# 1605
Delta R.T. -0.153 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 77 Resp: 31418

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	734.6	10.9	50.9#

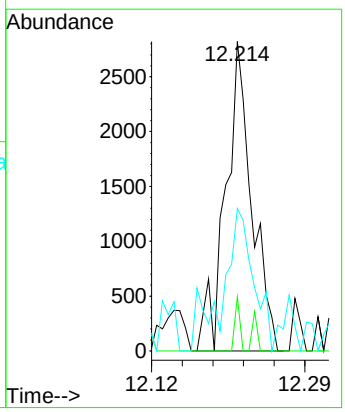




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.218 min Scan# 1859
Delta R.T. -0.013 min
Lab File: G2230606022.D
Acq: 06 Jun 2023 19:22

Tgt Ion: 91 Resp: 54519

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

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07RE1	File ID:	G2230607015.D
Sampled:	05/27/23 11:25	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 20:40
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07RE1	File ID:	G2230607015.D
Sampled:	05/27/23 11:25	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 20:40
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07RE1	File ID:	G2230607015.D
Sampled:	05/27/23 11:25	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 20:40
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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, U*
108-88-3	*Toluene*	*2.10*	*0.572*	*2.00*	*5.00*	*J, D*
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*	*110*	*0.781*	*2.00*	*5.00*	*B, 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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607015.D
Acq On : 07 Jun 2023 20:40
Operator : PO1
Sample : 23E0775-07RE1
Misc : 10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:47:54 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

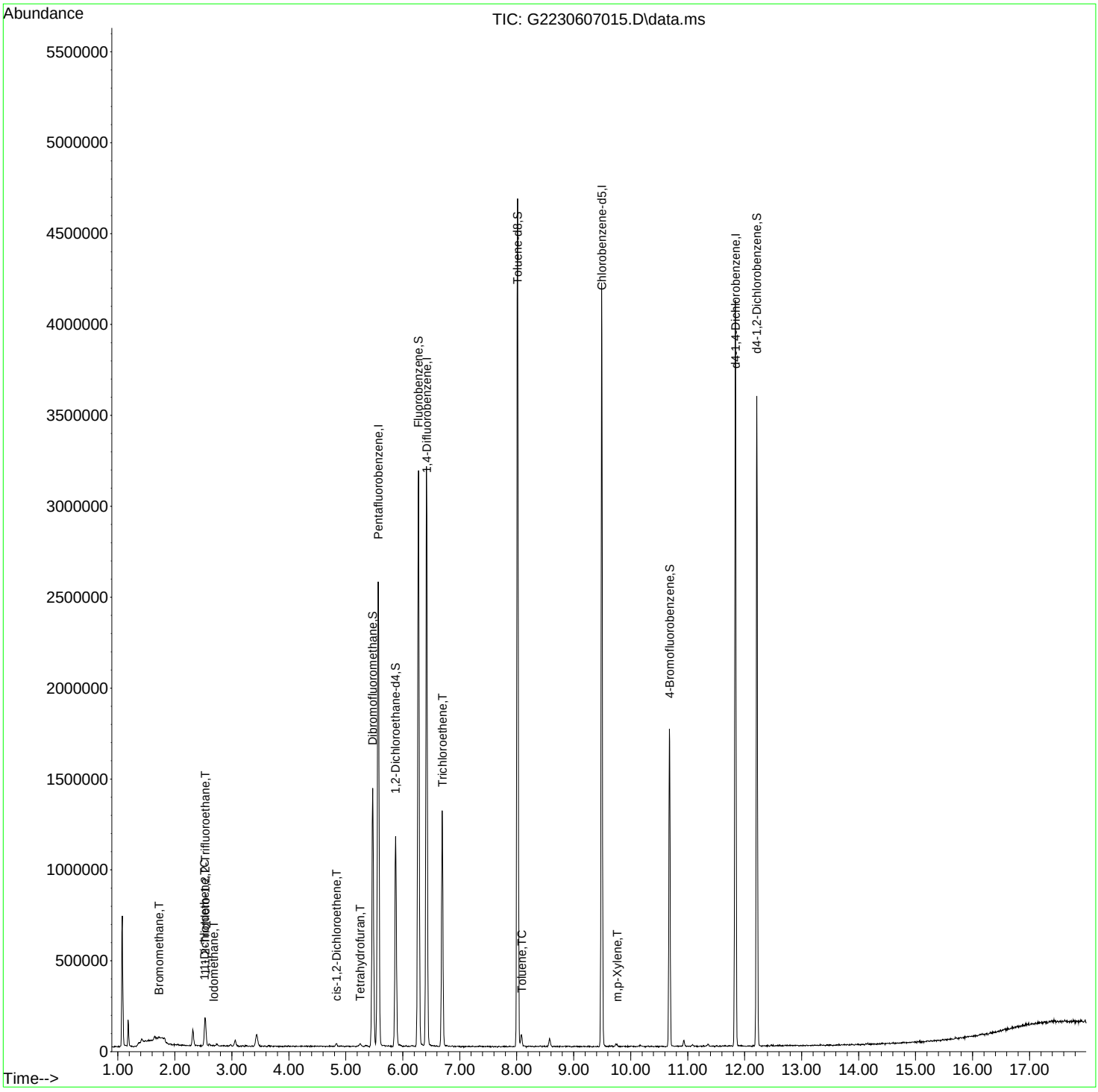
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	20451113	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	27997723	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24757092	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11624915	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	8792076	19.53	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.65%			
43) 1,2-Dichloroethane-d4	5.877	65	8070235	18.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.70%			
49) Fluorobenzene	6.277	96	31081926	19.48	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%			
64) Toluene-d8	8.016	98	30236658	19.38	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%			
81) 4-Bromofluorobenzene	10.684	174	5466470	9.96	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	10050290	20.10	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.50%			
Target Compounds						Qvalue
5) Bromomethane	1.724	94	79830	0.04	ug/L #	63
10) 1,1-Dichloroethene	2.521	61	42432	0.02	ug/L #	54
11) 1,1,2-Trichloro-1,2,2-...	2.530	101	668995	2.00	ug/L	94
13) Iodomethane	2.677	142	31638	0.07	ug/L #	41
18) Methylene chloride	3.059	49	168688	Below Cal		72
21) Methyl tert-butyl ether	3.438	73	873597	Below Cal		94
28) cis-1,2-Dichloroethene	4.836	61	92295	0.10	ug/L #	72
36) Tetrahydrofuran	5.252	42	88604	0.28	ug/L	79
50) Trichloroethene	6.694	95	4086072	11.03	ug/L	91
65) Toluene	8.086	91	432433	0.21	ug/L	98
75) m,p-Xylene	9.765	91	63371	0.05	ug/L #	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607015.D
Acq On : 07 Jun 2023 20:40
Operator : PO1
Sample : 23E0775-07RE1
Misc : 10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:47:54 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607015.D
Acq On : 07 Jun 2023 20:40
Operator : PO1
Sample : 23E0775-07RE1
Misc : 10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:47:54 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	20451113	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	27997723	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24757092	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11624915	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8792076	19.53	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.65%				
43) 1,2-Dichloroethane-d4	5.877	65	8070235	18.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.70%				
49) Fluorobenzene	6.277	96	31081926	19.48	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%				
64) Toluene-d8	8.016	98	30236658	19.38	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%				
81) 4-Bromofluorobenzene	10.684	174	5466470	9.96	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%				
97) d4-1,2-Dichlorobenzene	12.217	152	10050290	20.10	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.50%				
Target Compounds							Qvalue
5) Bromomethane	1.724	94	79830	0.04	ug/L	#	63
9) Acrolein	2.427	56	10766	Below Cal		#	20
10) 1,1-Dichloroethene	2.521	61	42432	0.02	ug/L	#	54
11) 1,1,2-Trichloro-1,2,2-...	2.530	101	668995	2.00	ug/L		94
12) Acetone	2.605	43	121538	Below Cal			55
13) Iodomethane	2.677	142	31638	0.07	ug/L	#	41
14) Carbon disulfide	2.732	76	164749	0.09	ug/L	#	74
17) 3-Chloro-1-propene	2.732	76	164747	0.72	ug/L	#	53
18) Methylene chloride	3.059	49	168688	Below Cal			72
21) Methyl tert-butyl ether	3.438	73	873597	Below Cal			94
28) cis-1,2-Dichloroethene	4.836	61	92295	0.10	ug/L	#	72
31) Ethyl acetate	4.836	61	92295	1.29	ug/L	#	45
33) 1-Bromopropane	5.254	41	59000	0.16	ug/L	#	40
36) Tetrahydrofuran	5.252	42	88604	0.28	ug/L		79
40) Cyclohexane	5.576	84	450102	0.82	ug/L	#	32
41) 1-Chlorobutane	5.570	56	262368	0.41	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	1072092	2.24	ug/L	#	38
47) Carbon tetrachloride	5.572	117	1670151	3.31	ug/L	#	16
48) Benzene	5.943	78	36552	0.03	ug/L	#	52
50) Trichloroethene	6.694	95	4086072	11.03	ug/L		91
60) 4-Methyl-2-pentanone	8.016	43	101236	Below Cal		#	1
65) Toluene	8.086	91	432433	0.21	ug/L		98
74) Ethylbenzene	9.766	91	49896	Below Cal		#	37
75) m,p-Xylene	9.765	91	63371	0.05	ug/L	#	83
82) Bromobenzene	10.683	77	29543	0.05	ug/L	#	1
99) n-Butylbenzene	12.217	91	40574	Below Cal		#	53

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607015.D
Acq On : 07 Jun 2023 20:40
Operator : PO1
Sample : 23E0775-07RE1
Misc : 10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:47:54 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

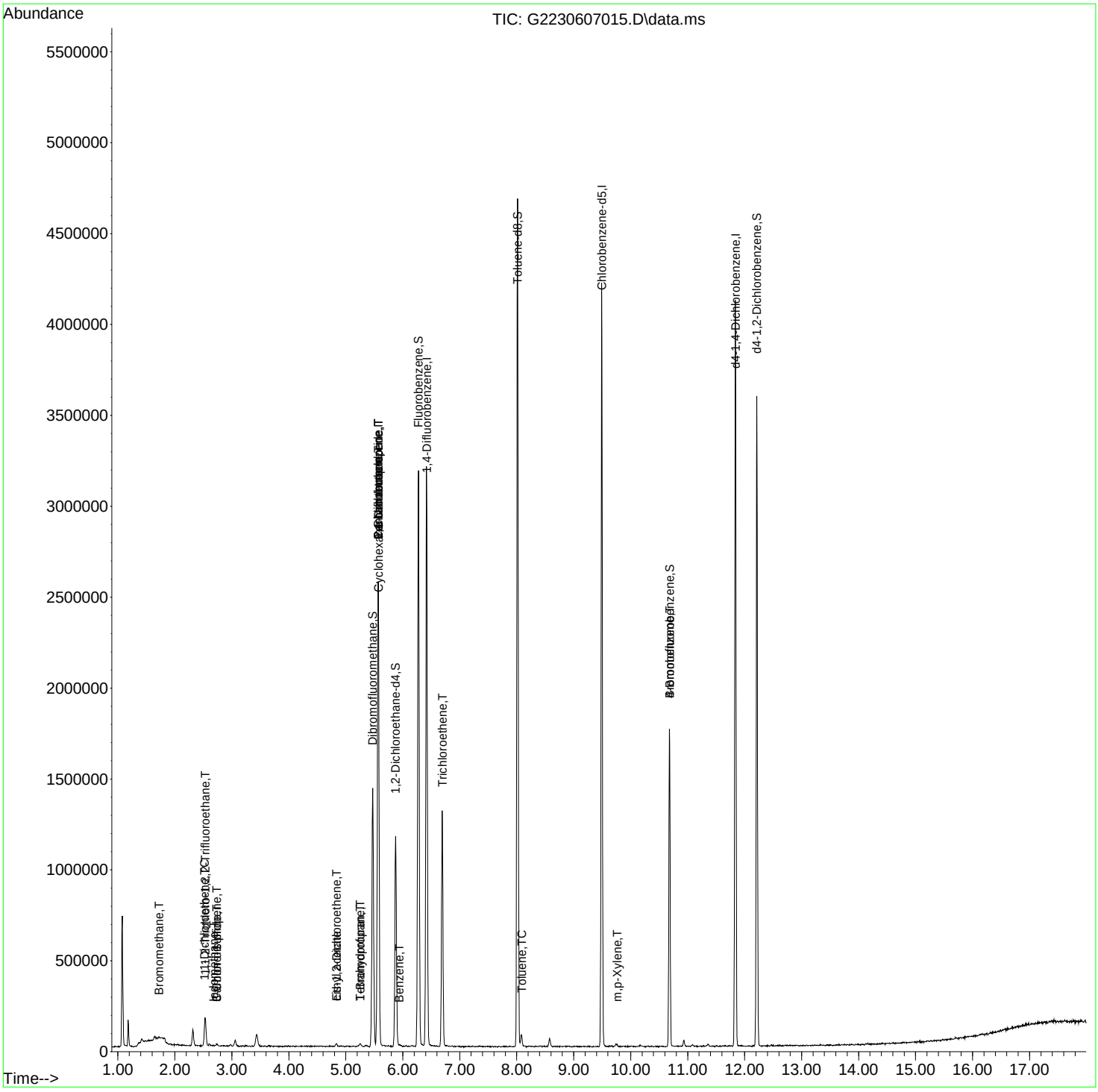
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

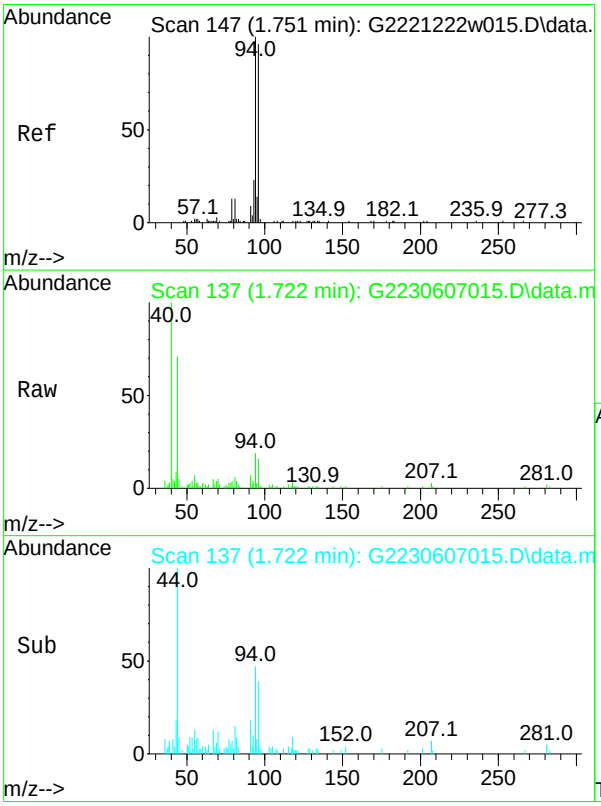
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607015.D
Acq On : 07 Jun 2023 20:40
Operator : PO1
Sample : 23E0775-07RE1
Misc : 10
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:47:54 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

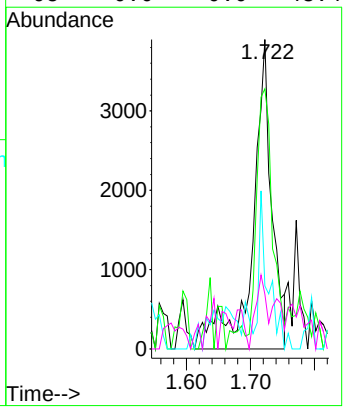


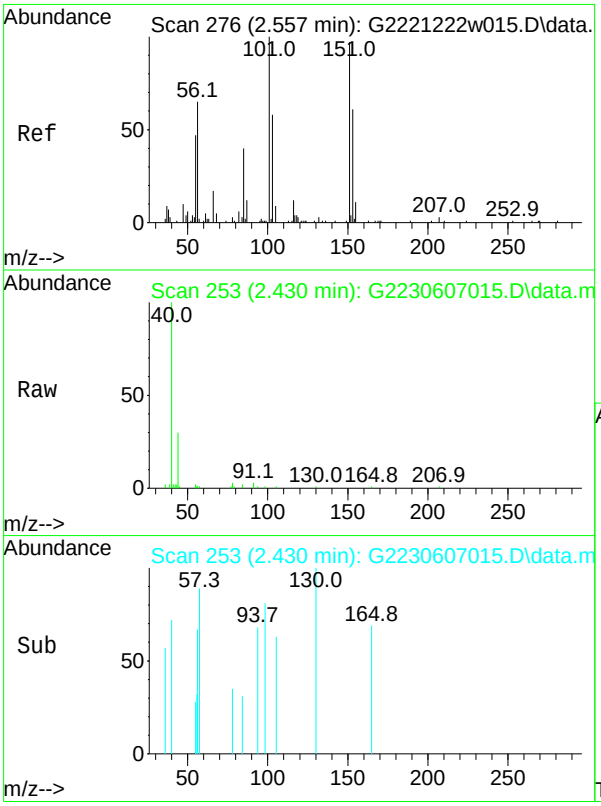


#5
Bromomethane
Concen: 0.04 ug/L
RT: 1.724 min Scan# 137
Delta R.T. 0.010 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 94 Resp: 79830

Ion	Ratio	Lower	Upper
94	100		
96	60.4	65.6	125.6#
93	0.0	0.0	49.5
95	0.0	0.0	43.4

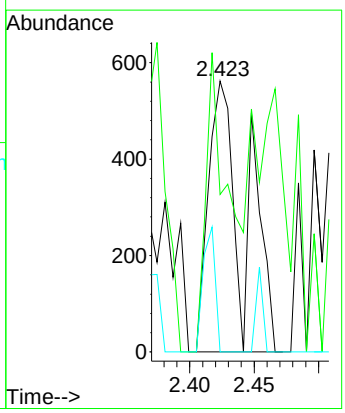


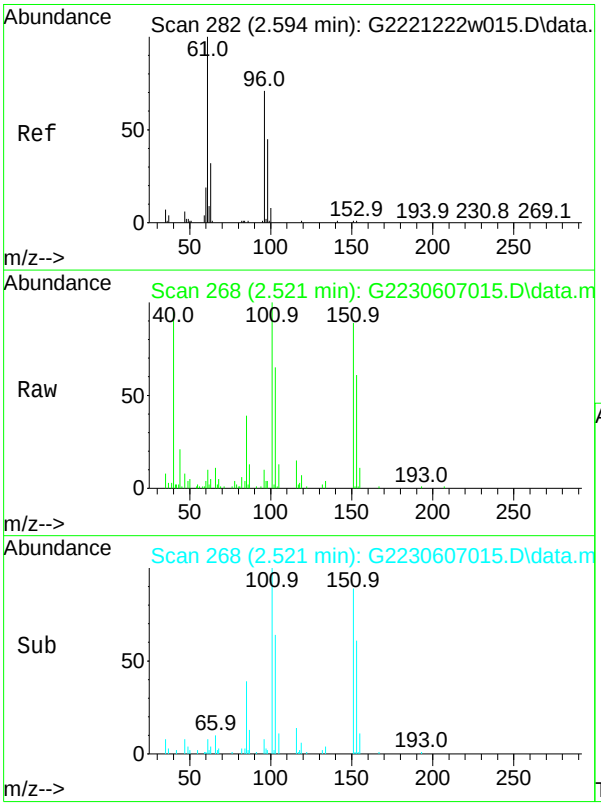


#9
Acrolein
Concen: Below Cal
RT: 2.427 min Scan# 253
Delta R.T. -0.012 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 56 Resp: 10766

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

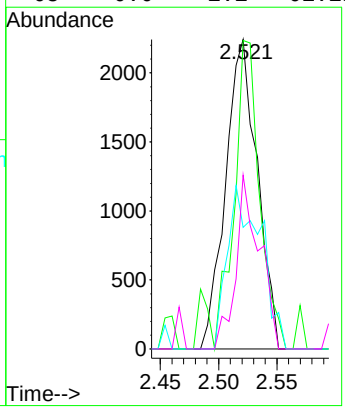


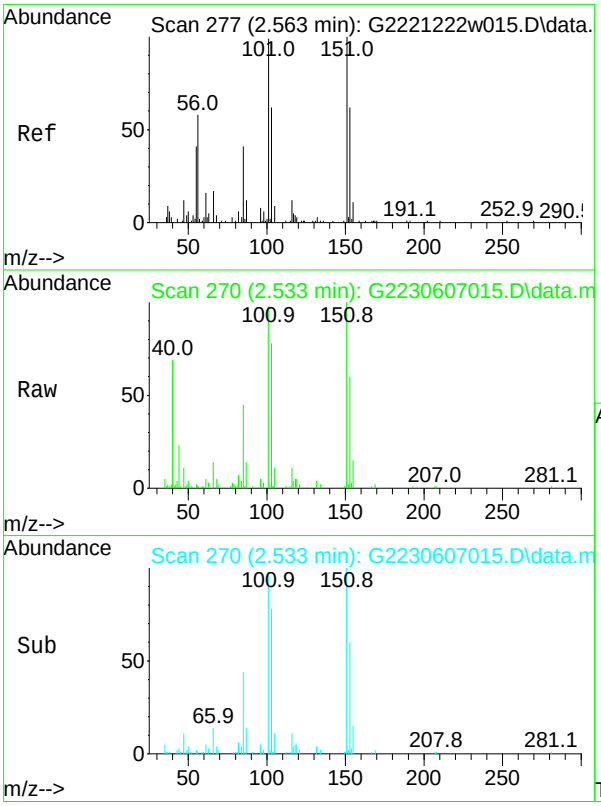


#10
1,1-Dichloroethene
Concen: 0.02 ug/L
RT: 2.521 min Scan# 268
Delta R.T. -0.002 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 61 Resp: 42432

Ion	Ratio	Lower	Upper
61	100		
96	86.0	32.7	92.7
98	0.0	9.3	69.3#
63	0.0	1.1	61.1#

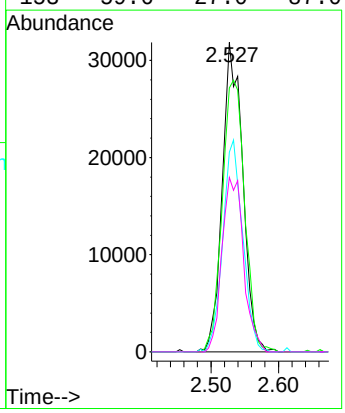


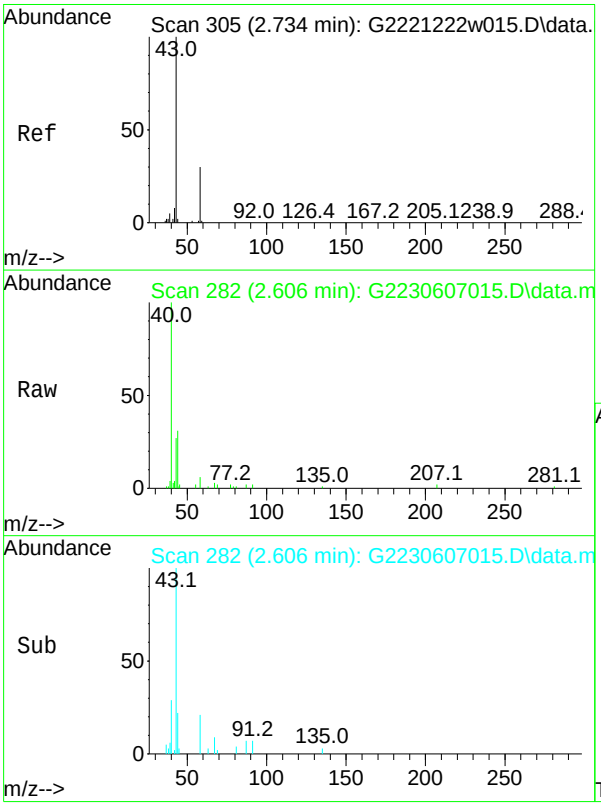


#11
1,1,2-Trichloro-1,2,2-Trifluoroethane
Concen: 2.00 ug/L
RT: 2.530 min Scan# 270
Delta R.T. -0.004 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion:101 Resp: 668995

Ion	Ratio	Lower	Upper
101	100		
151	96.6	56.0	116.0
103	66.4	35.7	95.7
153	59.6	27.0	87.0

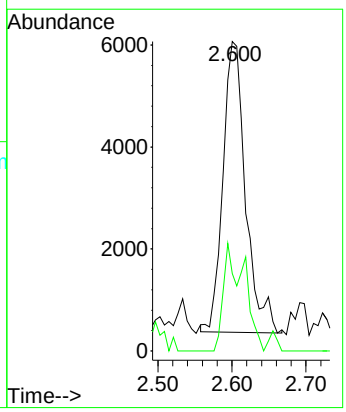


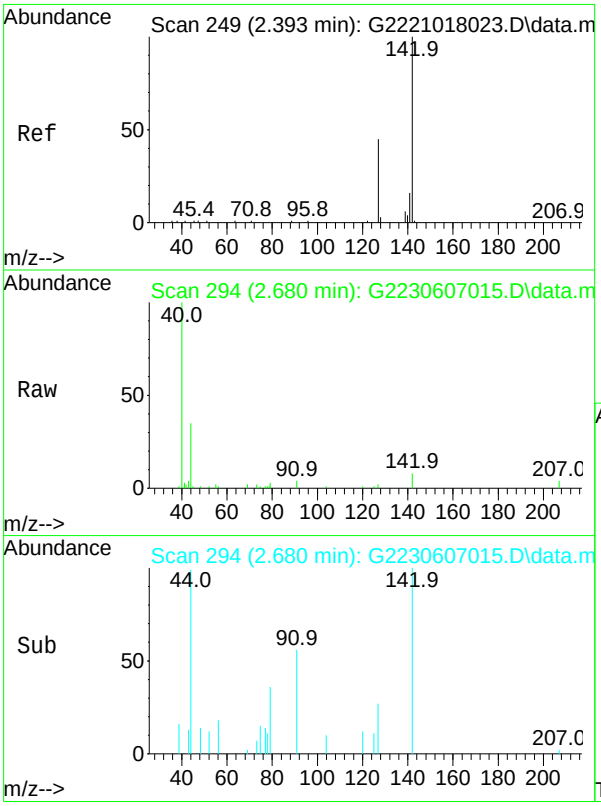


#12
Acetone
Concen: Below Cal
RT: 2.605 min Scan# 282
Delta R.T. -0.003 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 43 Resp: 121538

Ion	Ratio	Lower	Upper
43	100		
58	5.5	0.0	59.7

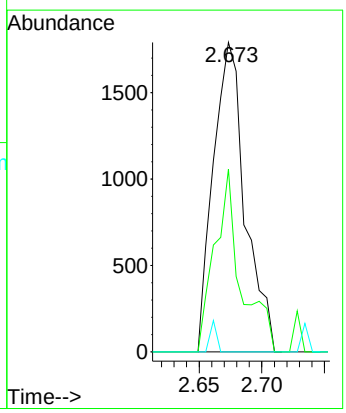


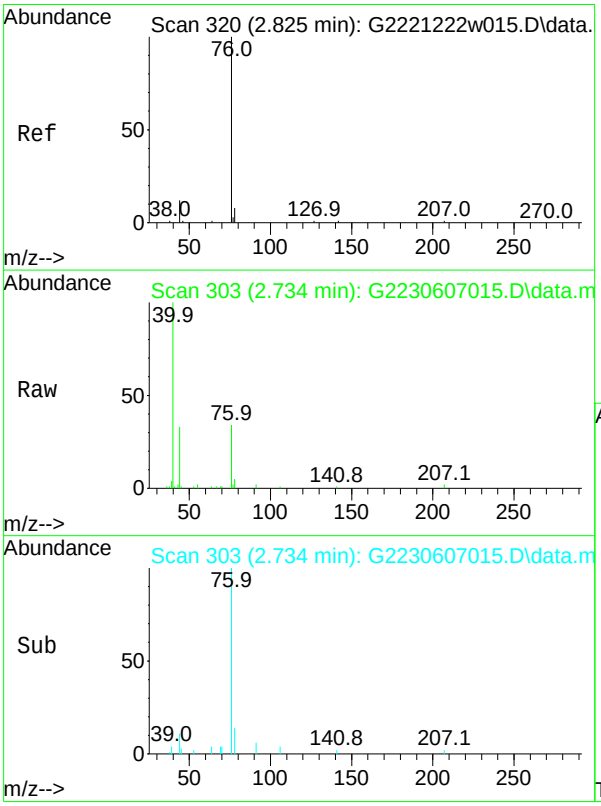


#13
Iodomethane
Concen: 0.07 ug/L
RT: 2.677 min Scan# 294
Delta R.T. 0.001 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion:142 Resp: 31638

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

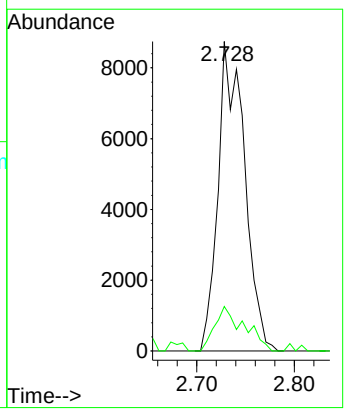


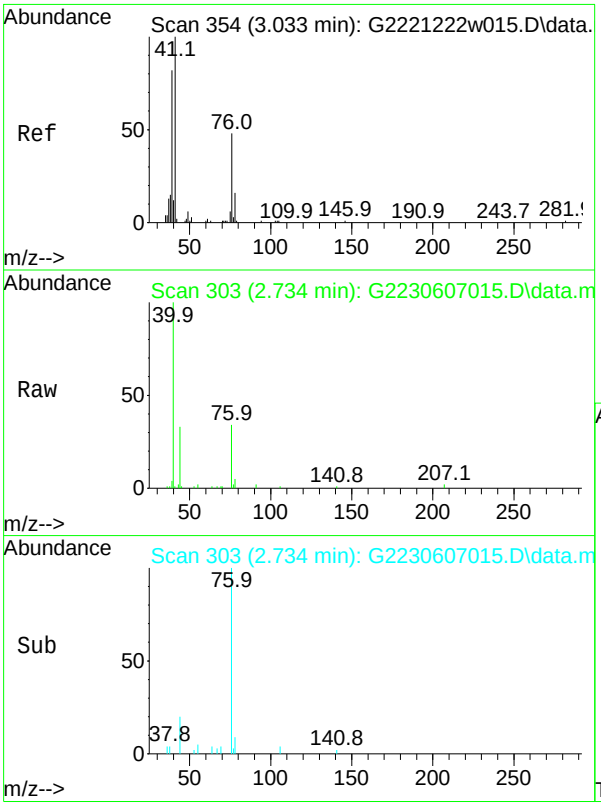


#14
Carbon disulfide
Concen: 0.09 ug/L
RT: 2.732 min Scan# 303
Delta R.T. -0.007 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 76 Resp: 164749

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

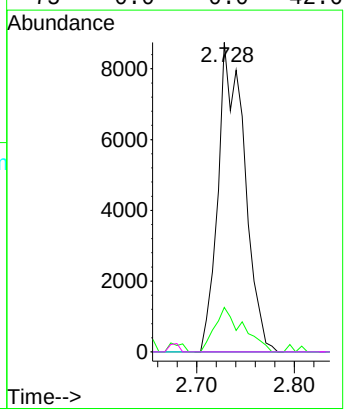


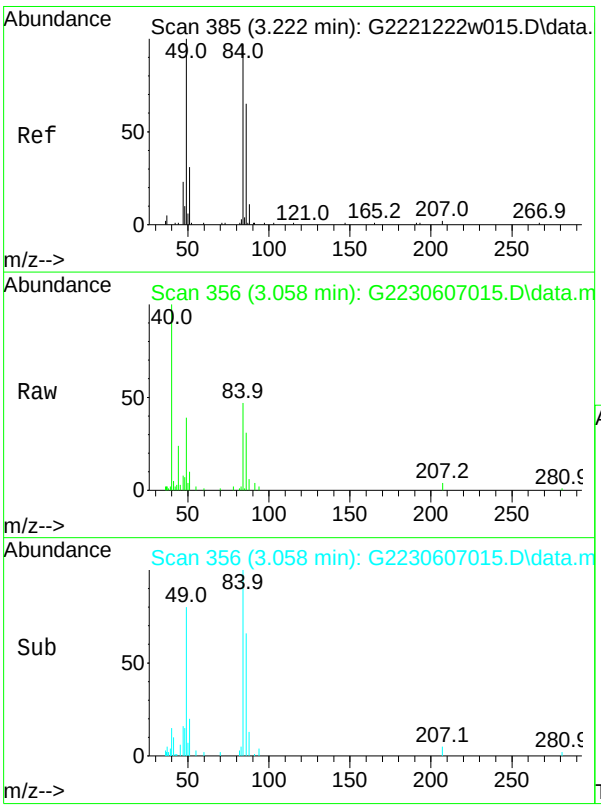


#17
3-Chloro-1-propene
Concen: 0.72 ug/L
RT: 2.732 min Scan# 303
Delta R.T. -0.188 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 76 Resp: 164747

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

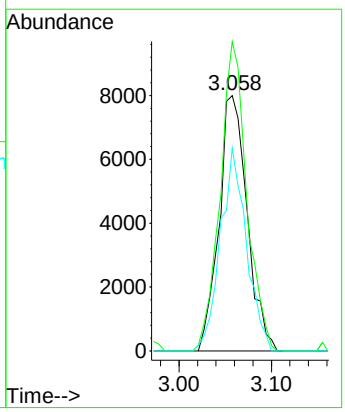


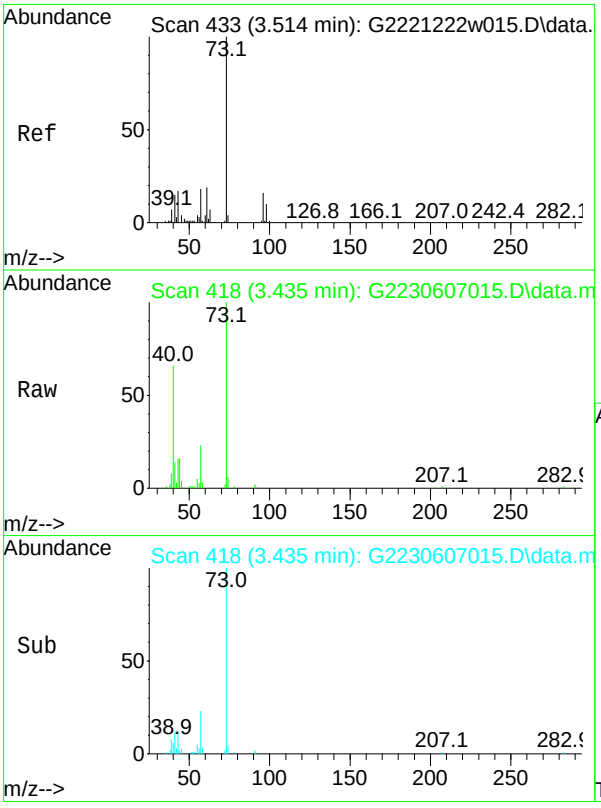


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 49 Resp: 168688

Ion	Ratio	Lower	Upper
49	100		
84	114.8	57.9	117.9
86	73.8	24.9	84.9

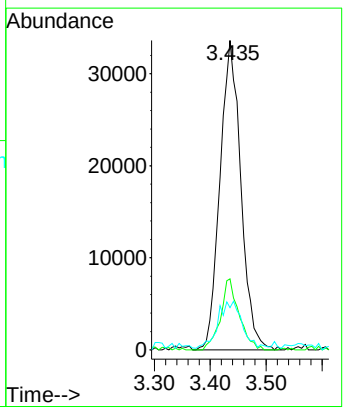


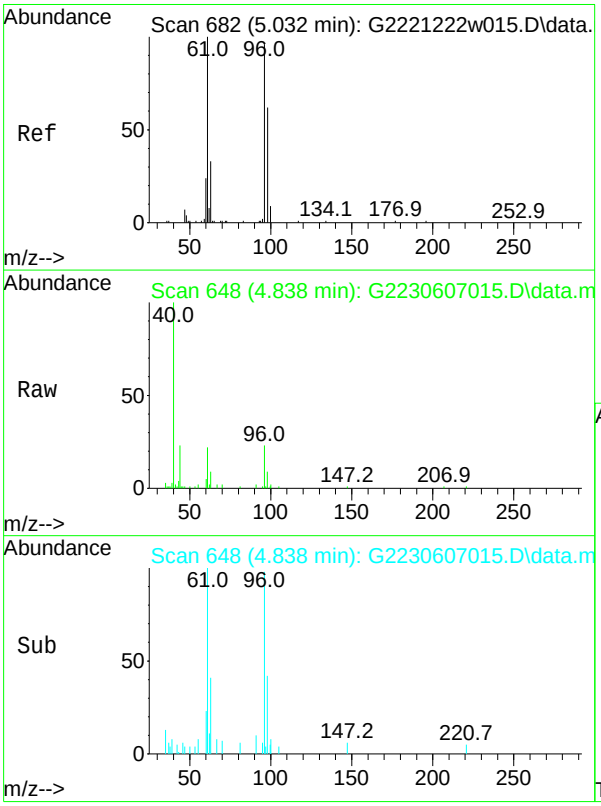


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.438 min Scan# 418
Delta R.T. -0.008 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 73 Resp: 873597

Ion	Ratio	Lower	Upper
73	100		
57	20.3	0.0	51.7
41	16.6	0.0	50.6

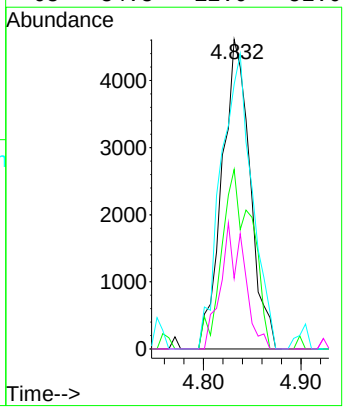


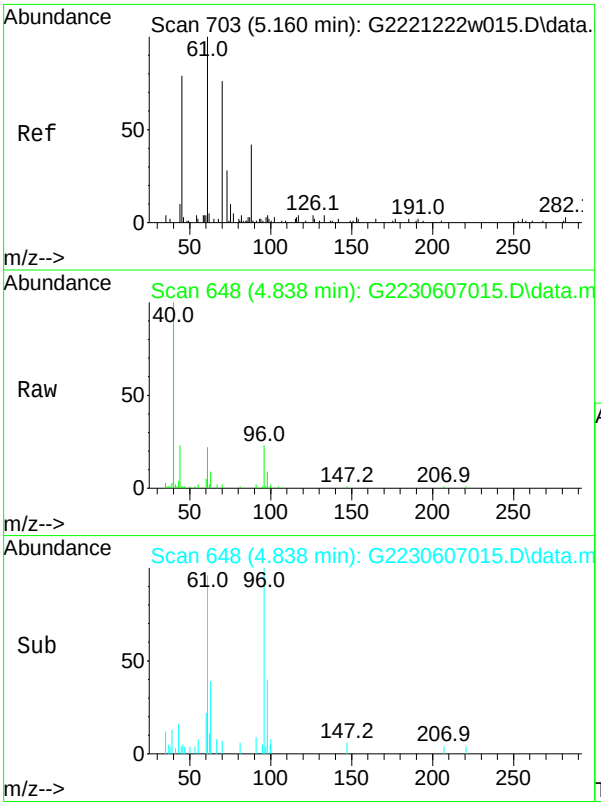


#28
cis-1,2-Dichloroethene
Concen: 0.10 ug/L
RT: 4.836 min Scan# 648
Delta R.T. 0.000 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 61 Resp: 92295

Ion	Ratio	Lower	Upper
61	100		
98	59.4	15.9	75.9
96	105.8	39.6	99.6#
63	34.3	12.0	52.0

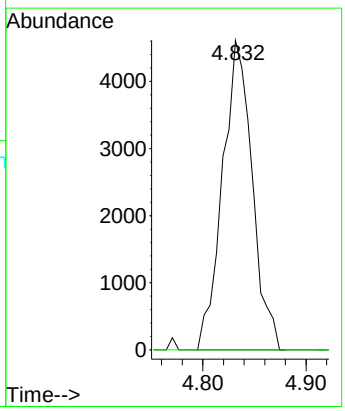


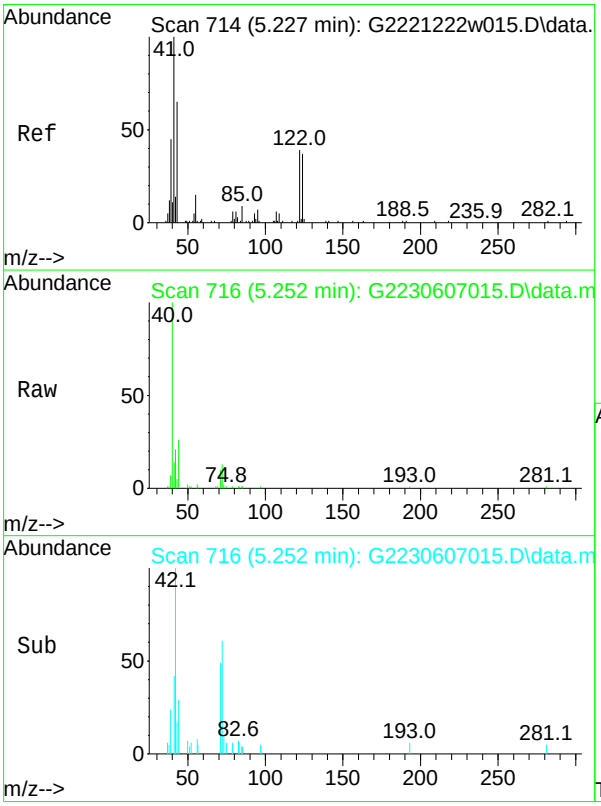


#31
Ethyl acetate
Concen: 1.29 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 61 Resp: 92295

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

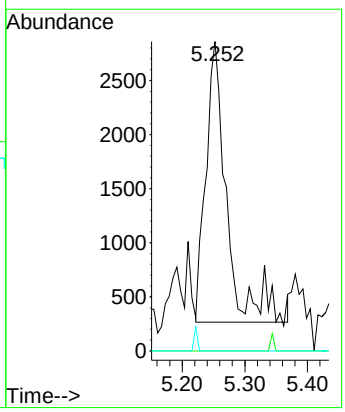


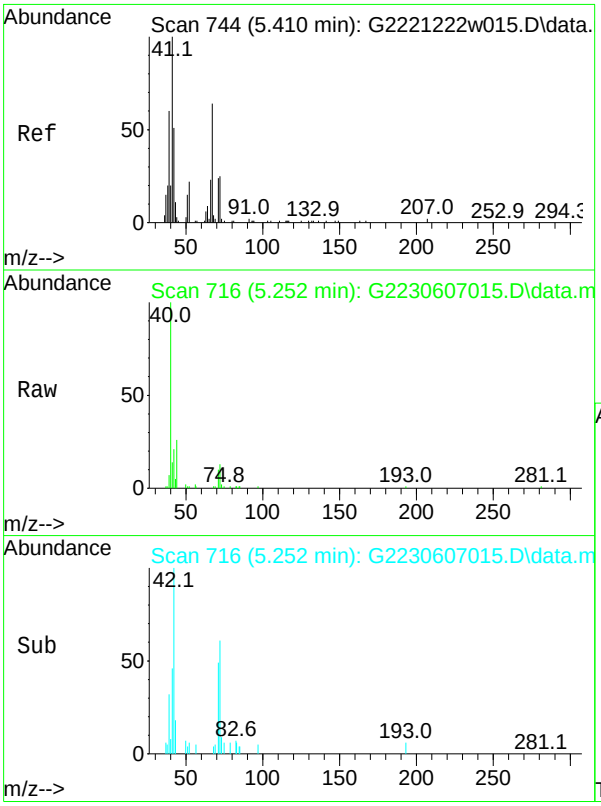


#33
1-Bromopropane
Concen: 0.16 ug/L
RT: 5.254 min Scan# 716
Delta R.T. 0.178 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 41 Resp: 59000

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

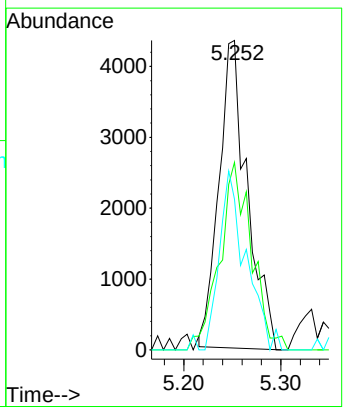


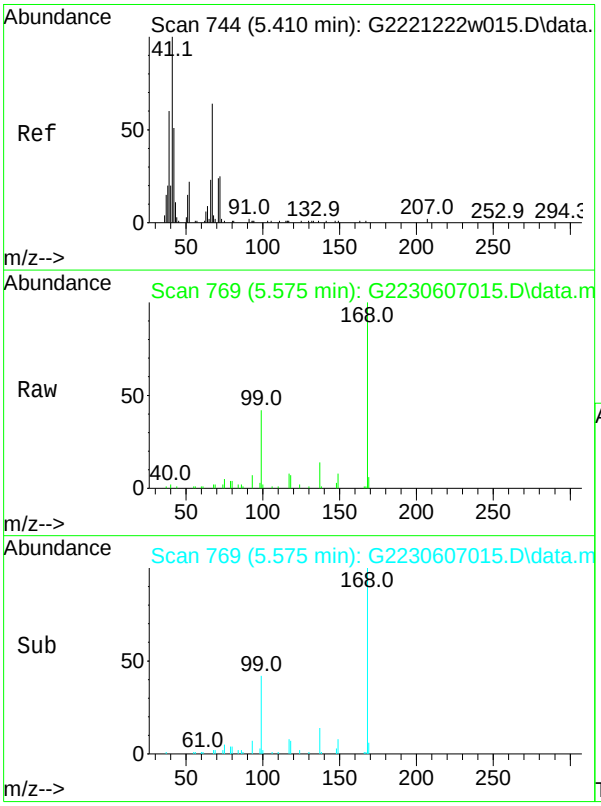


#36
Tetrahydrofuran
Concen: 0.28 ug/L
RT: 5.252 min Scan# 716
Delta R.T. -0.009 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 42 Resp: 88604

Ion	Ratio	Lower	Upper
42	100		
72	68.3	18.8	78.8
71	52.4	14.7	74.7

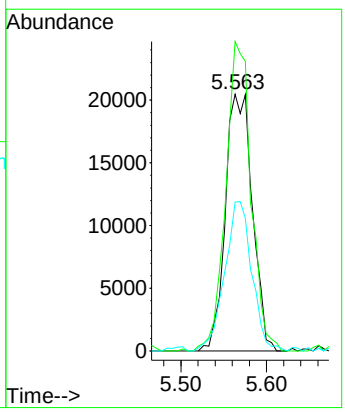


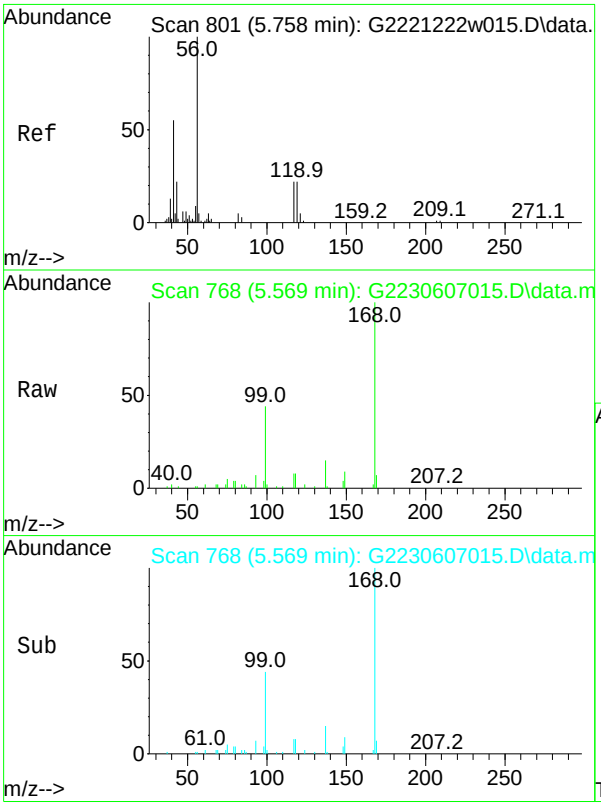


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.576 min Scan# 769
Delta R.T. 0.042 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 84 Resp: 450102

Ion	Ratio	Lower	Upper
84	100		
69	112.8	6.8	66.8#
56	59.2	79.1	139.1#

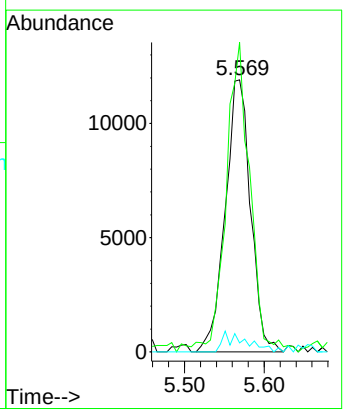


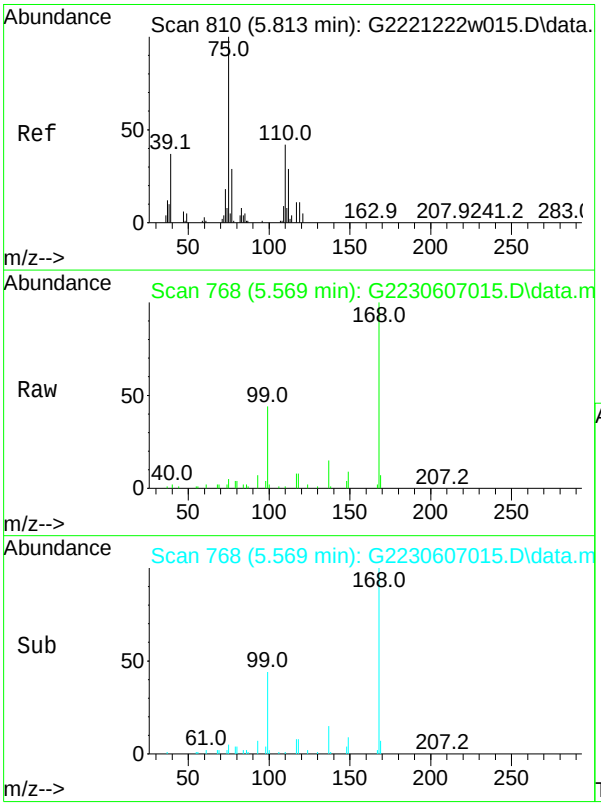


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 56 Resp: 262368

Ion	Ratio	Lower	Upper
56	100		
55	100.2	0.0	41.0#
57	0.0	0.0	35.7

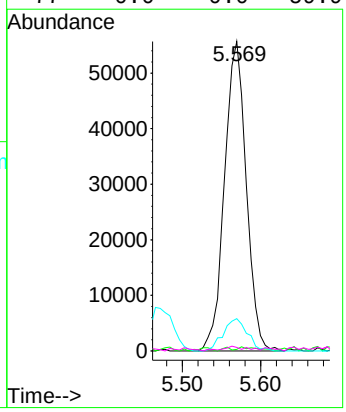


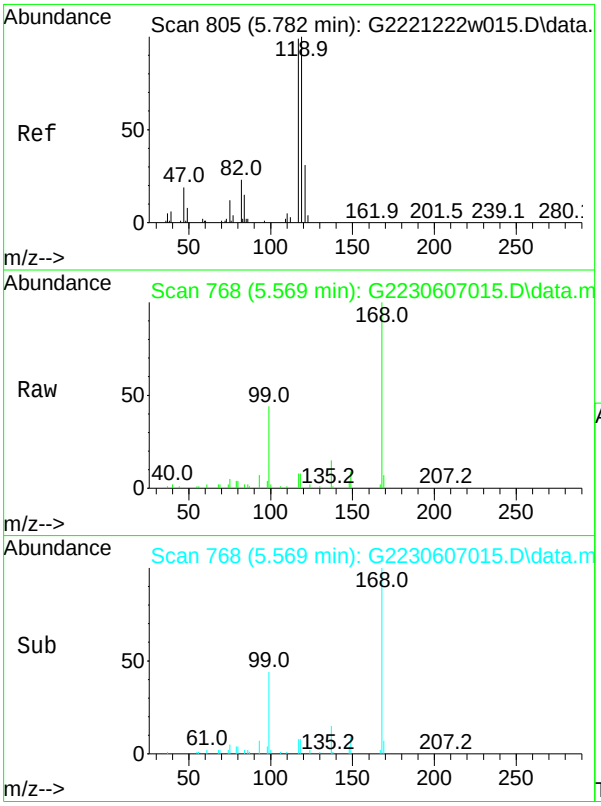


#42
1,1-Dichloropropene
Concen: 2.24 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 75 Resp: 1072092

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.7	9.1	69.1
77	0.0	0.0	59.9

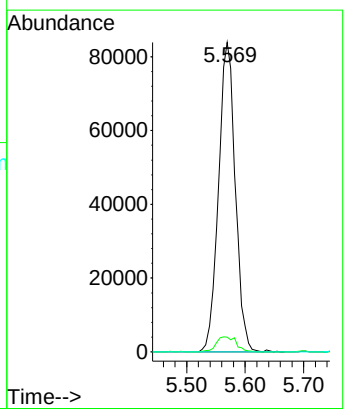


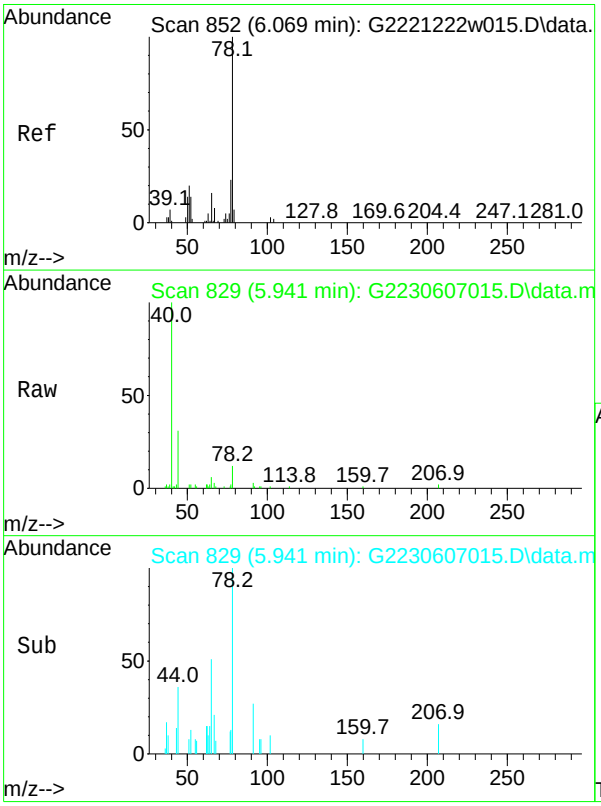


#47
Carbon tetrachloride
Concen: 3.31 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.108 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion:117 Resp: 1670151

Ion	Ratio	Lower	Upper
117	100		
119	5.9	66.4	126.4#
121	0.0	0.4	60.4#

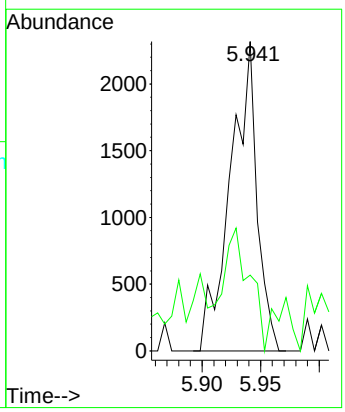


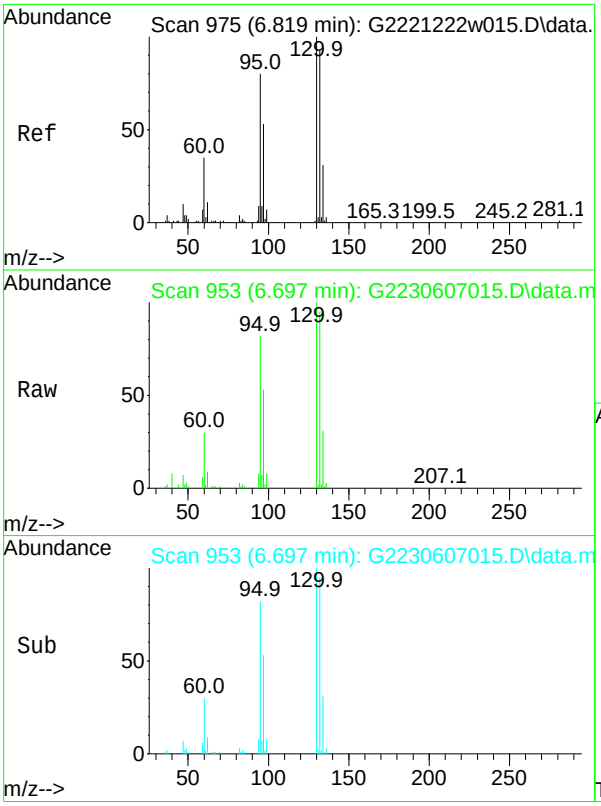


#48
Benzene
Concen: 0.03 ug/L
RT: 5.943 min Scan# 829
Delta R.T. 0.008 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 78 Resp: 36552

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

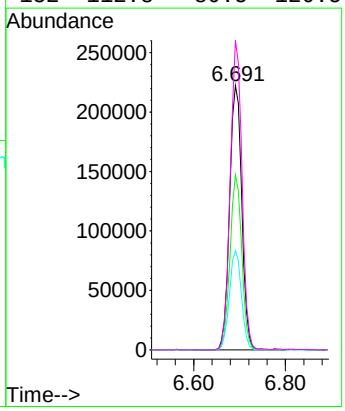


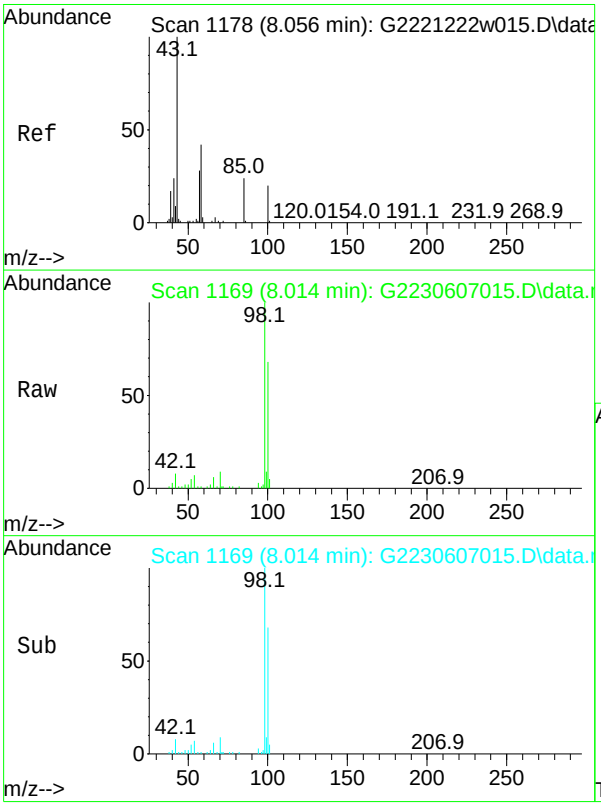


#50
Trichloroethene
Concen: 11.03 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 95 Resp: 4086072

Ion	Ratio	Lower	Upper
95	100		
97	64.0	35.5	95.5
60	37.2	14.8	74.8
132	112.8	80.5	120.5

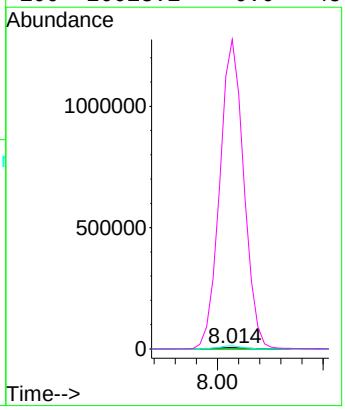


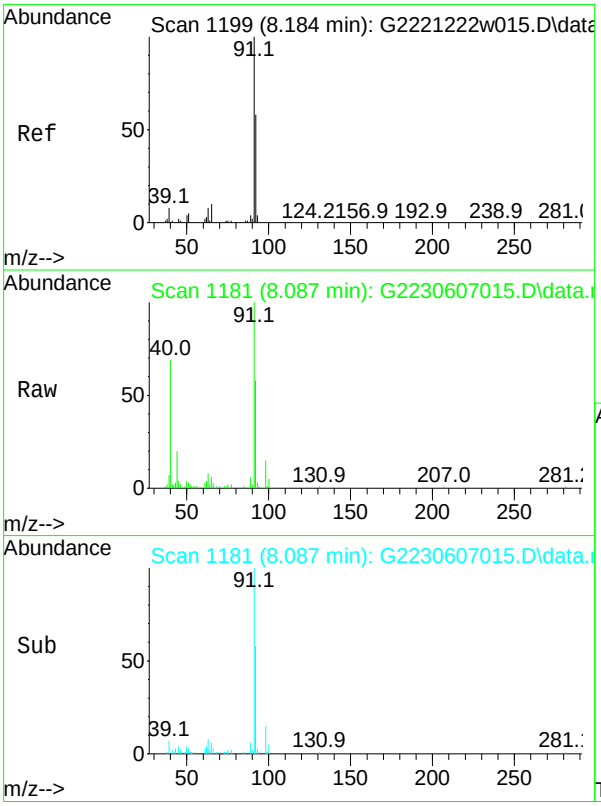


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 43 Resp: 101236

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	205.8	37.0	37.0#
100	20013.1	0.0	45.2#

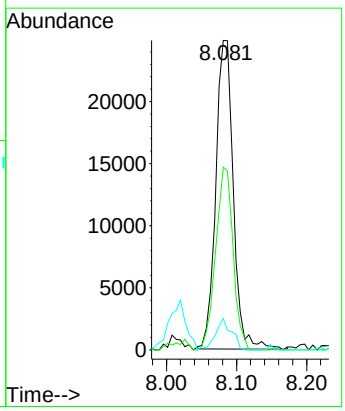


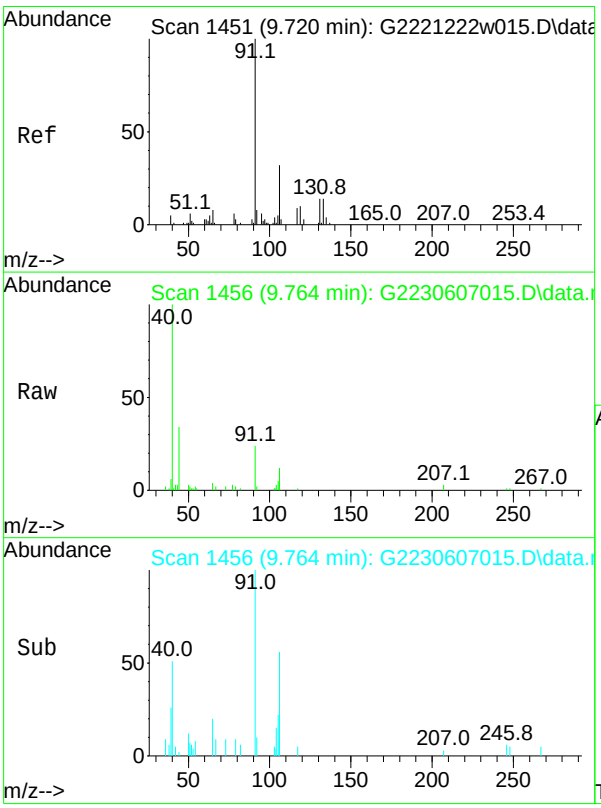


#65
Toluene
Concen: 0.21 ug/L
RT: 8.086 min Scan# 1181
Delta R.T. -0.000 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 91 Resp: 432433

Ion	Ratio	Lower	Upper
91	100		
92	58.7	27.5	87.5
65	9.1	0.0	41.4

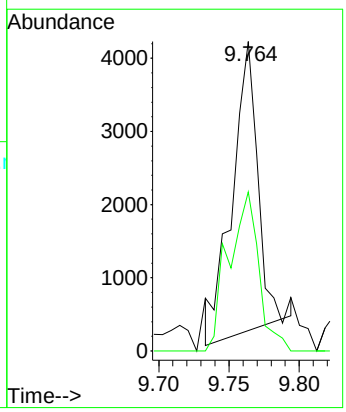


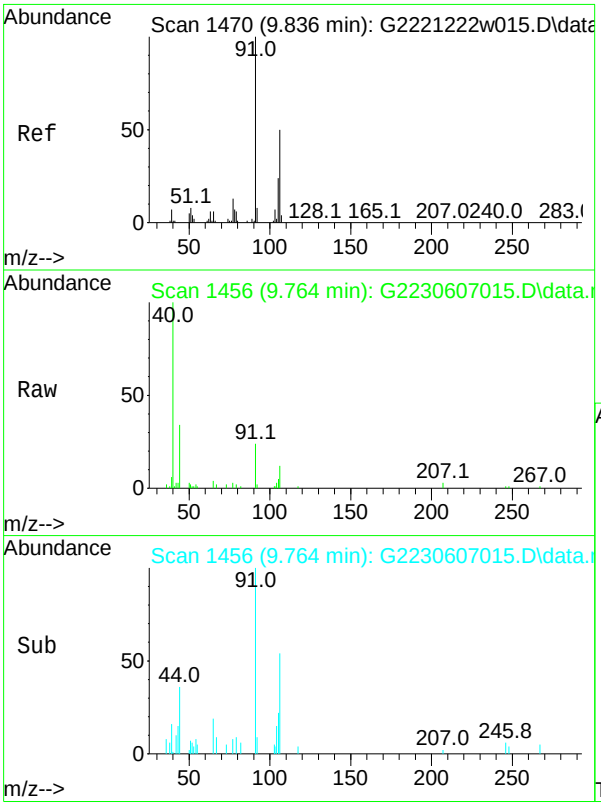


#74
Ethylbenzene
Concen: Below Cal
RT: 9.766 min Scan# 1456
Delta R.T. 0.123 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 91 Resp: 49896

Ion	Ratio	Lower	Upper
91	100		
106	65.4	0.8	60.8#

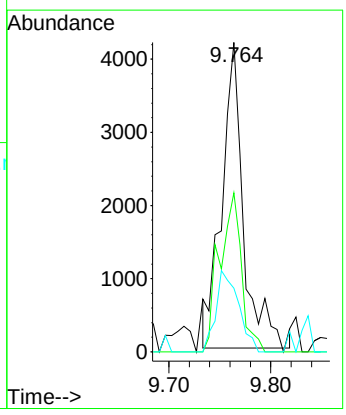


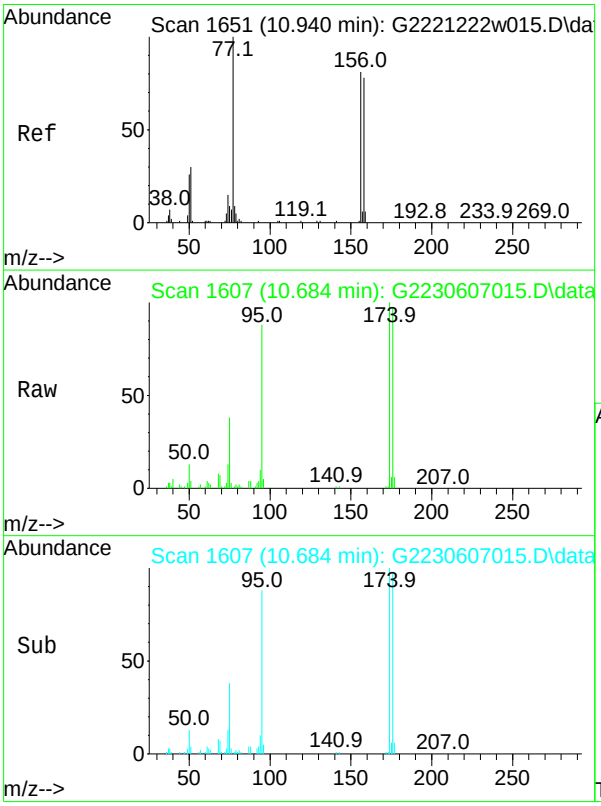


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.765 min Scan# 1456
Delta R.T. 0.001 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 91 Resp: 63371

Ion	Ratio	Lower	Upper
91	100		
106	51.5	19.0	79.0
105	0.0	0.0	52.7

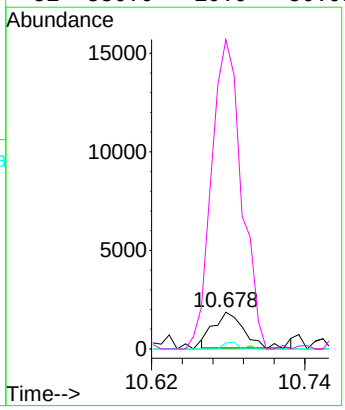


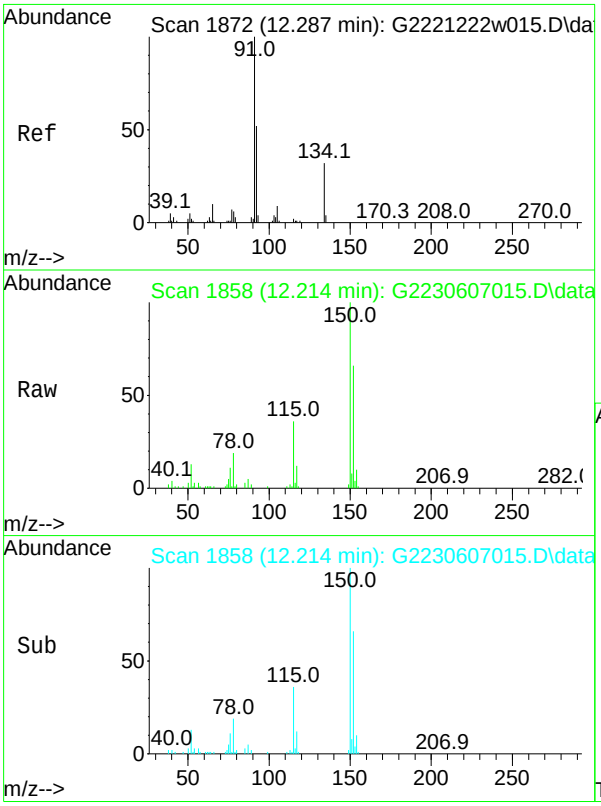


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.683 min Scan# 1607
Delta R.T. -0.145 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 77 Resp: 29543

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	836.0	10.9	50.9#

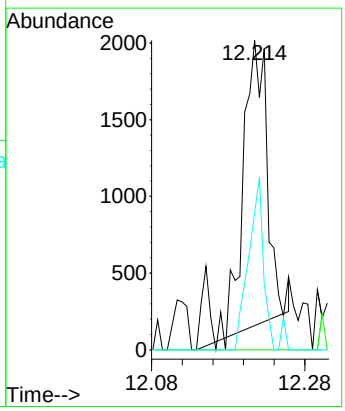




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.217 min Scan# 1858
Delta R.T. -0.014 min
Lab File: G2230607015.D
Acq: 07 Jun 2023 20:40

Tgt Ion: 91 Resp: 40574

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

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07RE2	File ID:	G2230608024.D
Sampled:	05/27/23 11:25	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 18:48
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*3.25*	*10.0*	*25.0*	*U*
71-55-6	*1,1,1-Trichloroethane*		*4.38*	*10.0*	*25.0*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*3.10*	*10.0*	*25.0*	*U*
79-00-5	*1,1,2-Trichloroethane*		*4.16*	*10.0*	*25.0*	*U*
75-34-3	*1,1-Dichloroethane*		*3.34*	*10.0*	*25.0*	*U*
75-35-4	*1,1-Dichloroethene*		*4.77*	*10.0*	*25.0*	*U*
563-58-6	*1,1-Dichloropropene*		*3.50*	*10.0*	*25.0*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*5.10*	*10.0*	*25.0*	*U*
96-18-4	*1,2,3-Trichloropropane*		*4.56*	*10.0*	*25.0*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*5.12*	*15.0*	*30.0*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*3.30*	*10.0*	*25.0*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*6.50*	*25.0*	*50.0*	*U*
106-93-4	*1,2-Dibromoethane*		*2.66*	*10.0*	*25.0*	*U*
95-50-1	*1,2-Dichlorobenzene*		*3.15*	*10.0*	*25.0*	*U*
107-06-2	*1,2-Dichloroethane*		*5.30*	*15.0*	*30.0*	*U*
78-87-5	*1,2-Dichloropropane*		*5.12*	*15.0*	*30.0*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*2.50*	*10.0*	*25.0*	*U*
541-73-1	*1,3-Dichlorobenzene*		*3.62*	*10.0*	*25.0*	*U*
142-28-9	*1,3-Dichloropropane*		*3.40*	*10.0*	*25.0*	*U*
106-46-7	*1,4-Dichlorobenzene*		*4.60*	*10.0*	*25.0*	*U*
594-20-7	*2,2-Dichloropropane*		*4.60*	*10.0*	*25.0*	*U*
78-93-3	*2-Butanone*		*16.5*	*35.0*	*87.5*	*U*
95-49-8	*2-Chlorotoluene*		*3.66*	*10.0*	*25.0*	*U*
591-78-6	*2-Hexanone*		*3.58*	*35.0*	*87.5*	*U*
106-43-4	*4-Chlorotoluene*		*4.60*	*10.0*	*25.0*	*U*
99-87-6	*4-Isopropyltoluene*		*3.50*	*10.0*	*25.0*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07RE2	File ID:	G2230608024.D
Sampled:	05/27/23 11:25	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 18:48
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*6.75*	*35.0*	*87.5*	*U*
67-64-1	*Acetone*		*25.9*	*100*	*200*	*U*
71-43-2	*Benzene*		*2.54*	*10.0*	*25.0*	*U*
108-86-1	*Bromobenzene*		*4.24*	*10.0*	*25.0*	*U*
74-97-5	*Bromochloromethane*		*3.34*	*10.0*	*25.0*	*U*
75-27-4	*Bromodichloromethane*		*2.66*	*10.0*	*25.0*	*U*
75-25-2	*Bromoform*		*5.16*	*10.0*	*25.0*	*U*
74-83-9	*Bromomethane*		*8.01*	*25.0*	*50.0*	*U*
75-15-0	*Carbon disulfide*		*7.00*	*25.0*	*50.0*	*U*
56-23-5	*Carbon tetrachloride*		*4.22*	*10.0*	*25.0*	*U*
108-90-7	*Chlorobenzene*		*3.25*	*10.0*	*25.0*	*U*
75-00-3	*Chloroethane*		*7.77*	*10.0*	*25.0*	*U*
67-66-3	*Chloroform*		*5.06*	*15.0*	*30.0*	*U*
74-87-3	*Chloromethane*		*9.60*	*25.0*	*50.0*	*U*
156-59-2	*cis-1,2-Dichloroethene*		*5.13*	*15.0*	*30.0*	*U*
10061-01-5	*cis-1,3-Dichloropropene*		*2.94*	*10.0*	*25.0*	*U*
124-48-1	*Dibromochloromethane*		*3.80*	*10.0*	*25.0*	*U*
74-95-3	*Dibromomethane*		*4.08*	*10.0*	*25.0*	*U*
75-71-8	*Dichlorodifluoromethane*		*6.48*	*25.0*	*50.0*	*U*
100-41-4	*Ethylbenzene*		*1.50*	*5.00*	*10.0*	*U*
87-68-3	*Hexachlorobutadiene*		*5.00*	*10.0*	*25.0*	*U*
98-82-8	*Isopropylbenzene*		*2.74*	*10.0*	*25.0*	*U*
179601-23-1	*m,p-Xylene*		*4.44*	*20.0*	*50.0*	*U*
1634-04-4	*Methyl tert-butyl ether*		*2.65*	*10.0*	*25.0*	*U*
75-09-2	*Methylene chloride*		*11.2*	*25.0*	*50.0*	*U*
104-51-8	*n-Butylbenzene*		*6.50*	*25.0*	*50.0*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW59

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-07RE2	File ID:	G2230608024.D
Sampled:	05/27/23 11:25	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 18:48
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*3.15*	*10.0*	*25.0*	*U*
91-20-3	*Naphthalene*		*3.50*	*10.0*	*25.0*	*U*
95-47-6	*o-Xylene*		*2.08*	*10.0*	*25.0*	*U*
135-98-8	*sec-Butylbenzene*		*2.99*	*10.0*	*25.0*	*U*
100-42-5	*Styrene*		*2.26*	*5.00*	*10.0*	*U*
98-06-6	*tert-Butylbenzene*		*2.26*	*10.0*	*25.0*	*U*
127-18-4	Tetrachloroethene		8.92	25.0	50.0	U
108-88-3	*Toluene*		*2.86*	*10.0*	*25.0*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*4.28*	*10.0*	*25.0*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*2.94*	*10.0*	*25.0*	*U*
79-01-6	Trichloroethene	136	3.90	10.0	25.0	D
75-69-4	*Trichlorofluoromethane*		*2.52*	*10.0*	*25.0*	*U*
75-01-4	*Vinyl chloride*		*6.44*	*25.0*	*50.0*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608024.D
Acq On : 08 Jun 2023 18:48
Operator : PO1
Sample : 23E0775-07RE2
Misc : 50
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 09 11:26:22 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

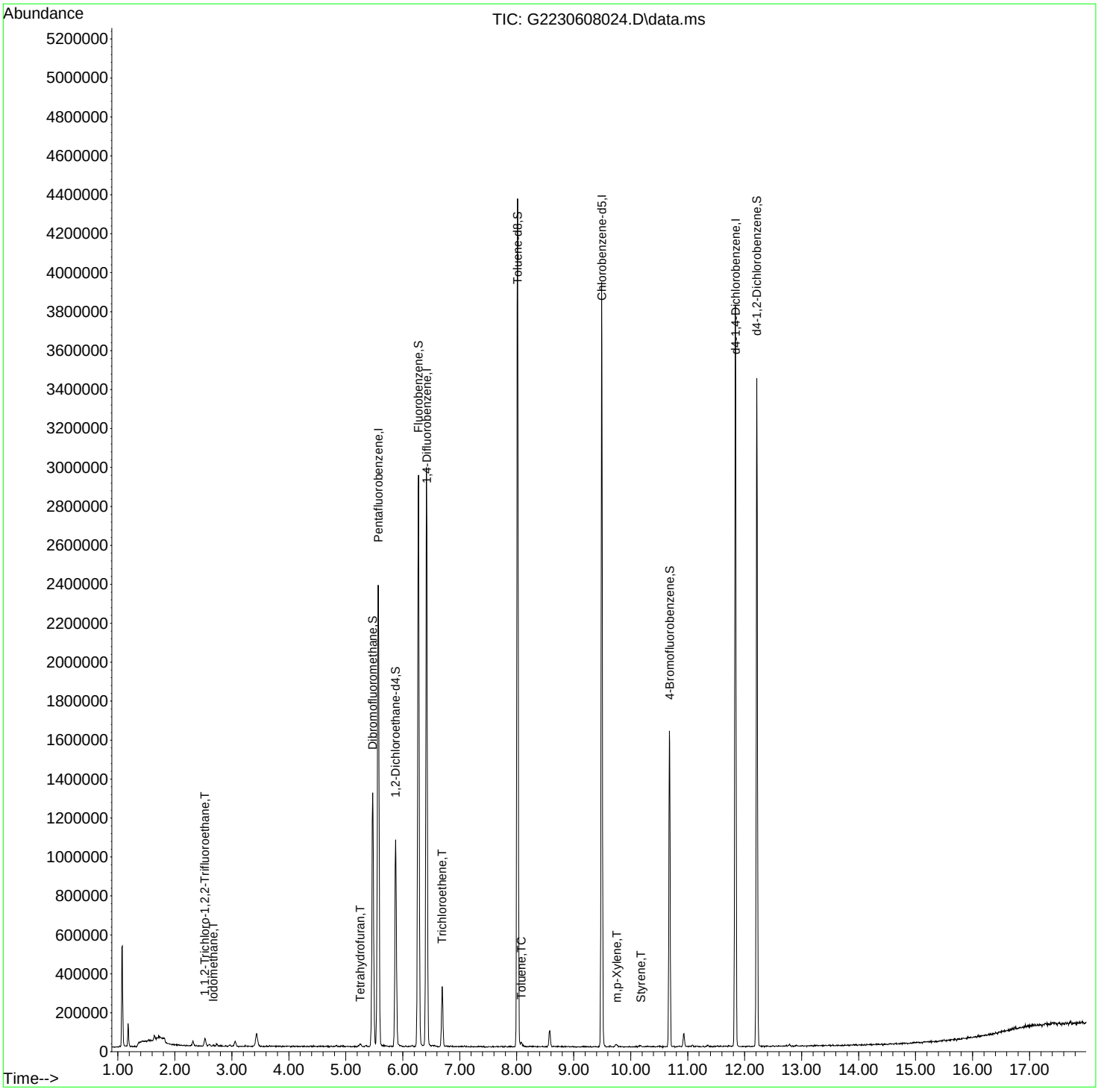
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	19014053	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25870606	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	23064113	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10932651	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8149556	19.48	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%				
43) 1,2-Dichloroethane-d4	5.877	65	7488502	18.11	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.55%				
49) Fluorobenzene	6.277	96	28556001	19.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%				
64) Toluene-d8	8.016	98	28149184	19.36	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%				
81) 4-Bromofluorobenzene	10.684	174	5049827	9.78	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.80%				
97) d4-1,2-Dichlorobenzene	12.217	152	9677279	20.58	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.90%				
Target Compounds							Qvalue
5) Bromomethane	1.719	94	59125	Below Cal		#	85
11) 1,1,2-Trichloro-1,2,2-...	2.529	101	149096	0.48	ug/L		93
13) Iodomethane	2.675	142	53066	0.12	ug/L	#	41
18) Methylene chloride	3.058	49	144146	Below Cal			80
21) Methyl tert-butyl ether	3.437	73	856795	Below Cal			97
36) Tetrahydrofuran	5.253	42	73349	0.19	ug/L	#	66
50) Trichloroethene	6.693	95	954453	2.73	ug/L		91
65) Toluene	8.083	91	117383	0.01	ug/L	#	91
75) m,p-Xylene	9.760	91	53166	0.04	ug/L	#	82
76) Styrene	10.177	104	28482	0.03	ug/L	#	29

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608024.D
Acq On : 08 Jun 2023 18:48
Operator : PO1
Sample : 23E0775-07RE2
Misc : 50
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 09 11:26:22 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608024.D
Acq On : 08 Jun 2023 18:48
Operator : PO1
Sample : 23E0775-07RE2
Misc : 50
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 09 11:26:22 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

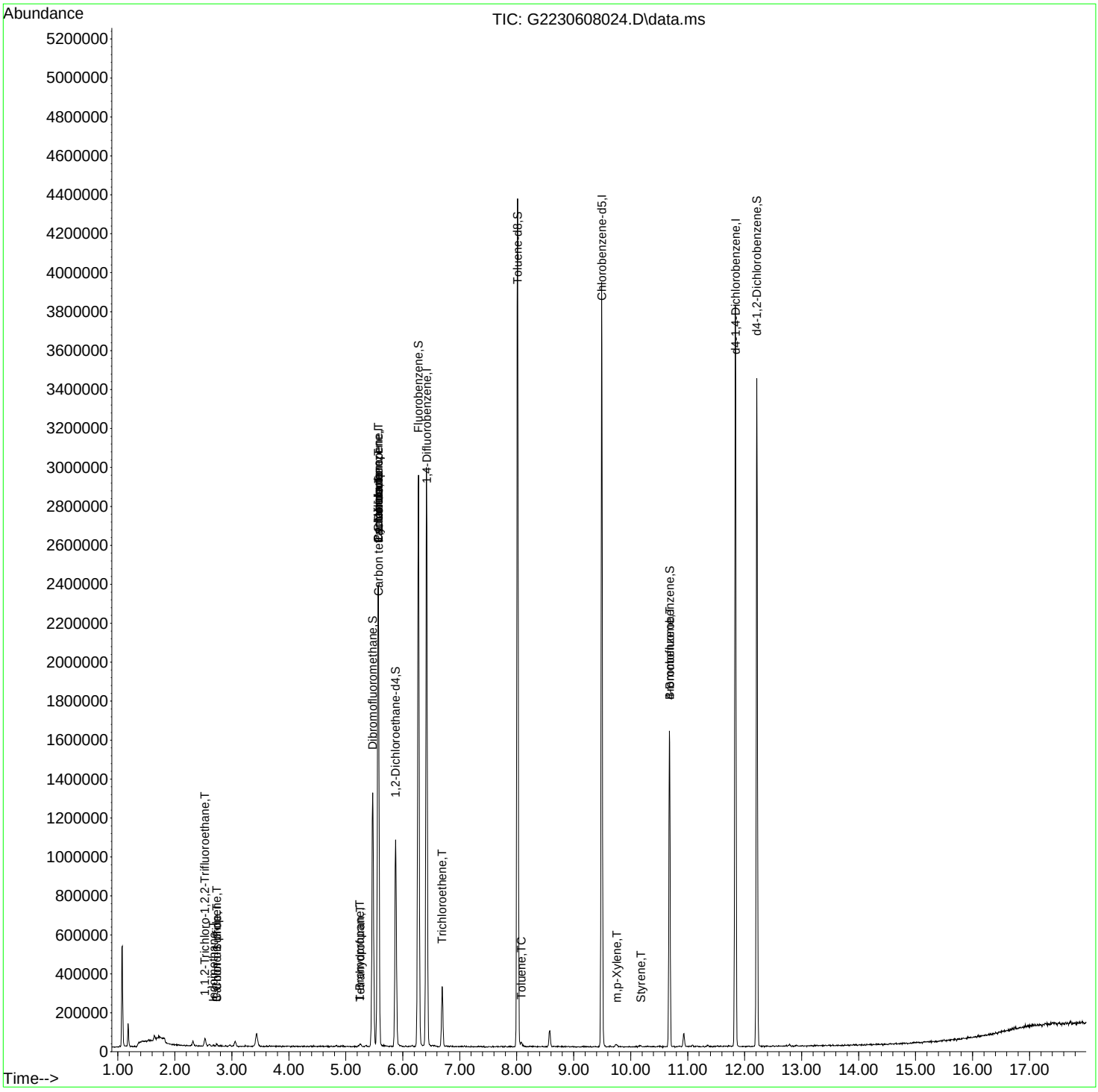
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	19014053	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25870606	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	23064113	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10932651	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8149556	19.48	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%				
43) 1,2-Dichloroethane-d4	5.877	65	7488502	18.11	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.55%				
49) Fluorobenzene	6.277	96	28556001	19.37	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%				
64) Toluene-d8	8.016	98	28149184	19.36	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.80%				
81) 4-Bromofluorobenzene	10.684	174	5049827	9.78	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.80%				
97) d4-1,2-Dichlorobenzene	12.217	152	9677279	20.58	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.90%				
Target Compounds							Qvalue
5) Bromomethane	1.719	94	59125	Below Cal		#	85
11) 1,1,2-Trichloro-1,2,2-...	2.529	101	149096	0.48	ug/L		93
12) Acetone	2.604	43	83366	Below Cal			97
13) Iodomethane	2.675	142	53066	0.12	ug/L	#	41
14) Carbon disulfide	2.733	76	141322	0.07	ug/L	#	74
17) 3-Chloro-1-propene	2.733	76	141318	0.66	ug/L	#	53
18) Methylene chloride	3.058	49	144146	Below Cal			80
21) Methyl tert-butyl ether	3.437	73	856795	Below Cal			97
33) 1-Bromopropane	5.247	41	60120	0.19	ug/L	#	40
36) Tetrahydrofuran	5.253	42	73349	0.19	ug/L	#	66
40) Cyclohexane	5.572	84	447837	0.88	ug/L	#	33
41) 1-Chlorobutane	5.569	56	264050	0.45	ug/L	#	1
42) 1,1-Dichloropropene	5.569	75	961450	2.15	ug/L	#	38
47) Carbon tetrachloride	5.573	117	1564195	3.35	ug/L	#	16
50) Trichloroethene	6.693	95	954453	2.73	ug/L		91
60) 4-Methyl-2-pentanone	8.015	43	89599	Below Cal		#	1
65) Toluene	8.083	91	117383	0.01	ug/L	#	91
74) Ethylbenzene	9.760	91	53411	Below Cal			61
75) m,p-Xylene	9.760	91	53166	0.04	ug/L	#	82
76) Styrene	10.177	104	28482	0.03	ug/L	#	29
82) Bromobenzene	10.682	77	38952	0.07	ug/L	#	1
99) n-Butylbenzene	12.213	91	45722	Below Cal		#	53

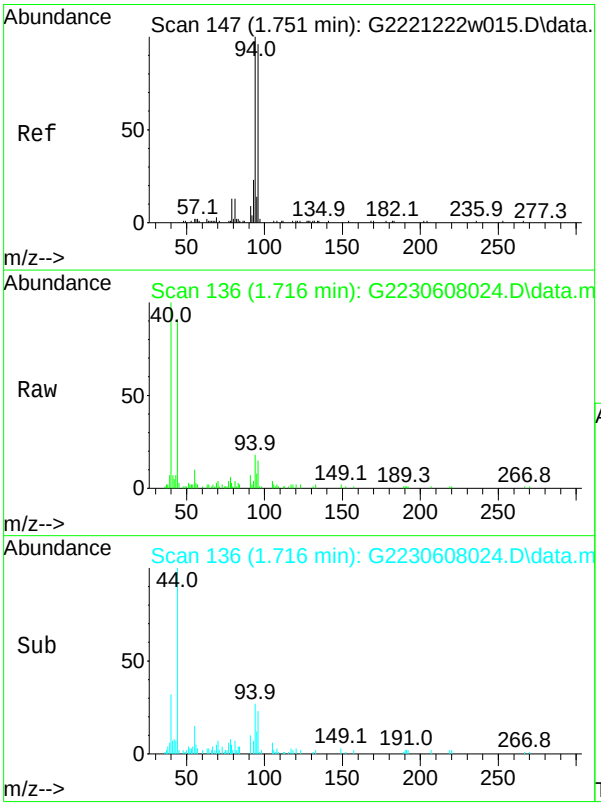
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608024.D
Acq On : 08 Jun 2023 18:48
Operator : PO1
Sample : 23E0775-07RE2
Misc : 50
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 09 11:26:22 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

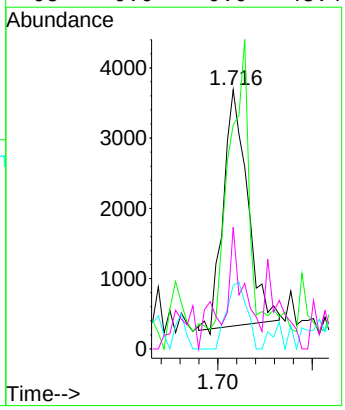


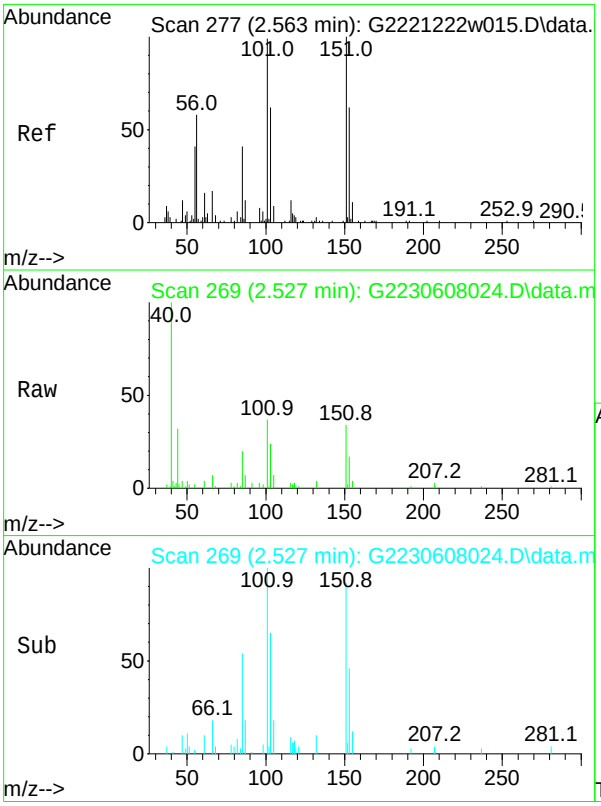


#5
Bromomethane
Concen: Below Cal
RT: 1.719 min Scan# 136
Delta R.T. 0.005 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 94 Resp: 59125

Ion	Ratio	Lower	Upper
94	100		
96	101.6	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

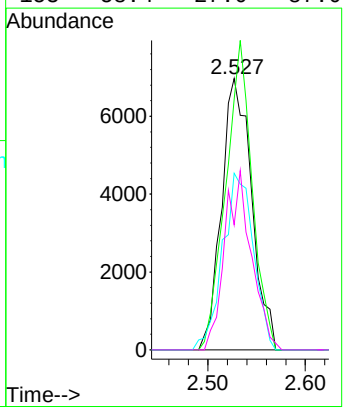


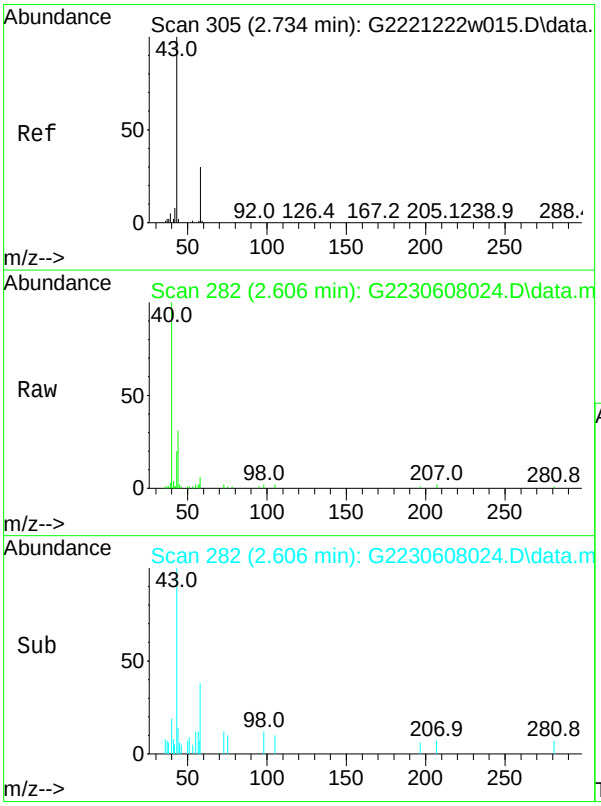


#11
1,1,2-Trichloro-1,2,2-Trifluoroethane
Concen: 0.48 ug/L
RT: 2.529 min Scan# 269
Delta R.T. -0.005 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion:101 Resp: 149096

Ion	Ratio	Lower	Upper
101	100		
151	100.2	56.0	116.0
103	66.5	35.7	95.7
153	58.4	27.0	87.0

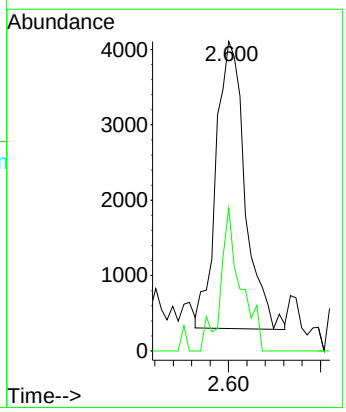


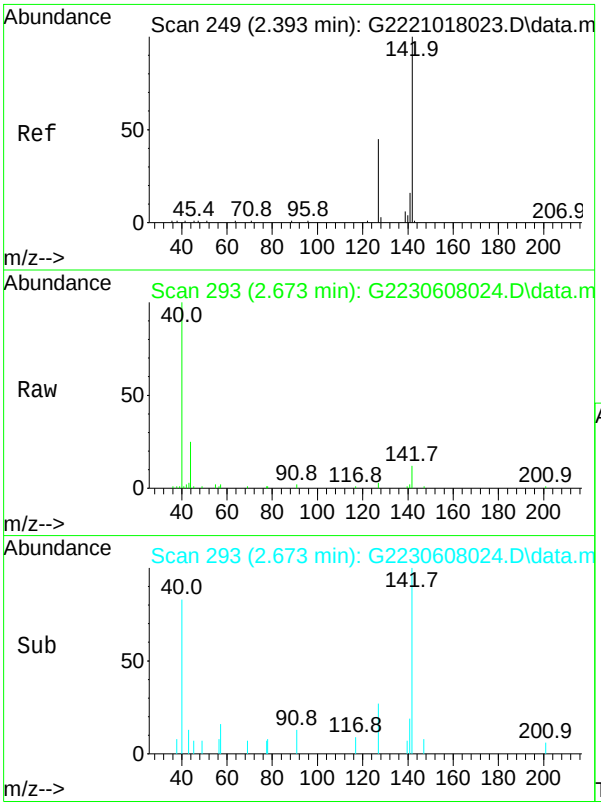


#12
Acetone
Concen: Below Cal
RT: 2.604 min Scan# 282
Delta R.T. -0.004 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 43 Resp: 83366

Ion	Ratio	Lower	Upper
43	100		
58	31.4	0.0	59.7

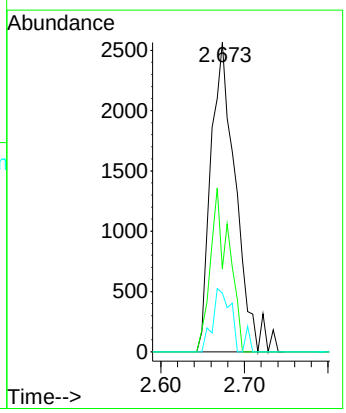


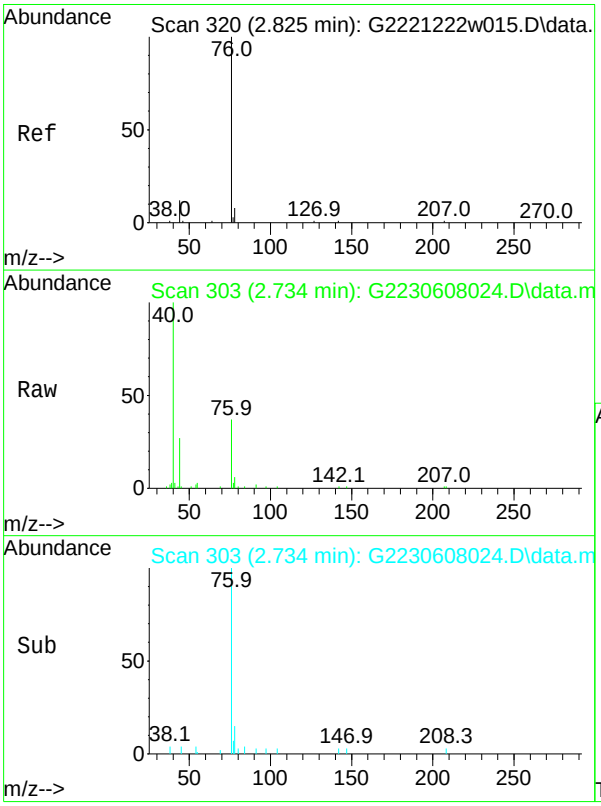


#13
Iodomethane
Concen: 0.12 ug/L
RT: 2.675 min Scan# 293
Delta R.T. -0.001 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion:142 Resp: 53066

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

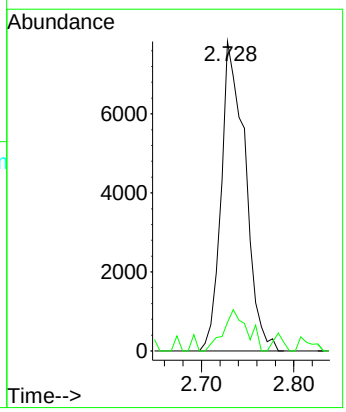


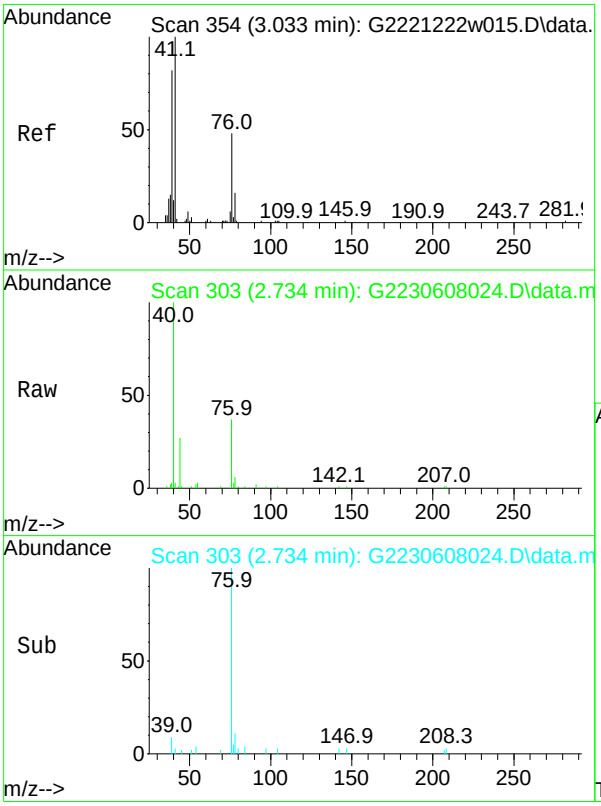


#14
Carbon disulfide
Concen: 0.07 ug/L
RT: 2.733 min Scan# 303
Delta R.T. -0.006 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 76 Resp: 141322

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

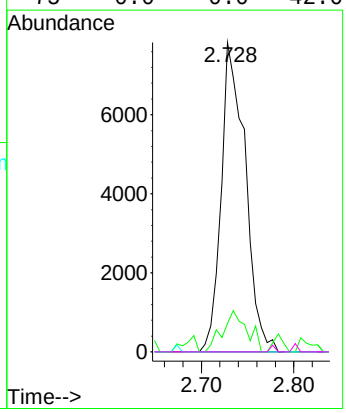


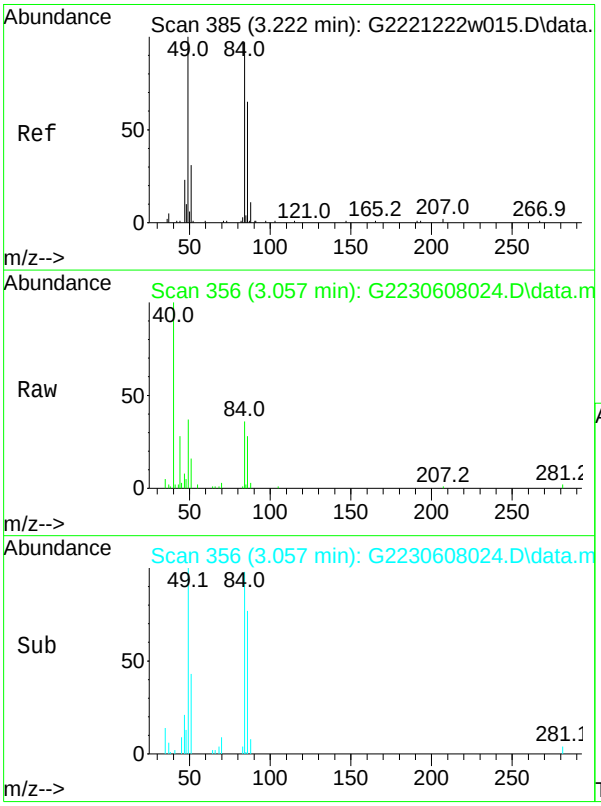


#17
3-Chloro-1-propene
Concen: 0.66 ug/L
RT: 2.733 min Scan# 303
Delta R.T. -0.187 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 76 Resp: 141318

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

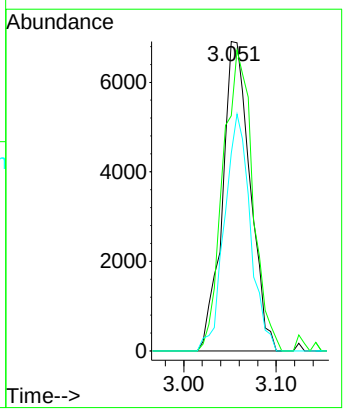


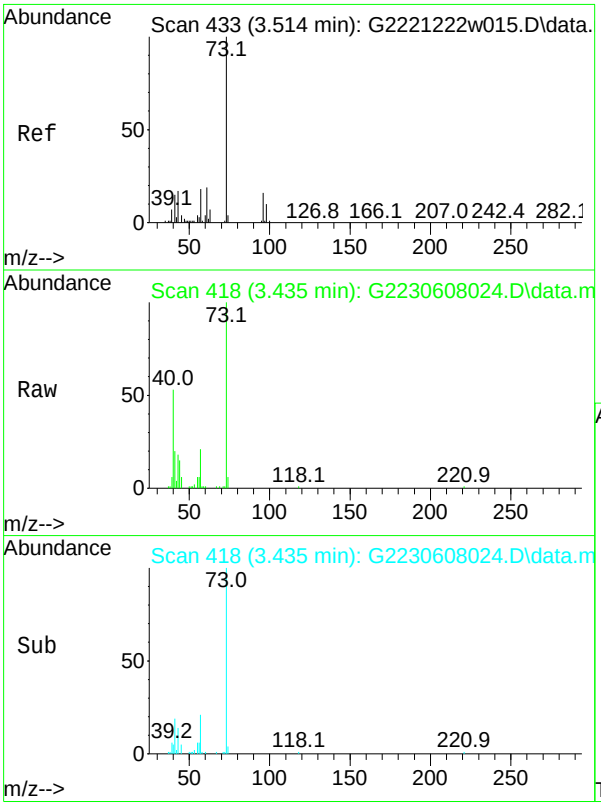


#18
Methylene chloride
Concen: Below Cal
RT: 3.058 min Scan# 356
Delta R.T. -0.004 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 49 Resp: 144146

Ion	Ratio	Lower	Upper
49	100		
84	104.3	57.9	117.9
86	71.3	24.9	84.9

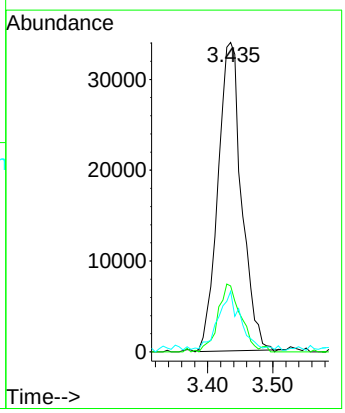


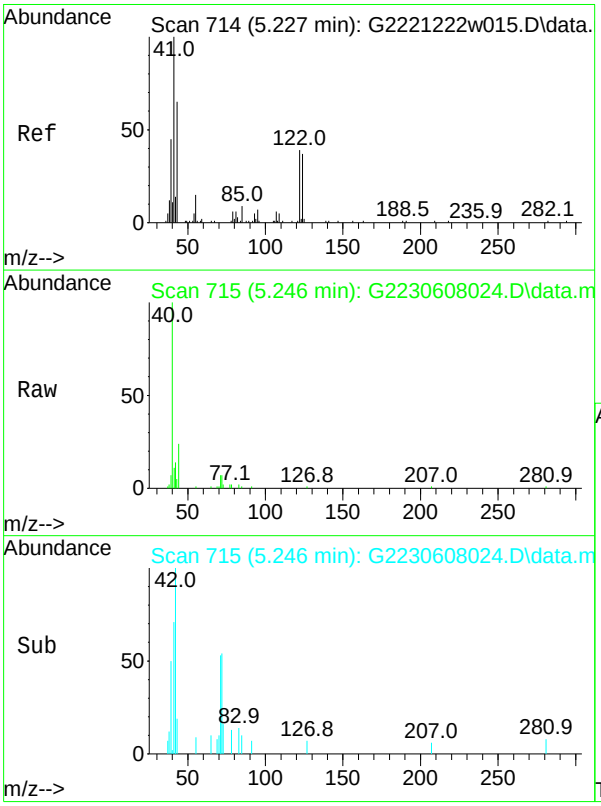


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 73 Resp: 856795

Ion	Ratio	Lower	Upper
73	100		
57	20.8	0.0	51.7
41	18.3	0.0	50.6

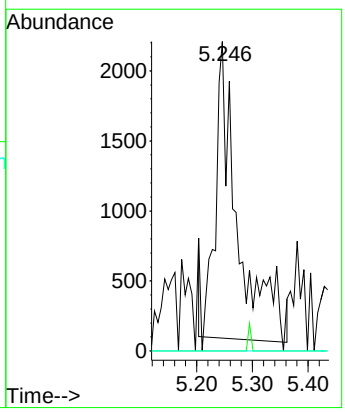


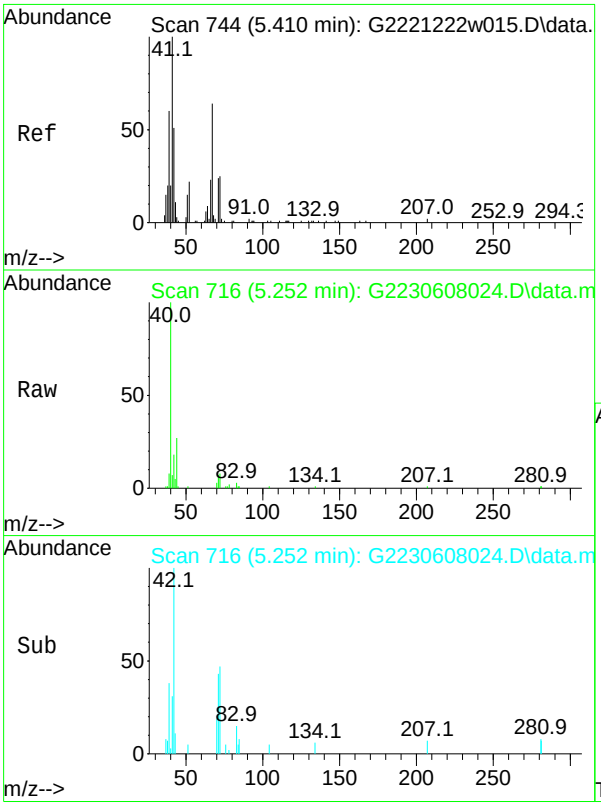


#33
1-Bromopropane
Concen: 0.19 ug/L
RT: 5.247 min Scan# 715
Delta R.T. 0.171 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 41 Resp: 60120

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

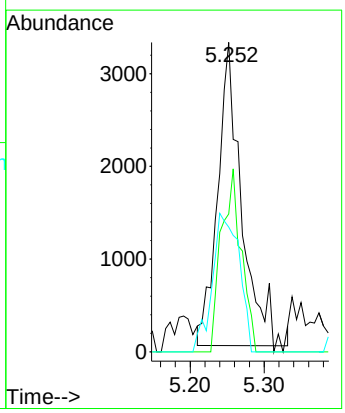


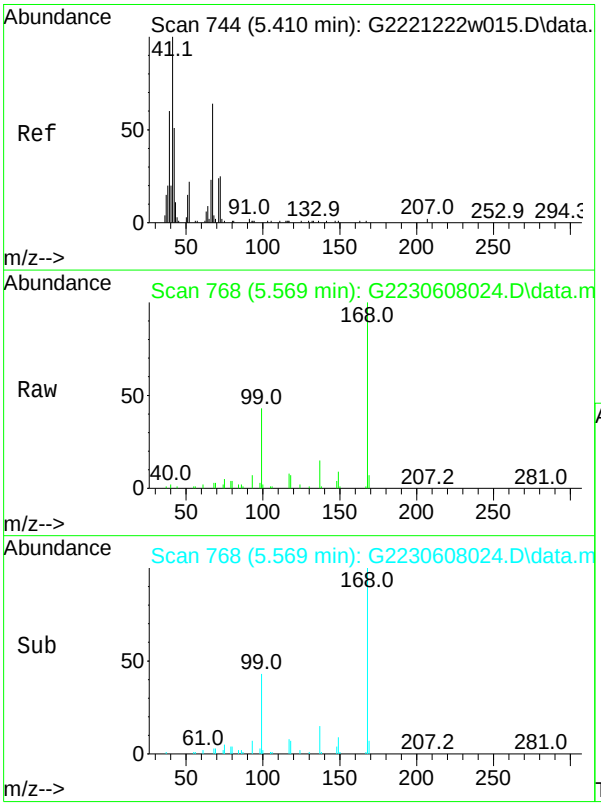


#36
Tetrahydrofuran
Concen: 0.19 ug/L
RT: 5.253 min Scan# 716
Delta R.T. -0.008 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 42 Resp: 73349

Ion	Ratio	Lower	Upper
42	100		
72	50.0	18.8	78.8
71	0.0	14.7	74.7#

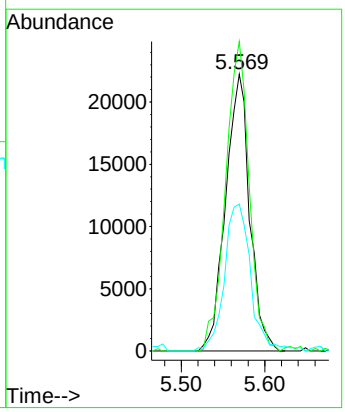


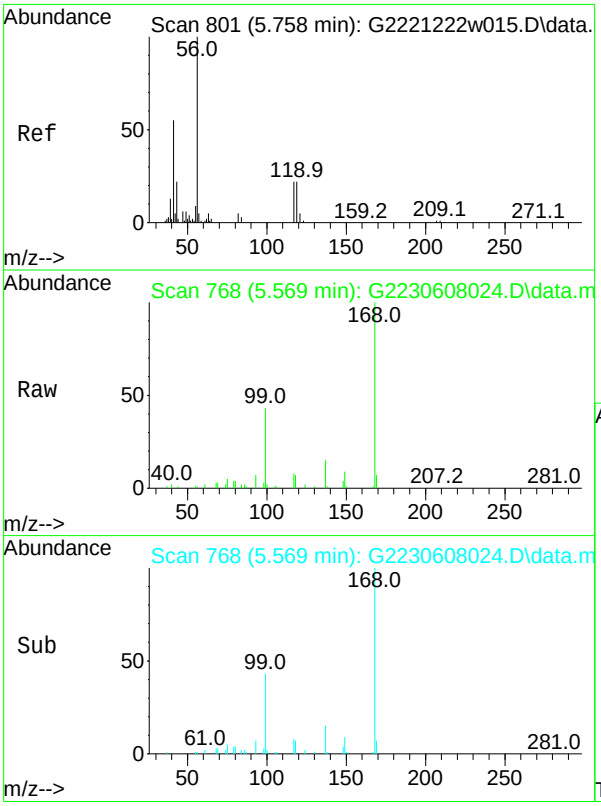


#40
Cyclohexane
Concen: 0.88 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 84 Resp: 447837

Ion	Ratio	Lower	Upper
84	100		
69	108.9	6.8	66.8#
56	57.9	79.1	139.1#

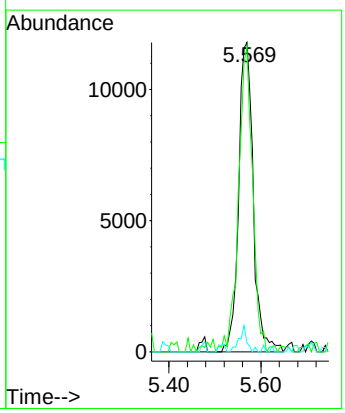


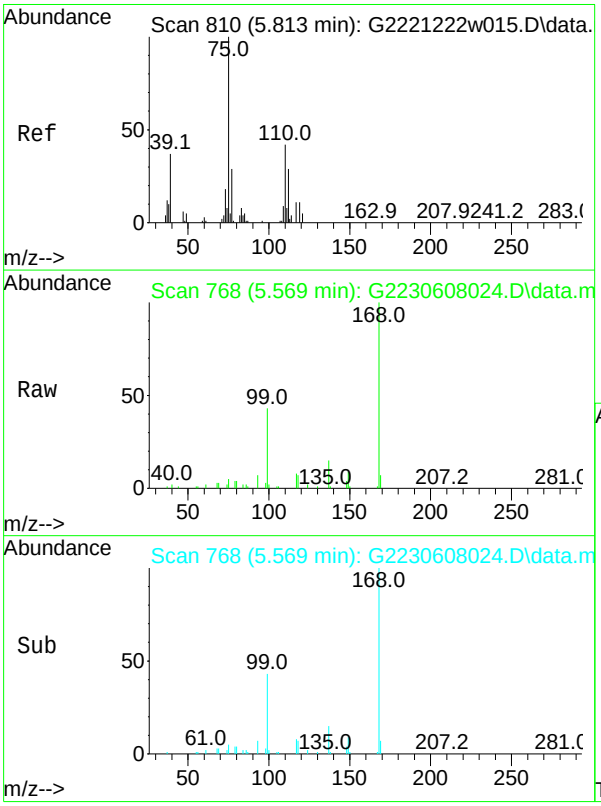


#41
1-Chlorobutane
Concen: 0.45 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 56 Resp: 264050

Ion	Ratio	Lower	Upper
56	100		
55	91.3	0.0	41.0#
57	0.0	0.0	35.7

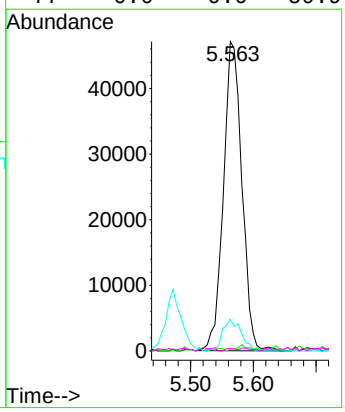


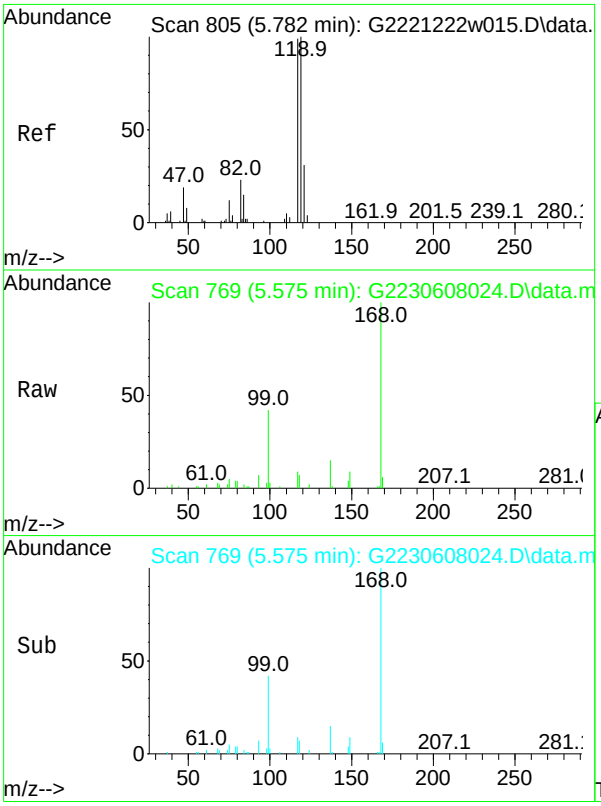


#42
1,1-Dichloropropene
Concen: 2.15 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 75 Resp: 961450

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

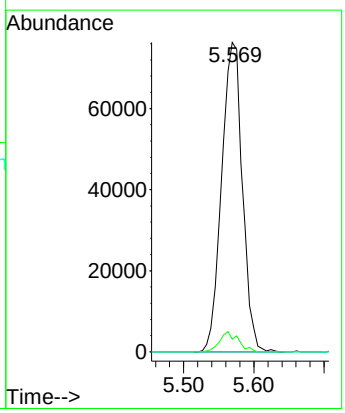


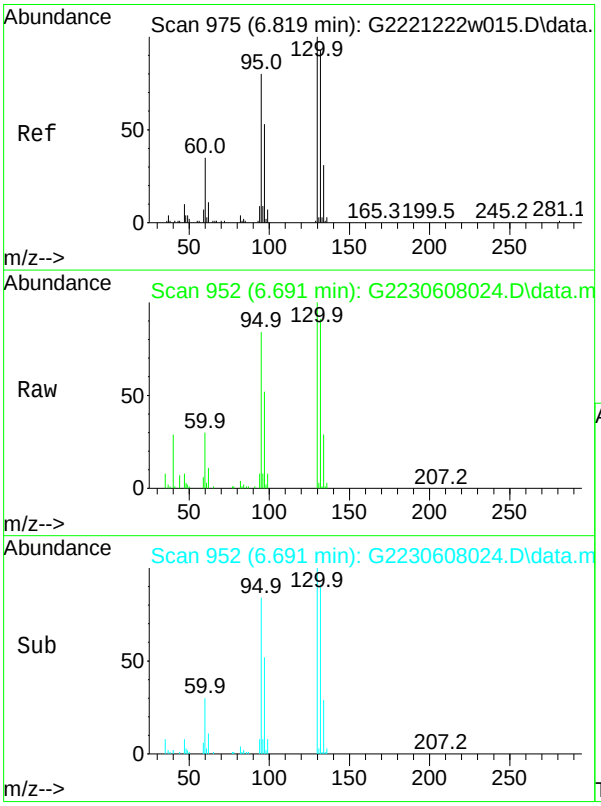


#47
Carbon tetrachloride
Concen: 3.35 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.107 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion:117 Resp: 1564195

Ion	Ratio	Lower	Upper
117	100		
119	5.9	66.4	126.4#
121	0.0	0.4	60.4#

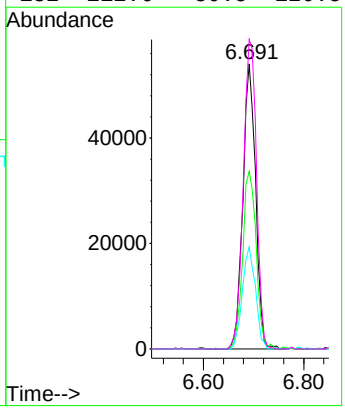


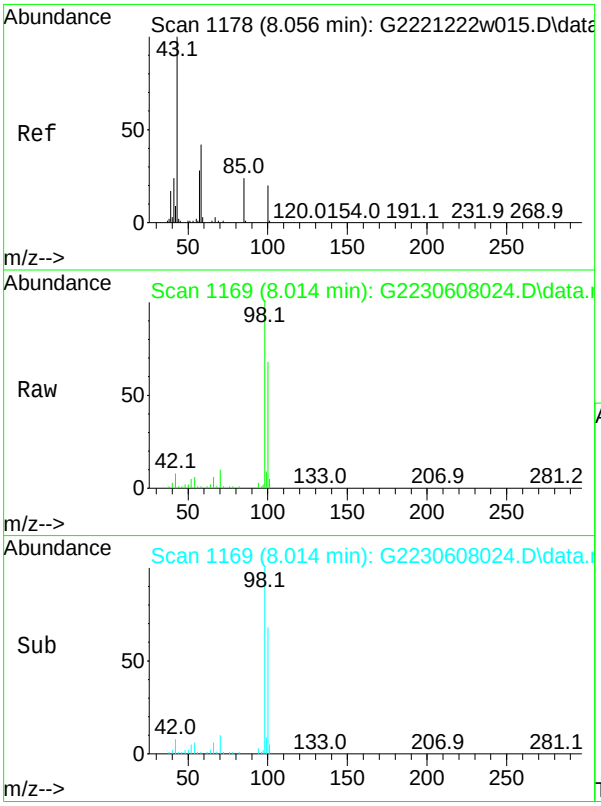


#50
Trichloroethene
Concen: 2.73 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 95 Resp: 954453

Ion	Ratio	Lower	Upper
95	100		
97	66.4	35.5	95.5
60	36.9	14.8	74.8
132	112.6	80.5	120.5

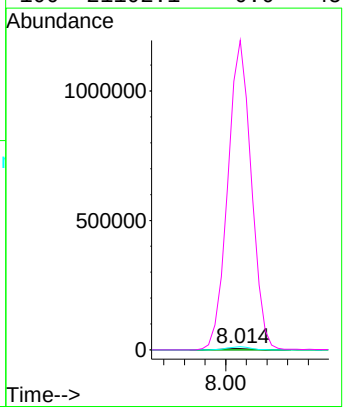


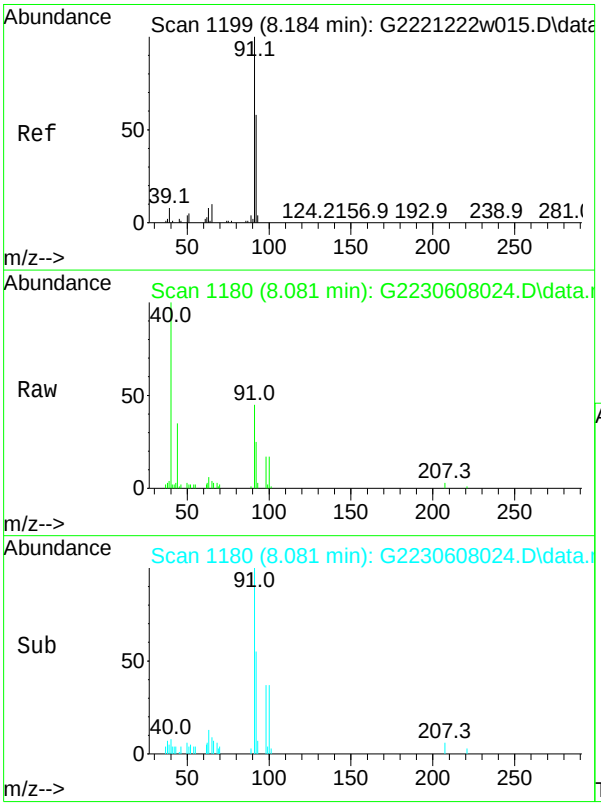


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 43 Resp: 89599

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	209.2	37.0	37.0#
100	21102.1	0.0	45.2#

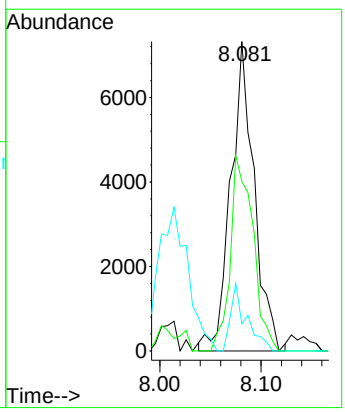


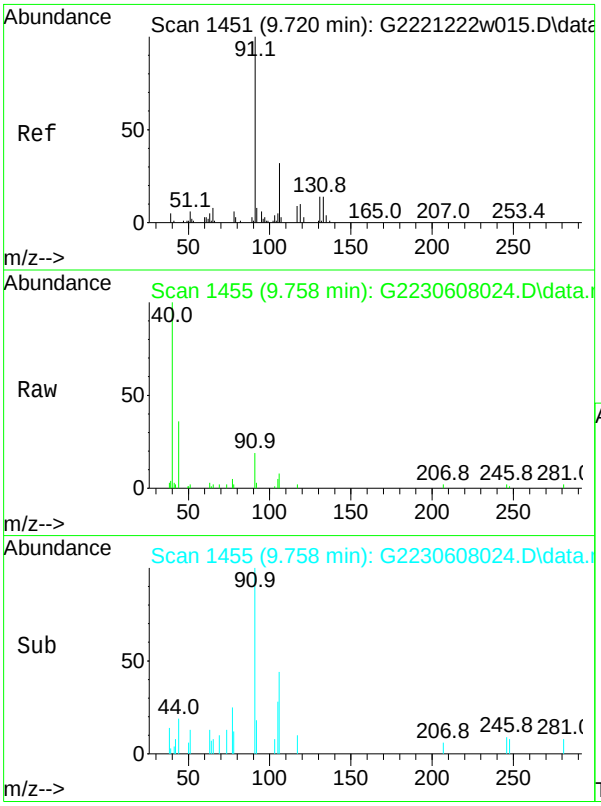


#65
Toluene
Concen: 0.01 ug/L
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 91 Resp: 117383

Ion	Ratio	Lower	Upper
91	100		
92	61.0	27.5	87.5
65	0.0	0.0	41.4

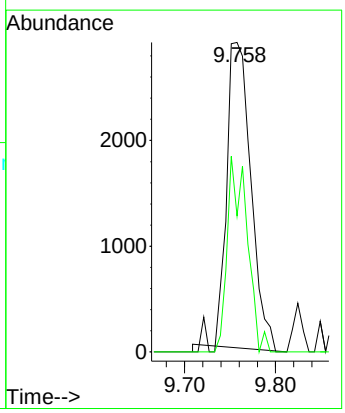


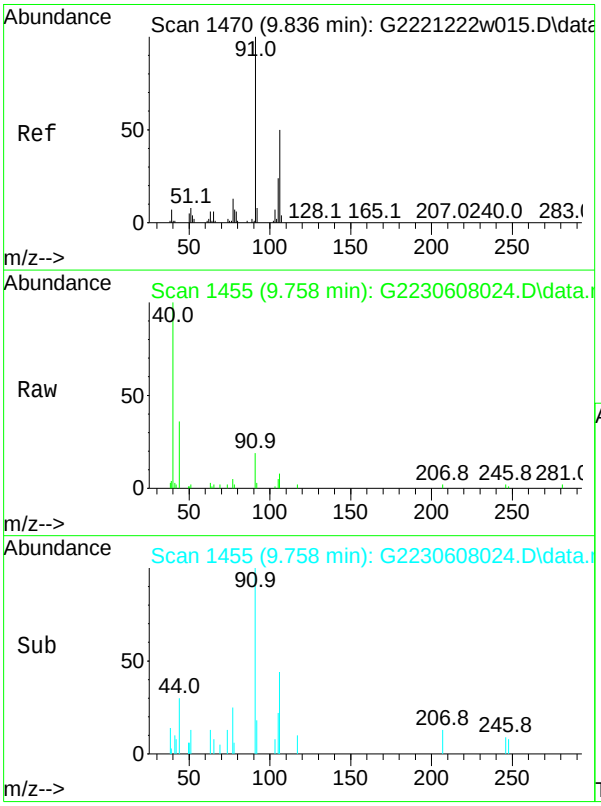


#74
Ethylbenzene
Concen: Below Cal
RT: 9.760 min Scan# 1455
Delta R.T. 0.117 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 91 Resp: 53411

Ion	Ratio	Lower	Upper
91	100		
106	52.1	0.8	60.8

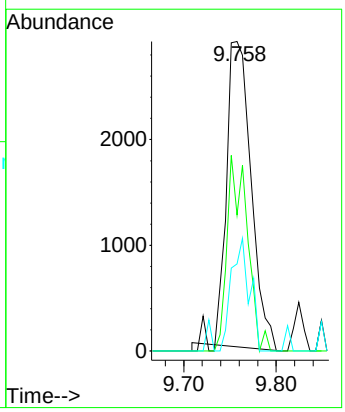


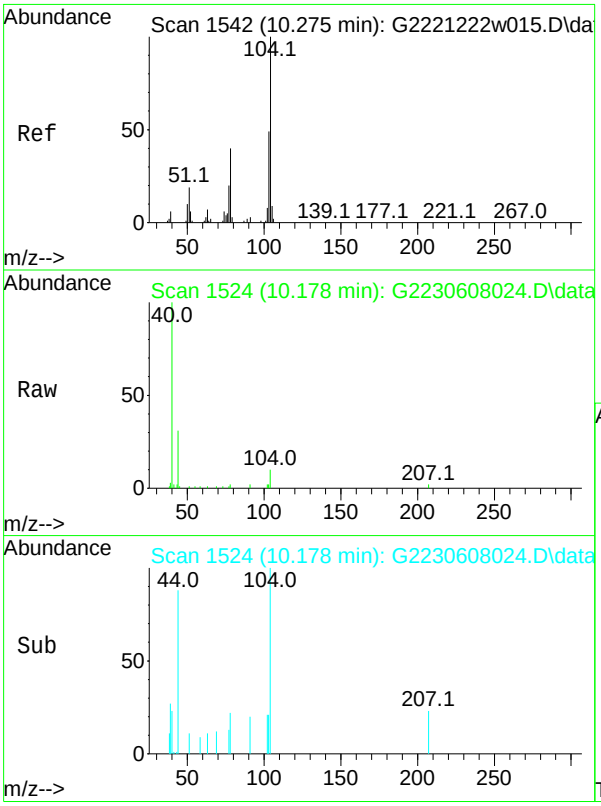


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 91 Resp: 53166

Ion	Ratio	Lower	Upper
91	100		
106	52.3	19.0	79.0
105	0.0	0.0	52.7

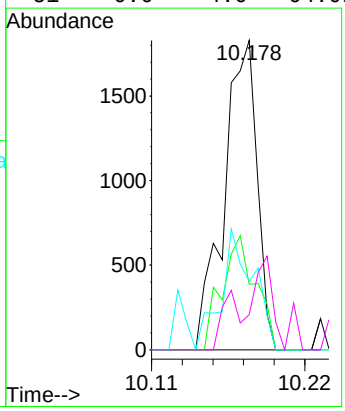


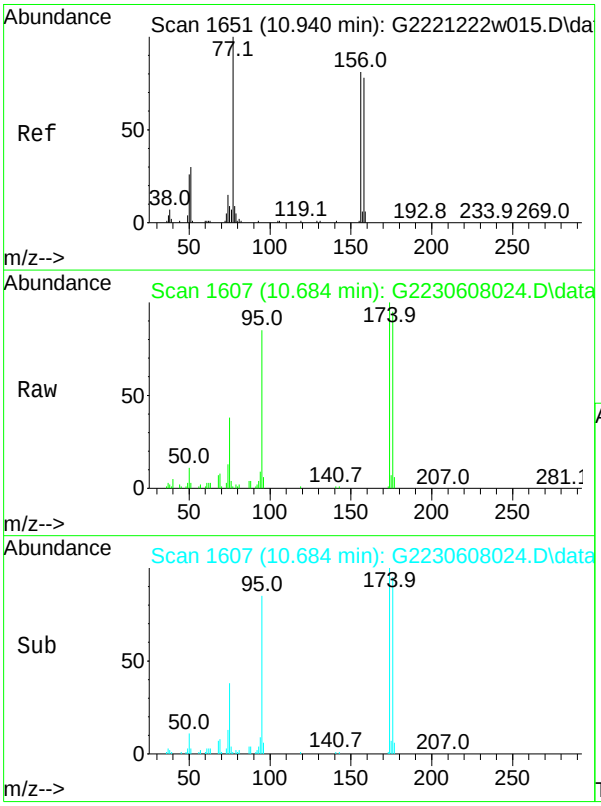


#76
Styrene
Concen: 0.03 ug/L
RT: 10.177 min Scan# 1524
Delta R.T. -0.000 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion:104 Resp: 28482

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

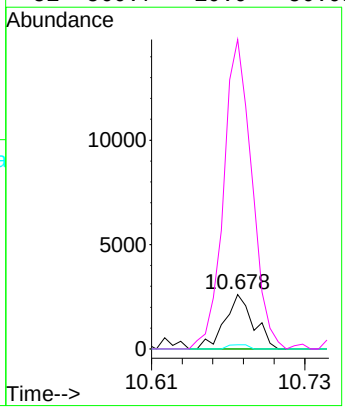


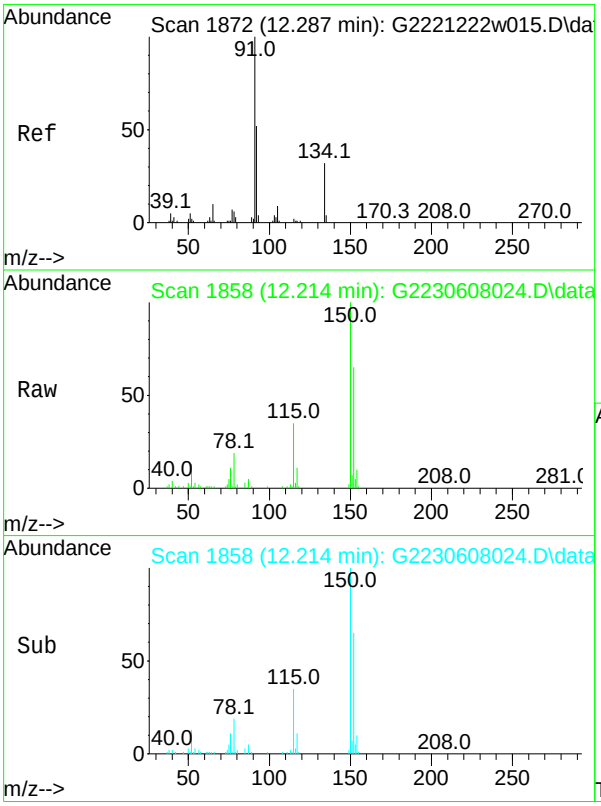


#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.682 min Scan# 1607
Delta R.T. -0.146 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 77 Resp: 38952

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	560.7	10.9	50.9#

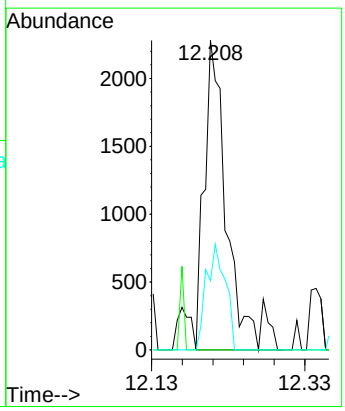




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.213 min Scan# 1858
Delta R.T. -0.018 min
Lab File: G2230608024.D
Acq: 08 Jun 2023 18:48

Tgt Ion: 91 Resp: 45722

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

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08	File ID:	G2230606023.D
Sampled:	05/27/23 13:05	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 19:47
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08	File ID:	G2230606023.D
Sampled:	05/27/23 13:05	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 19:47
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	1.62	0.518	2.00	4.00	J
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	0.140	0.103	0.300	0.600	J
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

SW8260B/D

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08	File ID:	G2230606023.D
Sampled:	05/27/23 13:05	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 19:47
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, 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*	*6.74*	*0.0781*	*0.200*	*0.500*	*B*
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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606023.D
Acq On : 06 Jun 2023 19:47
Operator : PO1
Sample : 23E0775-08
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 07 09:45:54 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

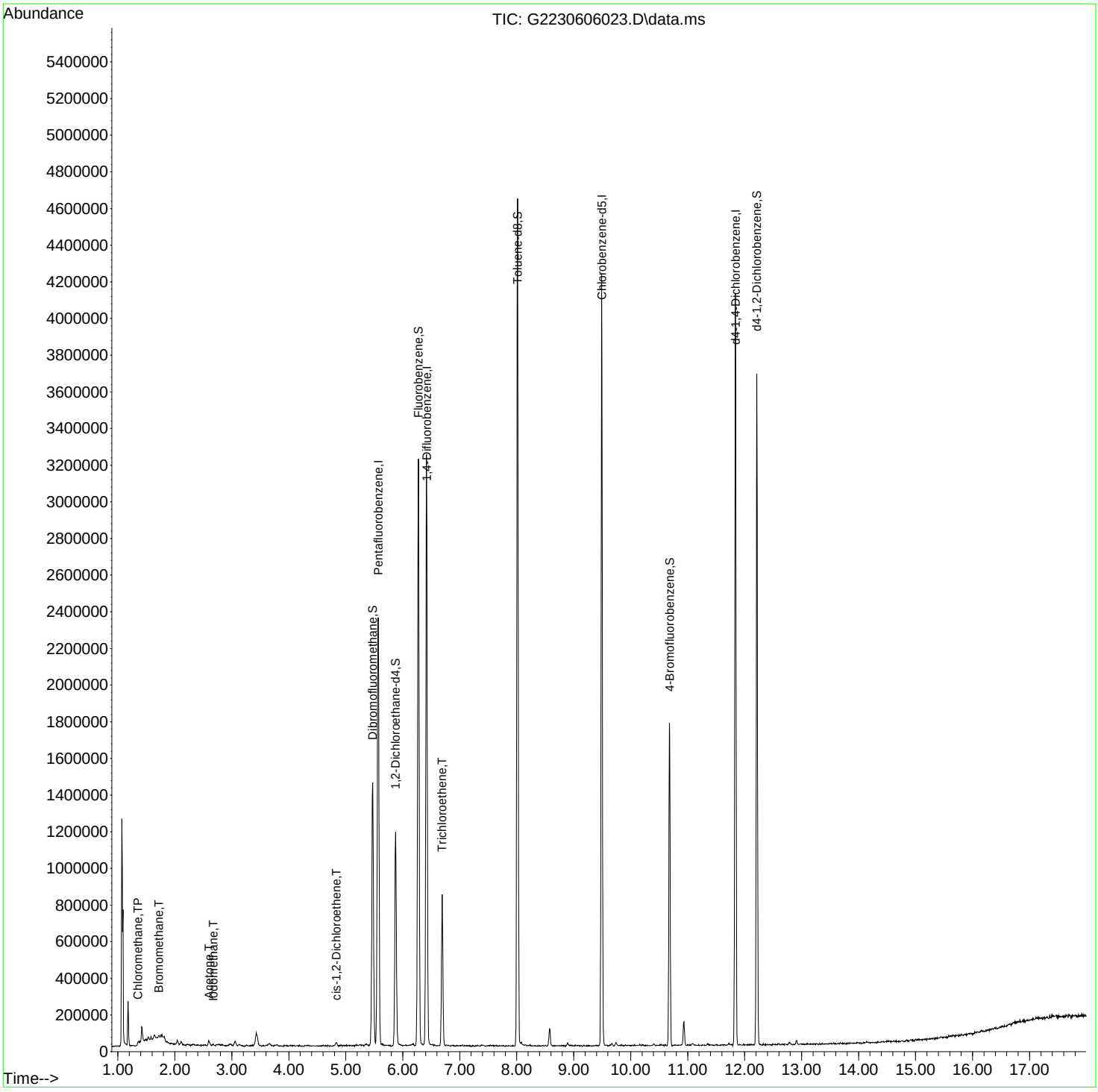
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	19239153	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	27969922	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24650824	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11584673	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	9102431	21.50	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 107.50%			
43) 1,2-Dichloroethane-d4	5.876	65	8197181	19.59	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%			
49) Fluorobenzene	6.276	96	31350595	19.67	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.35%			
64) Toluene-d8	8.016	98	30187113	19.43	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%			
81) 4-Bromofluorobenzene	10.684	174	5465834	9.99	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%			
97) d4-1,2-Dichlorobenzene	12.217	152	10035485	20.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%			
Target Compounds						Qvalue
3) Chloromethane	1.350	50	59993	0.08	ug/L	99
5) Bromomethane	1.716	94	82843	0.07	ug/L #	70
12) Acetone	2.598	43	289953	1.62	ug/L	87
13) Iodomethane	2.675	142	79112	0.18	ug/L #	80
18) Methylene chloride	3.056	49	123669	Below Cal		82
21) Methyl tert-butyl ether	3.432	73	986083	Below Cal		93
28) cis-1,2-Dichloroethene	4.832	61	108057	0.14	ug/L	74
50) Trichloroethene	6.693	95	2506367	6.74	ug/L	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606023.D
Acq On : 06 Jun 2023 19:47
Operator : PO1
Sample : 23E0775-08
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 07 09:45:54 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606023.D
Acq On : 06 Jun 2023 19:47
Operator : PO1
Sample : 23E0775-08
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 07 09:45:54 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

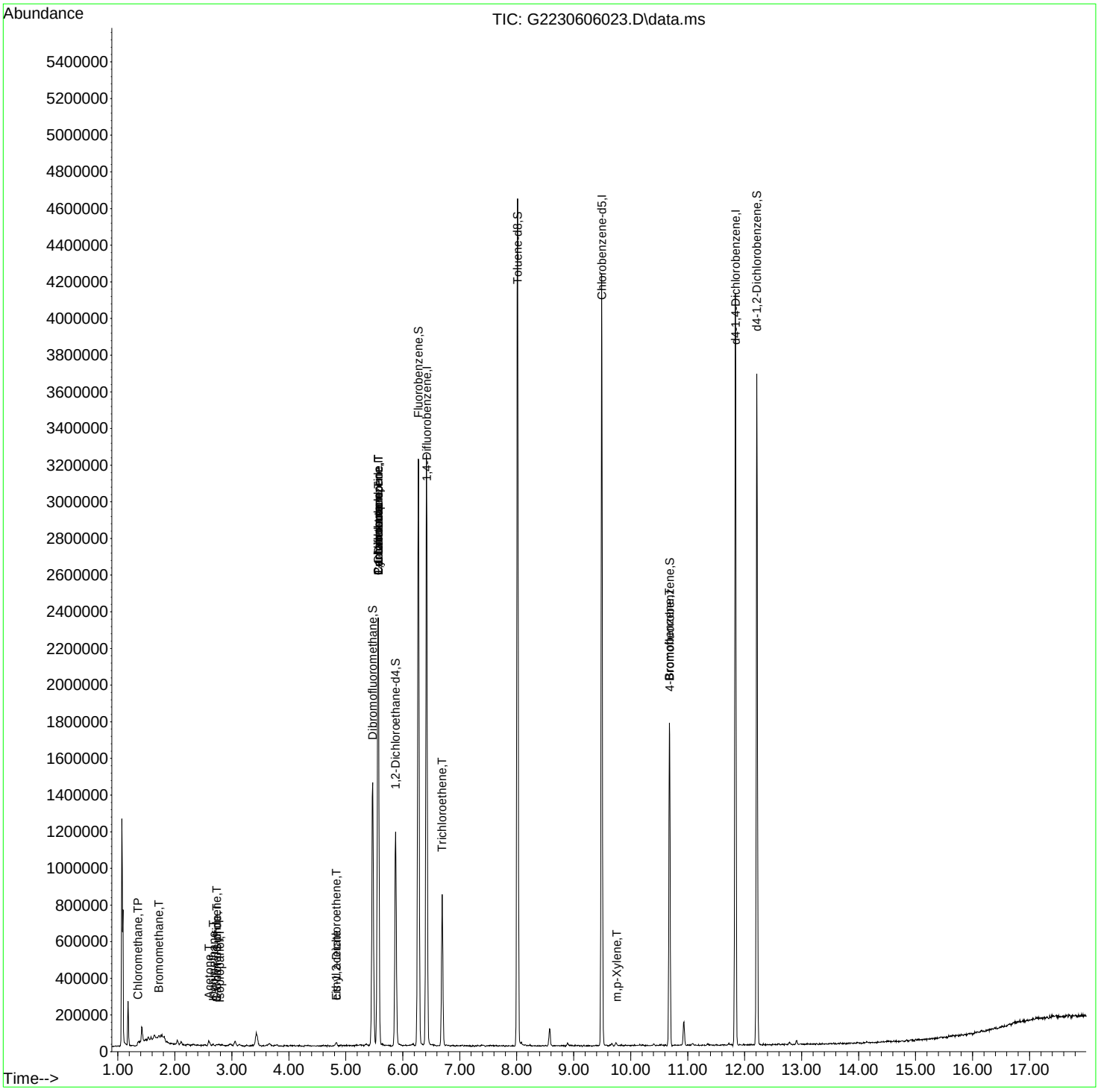
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.570	168	19239153	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	27969922	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24650824	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11584673	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.473	111	9102431	21.50	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 107.50%				
43) 1,2-Dichloroethane-d4	5.876	65	8197181	19.59	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%				
49) Fluorobenzene	6.276	96	31350595	19.67	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.35%				
64) Toluene-d8	8.016	98	30187113	19.43	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%				
81) 4-Bromofluorobenzene	10.684	174	5465834	9.99	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%				
97) d4-1,2-Dichlorobenzene	12.217	152	10035485	20.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%				
Target Compounds							Qvalue
3) Chloromethane	1.350	50	59993	0.08	ug/L		99
5) Bromomethane	1.716	94	82843	0.07	ug/L	#	70
12) Acetone	2.598	43	289953	1.62	ug/L		87
13) Iodomethane	2.675	142	79112	0.18	ug/L	#	80
14) Carbon disulfide	2.734	76	104208	0.03	ug/L	#	74
15) Isopropanol	2.780	45	52962	3.43	ug/L	#	56
17) 3-Chloro-1-propene	2.734	76	104211	0.46	ug/L	#	53
18) Methylene chloride	3.056	49	123669	Below Cal			82
21) Methyl tert-butyl ether	3.432	73	986083	Below Cal			93
28) cis-1,2-Dichloroethene	4.832	61	108057	0.14	ug/L		74
31) Ethyl acetate	4.833	61	108051	1.66	ug/L	#	45
40) Cyclohexane	5.571	84	452043	0.87	ug/L	#	34
41) 1-Chlorobutane	5.567	56	277113	0.46	ug/L	#	1
42) 1,1-Dichloropropene	5.568	75	1014500	2.25	ug/L	#	38
44) 1,2-Dichloroethane	5.969	62	36931	Below Cal		#	47
47) Carbon tetrachloride	5.570	117	1545285	3.06	ug/L	#	16
50) Trichloroethene	6.693	95	2506367	6.74	ug/L		90
60) 4-Methyl-2-pentanone	8.016	43	119020	Below Cal		#	1
65) Toluene	8.082	91	68624	Below Cal		#	90
74) Ethylbenzene	9.760	91	48381	Below Cal		#	44
75) m,p-Xylene	9.760	91	48330	0.04	ug/L	#	36
82) Bromobenzene	10.679	77	22231	0.04	ug/L	#	1
99) n-Butylbenzene	12.213	91	44041	Below Cal		#	53

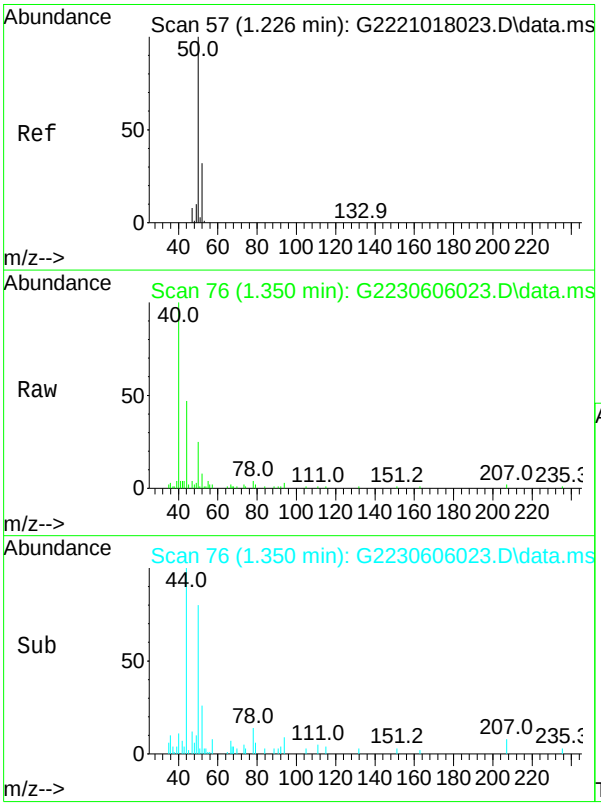
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606023.D
Acq On : 06 Jun 2023 19:47
Operator : PO1
Sample : 23E0775-08
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 07 09:45:54 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

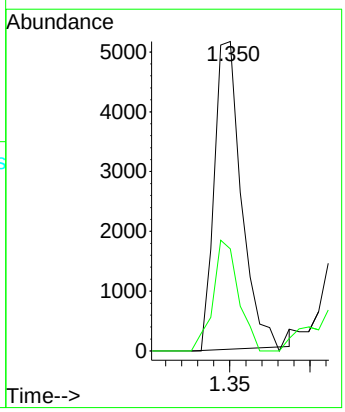


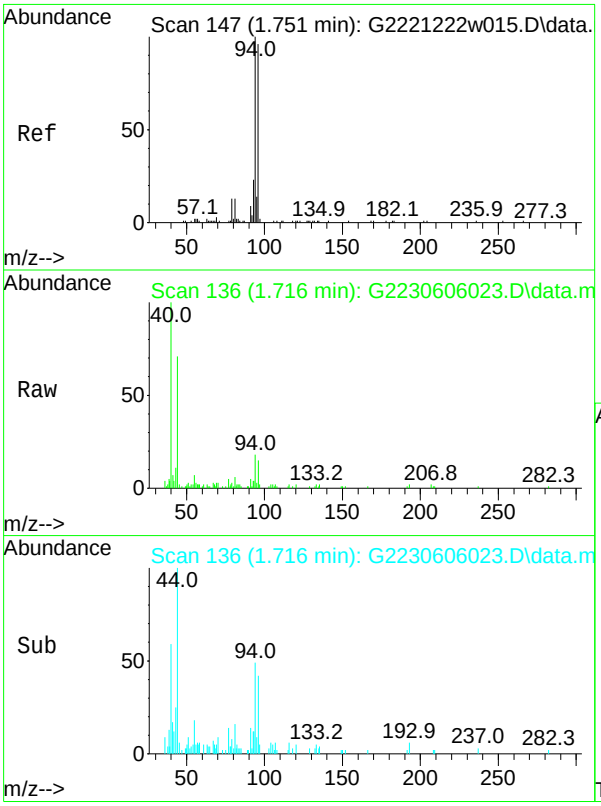


#3
Chloromethane
Concen: 0.08 ug/L
RT: 1.350 min Scan# 76
Delta R.T. -0.004 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 50 Resp: 59993

Ion	Ratio	Lower	Upper
50	100		
52	34.0	3.2	63.2

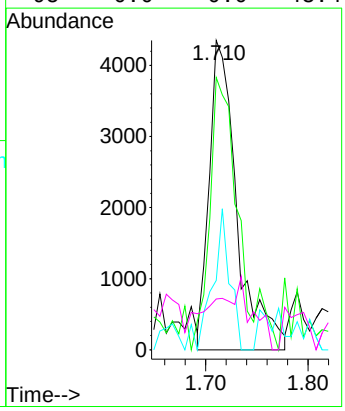


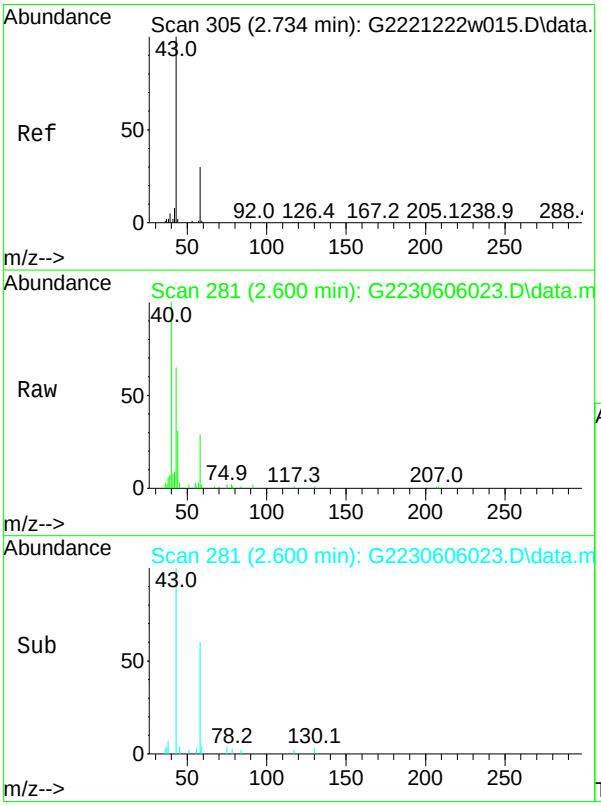


#5
Bromomethane
Concen: 0.07 ug/L
RT: 1.716 min Scan# 136
Delta R.T. 0.002 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 94 Resp: 82843

Ion	Ratio	Lower	Upper
94	100		
96	69.3	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

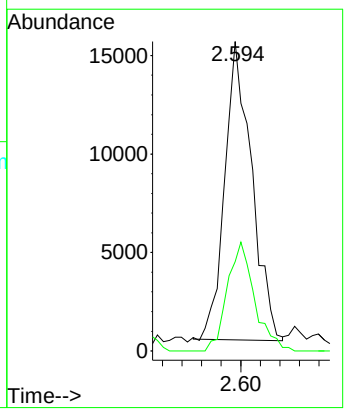


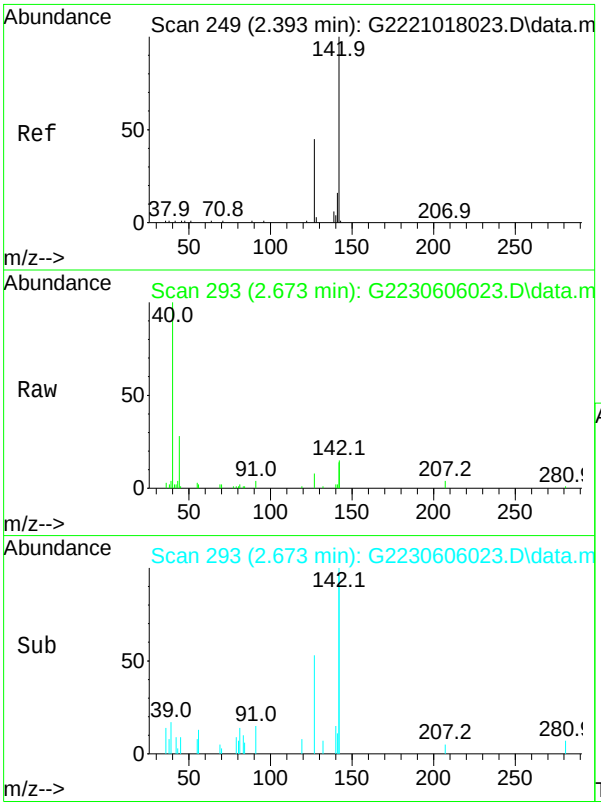


#12
Acetone
Concen: 1.62 ug/L
RT: 2.598 min Scan# 281
Delta R.T. -0.010 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 43 Resp: 289953

Ion	Ratio	Lower	Upper
43	100		
58	36.8	0.0	59.7

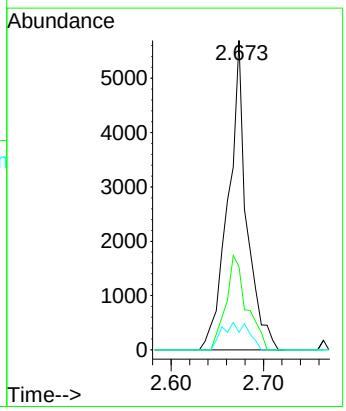


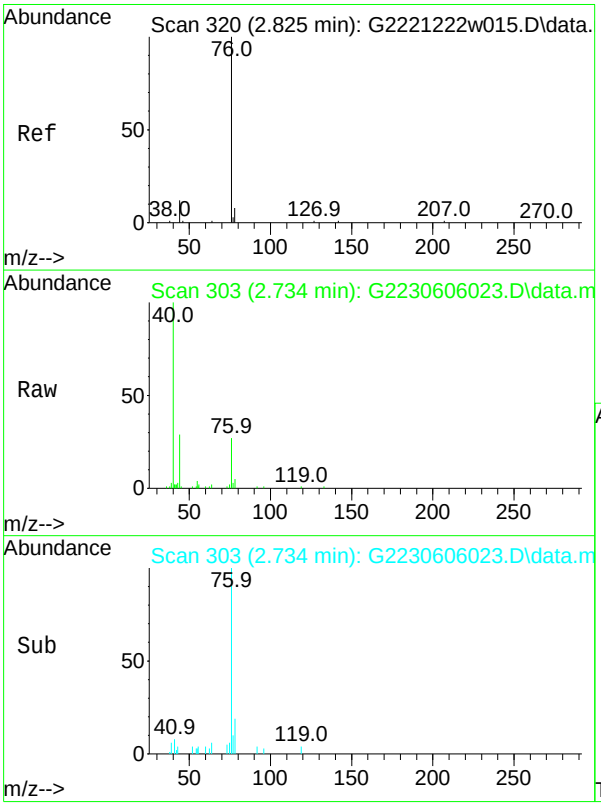


#13
Iodomethane
Concen: 0.18 ug/L
RT: 2.675 min Scan# 293
Delta R.T. -0.001 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion:142 Resp: 79112

Ion	Ratio	Lower	Upper
142	100		
127	34.1	13.3	73.3
141	0.0	0.0	45.3

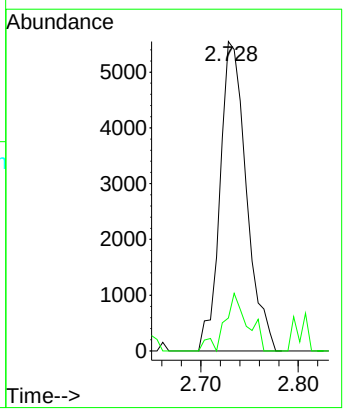


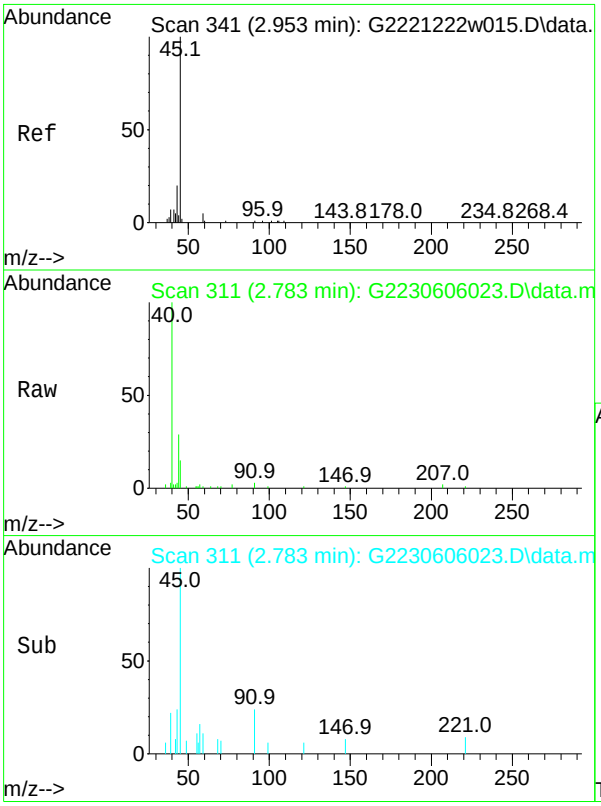


#14
Carbon disulfide
Concen: 0.03 ug/L
RT: 2.734 min Scan# 303
Delta R.T. -0.005 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 76 Resp: 104208

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

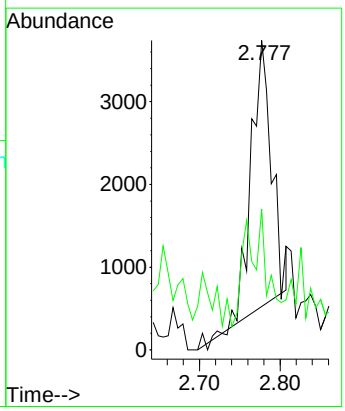


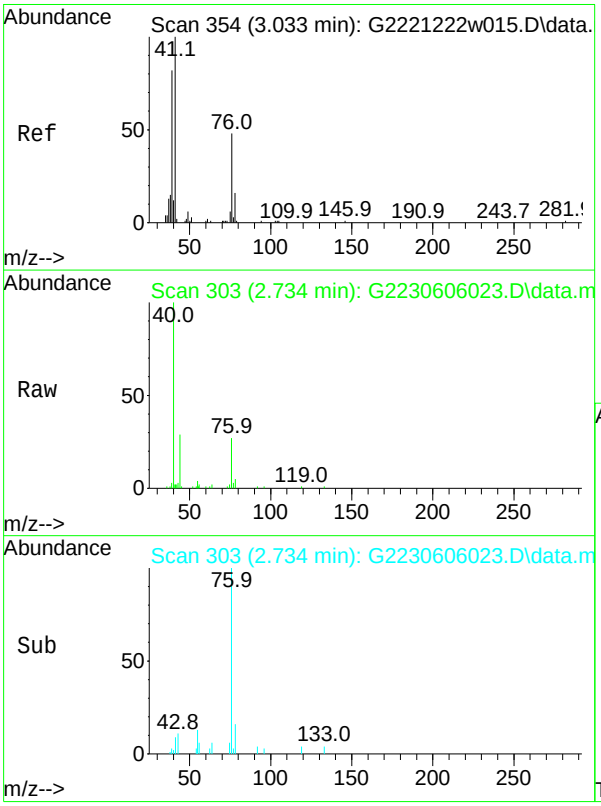


#15
Isopropanol
Concen: 3.43 ug/L
RT: 2.780 min Scan# 311
Delta R.T. -0.012 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 45 Resp: 52962

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

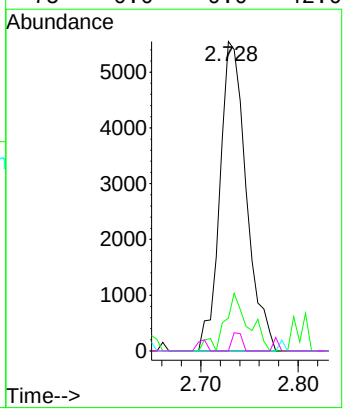


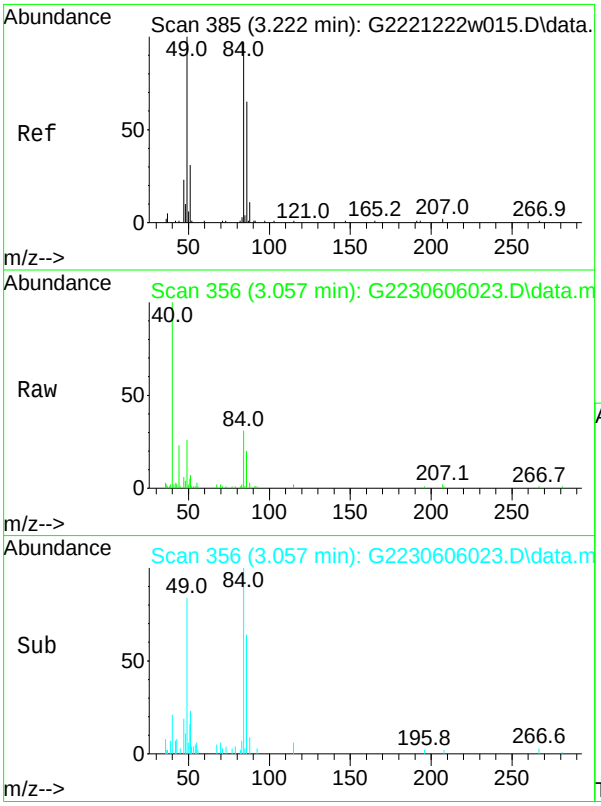


#17
3-Chloro-1-propene
Concen: 0.46 ug/L
RT: 2.734 min Scan# 303
Delta R.T. -0.186 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 76 Resp: 104211

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

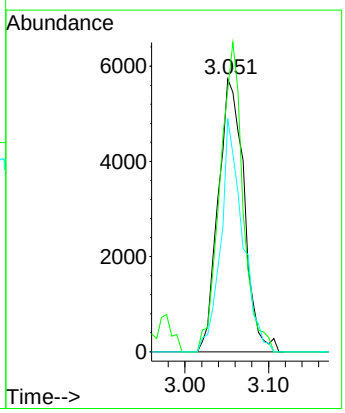


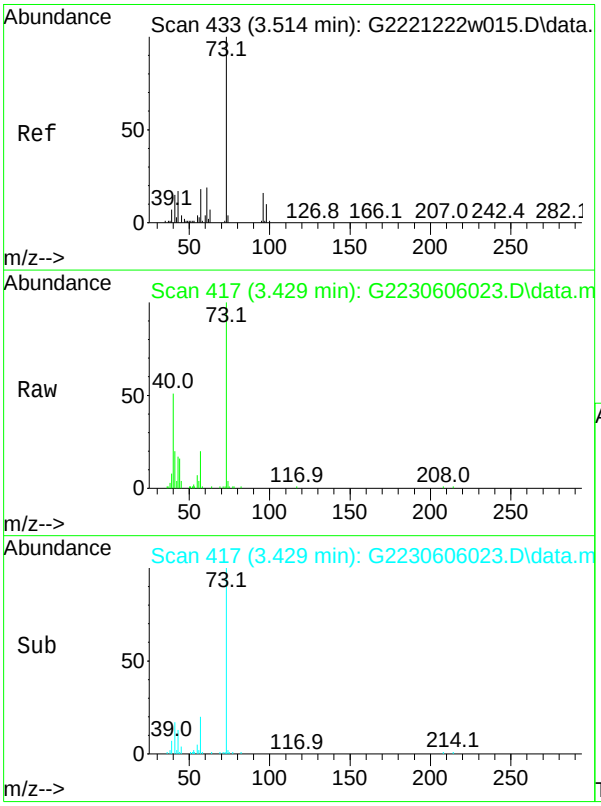


#18
Methylene chloride
Concen: Below Cal
RT: 3.056 min Scan# 356
Delta R.T. -0.006 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 49 Resp: 123669

Ion	Ratio	Lower	Upper
49	100		
84	101.2	57.9	117.9
86	72.0	24.9	84.9

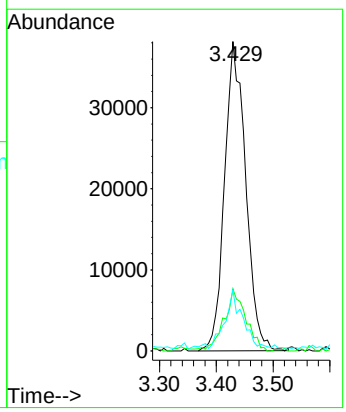


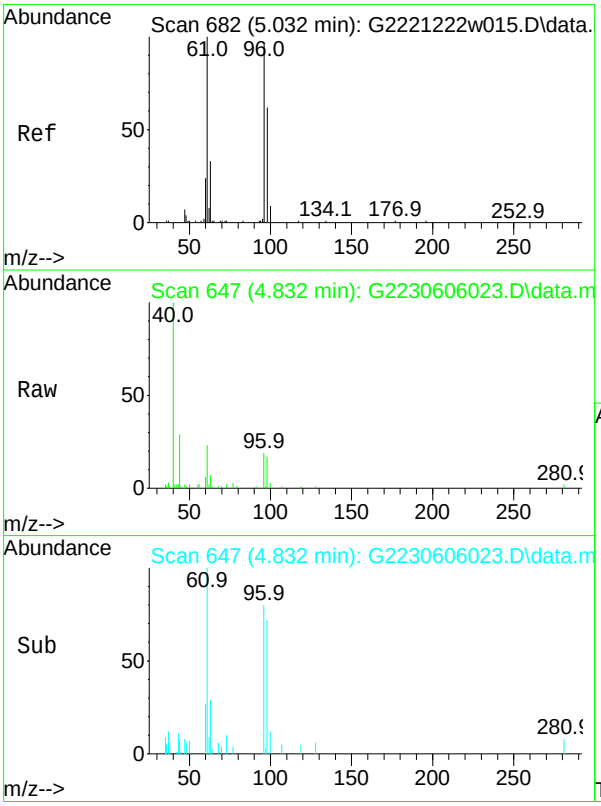


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.432 min Scan# 417
Delta R.T. -0.014 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 73 Resp: 986083

Ion	Ratio	Lower	Upper
73	100		
57	20.6	0.0	51.7
41	14.7	0.0	50.6

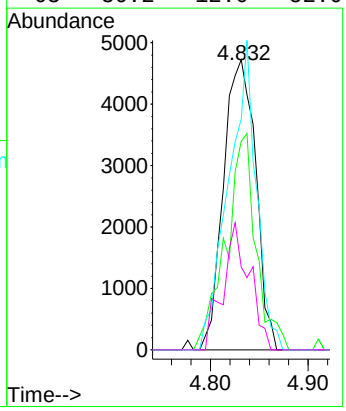


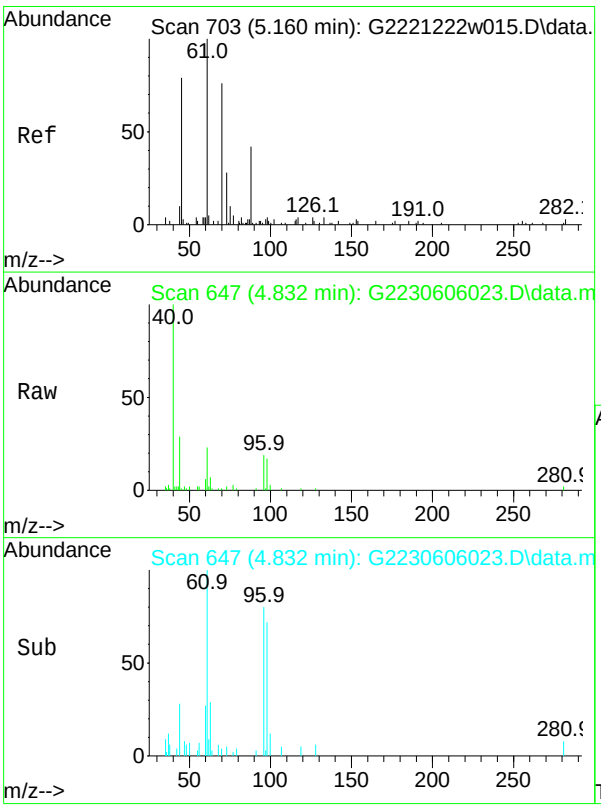


#28
cis-1,2-Dichloroethene
Concen: 0.14 ug/L
RT: 4.832 min Scan# 647
Delta R.T. -0.004 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 61 Resp: 108057

Ion	Ratio	Lower	Upper
61	100		
98	69.9	15.9	75.9
96	91.5	39.6	99.6
63	36.2	12.0	52.0

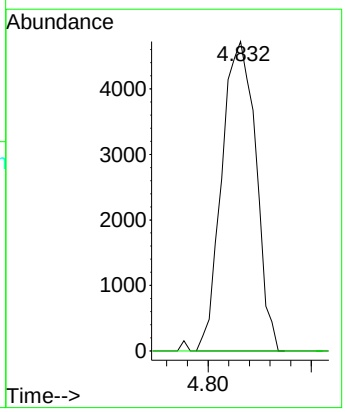


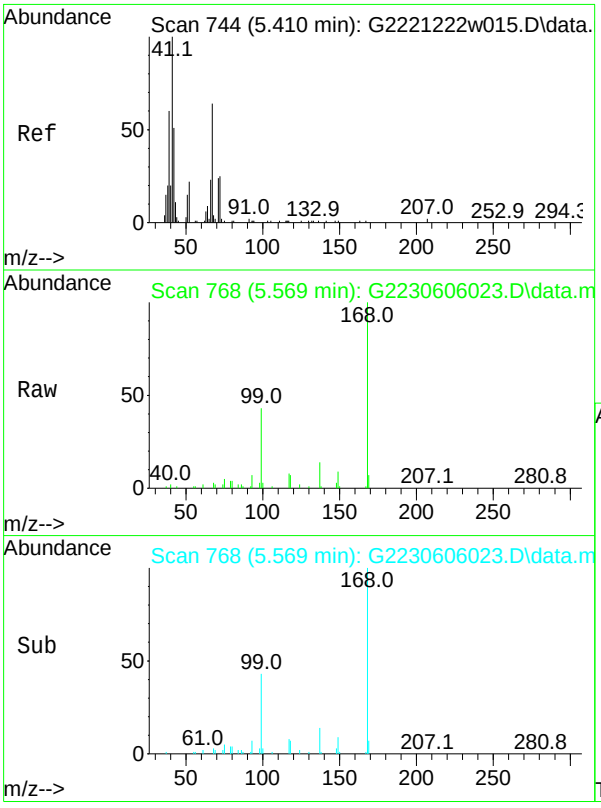


#31
Ethyl acetate
Concen: 1.66 ug/L
RT: 4.833 min Scan# 647
Delta R.T. -0.189 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 61 Resp: 108051

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

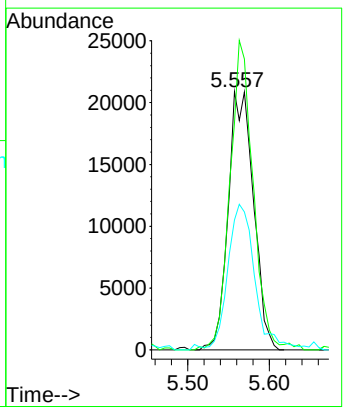


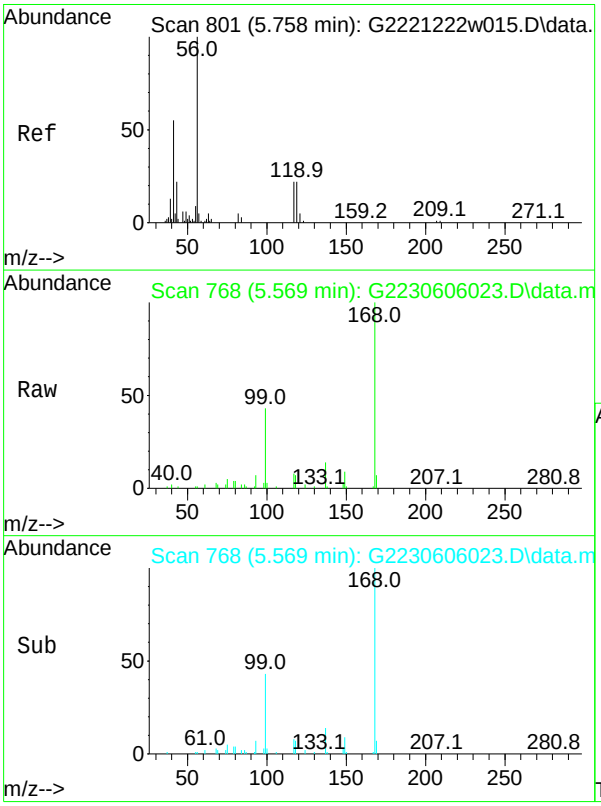


#40
Cyclohexane
Concen: 0.87 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 84 Resp: 452043

Ion	Ratio	Lower	Upper
84	100		
69	109.2	6.8	66.8#
56	59.8	79.1	139.1#

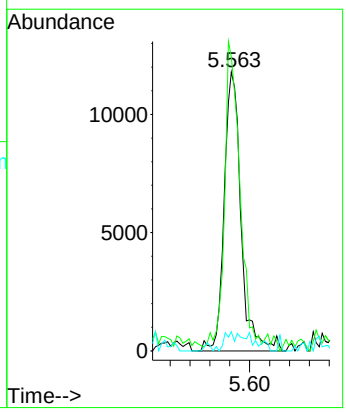


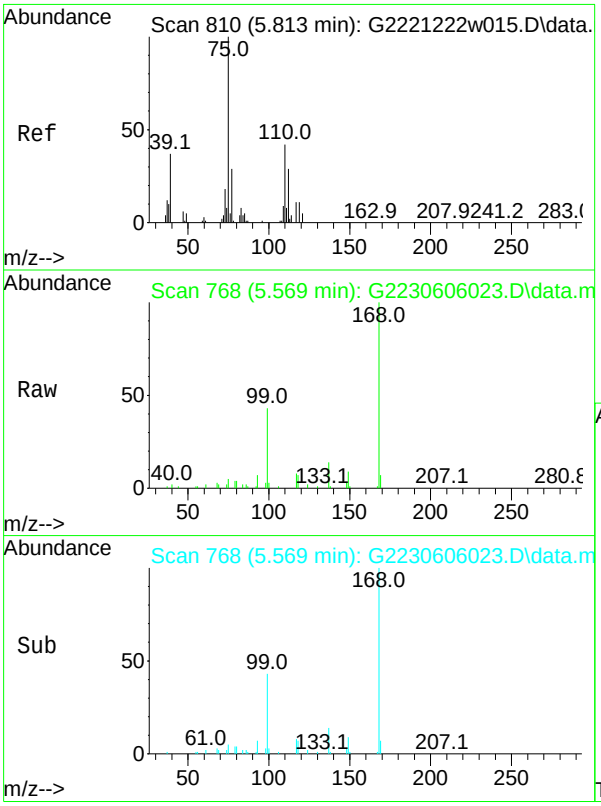


#41
1-Chlorobutane
Concen: 0.46 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 56 Resp: 277113

Ion	Ratio	Lower	Upper
56	100		
55	95.5	0.0	41.0#
57	0.0	0.0	35.7

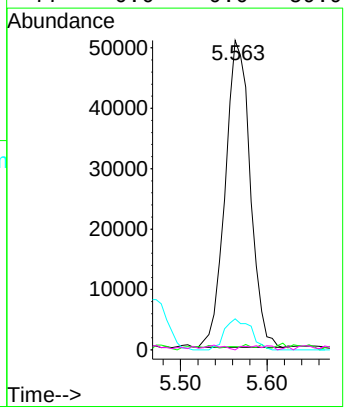


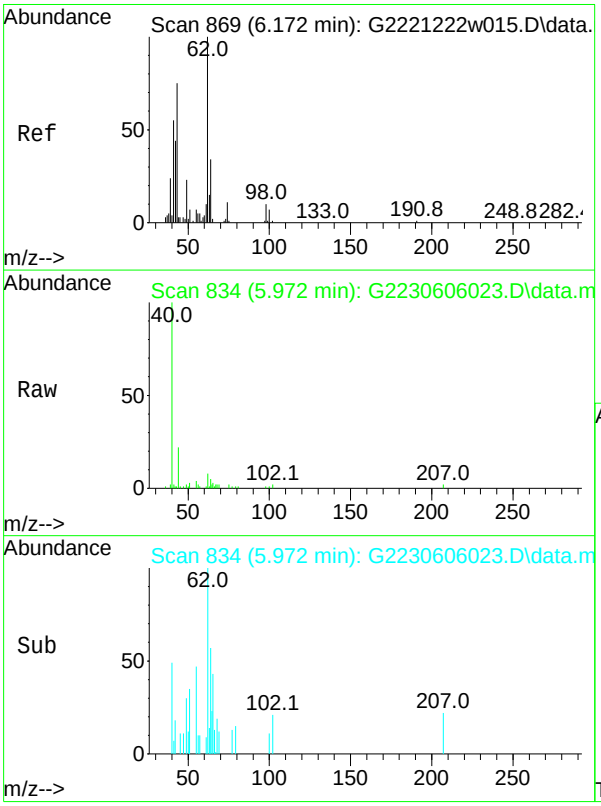


#42
1,1-Dichloropropene
Concen: 2.25 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 75 Resp: 1014500

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

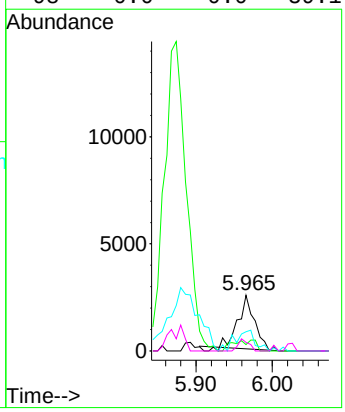


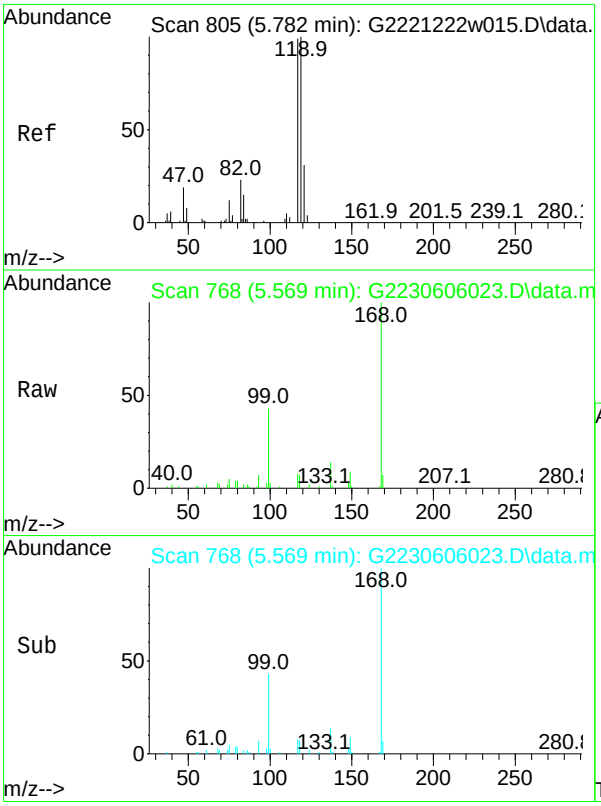


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.969 min Scan# 834
Delta R.T. -0.002 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 62 Resp: 36931

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

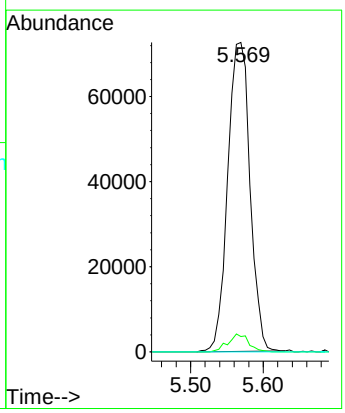


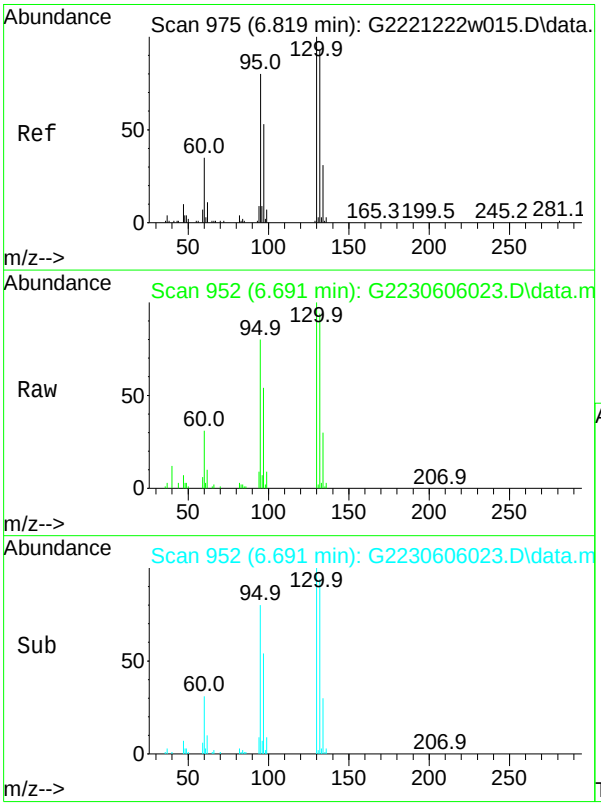


#47
Carbon tetrachloride
Concen: 3.06 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion:117 Resp: 1545285

Ion	Ratio	Lower	Upper
117	100		
119	5.4	66.4	126.4#
121	0.0	0.4	60.4#

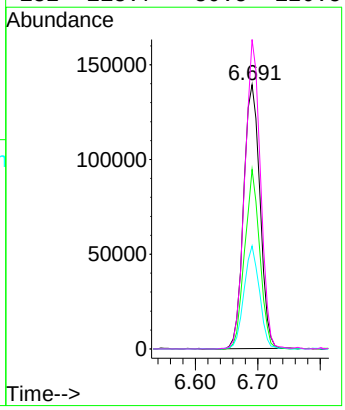


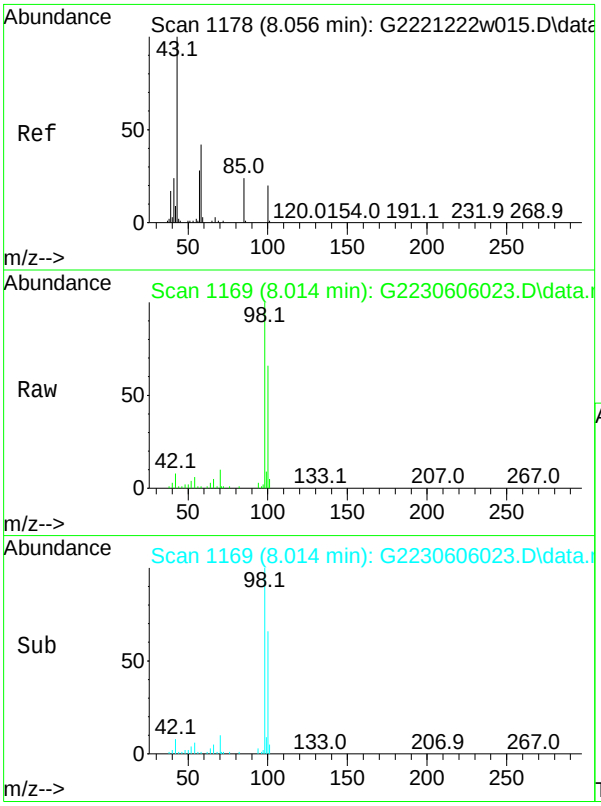


#50
Trichloroethene
Concen: 6.74 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 95 Resp: 2506367

Ion	Ratio	Lower	Upper
95	100		
97	62.9	35.5	95.5
60	37.2	14.8	74.8
132	113.7	80.5	120.5

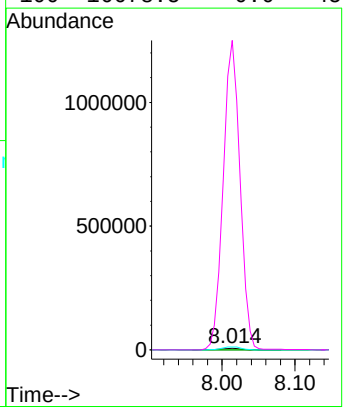


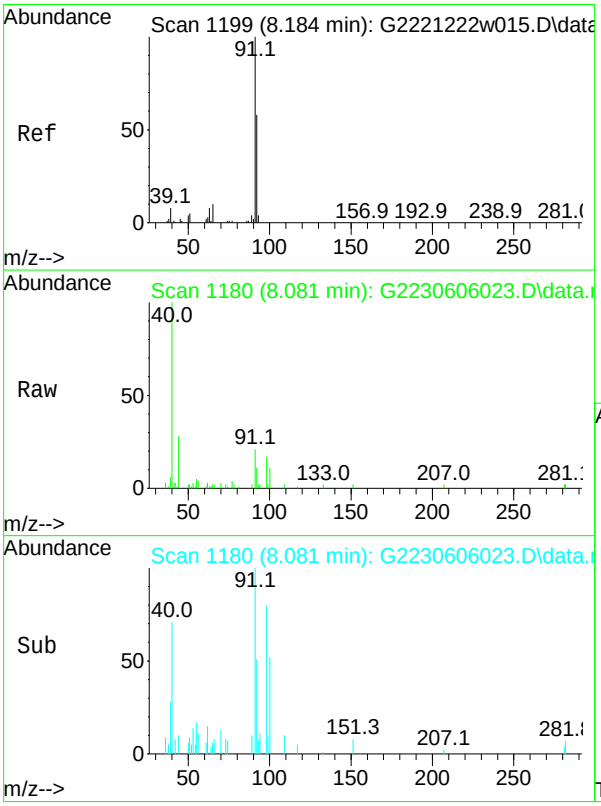


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 43 Resp: 119020

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	181.8	37.0	37.0#
100	16678.5	0.0	45.2#

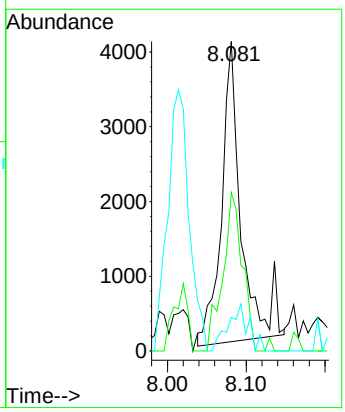


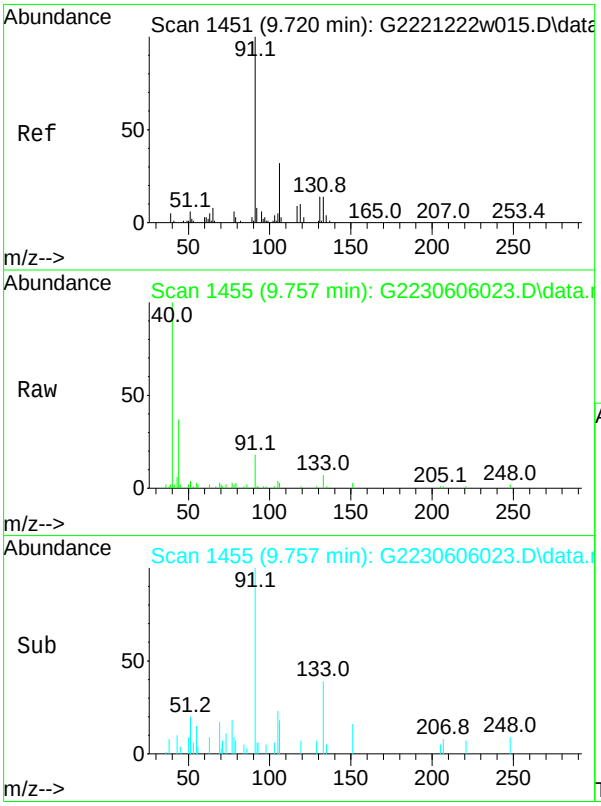


#65
Toluene
Concen: Below Cal
RT: 8.082 min Scan# 1180
Delta R.T. -0.004 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 91 Resp: 68624

Ion	Ratio	Lower	Upper
91	100		
92	53.3	27.5	87.5
65	0.0	0.0	41.4

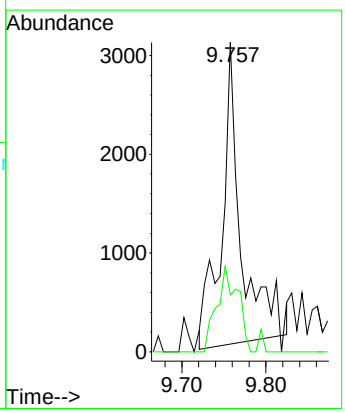


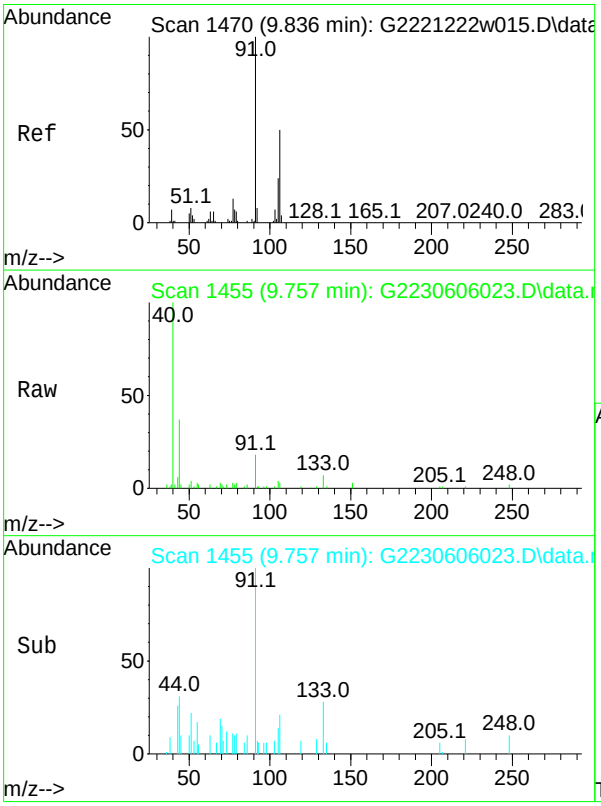


#74
Ethylbenzene
Concen: Below Cal
RT: 9.760 min Scan# 1455
Delta R.T. 0.117 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 91 Resp: 48381

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

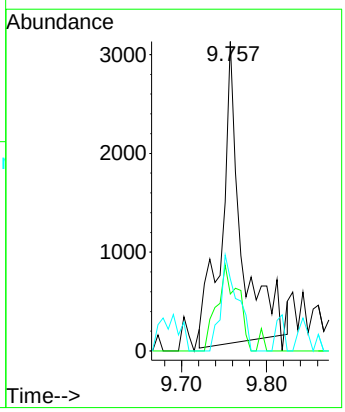


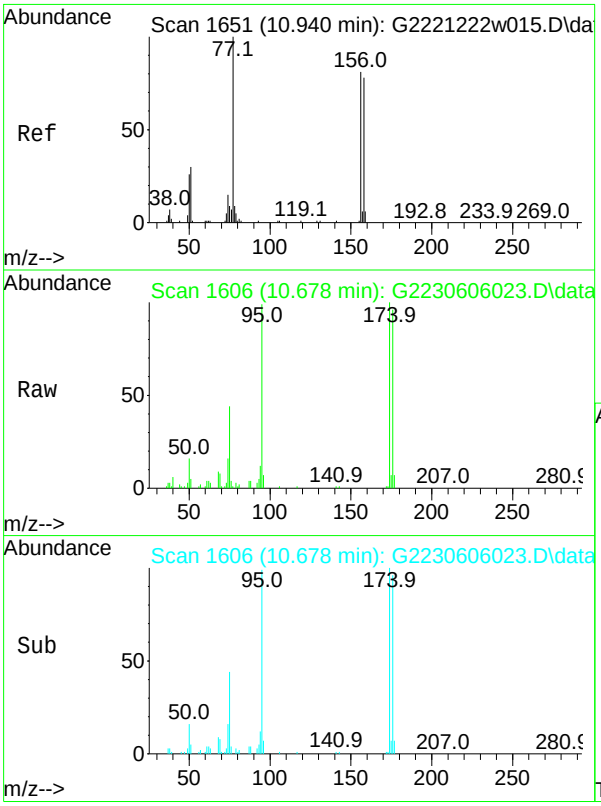


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 91 Resp: 48330

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

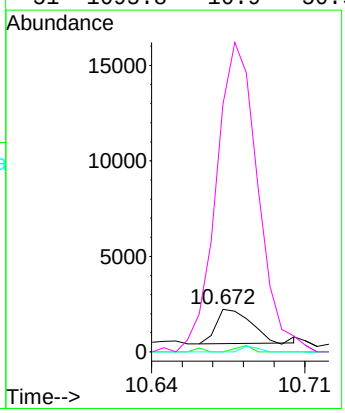


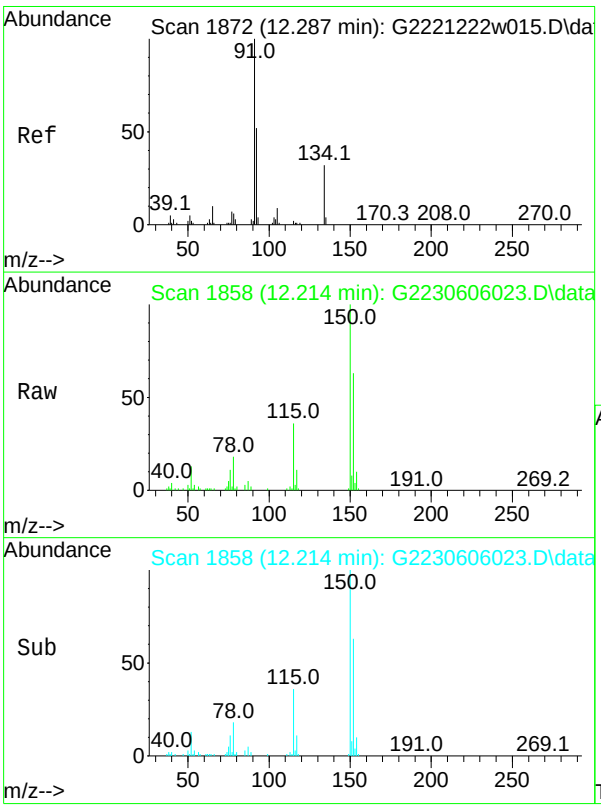


#82
Bromobenzene
Concen: 0.04 ug/L
RT: 10.679 min Scan# 1606
Delta R.T. -0.149 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 77 Resp: 22231

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	1095.8	10.9	50.9#

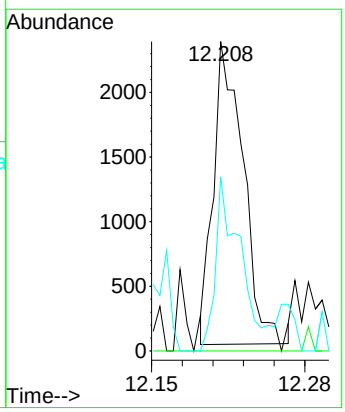




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.213 min Scan# 1858
Delta R.T. -0.018 min
Lab File: G2230606023.D
Acq: 06 Jun 2023 19:47

Tgt Ion: 91 Resp: 44041

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

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08RE1	File ID:	G2230607018.D
Sampled:	05/27/23 13:05	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 21:56
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08RE1	File ID:	G2230607018.D
Sampled:	05/27/23 13:05	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 21:56
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08RE1	File ID:	G2230607018.D
Sampled:	05/27/23 13:05	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 21:56
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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*	*0.700*	*0.156*	*0.400*	*1.00*	*B, 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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607018.D
Acq On : 07 Jun 2023 21:56
Operator : PO1
Sample : 23E0775-08RE1
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 08 09:53:59 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

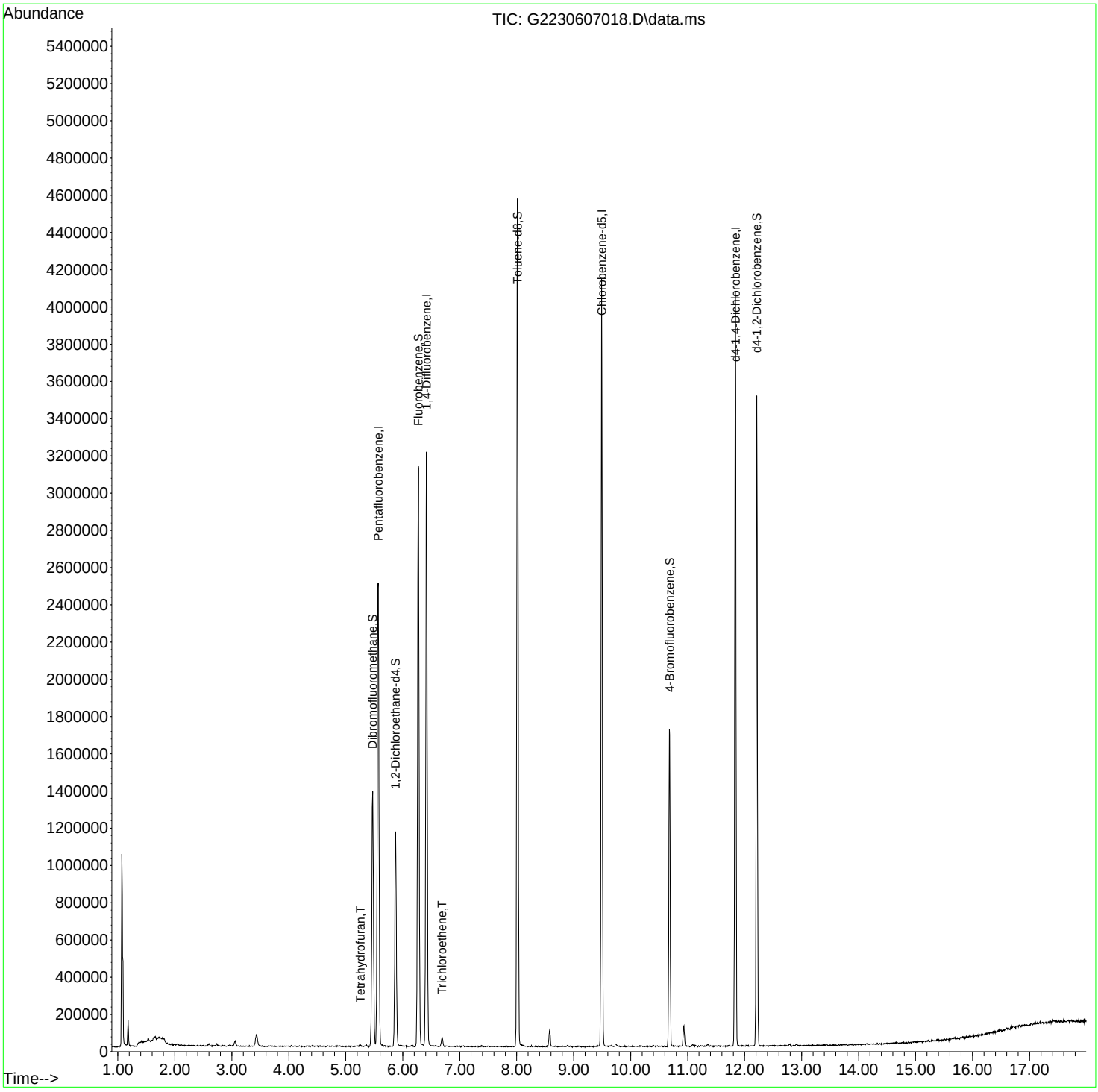
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	20334979	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	27570260	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24104382	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11445399	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	8612548	19.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%			
43) 1,2-Dichloroethane-d4	5.876	65	8079329	18.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.35%			
49) Fluorobenzene	6.276	96	30817668	19.62	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.10%			
64) Toluene-d8	8.015	98	29865012	19.66	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.30%			
81) 4-Bromofluorobenzene	10.685	174	5381836	9.96	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%			
97) d4-1,2-Dichlorobenzene	12.216	152	9897784	20.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.55%			
Target Compounds						Qvalue
5) Bromomethane	1.717	94	55255	Below Cal	#	84
18) Methylene chloride	3.058	49	138409	Below Cal		76
21) Methyl tert-butyl ether	3.436	73	884022	Below Cal		95
36) Tetrahydrofuran	5.257	42	68116	0.09	ug/L #	56
50) Trichloroethene	6.692	95	157716	0.35	ug/L #	82
65) Toluene	8.085	91	40412	Below Cal	#	30

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607018.D
Acq On : 07 Jun 2023 21:56
Operator : PO1
Sample : 23E0775-08RE1
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 08 09:53:59 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607018.D
Acq On : 07 Jun 2023 21:56
Operator : PO1
Sample : 23E0775-08RE1
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 08 09:53:59 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

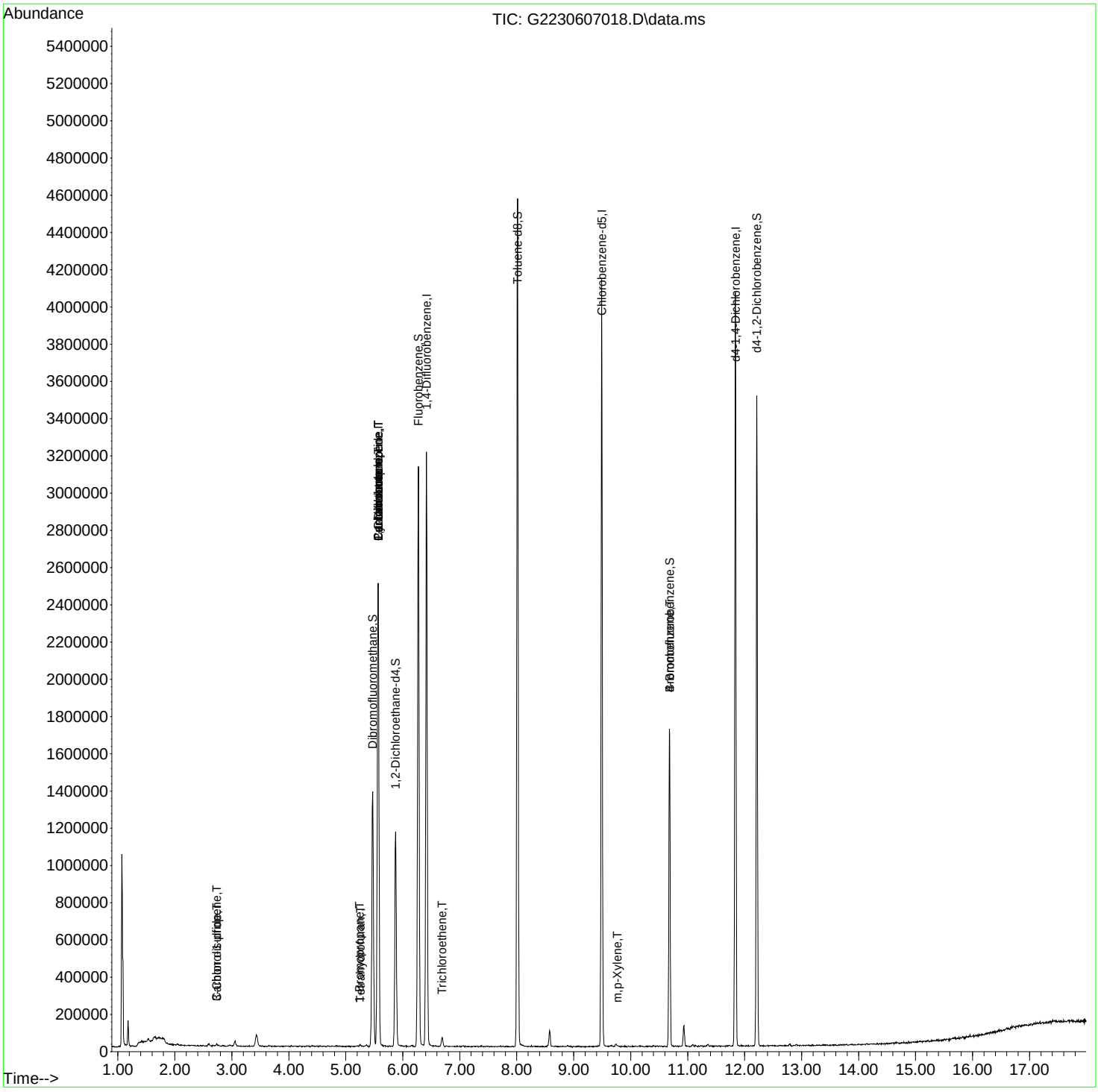
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	20334979	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	27570260	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24104382	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11445399	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	8612548	19.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%			
43) 1,2-Dichloroethane-d4	5.876	65	8079329	18.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.35%			
49) Fluorobenzene	6.276	96	30817668	19.62	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.10%			
64) Toluene-d8	8.015	98	29865012	19.66	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.30%			
81) 4-Bromofluorobenzene	10.685	174	5381836	9.96	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.60%			
97) d4-1,2-Dichlorobenzene	12.216	152	9897784	20.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.55%			
Target Compounds						Qvalue
3) Chloromethane	1.352	50	30043	Below Cal	#	41
5) Bromomethane	1.717	94	55255	Below Cal	#	84
12) Acetone	2.600	43	150454	Below Cal		92
14) Carbon disulfide	2.736	76	136267	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.736	76	136270	0.59	ug/L #	53
18) Methylene chloride	3.058	49	138409	Below Cal		76
21) Methyl tert-butyl ether	3.436	73	884022	Below Cal		95
33) 1-Bromopropane	5.242	41	35682	0.05	ug/L #	40
36) Tetrahydrofuran	5.257	42	68116	0.09	ug/L #	56
40) Cyclohexane	5.569	84	450075	0.82	ug/L #	33
41) 1-Chlorobutane	5.568	56	268047	0.42	ug/L #	1
42) 1,1-Dichloropropene	5.569	75	1078977	2.26	ug/L #	38
47) Carbon tetrachloride	5.568	117	1661921	3.34	ug/L #	16
50) Trichloroethene	6.692	95	157716	0.35	ug/L #	82
60) 4-Methyl-2-pentanone	8.013	43	92196	Below Cal	#	1
65) Toluene	8.085	91	40412	Below Cal	#	30
74) Ethylbenzene	9.766	91	41766	Below Cal	#	44
75) m,p-Xylene	9.765	91	34619	0.03	ug/L #	36
82) Bromobenzene	10.683	77	24728	0.04	ug/L #	1

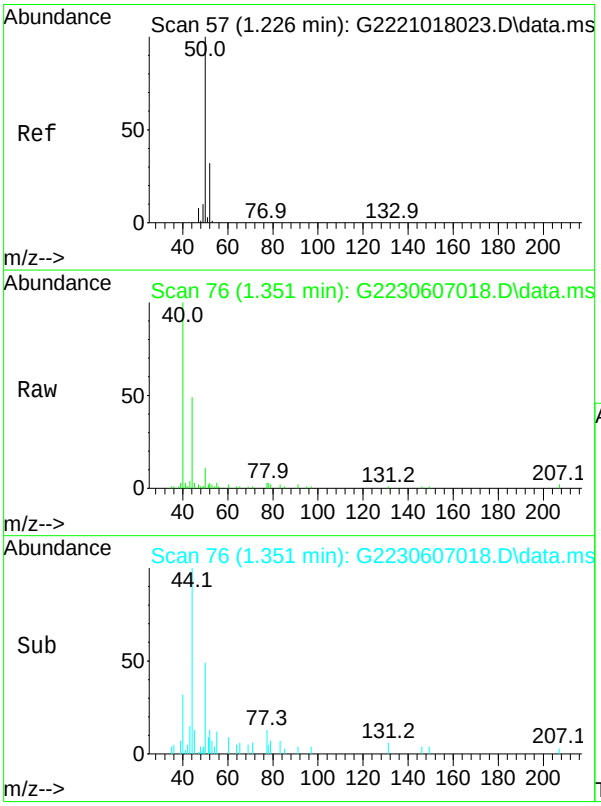
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607018.D
Acq On : 07 Jun 2023 21:56
Operator : PO1
Sample : 23E0775-08RE1
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 08 09:53:59 2023
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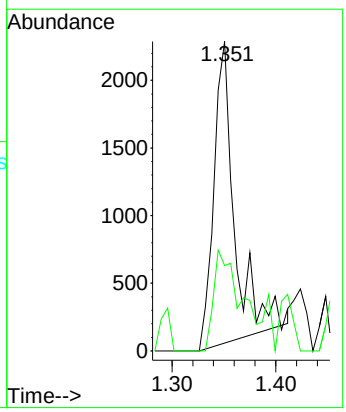


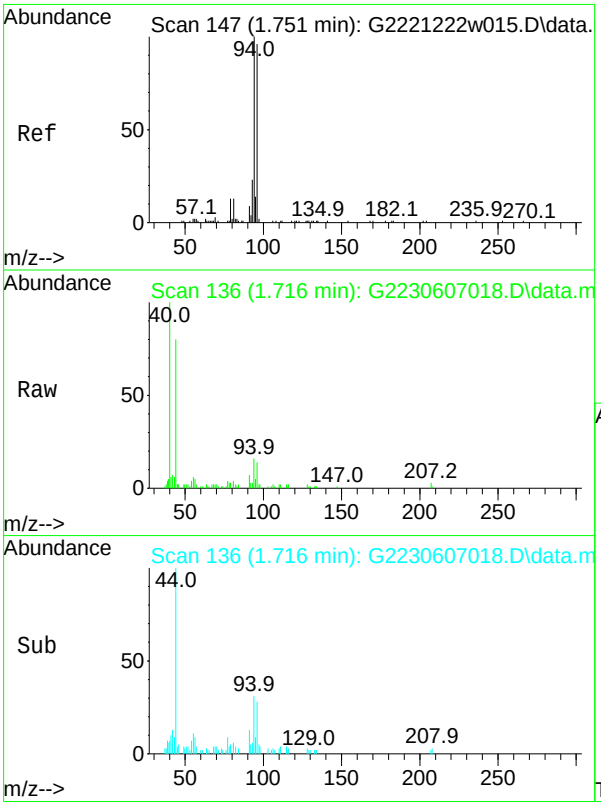


#3
Chloromethane
Concen: Below Cal
RT: 1.352 min Scan# 76
Delta R.T. -0.002 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 50 Resp: 30043

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

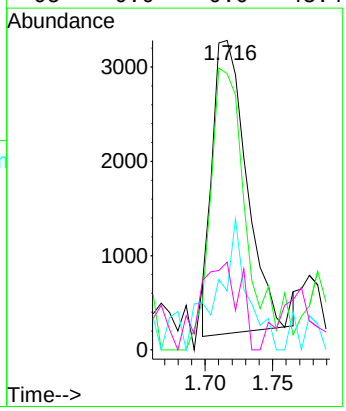


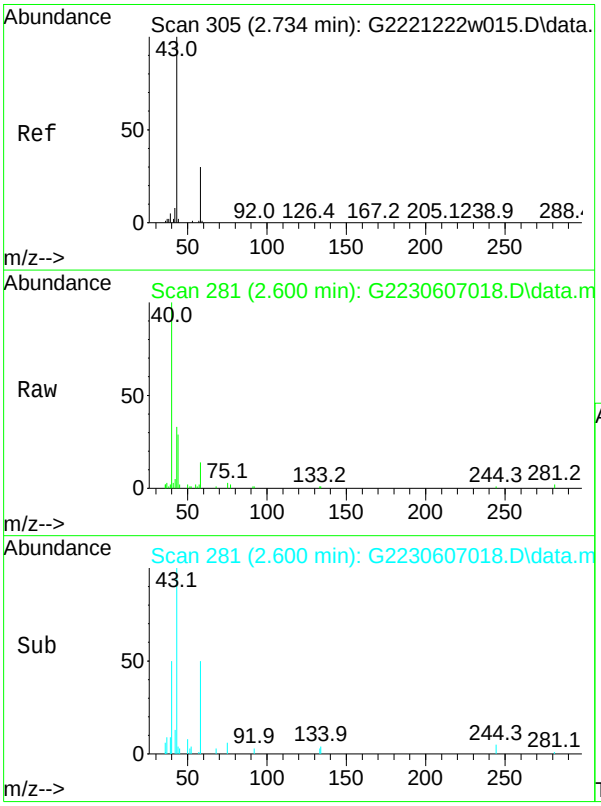


#5
Bromomethane
Concen: Below Cal
RT: 1.717 min Scan# 136
Delta R.T. 0.003 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 94 Resp: 55255

Ion	Ratio	Lower	Upper
94	100		
96	102.1	65.6	125.6
93	40.9	0.0	49.5
95	0.0	0.0	43.4

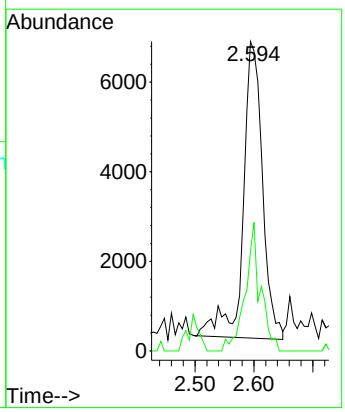


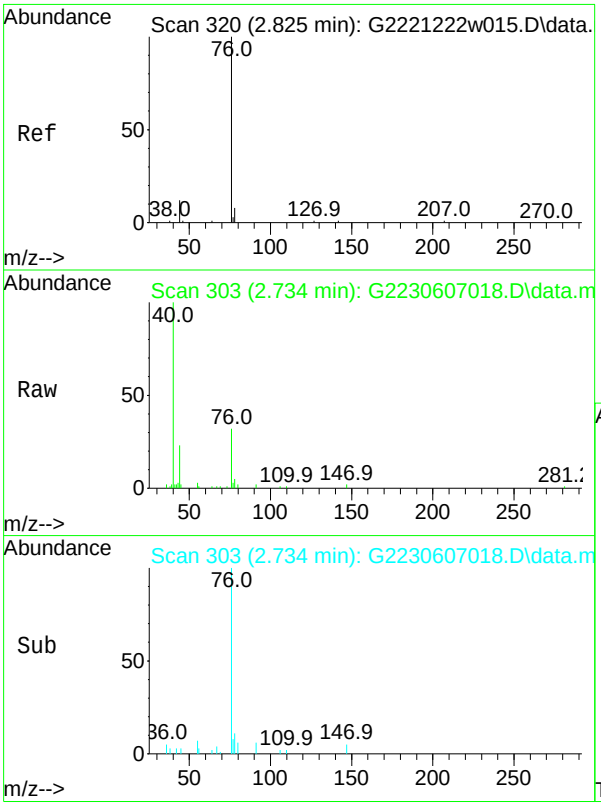


#12
Acetone
Concen: Below Cal
RT: 2.600 min Scan# 281
Delta R.T. -0.008 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 43 Resp: 150454

Ion	Ratio	Lower	Upper
43	100		
58	34.2	0.0	59.7

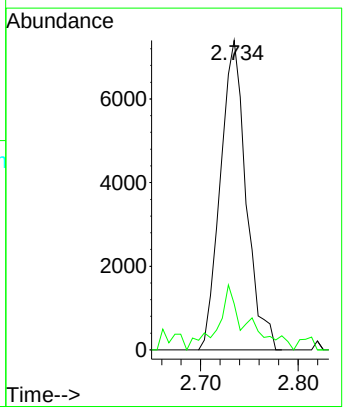


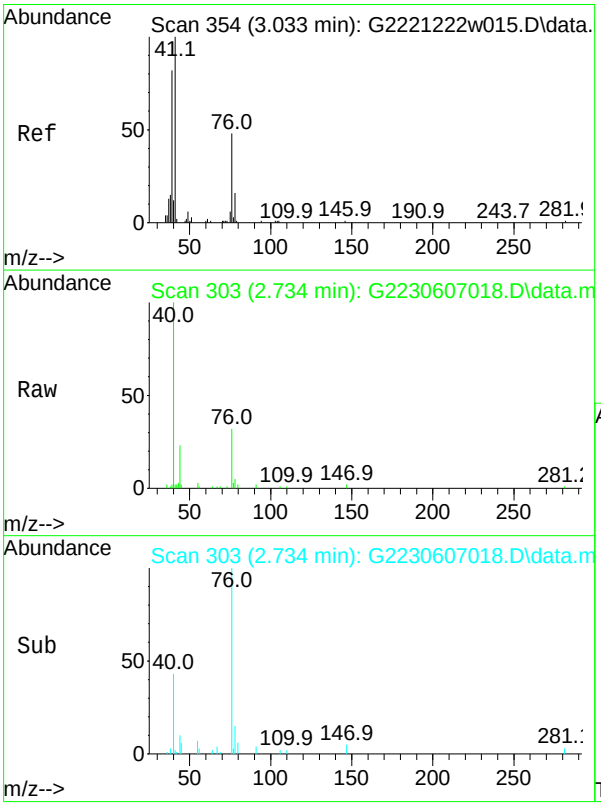


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.003 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 76 Resp: 136267

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

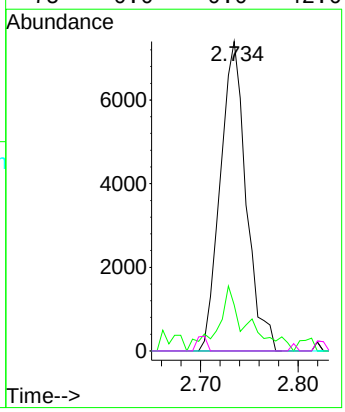


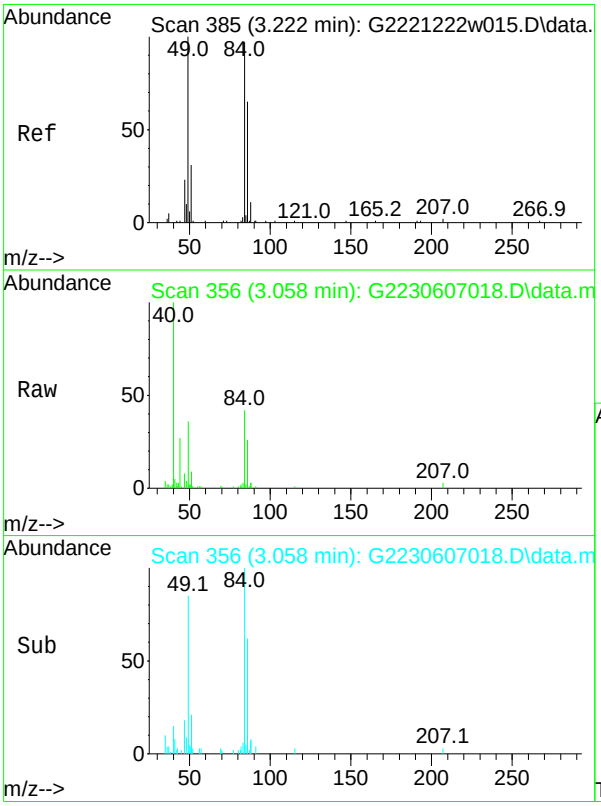


#17
3-Chloro-1-propene
Concen: 0.59 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.184 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 76 Resp: 136270

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

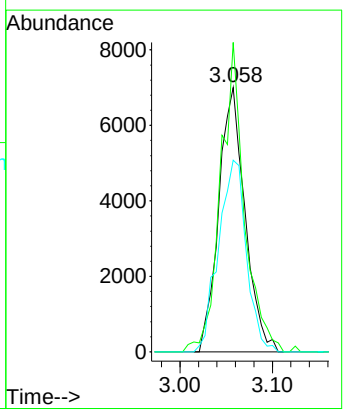


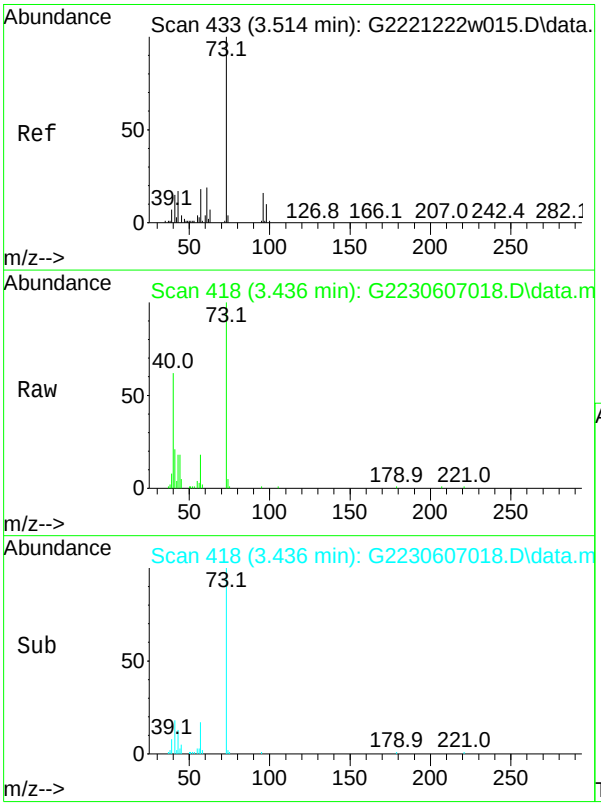


#18
Methylene chloride
Concen: Below Cal
RT: 3.058 min Scan# 356
Delta R.T. -0.004 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 49 Resp: 138409

Ion	Ratio	Lower	Upper
49	100		
84	106.3	57.9	117.9
86	76.9	24.9	84.9

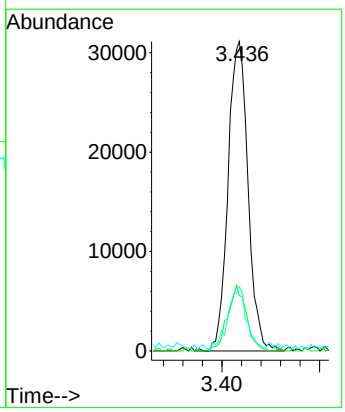


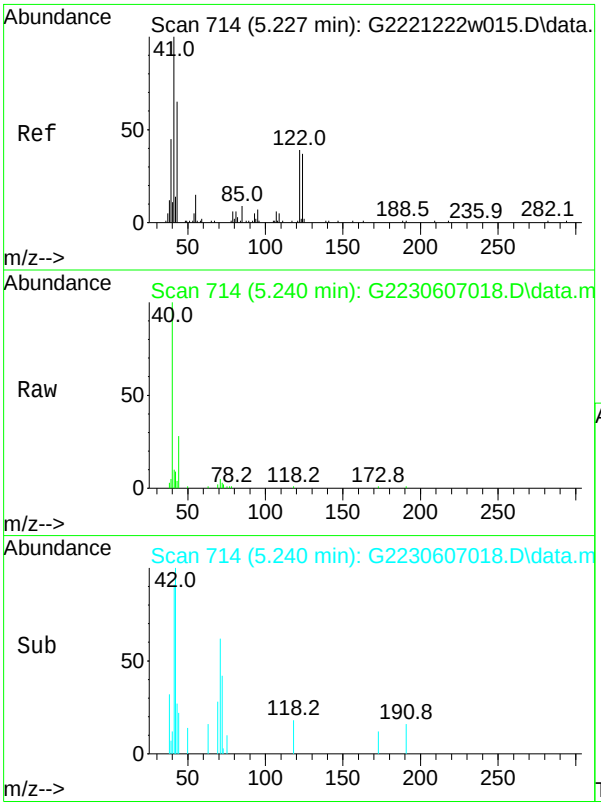


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.436 min Scan# 418
Delta R.T. -0.010 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 73 Resp: 884022

Ion	Ratio	Lower	Upper
73	100		
57	19.8	0.0	51.7
41	17.5	0.0	50.6

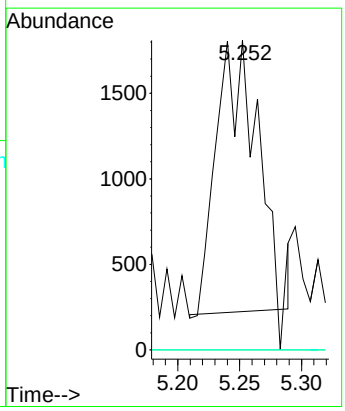


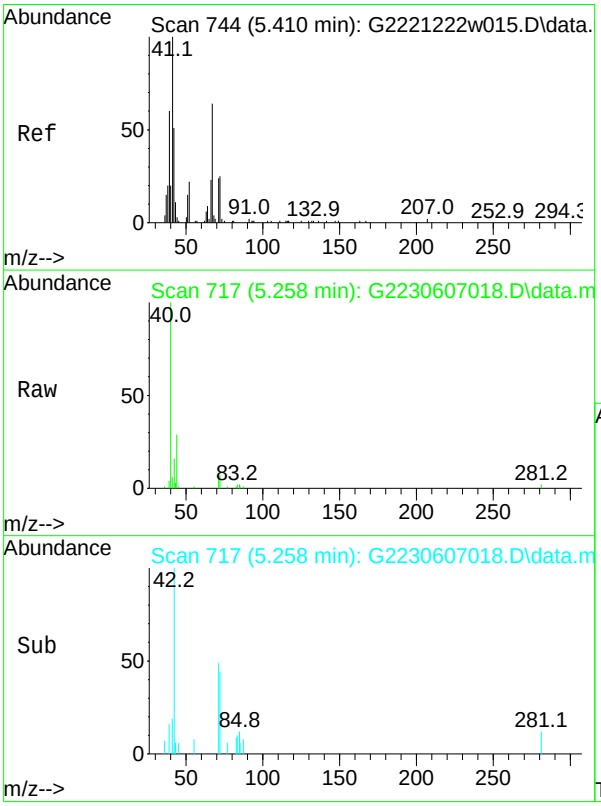


#33
1-Bromopropane
Concen: 0.05 ug/L
RT: 5.242 min Scan# 714
Delta R.T. 0.166 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 41 Resp: 35682

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

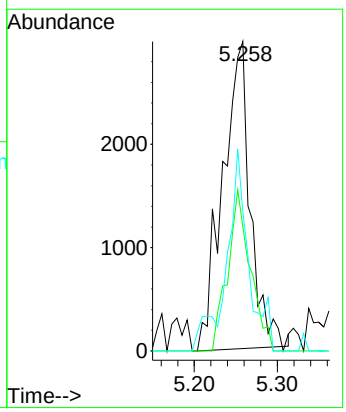


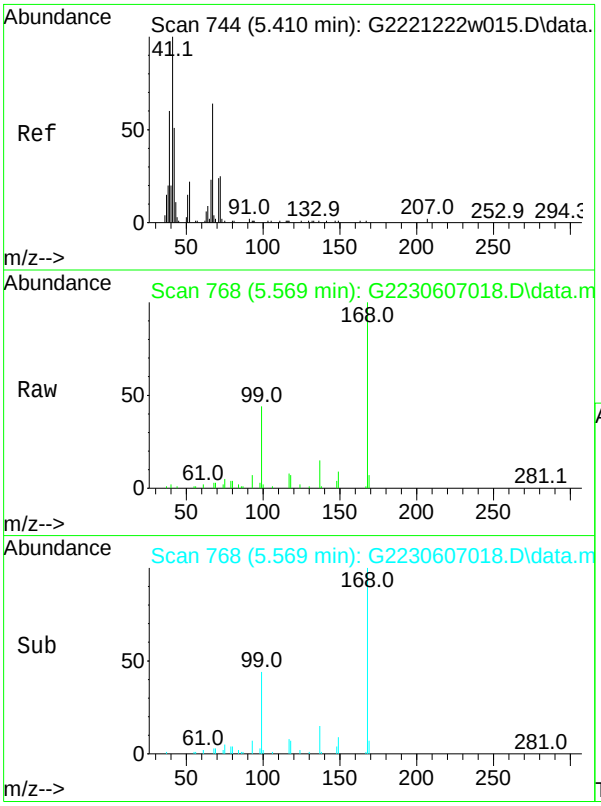


#36
Tetrahydrofuran
Concen: 0.09 ug/L
RT: 5.257 min Scan# 717
Delta R.T. -0.004 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 42 Resp: 68116

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	53.1	14.7	74.7

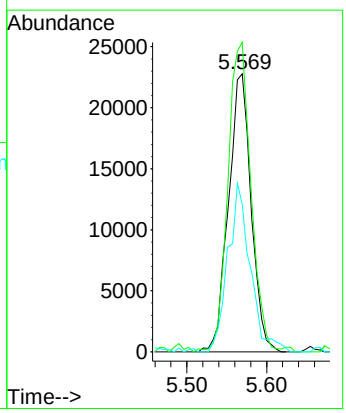


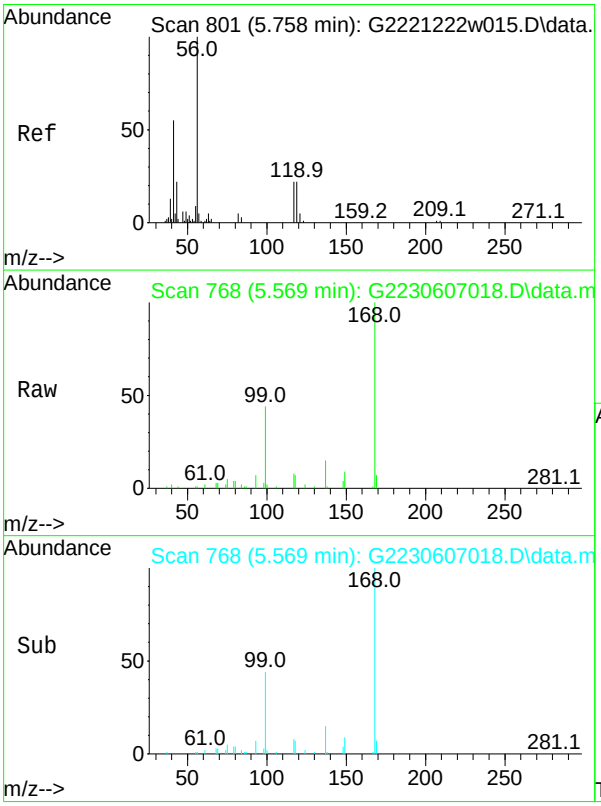


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 84 Resp: 450075

Ion	Ratio	Lower	Upper
84	100		
69	110.8	6.8	66.8#
56	59.6	79.1	139.1#

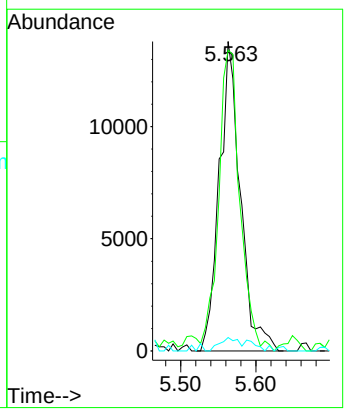


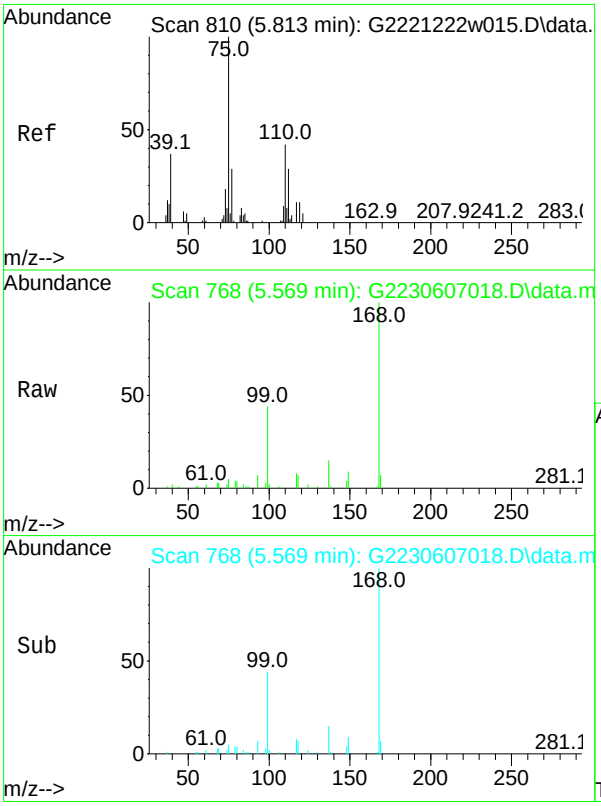


#41
1-Chlorobutane
Concen: 0.42 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.062 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 56 Resp: 268047

Ion	Ratio	Lower	Upper
56	100		
55	99.3	0.0	41.0#
57	0.0	0.0	35.7

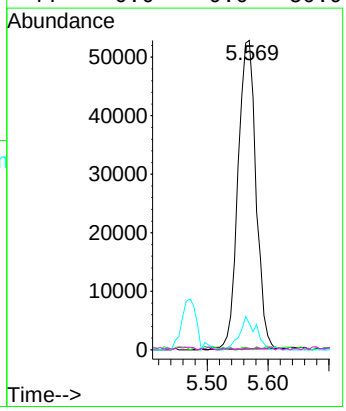


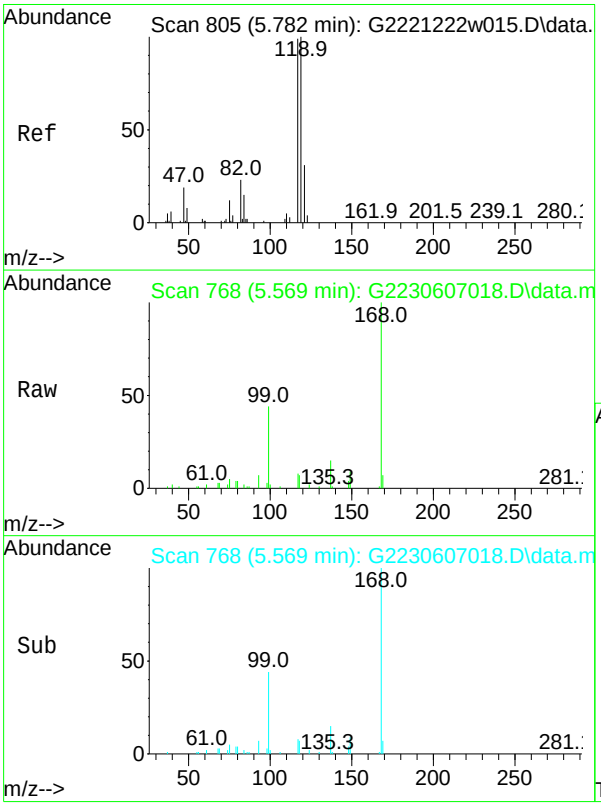


#42
1,1-Dichloropropene
Concen: 2.26 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 75 Resp: 1078977

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

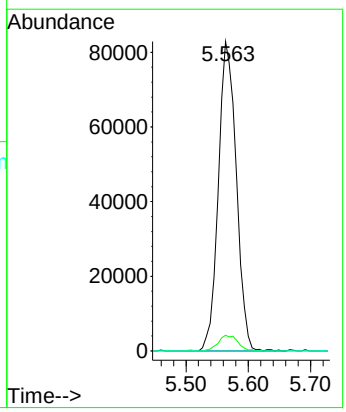


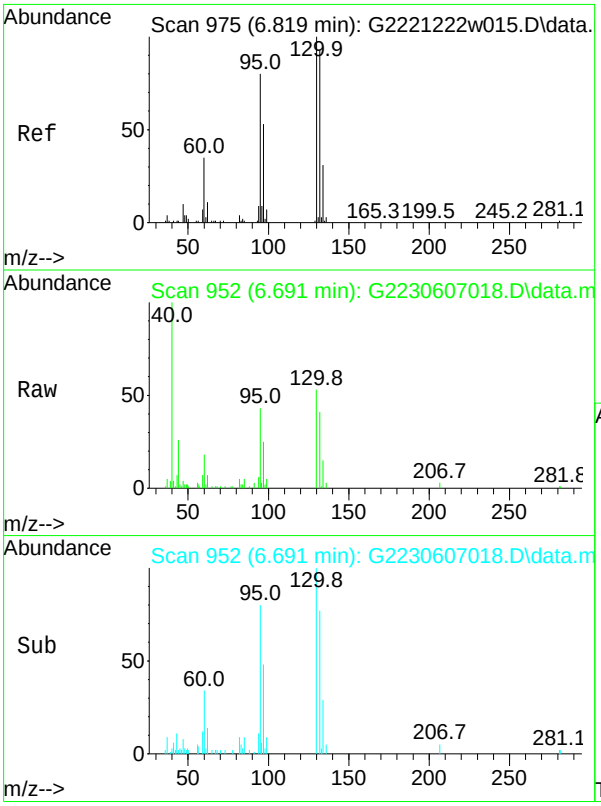


#47
Carbon tetrachloride
Concen: 3.34 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.112 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion:117 Resp: 1661921

Ion	Ratio	Lower	Upper
117	100		
119	5.6	66.4	126.4#
121	0.0	0.4	60.4#

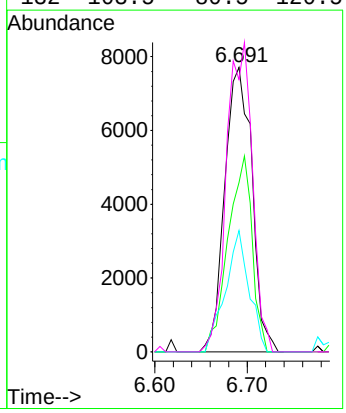


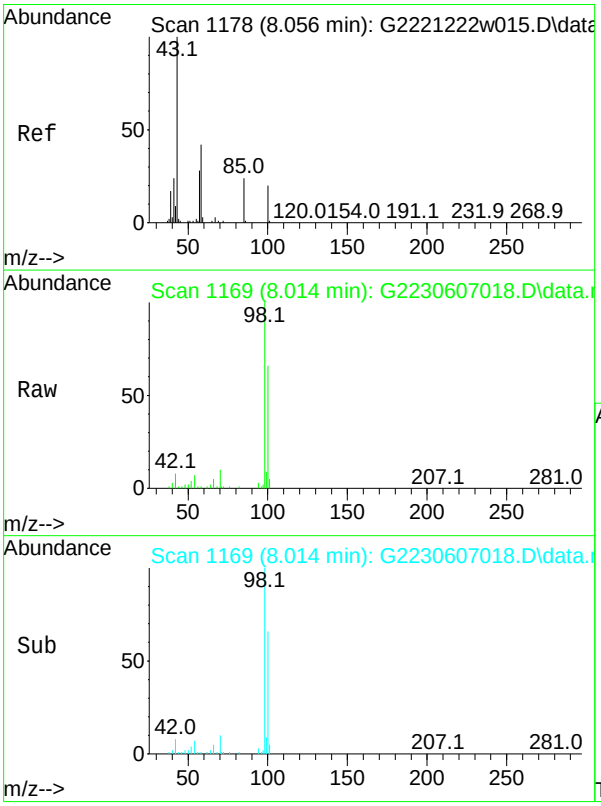


#50
Trichloroethene
Concen: 0.35 ug/L
RT: 6.692 min Scan# 952
Delta R.T. -0.004 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 95 Resp: 157716

Ion	Ratio	Lower	Upper
95	100		
97	60.9	35.5	95.5
60	0.0	14.8	74.8#
132	103.5	80.5	120.5

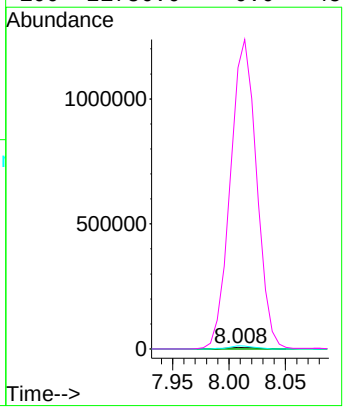


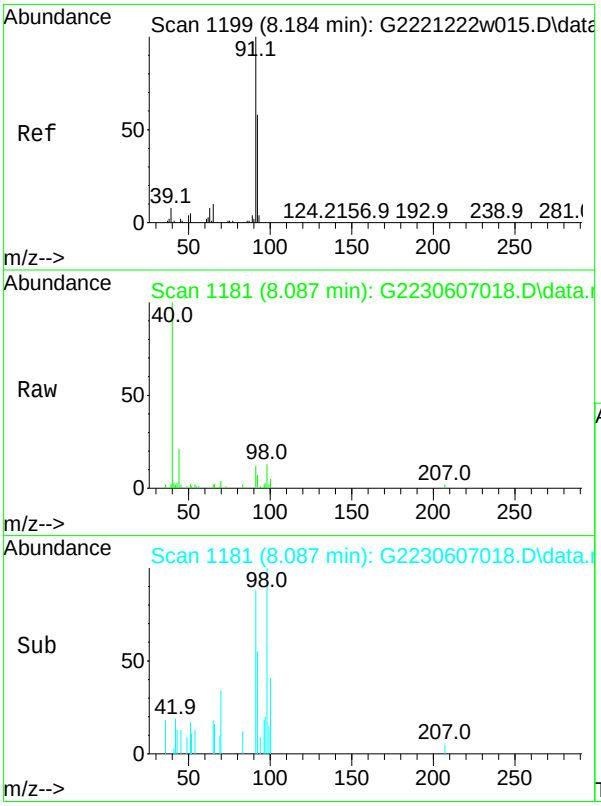


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 43 Resp: 92196

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	212.9	37.0	37.0#
100	21736.6	0.0	45.2#

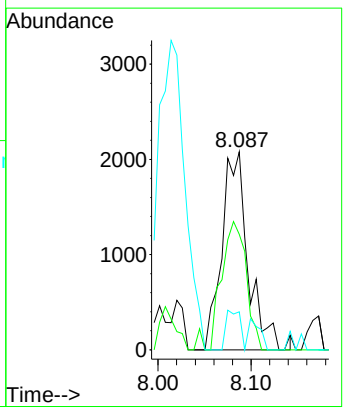


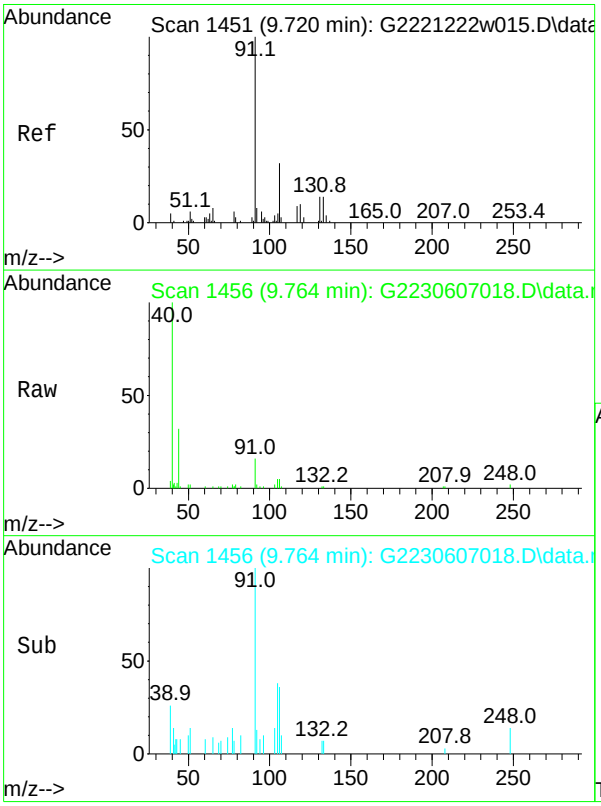


#65
Toluene
Concen: Below Cal
RT: 8.085 min Scan# 1181
Delta R.T. -0.001 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 91 Resp: 40412

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

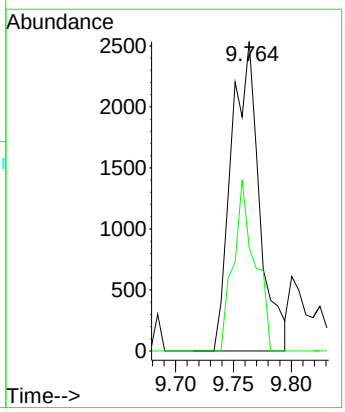


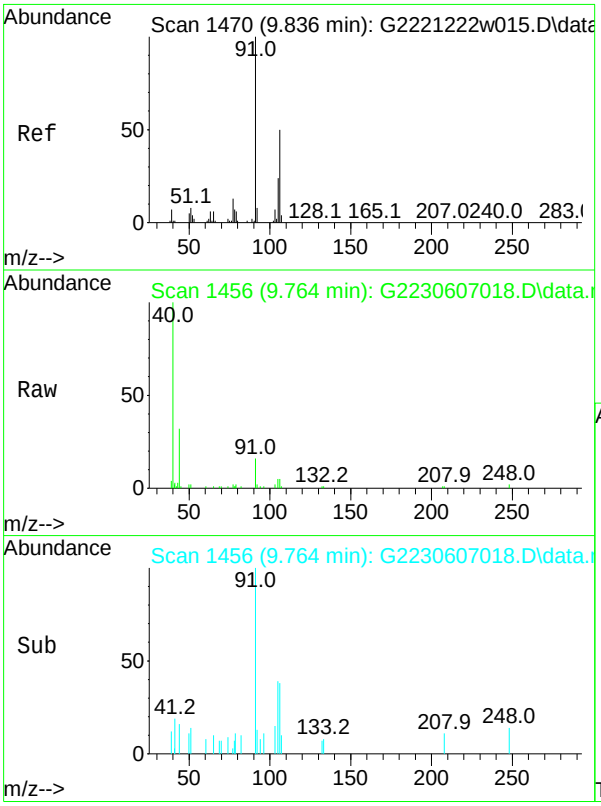


#74
Ethylbenzene
Concen: Below Cal
RT: 9.766 min Scan# 1456
Delta R.T. 0.123 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 91 Resp: 41766

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

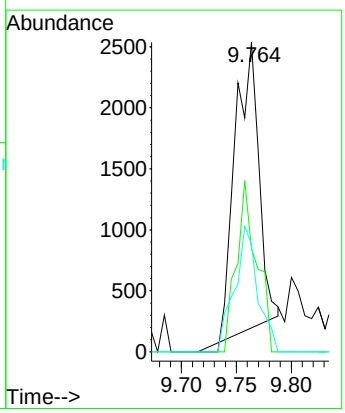


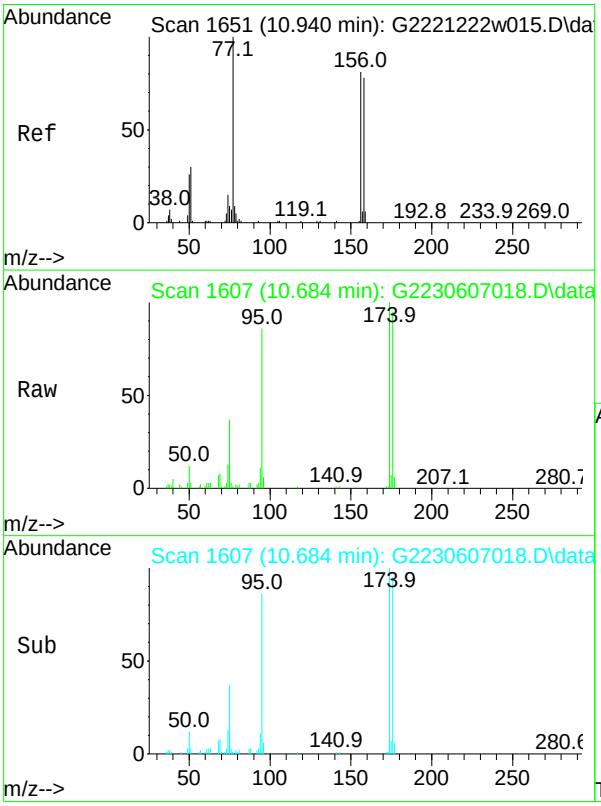


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.765 min Scan# 1456
Delta R.T. 0.001 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 91 Resp: 34619

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

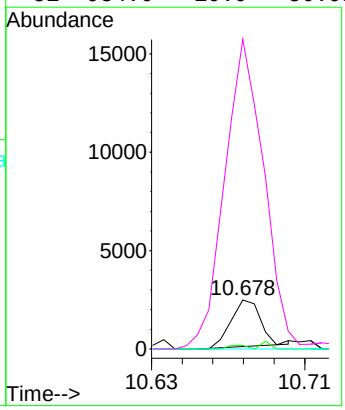




#82
Bromobenzene
Concen: 0.04 ug/L
RT: 10.683 min Scan# 1607
Delta R.T. -0.145 min
Lab File: G2230607018.D
Acq: 07 Jun 2023 21:56

Tgt Ion: 77 Resp: 24728

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	934.0	10.9	50.9#



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08RE2	File ID:	G2230608021.D
Sampled:	05/27/23 13:05	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 17:33
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08RE2	File ID:	G2230608021.D
Sampled:	05/27/23 13:05	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 17:33
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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

52747WW40

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-08RE2	File ID:	G2230608021.D
Sampled:	05/27/23 13:05	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 17:33
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608021.D
Acq On : 08 Jun 2023 17:33
Operator : PO1
Sample : 23E0775-08RE2
Misc : 10
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 09 10:39:59 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

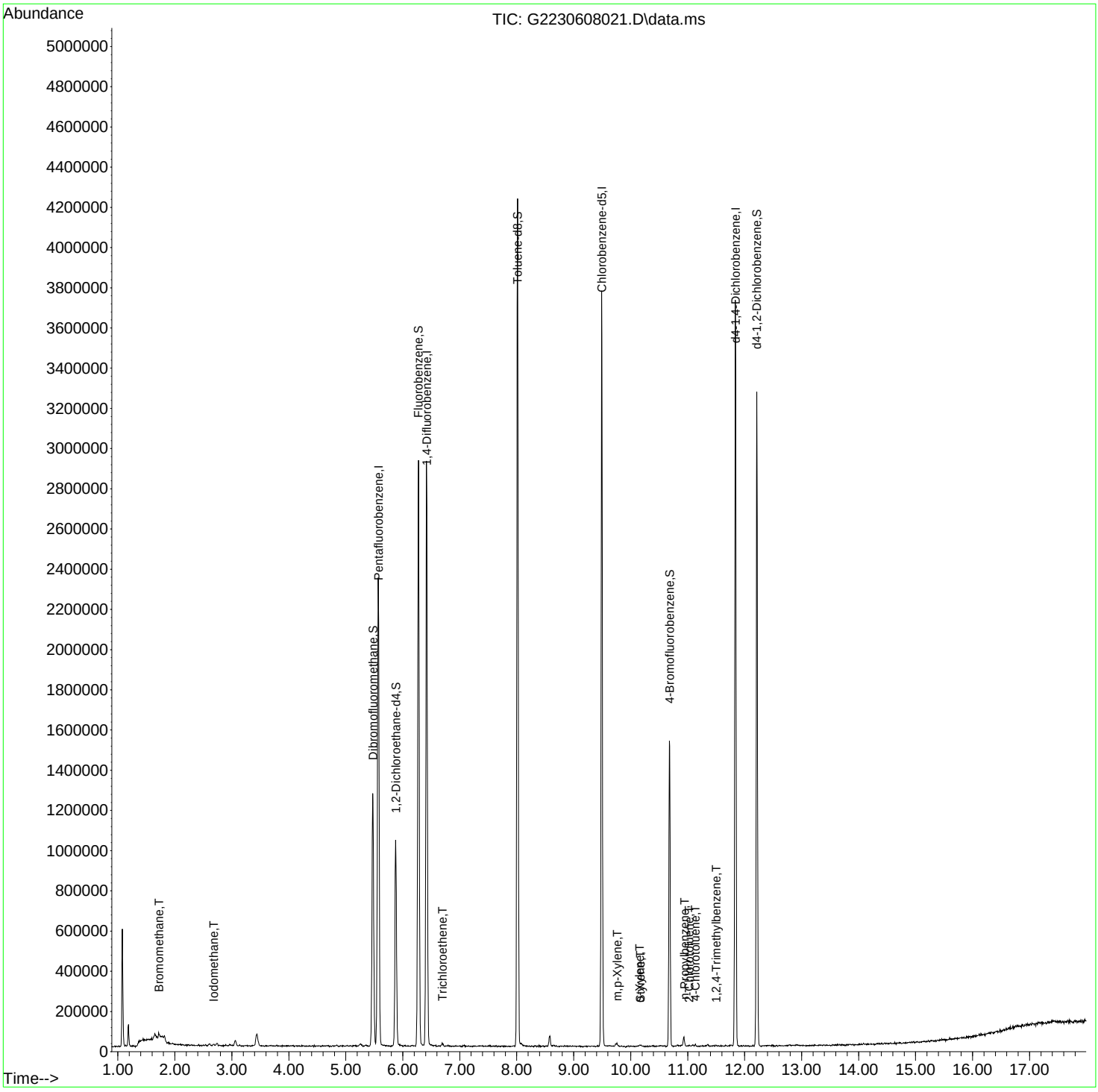
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	18742479	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	25287505	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22168838	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10537211	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	7794908	18.90	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.50%			
43) 1,2-Dichloroethane-d4	5.878	65	7178864	17.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.05%			
49) Fluorobenzene	6.278	96	27960100	19.40	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.00%			
64) Toluene-d8	8.016	98	27223615	19.48	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%			
81) 4-Bromofluorobenzene	10.685	174	4906391	9.86	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	9126154	20.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%			
Target Compounds						Qvalue
5) Bromomethane	1.725	94	91718	0.12	ug/L #	95
13) Iodomethane	2.680	142	76914	0.18	ug/L #	83
18) Methylene chloride	3.066	49	125312	Below Cal	#	63
21) Methyl tert-butyl ether	3.441	73	768708	Below Cal		97
50) Trichloroethene	6.696	95	46664	0.06	ug/L #	78
65) Toluene	8.083	91	58884	Below Cal	#	80
74) Ethylbenzene	9.647	91	31370	Below Cal	#	44
75) m,p-Xylene	9.762	91	69816	0.06	ug/L #	83
76) Styrene	10.175	104	33631	0.03	ug/L #	29
79) o-Xylene	10.162	91	30119	0.02	ug/L #	37
86) n-Propylbenzene	10.949	91	29460	0.02	ug/L #	58
87) 2-Chlorotoluene	11.026	91	26776	0.03	ug/L #	47
88) 4-Chlorotoluene	11.135	91	36568	0.03	ug/L #	50
92) 1,2,4-Trimethylbenzene	11.502	105	26896	0.02	ug/L #	32
105) Naphthalene	14.088	128	36765	Below Cal	#	69

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608021.D
Acq On : 08 Jun 2023 17:33
Operator : PO1
Sample : 23E0775-08RE2
Misc : 10
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 09 10:39:59 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608021.D
Acq On : 08 Jun 2023 17:33
Operator : PO1
Sample : 23E0775-08RE2
Misc : 10
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 09 10:39:59 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	18742479	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	25287505	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22168838	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10537211	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	7794908	18.90	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.50%			
43) 1,2-Dichloroethane-d4	5.878	65	7178864	17.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.05%			
49) Fluorobenzene	6.278	96	27960100	19.40	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.00%			
64) Toluene-d8	8.016	98	27223615	19.48	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%			
81) 4-Bromofluorobenzene	10.685	174	4906391	9.86	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	9126154	20.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%			
Target Compounds						Qvalue
5) Bromomethane	1.725	94	91718	0.12	ug/L #	95
12) Acetone	2.609	43	92110	Below Cal	#	45
13) Iodomethane	2.680	142	76914	0.18	ug/L #	83
14) Carbon disulfide	2.740	76	173880	0.12	ug/L #	74
17) 3-Chloro-1-propene	2.740	76	173875	0.84	ug/L #	53
18) Methylene chloride	3.066	49	125312	Below Cal	#	63
21) Methyl tert-butyl ether	3.441	73	768708	Below Cal		97
33) 1-Bromopropane	5.263	41	38913	0.08	ug/L #	40
36) Tetrahydrofuran	5.266	42	52561	Below Cal	#	57
40) Cyclohexane	5.572	84	408121	0.81	ug/L #	29
41) 1-Chlorobutane	5.570	56	231152	0.40	ug/L #	1
42) 1,1-Dichloropropene	5.571	75	1006021	2.29	ug/L #	38
44) 1,2-Dichloroethane	5.968	62	30582	Below Cal	#	47
47) Carbon tetrachloride	5.572	117	1503451	3.29	ug/L #	16
50) Trichloroethene	6.696	95	46664	0.06	ug/L #	78
60) 4-Methyl-2-pentanone	8.013	43	96273	Below Cal	#	1
65) Toluene	8.083	91	58884	Below Cal	#	80
74) Ethylbenzene	9.647	91	31370	Below Cal	#	44
75) m,p-Xylene	9.762	91	69816	0.06	ug/L #	83
76) Styrene	10.175	104	33631	0.03	ug/L #	29
79) o-Xylene	10.162	91	30119	0.02	ug/L #	37
82) Bromobenzene	10.677	77	32311	0.06	ug/L #	1
86) n-Propylbenzene	10.949	91	29460	0.02	ug/L #	58
87) 2-Chlorotoluene	11.026	91	26776	0.03	ug/L #	47
88) 4-Chlorotoluene	11.135	91	36568	0.03	ug/L #	50
90) 2-ethyl-1-toluene	11.502	105	26894	0.02	ug/L #	51
92) 1,2,4-Trimethylbenzene	11.502	105	26896	0.02	ug/L #	32
93) sec-Butylbenzene	11.503	105	26897	0.02	ug/L #	58

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608021.D
Acq On : 08 Jun 2023 17:33
Operator : PO1
Sample : 23E0775-08RE2
Misc : 10
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 09 10:39:59 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

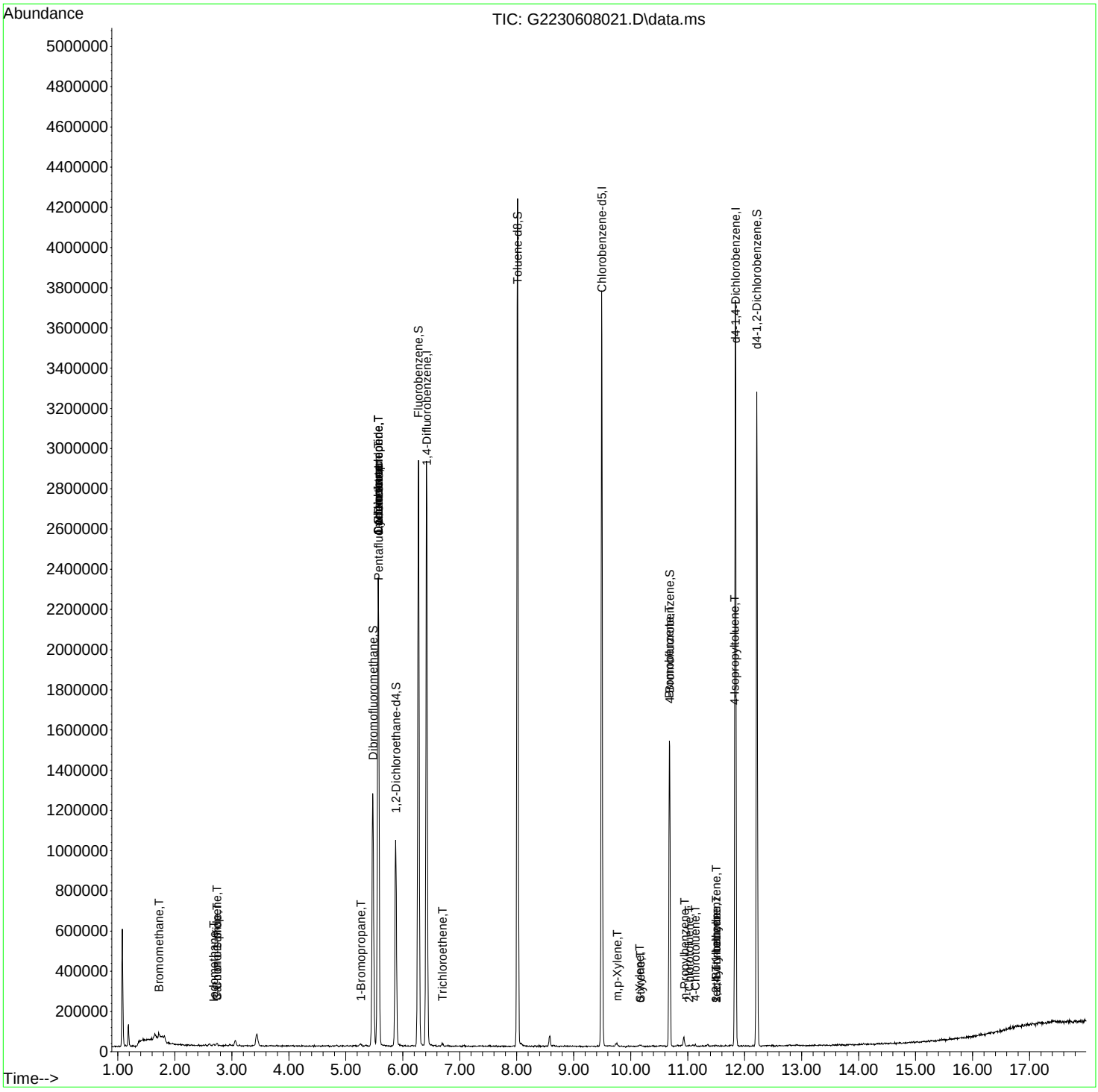
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95) 4-Isopropyltoluene	11.822	119	36077	0.03	ug/L	#	1
99) n-Butylbenzene	12.218	91	58829	Below Cal		#	53
105) Naphthalene	14.088	128	36765	Below Cal		#	69

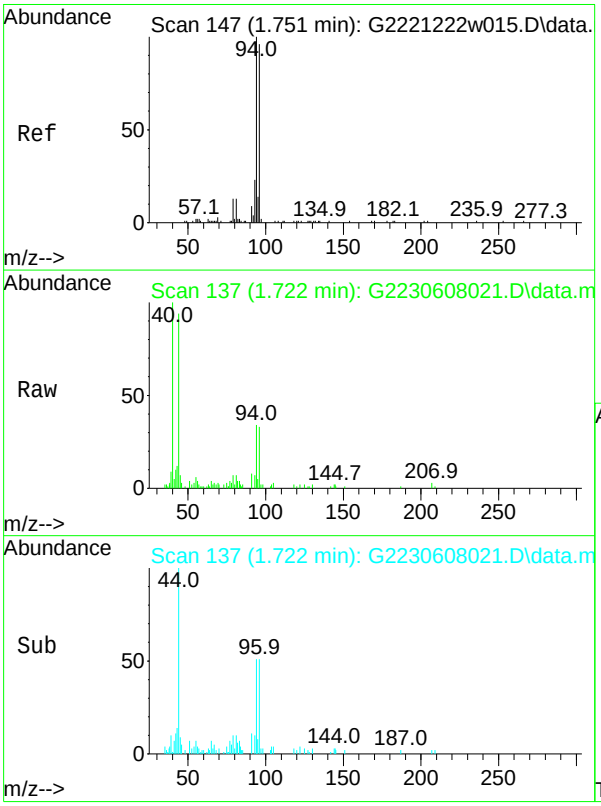
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608021.D
Acq On : 08 Jun 2023 17:33
Operator : PO1
Sample : 23E0775-08RE2
Misc : 10
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jun 09 10:39:59 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

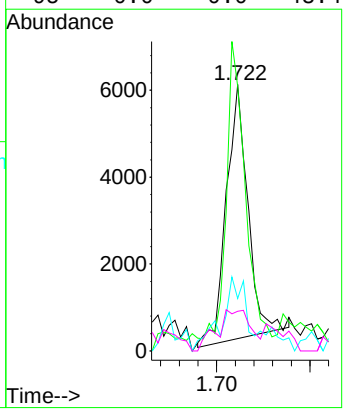


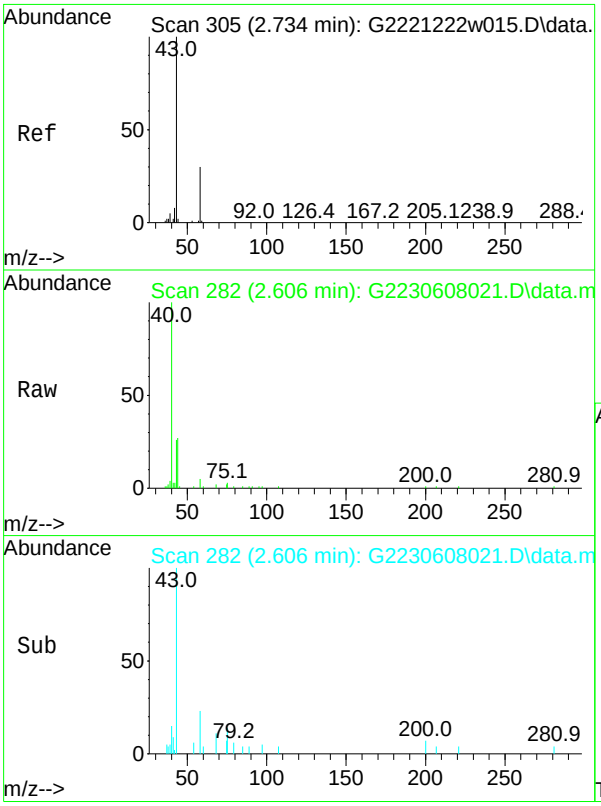


#5
Bromomethane
Concen: 0.12 ug/L
RT: 1.725 min Scan# 137
Delta R.T. 0.011 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 94 Resp: 91718

Ion	Ratio	Lower	Upper
94	100		
96	95.8	65.6	125.6
93	22.6	0.0	49.5
95	0.0	0.0	43.4

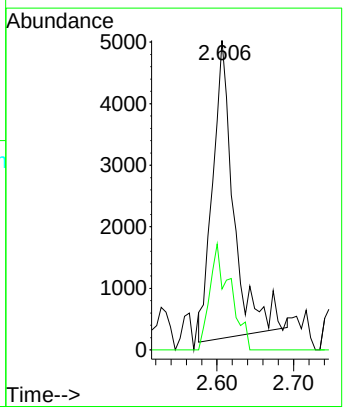


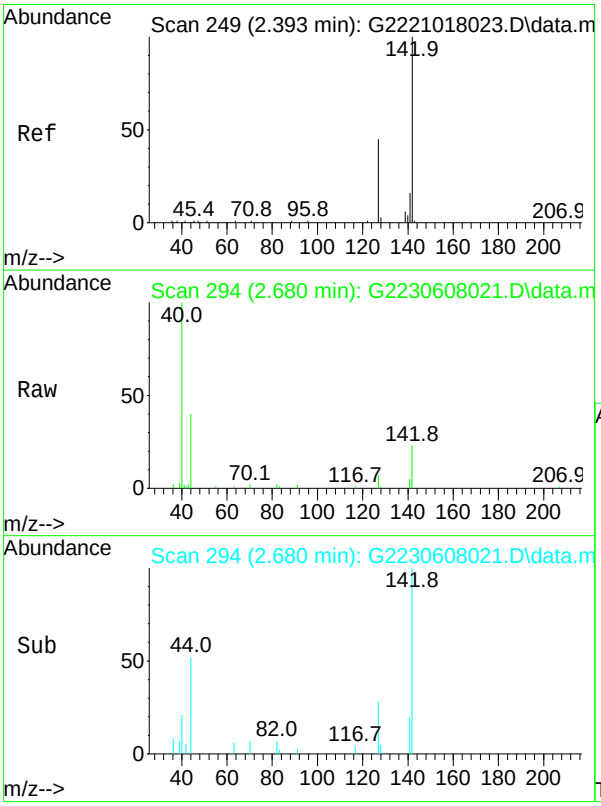


#12
Acetone
Concen: Below Cal
RT: 2.609 min Scan# 282
Delta R.T. 0.001 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 43 Resp: 92110

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

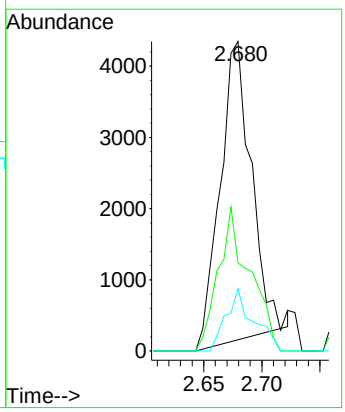


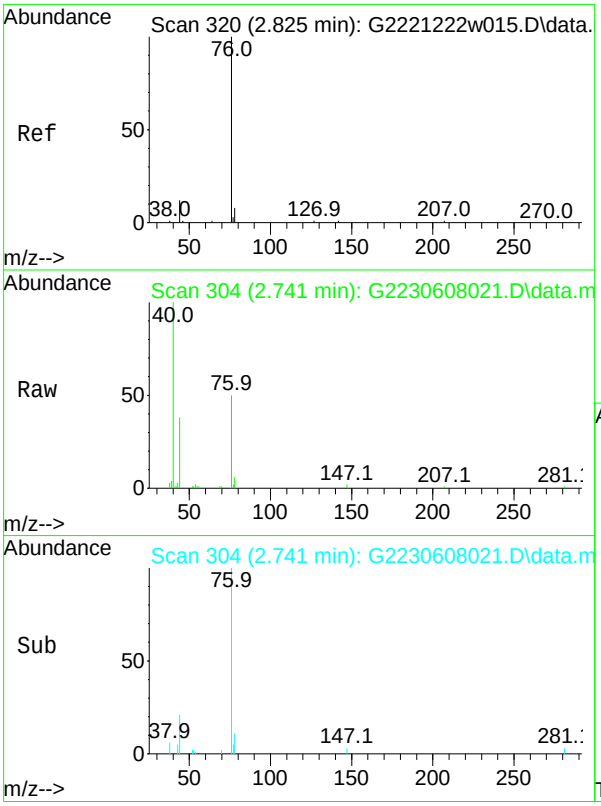


#13
Iodomethane
Concen: 0.18 ug/L
RT: 2.680 min Scan# 294
Delta R.T. 0.004 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion:142 Resp: 76914

Ion	Ratio	Lower	Upper
142	100		
127	49.4	13.3	73.3
141	0.0	0.0	45.3

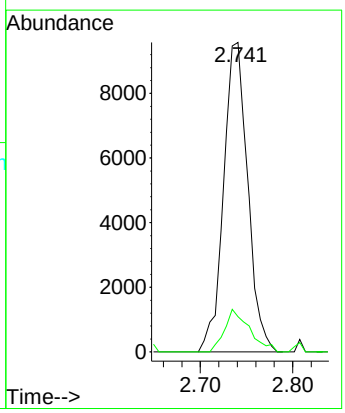


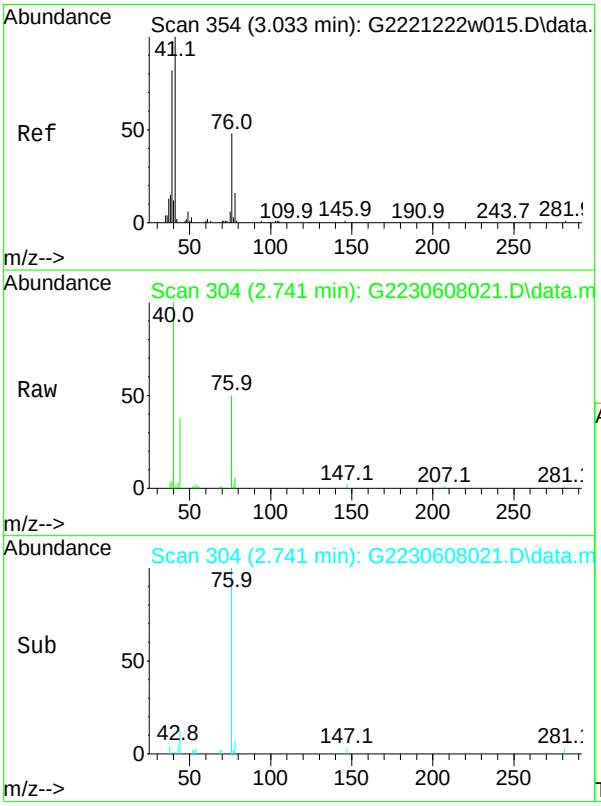


#14
Carbon disulfide
Concen: 0.12 ug/L
RT: 2.740 min Scan# 304
Delta R.T. 0.001 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 76 Resp: 173880

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

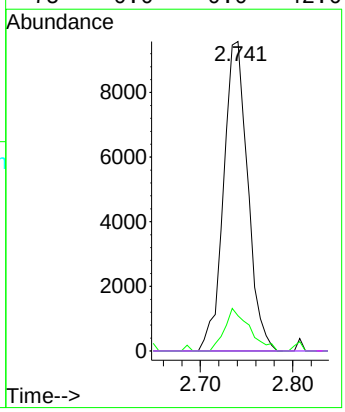


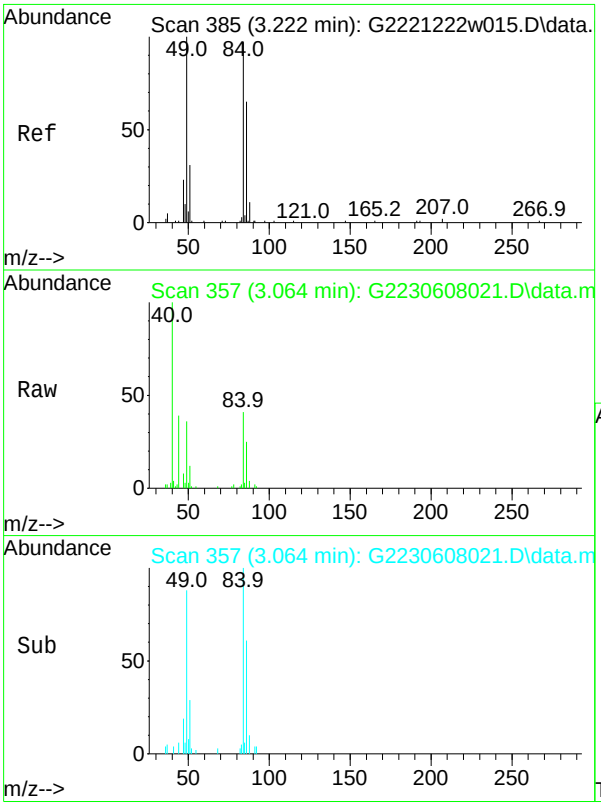


#17
3-Chloro-1-propene
Concen: 0.84 ug/L
RT: 2.740 min Scan# 304
Delta R.T. -0.180 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 76 Resp: 173875

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

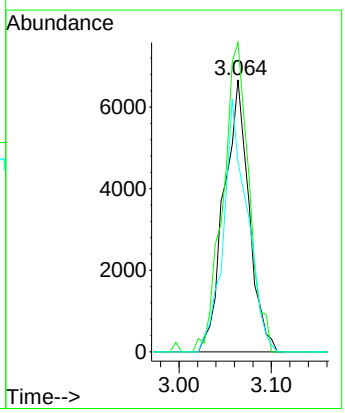


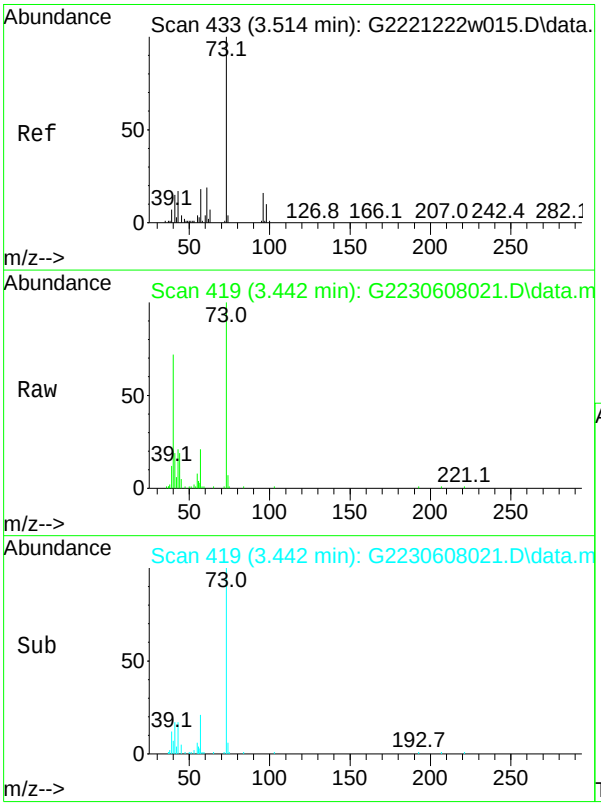


#18
Methylene chloride
Concen: Below Cal
RT: 3.066 min Scan# 357
Delta R.T. 0.004 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 49 Resp: 125312

Ion	Ratio	Lower	Upper
49	100		
84	116.4	57.9	117.9
86	88.8	24.9	84.9#

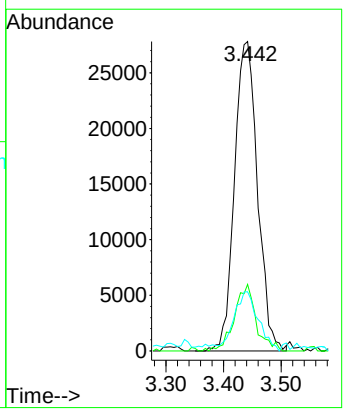


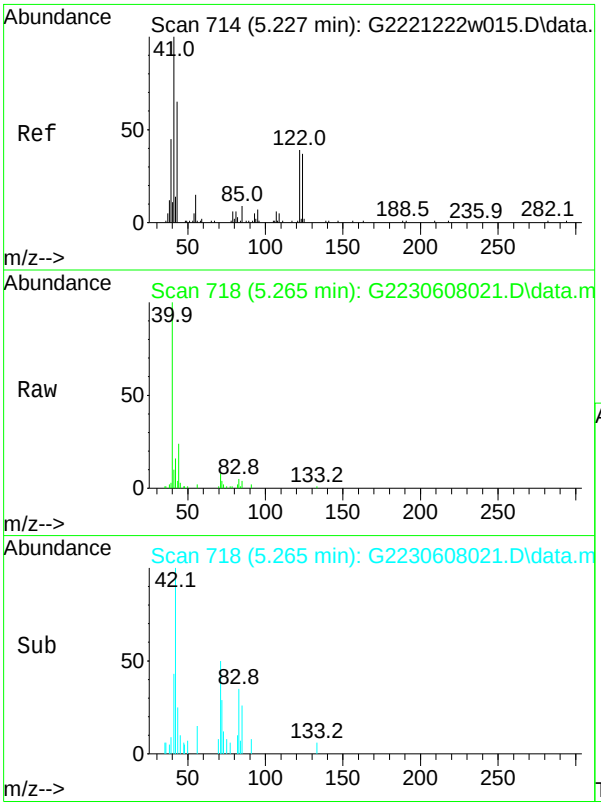


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.441 min Scan# 419
Delta R.T. -0.005 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 73 Resp: 768708

Ion	Ratio	Lower	Upper
73	100		
57	19.9	0.0	51.7
41	19.1	0.0	50.6

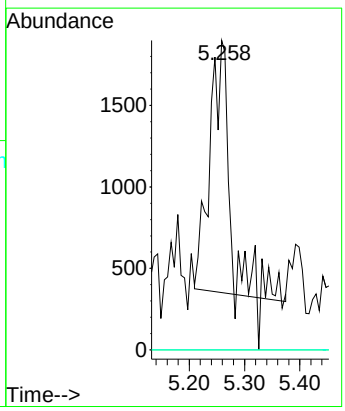


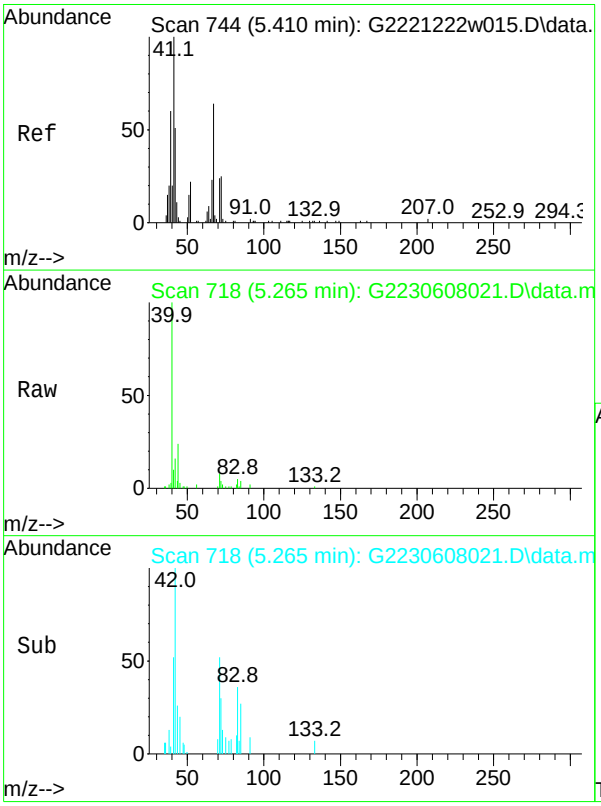


#33
1-Bromopropane
Concen: 0.08 ug/L
RT: 5.263 min Scan# 718
Delta R.T. 0.187 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 41 Resp: 38913

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

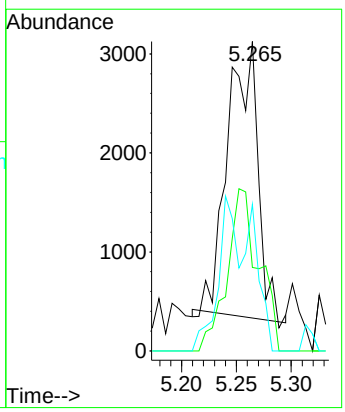


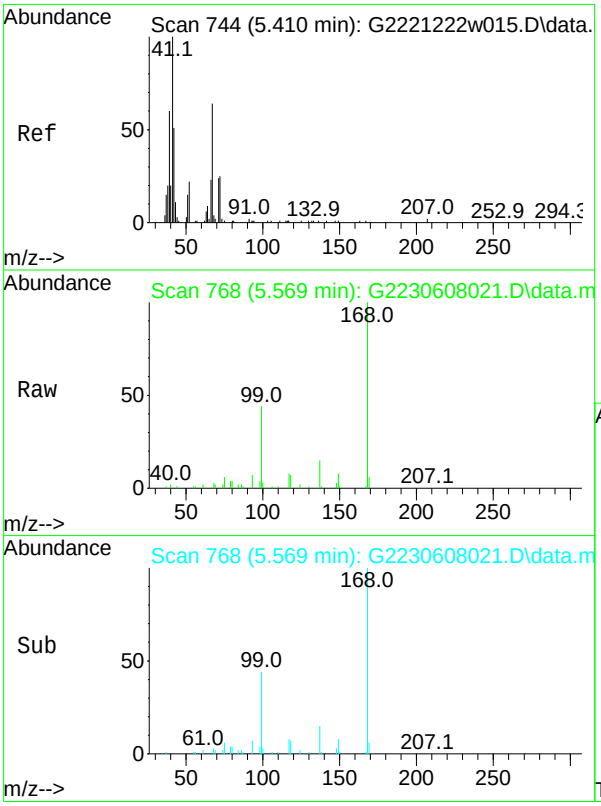


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.266 min Scan# 718
Delta R.T. 0.005 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 42 Resp: 52561

Ion	Ratio	Lower	Upper
42	100		
72	62.3	18.8	78.8
71	0.0	14.7	74.7#

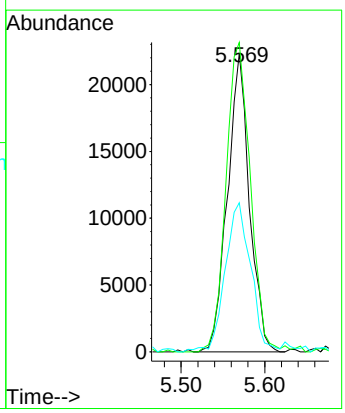


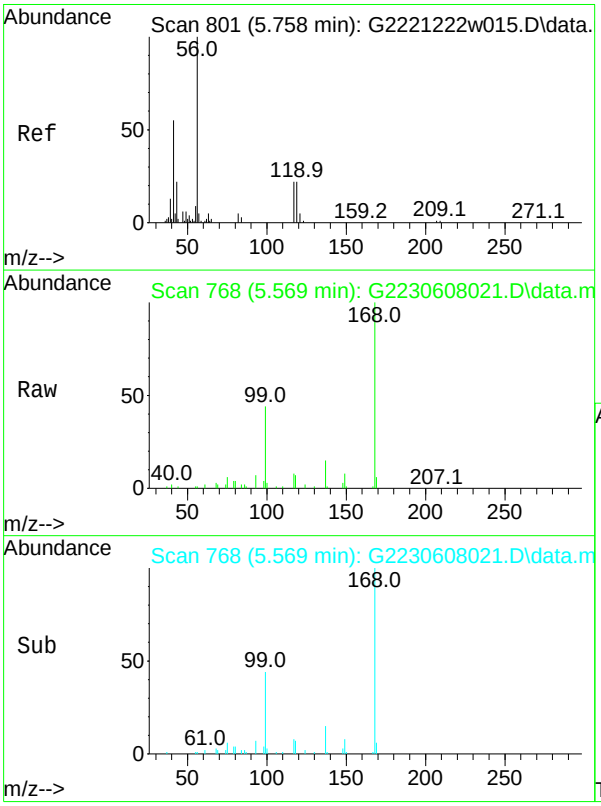


#40
Cyclohexane
Concen: 0.81 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 84 Resp: 408121

Ion	Ratio	Lower	Upper
84	100		
69	112.3	6.8	66.8#
56	54.5	79.1	139.1#

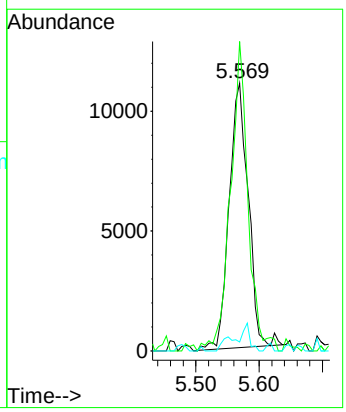


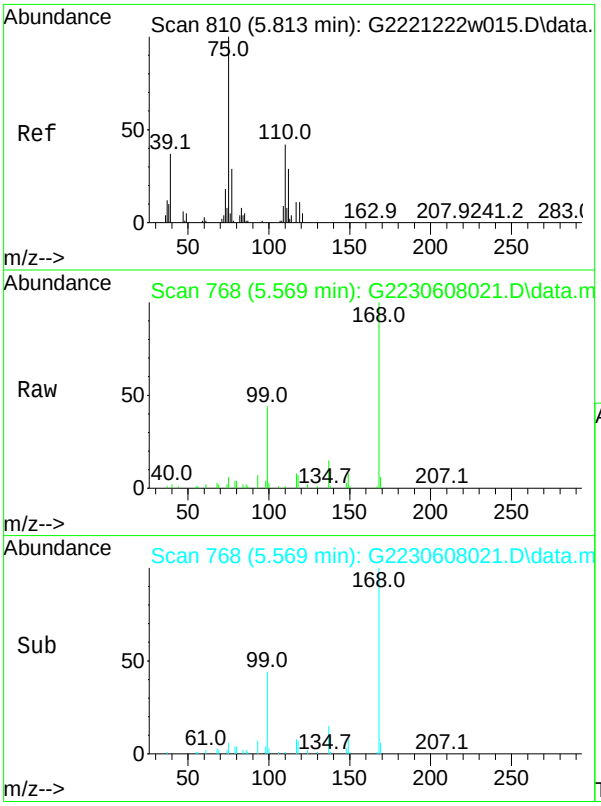


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 56 Resp: 231152

Ion	Ratio	Lower	Upper
56	100		
55	99.2	0.0	41.0#
57	0.0	0.0	35.7

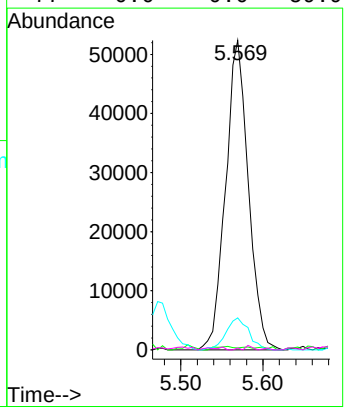


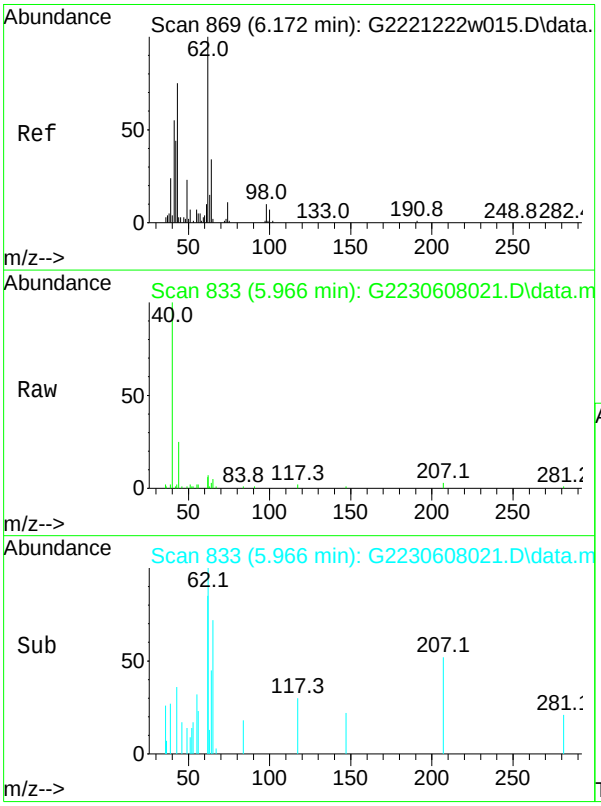


#42
1,1-Dichloropropene
Concen: 2.29 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 75 Resp: 1006021

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.4	9.1	69.1
77	0.0	0.0	59.9

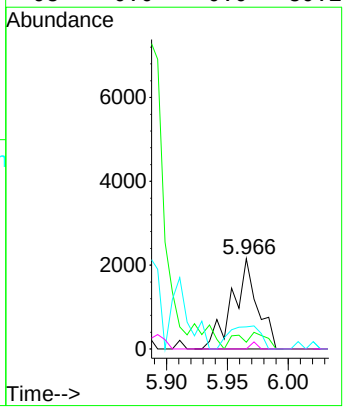


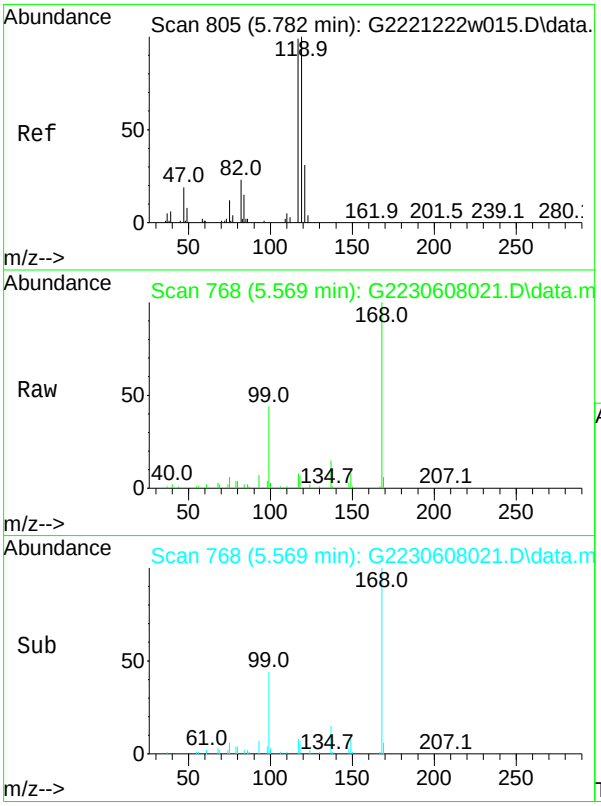


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.968 min Scan# 833
Delta R.T. -0.003 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 62 Resp: 30582

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

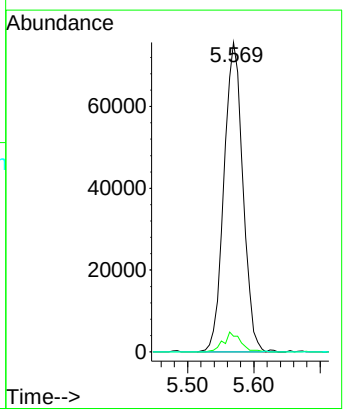


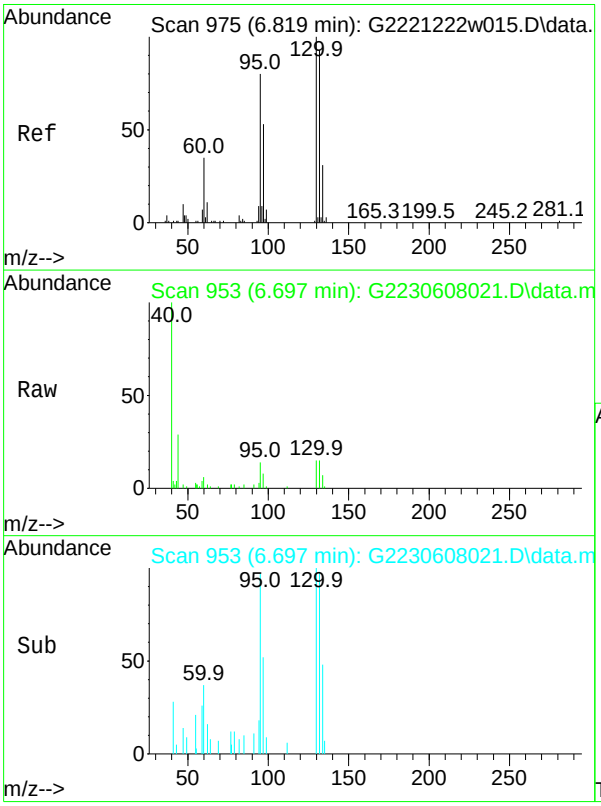


#47
Carbon tetrachloride
Concen: 3.29 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.108 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion:117 Resp: 1503451

Ion	Ratio	Lower	Upper
117	100		
119	5.8	66.4	126.4#
121	0.0	0.4	60.4#

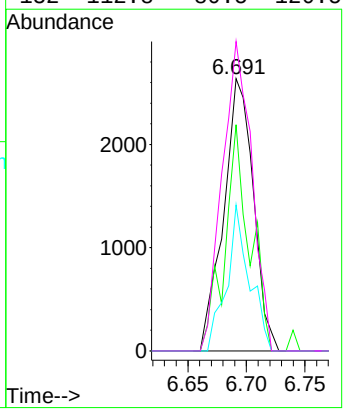


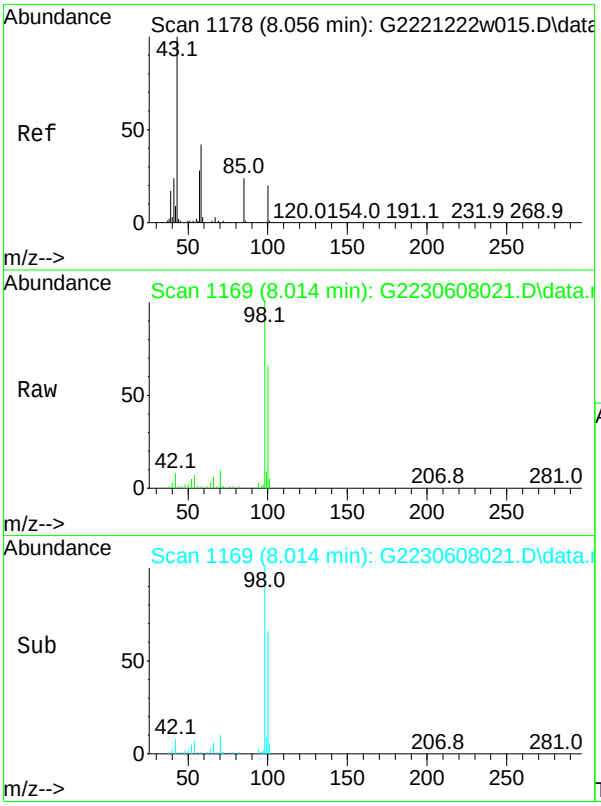


#50
Trichloroethene
Concen: 0.06 ug/L
RT: 6.696 min Scan# 953
Delta R.T. 0.000 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 95 Resp: 46664

Ion	Ratio	Lower	Upper
95	100		
97	69.5	35.5	95.5
60	0.0	14.8	74.8#
132	112.8	80.5	120.5

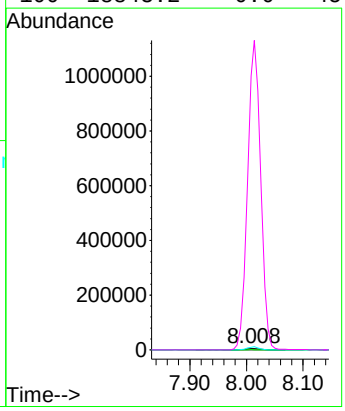


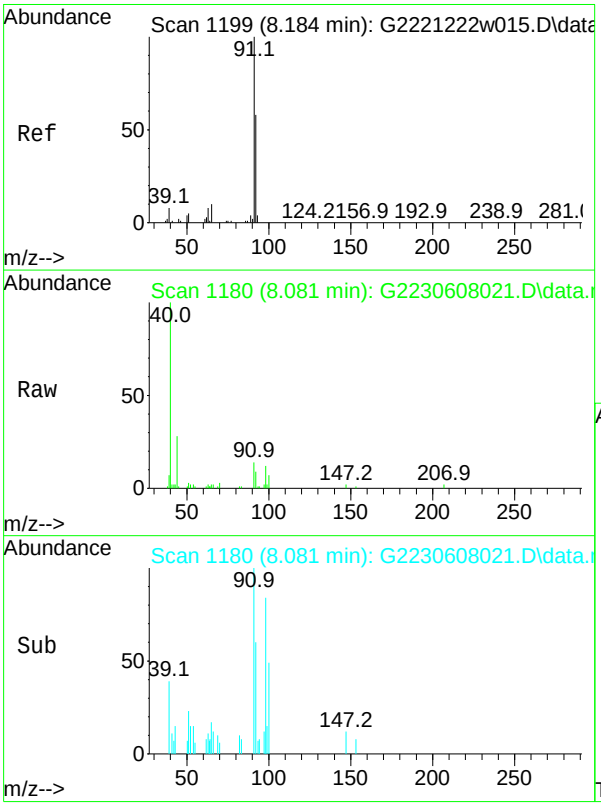


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 43 Resp: 96273

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	169.3	37.0	37.0#
100	18843.2	0.0	45.2#

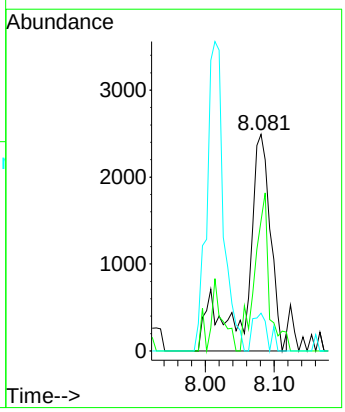


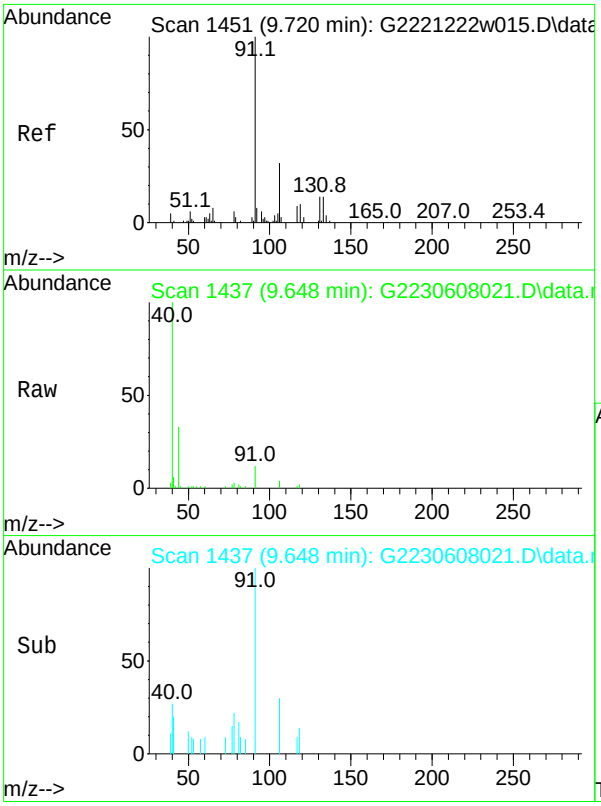


#65
Toluene
Concen: Below Cal
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 91 Resp: 58884

Ion	Ratio	Lower	Upper
91	100		
92	44.2	27.5	87.5
65	0.0	0.0	41.4

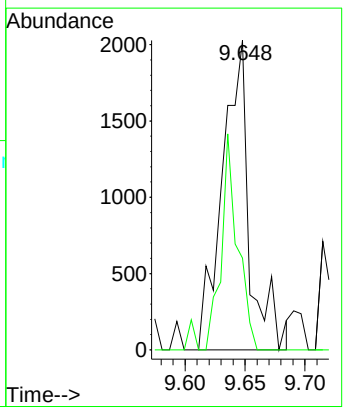


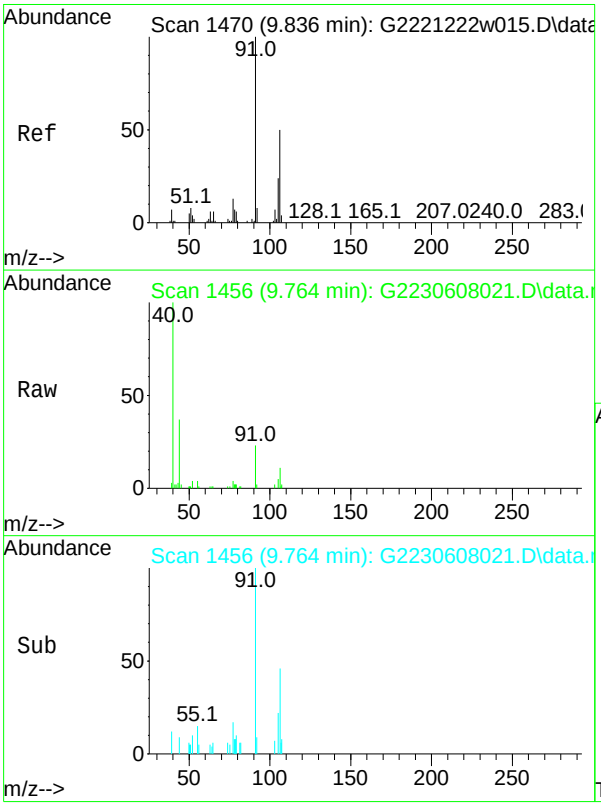


#74
Ethylbenzene
Concen: Below Cal
RT: 9.647 min Scan# 1437
Delta R.T. 0.004 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 91 Resp: 31370

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

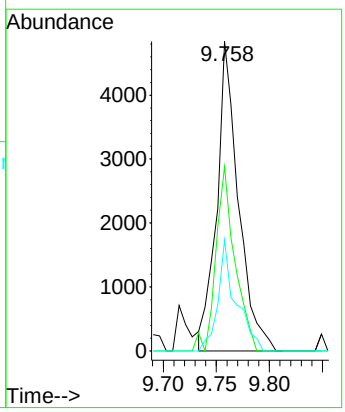


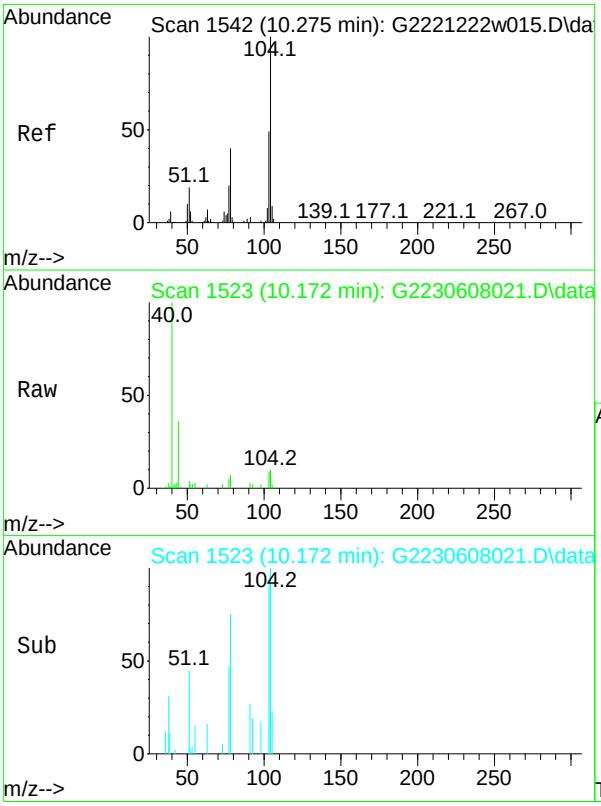


#75
m,p-Xylene
Concen: 0.06 ug/L
RT: 9.762 min Scan# 1456
Delta R.T. -0.002 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 91 Resp: 69816

Ion	Ratio	Lower	Upper
91	100		
106	46.4	19.0	79.0
105	0.0	0.0	52.7

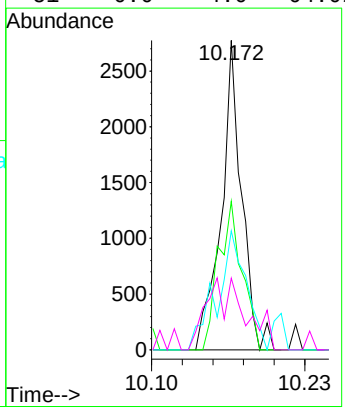


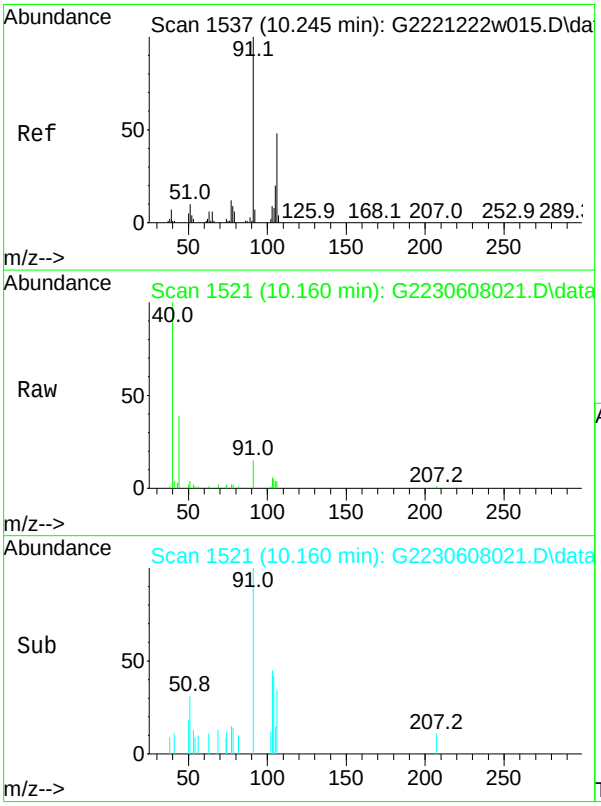


#76
Styrene
Concen: 0.03 ug/L
RT: 10.175 min Scan# 1523
Delta R.T. -0.002 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion:104 Resp: 33631

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

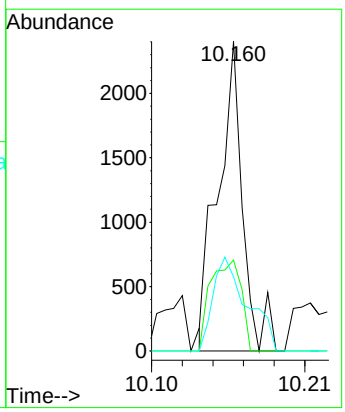


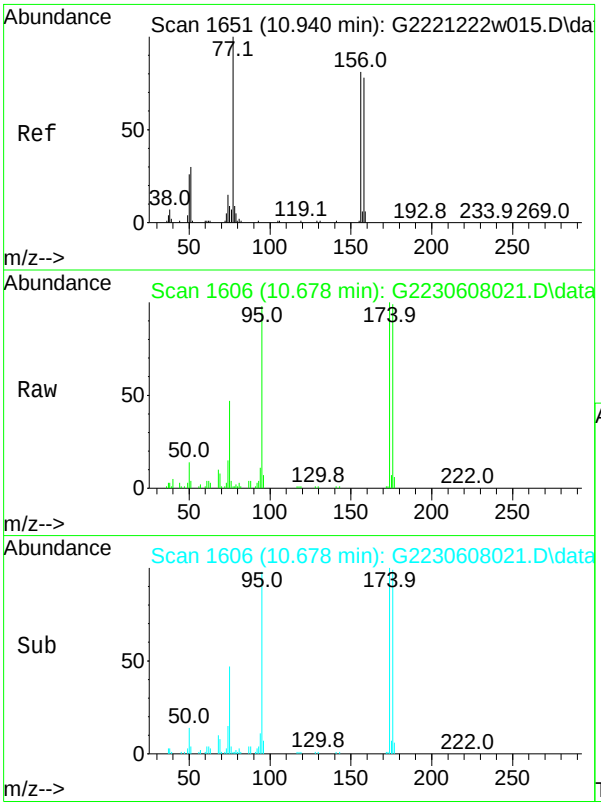


#79
o-Xylene
Concen: 0.02 ug/L
RT: 10.162 min Scan# 1521
Delta R.T. 0.001 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 91 Resp: 30119

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.2	76.2#
105	0.0	0.0	56.7

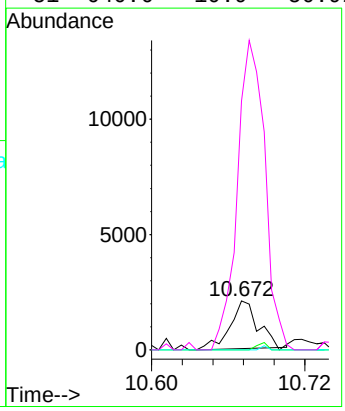


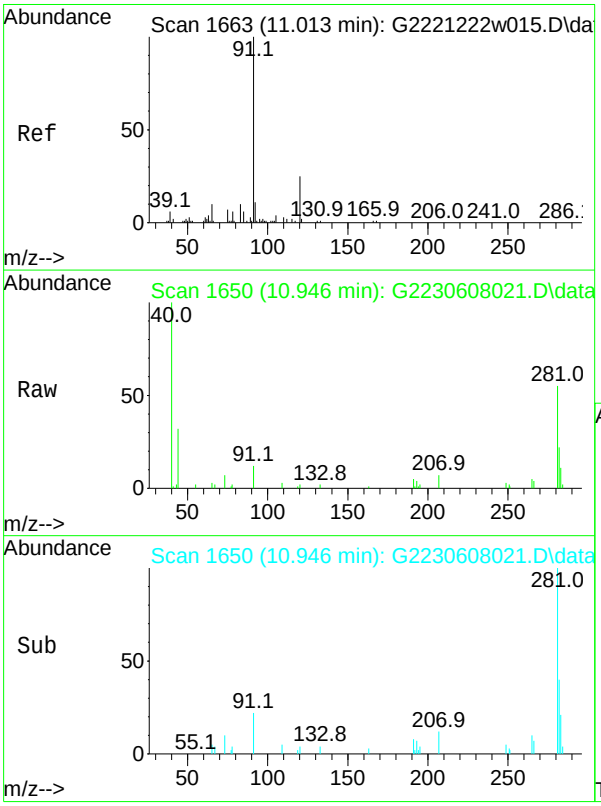


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.677 min Scan# 1606
Delta R.T. -0.151 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 77 Resp: 32311

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	640.6	10.9	50.9#

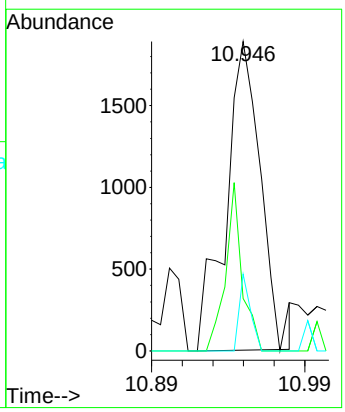


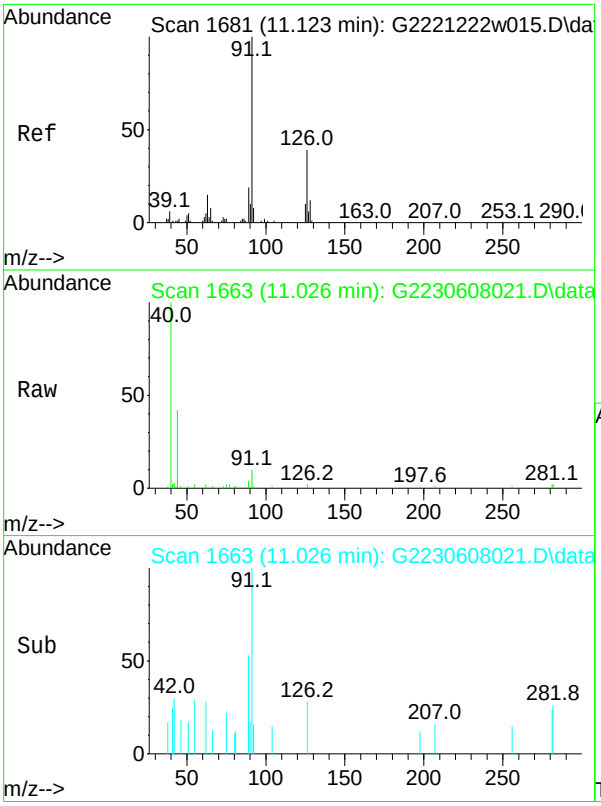


#86
n-Propylbenzene
Concen: 0.02 ug/L
RT: 10.949 min Scan# 1650
Delta R.T. -0.000 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 91 Resp: 29460

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.3
65	0.0	0.0	40.3

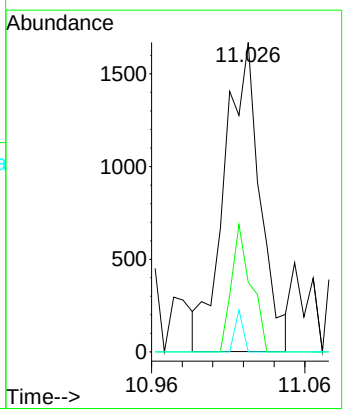


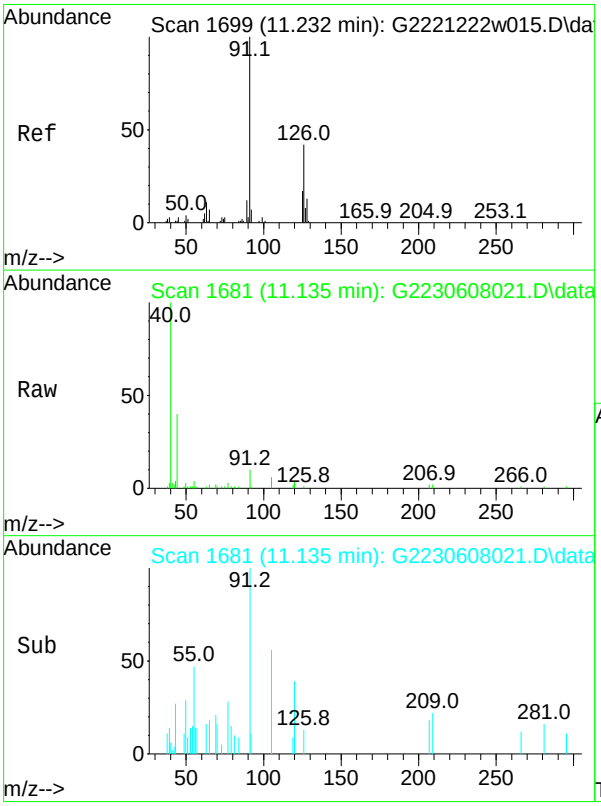


#87
2-Chlorotoluene
Concen: 0.03 ug/L
RT: 11.026 min Scan# 1663
Delta R.T. -0.002 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 91 Resp: 26776

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

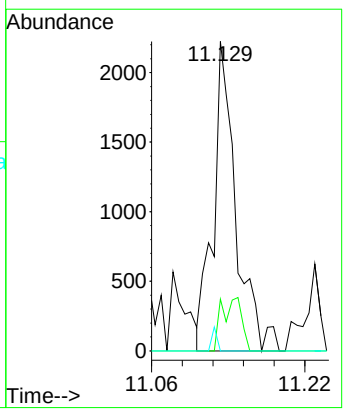


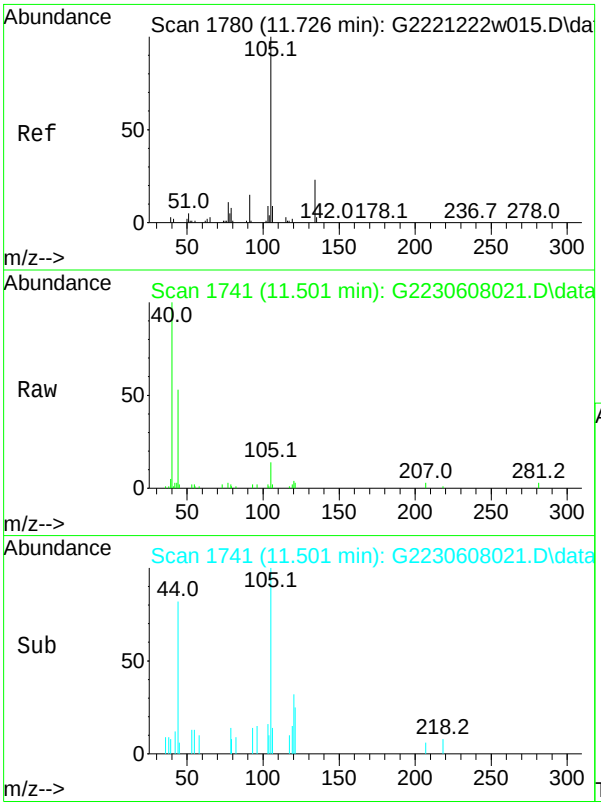


#88
4-Chlorotoluene
Concen: 0.03 ug/L
RT: 11.135 min Scan# 1681
Delta R.T. -0.002 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 91 Resp: 36568

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.7	60.7#
127	0.0	0.0	36.1

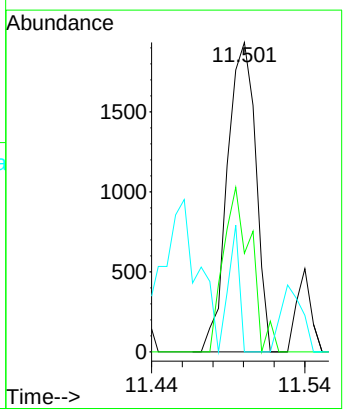


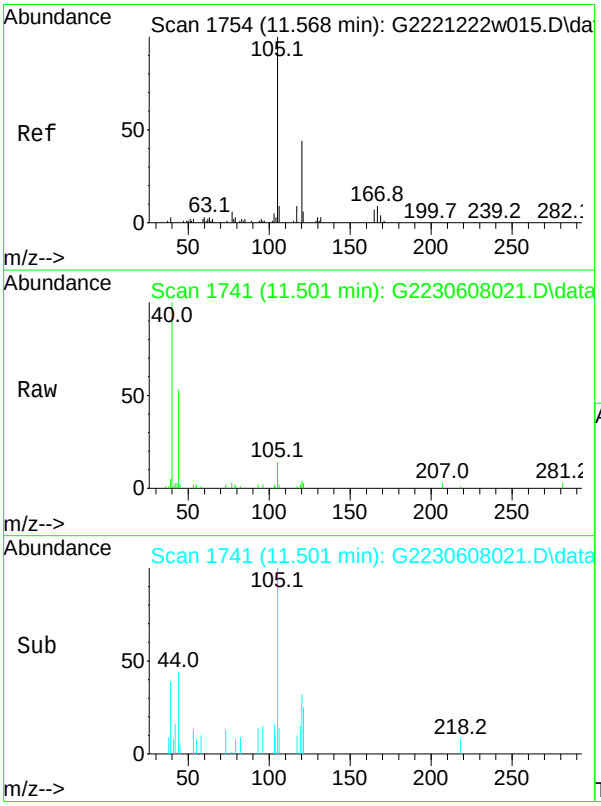


#90
2-ethyl-1-toluene
Concen: 0.02 ug/L
RT: 11.502 min Scan# 1741
Delta R.T. 0.173 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion:105 Resp: 26894

Ion	Ratio	Lower	Upper
105	100		
120	0.0	0.8	60.8#
91	0.0	0.0	42.3

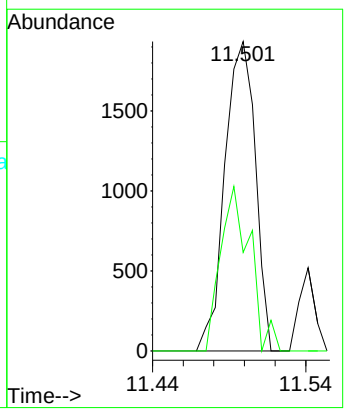


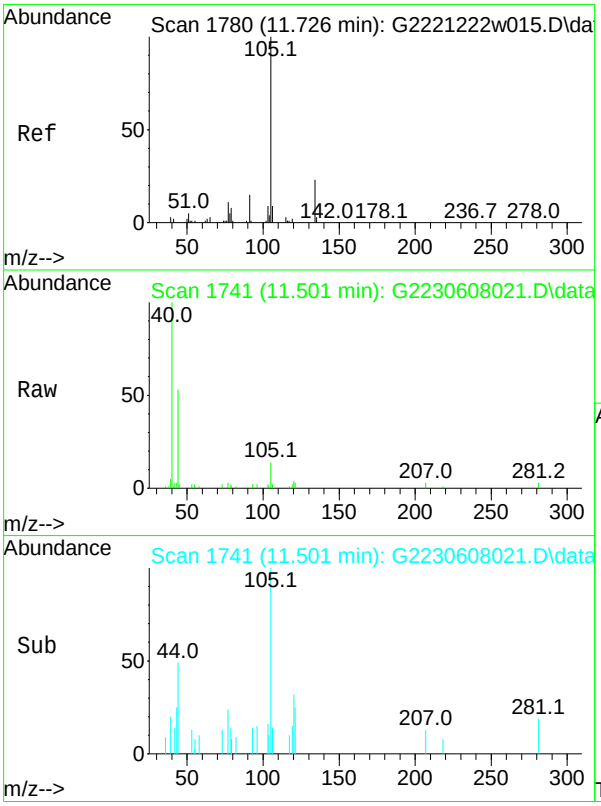


#92
1,2,4-Trimethylbenzene
Concen: 0.02 ug/L
RT: 11.502 min Scan# 1741
Delta R.T. 0.000 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion:105 Resp: 26896

Ion	Ratio	Lower	Upper
105	100		
120	0.0	14.4	74.4#

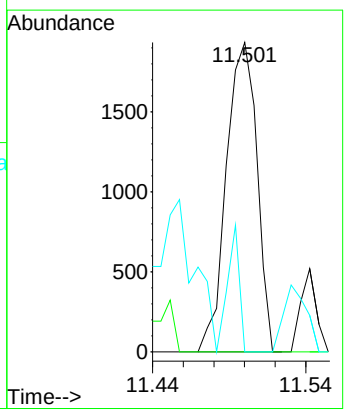


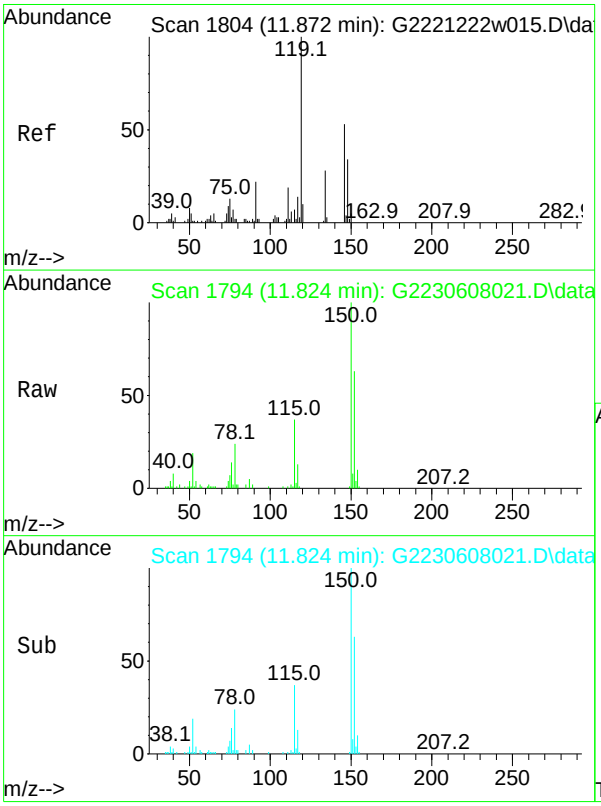


#93
sec-Butylbenzene
Concen: 0.02 ug/L
RT: 11.503 min Scan# 1741
Delta R.T. -0.170 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion:105 Resp: 26897

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	50.7
91	0.0	0.0	46.0

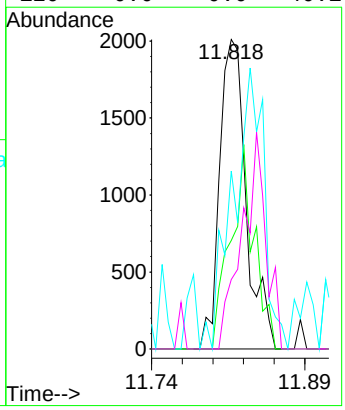


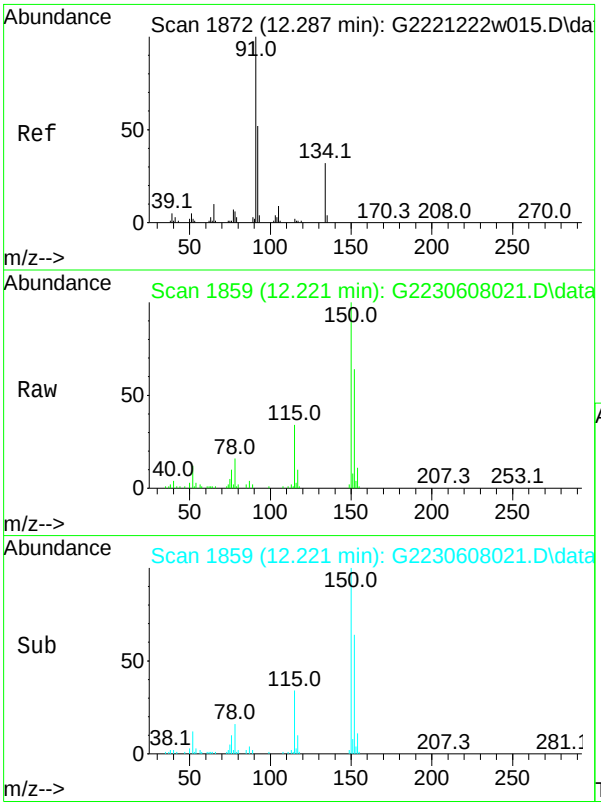


#95
4-Isopropyltoluene
Concen: 0.03 ug/L
RT: 11.822 min Scan# 1794
Delta R.T. -0.001 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion:119 Resp: 36077

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	56.2
91	114.1	0.0	52.5#
120	0.0	0.0	40.1

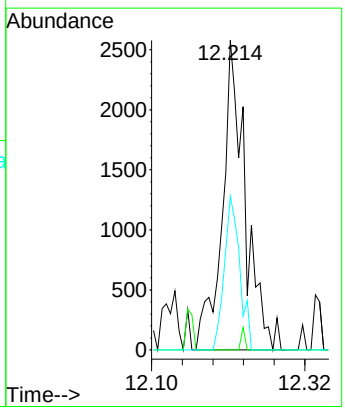


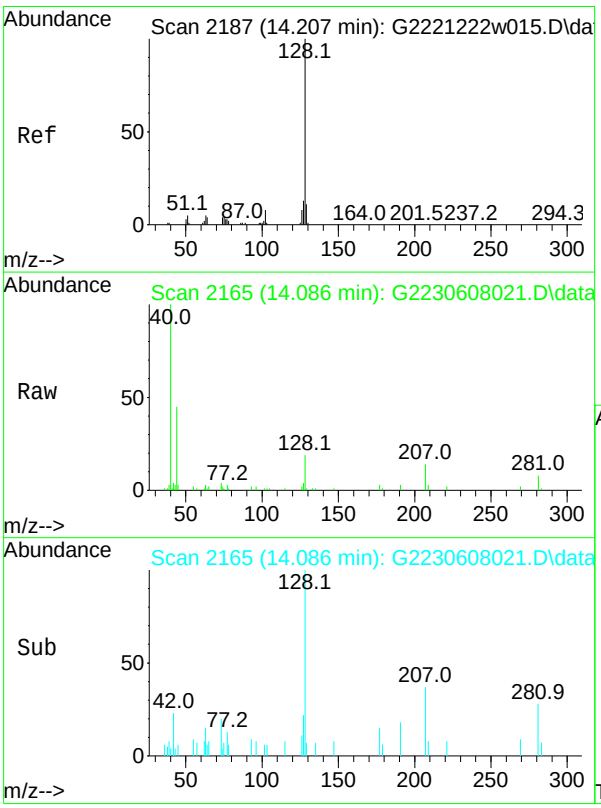


#99
n-Butylbenzene
Concen: Below Cal
RT: 12.218 min Scan# 1859
Delta R.T. -0.013 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion: 91 Resp: 58829

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

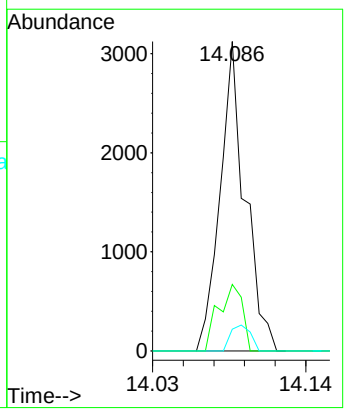




#105
Naphthalene
Concen: Below Cal
RT: 14.088 min Scan# 2165
Delta R.T. -0.003 min
Lab File: G2230608021.D
Acq: 08 Jun 2023 17:33

Tgt Ion:128 Resp: 36765

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.2
129	0.0	0.0	40.9



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09	File ID:	G2230606024.D
Sampled:	05/27/23 15:05	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 20:12
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09	File ID:	G2230606024.D
Sampled:	05/27/23 15:05	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 20:12
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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

SW8260B/D

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09	File ID:	G2230606024.D
Sampled:	05/27/23 15:05	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 20:12
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, 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*	*3.44*	*0.0781*	*0.200*	*0.500*	*B*
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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606024.D
Acq On : 06 Jun 2023 20:12
Operator : PO1
Sample : 23E0775-09
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 07 09:48:59 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

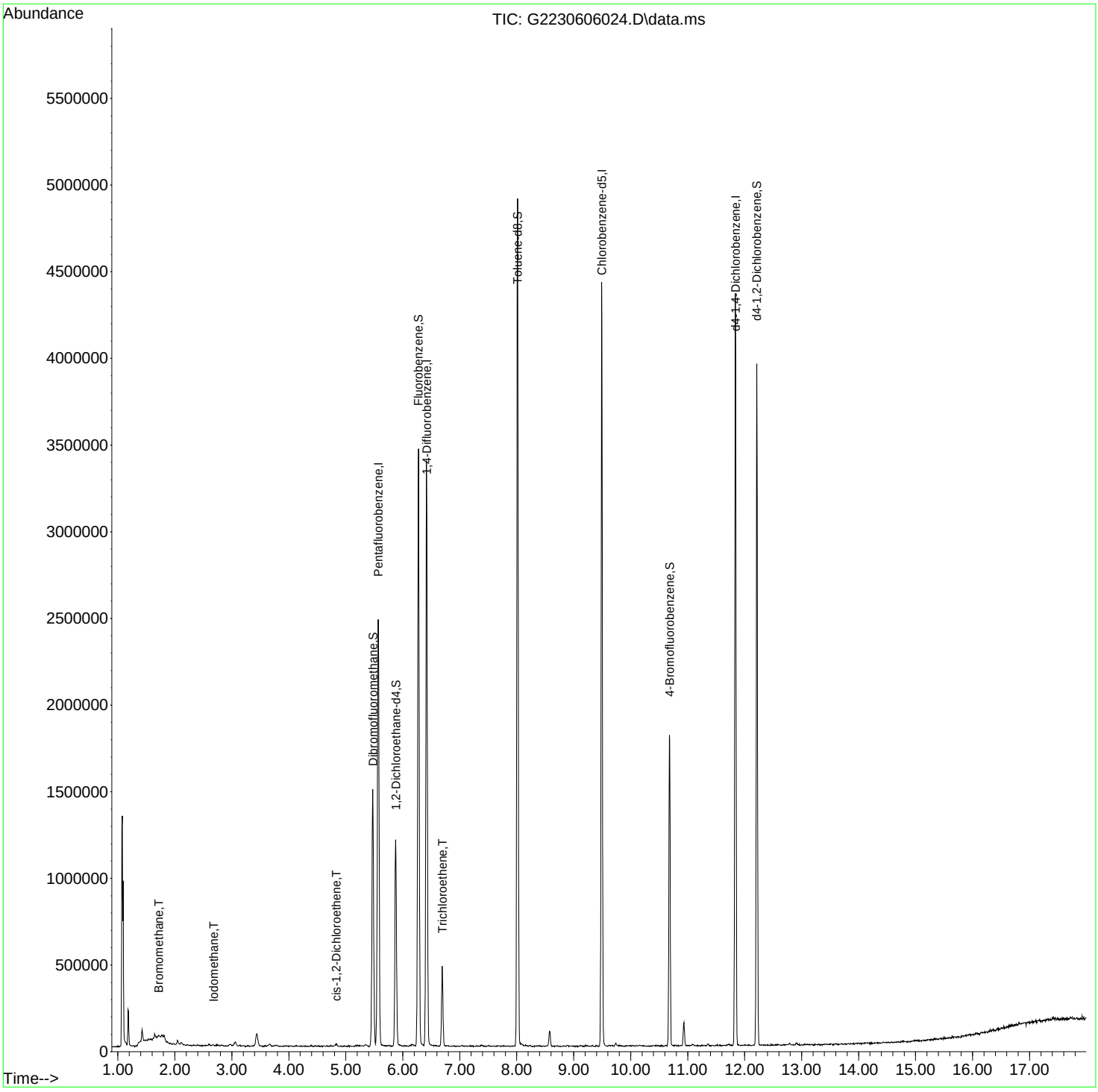
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	19876838	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	29633592	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	26281833	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	12536750	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	9079468	20.76	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.80%			
43) 1,2-Dichloroethane-d4	5.877	65	8421966	19.48	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%			
49) Fluorobenzene	6.278	96	33219194	19.67	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.35%			
64) Toluene-d8	8.016	98	32253699	19.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.35%			
81) 4-Bromofluorobenzene	10.685	174	5759071	9.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%			
97) d4-1,2-Dichlorobenzene	12.217	152	11011772	20.42	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.10%			
Target Compounds						Qvalue
5) Bromomethane	1.716	94	73050m	0.02	ug/L	
13) Iodomethane	2.679	142	67163	0.15	ug/L #	41
18) Methylene chloride	3.058	49	113999	Below Cal	#	67
21) Methyl tert-butyl ether	3.443	73	978381	Below Cal		96
28) cis-1,2-Dichloroethene	4.831	61	65343	0.05	ug/L #	63
50) Trichloroethene	6.695	95	1369179	3.44	ug/L	90
65) Toluene	8.079	91	45685	Below Cal	#	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606024.D
Acq On : 06 Jun 2023 20:12
Operator : PO1
Sample : 23E0775-09
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 07 09:48:59 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606024.D
Acq On : 06 Jun 2023 20:12
Operator : PO1
Sample : 23E0775-09
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 07 09:48:59 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

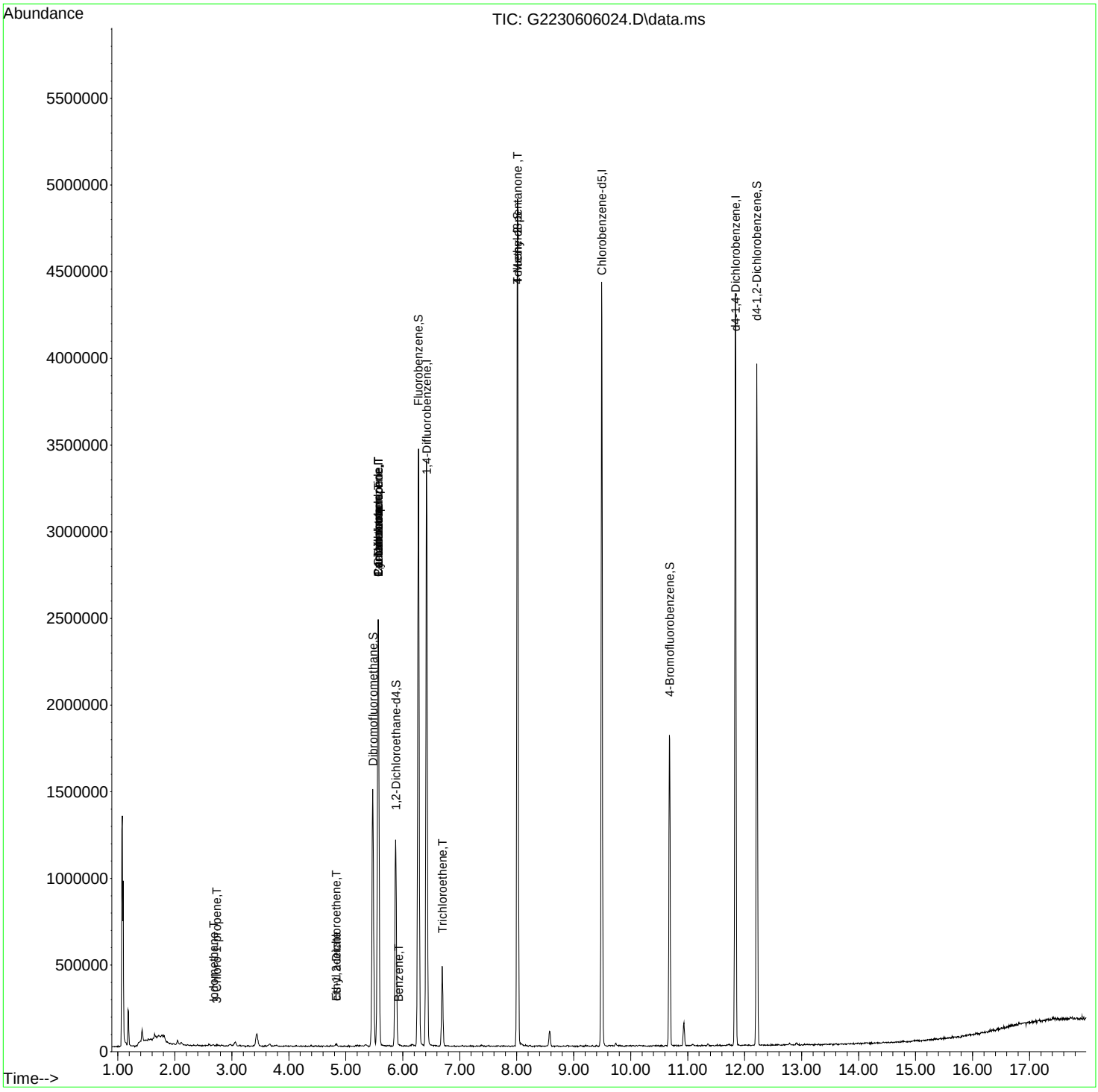
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	19876838	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	29633592	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	26281833	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	12536750	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	9079468	20.76	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.80%			
43) 1,2-Dichloroethane-d4	5.877	65	8421966	19.48	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.40%			
49) Fluorobenzene	6.278	96	33219194	19.67	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.35%			
64) Toluene-d8	8.016	98	32253699	19.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.35%			
81) 4-Bromofluorobenzene	10.685	174	5759071	9.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%			
97) d4-1,2-Dichlorobenzene	12.217	152	11011772	20.42	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.10%			
Target Compounds						Qvalue
3) Chloromethane	1.426	50	28456	Below Cal	#	41
5) Bromomethane	1.723	94	65709	Below Cal	#	69
12) Acetone	2.603	43	97792	Below Cal	#	45
13) Iodomethane	2.679	142	67163	0.15	ug/L #	41
14) Carbon disulfide	2.732	76	71907	Below Cal	#	74
17) 3-Chloro-1-propene	2.732	76	71899	0.28	ug/L #	53
18) Methylene chloride	3.058	49	113999	Below Cal	#	67
21) Methyl tert-butyl ether	3.443	73	978381	Below Cal		96
28) cis-1,2-Dichloroethene	4.831	61	65343	0.05	ug/L #	63
31) Ethyl acetate	4.831	61	65340	0.87	ug/L #	45
40) Cyclohexane	5.572	84	443912	0.83	ug/L #	30
41) 1-Chlorobutane	5.568	56	256710	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.568	75	1021082	2.19	ug/L #	38
47) Carbon tetrachloride	5.572	117	1568310	2.93	ug/L #	16
48) Benzene	5.931	78	43070	0.03	ug/L #	52
50) Trichloroethene	6.695	95	1369179	3.44	ug/L	90
60) 4-Methyl-2-pentanone	8.016	43	129271	0.01	ug/L #	1
65) Toluene	8.079	91	45685	Below Cal	#	95
74) Ethylbenzene	9.497	91	58724	Below Cal	#	44
99) n-Butylbenzene	12.221	91	37989	Below Cal	#	53

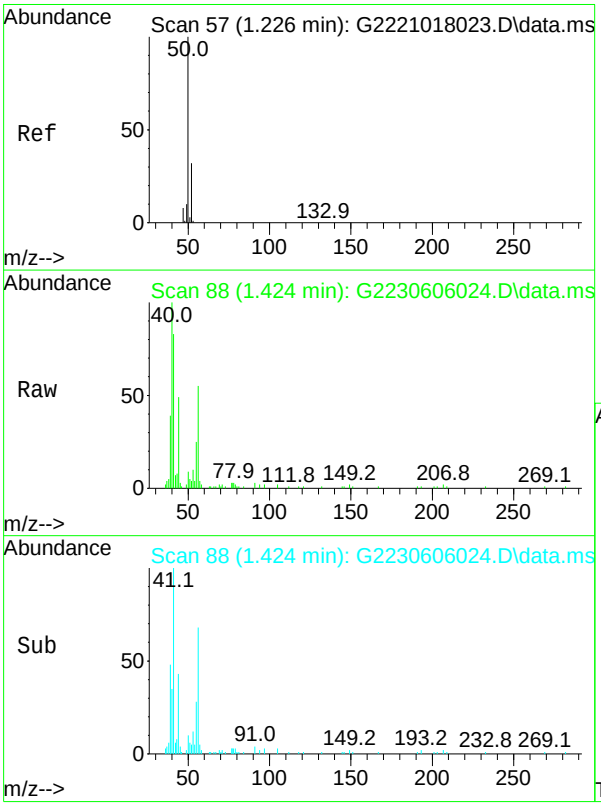
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606024.D
Acq On : 06 Jun 2023 20:12
Operator : PO1
Sample : 23E0775-09
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 07 09:48:59 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

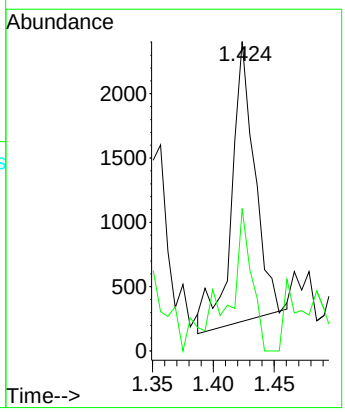


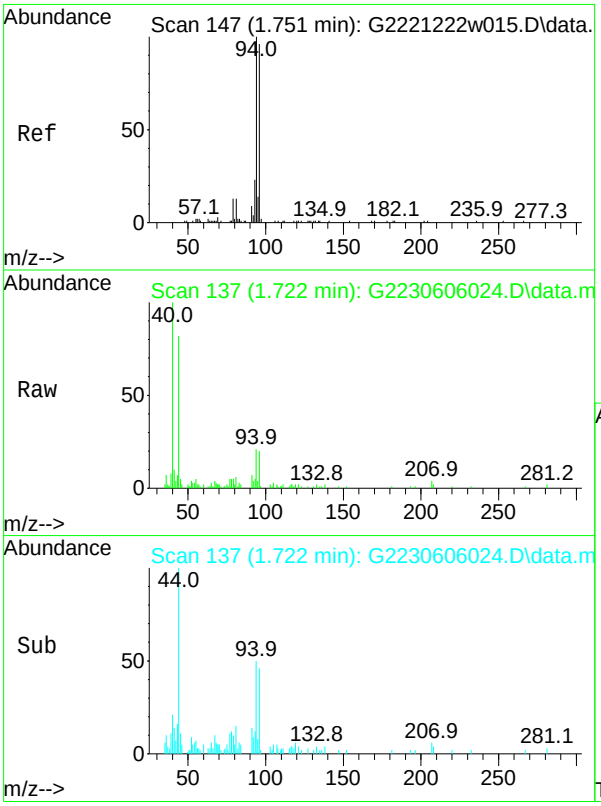


#3
Chloromethane
Concen: Below Cal
RT: 1.426 min Scan# 88
Delta R.T. 0.072 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 50 Resp: 28456

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

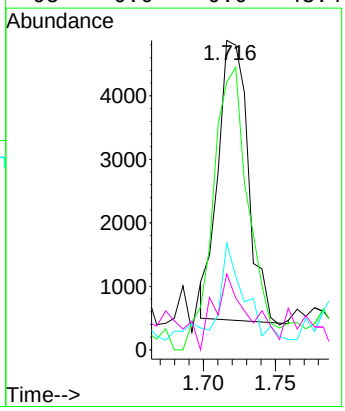


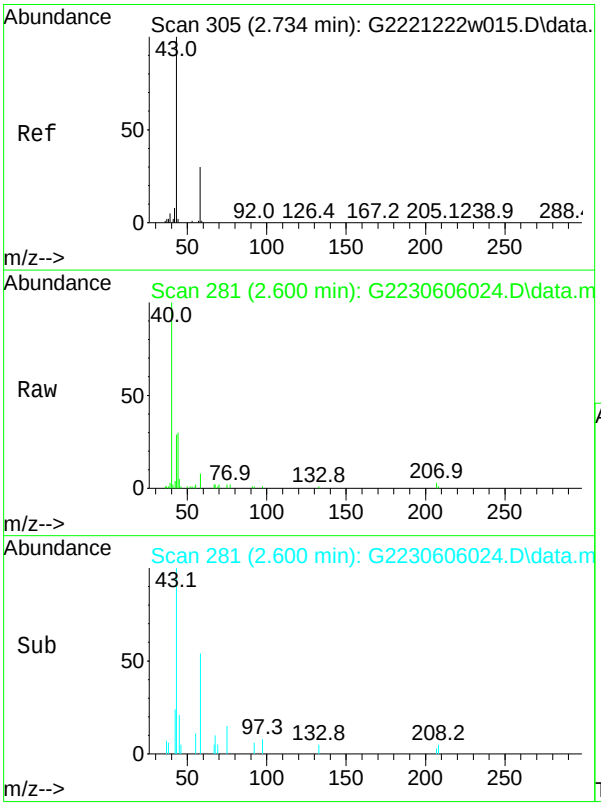


#5
Bromomethane
Concen: Below Cal
RT: 1.723 min Scan# 137
Delta R.T. 0.009 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 94 Resp: 65709

Ion	Ratio	Lower	Upper
94	100		
96	123.5	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

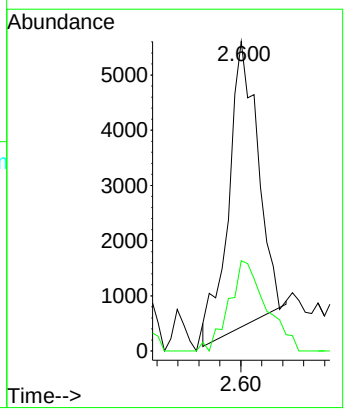


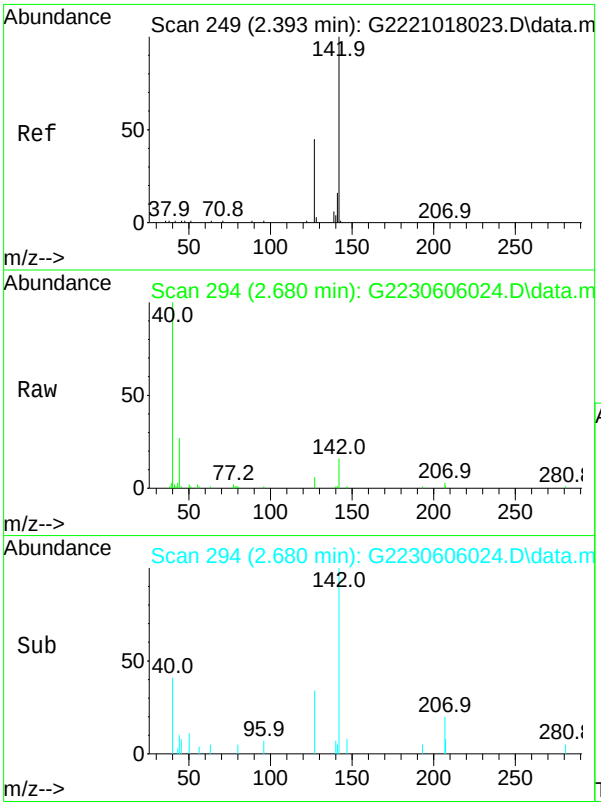


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 281
Delta R.T. -0.005 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 43 Resp: 97792

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

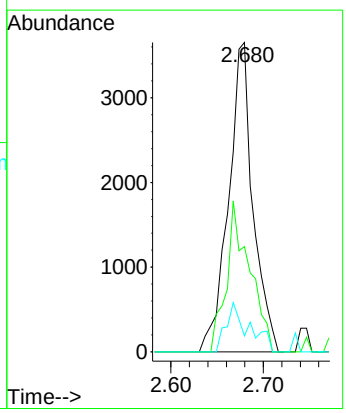


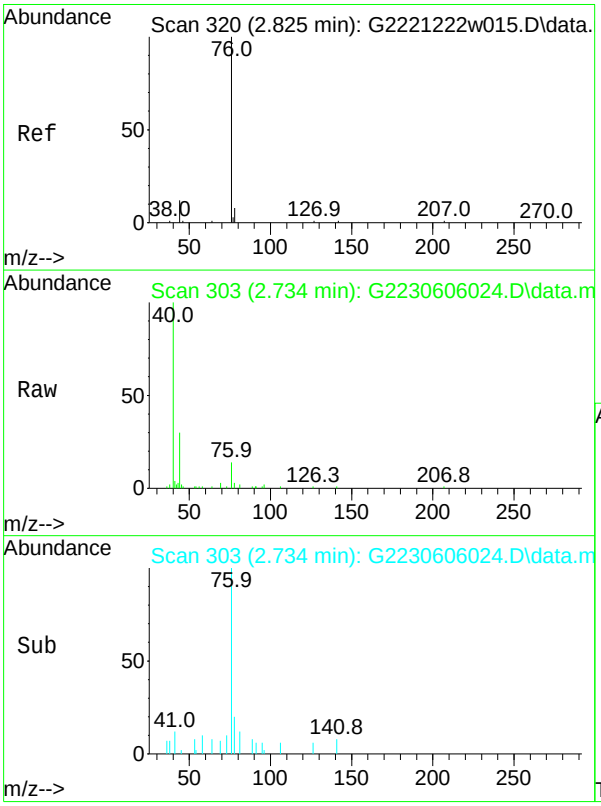


#13
Iodomethane
Concen: 0.15 ug/L
RT: 2.679 min Scan# 294
Delta R.T. 0.003 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion:142 Resp: 67163

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

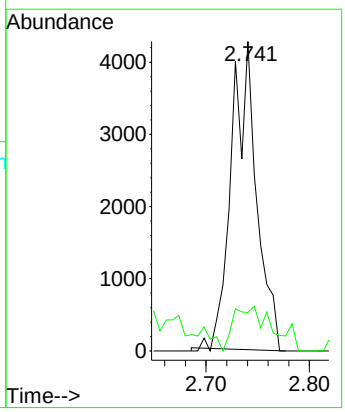


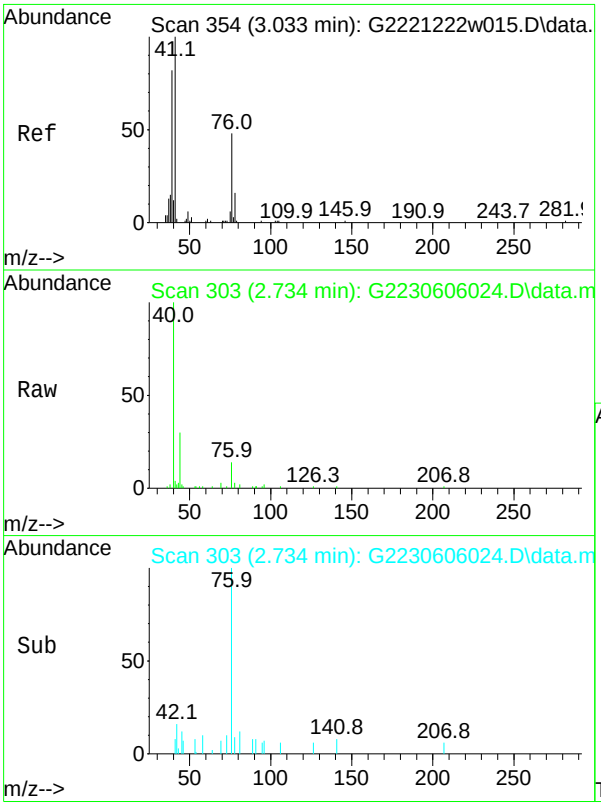


#14
Carbon disulfide
Concen: Below Cal
RT: 2.732 min Scan# 303
Delta R.T. -0.007 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 76 Resp: 71907

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

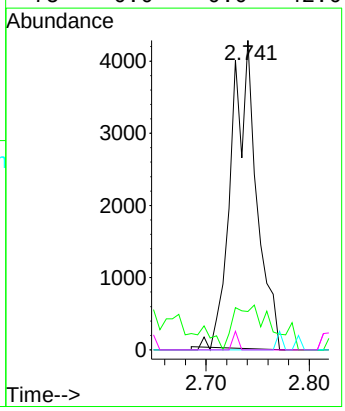


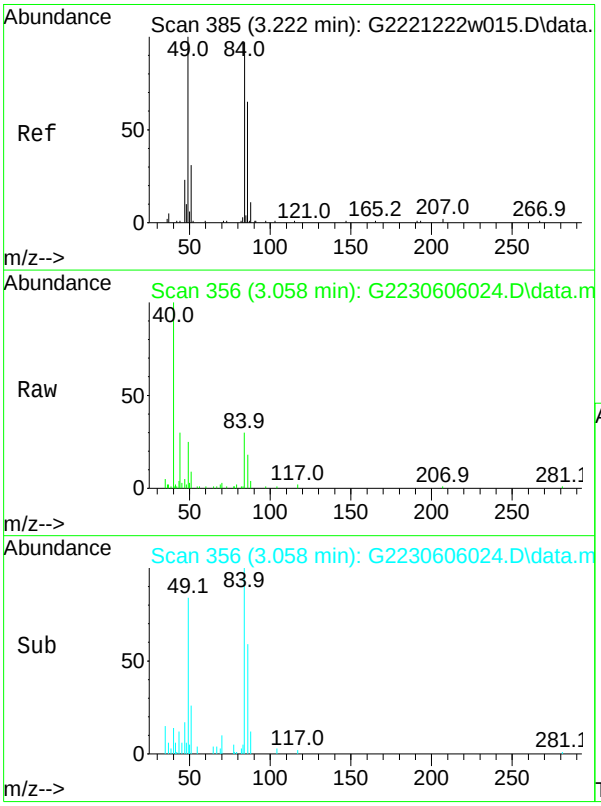


#17
3-Chloro-1-propene
Concen: 0.28 ug/L
RT: 2.732 min Scan# 303
Delta R.T. -0.188 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 76 Resp: 71899

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

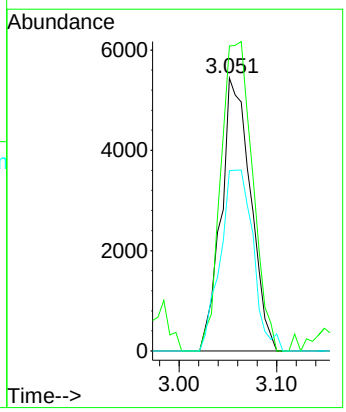


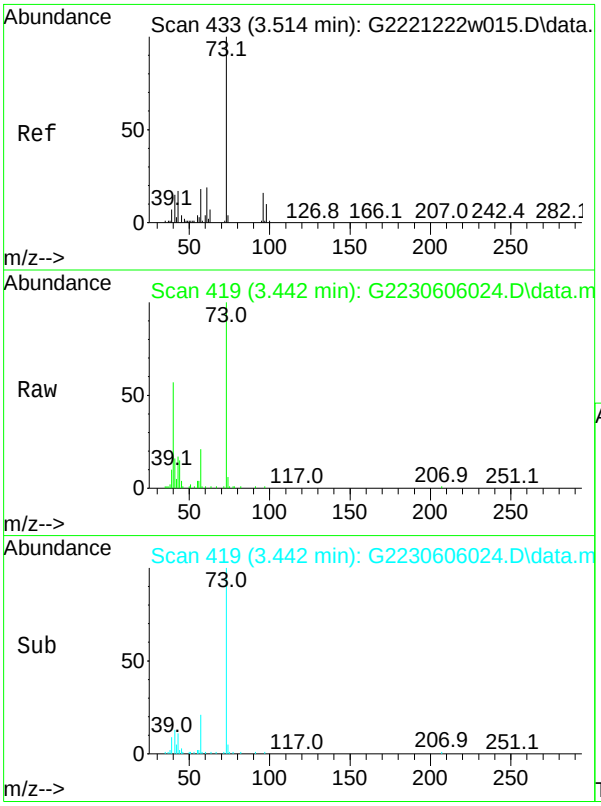


#18
Methylene chloride
Concen: Below Cal
RT: 3.058 min Scan# 356
Delta R.T. -0.004 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 49 Resp: 113999

Ion	Ratio	Lower	Upper
49	100		
84	122.3	57.9	117.9#
86	73.5	24.9	84.9

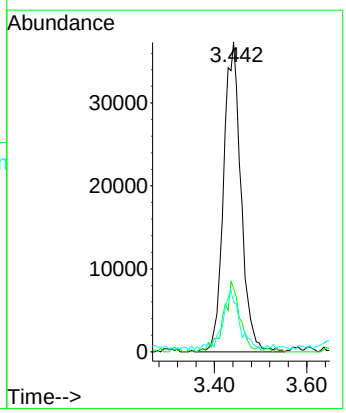


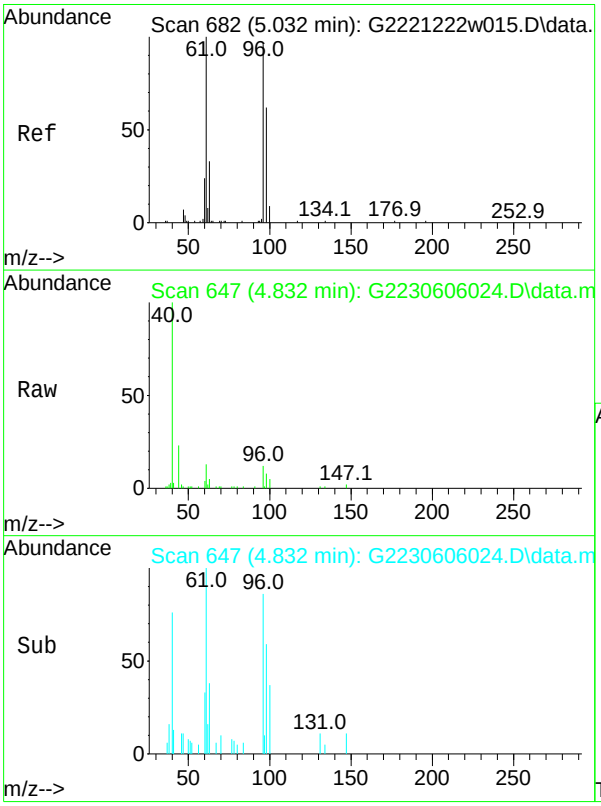


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.443 min Scan# 419
Delta R.T. -0.003 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 73 Resp: 978381

Ion	Ratio	Lower	Upper
73	100		
57	21.4	0.0	51.7
41	16.6	0.0	50.6

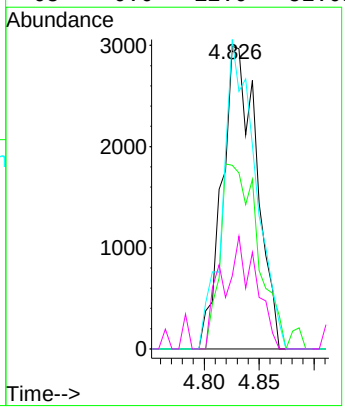


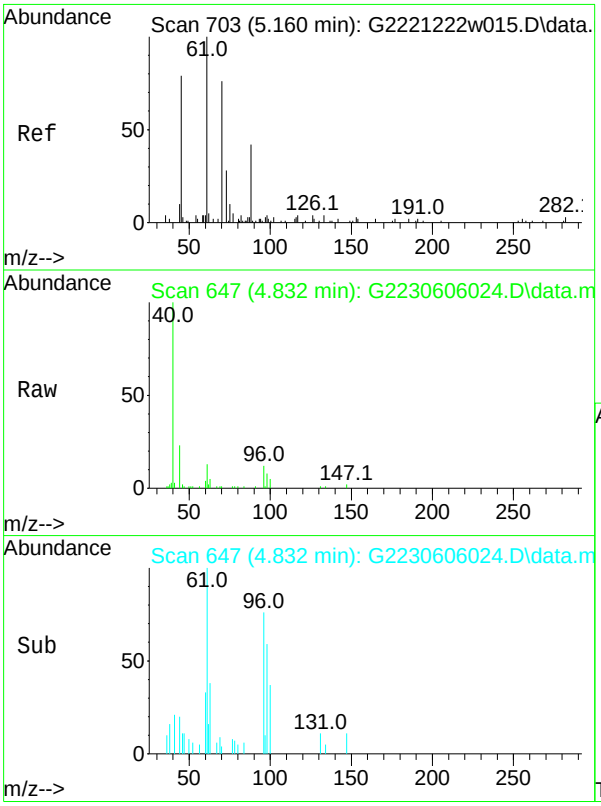


#28
cis-1,2-Dichloroethene
Concen: 0.05 ug/L
RT: 4.831 min Scan# 647
Delta R.T. -0.005 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 61 Resp: 65343

Ion	Ratio	Lower	Upper
61	100		
98	65.2	15.9	75.9
96	97.1	39.6	99.6
63	0.0	12.0	52.0#

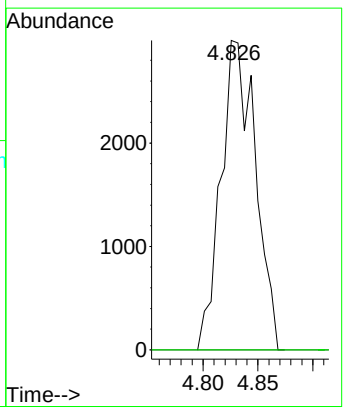


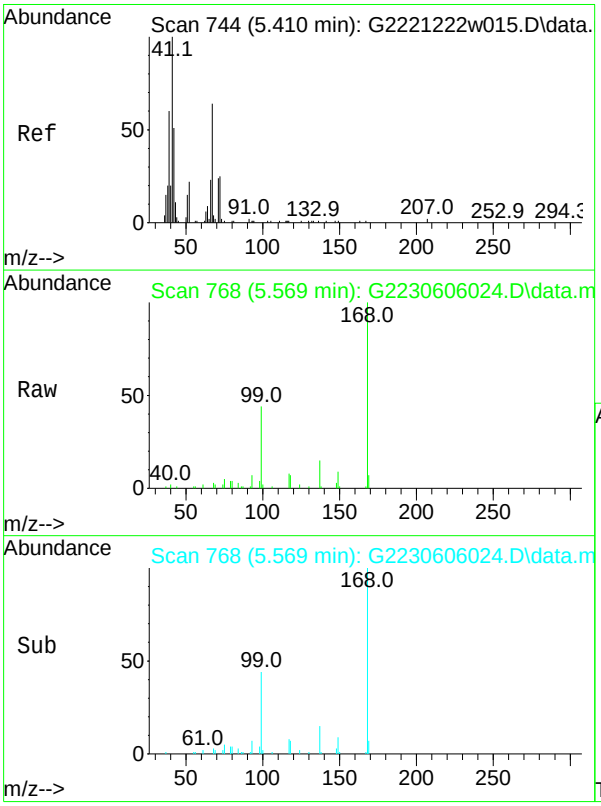


#31
Ethyl acetate
Concen: 0.87 ug/L
RT: 4.831 min Scan# 647
Delta R.T. -0.191 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 61 Resp: 65340

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

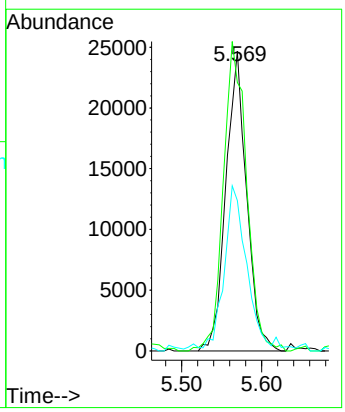


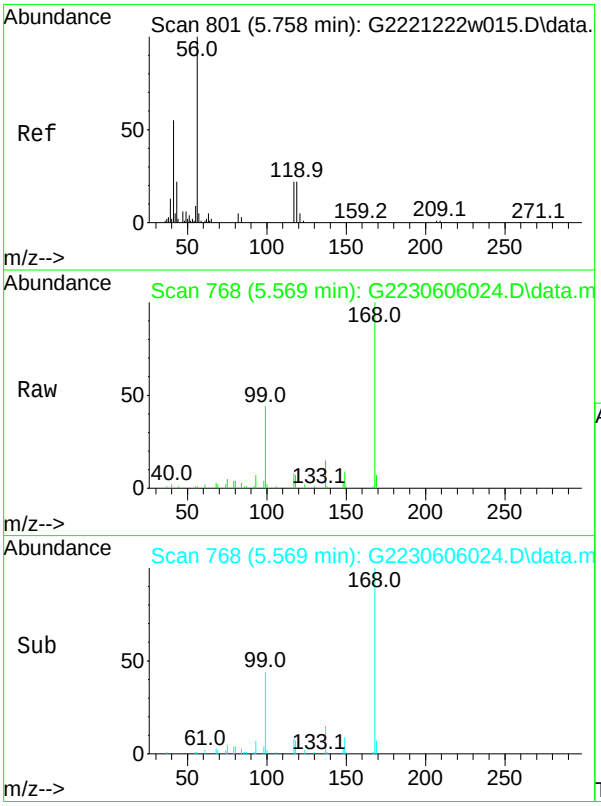


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 84 Resp: 443912

Ion	Ratio	Lower	Upper
84	100		
69	115.6	6.8	66.8#
56	57.7	79.1	139.1#

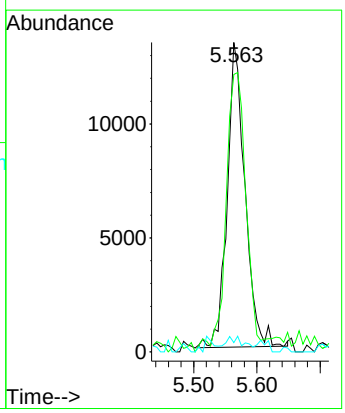


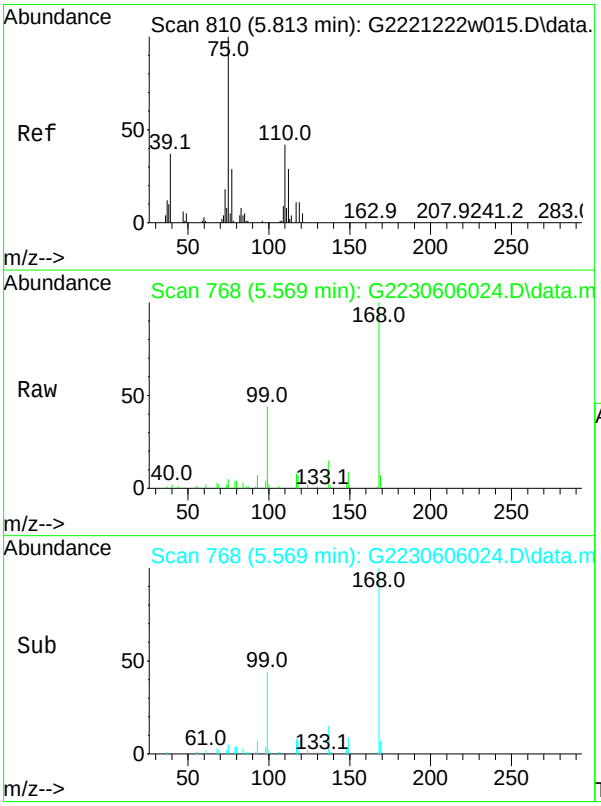


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.062 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 56 Resp: 256710

Ion	Ratio	Lower	Upper
56	100		
55	93.8	0.0	41.0#
57	0.0	0.0	35.7

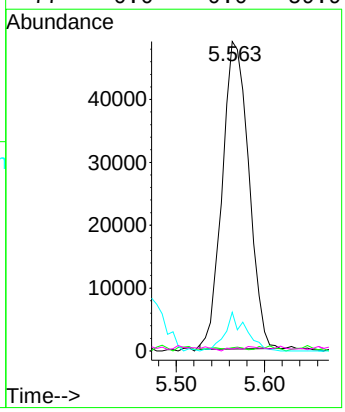


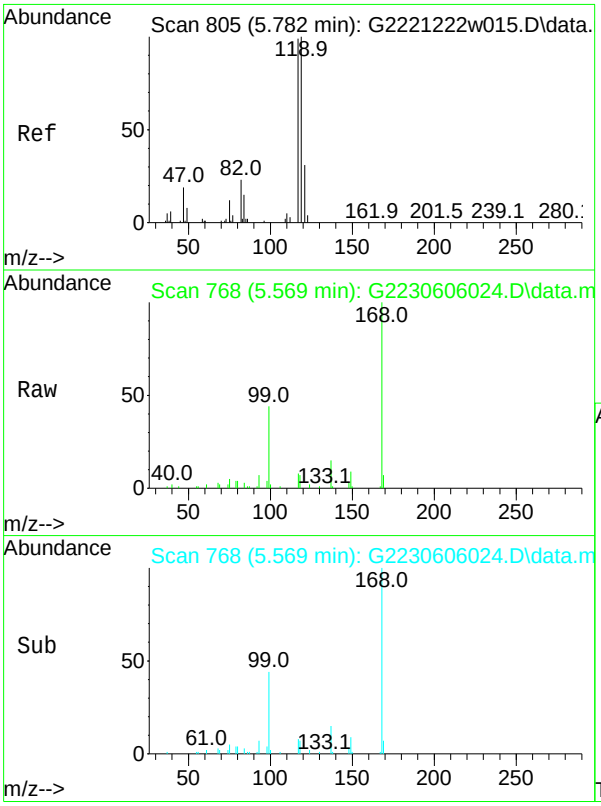


#42
1,1-Dichloropropene
Concen: 2.19 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 75 Resp: 1021082

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

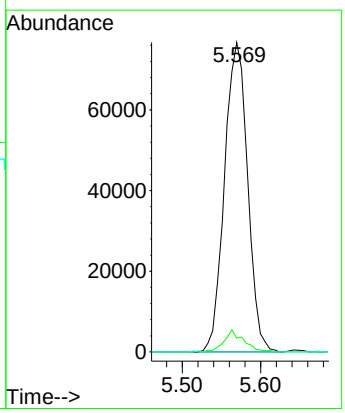


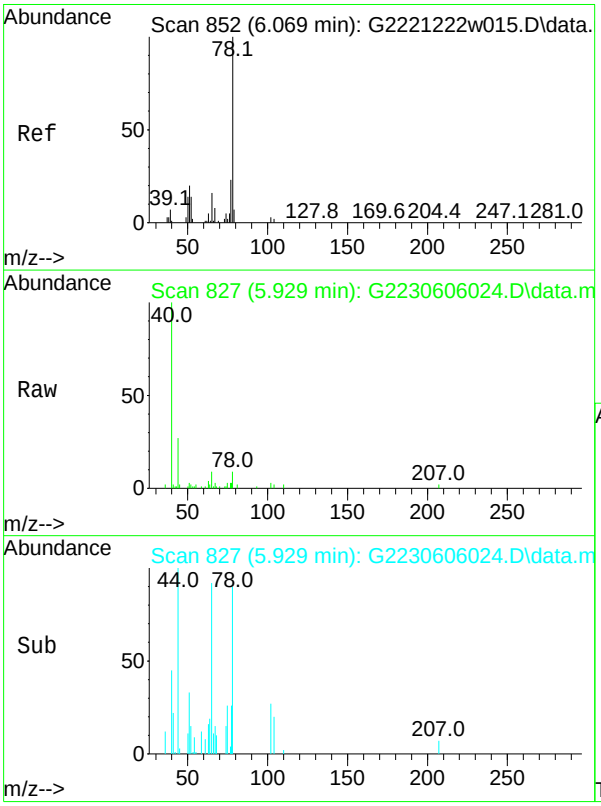


#47
Carbon tetrachloride
Concen: 2.93 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.108 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion:117 Resp: 1568310

Ion	Ratio	Lower	Upper
117	100		
119	5.9	66.4	126.4#
121	0.0	0.4	60.4#

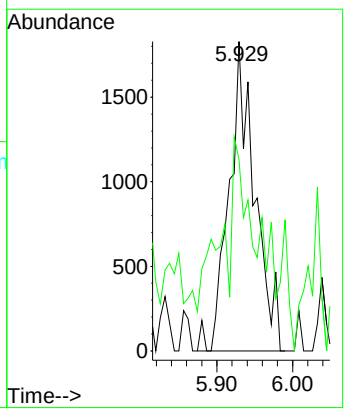


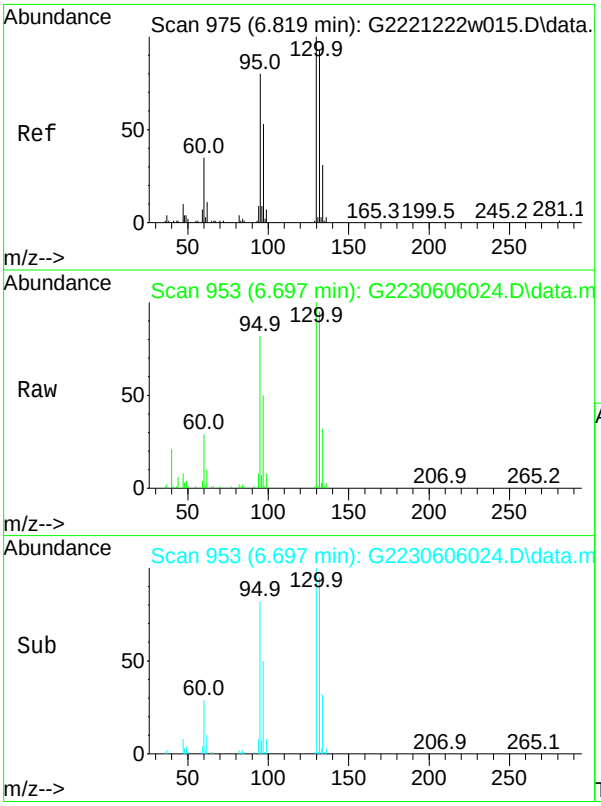


#48
Benzene
Concen: 0.03 ug/L
RT: 5.931 min Scan# 827
Delta R.T. -0.004 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 78 Resp: 43070

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

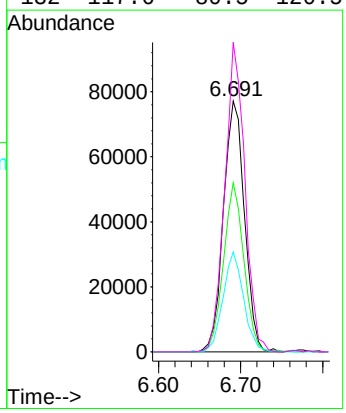


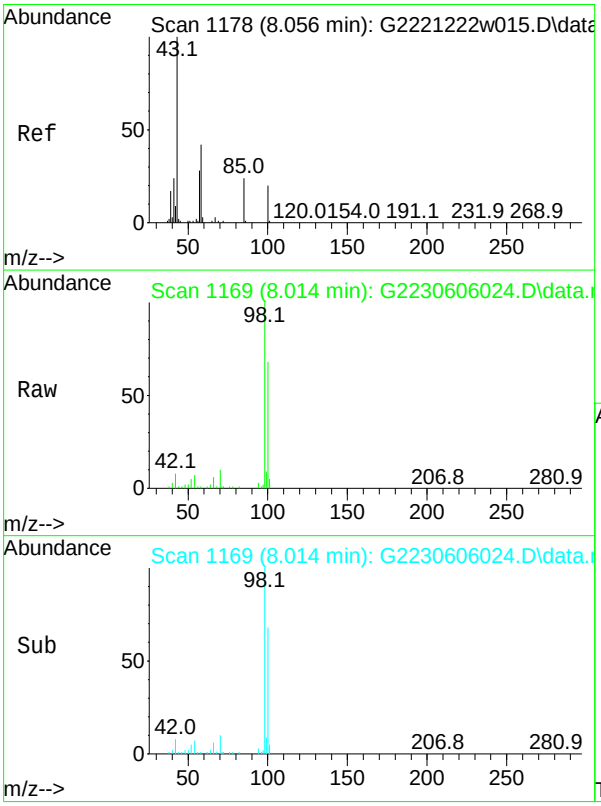


#50
Trichloroethene
Concen: 3.44 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 95 Resp: 1369179

Ion	Ratio	Lower	Upper
95	100		
97	65.6	35.5	95.5
60	39.1	14.8	74.8
132	117.6	80.5	120.5

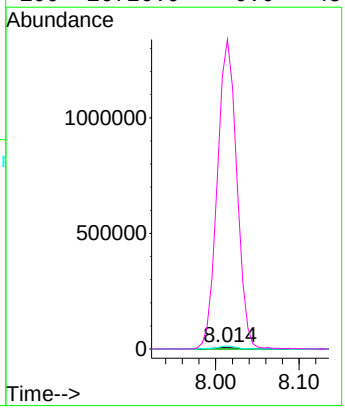


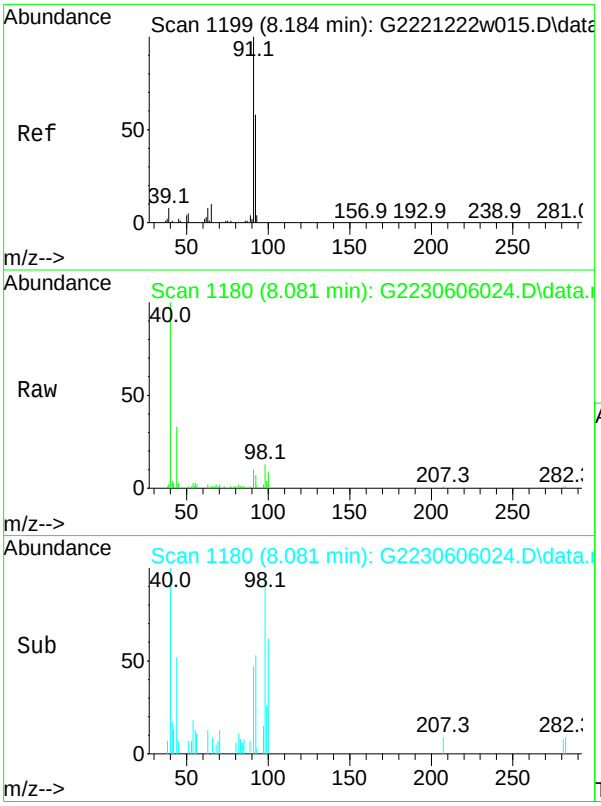


#60
4-Methyl-2-pentanone
Concen: 0.01 ug/L
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 43 Resp: 129271

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	160.5	37.0	37.0#
100	16720.9	0.0	45.2#

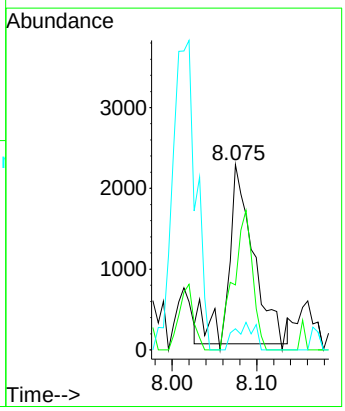


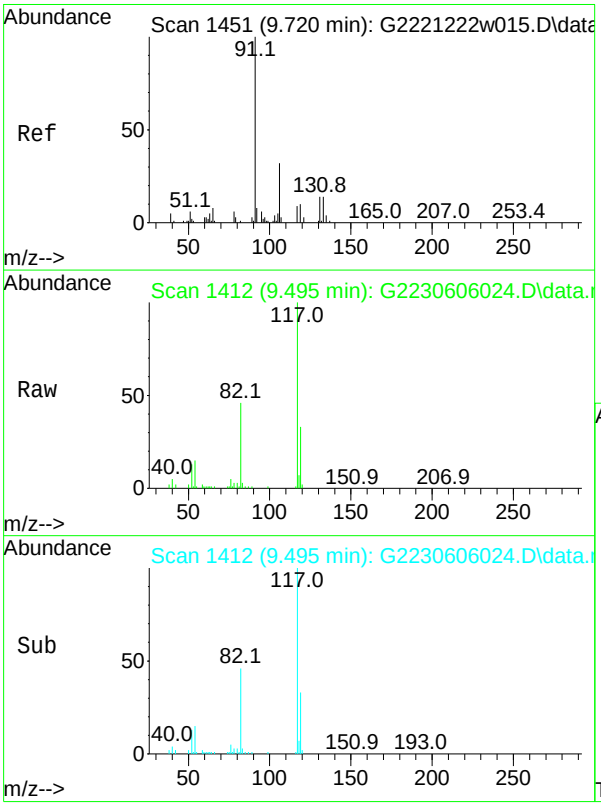


#65
Toluene
Concen: Below Cal
RT: 8.079 min Scan# 1180
Delta R.T. -0.007 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 91 Resp: 45685

Ion	Ratio	Lower	Upper
91	100		
92	58.0	27.5	87.5
65	0.0	0.0	41.4

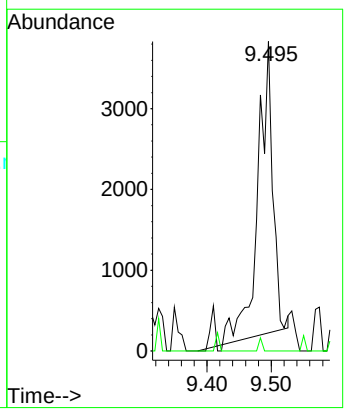


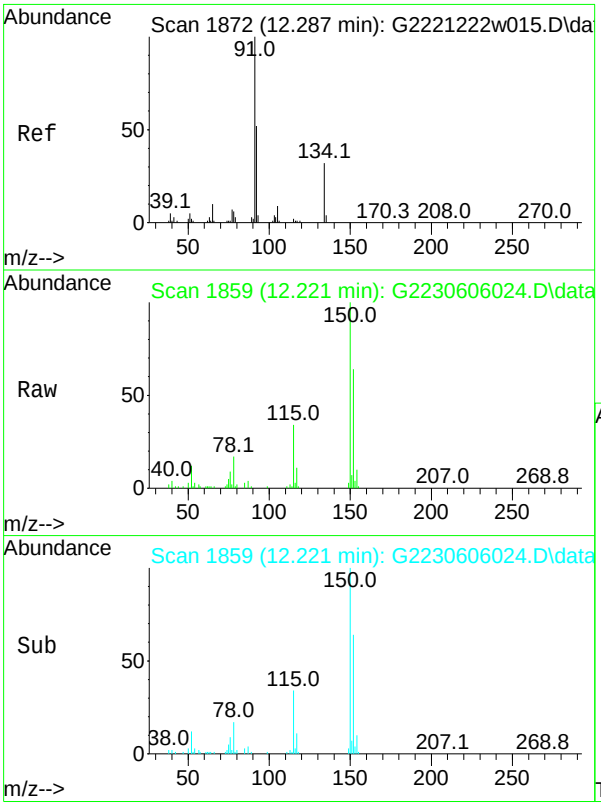


#74
Ethylbenzene
Concen: Below Cal
RT: 9.497 min Scan# 1412
Delta R.T. -0.146 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 91 Resp: 58724

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

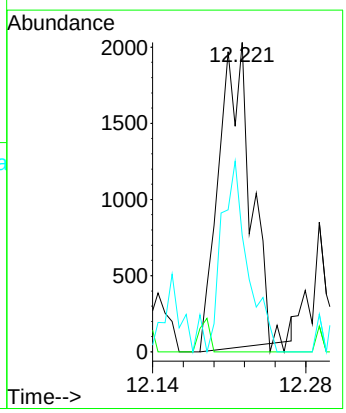




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.221 min Scan# 1859
Delta R.T. -0.010 min
Lab File: G2230606024.D
Acq: 06 Jun 2023 20:12

Tgt Ion: 91 Resp: 37989

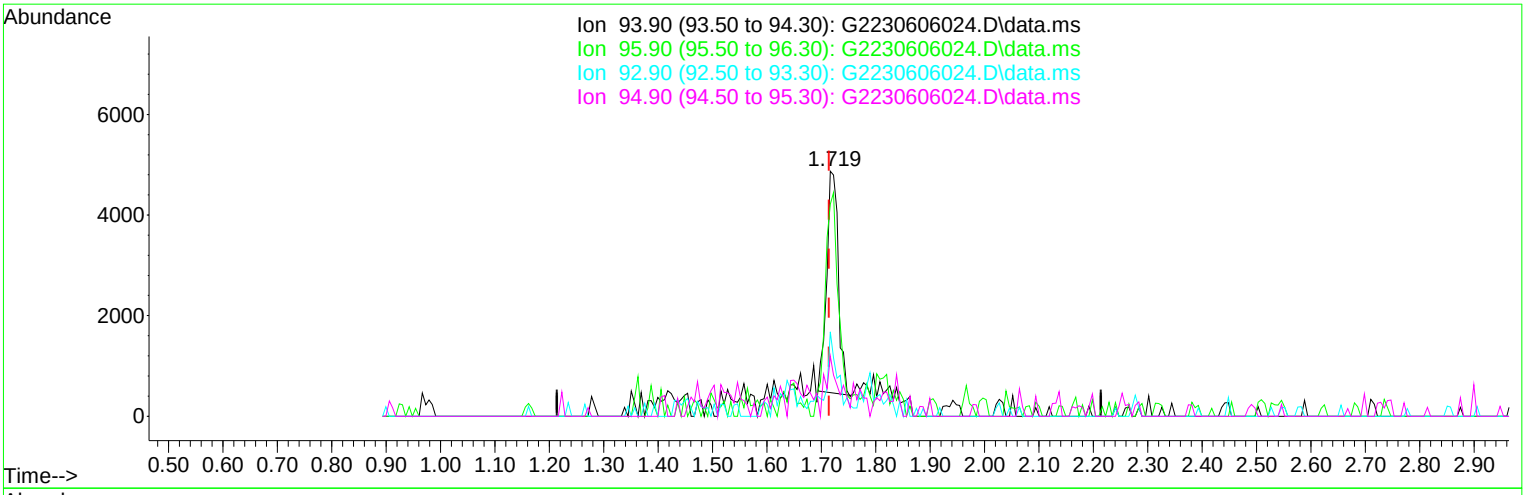
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

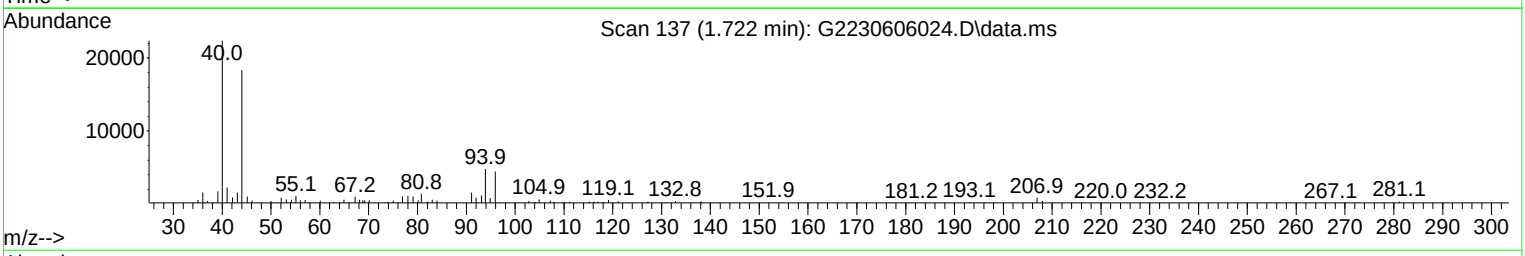


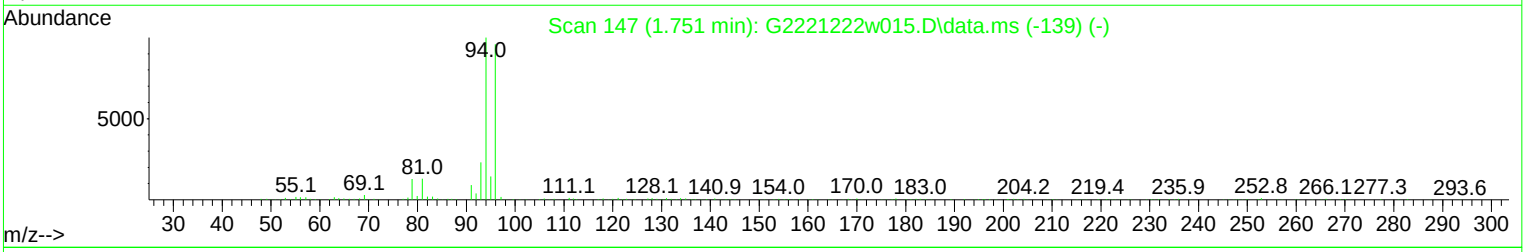
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606024.D
Acq On : 06 Jun 2023 20:12
Operator : PO1
Sample : 23E0775-09
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 07 09:48:59 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: G2230606024.D\data.ms

(5) Bromomethane (T)

1.723min (+ 0.009) -0.01 ug/L

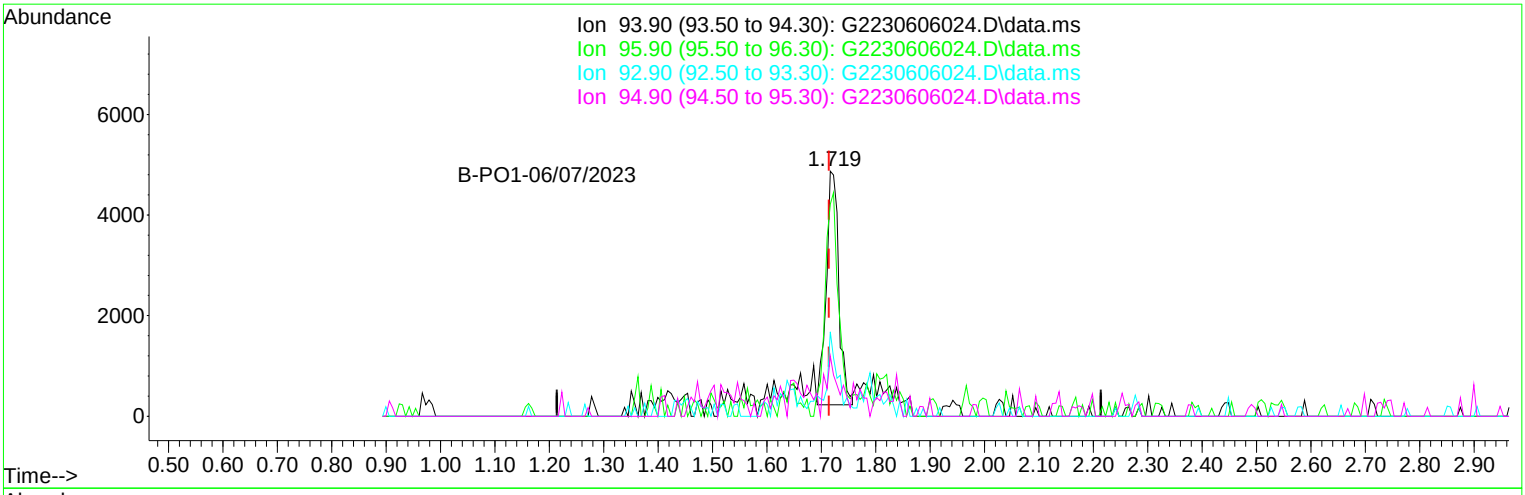
response 65709

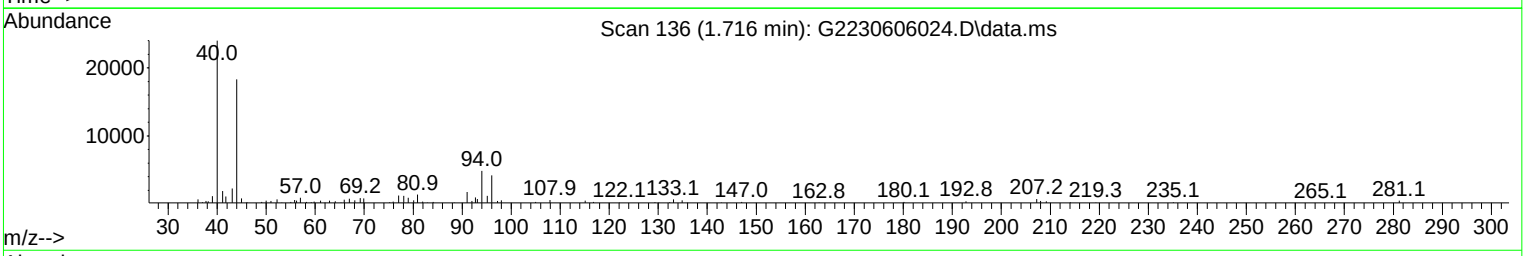
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	123.51
92.90	19.50	0.00
94.90	13.40	0.00

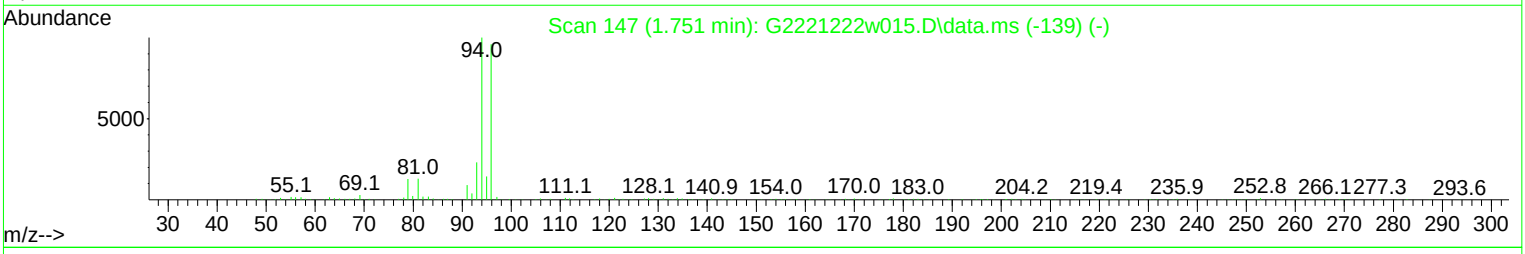
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606024.D
Acq On : 06 Jun 2023 20:12
Operator : PO1
Sample : 23E0775-09
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jun 07 09:48:59 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: G2230606024.D\data.ms

(5) Bromomethane (T)

1.716min (+ 0.002) 0.02 ug/L m

response 73050

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	111.10
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09RE1	File ID:	G2230608022.D
Sampled:	05/27/23 15:05	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 17:58
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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*	*pH >2, U*
71-55-6	*1,1,1-Trichloroethane*		*0.877*	*2.00*	*5.00*	*pH >2, U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*0.621*	*2.00*	*5.00*	*pH >2, U*
79-00-5	*1,1,2-Trichloroethane*		*0.832*	*2.00*	*5.00*	*pH >2, U*
75-34-3	*1,1-Dichloroethane*		*0.669*	*2.00*	*5.00*	*pH >2, U*
75-35-4	*1,1-Dichloroethene*		*0.954*	*2.00*	*5.00*	*pH >2, U*
563-58-6	*1,1-Dichloropropene*		*0.699*	*2.00*	*5.00*	*pH >2, U*
87-61-6	*1,2,3-Trichlorobenzene*		*1.02*	*2.00*	*5.00*	*pH >2, U*
96-18-4	*1,2,3-Trichloropropane*		*0.913*	*2.00*	*5.00*	*pH >2, U*
120-82-1	*1,2,4-Trichlorobenzene*		*1.02*	*3.00*	*6.00*	*pH >2, U*
95-63-6	*1,2,4-Trimethylbenzene*		*0.661*	*2.00*	*5.00*	*pH >2, U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*1.30*	*5.00*	*10.0*	*pH >2, U*
106-93-4	*1,2-Dibromoethane*		*0.531*	*2.00*	*5.00*	*pH >2, U*
95-50-1	*1,2-Dichlorobenzene*		*0.630*	*2.00*	*5.00*	*pH >2, U*
107-06-2	*1,2-Dichloroethane*		*1.06*	*3.00*	*6.00*	*pH >2, U*
78-87-5	*1,2-Dichloropropane*		*1.02*	*3.00*	*6.00*	*pH >2, U*
108-67-8	*1,3,5-Trimethylbenzene*		*0.500*	*2.00*	*5.00*	*pH >2, U*
541-73-1	*1,3-Dichlorobenzene*		*0.724*	*2.00*	*5.00*	*pH >2, U*
142-28-9	*1,3-Dichloropropane*		*0.680*	*2.00*	*5.00*	*pH >2, U*
106-46-7	*1,4-Dichlorobenzene*		*0.920*	*2.00*	*5.00*	*pH >2, U*
594-20-7	*2,2-Dichloropropane*		*0.920*	*2.00*	*5.00*	*pH >2, U*
78-93-3	*2-Butanone*		*3.30*	*7.00*	*17.5*	*pH >2, U*
95-49-8	*2-Chlorotoluene*		*0.733*	*2.00*	*5.00*	*pH >2, U*
591-78-6	*2-Hexanone*		*0.716*	*7.00*	*17.5*	*pH >2, U*
106-43-4	*4-Chlorotoluene*		*0.921*	*2.00*	*5.00*	*pH >2, U*
99-87-6	*4-Isopropyltoluene*		*0.700*	*2.00*	*5.00*	*pH >2, U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09RE1	File ID:	G2230608022.D
Sampled:	05/27/23 15:05	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 17:58
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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*	*pH >2, U*
67-64-1	*Acetone*		*5.18*	*20.0*	*40.0*	*pH >2, U*
71-43-2	*Benzene*		*0.507*	*2.00*	*5.00*	*pH >2, U*
108-86-1	*Bromobenzene*		*0.848*	*2.00*	*5.00*	*pH >2, U*
74-97-5	*Bromochloromethane*		*0.669*	*2.00*	*5.00*	*pH >2, U*
75-27-4	*Bromodichloromethane*		*0.531*	*2.00*	*5.00*	*pH >2, U*
75-25-2	*Bromoform*		*1.03*	*2.00*	*5.00*	*pH >2, U*
74-83-9	*Bromomethane*		*1.60*	*5.00*	*10.0*	*pH >2, U*
75-15-0	*Carbon disulfide*		*1.40*	*5.00*	*10.0*	*pH >2, U*
56-23-5	*Carbon tetrachloride*		*0.844*	*2.00*	*5.00*	*pH >2, U*
108-90-7	*Chlorobenzene*		*0.650*	*2.00*	*5.00*	*pH >2, U*
75-00-3	*Chloroethane*		*1.55*	*2.00*	*5.00*	*pH >2, U*
67-66-3	*Chloroform*		*1.01*	*3.00*	*6.00*	*pH >2, U*
74-87-3	*Chloromethane*		*1.92*	*5.00*	*10.0*	*pH >2, U*
156-59-2	*cis-1,2-Dichloroethene*		*1.03*	*3.00*	*6.00*	*pH >2, U*
10061-01-5	*cis-1,3-Dichloropropene*		*0.587*	*2.00*	*5.00*	*pH >2, U*
124-48-1	*Dibromochloromethane*		*0.759*	*2.00*	*5.00*	*pH >2, U*
74-95-3	*Dibromomethane*		*0.817*	*2.00*	*5.00*	*pH >2, U*
75-71-8	*Dichlorodifluoromethane*		*1.30*	*5.00*	*10.0*	*pH >2, U*
100-41-4	*Ethylbenzene*		*0.300*	*1.00*	*2.00*	*pH >2, U*
87-68-3	*Hexachlorobutadiene*		*1.00*	*2.00*	*5.00*	*pH >2, U*
98-82-8	*Isopropylbenzene*		*0.549*	*2.00*	*5.00*	*pH >2, U*
179601-23-1	*m,p-Xylene*		*0.889*	*4.00*	*10.0*	*pH >2, U*
1634-04-4	*Methyl tert-butyl ether*		*0.530*	*2.00*	*5.00*	*pH >2, U*
75-09-2	*Methylene chloride*		*2.24*	*5.00*	*10.0*	*pH >2, U*
104-51-8	*n-Butylbenzene*		*1.30*	*5.00*	*10.0*	*pH >2, U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-09RE1	File ID:	G2230608022.D
Sampled:	05/27/23 15:05	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 17:58
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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*	*pH >2, U*
91-20-3	*Naphthalene*		*0.700*	*2.00*	*5.00*	*pH >2, U*
95-47-6	*o-Xylene*		*0.416*	*2.00*	*5.00*	*pH >2, U*
135-98-8	*sec-Butylbenzene*		*0.598*	*2.00*	*5.00*	*pH >2, U*
100-42-5	*Styrene*		*0.453*	*1.00*	*2.00*	*pH >2, U*
98-06-6	*tert-Butylbenzene*		*0.453*	*2.00*	*5.00*	*pH >2, U*
127-18-4	Tetrachloroethene		1.78	5.00	10.0	pH >2, U
108-88-3	*Toluene*		*0.572*	*2.00*	*5.00*	*pH >2, U*
156-60-5	*trans-1,2-Dichloroethene*		*0.855*	*2.00*	*5.00*	*pH >2, U*
10061-02-6	*trans-1,3-Dichloropropene*		*0.587*	*2.00*	*5.00*	*pH >2, U*
79-01-6	Trichloroethene		0.781	2.00	5.00	pH >2, U
75-69-4	*Trichlorofluoromethane*		*0.505*	*2.00*	*5.00*	*pH >2, U*
75-01-4	*Vinyl chloride*		*1.29*	*5.00*	*10.0*	*pH >2, U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608022.D
Acq On : 08 Jun 2023 17:58
Operator : PO1
Sample : 23E0775-09RE2
Misc : 10
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 09 10:42:06 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

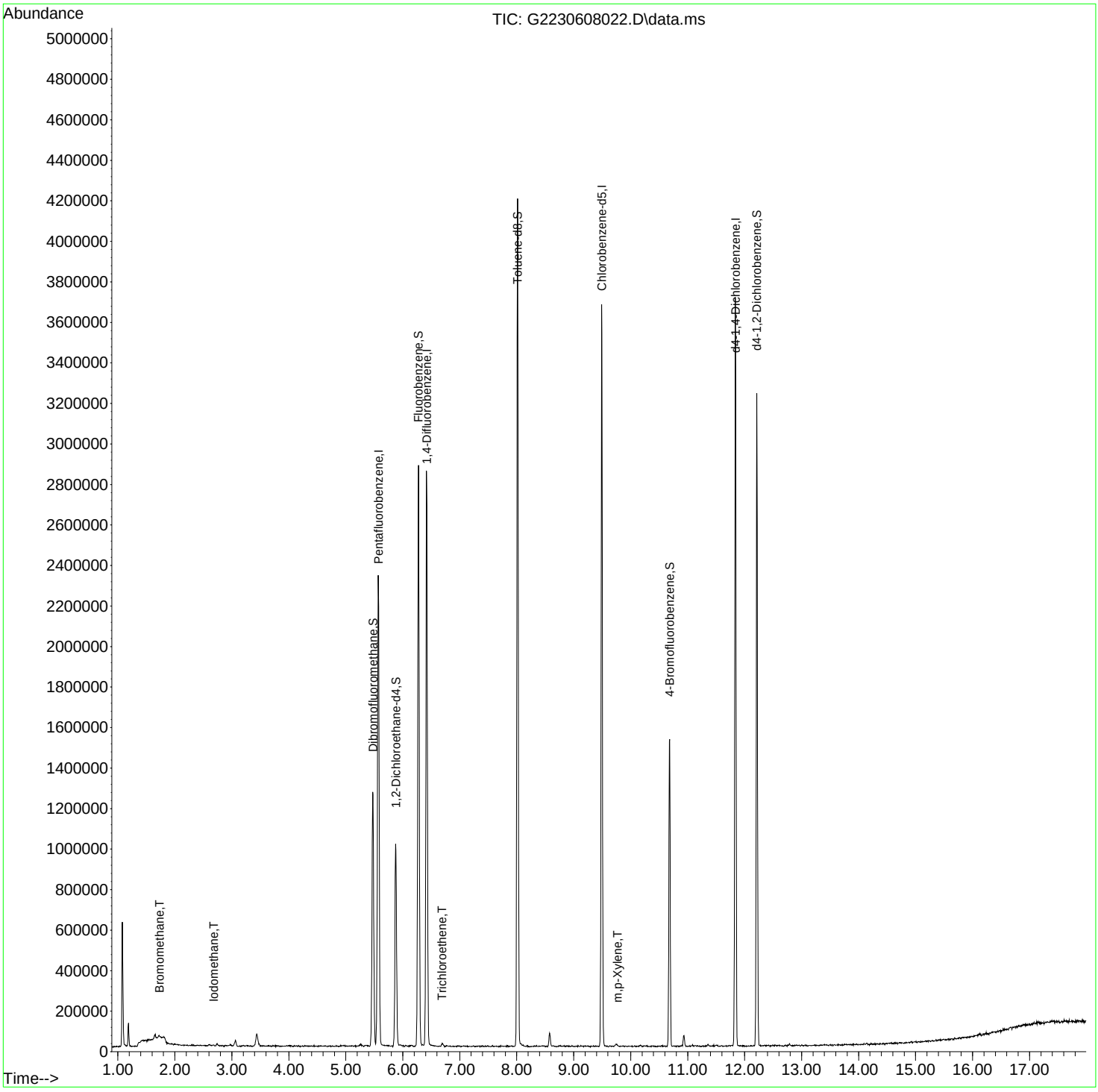
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	18609778	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	25078783	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22010244	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10371805	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	7892900	19.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.35%			
43) 1,2-Dichloroethane-d4	5.879	65	7203169	17.80	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.00%			
49) Fluorobenzene	6.278	96	27707347	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
64) Toluene-d8	8.017	98	27138082	19.56	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.80%			
81) 4-Bromofluorobenzene	10.685	174	4819827	9.84	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.40%			
97) d4-1,2-Dichlorobenzene	12.217	152	8907832	19.97	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.85%			
Target Compounds						Qvalue
5) Bromomethane	1.727	94	76371	0.06	ug/L #	85
13) Iodomethane	2.683	142	64542	0.15	ug/L #	41
18) Methylene chloride	3.060	49	142892	Below Cal		78
21) Methyl tert-butyl ether	3.440	73	806144	Below Cal		96
50) Trichloroethene	6.693	95	43429	0.05	ug/L #	56
65) Toluene	8.082	91	42455	Below Cal	#	30
75) m,p-Xylene	9.767	91	50038	0.04	ug/L #	78

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608022.D
Acq On : 08 Jun 2023 17:58
Operator : PO1
Sample : 23E0775-09RE2
Misc : 10
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 09 10:42:06 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608022.D
Acq On : 08 Jun 2023 17:58
Operator : PO1
Sample : 23E0775-09RE2
Misc : 10
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 09 10:42:06 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

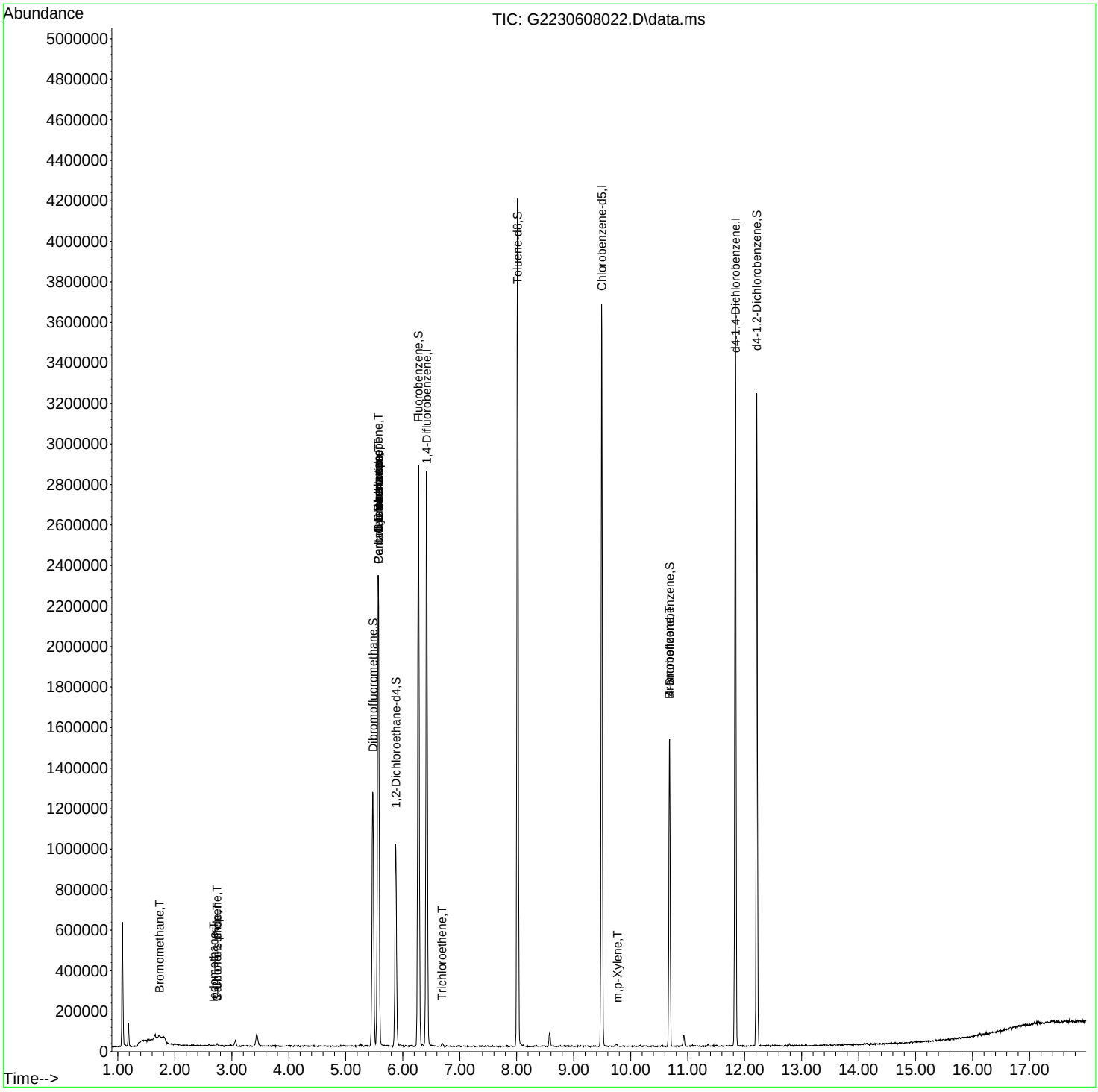
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.573	168	18609778	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	25078783	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22010244	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10371805	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	7892900	19.27	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.35%				
43) 1,2-Dichloroethane-d4	5.879	65	7203169	17.80	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.00%				
49) Fluorobenzene	6.278	96	27707347	19.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%				
64) Toluene-d8	8.017	98	27138082	19.56	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.80%				
81) 4-Bromofluorobenzene	10.685	174	4819827	9.84	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.40%				
97) d4-1,2-Dichlorobenzene	12.217	152	8907832	19.97	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.85%				
Target Compounds							Qvalue
5) Bromomethane	1.727	94	76371	0.06	ug/L	#	85
12) Acetone	2.608	43	70603	Below Cal		#	45
13) Iodomethane	2.683	142	64542	0.15	ug/L	#	41
14) Carbon disulfide	2.742	76	120109	0.05	ug/L	#	74
17) 3-Chloro-1-propene	2.742	76	120112	0.56	ug/L	#	53
18) Methylene chloride	3.060	49	142892	Below Cal			78
21) Methyl tert-butyl ether	3.440	73	806144	Below Cal			96
36) Tetrahydrofuran	5.255	42	52138	Below Cal		#	47
40) Cyclohexane	5.570	84	379309	0.76	ug/L	#	34
41) 1-Chlorobutane	5.571	56	257532	0.44	ug/L	#	1
42) 1,1-Dichloropropene	5.572	75	947651	2.17	ug/L	#	39
47) Carbon tetrachloride	5.572	117	1485462	3.28	ug/L	#	16
50) Trichloroethene	6.693	95	43429	0.05	ug/L	#	56
60) 4-Methyl-2-pentanone	8.015	43	90175	Below Cal		#	1
65) Toluene	8.082	91	42455	Below Cal		#	30
74) Ethylbenzene	9.767	91	51349	Below Cal			56
75) m,p-Xylene	9.767	91	50038	0.04	ug/L	#	78
82) Bromobenzene	10.680	77	39407	0.07	ug/L	#	1
99) n-Butylbenzene	12.226	91	45324	Below Cal		#	53

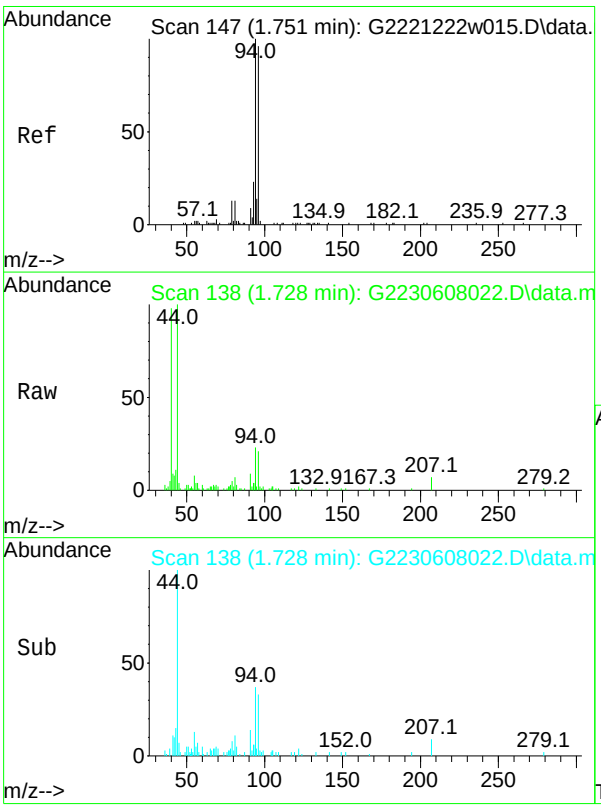
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608022.D
Acq On : 08 Jun 2023 17:58
Operator : PO1
Sample : 23E0775-09RE2
Misc : 10
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jun 09 10:42:06 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

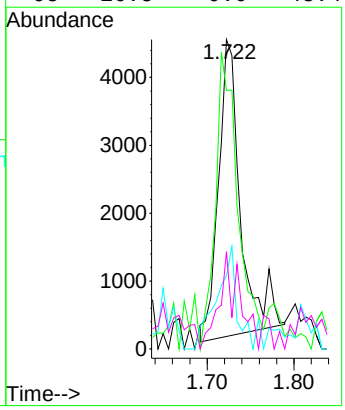


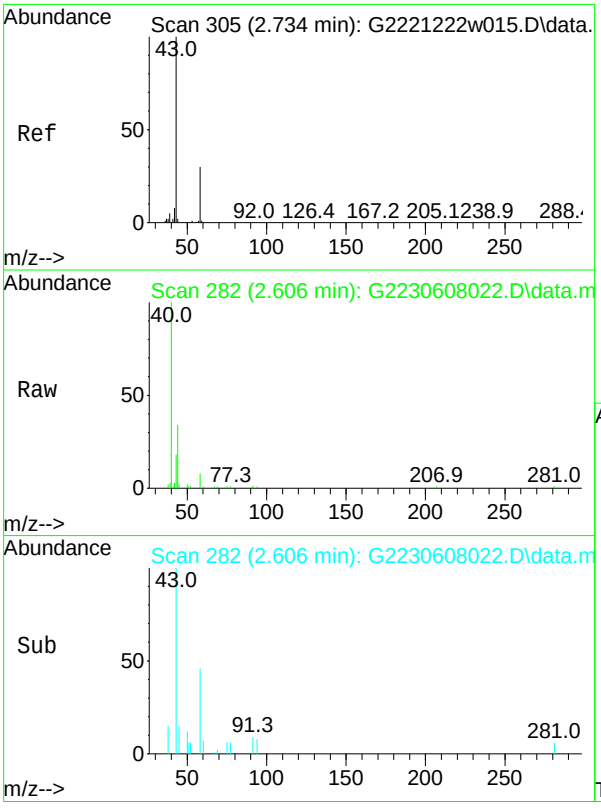


#5
Bromomethane
Concen: 0.06 ug/L
RT: 1.727 min Scan# 138
Delta R.T. 0.013 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 94 Resp: 76371

Ion	Ratio	Lower	Upper
94	100		
96	89.5	65.6	125.6
93	0.0	0.0	49.5
95	26.5	0.0	43.4

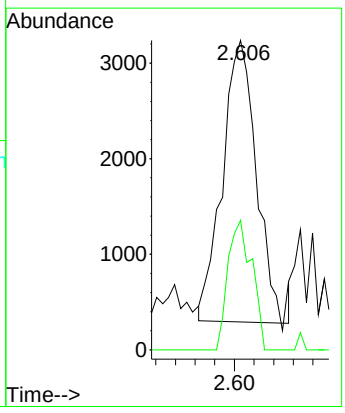


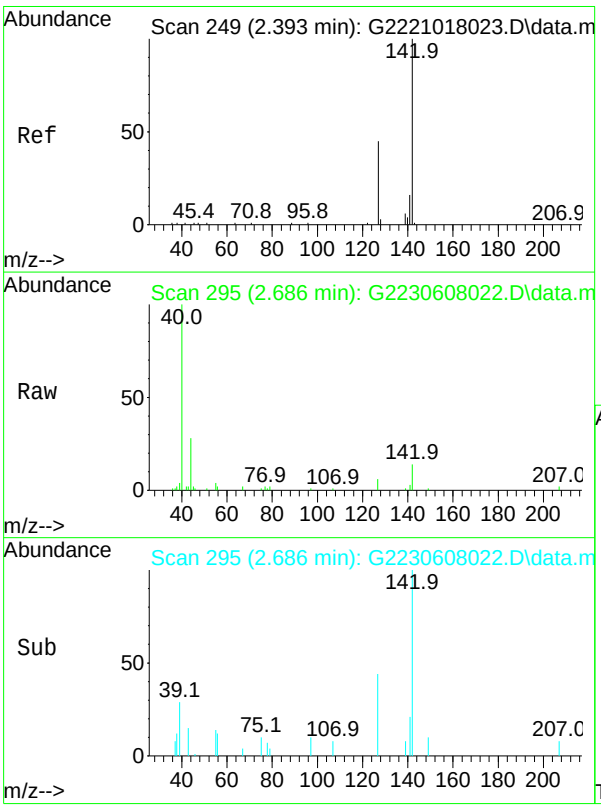


#12
Acetone
Concen: Below Cal
RT: 2.608 min Scan# 282
Delta R.T. -0.000 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 43 Resp: 70603

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

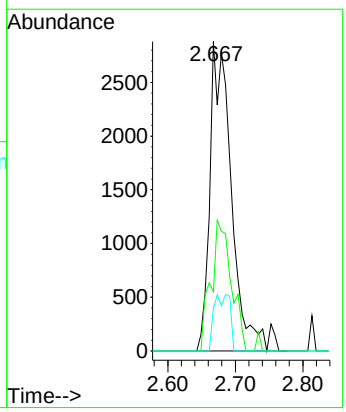


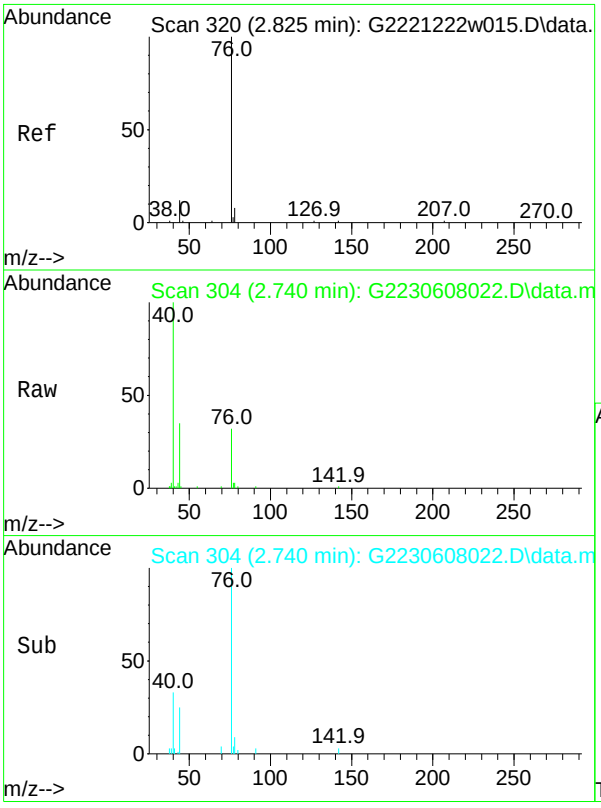


#13
Iodomethane
Concen: 0.15 ug/L
RT: 2.683 min Scan# 295
Delta R.T. 0.007 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion:142 Resp: 64542

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

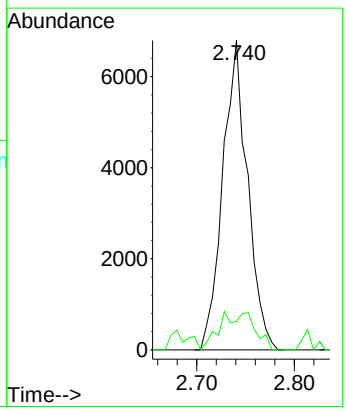


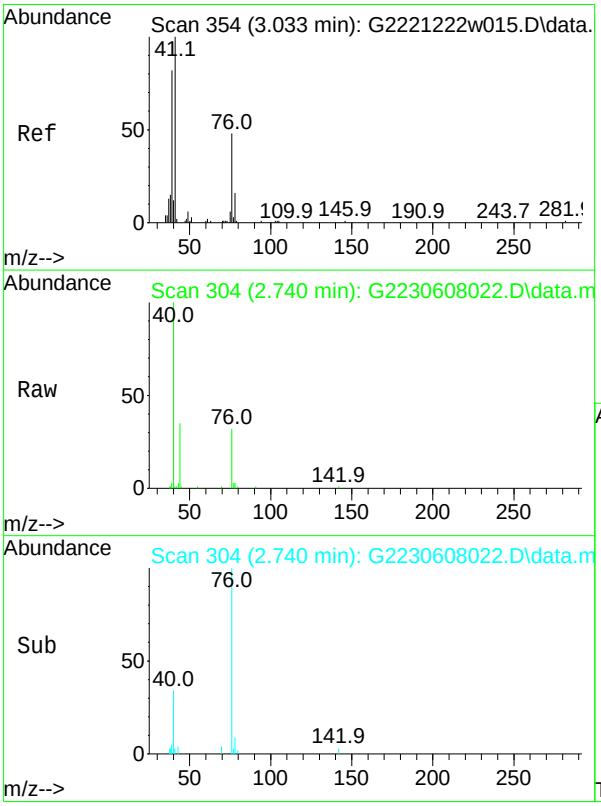


#14
Carbon disulfide
Concen: 0.05 ug/L
RT: 2.742 min Scan# 304
Delta R.T. 0.003 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 76 Resp: 120109

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

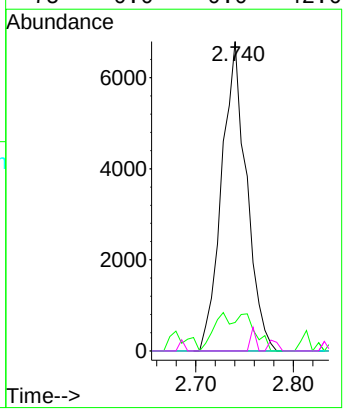


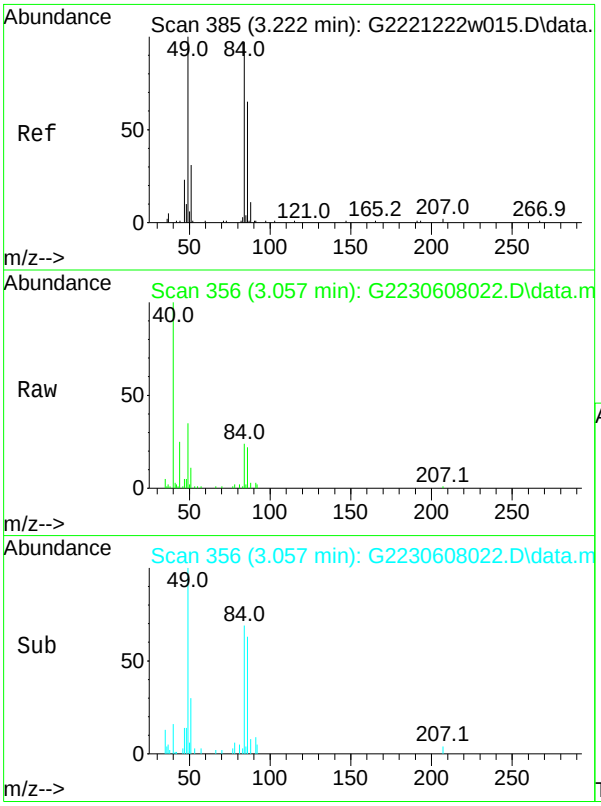


#17
3-Chloro-1-propene
Concen: 0.56 ug/L
RT: 2.742 min Scan# 304
Delta R.T. -0.178 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 76 Resp: 120112

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

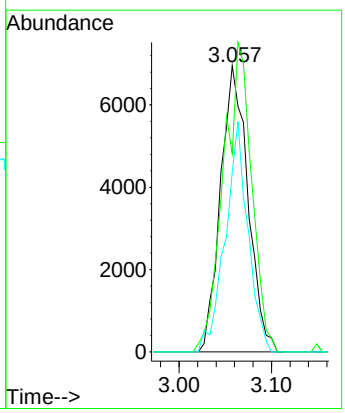


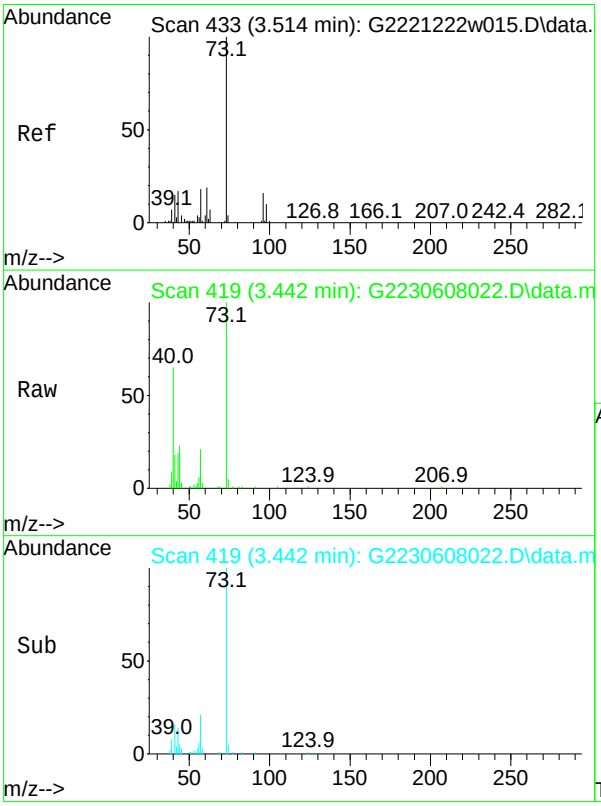


#18
Methylene chloride
Concen: Below Cal
RT: 3.060 min Scan# 356
Delta R.T. -0.002 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 49 Resp: 142892

Ion	Ratio	Lower	Upper
49	100		
84	111.2	57.9	117.9
86	67.0	24.9	84.9

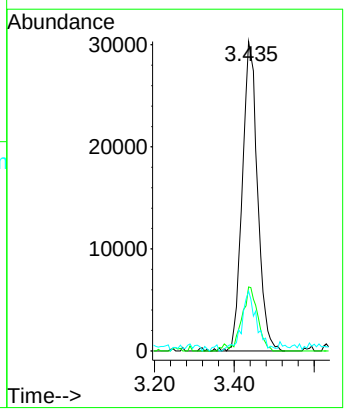


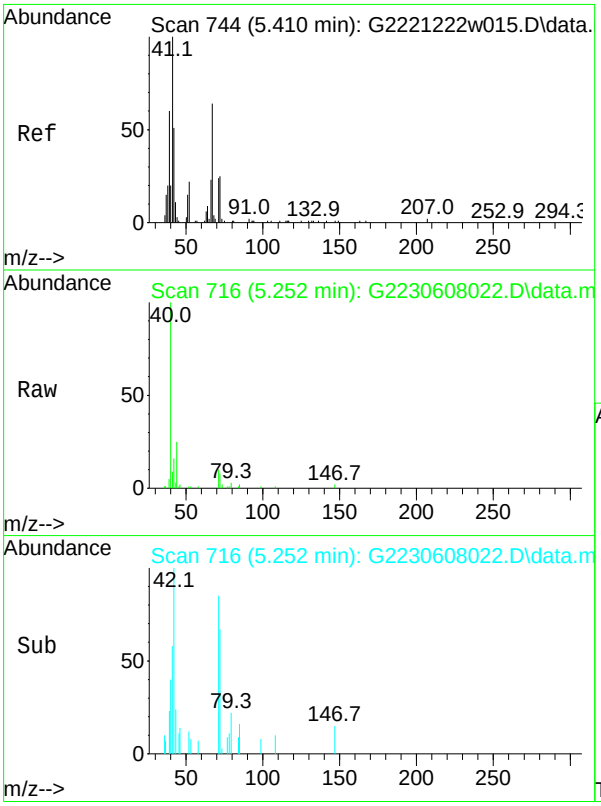


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.440 min Scan# 419
Delta R.T. -0.006 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 73 Resp: 806144

Ion	Ratio	Lower	Upper
73	100		
57	21.0	0.0	51.7
41	17.5	0.0	50.6

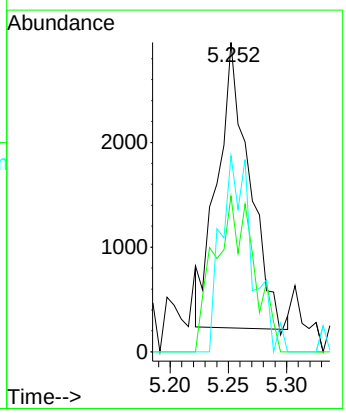


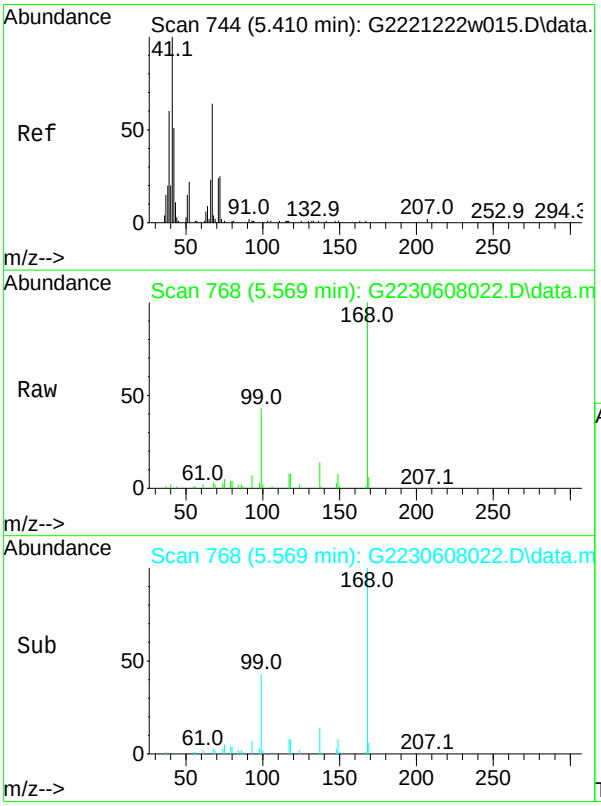


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.255 min Scan# 716
Delta R.T. -0.006 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 42 Resp: 52138

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	66.5	14.7	74.7

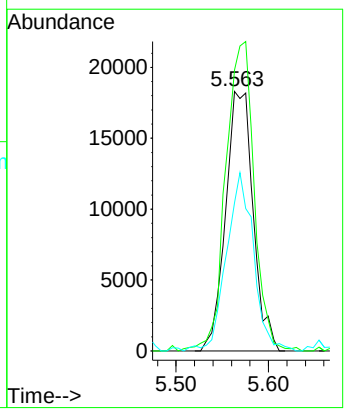


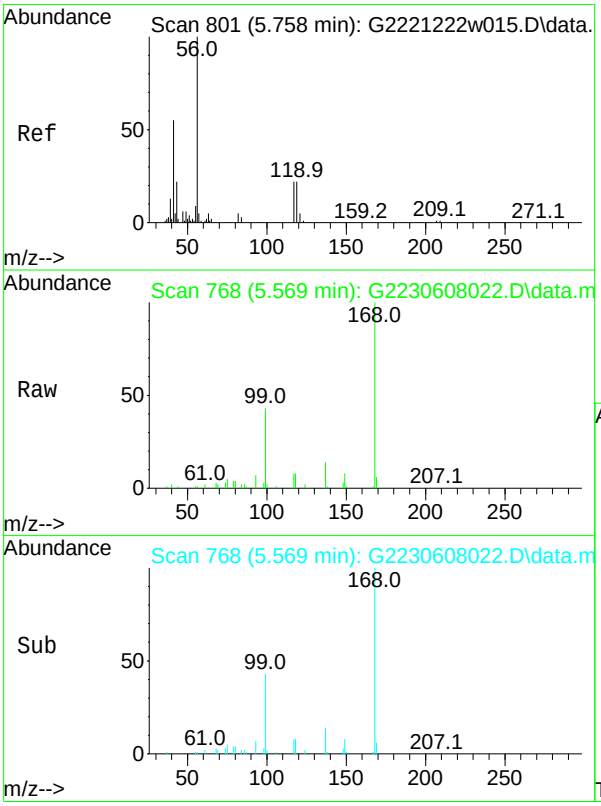


#40
Cyclohexane
Concen: 0.76 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 84 Resp: 379309

Ion	Ratio	Lower	Upper
84	100		
69	121.9	6.8	66.8#
56	66.8	79.1	139.1#

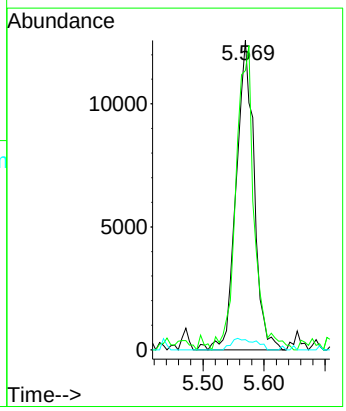


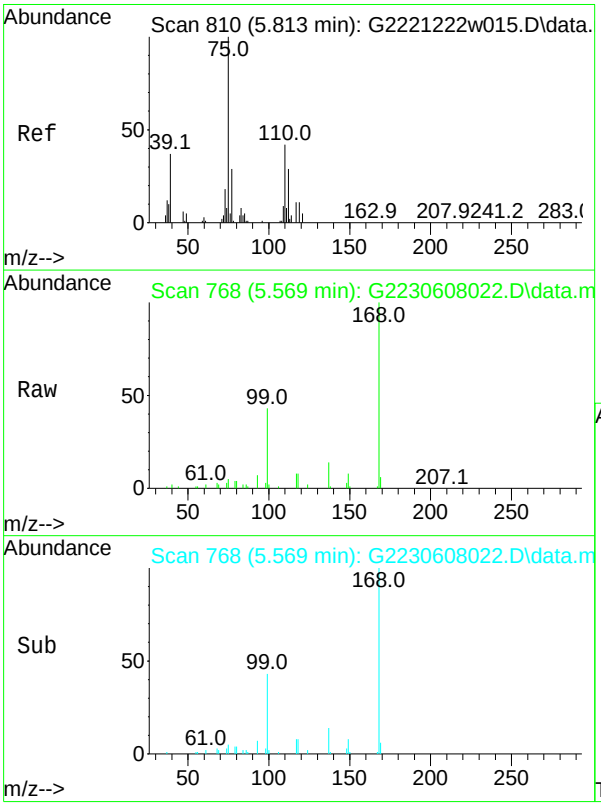


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.059 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 56 Resp: 257532

Ion	Ratio	Lower	Upper
56	100		
55	98.2	0.0	41.0#
57	0.0	0.0	35.7

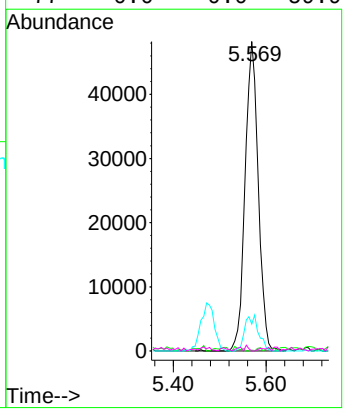


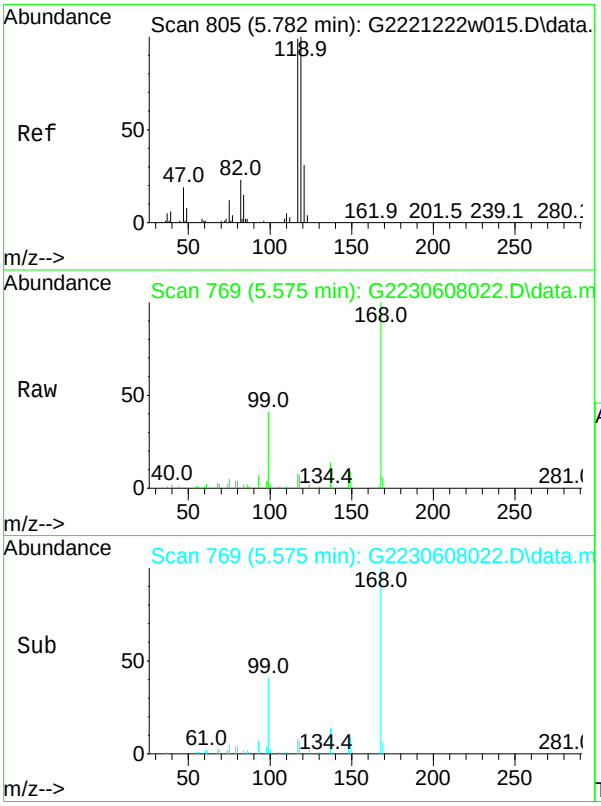


#42
1,1-Dichloropropene
Concen: 2.17 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.117 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 75 Resp: 947651

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	12.0	9.1	69.1
77	0.0	0.0	59.9

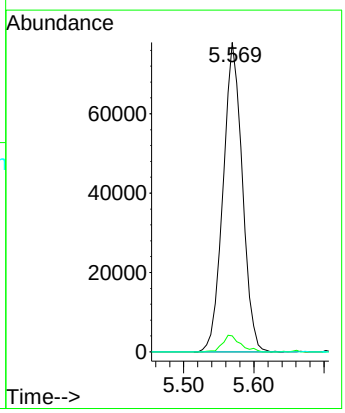


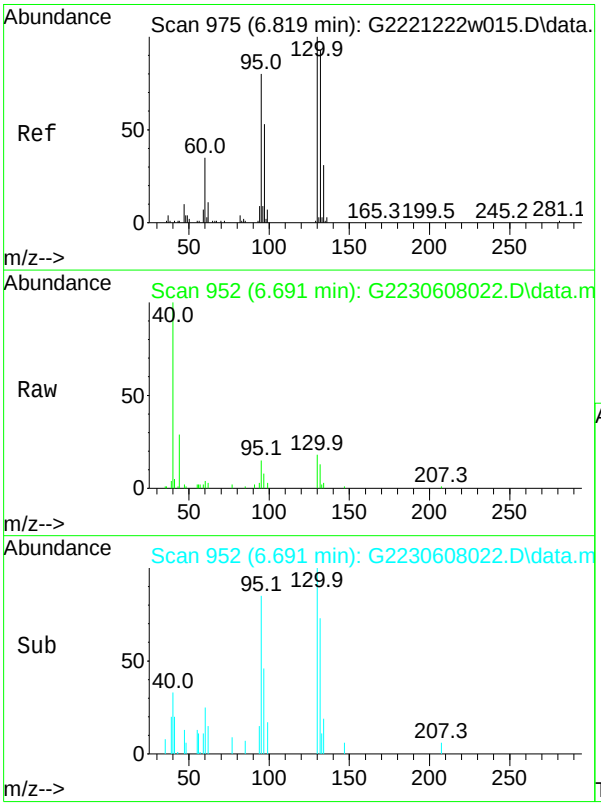


#47
Carbon tetrachloride
Concen: 3.28 ug/L
RT: 5.572 min Scan# 769
Delta R.T. -0.108 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion:117 Resp: 1485462

Ion	Ratio	Lower	Upper
117	100		
119	5.0	66.4	126.4#
121	0.0	0.4	60.4#

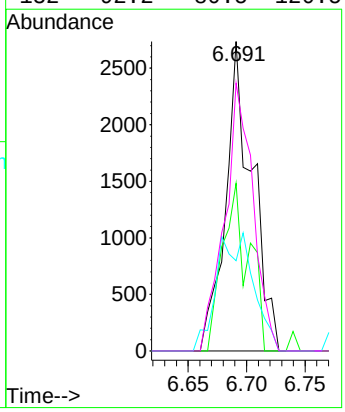


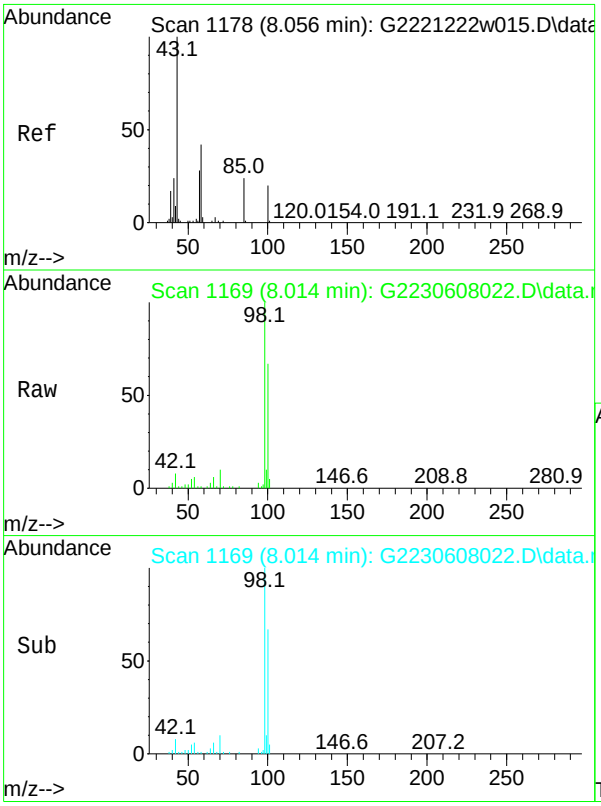


#50
Trichloroethene
Concen: 0.05 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 95 Resp: 43429

Ion	Ratio	Lower	Upper
95	100		
97	0.0	35.5	95.5#
60	0.0	14.8	74.8#
132	92.2	80.5	120.5

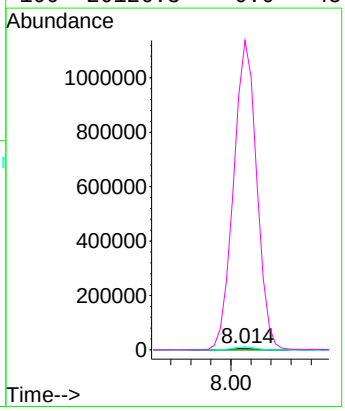


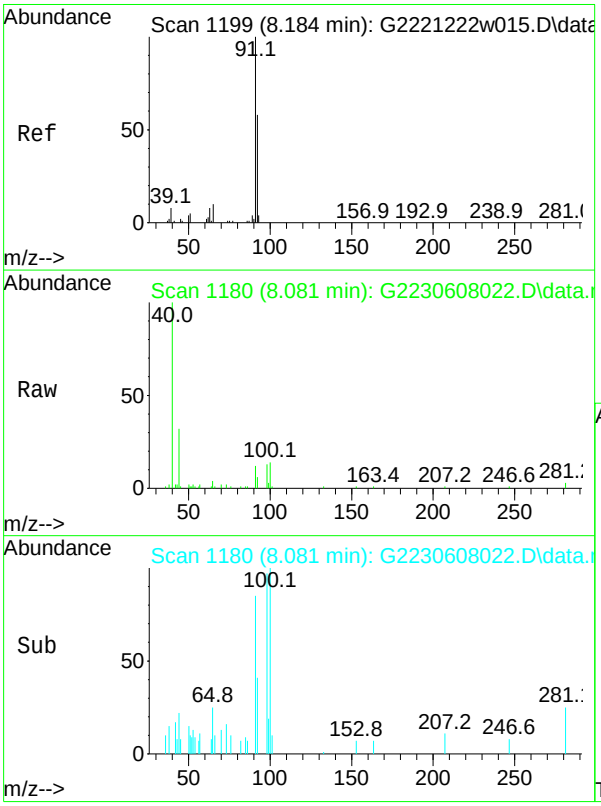


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 43 Resp: 90175

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	194.4	37.0	37.0#
100	20126.3	0.0	45.2#

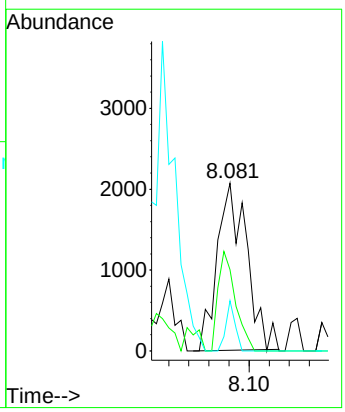


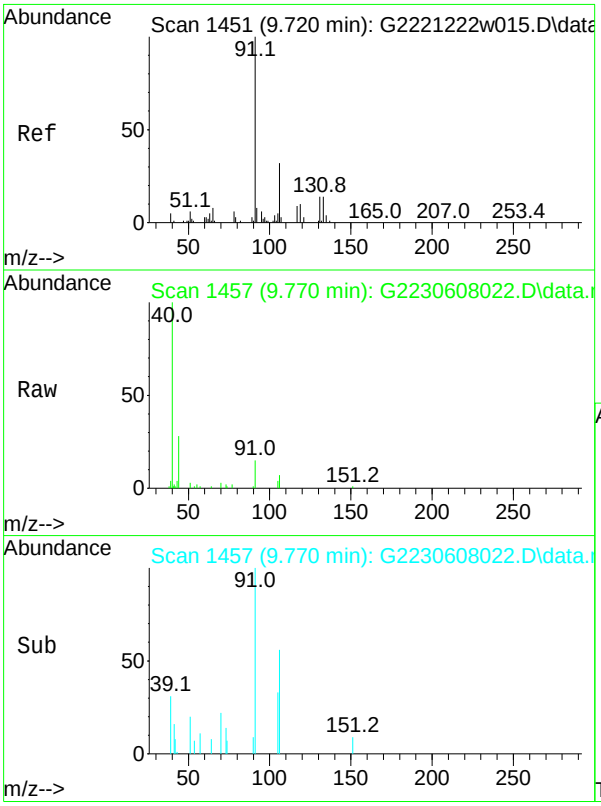


#65
Toluene
Concen: Below Cal
RT: 8.082 min Scan# 1180
Delta R.T. -0.004 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 91 Resp: 42455

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

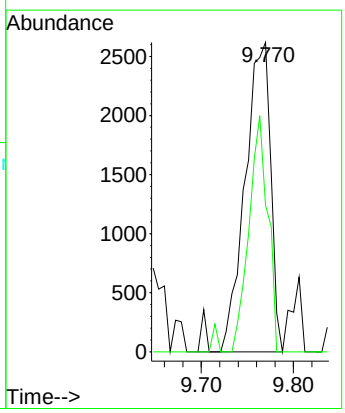


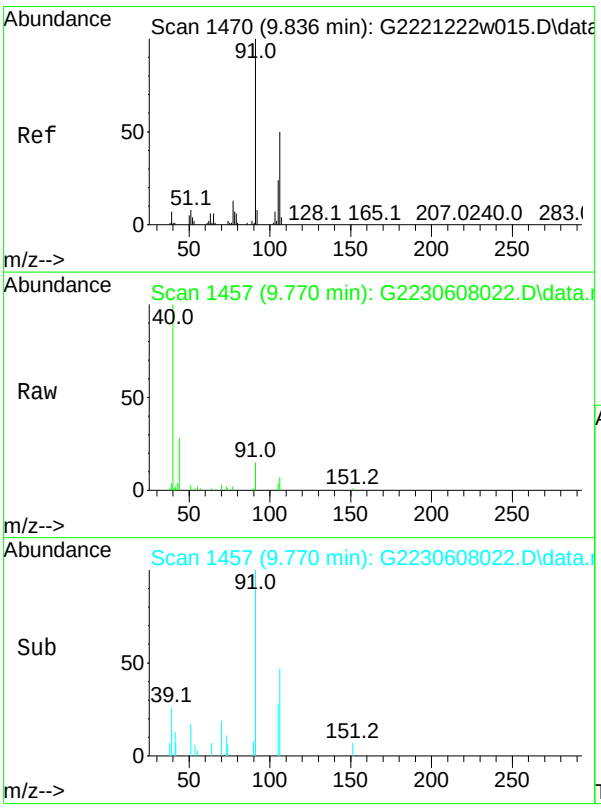


#74
Ethylbenzene
Concen: Below Cal
RT: 9.767 min Scan# 1457
Delta R.T. 0.124 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 91 Resp: 51349

Ion	Ratio	Lower	Upper
91	100		
106	55.1	0.8	60.8

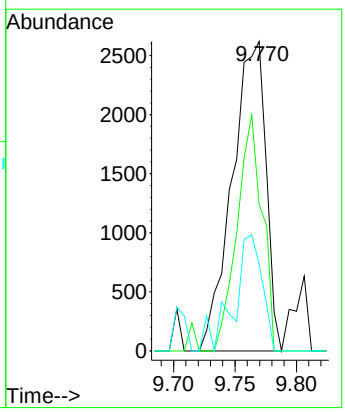


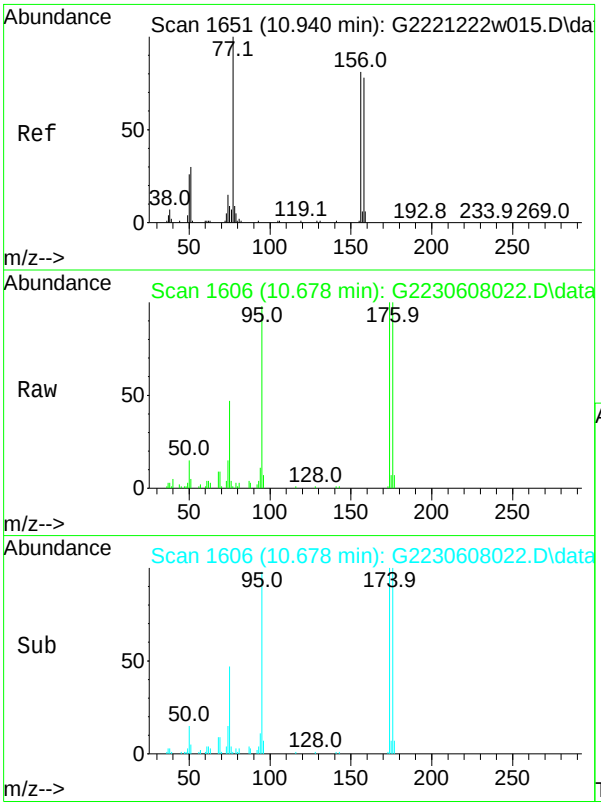


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.767 min Scan# 1457
Delta R.T. 0.003 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 91 Resp: 50038

Ion	Ratio	Lower	Upper
91	100		
106	56.5	19.0	79.0
105	0.0	0.0	52.7

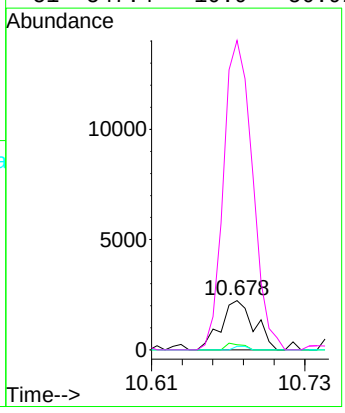


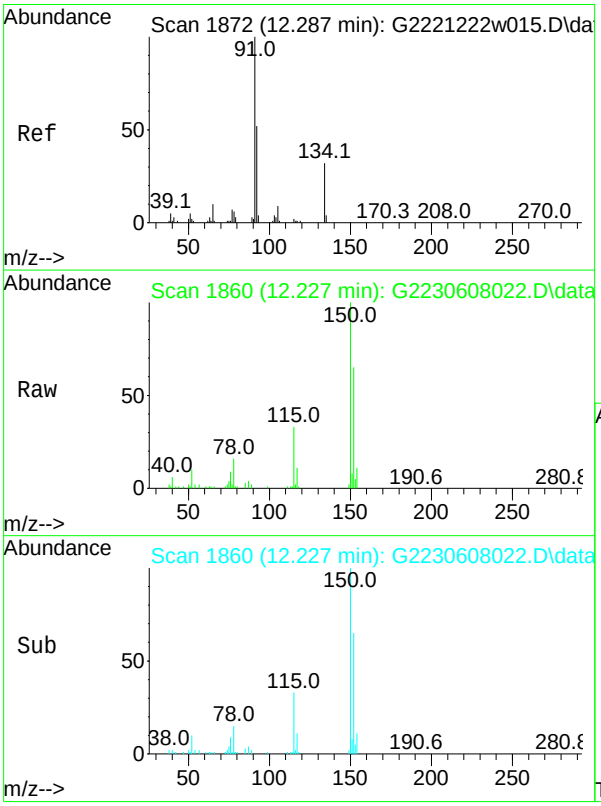


#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.680 min Scan# 1606
Delta R.T. -0.148 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 77 Resp: 39407

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	547.4	10.9	50.9#

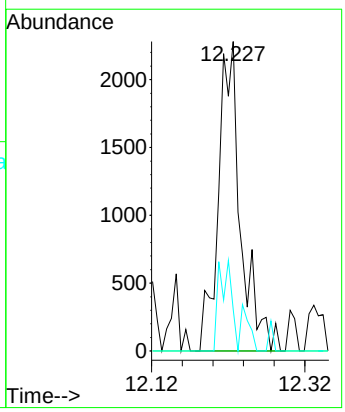




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.226 min Scan# 1860
Delta R.T. -0.005 min
Lab File: G2230608022.D
Acq: 08 Jun 2023 17:58

Tgt Ion: 91 Resp: 45324

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

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10	File ID:	G2230606025.D
Sampled:	05/27/23 11:01	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 20:36
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10	File ID:	G2230606025.D
Sampled:	05/27/23 11:01	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 20:36
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.950	0.518	2.00	4.00	J
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

SW8260B/D

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10	File ID:	G2230606025.D
Sampled:	05/27/23 11:01	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 20:36
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, 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*	*2.79*	*0.0781*	*0.200*	*0.500*	*B*
75-69-4	Trichlorofluoromethane	1.67	0.0505	0.200	0.500	
75-01-4	Vinyl chloride		0.129	0.500	1.00	U

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606025.D
Acq On : 06 Jun 2023 20:36
Operator : PO1
Sample : 23E0775-10
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 07 09:52:54 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

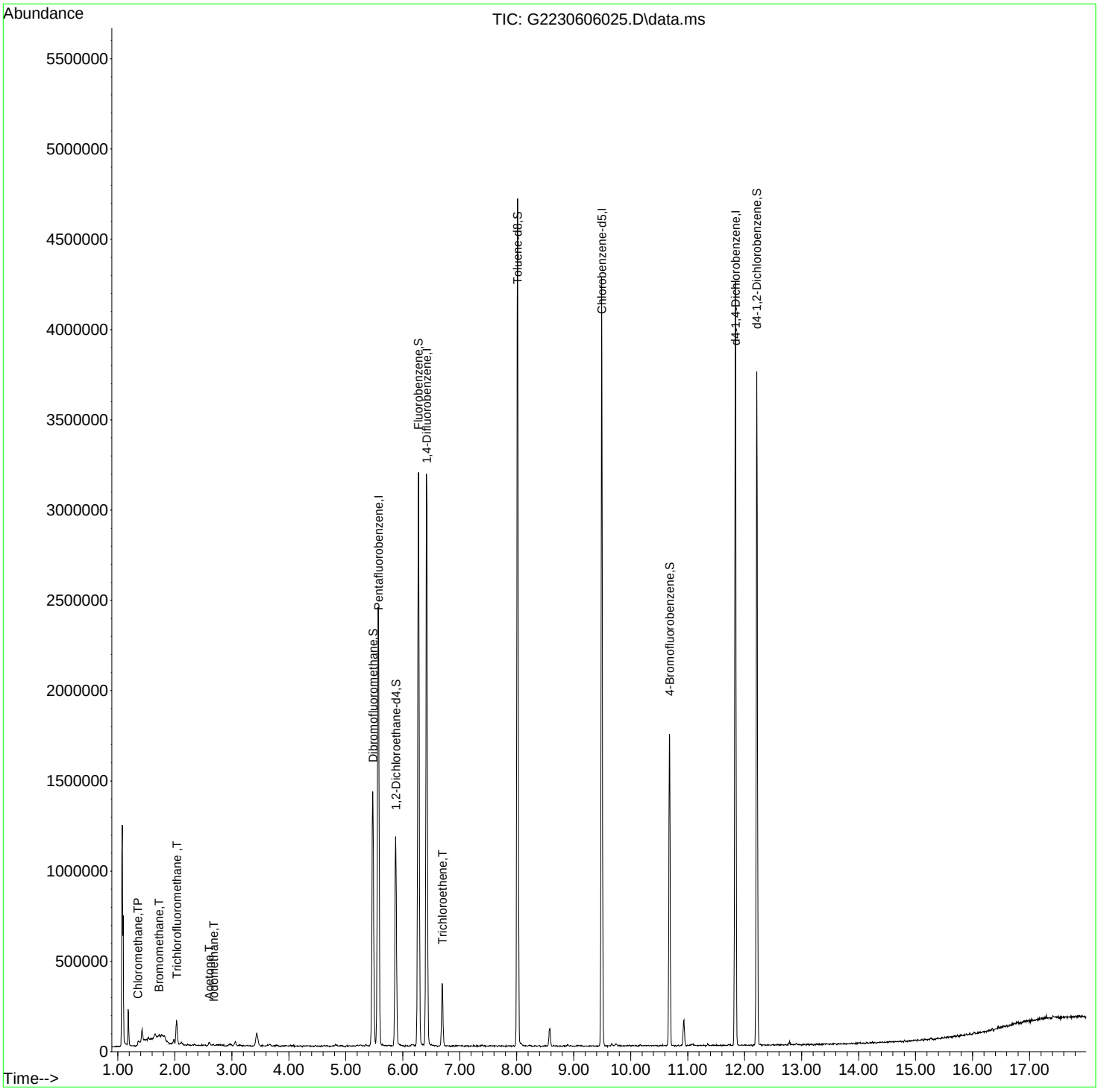
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	19130707	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	27812158	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24514740	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	12080176	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	8832759	20.98	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.90%			
43) 1,2-Dichloroethane-d4	5.878	65	8043930	19.33	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%			
49) Fluorobenzene	6.278	96	31019459	19.57	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.85%			
64) Toluene-d8	8.016	98	30017585	19.43	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%			
81) 4-Bromofluorobenzene	10.685	174	5567786	9.76	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	10509935	20.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.15%			
Target Compounds						Qvalue
3) Chloromethane	1.351	50	81137m	0.15	ug/L	
5) Bromomethane	1.725	94	65059	0.00	ug/L #	69
7) Trichlorofluoromethane	2.032	101	961164	1.67	ug/L	94
12) Acetone	2.604	43	231985	0.95	ug/L	86
13) Iodomethane	2.679	142	61561	0.14	ug/L #	41
18) Methylene chloride	3.063	49	116175	Below Cal		67
21) Methyl tert-butyl ether	3.439	73	954849	Below Cal		95
50) Trichloroethene	6.695	95	1049359	2.79	ug/L	92
65) Toluene	8.088	91	53743	Below Cal	#	30

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606025.D
Acq On : 06 Jun 2023 20:36
Operator : PO1
Sample : 23E0775-10
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 07 09:52:54 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606025.D
Acq On : 06 Jun 2023 20:36
Operator : PO1
Sample : 23E0775-10
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 07 09:52:54 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

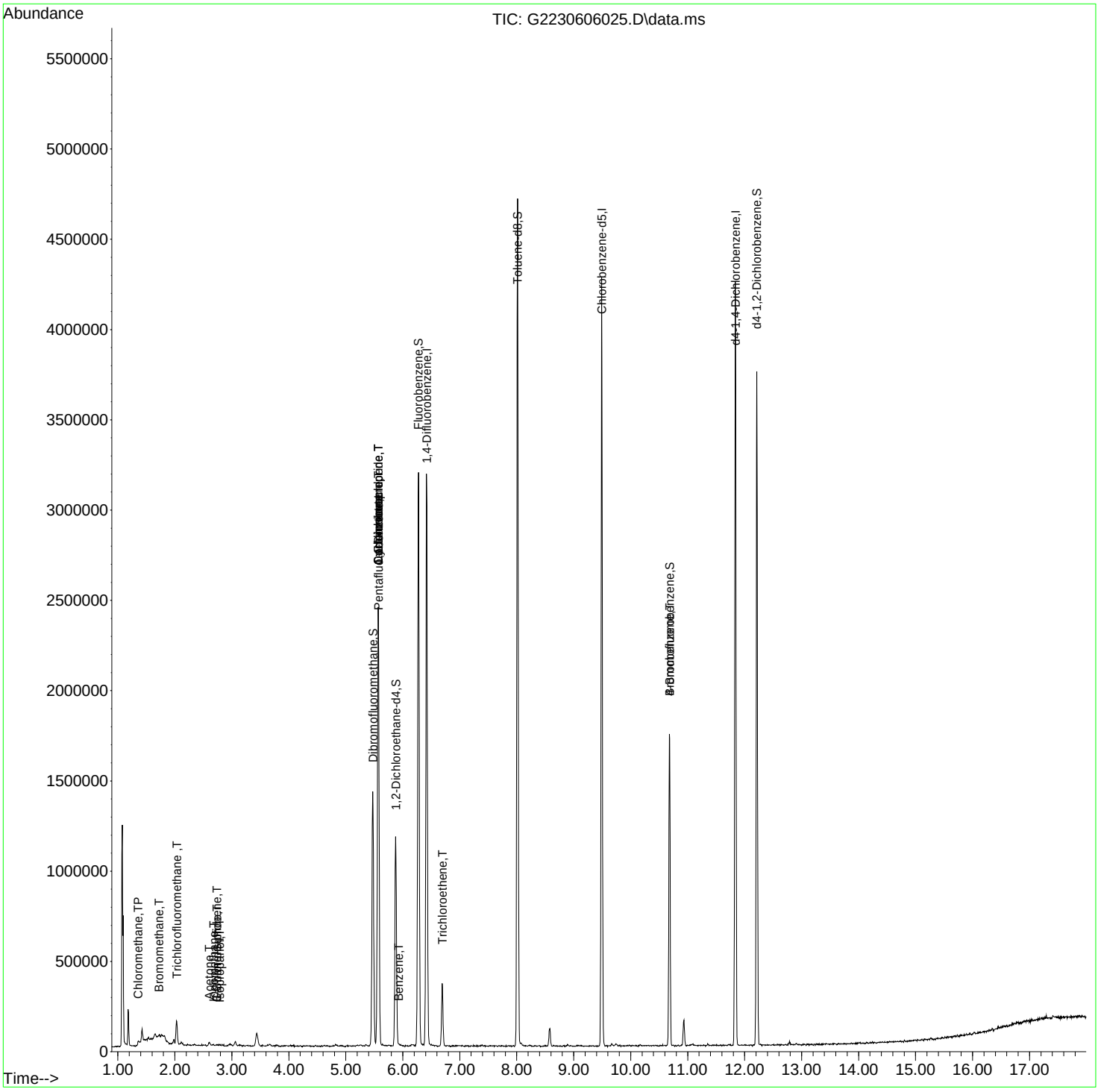
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.573	168	19130707	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	27812158	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24514740	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	12080176	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	8832759	20.98	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.90%				
43) 1,2-Dichloroethane-d4	5.878	65	8043930	19.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%				
49) Fluorobenzene	6.278	96	31019459	19.57	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.85%				
64) Toluene-d8	8.016	98	30017585	19.43	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%				
81) 4-Bromofluorobenzene	10.685	174	5567786	9.76	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.60%				
97) d4-1,2-Dichlorobenzene	12.217	152	10509935	20.23	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.15%				
Target Compounds							Qvalue
3) Chloromethane	1.356	50	76410	0.14	ug/L		94
5) Bromomethane	1.725	94	65059	0.00	ug/L	#	69
7) Trichlorofluoromethane	2.032	101	961164	1.67	ug/L		94
12) Acetone	2.604	43	231985	0.95	ug/L		86
13) Iodomethane	2.679	142	61561	0.14	ug/L	#	41
14) Carbon disulfide	2.743	76	82187	0.00	ug/L	#	74
15) Isopropanol	2.786	45	92395	6.02	ug/L	#	56
17) 3-Chloro-1-propene	2.743	76	82187	0.35	ug/L	#	53
18) Methylene chloride	3.063	49	116175	Below Cal			67
21) Methyl tert-butyl ether	3.439	73	954849	Below Cal			95
40) Cyclohexane	5.571	84	423225	0.82	ug/L	#	34
41) 1-Chlorobutane	5.567	56	262255	0.44	ug/L	#	1
42) 1,1-Dichloropropene	5.571	75	1023305	2.28	ug/L	#	37
47) Carbon tetrachloride	5.572	117	1549109	3.09	ug/L	#	16
48) Benzene	5.930	78	34678	0.02	ug/L	#	52
50) Trichloroethene	6.695	95	1049359	2.79	ug/L		92
60) 4-Methyl-2-pentanone	8.019	43	97781	Below Cal		#	1
65) Toluene	8.088	91	53743	Below Cal		#	30
74) Ethylbenzene	9.492	91	39809	Below Cal		#	44
82) Bromobenzene	10.683	77	36127	0.06	ug/L	#	1
99) n-Butylbenzene	12.221	91	44362	Below Cal		#	53

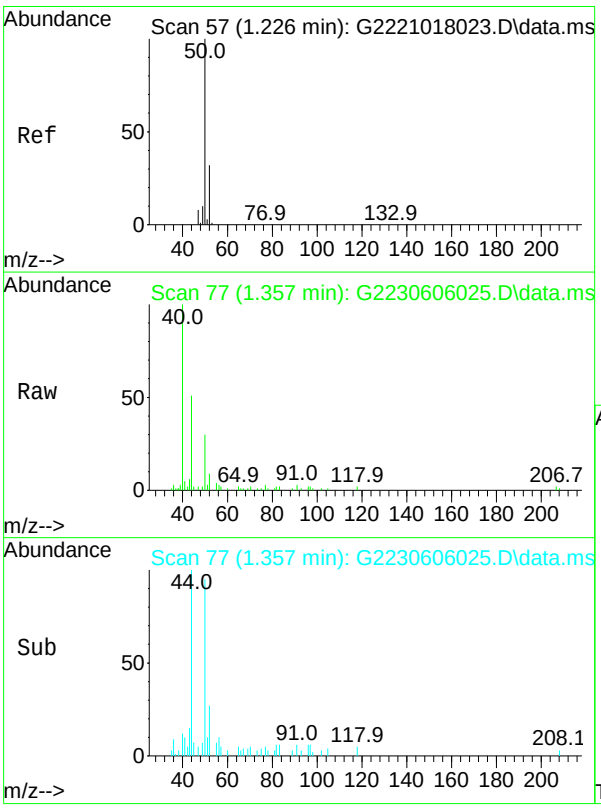
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606025.D
Acq On : 06 Jun 2023 20:36
Operator : PO1
Sample : 23E0775-10
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 07 09:52:54 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

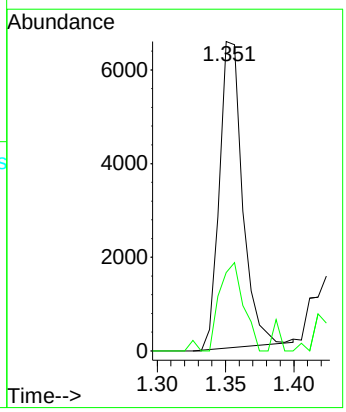


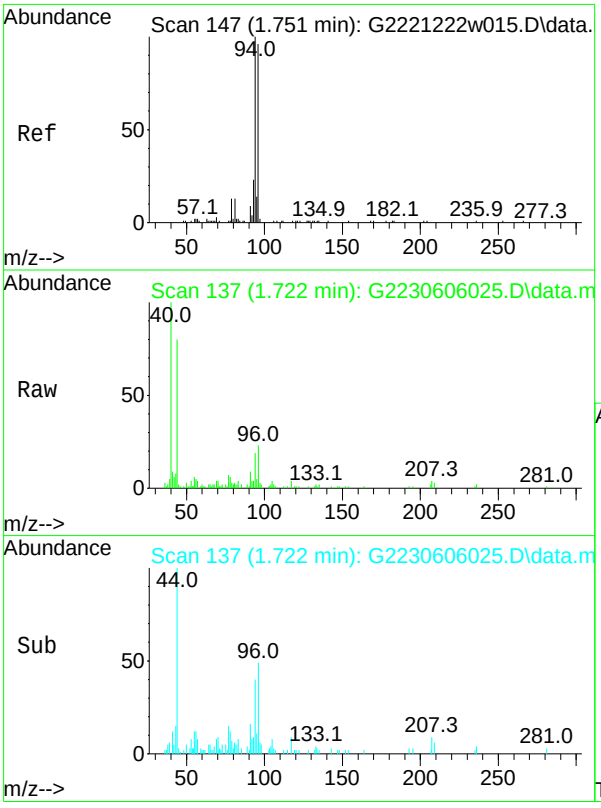


#3
Chloromethane
Concen: 0.14 ug/L
RT: 1.356 min Scan# 77
Delta R.T. 0.002 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 50 Resp: 76410

Ion	Ratio	Lower	Upper
50	100		
52	29.5	3.2	63.2

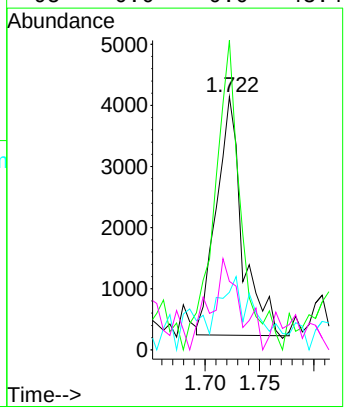


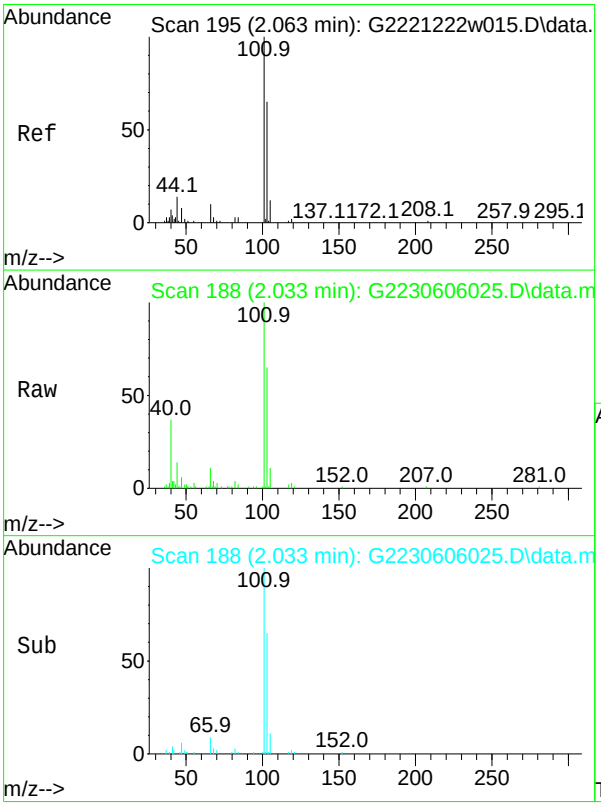


#5
Bromomethane
Concen: 0.00 ug/L
RT: 1.725 min Scan# 137
Delta R.T. 0.011 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 94 Resp: 65059

Ion	Ratio	Lower	Upper
94	100		
96	123.3	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

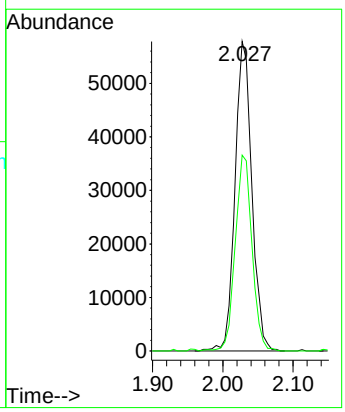


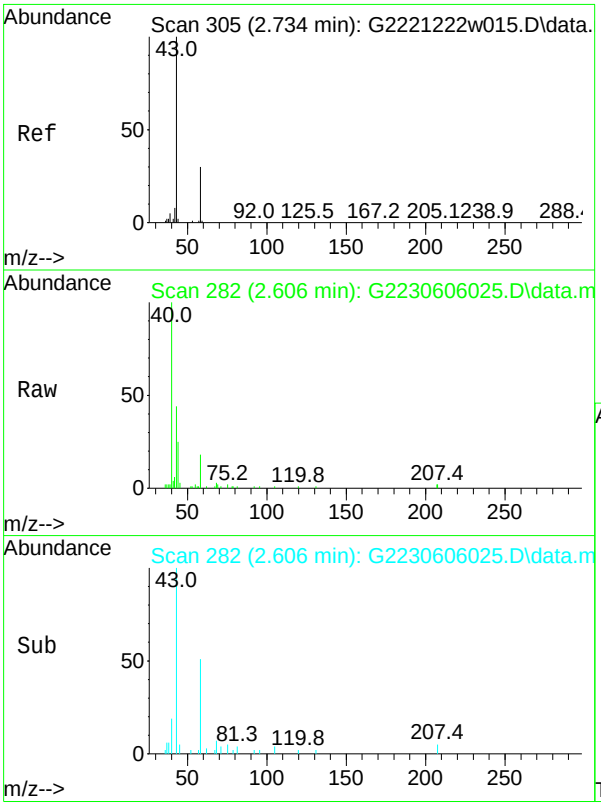


#7
Trichlorofluoromethane
Concen: 1.67 ug/L
RT: 2.032 min Scan# 188
Delta R.T. 0.002 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion:101 Resp: 961164

Ion	Ratio	Lower	Upper
101	100		
103	62.4	36.9	96.9

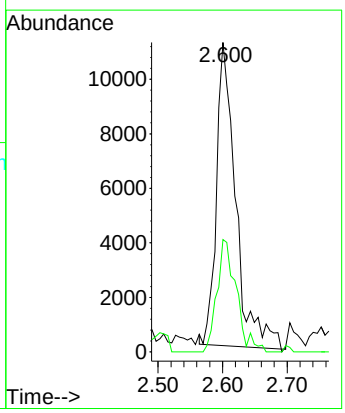


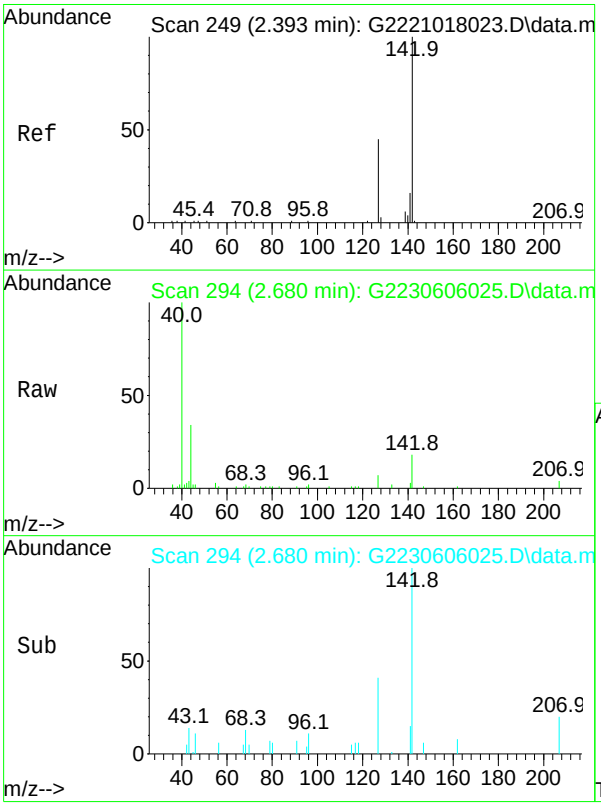


#12
Acetone
Concen: 0.95 ug/L
RT: 2.604 min Scan# 282
Delta R.T. -0.004 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 43 Resp: 231985

Ion	Ratio	Lower	Upper
43	100		
58	37.0	0.0	59.7

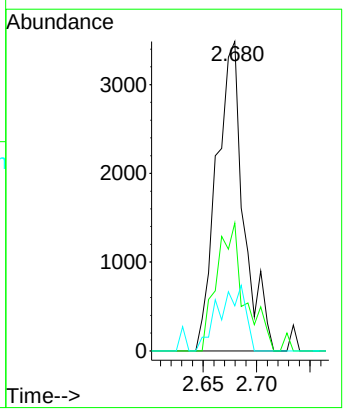


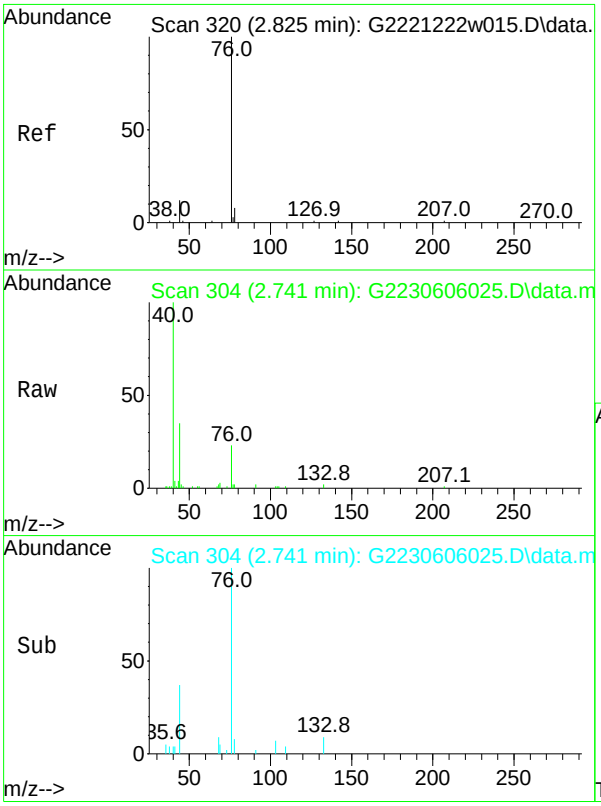


#13
Iodomethane
Concen: 0.14 ug/L
RT: 2.679 min Scan# 294
Delta R.T. 0.003 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion:142 Resp: 61561

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

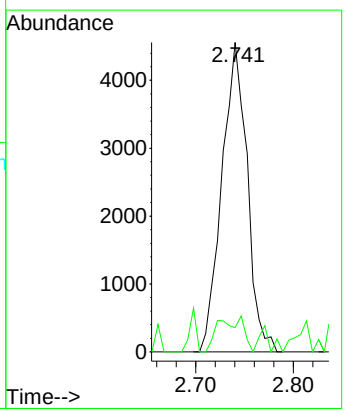


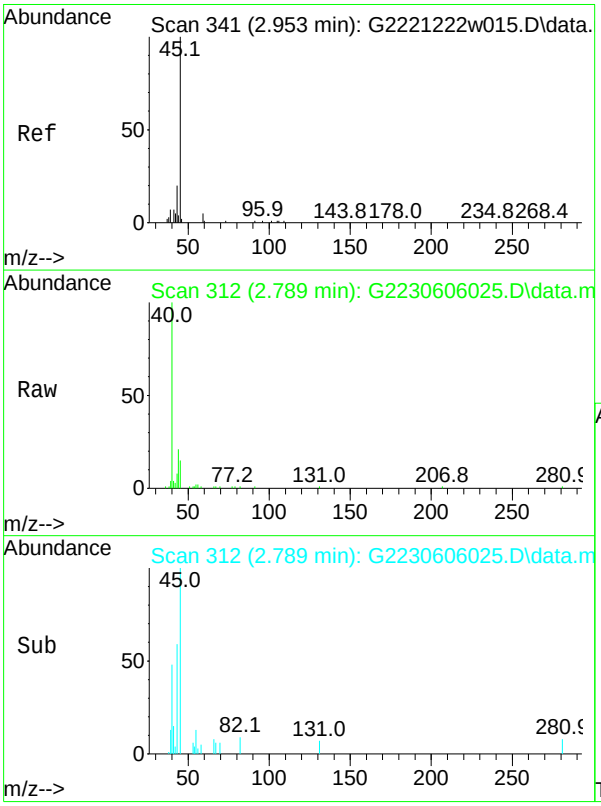


#14
Carbon disulfide
Concen: 0.00 ug/L
RT: 2.743 min Scan# 304
Delta R.T. 0.004 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 76 Resp: 82187

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

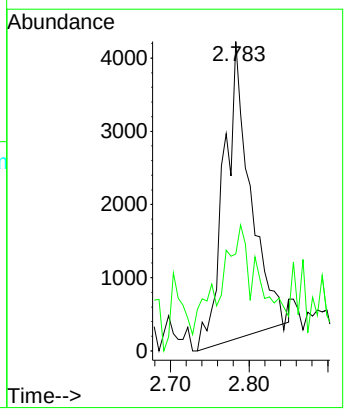


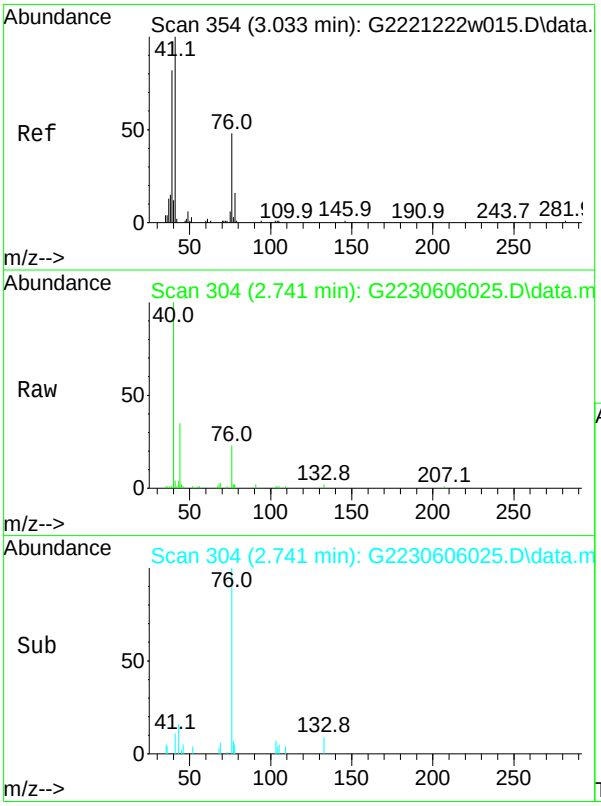


#15
Isopropanol
Concen: 6.02 ug/L
RT: 2.786 min Scan# 312
Delta R.T. -0.006 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 45 Resp: 92395

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

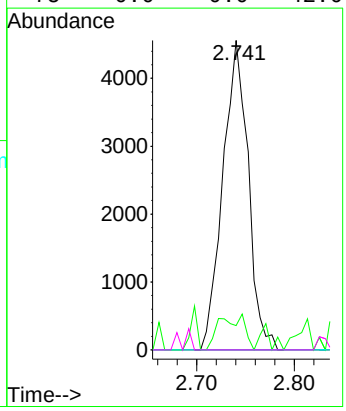


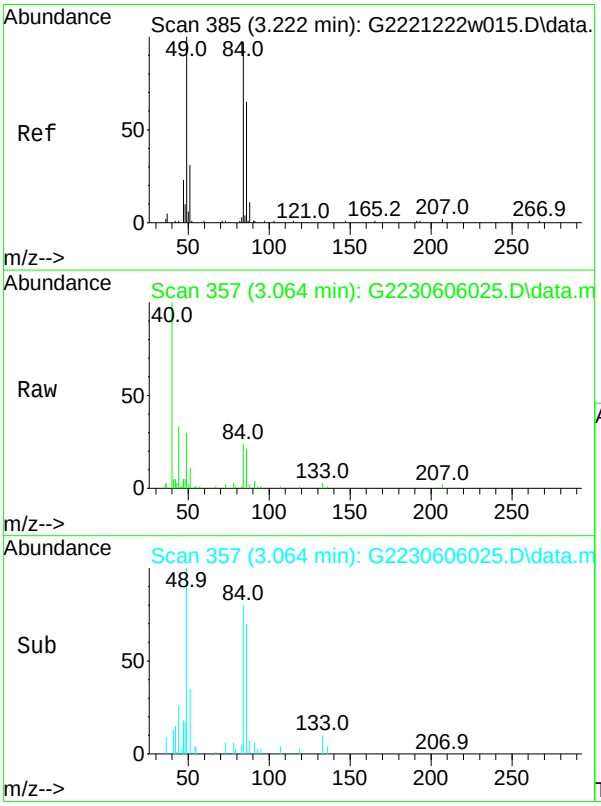


#17
3-Chloro-1-propene
Concen: 0.35 ug/L
RT: 2.743 min Scan# 304
Delta R.T. -0.177 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 76 Resp: 82187

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

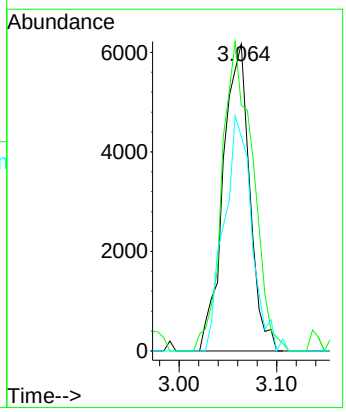


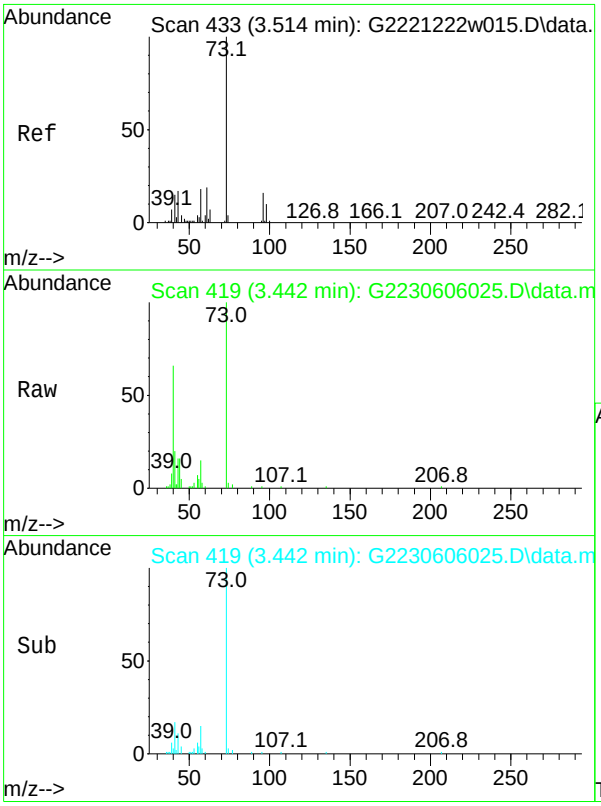


#18
Methylene chloride
Concen: Below Cal
RT: 3.063 min Scan# 357
Delta R.T. 0.001 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 49 Resp: 116175

Ion	Ratio	Lower	Upper
49	100		
84	117.2	57.9	117.9
86	80.2	24.9	84.9

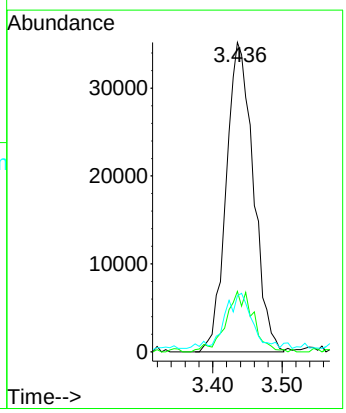


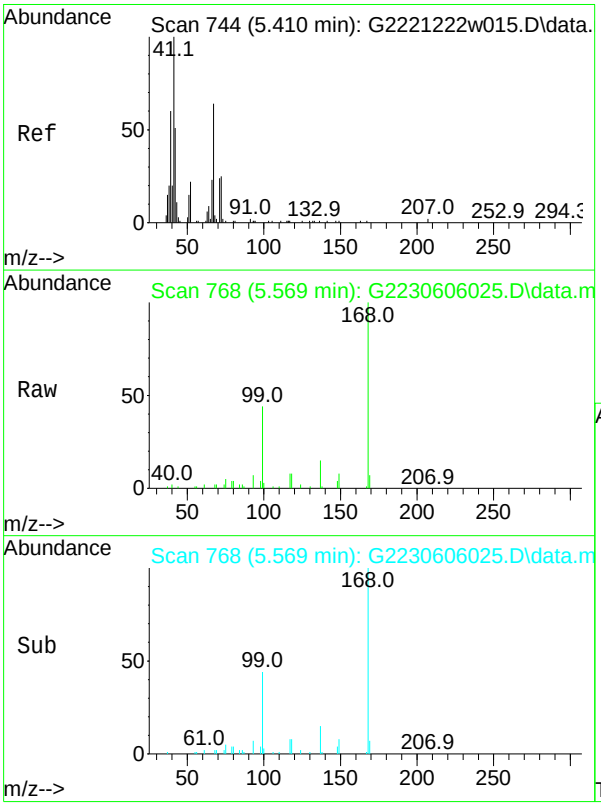


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.439 min Scan# 419
Delta R.T. -0.007 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 73 Resp: 954849

Ion	Ratio	Lower	Upper
73	100		
57	20.1	0.0	51.7
41	17.1	0.0	50.6

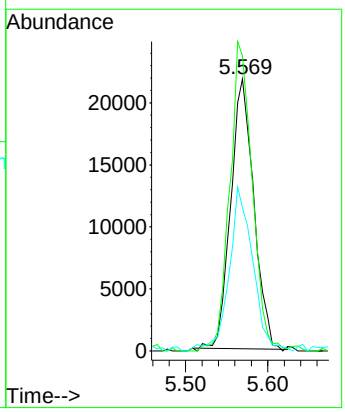


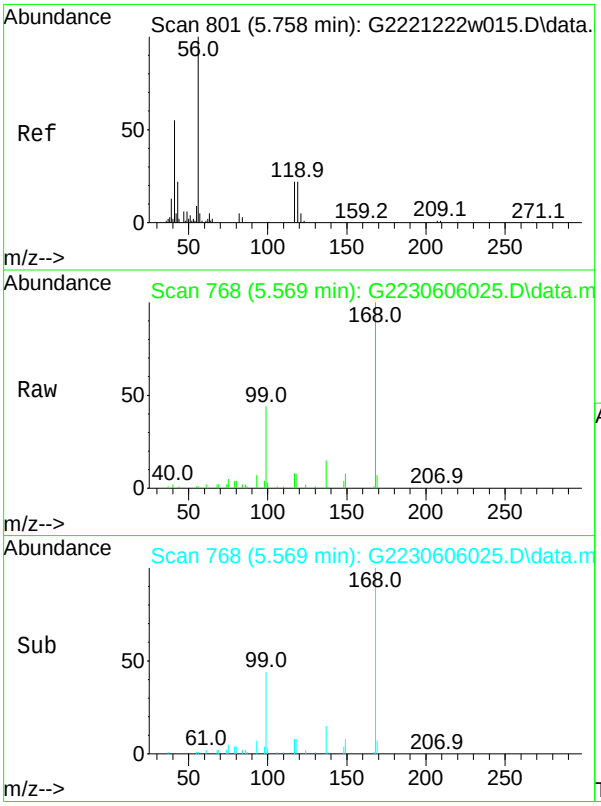


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 84 Resp: 423225

Ion	Ratio	Lower	Upper
84	100		
69	112.4	6.8	66.8#
56	61.5	79.1	139.1#

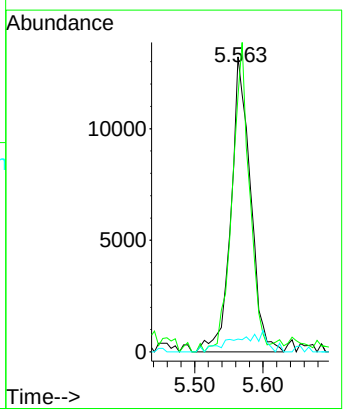


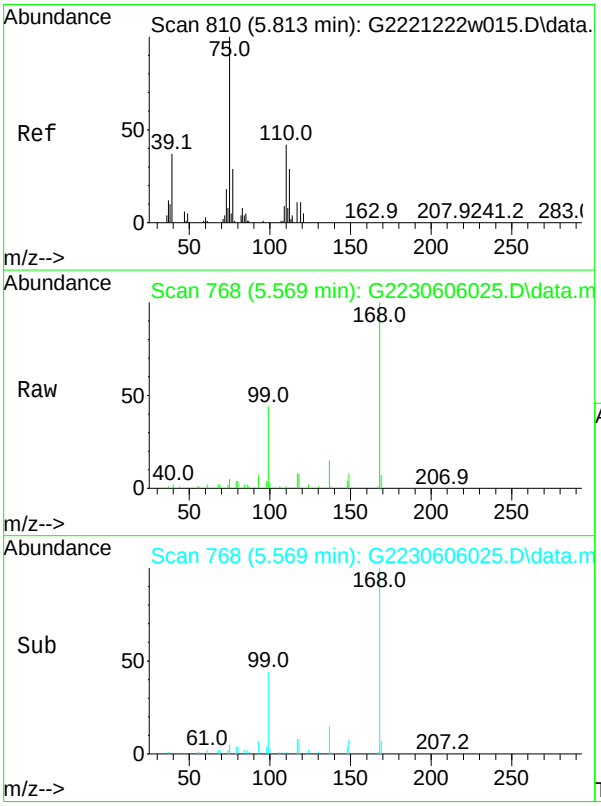


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 56 Resp: 262255

Ion	Ratio	Lower	Upper
56	100		
55	88.9	0.0	41.0#
57	0.0	0.0	35.7

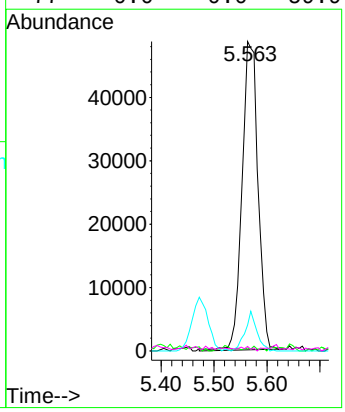


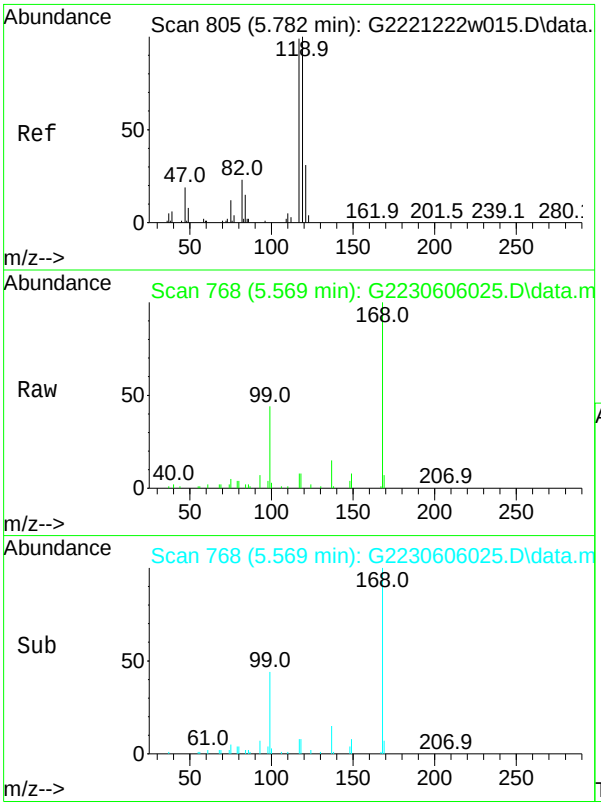


#42
1,1-Dichloropropene
Concen: 2.28 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 75 Resp: 1023305

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	9.6	9.1	69.1
77	0.0	0.0	59.9

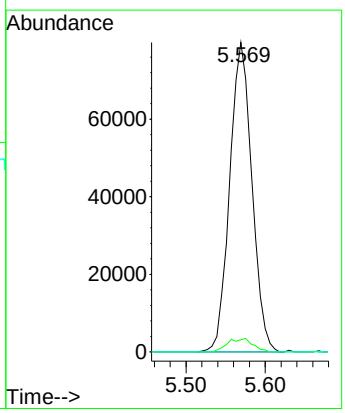


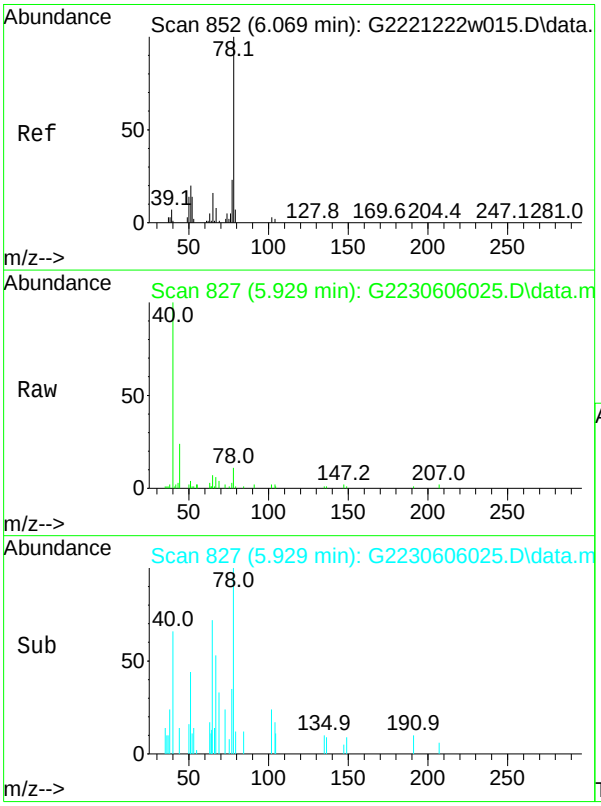


#47
Carbon tetrachloride
Concen: 3.09 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.108 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion:117 Resp: 1549109

Ion	Ratio	Lower	Upper
117	100		
119	4.9	66.4	126.4#
121	0.0	0.4	60.4#

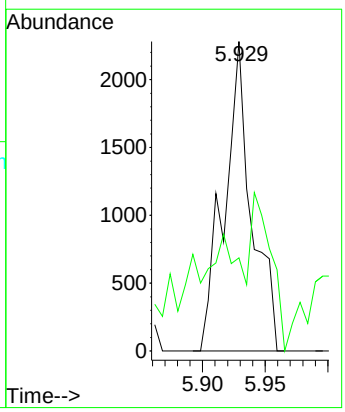


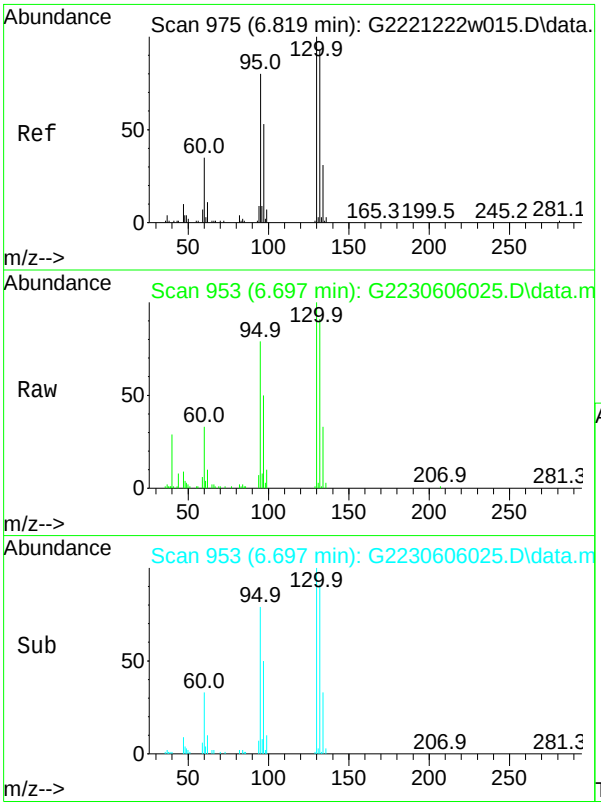


#48
Benzene
Concen: 0.02 ug/L
RT: 5.930 min Scan# 827
Delta R.T. -0.005 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 78 Resp: 34678

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

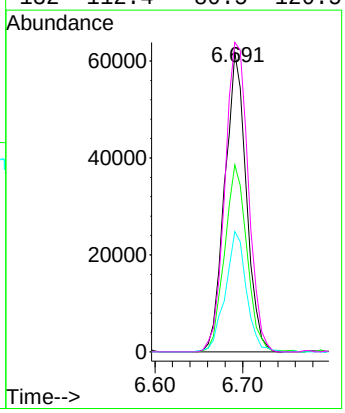


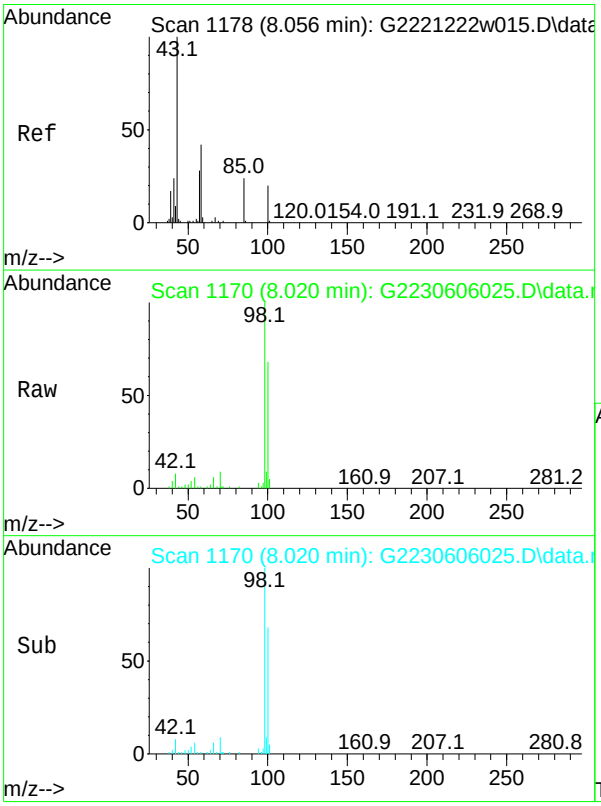


#50
Trichloroethene
Concen: 2.79 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 95 Resp: 1049359

Ion	Ratio	Lower	Upper
95	100		
97	64.9	35.5	95.5
60	39.5	14.8	74.8
132	112.4	80.5	120.5

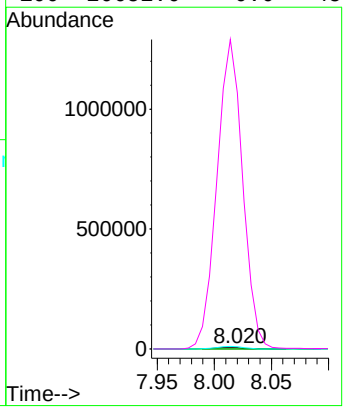


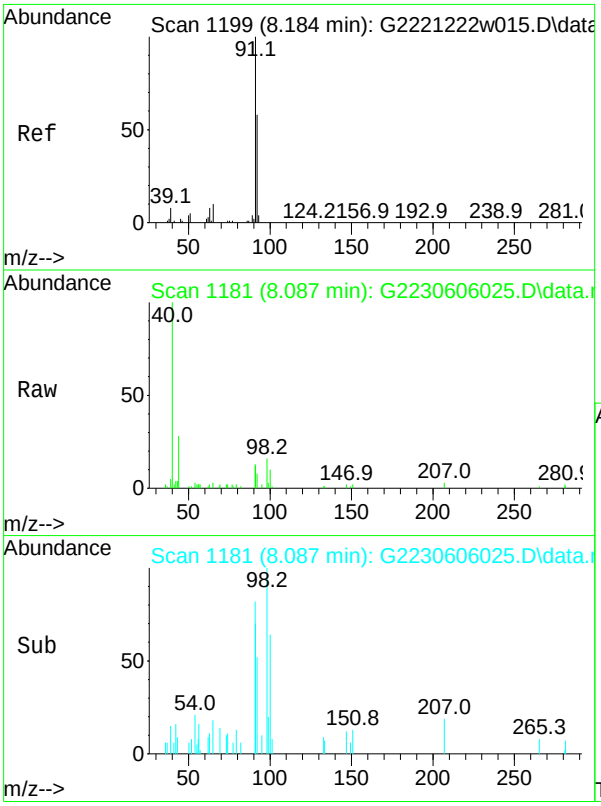


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.019 min Scan# 1170
Delta R.T. 0.075 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 43 Resp: 97781

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	185.3	37.0	37.0#
100	20652.6	0.0	45.2#

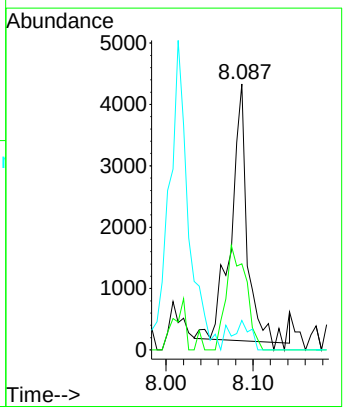


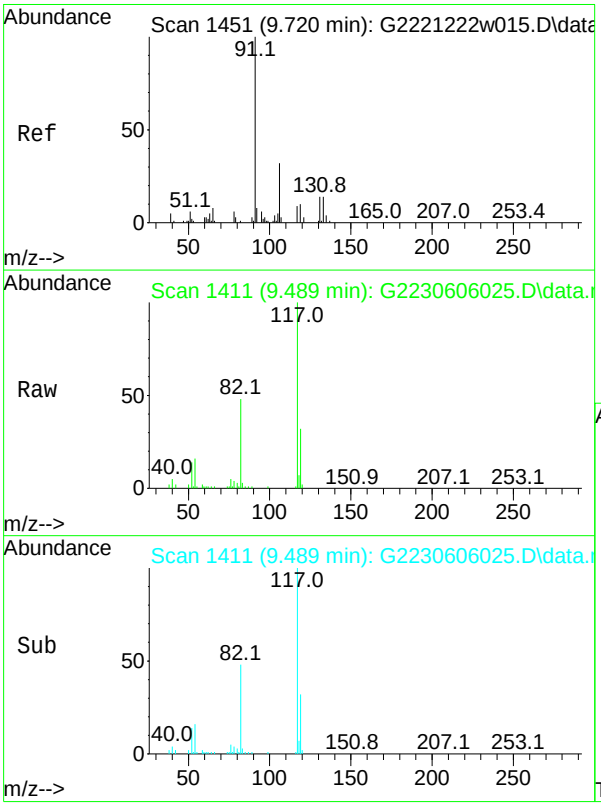


#65
Toluene
Concen: Below Cal
RT: 8.088 min Scan# 1181
Delta R.T. 0.002 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 91 Resp: 53743

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

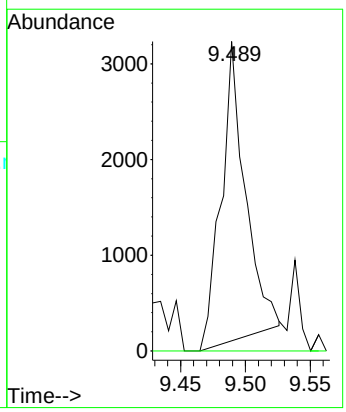


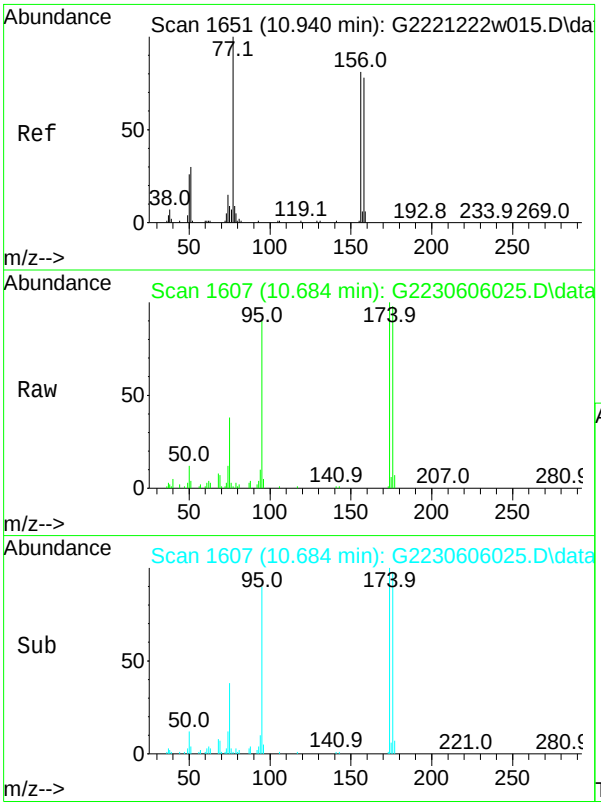


#74
Ethylbenzene
Concen: Below Cal
RT: 9.492 min Scan# 1411
Delta R.T. -0.151 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 91 Resp: 39809

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

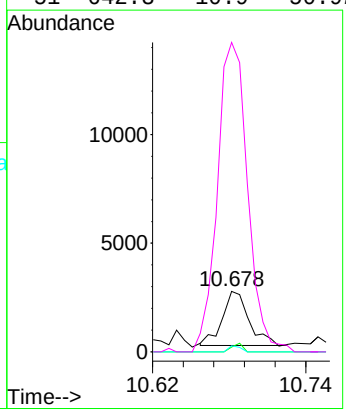


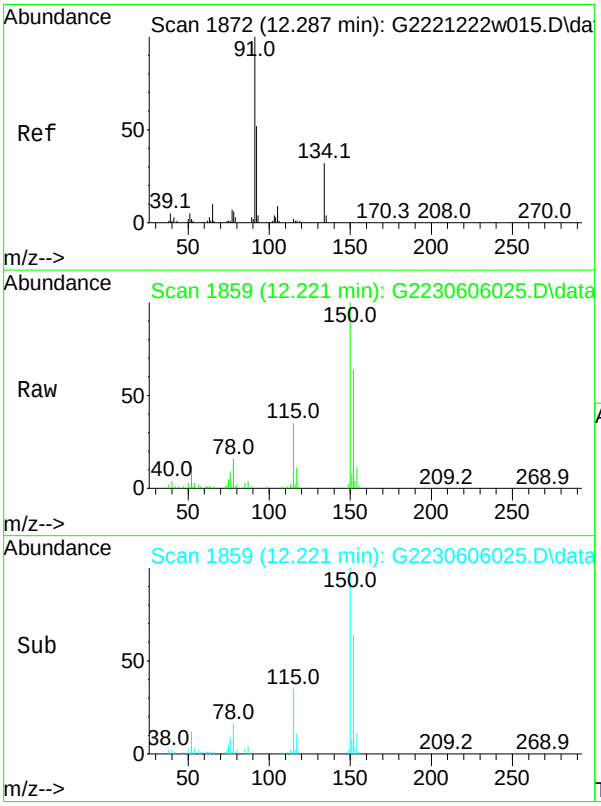


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.683 min Scan# 1607
Delta R.T. -0.145 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 77 Resp: 36127

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	642.3	10.9	50.9#

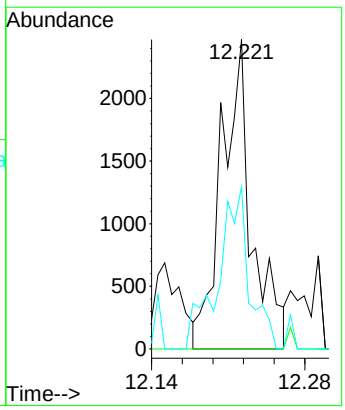




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.221 min Scan# 1859
Delta R.T. -0.010 min
Lab File: G2230606025.D
Acq: 06 Jun 2023 20:36

Tgt Ion: 91 Resp: 44362

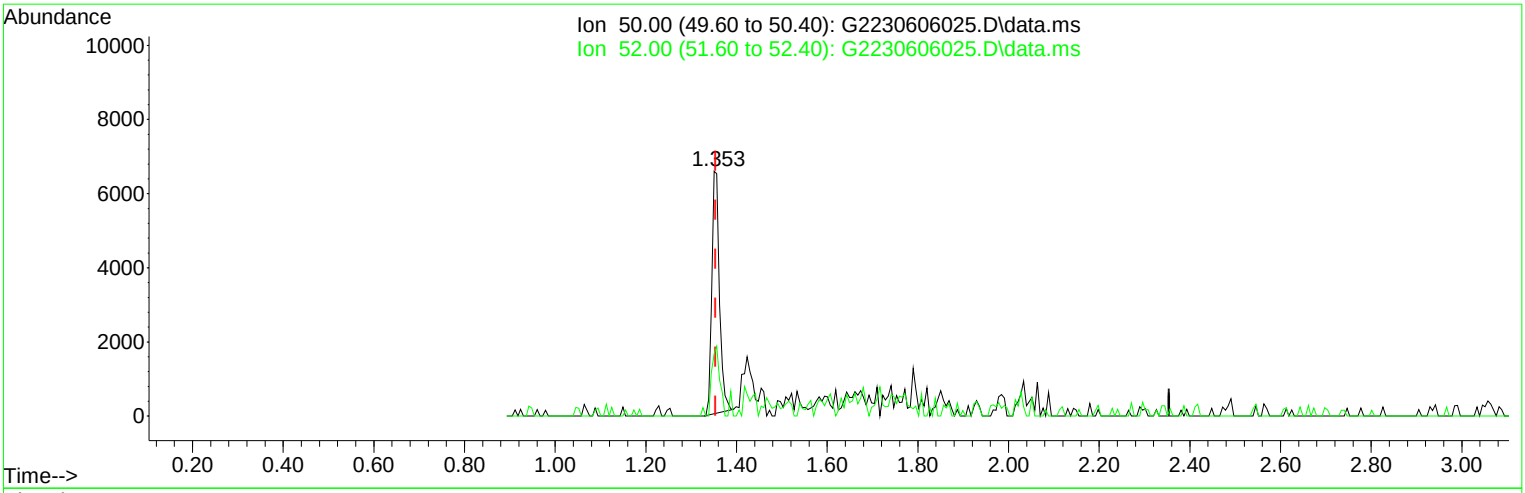
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

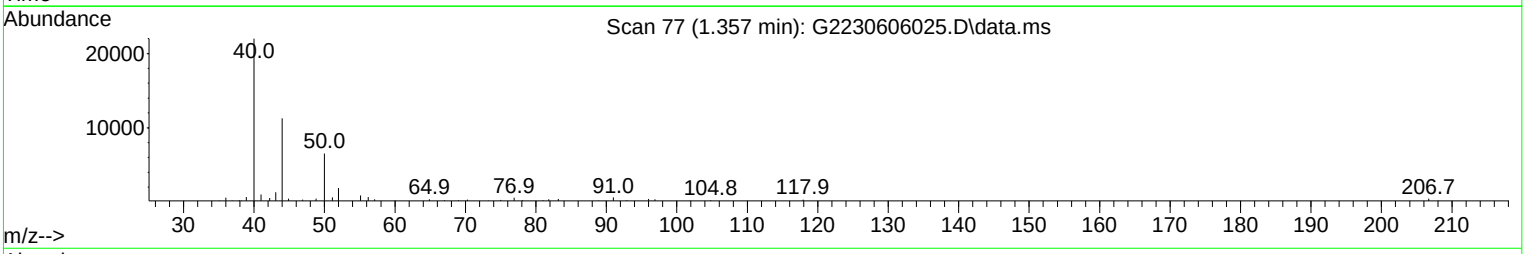


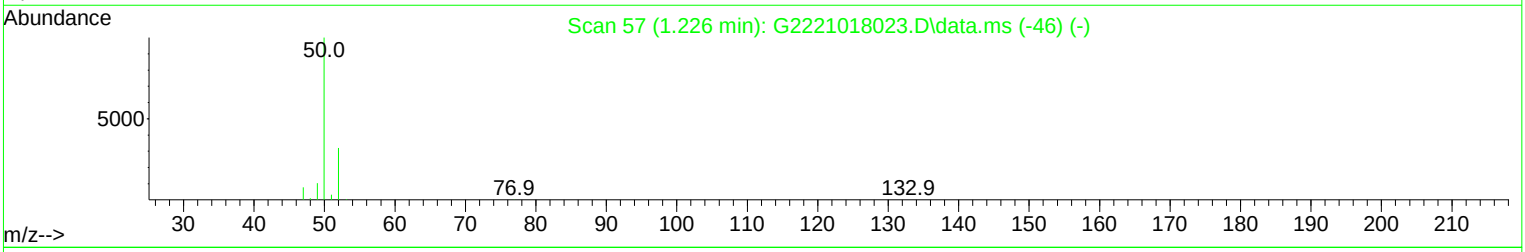
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606025.D
Acq On : 06 Jun 2023 20:36
Operator : PO1
Sample : 23E0775-10
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 07 09:52:54 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: G2230606025.D\data.ms

(3) Chloromethane (TP)

1.356min (+ 0.002) 0.14 ug/L

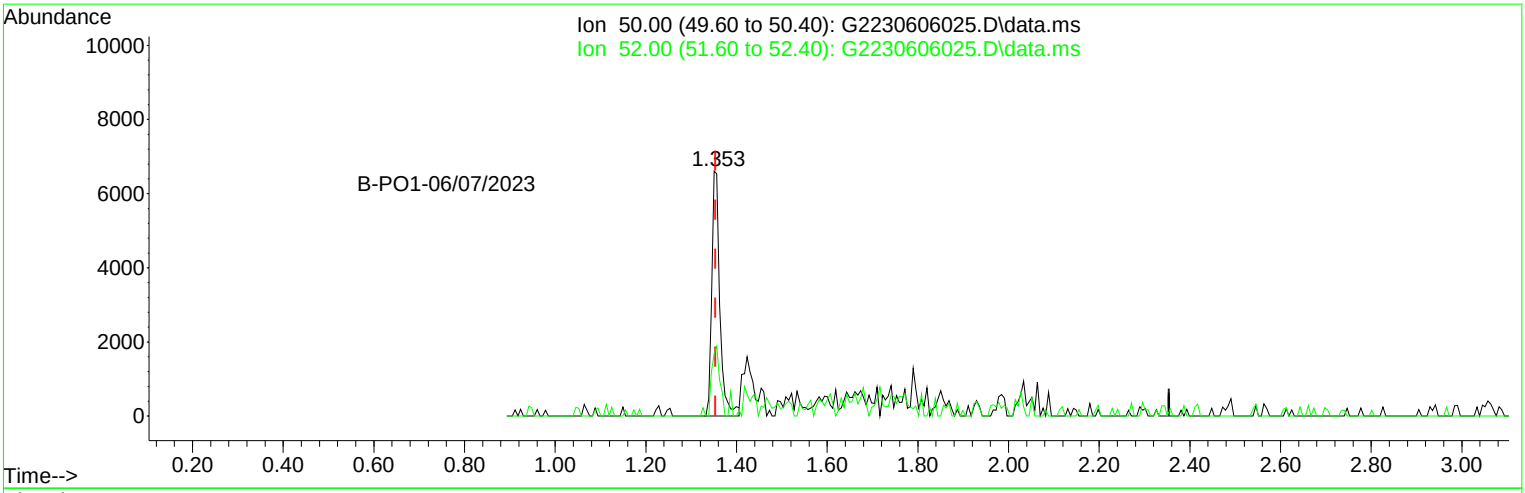
response 76410

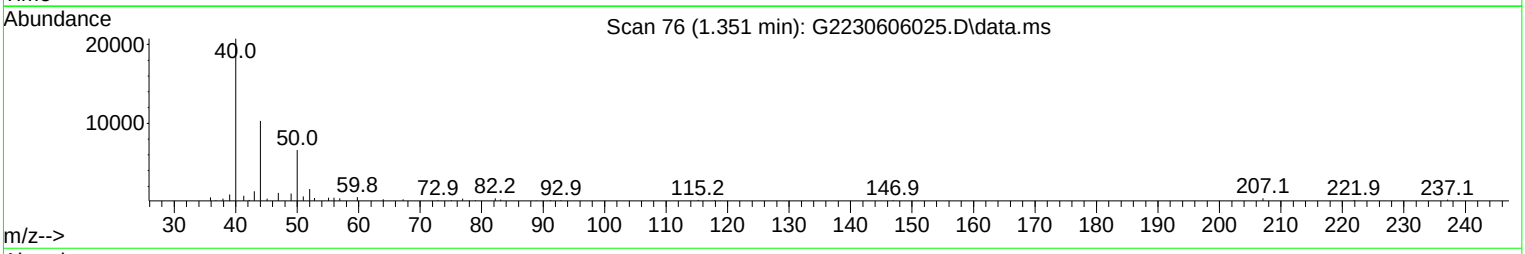
Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.20	29.54
0.00	0.00	0.00
0.00	0.00	0.00

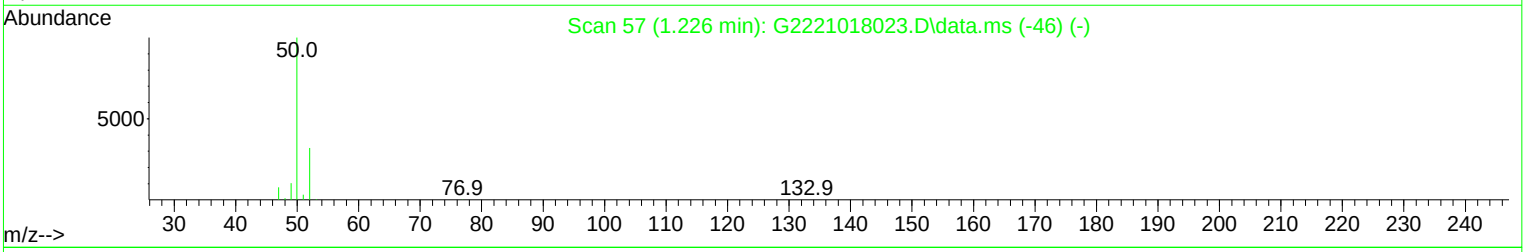
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606025.D
Acq On : 06 Jun 2023 20:36
Operator : PO1
Sample : 23E0775-10
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 07 09:52:54 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: G2230606025.D\data.ms

(3) Chloromethane (TP)

1.351min (-0.003) 0.15 ug/L m

response 81137

Ion	Exp%	Act%
50.00	100.00	100.00
52.00	33.20	27.81
0.00	0.00	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10RE1	File ID:	G2230608023.D
Sampled:	05/27/23 11:01	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 18:23
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10RE1	File ID:	G2230608023.D
Sampled:	05/27/23 11:01	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 18:23
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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

527LHSMW60

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-10RE1	File ID:	G2230608023.D
Sampled:	05/27/23 11:01	Prepared:	06/08/23 17:00	Analyzed:	06/08/23 18:23
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0170	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*	*1.20*	*0.505*	*2.00*	*5.00*	*J, D*
75-01-4	*Vinyl chloride*		*1.29*	*5.00*	*10.0*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608023.D
Acq On : 08 Jun 2023 18:23
Operator : PO1
Sample : 23E0775-10RE2
Misc : 10
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 09 11:24:42 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

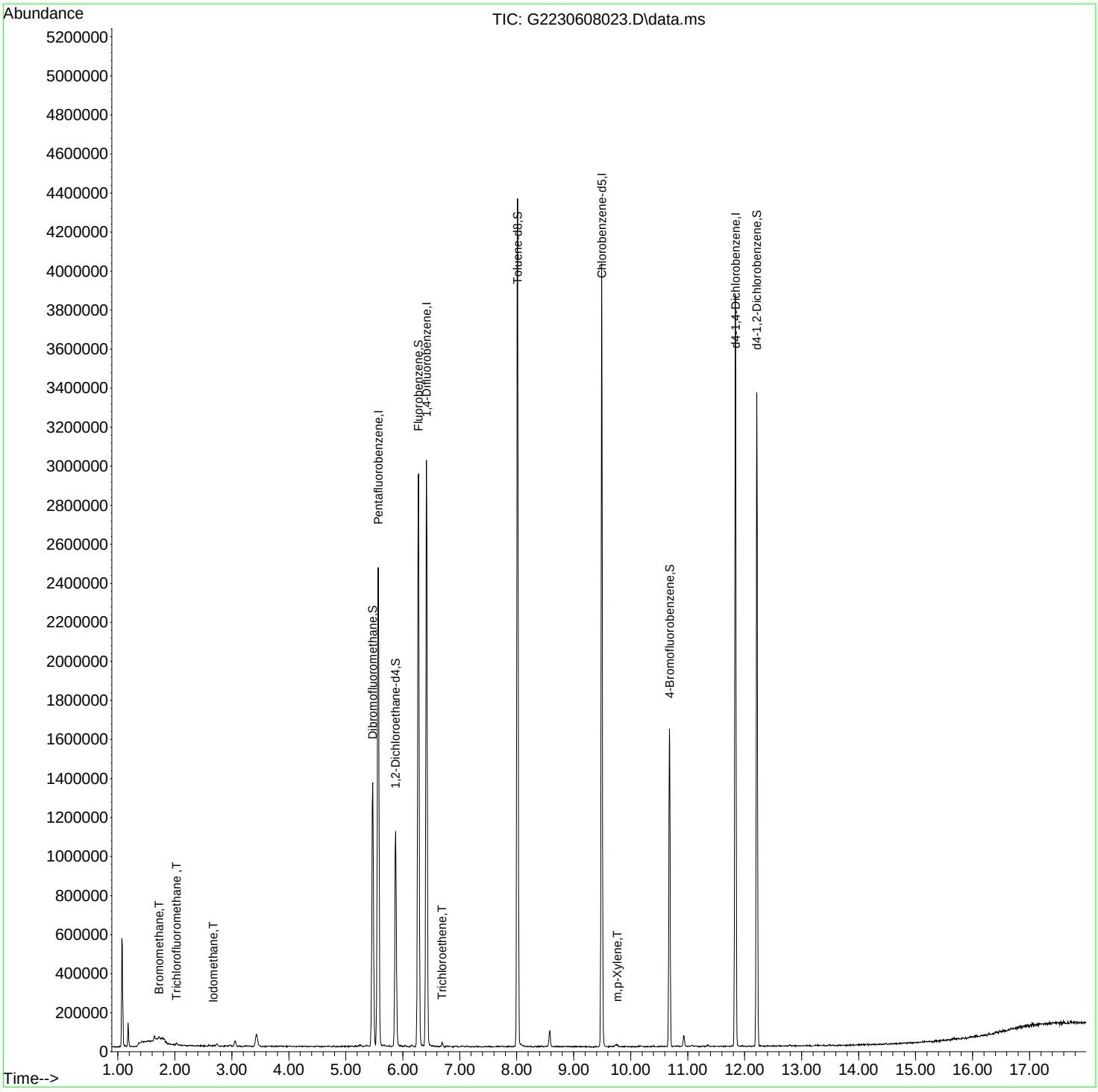
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	19450209	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	26374525	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	23410722	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10857972	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	8423819	19.68	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.40%			
43) 1,2-Dichloroethane-d4	5.876	65	7663940	18.12	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.60%			
49) Fluorobenzene	6.276	96	29210126	19.44	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.20%			
64) Toluene-d8	8.015	98	28710358	19.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%			
81) 4-Bromofluorobenzene	10.684	174	5192849	10.13	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%			
97) d4-1,2-Dichlorobenzene	12.217	152	9450791	20.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.20%			
Target Compounds						Qvalue
5) Bromomethane	1.720	94	75369	0.04	ug/L #	84
7) Trichlorofluoromethane	2.030	101	70784	0.12	ug/L	84
13) Iodomethane	2.674	142	52068	0.11	ug/L #	41
18) Methylene chloride	3.059	49	145623	Below Cal		80
21) Methyl tert-butyl ether	3.435	73	857587	Below Cal		94
50) Trichloroethene	6.691	95	49645	0.06	ug/L #	79
65) Toluene	8.086	91	34262	Below Cal	#	30
75) m,p-Xylene	9.764	91	44672	0.04	ug/L #	68

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608023.D
Acq On : 08 Jun 2023 18:23
Operator : PO1
Sample : 23E0775-10RE2
Misc : 10
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 09 11:24:42 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608023.D
Acq On : 08 Jun 2023 18:23
Operator : PO1
Sample : 23E0775-10RE2
Misc : 10
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 09 11:24:42 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

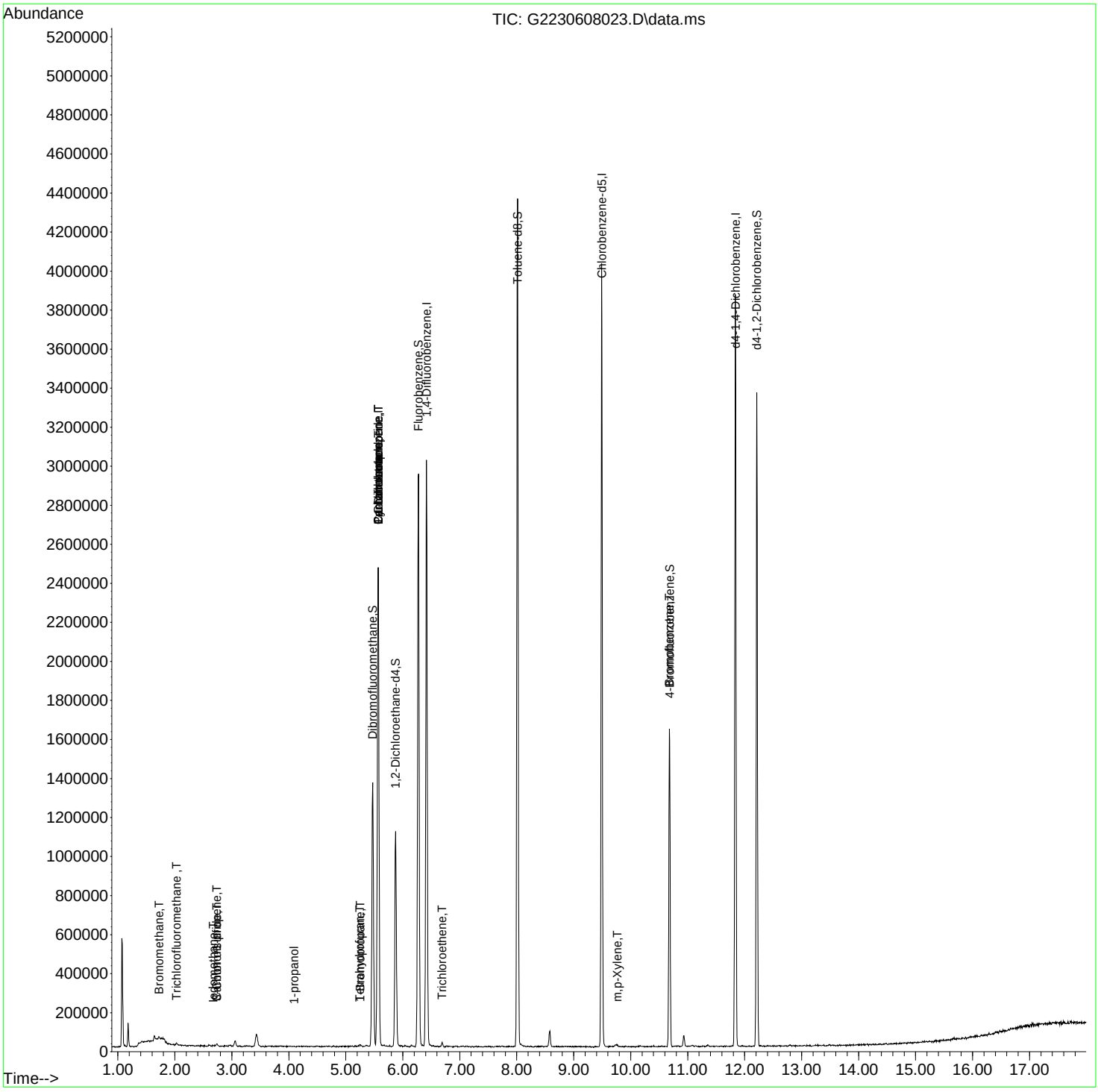
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	19450209	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.419	114	26374525	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	23410722	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10857972	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8423819	19.68	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.40%				
43) 1,2-Dichloroethane-d4	5.876	65	7663940	18.12	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.60%				
49) Fluorobenzene	6.276	96	29210126	19.44	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.20%				
64) Toluene-d8	8.015	98	28710358	19.46	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%				
81) 4-Bromofluorobenzene	10.684	174	5192849	10.13	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%				
97) d4-1,2-Dichlorobenzene	12.217	152	9450791	20.24	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.20%				
Target Compounds							Qvalue
5) Bromomethane	1.720	94	75369	0.04	ug/L	#	84
7) Trichlorofluoromethane	2.030	101	70784	0.12	ug/L		84
12) Acetone	2.603	43	48623	Below Cal			52
13) Iodomethane	2.674	142	52068	0.11	ug/L	#	41
14) Carbon disulfide	2.737	76	153283	0.08	ug/L	#	74
17) 3-Chloro-1-propene	2.737	76	153283	0.71	ug/L	#	53
18) Methylene chloride	3.059	49	145623	Below Cal			80
21) Methyl tert-butyl ether	3.435	73	857587	Below Cal			94
26) 1-propanol	4.091	59	777	0.38	ug/L	#	100
33) 1-Bromopropane	5.252	41	44303	0.10	ug/L	#	40
36) Tetrahydrofuran	5.248	42	71817	0.16	ug/L	#	57
40) Cyclohexane	5.572	84	441090	0.84	ug/L	#	34
41) 1-Chlorobutane	5.567	56	249088	0.41	ug/L	#	1
42) 1,1-Dichloropropene	5.569	75	1043720	2.29	ug/L	#	38
47) Carbon tetrachloride	5.568	117	1547965	3.25	ug/L	#	16
50) Trichloroethene	6.691	95	49645	0.06	ug/L	#	79
60) 4-Methyl-2-pentanone	8.012	43	99495	Below Cal		#	1
65) Toluene	8.086	91	34262	Below Cal		#	30
74) Ethylbenzene	9.764	91	41886	Below Cal		#	28
75) m,p-Xylene	9.764	91	44672	0.04	ug/L	#	68
82) Bromobenzene	10.680	77	29623	0.05	ug/L	#	1
99) n-Butylbenzene	12.221	91	39946	Below Cal		#	53

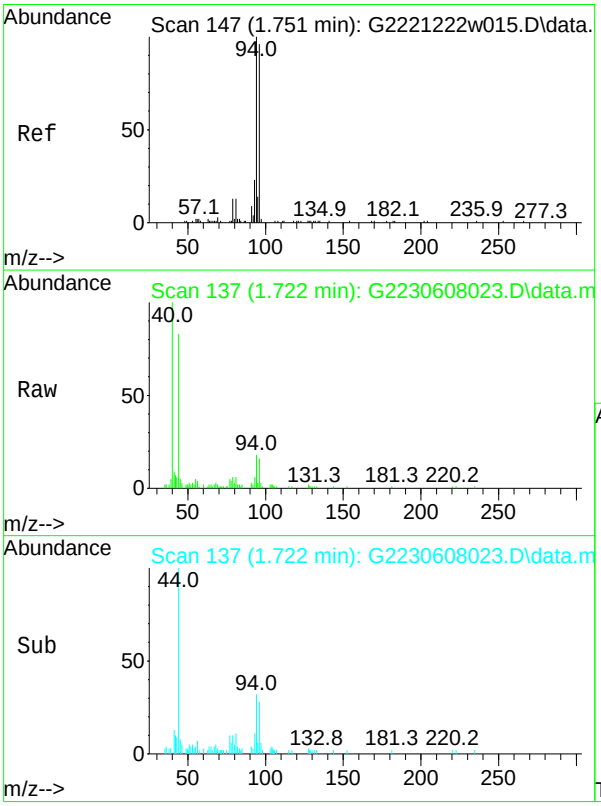
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230608\
Data File : G2230608023.D
Acq On : 08 Jun 2023 18:23
Operator : PO1
Sample : 23E0775-10RE2
Misc : 10
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jun 09 11:24:42 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

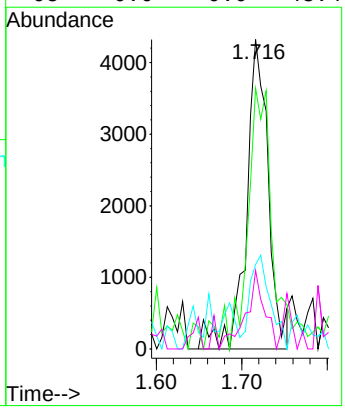


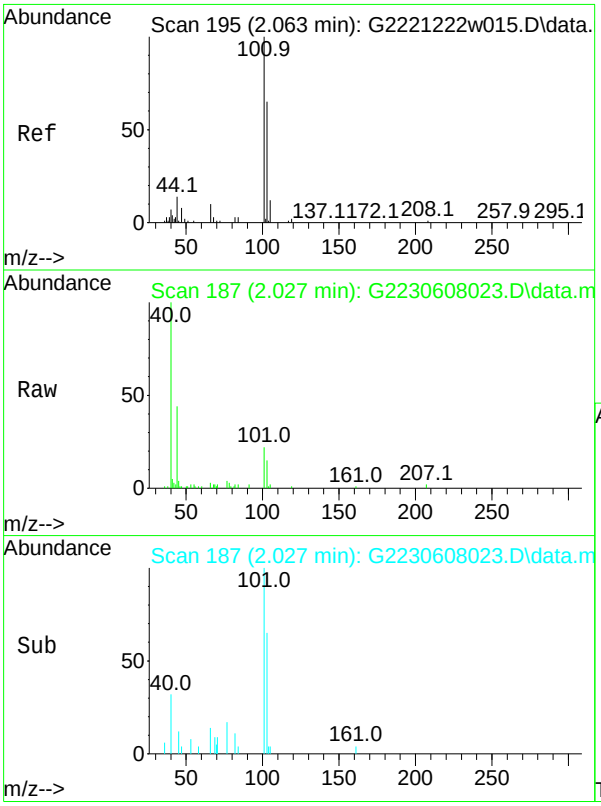


#5
Bromomethane
Concen: 0.04 ug/L
RT: 1.720 min Scan# 137
Delta R.T. 0.006 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 94 Resp: 75369

Ion	Ratio	Lower	Upper
94	100		
96	103.3	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

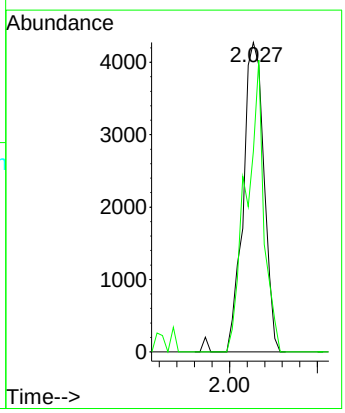


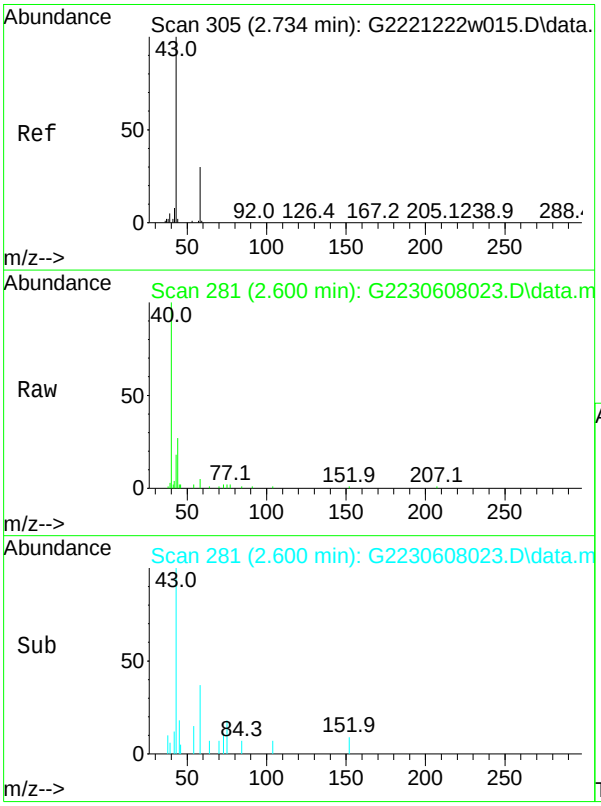


#7
Trichlorofluoromethane
Concen: 0.12 ug/L
RT: 2.030 min Scan# 187
Delta R.T. -0.000 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion:101 Resp: 70784

Ion	Ratio	Lower	Upper
101	100		
103	79.7	36.9	96.9

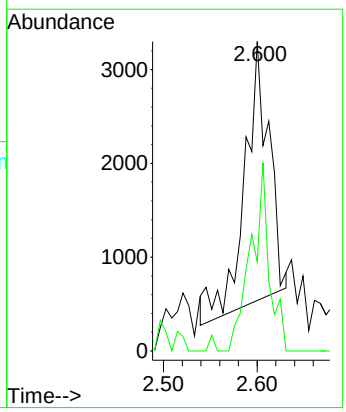


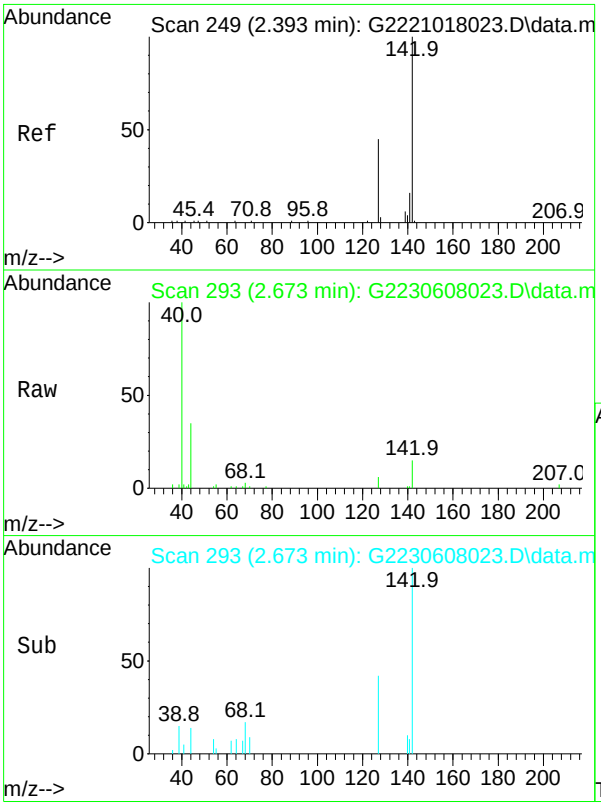


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 281
Delta R.T. -0.005 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 43 Resp: 48623

Ion	Ratio	Lower	Upper
43	100		
58	55.9	0.0	59.7

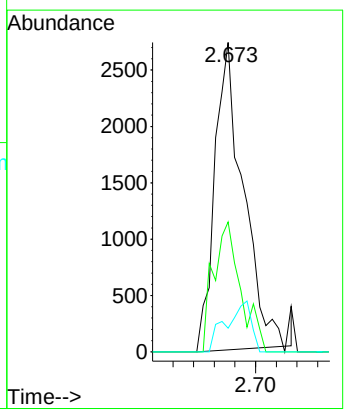


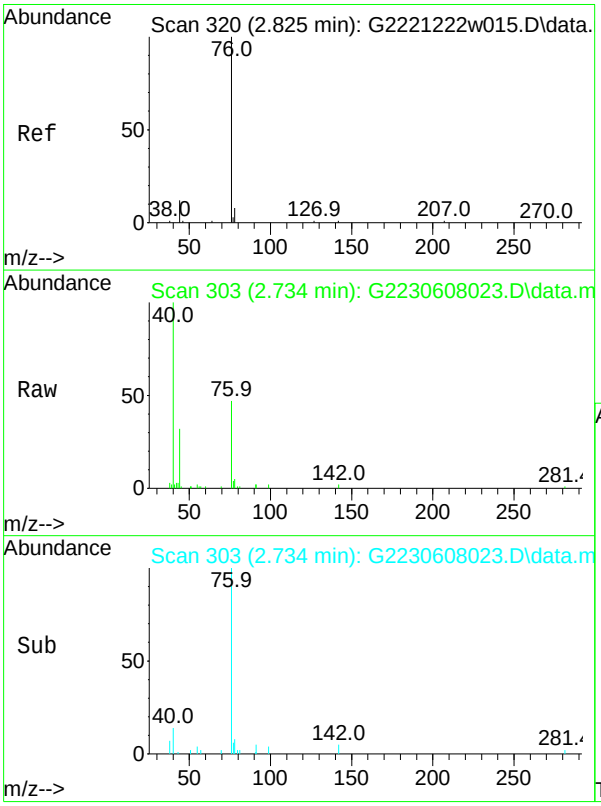


#13
Iodomethane
Concen: 0.11 ug/L
RT: 2.674 min Scan# 293
Delta R.T. -0.002 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion:142 Resp: 52068

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

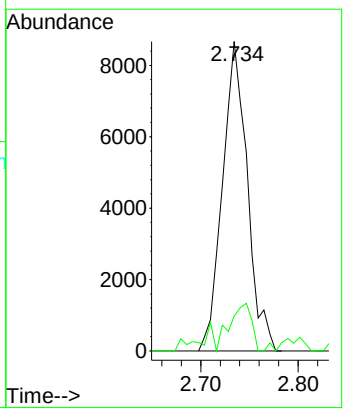


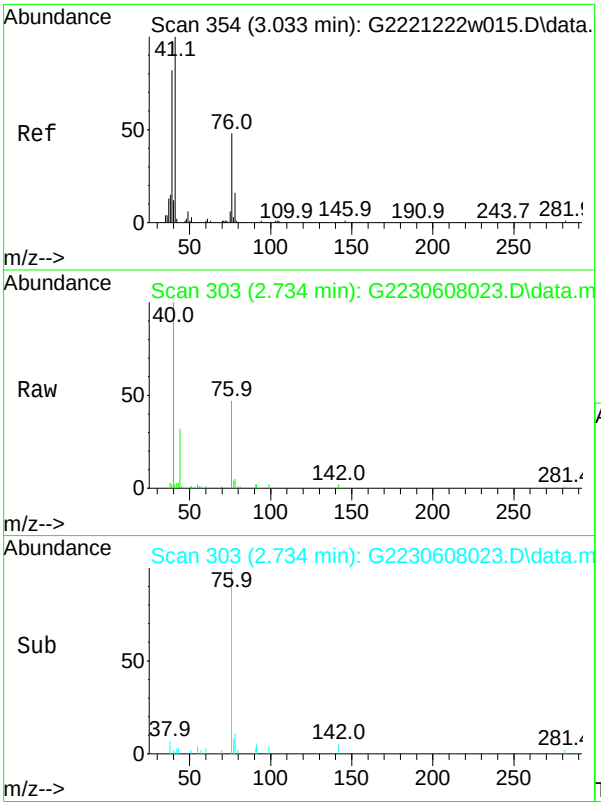


#14
Carbon disulfide
Concen: 0.08 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.002 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 76 Resp: 153283

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

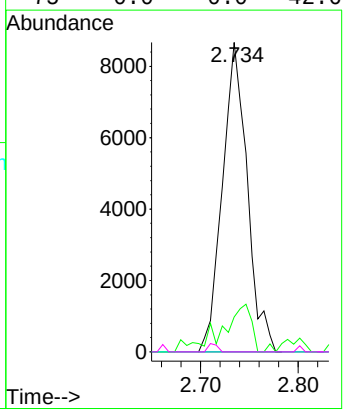


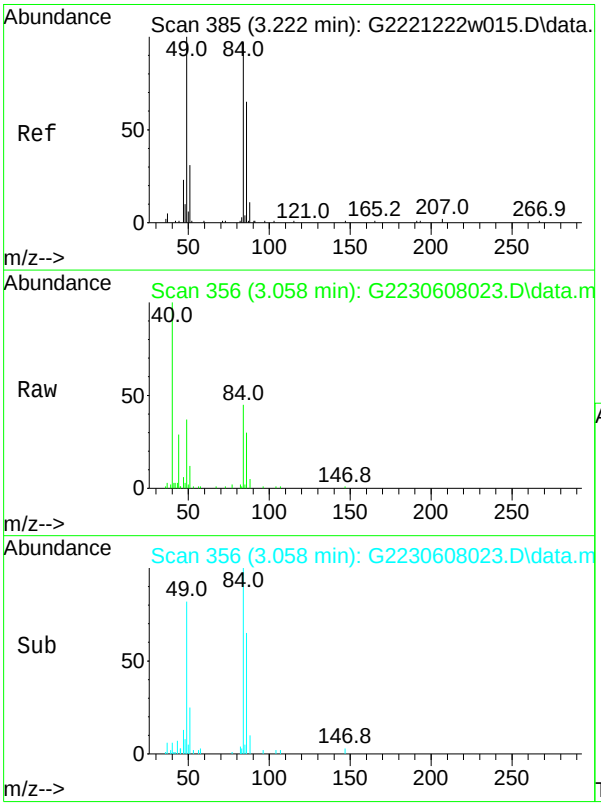


#17
3-Chloro-1-propene
Concen: 0.71 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.183 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 76 Resp: 153283

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

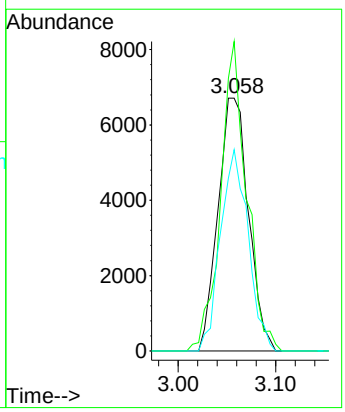


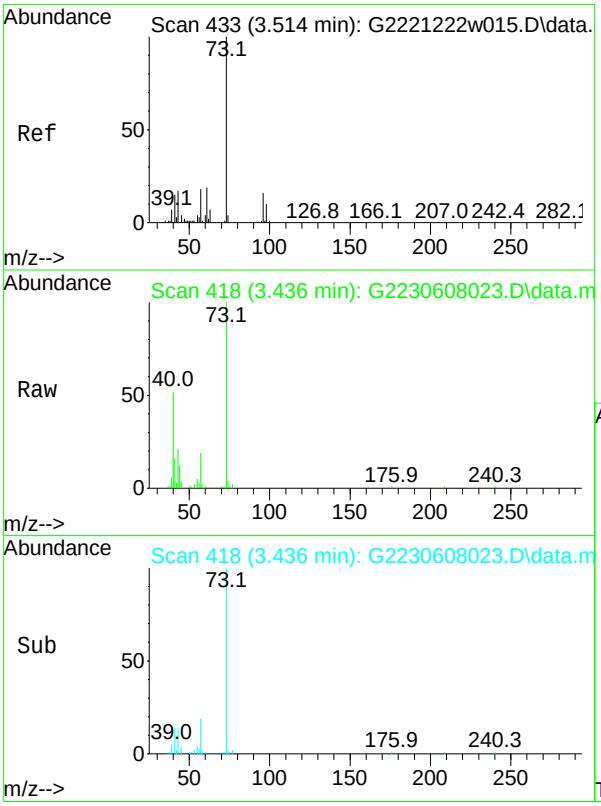


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 49 Resp: 145623

Ion	Ratio	Lower	Upper
49	100		
84	104.3	57.9	117.9
86	72.6	24.9	84.9

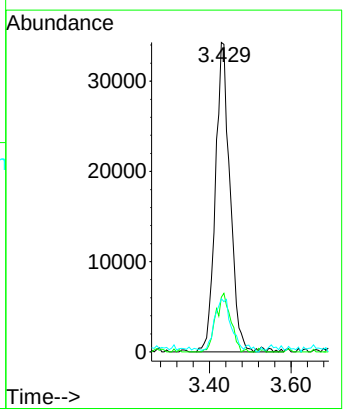


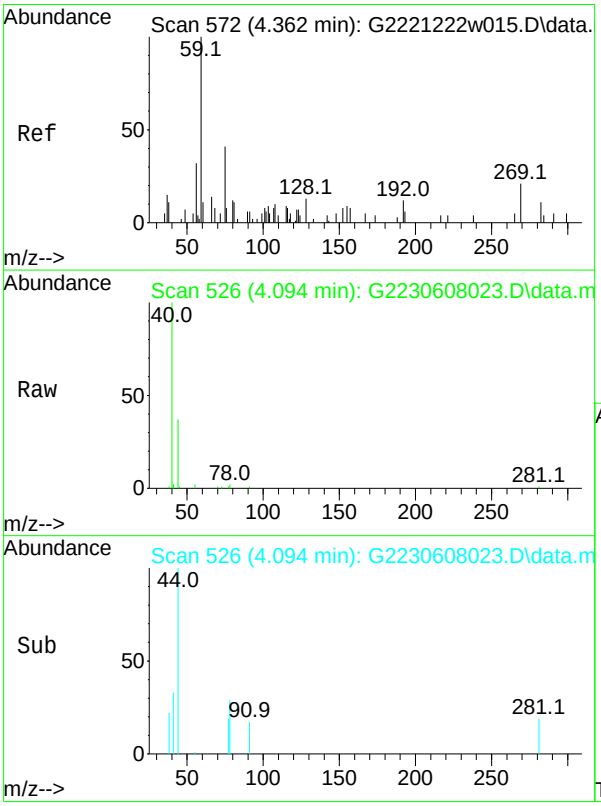


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.435 min Scan# 418
Delta R.T. -0.011 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 73 Resp: 857587

Ion	Ratio	Lower	Upper
73	100		
57	19.2	0.0	51.7
41	17.5	0.0	50.6

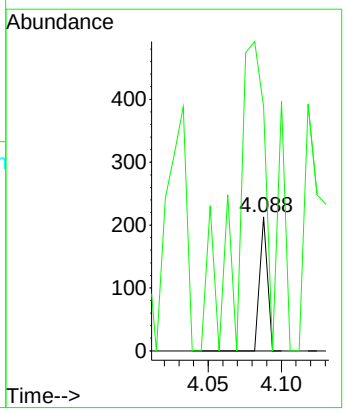


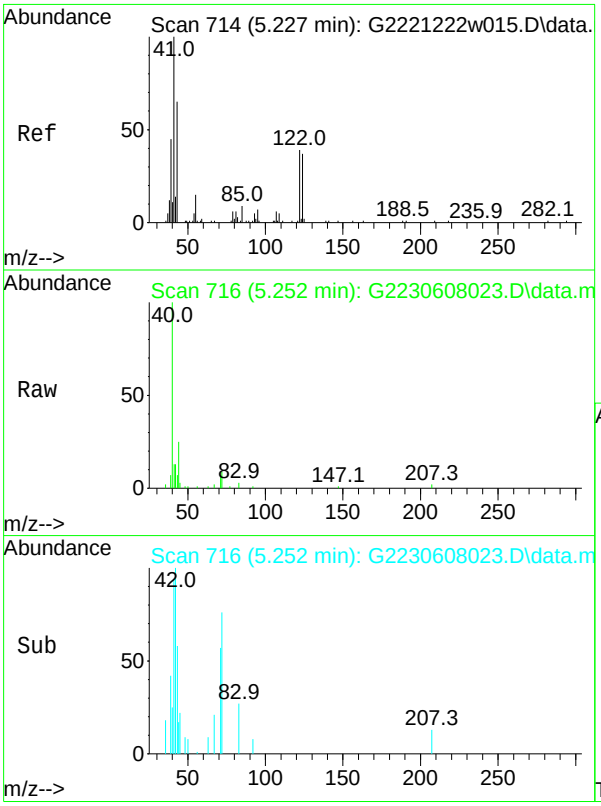


#26
1-propanol
Concen: 0.38 ug/L
RT: 4.091 min Scan# 526
Delta R.T. -0.198 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 59 Resp: 777

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

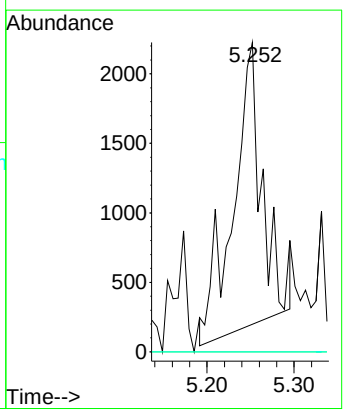


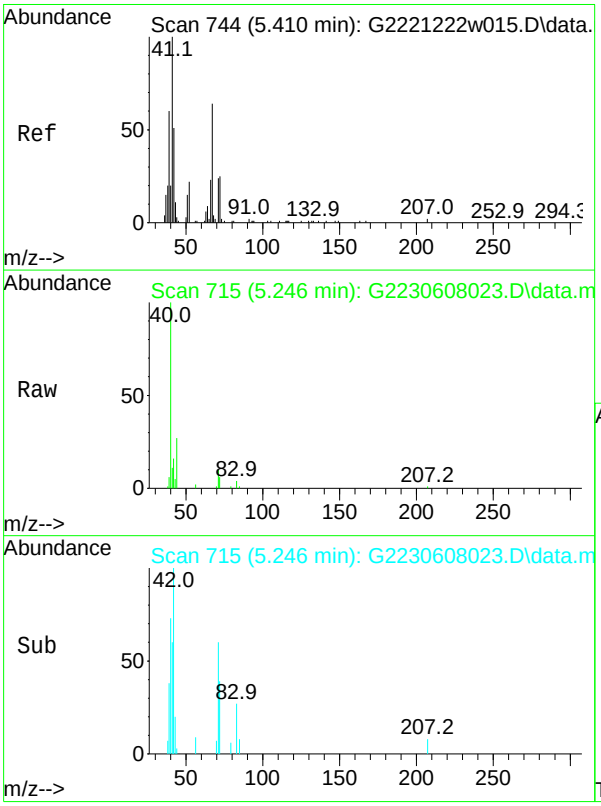


#33
1-Bromopropane
Concen: 0.10 ug/L
RT: 5.252 min Scan# 716
Delta R.T. 0.176 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 41 Resp: 44303

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

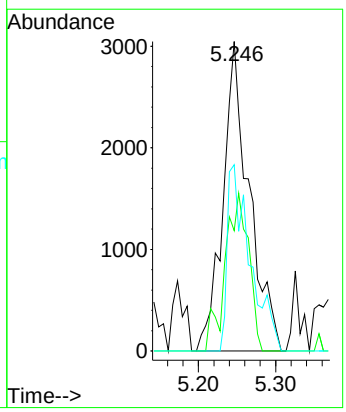


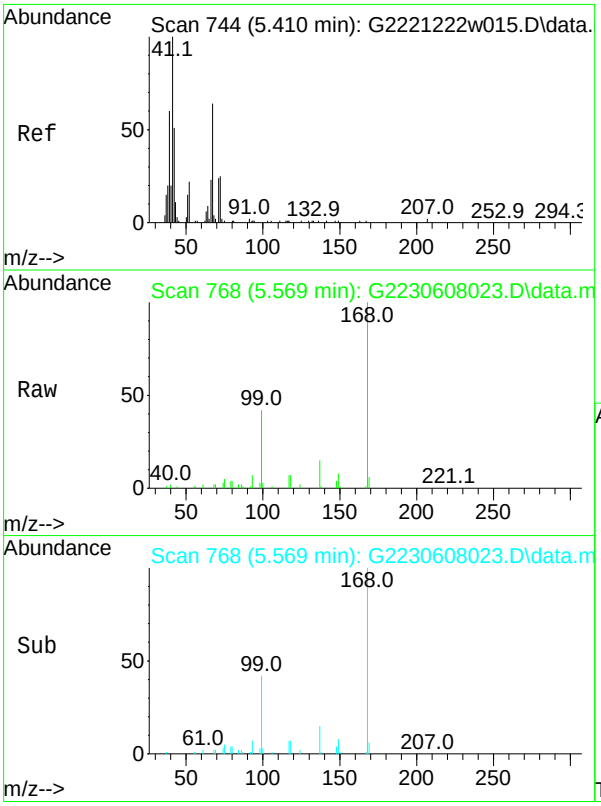


#36
Tetrahydrofuran
Concen: 0.16 ug/L
RT: 5.248 min Scan# 715
Delta R.T. -0.013 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 42 Resp: 71817

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	52.2	14.7	74.7

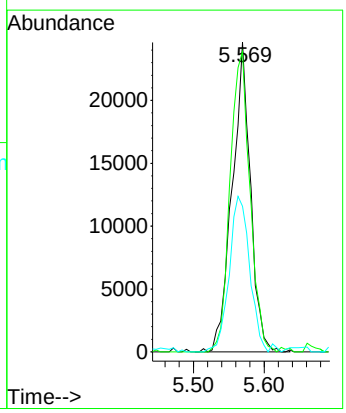


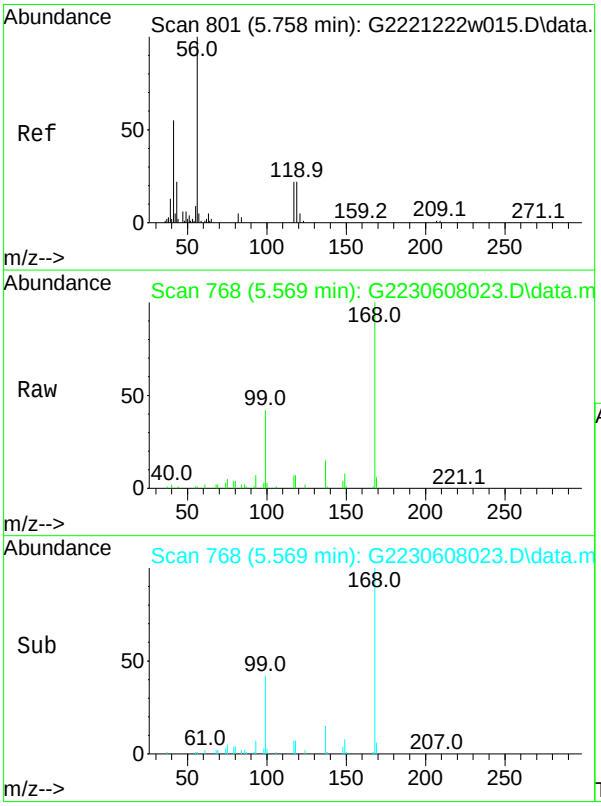


#40
Cyclohexane
Concen: 0.84 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 84 Resp: 441090

Ion	Ratio	Lower	Upper
84	100		
69	105.1	6.8	66.8#
56	56.5	79.1	139.1#

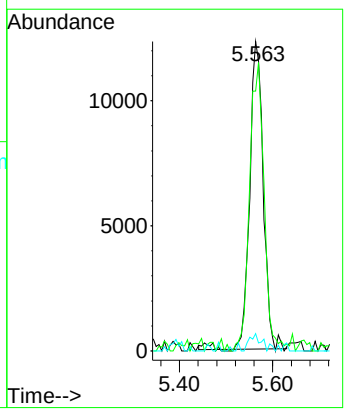


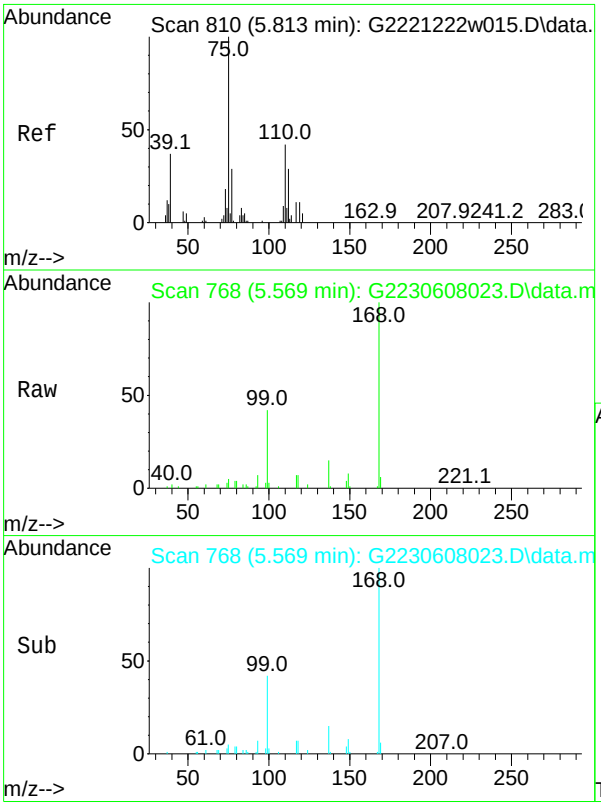


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 56 Resp: 249088

Ion	Ratio	Lower	Upper
56	100		
55	96.8	0.0	41.0#
57	0.0	0.0	35.7

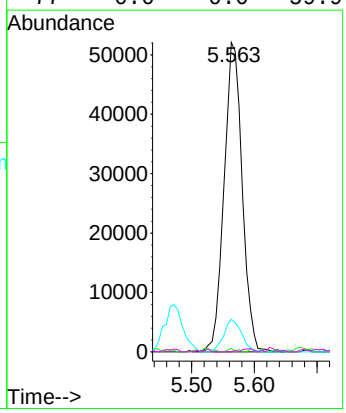


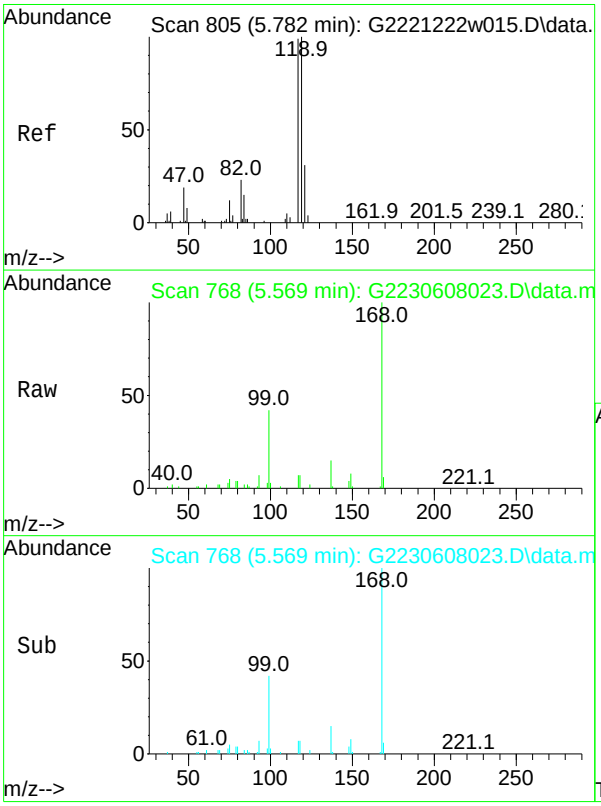


#42
1,1-Dichloropropene
Concen: 2.29 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 75 Resp: 1043720

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

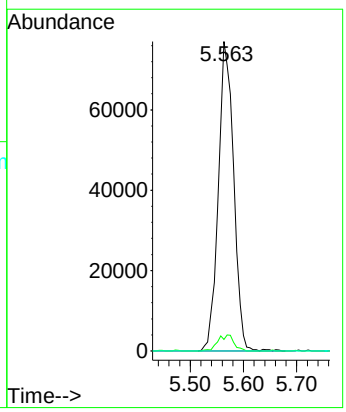


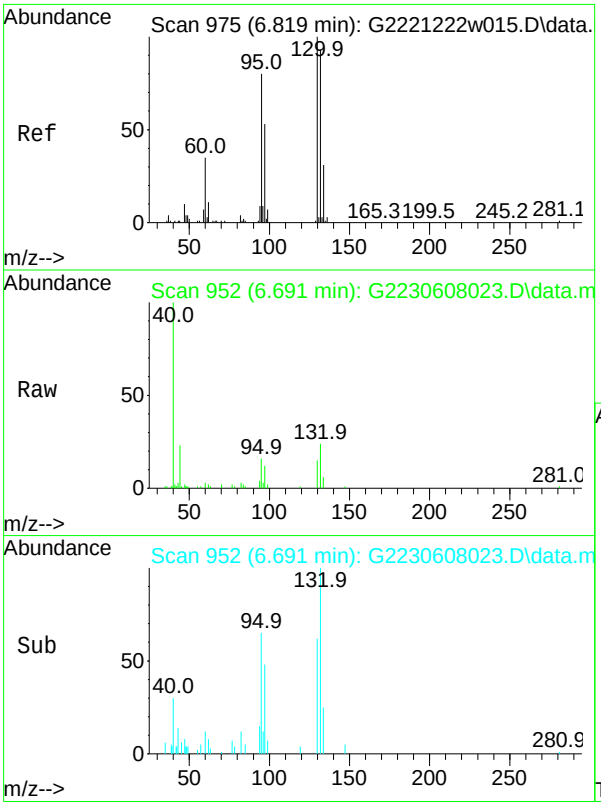


#47
Carbon tetrachloride
Concen: 3.25 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.112 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion:117 Resp: 1547965

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

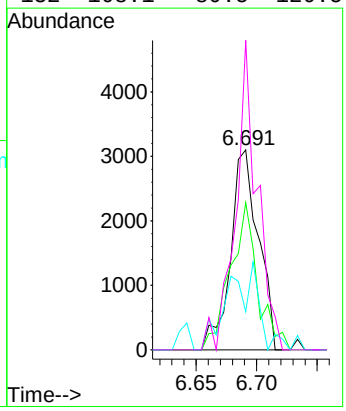


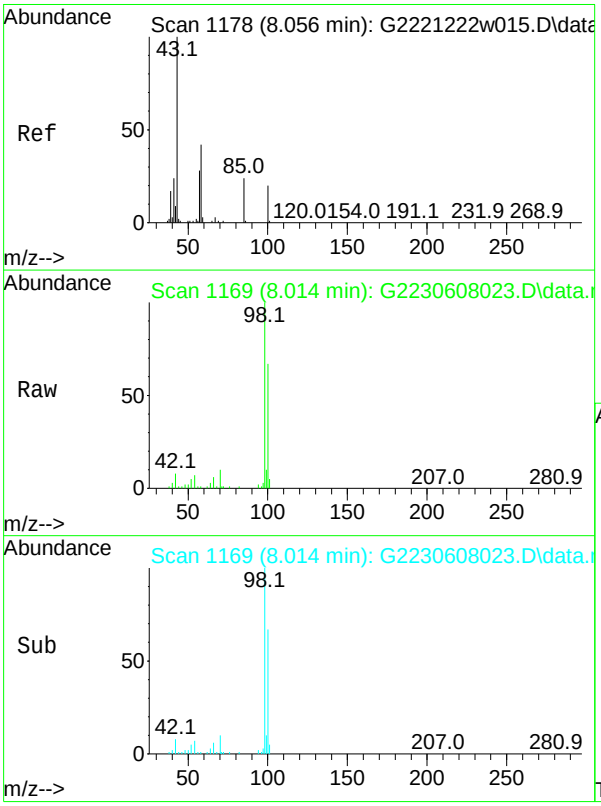


#50
Trichloroethene
Concen: 0.06 ug/L
RT: 6.691 min Scan# 952
Delta R.T. -0.005 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 95 Resp: 49645

Ion	Ratio	Lower	Upper
95	100		
97	72.2	35.5	95.5
60	0.0	14.8	74.8#
132	108.1	80.5	120.5

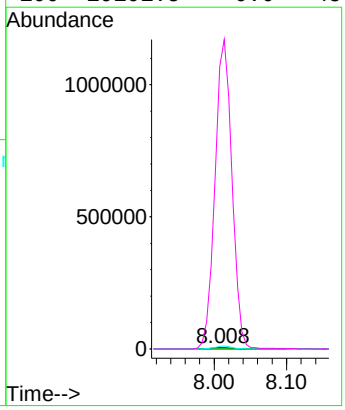


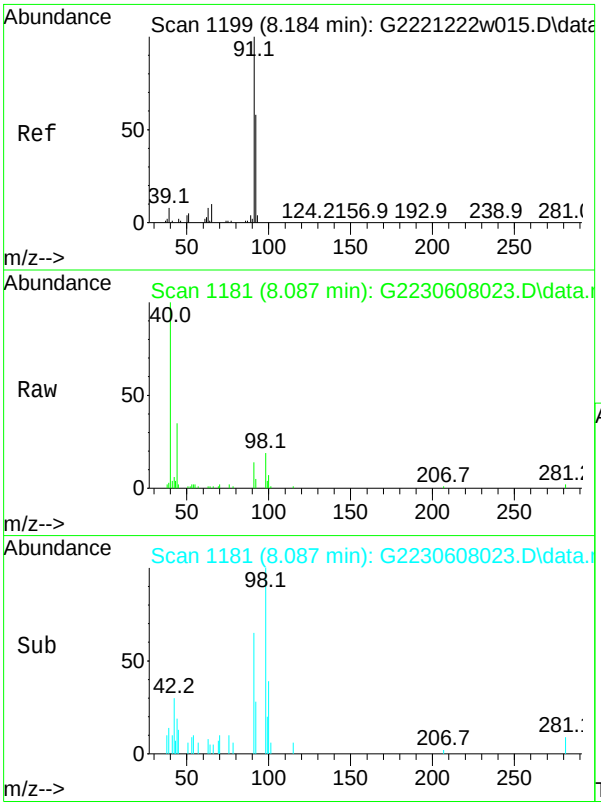


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 43 Resp: 99495

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	177.4	37.0	37.0#
100	19101.5	0.0	45.2#

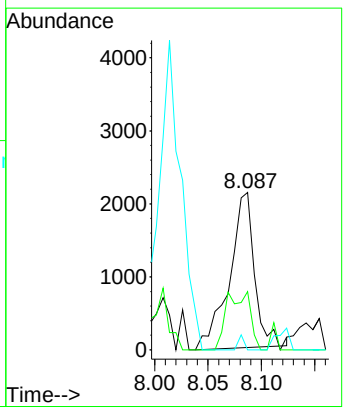


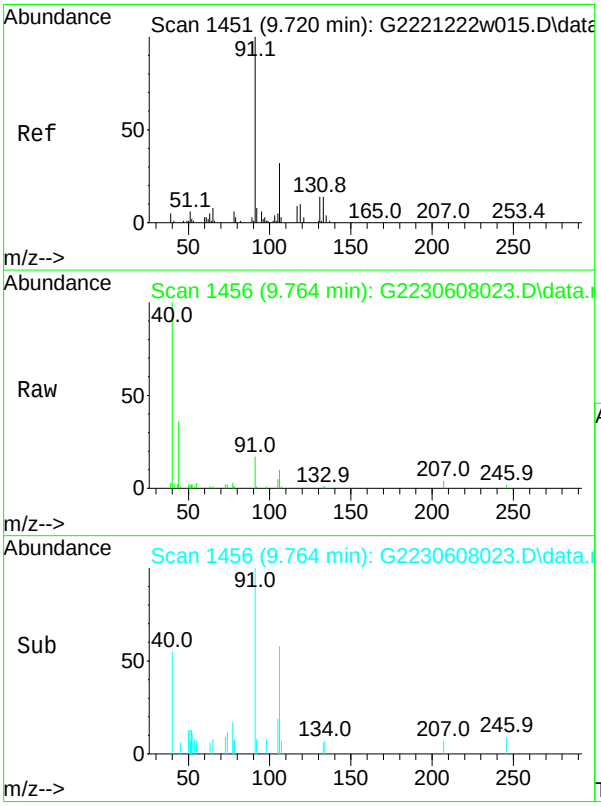


#65
Toluene
Concen: Below Cal
RT: 8.086 min Scan# 1181
Delta R.T. 0.000 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 91 Resp: 34262

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

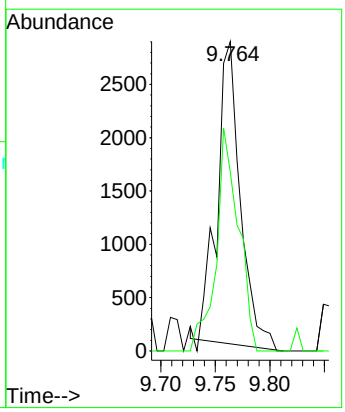


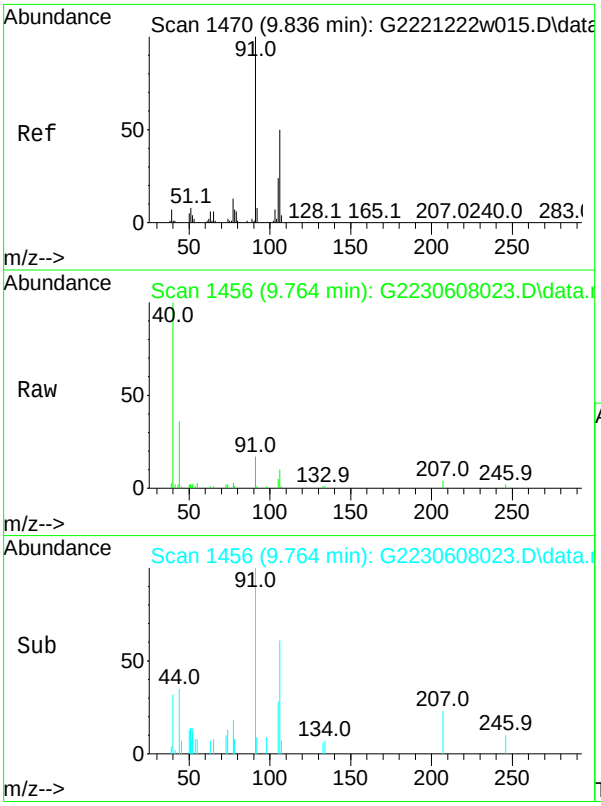


#74
Ethylbenzene
Concen: Below Cal
RT: 9.764 min Scan# 1456
Delta R.T. 0.121 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 91 Resp: 41886

Ion	Ratio	Lower	Upper
91	100		
106	70.5	0.8	60.8#

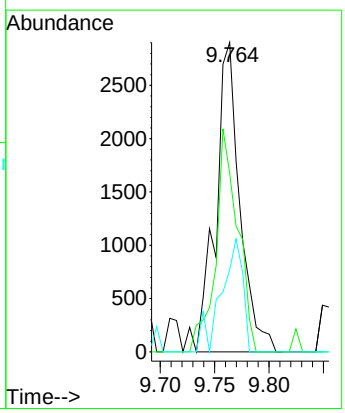


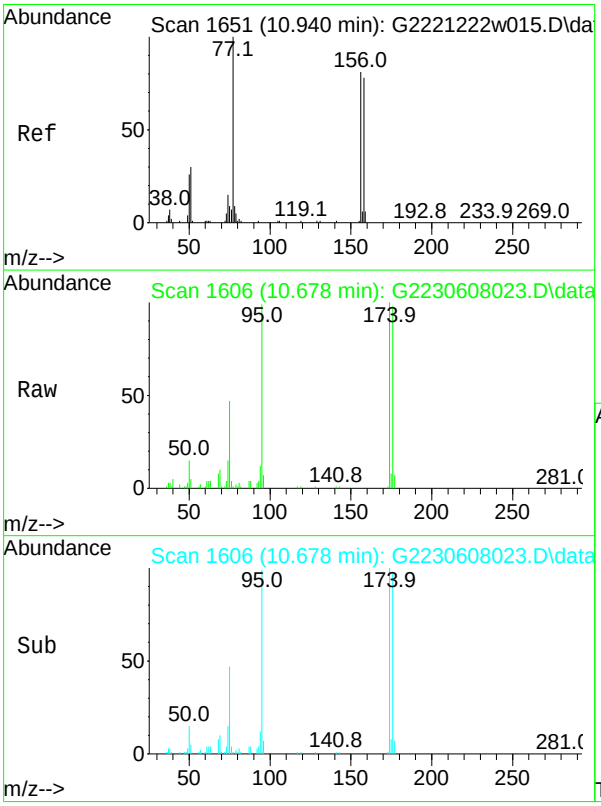


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. 0.000 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 91 Resp: 44672

Ion	Ratio	Lower	Upper
91	100		
106	66.1	19.0	79.0
105	0.0	0.0	52.7

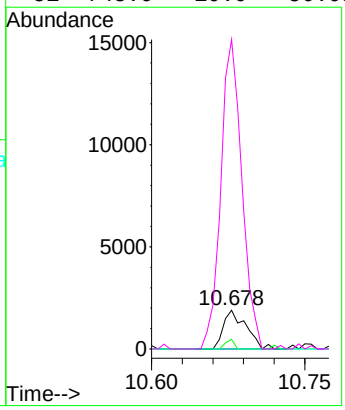


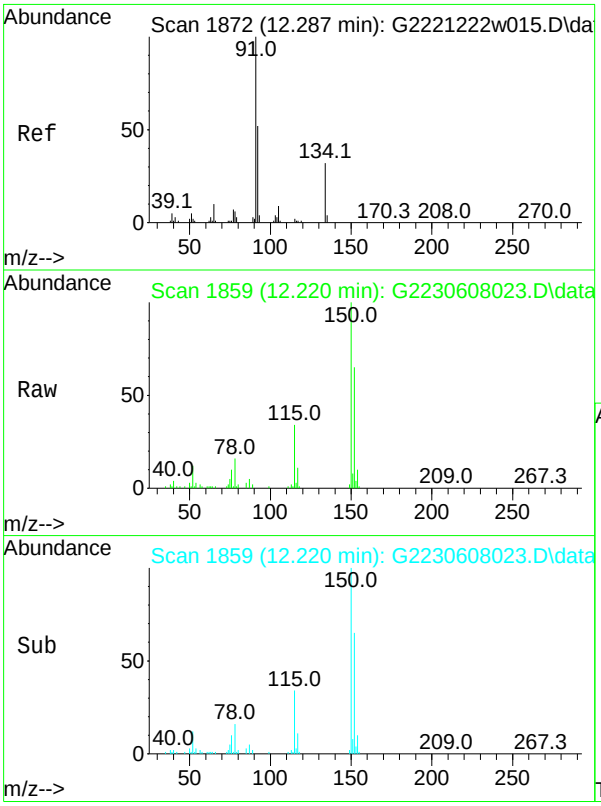


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.680 min Scan# 1606
Delta R.T. -0.148 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 77 Resp: 29623

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	748.9	10.9	50.9#

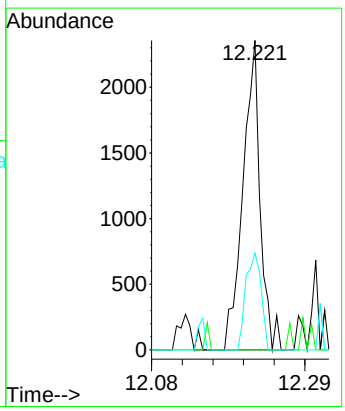




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.221 min Scan# 1859
Delta R.T. -0.010 min
Lab File: G2230608023.D
Acq: 08 Jun 2023 18:23

Tgt Ion: 91 Resp: 39946

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

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11	File ID:	G2230606026.D
Sampled:	05/27/23 15:00	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 21:01
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11	File ID:	G2230606026.D
Sampled:	05/27/23 15:00	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 21:01
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.760	0.103	0.300	0.600	
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

SW8260B/D

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11	File ID:	G2230606026.D
Sampled:	05/27/23 15:00	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 21:01
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, 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*	*66.6*	*0.0781*	*0.200*	*0.500*	*B, E*
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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606026.D
Acq On : 06 Jun 2023 21:01
Operator : PO1
Sample : 23E0775-11
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 07 09:56:40 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

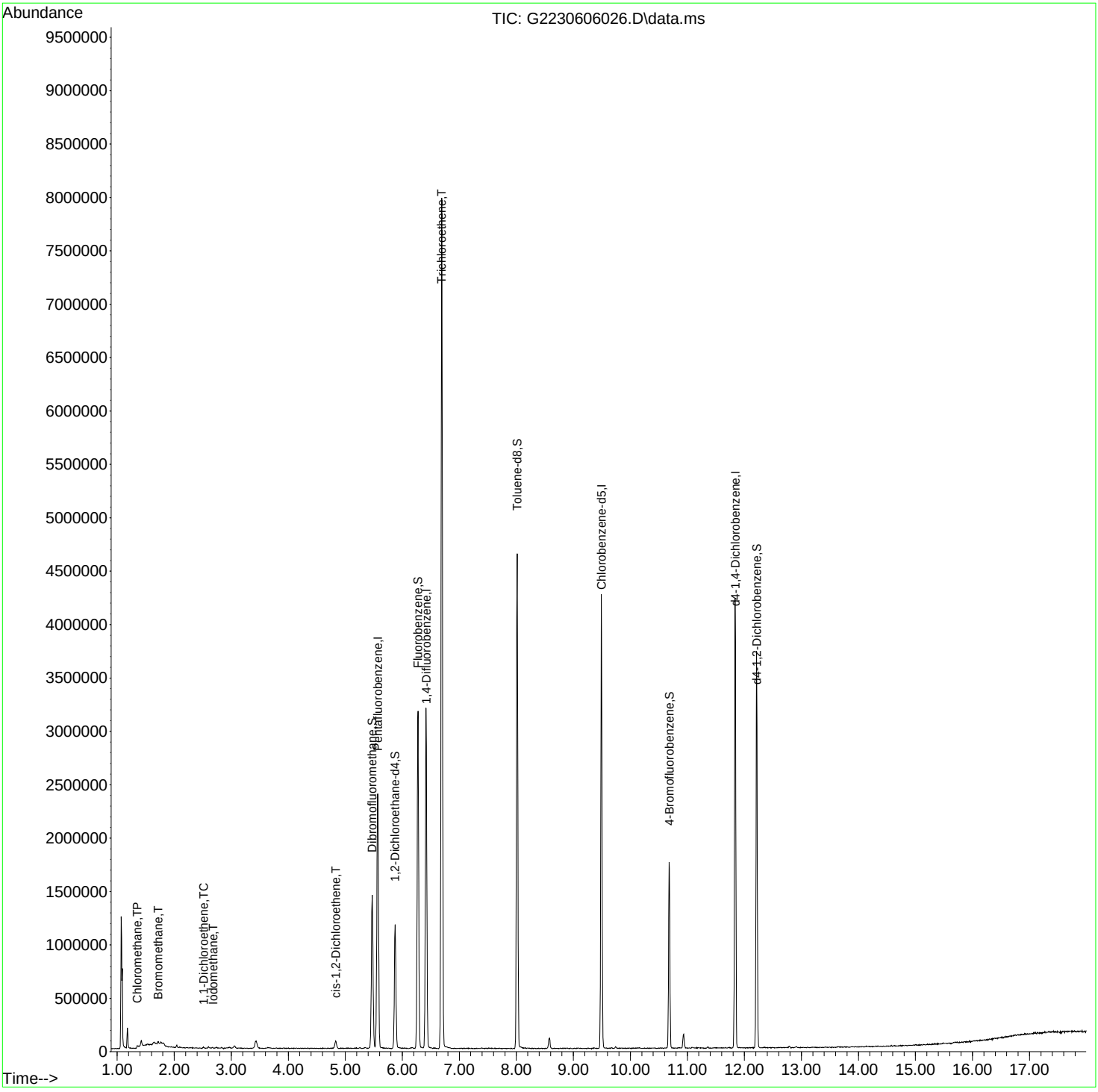
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	19281789	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	27696826	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24740782	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11904331	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	8894472	20.96	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.80%			
43) 1,2-Dichloroethane-d4	5.876	65	8164536	19.47	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.35%			
49) Fluorobenzene	6.276	96	30704478	19.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%			
64) Toluene-d8	8.016	98	30029431	19.26	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.30%			
81) 4-Bromofluorobenzene	10.684	174	5519946	9.82	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.20%			
97) d4-1,2-Dichlorobenzene	12.217	152	10496267	20.50	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.50%			
Target Compounds						Qvalue
3) Chloromethane	1.352	50	82917	0.16	ug/L	97
5) Bromomethane	1.716	94	75899m	0.04	ug/L	
10) 1,1-Dichloroethene	2.517	61	36592	0.01	ug/L #	50
12) Acetone	2.603	43	129479	Below Cal		95
13) Iodomethane	2.677	142	71837	0.16	ug/L #	87
18) Methylene chloride	3.056	49	111292	Below Cal	#	67
21) Methyl tert-butyl ether	3.437	73	979938	Below Cal		95
28) cis-1,2-Dichloroethene	4.833	61	407264	0.76	ug/L	76
50) Trichloroethene	6.693	95	24244298	66.59	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606026.D
Acq On : 06 Jun 2023 21:01
Operator : PO1
Sample : 23E0775-11
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 07 09:56:40 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606026.D
Acq On : 06 Jun 2023 21:01
Operator : PO1
Sample : 23E0775-11
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 07 09:56:40 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

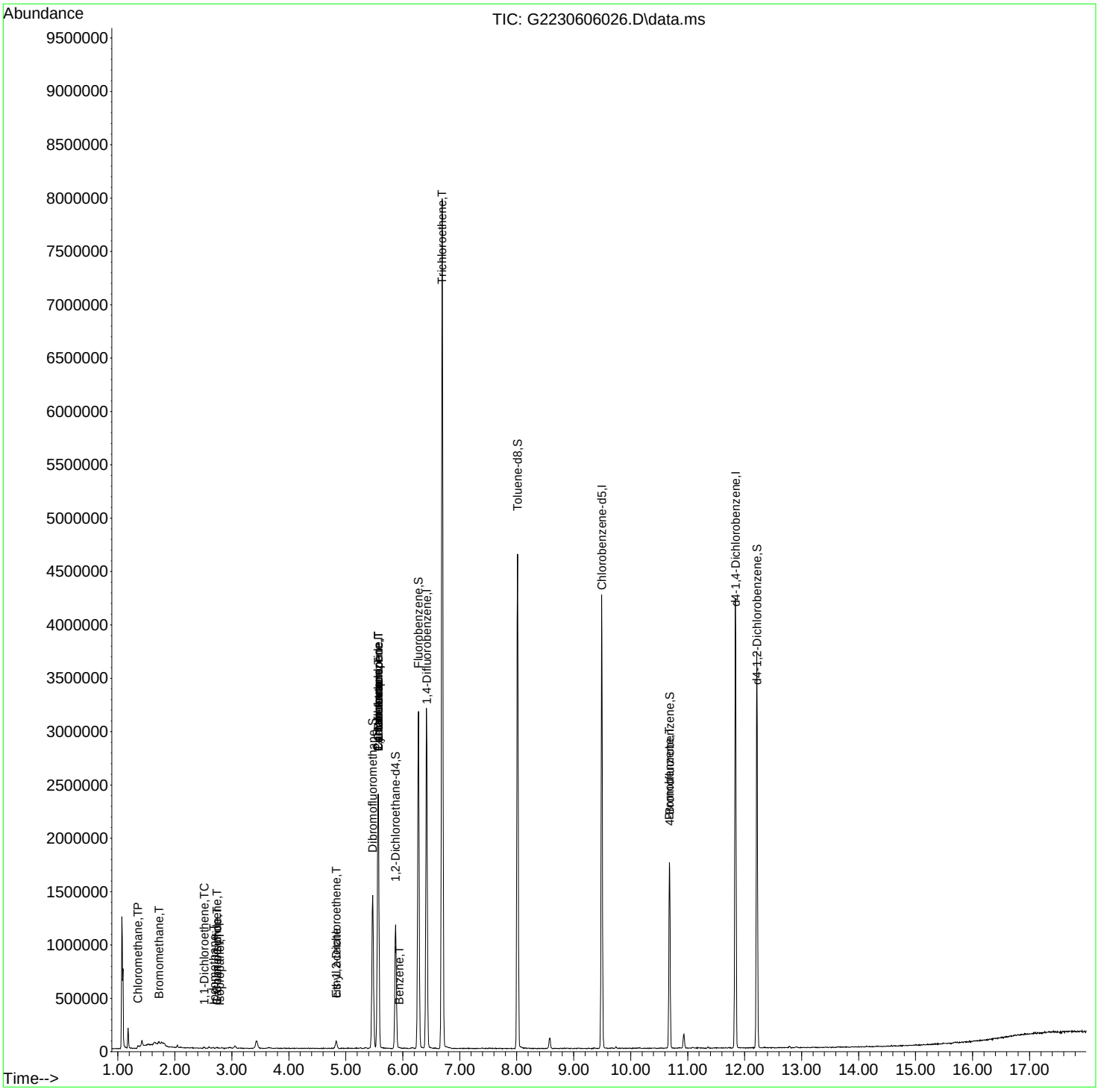
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	19281789	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	27696826	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24740782	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11904331	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8894472	20.96	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.80%				
43) 1,2-Dichloroethane-d4	5.876	65	8164536	19.47	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.35%				
49) Fluorobenzene	6.276	96	30704478	19.46	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.30%				
64) Toluene-d8	8.016	98	30029431	19.26	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.30%				
81) 4-Bromofluorobenzene	10.684	174	5519946	9.82	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.20%				
97) d4-1,2-Dichlorobenzene	12.217	152	10496267	20.50	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.50%				
Target Compounds							Qvalue
3) Chloromethane	1.352	50	82917	0.16	ug/L		97
5) Bromomethane	1.720	94	80073	0.06	ug/L	#	86
10) 1,1-Dichloroethene	2.517	61	36592	0.01	ug/L	#	50
12) Acetone	2.603	43	129479	Below Cal			95
13) Iodomethane	2.677	142	71837	0.16	ug/L	#	87
14) Carbon disulfide	2.737	76	98549	0.02	ug/L	#	74
15) Isopropanol	2.786	45	35034	2.26	ug/L	#	56
17) 3-Chloro-1-propene	2.737	76	98554	0.43	ug/L	#	53
18) Methylene chloride	3.056	49	111292	Below Cal		#	67
21) Methyl tert-butyl ether	3.437	73	979938	Below Cal			95
28) cis-1,2-Dichloroethene	4.833	61	407264	0.76	ug/L		76
31) Ethyl acetate	4.833	61	407262	6.91	ug/L	#	45
36) Tetrahydrofuran	5.252	42	44215	Below Cal		#	30
40) Cyclohexane	5.570	84	393438	0.76	ug/L	#	37
41) 1-Chlorobutane	5.566	56	274197	0.46	ug/L	#	1
42) 1,1-Dichloropropene	5.567	75	959585	2.12	ug/L	#	39
47) Carbon tetrachloride	5.570	117	1591429	3.18	ug/L	#	16
48) Benzene	5.939	78	46209	0.03	ug/L	#	52
50) Trichloroethene	6.693	95	24244298	66.59	ug/L		91
60) 4-Methyl-2-pentanone	8.012	43	99183	Below Cal		#	1
65) Toluene	8.084	91	39890	Below Cal		#	30
74) Ethylbenzene	9.487	91	51446	Below Cal		#	44
82) Bromobenzene	10.676	77	40218	0.06	ug/L	#	1
99) n-Butylbenzene	12.221	91	38291	Below Cal		#	53

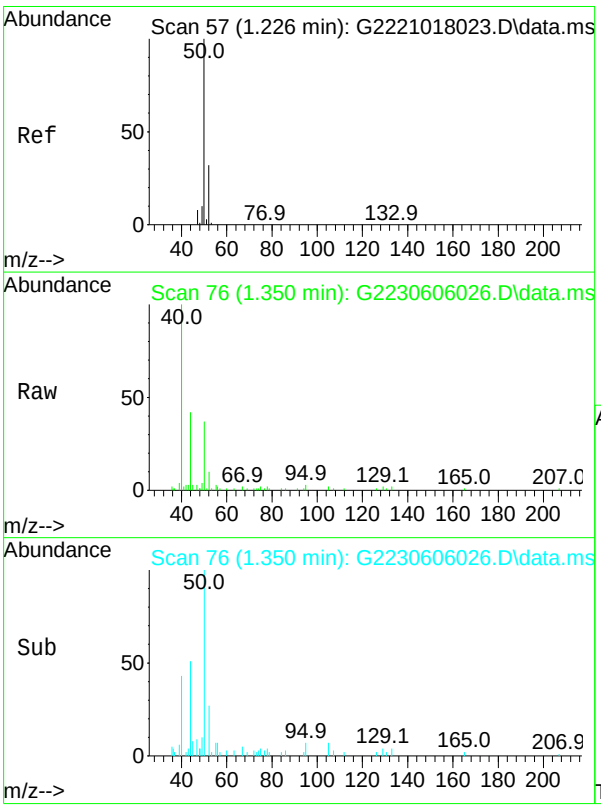
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606026.D
Acq On : 06 Jun 2023 21:01
Operator : PO1
Sample : 23E0775-11
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 07 09:56:40 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

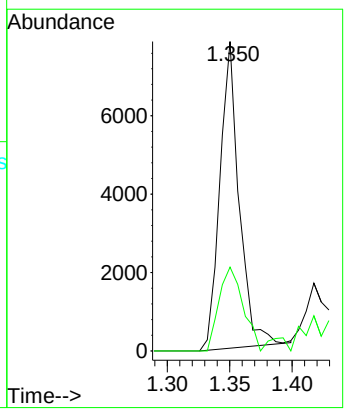


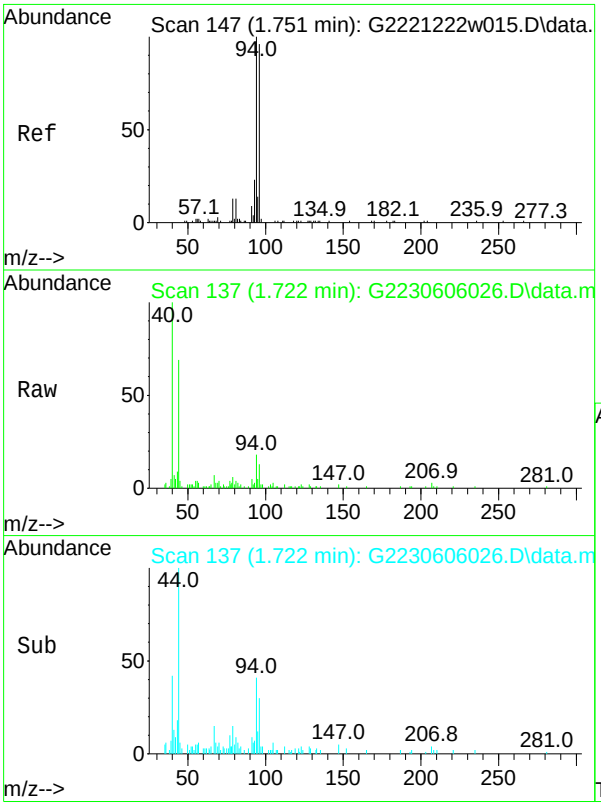


#3
Chloromethane
Concen: 0.16 ug/L
RT: 1.352 min Scan# 76
Delta R.T. -0.002 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 50 Resp: 82917

Ion	Ratio	Lower	Upper
50	100		
52	34.8	3.2	63.2

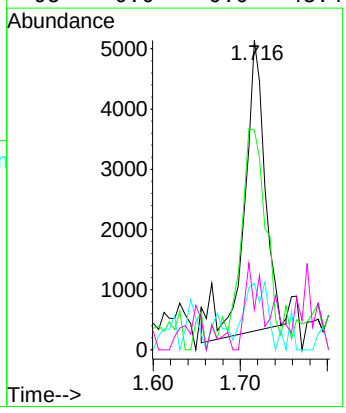


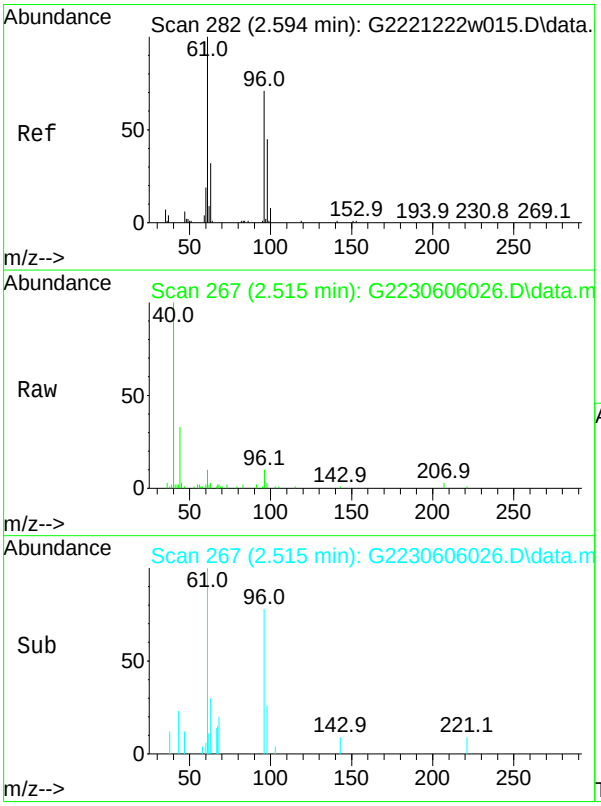


#5
Bromomethane
Concen: 0.06 ug/L
RT: 1.720 min Scan# 137
Delta R.T. 0.006 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 94 Resp: 80073

Ion	Ratio	Lower	Upper
94	100		
96	90.3	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

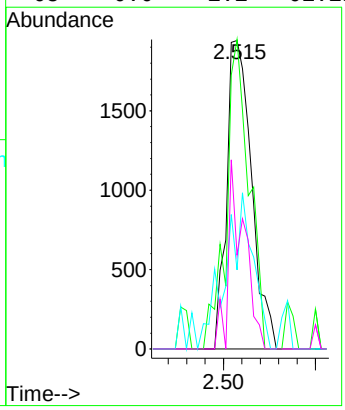


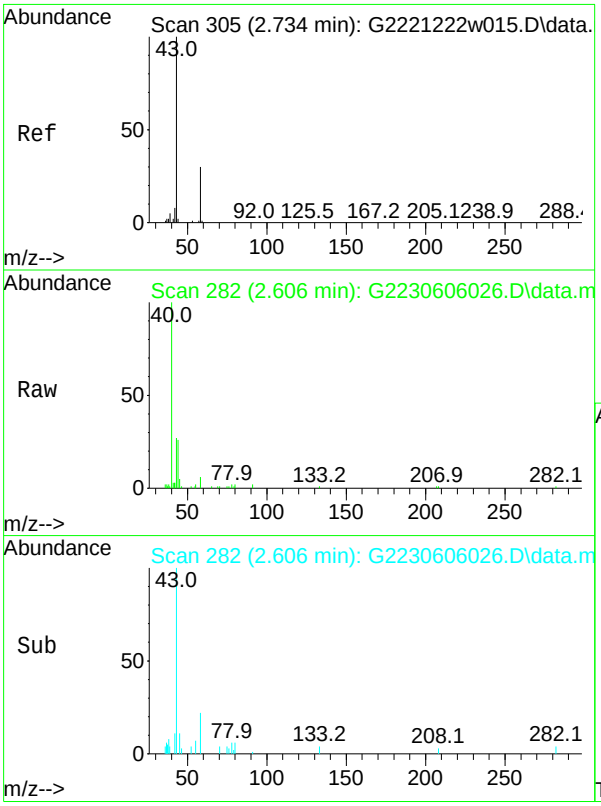


#10
1,1-Dichloroethene
Concen: 0.01 ug/L
RT: 2.517 min Scan# 267
Delta R.T. -0.006 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 61 Resp: 36592

Ion	Ratio	Lower	Upper
61	100		
96	92.6	32.7	92.7
98	0.0	9.3	69.3#
63	0.0	1.1	61.1#

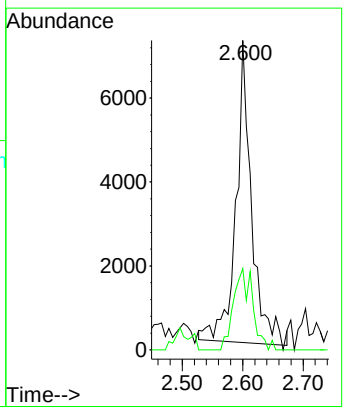


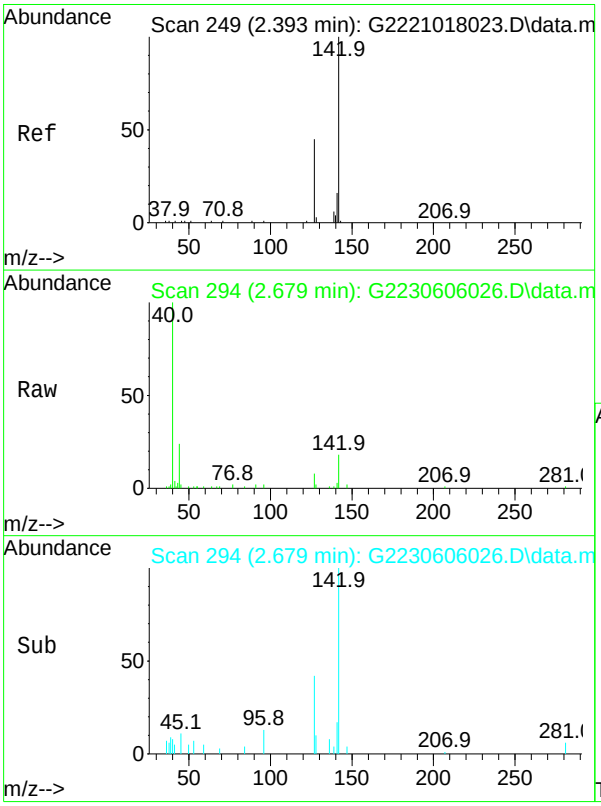


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 282
Delta R.T. -0.005 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 43 Resp: 129479

Ion	Ratio	Lower	Upper
43	100		
58	32.4	0.0	59.7

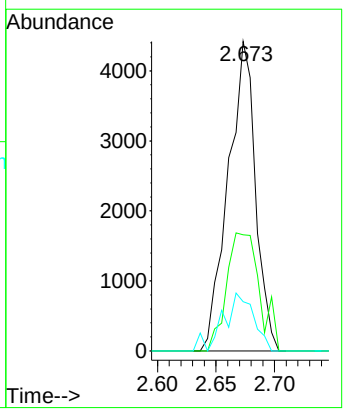


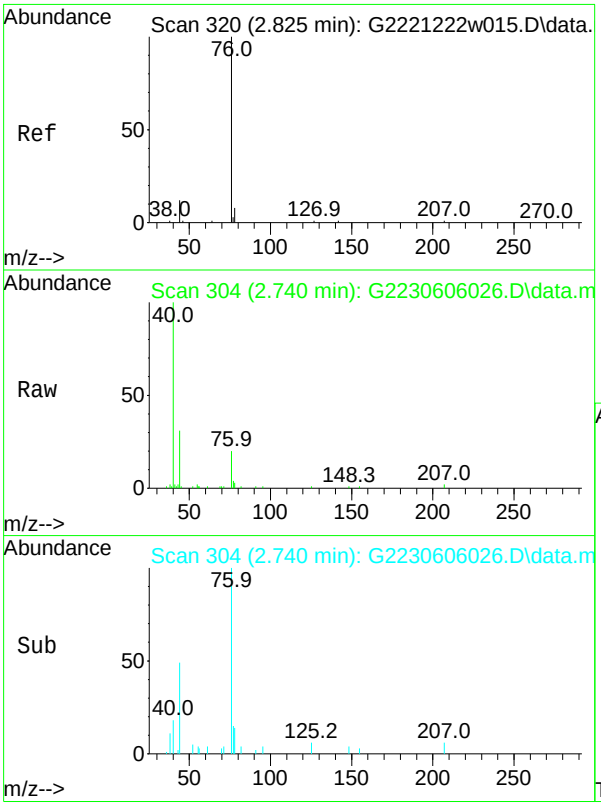


#13
Iodomethane
Concen: 0.16 ug/L
RT: 2.677 min Scan# 294
Delta R.T. 0.001 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion:142 Resp: 71837

Ion	Ratio	Lower	Upper
142	100		
127	45.9	13.3	73.3
141	0.0	0.0	45.3

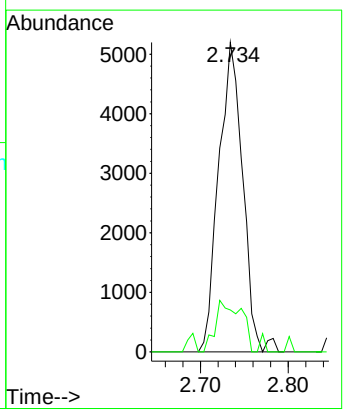


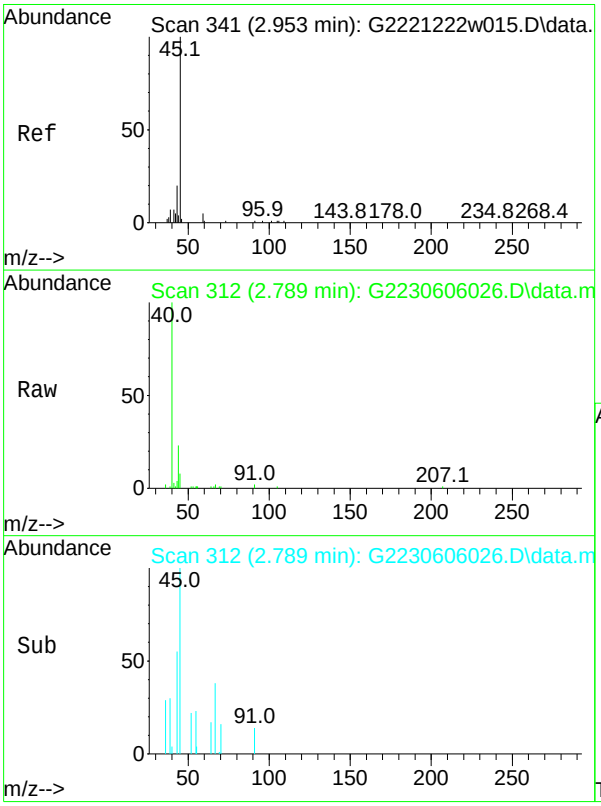


#14
Carbon disulfide
Concen: 0.02 ug/L
RT: 2.737 min Scan# 304
Delta R.T. -0.002 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 76 Resp: 98549

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

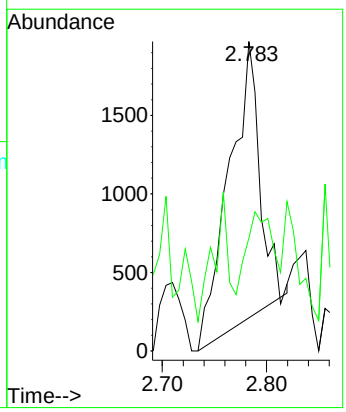


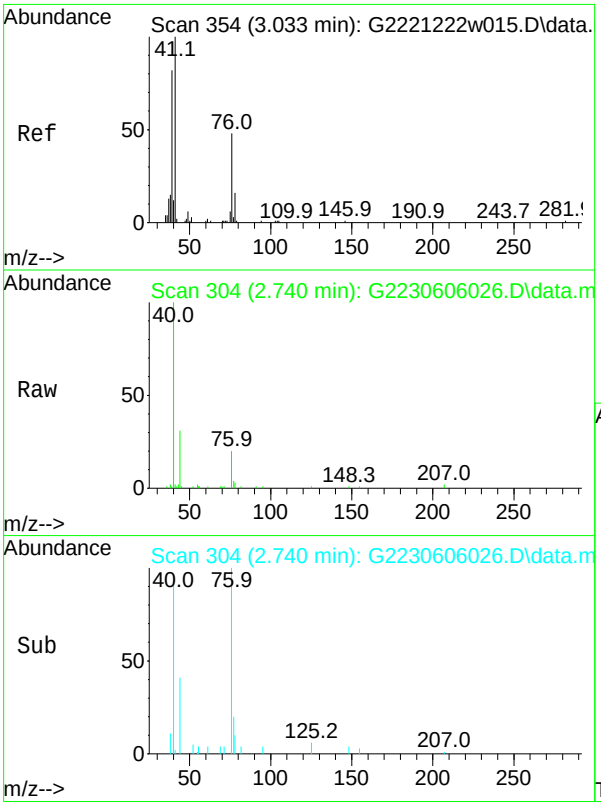


#15
Isopropanol
Concen: 2.26 ug/L
RT: 2.786 min Scan# 312
Delta R.T. -0.006 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 45 Resp: 35034

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

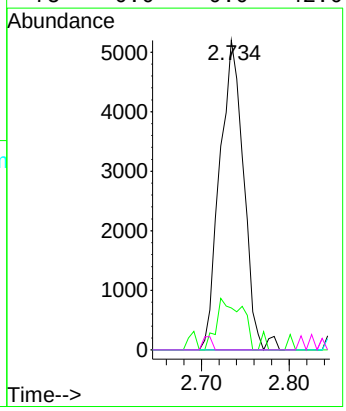


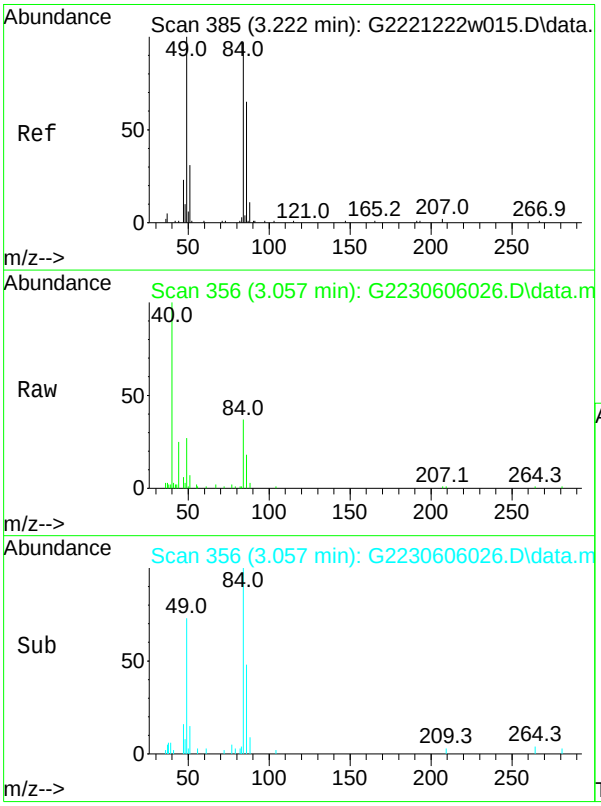


#17
3-Chloro-1-propene
Concen: 0.43 ug/L
RT: 2.737 min Scan# 304
Delta R.T. -0.183 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 76 Resp: 98554

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

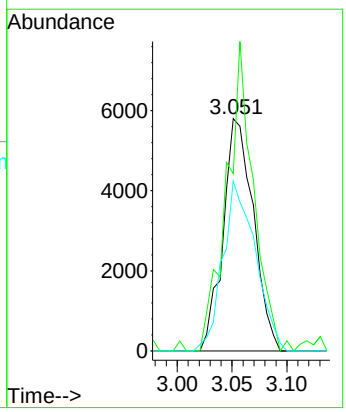


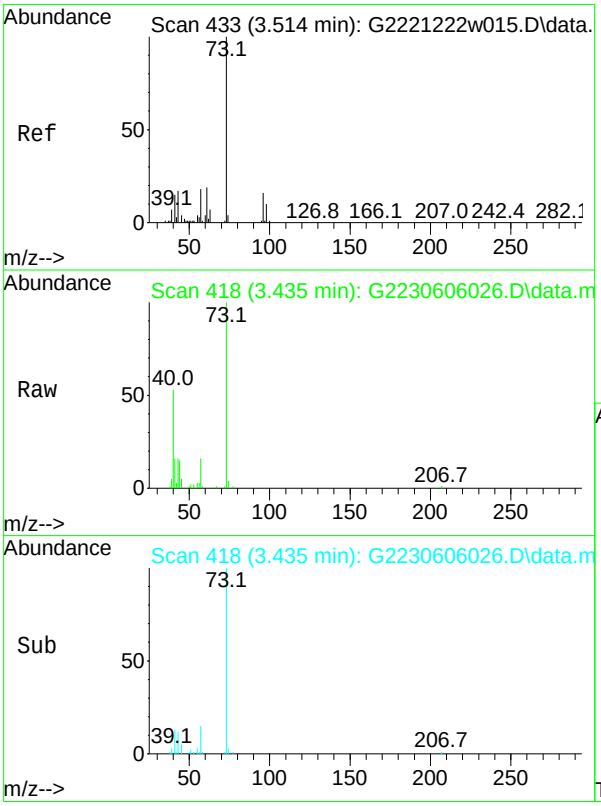


#18
Methylene chloride
Concen: Below Cal
RT: 3.056 min Scan# 356
Delta R.T. -0.006 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 49 Resp: 111292

Ion	Ratio	Lower	Upper
49	100		
84	118.5	57.9	117.9#
86	78.4	24.9	84.9

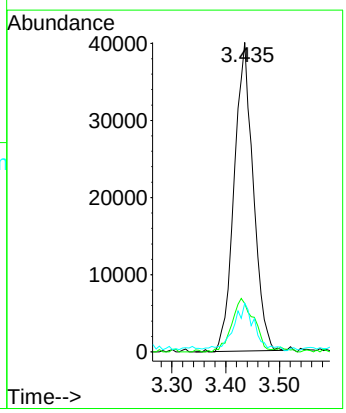


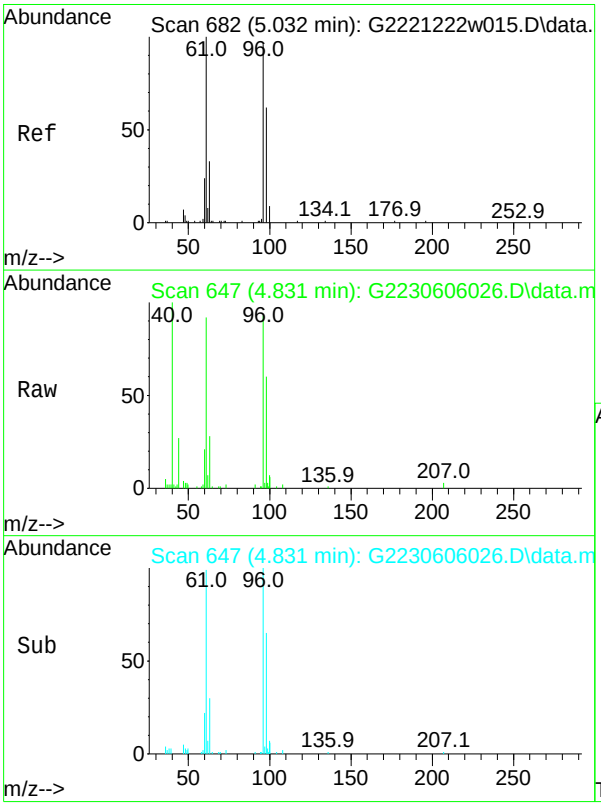


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 73 Resp: 979938

Ion	Ratio	Lower	Upper
73	100		
57	20.9	0.0	51.7
41	16.2	0.0	50.6

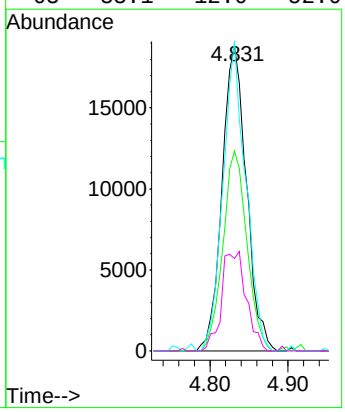


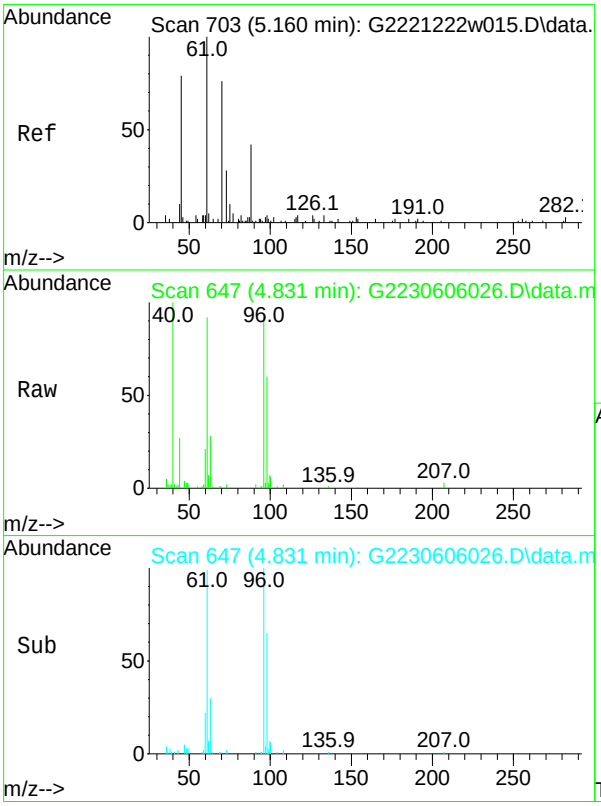


#28
cis-1,2-Dichloroethene
Concen: 0.76 ug/L
RT: 4.833 min Scan# 647
Delta R.T. -0.003 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 61 Resp: 407264

Ion	Ratio	Lower	Upper
61	100		
98	64.6	15.9	75.9
96	94.8	39.6	99.6
63	33.1	12.0	52.0

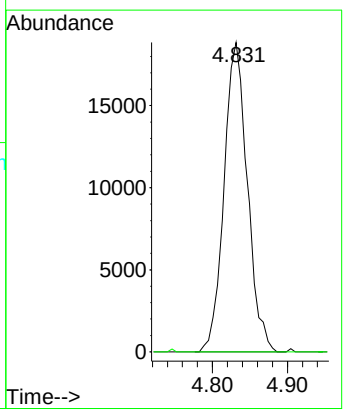


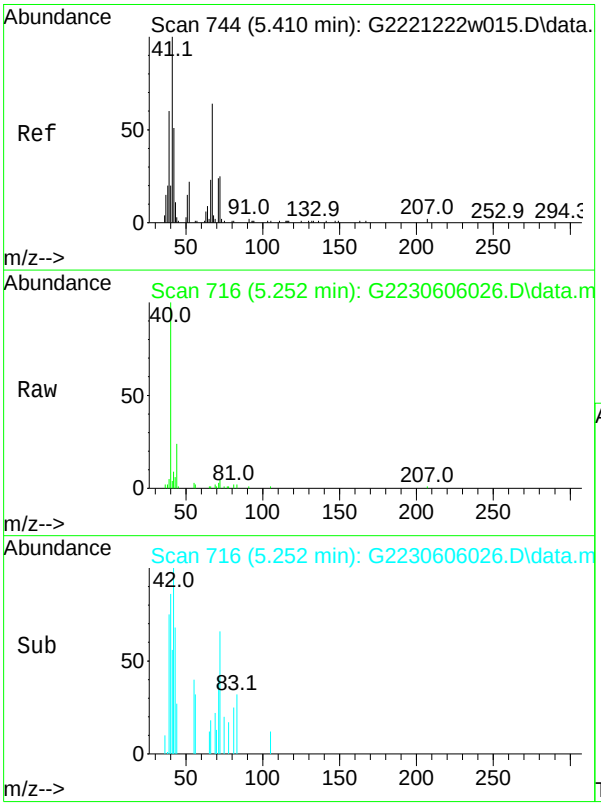


#31
Ethyl acetate
Concen: 6.91 ug/L
RT: 4.833 min Scan# 647
Delta R.T. -0.189 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 61 Resp: 407262

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

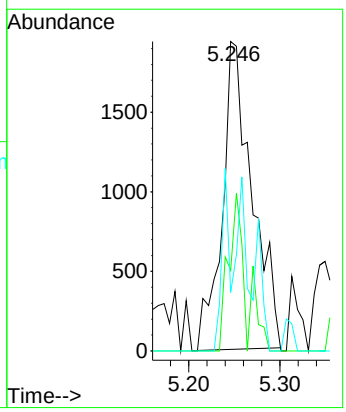


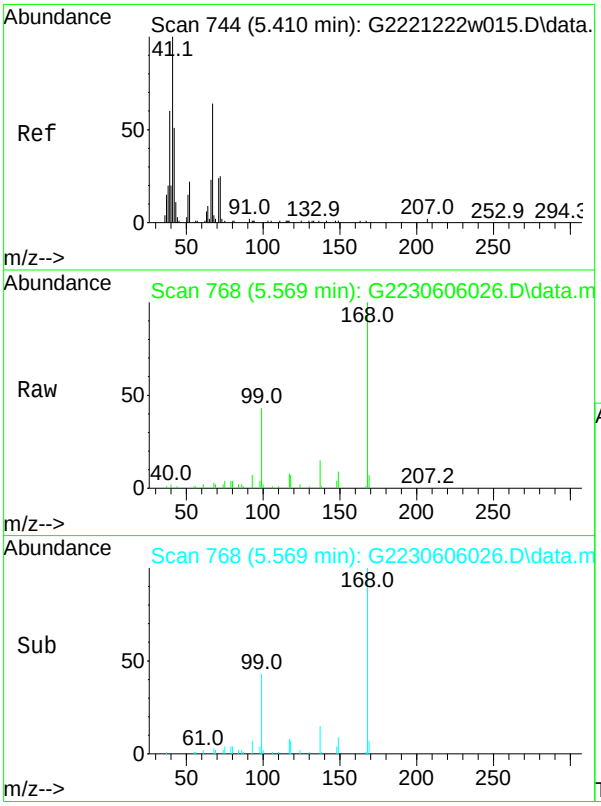


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.252 min Scan# 716
Delta R.T. -0.009 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 42 Resp: 44215

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

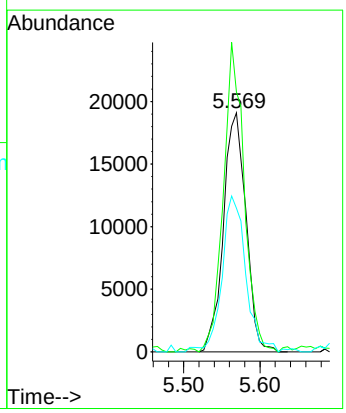


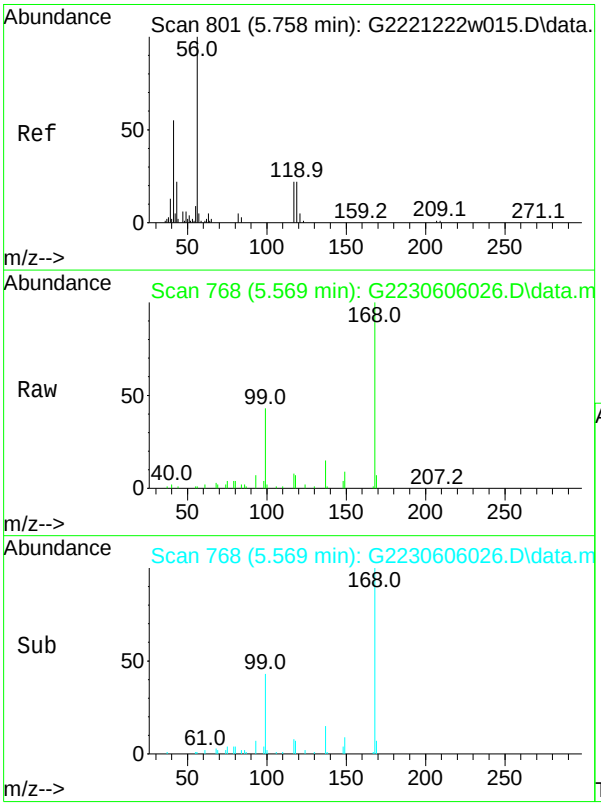


#40
Cyclohexane
Concen: 0.76 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 84 Resp: 393438

Ion	Ratio	Lower	Upper
84	100		
69	117.5	6.8	66.8#
56	69.2	79.1	139.1#

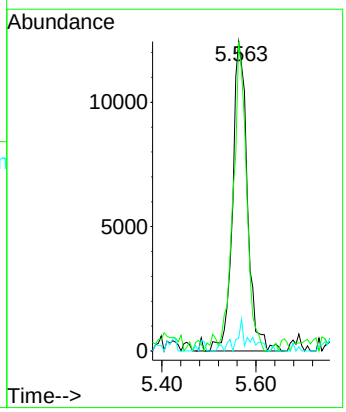


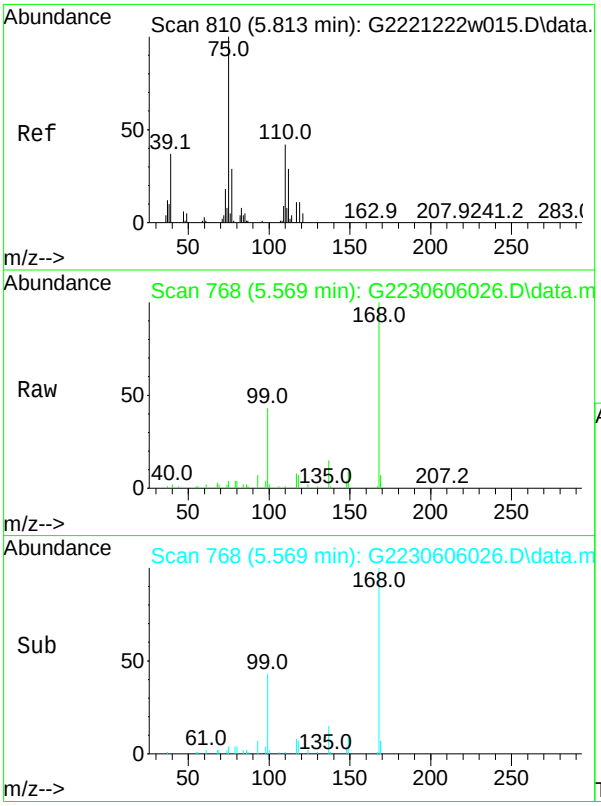


#41
1-Chlorobutane
Concen: 0.46 ug/L
RT: 5.566 min Scan# 768
Delta R.T. -0.064 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 56 Resp: 274197

Ion	Ratio	Lower	Upper
56	100		
55	88.5	0.0	41.0#
57	0.0	0.0	35.7

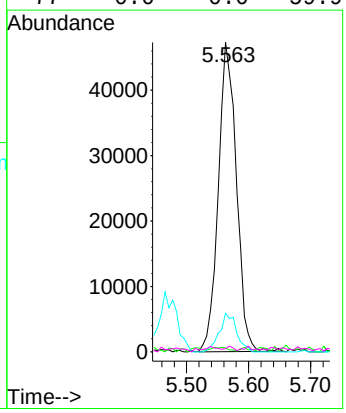


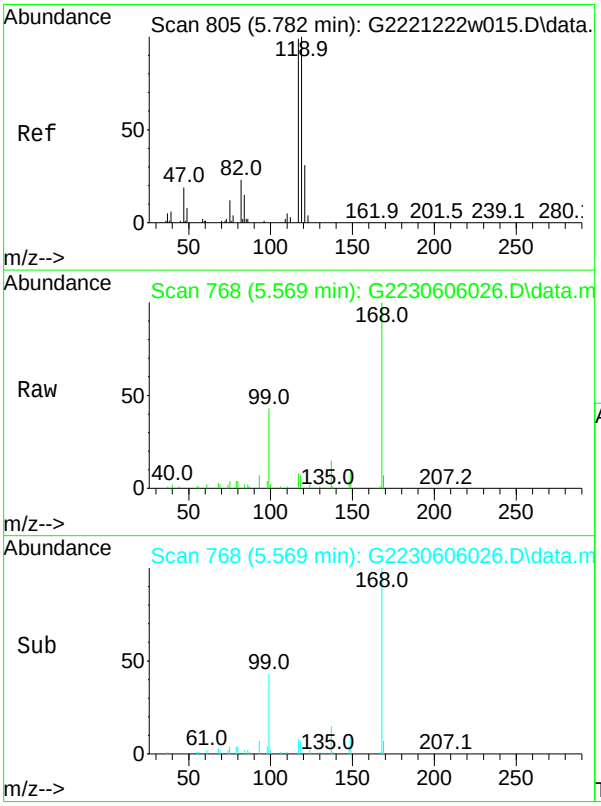


#42
1,1-Dichloropropene
Concen: 2.12 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.122 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 75 Resp: 959585

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.8	9.1	69.1
77	0.0	0.0	59.9

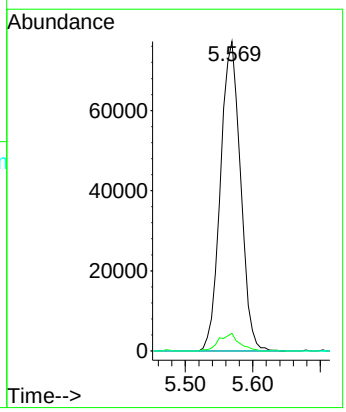


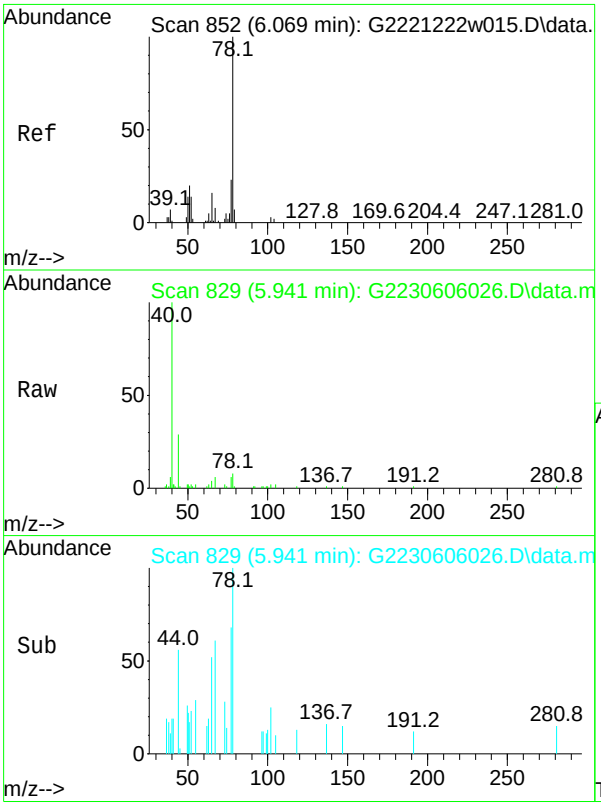


#47
Carbon tetrachloride
Concen: 3.18 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion:117 Resp: 1591429

Ion	Ratio	Lower	Upper
117	100		
119	5.7	66.4	126.4#
121	0.0	0.4	60.4#

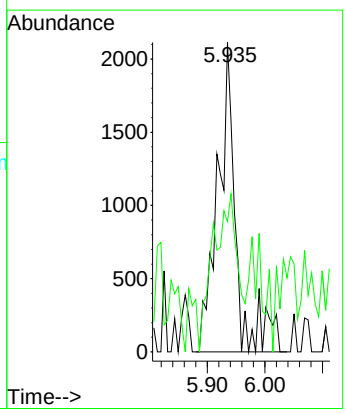


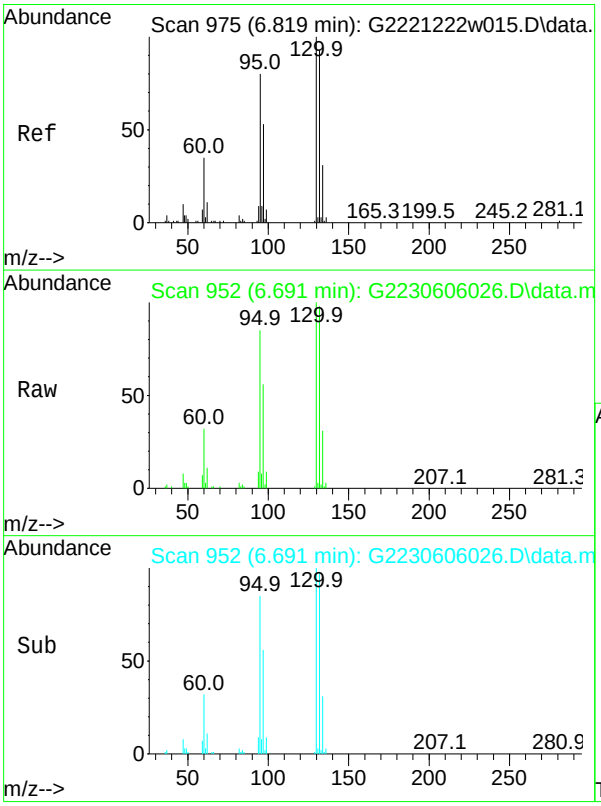


#48
Benzene
Concen: 0.03 ug/L
RT: 5.939 min Scan# 829
Delta R.T. 0.004 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 78 Resp: 46209

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

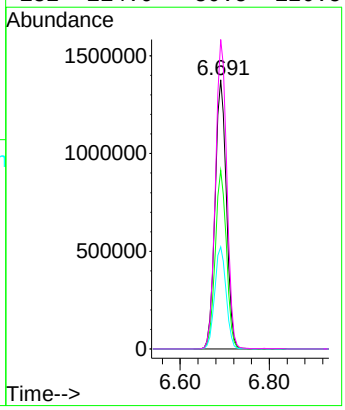


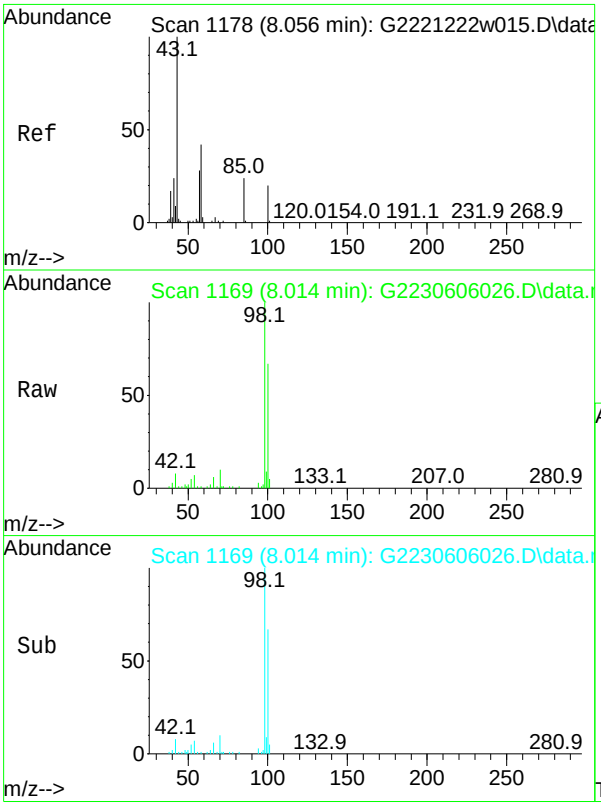


#50
Trichloroethene
Concen: 66.59 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 95 Resp:24244298

Ion	Ratio	Lower	Upper
95	100		
97	65.6	35.5	95.5
60	38.3	14.8	74.8
132	114.9	80.5	120.5

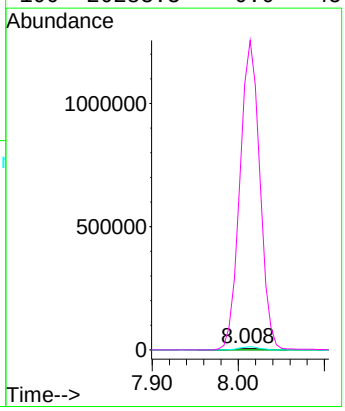


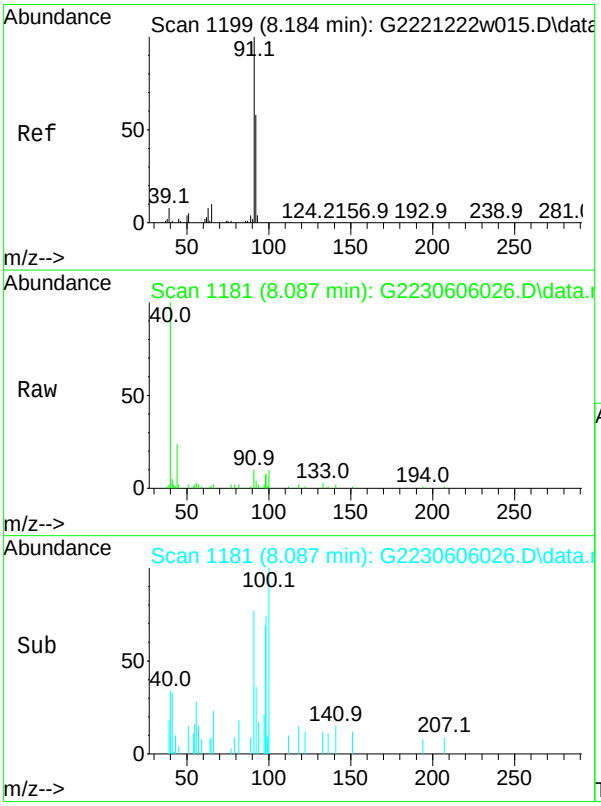


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 43 Resp: 99183

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	200.5	37.0	37.0#
100	20283.3	0.0	45.2#

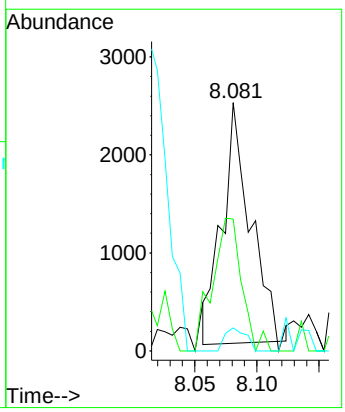


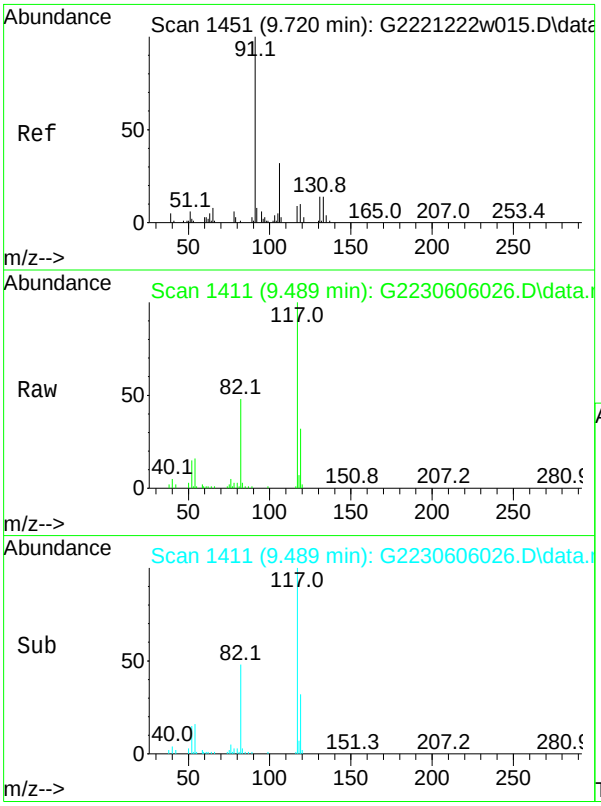


#65
Toluene
Concen: Below Cal
RT: 8.084 min Scan# 1181
Delta R.T. -0.002 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 91 Resp: 39890

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

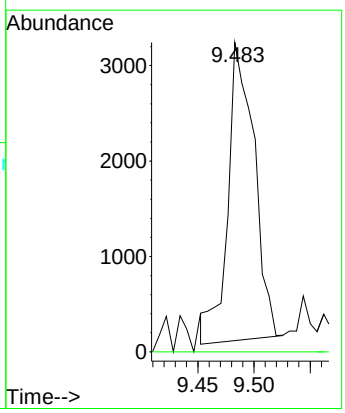


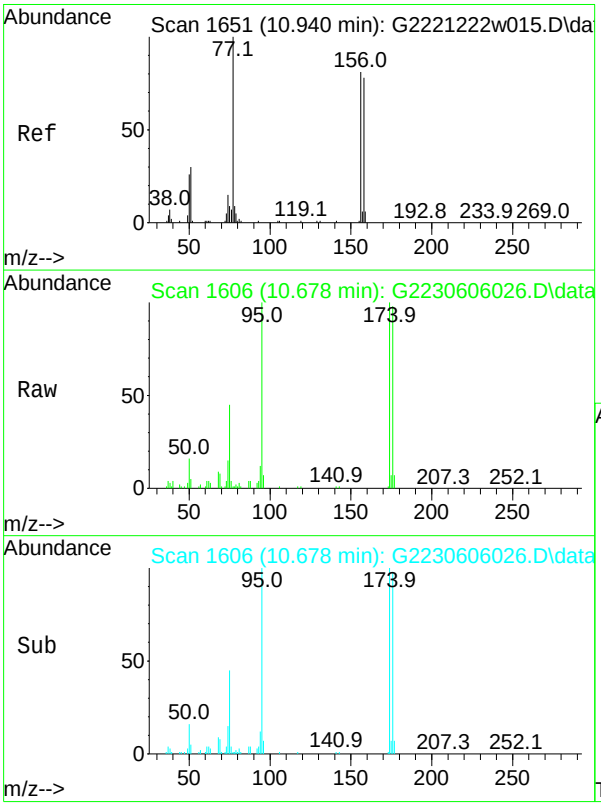


#74
Ethylbenzene
Concen: Below Cal
RT: 9.487 min Scan# 1411
Delta R.T. -0.156 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 91 Resp: 51446

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

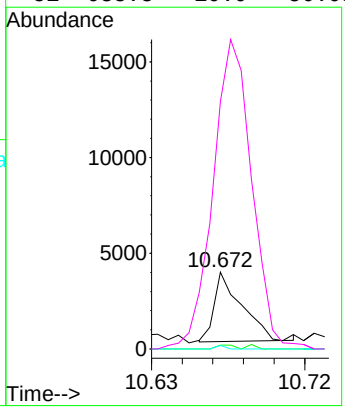


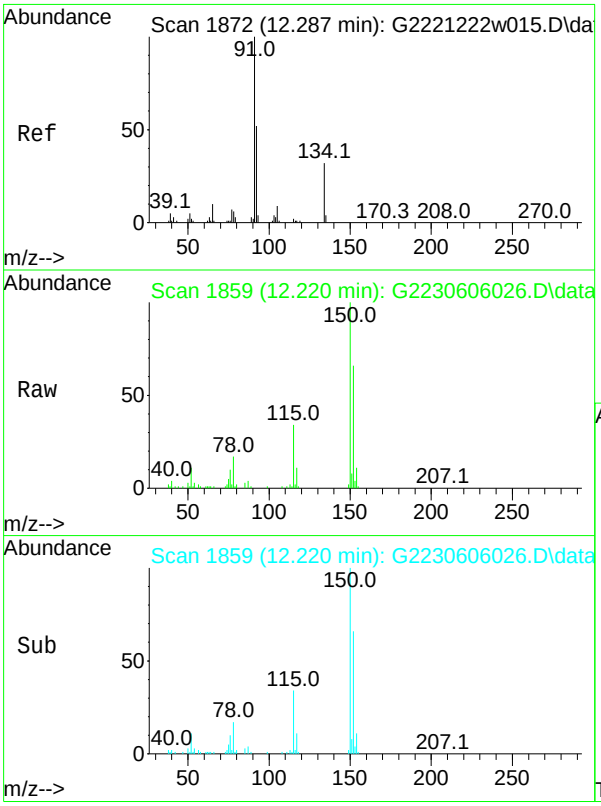


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.676 min Scan# 1606
Delta R.T. -0.152 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 77 Resp: 40218

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	633.8	10.9	50.9#

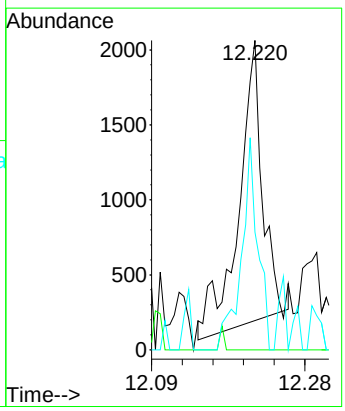




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.221 min Scan# 1859
Delta R.T. -0.010 min
Lab File: G2230606026.D
Acq: 06 Jun 2023 21:01

Tgt Ion: 91 Resp: 38291

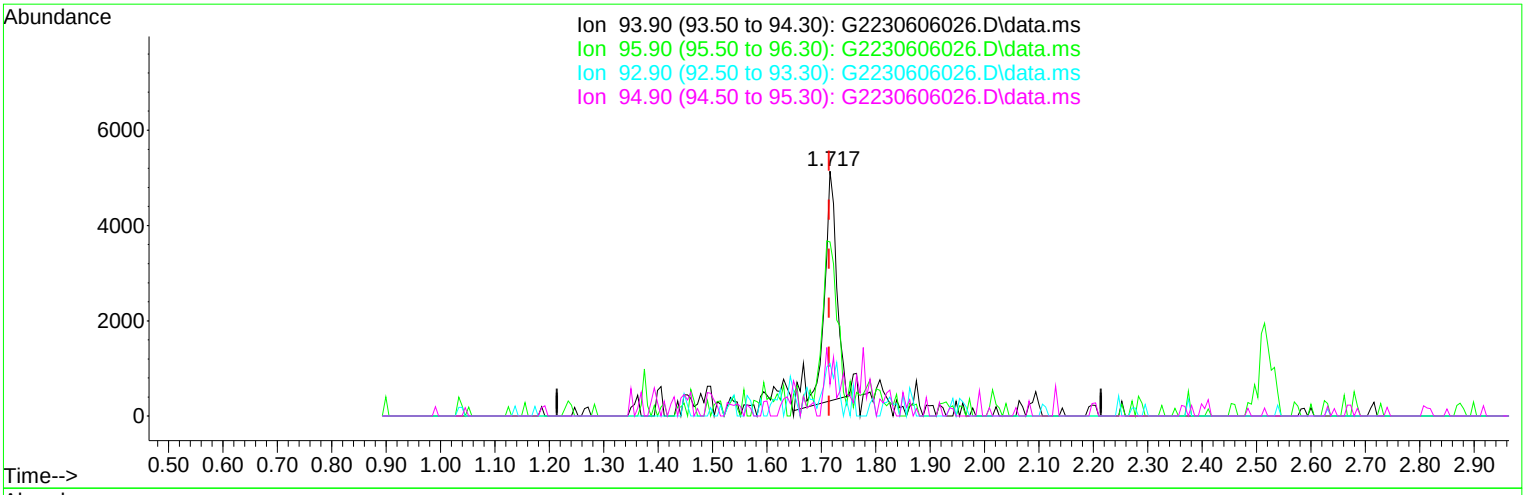
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

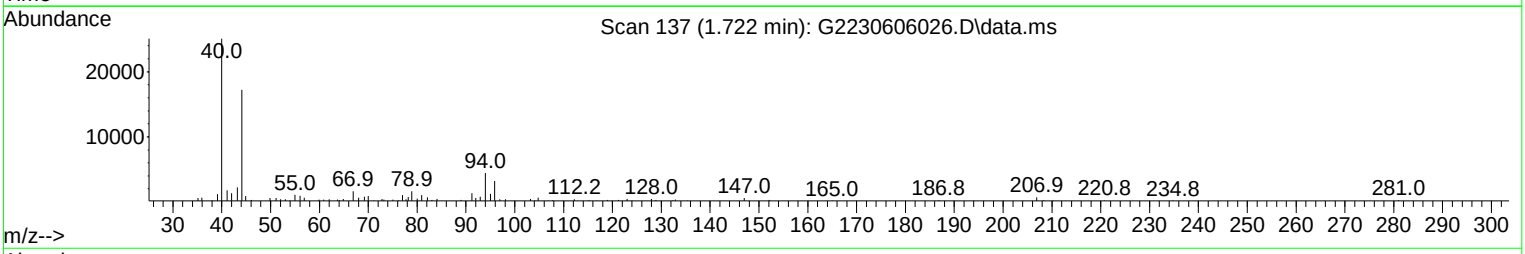


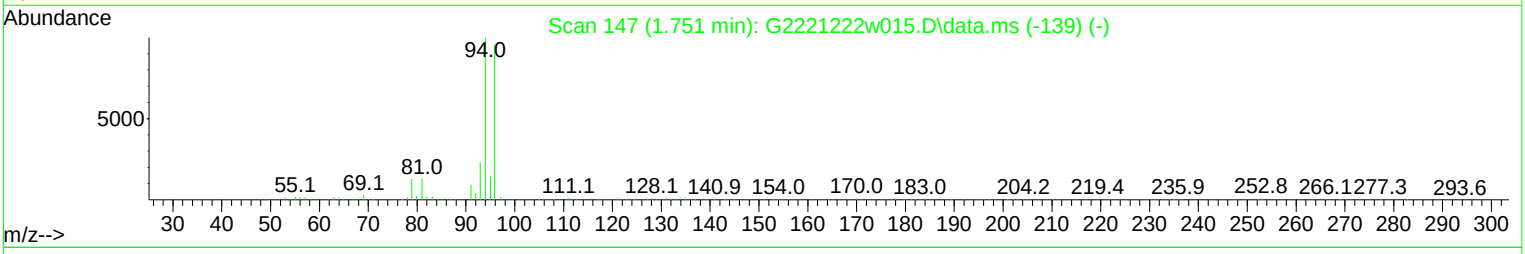
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606026.D
Acq On : 06 Jun 2023 21:01
Operator : PO1
Sample : 23E0775-11
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 07 09:56:40 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: G2230606026.D\data.ms

(5) Bromomethane (T)

1.720min (+ 0.006) 0.06 ug/L

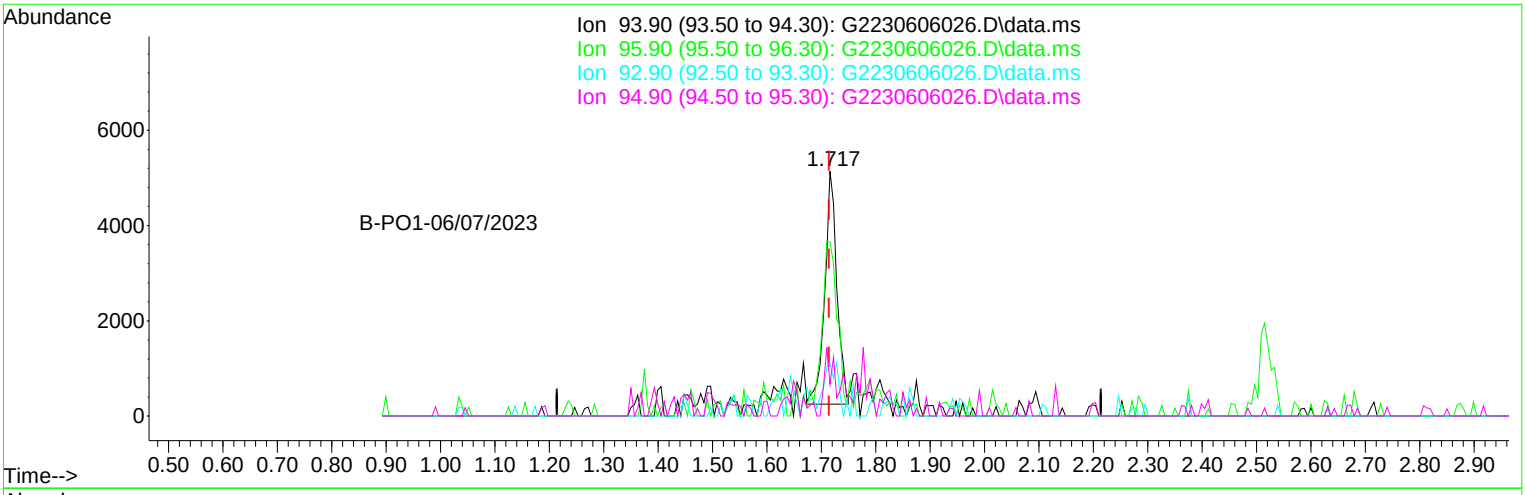
response 80073

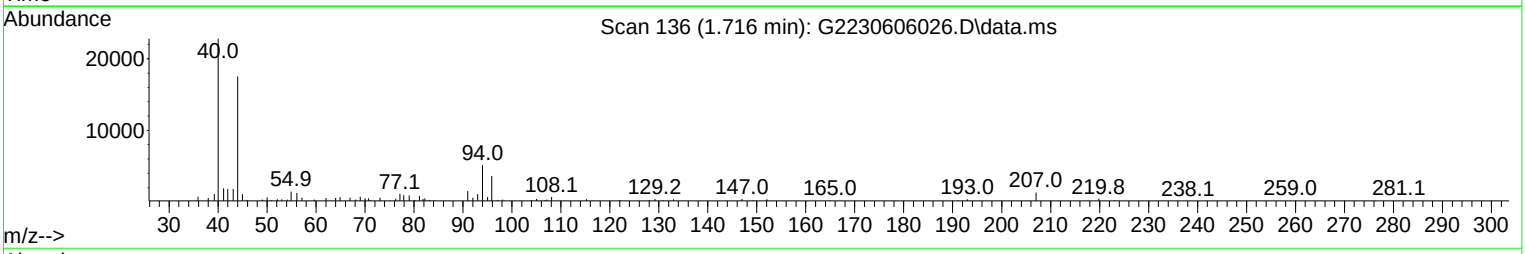
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	90.26
92.90	19.50	0.00
94.90	13.40	0.00

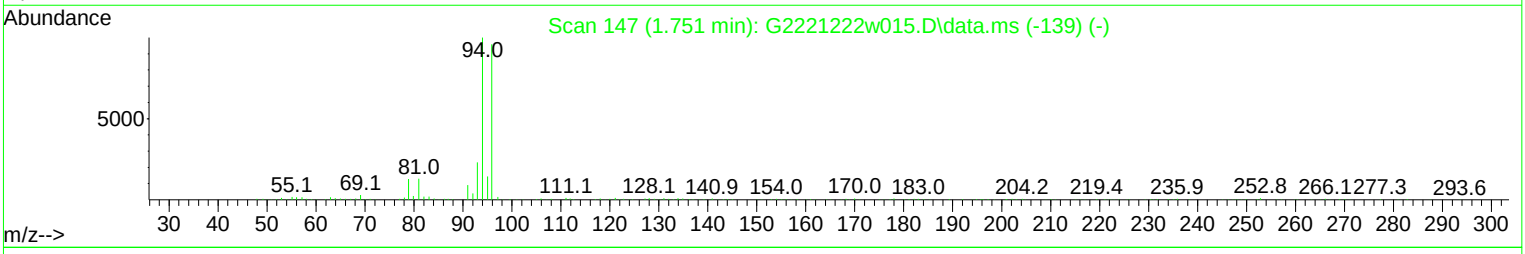
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606026.D
Acq On : 06 Jun 2023 21:01
Operator : PO1
Sample : 23E0775-11
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 07 09:56:40 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: G2230606026.D\data.ms

(5) Bromomethane (T)

1.716min (+ 0.002) 0.04 ug/L m

response 75899

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	95.22
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11RE1	File ID:	G2230607016.D
Sampled:	05/27/23 15:00	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 21:06
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11RE1	File ID:	G2230607016.D
Sampled:	05/27/23 15:00	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 21:06
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11RE1	File ID:	G2230607016.D
Sampled:	05/27/23 15:00	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 21:06
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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, 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*	*57.6*	*0.781*	*2.00*	*5.00*	*B, 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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607016.D
Acq On : 07 Jun 2023 21:06
Operator : PO1
Sample : 23E0775-11RE1
Misc : 10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 09:49:50 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

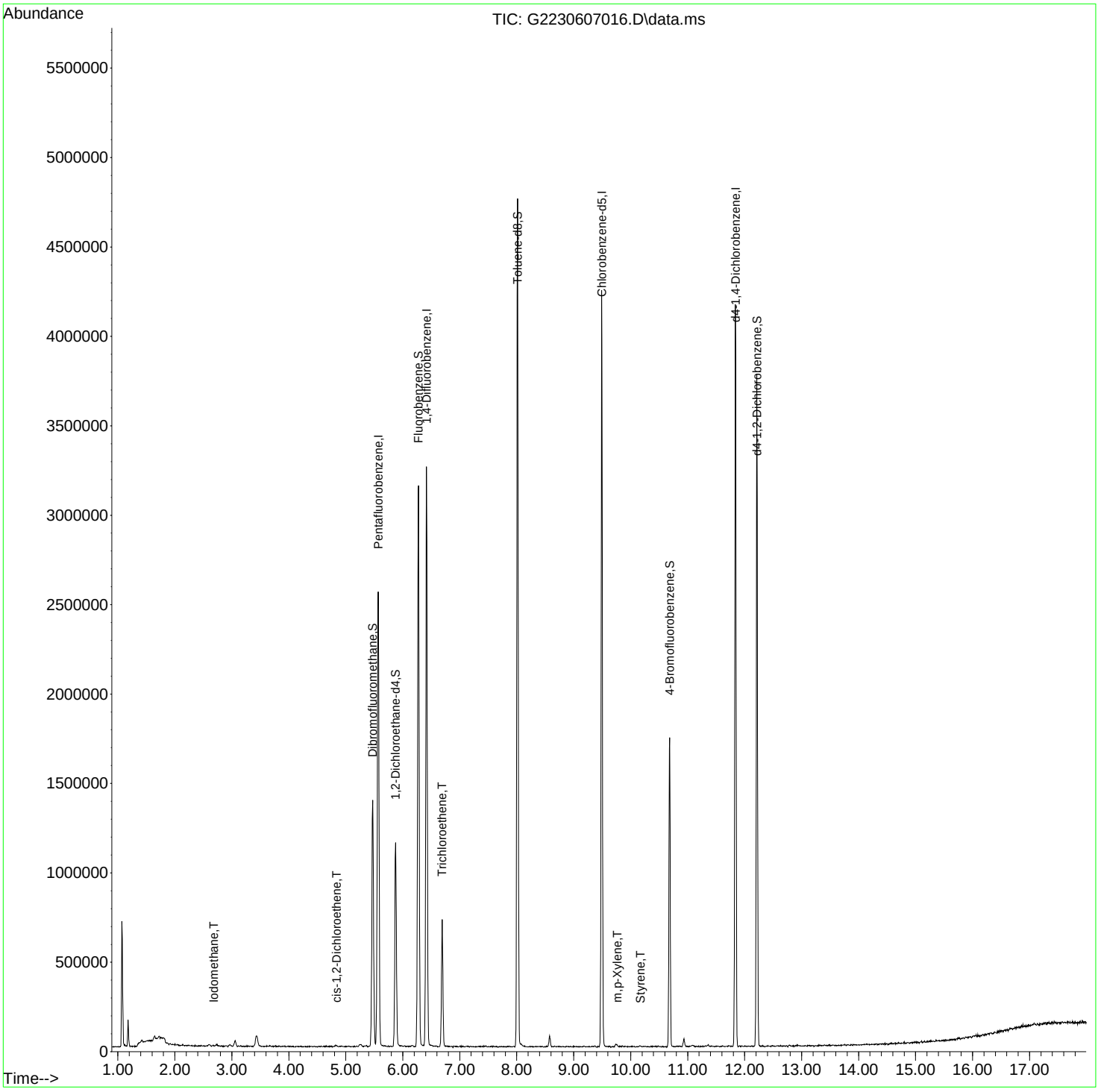
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	20474798	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.419	114	28221925	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24584124	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11948769	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.473	111	8731523	19.38	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%				
43) 1,2-Dichloroethane-d4	5.876	65	8080073	18.15	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.75%				
49) Fluorobenzene	6.276	96	31068808	19.32	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.60%				
64) Toluene-d8	8.016	98	30381035	19.61	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.05%				
81) 4-Bromofluorobenzene	10.685	174	5417738	9.60	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.00%				
97) d4-1,2-Dichlorobenzene	12.218	152	10243986	19.93	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.65%				
Target Compounds							Qvalue
13) Iodomethane	2.677	142	37163	0.08	ug/L	#	41
18) Methylene chloride	3.057	49	165270	Below Cal			77
21) Methyl tert-butyl ether	3.434	73	891719	Below Cal			92
28) cis-1,2-Dichloroethene	4.835	61	48885	0.01	ug/L	#	46
50) Trichloroethene	6.693	95	2165847	5.76	ug/L		90
65) Toluene	8.085	91	46417	Below Cal		#	30
75) m,p-Xylene	9.765	91	58393	0.04	ug/L	#	84
76) Styrene	10.169	104	25522	0.02	ug/L	#	29

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607016.D
Acq On : 07 Jun 2023 21:06
Operator : PO1
Sample : 23E0775-11RE1
Misc : 10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 09:49:50 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607016.D
Acq On : 07 Jun 2023 21:06
Operator : PO1
Sample : 23E0775-11RE1
Misc : 10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 09:49:50 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

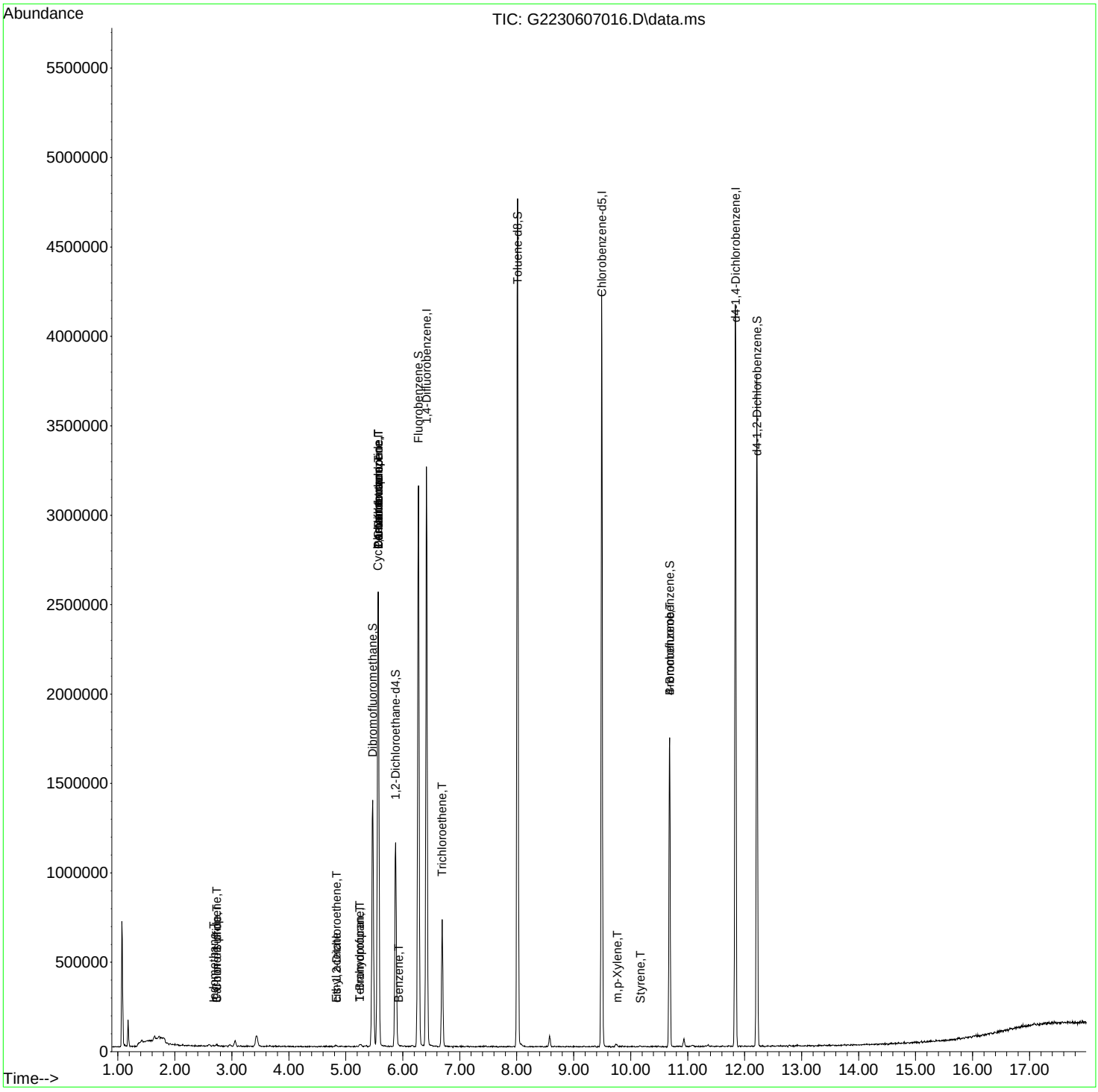
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	20474798	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	28221925	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24584124	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11948769	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	8731523	19.38	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%			
43) 1,2-Dichloroethane-d4	5.876	65	8080073	18.15	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.75%			
49) Fluorobenzene	6.276	96	31068808	19.32	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.60%			
64) Toluene-d8	8.016	98	30381035	19.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.05%			
81) 4-Bromofluorobenzene	10.685	174	5417738	9.60	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.00%			
97) d4-1,2-Dichlorobenzene	12.218	152	10243986	19.93	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.65%			
Target Compounds						Qvalue
5) Bromomethane	1.721	94	56112	Below Cal	#	76
12) Acetone	2.603	43	83747	Below Cal	#	45
13) Iodomethane	2.677	142	37163	0.08	ug/L #	41
14) Carbon disulfide	2.736	76	158727	0.08	ug/L #	74
17) 3-Chloro-1-propene	2.736	76	158725	0.69	ug/L #	53
18) Methylene chloride	3.057	49	165270	Below Cal		77
21) Methyl tert-butyl ether	3.434	73	891719	Below Cal		92
28) cis-1,2-Dichloroethene	4.835	61	48885	0.01	ug/L #	46
31) Ethyl acetate	4.834	61	48268	0.56	ug/L #	45
33) 1-Bromopropane	5.247	41	46598	0.10	ug/L #	40
36) Tetrahydrofuran	5.244	42	89404	0.29	ug/L	87
40) Cyclohexane	5.565	84	447110	0.81	ug/L #	31
41) 1-Chlorobutane	5.569	56	262593	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.569	75	1050385	2.19	ug/L #	38
47) Carbon tetrachloride	5.569	117	1665556	3.27	ug/L #	16
48) Benzene	5.932	78	30548	0.02	ug/L #	52
50) Trichloroethene	6.693	95	2165847	5.76	ug/L	90
60) 4-Methyl-2-pentanone	8.014	43	81937	Below Cal	#	1
65) Toluene	8.085	91	46417	Below Cal	#	30
74) Ethylbenzene	9.766	91	58393	Below Cal		73
75) m,p-Xylene	9.765	91	58393	0.04	ug/L #	84
76) Styrene	10.169	104	25522	0.02	ug/L #	29
82) Bromobenzene	10.686	77	42715	0.07	ug/L #	1
99) n-Butylbenzene	12.217	91	42156	Below Cal	#	53

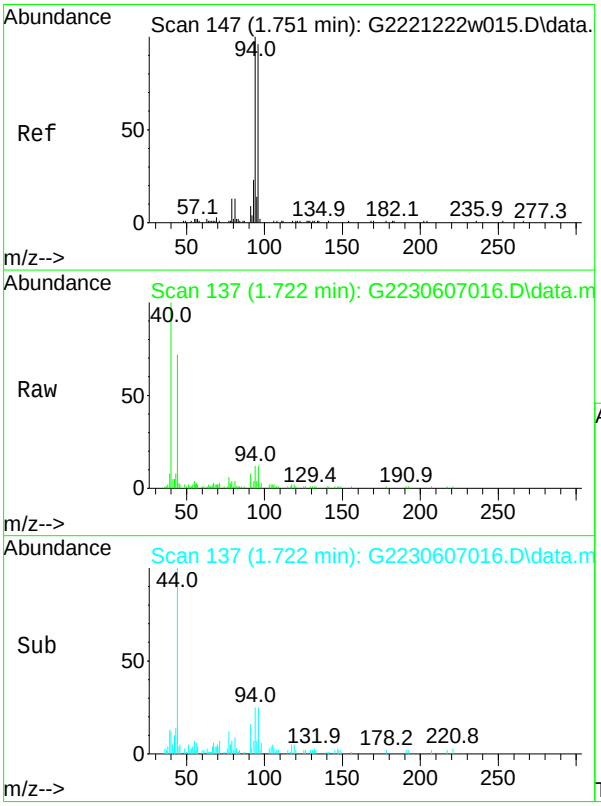
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607016.D
Acq On : 07 Jun 2023 21:06
Operator : PO1
Sample : 23E0775-11RE1
Misc : 10
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 08 09:49:50 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

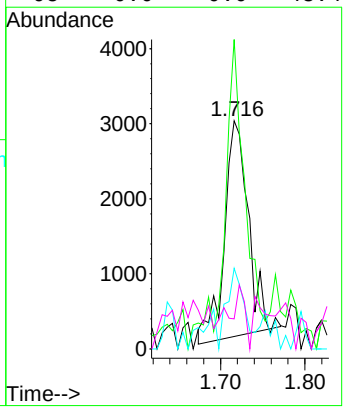


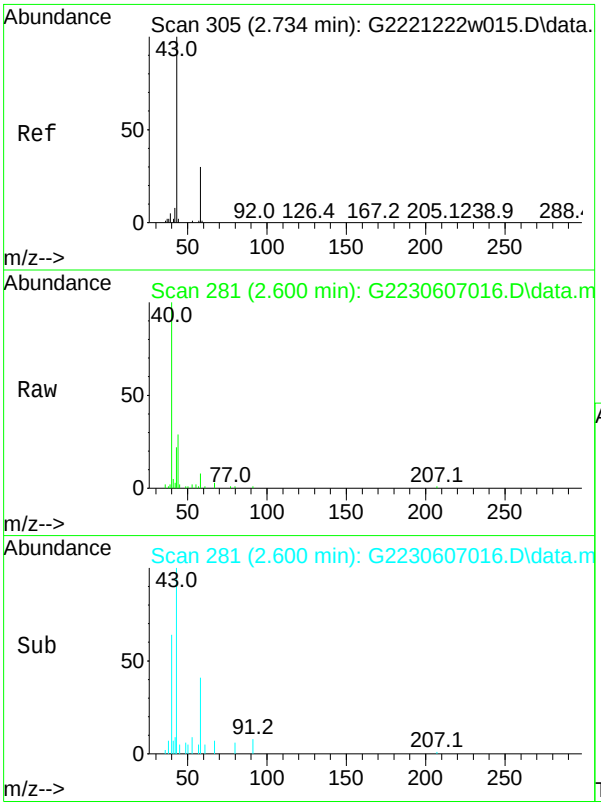


#5
Bromomethane
Concen: Below Cal
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 94 Resp: 56112

Ion	Ratio	Lower	Upper
94	100		
96	113.7	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

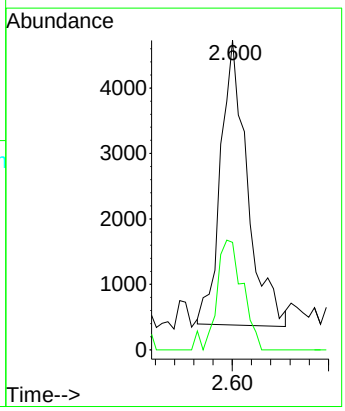


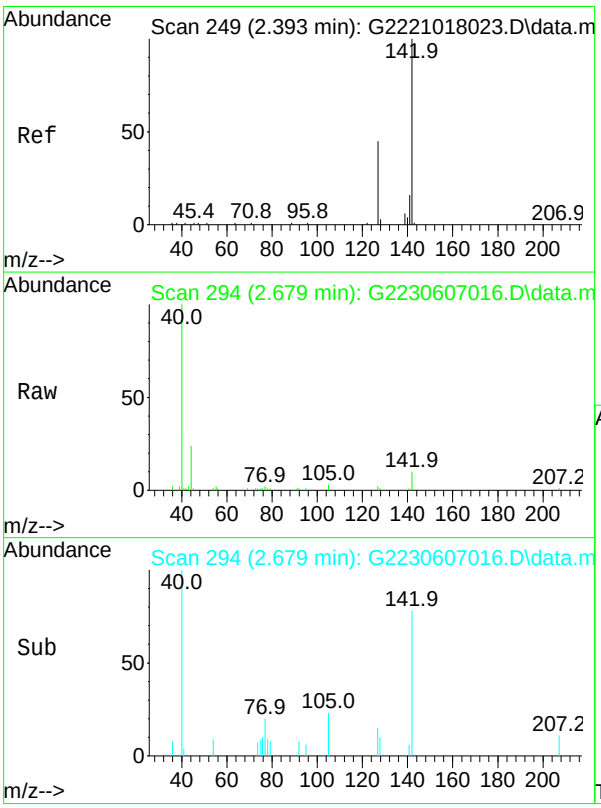


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 281
Delta R.T. -0.006 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 43 Resp: 83747

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

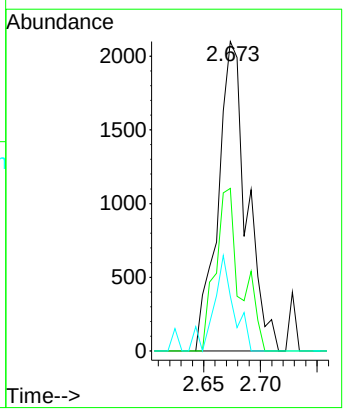


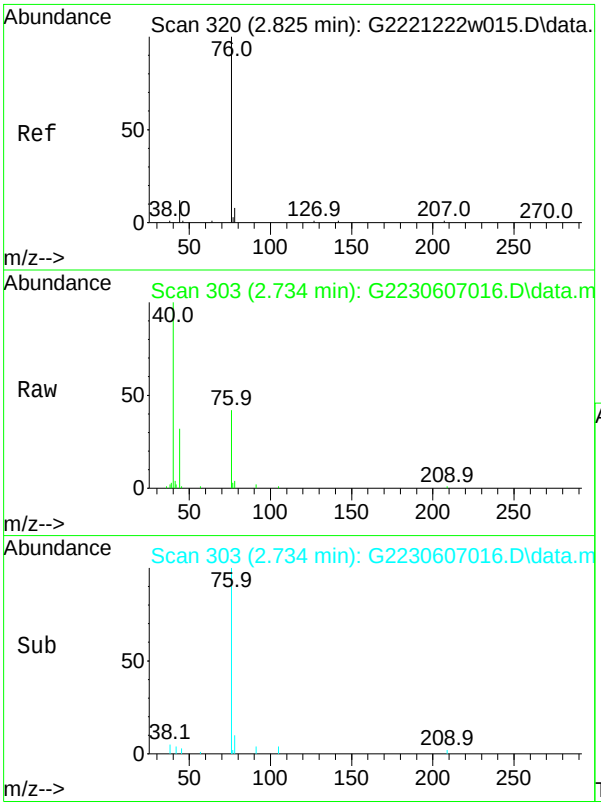


#13
Iodomethane
Concen: 0.08 ug/L
RT: 2.677 min Scan# 294
Delta R.T. 0.001 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion:142 Resp: 37163

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

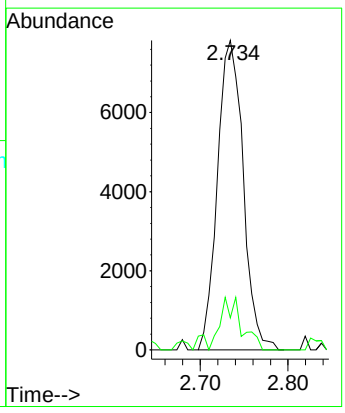


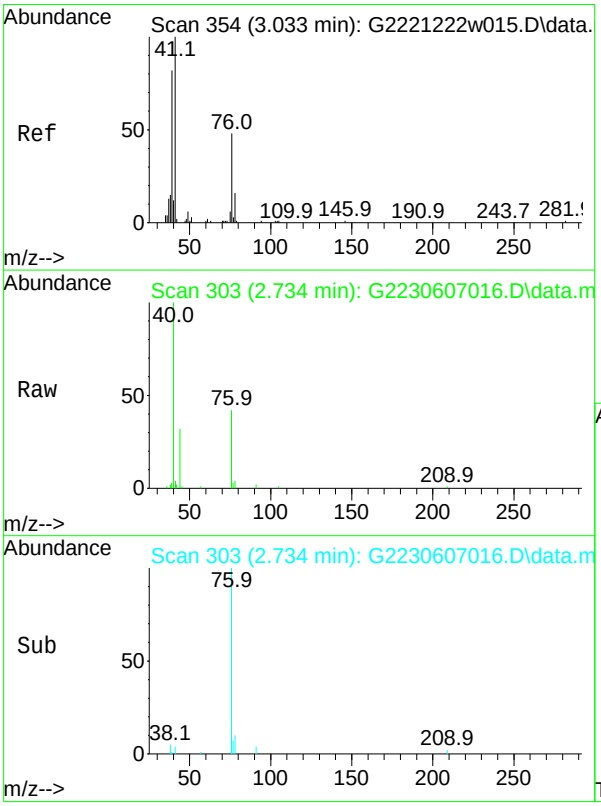


#14
Carbon disulfide
Concen: 0.08 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.003 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 76 Resp: 158727

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

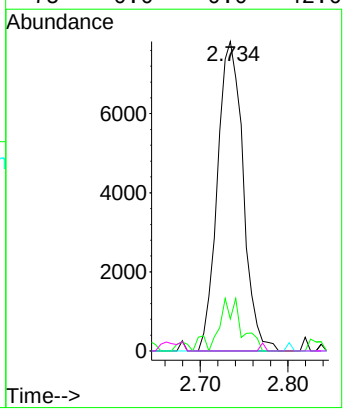


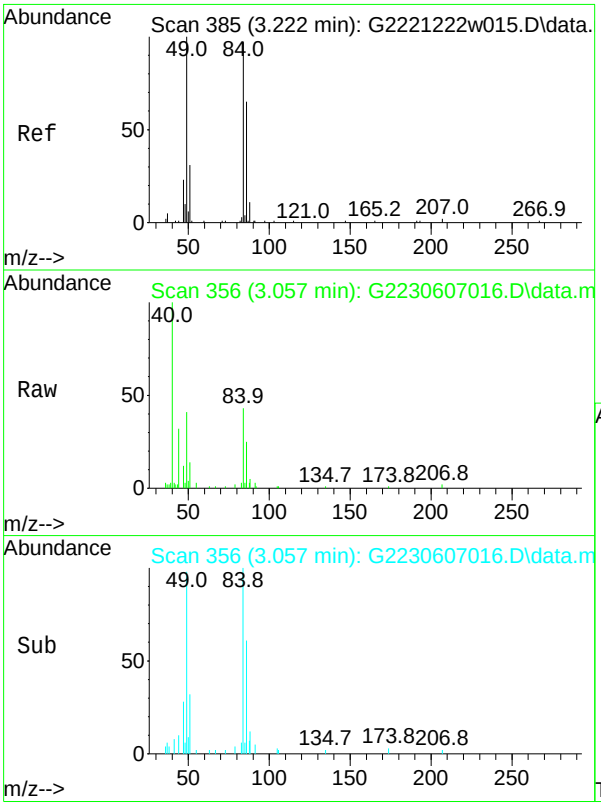


#17
3-Chloro-1-propene
Concen: 0.69 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.184 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 76 Resp: 158725

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

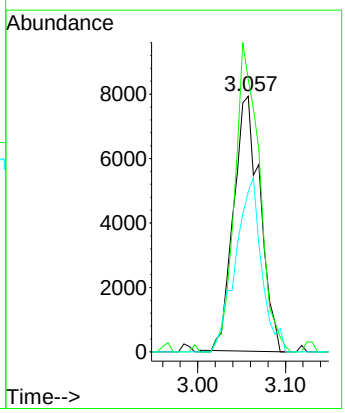


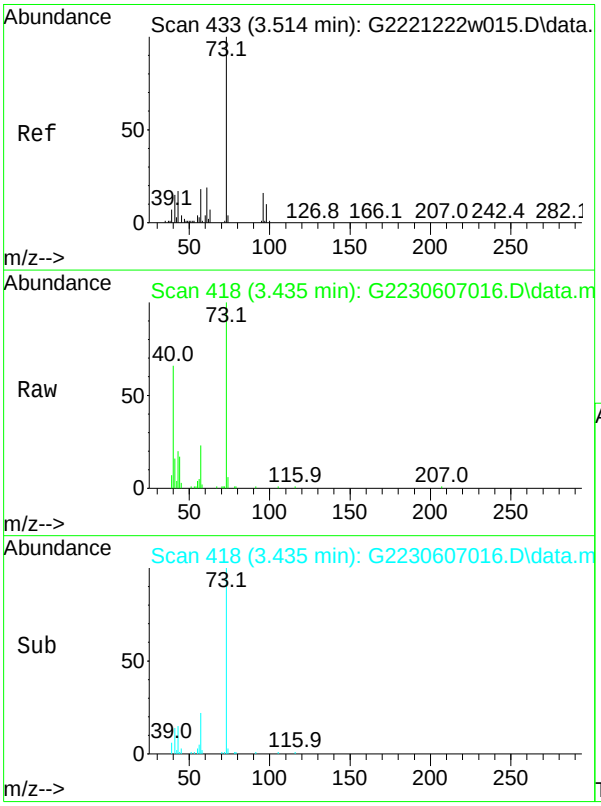


#18
Methylene chloride
Concen: Below Cal
RT: 3.057 min Scan# 356
Delta R.T. -0.005 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 49 Resp: 165270

Ion	Ratio	Lower	Upper
49	100		
84	112.8	57.9	117.9
86	67.3	24.9	84.9

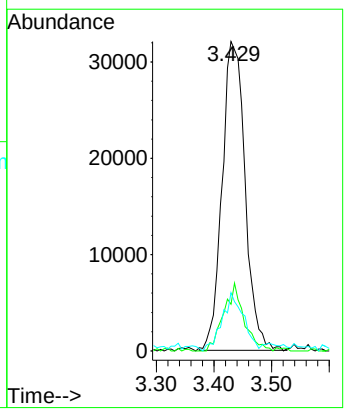


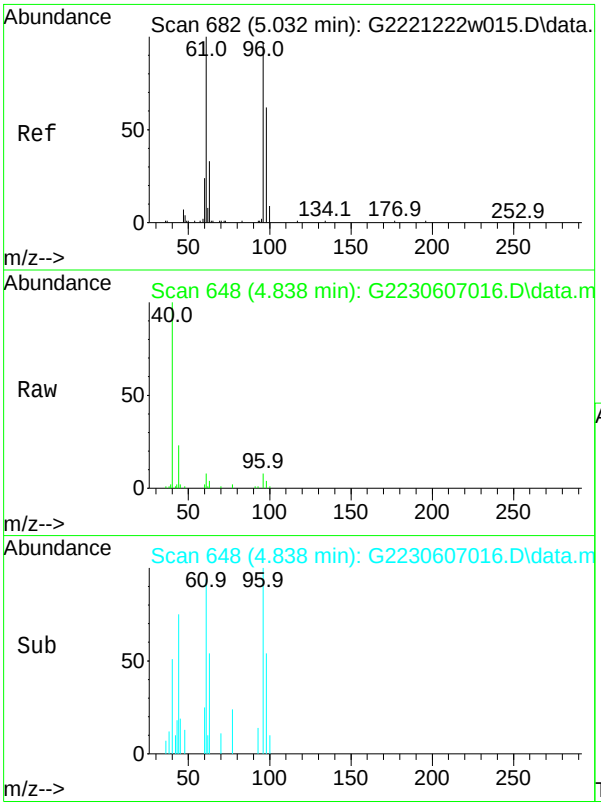


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.434 min Scan# 418
Delta R.T. -0.012 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 73 Resp: 891719

Ion	Ratio	Lower	Upper
73	100		
57	19.2	0.0	51.7
41	15.9	0.0	50.6

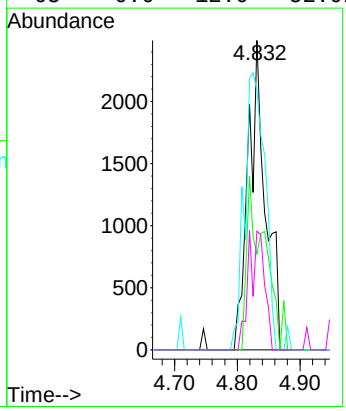


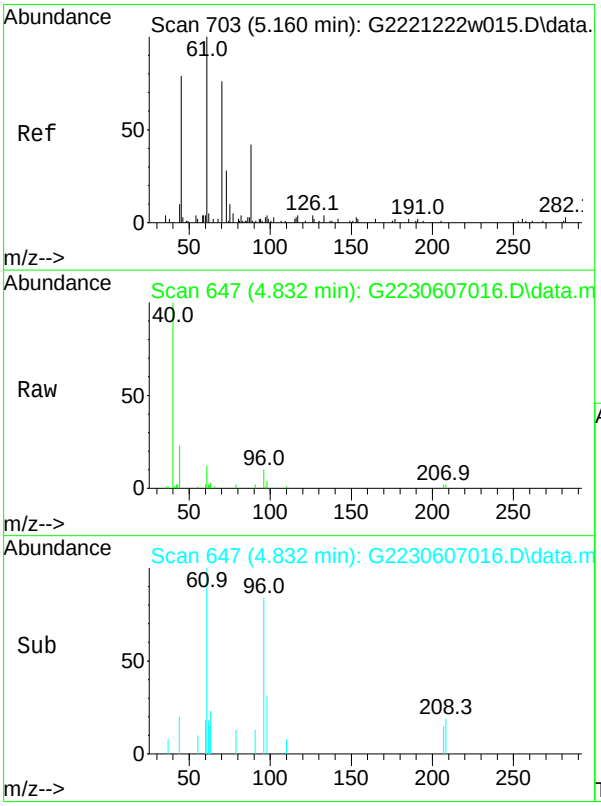


#28
cis-1,2-Dichloroethene
Concen: 0.01 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.001 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 61 Resp: 48885

Ion	Ratio	Lower	Upper
61	100		
98	0.0	15.9	75.9#
96	103.7	39.6	99.6#
63	0.0	12.0	52.0#

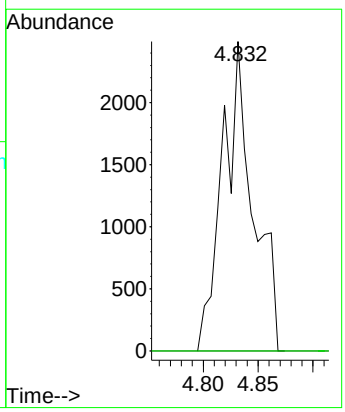


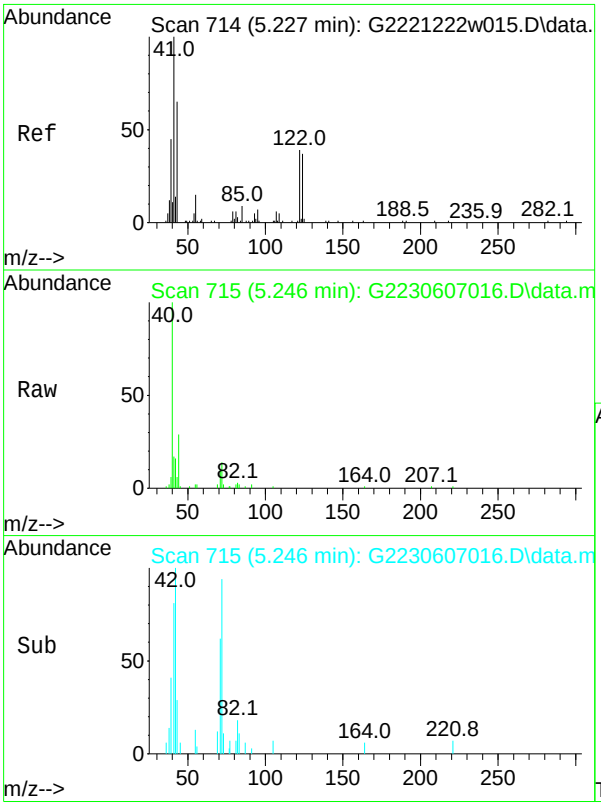


#31
Ethyl acetate
Concen: 0.56 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.188 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 61 Resp: 48268

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

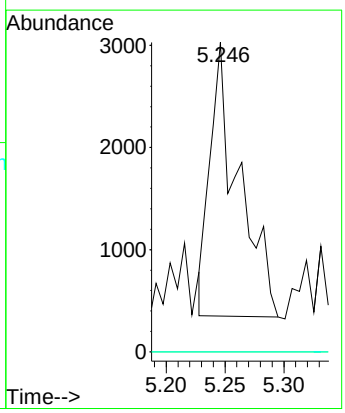


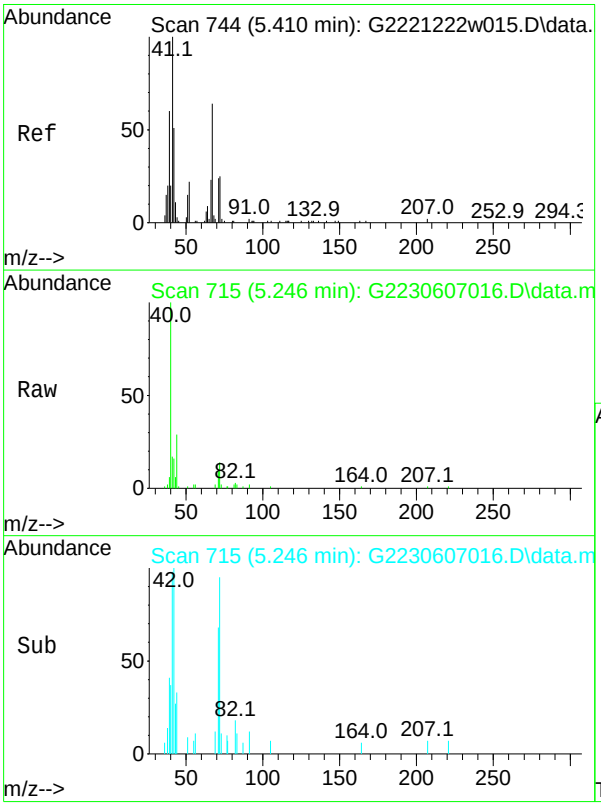


#33
1-Bromopropane
Concen: 0.10 ug/L
RT: 5.247 min Scan# 715
Delta R.T. 0.171 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 41 Resp: 46598

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

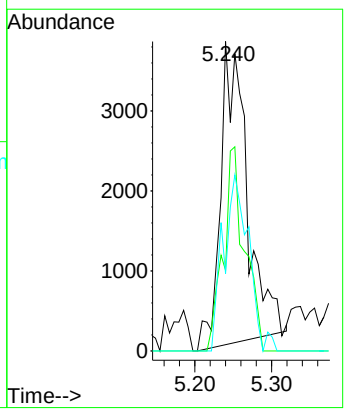


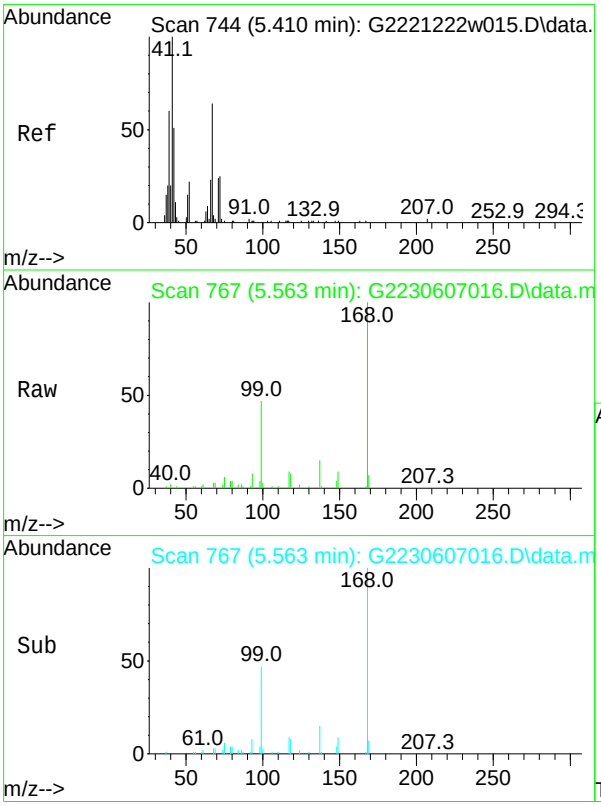


#36
Tetrahydrofuran
Concen: 0.29 ug/L
RT: 5.244 min Scan# 715
Delta R.T. -0.017 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 42 Resp: 89404

Ion	Ratio	Lower	Upper
42	100		
72	55.2	18.8	78.8
71	56.2	14.7	74.7

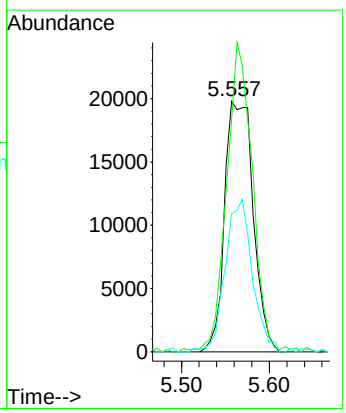


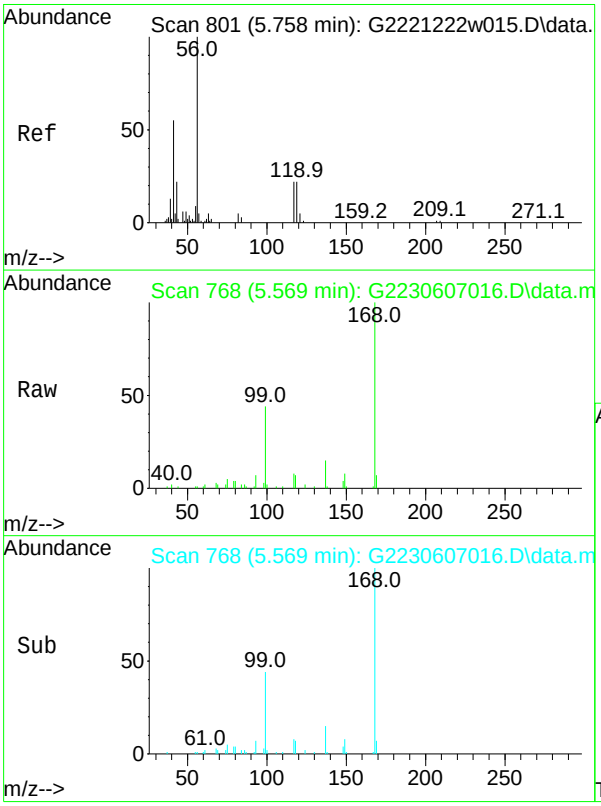


#40
Cyclohexane
Concen: 0.81 ug/L
RT: 5.565 min Scan# 767
Delta R.T. 0.031 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 84 Resp: 447110

Ion	Ratio	Lower	Upper
84	100		
69	112.3	6.8	66.8#
56	57.9	79.1	139.1#

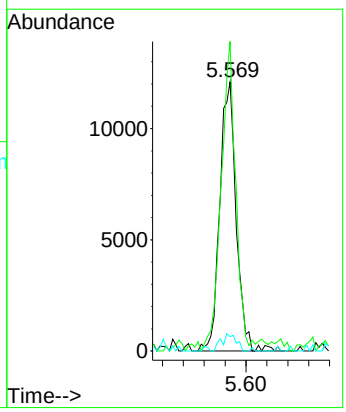


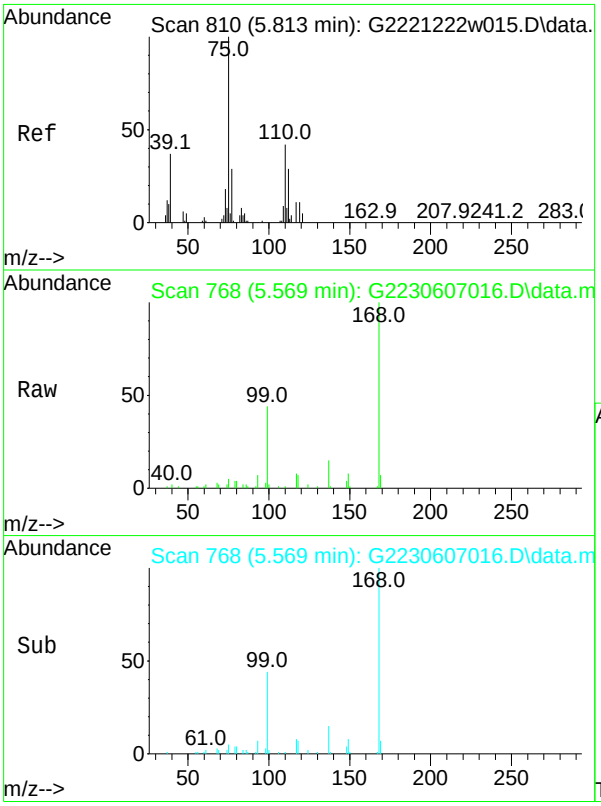


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 56 Resp: 262593

Ion	Ratio	Lower	Upper
56	100		
55	97.8	0.0	41.0#
57	0.0	0.0	35.7

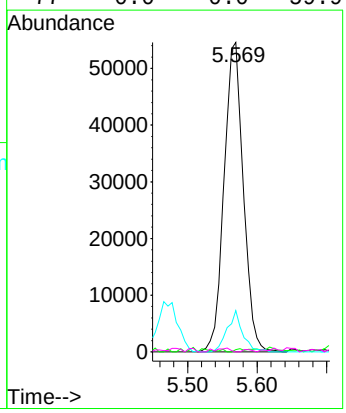


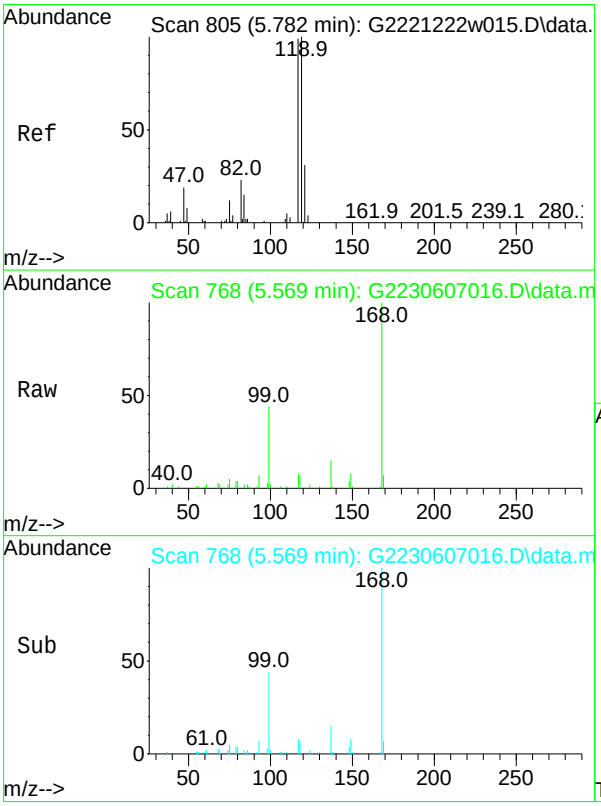


#42
1,1-Dichloropropene
Concen: 2.19 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 75 Resp: 1050385

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

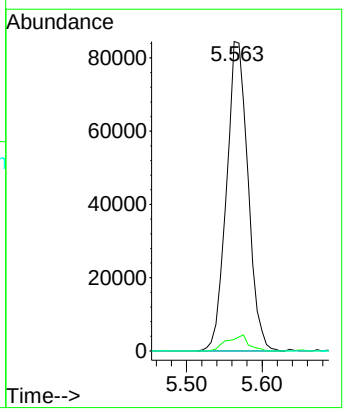


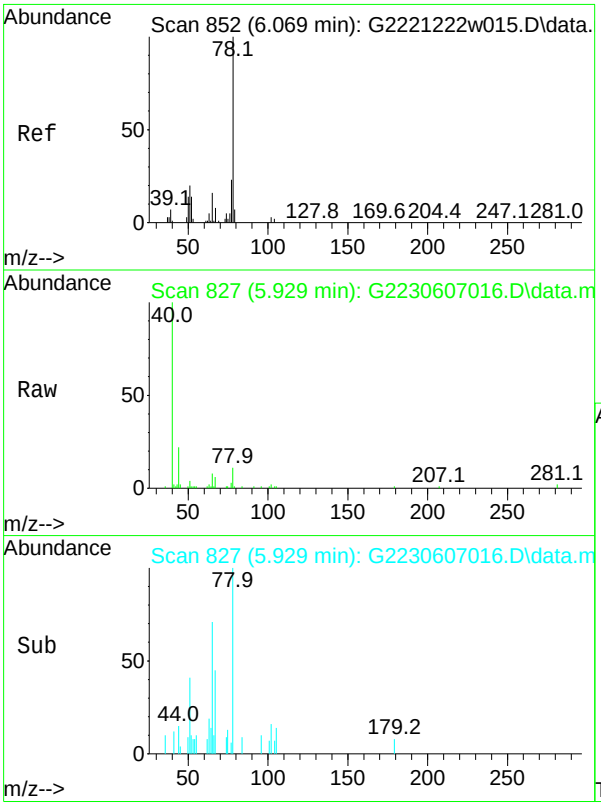


#47
Carbon tetrachloride
Concen: 3.27 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.111 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion:117 Resp: 1665556

Ion	Ratio	Lower	Upper
117	100		
119	5.2	66.4	126.4#
121	0.0	0.4	60.4#

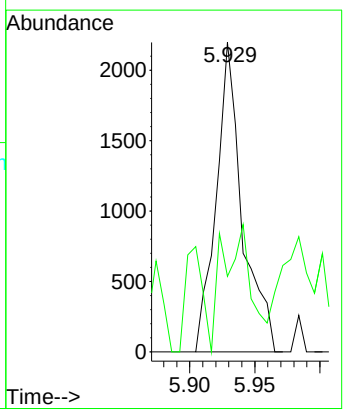


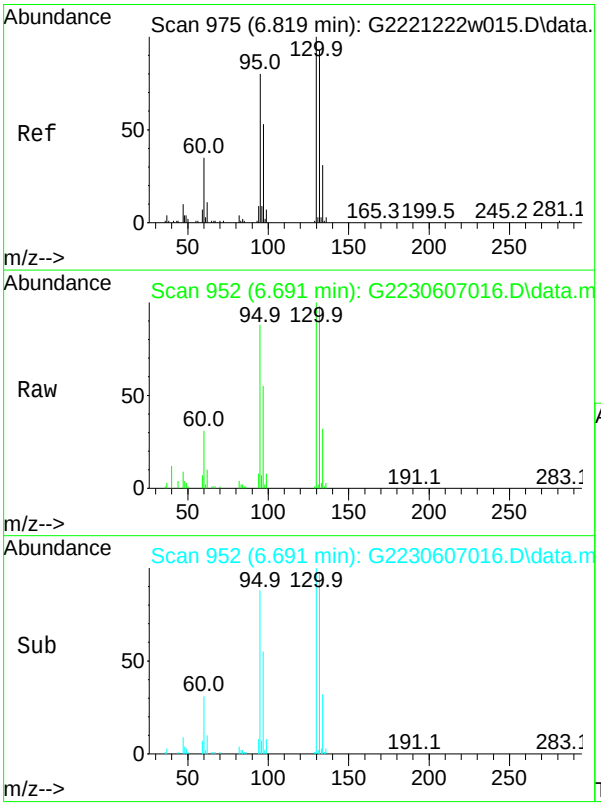


#48
Benzene
Concen: 0.02 ug/L
RT: 5.932 min Scan# 827
Delta R.T. -0.003 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 78 Resp: 30548

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

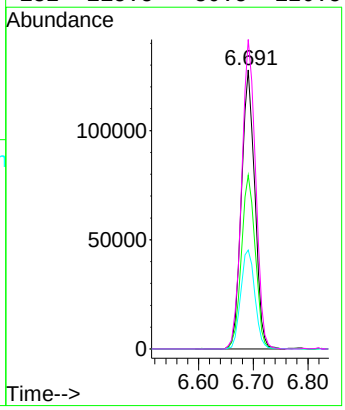


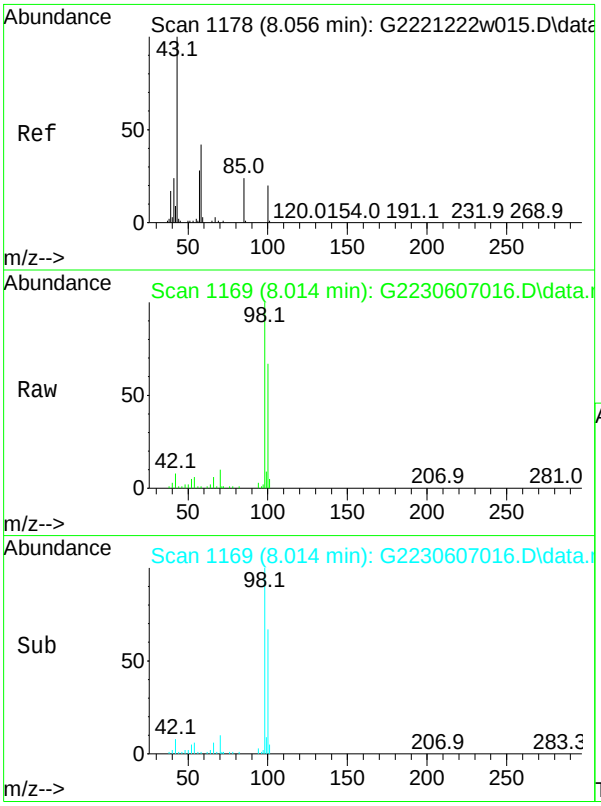


#50
Trichloroethene
Concen: 5.76 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 95 Resp: 2165847

Ion	Ratio	Lower	Upper
95	100		
97	64.6	35.5	95.5
60	37.6	14.8	74.8
132	115.5	80.5	120.5

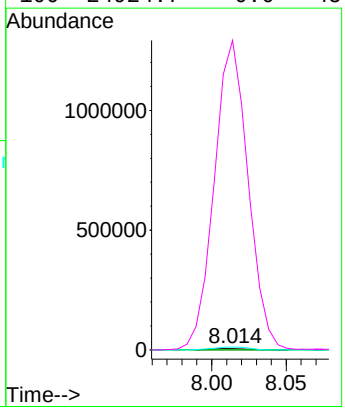


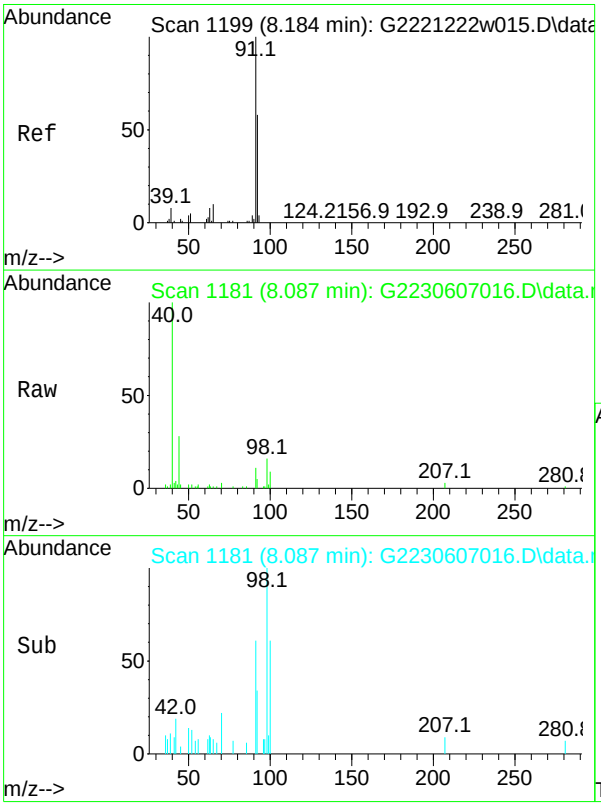


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 43 Resp: 81937

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	241.9	37.0	37.0#
100	24924.7	0.0	45.2#

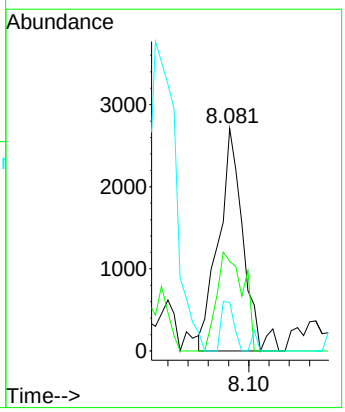


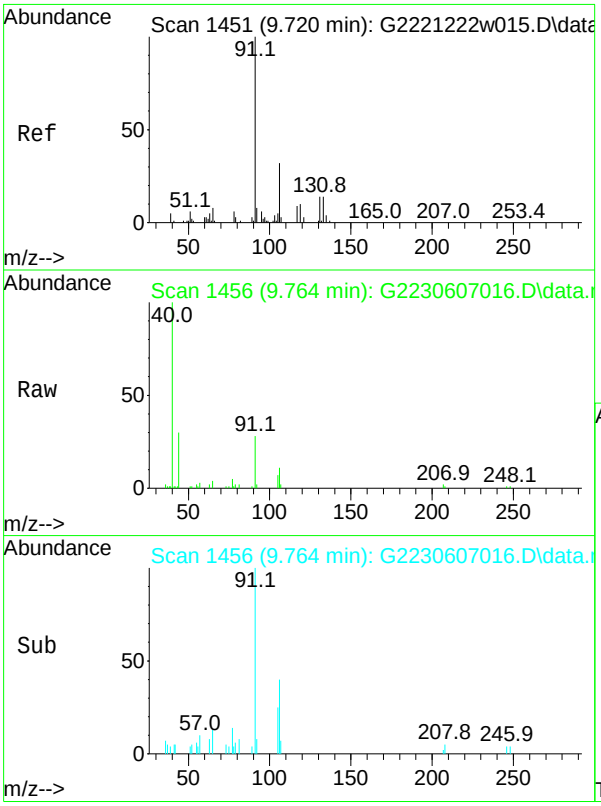


#65
Toluene
Concen: Below Cal
RT: 8.085 min Scan# 1181
Delta R.T. -0.001 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 91 Resp: 46417

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

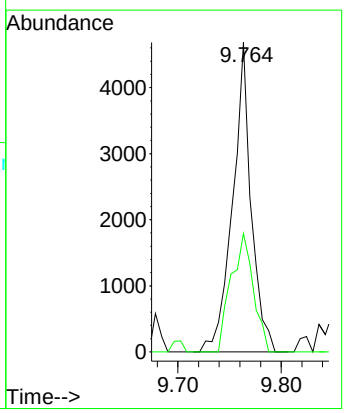


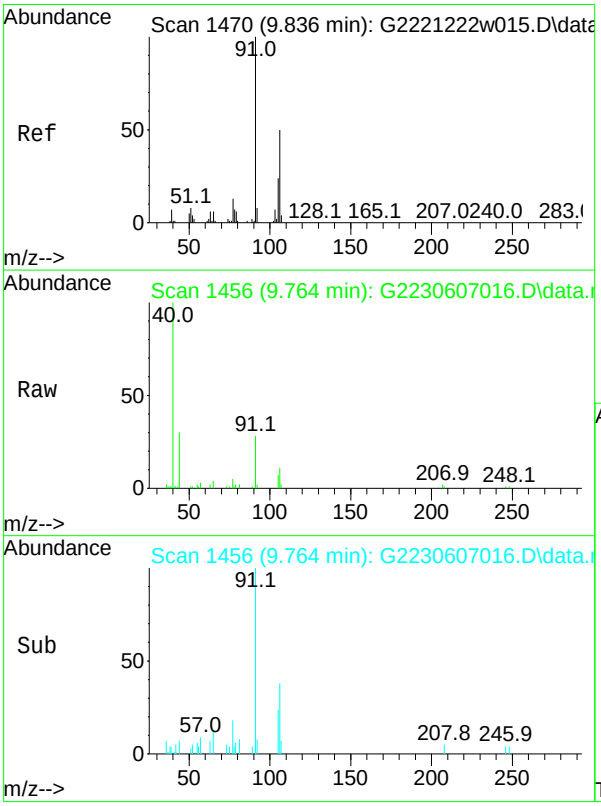


#74
Ethylbenzene
Concen: Below Cal
RT: 9.766 min Scan# 1456
Delta R.T. 0.123 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 91 Resp: 58393

Ion	Ratio	Lower	Upper
91	100		
106	45.7	0.8	60.8

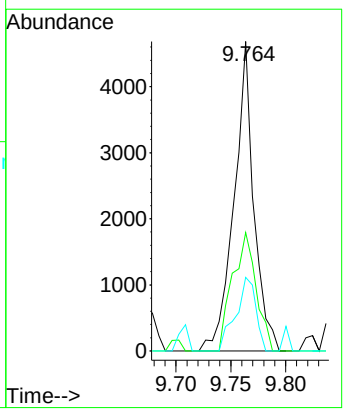


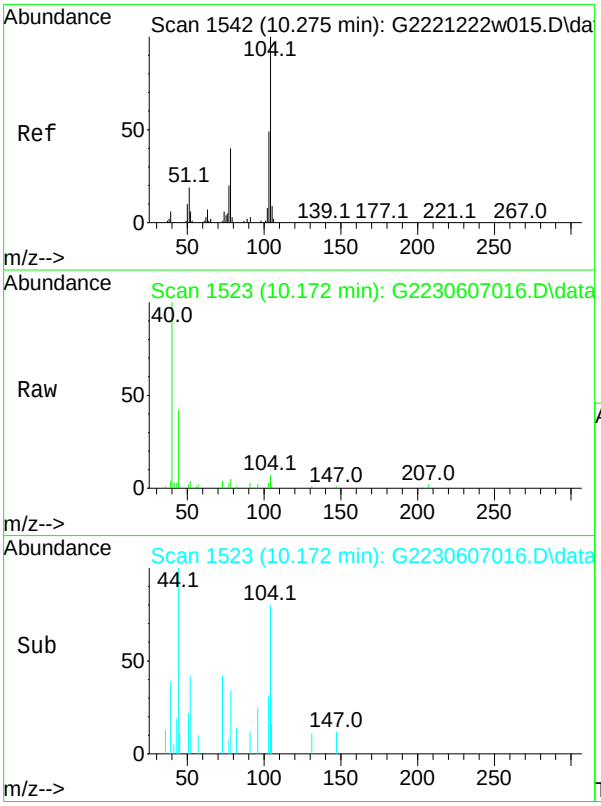


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.765 min Scan# 1456
Delta R.T. 0.001 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 91 Resp: 58393

Ion	Ratio	Lower	Upper
91	100		
106	47.7	19.0	79.0
105	0.0	0.0	52.7

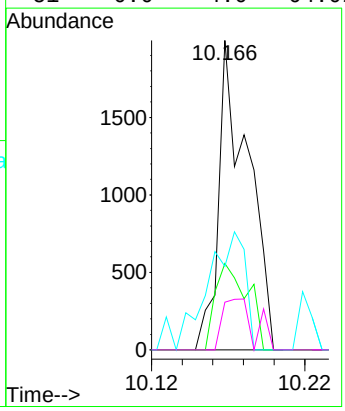


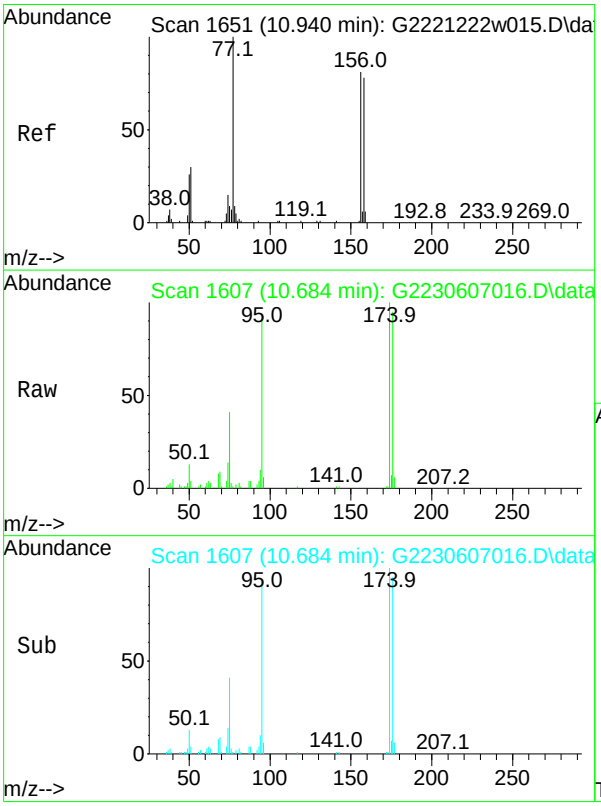


#76
Styrene
Concen: 0.02 ug/L
RT: 10.169 min Scan# 1523
Delta R.T. -0.008 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion:104 Resp: 25522

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

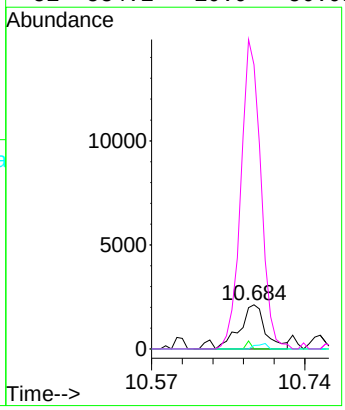


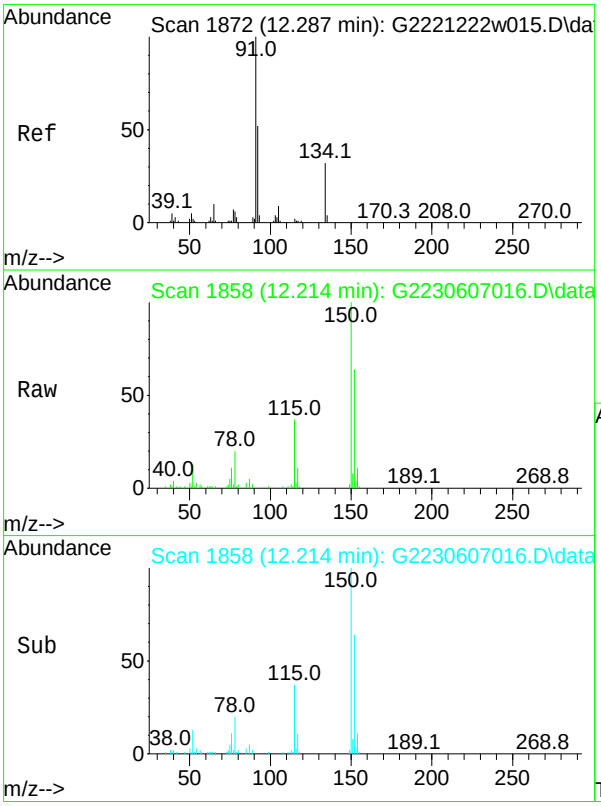


#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.686 min Scan# 1607
Delta R.T. -0.142 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 77 Resp: 42715

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	534.1	10.9	50.9#

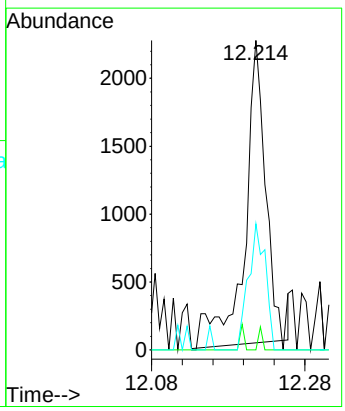




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.217 min Scan# 1858
Delta R.T. -0.014 min
Lab File: G2230607016.D
Acq: 07 Jun 2023 21:06

Tgt Ion: 91 Resp: 42156

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

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11RE2	File ID:	G2230609010.D
Sampled:	05/27/23 15:00	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 12:42
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11RE2	File ID:	G2230609010.D
Sampled:	05/27/23 15:00	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 12:42
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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

527LHSMW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-11RE2	File ID:	G2230609010.D
Sampled:	05/27/23 15:00	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 12:42
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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	56.1	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609010.D
Acq On : 09 Jun 2023 12:42
Operator : PO1/MP3
Sample : 23E0775-11RE2
Misc : 10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 10 08:51:35 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

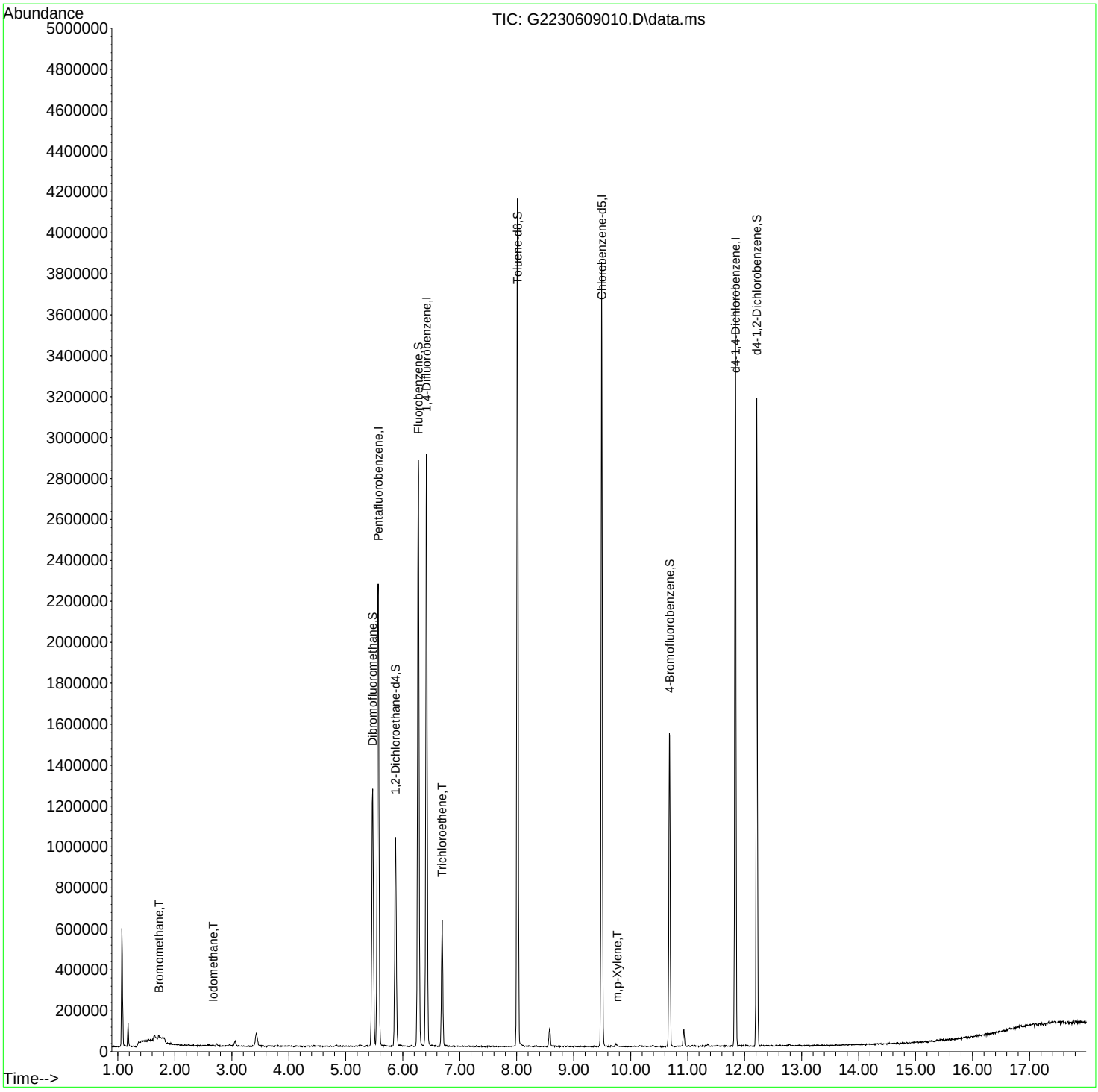
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.570	168	18614129	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.419	114	25106175	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22163928	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10375903	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.473	111	7907328	19.30	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.50%				
43) 1,2-Dichloroethane-d4	5.875	65	7383725	18.24	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.20%				
49) Fluorobenzene	6.275	96	27910390	19.51	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.55%				
64) Toluene-d8	8.015	98	27091184	19.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%				
81) 4-Bromofluorobenzene	10.684	174	4847733	9.89	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%				
97) d4-1,2-Dichlorobenzene	12.216	152	8988831	20.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%				
Target Compounds							Qvalue
5) Bromomethane	1.719	94	94337	0.13	ug/L	#	73
13) Iodomethane	2.674	142	64401	0.15	ug/L	#	41
18) Methylene chloride	3.059	49	121465	Below Cal		#	66
21) Methyl tert-butyl ether	3.435	73	839179	Below Cal			92
50) Trichloroethene	6.693	95	1876038	5.61	ug/L		90
65) Toluene	8.080	91	25828	Below Cal		#	30
75) m,p-Xylene	9.761	91	47386	0.04	ug/L	#	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609010.D
Acq On : 09 Jun 2023 12:42
Operator : PO1/MP3
Sample : 23E0775-11RE2
Misc : 10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 10 08:51:35 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609010.D
Acq On : 09 Jun 2023 12:42
Operator : PO1/MP3
Sample : 23E0775-11RE2
Misc : 10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 10 08:51:35 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

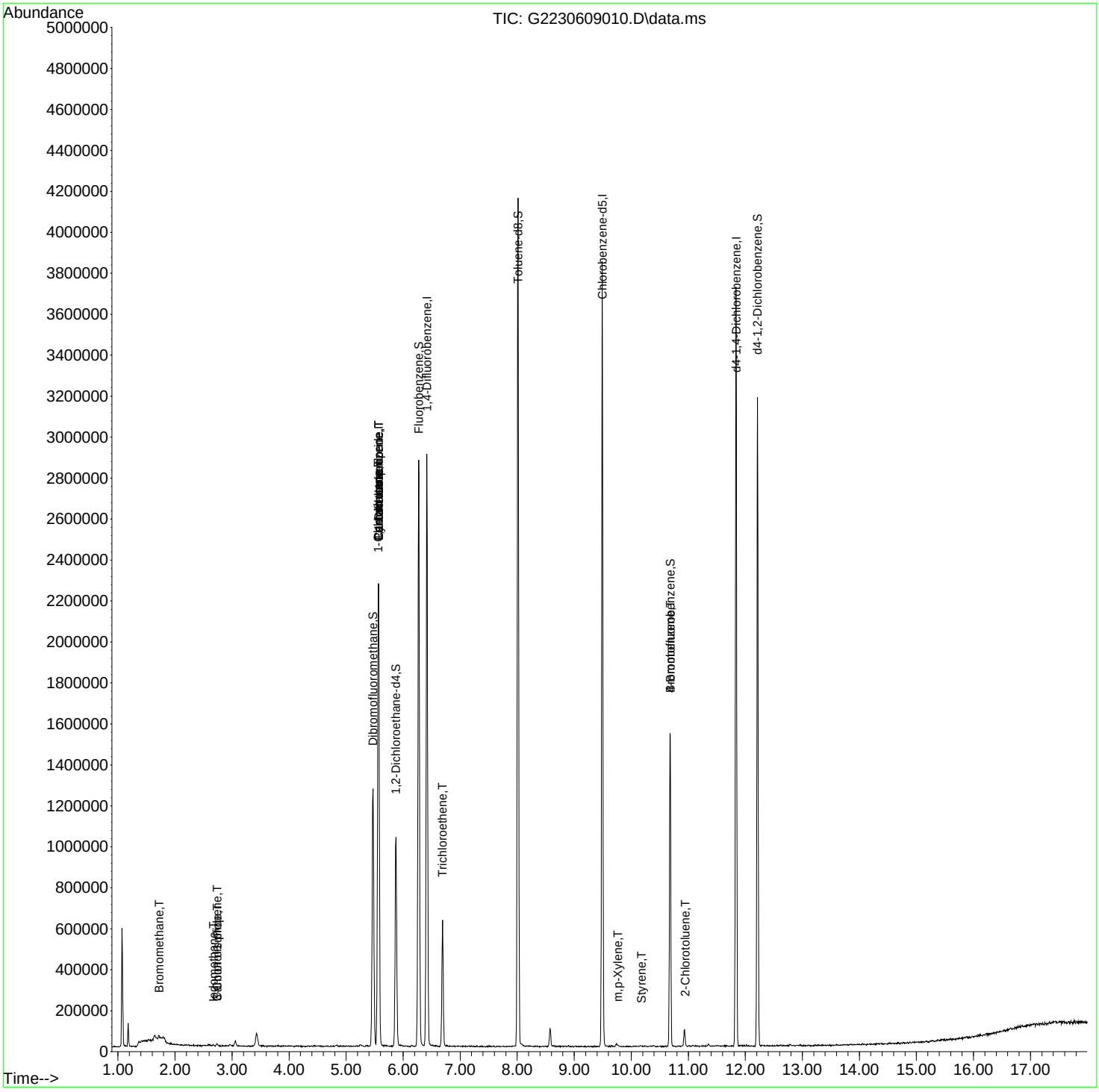
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	18614129	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	25106175	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22163928	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10375903	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	7907328	19.30	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.50%			
43) 1,2-Dichloroethane-d4	5.875	65	7383725	18.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.20%			
49) Fluorobenzene	6.275	96	27910390	19.51	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.55%			
64) Toluene-d8	8.015	98	27091184	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
81) 4-Bromofluorobenzene	10.684	174	4847733	9.89	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.90%			
97) d4-1,2-Dichlorobenzene	12.216	152	8988831	20.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%			
Target Compounds						Qvalue
5) Bromomethane	1.719	94	94337	0.13	ug/L #	73
12) Acetone	2.605	43	88146	Below Cal	#	45
13) Iodomethane	2.674	142	64401	0.15	ug/L #	41
14) Carbon disulfide	2.738	76	124978	0.06	ug/L #	74
16) acetonitrile	2.897	41	17930	Below Cal	#	1
17) 3-Chloro-1-propene	2.738	76	124977	0.59	ug/L #	53
18) Methylene chloride	3.059	49	121465	Below Cal	#	66
21) Methyl tert-butyl ether	3.435	73	839179	Below Cal		92
36) Tetrahydrofuran	5.244	42	28825	Below Cal	#	30
40) Cyclohexane	5.568	84	406371	0.81	ug/L #	34
41) 1-Chlorobutane	5.566	56	236488	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.570	75	964754	2.21	ug/L #	38
47) Carbon tetrachloride	5.569	117	1498310	3.31	ug/L #	16
50) Trichloroethene	6.693	95	1876038	5.61	ug/L	90
60) 4-Methyl-2-pentanone	8.014	43	92036	Below Cal	#	1
65) Toluene	8.080	91	25828	Below Cal	#	30
74) Ethylbenzene	9.761	91	47409	Below Cal		68
75) m,p-Xylene	9.761	91	47386	0.04	ug/L #	85
76) Styrene	10.177	104	20660	0.02	ug/L #	29
82) Bromobenzene	10.682	77	34146	0.06	ug/L #	1
87) 2-Chlorotoluene	10.948	91	19095	0.02	ug/L #	47

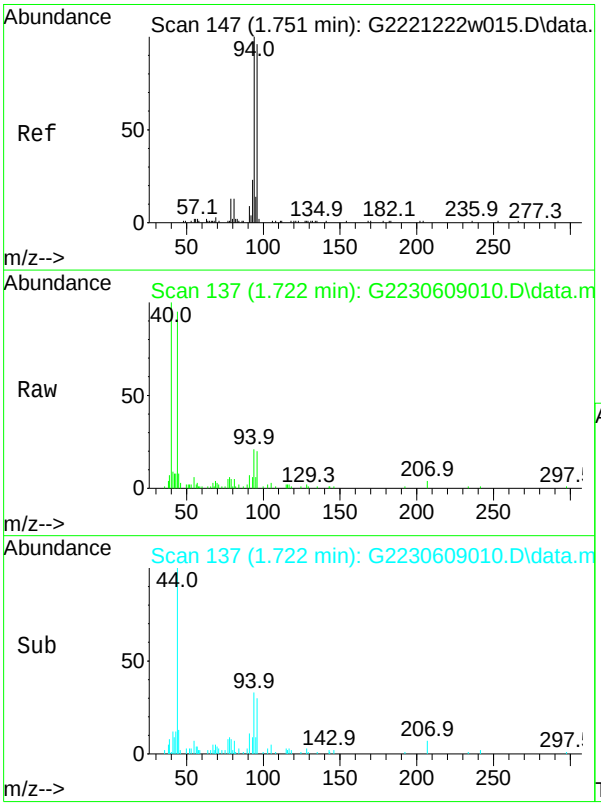
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609010.D
Acq On : 09 Jun 2023 12:42
Operator : PO1/MP3
Sample : 23E0775-11RE2
Misc : 10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 10 08:51:35 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

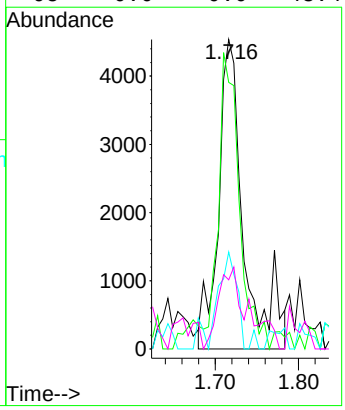


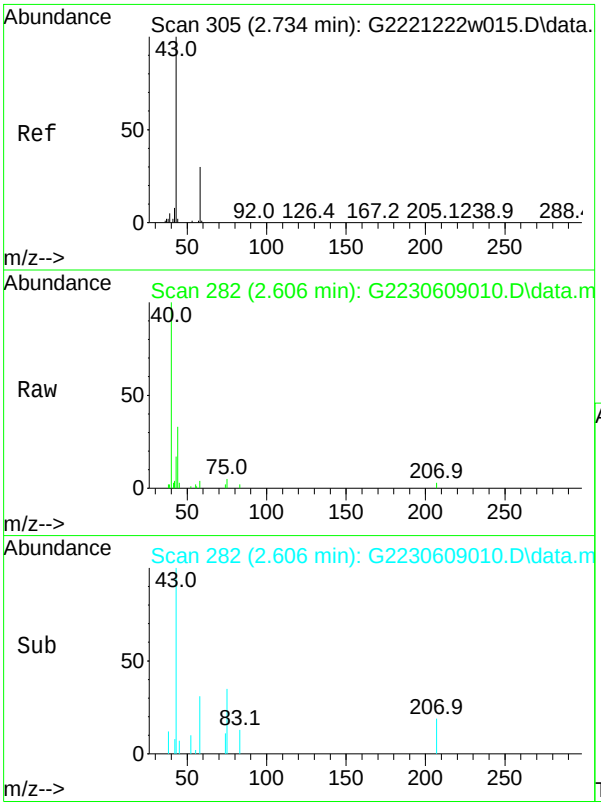


#5
Bromomethane
Concen: 0.13 ug/L
RT: 1.719 min Scan# 137
Delta R.T. 0.005 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 94 Resp: 94337

Ion	Ratio	Lower	Upper
94	100		
96	73.2	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

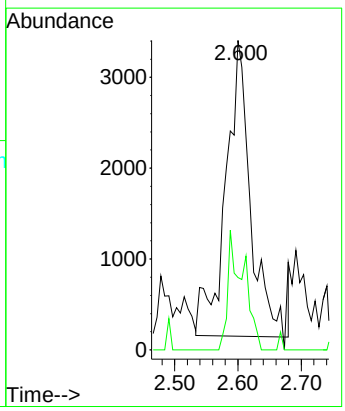


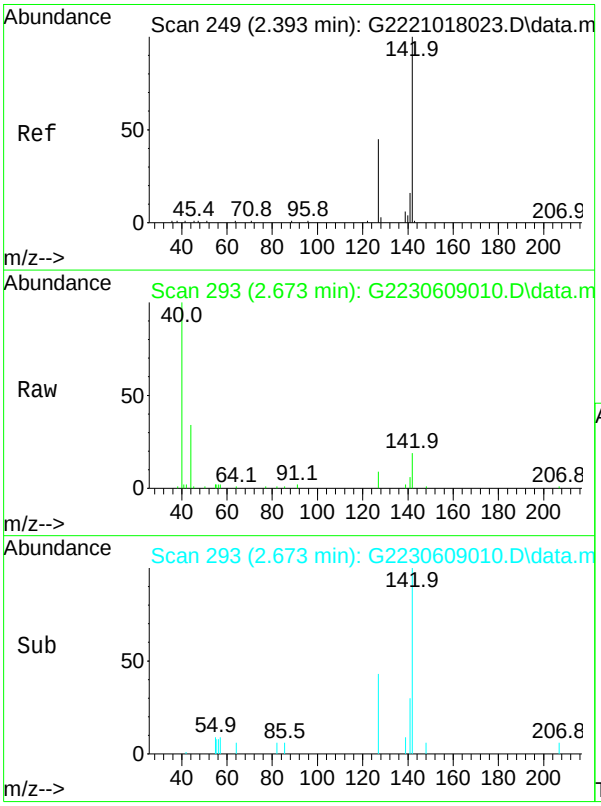


#12
Acetone
Concen: Below Cal
RT: 2.605 min Scan# 282
Delta R.T. -0.003 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 43 Resp: 88146

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

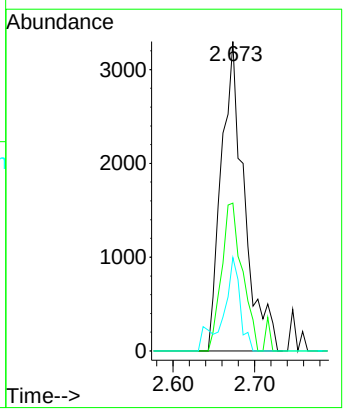


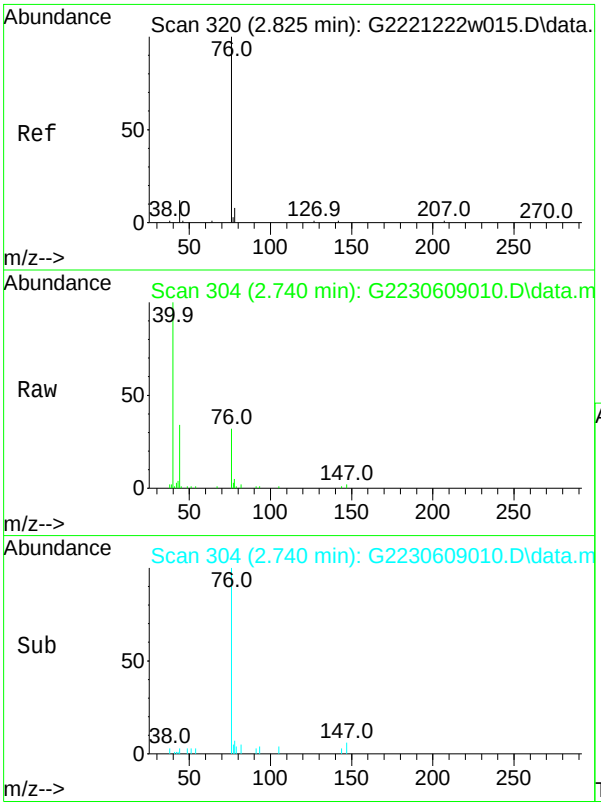


#13
Iodomethane
Concen: 0.15 ug/L
RT: 2.674 min Scan# 293
Delta R.T. -0.002 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion:142 Resp: 64401

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

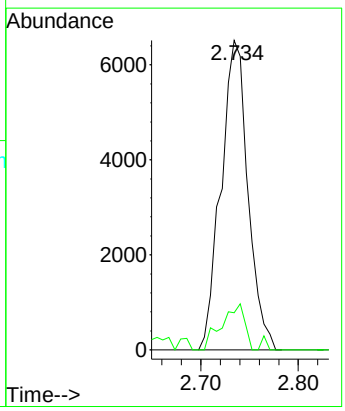


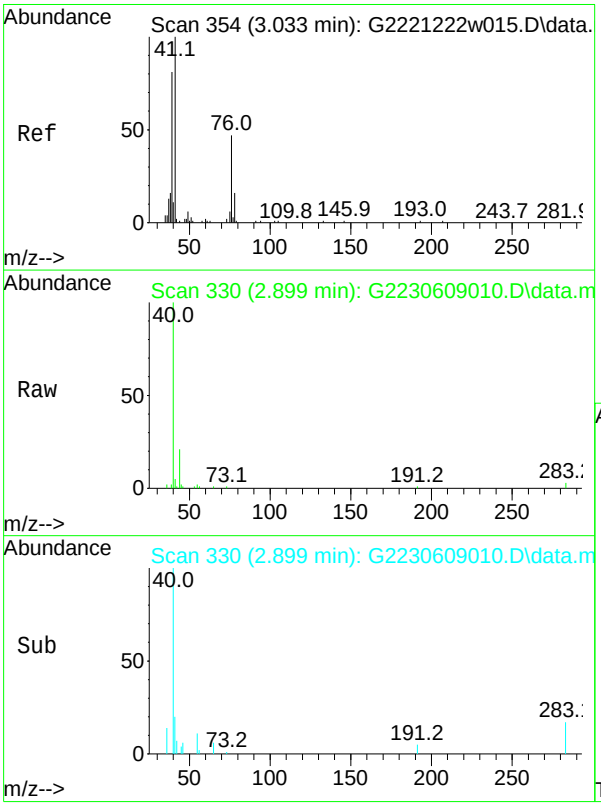


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.001 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 76 Resp: 124978

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

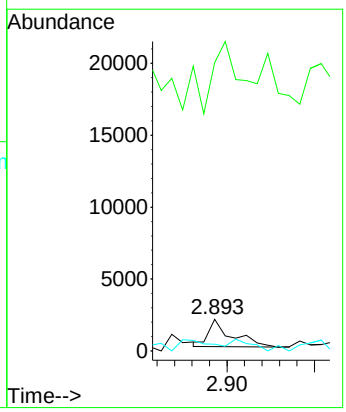


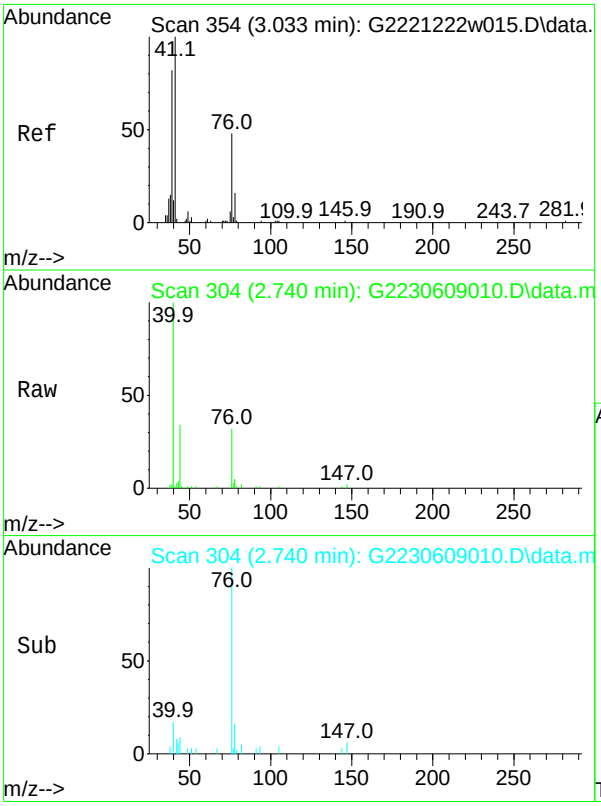


#16
acetonitrile
Concen: Below Cal
RT: 2.897 min Scan# 330
Delta R.T. -0.021 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 41 Resp: 17930

Ion	Ratio	Lower	Upper
41	100		
40	268.1	0.0	54.0#
39	0.0	27.5	87.5#

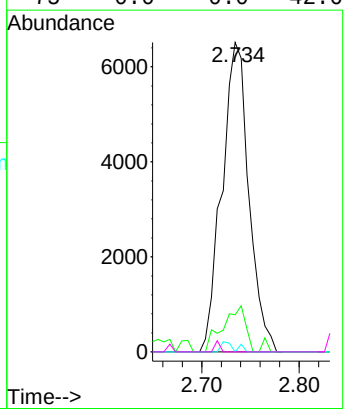


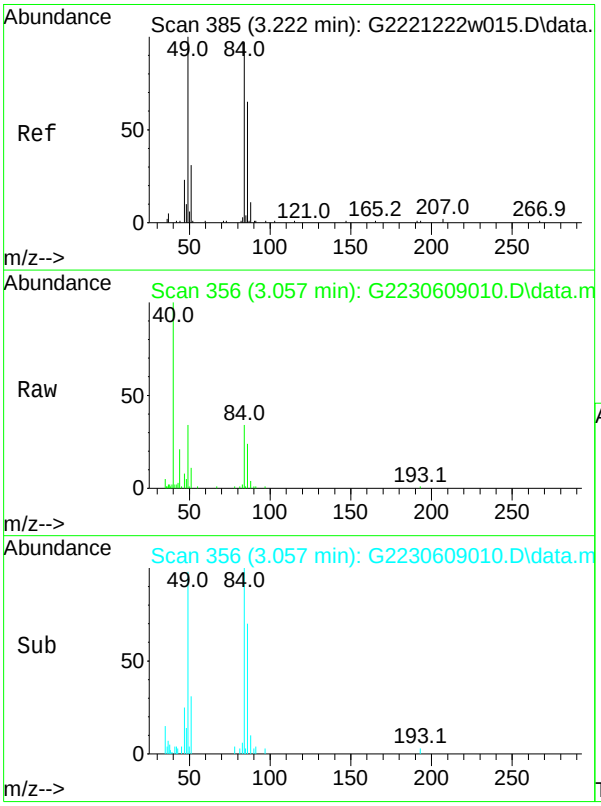


#17
3-Chloro-1-propene
Concen: 0.59 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.182 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 76 Resp: 124977

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

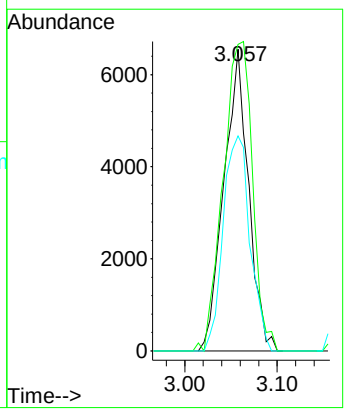


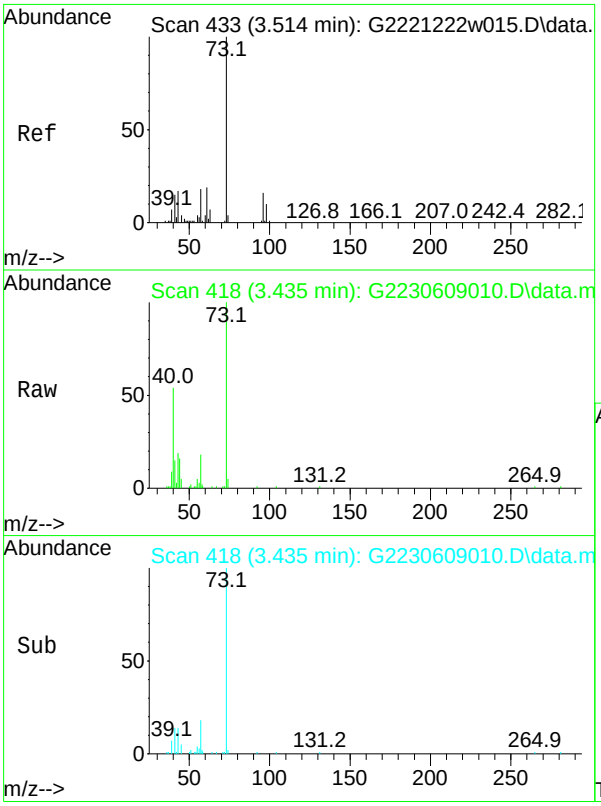


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 49 Resp: 121465

Ion	Ratio	Lower	Upper
49	100		
84	120.3	57.9	117.9#
86	77.6	24.9	84.9

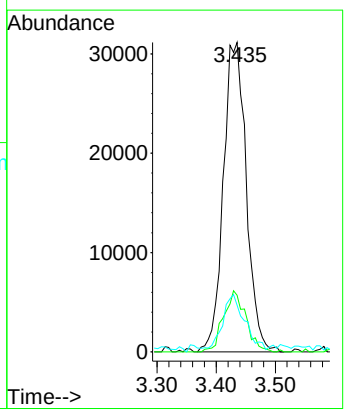


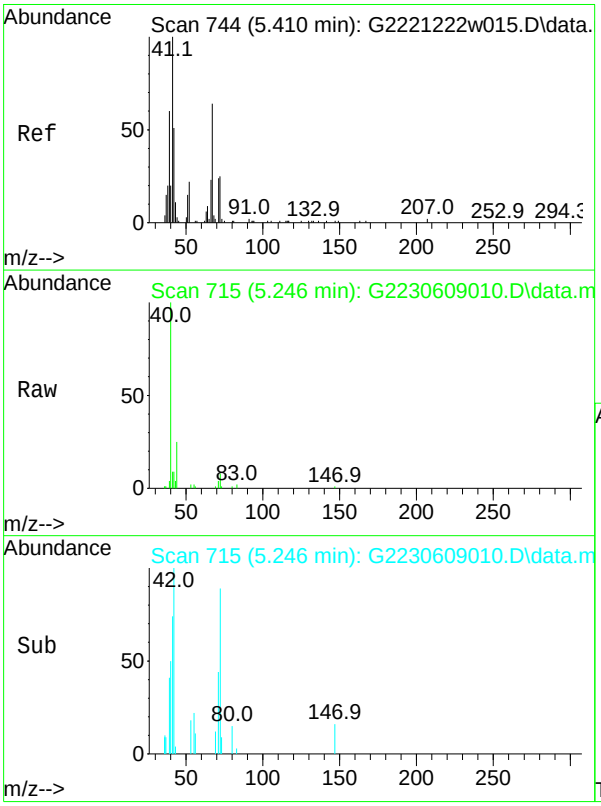


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.435 min Scan# 418
Delta R.T. -0.011 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 73 Resp: 839179

Ion	Ratio	Lower	Upper
73	100		
57	19.3	0.0	51.7
41	15.8	0.0	50.6

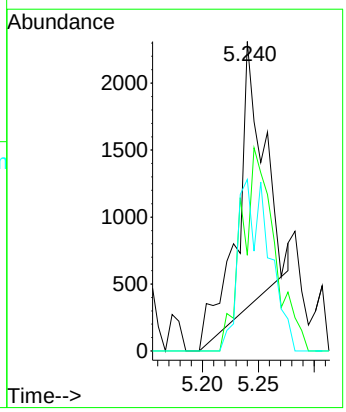


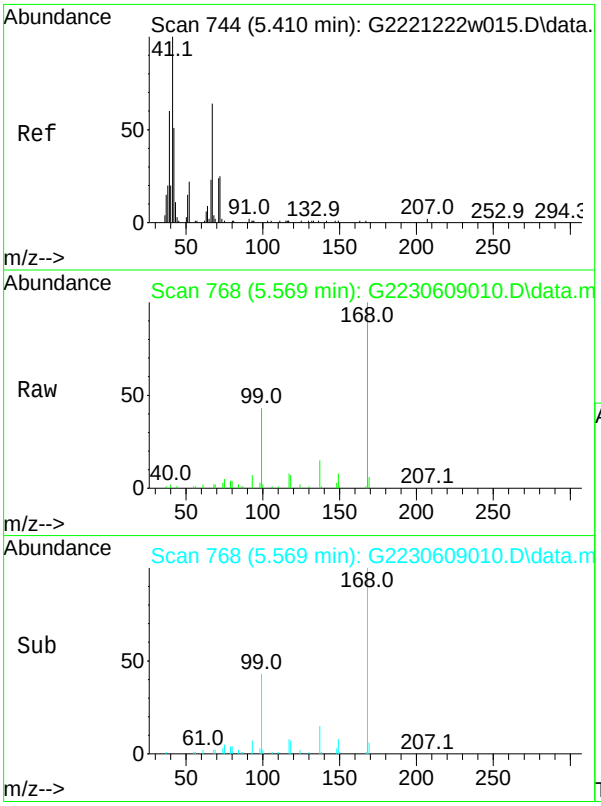


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.244 min Scan# 715
Delta R.T. -0.017 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 42 Resp: 28825

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

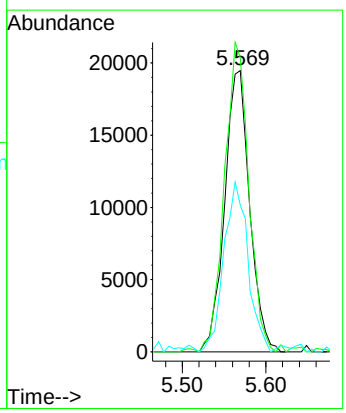


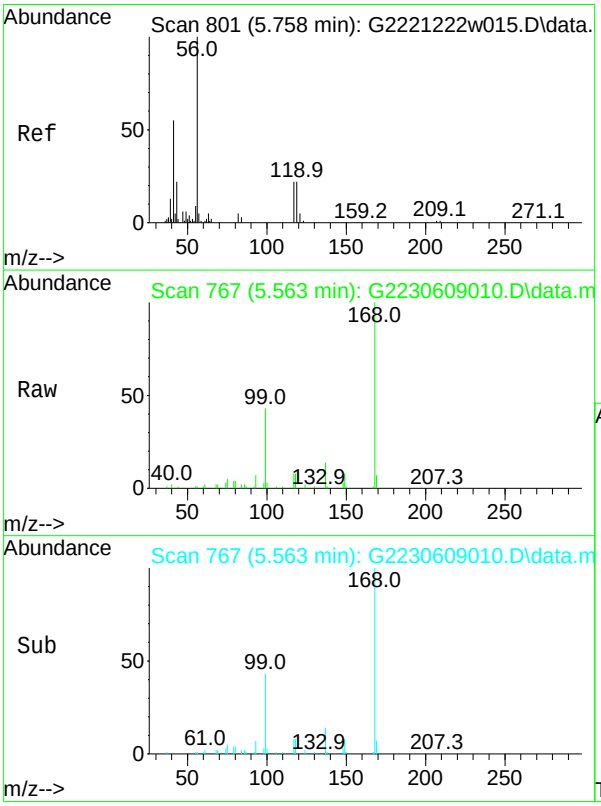


#40
Cyclohexane
Concen: 0.81 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 84 Resp: 406371

Ion	Ratio	Lower	Upper
84	100		
69	107.2	6.8	66.8#
56	58.2	79.1	139.1#

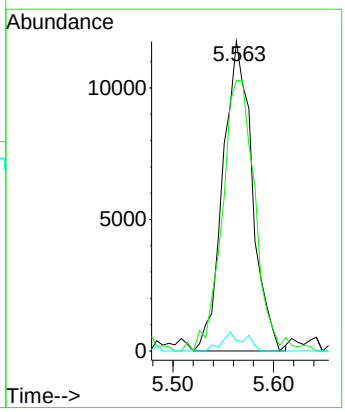


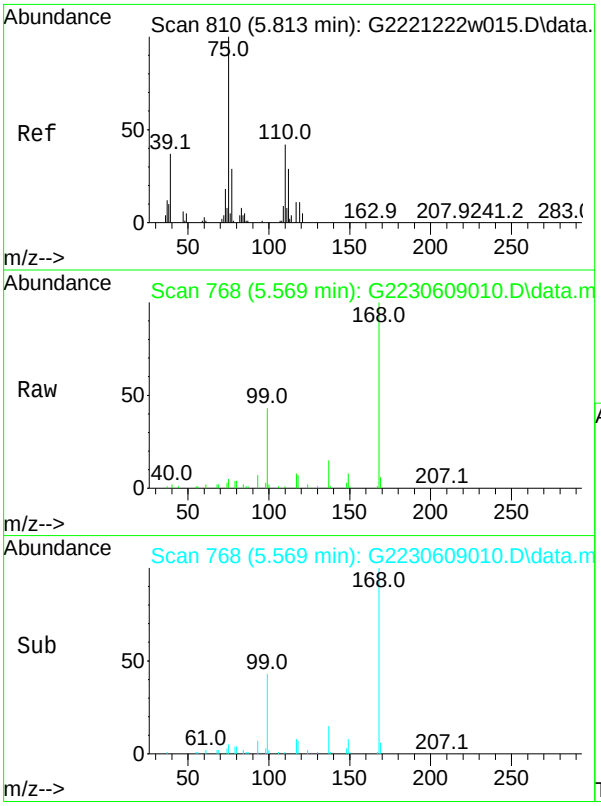


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.566 min Scan# 767
Delta R.T. -0.064 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 56 Resp: 236488

Ion	Ratio	Lower	Upper
56	100		
55	98.6	0.0	41.0#
57	0.0	0.0	35.7

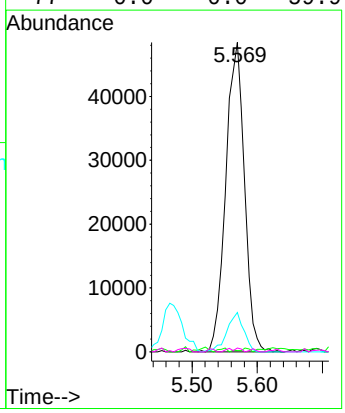


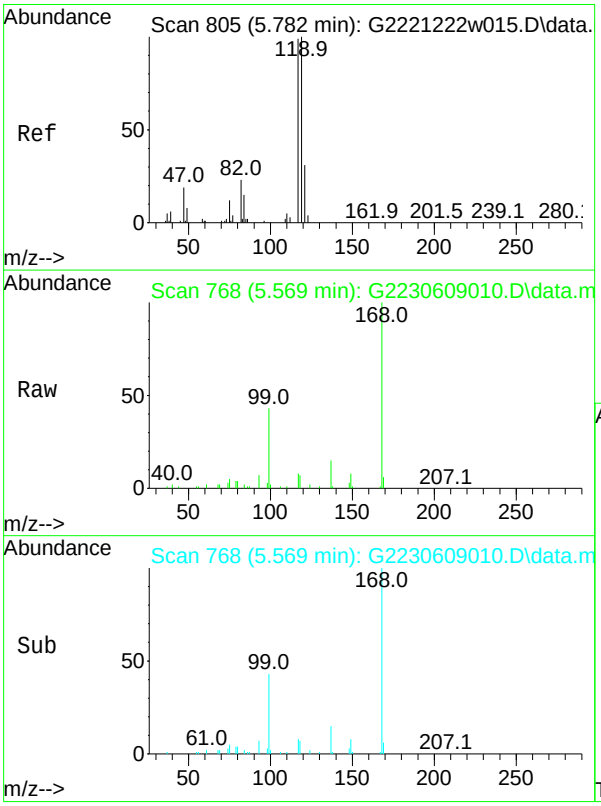


#42
1,1-Dichloropropene
Concen: 2.21 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 75 Resp: 964754

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.5	9.1	69.1
77	0.0	0.0	59.9

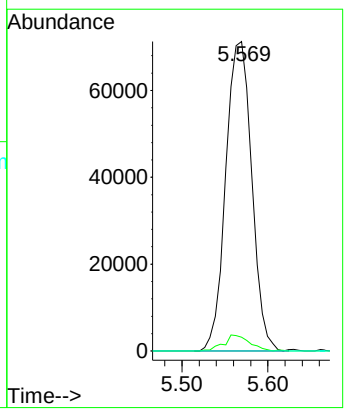


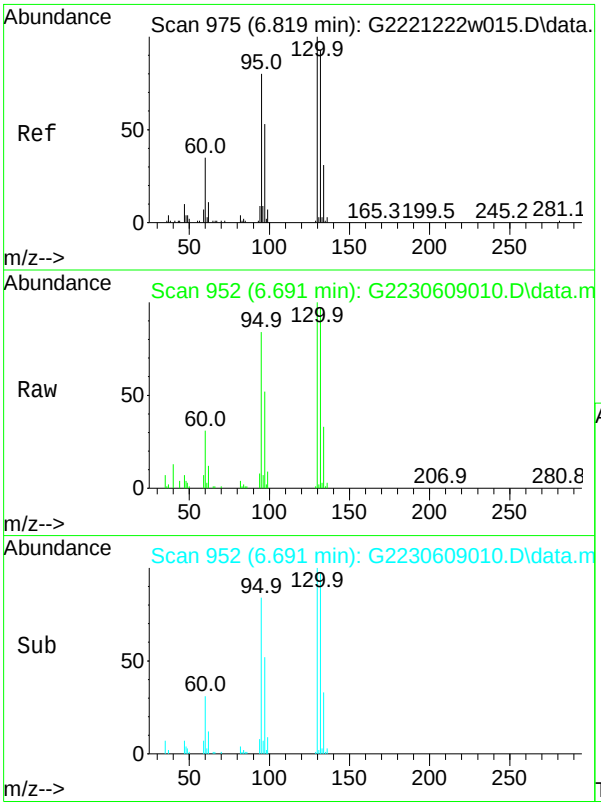


#47
Carbon tetrachloride
Concen: 3.31 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.111 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion:117 Resp: 1498310

Ion	Ratio	Lower	Upper
117	100		
119	5.1	66.4	126.4#
121	0.0	0.4	60.4#

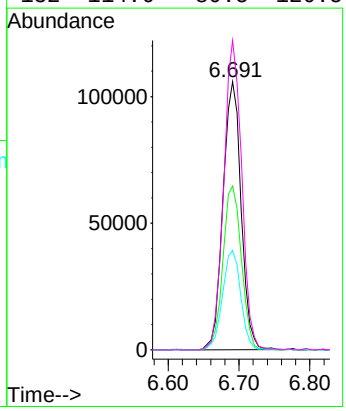


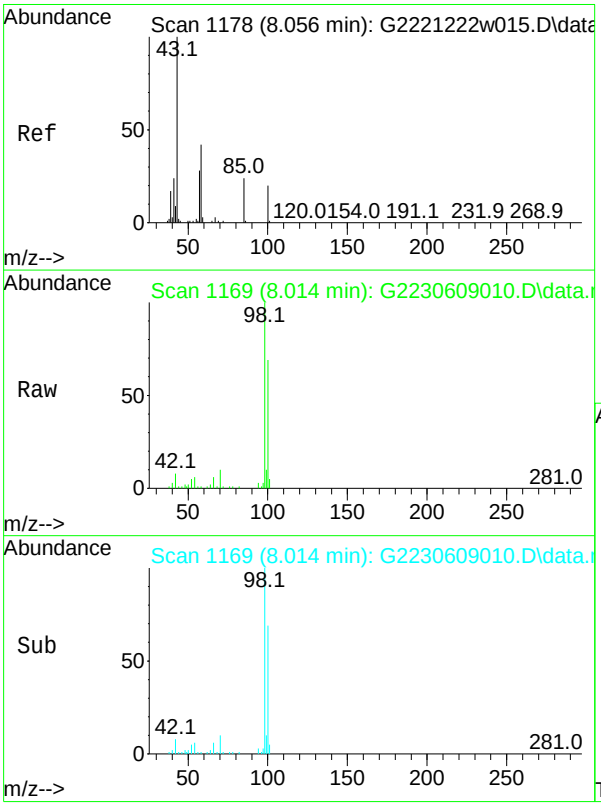


#50
Trichloroethene
Concen: 5.61 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 95 Resp: 1876038

Ion	Ratio	Lower	Upper
95	100		
97	62.6	35.5	95.5
60	37.6	14.8	74.8
132	114.6	80.5	120.5

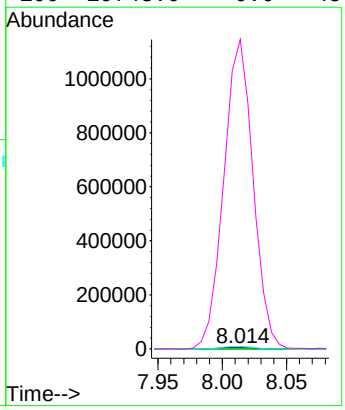


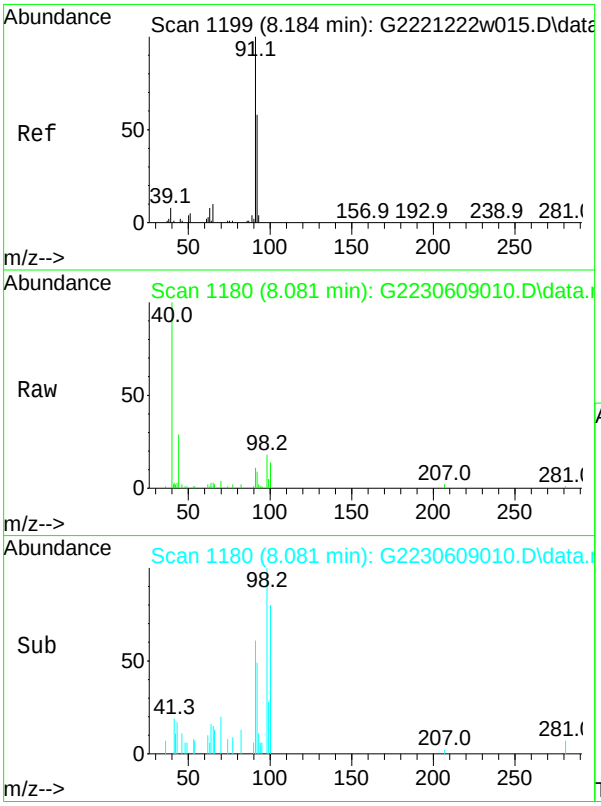


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 43 Resp: 92036

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	182.3	37.0	37.0#
100	19743.0	0.0	45.2#

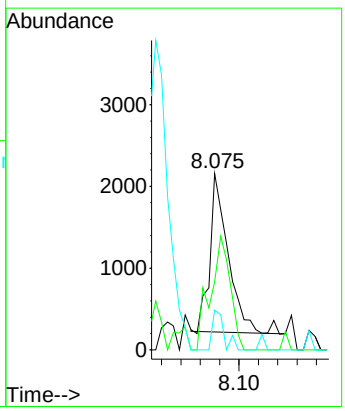


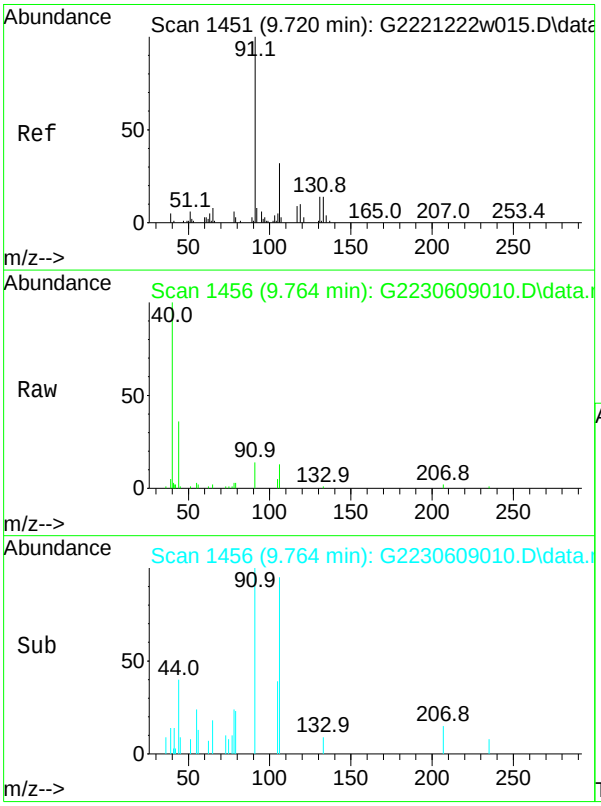


#65
Toluene
Concen: Below Cal
RT: 8.080 min Scan# 1180
Delta R.T. -0.006 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 91 Resp: 25828

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

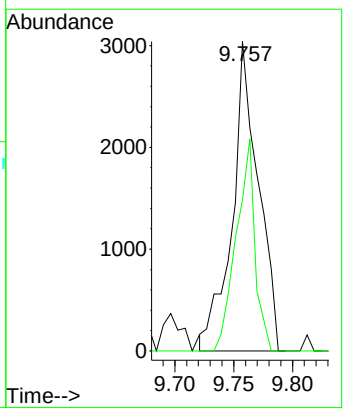


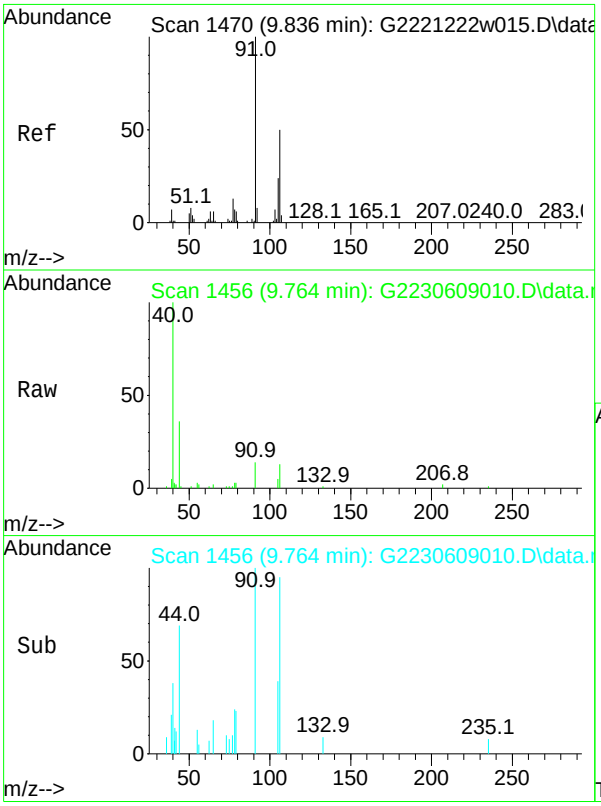


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 91 Resp: 47409

Ion	Ratio	Lower	Upper
91	100		
106	48.5	0.8	60.8

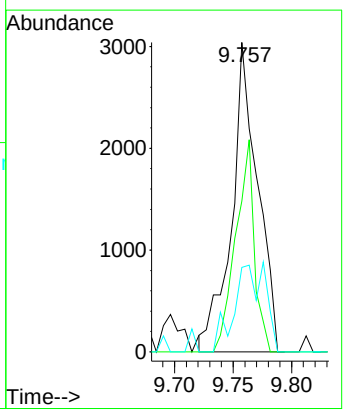


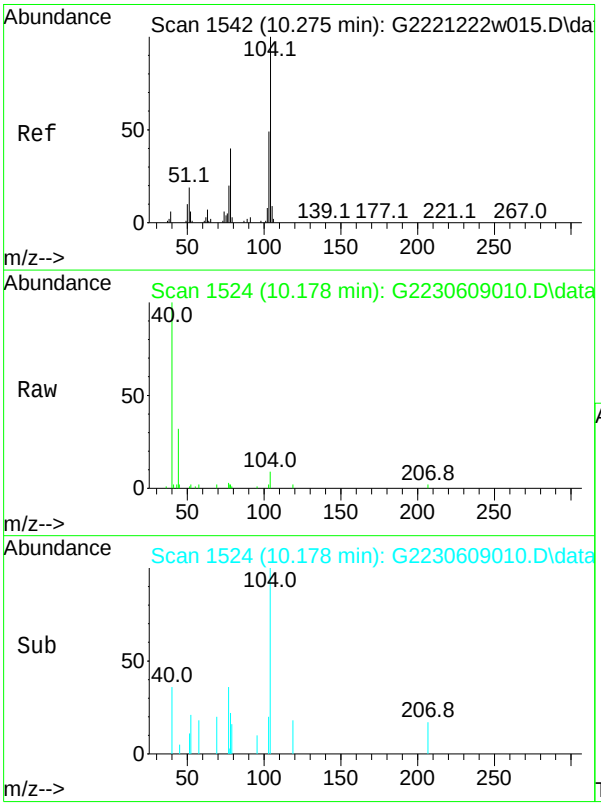


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.761 min Scan# 1456
Delta R.T. -0.003 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 91 Resp: 47386

Ion	Ratio	Lower	Upper
91	100		
106	48.5	19.0	79.0
105	0.0	0.0	52.7

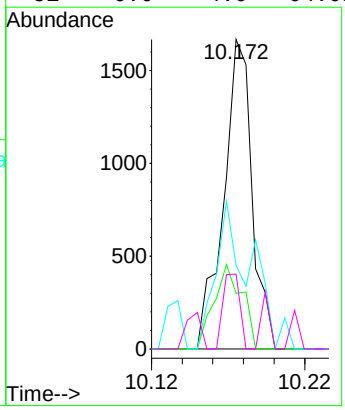


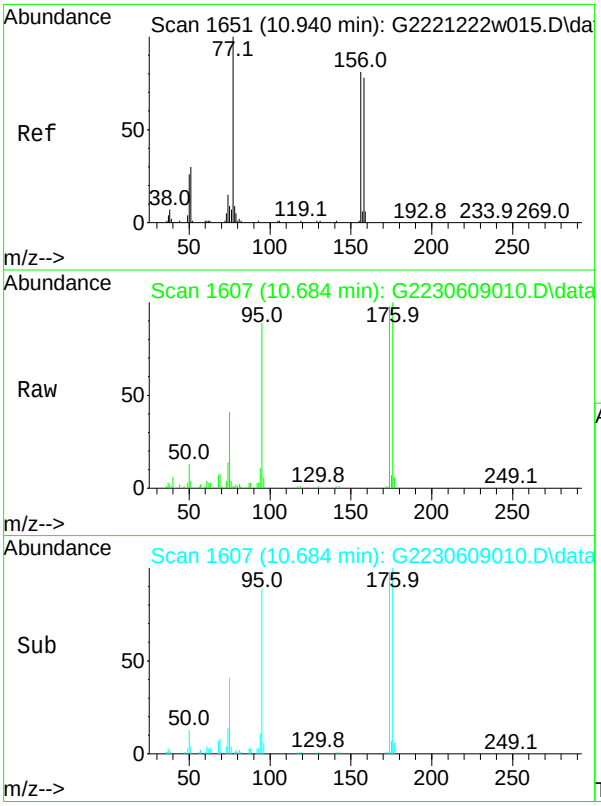


#76
Styrene
Concen: 0.02 ug/L
RT: 10.177 min Scan# 1524
Delta R.T. -0.000 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion:104 Resp: 20660

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

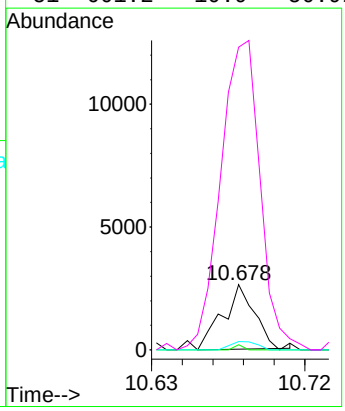


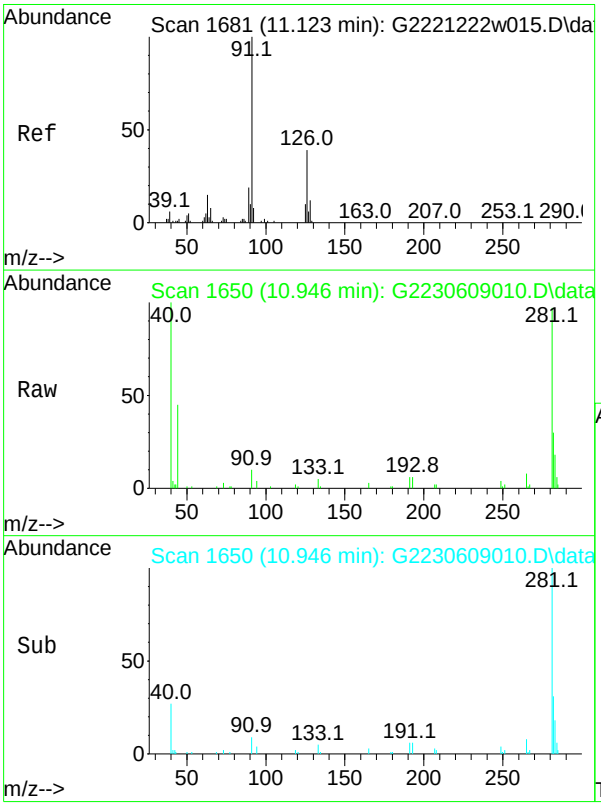


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.682 min Scan# 1607
Delta R.T. -0.146 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 77 Resp: 34146

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	601.2	10.9	50.9#

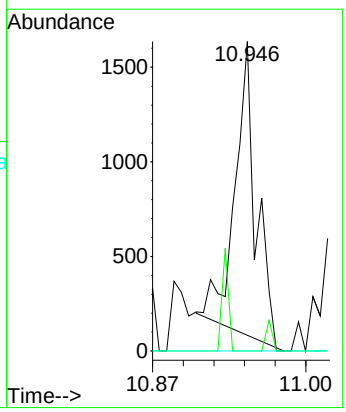




#87
2-Chlorotoluene
Concen: 0.02 ug/L
RT: 10.948 min Scan# 1650
Delta R.T. -0.080 min
Lab File: G2230609010.D
Acq: 09 Jun 2023 12:42

Tgt Ion: 91 Resp: 19095

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

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12	File ID:	G2230606027.D
Sampled:	05/27/23 17:28	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 21:26
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.160	0.0832	0.200	0.500	J
75-34-3	1,1-Dichloroethane	1.28	0.0669	0.200	0.500	
75-35-4	1,1-Dichloroethene	5.68	0.0954	0.200	0.500	
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	0.280	0.106	0.300	0.600	J
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

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12	File ID:	G2230606027.D
Sampled:	05/27/23 17:28	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 21:26
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.160	0.0507	0.200	0.500	J
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*	*523*	*0.103*	*0.300*	*0.600*	*E*
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

SW8260B/D

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12	File ID:	G2230606027.D
Sampled:	05/27/23 17:28	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 21:26
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, U*
108-88-3	Toluene		0.0572	0.200	0.500	U
156-60-5	trans-1,2-Dichloroethene	14.7	0.0855	0.200	0.500	
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	*Trichloroethene*	*477*	*0.0781*	*0.200*	*0.500*	*B, E*
75-69-4	Trichlorofluoromethane		0.0505	0.200	0.500	U
75-01-4	Vinyl chloride	29.3	0.129	0.500	1.00	

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606027.D
Acq On : 06 Jun 2023 21:26
Operator : PO1
Sample : 23E0775-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 07 10:00:52 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

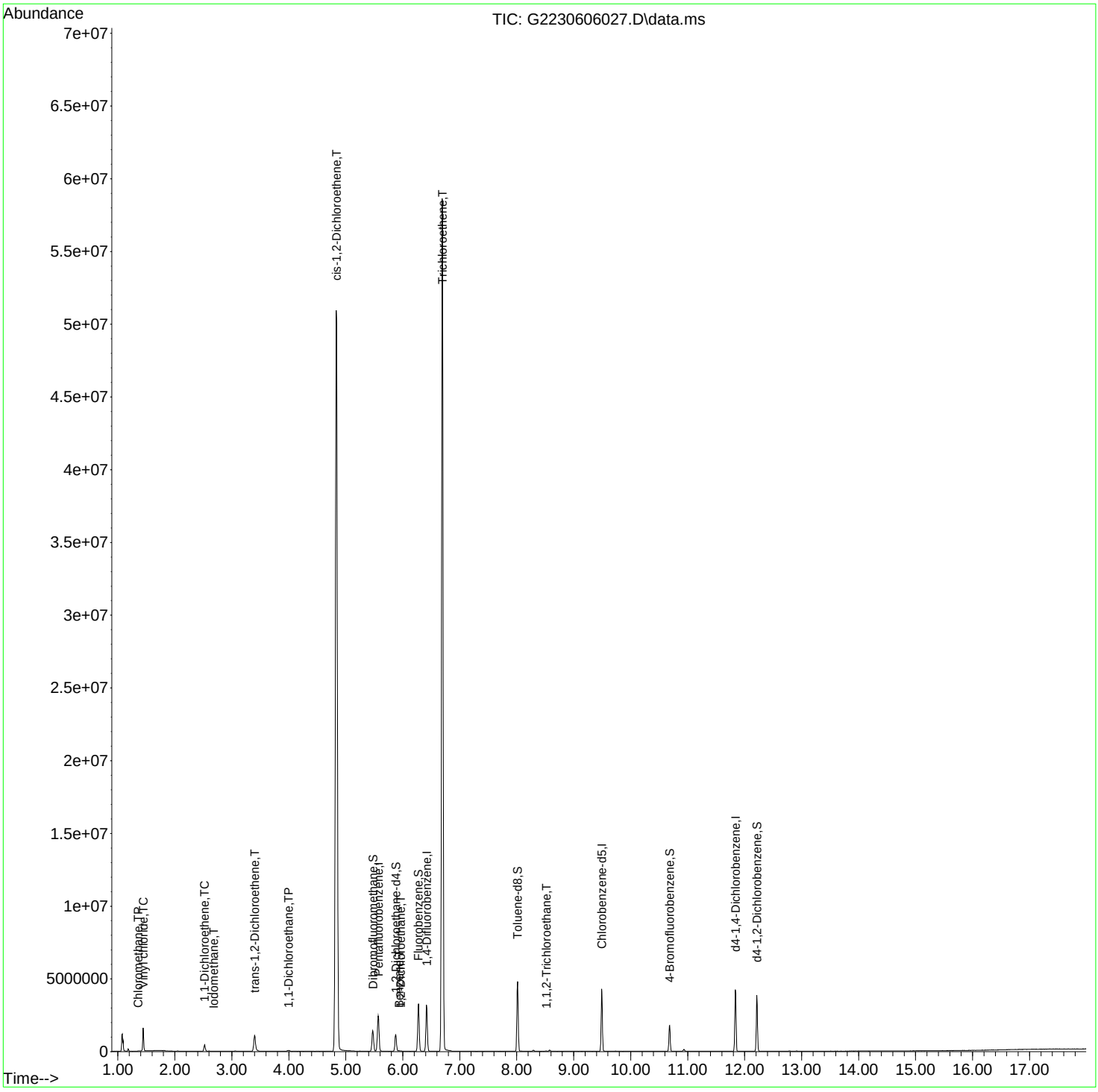
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	19688210	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	28158174	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	25262273	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	12230291	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	9011397	20.80	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.00%			
43) 1,2-Dichloroethane-d4	5.878	65	8106050	18.93	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.65%			
49) Fluorobenzene	6.278	96	31384863	19.56	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.80%			
64) Toluene-d8	8.016	98	30701865	19.28	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.40%			
81) 4-Bromofluorobenzene	10.685	174	5663591	9.81	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%			
97) d4-1,2-Dichlorobenzene	12.218	152	10751554	20.44	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.20%			
Target Compounds						Qvalue
3) Chloromethane	1.355	50	89401	0.17	ug/L	92
4) Vinyl chloride	1.446	62	11349323	29.33	ug/L	99
10) 1,1-Dichloroethene	2.524	61	2415238	5.68	ug/L	85
12) Acetone	2.607	43	134452	Below Cal		82
13) Iodomethane	2.682	142	74493	0.16	ug/L #	85
18) Methylene chloride	3.059	49	126098	Below Cal		84
20) trans-1,2-Dichloroethene	3.401	61	6283747	14.73	ug/L	86
21) Methyl tert-butyl ether	3.442	73	982396	Below Cal		92
23) 1,1-Dichloroethane	3.996	63	742338	1.28	ug/L	97
28) cis-1,2-Dichloroethene	4.840	61	257714296	523.09	ug/L #	60
44) 1,2-Dichloroethane	5.967	62	172001	0.28	ug/L #	91
48) Benzene	5.938	78	228435	0.16	ug/L	97
50) Trichloroethene	6.695	95	176267173	476.69	ug/L	94
62) 1,1,2-Trichloroethane	8.518	97	59680	0.16	ug/L	88
65) Toluene	8.083	91	38036	Below Cal	#	82

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606027.D
Acq On : 06 Jun 2023 21:26
Operator : PO1
Sample : 23E0775-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 07 10:00:52 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606027.D
Acq On : 06 Jun 2023 21:26
Operator : PO1
Sample : 23E0775-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 07 10:00:52 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	5.573	168	19688210	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	28158174	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	25262273	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	12230291	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	9011397	20.80	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.00%				
43) 1,2-Dichloroethane-d4	5.878	65	8106050	18.93	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.65%				
49) Fluorobenzene	6.278	96	31384863	19.56	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.80%				
64) Toluene-d8	8.016	98	30701865	19.28	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.40%				
81) 4-Bromofluorobenzene	10.685	174	5663591	9.81	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%				
97) d4-1,2-Dichlorobenzene	12.218	152	10751554	20.44	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.20%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	89401	0.17	ug/L		92
4) Vinyl chloride	1.446	62	11349323	29.33	ug/L		99
5) Bromomethane	1.720	94	69173	0.01	ug/L	#	65
8) Ethyl ether	2.524	59	79336	0.22	ug/L	#	13
10) 1,1-Dichloroethene	2.524	61	2415238	5.68	ug/L		85
12) Acetone	2.607	43	134452	Below Cal			82
13) Iodomethane	2.682	142	74493	0.16	ug/L	#	85
14) Carbon disulfide	2.740	76	100187	0.02	ug/L	#	74
15) Isopropanol	2.783	45	34913	2.21	ug/L	#	56
17) 3-Chloro-1-propene	2.740	76	100180	0.43	ug/L	#	53
18) Methylene chloride	3.059	49	126098	Below Cal			84
20) trans-1,2-Dichloroethene	3.401	61	6283747	14.73	ug/L		86
21) Methyl tert-butyl ether	3.442	73	982396	Below Cal			92
23) 1,1-Dichloroethane	3.996	63	742338	1.28	ug/L		97
26) 1-propanol	4.221	59	1239	0.60	ug/L	#	100
28) cis-1,2-Dichloroethene	4.840	61	257714296	523.09	ug/L	#	60
29) 2-Butanone	4.837	72	2718275	55.31	ug/L	#	42
31) Ethyl acetate	4.993	61	449601	7.49	ug/L	#	45
33) 1-Bromopropane	5.254	41	55735	0.15	ug/L	#	40
36) Tetrahydrofuran	5.259	42	66514	0.09	ug/L	#	51
40) Cyclohexane	5.570	84	406223	0.77	ug/L	#	33
41) 1-Chlorobutane	5.569	56	264171	0.43	ug/L	#	1
42) 1,1-Dichloropropene	5.568	75	1055414	2.29	ug/L	#	38
44) 1,2-Dichloroethane	5.967	62	172001	0.28	ug/L	#	91
47) Carbon tetrachloride	5.570	117	1584537	3.12	ug/L	#	16
48) Benzene	5.938	78	228435	0.16	ug/L		97
50) Trichloroethene	6.695	95	176267173	476.69	ug/L		94
52) 1,2-Dichloropropane	6.695	63	566172	1.71	ug/L	#	1

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606027.D
Acq On : 06 Jun 2023 21:26
Operator : PO1
Sample : 23E0775-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 07 10:00:52 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

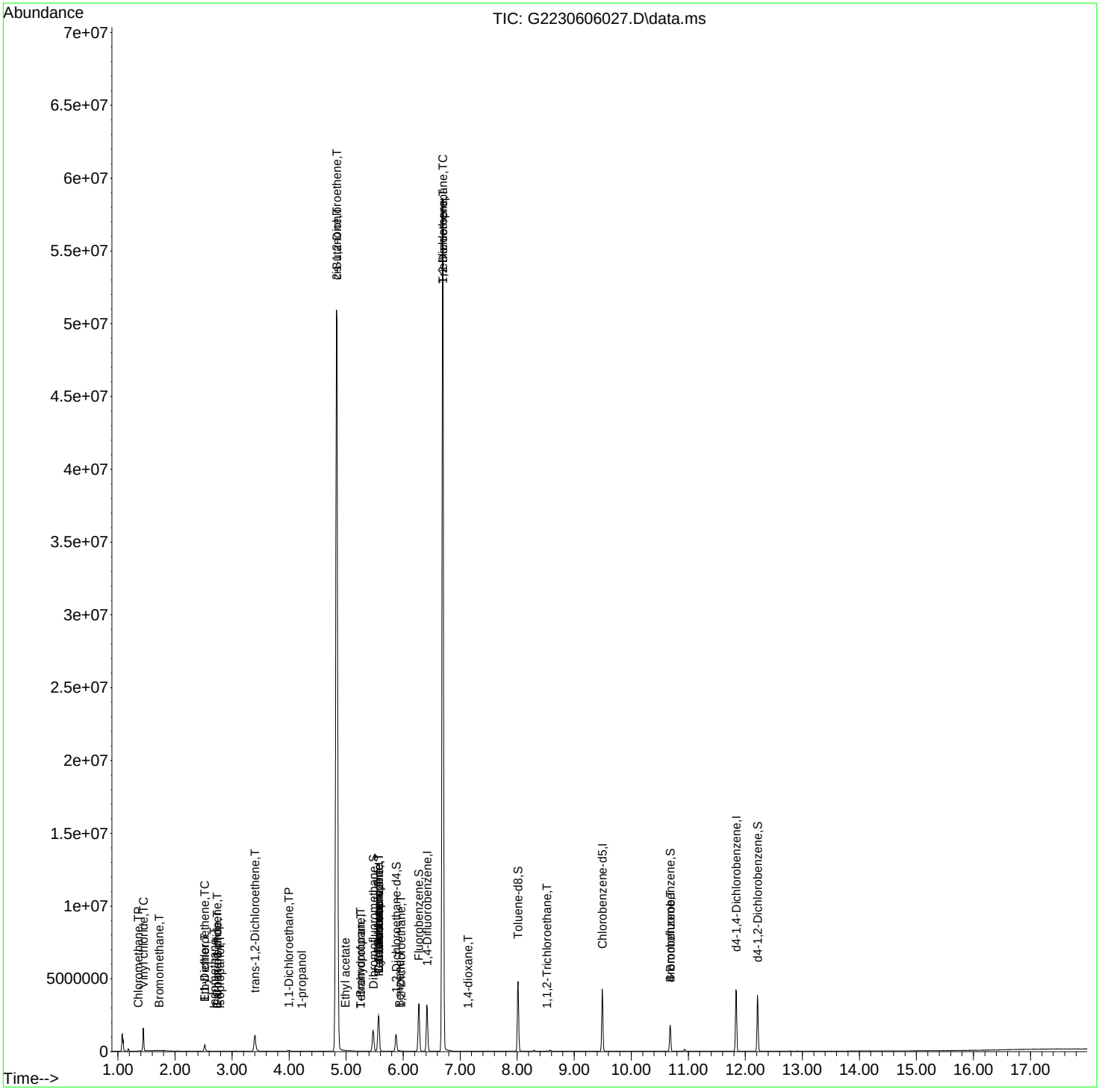
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
55) 1,4-dioxane	7.133	88	82346	24.81	ug/L	#	23
60) 4-Methyl-2-pentanone	8.012	43	99272	Below Cal		#	1
62) 1,1,2-Trichloroethane	8.518	97	59680	0.16	ug/L		88
65) Toluene	8.083	91	38036	Below Cal		#	82
74) Ethylbenzene	9.496	91	58918	Below Cal		#	44
82) Bromobenzene	10.685	77	48673	0.07	ug/L	#	1
99) n-Butylbenzene	12.222	91	34907	Below Cal		#	53

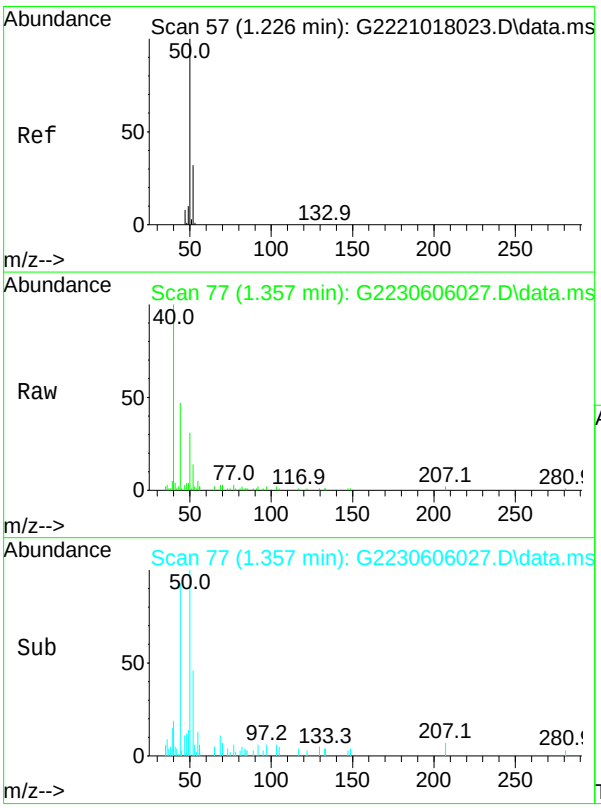
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606027.D
Acq On : 06 Jun 2023 21:26
Operator : PO1
Sample : 23E0775-12
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 07 10:00:52 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

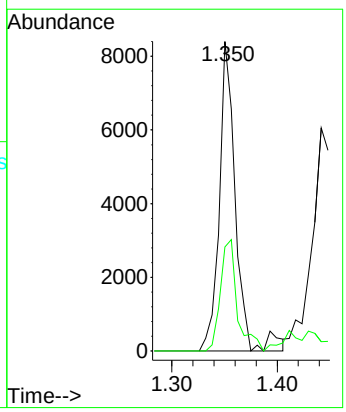


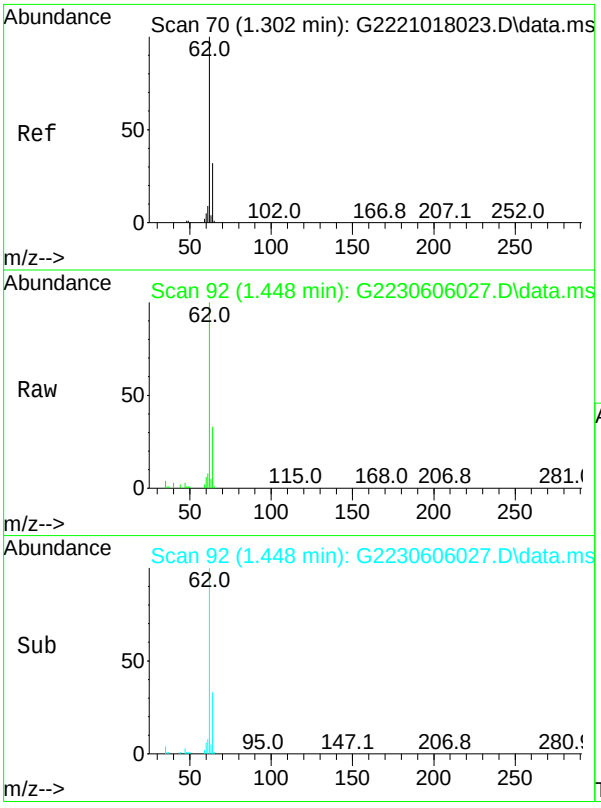


#3
Chloromethane
Concen: 0.17 ug/L
RT: 1.355 min Scan# 77
Delta R.T. 0.001 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 50 Resp: 89401

Ion	Ratio	Lower	Upper
50	100		
52	37.5	3.2	63.2

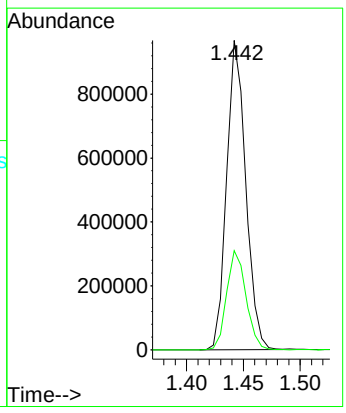


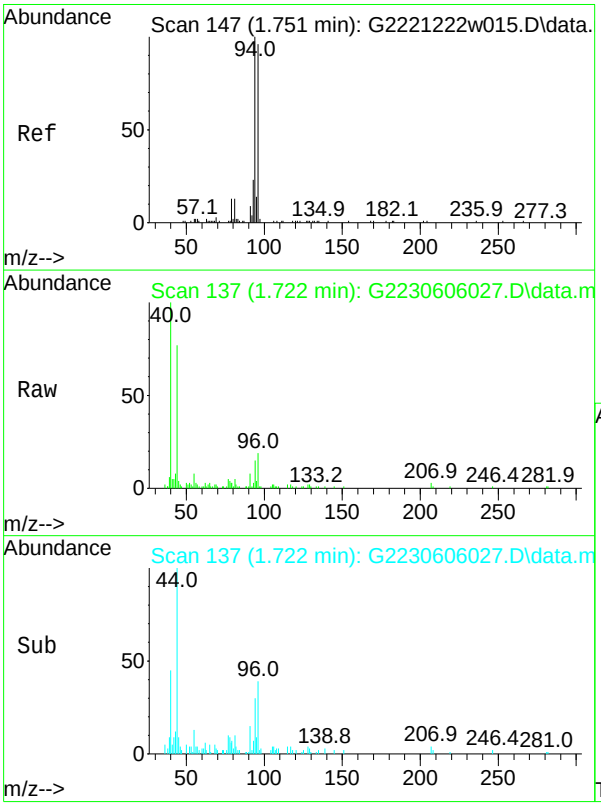


#4
Vinyl chloride
Concen: 29.33 ug/L
RT: 1.446 min Scan# 92
Delta R.T. -0.000 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 62 Resp:11349323

Ion	Ratio	Lower	Upper
62	100		
64	32.5	2.1	62.1

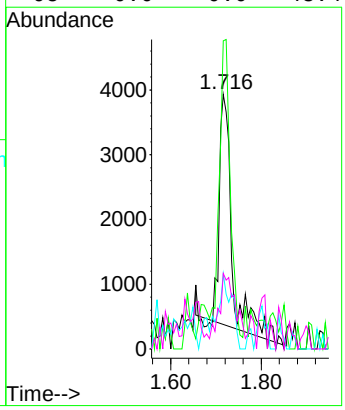


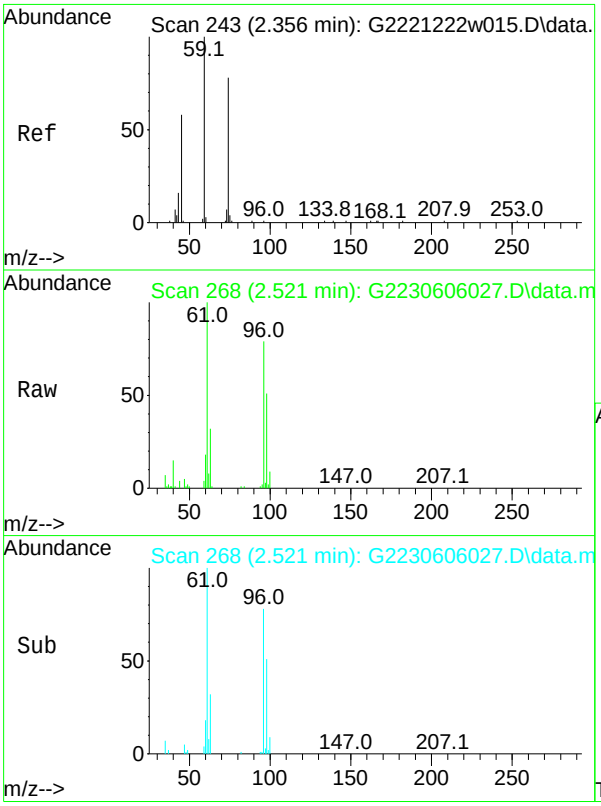


#5
Bromomethane
Concen: 0.01 ug/L
RT: 1.720 min Scan# 137
Delta R.T. 0.006 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 94 Resp: 69173

Ion	Ratio	Lower	Upper
94	100		
96	127.7	65.6	125.6#
93	0.0	0.0	49.5
95	0.0	0.0	43.4

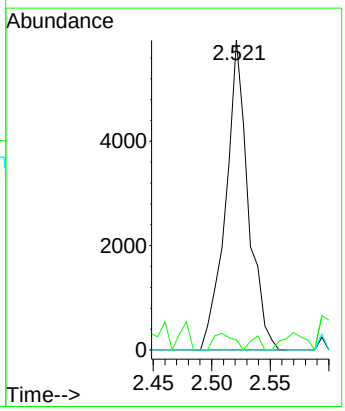


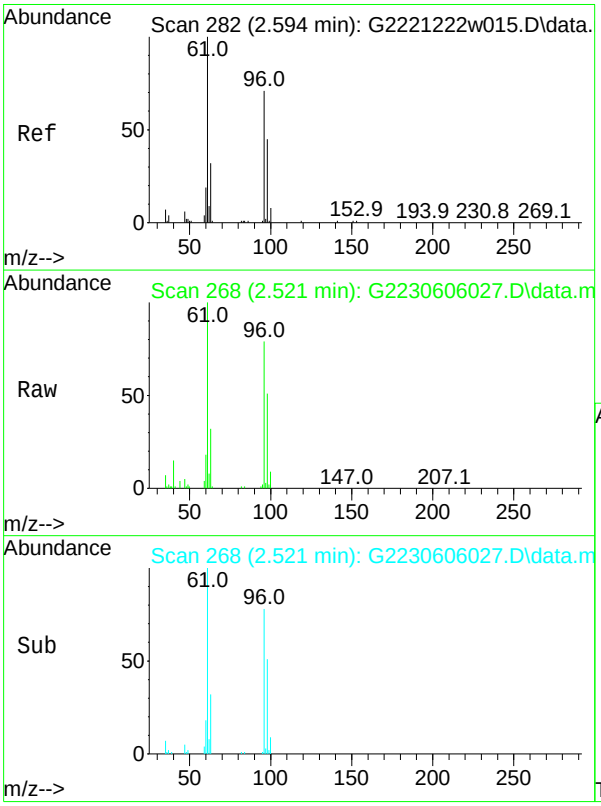


#8
Ethyl ether
Concen: 0.22 ug/L
RT: 2.524 min Scan# 268
Delta R.T. 0.206 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 59 Resp: 79336

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

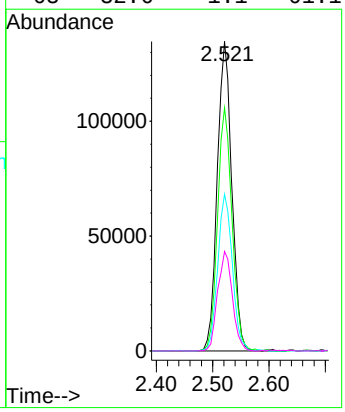


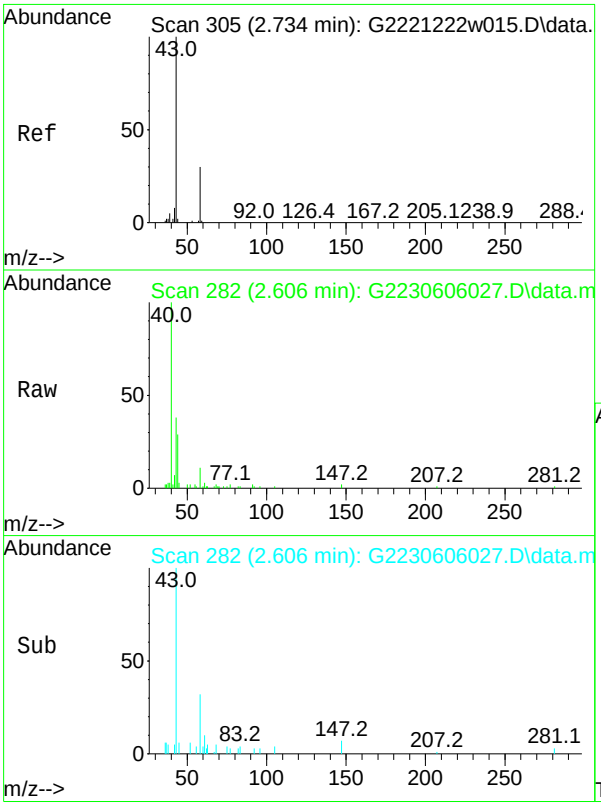


#10
1,1-Dichloroethene
Concen: 5.68 ug/L
RT: 2.524 min Scan# 268
Delta R.T. 0.001 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 61 Resp: 2415238

Ion	Ratio	Lower	Upper
61	100		
96	77.7	32.7	92.7
98	50.6	9.3	69.3
63	32.6	1.1	61.1

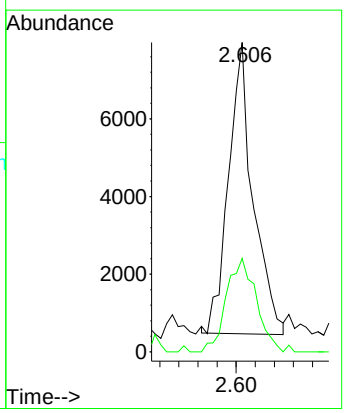


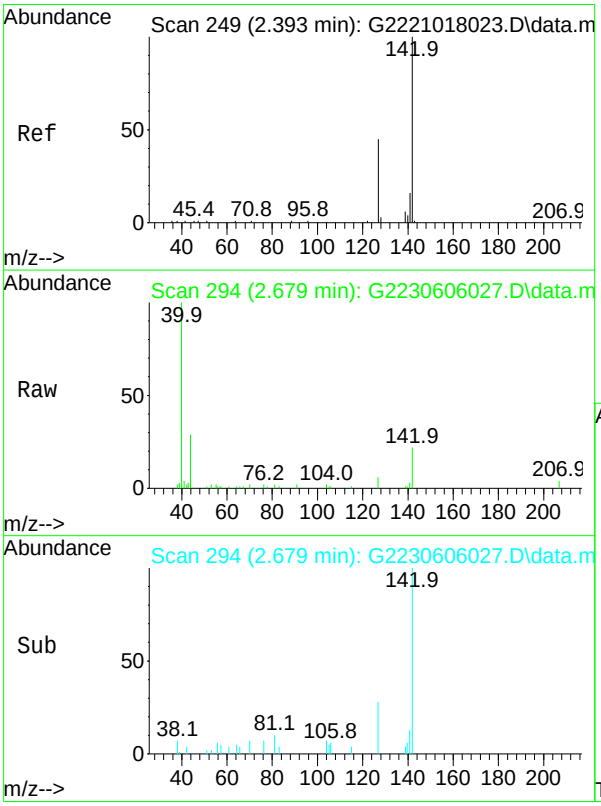


#12
Acetone
Concen: Below Cal
RT: 2.607 min Scan# 282
Delta R.T. -0.001 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 43 Resp: 134452

Ion	Ratio	Lower	Upper
43	100		
58	39.4	0.0	59.7

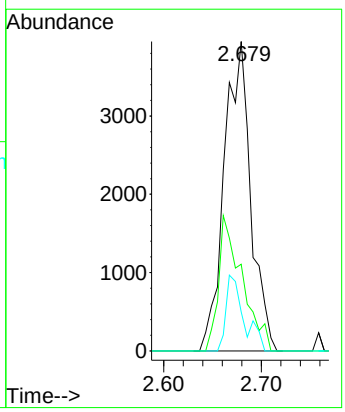


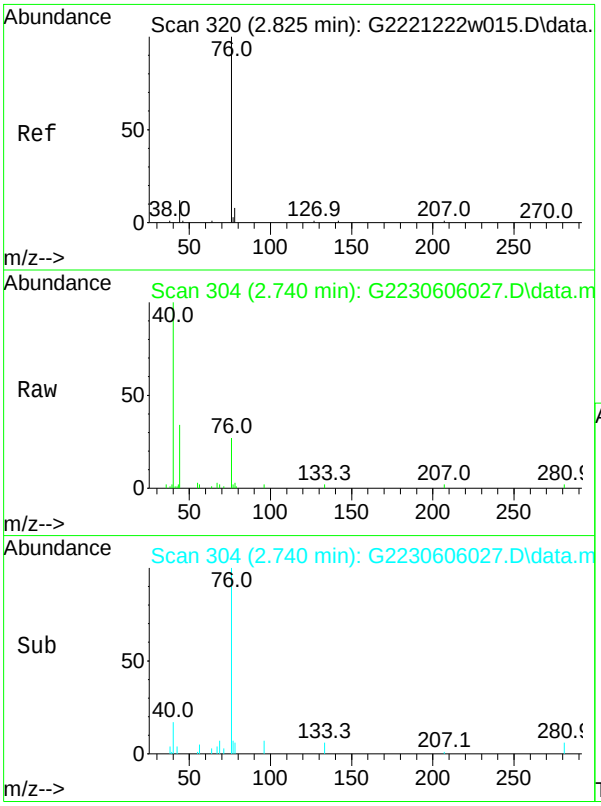


#13
Iodomethane
Concen: 0.16 ug/L
RT: 2.682 min Scan# 294
Delta R.T. 0.006 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion:142 Resp: 74493

Ion	Ratio	Lower	Upper
142	100		
127	39.0	13.3	73.3
141	0.0	0.0	45.3

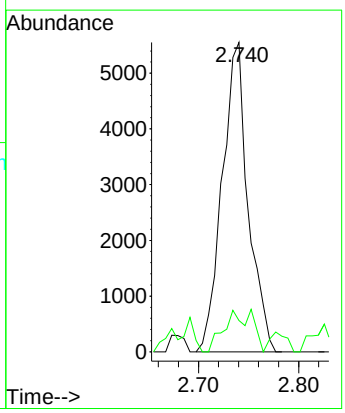


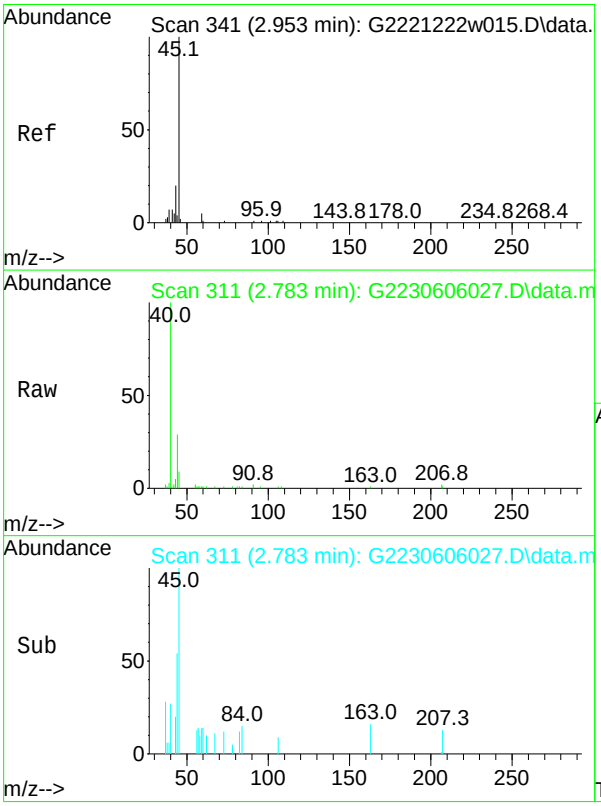


#14
Carbon disulfide
Concen: 0.02 ug/L
RT: 2.740 min Scan# 304
Delta R.T. 0.001 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 76 Resp: 100187

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

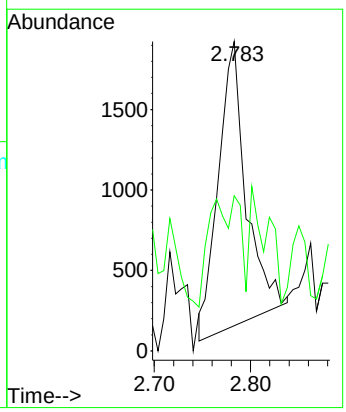


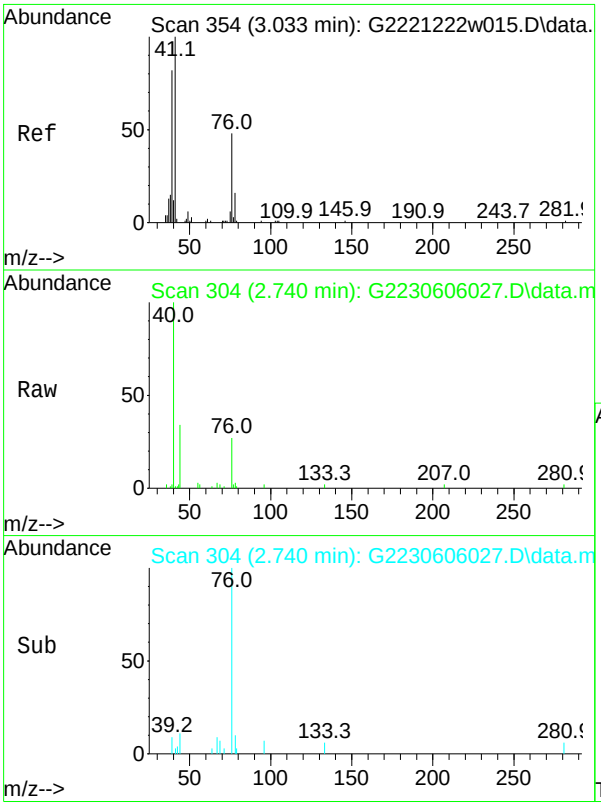


#15
Isopropanol
Concen: 2.21 ug/L
RT: 2.783 min Scan# 311
Delta R.T. -0.009 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 45 Resp: 34913

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

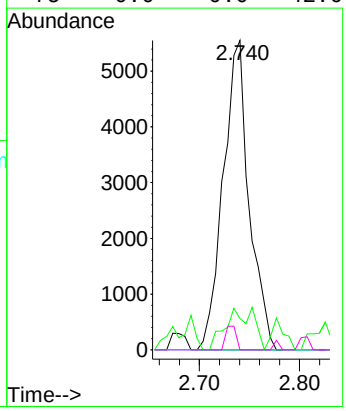


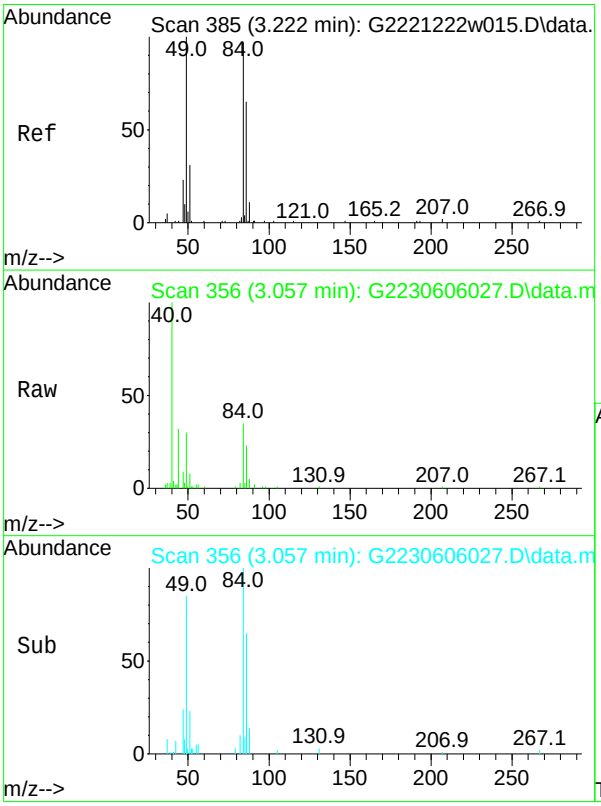


#17
3-Chloro-1-propene
Concen: 0.43 ug/L
RT: 2.740 min Scan# 304
Delta R.T. -0.180 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 76 Resp: 100180

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

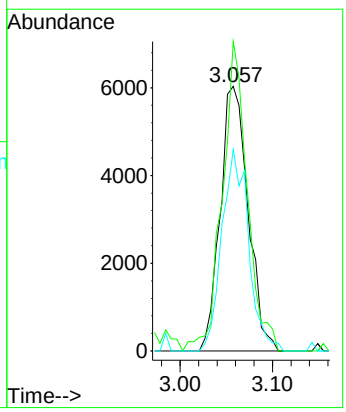


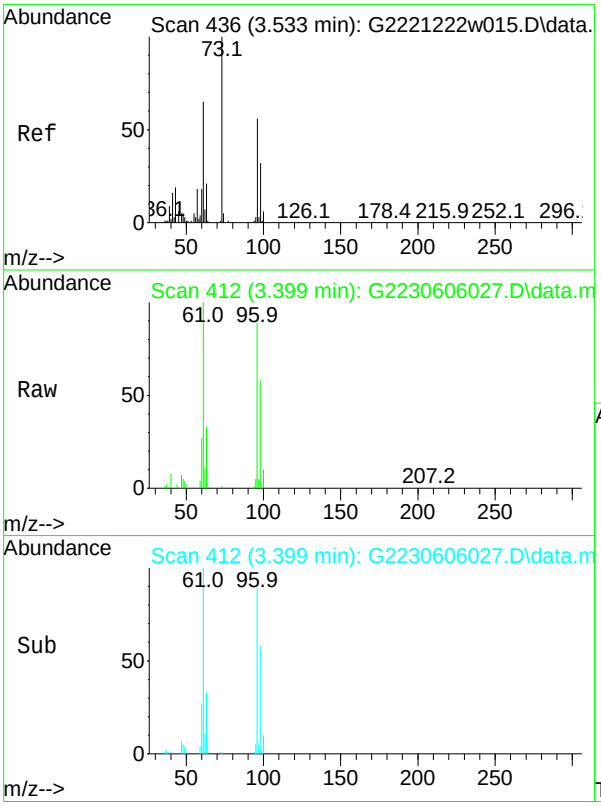


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 49 Resp: 126098

Ion	Ratio	Lower	Upper
49	100		
84	98.0	57.9	117.9
86	72.9	24.9	84.9

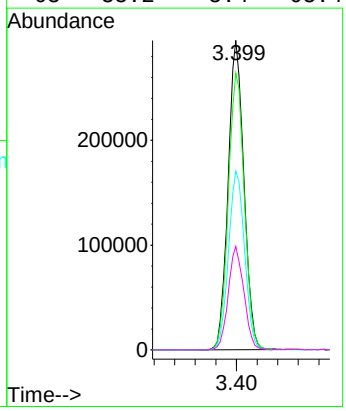


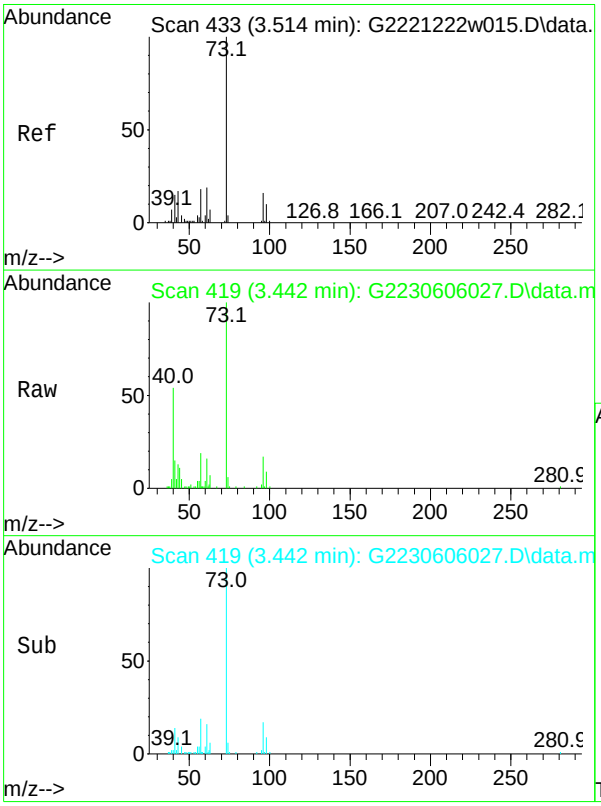


#20
trans-1,2-Dichloroethene
Concen: 14.73 ug/L
RT: 3.401 min Scan# 412
Delta R.T. -0.000 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 61 Resp: 6283747

Ion	Ratio	Lower	Upper
61	100		
96	90.9	45.2	105.2
98	58.6	17.2	77.2
63	33.2	3.4	63.4

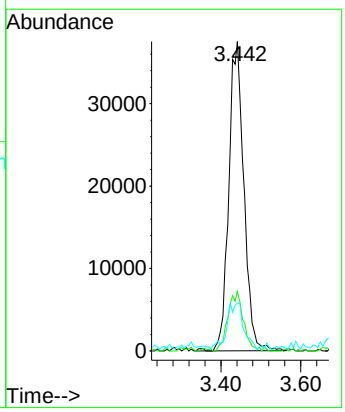


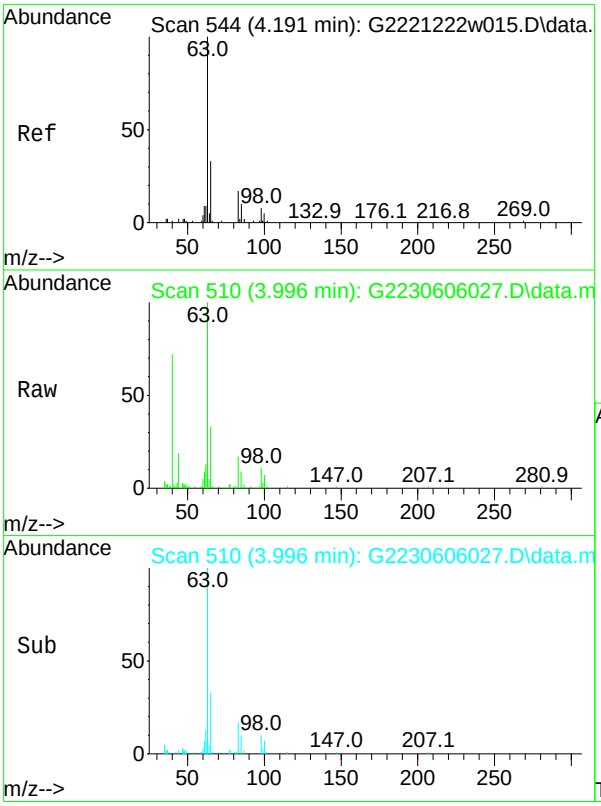


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.442 min Scan# 419
Delta R.T. -0.004 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 73 Resp: 982396

Ion	Ratio	Lower	Upper
73	100		
57	19.2	0.0	51.7
41	16.0	0.0	50.6

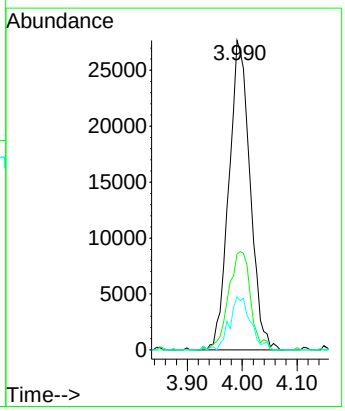


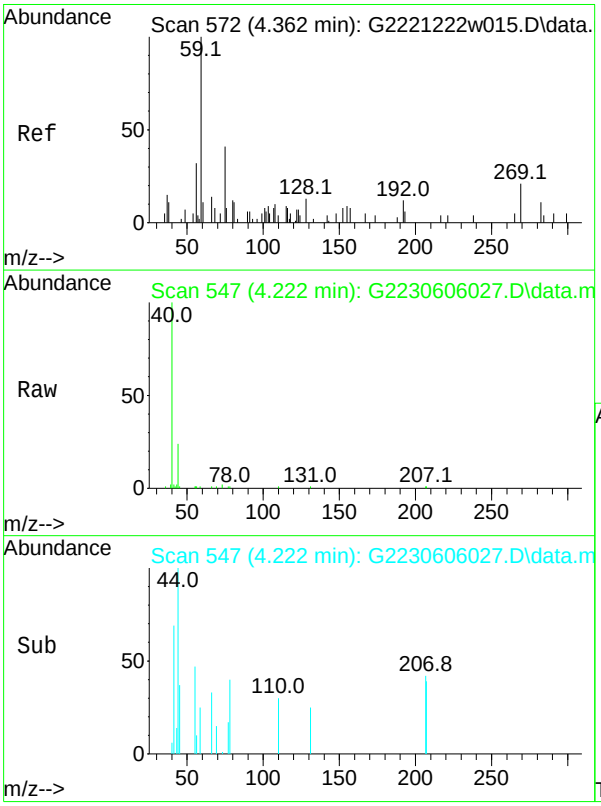


#23
1,1-Dichloroethane
Concen: 1.28 ug/L
RT: 3.996 min Scan# 510
Delta R.T. -0.002 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 63 Resp: 742338

Ion	Ratio	Lower	Upper
63	100		
65	32.8	1.1	61.1
83	13.8	0.0	42.9

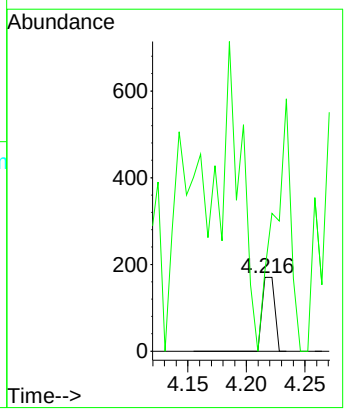


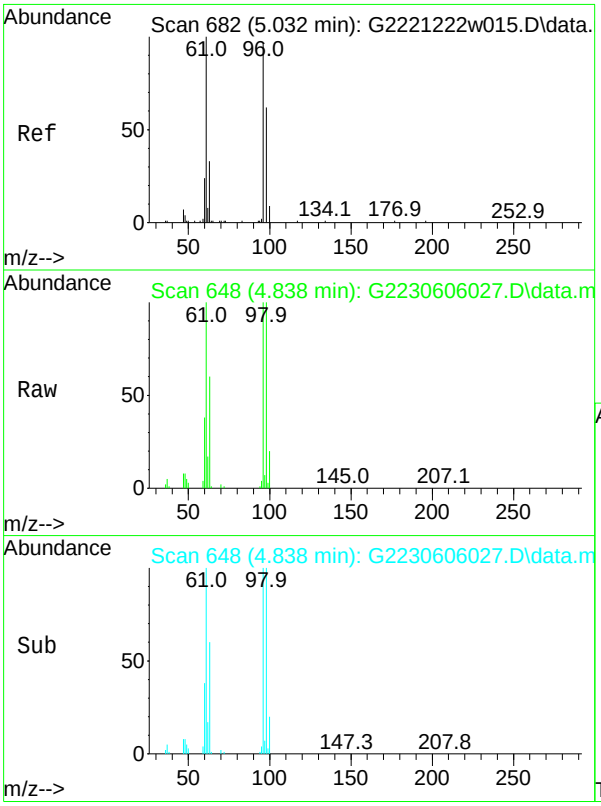


#26
1-propanol
Concen: 0.60 ug/L
RT: 4.221 min Scan# 547
Delta R.T. -0.068 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 59 Resp: 1239

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

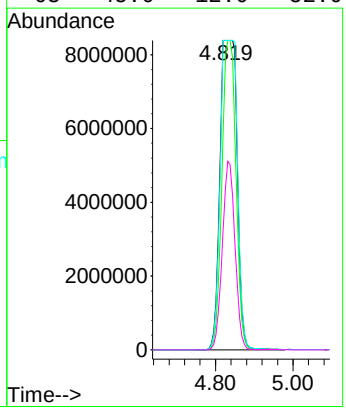


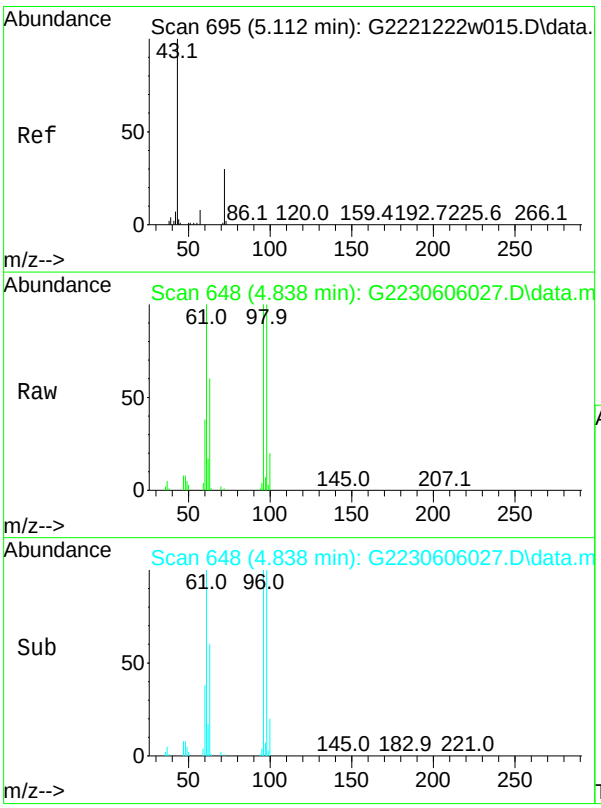


#28
cis-1,2-Dichloroethene
Concen: 523.09 ug/L
RT: 4.840 min Scan# 648
Delta R.T. 0.004 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 61 Resp:257714296

Ion	Ratio	Lower	Upper
61	100		
98	81.6	15.9	75.9#
96	100.2	39.6	99.6#
63	45.0	12.0	52.0

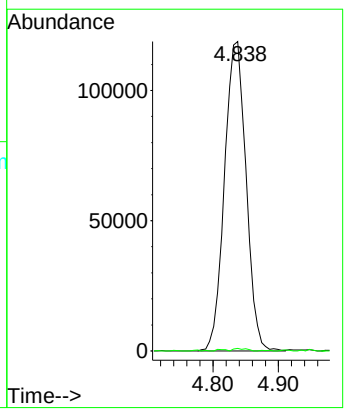


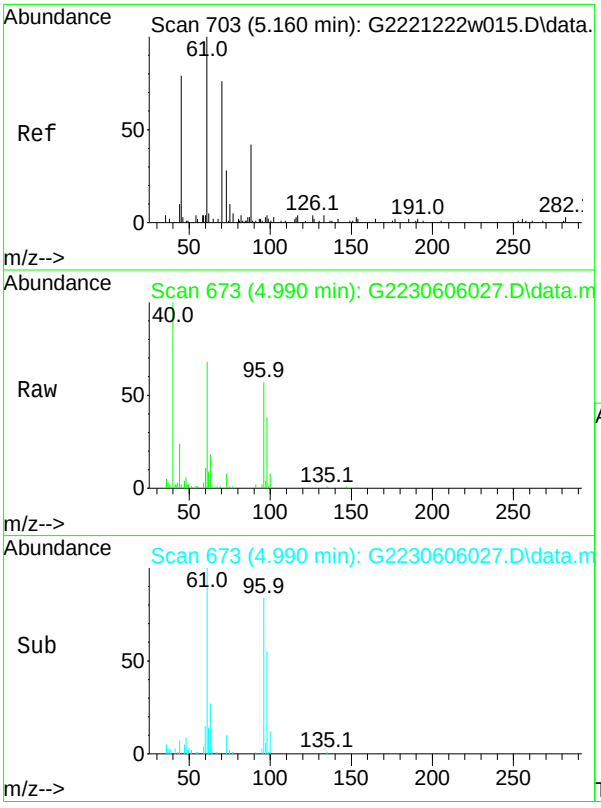


#29
2-Butanone
Concen: 55.31 ug/L
RT: 4.837 min Scan# 648
Delta R.T. -0.082 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 72 Resp: 2718275

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

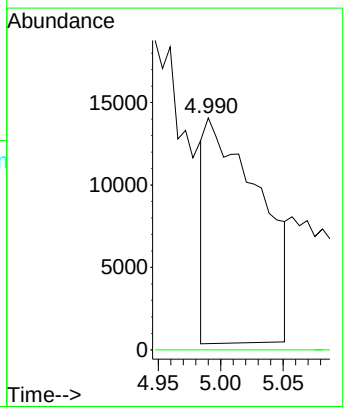


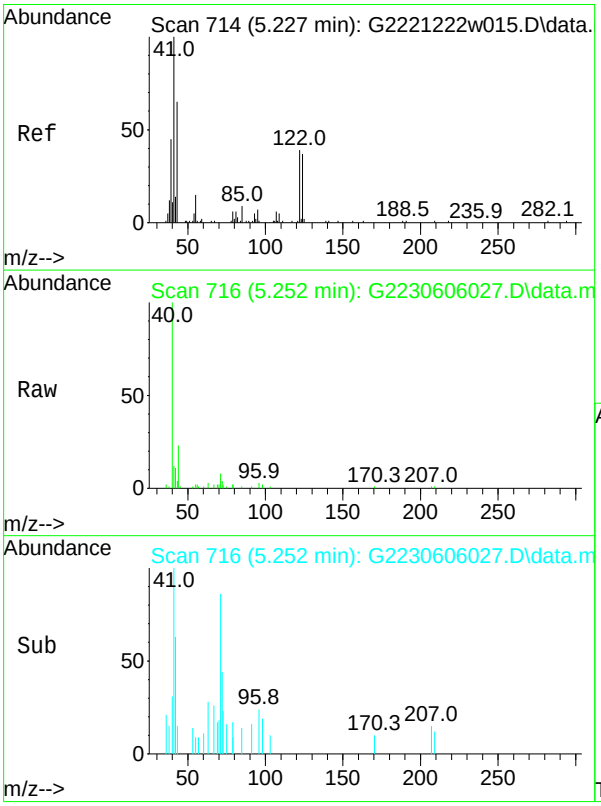


#31
Ethyl acetate
Concen: 7.49 ug/L
RT: 4.993 min Scan# 673
Delta R.T. -0.029 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 61 Resp: 449601

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

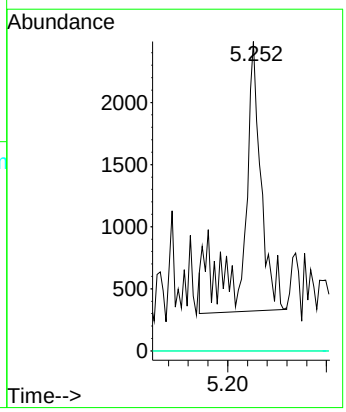


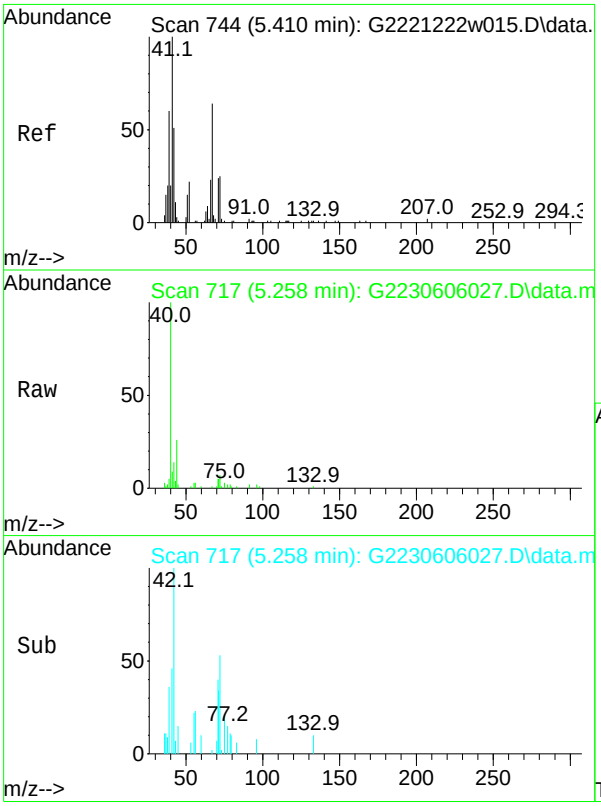


#33
1-Bromopropane
Concen: 0.15 ug/L
RT: 5.254 min Scan# 716
Delta R.T. 0.178 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 41 Resp: 55735

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

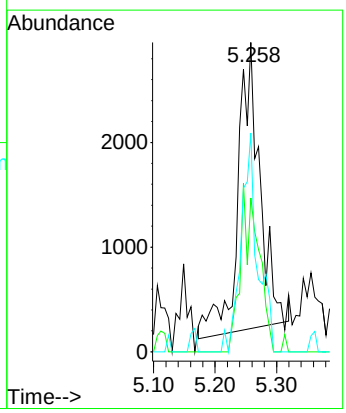


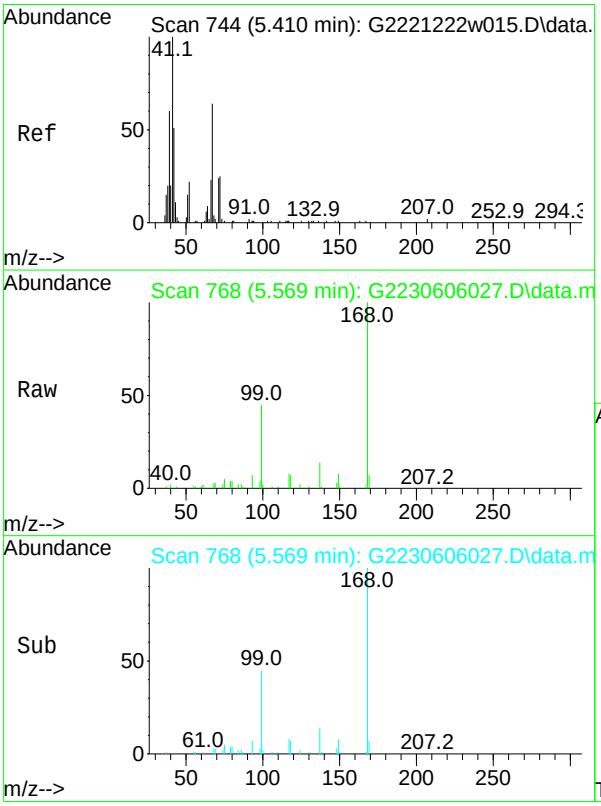


#36
Tetrahydrofuran
Concen: 0.09 ug/L
RT: 5.259 min Scan# 717
Delta R.T. -0.002 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 42 Resp: 66514

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	60.6	14.7	74.7

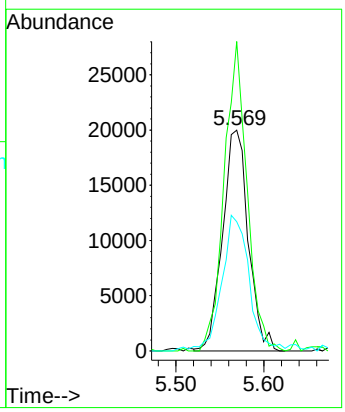


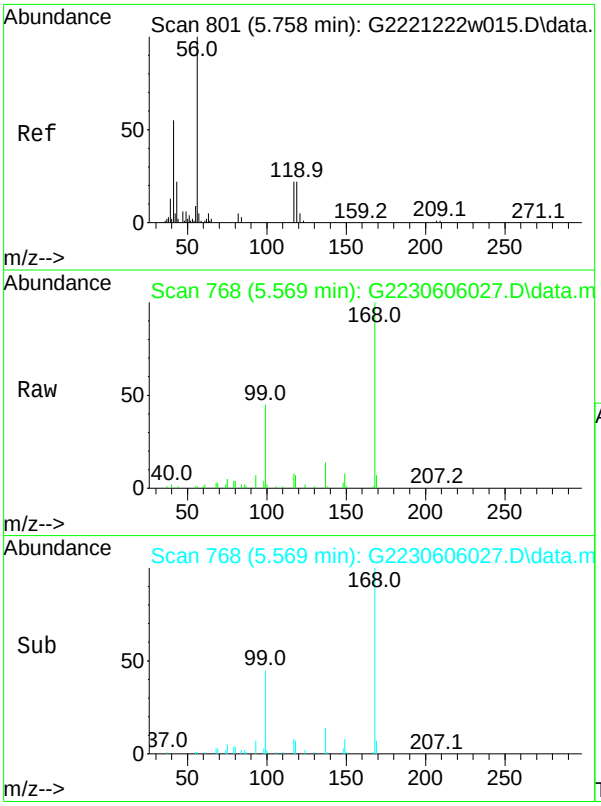


#40
Cyclohexane
Concen: 0.77 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 84 Resp: 406223

Ion	Ratio	Lower	Upper
84	100		
69	124.4	6.8	66.8#
56	67.6	79.1	139.1#

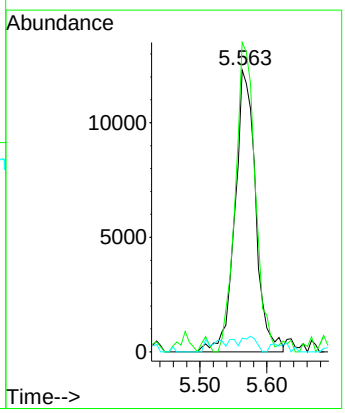


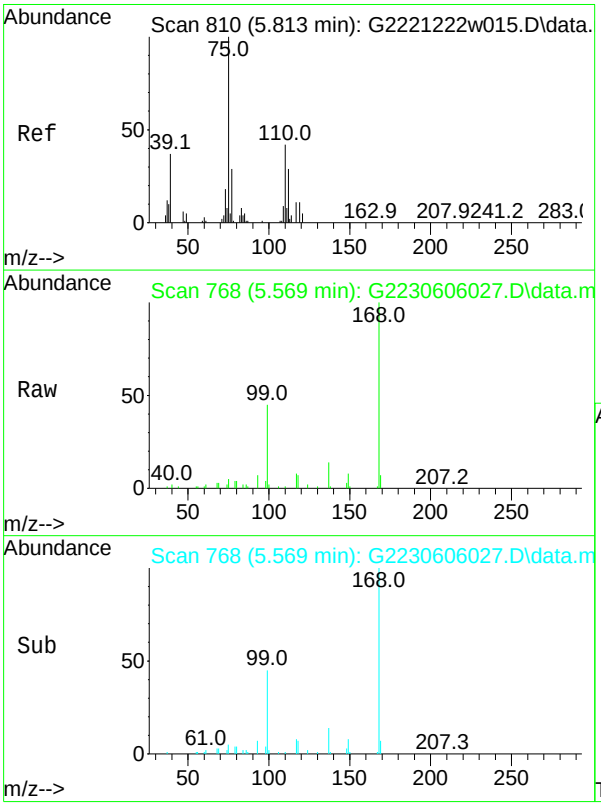


#41
1-Chlorobutane
Concen: 0.43 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 56 Resp: 264171

Ion	Ratio	Lower	Upper
56	100		
55	103.5	0.0	41.0#
57	0.0	0.0	35.7

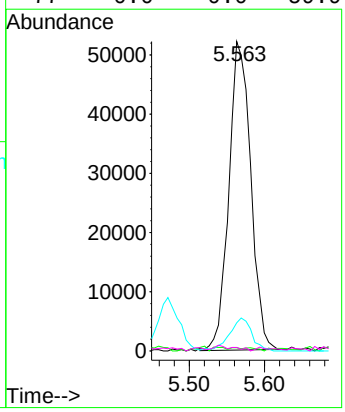


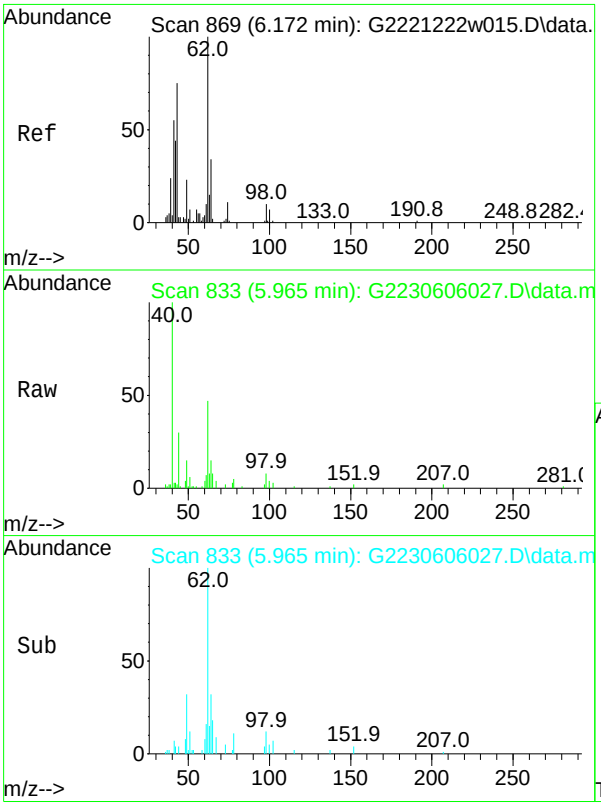


#42
1,1-Dichloropropene
Concen: 2.29 ug/L
RT: 5.568 min Scan# 768
Delta R.T. -0.121 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 75 Resp: 1055414

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.0	9.1	69.1
77	0.0	0.0	59.9

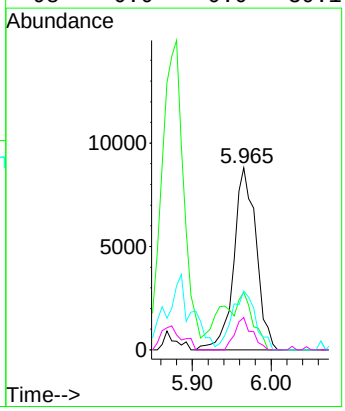


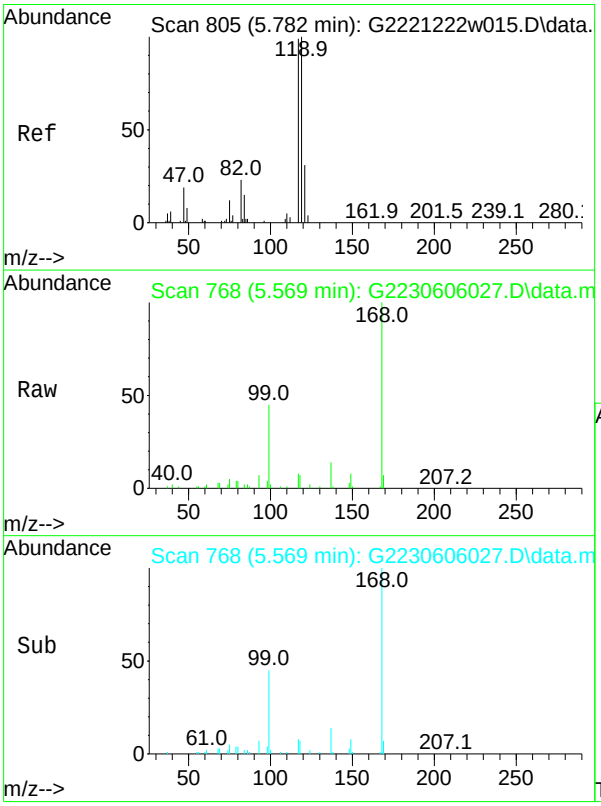


#44
1,2-Dichloroethane
Concen: 0.28 ug/L
RT: 5.967 min Scan# 833
Delta R.T. -0.004 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 62 Resp: 172001

Ion	Ratio	Lower	Upper
62	100		
49	24.0	0.2	60.2
64	34.5	3.0	63.0
98	0.0	0.0	39.1

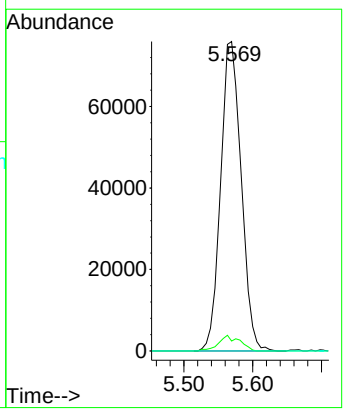


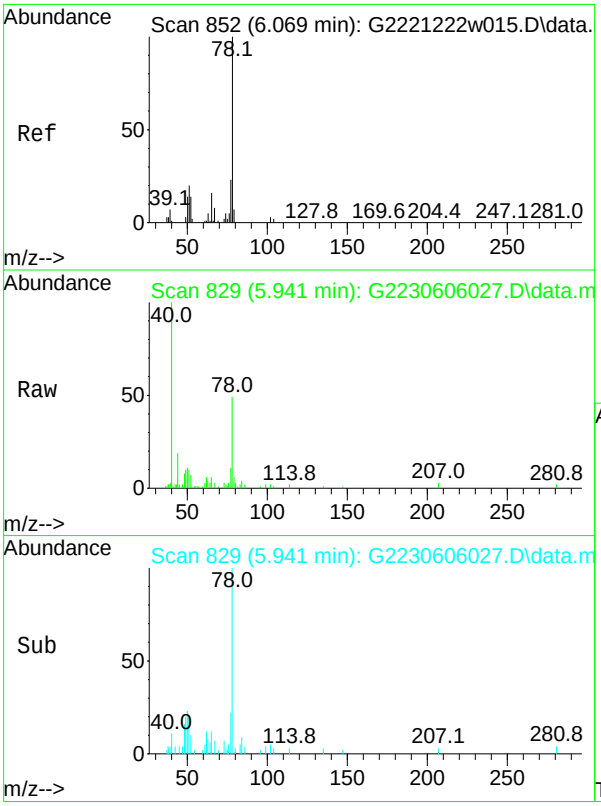


#47
Carbon tetrachloride
Concen: 3.12 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion:117 Resp: 1584537

Ion	Ratio	Lower	Upper
117	100		
119	5.2	66.4	126.4#
121	0.0	0.4	60.4#

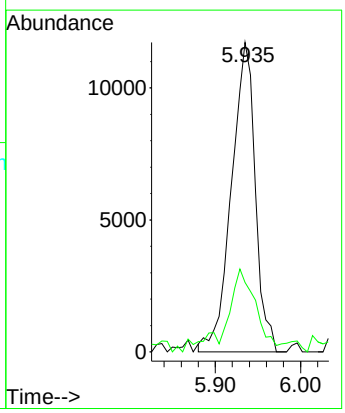


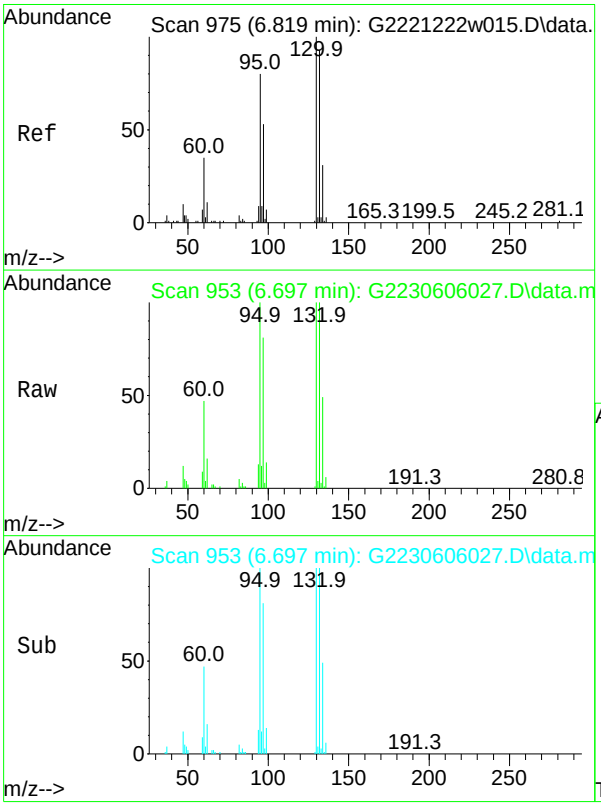


#48
Benzene
Concen: 0.16 ug/L
RT: 5.938 min Scan# 829
Delta R.T. 0.003 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 78 Resp: 228435

Ion	Ratio	Lower	Upper
78	100		
77	25.2	0.0	53.8

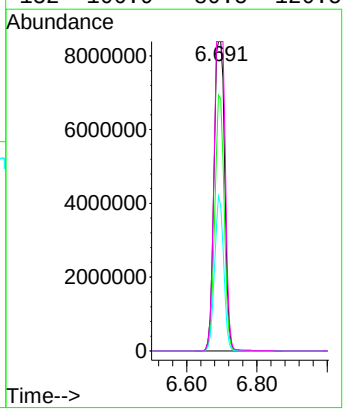


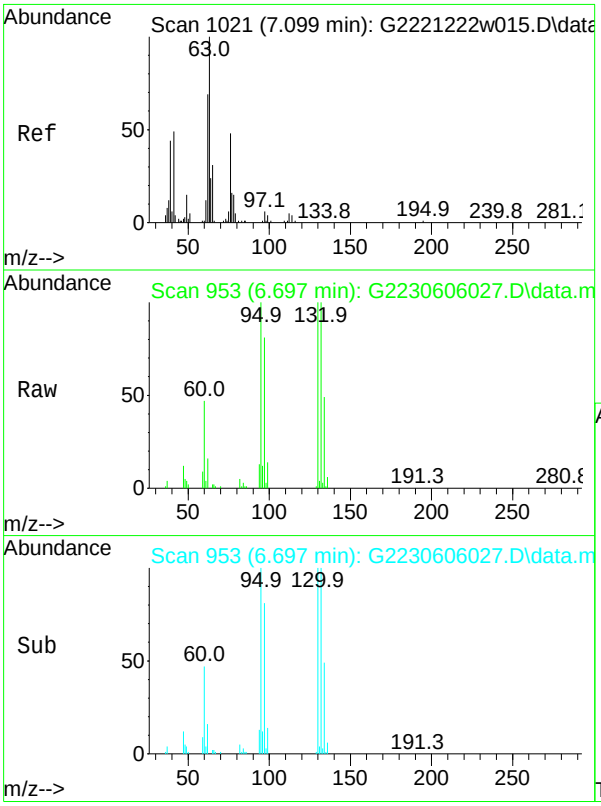


#50
Trichloroethene
Concen: 476.69 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 95 Resp:176267173

Ion	Ratio	Lower	Upper
95	100		
97	72.3	35.5	95.5
60	42.4	14.8	74.8
132	106.9	80.5	120.5

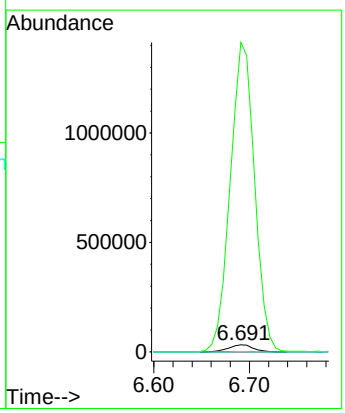


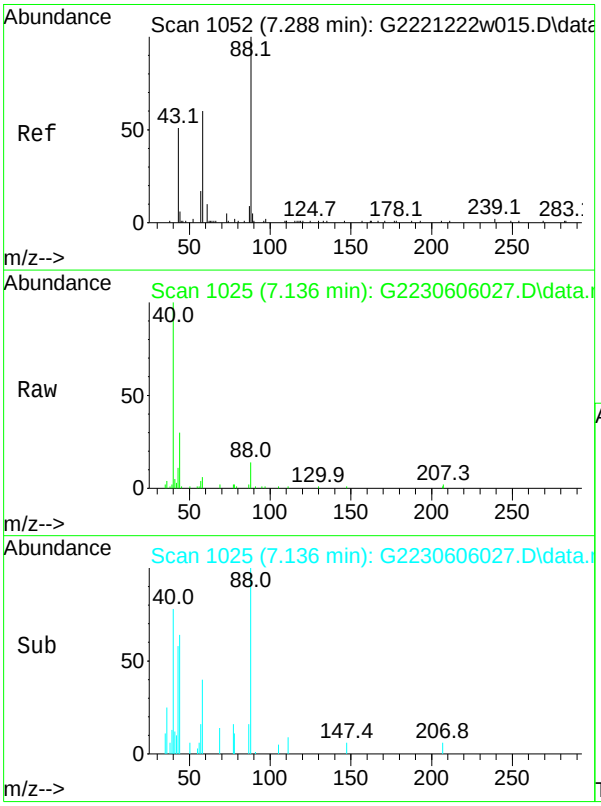


#52
1,2-Dichloropropane
Concen: 1.71 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.251 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 63 Resp: 566172

Ion	Ratio	Lower	Upper
63	100		
62	4433.9	35.2	95.2#
76	0.0	10.7	70.7#

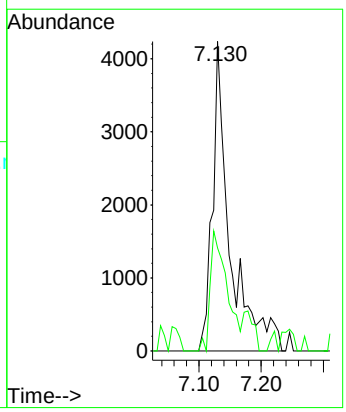


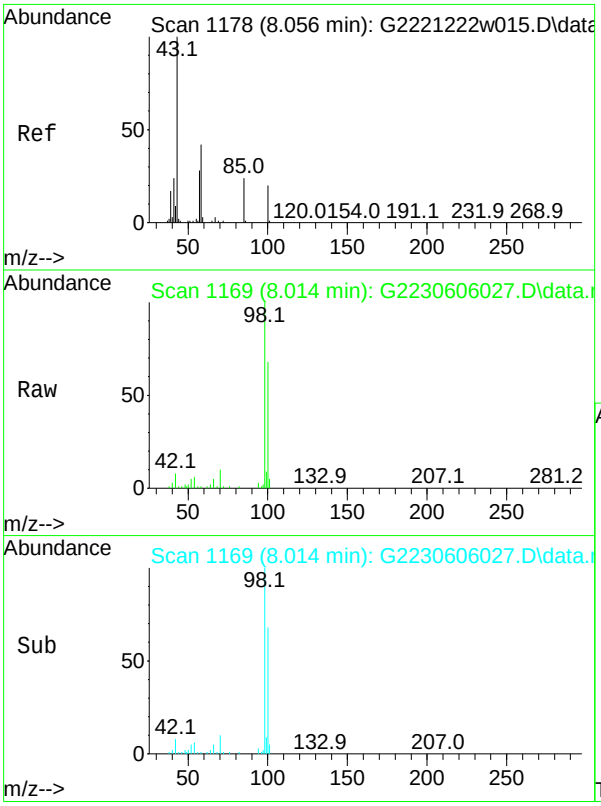


#55
1,4-dioxane
Concen: 24.81 ug/L
RT: 7.133 min Scan# 1025
Delta R.T. -0.009 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 88 Resp: 82346

Ion	Ratio	Lower	Upper
88	100		
58	0.0	26.1	86.1#

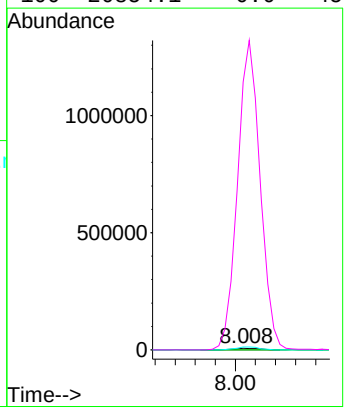


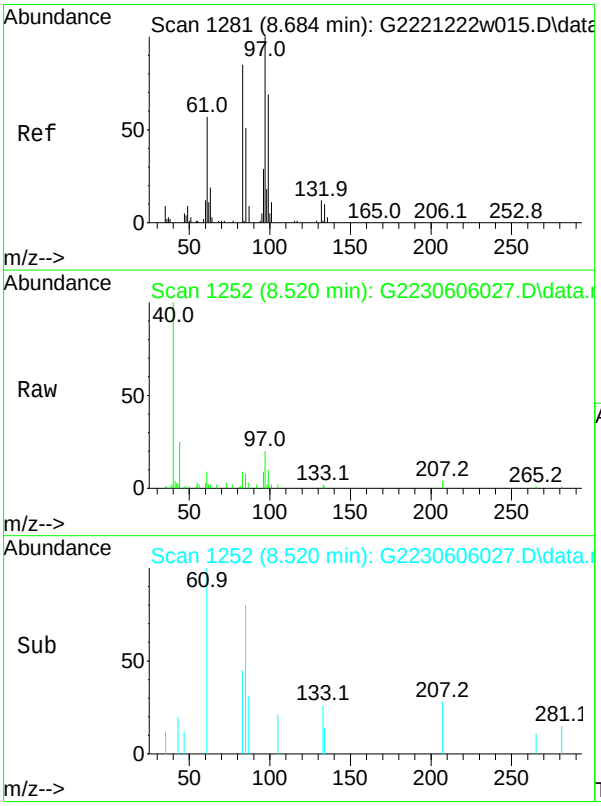


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 43 Resp: 99272

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	208.7	37.0	37.0#
100	20854.1	0.0	45.2#

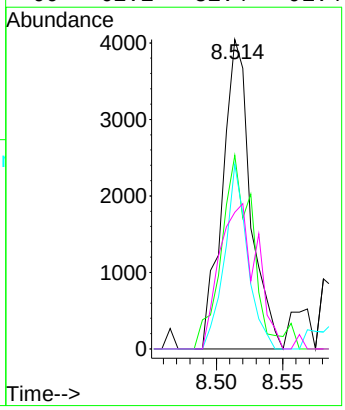


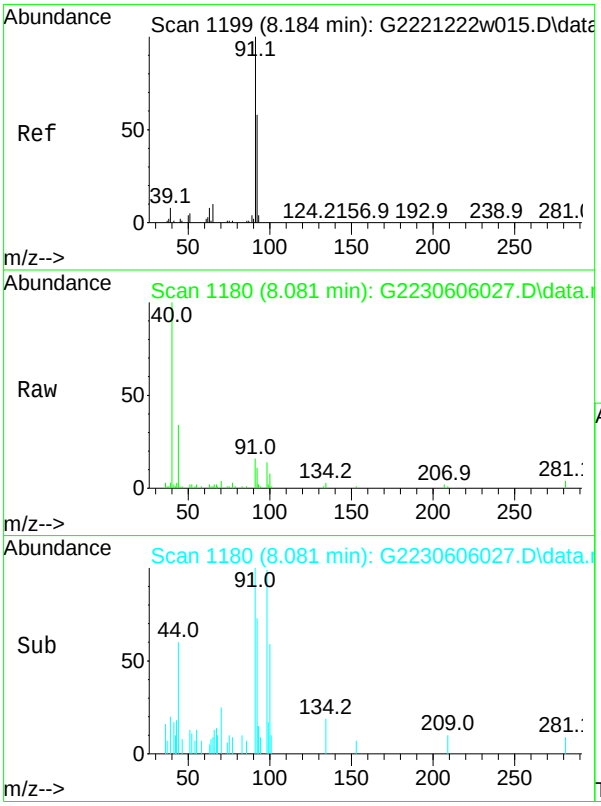


#62
1,1,2-Trichloroethane
Concen: 0.16 ug/L
RT: 8.518 min Scan# 1252
Delta R.T. -0.001 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 97 Resp: 59680

Ion	Ratio	Lower	Upper
97	100		
83	67.4	53.8	113.8
61	48.6	29.0	89.0
99	62.1	31.4	91.4

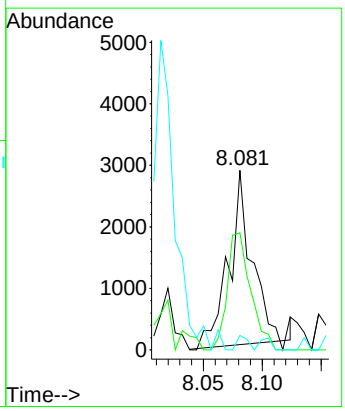


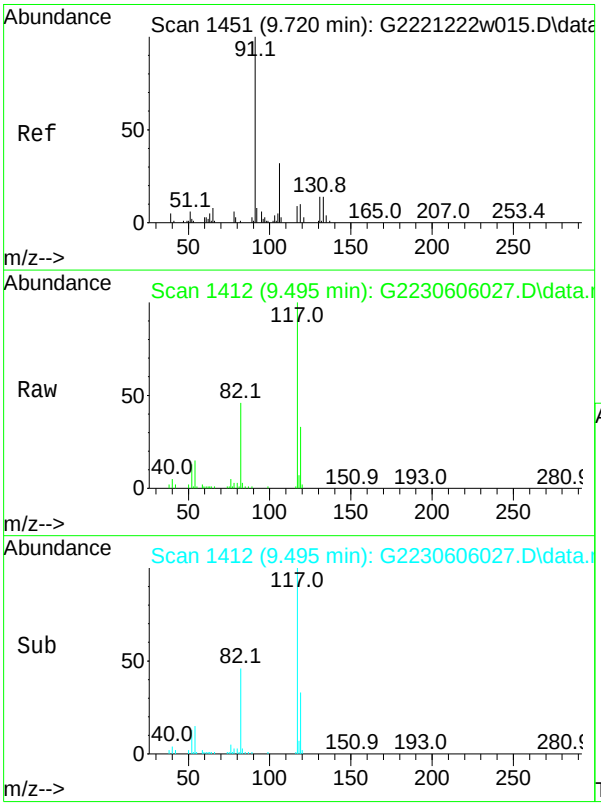


#65
Toluene
Concen: Below Cal
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 91 Resp: 38036

Ion	Ratio	Lower	Upper
91	100		
92	68.9	27.5	87.5
65	0.0	0.0	41.4

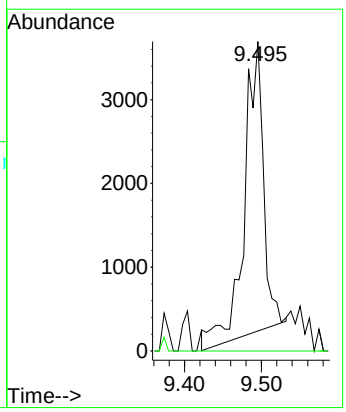


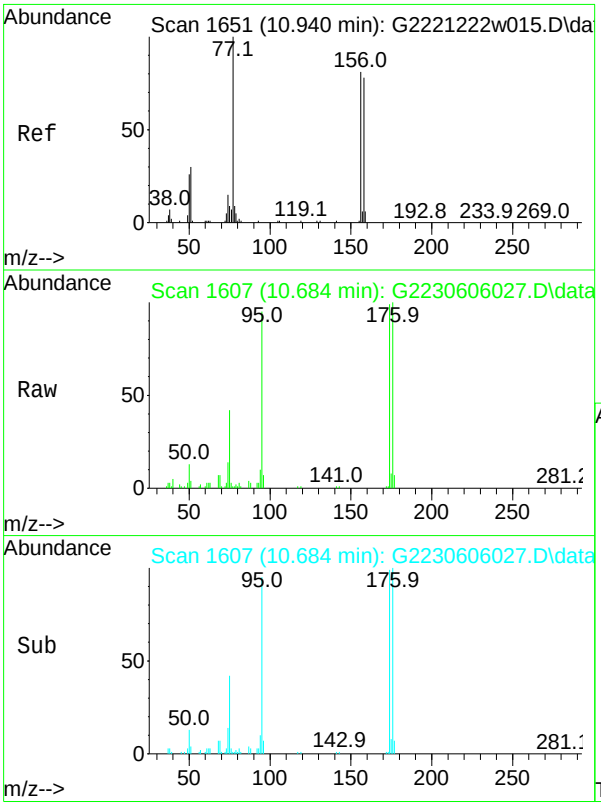


#74
Ethylbenzene
Concen: Below Cal
RT: 9.496 min Scan# 1412
Delta R.T. -0.147 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 91 Resp: 58918

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

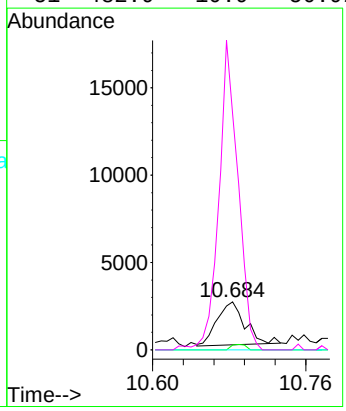


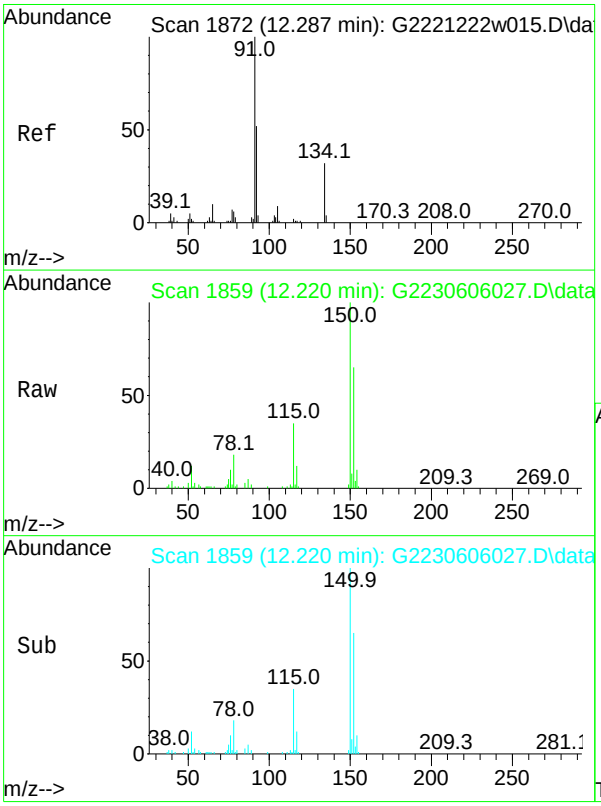


#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.685 min Scan# 1607
Delta R.T. -0.143 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 77 Resp: 48673

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	482.9	10.9	50.9#

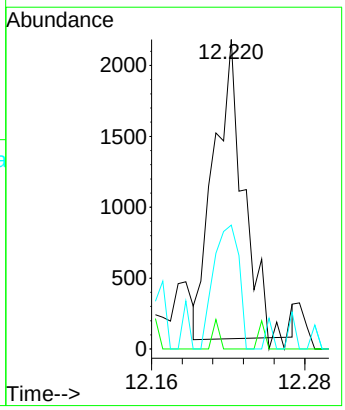




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.222 min Scan# 1859
Delta R.T. -0.009 min
Lab File: G2230606027.D
Acq: 06 Jun 2023 21:26

Tgt Ion: 91 Resp: 34907

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

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12RE1	File ID:	G2230607012.D
Sampled:	05/27/23 17:28	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 19:25
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*13.0*	*40.0*	*100*	*U*
71-55-6	*1,1,1-Trichloroethane*		*17.5*	*40.0*	*100*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*12.4*	*40.0*	*100*	*U*
79-00-5	*1,1,2-Trichloroethane*		*16.6*	*40.0*	*100*	*U*
75-34-3	*1,1-Dichloroethane*		*13.4*	*40.0*	*100*	*U*
75-35-4	*1,1-Dichloroethene*		*19.1*	*40.0*	*100*	*U*
563-58-6	*1,1-Dichloropropene*		*14.0*	*40.0*	*100*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*20.4*	*40.0*	*100*	*U*
96-18-4	*1,2,3-Trichloropropane*		*18.3*	*40.0*	*100*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*20.5*	*60.0*	*120*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*13.2*	*40.0*	*100*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*26.0*	*100*	*200*	*U*
106-93-4	*1,2-Dibromoethane*		*10.6*	*40.0*	*100*	*U*
95-50-1	*1,2-Dichlorobenzene*		*12.6*	*40.0*	*100*	*U*
107-06-2	*1,2-Dichloroethane*		*21.2*	*60.0*	*120*	*U*
78-87-5	*1,2-Dichloropropane*		*20.5*	*60.0*	*120*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*10.0*	*40.0*	*100*	*U*
541-73-1	*1,3-Dichlorobenzene*		*14.5*	*40.0*	*100*	*U*
142-28-9	*1,3-Dichloropropane*		*13.6*	*40.0*	*100*	*U*
106-46-7	*1,4-Dichlorobenzene*		*18.4*	*40.0*	*100*	*U*
594-20-7	*2,2-Dichloropropane*		*18.4*	*40.0*	*100*	*U*
78-93-3	*2-Butanone*		*66.0*	*140*	*350*	*U*
95-49-8	*2-Chlorotoluene*		*14.7*	*40.0*	*100*	*U*
591-78-6	*2-Hexanone*		*14.3*	*140*	*350*	*U*
106-43-4	*4-Chlorotoluene*		*18.4*	*40.0*	*100*	*U*
99-87-6	*4-Isopropyltoluene*		*14.0*	*40.0*	*100*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12RE1	File ID:	G2230607012.D
Sampled:	05/27/23 17:28	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 19:25
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*27.0*	*140*	*350*	*U*
67-64-1	*Acetone*		*104*	*400*	*800*	*U*
71-43-2	*Benzene*		*10.1*	*40.0*	*100*	*U*
108-86-1	*Bromobenzene*		*17.0*	*40.0*	*100*	*U*
74-97-5	*Bromochloromethane*		*13.4*	*40.0*	*100*	*U*
75-27-4	*Bromodichloromethane*		*10.6*	*40.0*	*100*	*U*
75-25-2	*Bromoform*		*20.6*	*40.0*	*100*	*U*
74-83-9	*Bromomethane*		*32.0*	*100*	*200*	*U*
75-15-0	*Carbon disulfide*		*28.0*	*100*	*200*	*U*
56-23-5	*Carbon tetrachloride*		*16.9*	*40.0*	*100*	*U*
108-90-7	*Chlorobenzene*		*13.0*	*40.0*	*100*	*U*
75-00-3	*Chloroethane*		*31.1*	*40.0*	*100*	*U*
67-66-3	*Chloroform*		*20.3*	*60.0*	*120*	*U*
74-87-3	*Chloromethane*		*38.4*	*100*	*200*	*U*
156-59-2	cis-1,2-Dichloroethene	604	20.5	60.0	120	D
10061-01-5	*cis-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
124-48-1	*Dibromochloromethane*		*15.2*	*40.0*	*100*	*U*
74-95-3	*Dibromomethane*		*16.3*	*40.0*	*100*	*U*
75-71-8	*Dichlorodifluoromethane*		*25.9*	*100*	*200*	*U*
100-41-4	*Ethylbenzene*		*6.00*	*20.0*	*40.0*	*U*
87-68-3	*Hexachlorobutadiene*		*20.0*	*40.0*	*100*	*U*
98-82-8	*Isopropylbenzene*		*11.0*	*40.0*	*100*	*U*
179601-23-1	*m,p-Xylene*		*17.8*	*80.0*	*200*	*U*
1634-04-4	*Methyl tert-butyl ether*		*10.6*	*40.0*	*100*	*U*
75-09-2	*Methylene chloride*		*44.7*	*100*	*200*	*U*
104-51-8	*n-Butylbenzene*		*26.0*	*100*	*200*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12RE1	File ID:	G2230607012.D
Sampled:	05/27/23 17:28	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 19:25
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*12.6*	*40.0*	*100*	*U*
91-20-3	*Naphthalene*		*14.0*	*40.0*	*100*	*U*
95-47-6	*o-Xylene*		*8.32*	*40.0*	*100*	*U*
135-98-8	*sec-Butylbenzene*		*12.0*	*40.0*	*100*	*U*
100-42-5	*Styrene*		*9.06*	*20.0*	*40.0*	*U*
98-06-6	*tert-Butylbenzene*		*9.06*	*40.0*	*100*	*U*
127-18-4	*Tetrachloroethene*		*35.7*	*100*	*200*	*Q, U*
108-88-3	*Toluene*		*11.4*	*40.0*	*100*	*U*
156-60-5	*trans-1,2-Dichloroethene*	*18.0*	*17.1*	*40.0*	*100*	*J, D*
10061-02-6	*trans-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
79-01-6	*Trichloroethene*	*614*	*15.6*	*40.0*	*100*	*B, D*
75-69-4	*Trichlorofluoromethane*		*10.1*	*40.0*	*100*	*U*
75-01-4	*Vinyl chloride*		*25.8*	*100*	*200*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607012.D
Acq On : 07 Jun 2023 19:25
Operator : PO1
Sample : 23E0775-12RE1
Misc : 200
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 08 09:40:09 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

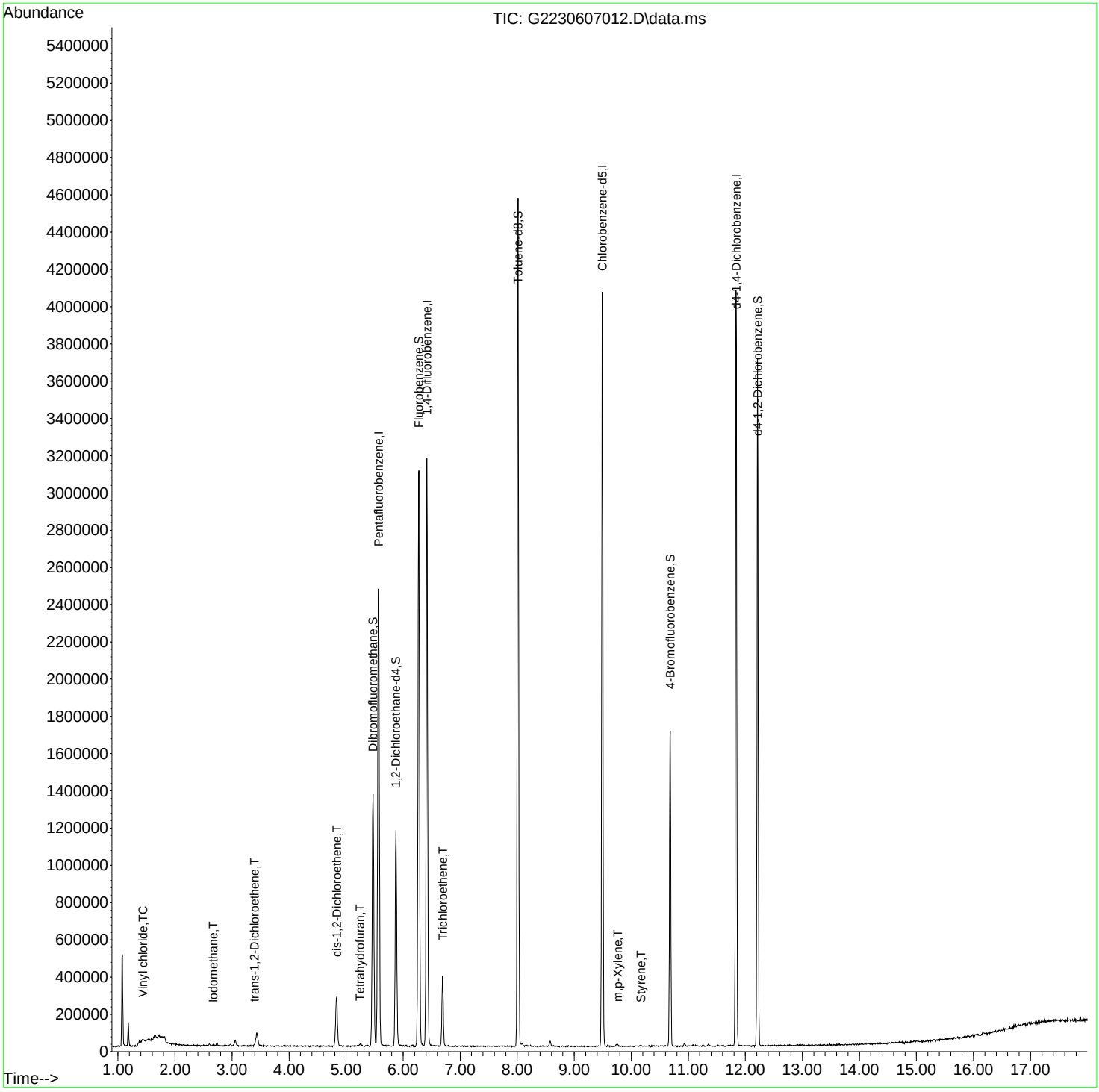
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	19950507	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	27319719	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.495	117	24086598	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11611283	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	8608417	19.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.05%			
43) 1,2-Dichloroethane-d4	5.876	65	7955498	18.34	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.70%			
49) Fluorobenzene	6.276	96	30461557	19.57	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.85%			
64) Toluene-d8	8.015	98	29891759	19.69	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.45%			
81) 4-Bromofluorobenzene	10.685	174	5318655	9.70	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.00%			
97) d4-1,2-Dichlorobenzene	12.218	152	10158463	20.34	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.70%			
Target Compounds						Qvalue
4) Vinyl chloride	1.443	62	48756	0.12	ug/L #	43
13) Iodomethane	2.666	142	44956	0.10	ug/L #	41
18) Methylene chloride	3.058	49	162641	Below Cal		73
20) trans-1,2-Dichloroethene	3.391	61	37619	0.09	ug/L #	23
21) Methyl tert-butyl ether	3.437	73	926559	Below Cal		93
28) cis-1,2-Dichloroethene	4.835	61	1549580	3.02	ug/L	74
36) Tetrahydrofuran	5.246	42	90873m	0.33	ug/L	
50) Trichloroethene	6.694	95	1131397	3.07	ug/L	89
65) Toluene	8.083	91	45929	Below Cal	#	30
75) m,p-Xylene	9.765	91	75431	0.06	ug/L #	36
76) Styrene	10.174	104	25681	0.02	ug/L #	29

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607012.D
Acq On : 07 Jun 2023 19:25
Operator : PO1
Sample : 23E0775-12RE1
Misc : 200
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 08 09:40:09 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607012.D
Acq On : 07 Jun 2023 19:25
Operator : PO1
Sample : 23E0775-12RE1
Misc : 200
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 08 09:40:09 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	19950507	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.419	114	27319719	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.495	117	24086598	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11611283	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8608417	19.61	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.05%				
43) 1,2-Dichloroethane-d4	5.876	65	7955498	18.34	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 91.70%				
49) Fluorobenzene	6.276	96	30461557	19.57	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.85%				
64) Toluene-d8	8.015	98	29891759	19.69	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.45%				
81) 4-Bromofluorobenzene	10.685	174	5318655	9.70	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.00%				
97) d4-1,2-Dichlorobenzene	12.218	152	10158463	20.34	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.70%				
Target Compounds							Qvalue
4) Vinyl chloride	1.443	62	48756	0.12	ug/L	#	43
5) Bromomethane	1.721	94	68121	0.00	ug/L	#	75
12) Acetone	2.608	43	93520	Below Cal			94
13) Iodomethane	2.666	142	44956	0.10	ug/L	#	41
14) Carbon disulfide	2.741	76	155604	0.08	ug/L	#	74
17) 3-Chloro-1-propene	2.741	76	155598	0.70	ug/L	#	53
18) Methylene chloride	3.058	49	162641	Below Cal			73
20) trans-1,2-Dichloroethene	3.391	61	37619	0.09	ug/L	#	23
21) Methyl tert-butyl ether	3.437	73	926559	Below Cal			93
28) cis-1,2-Dichloroethene	4.835	61	1549580	3.02	ug/L		74
31) Ethyl acetate	4.836	61	1547712	26.01	ug/L	#	45
33) 1-Bromopropane	5.266	41	53818	0.14	ug/L	#	40
36) Tetrahydrofuran	5.250	42	90914	0.33	ug/L		85
40) Cyclohexane	5.566	84	422906	0.79	ug/L	#	32
41) 1-Chlorobutane	5.566	56	249898	0.40	ug/L	#	1
42) 1,1-Dichloropropene	5.569	75	1066115	2.28	ug/L	#	37
47) Carbon tetrachloride	5.569	117	1547932	3.14	ug/L	#	16
48) Benzene	5.927	78	36537	0.03	ug/L	#	52
50) Trichloroethene	6.694	95	1131397	3.07	ug/L		89
60) 4-Methyl-2-pentanone	8.013	43	94208	Below Cal	#		1
65) Toluene	8.083	91	45929	Below Cal	#		30
74) Ethylbenzene	9.766	91	75502	Below Cal	#		44
75) m,p-Xylene	9.765	91	75431	0.06	ug/L	#	36
76) Styrene	10.174	104	25681	0.02	ug/L	#	29
82) Bromobenzene	10.679	77	28938	0.05	ug/L	#	1
99) n-Butylbenzene	12.217	91	42191	Below Cal	#		53

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607012.D
Acq On : 07 Jun 2023 19:25
Operator : PO1
Sample : 23E0775-12RE1
Misc : 200
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 08 09:40:09 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

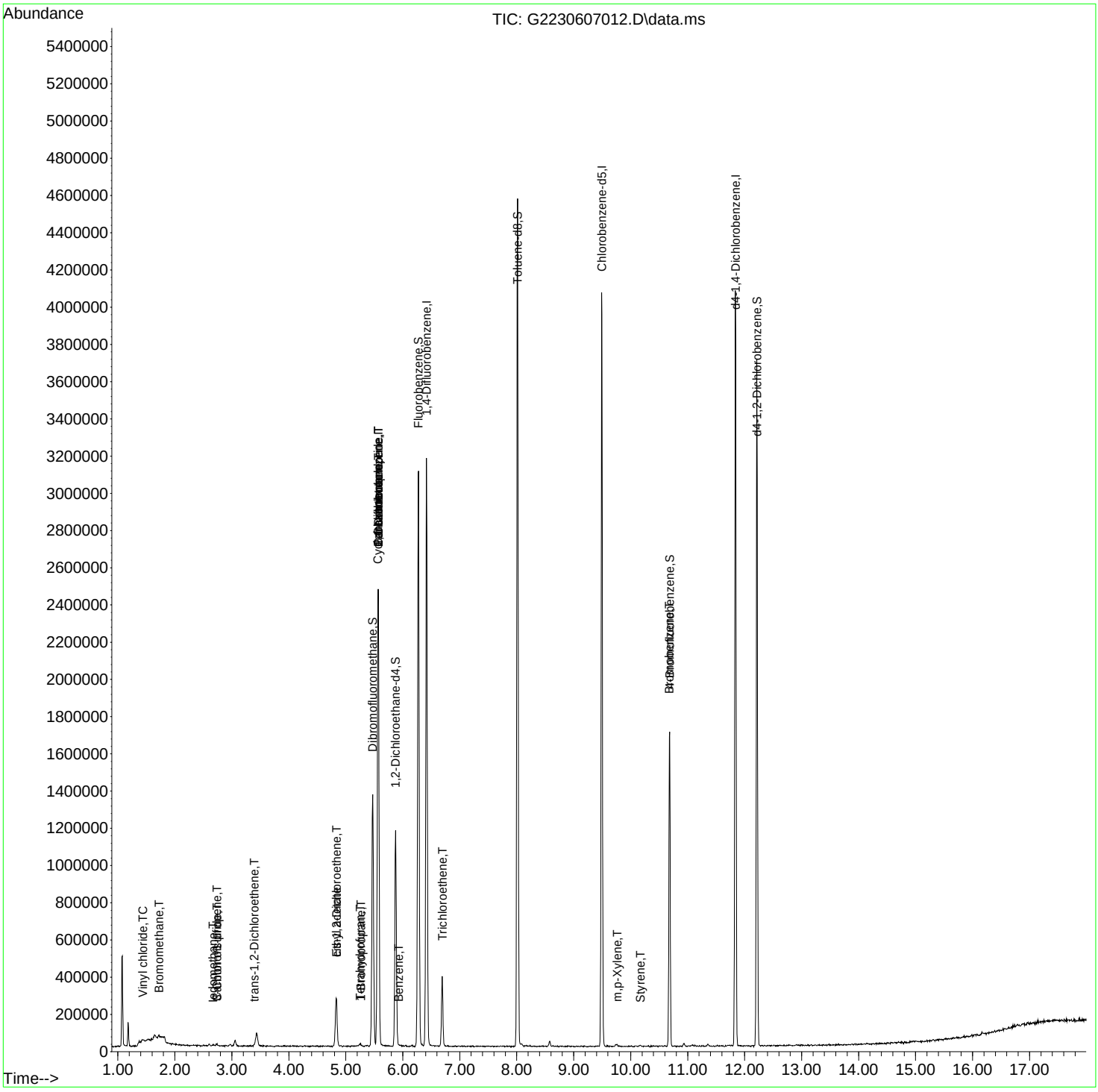
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

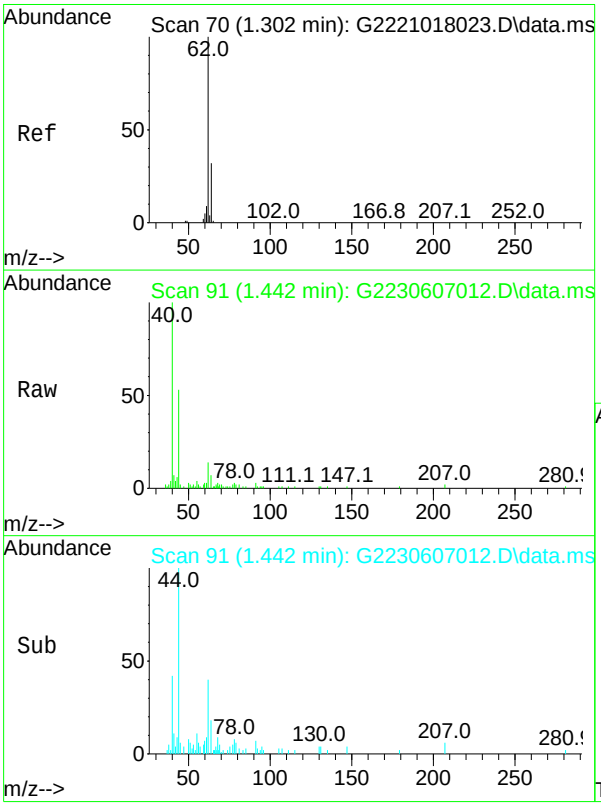
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607012.D
Acq On : 07 Jun 2023 19:25
Operator : PO1
Sample : 23E0775-12RE1
Misc : 200
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 08 09:40:09 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

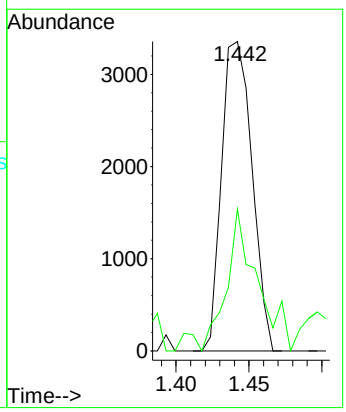


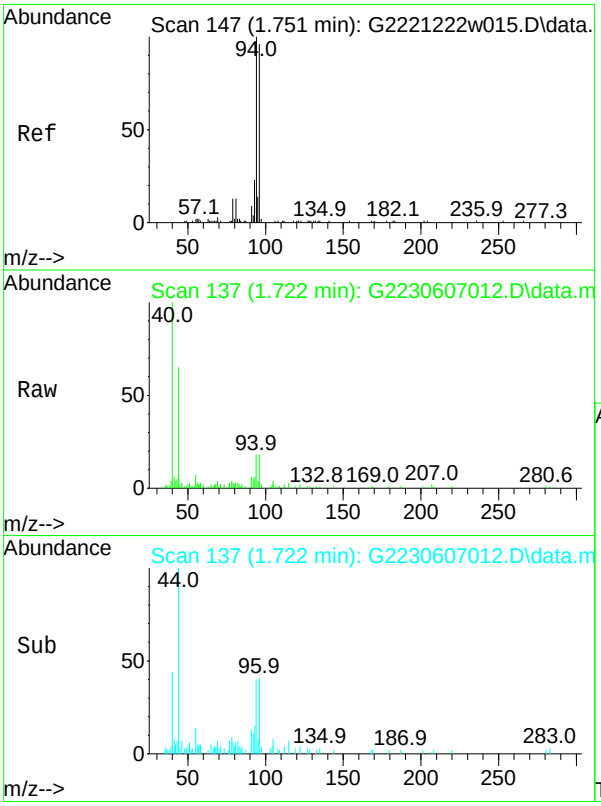


#4
Vinyl chloride
Concen: 0.12 ug/L
RT: 1.443 min Scan# 91
Delta R.T. -0.003 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 62 Resp: 48756

Ion	Ratio	Lower	Upper
62	100		
64	0.0	2.1	62.1#

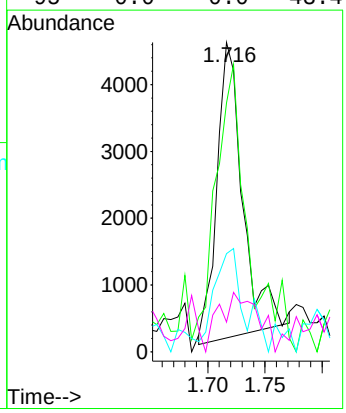


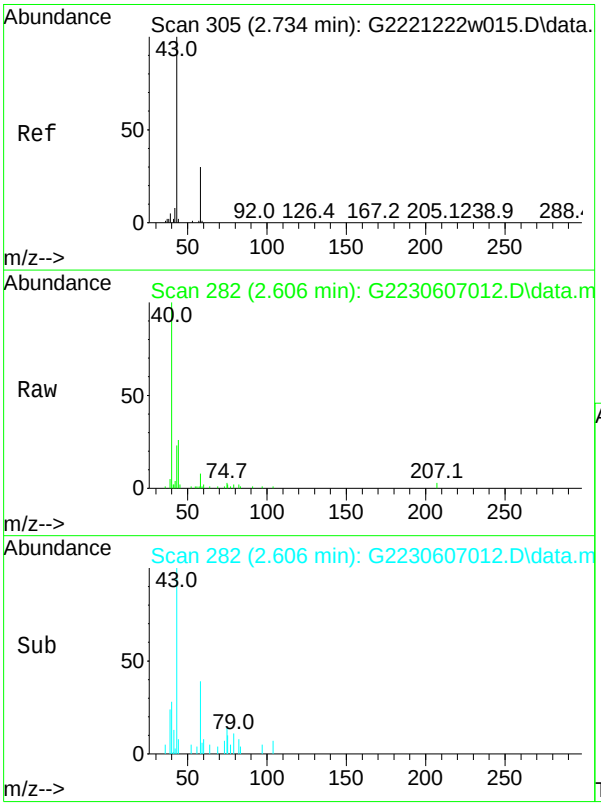


#5
Bromomethane
Concen: 0.00 ug/L
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 94 Resp: 68121

Ion	Ratio	Lower	Upper
94	100		
96	112.5	65.6	125.6
93	46.7	0.0	49.5
95	0.0	0.0	43.4

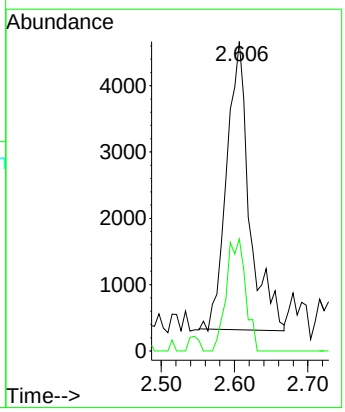


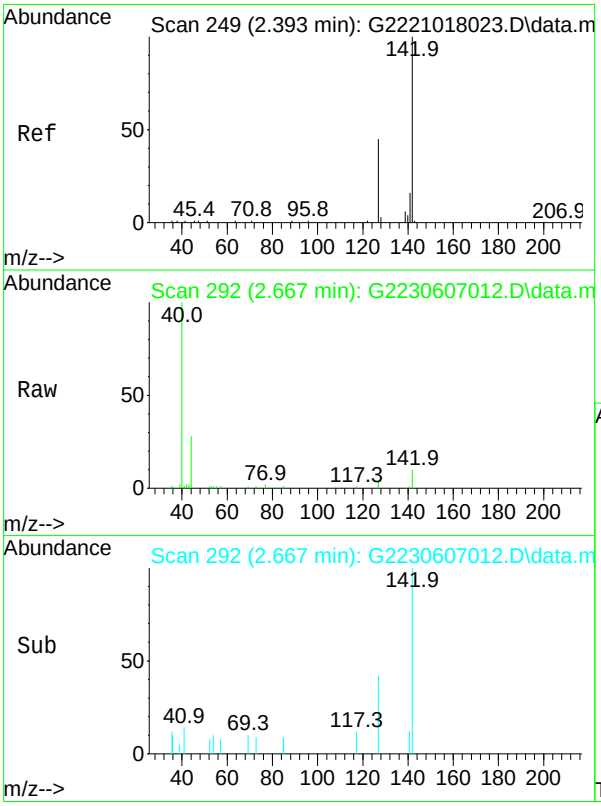


#12
Acetone
Concen: Below Cal
RT: 2.608 min Scan# 282
Delta R.T. 0.000 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 43 Resp: 93520

Ion	Ratio	Lower	Upper
43	100		
58	32.7	0.0	59.7

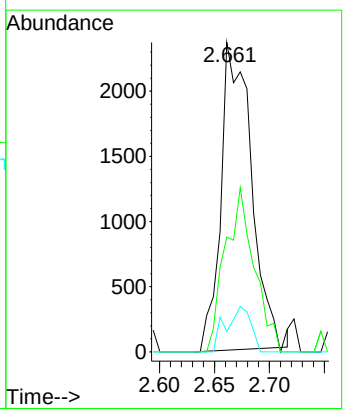


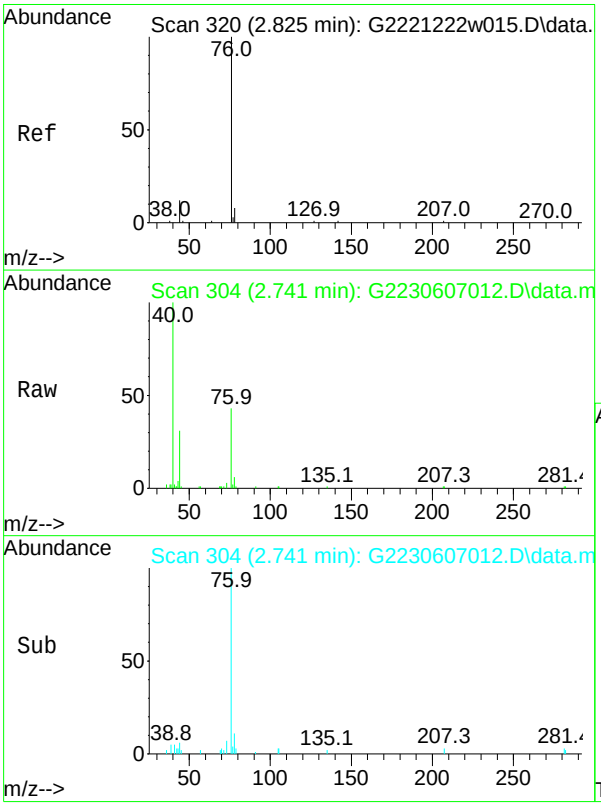


#13
Iodomethane
Concen: 0.10 ug/L
RT: 2.666 min Scan# 292
Delta R.T. -0.010 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion:142 Resp: 44956

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

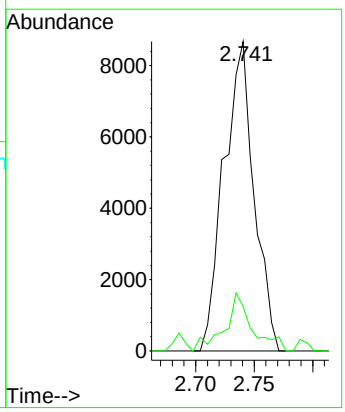


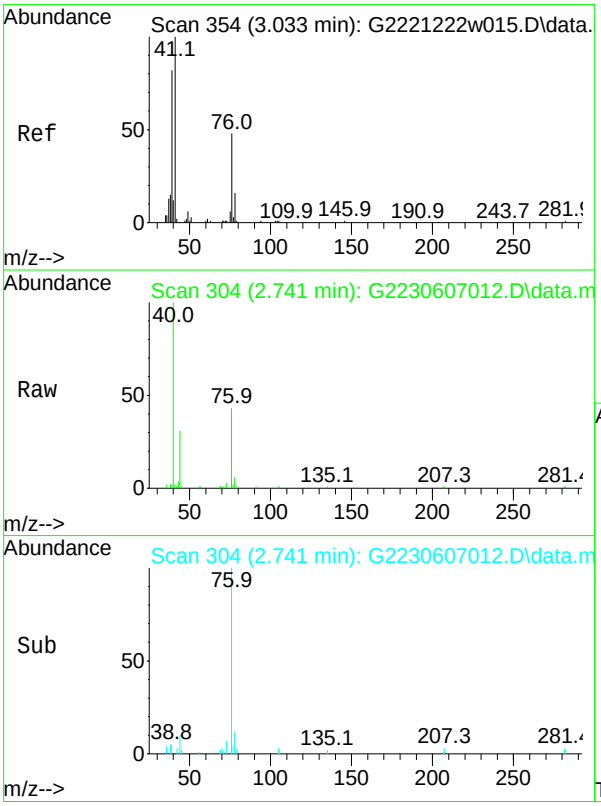


#14
Carbon disulfide
Concen: 0.08 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 76 Resp: 155604

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

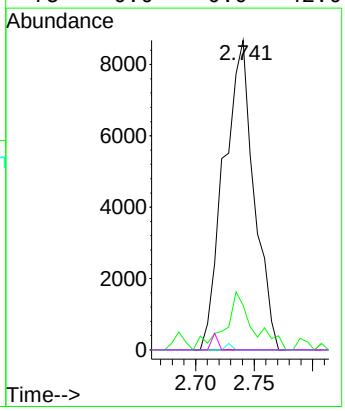


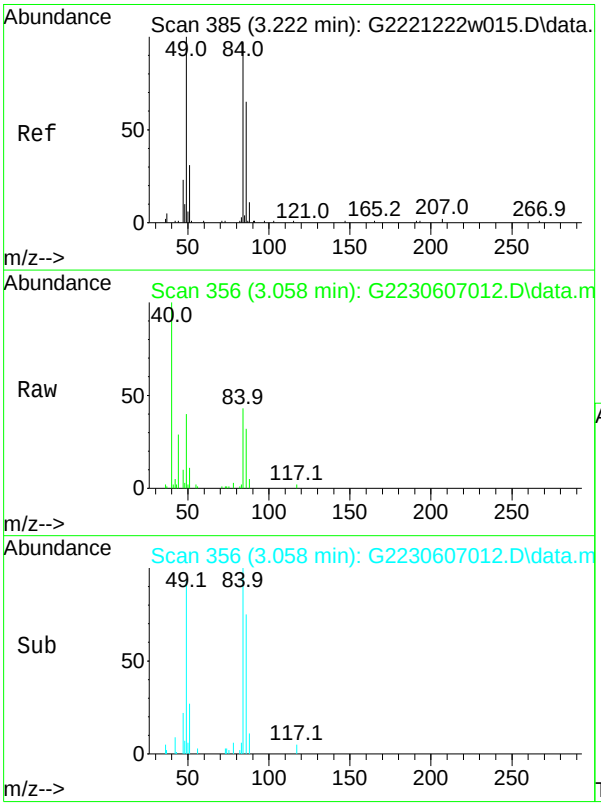


#17
3-Chloro-1-propene
Concen: 0.70 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 76 Resp: 155598

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

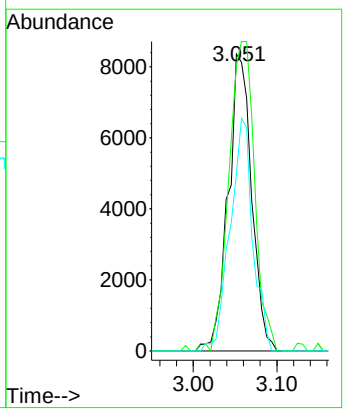


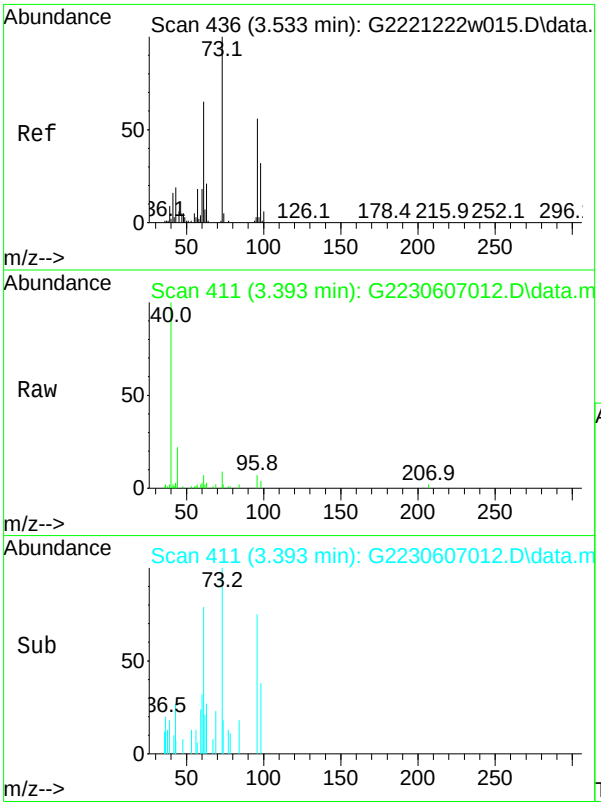


#18
Methylene chloride
Concen: Below Cal
RT: 3.058 min Scan# 356
Delta R.T. -0.004 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 49 Resp: 162641

Ion	Ratio	Lower	Upper
49	100		
84	113.4	57.9	117.9
86	74.3	24.9	84.9

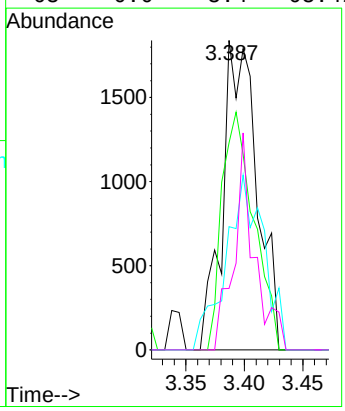


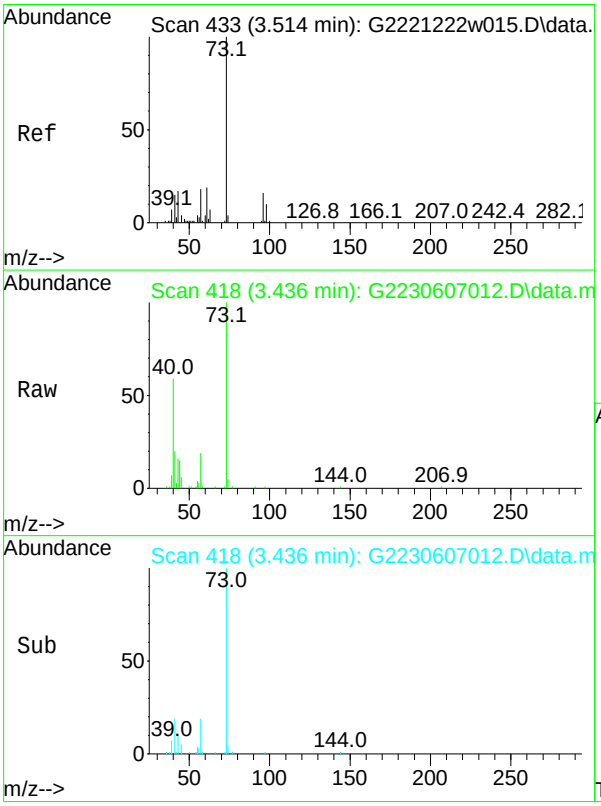


#20
trans-1,2-Dichloroethene
Concen: 0.09 ug/L
RT: 3.391 min Scan# 411
Delta R.T. -0.010 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 61 Resp: 37619

Ion	Ratio	Lower	Upper
61	100		
96	0.0	45.2	105.2#
98	0.0	17.2	77.2#
63	0.0	3.4	63.4#

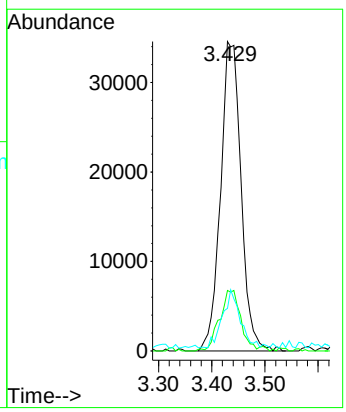


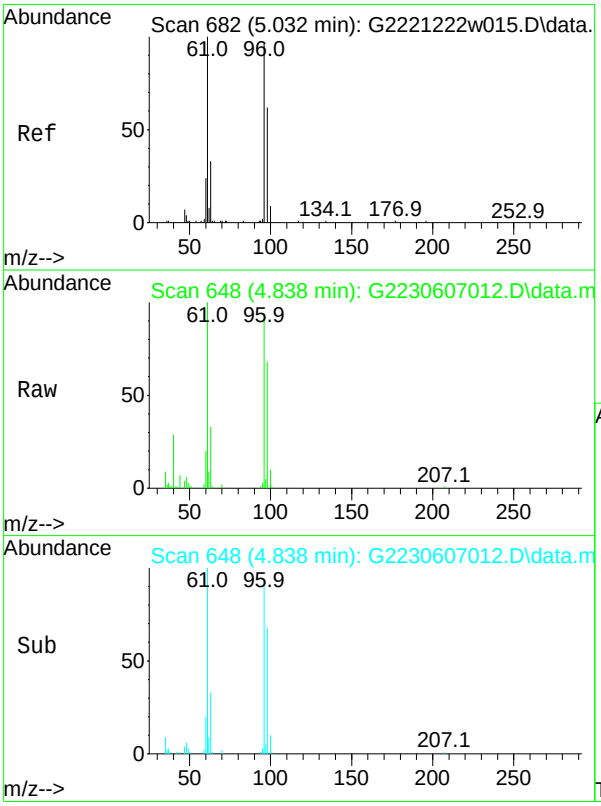


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 73 Resp: 926559

Ion	Ratio	Lower	Upper
73	100		
57	20.0	0.0	51.7
41	16.1	0.0	50.6

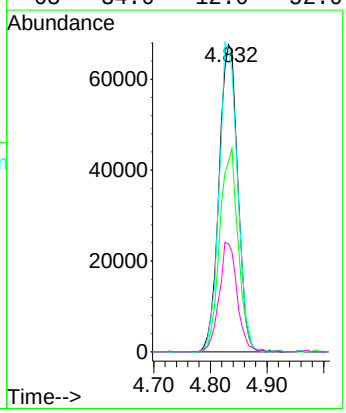


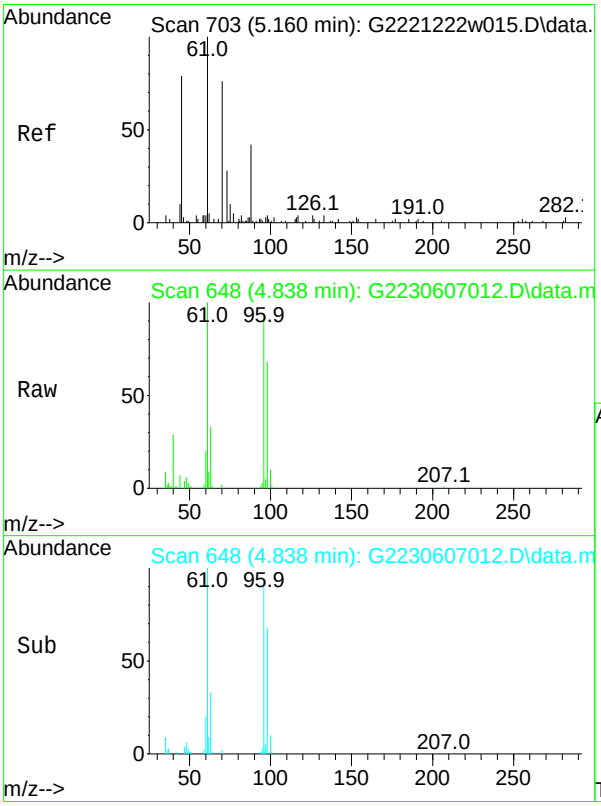


#28
cis-1,2-Dichloroethene
Concen: 3.02 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.001 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 61 Resp: 1549580

Ion	Ratio	Lower	Upper
61	100		
98	65.4	15.9	75.9
96	98.2	39.6	99.6
63	34.0	12.0	52.0

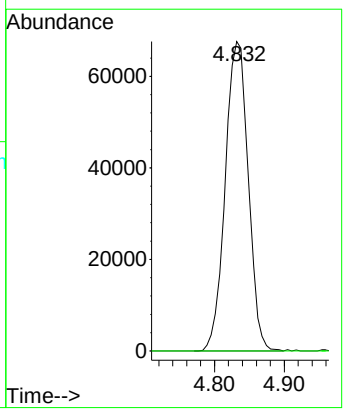


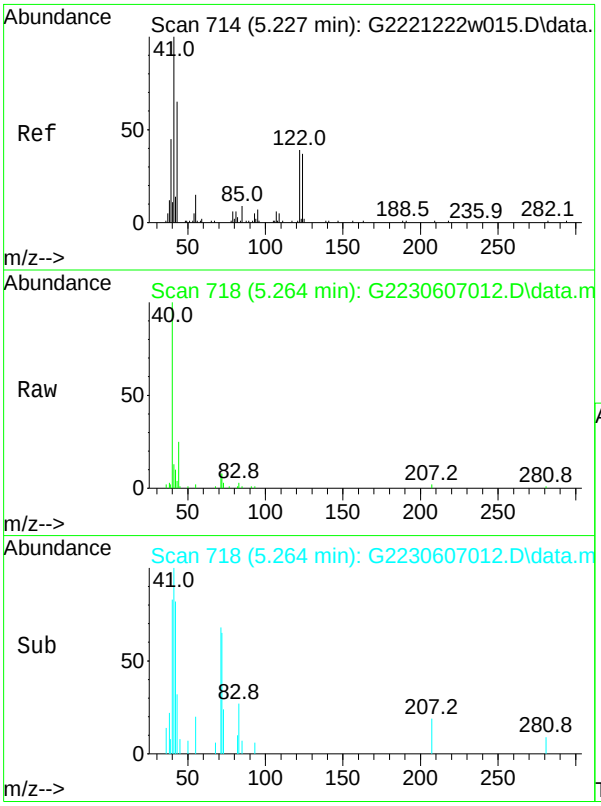


#31
Ethyl acetate
Concen: 26.01 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 61 Resp: 1547712

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

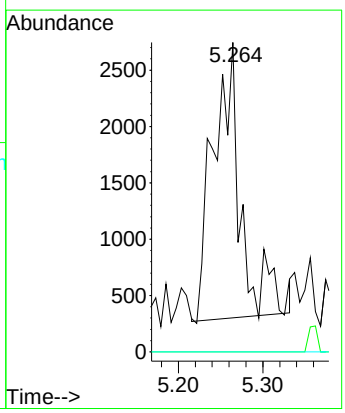


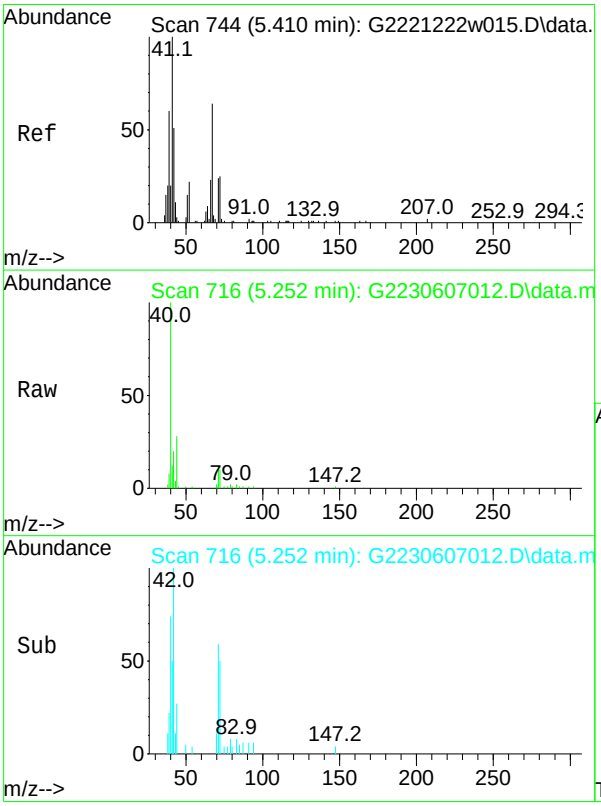


#33
1-Bromopropane
Concen: 0.14 ug/L
RT: 5.266 min Scan# 718
Delta R.T. 0.190 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 41 Resp: 53818

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

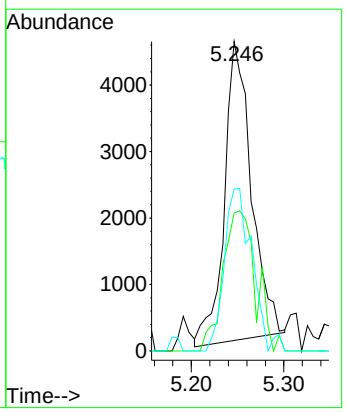


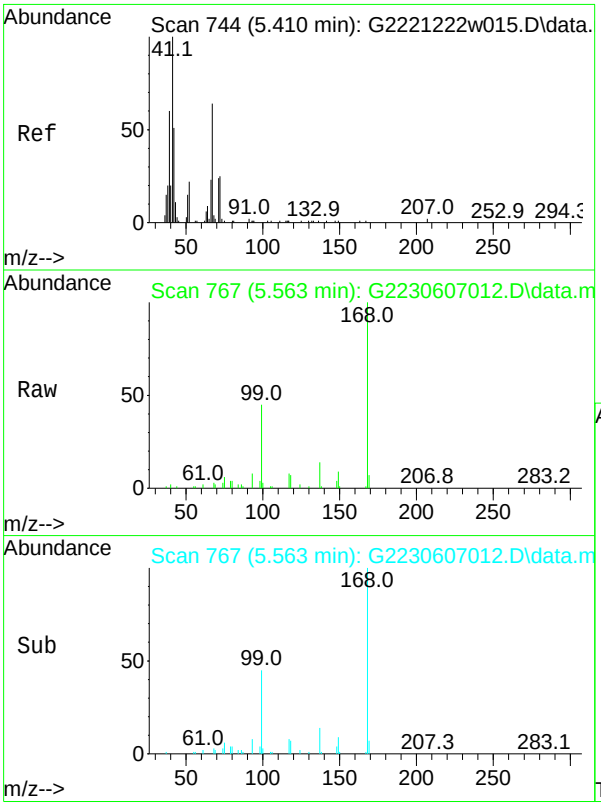


#36
Tetrahydrofuran
Concen: 0.33 ug/L
RT: 5.250 min Scan# 716
Delta R.T. -0.011 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 42 Resp: 90914

Ion	Ratio	Lower	Upper
42	100		
72	56.9	18.8	78.8
71	56.4	14.7	74.7

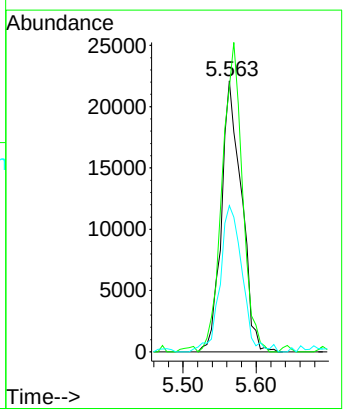


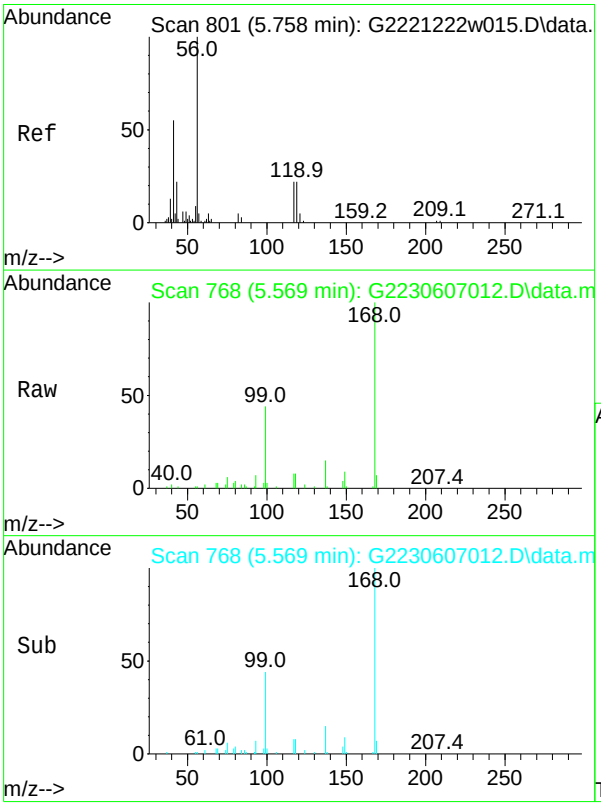


#40
Cyclohexane
Concen: 0.79 ug/L
RT: 5.566 min Scan# 767
Delta R.T. 0.032 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 84 Resp: 422906

Ion	Ratio	Lower	Upper
84	100		
69	116.0	6.8	66.8#
56	61.3	79.1	139.1#

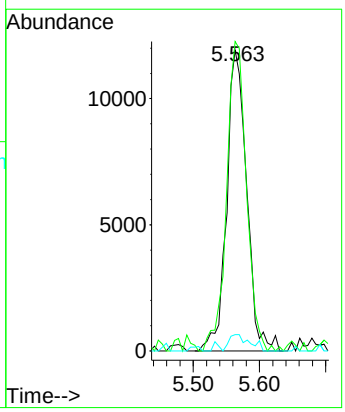


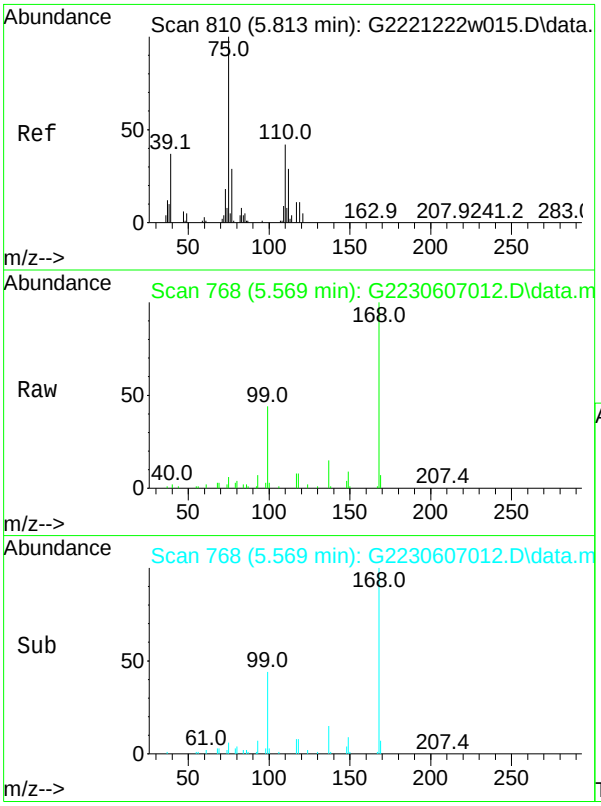


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.566 min Scan# 768
Delta R.T. -0.064 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 56 Resp: 249898

Ion	Ratio	Lower	Upper
56	100		
55	101.6	0.0	41.0#
57	0.0	0.0	35.7

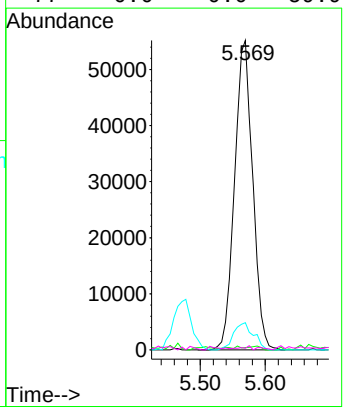


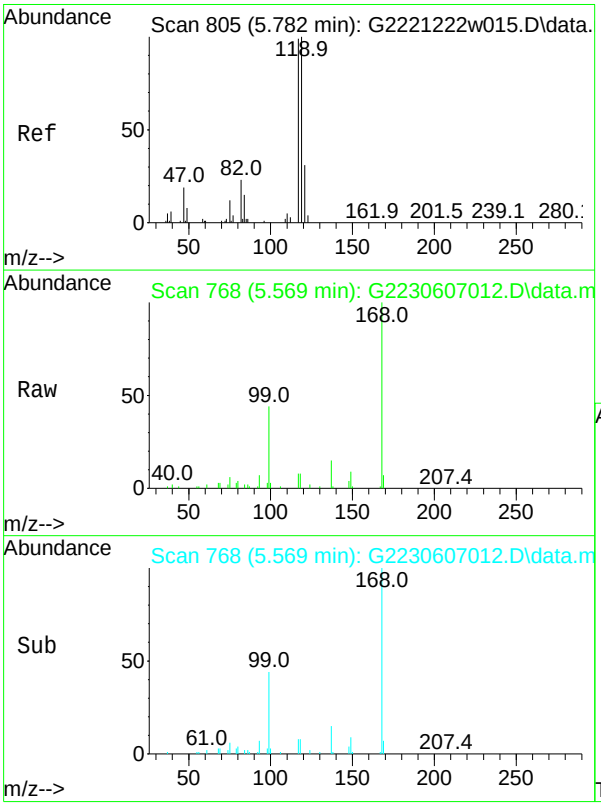


#42
1,1-Dichloropropene
Concen: 2.28 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 75 Resp: 1066115

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	9.7	9.1	69.1
77	0.0	0.0	59.9

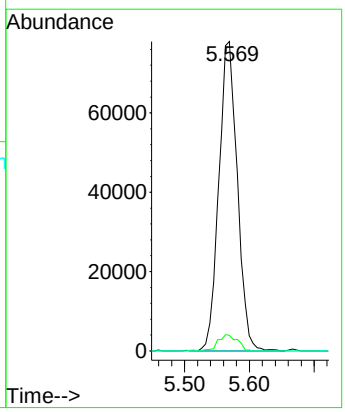


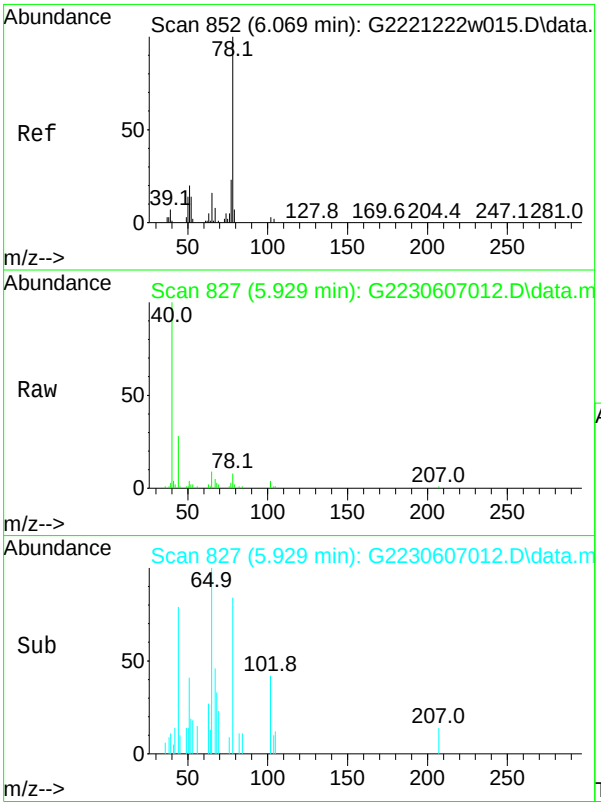


#47
Carbon tetrachloride
Concen: 3.14 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.111 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion:117 Resp: 1547932

Ion	Ratio	Lower	Upper
117	100		
119	5.4	66.4	126.4#
121	0.0	0.4	60.4#

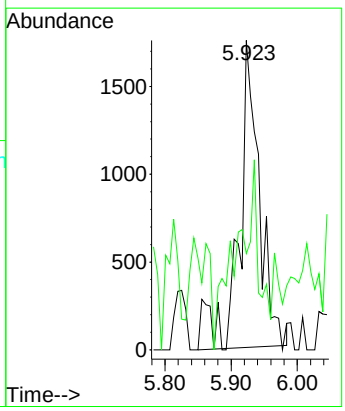


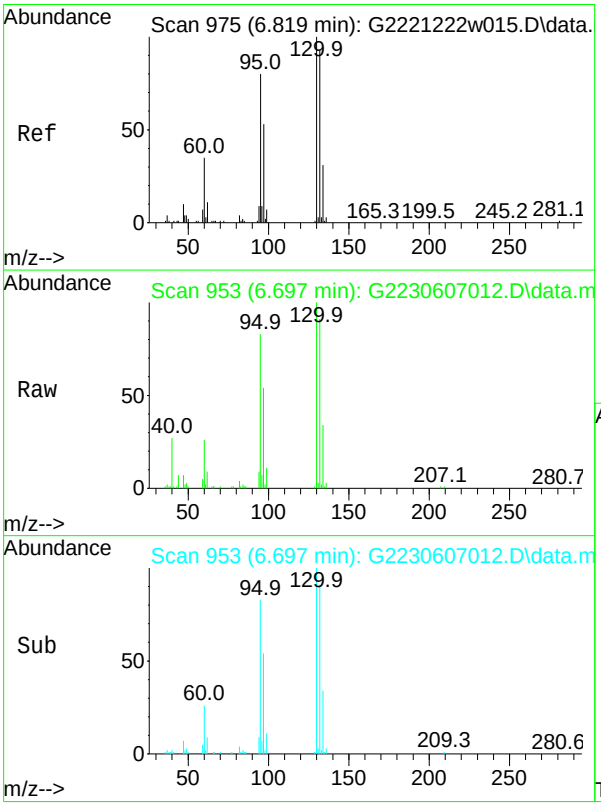


#48
Benzene
Concen: 0.03 ug/L
RT: 5.927 min Scan# 827
Delta R.T. -0.008 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 78 Resp: 36537

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

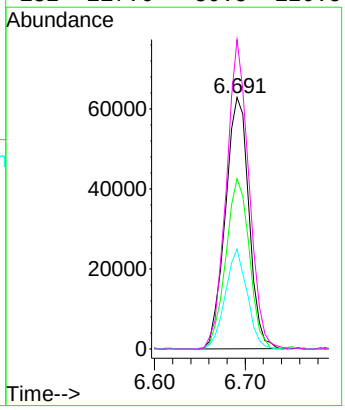


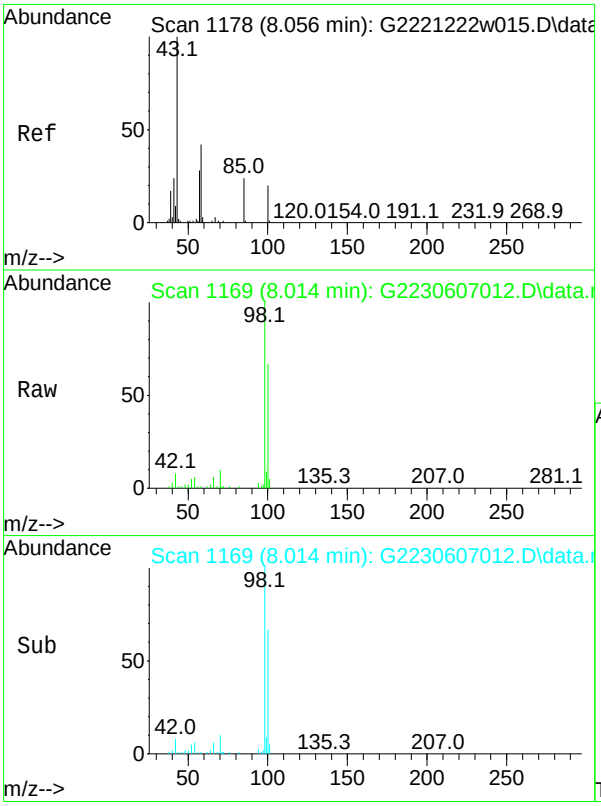


#50
Trichloroethene
Concen: 3.07 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 95 Resp: 1131397

Ion	Ratio	Lower	Upper
95	100		
97	67.3	35.5	95.5
60	37.0	14.8	74.8
132	117.6	80.5	120.5

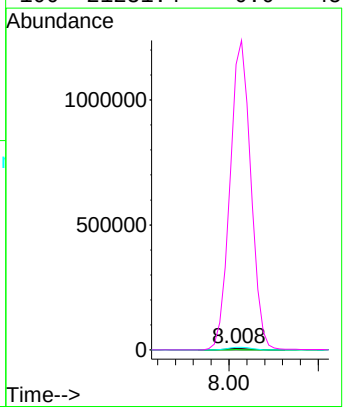


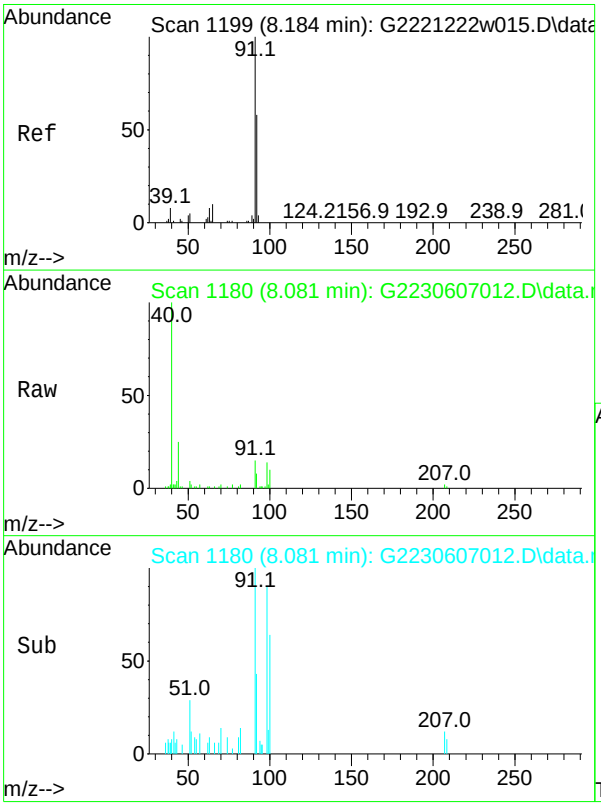


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 43 Resp: 94208

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	198.3	37.0	37.0#
100	21231.4	0.0	45.2#

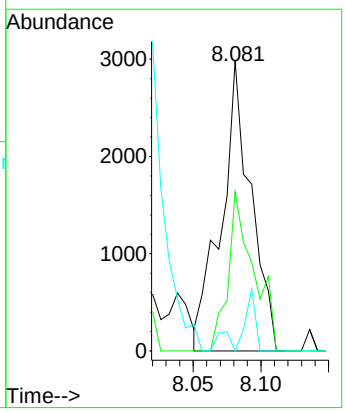


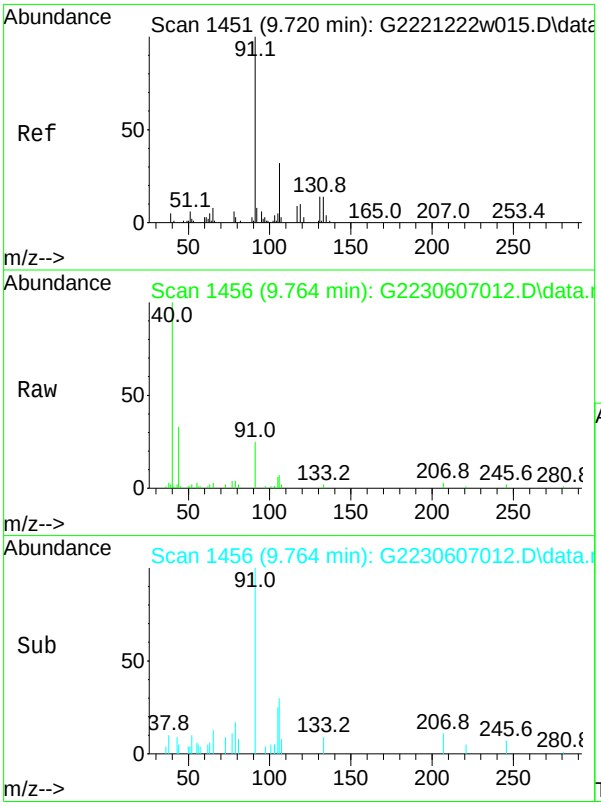


#65
Toluene
Concen: Below Cal
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 91 Resp: 45929

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

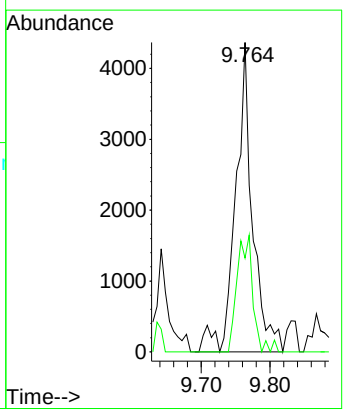


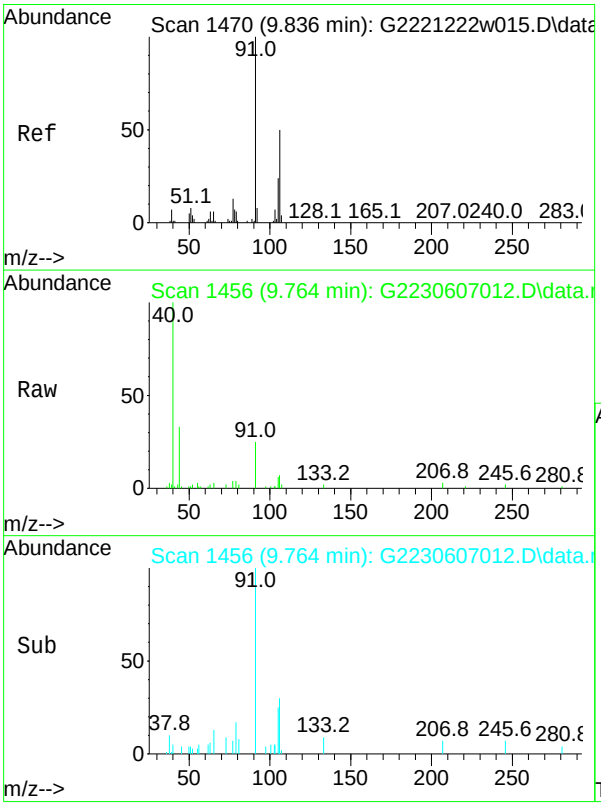


#74
Ethylbenzene
Concen: Below Cal
RT: 9.766 min Scan# 1456
Delta R.T. 0.123 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 91 Resp: 75502

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

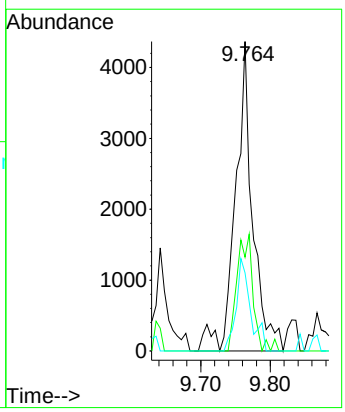


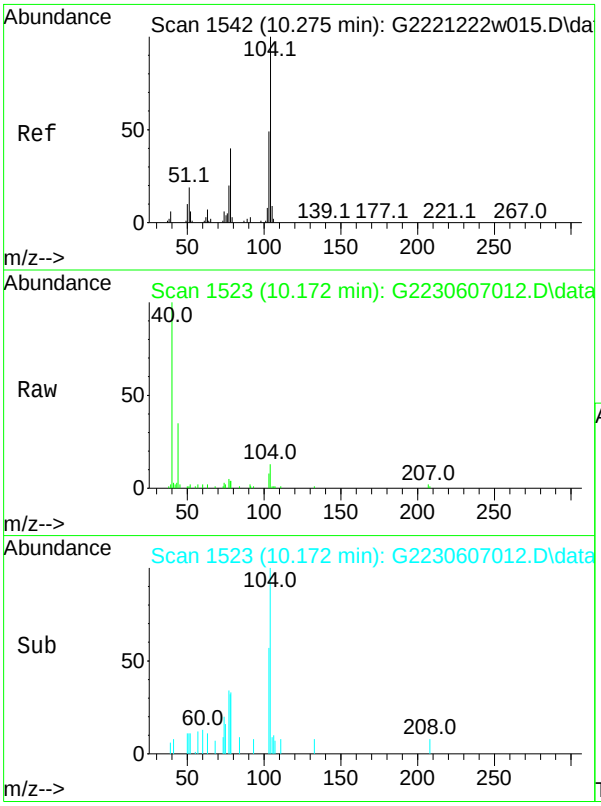


#75
m,p-Xylene
Concen: 0.06 ug/L
RT: 9.765 min Scan# 1456
Delta R.T. 0.001 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 91 Resp: 75431

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

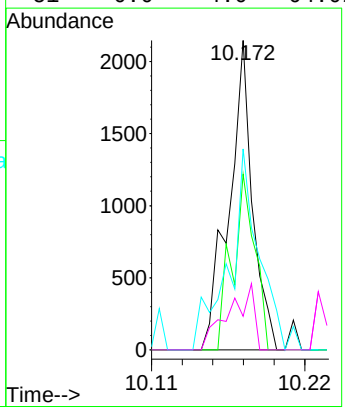


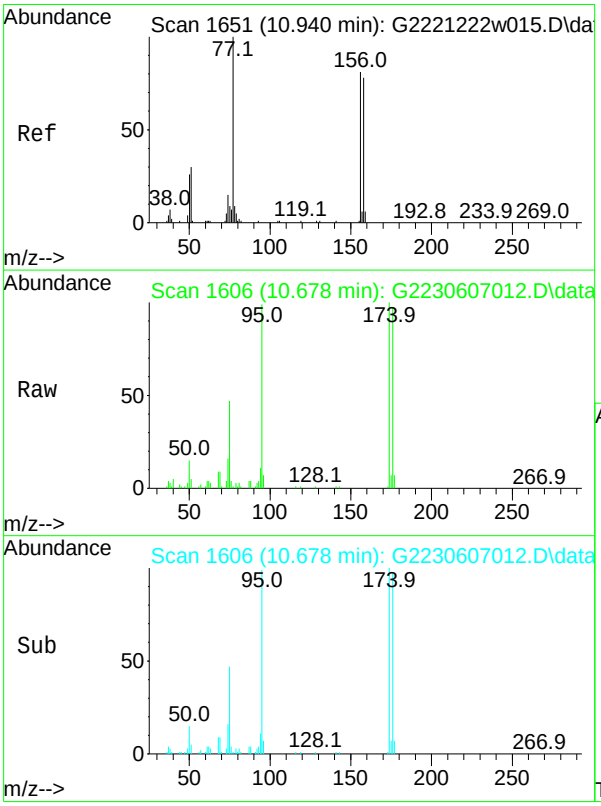


#76
Styrene
Concen: 0.02 ug/L
RT: 10.174 min Scan# 1523
Delta R.T. -0.003 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion:104 Resp: 25681

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

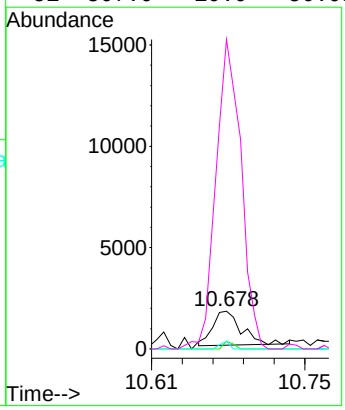


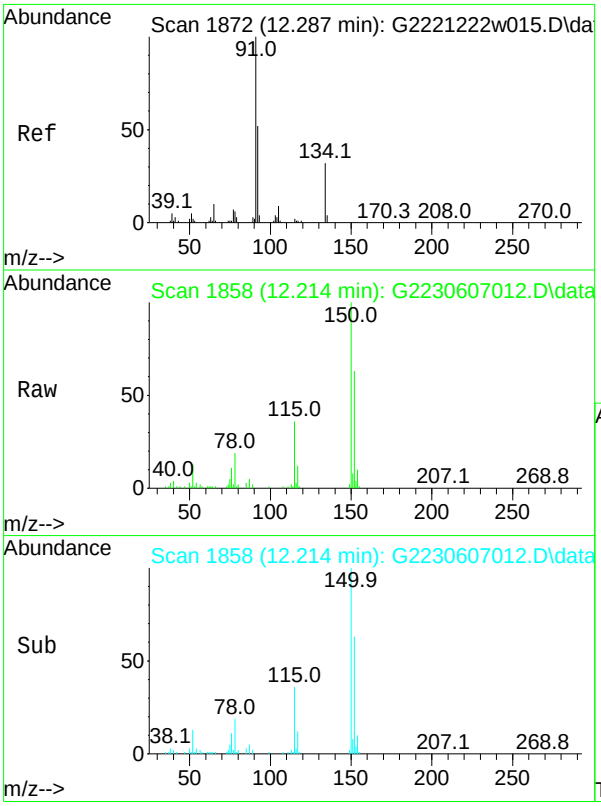


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.679 min Scan# 1606
Delta R.T. -0.149 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 77 Resp: 28938

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	807.9	10.9	50.9#

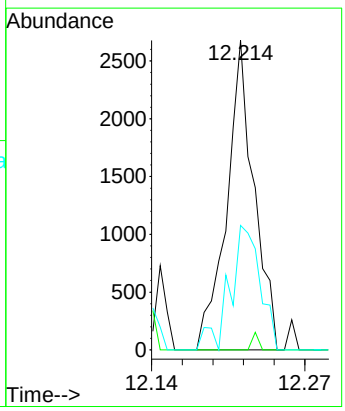




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.217 min Scan# 1858
Delta R.T. -0.014 min
Lab File: G2230607012.D
Acq: 07 Jun 2023 19:25

Tgt Ion: 91 Resp: 42191

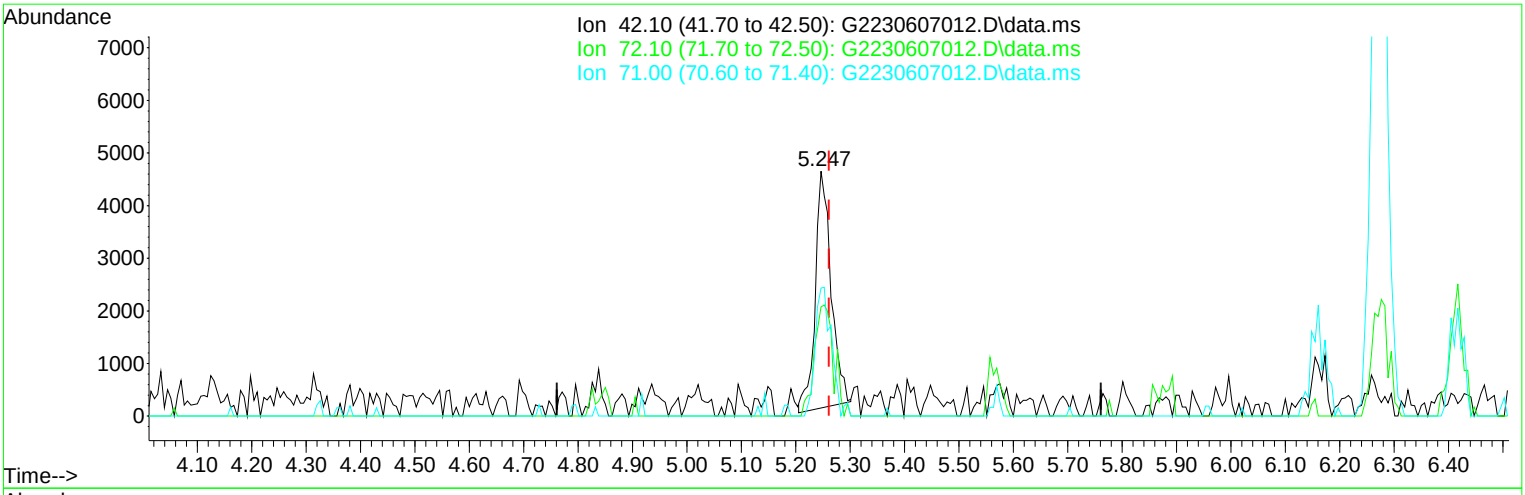
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

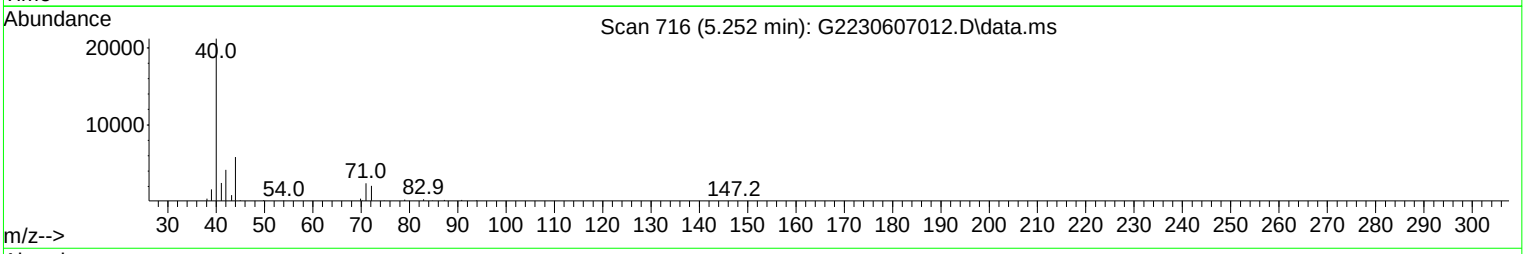


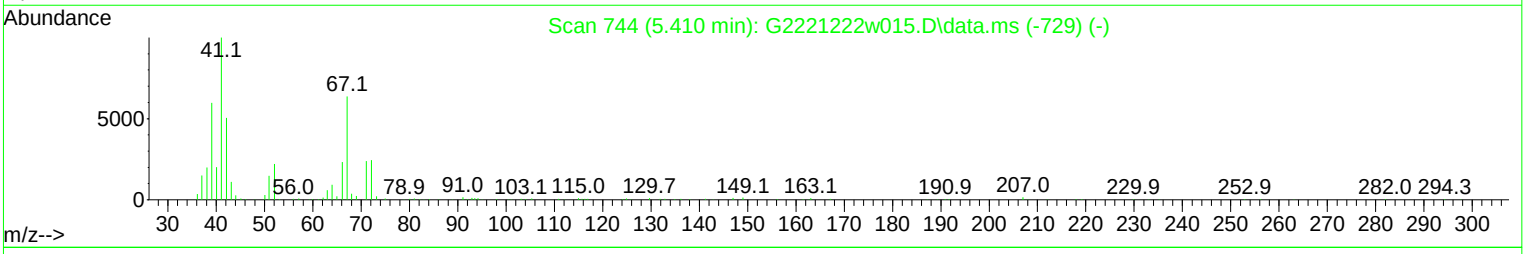
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607012.D
Acq On : 07 Jun 2023 19:25
Operator : PO1
Sample : 23E0775-12RE1
Misc : 200
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 08 09:40:09 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: G2230607012.D\data.ms

(36) Tetrahydrofuran (T)

5.250min (-0.011) 0.33 ug/L

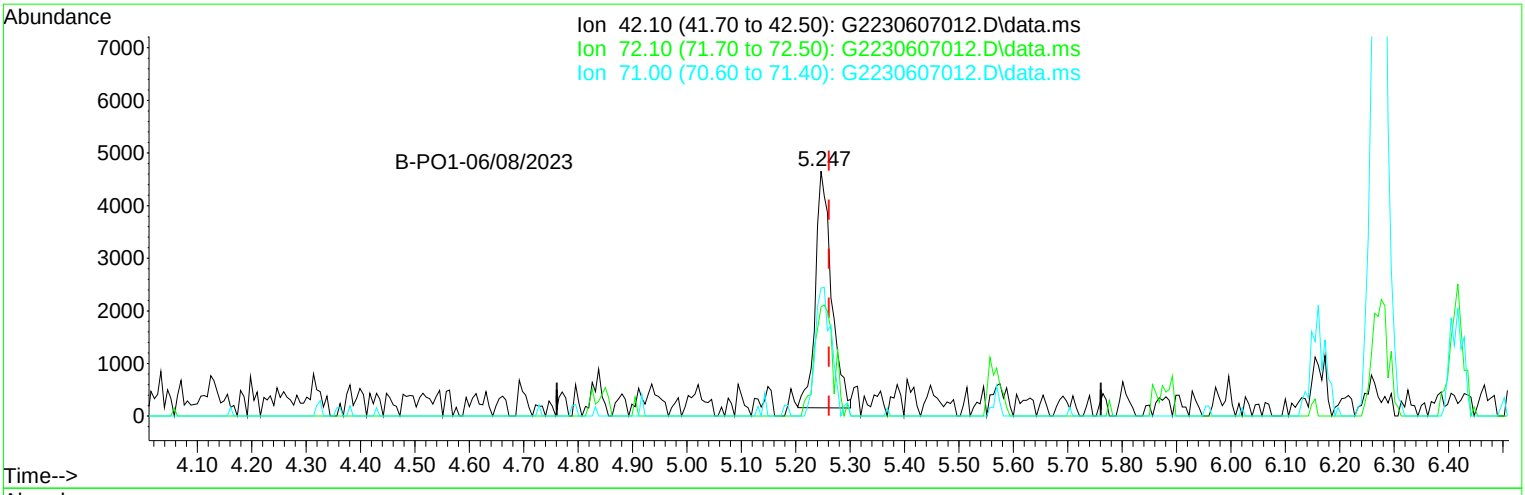
response 90914

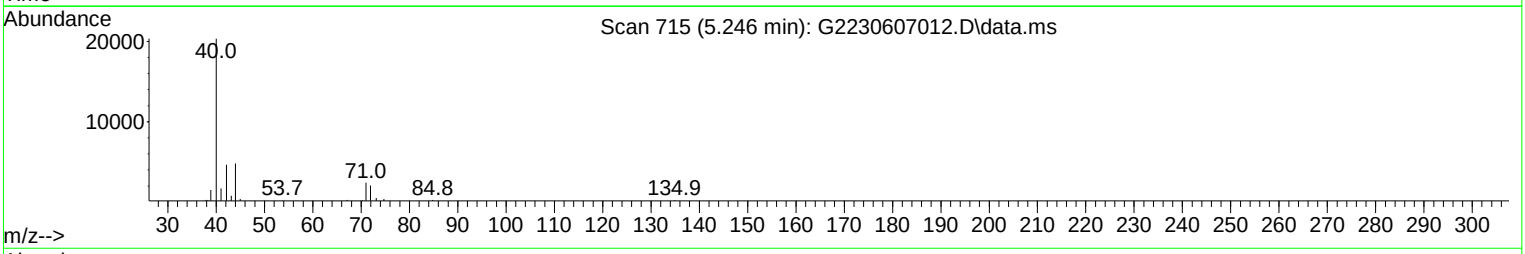
Ion	Exp%	Act%
42.10	100.00	100.00
72.10	48.80	56.92
71.00	44.70	56.37
0.00	0.00	0.00

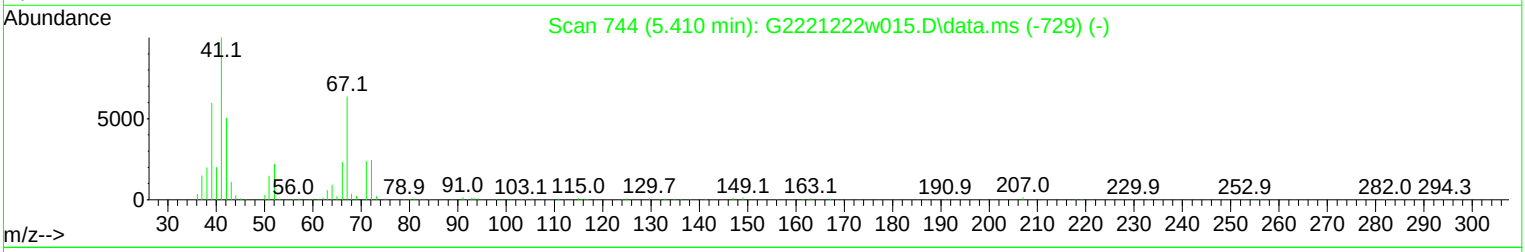
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607012.D
Acq On : 07 Jun 2023 19:25
Operator : PO1
Sample : 23E0775-12RE1
Misc : 200
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 08 09:40:09 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: G2230607012.D\data.ms

(36) Tetrahydrofuran (T)

5.246min (-0.015) 0.33 ug/L m

response 90873

Ion	Exp%	Act%
42.10	100.00	100.00
72.10	48.80	56.94
71.00	44.70	56.39
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12RE2	File ID:	G2230609014.D
Sampled:	05/27/23 17:28	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 14:24
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*26.0*	*80.0*	*200*	*U*
71-55-6	*1,1,1-Trichloroethane*		*35.1*	*80.0*	*200*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*24.8*	*80.0*	*200*	*U*
79-00-5	*1,1,2-Trichloroethane*		*33.3*	*80.0*	*200*	*U*
75-34-3	*1,1-Dichloroethane*		*26.8*	*80.0*	*200*	*U*
75-35-4	*1,1-Dichloroethene*		*38.2*	*80.0*	*200*	*U*
563-58-6	*1,1-Dichloropropene*	*868*	*28.0*	*80.0*	*200*	*D*
87-61-6	*1,2,3-Trichlorobenzene*		*40.8*	*80.0*	*200*	*U*
96-18-4	*1,2,3-Trichloropropane*		*36.5*	*80.0*	*200*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*41.0*	*120*	*240*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*26.4*	*80.0*	*200*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*52.0*	*200*	*400*	*U*
106-93-4	*1,2-Dibromoethane*		*21.2*	*80.0*	*200*	*U*
95-50-1	*1,2-Dichlorobenzene*		*25.2*	*80.0*	*200*	*U*
107-06-2	*1,2-Dichloroethane*		*42.4*	*120*	*240*	*U*
78-87-5	*1,2-Dichloropropane*		*40.9*	*120*	*240*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*20.0*	*80.0*	*200*	*U*
541-73-1	*1,3-Dichlorobenzene*		*29.0*	*80.0*	*200*	*U*
142-28-9	*1,3-Dichloropropane*		*27.2*	*80.0*	*200*	*U*
106-46-7	*1,4-Dichlorobenzene*		*36.8*	*80.0*	*200*	*U*
594-20-7	*2,2-Dichloropropane*		*36.8*	*80.0*	*200*	*U*
78-93-3	*2-Butanone*		*132*	*280*	*700*	*U*
95-49-8	*2-Chlorotoluene*		*29.3*	*80.0*	*200*	*U*
591-78-6	*2-Hexanone*		*28.6*	*280*	*700*	*U*
106-43-4	*4-Chlorotoluene*		*36.8*	*80.0*	*200*	*U*
99-87-6	*4-Isopropyltoluene*		*28.0*	*80.0*	*200*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12RE2	File ID:	G2230609014.D
Sampled:	05/27/23 17:28	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 14:24
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*54.0*	*280*	*700*	*U*
67-64-1	*Acetone*		*207*	*800*	*1600*	*U*
71-43-2	*Benzene*		*20.3*	*80.0*	*200*	*U*
108-86-1	*Bromobenzene*		*33.9*	*80.0*	*200*	*U*
74-97-5	*Bromochloromethane*		*26.8*	*80.0*	*200*	*U*
75-27-4	*Bromodichloromethane*		*21.2*	*80.0*	*200*	*U*
75-25-2	*Bromoform*		*41.3*	*80.0*	*200*	*U*
74-83-9	*Bromomethane*		*64.1*	*200*	*400*	*U*
75-15-0	*Carbon disulfide*		*56.0*	*200*	*400*	*U*
56-23-5	*Carbon tetrachloride*	*1310*	*33.8*	*80.0*	*200*	*D*
108-90-7	*Chlorobenzene*		*26.0*	*80.0*	*200*	*U*
75-00-3	*Chloroethane*		*62.2*	*80.0*	*200*	*U*
67-66-3	*Chloroform*		*40.5*	*120*	*240*	*U*
74-87-3	*Chloromethane*		*76.8*	*200*	*400*	*U*
156-59-2	*cis-1,2-Dichloroethene*	*612*	*41.0*	*120*	*240*	*D*
10061-01-5	*cis-1,3-Dichloropropene*		*23.5*	*80.0*	*200*	*U*
124-48-1	*Dibromochloromethane*		*30.4*	*80.0*	*200*	*U*
74-95-3	*Dibromomethane*		*32.7*	*80.0*	*200*	*U*
75-71-8	*Dichlorodifluoromethane*		*51.8*	*200*	*400*	*U*
100-41-4	*Ethylbenzene*		*12.0*	*40.0*	*80.0*	*U*
87-68-3	*Hexachlorobutadiene*		*40.0*	*80.0*	*200*	*U*
98-82-8	*Isopropylbenzene*		*22.0*	*80.0*	*200*	*U*
179601-23-1	*m,p-Xylene*		*35.6*	*160*	*400*	*U*
1634-04-4	*Methyl tert-butyl ether*		*21.2*	*80.0*	*200*	*U*
75-09-2	*Methylene chloride*		*89.4*	*200*	*400*	*U*
104-51-8	*n-Butylbenzene*		*52.0*	*200*	*400*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52747WW42

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-12RE2	File ID:	G2230609014.D
Sampled:	05/27/23 17:28	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 14:24
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*25.2*	*80.0*	*200*	*U*
91-20-3	*Naphthalene*		*28.0*	*80.0*	*200*	*U*
95-47-6	*o-Xylene*		*16.6*	*80.0*	*200*	*U*
135-98-8	*sec-Butylbenzene*		*23.9*	*80.0*	*200*	*U*
100-42-5	*Styrene*		*18.1*	*40.0*	*80.0*	*U*
98-06-6	*tert-Butylbenzene*		*18.1*	*80.0*	*200*	*U*
127-18-4	Tetrachloroethene		71.3	200	400	U
108-88-3	*Toluene*		*22.9*	*80.0*	*200*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*34.2*	*80.0*	*200*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*23.5*	*80.0*	*200*	*U*
79-01-6	Trichloroethene	624	31.2	80.0	200	D
75-69-4	*Trichlorofluoromethane*		*20.2*	*80.0*	*200*	*U*
75-01-4	*Vinyl chloride*		*51.6*	*200*	*400*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609014.D
Acq On : 09 Jun 2023 14:24
Operator : PO1/MP3
Sample : 23E0775-12RE2
Misc : 400
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 10 09:10:20 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

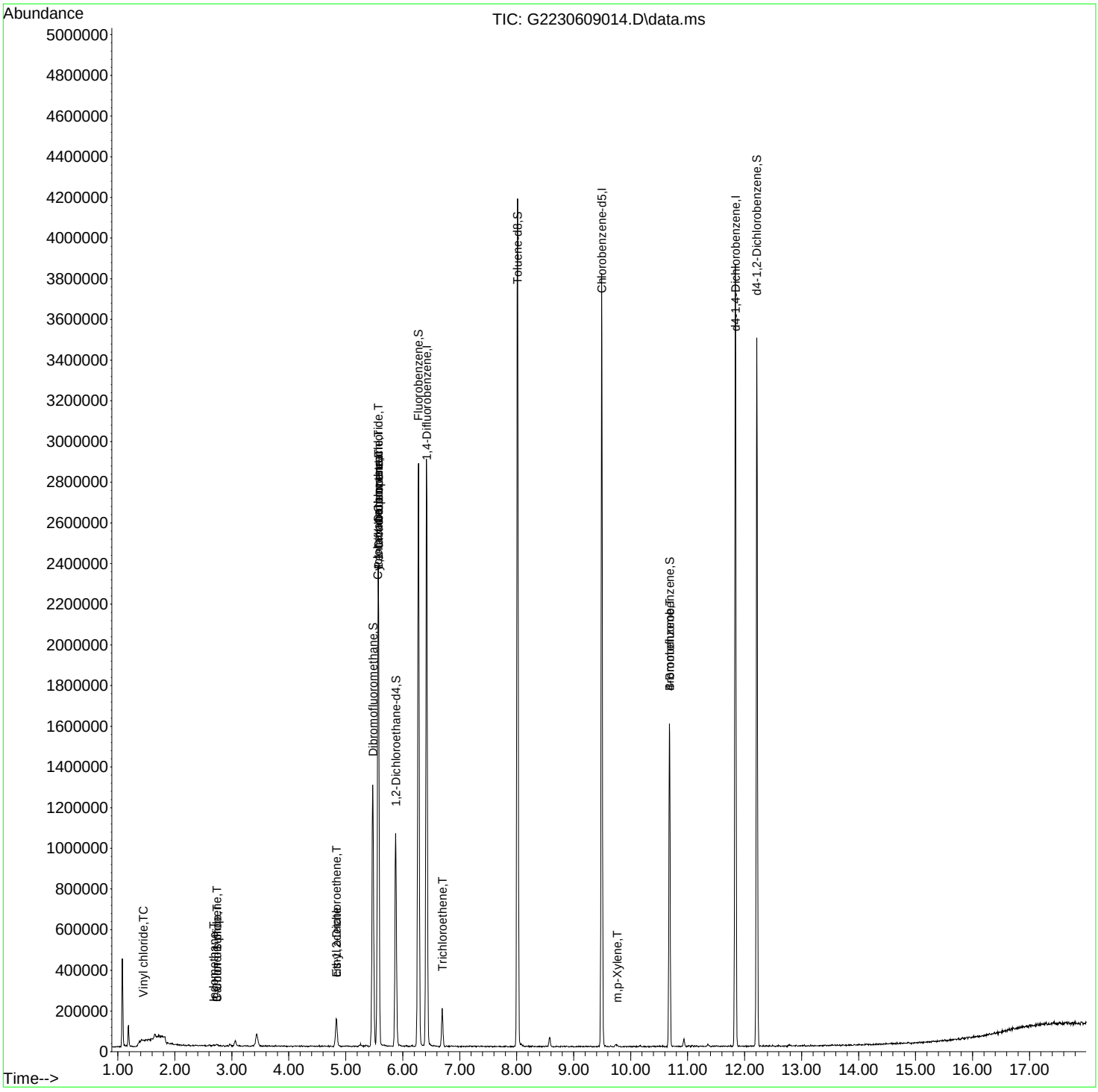
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	18746531	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	25296521	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22371686	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10860917	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	7907624	19.17	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.85%			
43) 1,2-Dichloroethane-d4	5.878	65	7352151	18.03	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.15%			
49) Fluorobenzene	6.277	96	27888209	19.35	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.75%			
64) Toluene-d8	8.016	98	27139211	19.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%			
81) 4-Bromofluorobenzene	10.685	174	5001105	9.75	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.50%			
97) d4-1,2-Dichlorobenzene	12.217	152	9691055	20.75	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.75%			
Target Compounds						Qvalue
4) Vinyl chloride	1.448	62	28392	0.08	ug/L #	43
5) Bromomethane	1.724	94	51055	Below Cal	#	63
12) Acetone	2.603	43	62442	Below Cal	#	45
13) Iodomethane	2.682	142	50828	0.12	ug/L #	41
14) Carbon disulfide	2.741	76	103358	0.03	ug/L #	74
17) 3-Chloro-1-propene	2.741	76	103355	0.47	ug/L #	53
18) Methylene chloride	3.061	49	140880	Below Cal		87
21) Methyl tert-butyl ether	3.438	73	786369	Below Cal		97
28) cis-1,2-Dichloroethene	4.836	61	758614	1.53	ug/L #	69
31) Ethyl acetate	4.836	61	758615	13.46	ug/L #	45
36) Tetrahydrofuran	5.258	42	50587	Below Cal	#	58
40) Cyclohexane	5.566	84	399388	0.79	ug/L #	32
41) 1-Chlorobutane	5.571	56	232283	0.40	ug/L #	1
42) 1,1-Dichloropropene	5.573	75	955541	2.17	ug/L #	38
47) Carbon tetrachloride	5.571	117	1497352	3.28	ug/L #	16
50) Trichloroethene	6.694	95	544570	1.56	ug/L	90
60) 4-Methyl-2-pentanone	8.015	43	92582	Below Cal	#	1
65) Toluene	8.081	91	24422	Below Cal	#	30
74) Ethylbenzene	9.761	91	39113	Below Cal	#	44
75) m,p-Xylene	9.761	91	39110	0.03	ug/L #	36
82) Bromobenzene	10.681	77	28873	0.05	ug/L #	1
99) n-Butylbenzene	12.216	91	40114	Below Cal	#	53

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609014.D
Acq On : 09 Jun 2023 14:24
Operator : PO1/MP3
Sample : 23E0775-12RE2
Misc : 400
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 10 09:10:20 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609014.D
Acq On : 09 Jun 2023 14:24
Operator : PO1/MP3
Sample : 23E0775-12RE2
Misc : 400
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 10 09:10:20 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

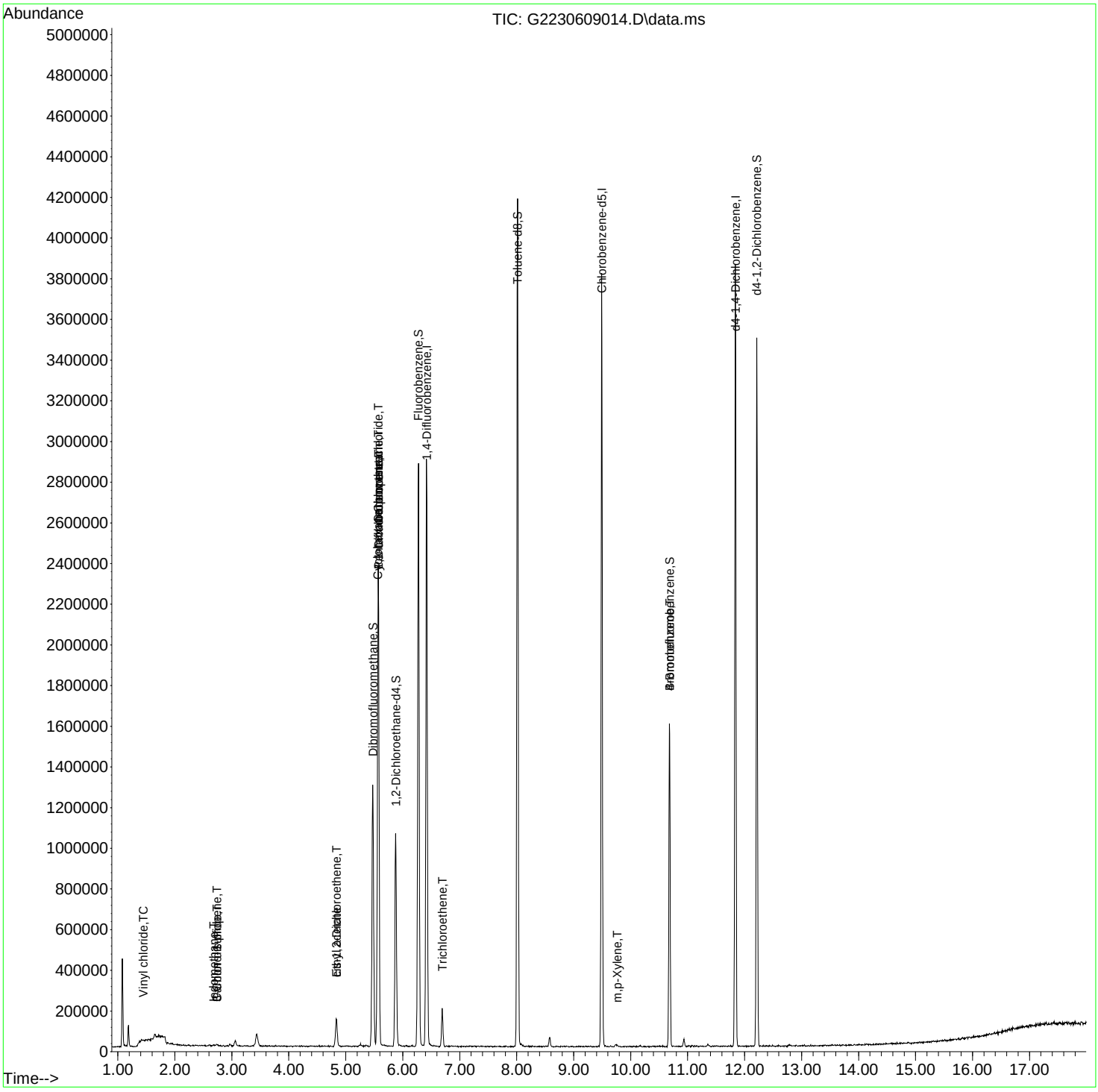
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.573	168	18746531	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	25296521	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22371686	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10860917	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.476	111	7907624	19.17	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.85%				
43) 1,2-Dichloroethane-d4	5.878	65	7352151	18.03	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.15%				
49) Fluorobenzene	6.277	96	27888209	19.35	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.75%				
64) Toluene-d8	8.016	98	27139211	19.25	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%				
81) 4-Bromofluorobenzene	10.685	174	5001105	9.75	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.50%				
97) d4-1,2-Dichlorobenzene	12.217	152	9691055	20.75	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.75%				
Target Compounds							Qvalue
4) Vinyl chloride	1.448	62	28392	0.08	ug/L	#	43
5) Bromomethane	1.724	94	51055	Below Cal		#	63
12) Acetone	2.603	43	62442	Below Cal		#	45
13) Iodomethane	2.682	142	50828	0.12	ug/L	#	41
14) Carbon disulfide	2.741	76	103358	0.03	ug/L	#	74
17) 3-Chloro-1-propene	2.741	76	103355	0.47	ug/L	#	53
18) Methylene chloride	3.061	49	140880	Below Cal			87
21) Methyl tert-butyl ether	3.438	73	786369	Below Cal			97
28) cis-1,2-Dichloroethene	4.836	61	758614	1.53	ug/L	#	69
31) Ethyl acetate	4.836	61	758615	13.46	ug/L	#	45
36) Tetrahydrofuran	5.258	42	50587	Below Cal		#	58
40) Cyclohexane	5.566	84	399388	0.79	ug/L	#	32
41) 1-Chlorobutane	5.571	56	232283	0.40	ug/L	#	1
42) 1,1-Dichloropropene	5.573	75	955541	2.17	ug/L	#	38
47) Carbon tetrachloride	5.571	117	1497352	3.28	ug/L	#	16
50) Trichloroethene	6.694	95	544570	1.56	ug/L		90
60) 4-Methyl-2-pentanone	8.015	43	92582	Below Cal		#	1
65) Toluene	8.081	91	24422	Below Cal		#	30
74) Ethylbenzene	9.761	91	39113	Below Cal		#	44
75) m,p-Xylene	9.761	91	39110	0.03	ug/L	#	36
82) Bromobenzene	10.681	77	28873	0.05	ug/L	#	1
99) n-Butylbenzene	12.216	91	40114	Below Cal		#	53

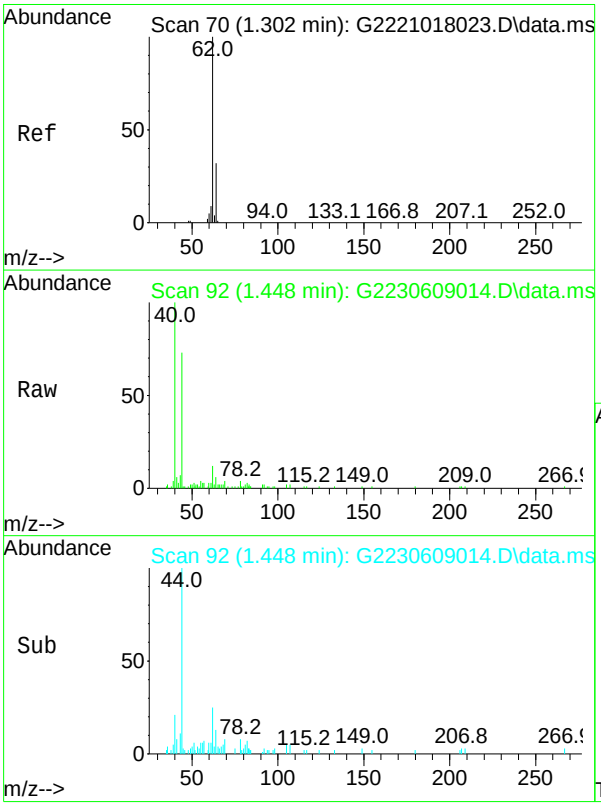
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609014.D
Acq On : 09 Jun 2023 14:24
Operator : PO1/MP3
Sample : 23E0775-12RE2
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ALS Vial : 14 Sample Multiplier: 1

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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

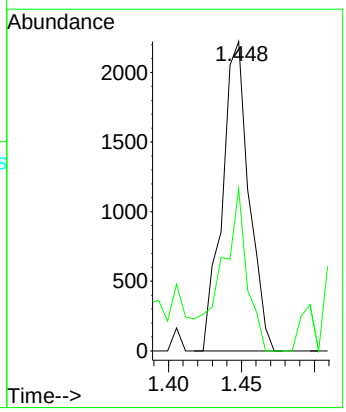


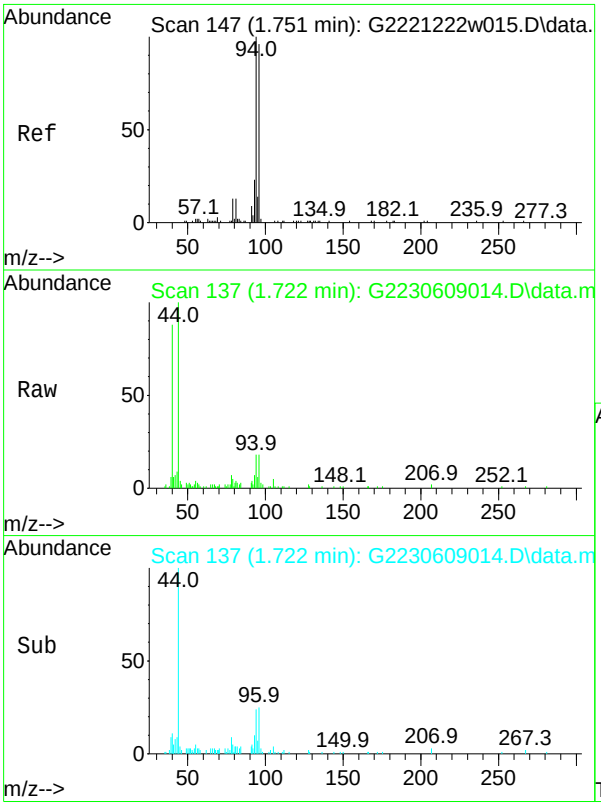


#4
Vinyl chloride
Concen: 0.08 ug/L
RT: 1.448 min Scan# 92
Delta R.T. 0.002 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 62 Resp: 28392

Ion	Ratio	Lower	Upper
62	100		
64	0.0	2.1	62.1#

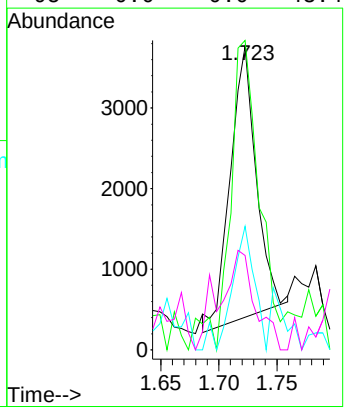


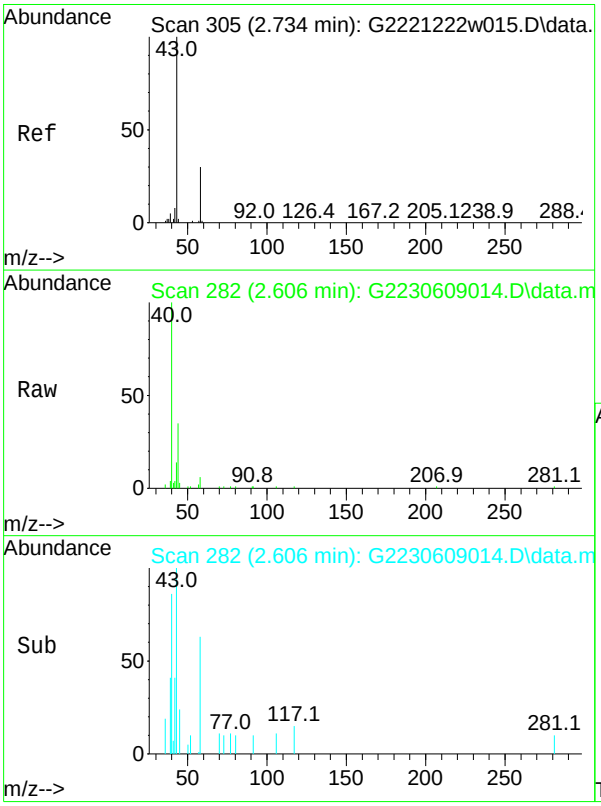


#5
Bromomethane
Concen: Below Cal
RT: 1.724 min Scan# 137
Delta R.T. 0.010 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 94 Resp: 51055

Ion	Ratio	Lower	Upper
94	100		
96	131.2	65.6	125.6#
93	0.0	0.0	49.5
95	0.0	0.0	43.4

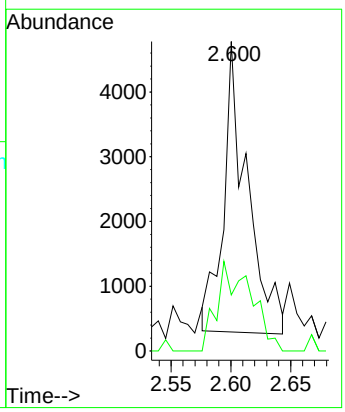


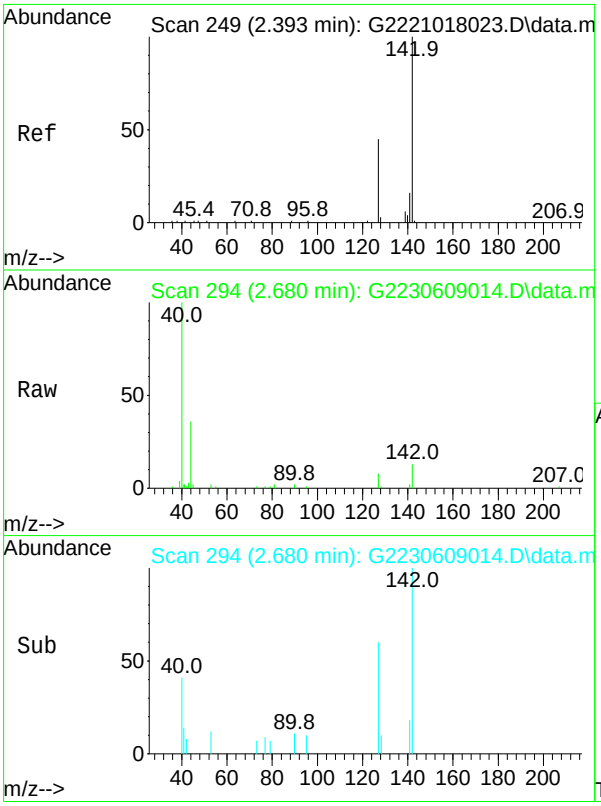


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 282
Delta R.T. -0.005 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 43 Resp: 62442

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

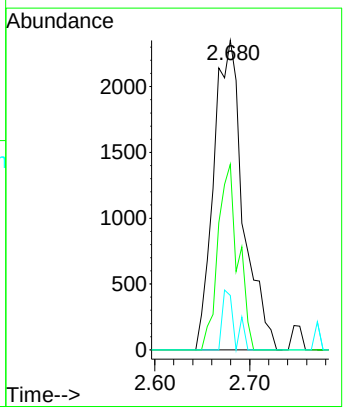


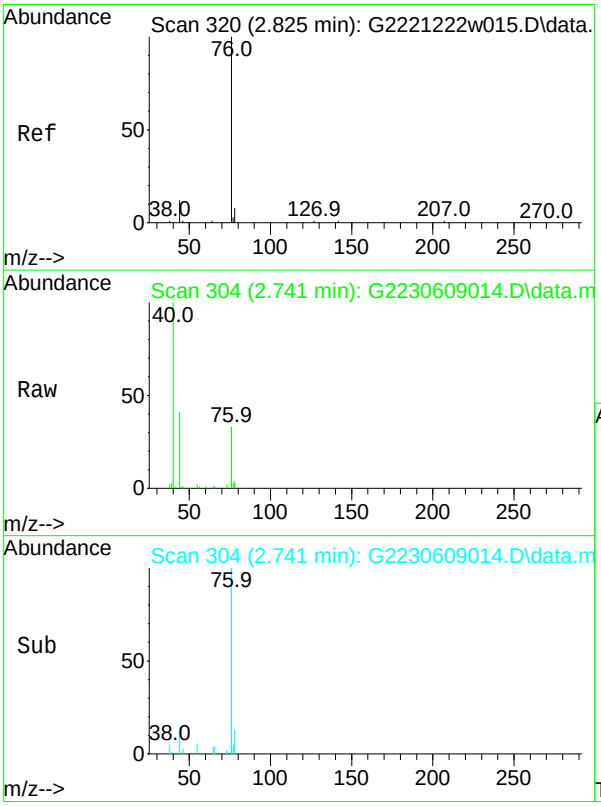


#13
Iodomethane
Concen: 0.12 ug/L
RT: 2.682 min Scan# 294
Delta R.T. 0.006 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion:142 Resp: 50828

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

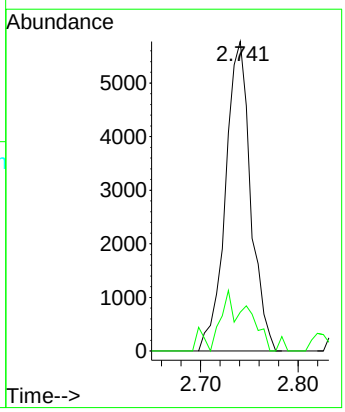


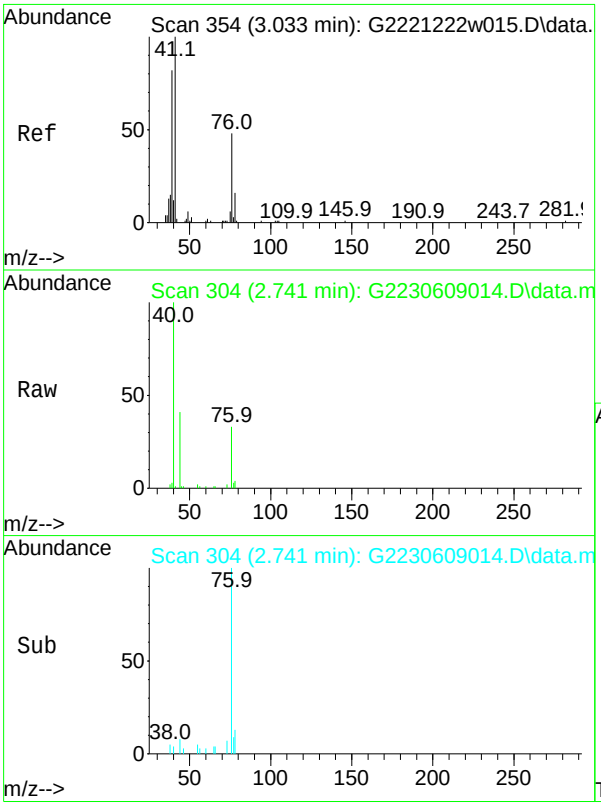


#14
Carbon disulfide
Concen: 0.03 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 76 Resp: 103358

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

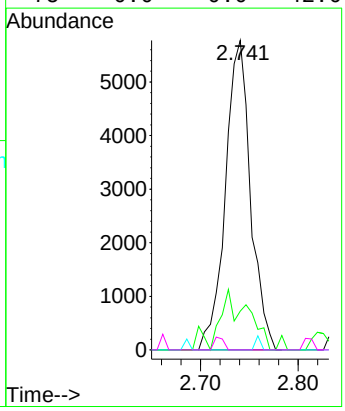


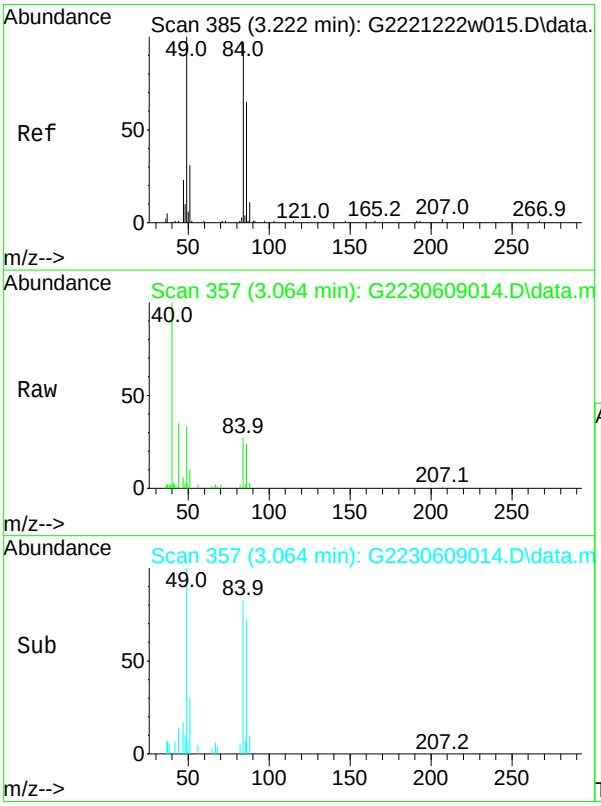


#17
3-Chloro-1-propene
Concen: 0.47 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 76 Resp: 103355

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

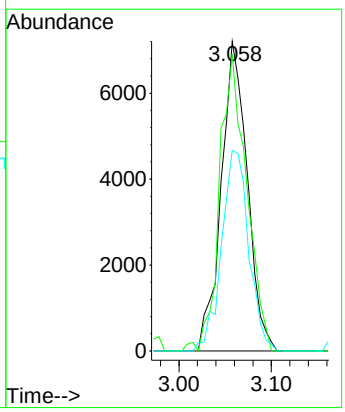


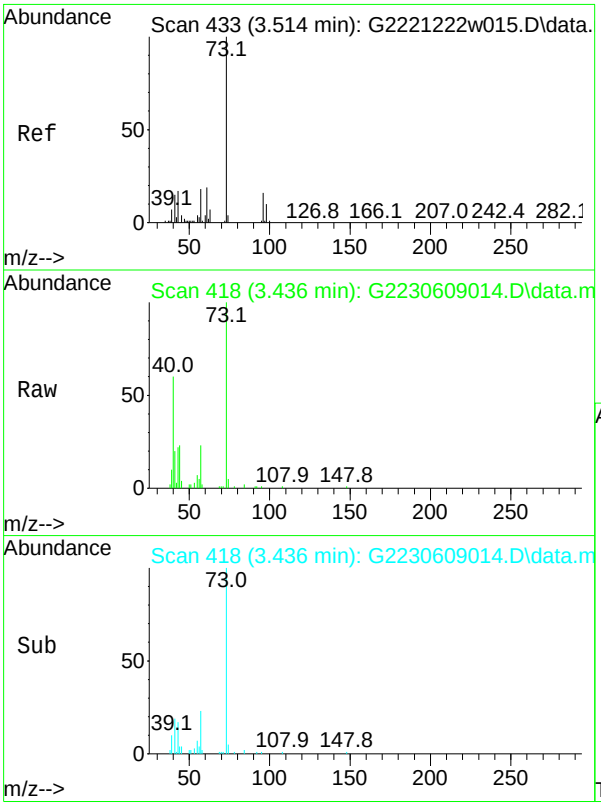


#18
Methylene chloride
Concen: Below Cal
RT: 3.061 min Scan# 357
Delta R.T. -0.001 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 49 Resp: 140880

Ion	Ratio	Lower	Upper
49	100		
84	98.0	57.9	117.9
86	67.6	24.9	84.9

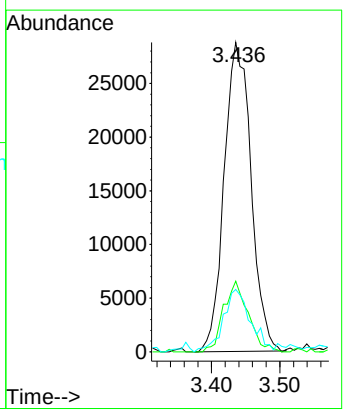


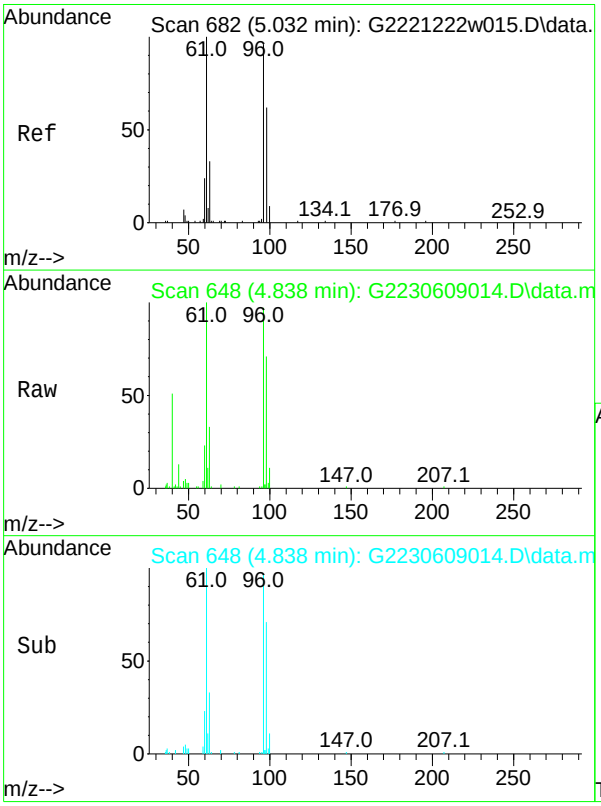


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.438 min Scan# 418
Delta R.T. -0.008 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 73 Resp: 786369

Ion	Ratio	Lower	Upper
73	100		
57	21.1	0.0	51.7
41	18.4	0.0	50.6

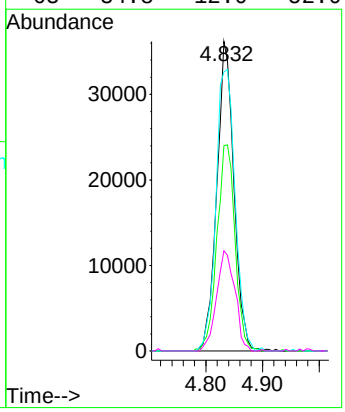


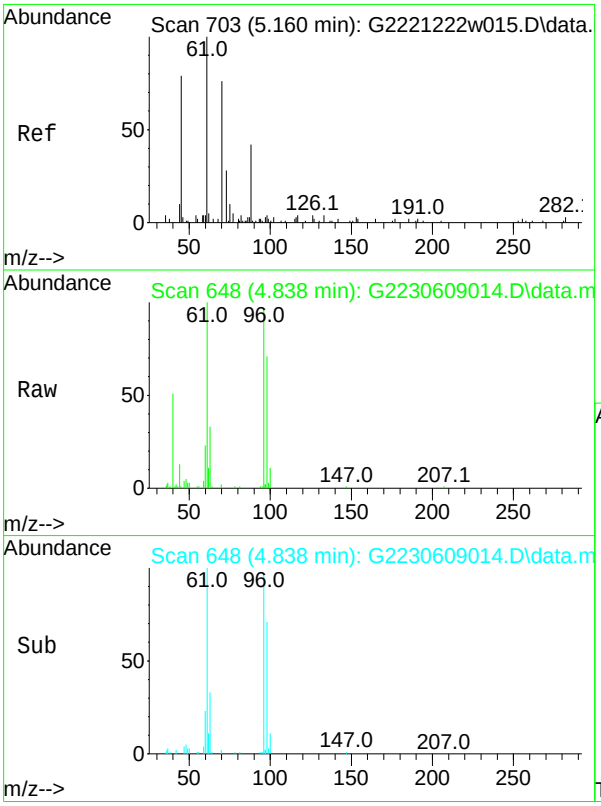


#28
cis-1,2-Dichloroethene
Concen: 1.53 ug/L
RT: 4.836 min Scan# 648
Delta R.T. 0.000 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 61 Resp: 758614

Ion	Ratio	Lower	Upper
61	100		
98	70.3	15.9	75.9
96	102.1	39.6	99.6#
63	34.8	12.0	52.0

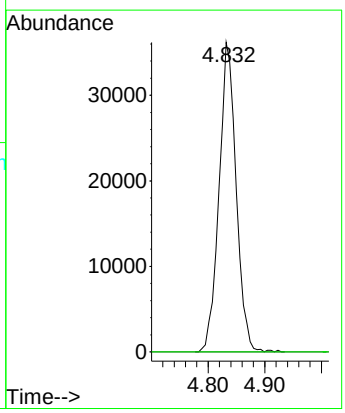


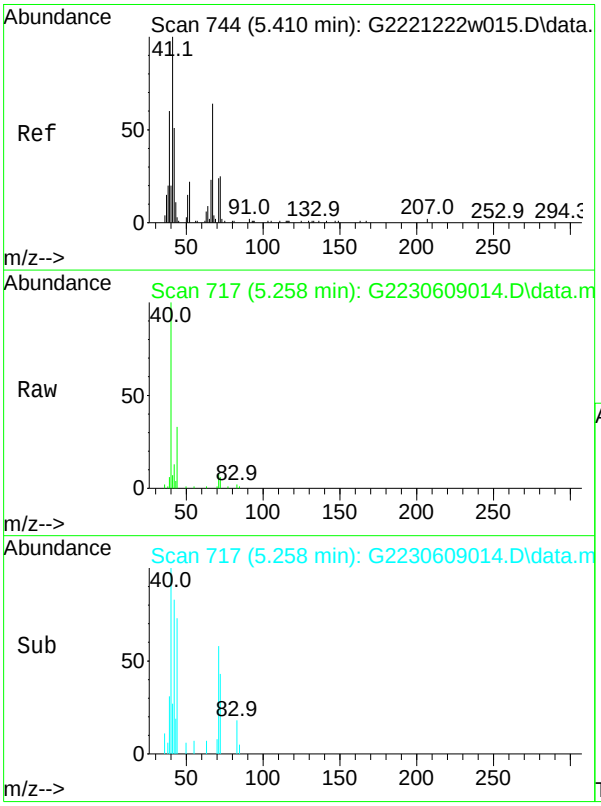


#31
Ethyl acetate
Concen: 13.46 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 61 Resp: 758615

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

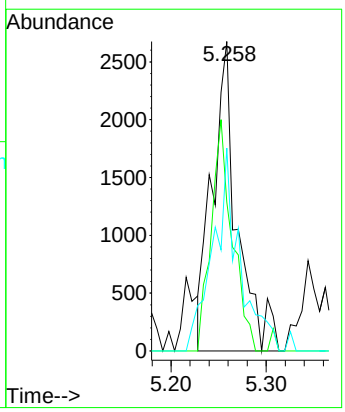


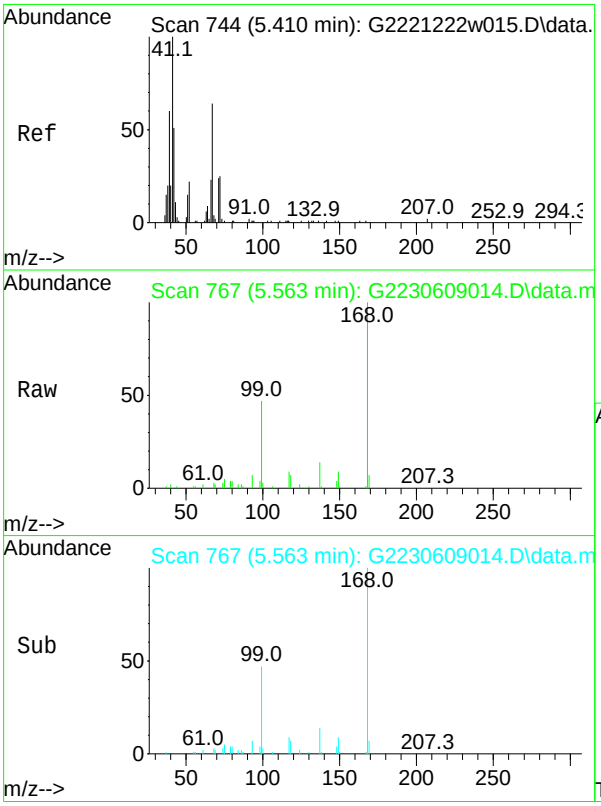


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.258 min Scan# 717
Delta R.T. -0.003 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 42 Resp: 50587

Ion	Ratio	Lower	Upper
42	100		
72	60.7	18.8	78.8
71	0.0	14.7	74.7#

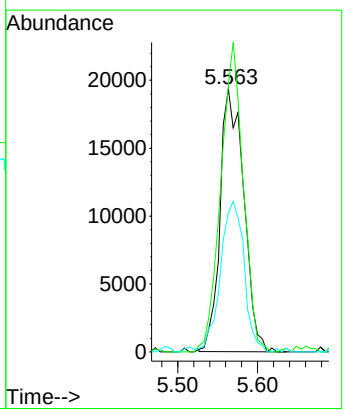


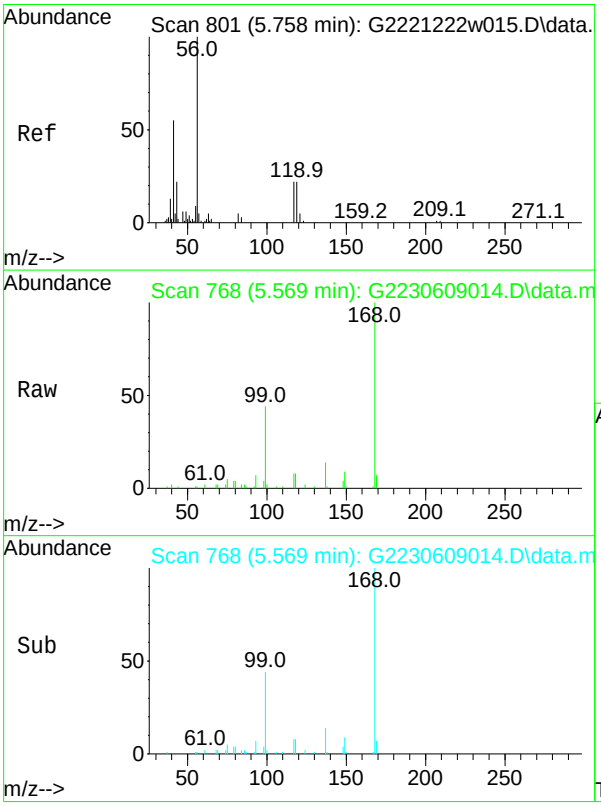


#40
Cyclohexane
Concen: 0.79 ug/L
RT: 5.566 min Scan# 767
Delta R.T. 0.032 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 84 Resp: 399388

Ion	Ratio	Lower	Upper
84	100		
69	111.6	6.8	66.8#
56	58.0	79.1	139.1#

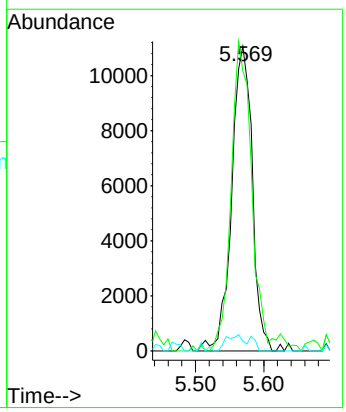


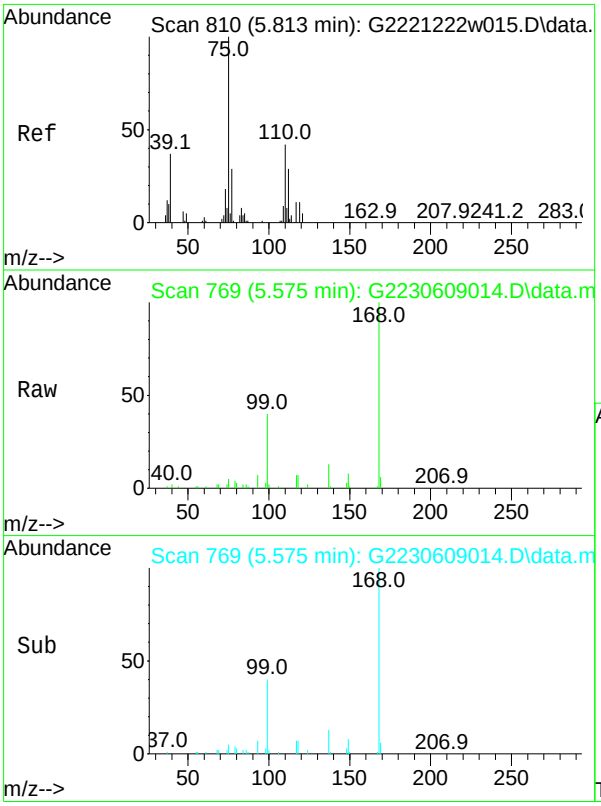


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.059 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 56 Resp: 232283

Ion	Ratio	Lower	Upper
56	100		
55	103.1	0.0	41.0#
57	0.0	0.0	35.7

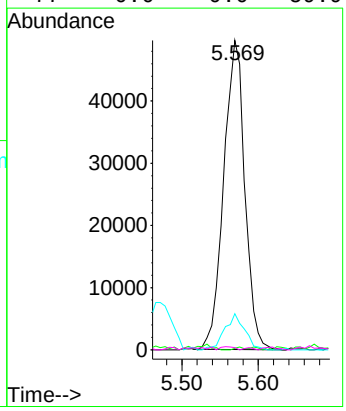


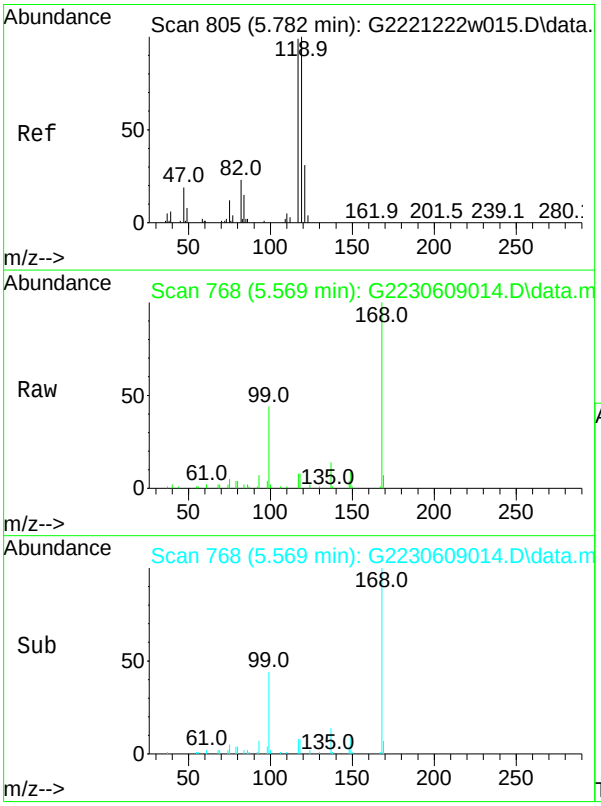


#42
1,1-Dichloropropene
Concen: 2.17 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.116 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 75 Resp: 955541

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

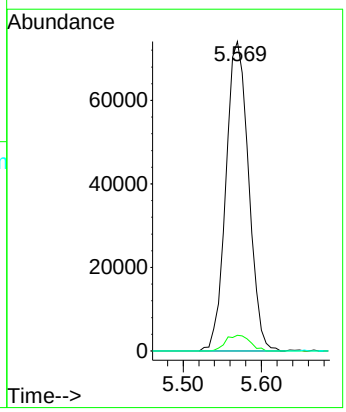


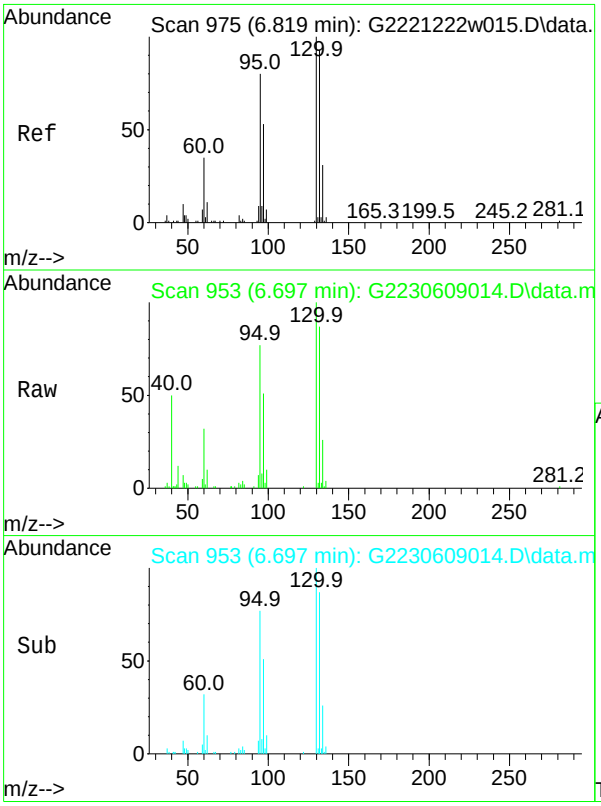


#47
Carbon tetrachloride
Concen: 3.28 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion:117 Resp: 1497352

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

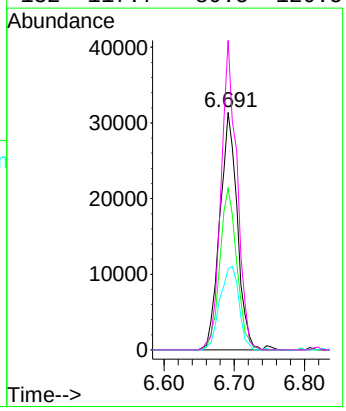


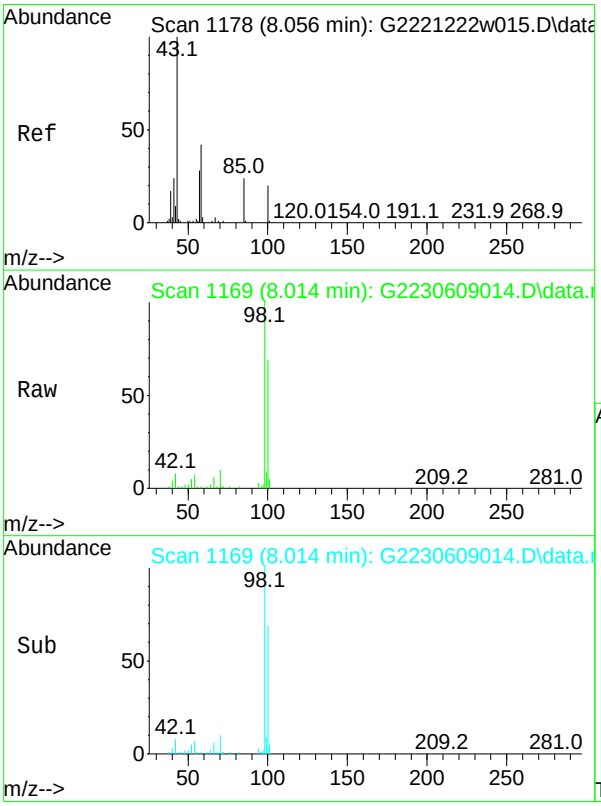


#50
Trichloroethene
Concen: 1.56 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 95 Resp: 544570

Ion	Ratio	Lower	Upper
95	100		
97	65.8	35.5	95.5
60	38.2	14.8	74.8
132	117.7	80.5	120.5

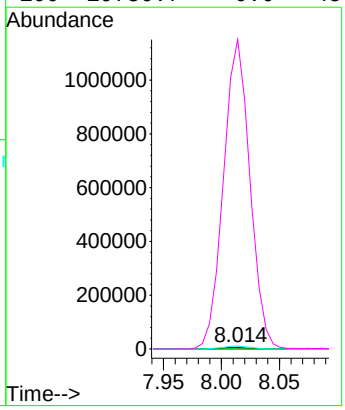


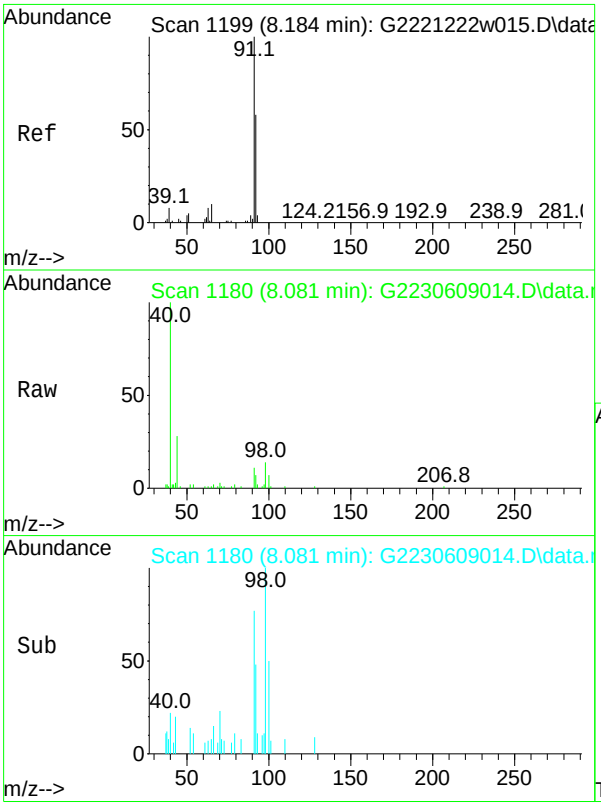


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 43 Resp: 92582

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	190.7	37.0	37.0#
100	19730.7	0.0	45.2#

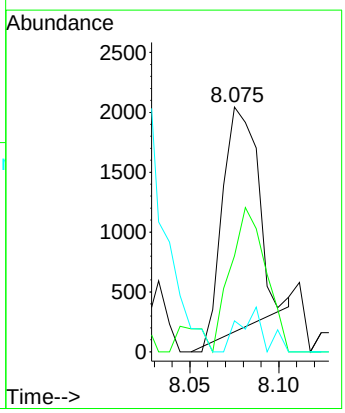


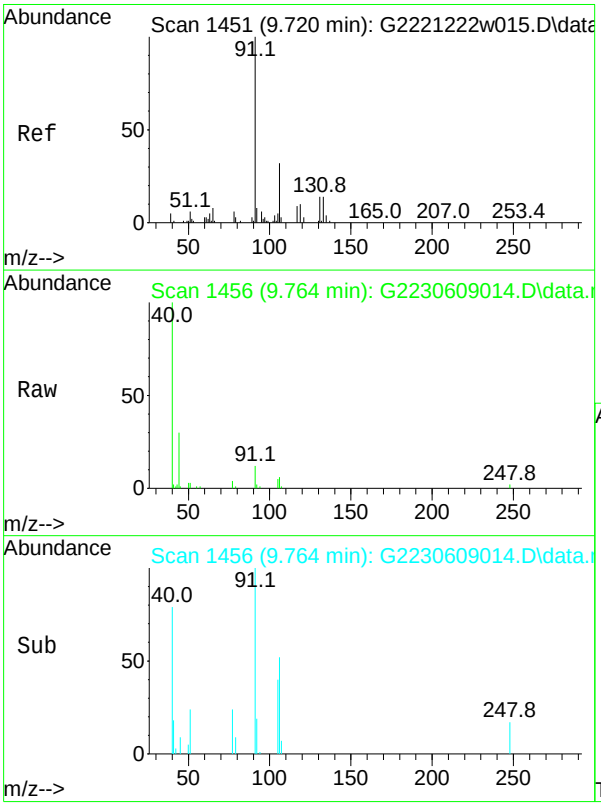


#65
Toluene
Concen: Below Cal
RT: 8.081 min Scan# 1180
Delta R.T. -0.005 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 91 Resp: 24422

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

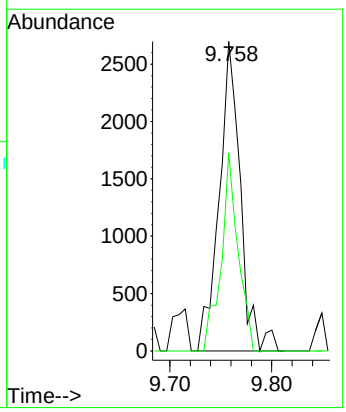


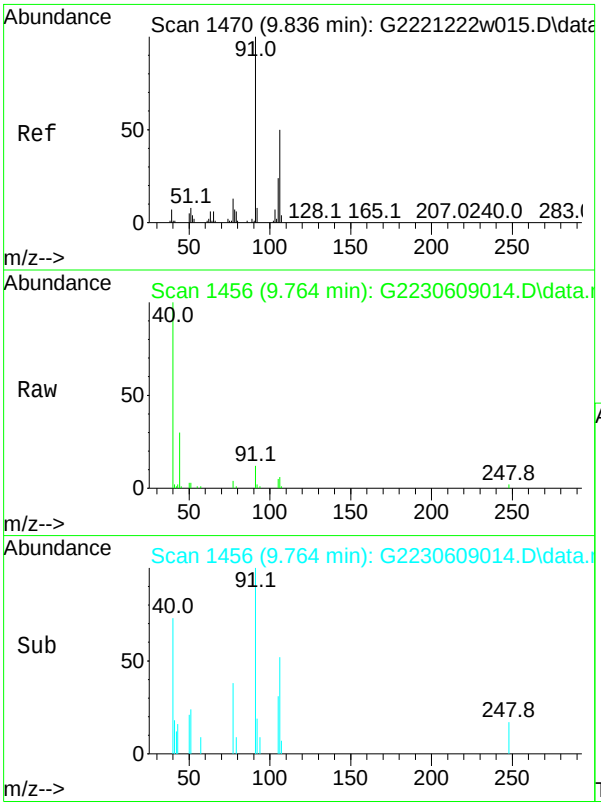


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 91 Resp: 39113

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

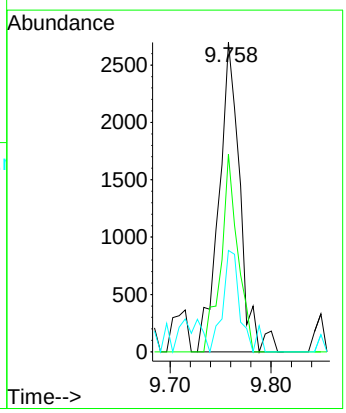


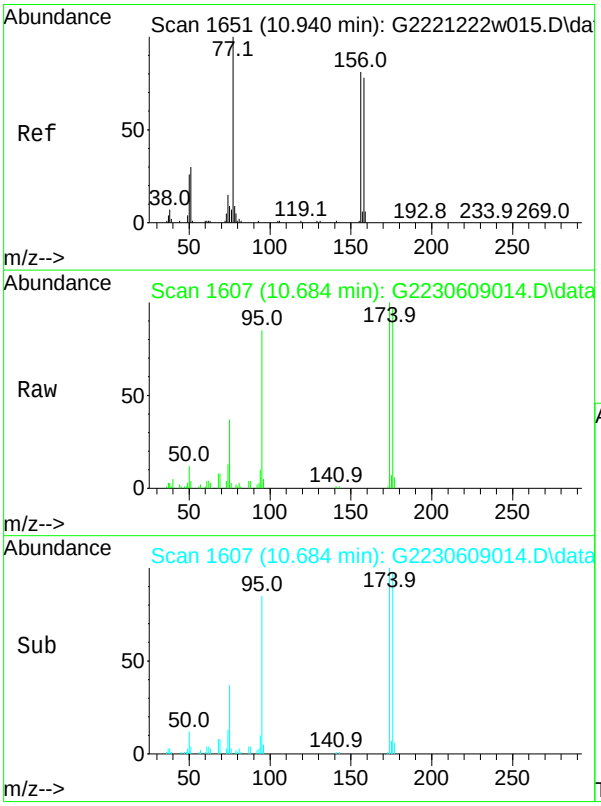


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.761 min Scan# 1456
Delta R.T. -0.003 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 91 Resp: 39110

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

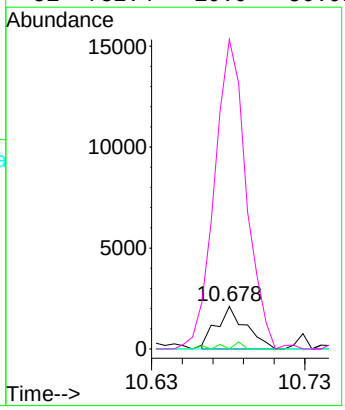


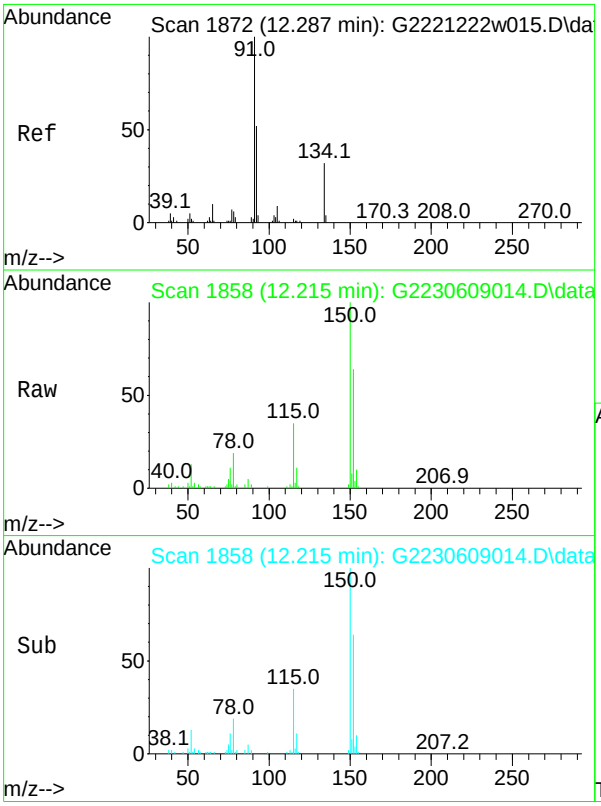


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.681 min Scan# 1607
Delta R.T. -0.147 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 77 Resp: 28873

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	782.4	10.9	50.9#

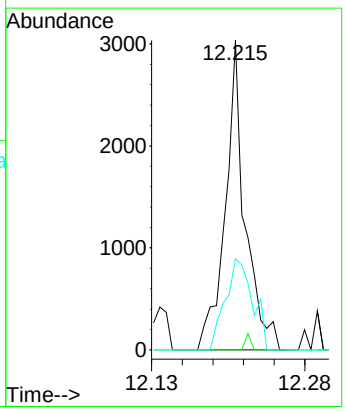




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.216 min Scan# 1858
Delta R.T. -0.015 min
Lab File: G2230609014.D
Acq: 09 Jun 2023 14:24

Tgt Ion: 91 Resp: 40114

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

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13	File ID:	G2230606028.D
Sampled:	05/27/23 16:35	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 21:51
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13	File ID:	G2230606028.D
Sampled:	05/27/23 16:35	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 21:51
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	1.32	0.518	2.00	4.00	J
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	0.410	0.192	0.500	1.00	J
156-59-2	cis-1,2-Dichloroethene	0.780	0.103	0.300	0.600	
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

SW8260B/D

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13	File ID:	G2230606028.D
Sampled:	05/27/23 16:35	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 21:51
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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*	*Q, 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*	*2.39*	*0.0781*	*0.200*	*0.500*	*B*
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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606028.D
Acq On : 06 Jun 2023 21:51
Operator : PO1
Sample : 23E0775-13
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 07 10:05:04 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

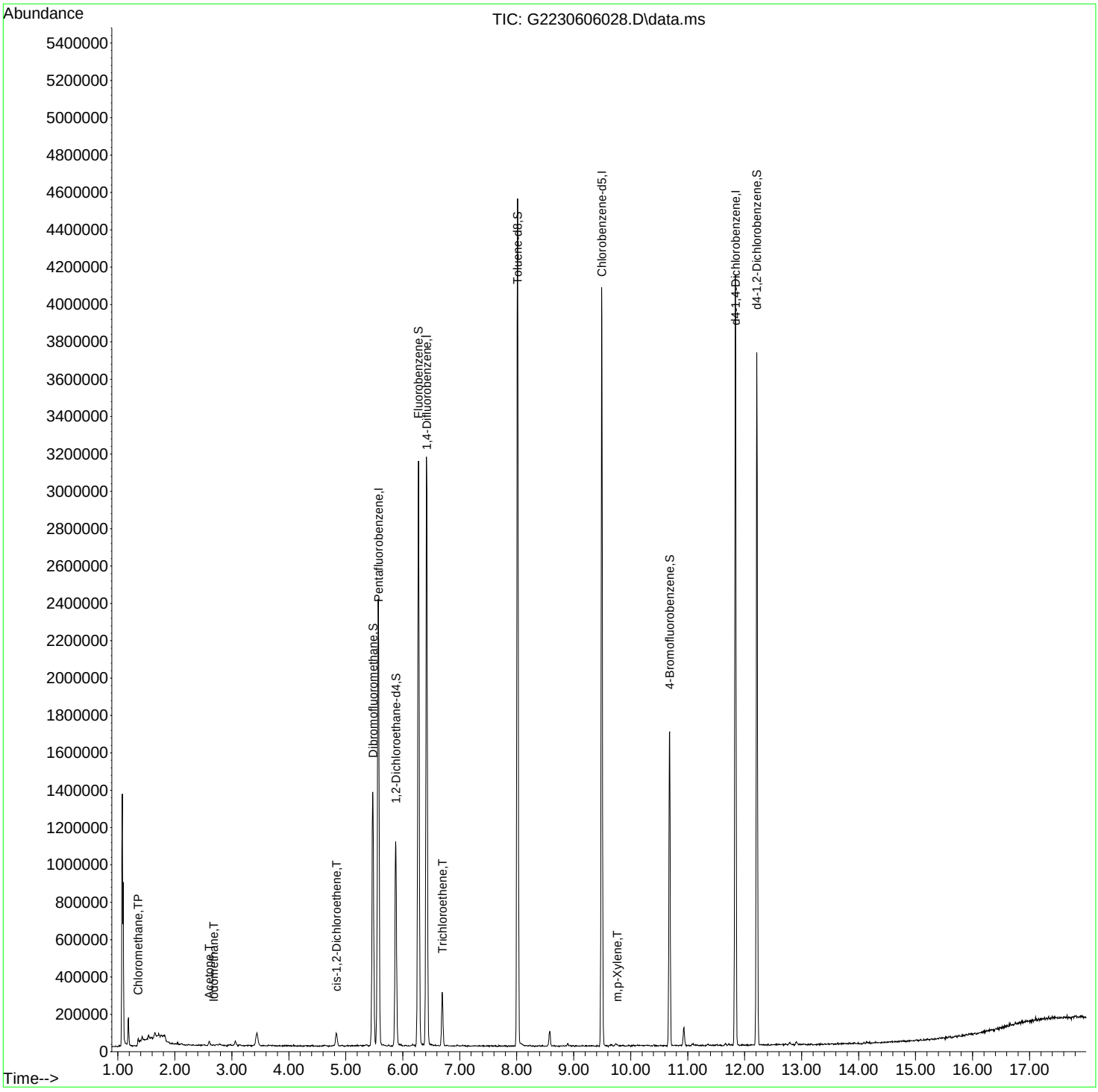
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	19009612	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	27625493	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24169447	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11588285	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	8581920	20.51	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.55%			
43) 1,2-Dichloroethane-d4	5.878	65	7738345	18.72	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 93.60%			
49) Fluorobenzene	6.277	96	30423683	19.33	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%			
64) Toluene-d8	8.016	98	29388838	19.29	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%			
81) 4-Bromofluorobenzene	10.684	174	5343123	9.76	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	10432832	20.93	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.65%			
Target Compounds						Qvalue
3) Chloromethane	1.355	50	159424	0.41	ug/L	92
12) Acetone	2.608	43	261075	1.32	ug/L	98
13) Iodomethane	2.678	142	39759	0.09	ug/L #	41
18) Methylene chloride	3.063	49	125394	Below Cal		77
21) Methyl tert-butyl ether	3.439	73	919627	Below Cal		92
28) cis-1,2-Dichloroethene	4.836	61	413379	0.78	ug/L	78
50) Trichloroethene	6.695	95	897447	2.39	ug/L	91
75) m,p-Xylene	9.763	91	34158	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606028.D
Acq On : 06 Jun 2023 21:51
Operator : PO1
Sample : 23E0775-13
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 07 10:05:04 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606028.D
Acq On : 06 Jun 2023 21:51
Operator : PO1
Sample : 23E0775-13
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 07 10:05:04 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

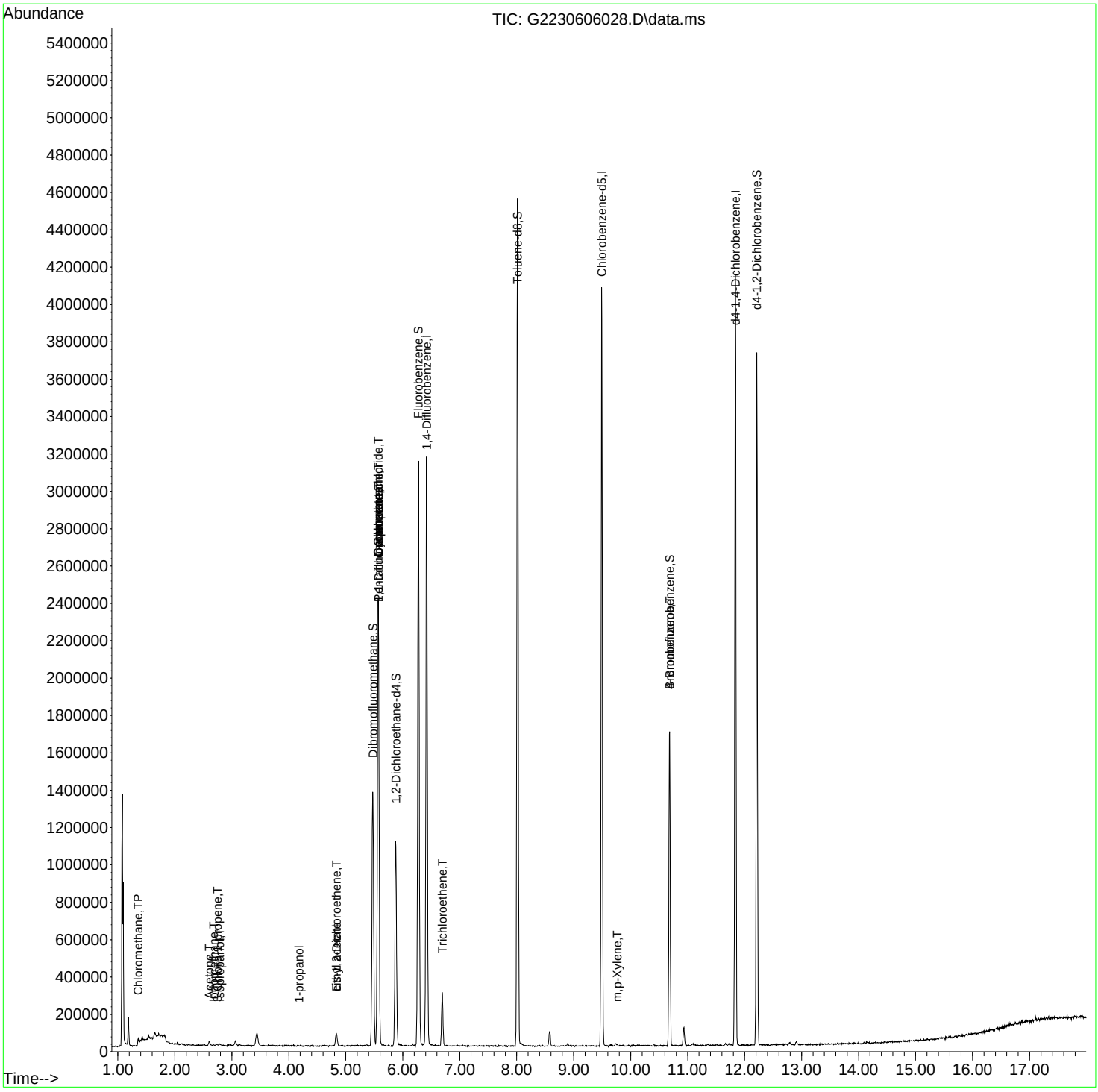
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	19009612	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	27625493	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24169447	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	11588285	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.476	111	8581920	20.51	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.55%			
43) 1,2-Dichloroethane-d4	5.878	65	7738345	18.72	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 93.60%			
49) Fluorobenzene	6.277	96	30423683	19.33	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%			
64) Toluene-d8	8.016	98	29388838	19.29	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%			
81) 4-Bromofluorobenzene	10.684	174	5343123	9.76	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	10432832	20.93	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.65%			
Target Compounds						Qvalue
3) Chloromethane	1.355	50	159424	0.41	ug/L	92
5) Bromomethane	1.722	94	46796	Below Cal	#	55
12) Acetone	2.608	43	261075	1.32	ug/L	98
13) Iodomethane	2.678	142	39759	0.09	ug/L #	41
14) Carbon disulfide	2.744	76	61470	Below Cal	#	74
15) Isopropanol	2.788	45	66424	4.35	ug/L #	56
17) 3-Chloro-1-propene	2.744	76	61450	0.24	ug/L #	53
18) Methylene chloride	3.063	49	125394	Below Cal		77
21) Methyl tert-butyl ether	3.439	73	919627	Below Cal		92
26) 1-propanol	4.182	59	645	0.33	ug/L #	100
28) cis-1,2-Dichloroethene	4.836	61	413379	0.78	ug/L	78
31) Ethyl acetate	4.837	61	413428	7.12	ug/L #	45
40) Cyclohexane	5.570	84	429941	0.84	ug/L #	32
41) 1-Chlorobutane	5.570	56	264522	0.45	ug/L #	1
42) 1,1-Dichloropropene	5.573	75	985336	2.21	ug/L #	38
47) Carbon tetrachloride	5.571	117	1532942	3.08	ug/L #	16
50) Trichloroethene	6.695	95	897447	2.39	ug/L	91
60) 4-Methyl-2-pentanone	8.017	43	110896	Below Cal	#	1
65) Toluene	8.085	91	42367	Below Cal	#	30
74) Ethylbenzene	9.764	91	37785	Below Cal	#	44
75) m,p-Xylene	9.763	91	34158	0.03	ug/L #	36
82) Bromobenzene	10.682	77	39430	0.06	ug/L #	1
99) n-Butylbenzene	12.222	91	31062	Below Cal	#	53

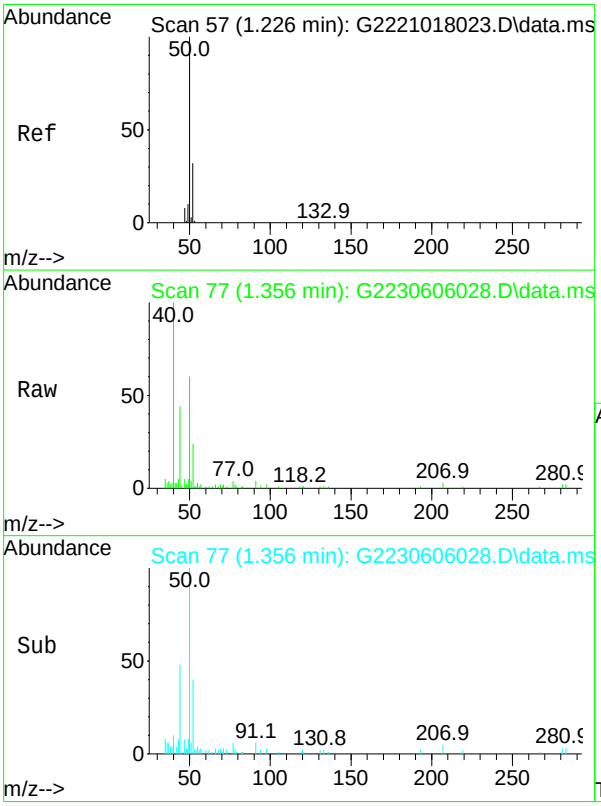
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606028.D
Acq On : 06 Jun 2023 21:51
Operator : PO1
Sample : 23E0775-13
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 07 10:05:04 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

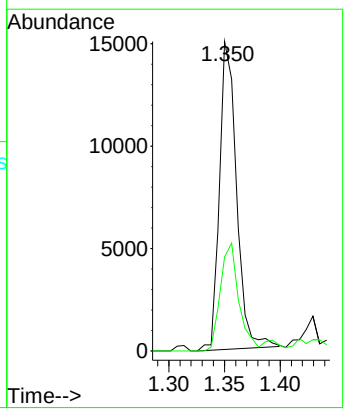


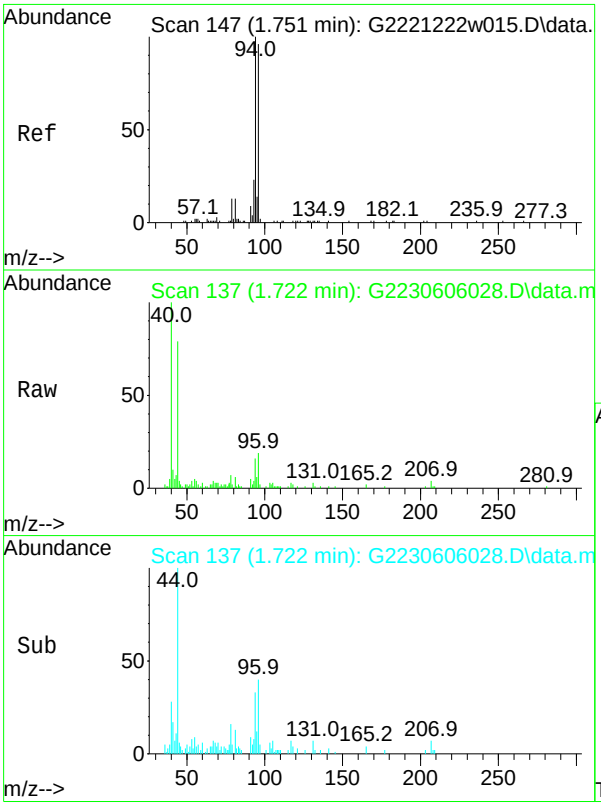


#3
Chloromethane
Concen: 0.41 ug/L
RT: 1.355 min Scan# 77
Delta R.T. 0.001 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 50 Resp: 159424

Ion	Ratio	Lower	Upper
50	100		
52	37.8	3.2	63.2

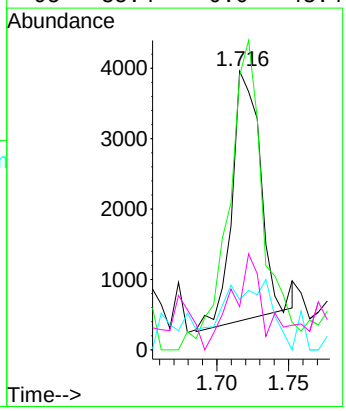


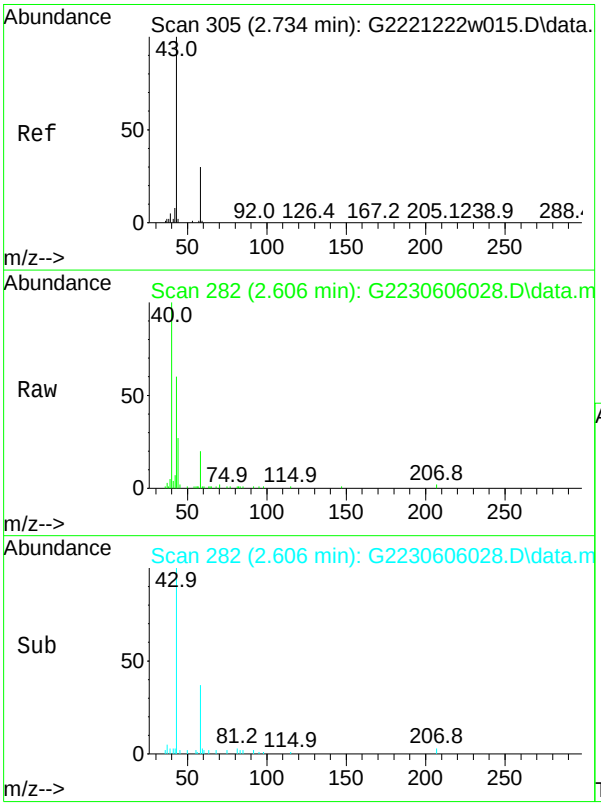


#5
Bromomethane
Concen: Below Cal
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 94 Resp: 46796

Ion	Ratio	Lower	Upper
94	100		
96	139.1	65.6	125.6#
93	0.0	0.0	49.5
95	35.4	0.0	43.4

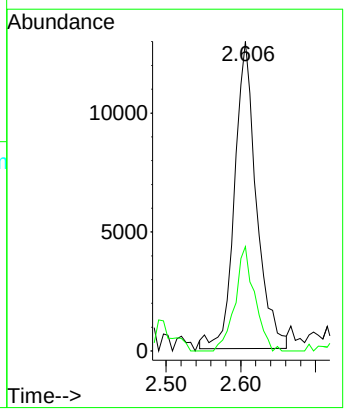


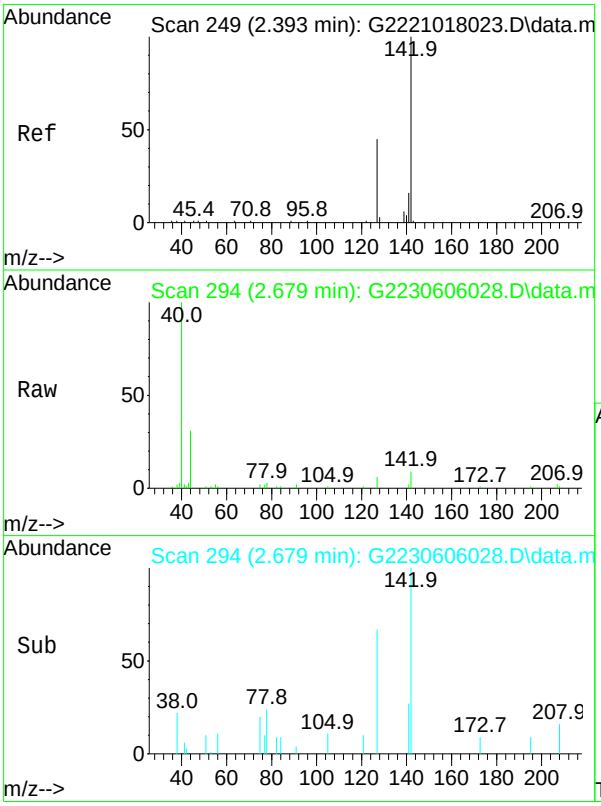


#12
Acetone
Concen: 1.32 ug/L
RT: 2.608 min Scan# 282
Delta R.T. 0.000 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 43 Resp: 261075

Ion	Ratio	Lower	Upper
43	100		
58	30.6	0.0	59.7

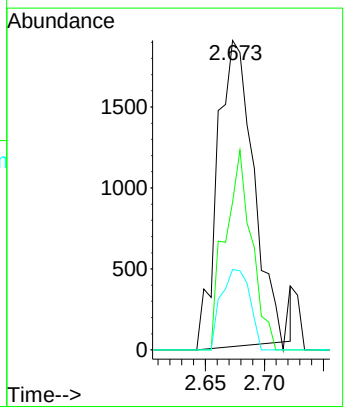


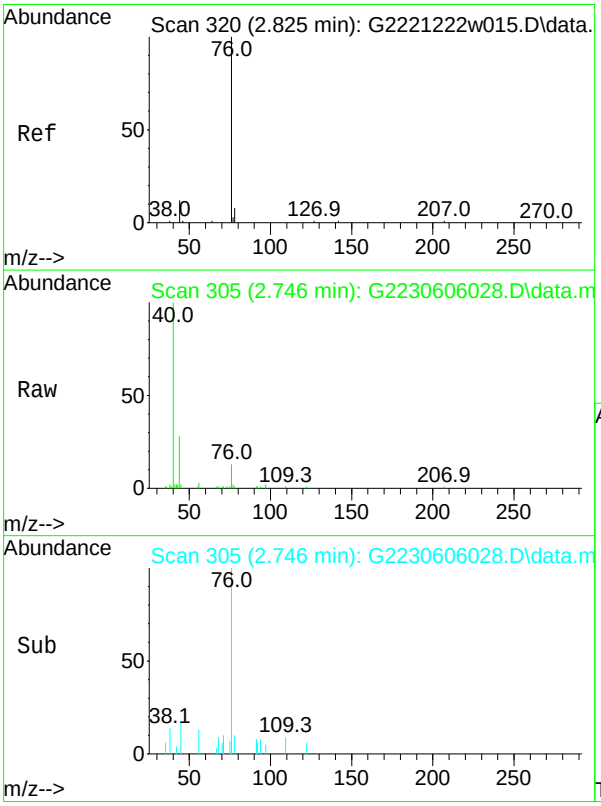


#13
Iodomethane
Concen: 0.09 ug/L
RT: 2.678 min Scan# 294
Delta R.T. 0.002 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion:142 Resp: 39759

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

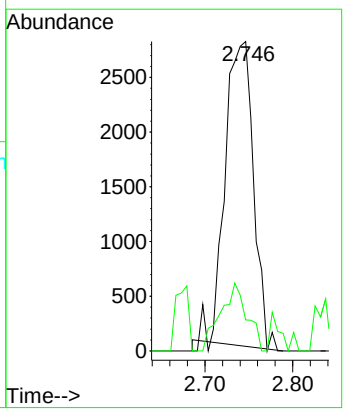


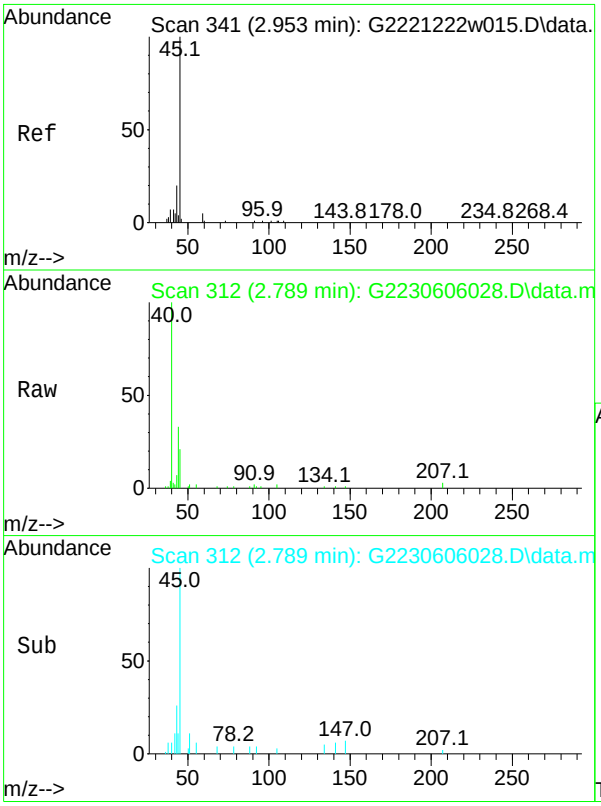


#14
Carbon disulfide
Concen: Below Cal
RT: 2.744 min Scan# 305
Delta R.T. 0.005 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 76 Resp: 61470

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

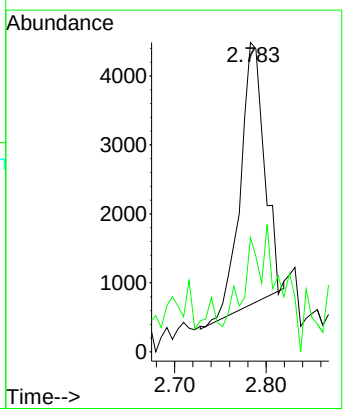


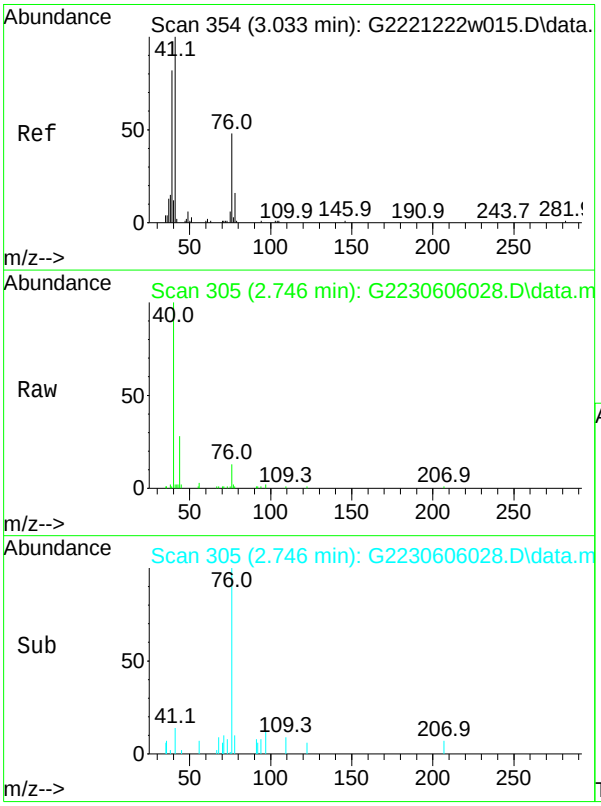


#15
Isopropanol
Concen: 4.35 ug/L
RT: 2.788 min Scan# 312
Delta R.T. -0.004 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 45 Resp: 66424

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

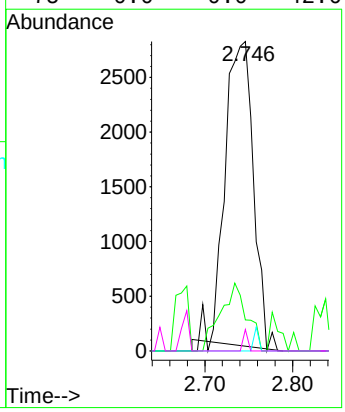


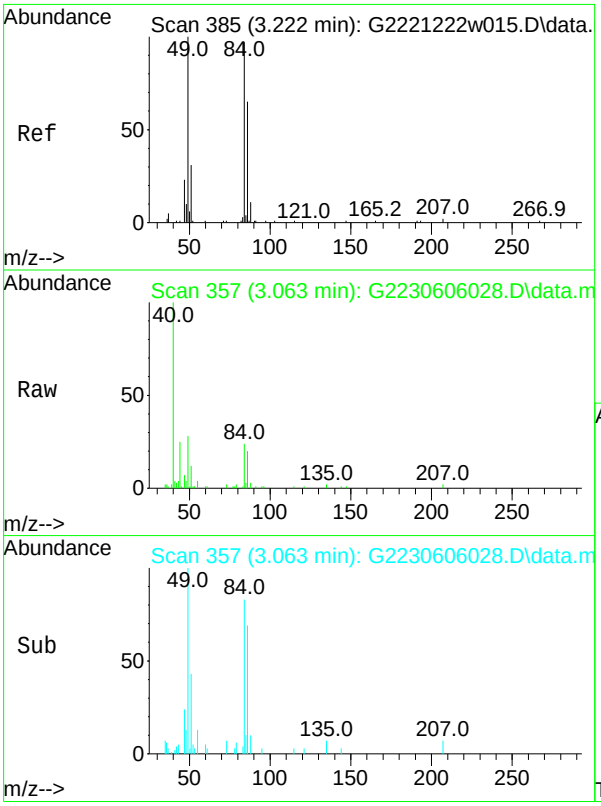


#17
3-Chloro-1-propene
Concen: 0.24 ug/L
RT: 2.744 min Scan# 305
Delta R.T. -0.176 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 76 Resp: 61450

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

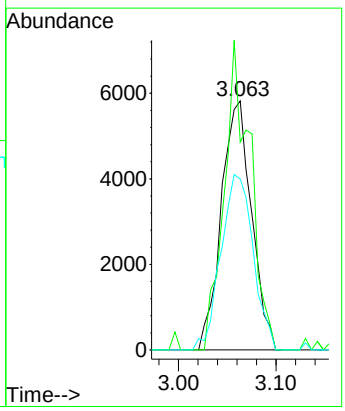


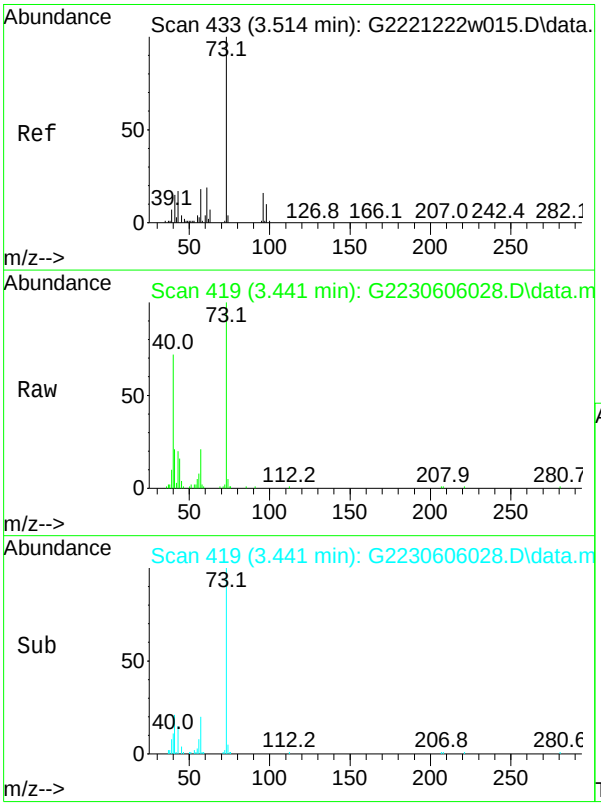


#18
Methylene chloride
Concen: Below Cal
RT: 3.063 min Scan# 357
Delta R.T. 0.001 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 49 Resp: 125394

Ion	Ratio	Lower	Upper
49	100		
84	107.0	57.9	117.9
86	75.0	24.9	84.9

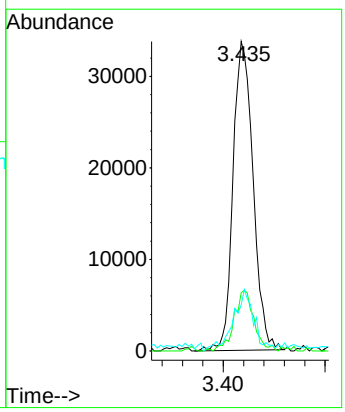


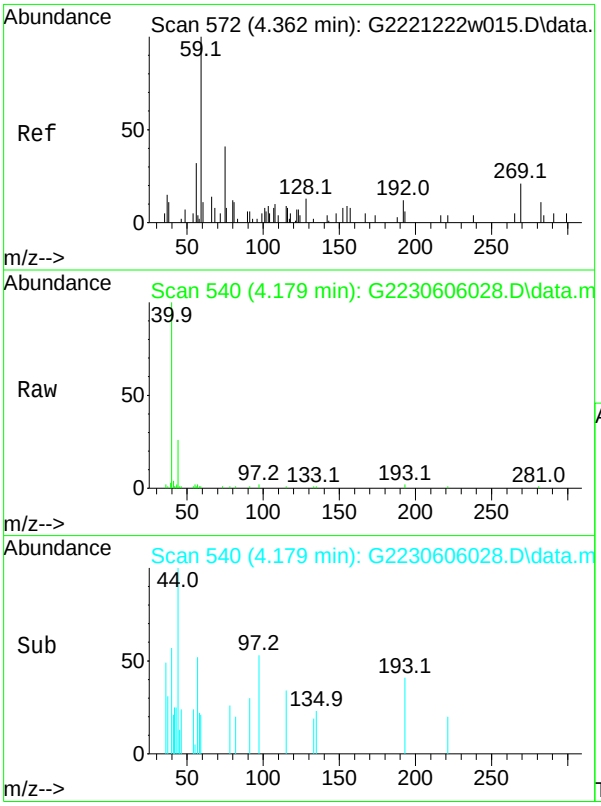


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.439 min Scan# 419
Delta R.T. -0.007 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 73 Resp: 919627

Ion	Ratio	Lower	Upper
73	100		
57	19.2	0.0	51.7
41	15.2	0.0	50.6

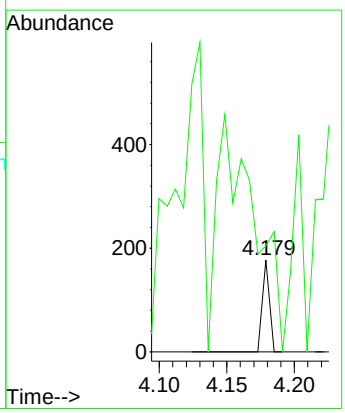


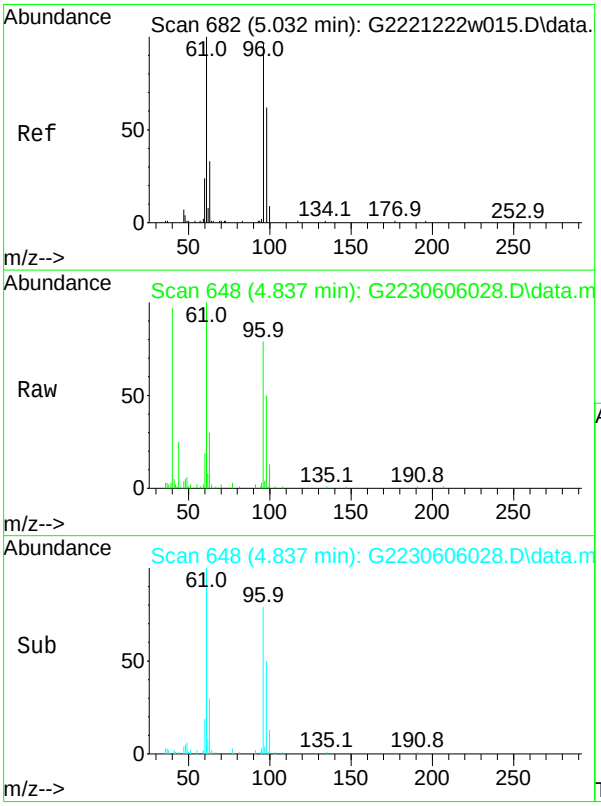


#26
1-propanol
Concen: 0.33 ug/L
RT: 4.182 min Scan# 540
Delta R.T. -0.107 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 59 Resp: 645

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

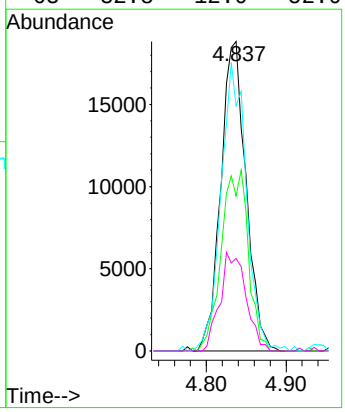


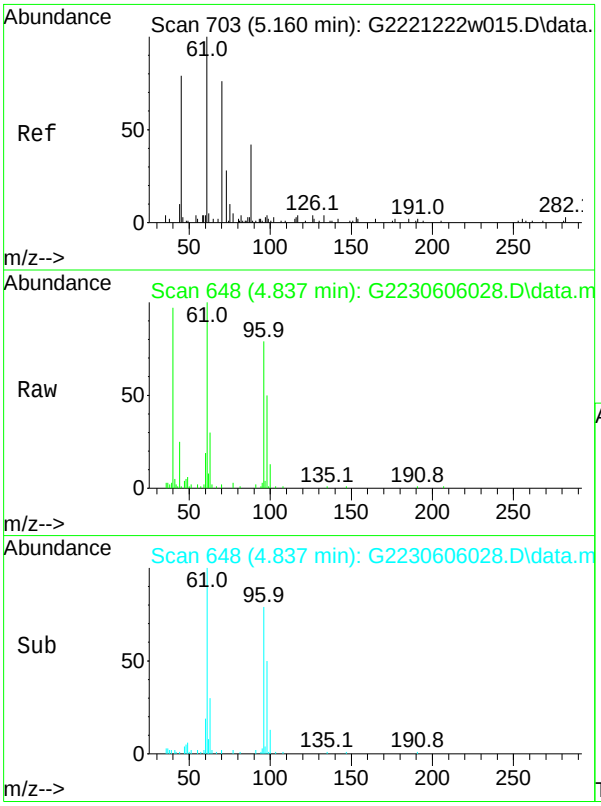


#28
cis-1,2-Dichloroethene
Concen: 0.78 ug/L
RT: 4.836 min Scan# 648
Delta R.T. 0.000 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 61 Resp: 413379

Ion	Ratio	Lower	Upper
61	100		
98	61.8	15.9	75.9
96	93.9	39.6	99.6
63	32.8	12.0	52.0

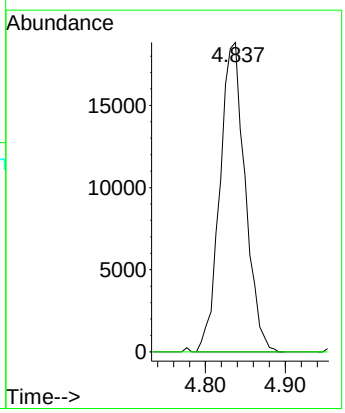


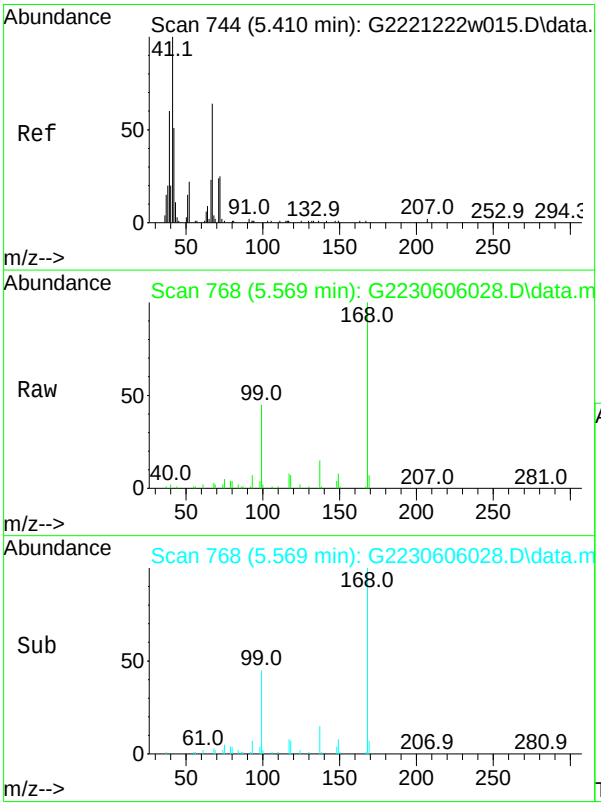


#31
Ethyl acetate
Concen: 7.12 ug/L
RT: 4.837 min Scan# 648
Delta R.T. -0.185 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 61 Resp: 413428

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

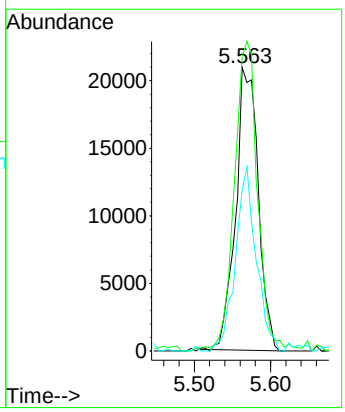


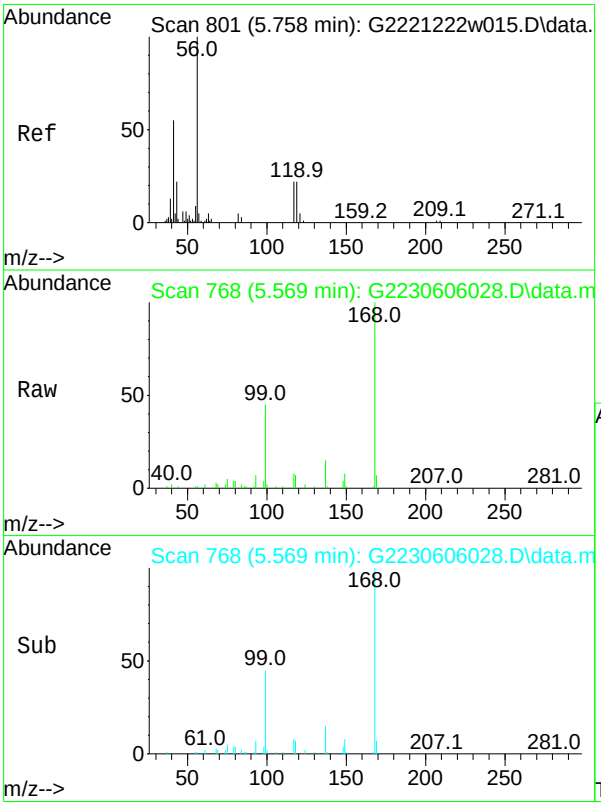


#40
Cyclohexane
Concen: 0.84 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 84 Resp: 429941

Ion	Ratio	Lower	Upper
84	100		
69	114.0	6.8	66.8#
56	59.8	79.1	139.1#

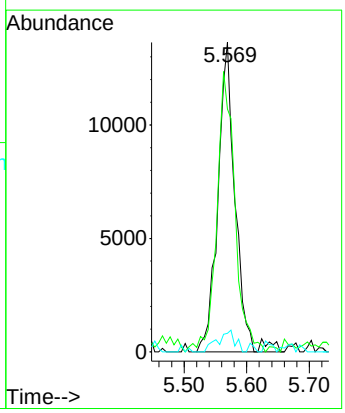


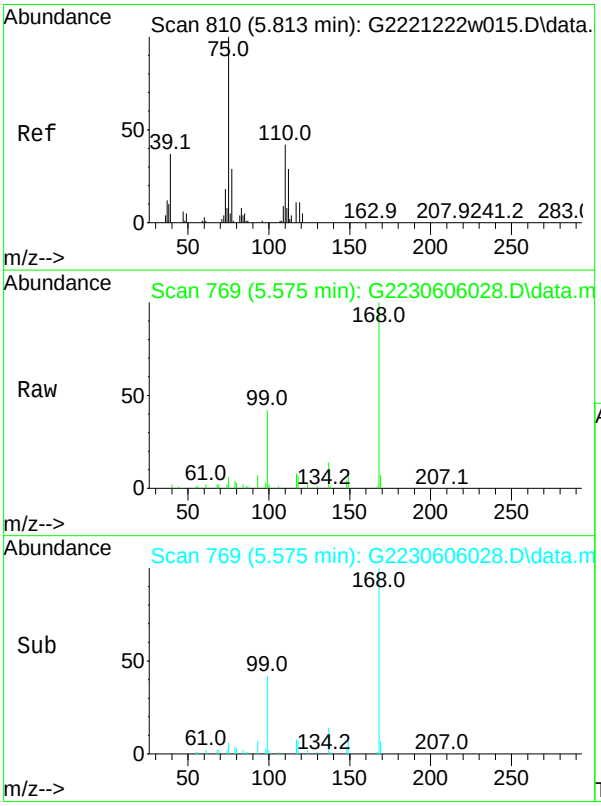


#41
1-Chlorobutane
Concen: 0.45 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 56 Resp: 264522

Ion	Ratio	Lower	Upper
56	100		
55	93.7	0.0	41.0#
57	0.0	0.0	35.7

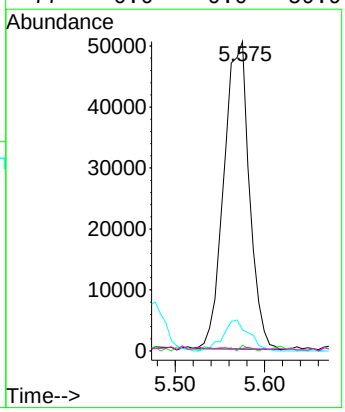


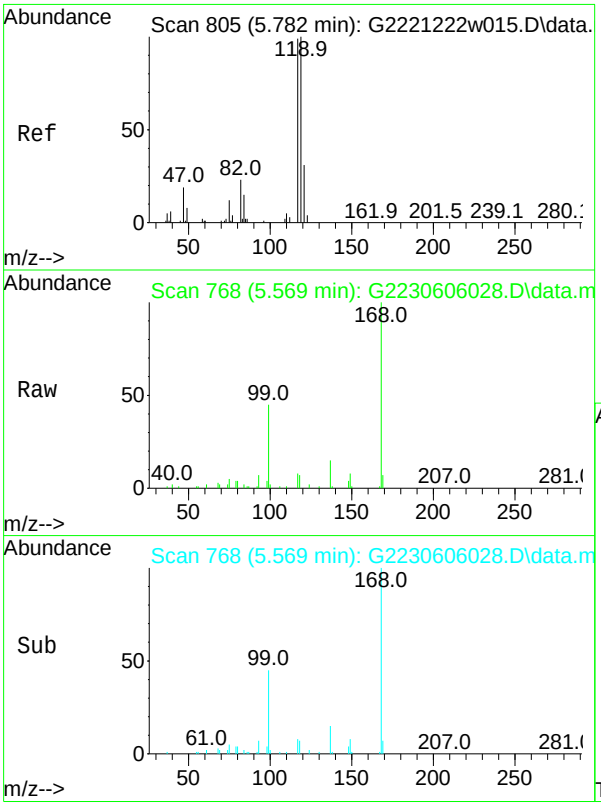


#42
1,1-Dichloropropene
Concen: 2.21 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.116 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 75 Resp: 985336

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.3	9.1	69.1
77	0.0	0.0	59.9

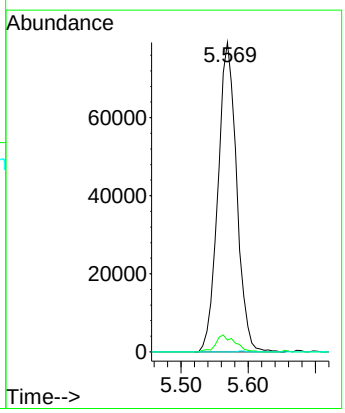


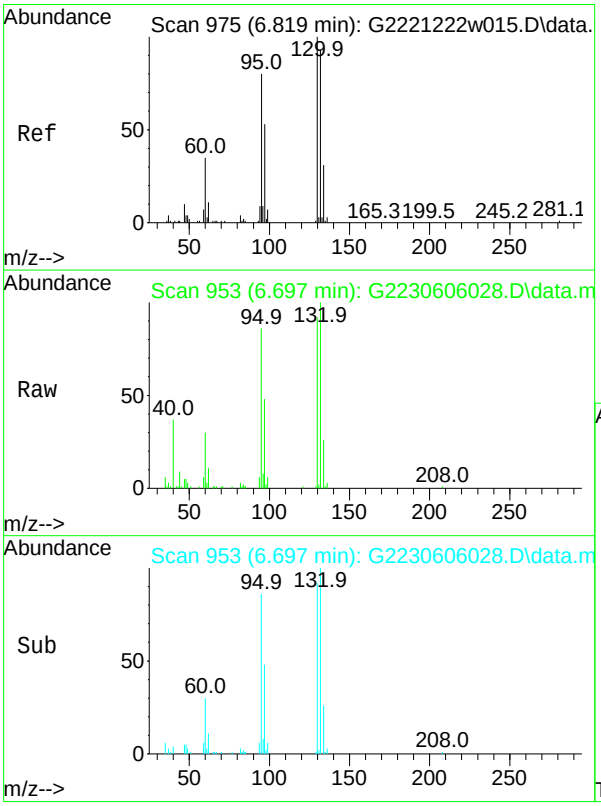


#47
Carbon tetrachloride
Concen: 3.08 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion:117 Resp: 1532942

Ion	Ratio	Lower	Upper
117	100		
119	5.6	66.4	126.4#
121	0.0	0.4	60.4#

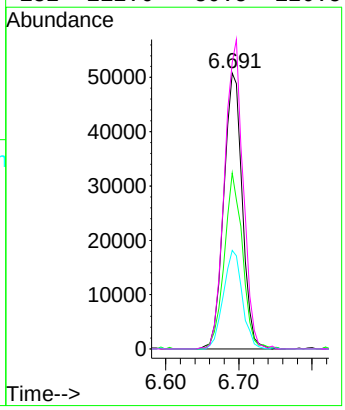


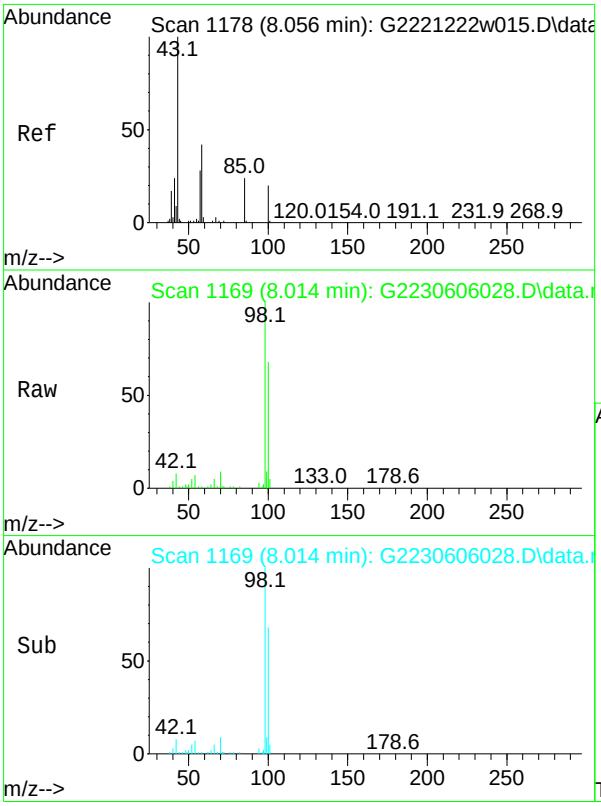


#50
Trichloroethene
Concen: 2.39 ug/L
RT: 6.695 min Scan# 953
Delta R.T. -0.001 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 95 Resp: 897447

Ion	Ratio	Lower	Upper
95	100		
97	62.9	35.5	95.5
60	36.7	14.8	74.8
132	112.6	80.5	120.5

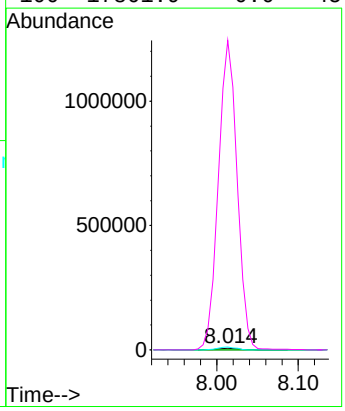


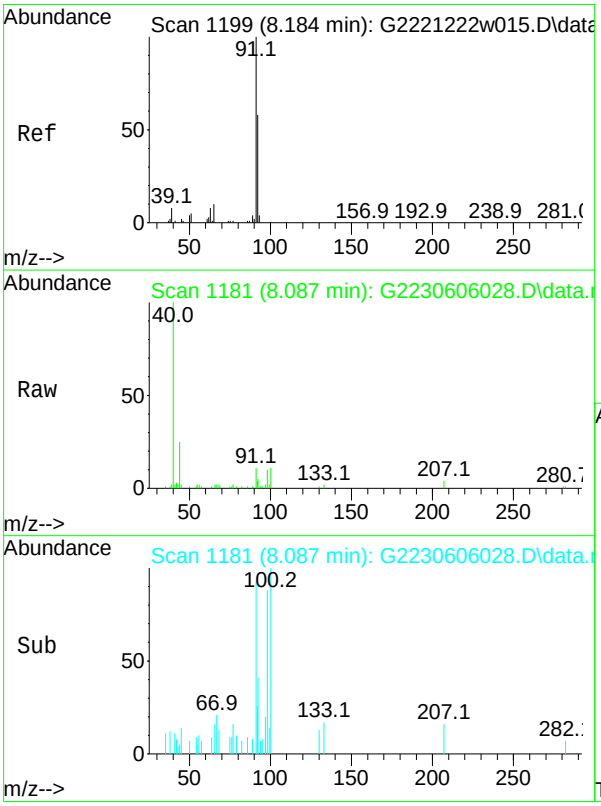


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.017 min Scan# 1169
Delta R.T. 0.073 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 43 Resp: 110896

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	168.8	37.0	37.0#
100	17861.9	0.0	45.2#

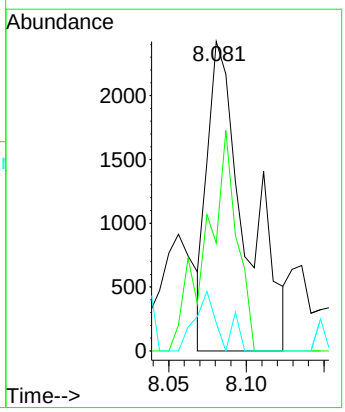


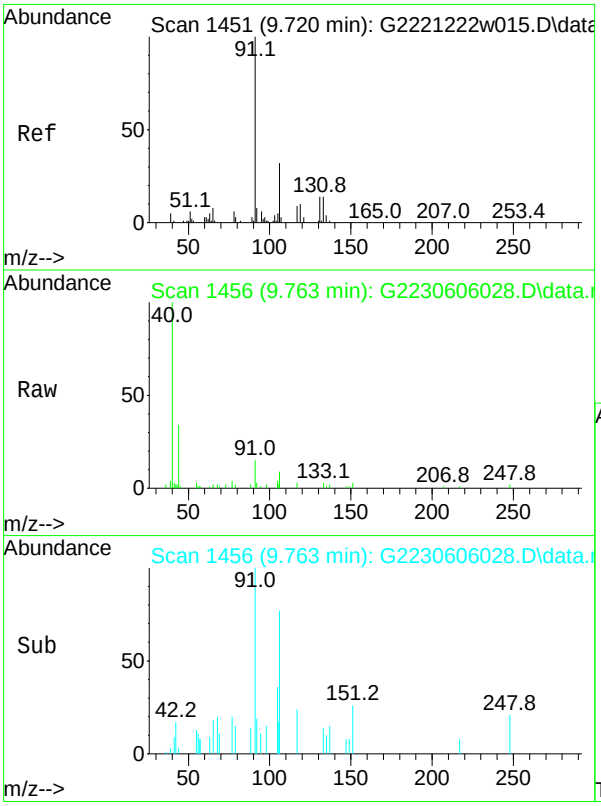


#65
Toluene
Concen: Below Cal
RT: 8.085 min Scan# 1181
Delta R.T. -0.001 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 91 Resp: 42367

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

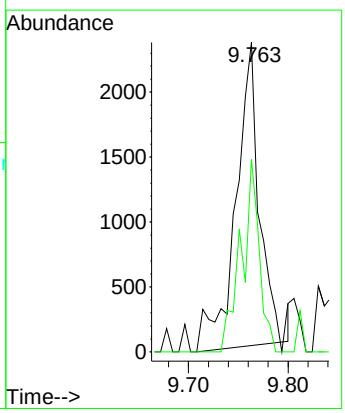


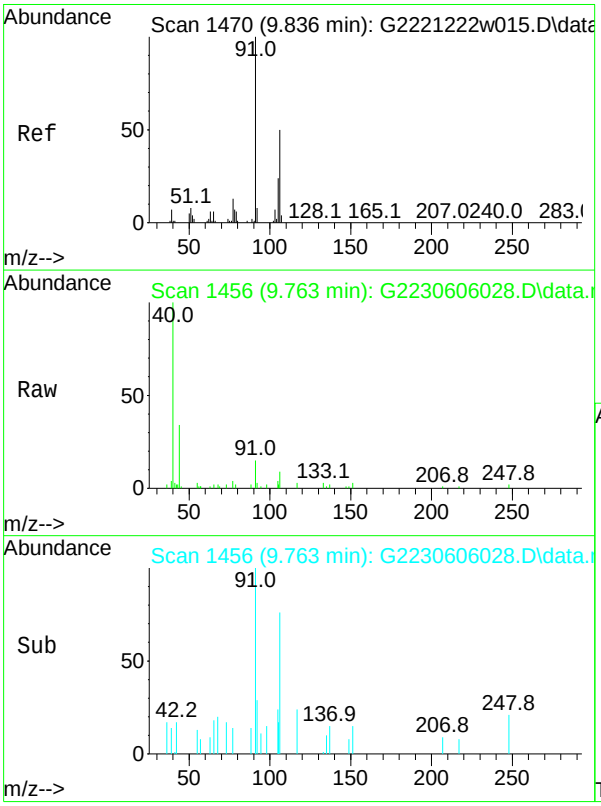


#74
Ethylbenzene
Concen: Below Cal
RT: 9.764 min Scan# 1456
Delta R.T. 0.121 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 91 Resp: 37785

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

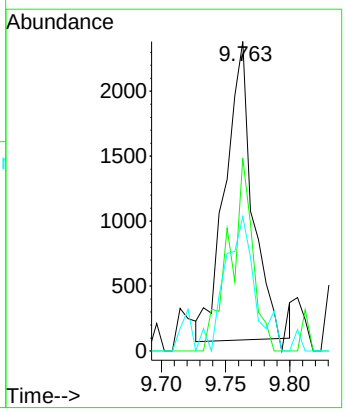


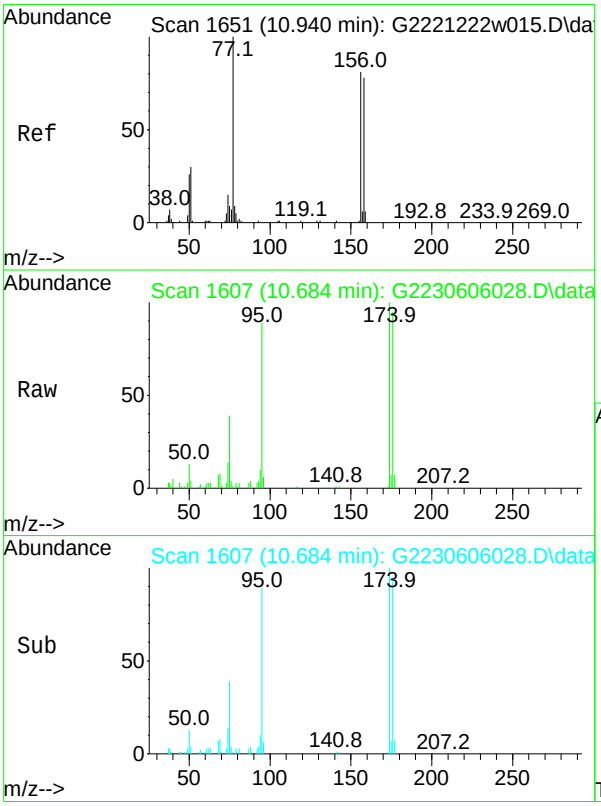


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.763 min Scan# 1456
Delta R.T. -0.001 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 91 Resp: 34158

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

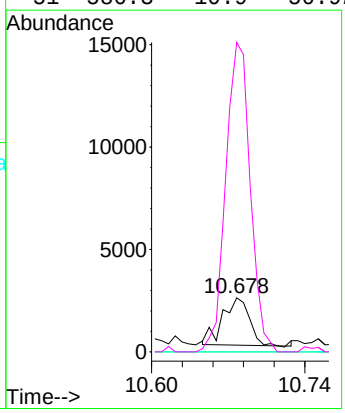


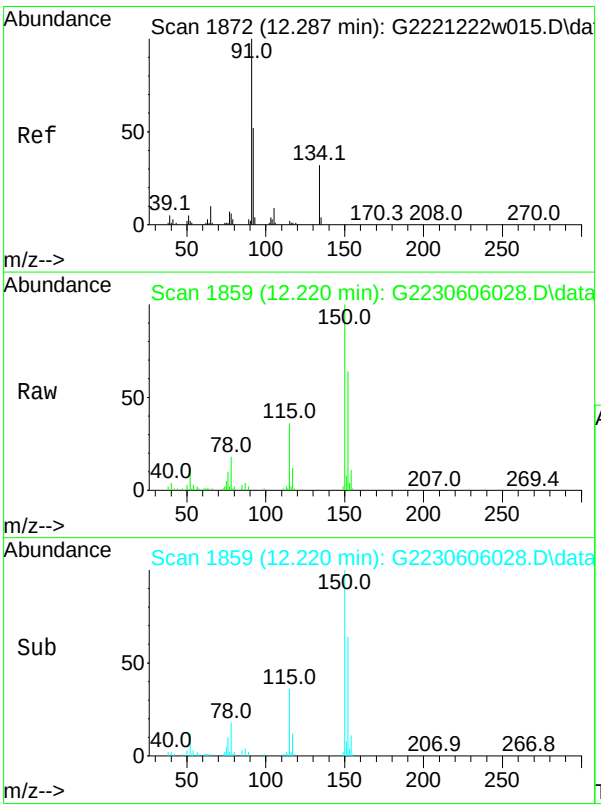


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.682 min Scan# 1607
Delta R.T. -0.146 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 77 Resp: 39430

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	586.3	10.9	50.9#

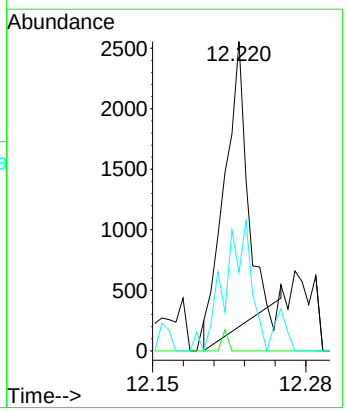




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.222 min Scan# 1859
Delta R.T. -0.009 min
Lab File: G2230606028.D
Acq: 06 Jun 2023 21:51

Tgt Ion: 91 Resp: 31062

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

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13RE1	File ID:	G2230607019.D
Sampled:	05/27/23 16:35	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 22:21
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13RE1	File ID:	G2230607019.D
Sampled:	05/27/23 16:35	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 22:21
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13RE1	File ID:	G2230607019.D
Sampled:	05/27/23 16:35	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 22:21
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	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*	*0.920*	*0.156*	*0.400*	*1.00*	*B, 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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607019.D
Acq On : 07 Jun 2023 22:21
Operator : PO1
Sample : 23E0775-13RE1
Misc : 2
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 08 09:56:03 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

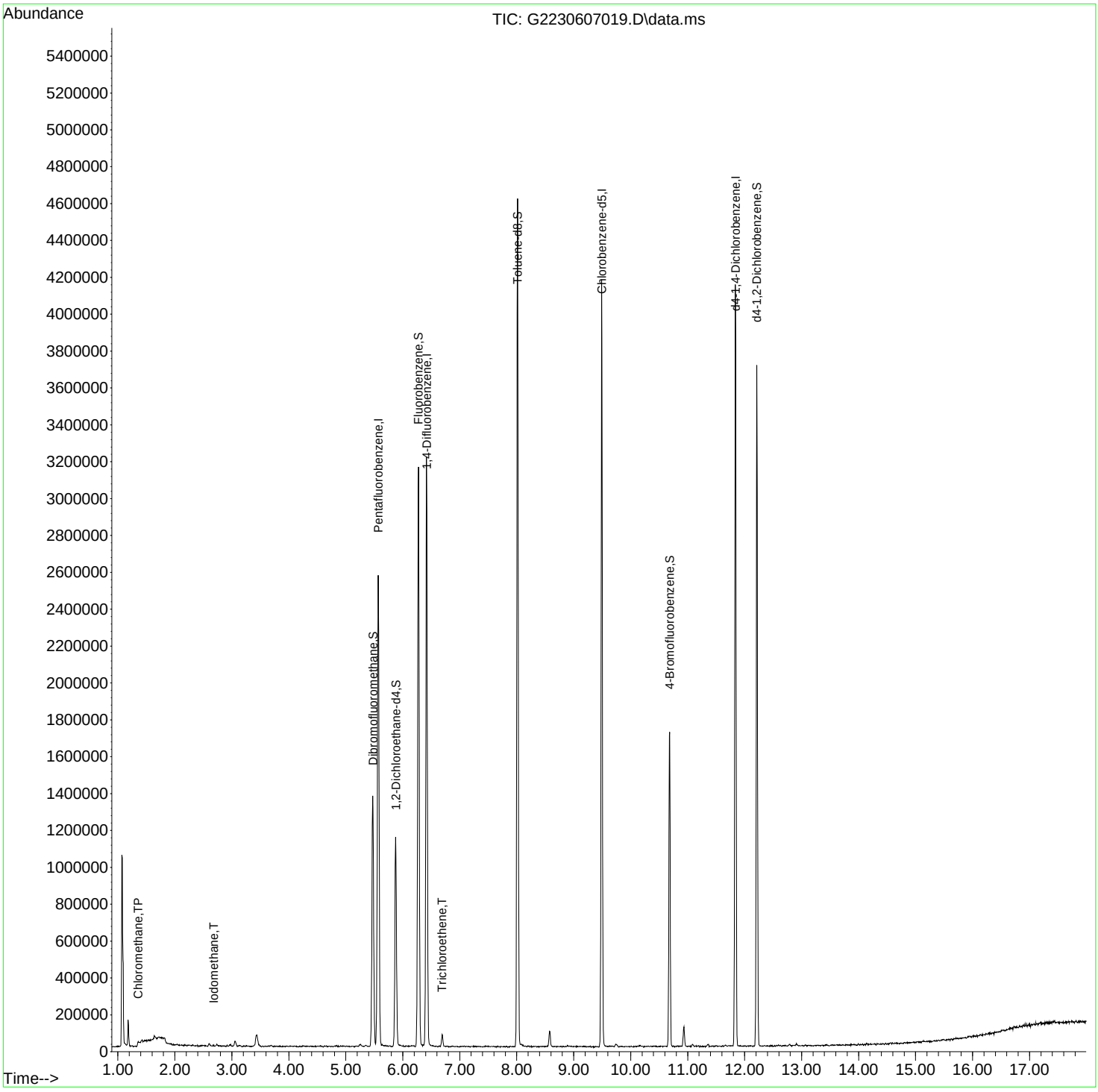
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	20313459	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	27831110	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	24448802	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11902357	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	8604987	19.25	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%			
43) 1,2-Dichloroethane-d4	5.877	65	7995343	18.10	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.50%			
49) Fluorobenzene	6.277	96	31001953	19.55	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.75%			
64) Toluene-d8	8.016	98	29918894	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
81) 4-Bromofluorobenzene	10.685	174	5488559	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%			
97) d4-1,2-Dichlorobenzene	12.217	152	10359520	20.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.20%			
Target Compounds						Qvalue
3) Chloromethane	1.354	50	90232	0.17	ug/L	81
13) Iodomethane	2.679	142	32756	0.07	ug/L #	41
18) Methylene chloride	3.061	49	139029	Below Cal		74
21) Methyl tert-butyl ether	3.441	73	903490	Below Cal		93
50) Trichloroethene	6.693	95	197151	0.46	ug/L	91
65) Toluene	8.086	91	40002	Below Cal	#	30

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607019.D
Acq On : 07 Jun 2023 22:21
Operator : PO1
Sample : 23E0775-13RE1
Misc : 2
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 08 09:56:03 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607019.D
Acq On : 07 Jun 2023 22:21
Operator : PO1
Sample : 23E0775-13RE1
Misc : 2
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 08 09:56:03 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

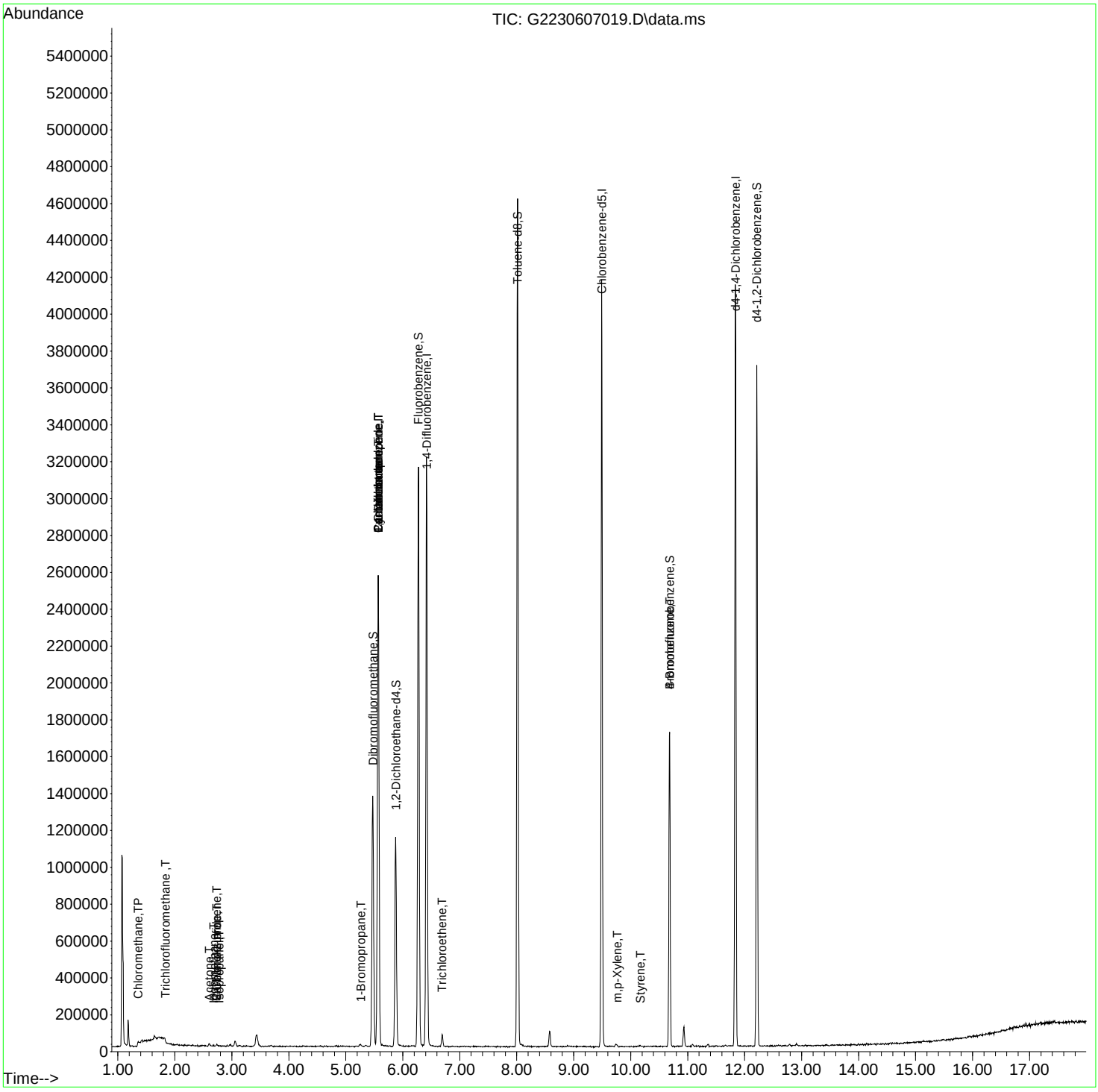
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	20313459	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	27831110	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	24448802	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11902357	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	8604987	19.25	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.25%				
43) 1,2-Dichloroethane-d4	5.877	65	7995343	18.10	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.50%				
49) Fluorobenzene	6.277	96	31001953	19.55	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.75%				
64) Toluene-d8	8.016	98	29918894	19.41	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%				
81) 4-Bromofluorobenzene	10.685	174	5488559	9.77	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%				
97) d4-1,2-Dichlorobenzene	12.217	152	10359520	20.24	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.20%				
Target Compounds							Qvalue
3) Chloromethane	1.354	50	90232	0.17	ug/L		81
5) Bromomethane	1.721	94	60239	Below Cal		#	88
7) Trichlorofluoromethane	1.829	101	779	0.00	ug/L	#	16
9) Acrolein	2.456	56	2539	Below Cal		#	20
12) Acetone	2.605	43	167445	0.08	ug/L		94
13) Iodomethane	2.679	142	32756	0.07	ug/L	#	41
14) Carbon disulfide	2.736	76	130340	0.05	ug/L	#	74
15) Isopropanol	2.779	45	45879	2.81	ug/L	#	56
17) 3-Chloro-1-propene	2.736	76	130342	0.56	ug/L	#	53
18) Methylene chloride	3.061	49	139029	Below Cal			74
21) Methyl tert-butyl ether	3.441	73	903490	Below Cal			93
33) 1-Bromopropane	5.262	41	38719	0.06	ug/L	#	40
36) Tetrahydrofuran	5.261	42	58599	Below Cal		#	30
40) Cyclohexane	5.571	84	456126	0.84	ug/L	#	34
41) 1-Chlorobutane	5.570	56	270770	0.43	ug/L	#	1
42) 1,1-Dichloropropene	5.569	75	1056188	2.22	ug/L	#	38
47) Carbon tetrachloride	5.571	117	1612709	3.21	ug/L	#	16
50) Trichloroethene	6.693	95	197151	0.46	ug/L		91
60) 4-Methyl-2-pentanone	8.015	43	99221	Below Cal		#	1
65) Toluene	8.086	91	40002	Below Cal		#	30
74) Ethylbenzene	9.765	91	56403	Below Cal		#	44
75) m,p-Xylene	9.764	91	54695	0.04	ug/L	#	36
76) Styrene	10.173	104	18723	0.02	ug/L	#	29
82) Bromobenzene	10.684	77	40153	0.06	ug/L	#	1
99) n-Butylbenzene	12.217	91	40669	Below Cal		#	53

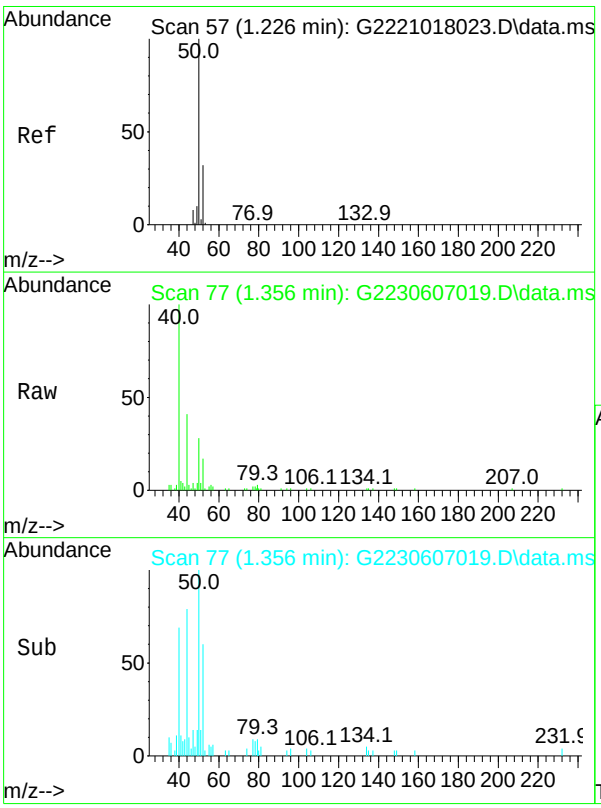
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607019.D
Acq On : 07 Jun 2023 22:21
Operator : PO1
Sample : 23E0775-13RE1
Misc : 2
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 08 09:56:03 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

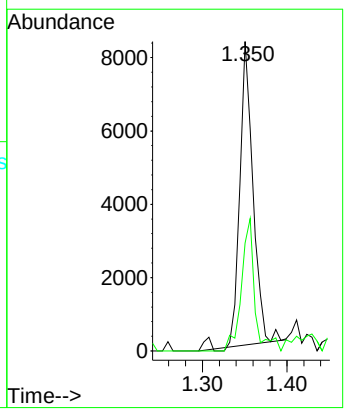


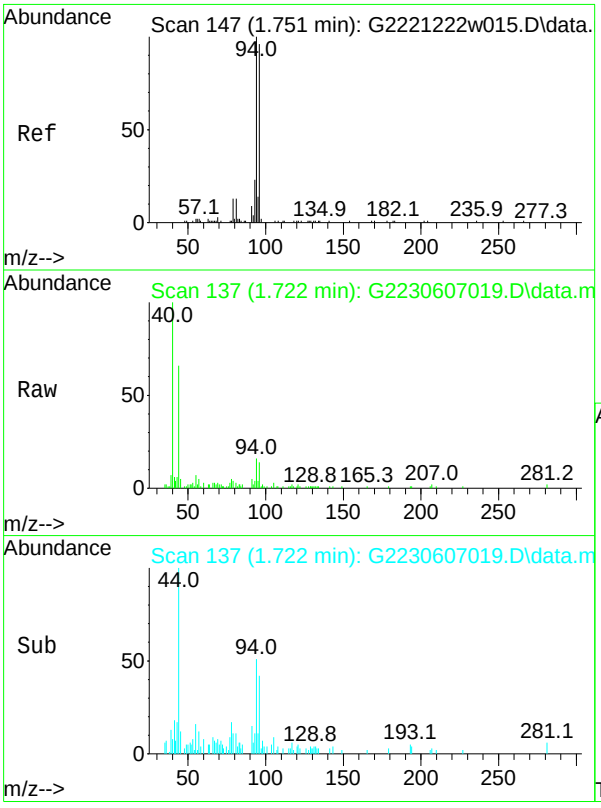


#3
Chloromethane
Concen: 0.17 ug/L
RT: 1.354 min Scan# 77
Delta R.T. 0.000 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 50 Resp: 90232

Ion	Ratio	Lower	Upper
50	100		
52	43.7	3.2	63.2

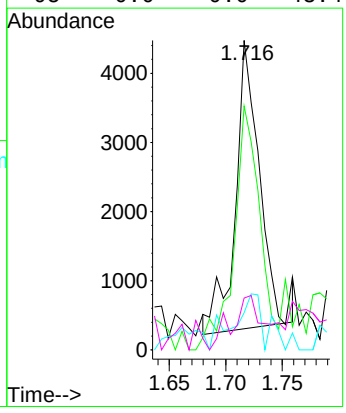


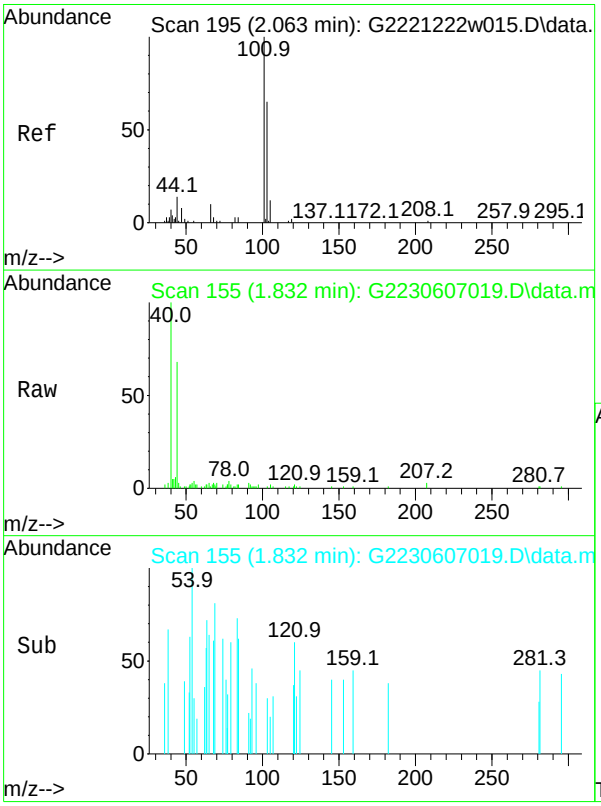


#5
Bromomethane
Concen: Below Cal
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 94 Resp: 60239

Ion	Ratio	Lower	Upper
94	100		
96	93.0	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

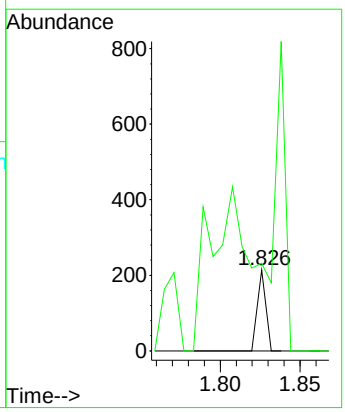


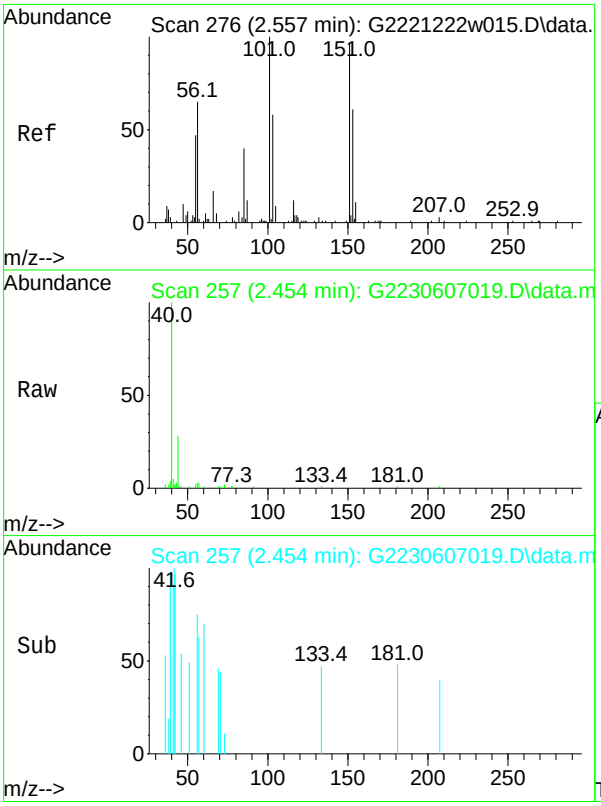


#7
Trichlorofluoromethane
Concen: 0.00 ug/L
RT: 1.829 min Scan# 155
Delta R.T. -0.201 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion:101 Resp: 779

Ion	Ratio	Lower	Upper
101	100		
103	0.0	36.9	96.9#

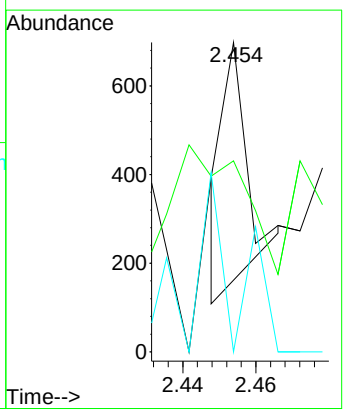


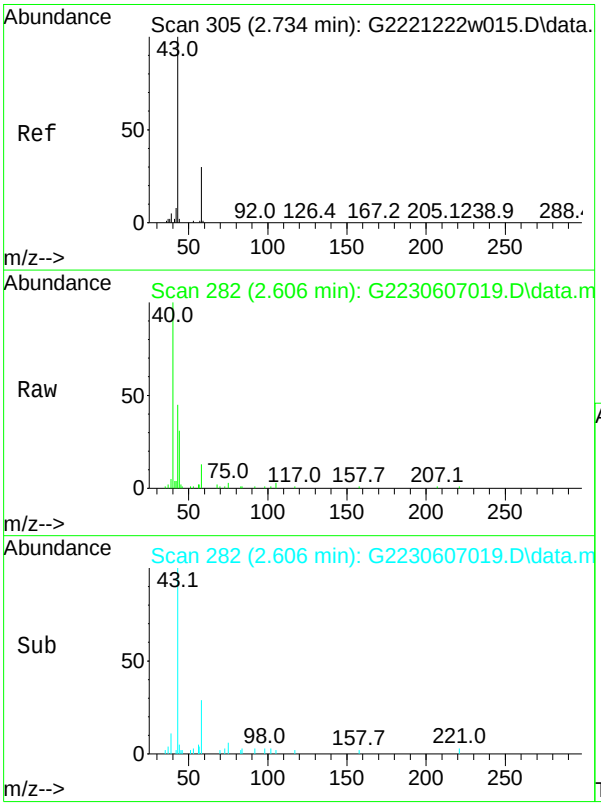


#9
Acrolein
Concen: Below Cal
RT: 2.456 min Scan# 257
Delta R.T. 0.017 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 56 Resp: 2539

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

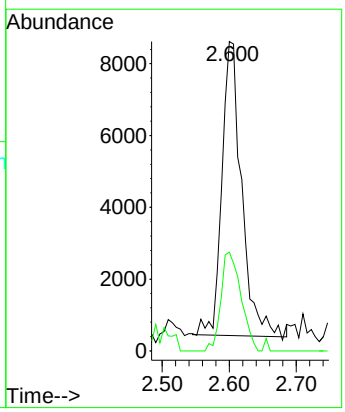


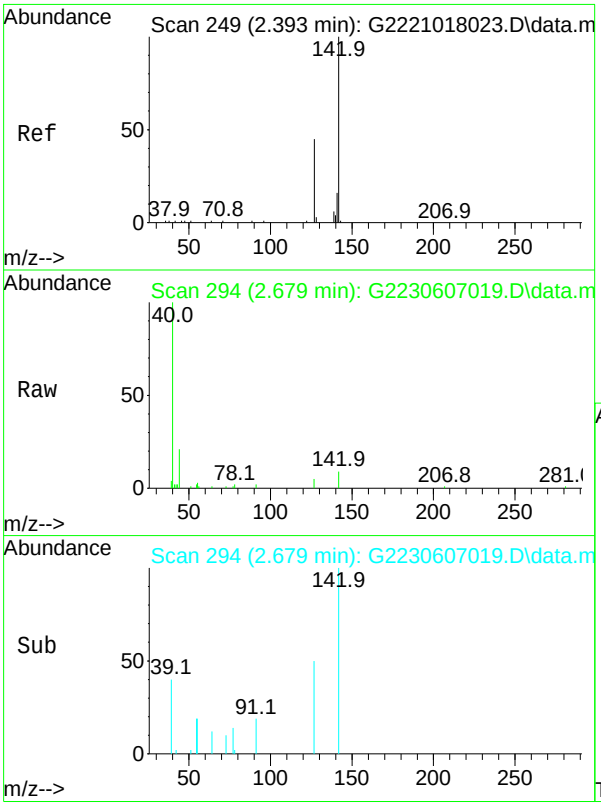


#12
Acetone
Concen: 0.08 ug/L
RT: 2.605 min Scan# 282
Delta R.T. -0.003 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 43 Resp: 167445

Ion	Ratio	Lower	Upper
43	100		
58	33.0	0.0	59.7

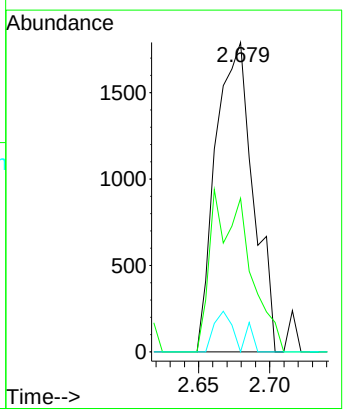


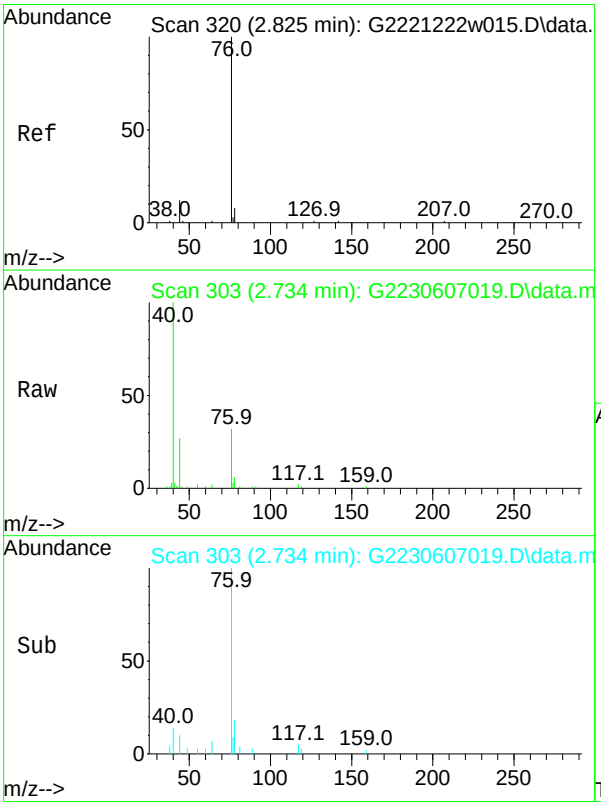


#13
Iodomethane
Concen: 0.07 ug/L
RT: 2.679 min Scan# 294
Delta R.T. 0.003 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion:142 Resp: 32756

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

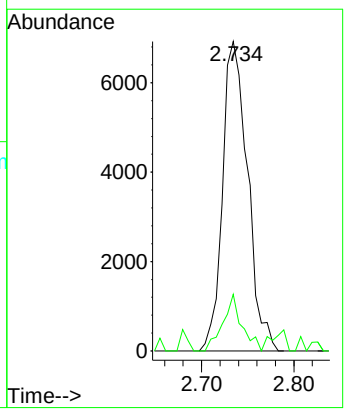


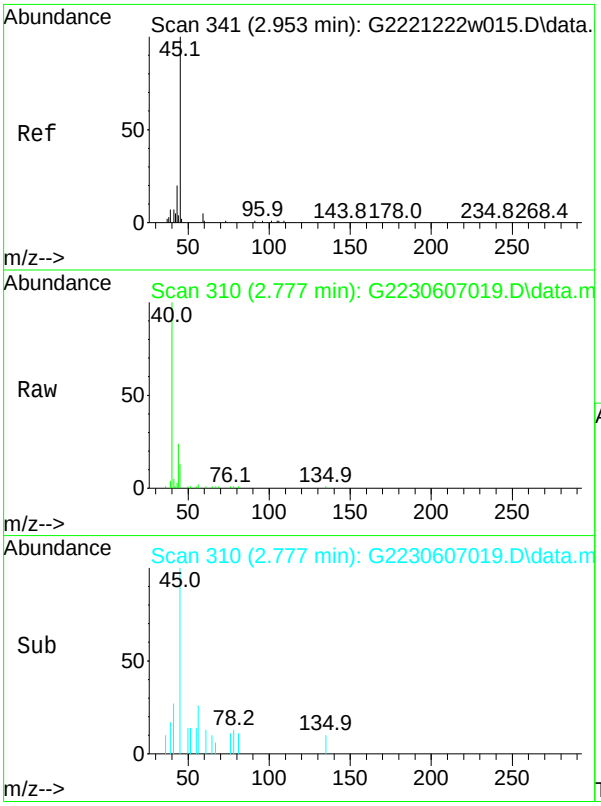


#14
Carbon disulfide
Concen: 0.05 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.002 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 76 Resp: 130340

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

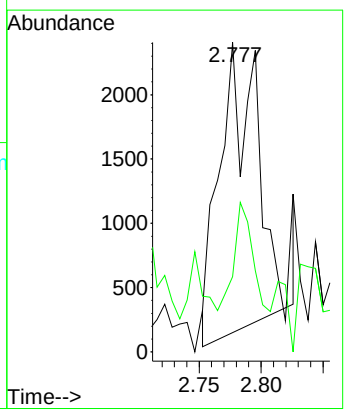


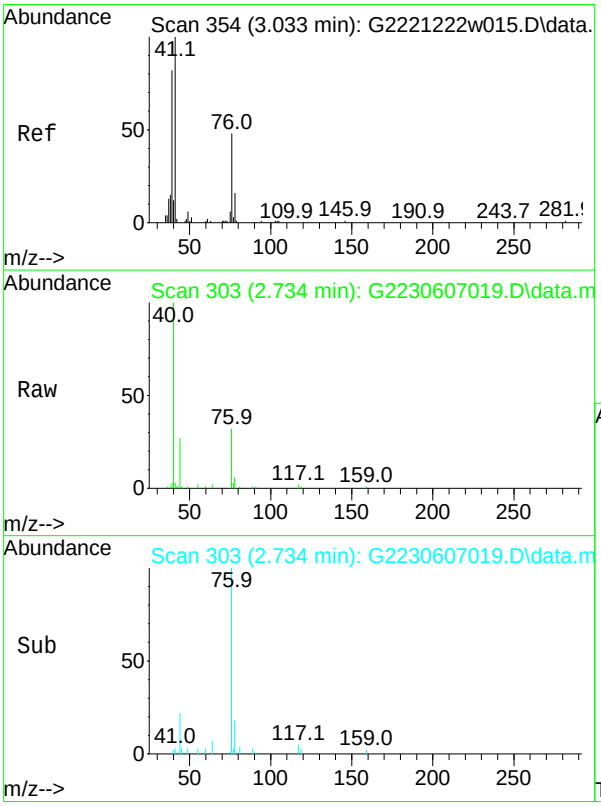


#15
Isopropanol
Concen: 2.81 ug/L
RT: 2.779 min Scan# 310
Delta R.T. -0.013 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 45 Resp: 45879

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

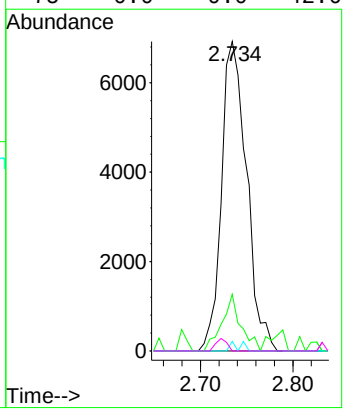


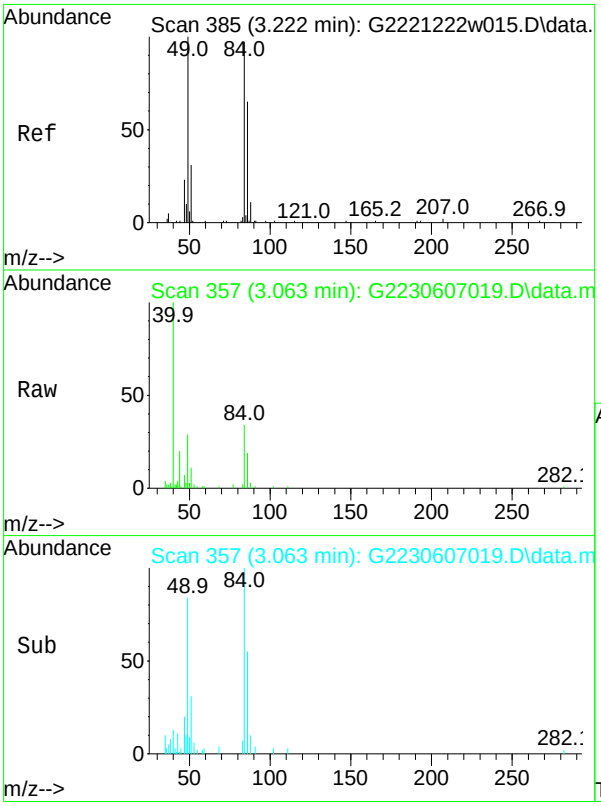


#17
3-Chloro-1-propene
Concen: 0.56 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.184 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 76 Resp: 130342

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

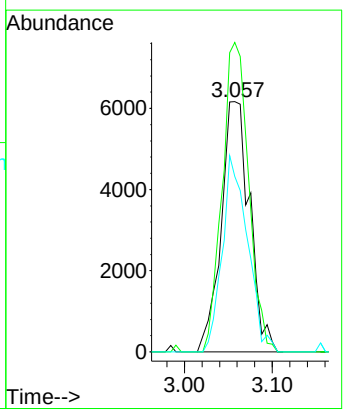


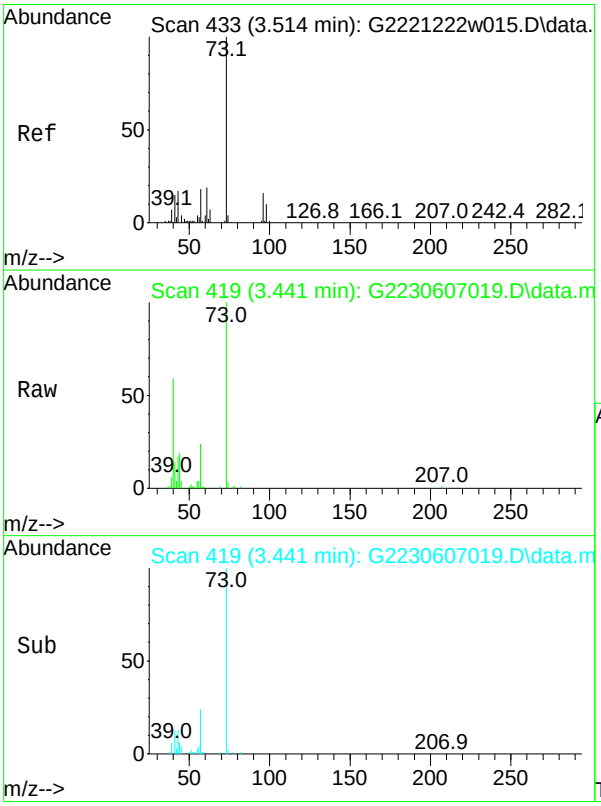


#18
Methylene chloride
Concen: Below Cal
RT: 3.061 min Scan# 357
Delta R.T. -0.001 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 49 Resp: 139029

Ion	Ratio	Lower	Upper
49	100		
84	114.9	57.9	117.9
86	69.6	24.9	84.9

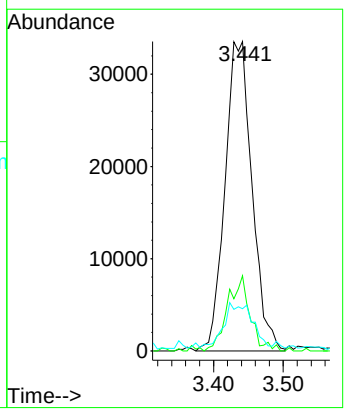


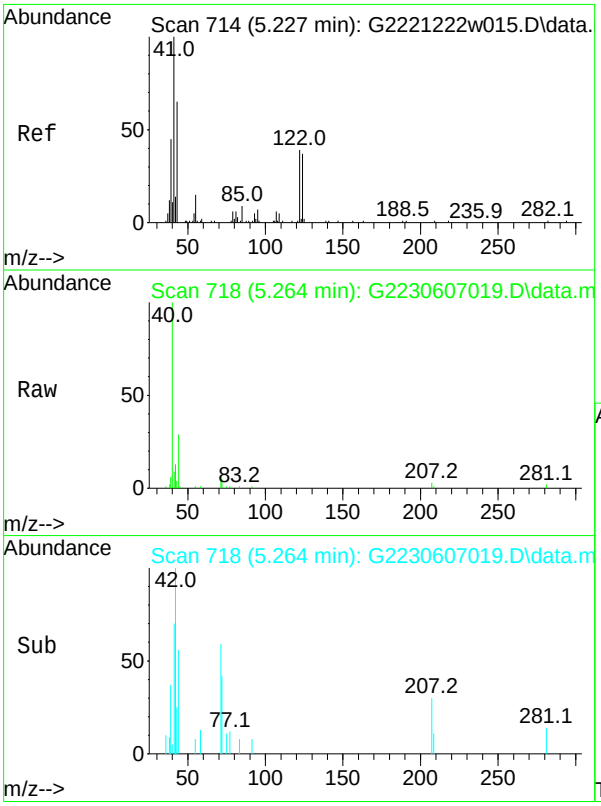


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.441 min Scan# 419
Delta R.T. -0.006 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 73 Resp: 903490

Ion	Ratio	Lower	Upper
73	100		
57	20.7	0.0	51.7
41	14.5	0.0	50.6

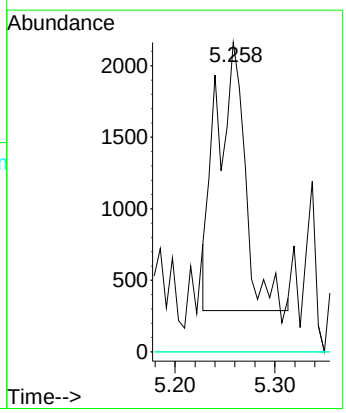


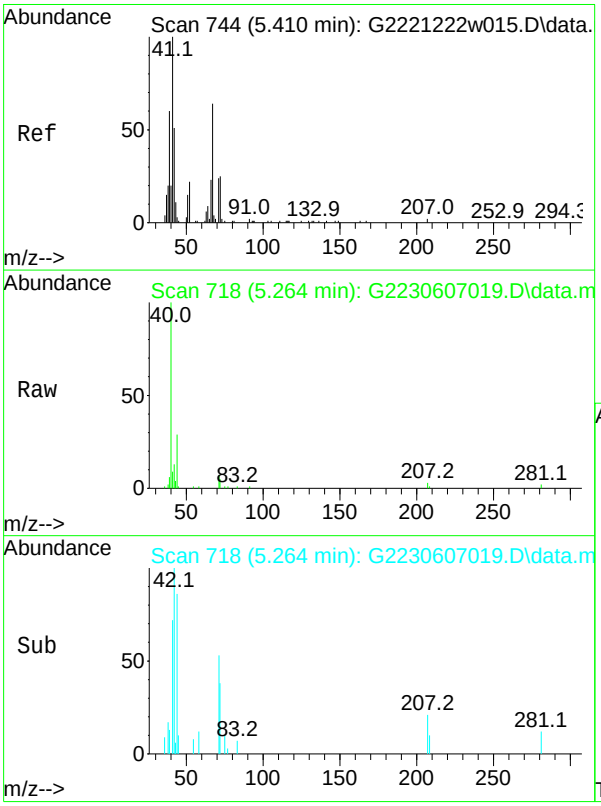


#33
1-Bromopropane
Concen: 0.06 ug/L
RT: 5.262 min Scan# 718
Delta R.T. 0.186 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 41 Resp: 38719

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

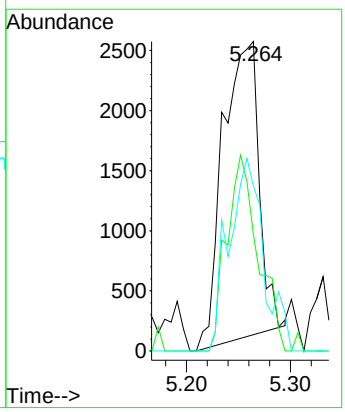


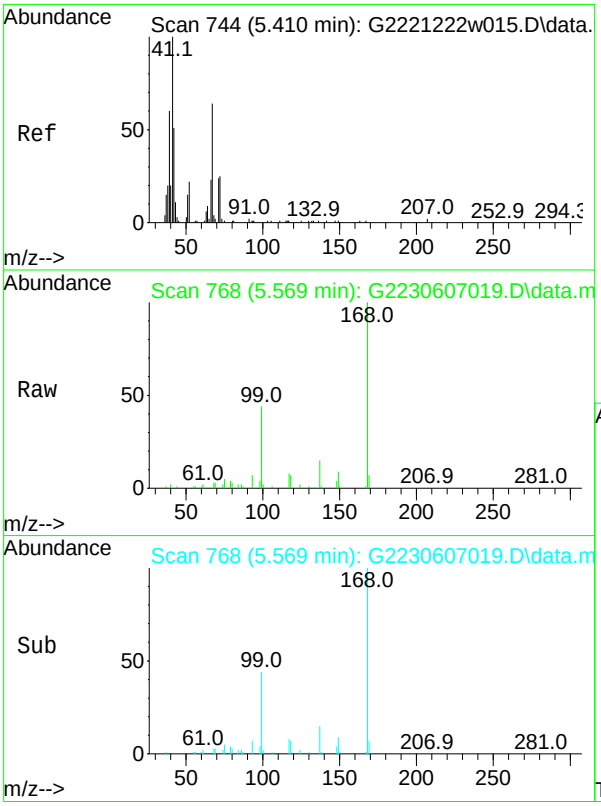


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.261 min Scan# 718
Delta R.T. 0.000 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 42 Resp: 58599

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

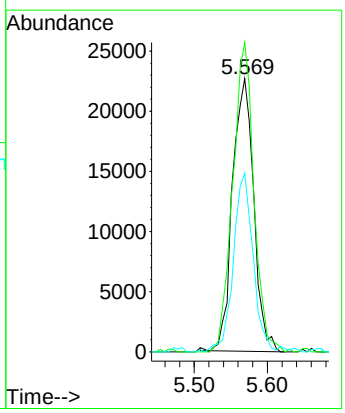


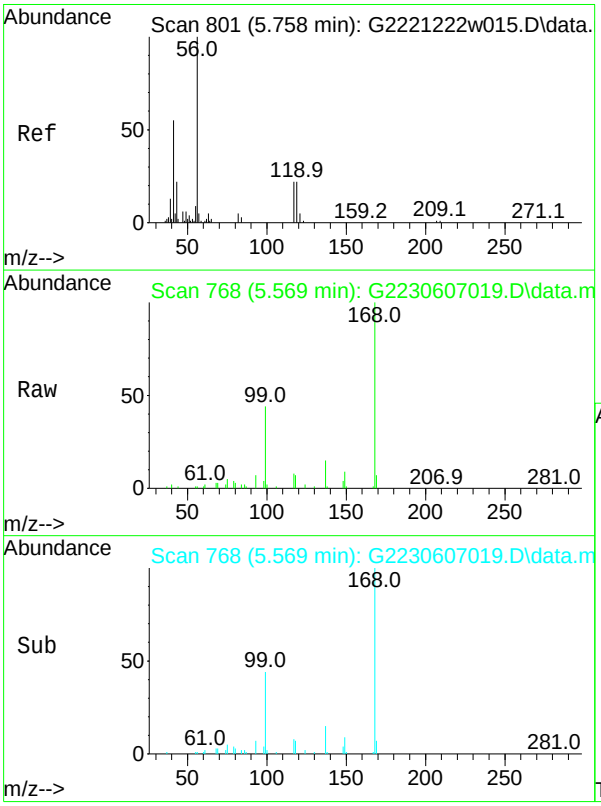


#40
Cyclohexane
Concen: 0.84 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 84 Resp: 456126

Ion	Ratio	Lower	Upper
84	100		
69	113.4	6.8	66.8#
56	61.8	79.1	139.1#

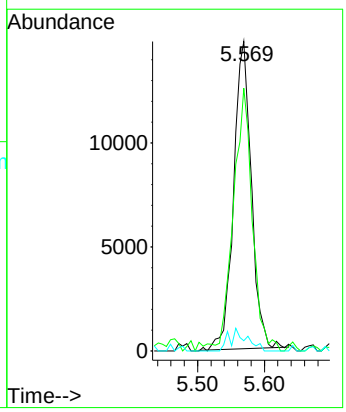


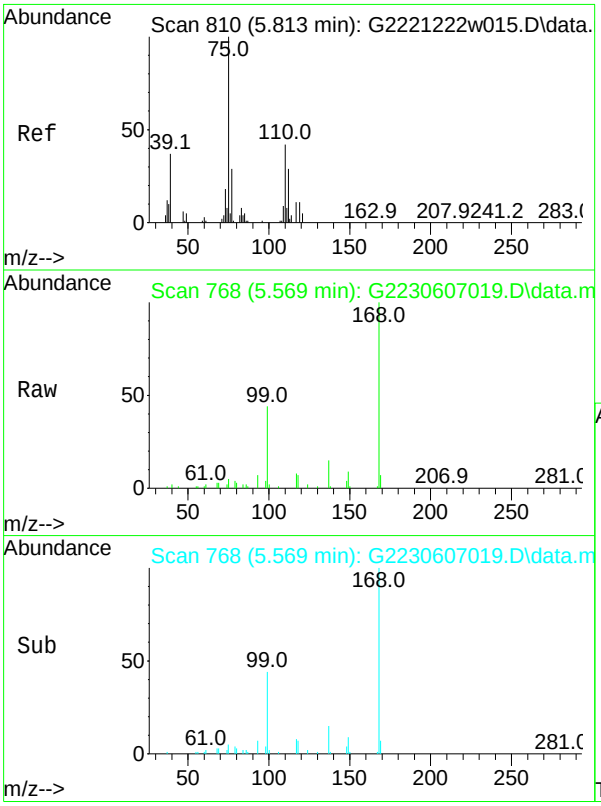


#41
1-Chlorobutane
Concen: 0.43 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 56 Resp: 270770

Ion	Ratio	Lower	Upper
56	100		
55	93.1	0.0	41.0#
57	0.0	0.0	35.7

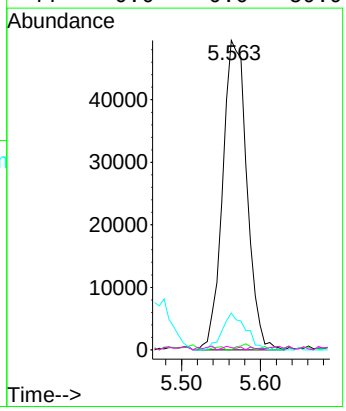


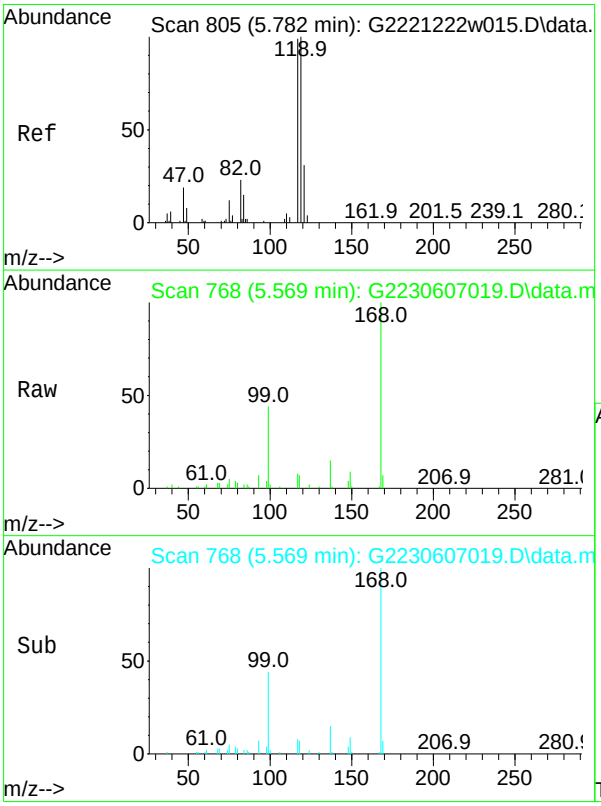


#42
1,1-Dichloropropene
Concen: 2.22 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 75 Resp: 1056188

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.5	9.1	69.1
77	0.0	0.0	59.9

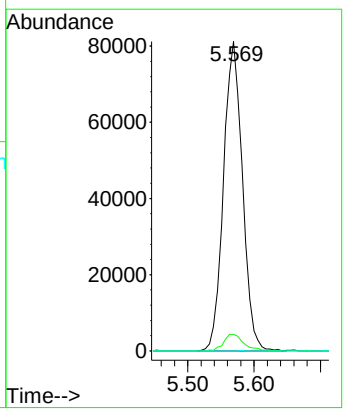


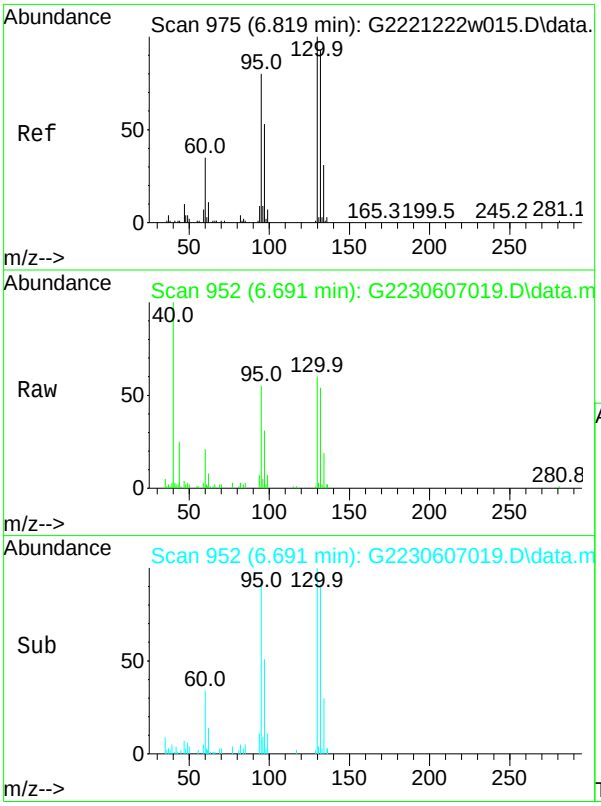


#47
Carbon tetrachloride
Concen: 3.21 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion:117 Resp: 1612709

Ion	Ratio	Lower	Upper
117	100		
119	5.9	66.4	126.4#
121	0.0	0.4	60.4#

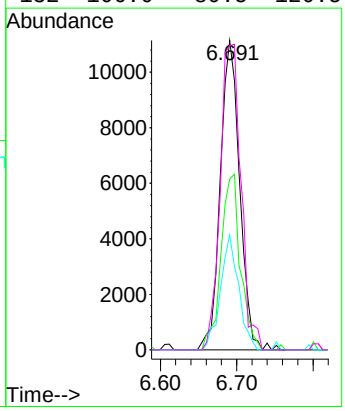


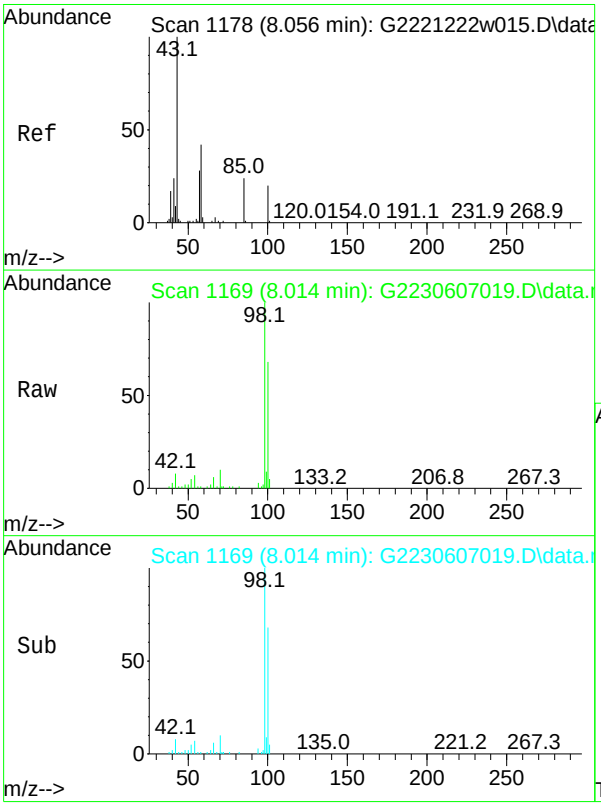


#50
Trichloroethene
Concen: 0.46 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 95 Resp: 197151

Ion	Ratio	Lower	Upper
95	100		
97	57.2	35.5	95.5
60	34.8	14.8	74.8
132	106.0	80.5	120.5

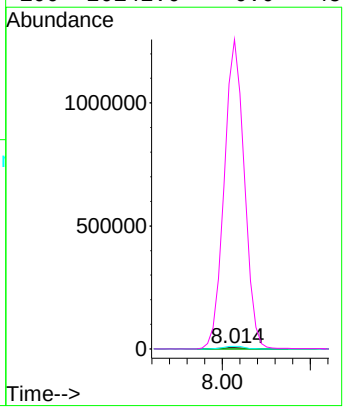


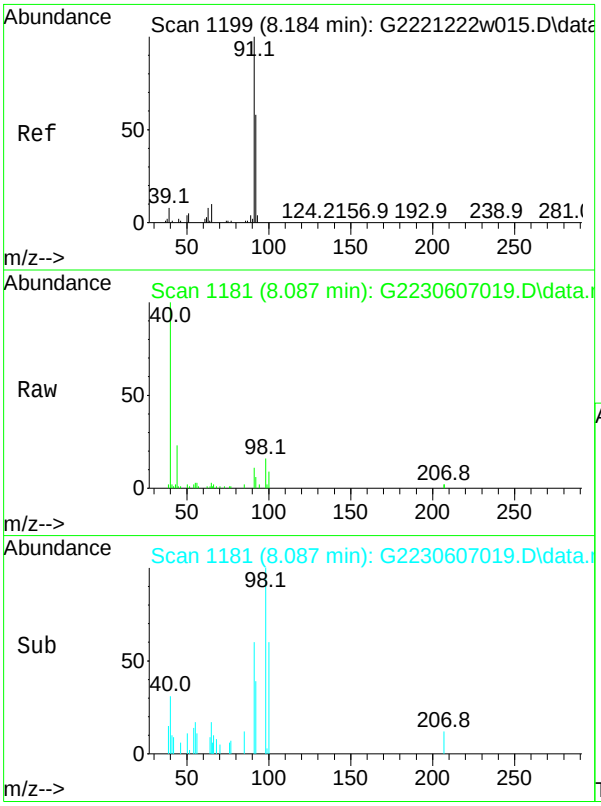


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 43 Resp: 99221

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	185.6	37.0	37.0#
100	20142.6	0.0	45.2#

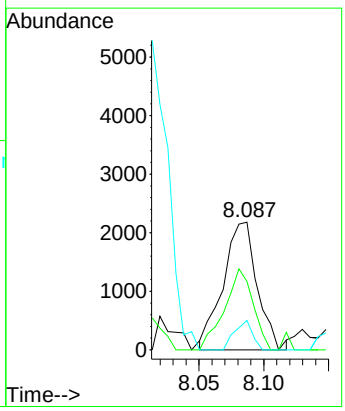


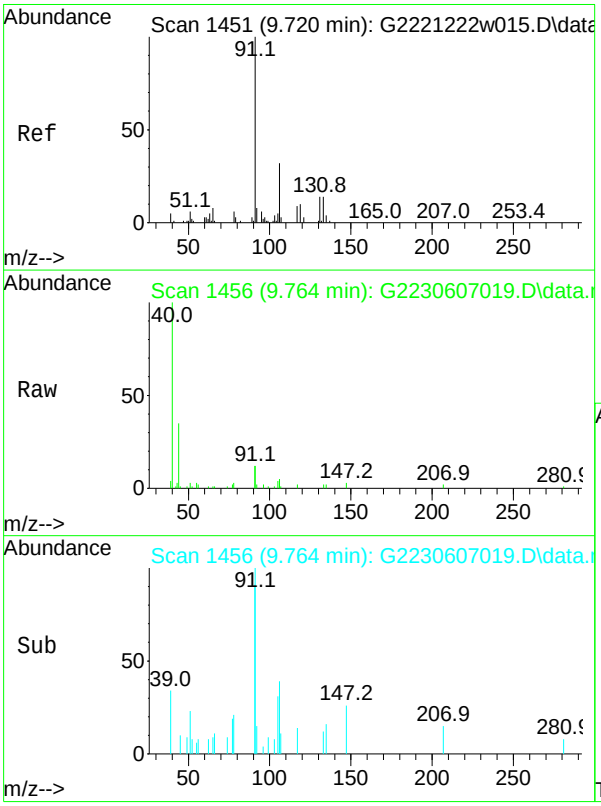


#65
Toluene
Concen: Below Cal
RT: 8.086 min Scan# 1181
Delta R.T. -0.000 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 91 Resp: 40002

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

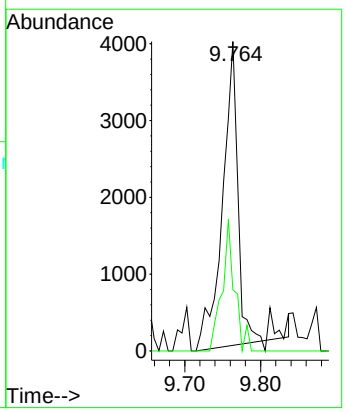


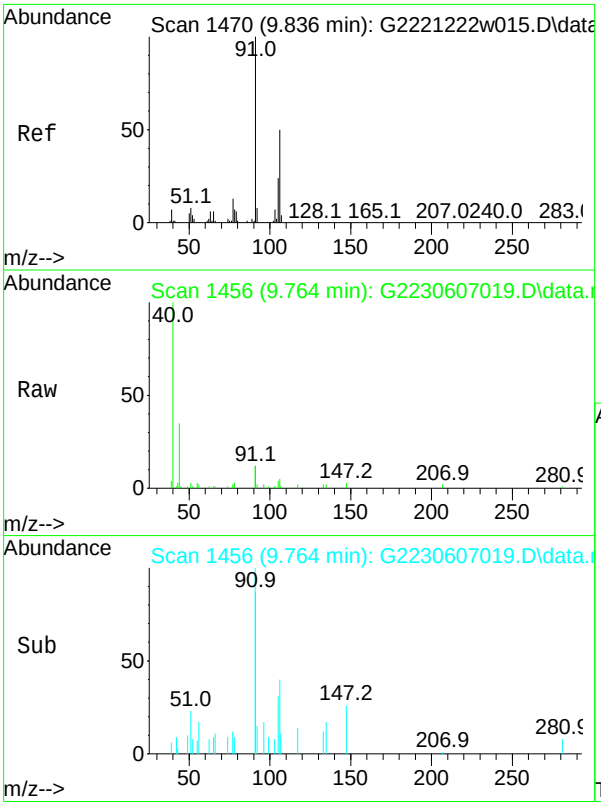


#74
Ethylbenzene
Concen: Below Cal
RT: 9.765 min Scan# 1456
Delta R.T. 0.122 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 91 Resp: 56403

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

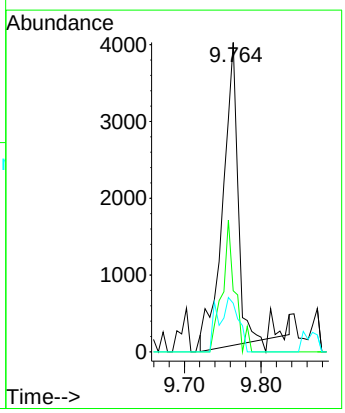


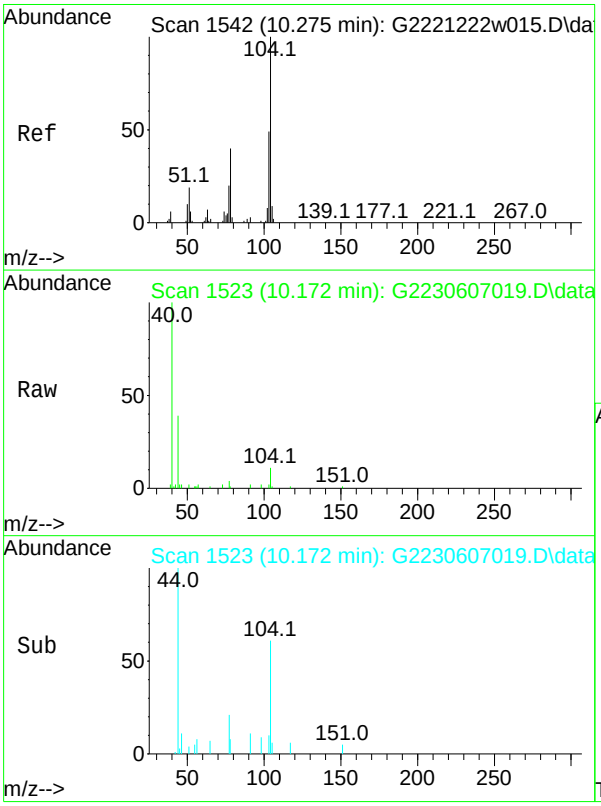


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. 0.000 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 91 Resp: 54695

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

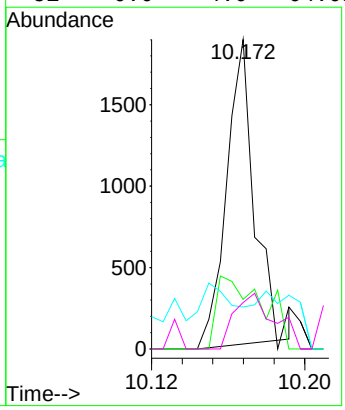


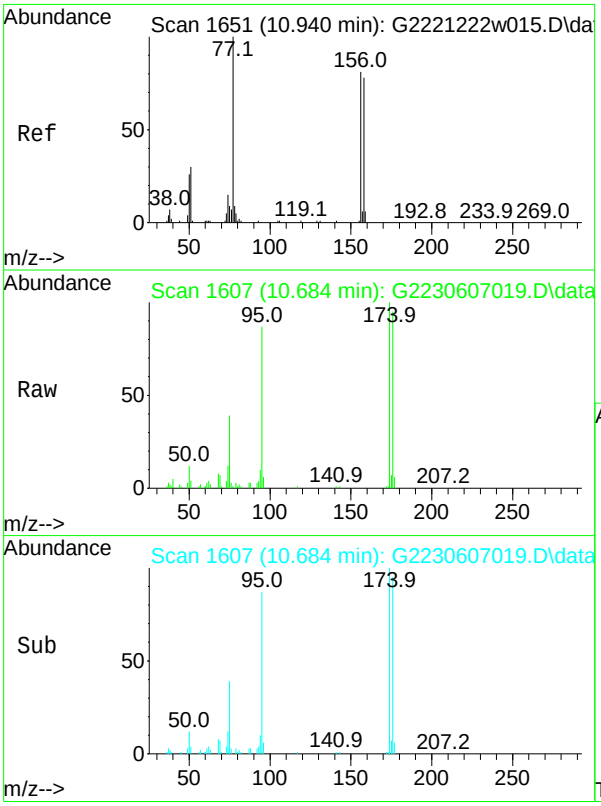


#76
Styrene
Concen: 0.02 ug/L
RT: 10.173 min Scan# 1523
Delta R.T. -0.004 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion:104 Resp: 18723

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

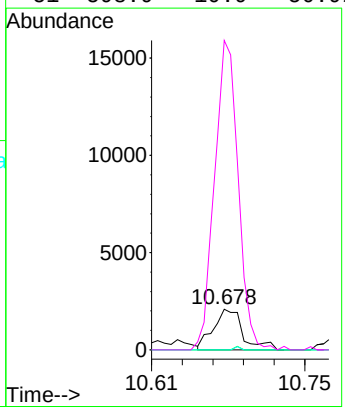


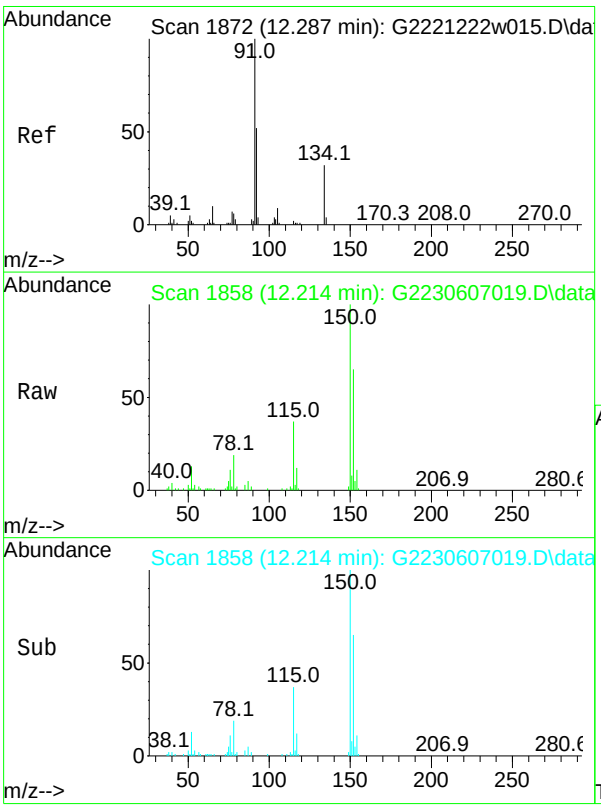


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.684 min Scan# 1607
Delta R.T. -0.144 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 77 Resp: 40153

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	598.9	10.9	50.9#

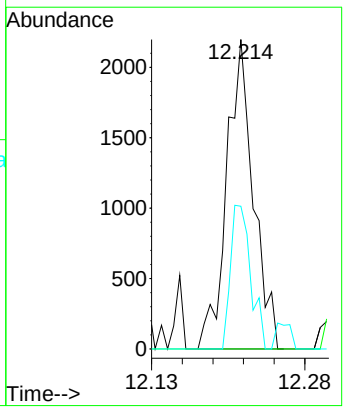




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.217 min Scan# 1858
Delta R.T. -0.014 min
Lab File: G2230607019.D
Acq: 07 Jun 2023 22:21

Tgt Ion: 91 Resp: 40669

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

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13RE2	File ID:	G2230609012.D
Sampled:	05/27/23 16:35	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 13:32
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13RE2	File ID:	G2230609012.D
Sampled:	05/27/23 16:35	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 13:32
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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

52747WW26R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-13RE2	File ID:	G2230609012.D
Sampled:	05/27/23 16:35	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 13:32
		Preparation:	5030_W	Dilution:	10
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609012.D
Acq On : 09 Jun 2023 13:32
Operator : PO1/MP3
Sample : 23E0775-13RE2
Misc : 10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 10 08:59:06 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

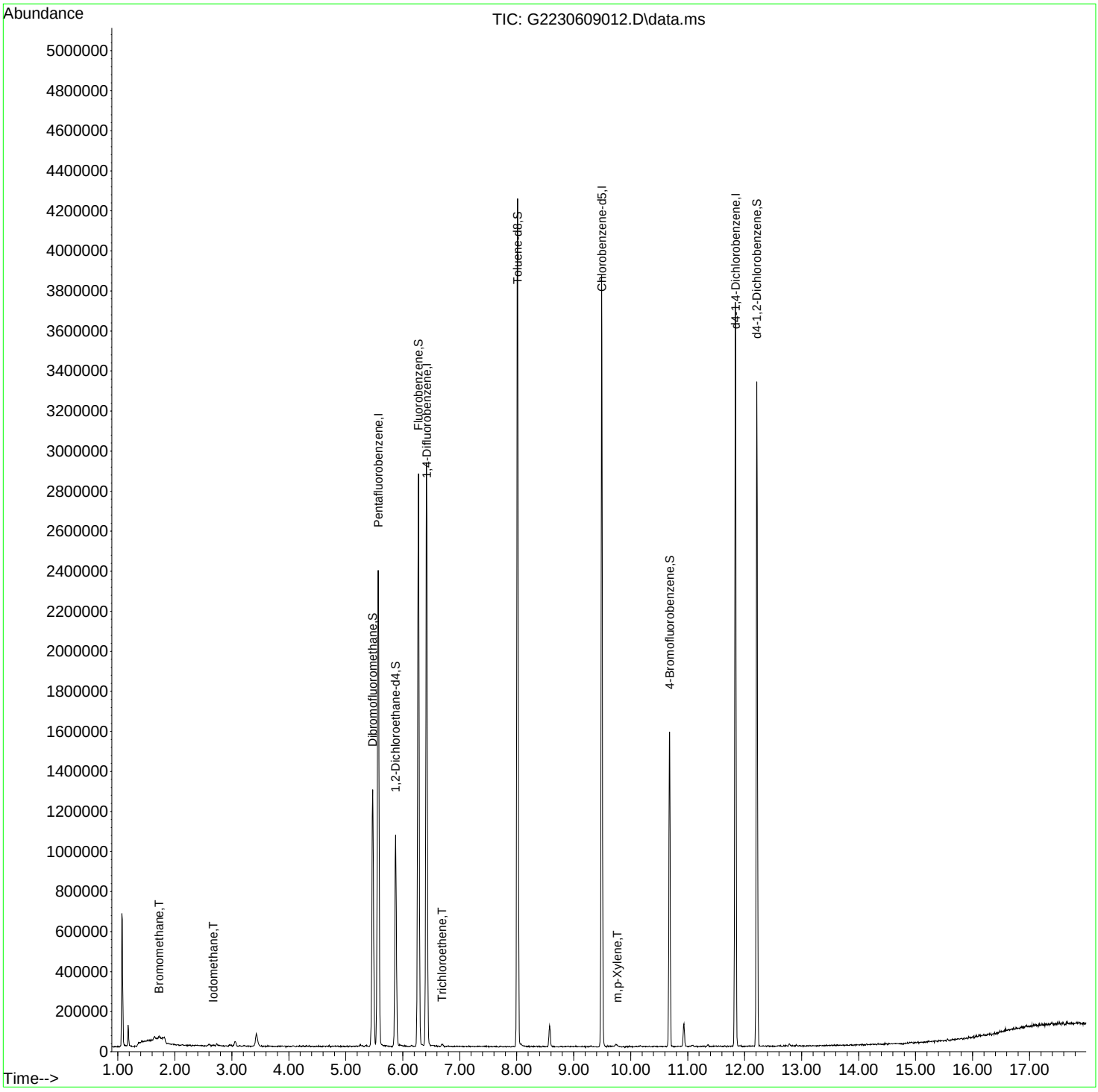
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	18912445	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25733201	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22413169	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10655333	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	7972364	19.15	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.75%				
43) 1,2-Dichloroethane-d4	5.876	65	7411259	18.02	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.10%				
49) Fluorobenzene	6.277	96	28065550	19.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.70%				
64) Toluene-d8	8.016	98	27633993	19.56	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.80%				
81) 4-Bromofluorobenzene	10.685	174	5001614	9.94	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.40%				
97) d4-1,2-Dichlorobenzene	12.217	152	9284488	20.26	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.30%				
Target Compounds							Qvalue
3) Chloromethane	1.353	50	18725	Below Cal		#	41
5) Bromomethane	1.722	94	83919	0.08	ug/L	#	81
13) Iodomethane	2.672	142	54189	0.12	ug/L	#	41
18) Methylene chloride	3.058	49	138413	Below Cal			79
21) Methyl tert-butyl ether	3.434	73	849053	Below Cal			97
50) Trichloroethene	6.691	95	37938m	0.03	ug/L		
65) Toluene	8.078	91	31020	Below Cal		#	30
75) m,p-Xylene	9.763	91	53028	0.04	ug/L	#	83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609012.D
Acq On : 09 Jun 2023 13:32
Operator : PO1/MP3
Sample : 23E0775-13RE2
Misc : 10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 10 08:59:06 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609012.D
Acq On : 09 Jun 2023 13:32
Operator : PO1/MP3
Sample : 23E0775-13RE2
Misc : 10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 10 08:59:06 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

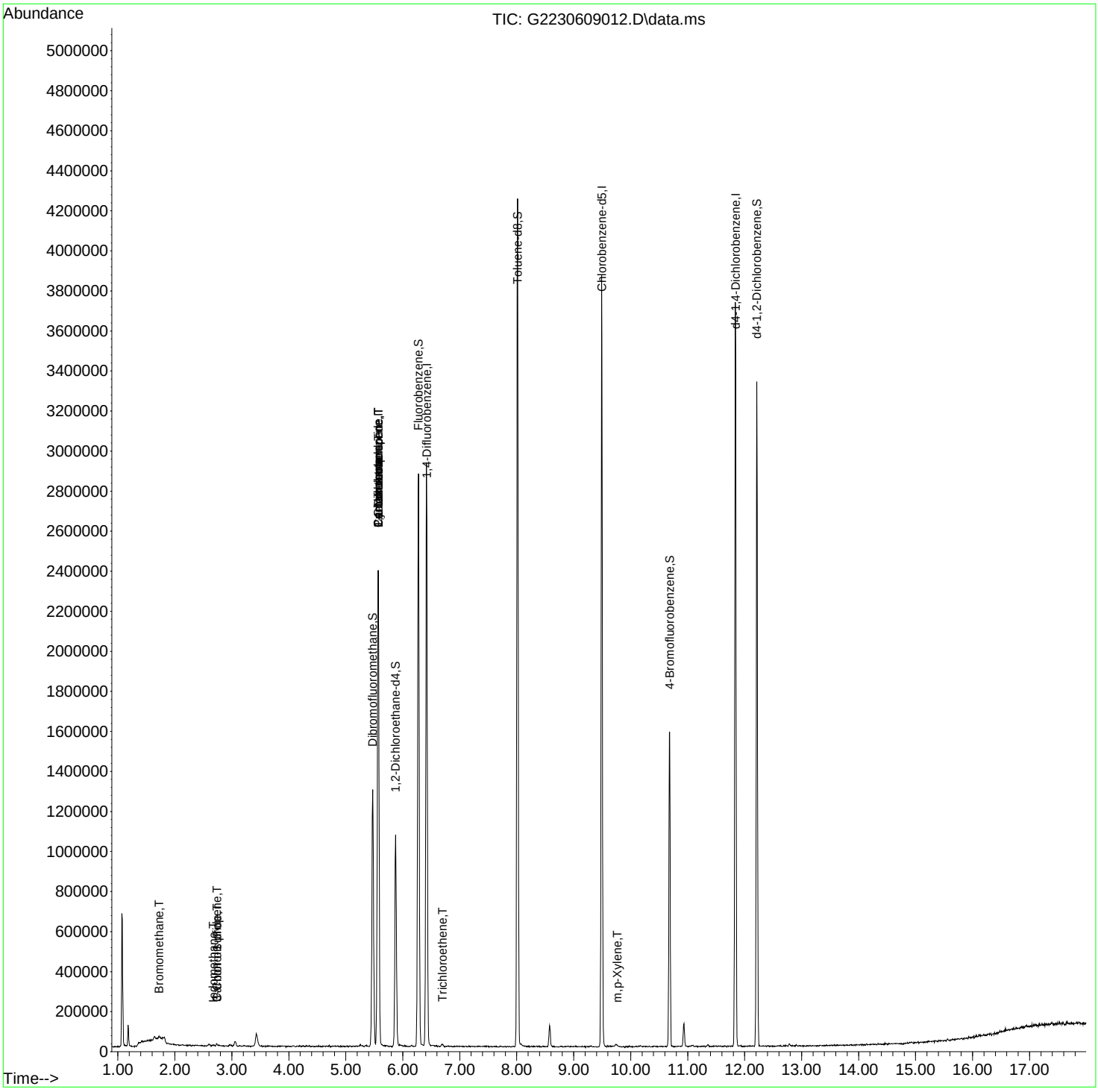
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	18912445	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25733201	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22413169	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10655333	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	7972364	19.15	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.75%				
43) 1,2-Dichloroethane-d4	5.876	65	7411259	18.02	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.10%				
49) Fluorobenzene	6.277	96	28065550	19.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.70%				
64) Toluene-d8	8.016	98	27633993	19.56	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.80%				
81) 4-Bromofluorobenzene	10.685	174	5001614	9.94	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.40%				
97) d4-1,2-Dichlorobenzene	12.217	152	9284488	20.26	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.30%				
Target Compounds							Qvalue
3) Chloromethane	1.353	50	18725	Below Cal		#	41
5) Bromomethane	1.722	94	83919	0.08	ug/L	#	81
12) Acetone	2.603	43	70408	Below Cal		#	45
13) Iodomethane	2.672	142	54189	0.12	ug/L	#	41
14) Carbon disulfide	2.738	76	137701	0.07	ug/L	#	74
17) 3-Chloro-1-propene	2.738	76	137691	0.65	ug/L	#	53
18) Methylene chloride	3.058	49	138413	Below Cal			79
21) Methyl tert-butyl ether	3.434	73	849053	Below Cal			97
36) Tetrahydrofuran	5.256	42	45213	Below Cal		#	54
40) Cyclohexane	5.571	84	394082	0.78	ug/L	#	33
41) 1-Chlorobutane	5.569	56	245678	0.42	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	997403	2.25	ug/L	#	38
47) Carbon tetrachloride	5.571	117	1491519	3.21	ug/L	#	16
50) Trichloroethene	6.696	95	34758	0.02	ug/L	#	46
60) 4-Methyl-2-pentanone	8.016	43	98394	Below Cal		#	1
65) Toluene	8.078	91	31020	Below Cal		#	30
74) Ethylbenzene	9.763	91	53103	Below Cal			71
75) m,p-Xylene	9.763	91	53028	0.04	ug/L	#	83

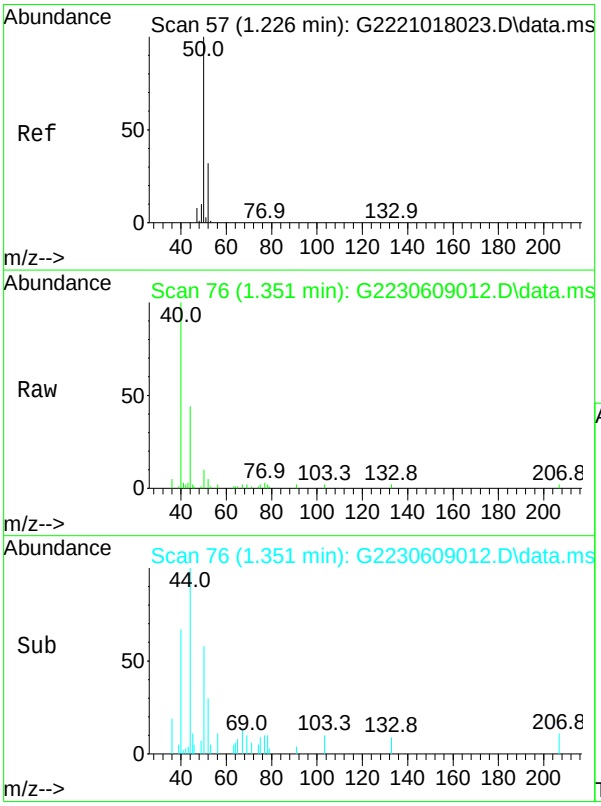
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609012.D
Acq On : 09 Jun 2023 13:32
Operator : PO1/MP3
Sample : 23E0775-13RE2
Misc : 10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 10 08:59:06 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

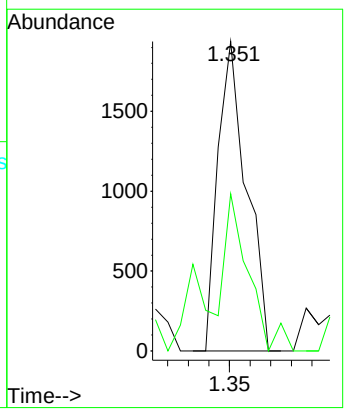


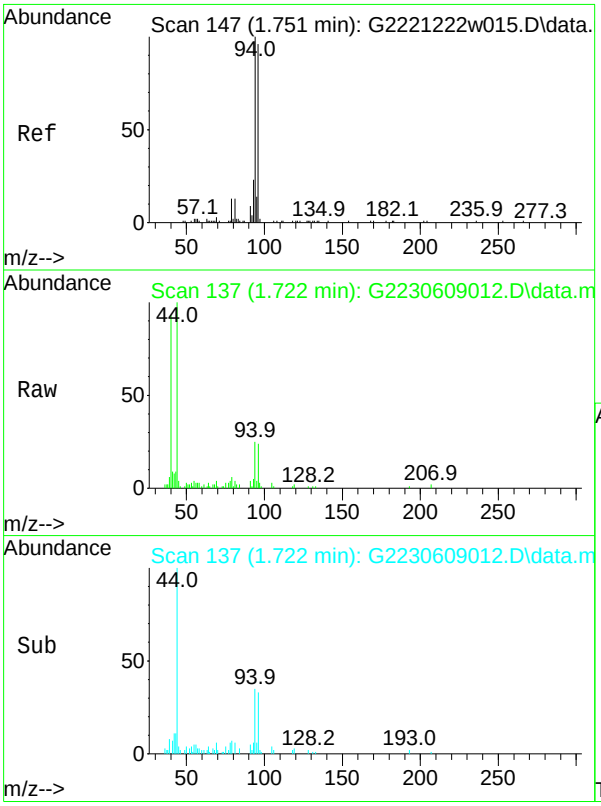


#3
Chloromethane
Concen: Below Cal
RT: 1.353 min Scan# 76
Delta R.T. -0.001 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 50 Resp: 18725

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

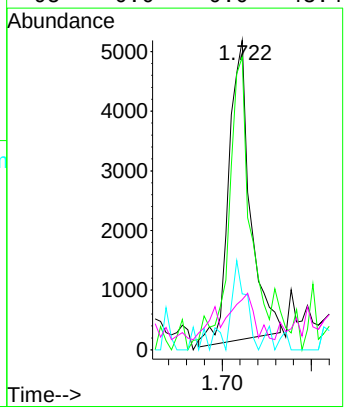


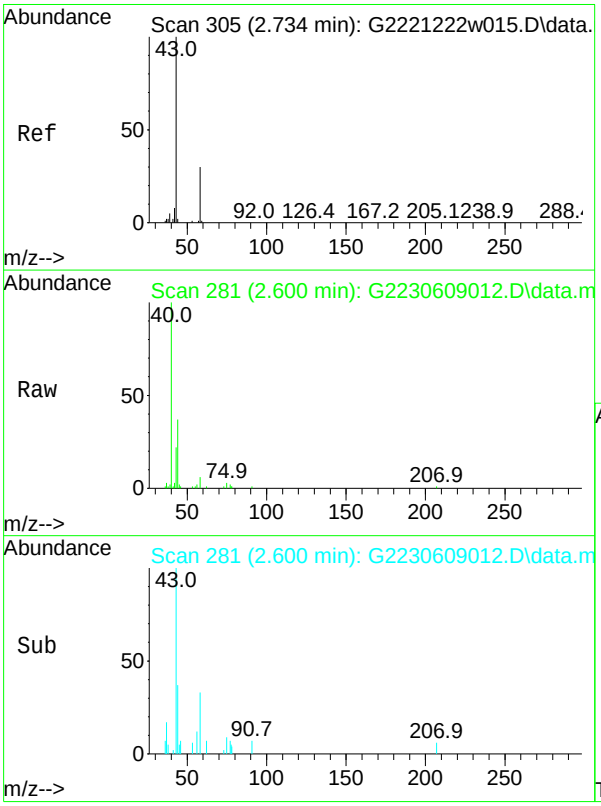


#5
Bromomethane
Concen: 0.08 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 94 Resp: 83919

Ion	Ratio	Lower	Upper
94	100		
96	107.9	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

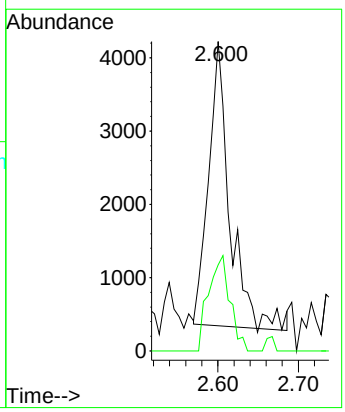


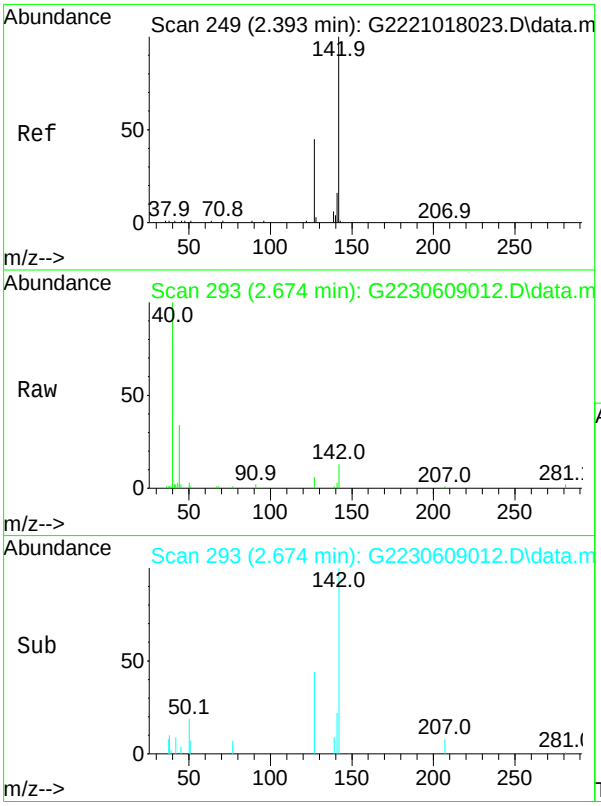


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 281
Delta R.T. -0.005 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 43 Resp: 70408

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

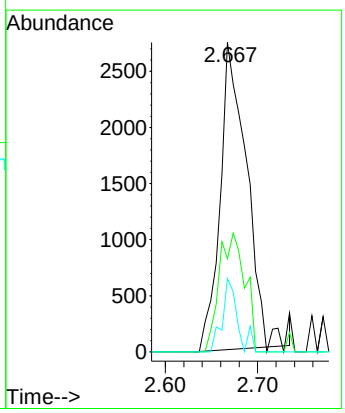


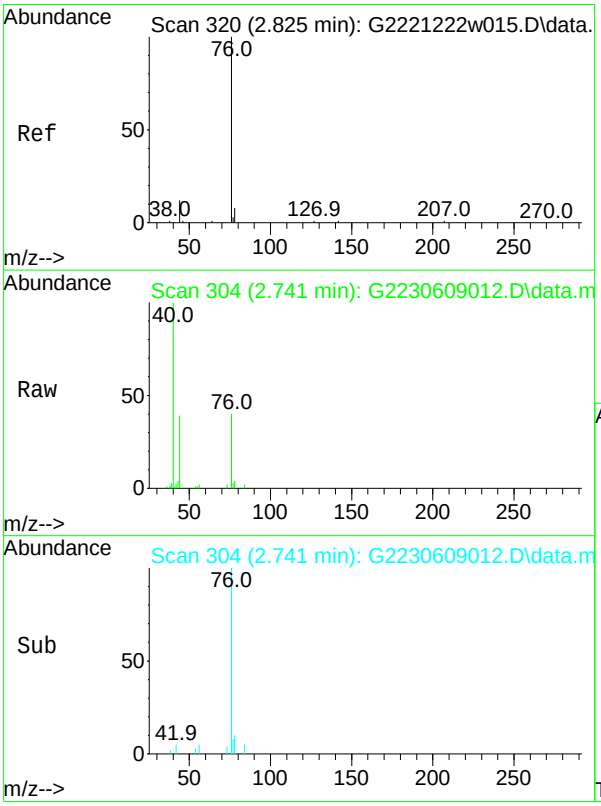


#13
Iodomethane
Concen: 0.12 ug/L
RT: 2.672 min Scan# 293
Delta R.T. -0.004 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion:142 Resp: 54189

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

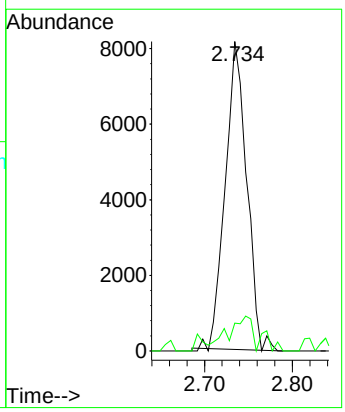


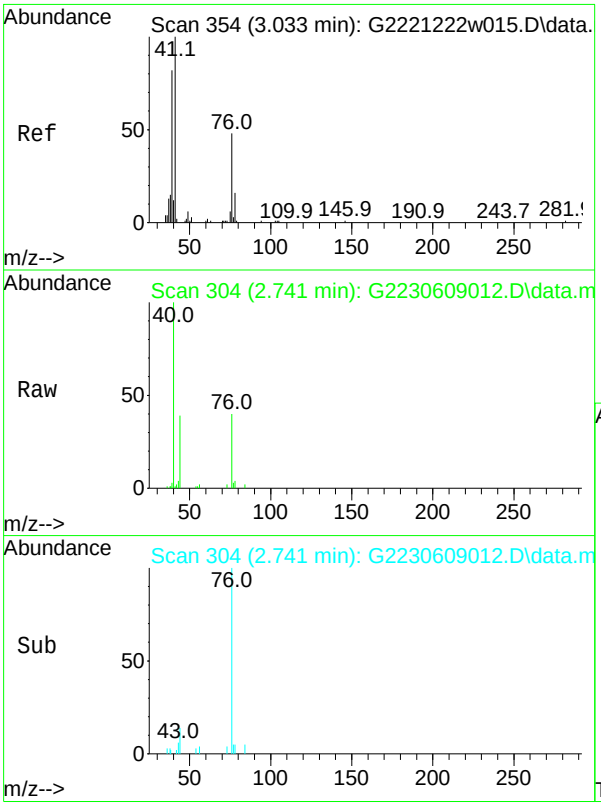


#14
Carbon disulfide
Concen: 0.07 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.001 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 76 Resp: 137701

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

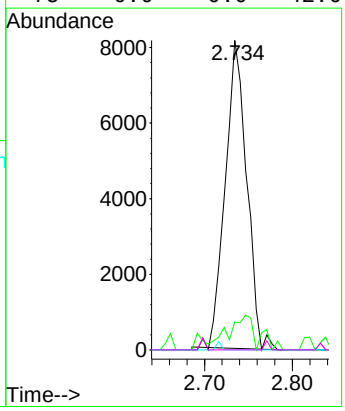


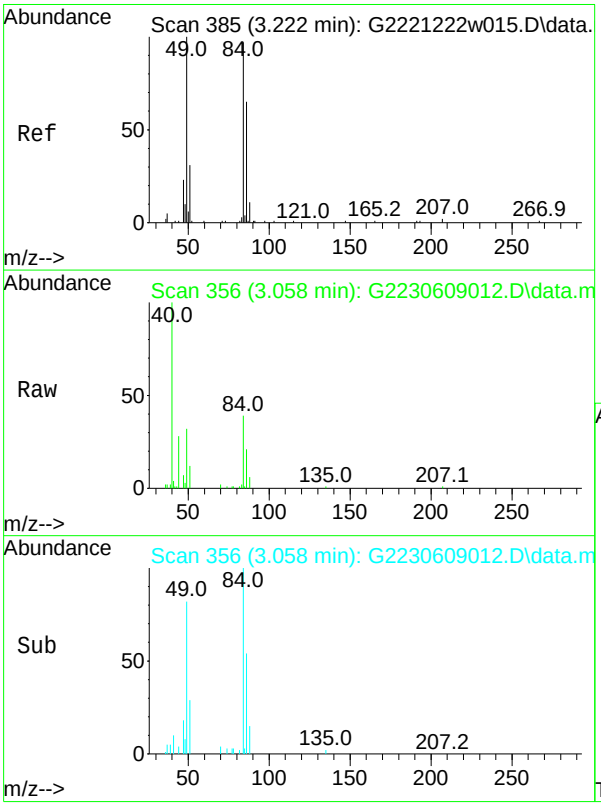


#17
3-Chloro-1-propene
Concen: 0.65 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.182 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 76 Resp: 137691

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

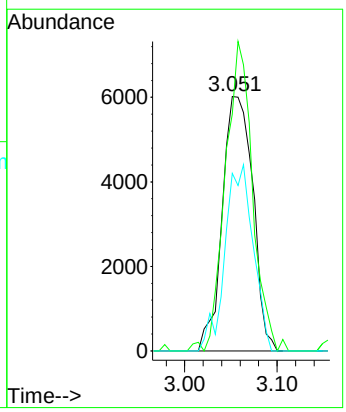


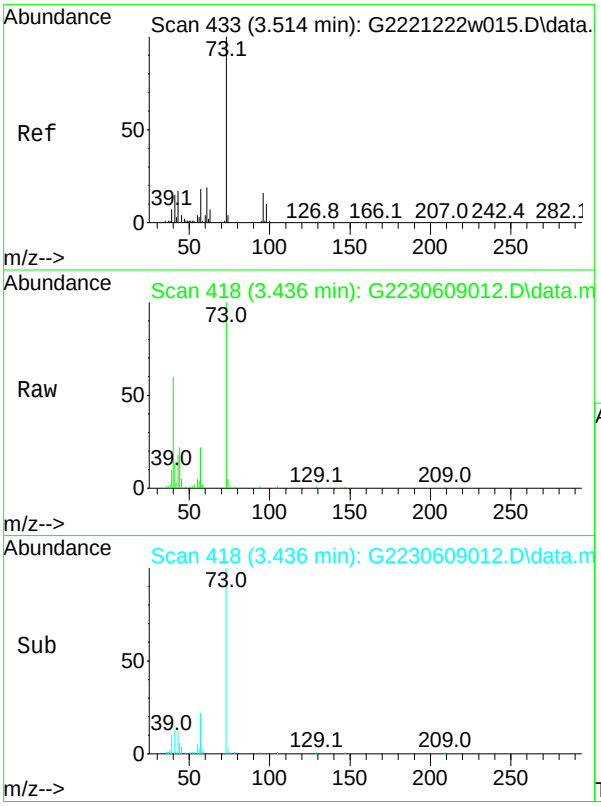


#18
Methylene chloride
Concen: Below Cal
RT: 3.058 min Scan# 356
Delta R.T. -0.004 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 49 Resp: 138413

Ion	Ratio	Lower	Upper
49	100		
84	108.8	57.9	117.9
86	67.5	24.9	84.9

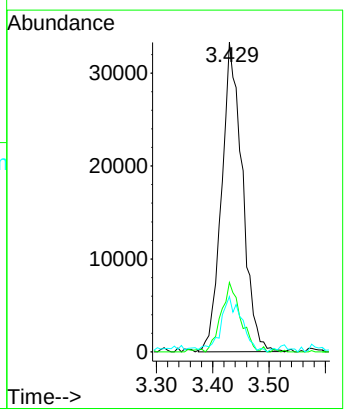


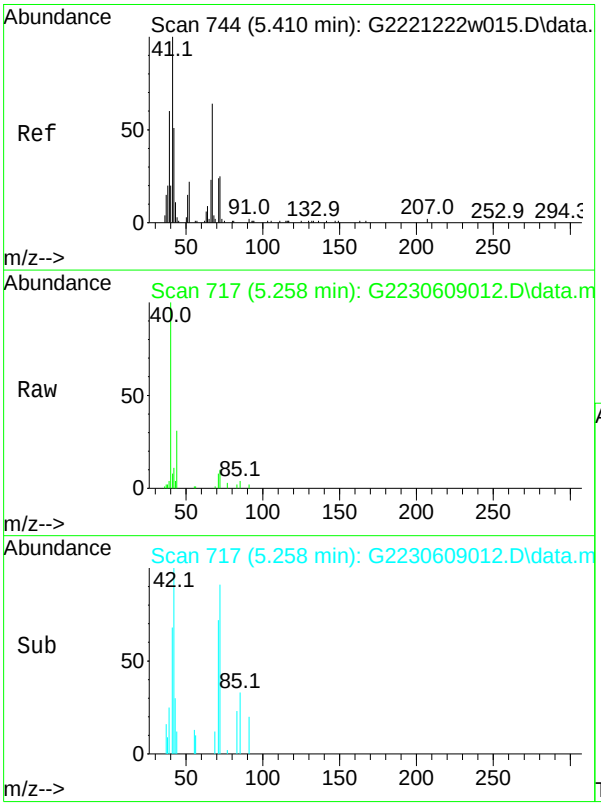


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.434 min Scan# 418
Delta R.T. -0.012 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 73 Resp: 849053

Ion	Ratio	Lower	Upper
73	100		
57	20.5	0.0	51.7
41	19.2	0.0	50.6

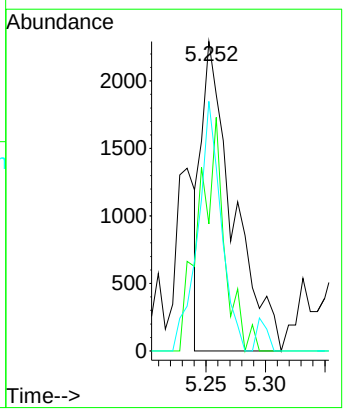


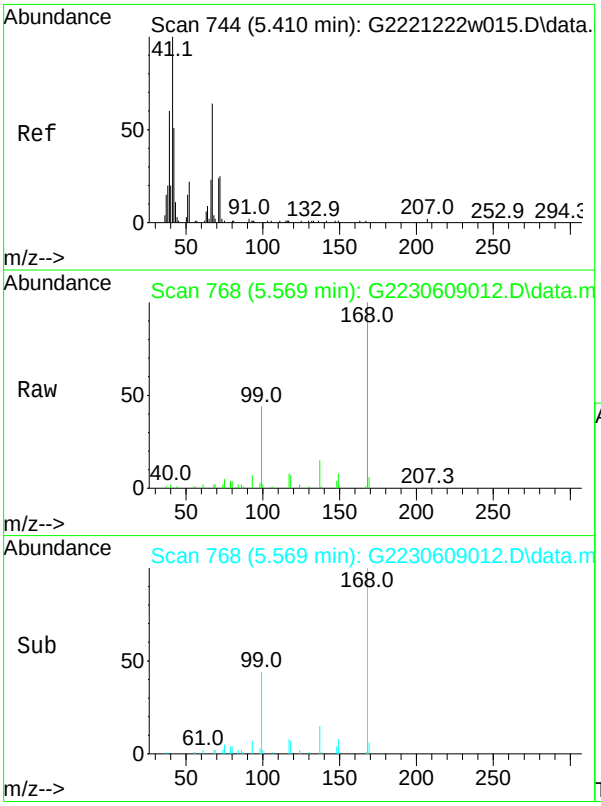


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.256 min Scan# 717
Delta R.T. -0.005 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 42 Resp: 45213

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	55.9	14.7	74.7

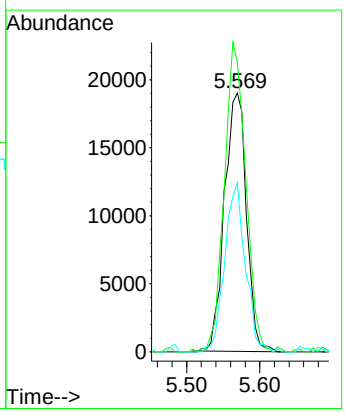


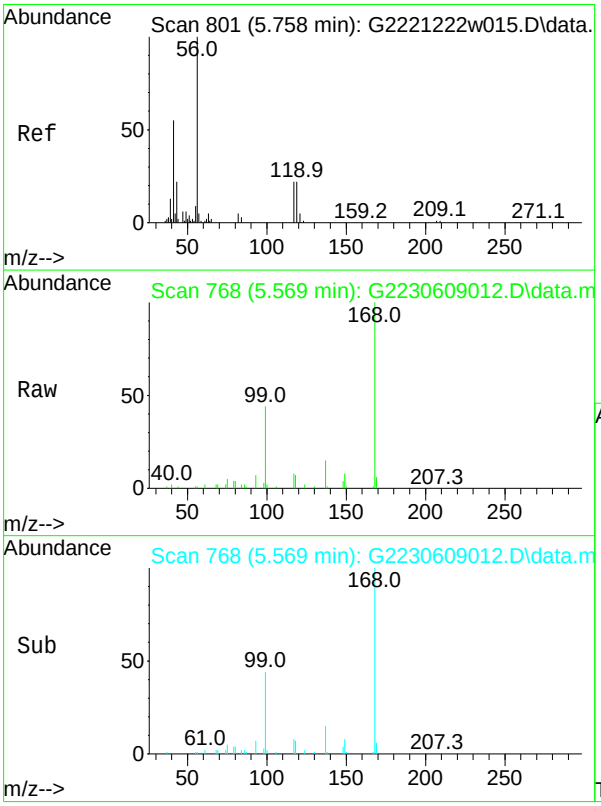


#40
Cyclohexane
Concen: 0.78 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 84 Resp: 394082

Ion	Ratio	Lower	Upper
84	100		
69	116.4	6.8	66.8#
56	62.3	79.1	139.1#

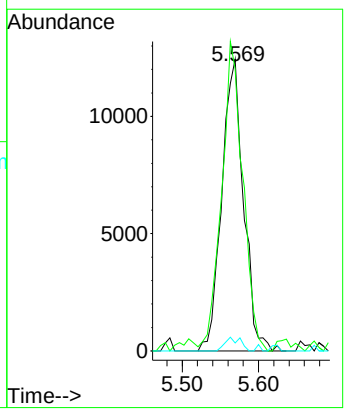


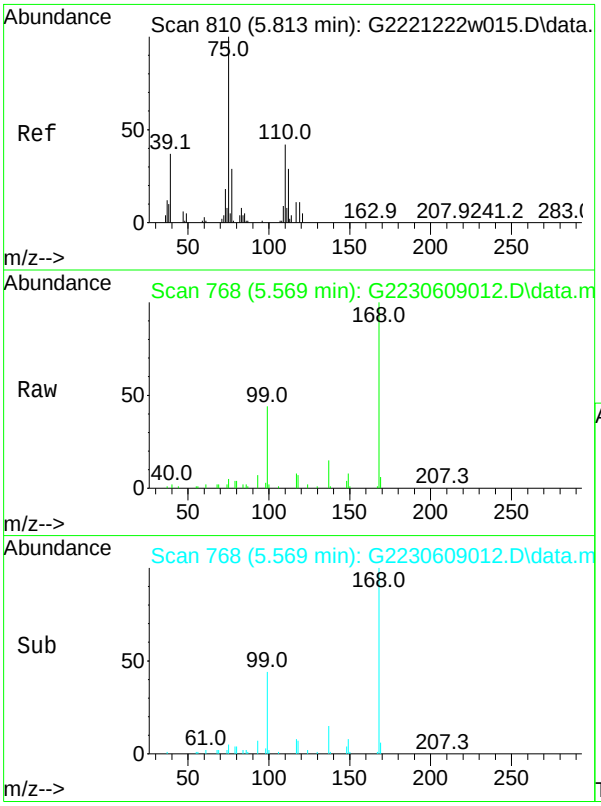


#41
1-Chlorobutane
Concen: 0.42 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 56 Resp: 245678

Ion	Ratio	Lower	Upper
56	100		
55	103.6	0.0	41.0#
57	0.0	0.0	35.7

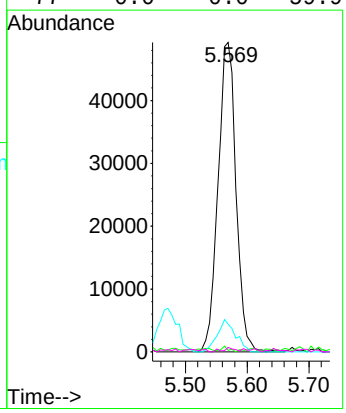


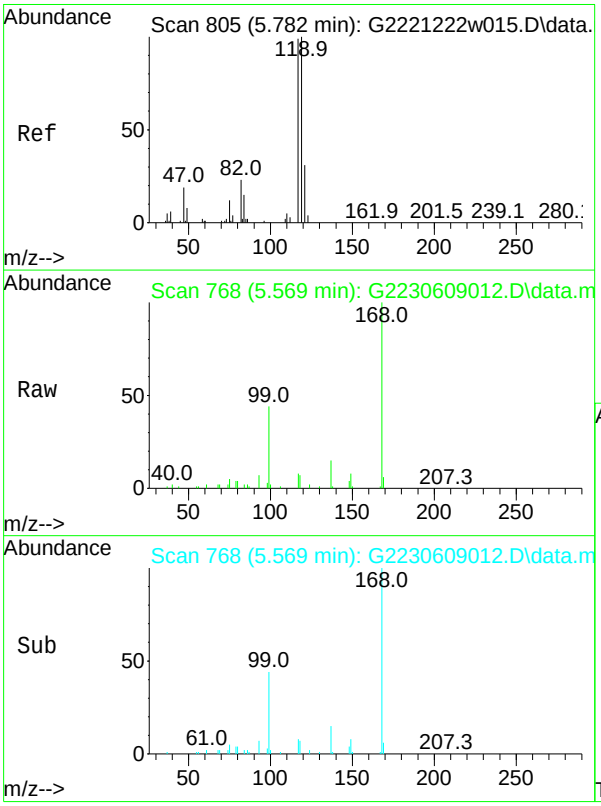


#42
1,1-Dichloropropene
Concen: 2.25 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 75 Resp: 997403

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

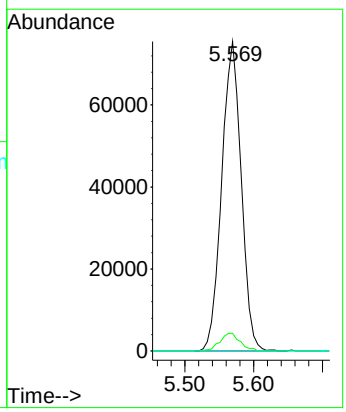


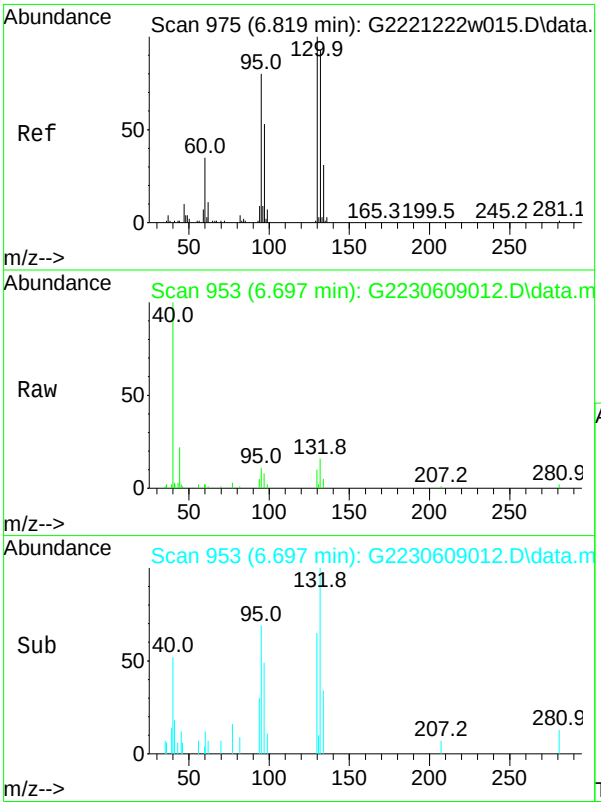


#47
Carbon tetrachloride
Concen: 3.21 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion:117 Resp: 1491519

Ion	Ratio	Lower	Upper
117	100		
119	6.0	66.4	126.4#
121	0.0	0.4	60.4#

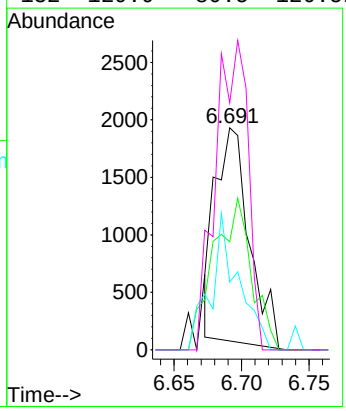


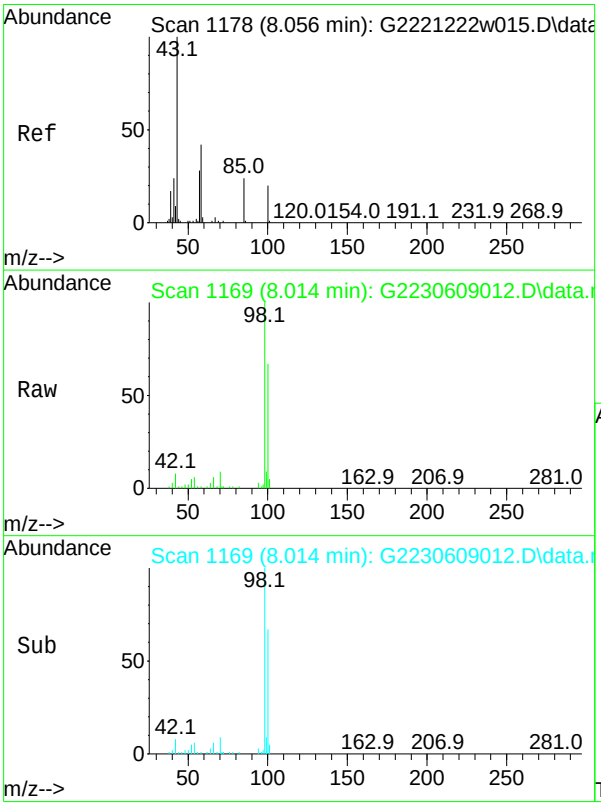


#50
Trichloroethene
Concen: 0.02 ug/L
RT: 6.696 min Scan# 953
Delta R.T. -0.000 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 95 Resp: 34758

Ion	Ratio	Lower	Upper
95	100		
97	0.0	35.5	95.5#
60	0.0	14.8	74.8#
132	129.9	80.5	120.5#

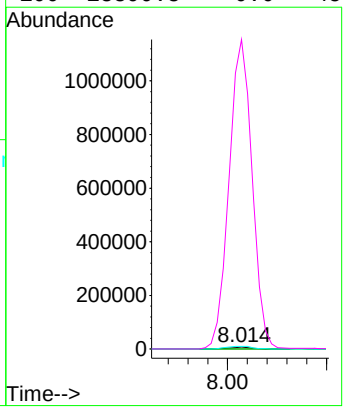


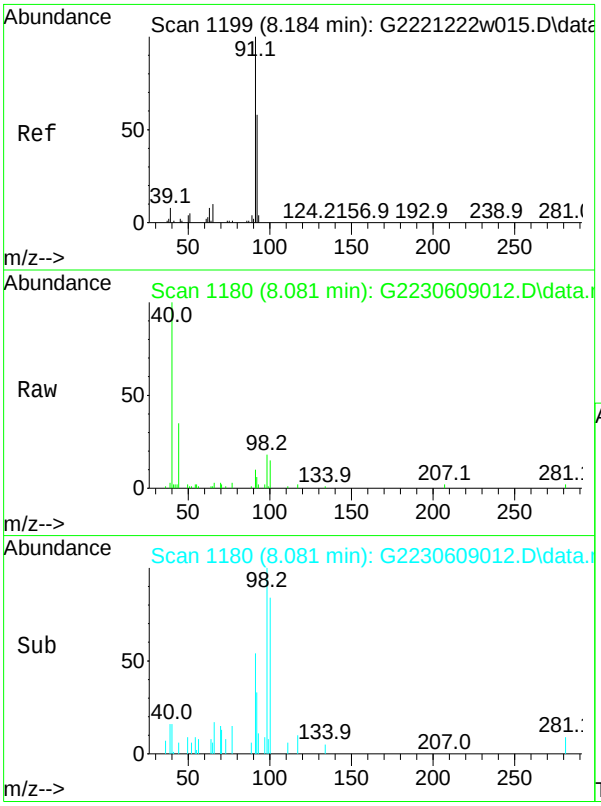


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 43 Resp: 98394

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	179.2	37.0	37.0#
100	18899.3	0.0	45.2#

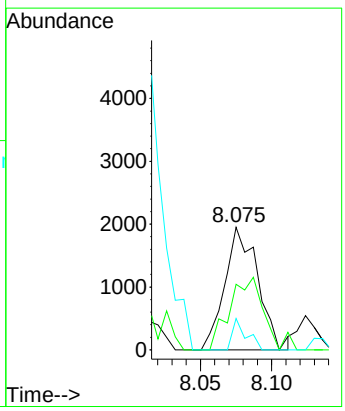


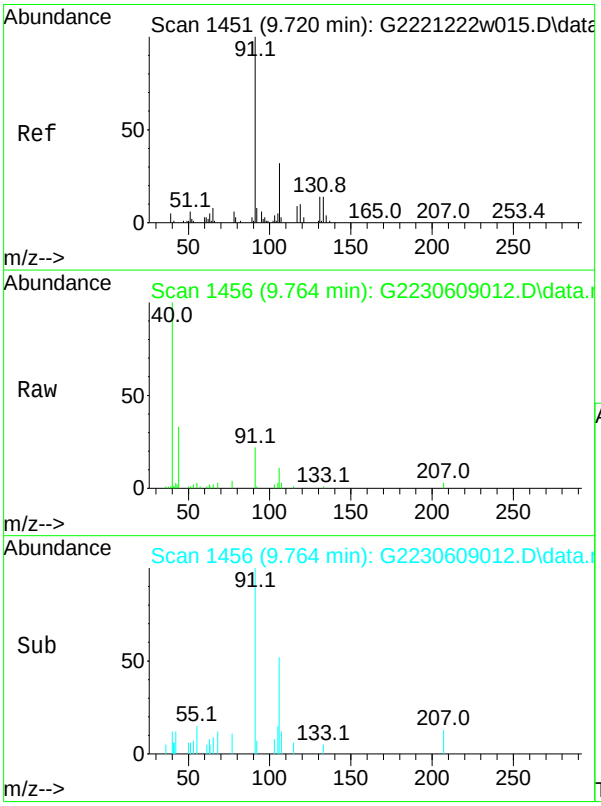


#65
Toluene
Concen: Below Cal
RT: 8.078 min Scan# 1180
Delta R.T. -0.008 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 91 Resp: 31020

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

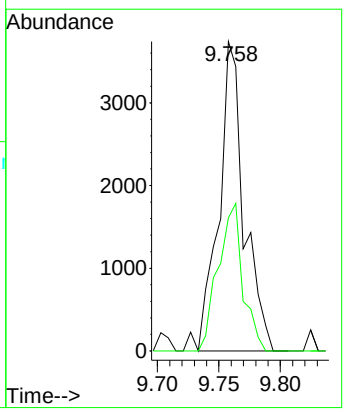


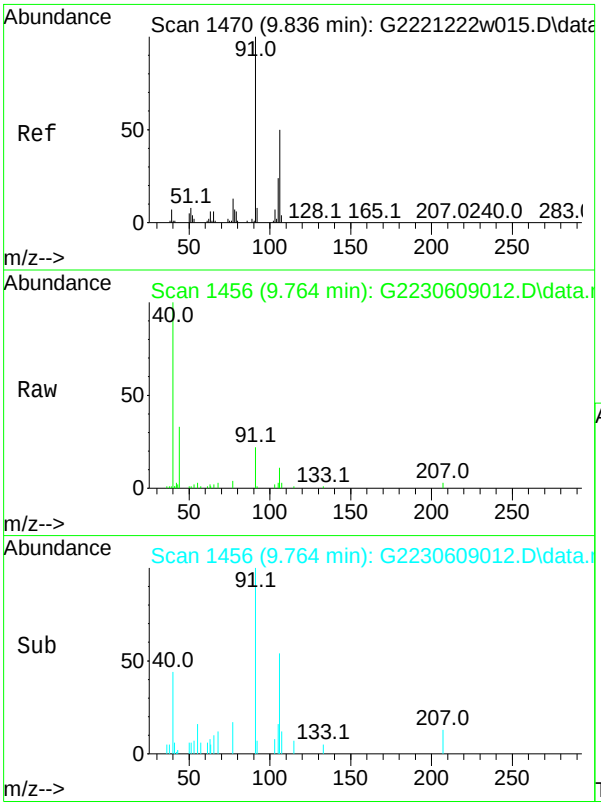


#74
Ethylbenzene
Concen: Below Cal
RT: 9.763 min Scan# 1456
Delta R.T. 0.120 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 91 Resp: 53103

Ion	Ratio	Lower	Upper
91	100		
106	46.8	0.8	60.8

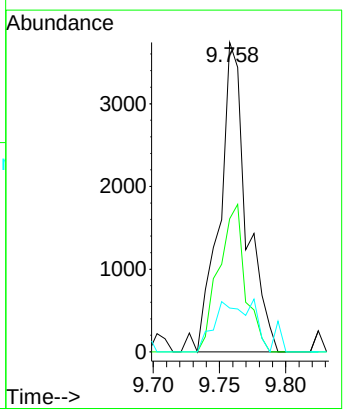




#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.763 min Scan# 1456
Delta R.T. -0.001 min
Lab File: G2230609012.D
Acq: 09 Jun 2023 13:32

Tgt Ion: 91 Resp: 53028

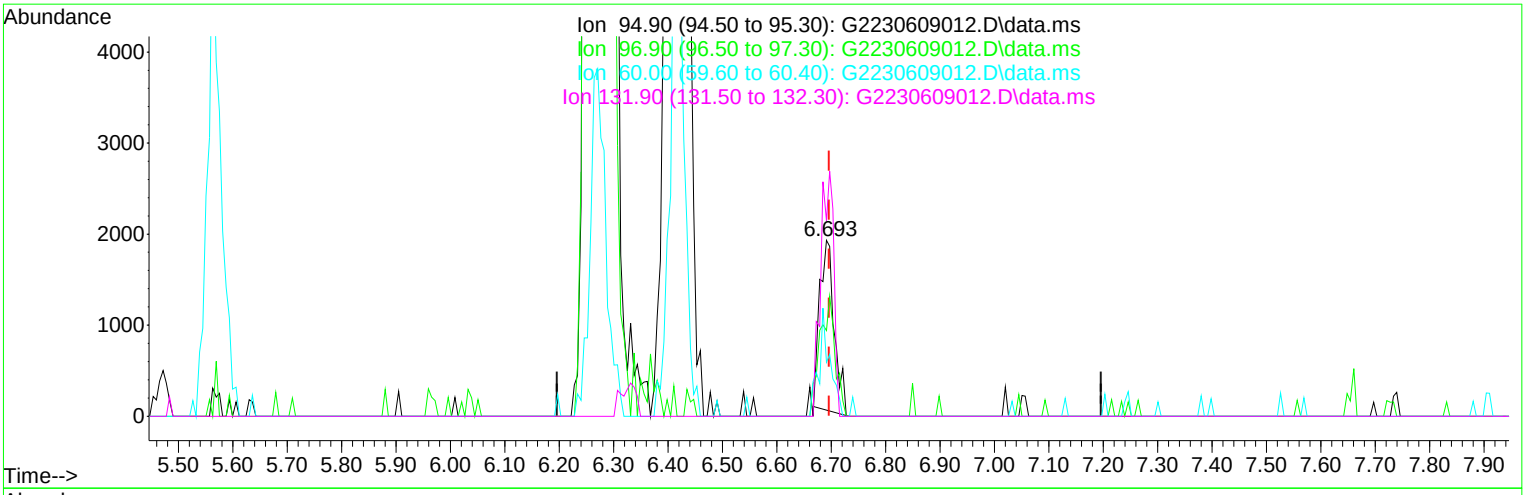
Ion	Ratio	Lower	Upper
91	100		
106	46.9	19.0	79.0
105	0.0	0.0	52.7

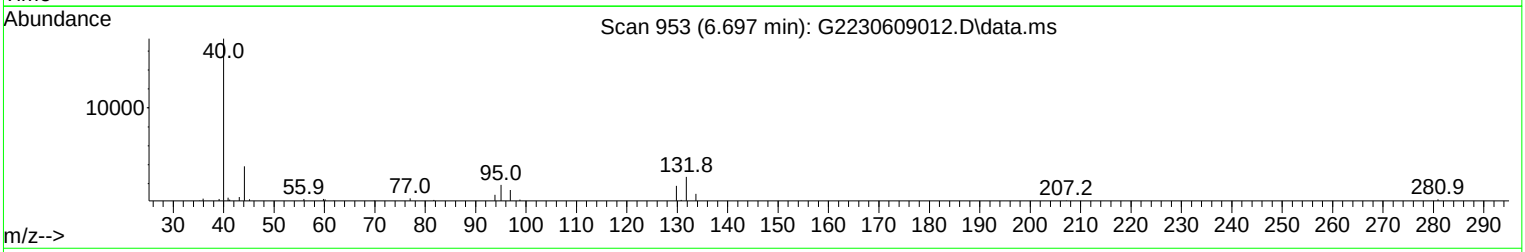


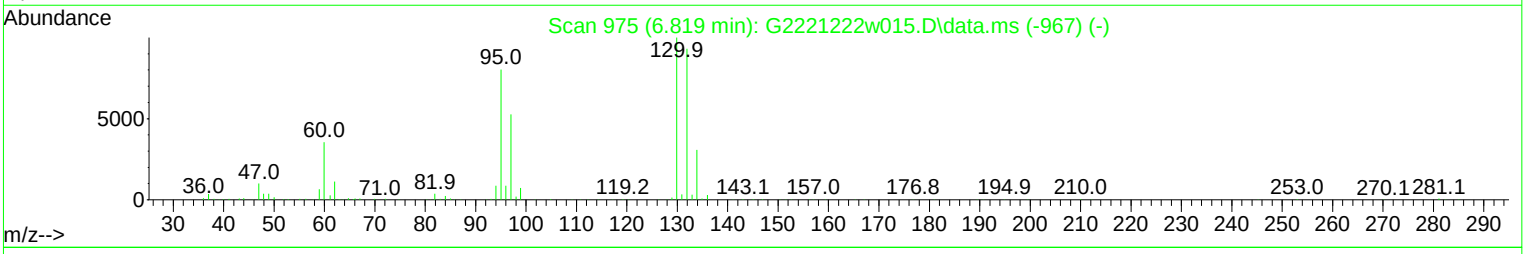
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609012.D
Acq On : 09 Jun 2023 13:32
Operator : PO1/MP3
Sample : 23E0775-13RE2
Misc : 10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 10 08:59:06 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: G2230609012.D\data.ms

(50) Trichloroethene (T)

6.696min (-0.000) 0.02 ug/L

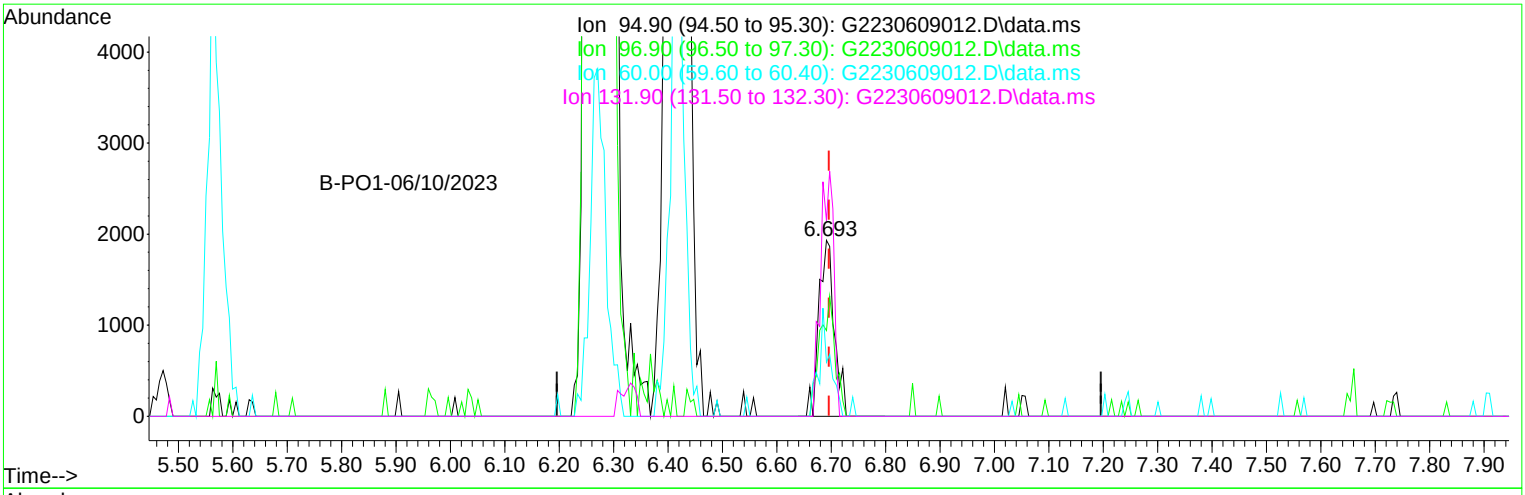
response 34758

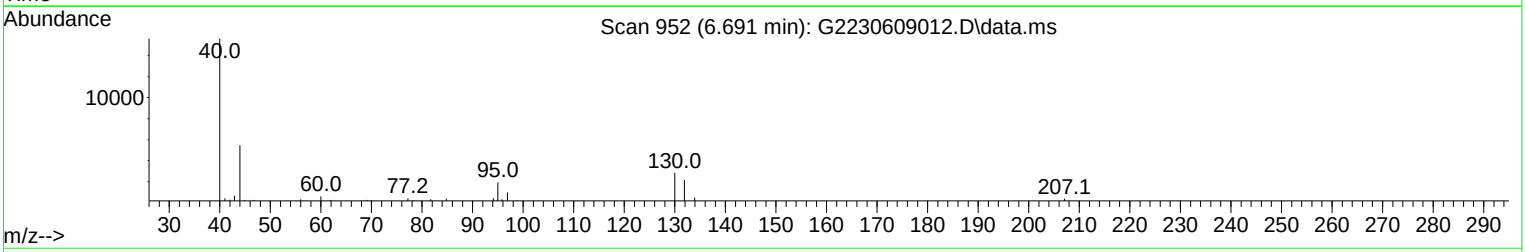
Ion	Exp%	Act%
94.90	100.00	100.00
96.90	65.50	0.00#
60.00	44.80	0.00#
131.90	100.50	129.87#

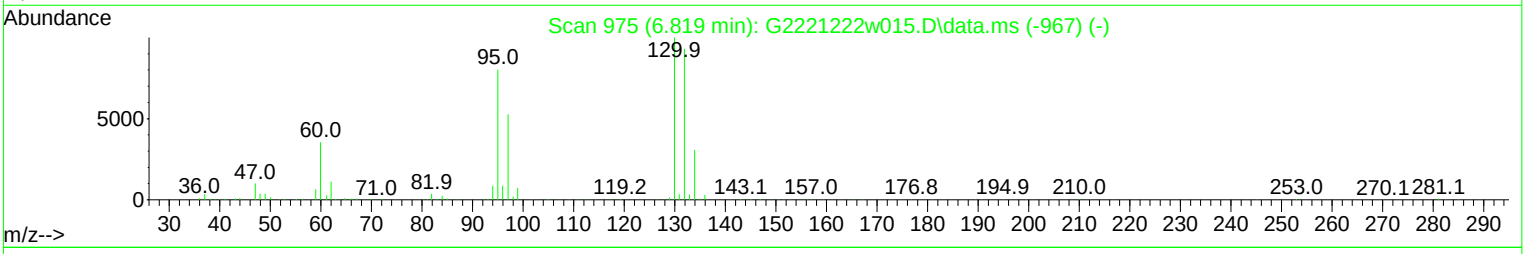
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609012.D
Acq On : 09 Jun 2023 13:32
Operator : PO1/MP3
Sample : 23E0775-13RE2
Misc : 10
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 10 08:59:06 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: G2230609012.D\data.ms

(50) Trichloroethene (T)

6.691min (-0.005) 0.03 ug/L m

response 37938

Ion	Exp%	Act%
94.90	100.00	100.00
96.90	65.50	0.00#
60.00	44.80	0.00#
131.90	100.50	118.99

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52847WW11R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-14	File ID:	G2230609009.D
Sampled:	05/28/23 10:20	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 12:17
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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

52847WW11R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-14	File ID:	G2230609009.D
Sampled:	05/28/23 10:20	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 12:17
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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	0.320	1.00	2.00	J, D
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	1.26	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	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

52847WW11R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-14	File ID:	G2230609009.D
Sampled:	05/28/23 10:20	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 12:17
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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	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	7.90	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609009.D
Acq On : 09 Jun 2023 12:17
Operator : PO1/MP3
Sample : 23E0775-14
Misc : 2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 08:46:48 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

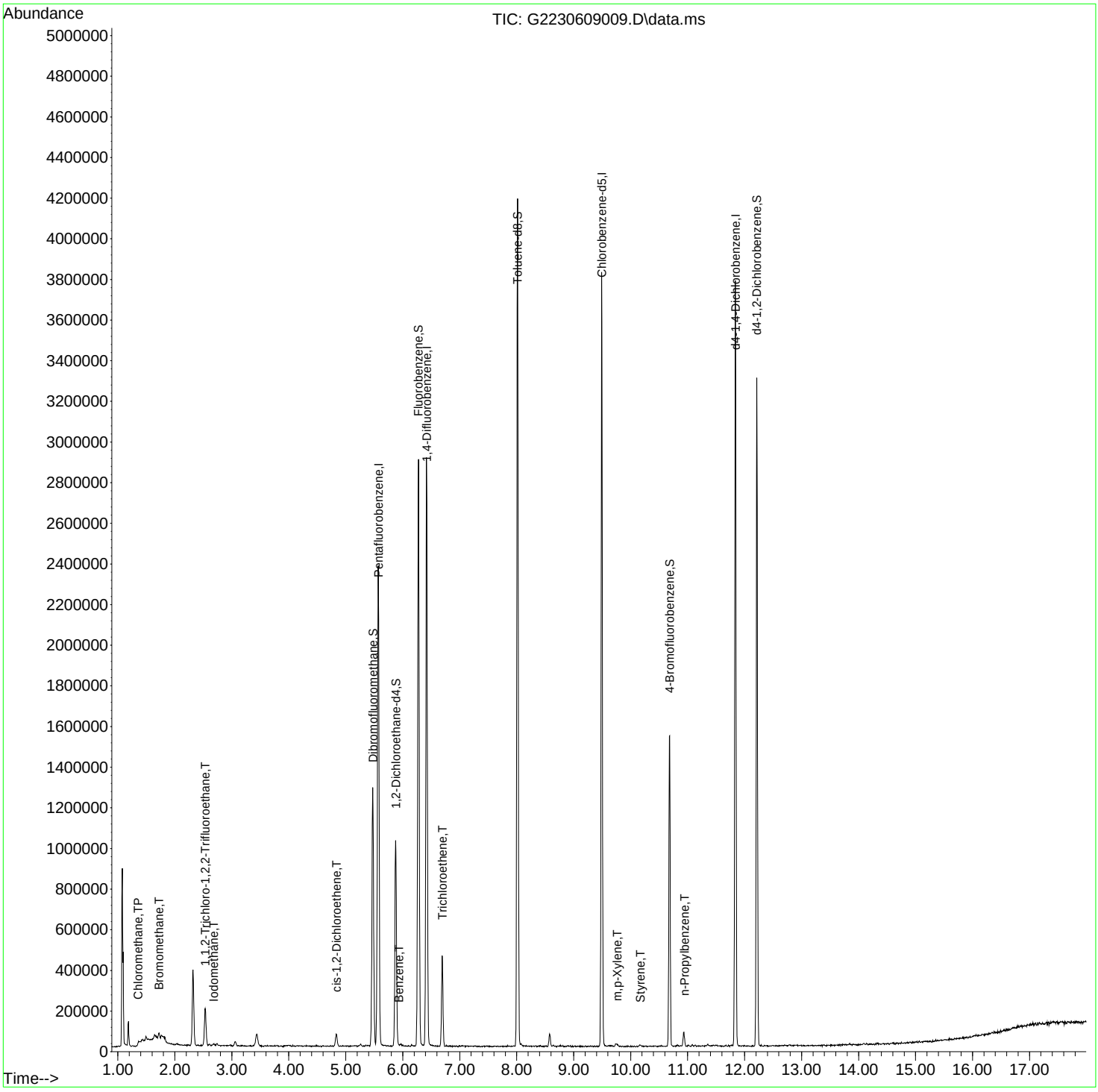
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.573	168	18709133	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	25120242	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22501609	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10678369	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7863044	19.10	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.50%			
43) 1,2-Dichloroethane-d4	5.878	65	7288780	17.91	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.55%			
49) Fluorobenzene	6.277	96	27988131	19.55	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.75%			
64) Toluene-d8	8.016	98	27261696	19.22	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.10%			
81) 4-Bromofluorobenzene	10.685	174	4905915	9.73	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%			
97) d4-1,2-Dichlorobenzene	12.217	152	9236252	20.11	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.55%			
Target Compounds						Qvalue
3) Chloromethane	1.359	50	33652	0.00	ug/L #	41
5) Bromomethane	1.723	94	101067	0.16	ug/L #	79
11) 1,1,2-Trichloro-1,2,2-...	2.536	101	784515	2.56	ug/L	95
13) Iodomethane	2.681	142	109122	0.25	ug/L #	87
18) Methylene chloride	3.065	49	124501	Below Cal		75
21) Methyl tert-butyl ether	3.440	73	821096	Below Cal		94
28) cis-1,2-Dichloroethene	4.836	61	333765	0.63	ug/L #	66
48) Benzene	5.936	78	39278	0.03	ug/L #	52
50) Trichloroethene	6.696	95	1328052	3.95	ug/L #	89
65) Toluene	8.083	91	39357	Below Cal	#	90
75) m,p-Xylene	9.764	91	70833m	0.06	ug/L	
76) Styrene	10.175	104	33733	0.03	ug/L #	29
86) n-Propylbenzene	10.947	91	36692	0.02	ug/L #	58

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609009.D
Acq On : 09 Jun 2023 12:17
Operator : PO1/MP3
Sample : 23E0775-14
Misc : 2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 08:46:48 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609009.D
Acq On : 09 Jun 2023 12:17
Operator : PO1/MP3
Sample : 23E0775-14
Misc : 2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 08:46:48 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	18709133	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	25120242	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22501609	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10678369	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7863044	19.10	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.50%				
43) 1,2-Dichloroethane-d4	5.878	65	7288780	17.91	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.55%				
49) Fluorobenzene	6.277	96	27988131	19.55	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.75%				
64) Toluene-d8	8.016	98	27261696	19.22	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.10%				
81) 4-Bromofluorobenzene	10.685	174	4905915	9.73	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.30%				
97) d4-1,2-Dichlorobenzene	12.217	152	9236252	20.11	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.55%				
Target Compounds							Qvalue
3) Chloromethane	1.359	50	33652	0.00	ug/L	#	41
5) Bromomethane	1.723	94	101067	0.16	ug/L	#	79
9) Acrolein	2.443	56	16054	Below Cal		#	20
10) 1,1-Dichloroethene	2.526	61	25928	Below Cal		#	44
11) 1,1,2-Trichloro-1,2,2-...	2.536	101	784515	2.56	ug/L		95
12) Acetone	2.608	43	83297	Below Cal		#	45
13) Iodomethane	2.681	142	109122	0.25	ug/L	#	87
14) Carbon disulfide	2.739	76	145504	0.08	ug/L	#	74
17) 3-Chloro-1-propene	2.738	76	145510	0.70	ug/L	#	53
18) Methylene chloride	3.065	49	124501	Below Cal			75
21) Methyl tert-butyl ether	3.440	73	821096	Below Cal			94
23) 1,1-Dichloroethane	3.993	63	40110	Below Cal		#	51
28) cis-1,2-Dichloroethene	4.836	61	333765	0.63	ug/L	#	66
31) Ethyl acetate	4.836	61	333762	5.80	ug/L	#	45
36) Tetrahydrofuran	5.260	42	32611	Below Cal		#	30
40) Cyclohexane	5.572	84	412018	0.82	ug/L	#	29
41) 1-Chlorobutane	5.570	56	239426	0.41	ug/L	#	1
42) 1,1-Dichloropropene	5.571	75	963803	2.20	ug/L	#	38
44) 1,2-Dichloroethane	5.969	62	40614	Below Cal		#	47
47) Carbon tetrachloride	5.572	117	1498913	3.31	ug/L	#	16
48) Benzene	5.936	78	39278	0.03	ug/L	#	52
50) Trichloroethene	6.696	95	1328052	3.95	ug/L	#	89
60) 4-Methyl-2-pentanone	8.016	43	80199	Below Cal		#	1
65) Toluene	8.083	91	39357	Below Cal		#	90
72) Chlorobenzene	9.521	112	24898	0.03	ug/L	#	1
74) Ethylbenzene	9.638	91	36257	Below Cal		#	44
75) m,p-Xylene	9.764	91	56445	0.05	ug/L	#	76
76) Styrene	10.175	104	33733	0.03	ug/L	#	29

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609009.D
Acq On : 09 Jun 2023 12:17
Operator : PO1/MP3
Sample : 23E0775-14
Misc : 2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 08:46:48 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

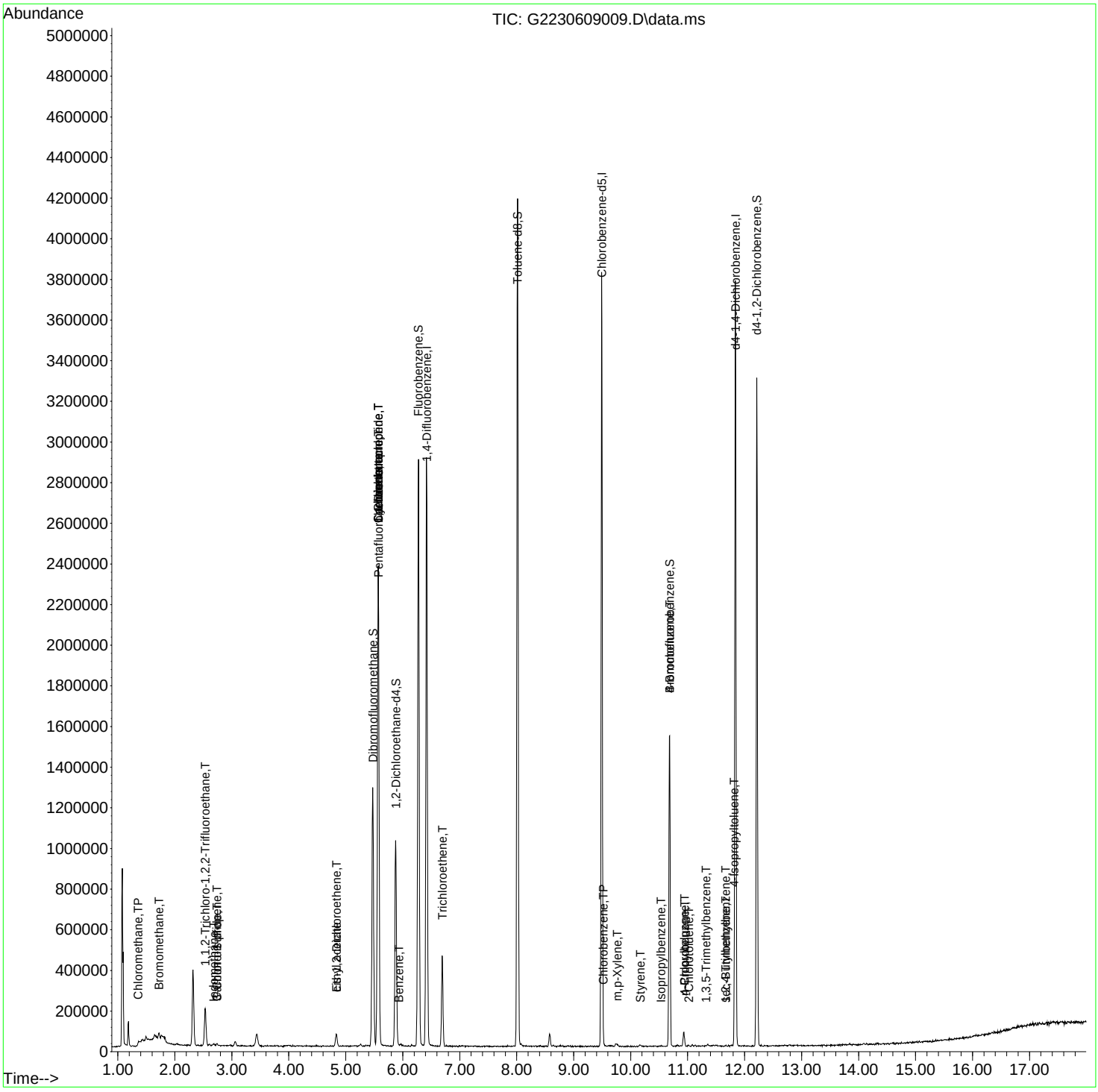
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
80)	Isopropylbenzene	10.533	105	28055	0.02	ug/L	#	58
82)	Bromobenzene	10.687	77	29287	0.05	ug/L	#	1
86)	n-Propylbenzene	10.947	91	36692	0.02	ug/L	#	58
87)	2-Chlorotoluene	11.022	91	29551	0.03	ug/L	#	47
88)	4-Chlorotoluene	10.947	91	36700	0.03	ug/L	#	50
89)	1,3,5-Trimethylbenzene	11.326	105	31044	0.03	ug/L	#	42
92)	1,2,4-Trimethylbenzene	11.669	105	26030	0.02	ug/L	#	32
93)	sec-Butylbenzene	11.668	105	26825	0.02	ug/L	#	58
95)	4-Isopropyltoluene	11.821	119	36463	0.03	ug/L	#	1
99)	n-Butylbenzene	12.224	91	53173	Below Cal		#	53
105)	Naphthalene	14.091	128	37651	Below Cal		#	69

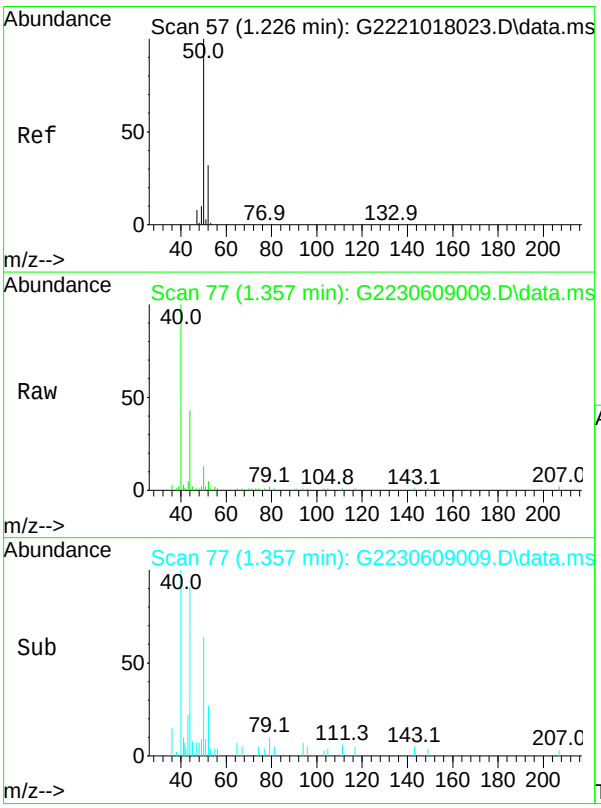
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609009.D
Acq On : 09 Jun 2023 12:17
Operator : PO1/MP3
Sample : 23E0775-14
Misc : 2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 08:46:48 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

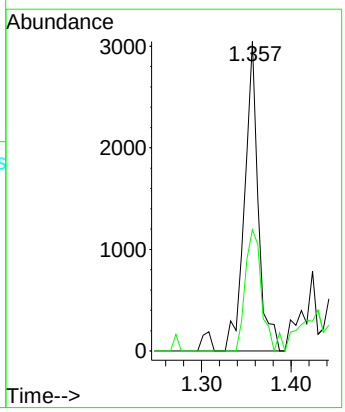


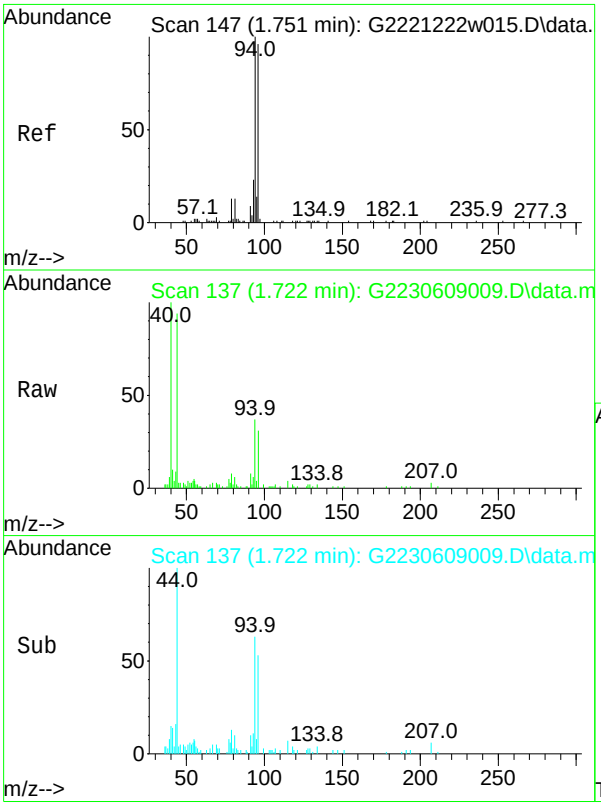


#3
Chloromethane
Concen: 0.00 ug/L
RT: 1.359 min Scan# 77
Delta R.T. 0.005 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 50 Resp: 33652

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

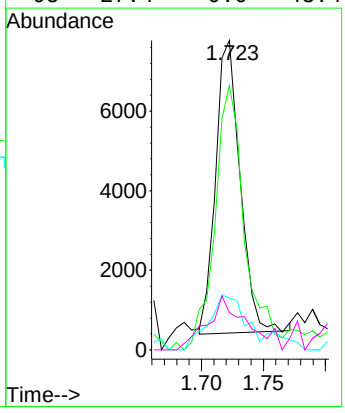


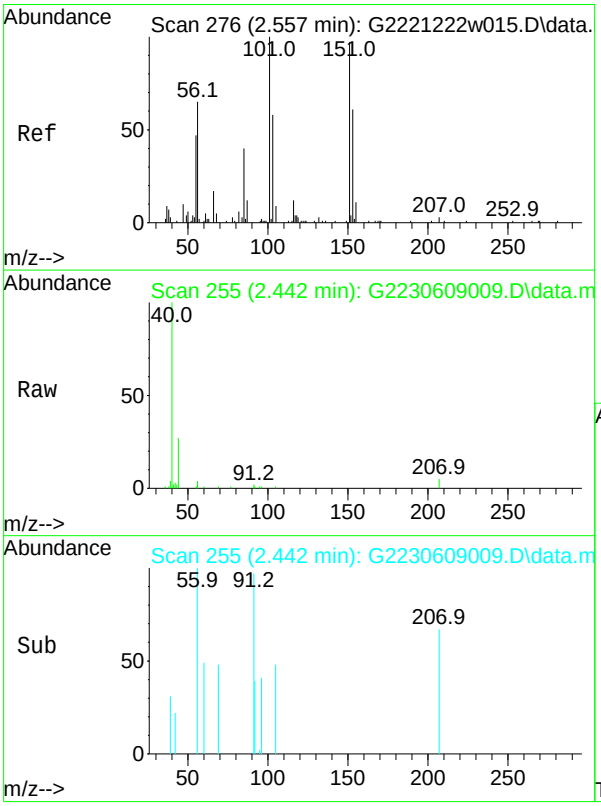


#5
Bromomethane
Concen: 0.16 ug/L
RT: 1.723 min Scan# 137
Delta R.T. 0.009 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 94 Resp: 101067

Ion	Ratio	Lower	Upper
94	100		
96	109.4	65.6	125.6
93	0.0	0.0	49.5
95	27.4	0.0	43.4

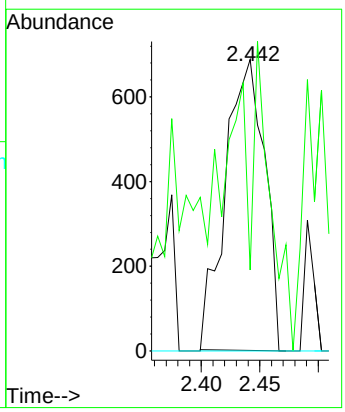


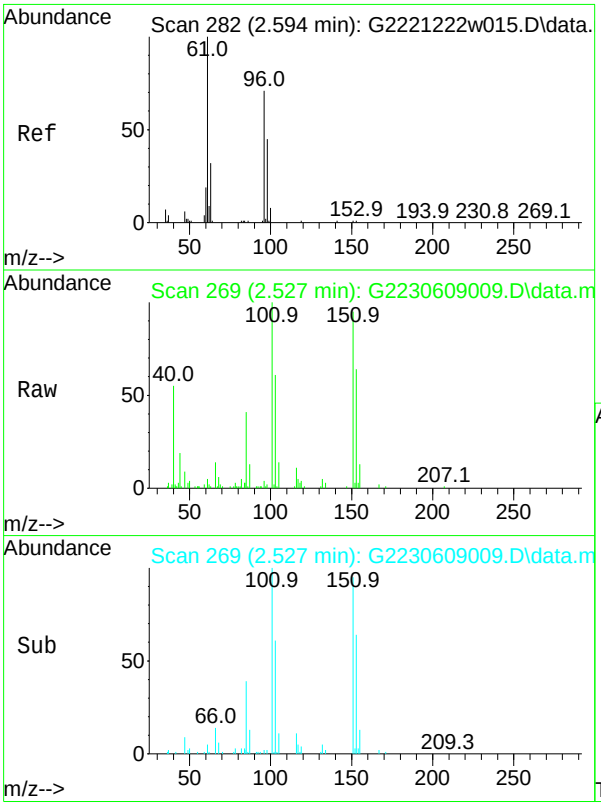


#9
Acrolein
Concen: Below Cal
RT: 2.443 min Scan# 255
Delta R.T. 0.004 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 56 Resp: 16054

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

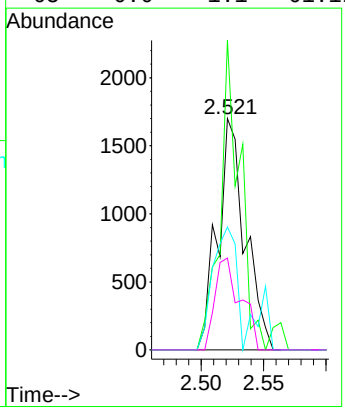


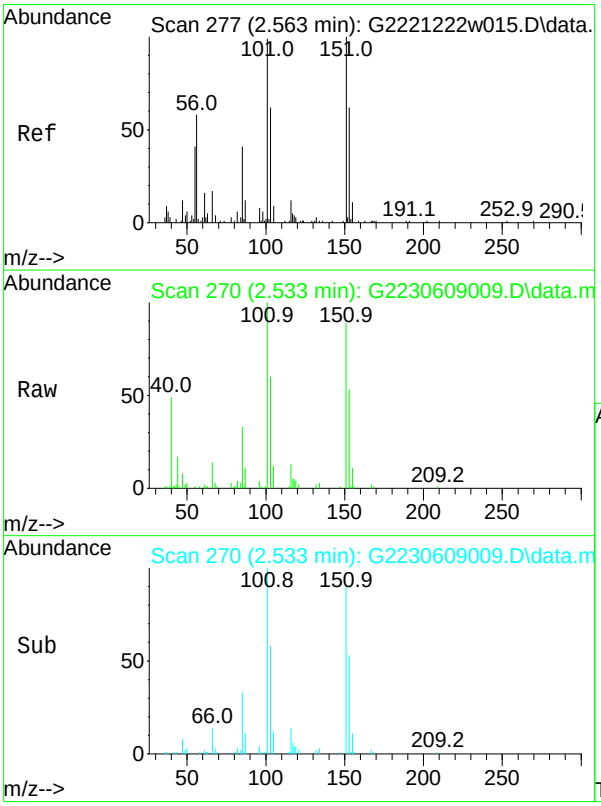


#10
1,1-Dichloroethene
Concen: Below Cal
RT: 2.526 min Scan# 269
Delta R.T. 0.003 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 61 Resp: 25928

Ion	Ratio	Lower	Upper
61	100		
96	102.4	32.7	92.7#
98	0.0	9.3	69.3#
63	0.0	1.1	61.1#

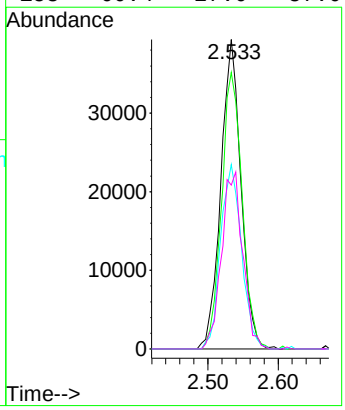


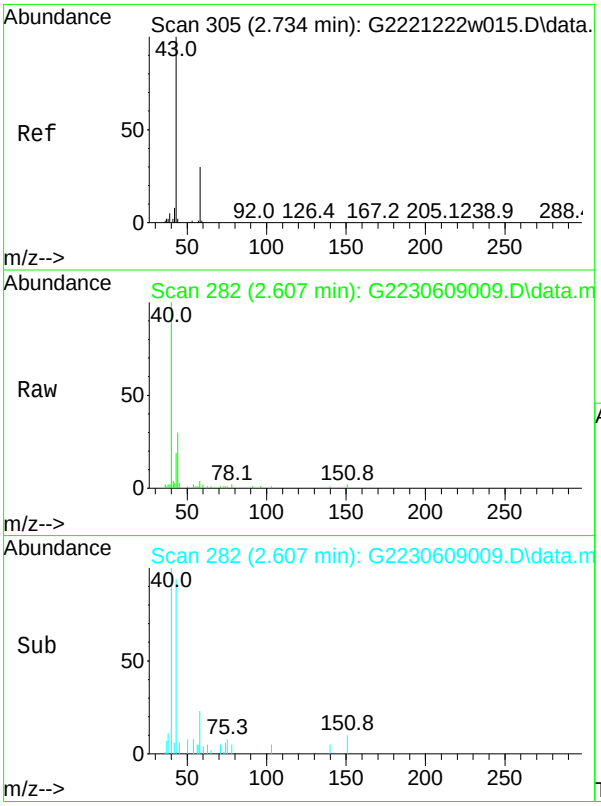


#11
1,1,2-Trichloro-1,2,2-Trifluoroethane
Concen: 2.56 ug/L
RT: 2.536 min Scan# 270
Delta R.T. 0.002 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:101 Resp: 784515

Ion	Ratio	Lower	Upper
101	100		
151	91.5	56.0	116.0
103	62.1	35.7	95.7
153	60.4	27.0	87.0

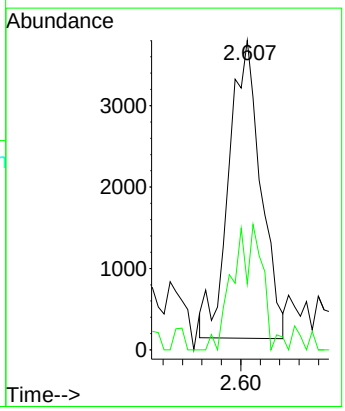


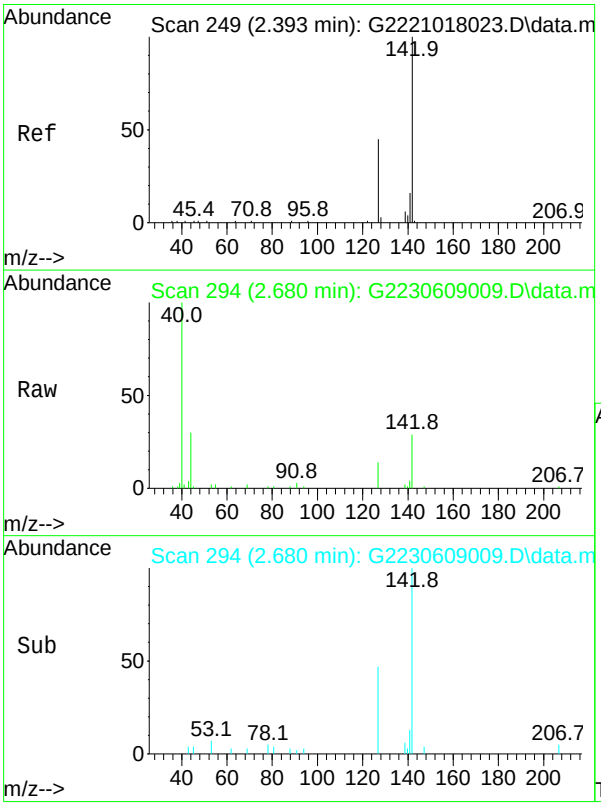


#12
Acetone
Concen: Below Cal
RT: 2.608 min Scan# 282
Delta R.T. 0.000 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 43 Resp: 83297

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

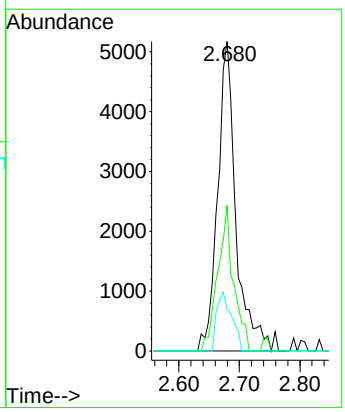


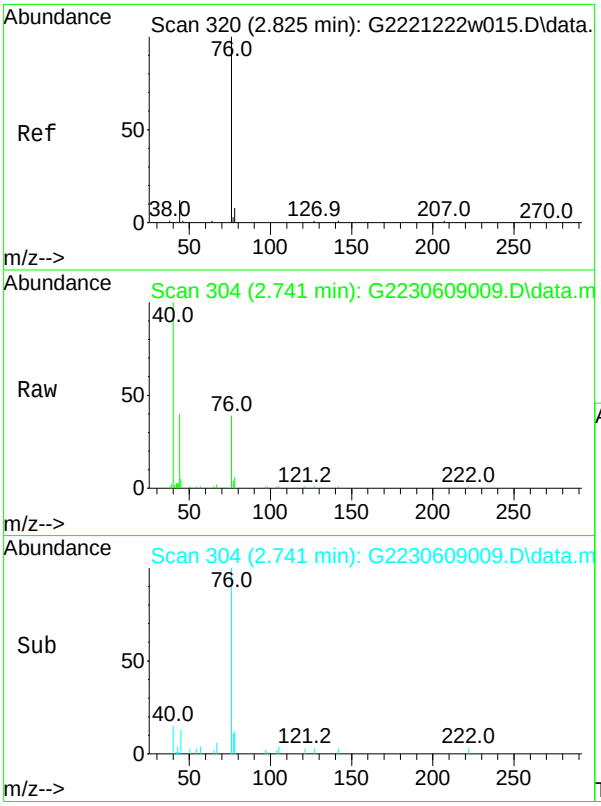


#13
Iodomethane
Concen: 0.25 ug/L
RT: 2.681 min Scan# 294
Delta R.T. 0.005 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:142 Resp: 109122

Ion	Ratio	Lower	Upper
142	100		
127	40.6	13.3	73.3
141	0.0	0.0	45.3

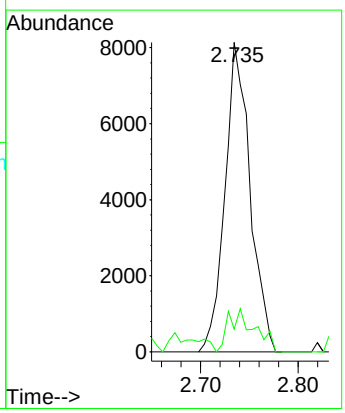


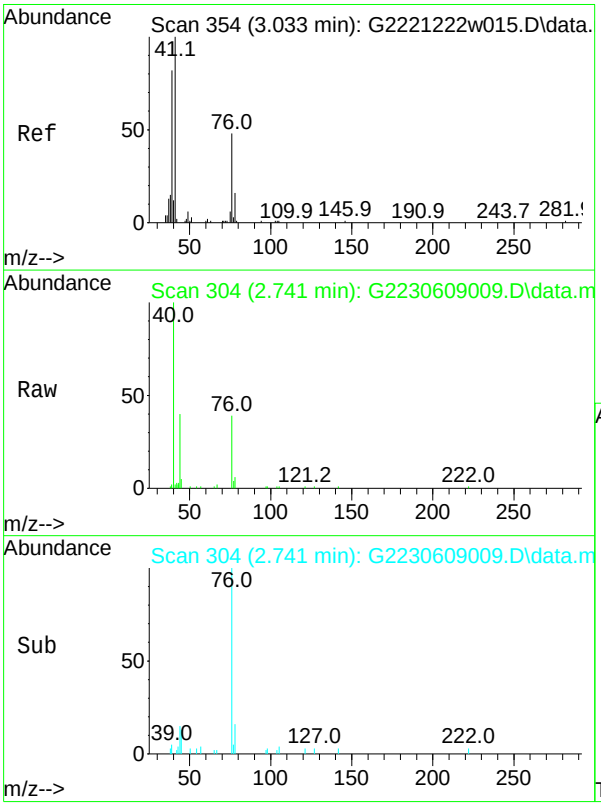


#14
Carbon disulfide
Concen: 0.08 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.000 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 76 Resp: 145504

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

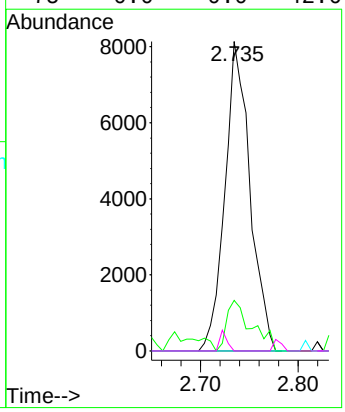


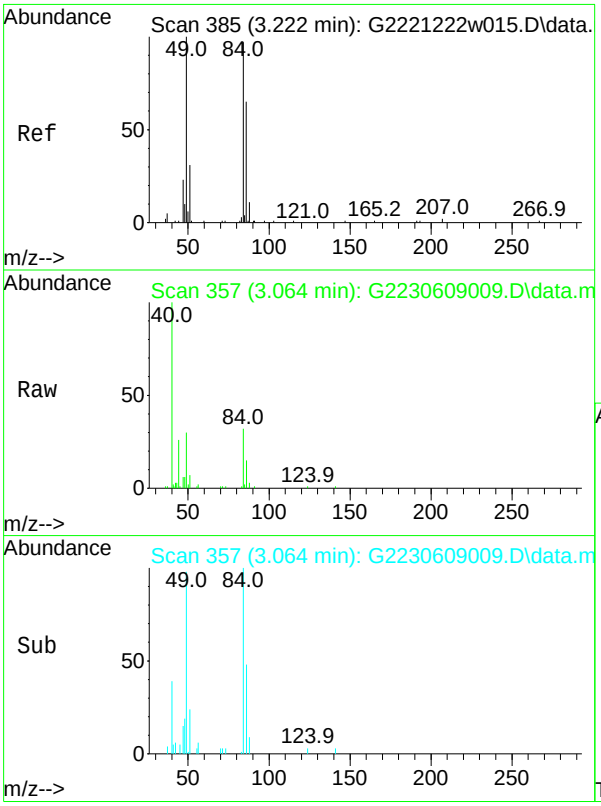


#17
3-Chloro-1-propene
Concen: 0.70 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.182 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 76 Resp: 145510

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

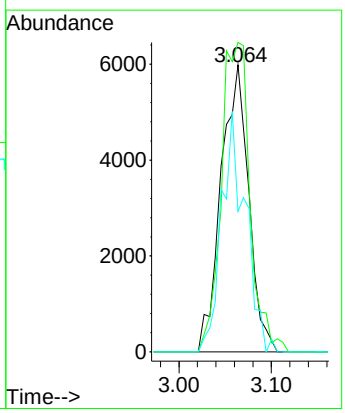


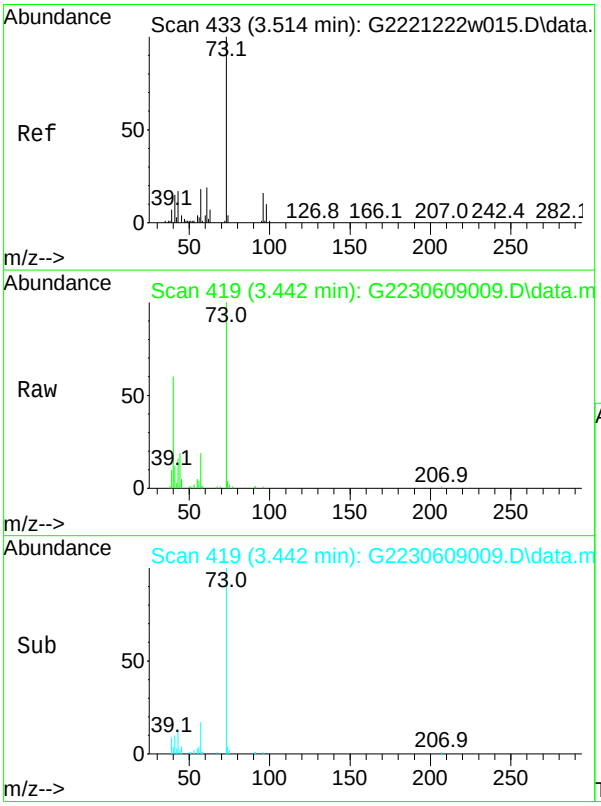


#18
Methylene chloride
Concen: Below Cal
RT: 3.065 min Scan# 357
Delta R.T. 0.003 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 49 Resp: 124501

Ion	Ratio	Lower	Upper
49	100		
84	111.9	57.9	117.9
86	72.2	24.9	84.9

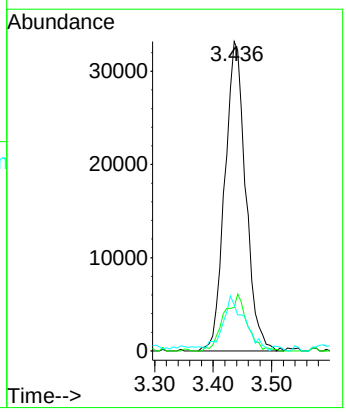


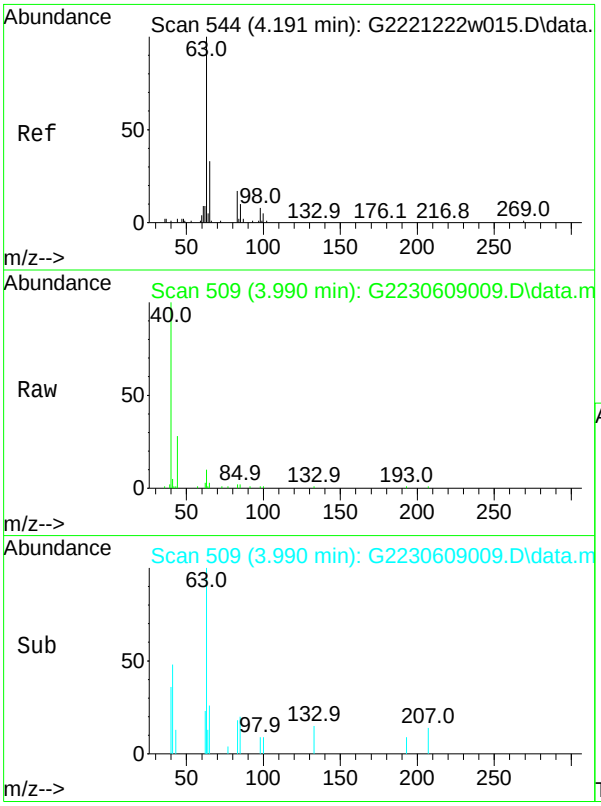


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.440 min Scan# 419
Delta R.T. -0.006 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 73 Resp: 821096

Ion	Ratio	Lower	Upper
73	100		
57	20.0	0.0	51.7
41	16.9	0.0	50.6

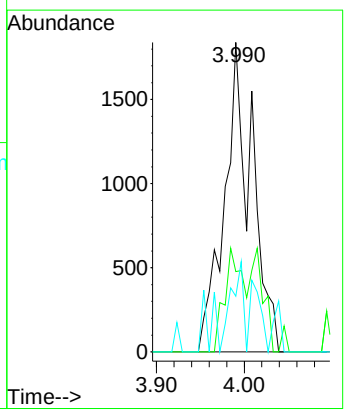


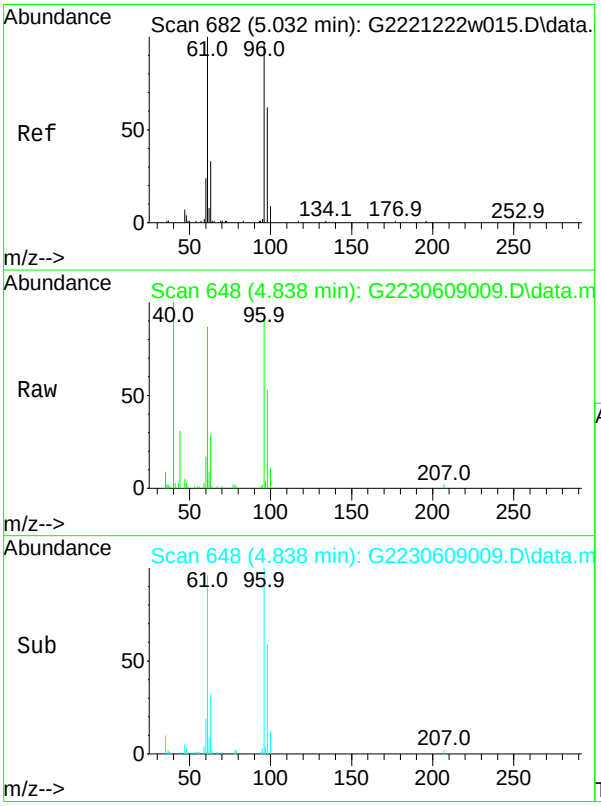


#23
1,1-Dichloroethane
Concen: Below Cal
RT: 3.993 min Scan# 509
Delta R.T. -0.005 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 63 Resp: 40110

Ion	Ratio	Lower	Upper
63	100		
65	0.0	1.1	61.1#
83	0.0	0.0	42.9

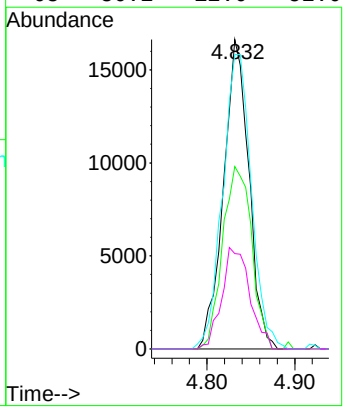


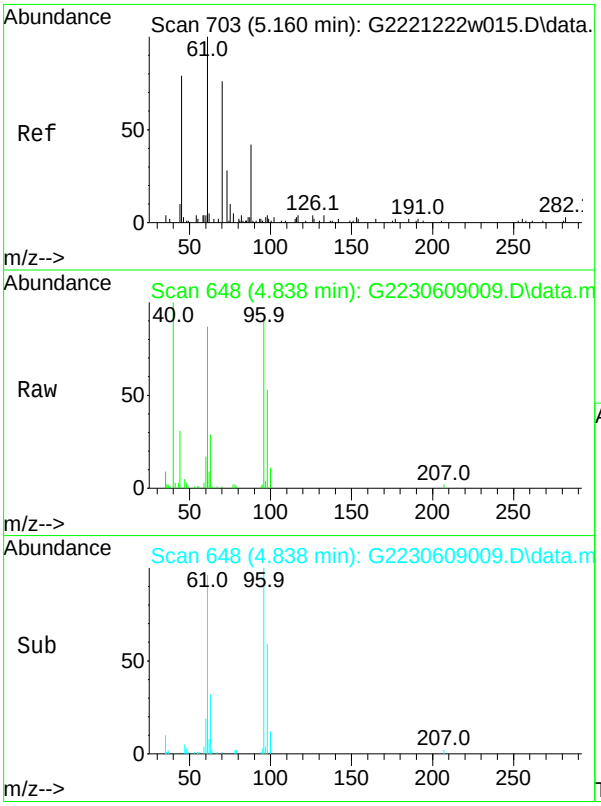


#28
cis-1,2-Dichloroethene
Concen: 0.63 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.000 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 61 Resp: 333765

Ion	Ratio	Lower	Upper
61	100		
98	67.3	15.9	75.9
96	107.7	39.6	99.6#
63	36.2	12.0	52.0

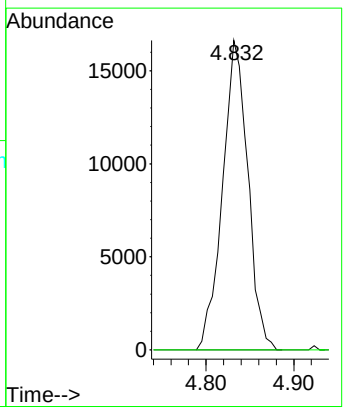


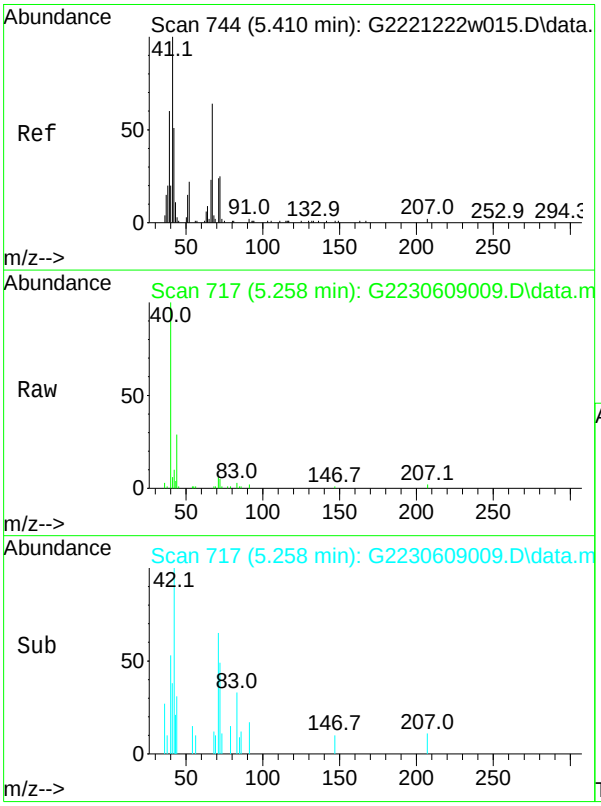


#31
Ethyl acetate
Concen: 5.80 ug/L
RT: 4.836 min Scan# 648
Delta R.T. -0.186 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 61 Resp: 333762

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

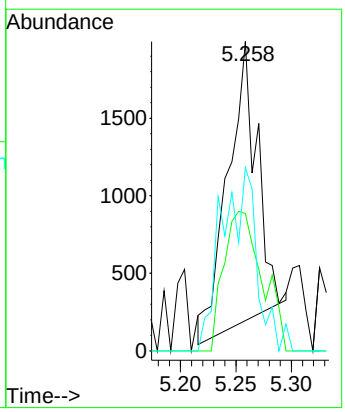


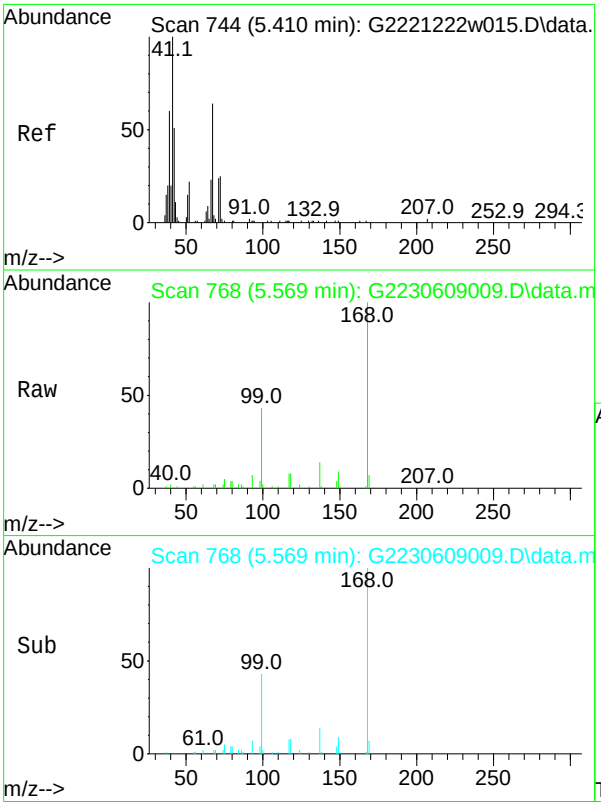


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.260 min Scan# 717
Delta R.T. -0.002 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 42 Resp: 32611

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

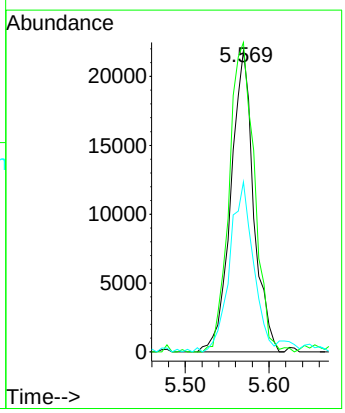


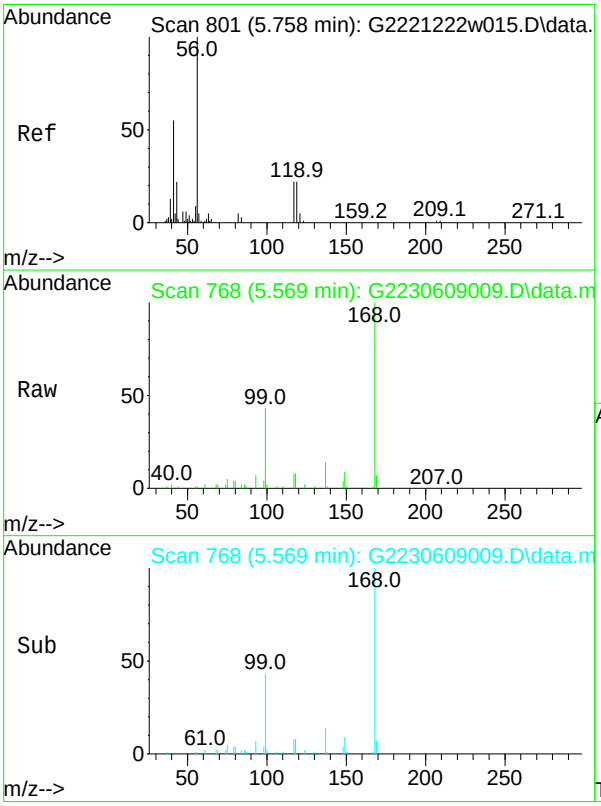


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 84 Resp: 412018

Ion	Ratio	Lower	Upper
84	100		
69	113.7	6.8	66.8#
56	54.8	79.1	139.1#

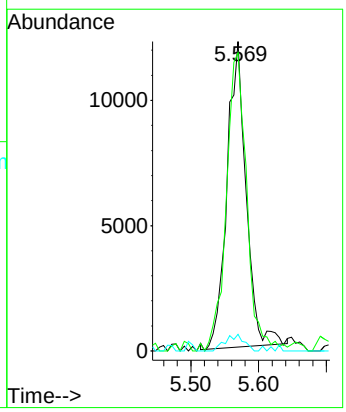


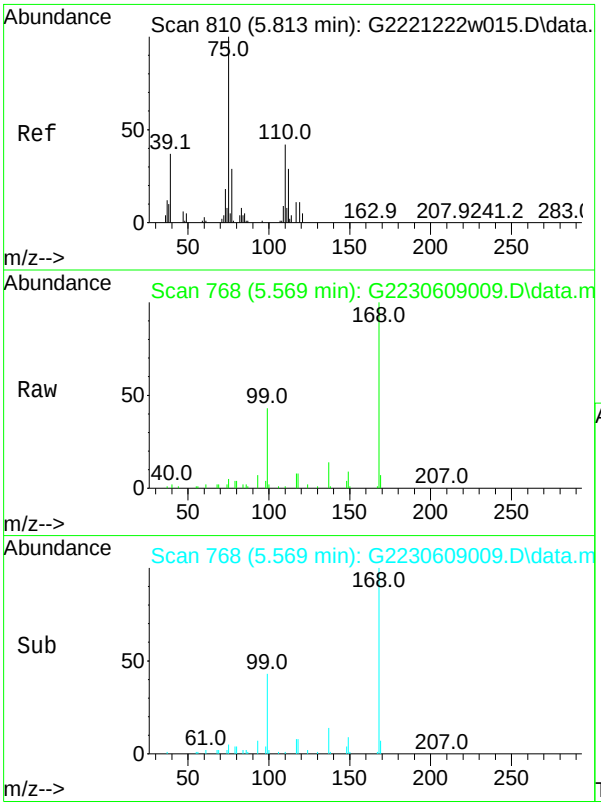


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 56 Resp: 239426

Ion	Ratio	Lower	Upper
56	100		
55	102.2	0.0	41.0#
57	0.0	0.0	35.7

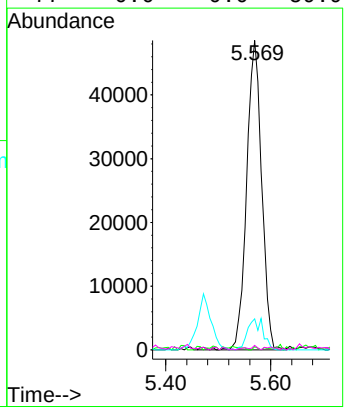


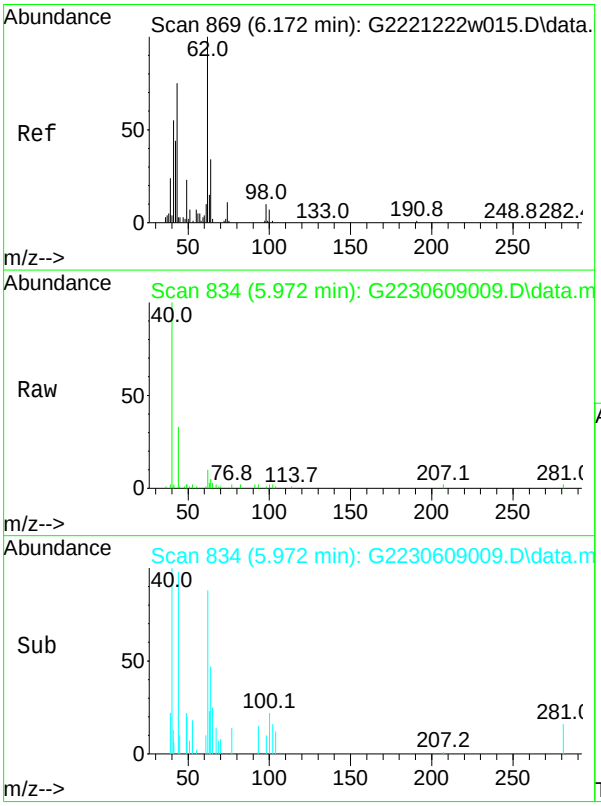


#42
1,1-Dichloropropene
Concen: 2.20 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 75 Resp: 963803

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

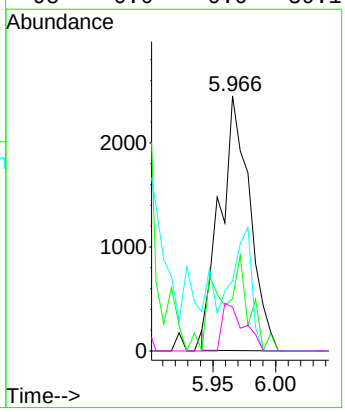


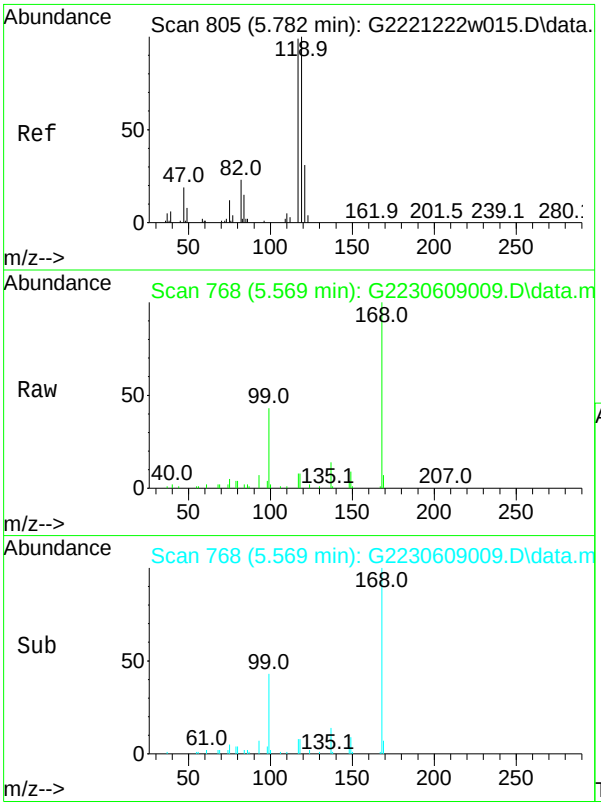


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.969 min Scan# 834
Delta R.T. -0.002 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 62 Resp: 40614

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

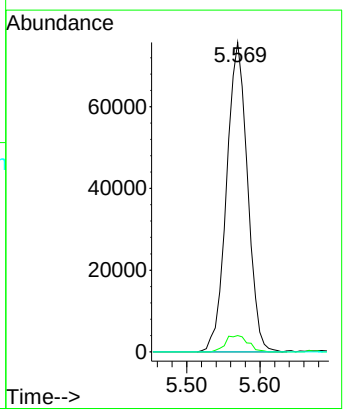


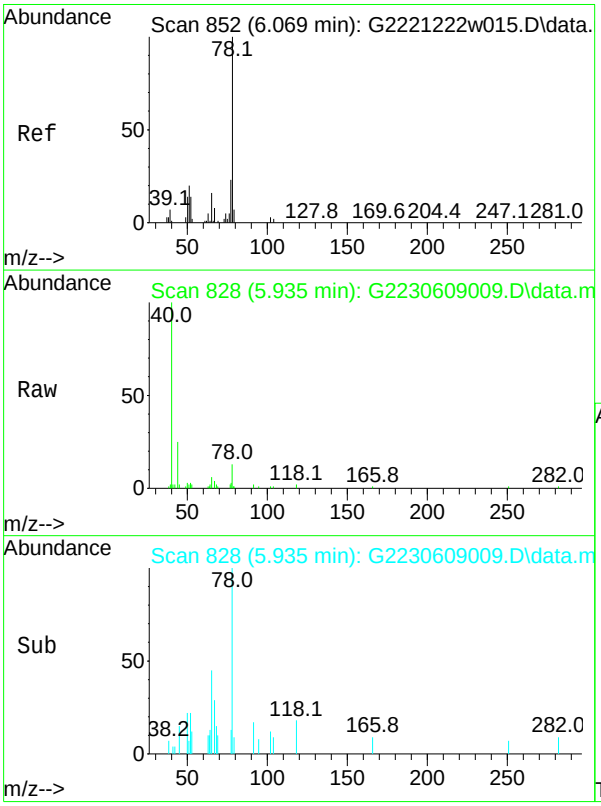


#47
Carbon tetrachloride
Concen: 3.31 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.108 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:117 Resp: 1498913

Ion	Ratio	Lower	Upper
117	100		
119	5.7	66.4	126.4#
121	0.0	0.4	60.4#

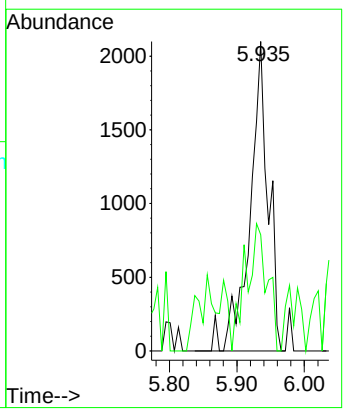


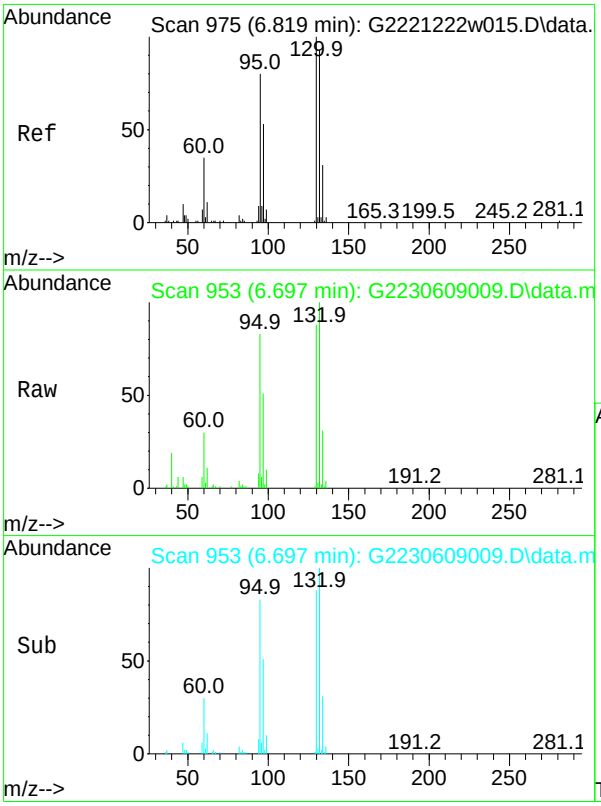


#48
Benzene
Concen: 0.03 ug/L
RT: 5.936 min Scan# 828
Delta R.T. 0.001 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 78 Resp: 39278

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

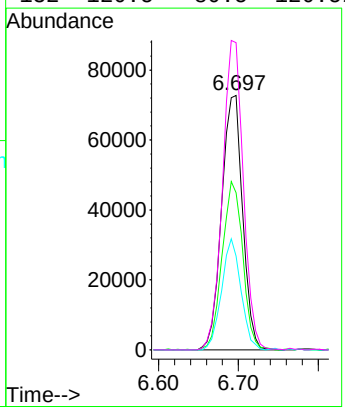


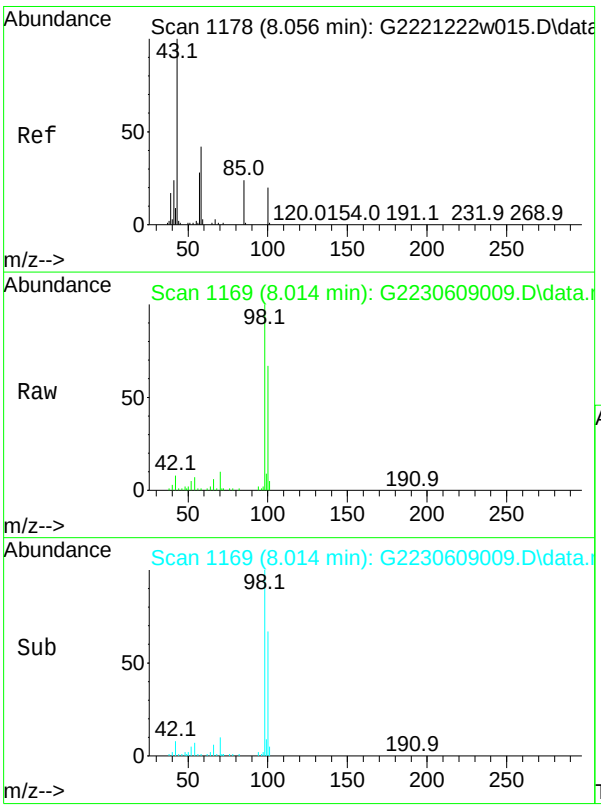


#50
Trichloroethene
Concen: 3.95 ug/L
RT: 6.696 min Scan# 953
Delta R.T. -0.000 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 95 Resp: 1328052

Ion	Ratio	Lower	Upper
95	100		
97	65.1	35.5	95.5
60	40.1	14.8	74.8
132	120.5	80.5	120.5#

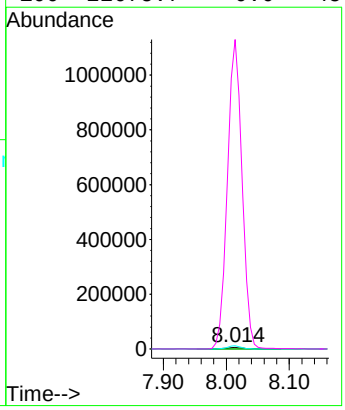


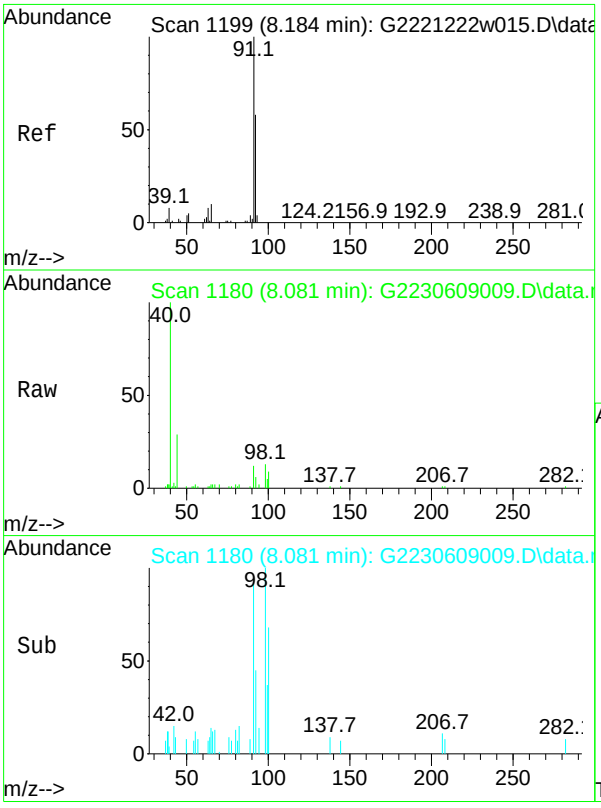


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 43 Resp: 80199

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	221.9	37.0	37.0#
100	22675.7	0.0	45.2#

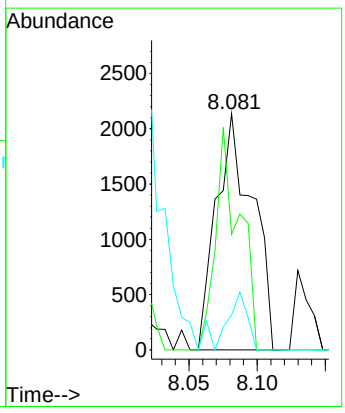


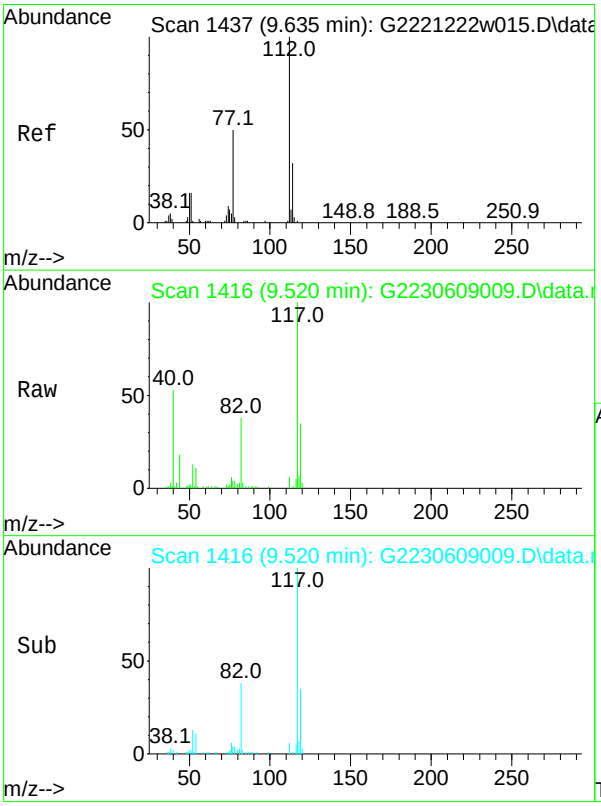


#65
Toluene
Concen: Below Cal
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 91 Resp: 39357

Ion	Ratio	Lower	Upper
91	100		
92	61.9	27.5	87.5
65	0.0	0.0	41.4

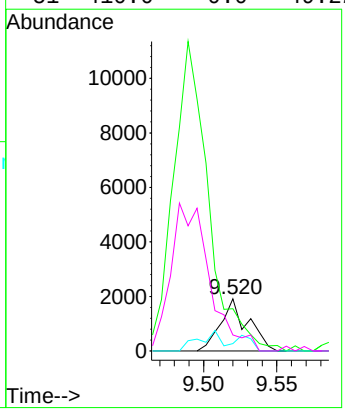


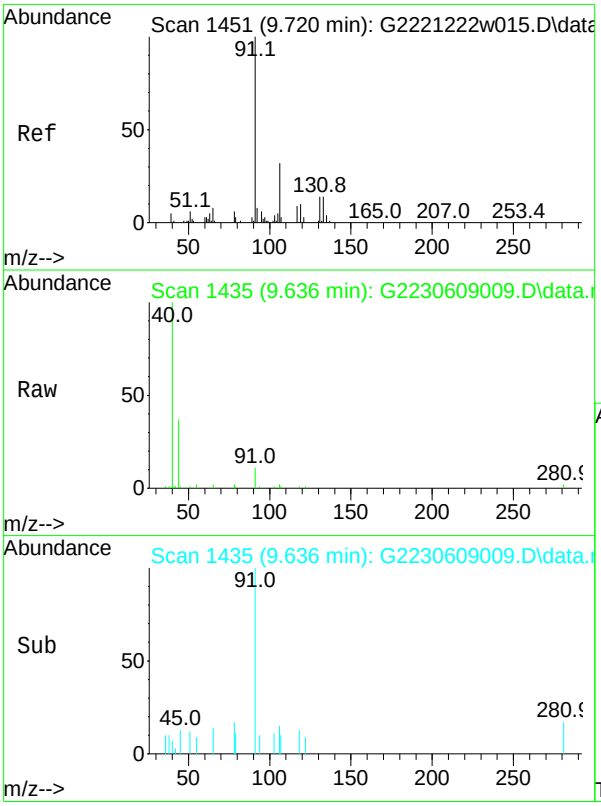


#72
Chlorobenzene
Concen: 0.03 ug/L
RT: 9.521 min Scan# 1416
Delta R.T. -0.003 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:112 Resp: 24898

Ion	Ratio	Lower	Upper
112	100		
77	779.1	27.8	87.8#
114	0.0	3.4	63.4#
51	410.0	0.0	49.2#

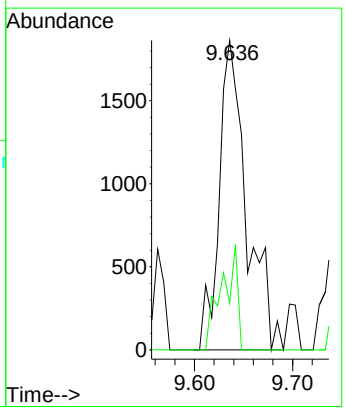


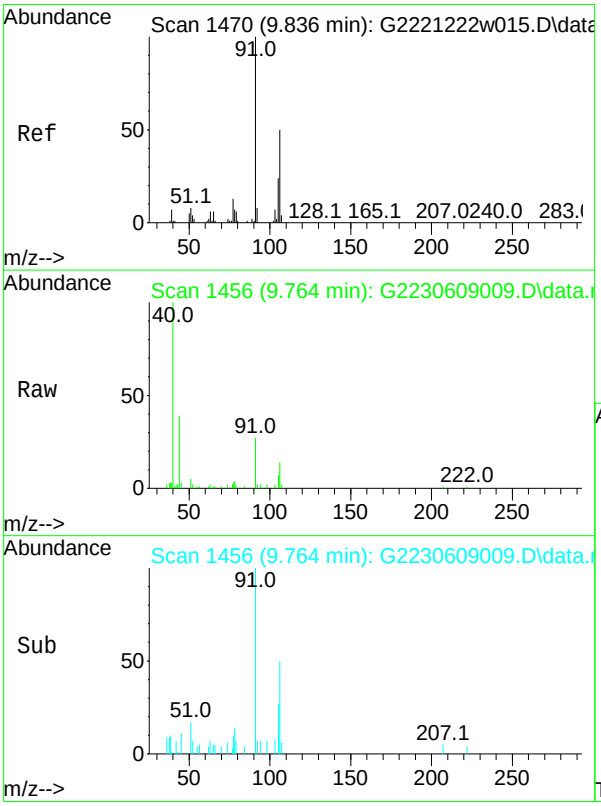


#74
Ethylbenzene
Concen: Below Cal
RT: 9.638 min Scan# 1435
Delta R.T. -0.005 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 91 Resp: 36257

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

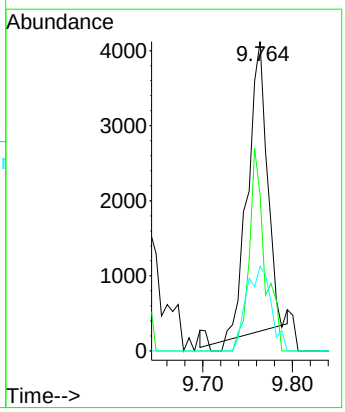


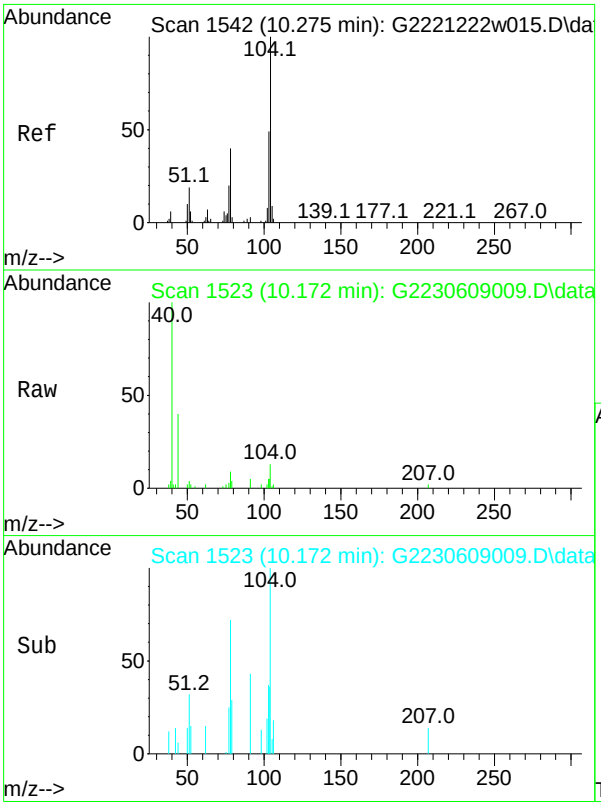


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. 0.000 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 91 Resp: 56445

Ion	Ratio	Lower	Upper
91	100		
106	58.0	19.0	79.0
105	0.0	0.0	52.7

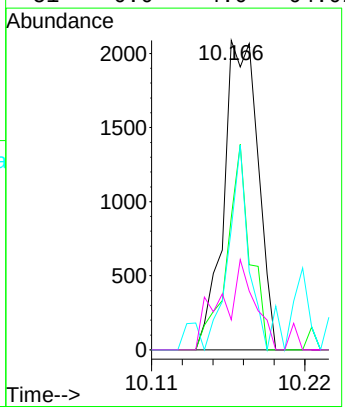


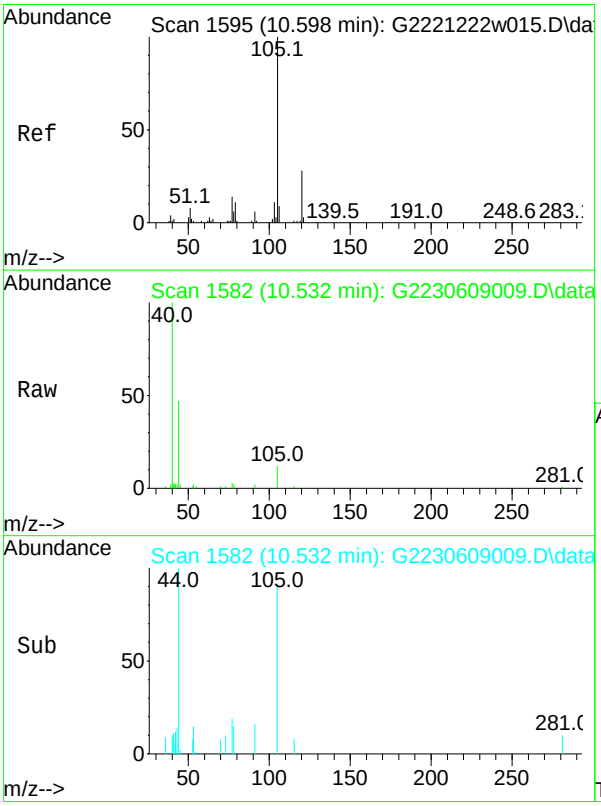


#76
Styrene
Concen: 0.03 ug/L
RT: 10.175 min Scan# 1523
Delta R.T. -0.002 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:104 Resp: 33733

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

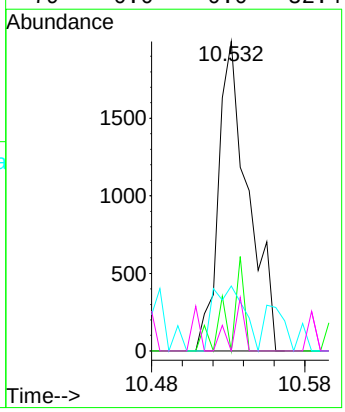


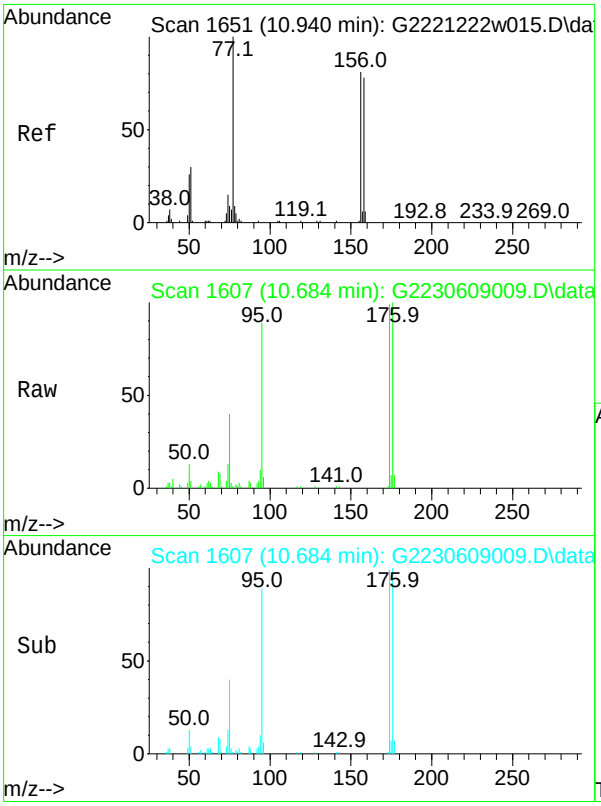


#80
Isopropylbenzene
Concen: 0.02 ug/L
RT: 10.533 min Scan# 1582
Delta R.T. -0.004 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:105 Resp: 28055

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

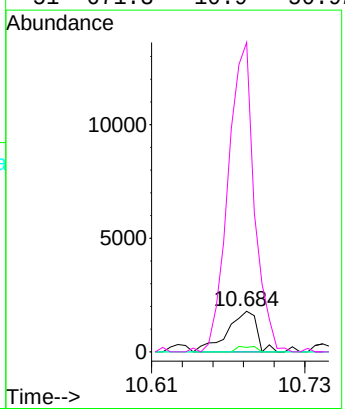


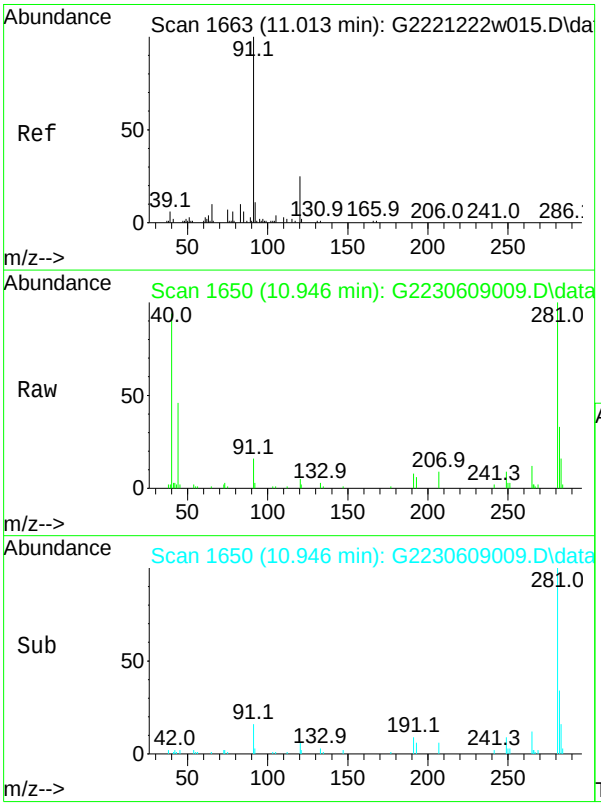


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.687 min Scan# 1607
Delta R.T. -0.141 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 77 Resp: 29287

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	671.3	10.9	50.9#

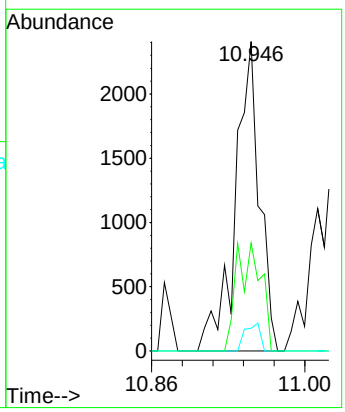


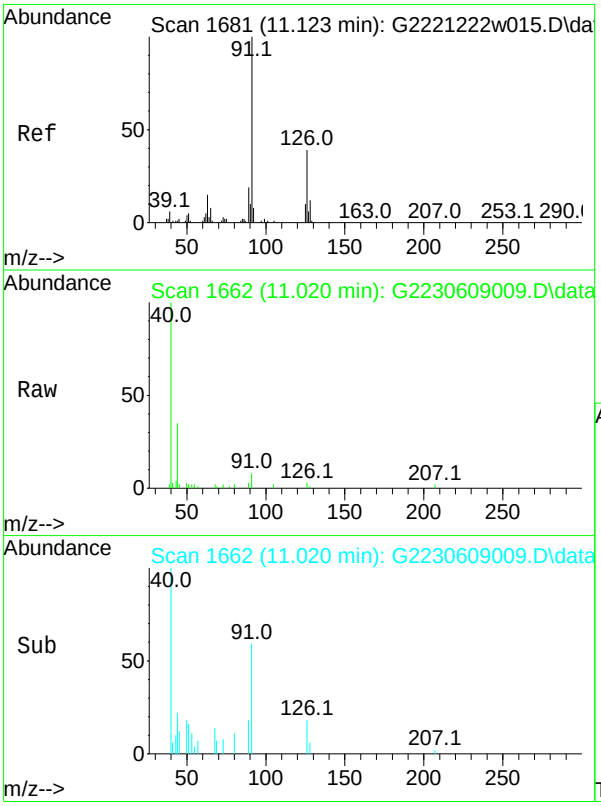


#86
n-Propylbenzene
Concen: 0.02 ug/L
RT: 10.947 min Scan# 1650
Delta R.T. -0.002 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 91 Resp: 36692

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.3
65	0.0	0.0	40.3

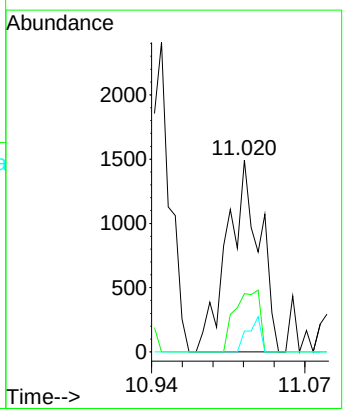


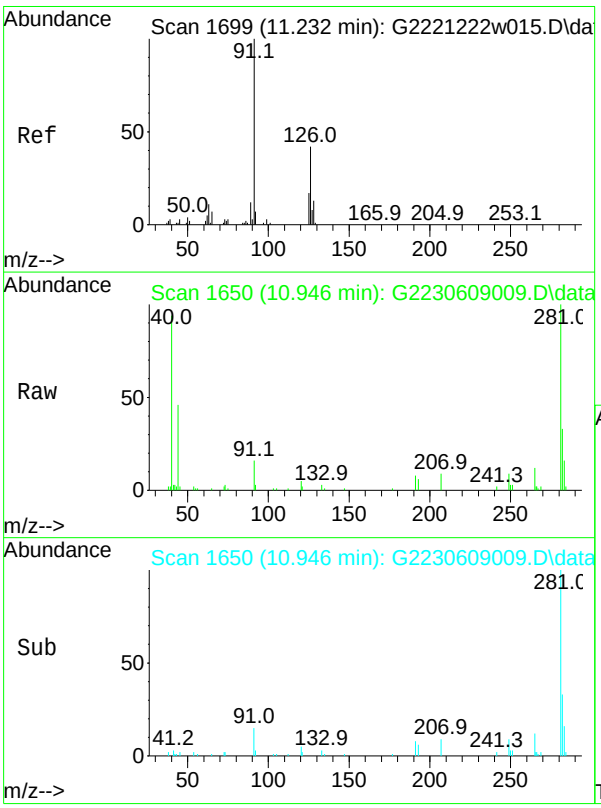


#87
2-Chlorotoluene
Concen: 0.03 ug/L
RT: 11.022 min Scan# 1662
Delta R.T. -0.006 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 91 Resp: 29551

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

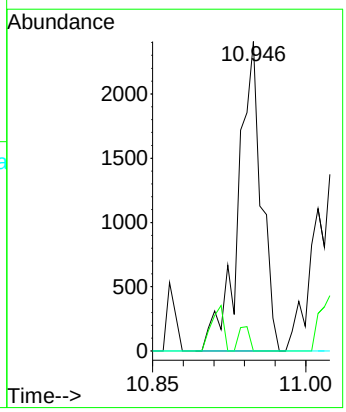


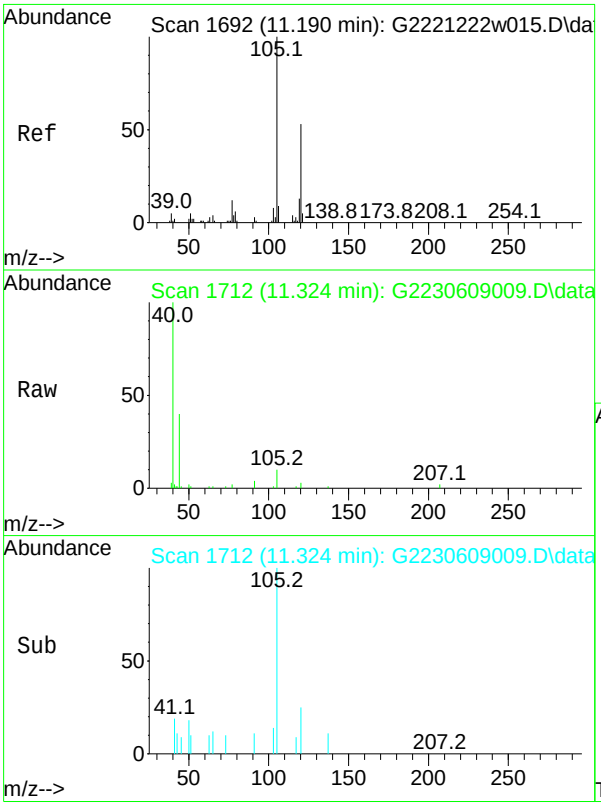


#88
4-Chlorotoluene
Concen: 0.03 ug/L
RT: 10.947 min Scan# 1650
Delta R.T. -0.190 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 91 Resp: 36700

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.7	60.7#
127	0.0	0.0	36.1

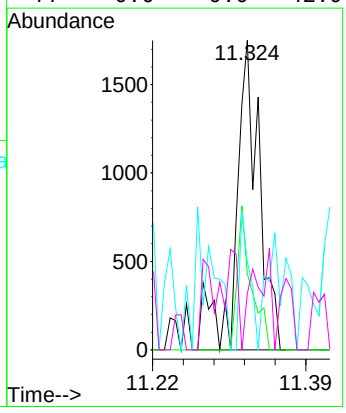


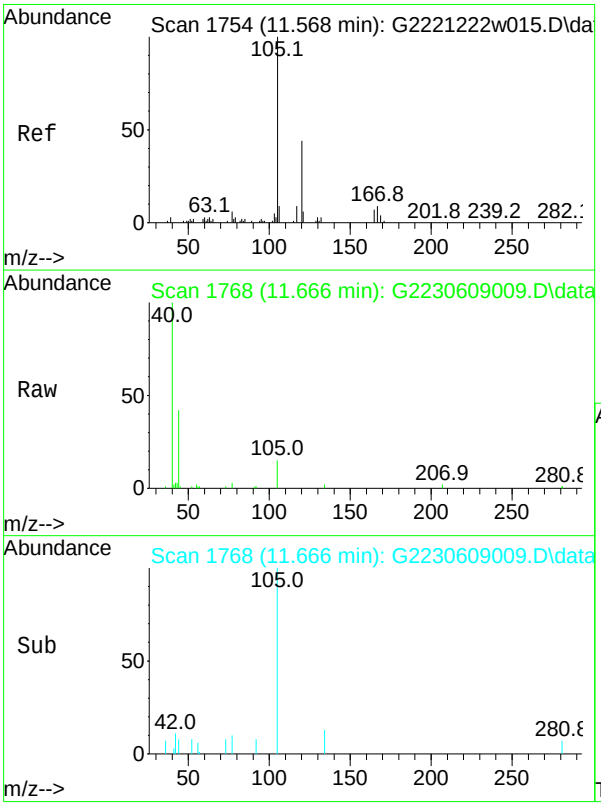


#89
1,3,5-Trimethylbenzene
Concen: 0.03 ug/L
RT: 11.326 min Scan# 1712
Delta R.T. 0.196 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:105 Resp: 31044

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.0	79.0#
39	0.0	0.0	42.6
77	0.0	0.0	42.9

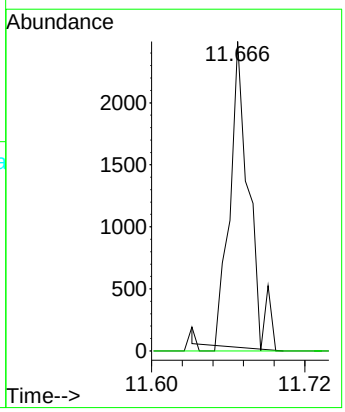


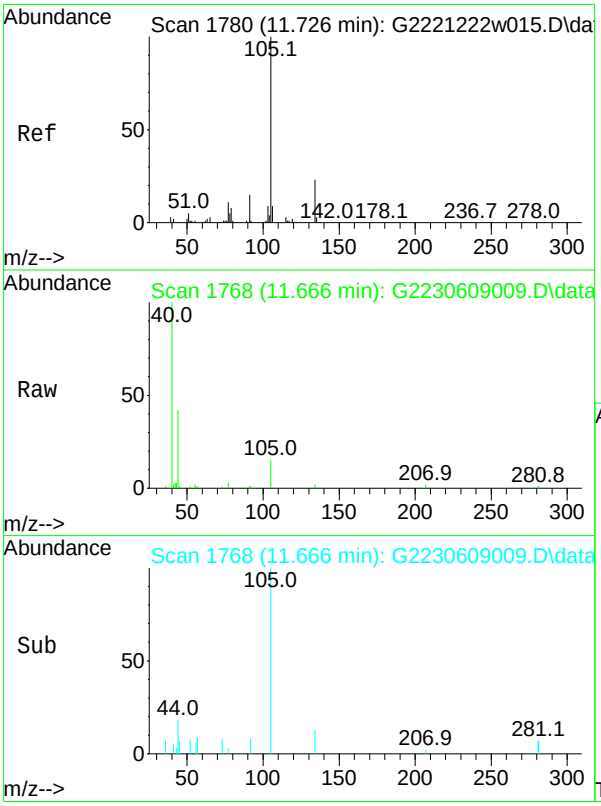


#92
1,2,4-Trimethylbenzene
Concen: 0.02 ug/L
RT: 11.669 min Scan# 1768
Delta R.T. 0.167 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:105 Resp: 26030

Ion	Ratio	Lower	Upper
105	100		
120	0.0	14.4	74.4#

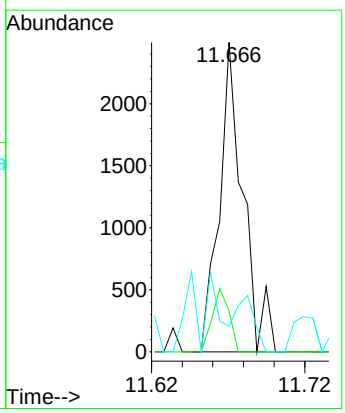


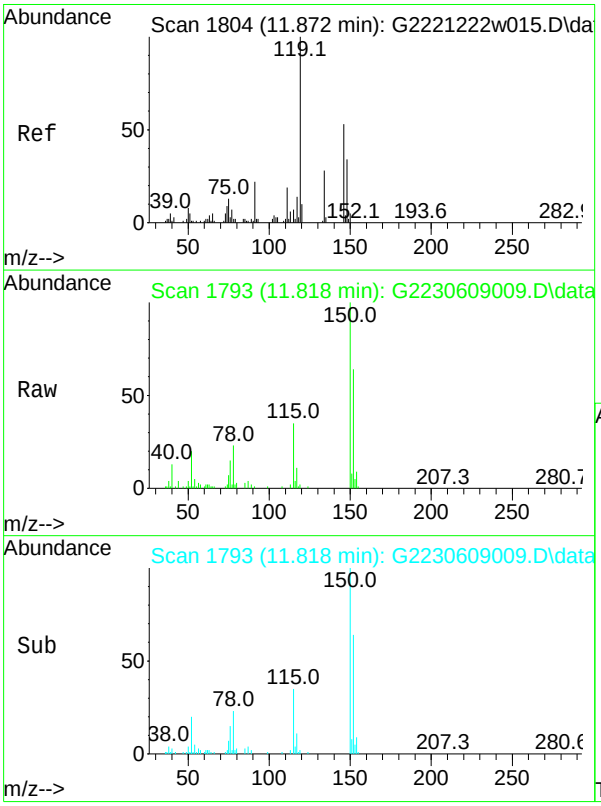


#93
sec-Butylbenzene
Concen: 0.02 ug/L
RT: 11.668 min Scan# 1768
Delta R.T. -0.005 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:105 Resp: 26825

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	50.7
91	0.0	0.0	46.0

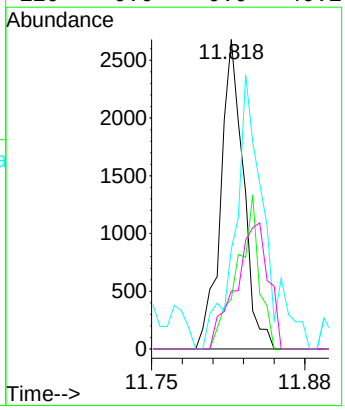


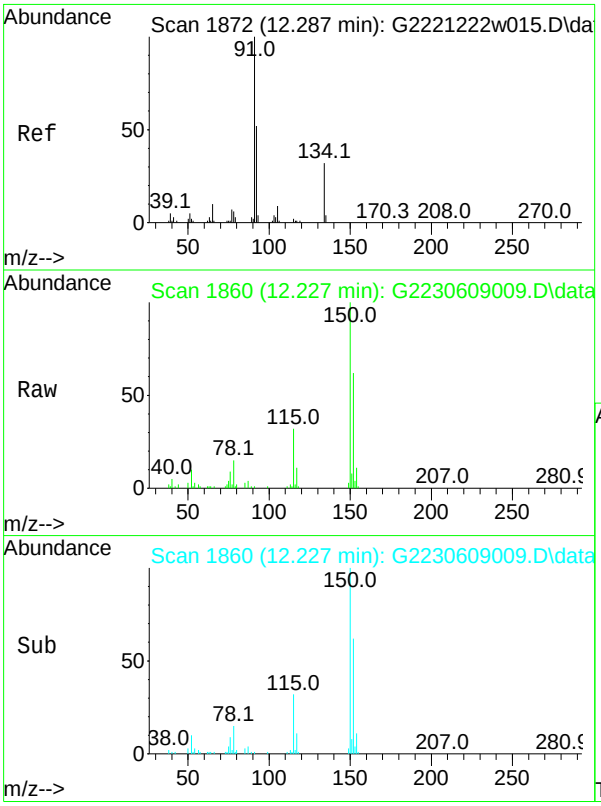


#95
4-Isopropyltoluene
Concen: 0.03 ug/L
RT: 11.821 min Scan# 1793
Delta R.T. -0.002 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:119 Resp: 36463

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	56.2
91	113.6	0.0	52.5#
120	0.0	0.0	40.1

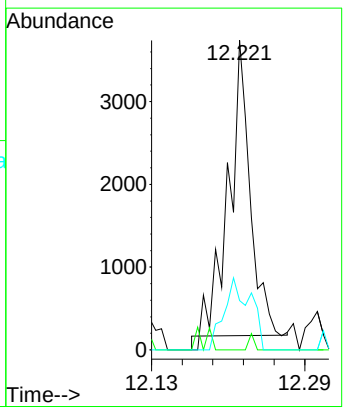


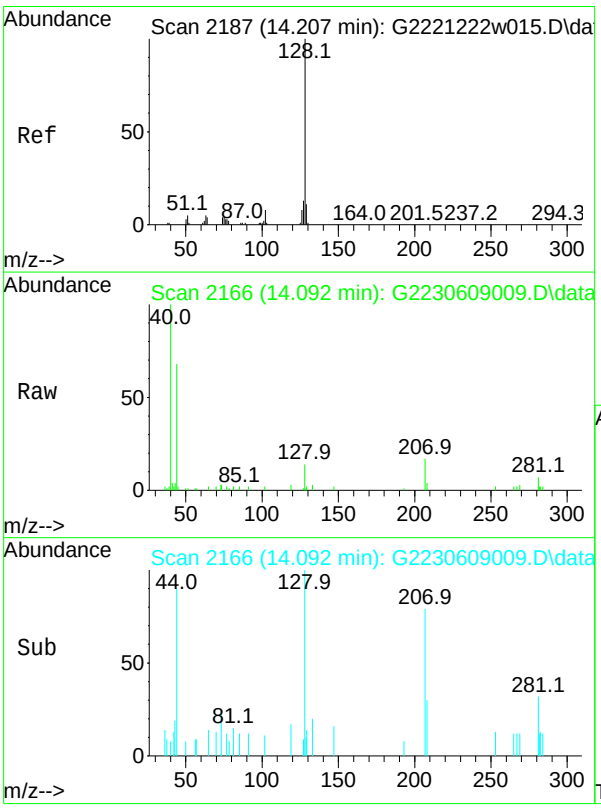


#99
n-Butylbenzene
Concen: Below Cal
RT: 12.224 min Scan# 1860
Delta R.T. -0.007 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion: 91 Resp: 53173

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

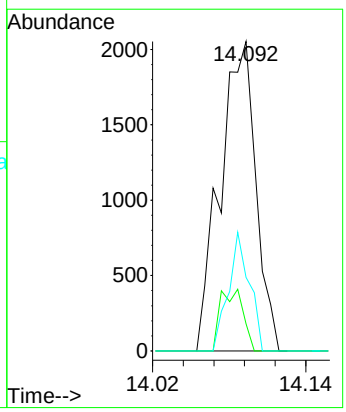




#105
Naphthalene
Concen: Below Cal
RT: 14.091 min Scan# 2166
Delta R.T. 0.000 min
Lab File: G2230609009.D
Acq: 09 Jun 2023 12:17

Tgt Ion:128 Resp: 37651

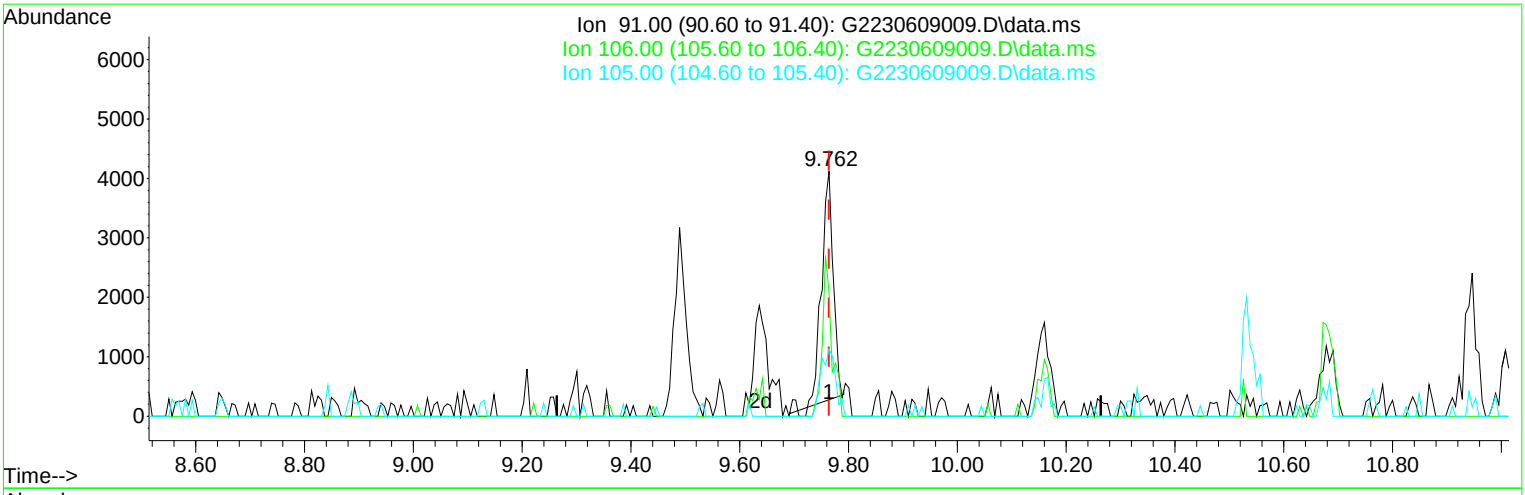
Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.2
129	0.0	0.0	40.9

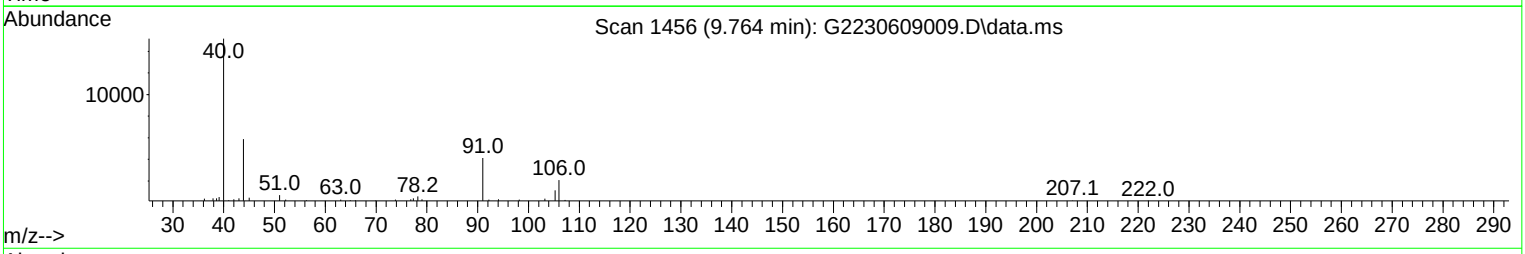


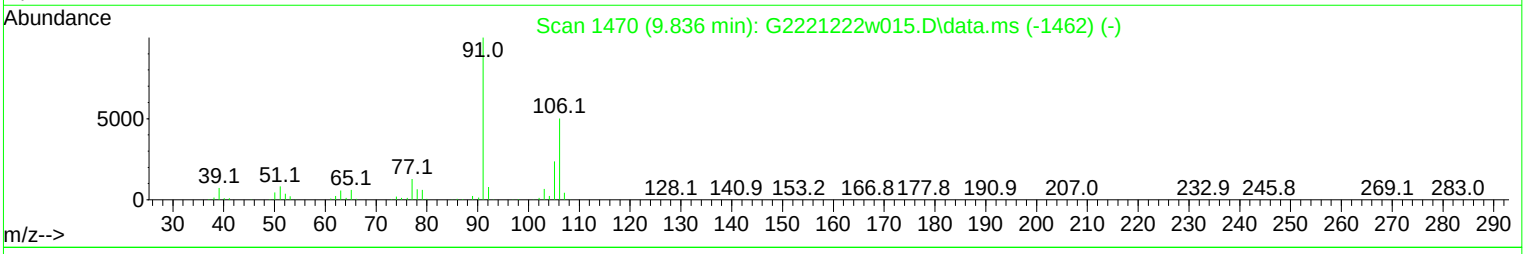
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609009.D
Acq On : 09 Jun 2023 12:17
Operator : PO1/MP3
Sample : 23E0775-14
Misc : 2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 08:46:48 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: G2230609009.D\data.ms

(75) m,p-Xylene (T)

9.764min (+ 0.000) 0.05 ug/L

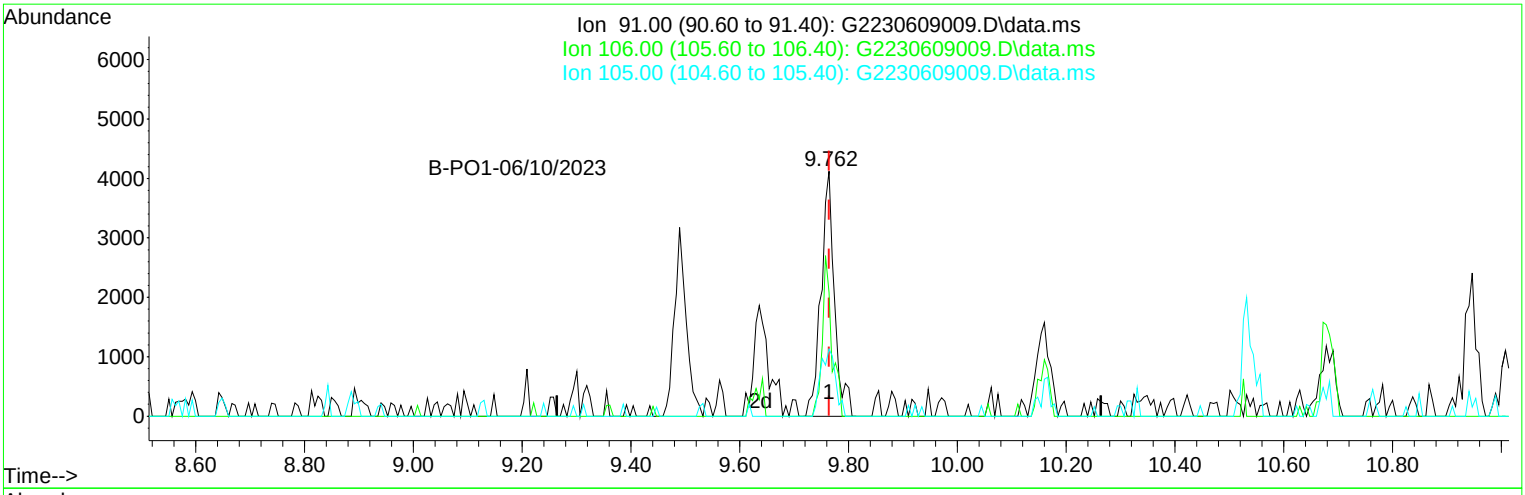
response 56445

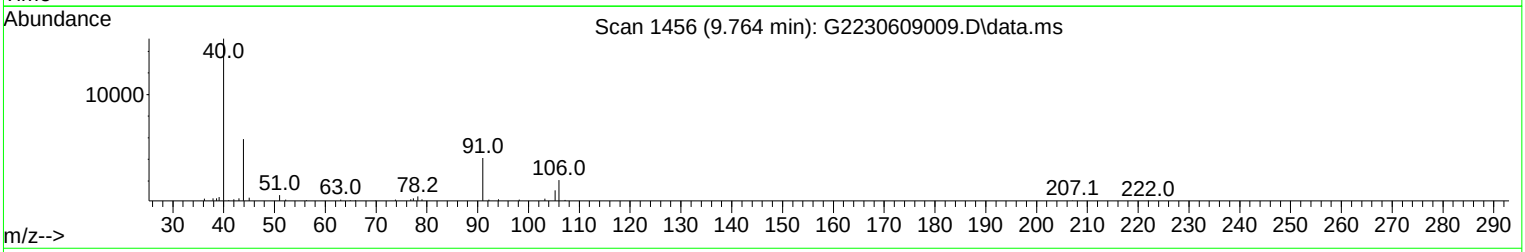
Ion	Exp%	Act%
91.00	100.00	100.00
106.00	49.00	57.99
105.00	22.70	0.00
0.00	0.00	0.00

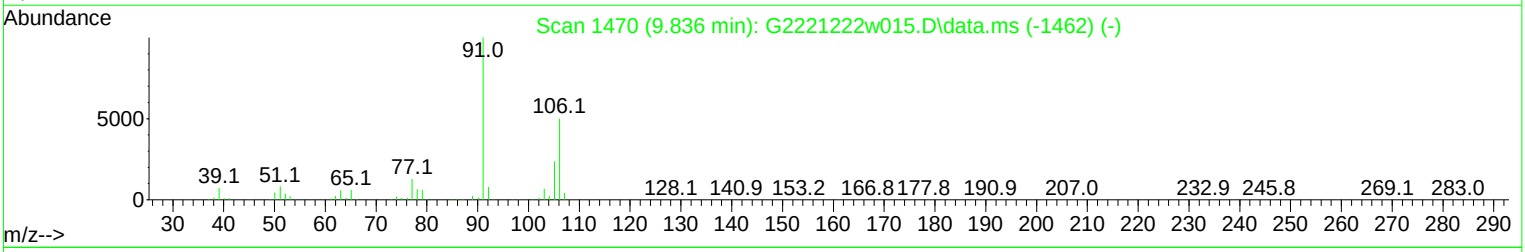
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609009.D
Acq On : 09 Jun 2023 12:17
Operator : PO1/MP3
Sample : 23E0775-14
Misc : 2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 10 08:46:48 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: G2230609009.D\data.ms

(75) m,p-Xylene (T)

9.764min (-0.000) 0.06 ug/L m

response 70833

Ion	Exp%	Act%
91.00	100.00	100.00
106.00	49.00	46.21
105.00	22.70	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

528LHSMW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-15	File ID:	G2230609011.D
Sampled:	05/28/23 11:30	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 13:07
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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

528LHSMW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-15	File ID:	G2230609011.D
Sampled:	05/28/23 11:30	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 13:07
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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	0.460	0.384	1.00	2.00	J, D
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

528LHSMW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-15	File ID:	G2230609011.D
Sampled:	05/28/23 11:30	Prepared:	06/09/23 09:00	Analyzed:	06/09/23 13:07
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0320	Sequence:	S3F0174	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	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609011.D
Acq On : 09 Jun 2023 13:07
Operator : PO1/MP3
Sample : 23E0775-15
Misc : 2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 10 08:55:54 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

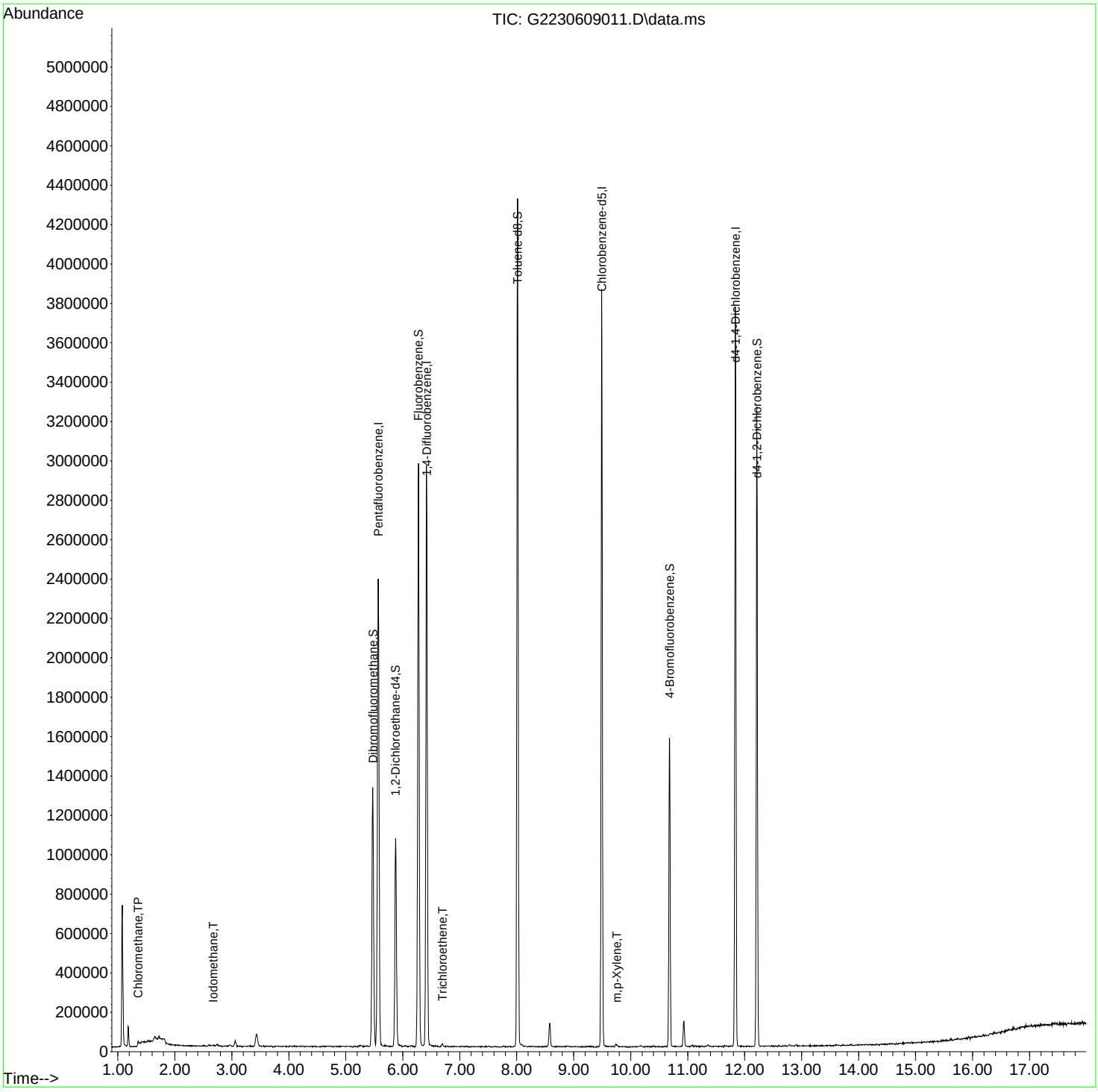
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	19225803	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	25910923	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22727015	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10514141	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	8158221	19.28	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.40%			
43) 1,2-Dichloroethane-d4	5.877	65	7534365	18.02	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.10%			
49) Fluorobenzene	6.277	96	28485839	19.29	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%			
64) Toluene-d8	8.016	98	27797057	19.40	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.00%			
81) 4-Bromofluorobenzene	10.685	174	4961091	9.99	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%			
97) d4-1,2-Dichlorobenzene	12.218	152	9194006	20.33	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.65%			
Target Compounds						Qvalue
3) Chloromethane	1.355	50	105134	0.23	ug/L	72
5) Bromomethane	1.726	94	64030	Below Cal	#	67
12) Acetone	2.602	43	90571	Below Cal		96
13) Iodomethane	2.676	142	56860	0.13	ug/L #	41
18) Methylene chloride	3.061	49	126203	Below Cal		76
21) Methyl tert-butyl ether	3.434	73	849314	Below Cal		92
36) Tetrahydrofuran	5.248	42	41088	Below Cal	#	30
50) Trichloroethene	6.697	95	34801	0.02	ug/L #	67
75) m,p-Xylene	9.760	91	43488	0.04	ug/L #	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609011.D
Acq On : 09 Jun 2023 13:07
Operator : PO1/MP3
Sample : 23E0775-15
Misc : 2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 10 08:55:54 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609011.D
Acq On : 09 Jun 2023 13:07
Operator : PO1/MP3
Sample : 23E0775-15
Misc : 2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 10 08:55:54 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

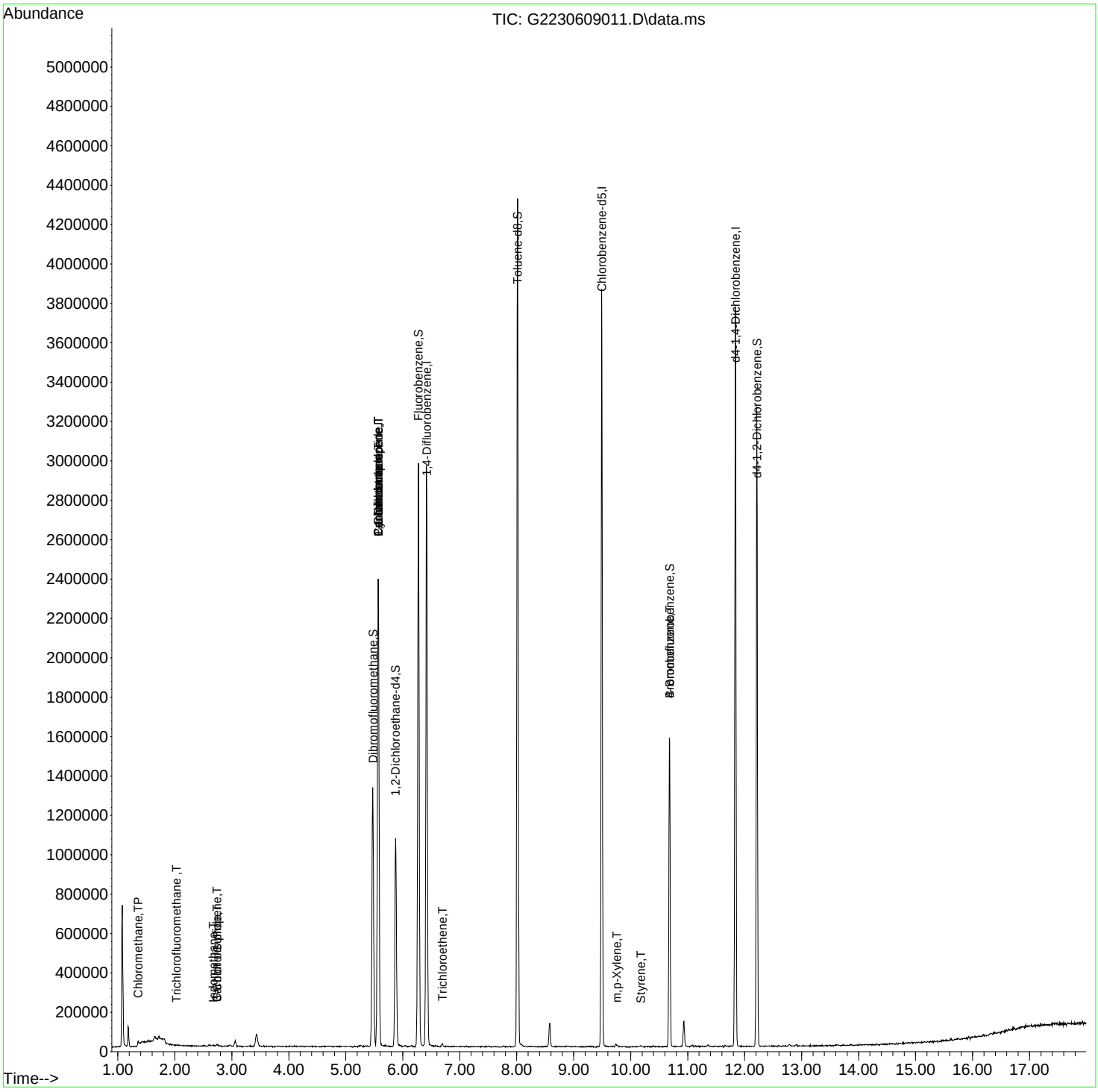
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	19225803	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25910923	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22727015	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10514141	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	8158221	19.28	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.40%				
43) 1,2-Dichloroethane-d4	5.877	65	7534365	18.02	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 90.10%				
49) Fluorobenzene	6.277	96	28485839	19.29	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%				
64) Toluene-d8	8.016	98	27797057	19.40	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.00%				
81) 4-Bromofluorobenzene	10.685	174	4961091	9.99	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 99.90%				
97) d4-1,2-Dichlorobenzene	12.218	152	9194006	20.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.65%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	105134	0.23	ug/L		72
5) Bromomethane	1.726	94	64030	Below Cal		#	67
7) Trichlorofluoromethane	2.026	101	1951	0.00	ug/L	#	16
12) Acetone	2.602	43	90571	Below Cal			96
13) Iodomethane	2.676	142	56860	0.13	ug/L	#	41
14) Carbon disulfide	2.740	76	135308	0.06	ug/L	#	74
17) 3-Chloro-1-propene	2.740	76	135303	0.62	ug/L	#	53
18) Methylene chloride	3.061	49	126203	Below Cal			76
21) Methyl tert-butyl ether	3.434	73	849314	Below Cal			92
36) Tetrahydrofuran	5.248	42	41088	Below Cal		#	30
40) Cyclohexane	5.569	84	422382	0.82	ug/L	#	35
41) 1-Chlorobutane	5.570	56	242610	0.40	ug/L	#	1
42) 1,1-Dichloropropene	5.569	75	1000211	2.22	ug/L	#	38
47) Carbon tetrachloride	5.570	117	1522149	3.26	ug/L	#	16
50) Trichloroethene	6.697	95	34801	0.02	ug/L	#	67
60) 4-Methyl-2-pentanone	8.015	43	90990	Below Cal		#	1
74) Ethylbenzene	9.761	91	43484	Below Cal			67
75) m,p-Xylene	9.760	91	43488	0.04	ug/L	#	85
76) Styrene	10.175	104	23840	0.02	ug/L	#	29
82) Bromobenzene	10.686	77	35424	0.06	ug/L	#	1
99) n-Butylbenzene	12.213	91	30943	Below Cal		#	53

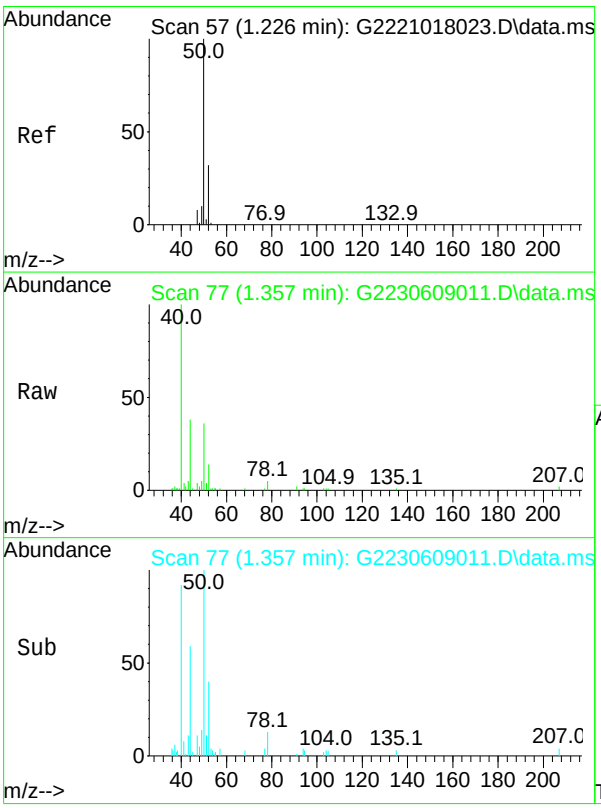
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609011.D
Acq On : 09 Jun 2023 13:07
Operator : PO1/MP3
Sample : 23E0775-15
Misc : 2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 10 08:55:54 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

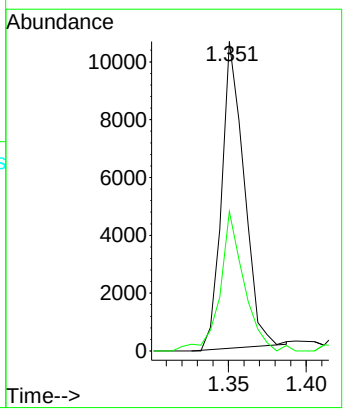


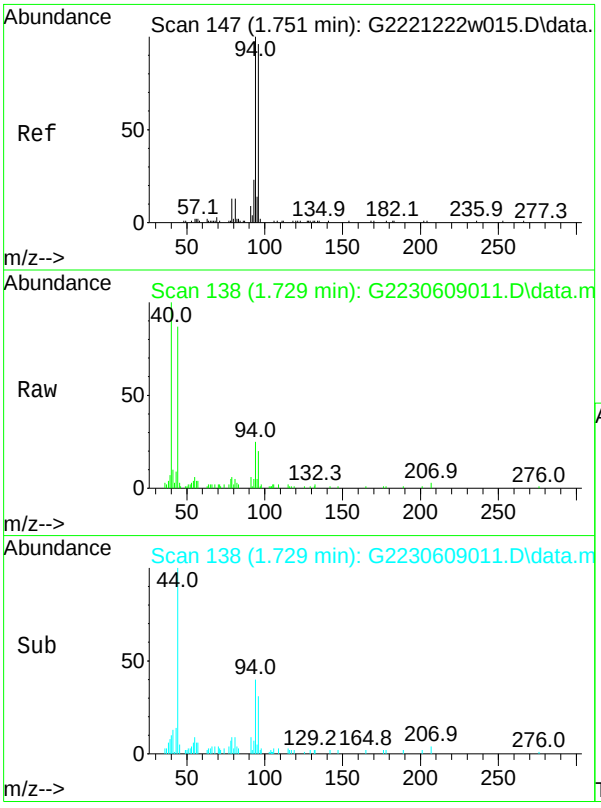


#3
Chloromethane
Concen: 0.23 ug/L
RT: 1.355 min Scan# 77
Delta R.T. 0.001 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 50 Resp: 105134

Ion	Ratio	Lower	Upper
50	100		
52	49.1	3.2	63.2

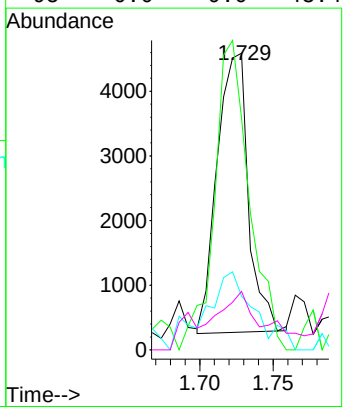


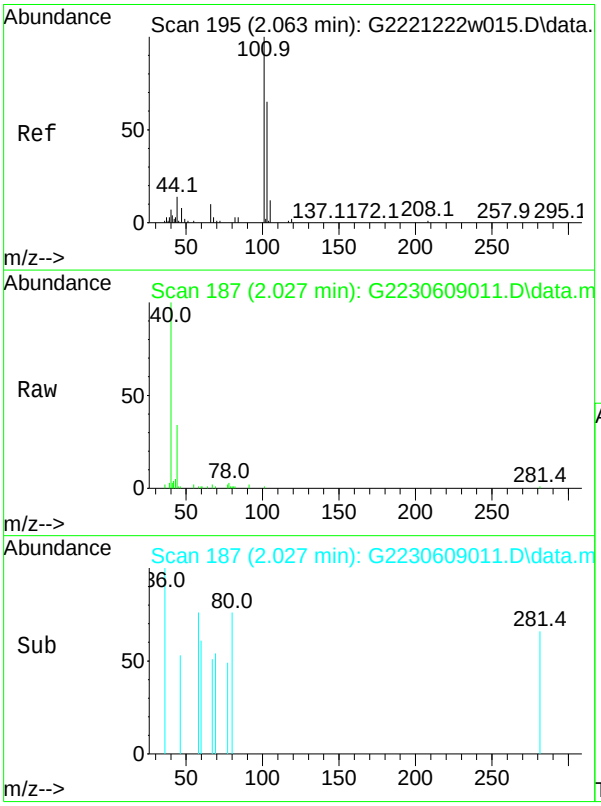


#5
Bromomethane
Concen: Below Cal
RT: 1.726 min Scan# 138
Delta R.T. 0.012 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 94 Resp: 64030

Ion	Ratio	Lower	Upper
94	100		
96	121.6	65.6	125.6
93	47.6	0.0	49.5
95	0.0	0.0	43.4

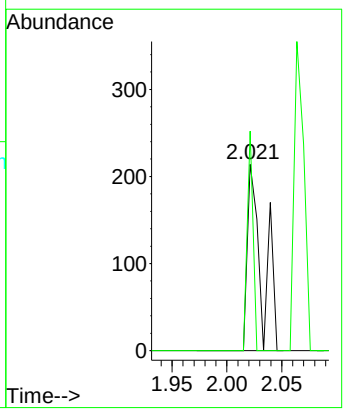


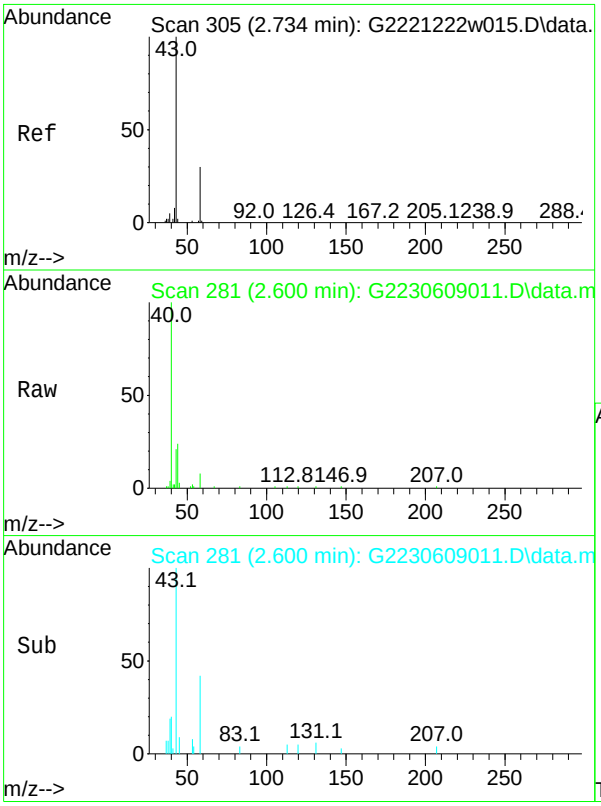


#7
Trichlorofluoromethane
Concen: 0.00 ug/L
RT: 2.026 min Scan# 187
Delta R.T. -0.004 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion:101 Resp: 1951

Ion	Ratio	Lower	Upper
101	100		
103	0.0	36.9	96.9#

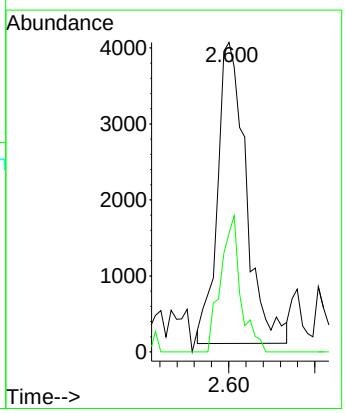


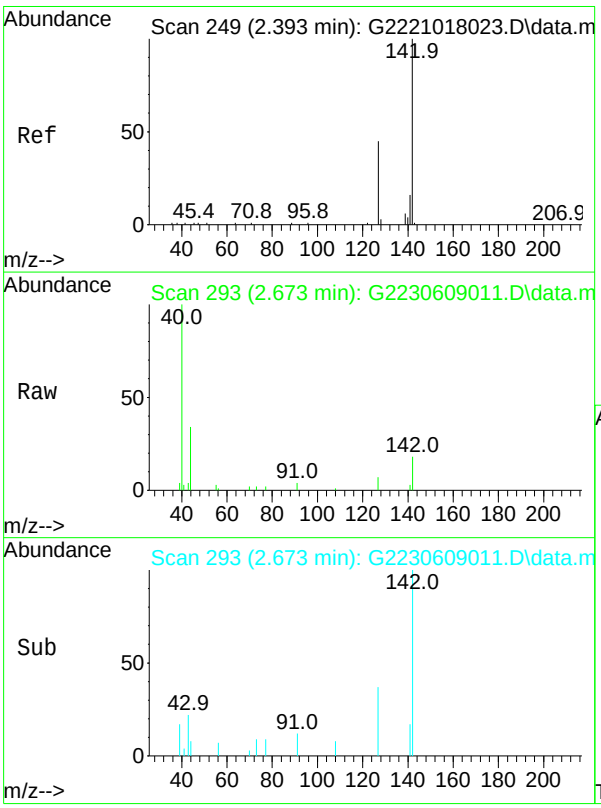


#12
Acetone
Concen: Below Cal
RT: 2.602 min Scan# 281
Delta R.T. -0.006 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 43 Resp: 90571

Ion	Ratio	Lower	Upper
43	100		
58	31.9	0.0	59.7

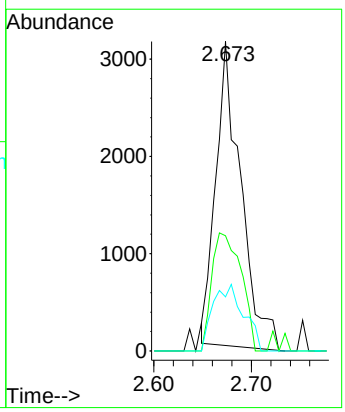


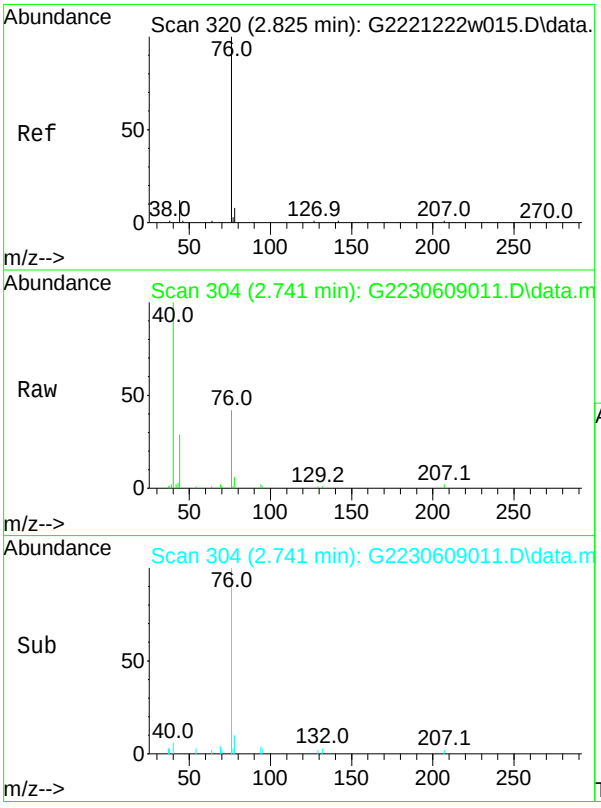


#13
Iodomethane
Concen: 0.13 ug/L
RT: 2.676 min Scan# 293
Delta R.T. -0.000 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion:142 Resp: 56860

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

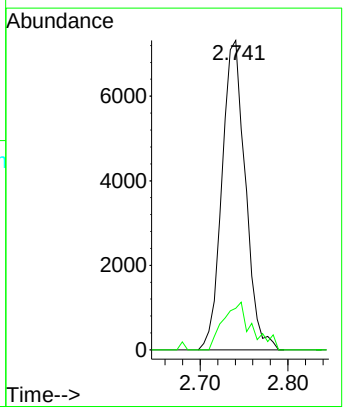


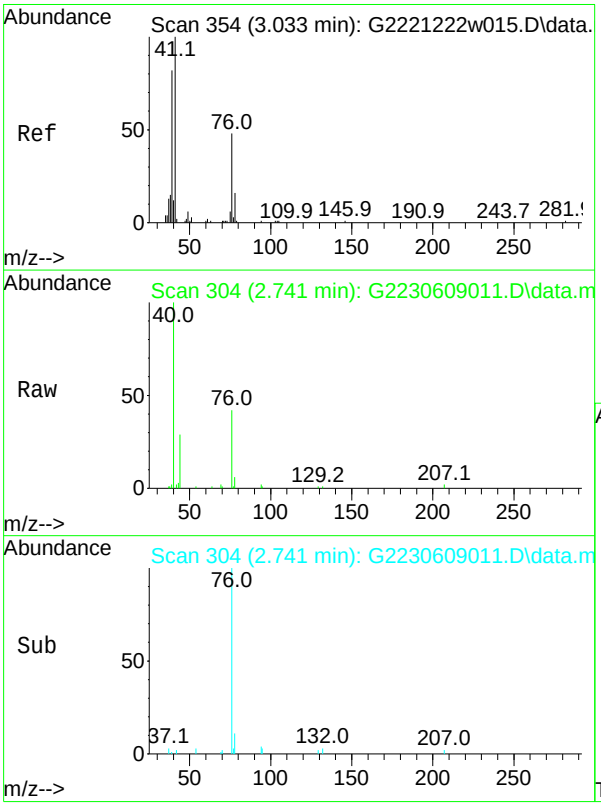


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.740 min Scan# 304
Delta R.T. 0.001 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 76 Resp: 135308

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

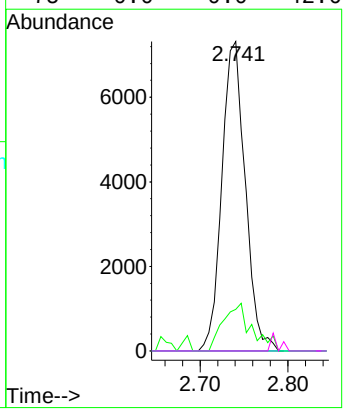


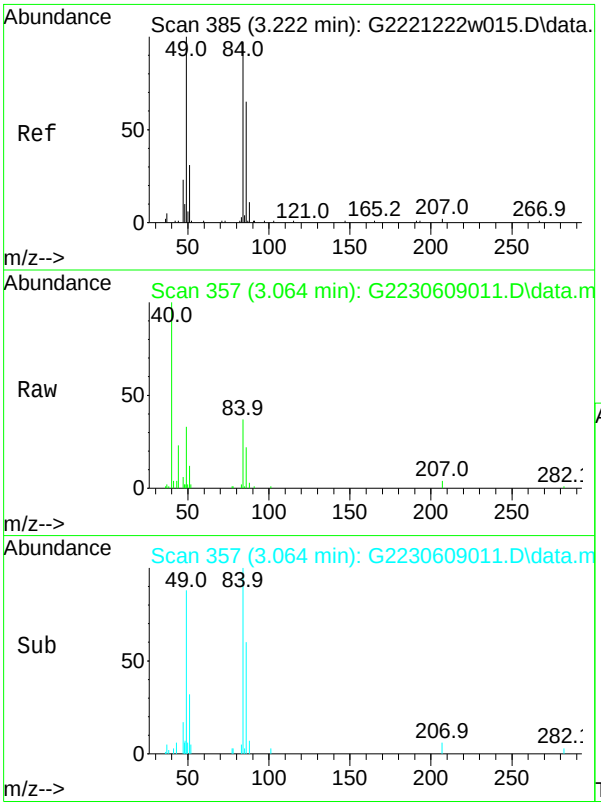


#17
3-Chloro-1-propene
Concen: 0.62 ug/L
RT: 2.740 min Scan# 304
Delta R.T. -0.180 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 76 Resp: 135303

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

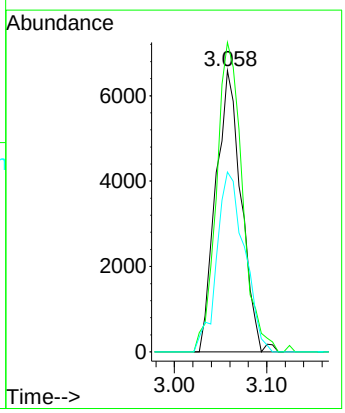


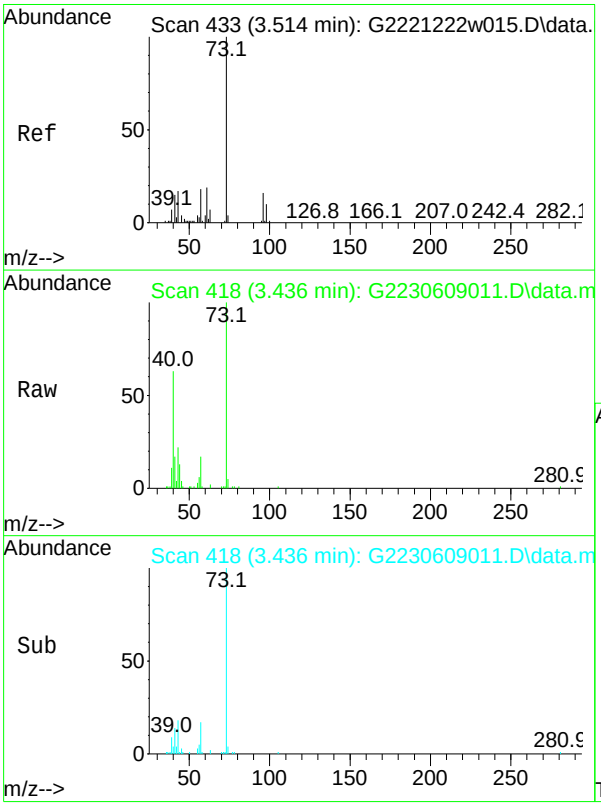


#18
Methylene chloride
Concen: Below Cal
RT: 3.061 min Scan# 357
Delta R.T. -0.001 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 49 Resp: 126203

Ion	Ratio	Lower	Upper
49	100		
84	111.6	57.9	117.9
86	70.0	24.9	84.9

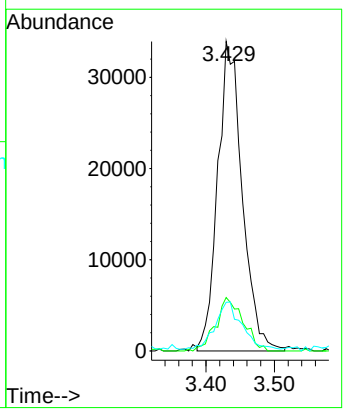


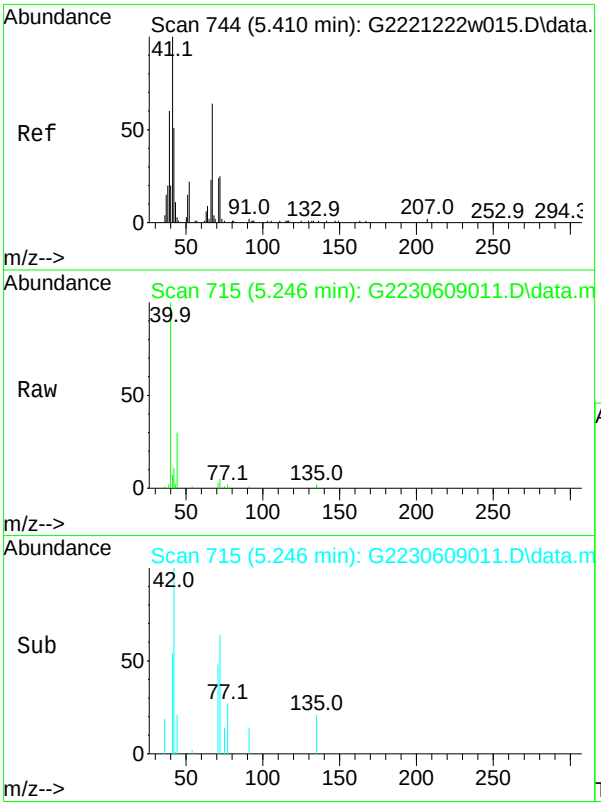


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.434 min Scan# 418
Delta R.T. -0.012 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 73 Resp: 849314

Ion	Ratio	Lower	Upper
73	100		
57	18.9	0.0	51.7
41	16.3	0.0	50.6

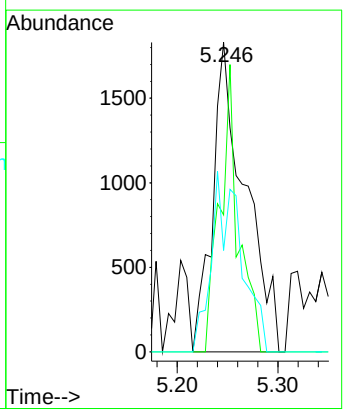


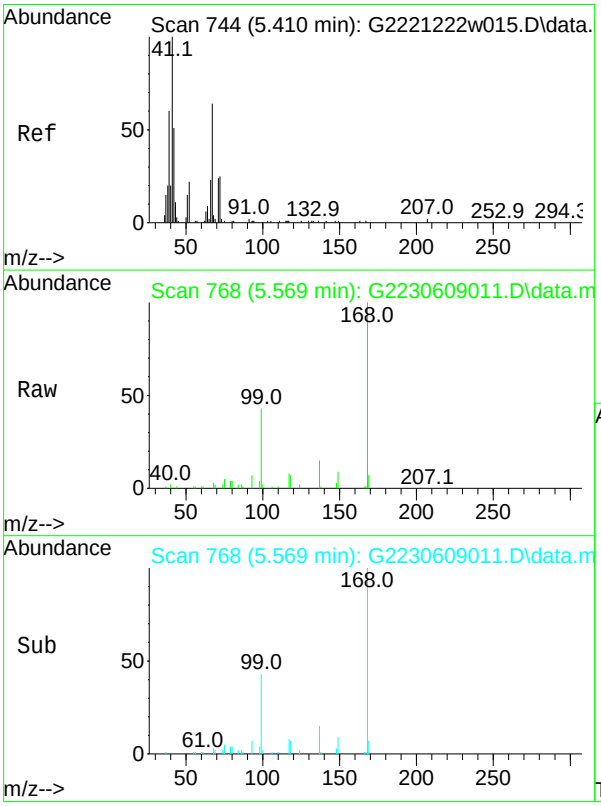


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.248 min Scan# 715
Delta R.T. -0.013 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 42 Resp: 41088

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

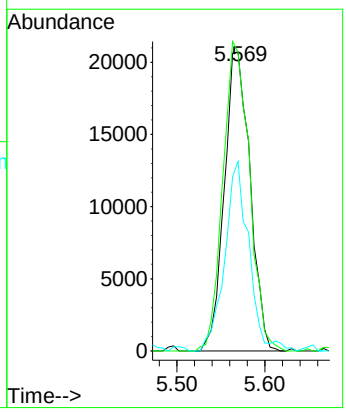


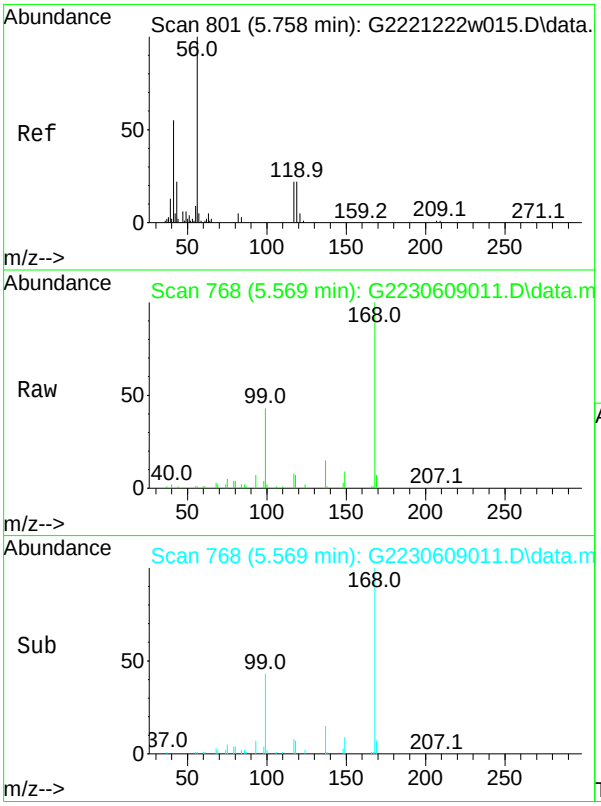


#40
Cyclohexane
Concen: 0.82 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 84 Resp: 422382

Ion	Ratio	Lower	Upper
84	100		
69	106.5	6.8	66.8#
56	59.2	79.1	139.1#

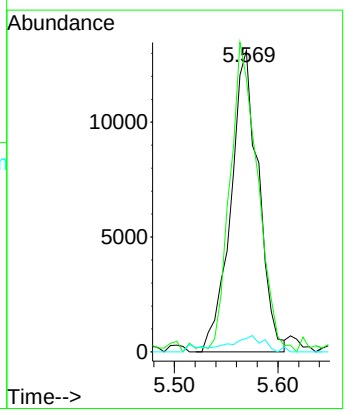


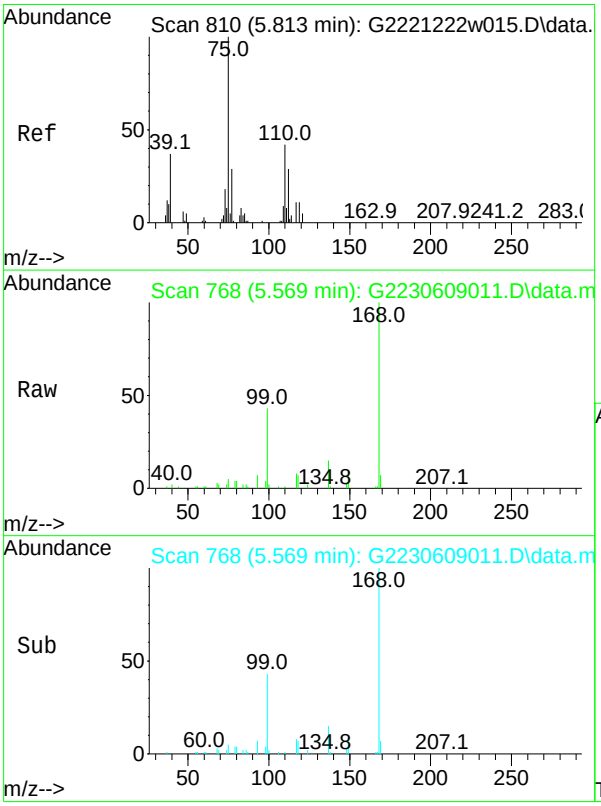


#41
1-Chlorobutane
Concen: 0.40 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 56 Resp: 242610

Ion	Ratio	Lower	Upper
56	100		
55	102.0	0.0	41.0#
57	0.0	0.0	35.7

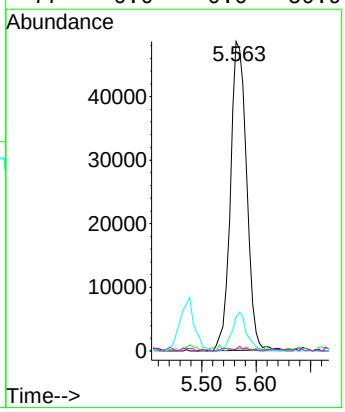


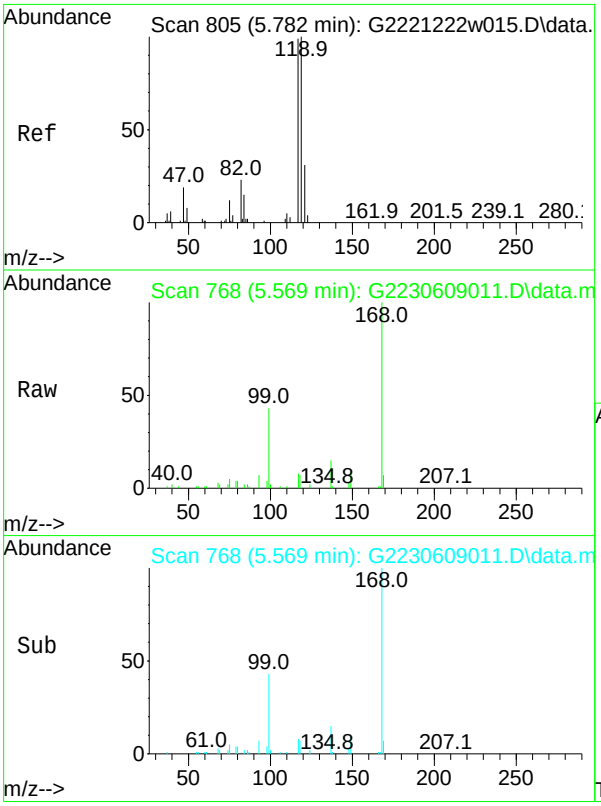


#42
1,1-Dichloropropene
Concen: 2.22 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 75 Resp: 1000211

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

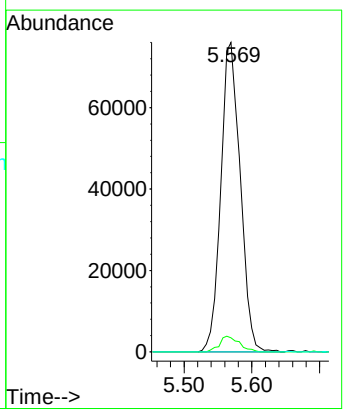


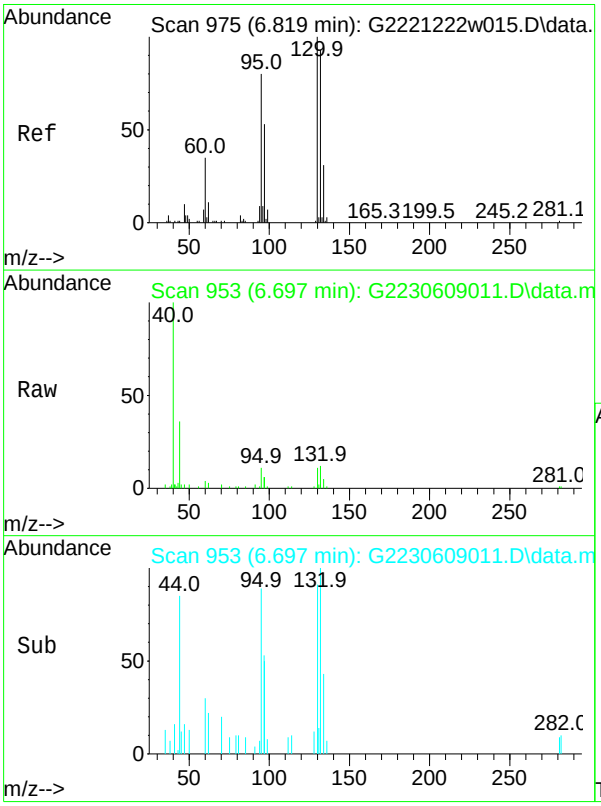


#47
Carbon tetrachloride
Concen: 3.26 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion:117 Resp: 1522149

Ion	Ratio	Lower	Upper
117	100		
119	5.2	66.4	126.4#
121	0.0	0.4	60.4#

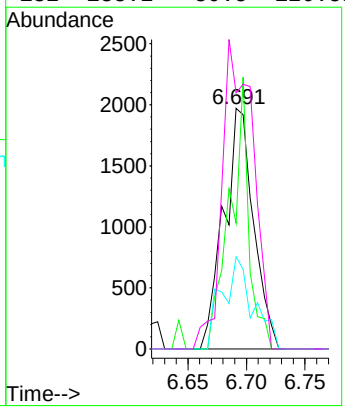


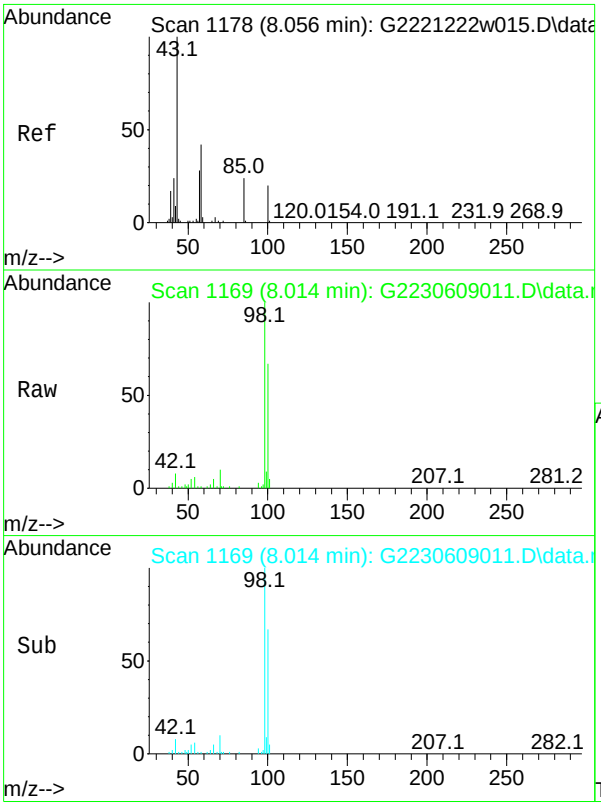


#50
Trichloroethene
Concen: 0.02 ug/L
RT: 6.697 min Scan# 953
Delta R.T. 0.001 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 95 Resp: 34801

Ion	Ratio	Lower	Upper
95	100		
97	73.7	35.5	95.5
60	0.0	14.8	74.8#
132	133.2	80.5	120.5#

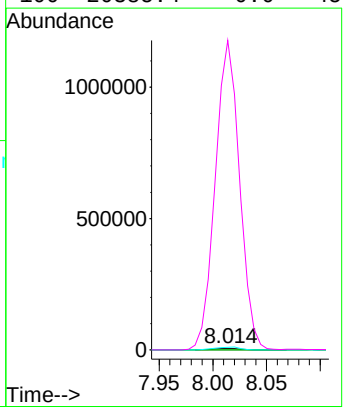


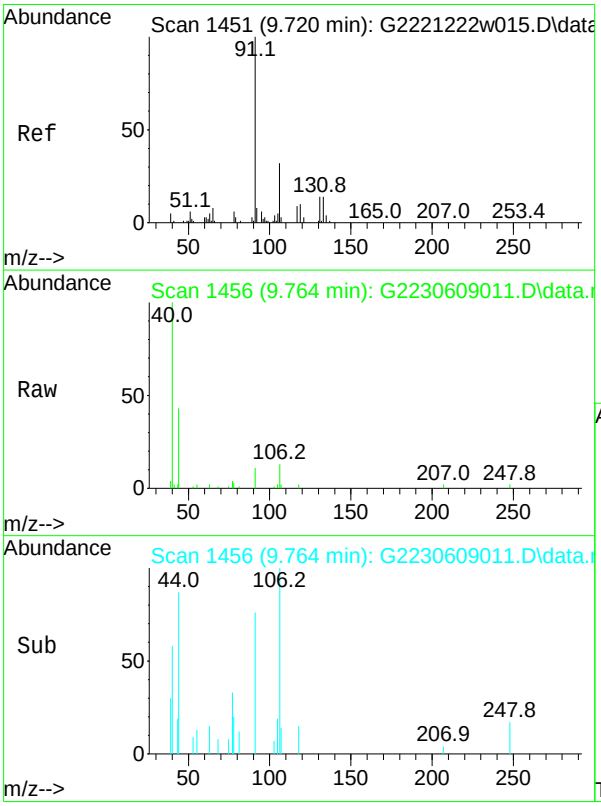


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 43 Resp: 90990

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	192.4	37.0	37.0#
100	20385.4	0.0	45.2#

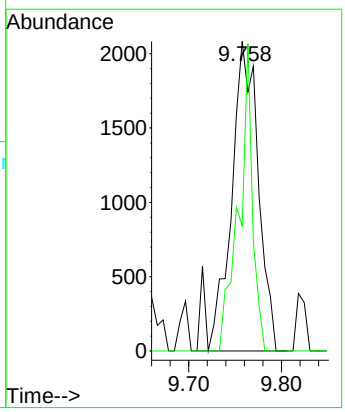


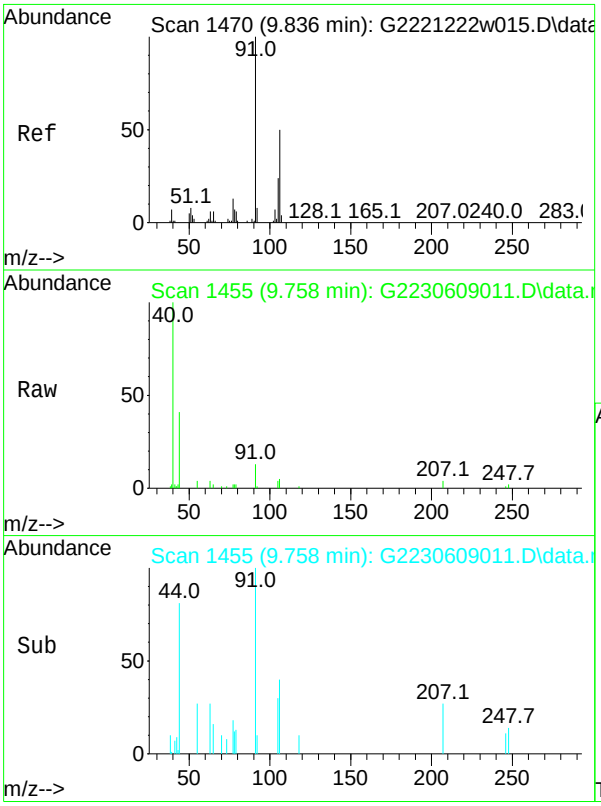


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 91 Resp: 43484

Ion	Ratio	Lower	Upper
91	100		
106	48.7	0.8	60.8

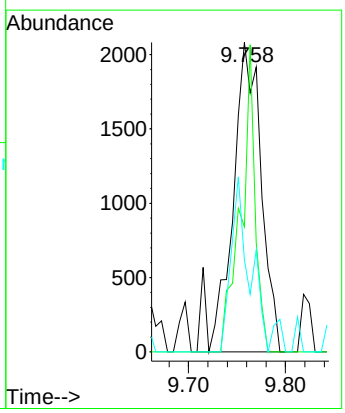


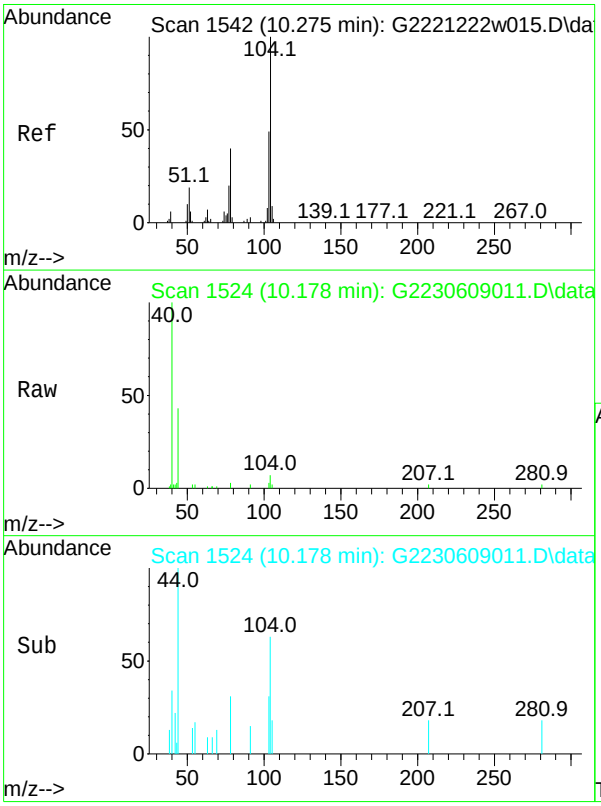


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 91 Resp: 43488

Ion	Ratio	Lower	Upper
91	100		
106	48.7	19.0	79.0
105	0.0	0.0	52.7

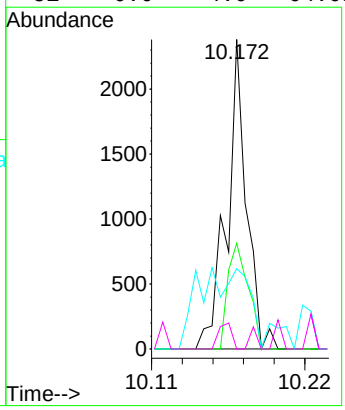


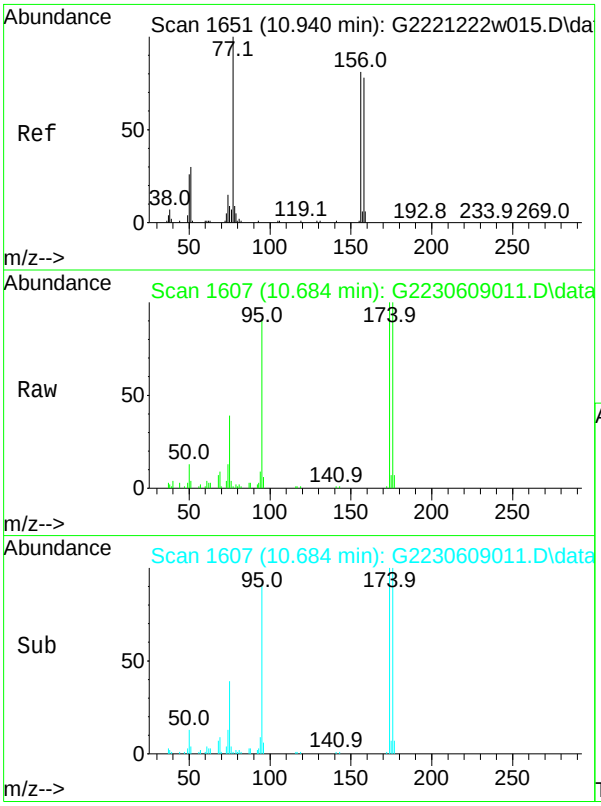


#76
Styrene
Concen: 0.02 ug/L
RT: 10.175 min Scan# 1524
Delta R.T. -0.002 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion:104 Resp: 23840

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

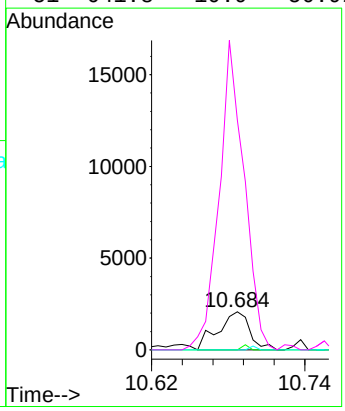


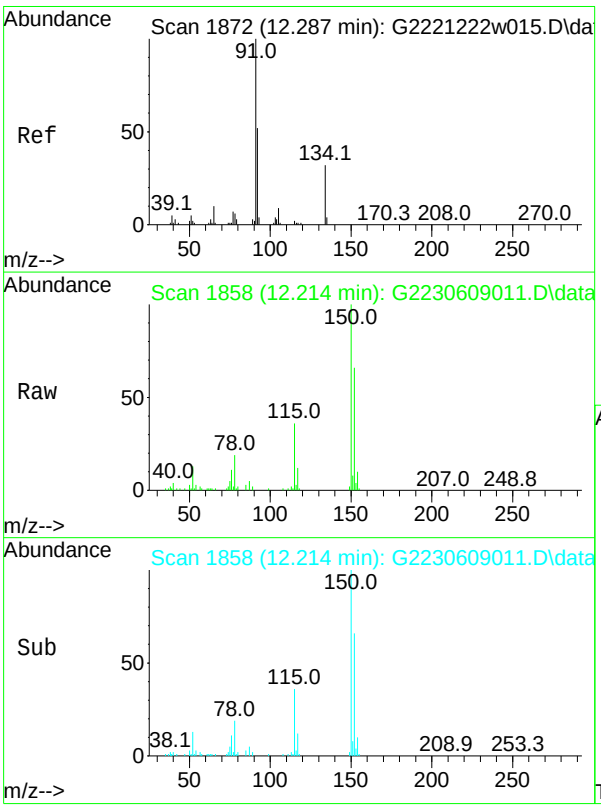


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.686 min Scan# 1607
Delta R.T. -0.142 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 77 Resp: 35424

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	641.8	10.9	50.9#

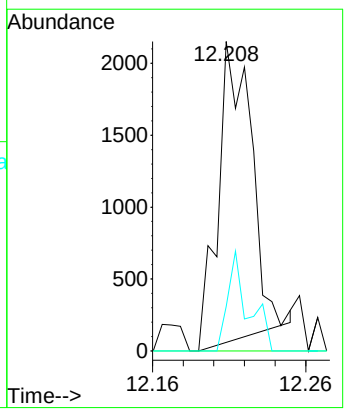




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.213 min Scan# 1858
Delta R.T. -0.018 min
Lab File: G2230609011.D
Acq: 09 Jun 2023 13:07

Tgt Ion: 91 Resp: 30943

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

528487WW43

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-16	File ID:	G2230609029.D
Sampled:	05/28/23 14:00	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 20:35
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		3.25	10.0	25.0	U
71-55-6	1,1,1-Trichloroethane		4.38	10.0	25.0	U
79-34-5	1,1,2,2-Tetrachloroethane		3.10	10.0	25.0	U
79-00-5	1,1,2-Trichloroethane		4.16	10.0	25.0	U
75-34-3	1,1-Dichloroethane		3.34	10.0	25.0	U
75-35-4	1,1-Dichloroethene		4.77	10.0	25.0	U
563-58-6	1,1-Dichloropropene		3.50	10.0	25.0	U
87-61-6	1,2,3-Trichlorobenzene		5.10	10.0	25.0	U
96-18-4	1,2,3-Trichloropropane		4.56	10.0	25.0	U
120-82-1	1,2,4-Trichlorobenzene		5.12	15.0	30.0	U
95-63-6	1,2,4-Trimethylbenzene		3.30	10.0	25.0	U
96-12-8	1,2-Dibromo-3-chloropropane		6.50	25.0	50.0	U
106-93-4	1,2-Dibromoethane		2.66	10.0	25.0	U
95-50-1	1,2-Dichlorobenzene		3.15	10.0	25.0	U
107-06-2	1,2-Dichloroethane		5.30	15.0	30.0	U
78-87-5	1,2-Dichloropropane		5.12	15.0	30.0	U
108-67-8	1,3,5-Trimethylbenzene		2.50	10.0	25.0	U
541-73-1	1,3-Dichlorobenzene		3.62	10.0	25.0	U
142-28-9	1,3-Dichloropropane		3.40	10.0	25.0	U
106-46-7	1,4-Dichlorobenzene		4.60	10.0	25.0	U
594-20-7	2,2-Dichloropropane		4.60	10.0	25.0	U
78-93-3	2-Butanone		16.5	35.0	87.5	U
95-49-8	2-Chlorotoluene		3.66	10.0	25.0	U
591-78-6	2-Hexanone		3.58	35.0	87.5	U
106-43-4	4-Chlorotoluene		4.60	10.0	25.0	U
99-87-6	4-Isopropyltoluene		3.50	10.0	25.0	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

528487WW43

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-16	File ID:	G2230609029.D
Sampled:	05/28/23 14:00	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 20:35
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		6.75	35.0	87.5	U
67-64-1	Acetone		25.9	100	200	U
71-43-2	Benzene		2.54	10.0	25.0	U
108-86-1	Bromobenzene		4.24	10.0	25.0	U
74-97-5	Bromochloromethane		3.34	10.0	25.0	U
75-27-4	Bromodichloromethane		2.66	10.0	25.0	U
75-25-2	Bromoform		5.16	10.0	25.0	U
74-83-9	Bromomethane		8.01	25.0	50.0	U
75-15-0	Carbon disulfide		7.00	25.0	50.0	U
56-23-5	Carbon tetrachloride		4.22	10.0	25.0	U
108-90-7	Chlorobenzene		3.25	10.0	25.0	U
75-00-3	Chloroethane		7.77	10.0	25.0	U
67-66-3	Chloroform		5.06	15.0	30.0	U
74-87-3	Chloromethane		9.60	25.0	50.0	U
156-59-2	cis-1,2-Dichloroethene		5.13	15.0	30.0	U
10061-01-5	cis-1,3-Dichloropropene		2.94	10.0	25.0	U
124-48-1	Dibromochloromethane		3.80	10.0	25.0	U
74-95-3	Dibromomethane		4.08	10.0	25.0	U
75-71-8	Dichlorodifluoromethane		6.48	25.0	50.0	U
100-41-4	Ethylbenzene		1.50	5.00	10.0	U
87-68-3	Hexachlorobutadiene		5.00	10.0	25.0	U
98-82-8	Isopropylbenzene		2.74	10.0	25.0	U
179601-23-1	m,p-Xylene		4.44	20.0	50.0	U
1634-04-4	Methyl tert-butyl ether		2.65	10.0	25.0	U
75-09-2	Methylene chloride		11.2	25.0	50.0	U
104-51-8	n-Butylbenzene		6.50	25.0	50.0	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

528487WW43

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-16	File ID:	G2230609029.D
Sampled:	05/28/23 14:00	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 20:35
		Preparation:	5030_W	Dilution:	50
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		3.15	10.0	25.0	U
91-20-3	Naphthalene		3.50	10.0	25.0	U
95-47-6	o-Xylene		2.08	10.0	25.0	U
135-98-8	sec-Butylbenzene		2.99	10.0	25.0	U
100-42-5	Styrene		2.26	5.00	10.0	U
98-06-6	tert-Butylbenzene		2.26	10.0	25.0	U
127-18-4	Tetrachloroethene		8.92	25.0	50.0	U
108-88-3	Toluene		2.86	10.0	25.0	U
156-60-5	trans-1,2-Dichloroethene		4.28	10.0	25.0	U
10061-02-6	trans-1,3-Dichloropropene		2.94	10.0	25.0	U
79-01-6	Trichloroethene	616	3.90	10.0	25.0	D
75-69-4	Trichlorofluoromethane		2.52	10.0	25.0	U
75-01-4	Vinyl chloride		6.44	25.0	50.0	U

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609029.D
Acq On : 09 Jun 2023 20:35
Operator : PO1/MP3
Sample : 23E0775-16
Misc : 50
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 10 08:35:45 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

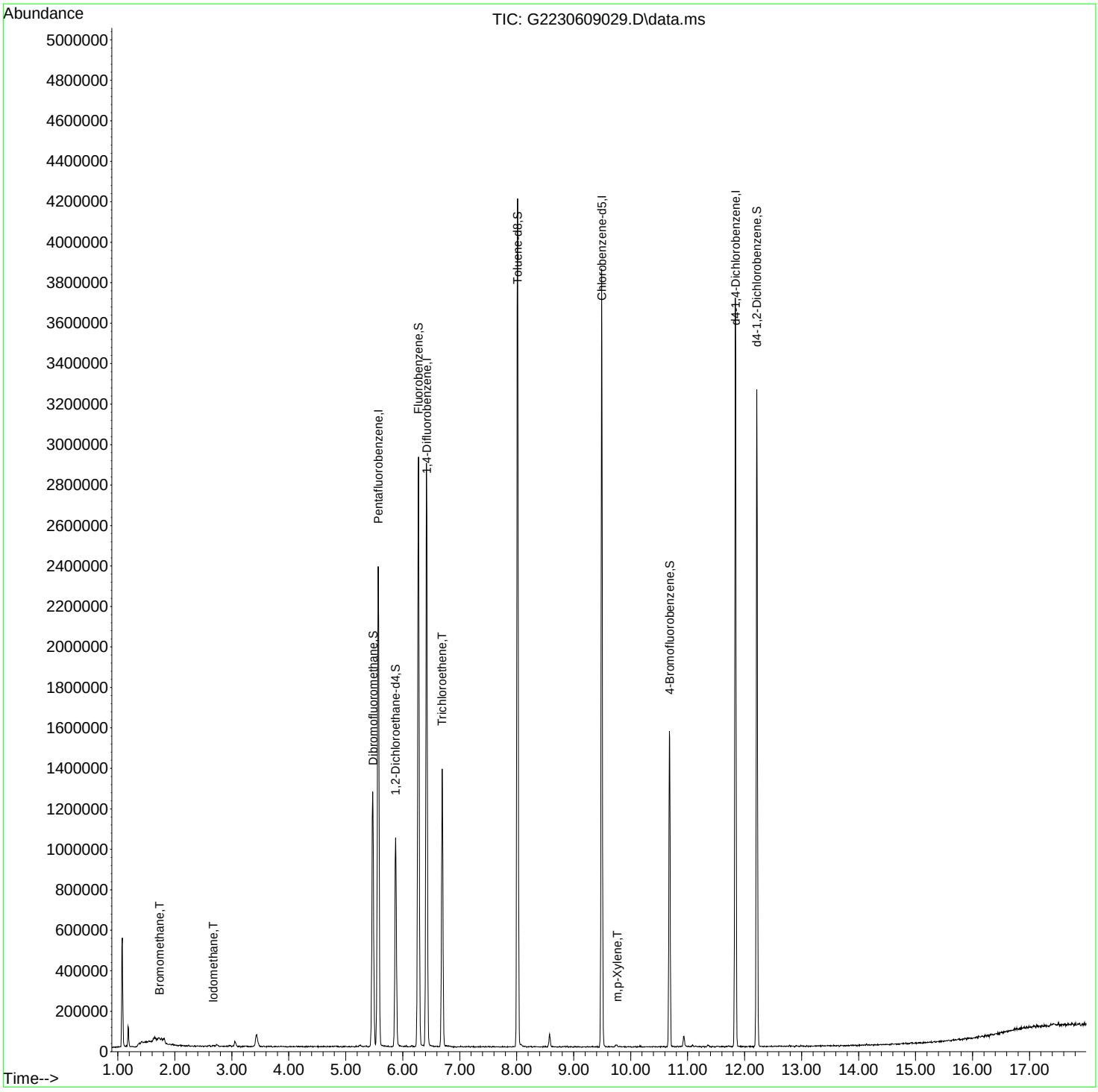
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	18861842	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	25430703	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22453735	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10465417	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7959494	19.18	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.90%			
43) 1,2-Dichloroethane-d4	5.877	65	7348785	17.91	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.55%			
49) Fluorobenzene	6.277	96	28433014	19.62	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.10%			
64) Toluene-d8	8.016	98	27153332	19.19	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.95%			
81) 4-Bromofluorobenzene	10.685	174	4981583	10.08	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.80%			
97) d4-1,2-Dichlorobenzene	12.217	152	9110939	20.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.20%			
Target Compounds						Qvalue
5) Bromomethane	1.726	94	71628	0.03	ug/L #	76
13) Iodomethane	2.674	142	52771	0.12	ug/L #	41
18) Methylene chloride	3.055	49	133490	Below Cal		72
21) Methyl tert-butyl ether	3.437	73	810659	Below Cal		91
50) Trichloroethene	6.694	95	4136816	12.31	ug/L	90
65) Toluene	8.084	91	31736	Below Cal	#	30
75) m,p-Xylene	9.764	91	48554	0.04	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609029.D
Acq On : 09 Jun 2023 20:35
Operator : PO1/MP3
Sample : 23E0775-16
Misc : 50
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 10 08:35:45 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609029.D
Acq On : 09 Jun 2023 20:35
Operator : PO1/MP3
Sample : 23E0775-16
Misc : 50
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 10 08:35:45 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

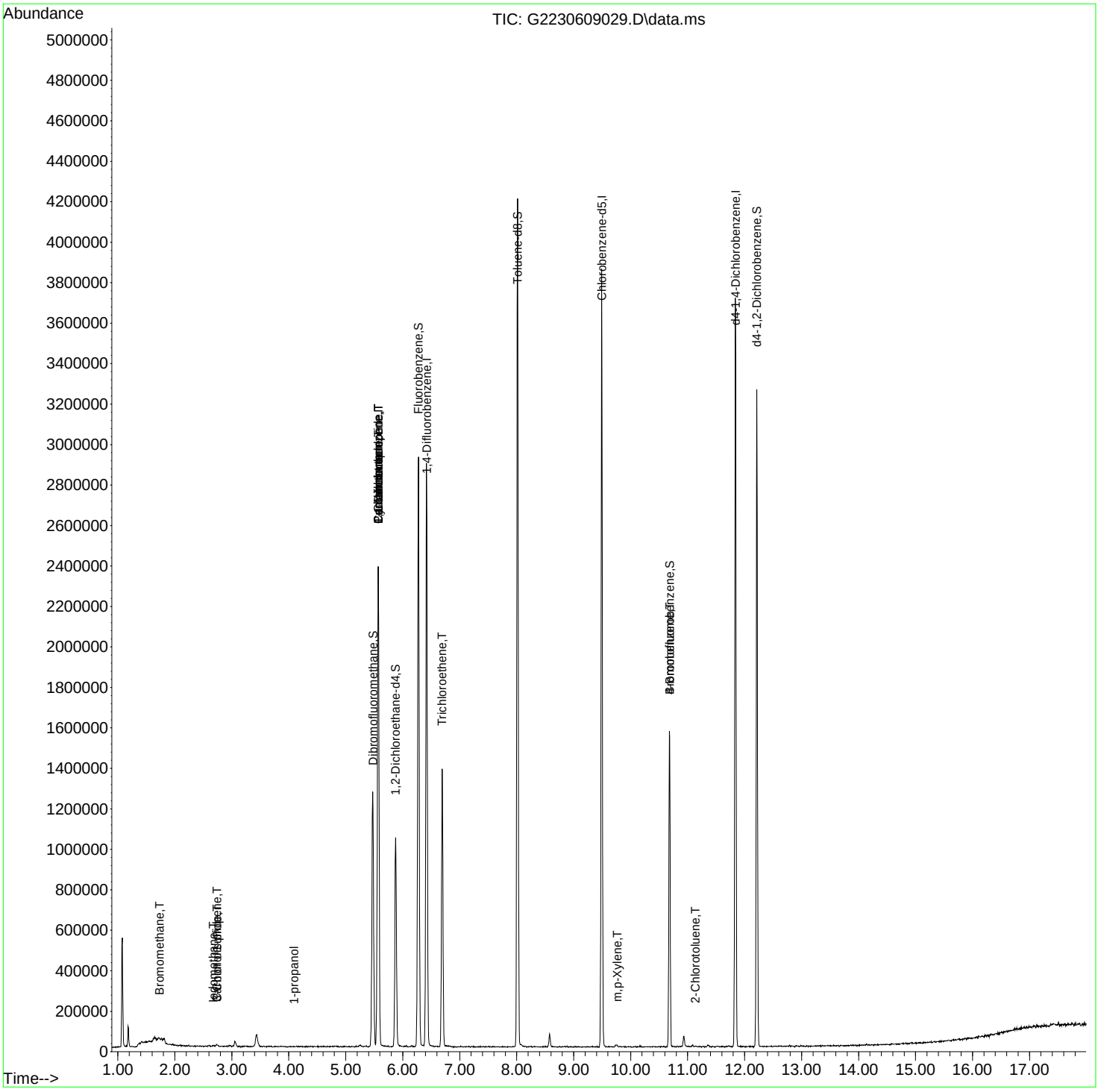
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	18861842	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	25430703	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22453735	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10465417	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7959494	19.18	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.90%			
43) 1,2-Dichloroethane-d4	5.877	65	7348785	17.91	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.55%			
49) Fluorobenzene	6.277	96	28433014	19.62	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.10%			
64) Toluene-d8	8.016	98	27153332	19.19	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.95%			
81) 4-Bromofluorobenzene	10.685	174	4981583	10.08	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.80%			
97) d4-1,2-Dichlorobenzene	12.217	152	9110939	20.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.20%			
Target Compounds						Qvalue
5) Bromomethane	1.726	94	71628	0.03	ug/L #	76
12) Acetone	2.599	43	58193	Below Cal	#	45
13) Iodomethane	2.674	142	52771	0.12	ug/L #	41
14) Carbon disulfide	2.740	76	153518	0.09	ug/L #	74
17) 3-Chloro-1-propene	2.740	76	153521	0.73	ug/L #	53
18) Methylene chloride	3.055	49	133490	Below Cal		72
21) Methyl tert-butyl ether	3.437	73	810659	Below Cal		91
26) 1-propanol	4.091	59	620	0.32	ug/L #	100
36) Tetrahydrofuran	5.254	42	40389	Below Cal	#	30
40) Cyclohexane	5.571	84	418374	0.83	ug/L #	32
41) 1-Chlorobutane	5.572	56	227824	0.39	ug/L #	1
42) 1,1-Dichloropropene	5.570	75	973110	2.20	ug/L #	38
47) Carbon tetrachloride	5.571	117	1460274	3.18	ug/L #	16
50) Trichloroethene	6.694	95	4136816	12.31	ug/L	90
60) 4-Methyl-2-pentanone	8.012	43	93236	Below Cal	#	1
65) Toluene	8.084	91	31736	Below Cal	#	30
74) Ethylbenzene	9.764	91	50224	Below Cal	#	44
75) m,p-Xylene	9.764	91	48554	0.04	ug/L #	36
82) Bromobenzene	10.687	77	38248	0.07	ug/L #	1
87) 2-Chlorotoluene	11.138	91	9984	0.01	ug/L #	47
99) n-Butylbenzene	12.216	91	39661	Below Cal	#	53

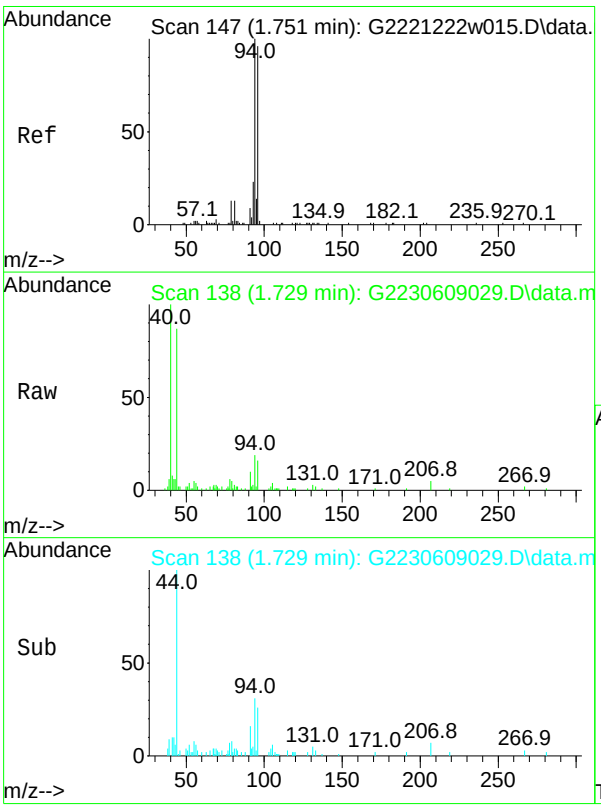
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609029.D
Acq On : 09 Jun 2023 20:35
Operator : PO1/MP3
Sample : 23E0775-16
Misc : 50
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Jun 10 08:35:45 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

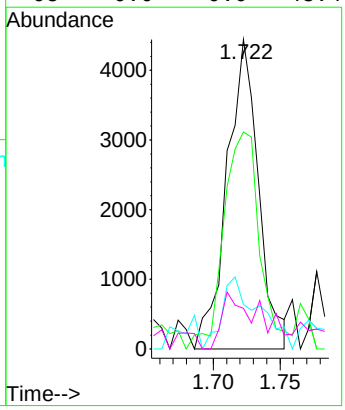


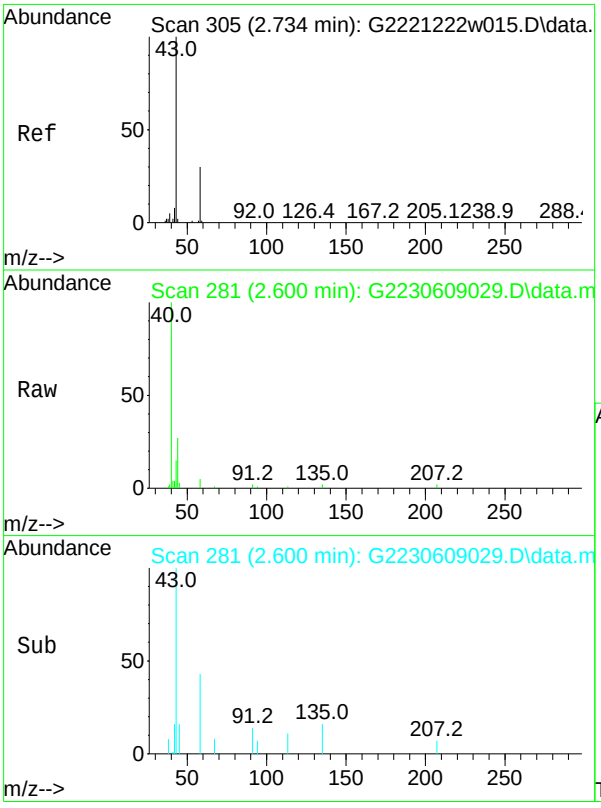


#5
Bromomethane
Concen: 0.03 ug/L
RT: 1.726 min Scan# 138
Delta R.T. 0.012 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 94 Resp: 71628

Ion	Ratio	Lower	Upper
94	100		
96	77.1	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

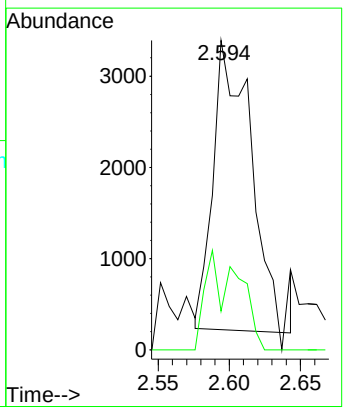


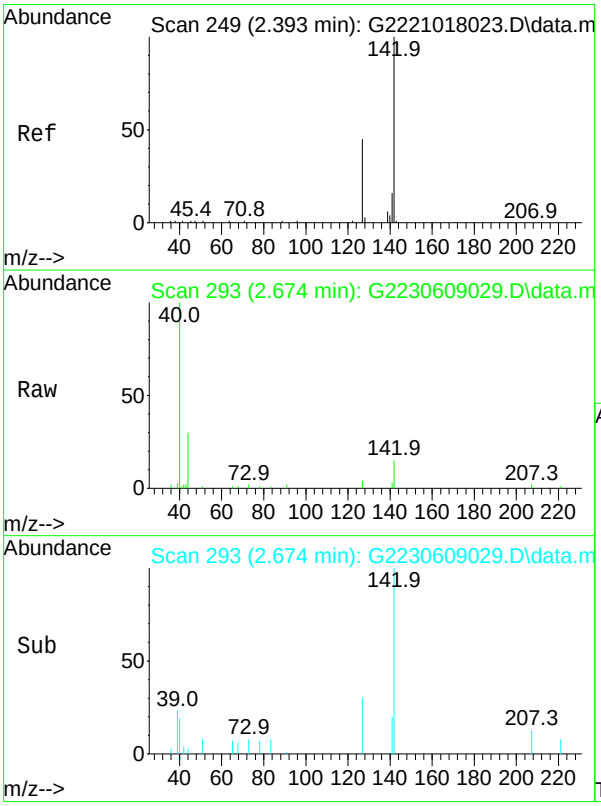


#12
Acetone
Concen: Below Cal
RT: 2.599 min Scan# 281
Delta R.T. -0.009 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 43 Resp: 58193

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

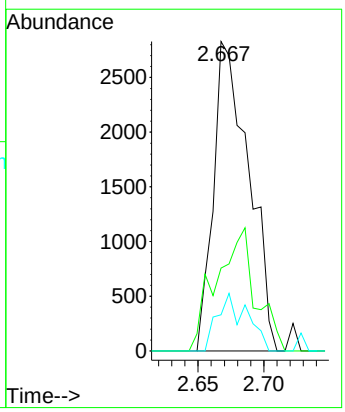


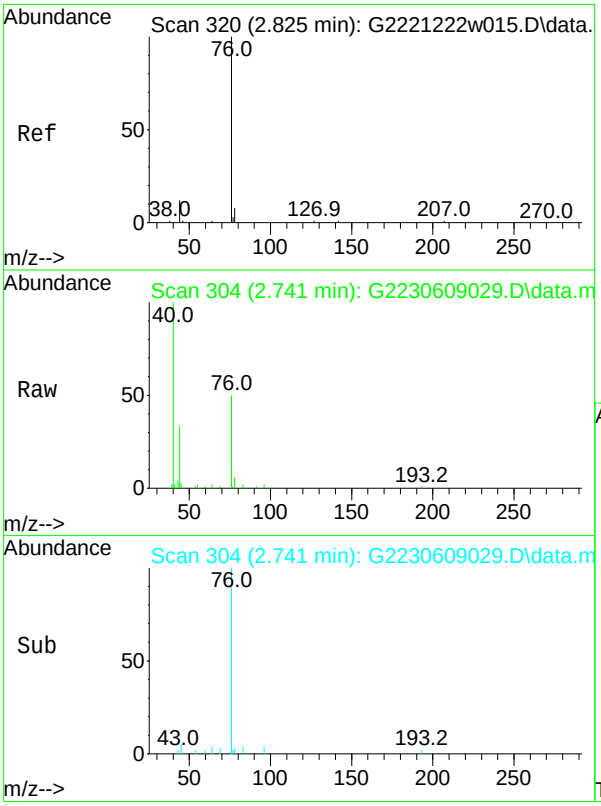


#13
Iodomethane
Concen: 0.12 ug/L
RT: 2.674 min Scan# 293
Delta R.T. -0.002 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion:142 Resp: 52771

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

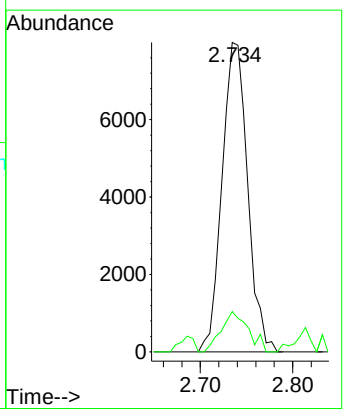


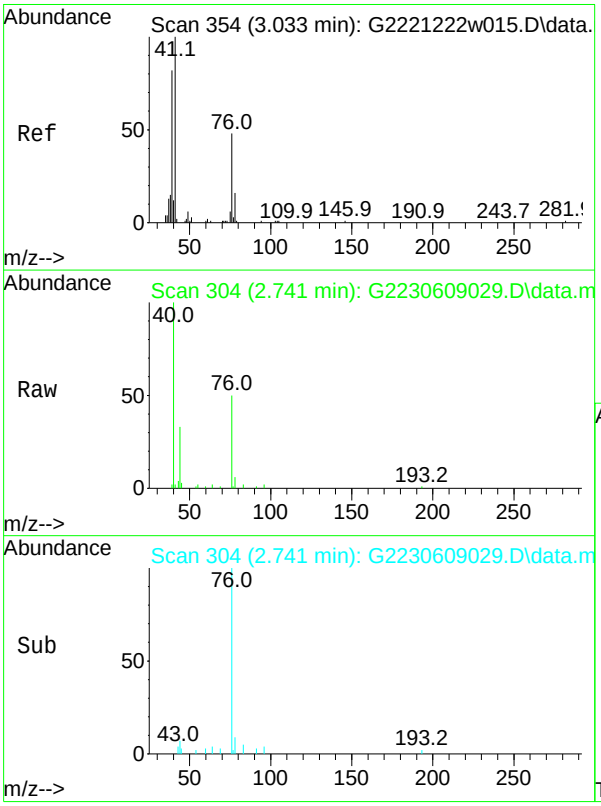


#14
Carbon disulfide
Concen: 0.09 ug/L
RT: 2.740 min Scan# 304
Delta R.T. 0.001 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 76 Resp: 153518

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

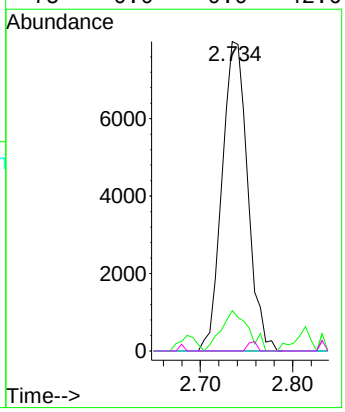


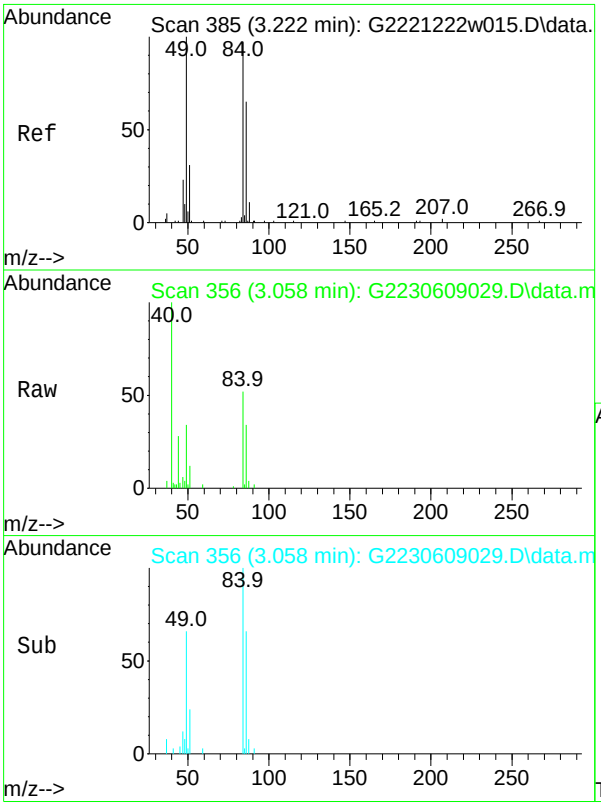


#17
3-Chloro-1-propene
Concen: 0.73 ug/L
RT: 2.740 min Scan# 304
Delta R.T. -0.180 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 76 Resp: 153521

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

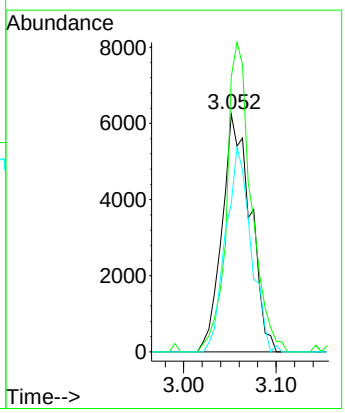


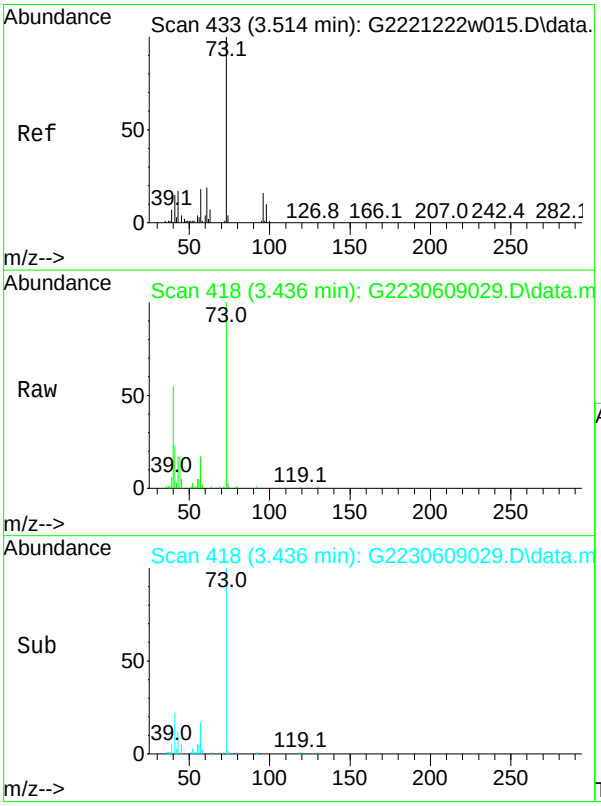


#18
Methylene chloride
Concen: Below Cal
RT: 3.055 min Scan# 356
Delta R.T. -0.007 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 49 Resp: 133490

Ion	Ratio	Lower	Upper
49	100		
84	112.8	57.9	117.9
86	76.6	24.9	84.9

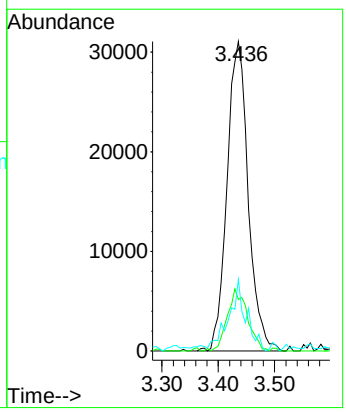


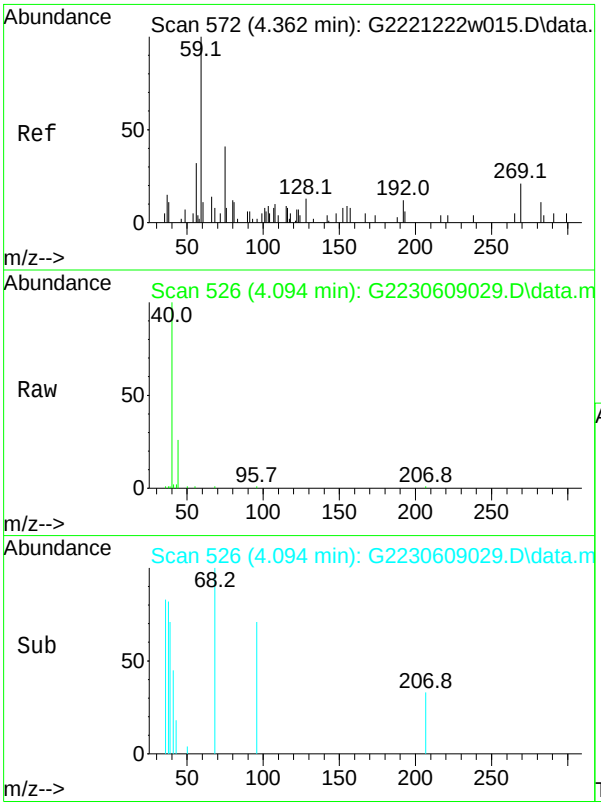


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 73 Resp: 810659

Ion	Ratio	Lower	Upper
73	100		
57	18.9	0.0	51.7
41	14.7	0.0	50.6

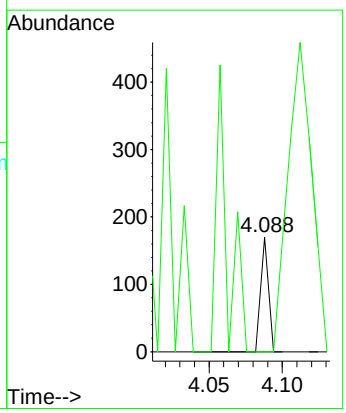


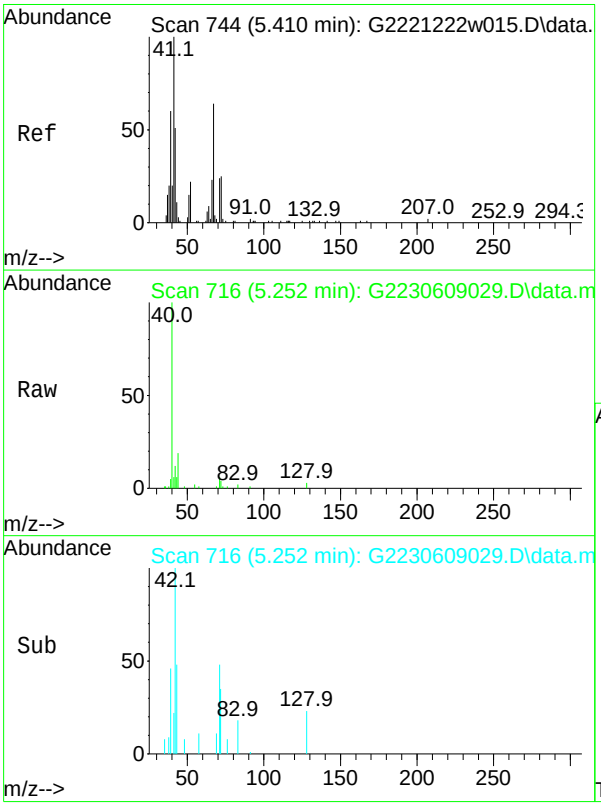


#26
1-propanol
Concen: 0.32 ug/L
RT: 4.091 min Scan# 526
Delta R.T. -0.198 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 59 Resp: 620

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

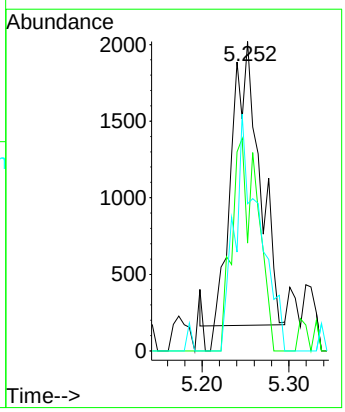


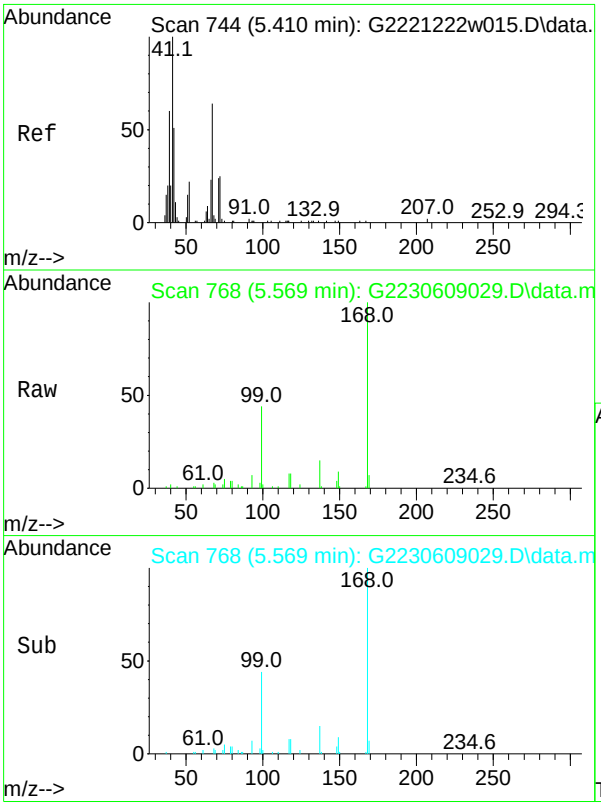


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.254 min Scan# 716
Delta R.T. -0.007 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 42 Resp: 40389

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

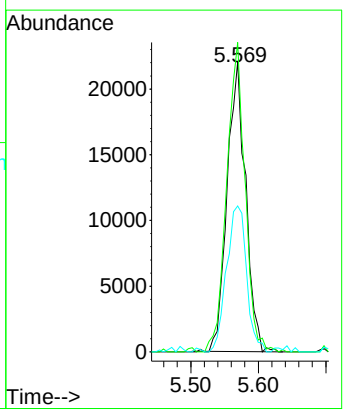


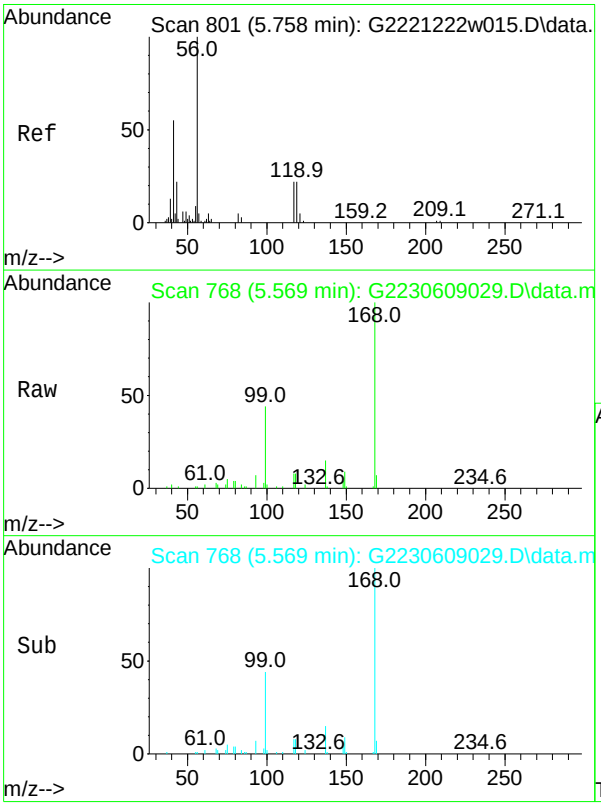


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 84 Resp: 418374

Ion	Ratio	Lower	Upper
84	100		
69	106.2	6.8	66.8#
56	54.6	79.1	139.1#

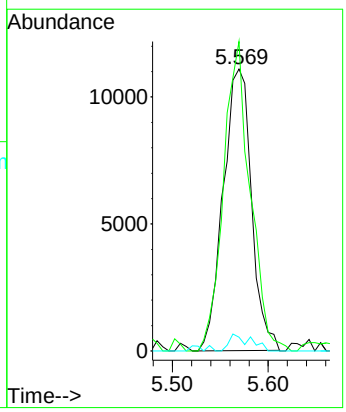


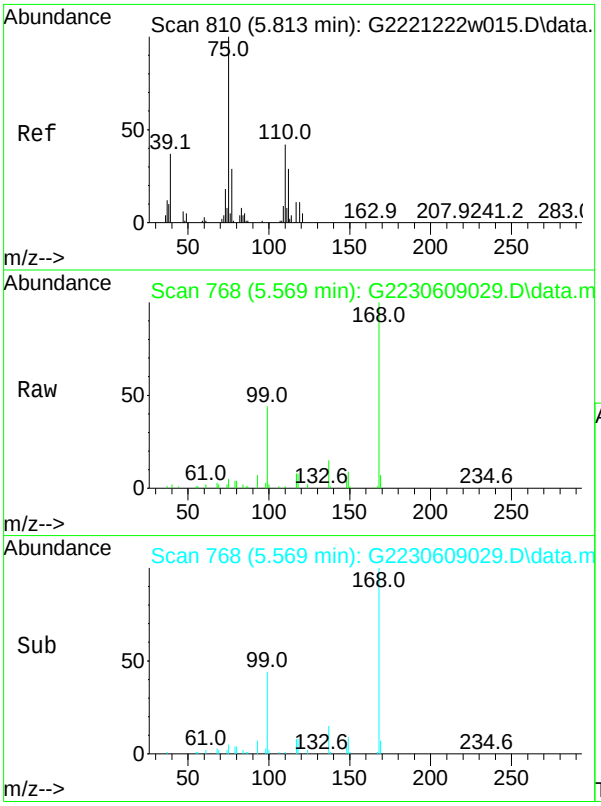


#41
1-Chlorobutane
Concen: 0.39 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.058 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 56 Resp: 227824

Ion	Ratio	Lower	Upper
56	100		
55	103.6	0.0	41.0#
57	0.0	0.0	35.7

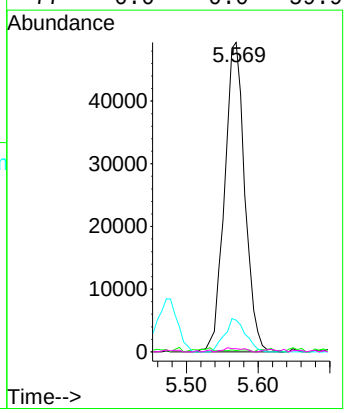


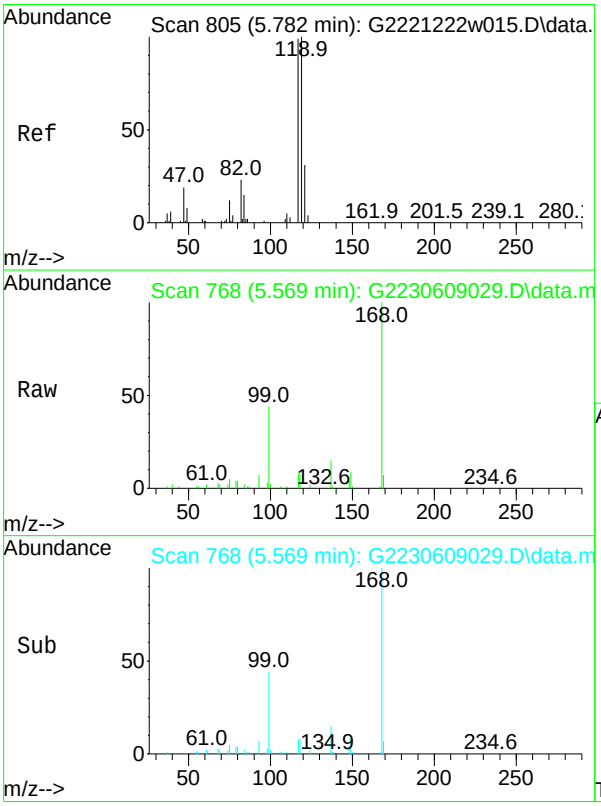


#42
1,1-Dichloropropene
Concen: 2.20 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 75 Resp: 973110

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.0	9.1	69.1
77	0.0	0.0	59.9

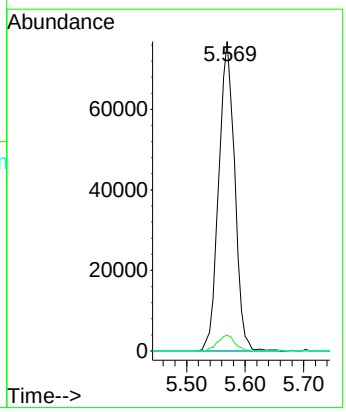


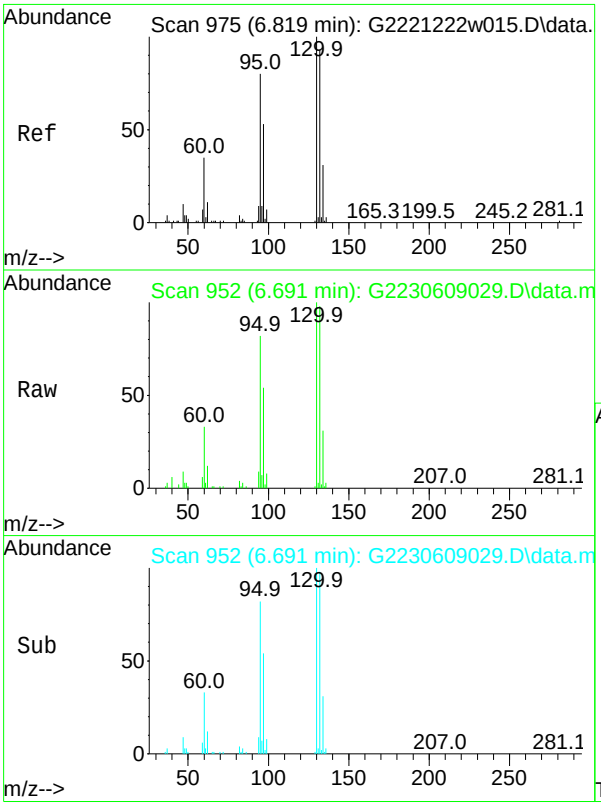


#47
Carbon tetrachloride
Concen: 3.18 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion:117 Resp: 1460274

Ion	Ratio	Lower	Upper
117	100		
119	5.5	66.4	126.4#
121	0.0	0.4	60.4#

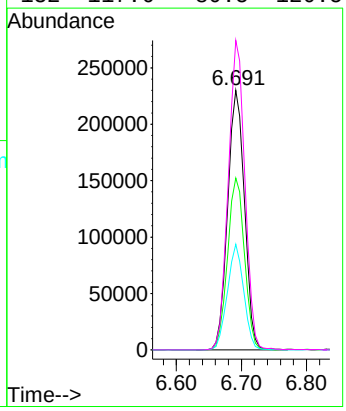


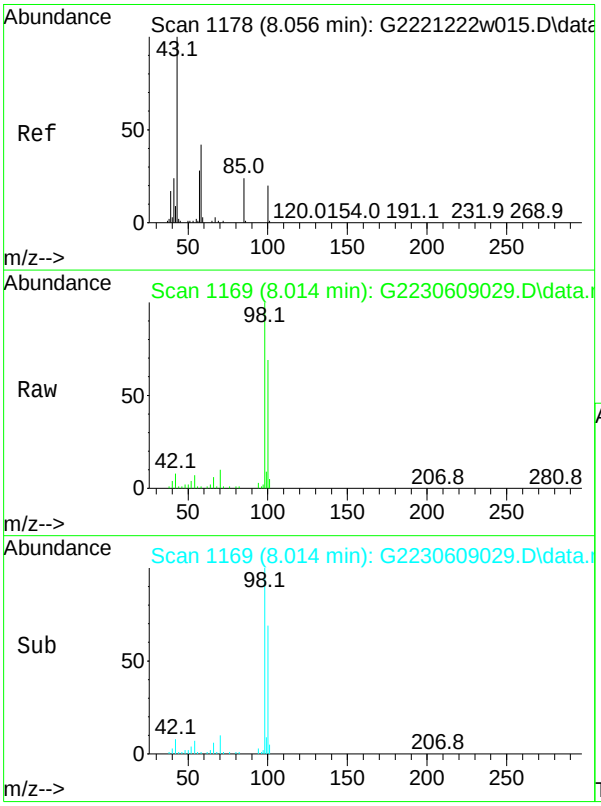


#50
Trichloroethene
Concen: 12.31 ug/L
RT: 6.694 min Scan# 952
Delta R.T. -0.002 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 95 Resp: 4136816

Ion	Ratio	Lower	Upper
95	100		
97	66.4	35.5	95.5
60	39.6	14.8	74.8
132	117.6	80.5	120.5

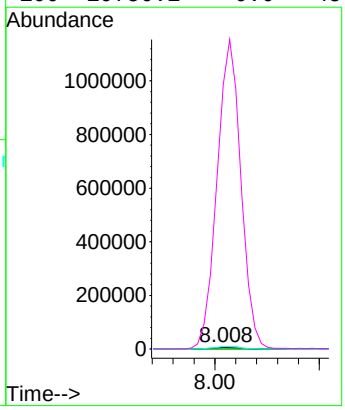


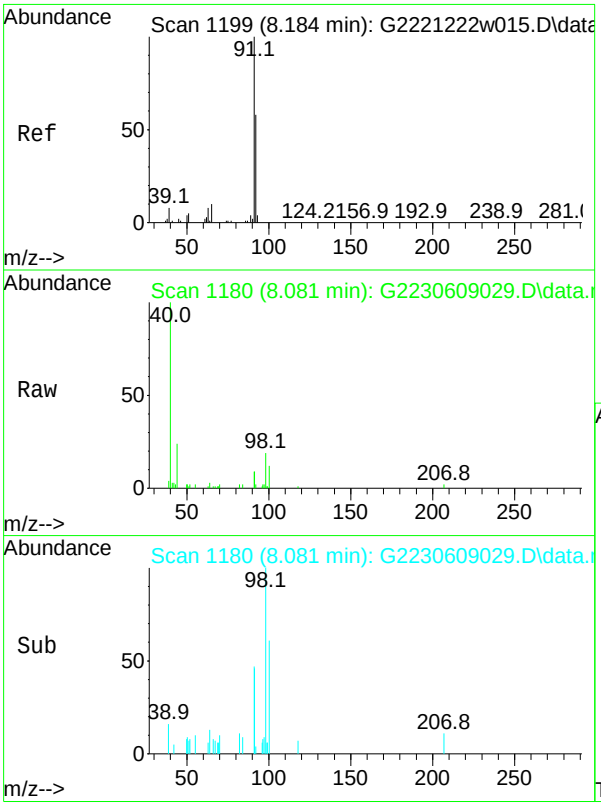


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 43 Resp: 93236

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	178.9	37.0	37.0#
100	19750.1	0.0	45.2#

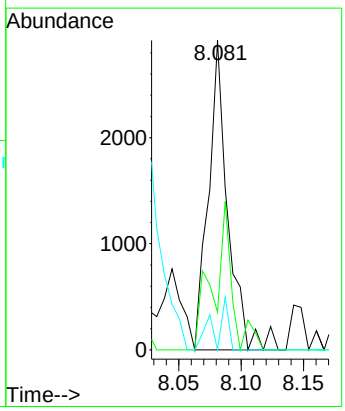


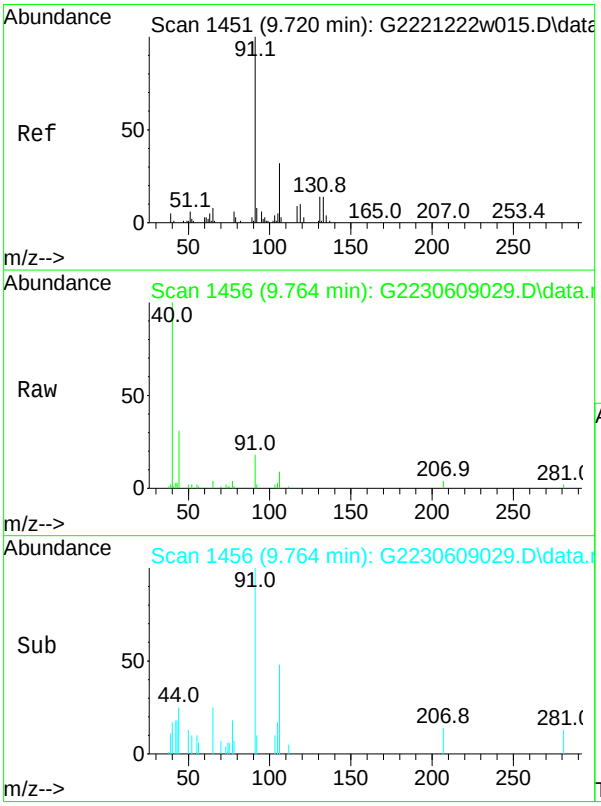


#65
Toluene
Concen: Below Cal
RT: 8.084 min Scan# 1180
Delta R.T. -0.002 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 91 Resp: 31736

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

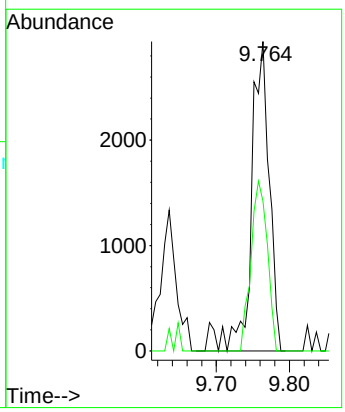


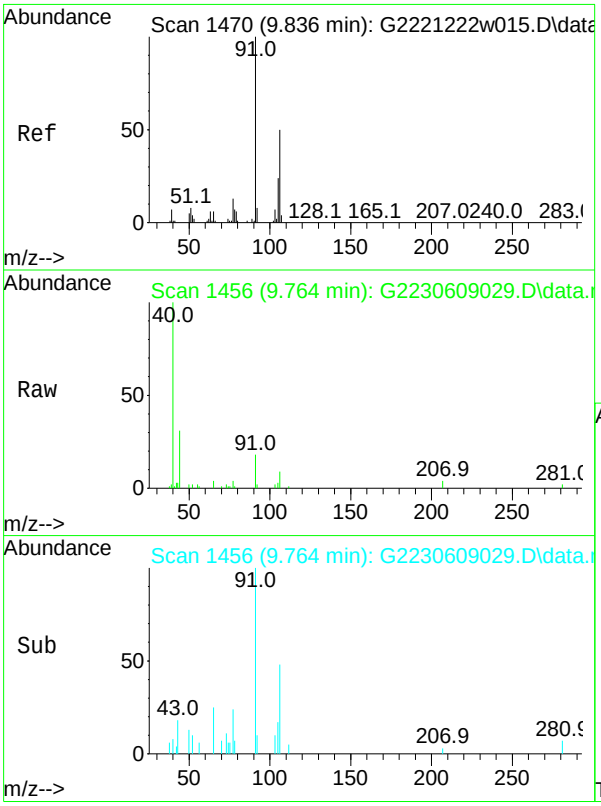


#74
Ethylbenzene
Concen: Below Cal
RT: 9.764 min Scan# 1456
Delta R.T. 0.121 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 91 Resp: 50224

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

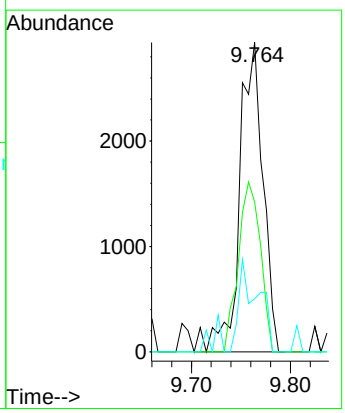


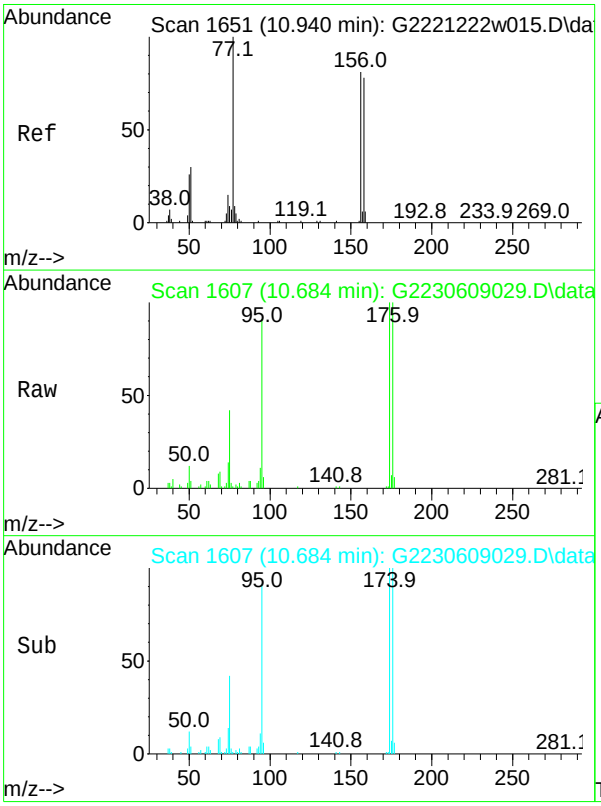


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. -0.000 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 91 Resp: 48554

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

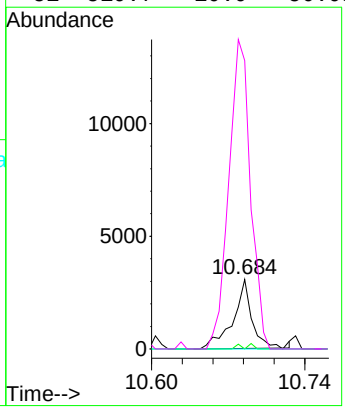


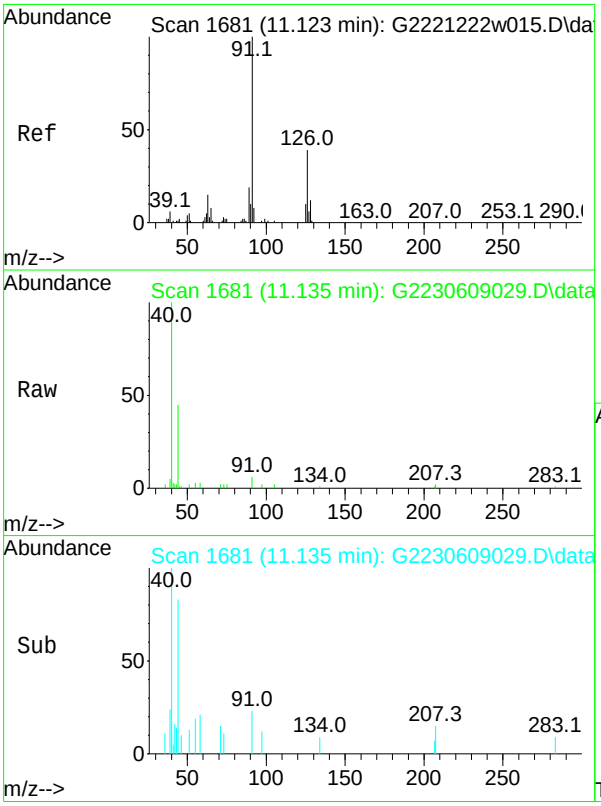


#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.687 min Scan# 1607
Delta R.T. -0.141 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 77 Resp: 38248

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	519.7	10.9	50.9#

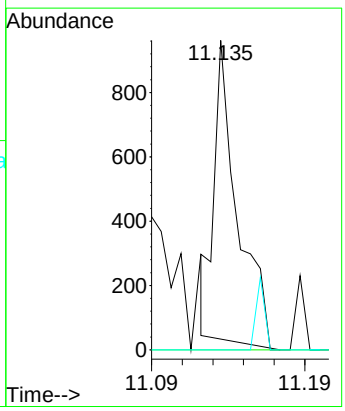


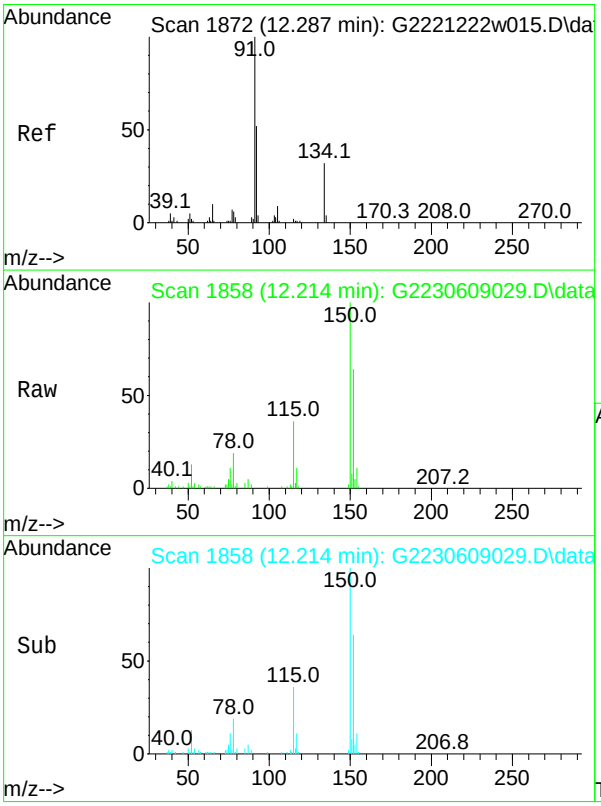


#87
2-Chlorotoluene
Concen: 0.01 ug/L
RT: 11.138 min Scan# 1681
Delta R.T. 0.110 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 91 Resp: 9984

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

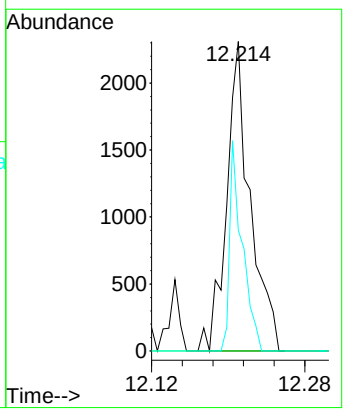




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.216 min Scan# 1858
Delta R.T. -0.015 min
Lab File: G2230609029.D
Acq: 09 Jun 2023 20:35

Tgt Ion: 91 Resp: 39661

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

528487WW23

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-17	File ID:	G2230609026.D
Sampled:	05/28/23 15:30	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 19:20
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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

528487WW23

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-17	File ID:	G2230609026.D
Sampled:	05/28/23 15:30	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 19:20
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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

528487WW23

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-17	File ID:	G2230609026.D
Sampled:	05/28/23 15:30	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 19:20
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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	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	0.380	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609026.D
Acq On : 09 Jun 2023 19:20
Operator : PO1/MP3
Sample : 23E0775-17
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 10 08:30:20 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

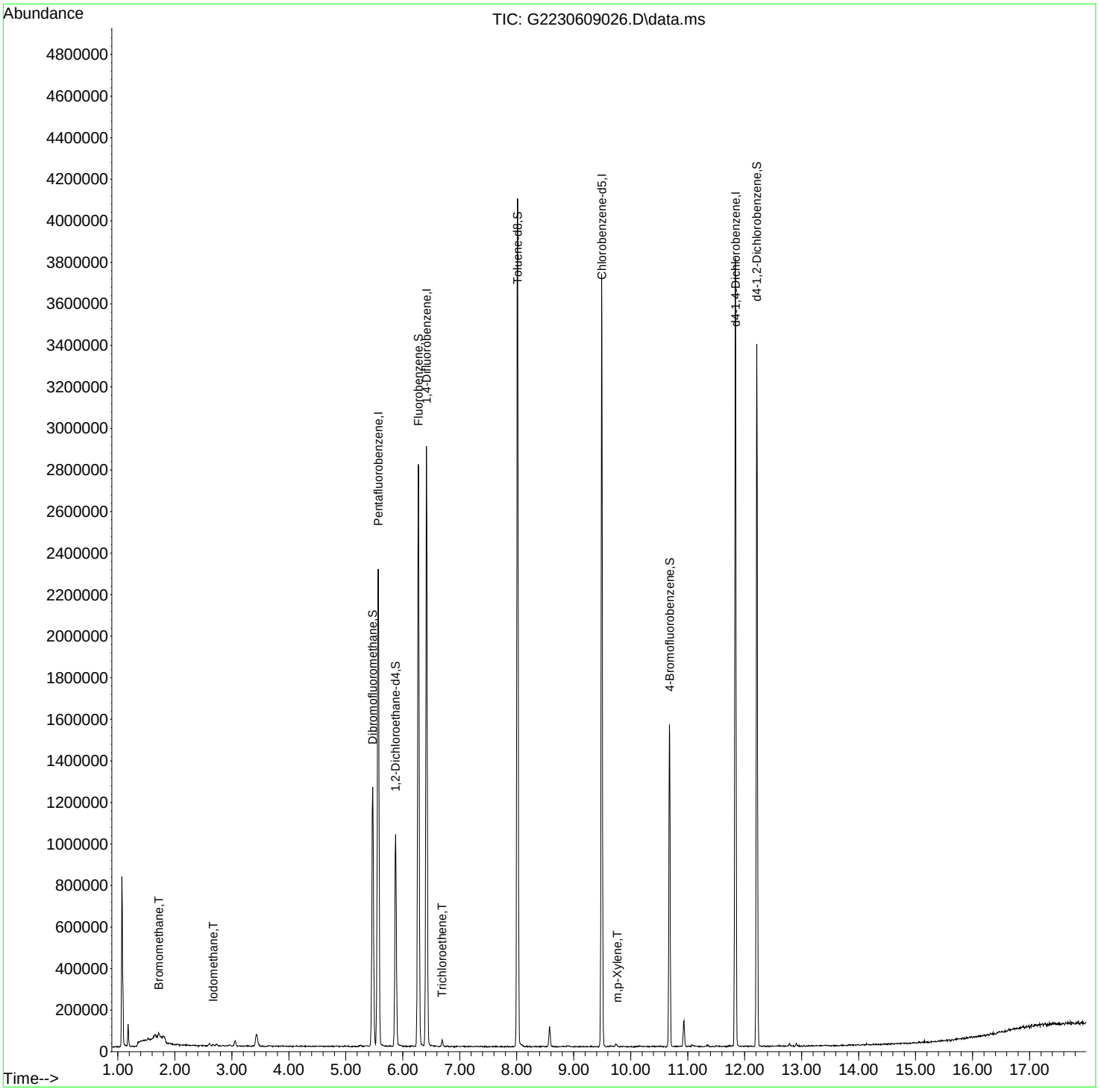
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	18522711	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	24904851	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22225717	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10767608	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7854803	19.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.35%			
43) 1,2-Dichloroethane-d4	5.876	65	7092746	17.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.05%			
49) Fluorobenzene	6.276	96	27577020	19.43	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%			
64) Toluene-d8	8.016	98	26884209	19.19	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.95%			
81) 4-Bromofluorobenzene	10.684	174	4909669	9.66	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	9518664	20.56	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.80%			
Target Compounds						Qvalue
5) Bromomethane	1.716	94	97547m	0.15	ug/L	
12) Acetone	2.607	43	111387	Below Cal		92
13) Iodomethane	2.675	142	91218	0.21	ug/L #	85
18) Methylene chloride	3.059	49	121325	Below Cal	#	69
21) Methyl tert-butyl ether	3.437	73	791141	Below Cal		94
50) Trichloroethene	6.692	95	87835	0.19	ug/L #	84
75) m,p-Xylene	9.764	91	53140	0.04	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609026.D
Acq On : 09 Jun 2023 19:20
Operator : PO1/MP3
Sample : 23E0775-17
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 10 08:30:20 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609026.D
Acq On : 09 Jun 2023 19:20
Operator : PO1/MP3
Sample : 23E0775-17
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 10 08:30:20 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

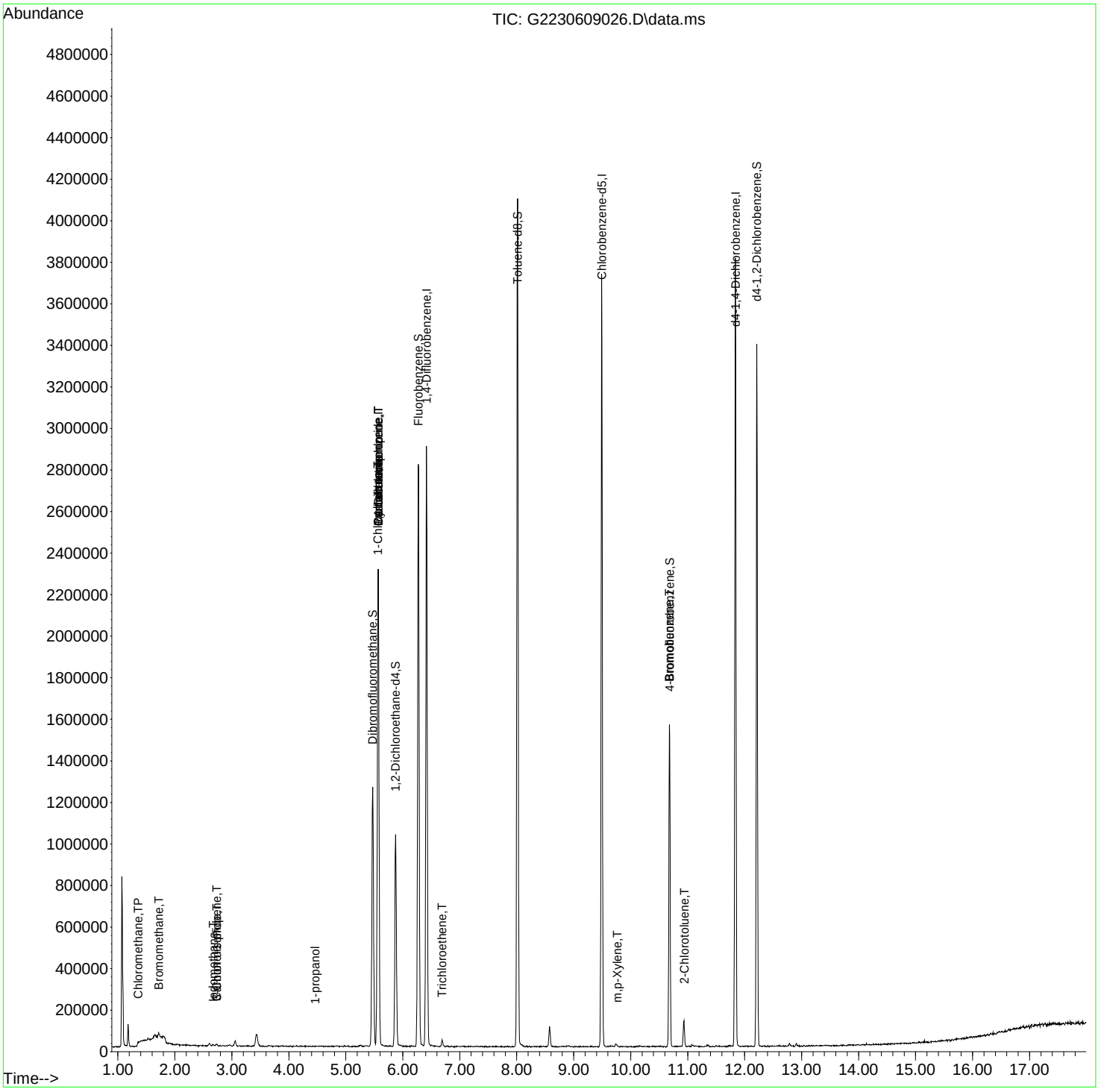
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	18522711	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	24904851	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22225717	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10767608	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7854803	19.27	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.35%			
43) 1,2-Dichloroethane-d4	5.876	65	7092746	17.61	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.05%			
49) Fluorobenzene	6.276	96	27577020	19.43	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%			
64) Toluene-d8	8.016	98	26884209	19.19	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.95%			
81) 4-Bromofluorobenzene	10.684	174	4909669	9.66	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.60%			
97) d4-1,2-Dichlorobenzene	12.217	152	9518664	20.56	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.80%			
Target Compounds						Qvalue
3) Chloromethane	1.354	50	44748	0.04	ug/L #	41
5) Bromomethane	1.718	94	89799	0.12	ug/L #	72
12) Acetone	2.607	43	111387	Below Cal		92
13) Iodomethane	2.675	142	91218	0.21	ug/L #	85
14) Carbon disulfide	2.733	76	141507	0.08	ug/L #	74
17) 3-Chloro-1-propene	2.733	76	141507	0.68	ug/L #	53
18) Methylene chloride	3.059	49	121325	Below Cal	#	69
21) Methyl tert-butyl ether	3.437	73	791141	Below Cal		94
26) 1-propanol	4.468	59	626	0.32	ug/L #	100
40) Cyclohexane	5.571	84	397133	0.80	ug/L #	30
41) 1-Chlorobutane	5.566	56	223573	0.39	ug/L #	1
42) 1,1-Dichloropropene	5.570	75	969985	2.23	ug/L #	38
47) Carbon tetrachloride	5.571	117	1475586	3.28	ug/L #	16
50) Trichloroethene	6.692	95	87835	0.19	ug/L #	84
60) 4-Methyl-2-pentanone	8.014	43	74479	Below Cal	#	1
74) Ethylbenzene	9.765	91	53002	Below Cal	#	44
75) m,p-Xylene	9.764	91	53140	0.04	ug/L #	36
82) Bromobenzene	10.680	77	31403	0.05	ug/L #	1
87) 2-Chlorotoluene	10.942	91	19985	0.02	ug/L #	47
99) n-Butylbenzene	12.217	91	42459	Below Cal	#	53

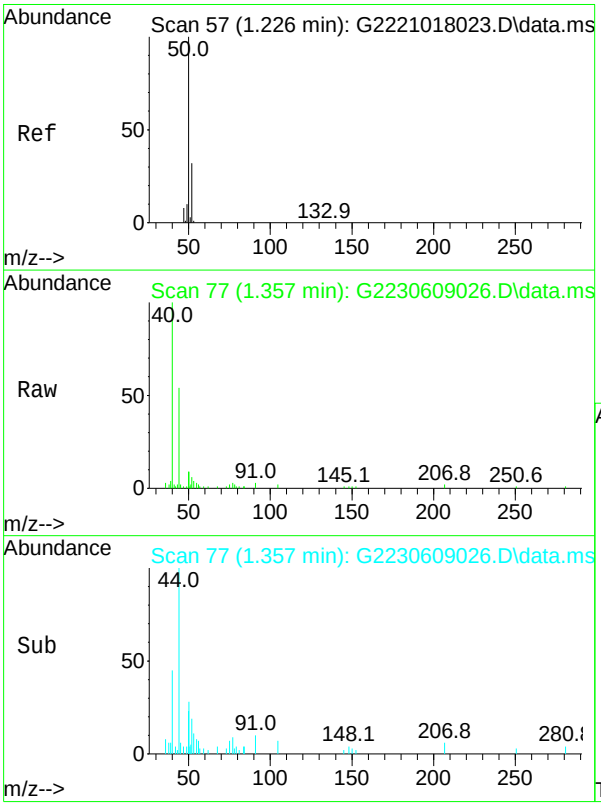
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609026.D
Acq On : 09 Jun 2023 19:20
Operator : PO1/MP3
Sample : 23E0775-17
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 10 08:30:20 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

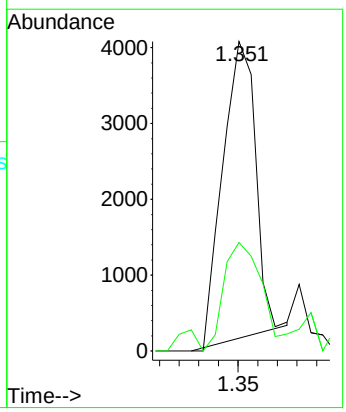


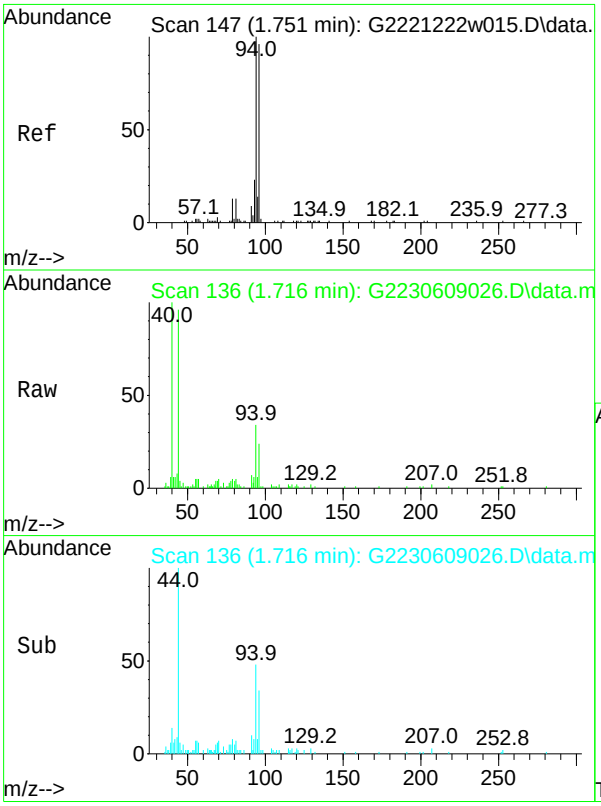


#3
Chloromethane
Concen: 0.04 ug/L
RT: 1.354 min Scan# 77
Delta R.T. 0.000 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 50 Resp: 44748

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

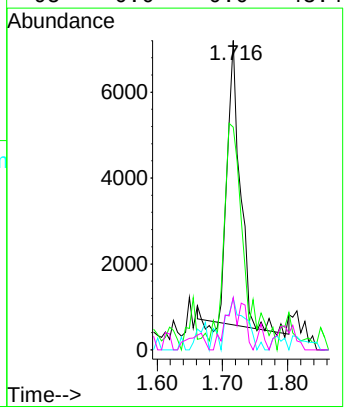


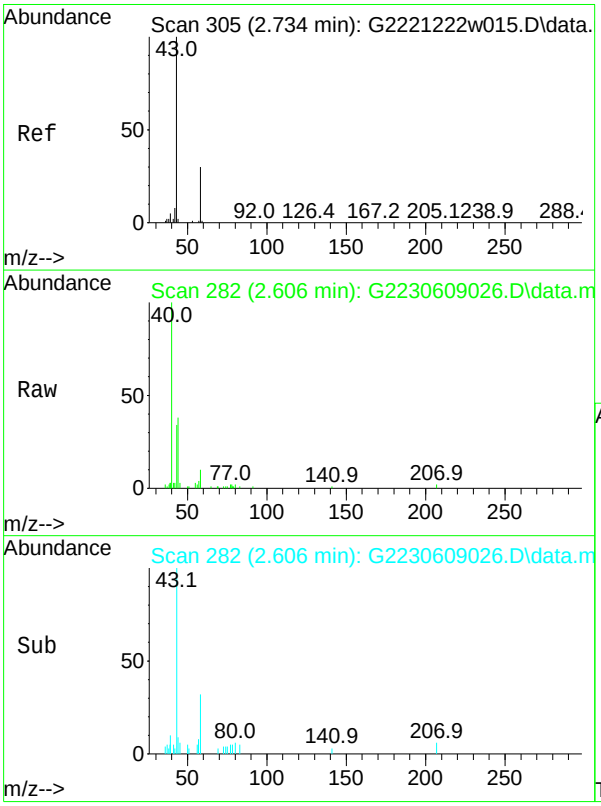


#5
Bromomethane
Concen: 0.12 ug/L
RT: 1.718 min Scan# 136
Delta R.T. 0.004 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 94 Resp: 89799

Ion	Ratio	Lower	Upper
94	100		
96	119.8	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

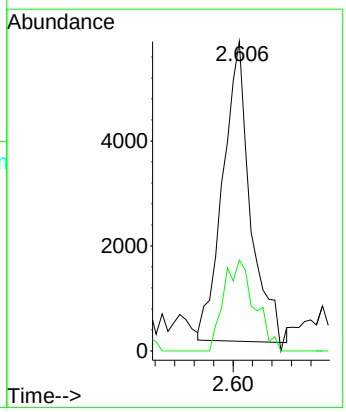


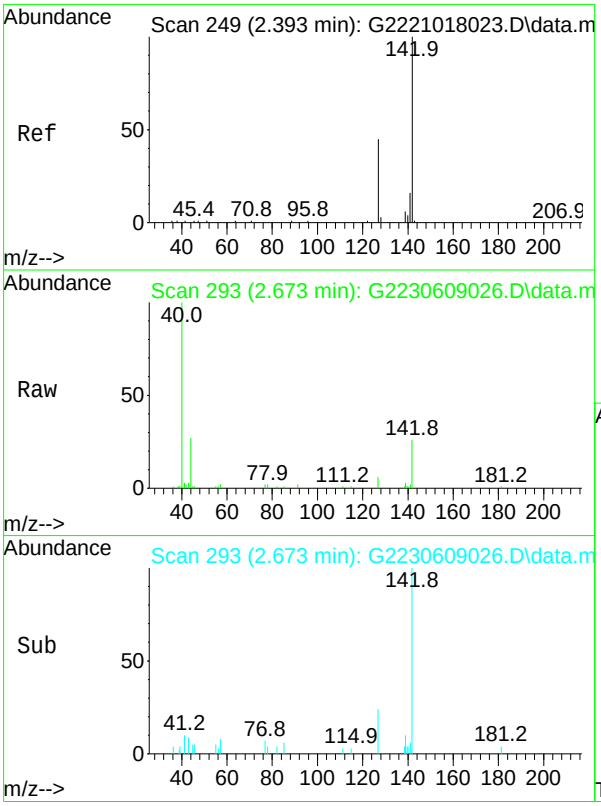


#12
Acetone
Concen: Below Cal
RT: 2.607 min Scan# 282
Delta R.T. -0.001 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 43 Resp: 111387

Ion	Ratio	Lower	Upper
43	100		
58	34.1	0.0	59.7

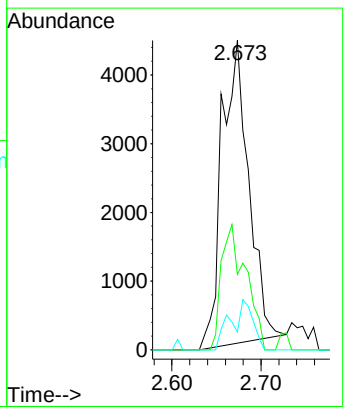


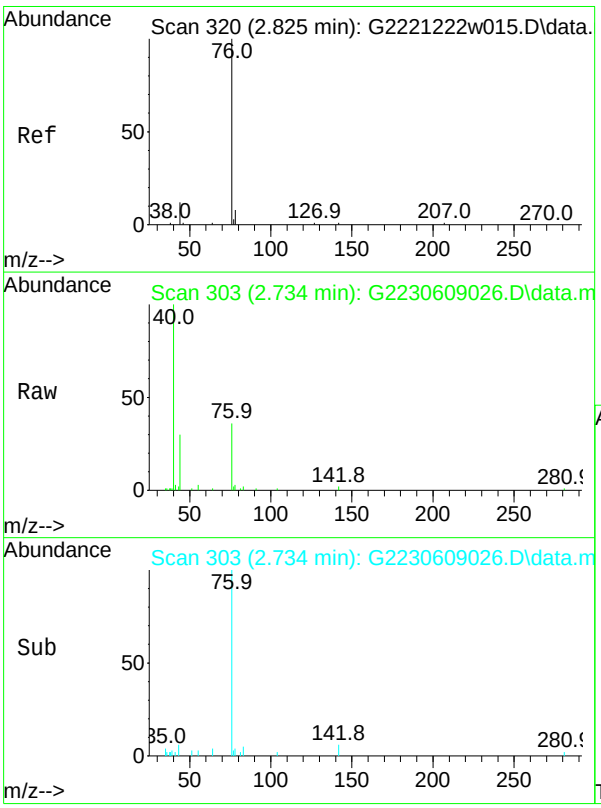


#13
Iodomethane
Concen: 0.21 ug/L
RT: 2.675 min Scan# 293
Delta R.T. -0.001 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion:142 Resp: 91218

Ion	Ratio	Lower	Upper
142	100		
127	38.2	13.3	73.3
141	0.0	0.0	45.3

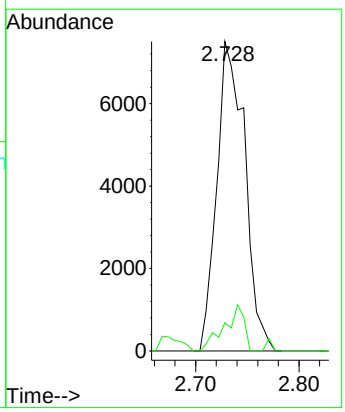


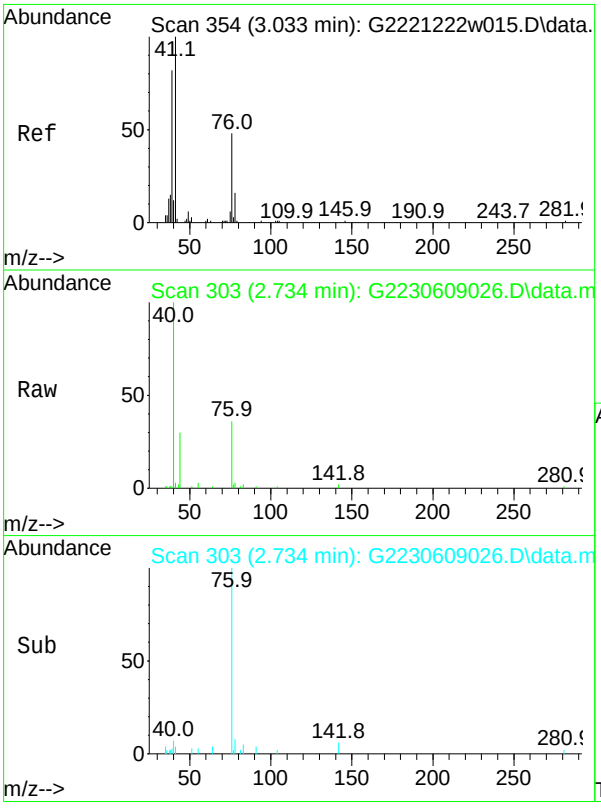


#14
Carbon disulfide
Concen: 0.08 ug/L
RT: 2.733 min Scan# 303
Delta R.T. -0.006 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 76 Resp: 141507

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

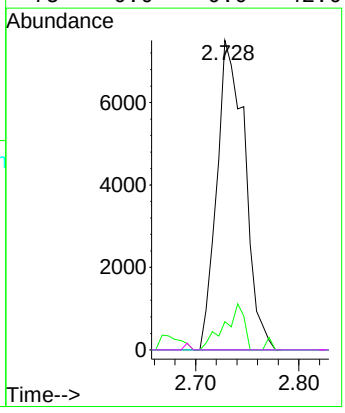


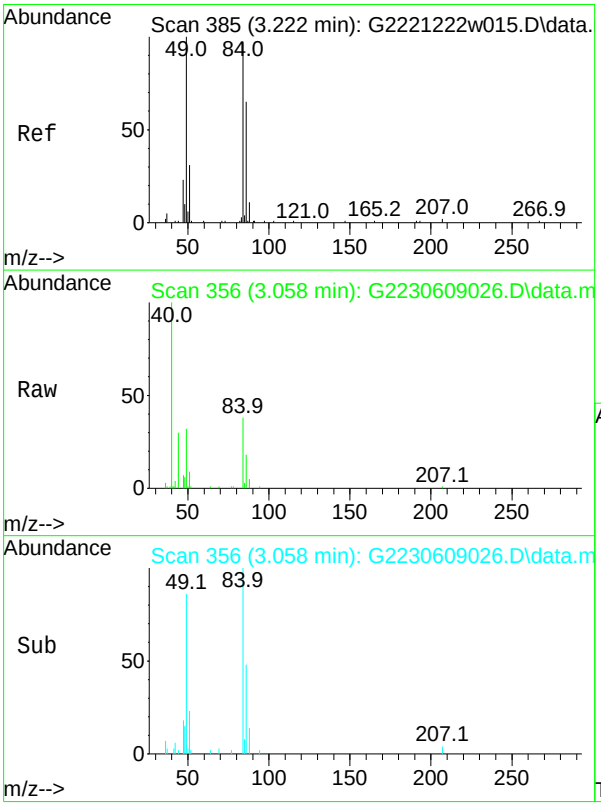


#17
3-Chloro-1-propene
Concen: 0.68 ug/L
RT: 2.733 min Scan# 303
Delta R.T. -0.187 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 76 Resp: 141507

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

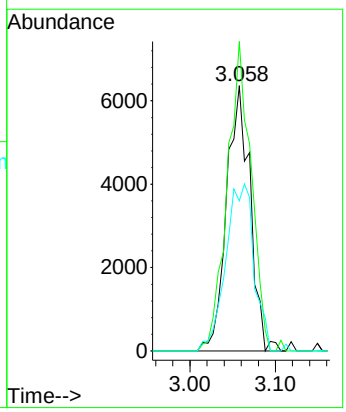


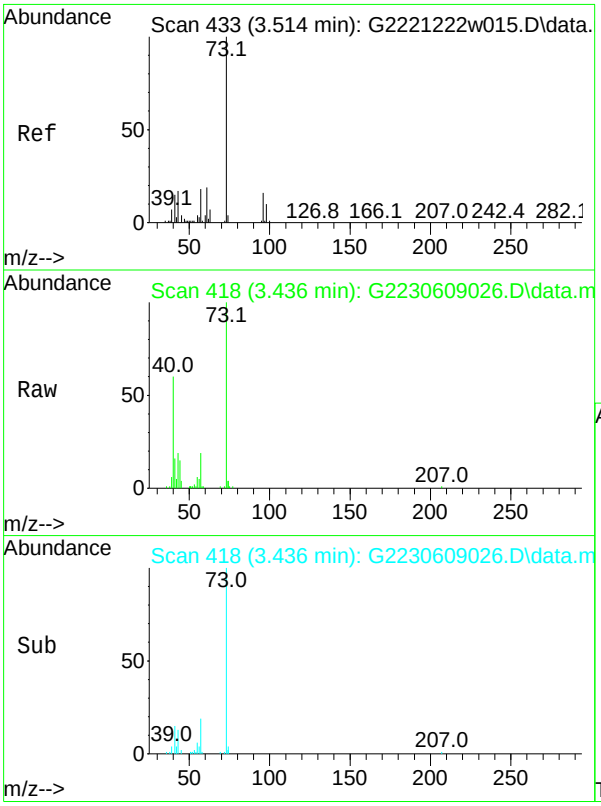


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 49 Resp: 121325

Ion	Ratio	Lower	Upper
49	100		
84	118.4	57.9	117.9#
86	75.8	24.9	84.9

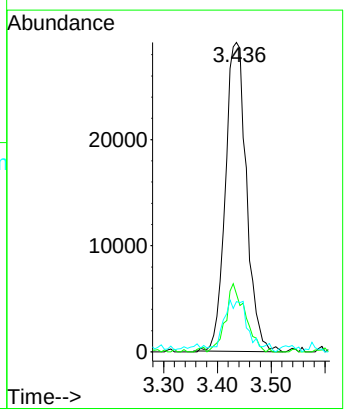


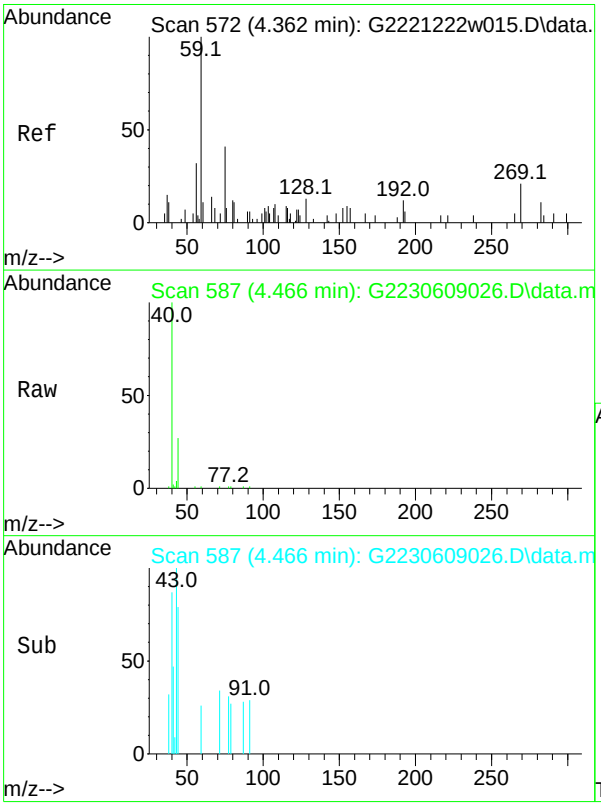


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 73 Resp: 791141

Ion	Ratio	Lower	Upper
73	100		
57	21.1	0.0	51.7
41	15.3	0.0	50.6

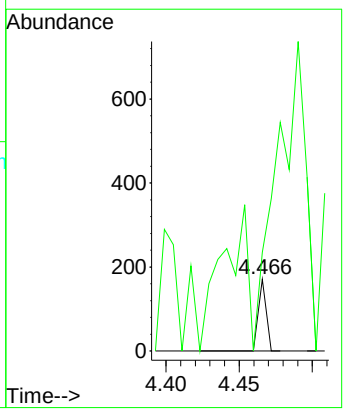


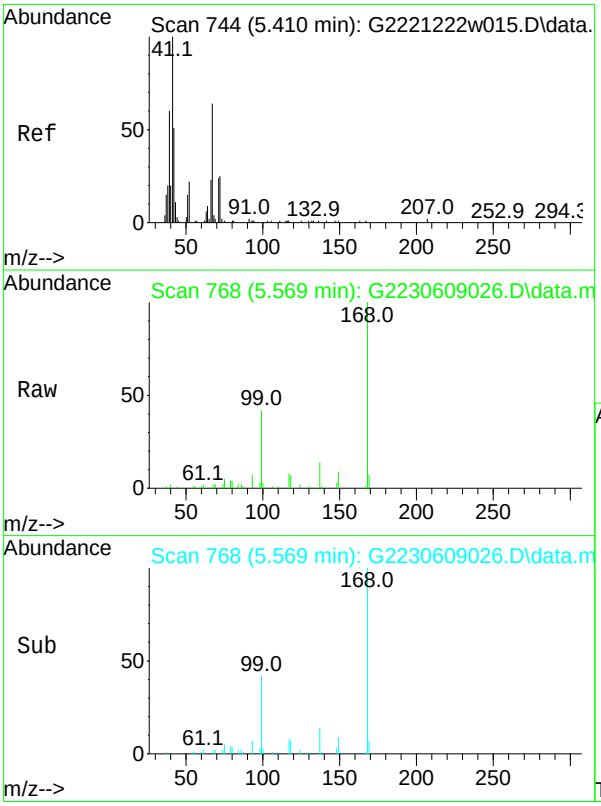


#26
1-propanol
Concen: 0.32 ug/L
RT: 4.468 min Scan# 587
Delta R.T. 0.179 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 59 Resp: 626

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

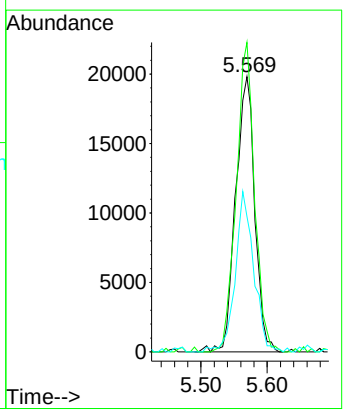


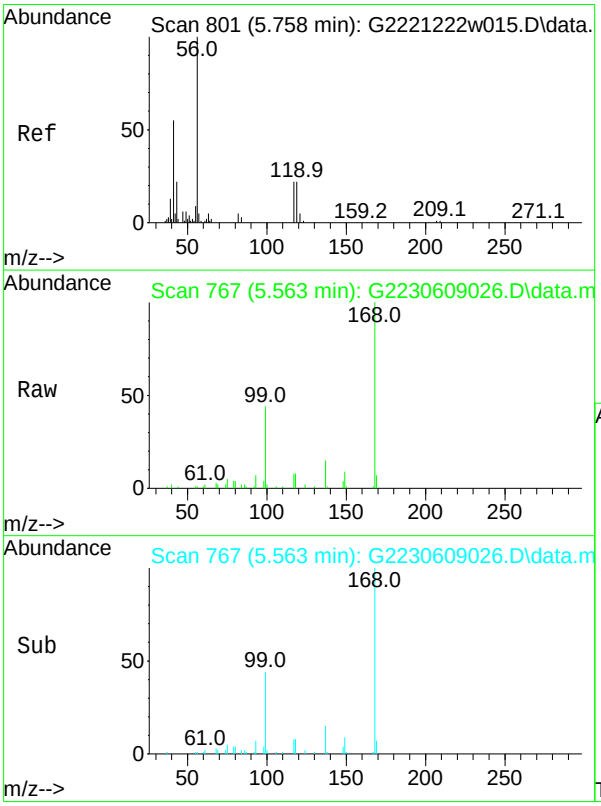


#40
Cyclohexane
Concen: 0.80 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 84 Resp: 397133

Ion	Ratio	Lower	Upper
84	100		
69	108.2	6.8	66.8#
56	53.6	79.1	139.1#

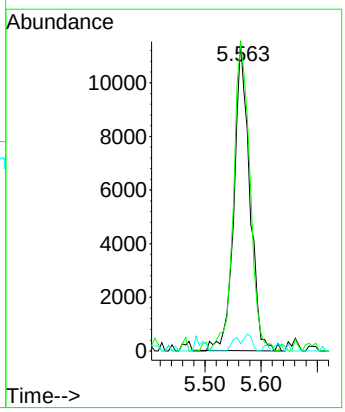


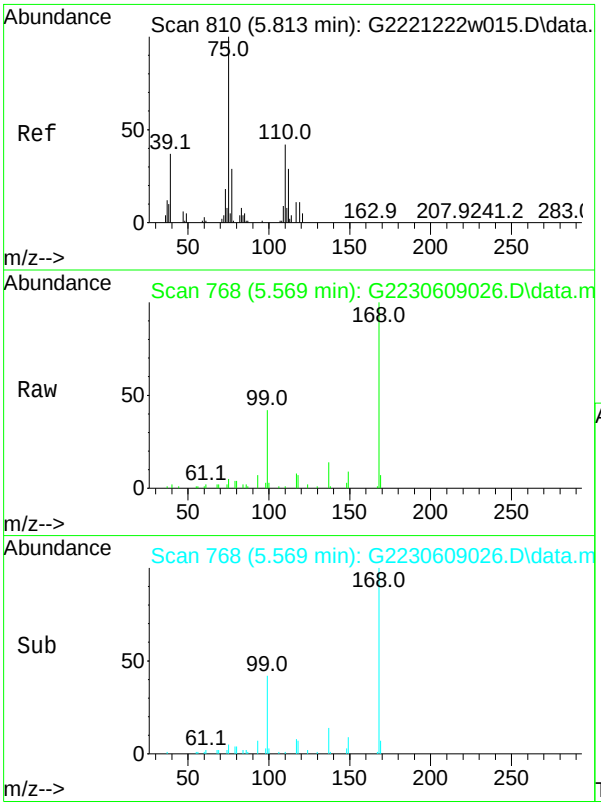


#41
1-Chlorobutane
Concen: 0.39 ug/L
RT: 5.566 min Scan# 767
Delta R.T. -0.064 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 56 Resp: 223573

Ion	Ratio	Lower	Upper
56	100		
55	106.6	0.0	41.0#
57	0.0	0.0	35.7

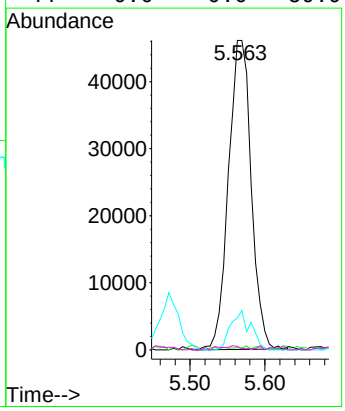


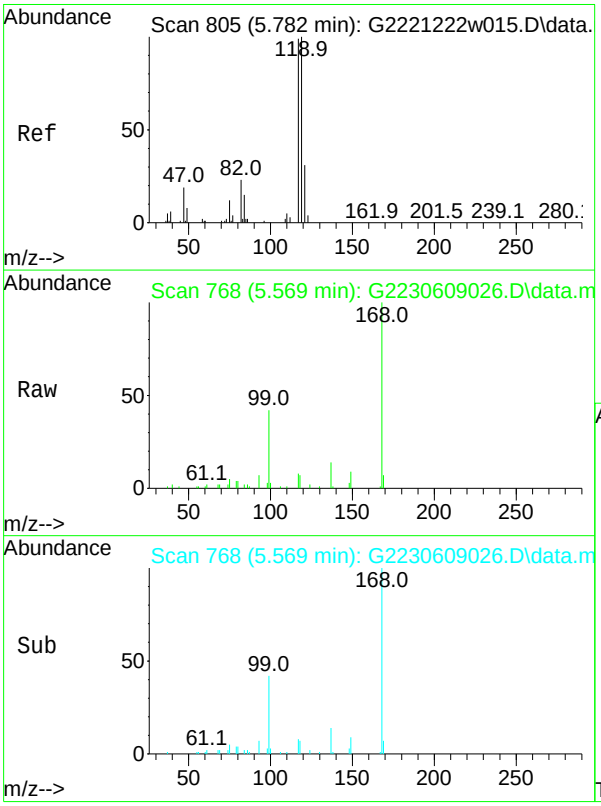


#42
1,1-Dichloropropene
Concen: 2.23 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 75 Resp: 969985

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

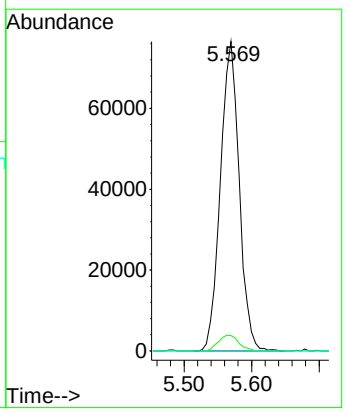


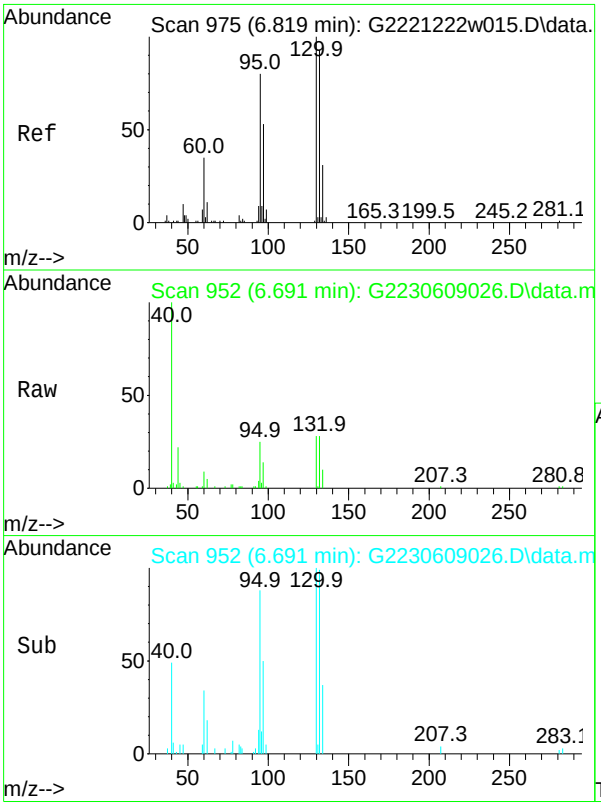


#47
Carbon tetrachloride
Concen: 3.28 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion:117 Resp: 1475586

Ion	Ratio	Lower	Upper
117	100		
119	5.6	66.4	126.4#
121	0.0	0.4	60.4#

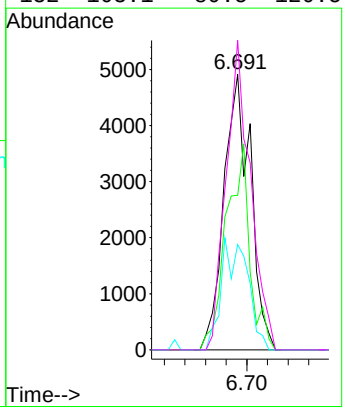


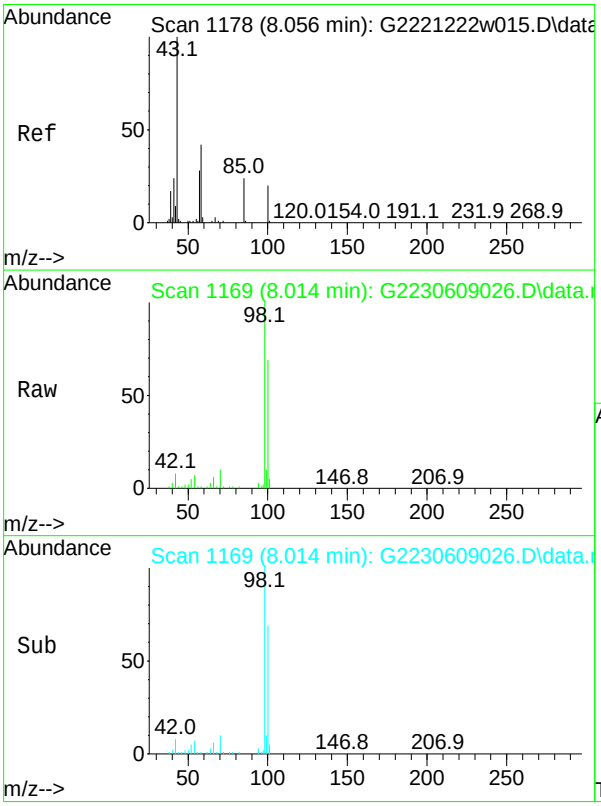


#50
Trichloroethene
Concen: 0.19 ug/L
RT: 6.692 min Scan# 952
Delta R.T. -0.004 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 95 Resp: 87835

Ion	Ratio	Lower	Upper
95	100		
97	66.5	35.5	95.5
60	0.0	14.8	74.8#
132	103.1	80.5	120.5

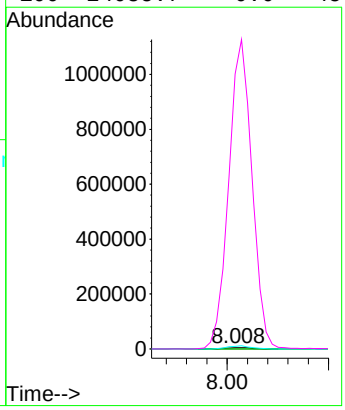


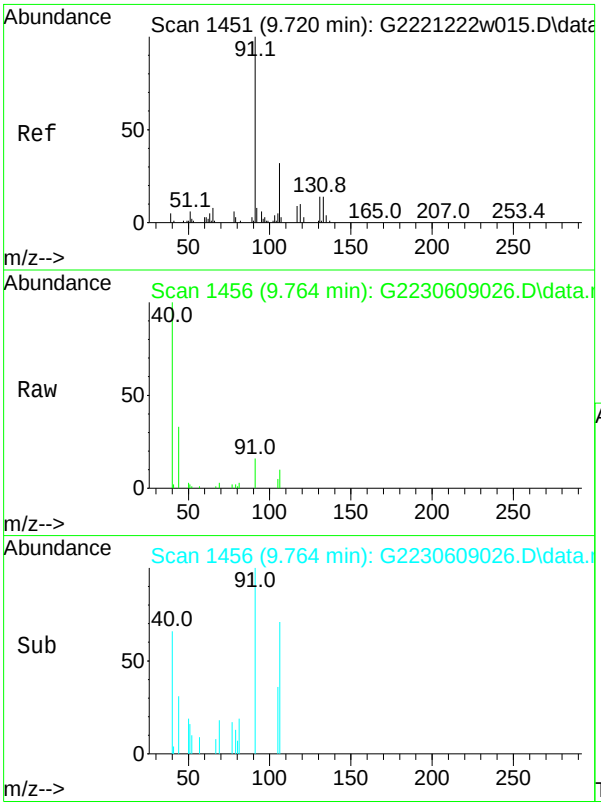


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 43 Resp: 74479

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	247.1	37.0	37.0#
100	24085.7	0.0	45.2#

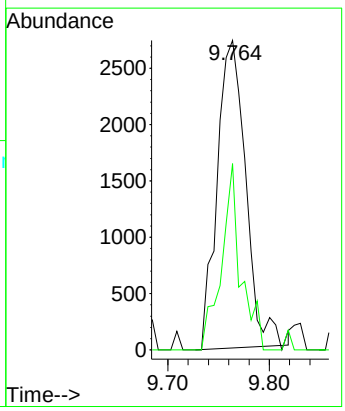


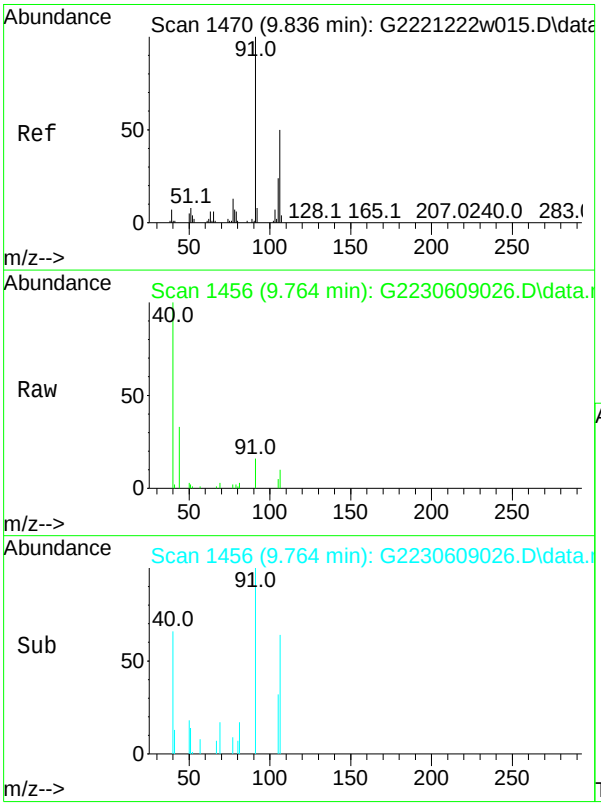


#74
Ethylbenzene
Concen: Below Cal
RT: 9.765 min Scan# 1456
Delta R.T. 0.122 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 91 Resp: 53002

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

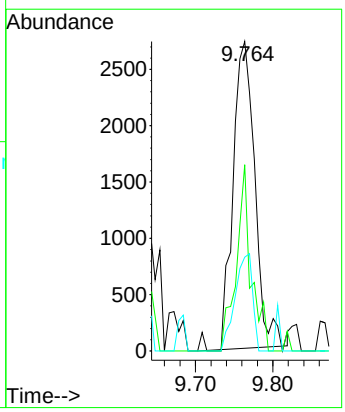


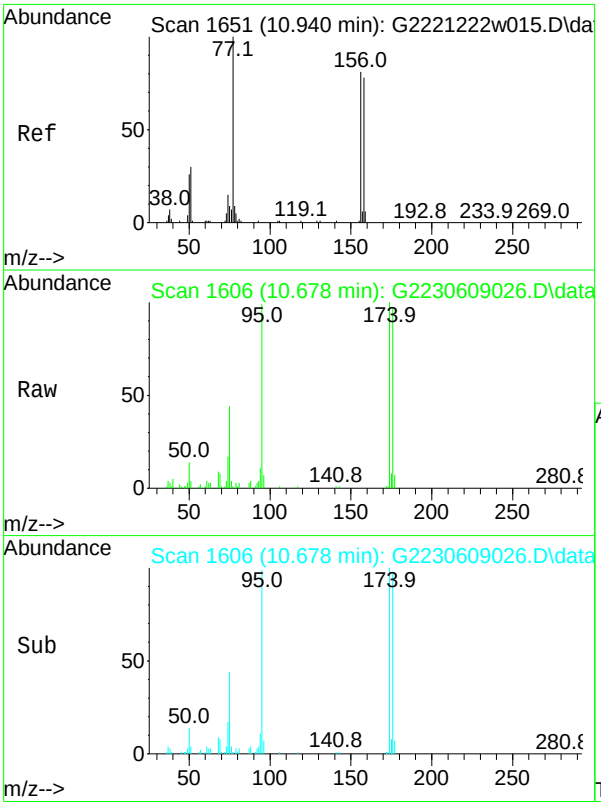


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. 0.000 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 91 Resp: 53140

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

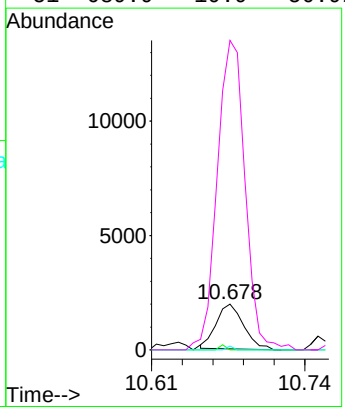


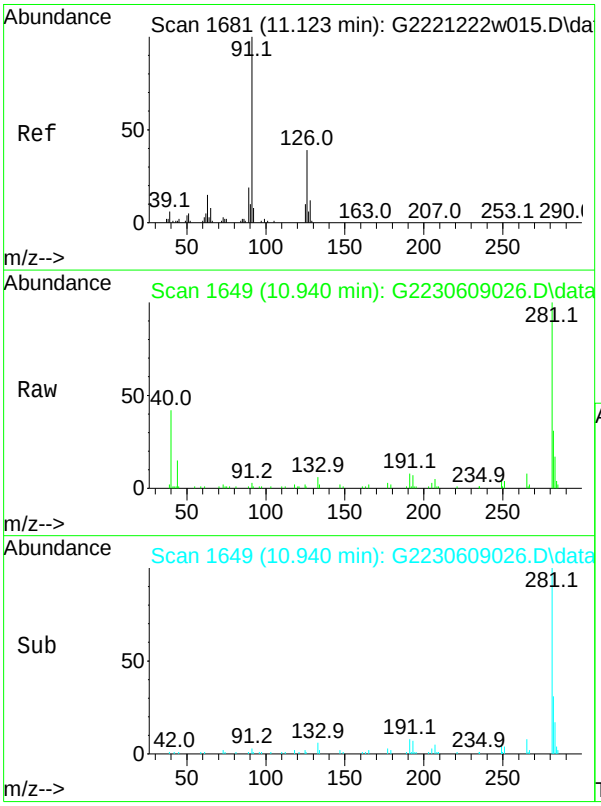


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.680 min Scan# 1606
Delta R.T. -0.148 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 77 Resp: 31403

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	689.9	10.9	50.9#

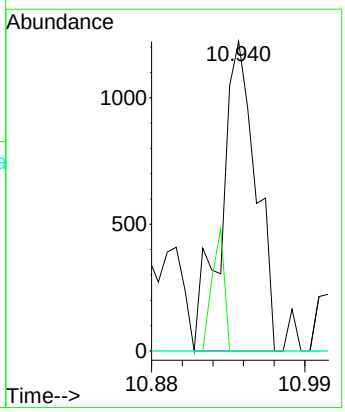


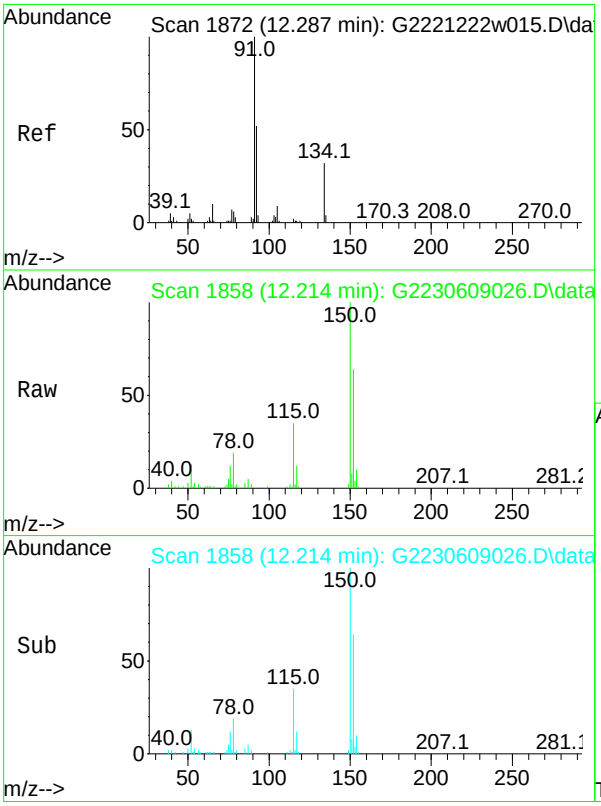


#87
2-Chlorotoluene
Concen: 0.02 ug/L
RT: 10.942 min Scan# 1649
Delta R.T. -0.086 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 91 Resp: 19985

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

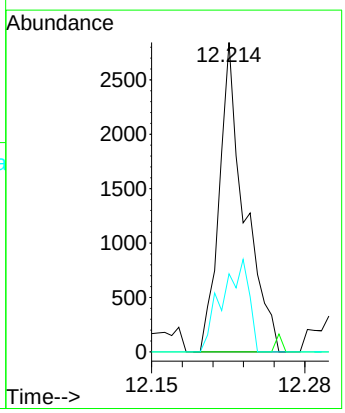




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.217 min Scan# 1858
Delta R.T. -0.014 min
Lab File: G2230609026.D
Acq: 09 Jun 2023 19:20

Tgt Ion: 91 Resp: 42459

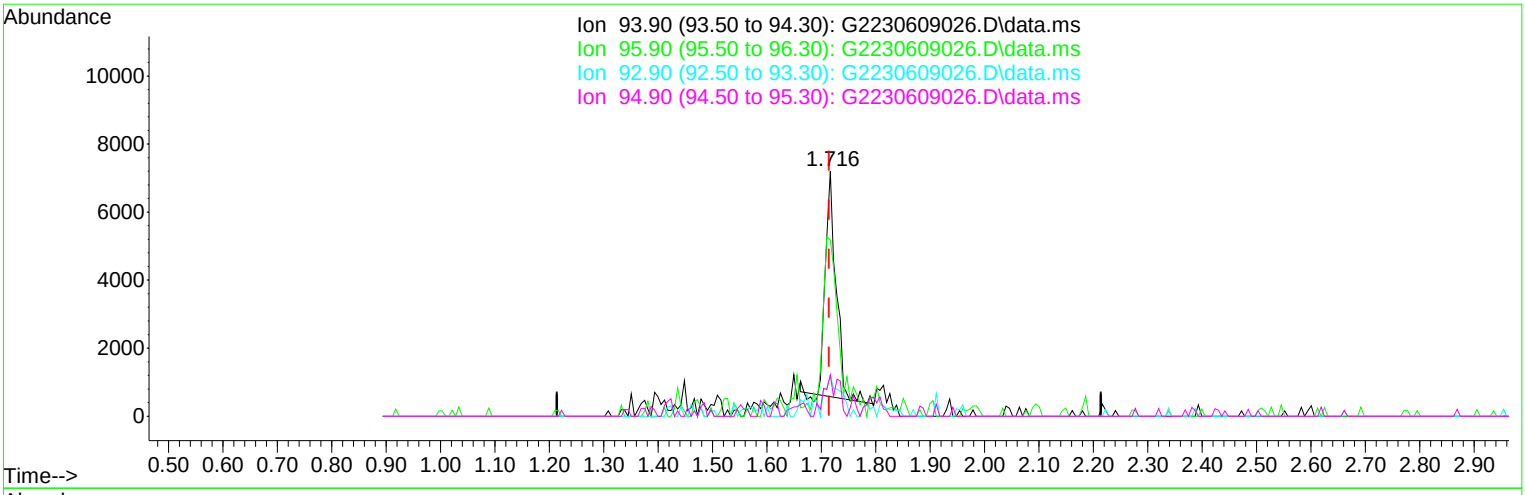
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

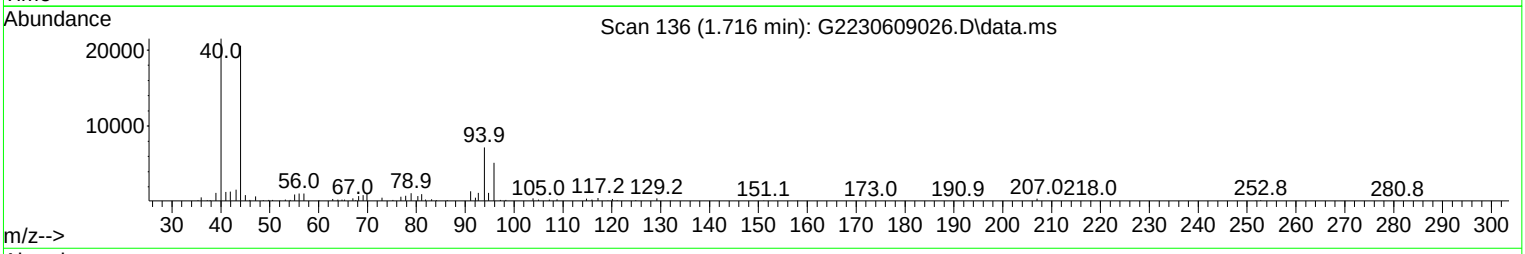


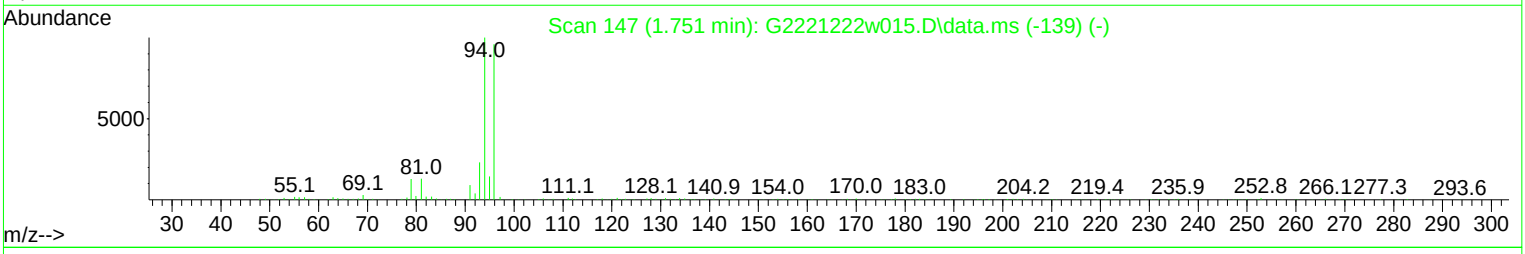
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609026.D
Acq On : 09 Jun 2023 19:20
Operator : PO1/MP3
Sample : 23E0775-17
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 10 08:30:20 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: G2230609026.D\data.ms

(5) Bromomethane (T)

1.718min (+ 0.004) 0.12 ug/L

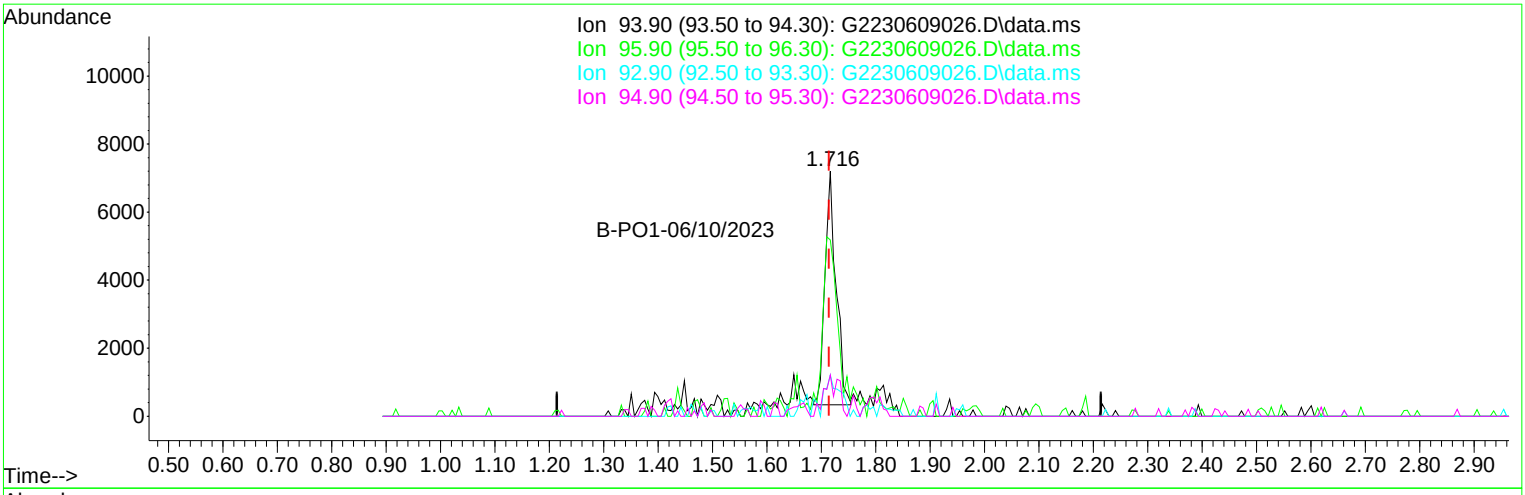
response 89799

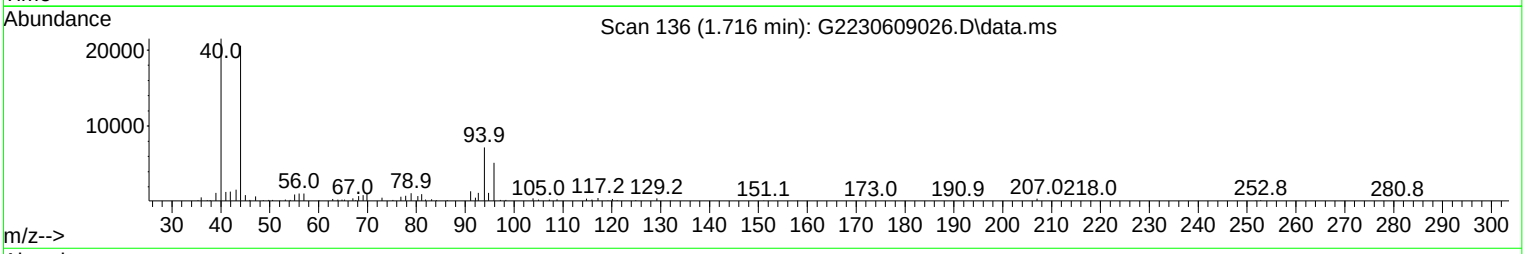
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	119.76
92.90	19.50	0.00
94.90	13.40	0.00

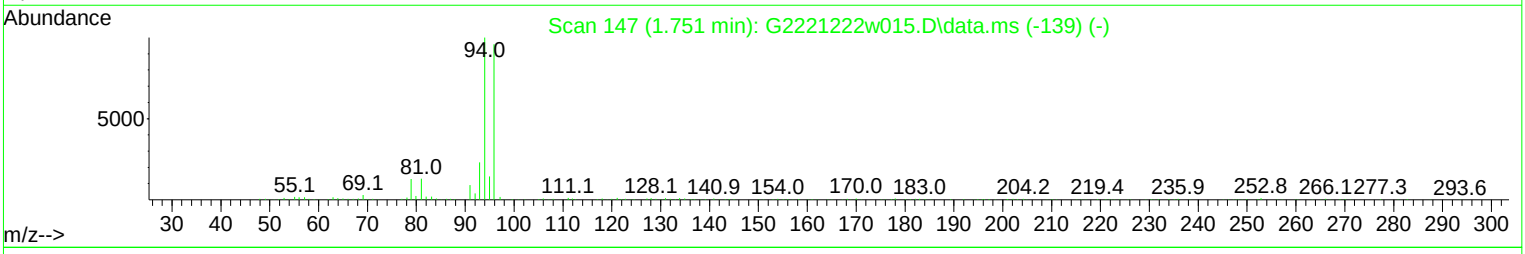
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609026.D
Acq On : 09 Jun 2023 19:20
Operator : PO1/MP3
Sample : 23E0775-17
Misc : 2
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jun 10 08:30:20 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: G2230609026.D\data.ms

(5) Bromomethane (T)

1.716min (+ 0.002) 0.15 ug/L m

response 97547

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	110.25
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52847WW19

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-18	File ID:	G2230610006.D
Sampled:	05/28/23 15:20	Prepared:	06/10/23 08:15	Analyzed:	06/10/23 10:19
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0185	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

52847WW19

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-18	File ID:	G2230610006.D
Sampled:	05/28/23 15:20	Prepared:	06/10/23 08:15	Analyzed:	06/10/23 10:19
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0185	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	0.580	0.320	1.00	2.00	J, D
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

52847WW19

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-18	File ID:	G2230610006.D
Sampled:	05/28/23 15:20	Prepared:	06/10/23 08:15	Analyzed:	06/10/23 10:19
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0185	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	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	4.90	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610006.D
Acq On : 10 Jun 2023 10:19
Operator : PO1/MP3
Sample : 23E0775-18
Misc : 2
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:50:54 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

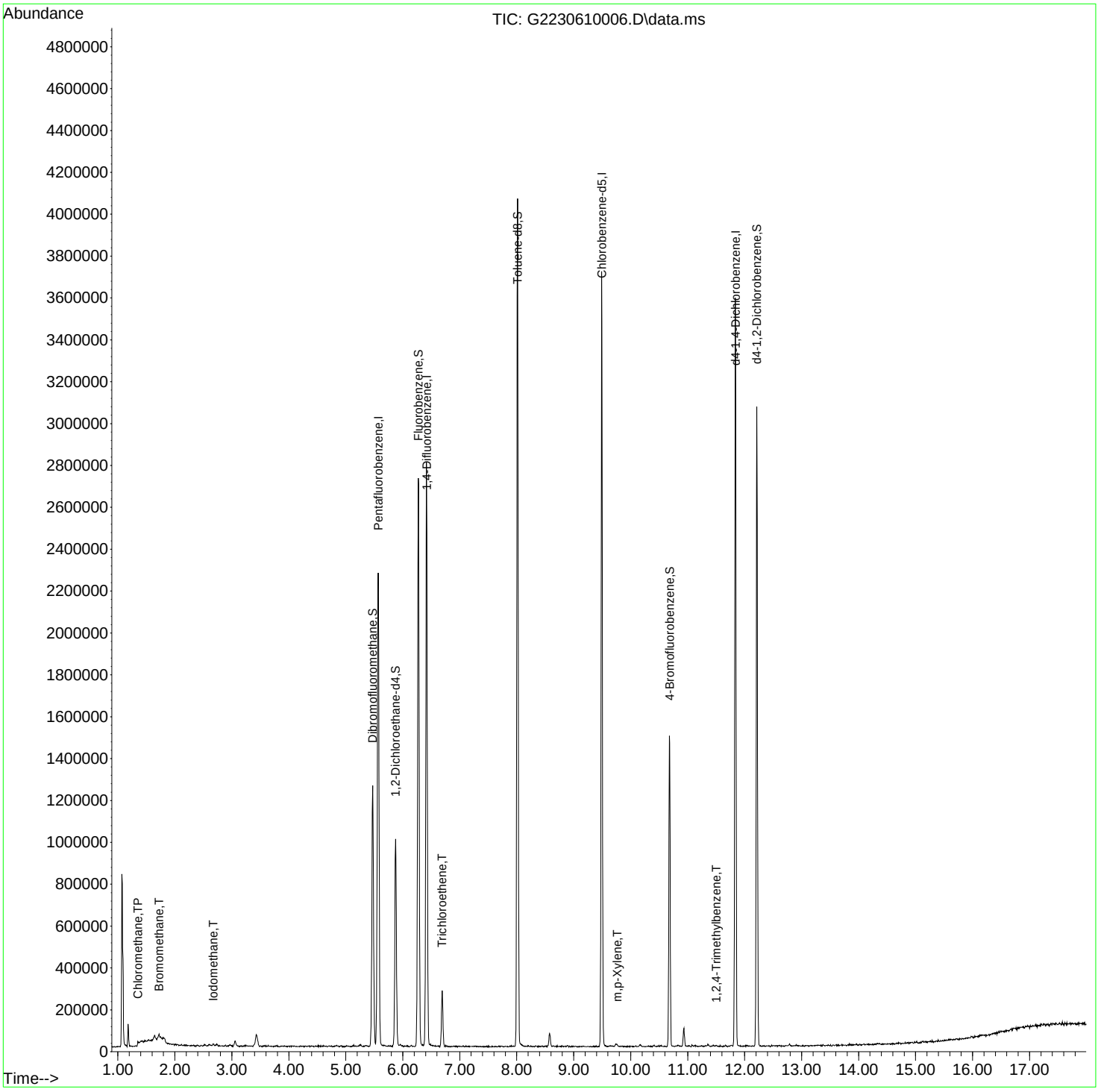
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	18184285	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	24365133	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	21483665	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10044864	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	7734095	19.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%				
43) 1,2-Dichloroethane-d4	5.877	65	7071502	17.88	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.40%				
49) Fluorobenzene	6.276	96	26837375	19.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%				
64) Toluene-d8	8.016	98	26126448	19.29	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%				
81) 4-Bromofluorobenzene	10.685	174	4758417	10.03	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.30%				
97) d4-1,2-Dichlorobenzene	12.217	152	8844613	20.47	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.35%				
Target Compounds							Qvalue
3) Chloromethane	1.351	50	61783	0.10	ug/L		84
5) Bromomethane	1.722	94	127007	0.29	ug/L	#	82
13) Iodomethane	2.674	142	110466	0.26	ug/L	#	85
18) Methylene chloride	3.057	49	126236	Below Cal			78
21) Methyl tert-butyl ether	3.434	73	746742	Below Cal			96
50) Trichloroethene	6.694	95	809793	2.45	ug/L		90
65) Toluene	8.078	91	51460	Below Cal		#	30
75) m,p-Xylene	9.762	91	54608	0.05	ug/L	#	73
92) 1,2,4-Trimethylbenzene	11.502	105	31456	0.03	ug/L	#	32

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610006.D
Acq On : 10 Jun 2023 10:19
Operator : PO1/MP3
Sample : 23E0775-18
Misc : 2
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:50:54 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610006.D
Acq On : 10 Jun 2023 10:19
Operator : PO1/MP3
Sample : 23E0775-18
Misc : 2
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:50:54 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	18184285	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	24365133	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	21483665	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10044864	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	7734095	19.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%				
43) 1,2-Dichloroethane-d4	5.877	65	7071502	17.88	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.40%				
49) Fluorobenzene	6.276	96	26837375	19.33	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.65%				
64) Toluene-d8	8.016	98	26126448	19.29	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%				
81) 4-Bromofluorobenzene	10.685	174	4758417	10.03	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 100.30%				
97) d4-1,2-Dichlorobenzene	12.217	152	8844613	20.47	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.35%				
Target Compounds							Qvalue
3) Chloromethane	1.351	50	61783	0.10	ug/L		84
5) Bromomethane	1.722	94	127007	0.29	ug/L	#	82
9) Acrolein	2.443	56	2968	Below Cal		#	20
12) Acetone	2.602	43	93793	Below Cal			80
13) Iodomethane	2.674	142	110466	0.26	ug/L	#	85
14) Carbon disulfide	2.737	76	127348	0.06	ug/L	#	74
17) 3-Chloro-1-propene	2.737	76	127352	0.62	ug/L	#	53
18) Methylene chloride	3.057	49	126236	Below Cal			78
21) Methyl tert-butyl ether	3.434	73	746742	Below Cal			96
26) 1-propanol	4.108	59	845	0.45	ug/L	#	100
36) Tetrahydrofuran	5.249	42	9374	Below Cal		#	30
40) Cyclohexane	5.568	84	375449	0.77	ug/L	#	37
41) 1-Chlorobutane	5.570	56	258134	0.46	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	948118	2.22	ug/L	#	38
44) 1,2-Dichloroethane	5.966	62	27665	Below Cal		#	47
47) Carbon tetrachloride	5.569	117	1460233	3.32	ug/L	#	16
50) Trichloroethene	6.694	95	809793	2.45	ug/L		90
60) 4-Methyl-2-pentanone	8.015	43	75050	Below Cal		#	1
65) Toluene	8.078	91	51460	Below Cal		#	30
72) Chlorobenzene	9.521	112	22783	0.02	ug/L	#	1
74) Ethylbenzene	9.763	91	53049	Below Cal		#	42
75) m,p-Xylene	9.762	91	54608	0.05	ug/L	#	73
82) Bromobenzene	10.680	77	33180	0.06	ug/L	#	1
86) n-Propylbenzene	10.949	91	35842	0.02	ug/L	#	58
87) 2-Chlorotoluene	11.024	91	26194	0.03	ug/L	#	47
88) 4-Chlorotoluene	10.949	91	32049	0.03	ug/L	#	50
90) 2-ethyl-1-toluene	11.502	105	31455	0.02	ug/L	#	51
92) 1,2,4-Trimethylbenzene	11.502	105	31456	0.03	ug/L	#	32

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610006.D
Acq On : 10 Jun 2023 10:19
Operator : PO1/MP3
Sample : 23E0775-18
Misc : 2
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:50:54 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

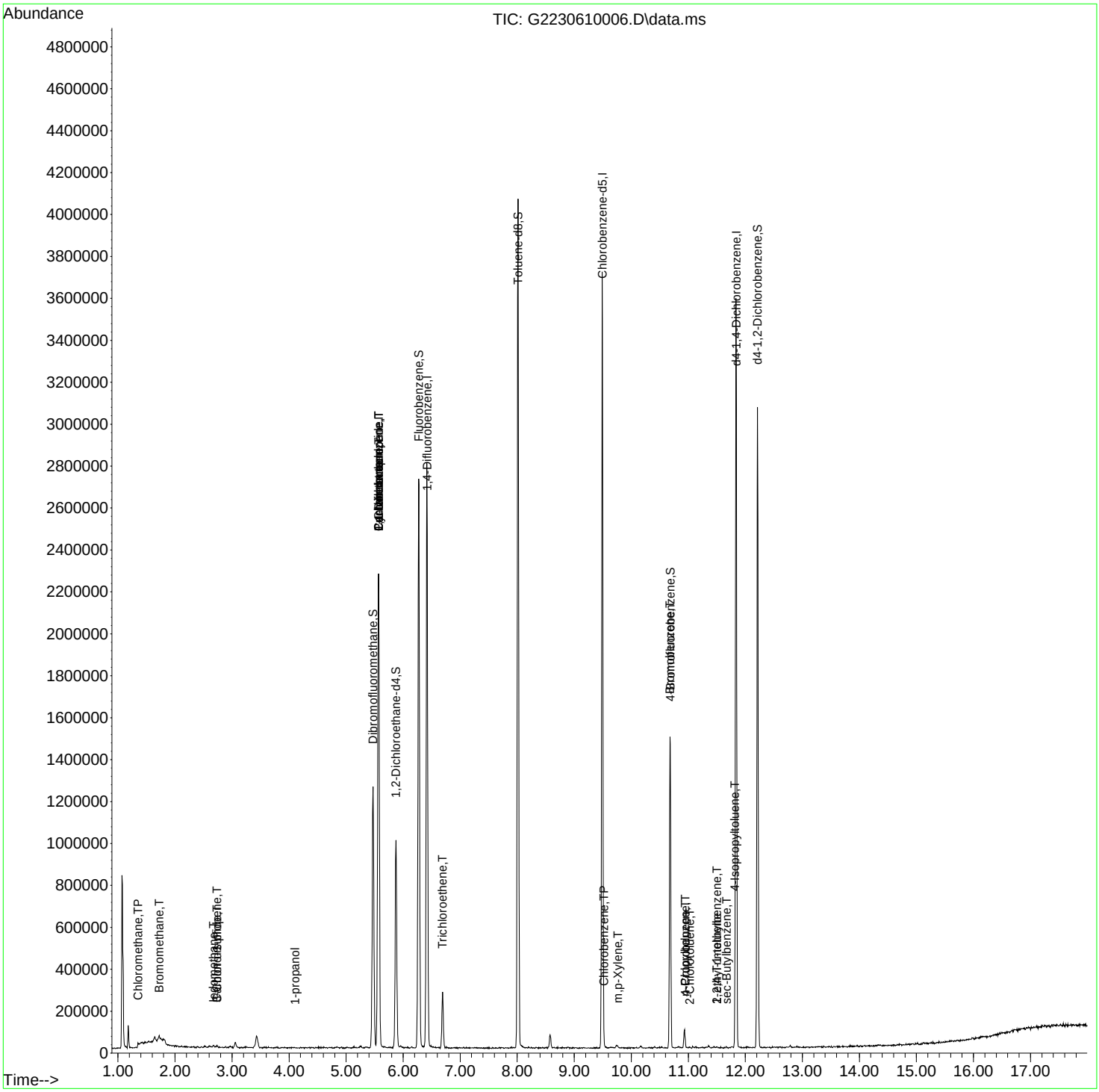
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) sec-Butylbenzene	11.672	105	26412	0.02	ug/L	#	58
95) 4-Isopropyltoluene	11.815	119	32042	0.03	ug/L	#	1
99) n-Butylbenzene	12.222	91	55124	Below Cal		#	76

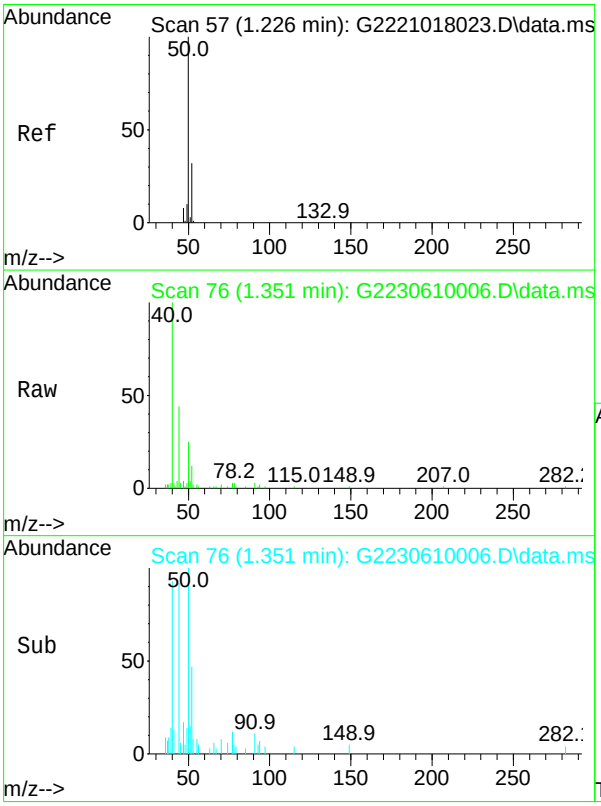
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610006.D
Acq On : 10 Jun 2023 10:19
Operator : PO1/MP3
Sample : 23E0775-18
Misc : 2
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 12 09:50:54 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

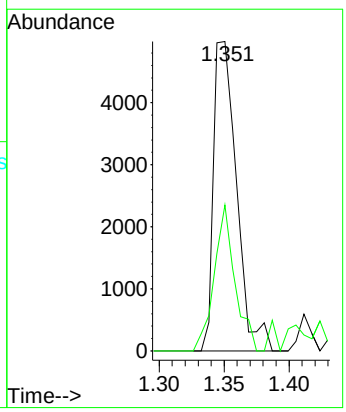


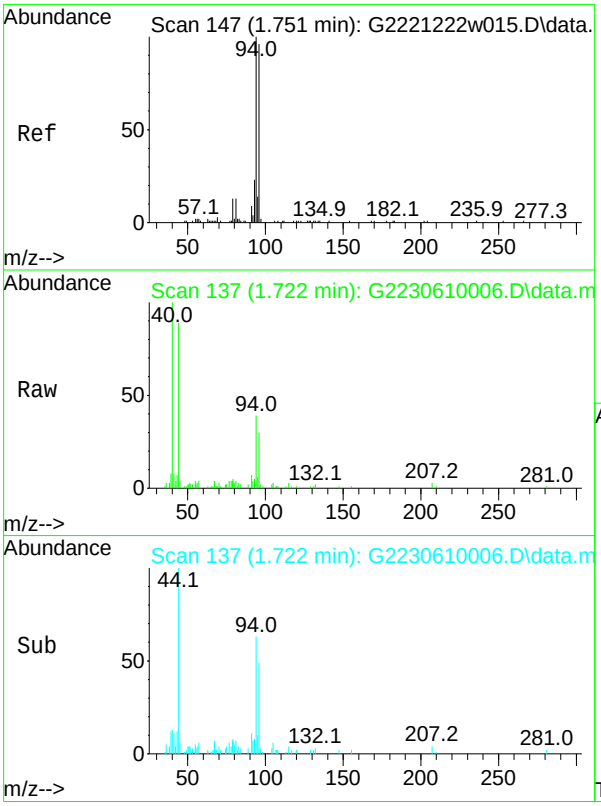


#3
Chloromethane
Concen: 0.10 ug/L
RT: 1.351 min Scan# 76
Delta R.T. -0.003 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 50 Resp: 61783

Ion	Ratio	Lower	Upper
50	100		
52	42.4	3.2	63.2

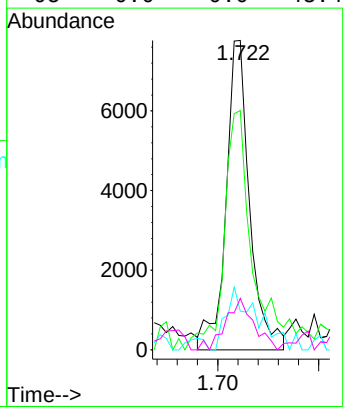


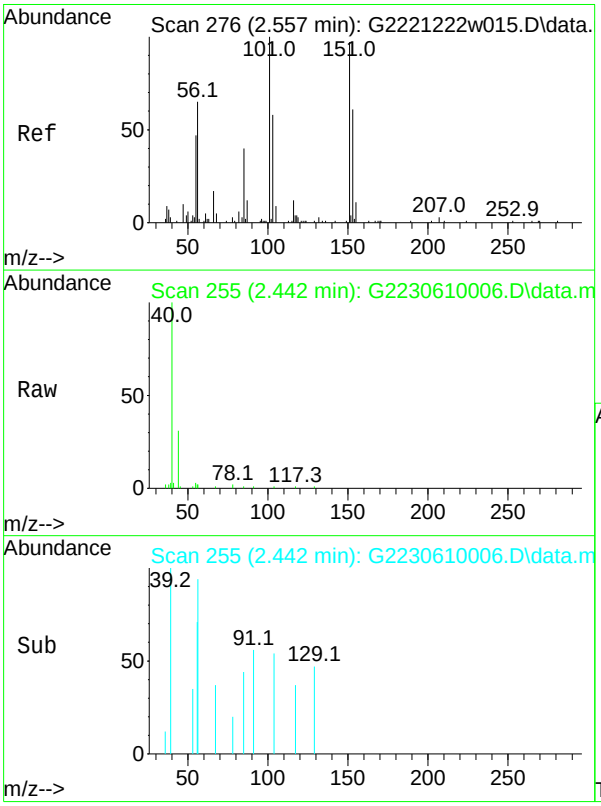


#5
Bromomethane
Concen: 0.29 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 94 Resp: 127007

Ion	Ratio	Lower	Upper
94	100		
96	84.7	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

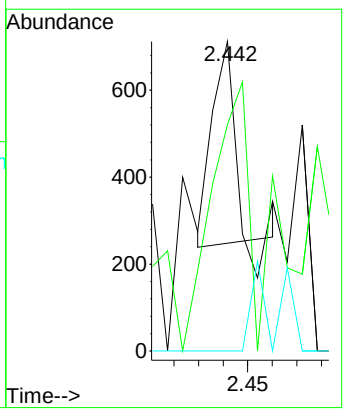


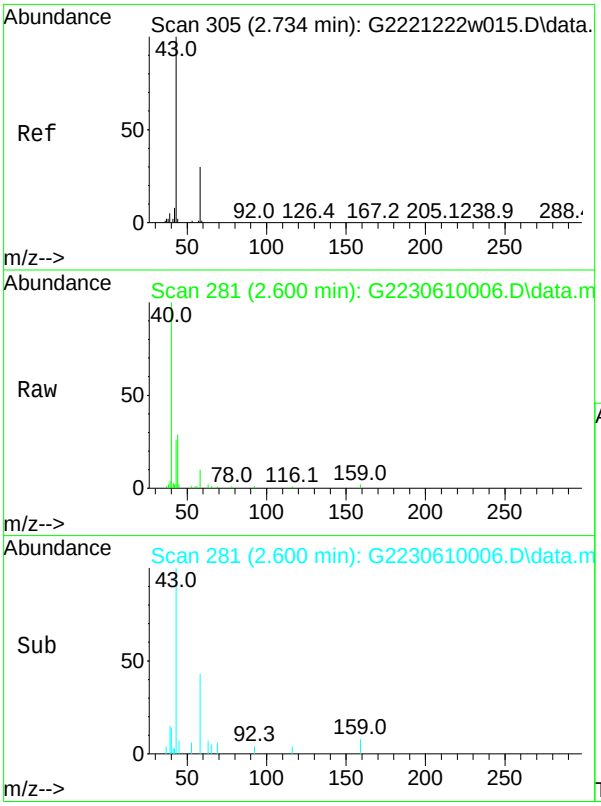


#9
Acrolein
Concen: Below Cal
RT: 2.443 min Scan# 255
Delta R.T. 0.004 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 56 Resp: 2968

Ion	Ratio	Lower	Upper
56	100		
55	0.0	43.5	103.5#
37	0.0	0.0	40.5

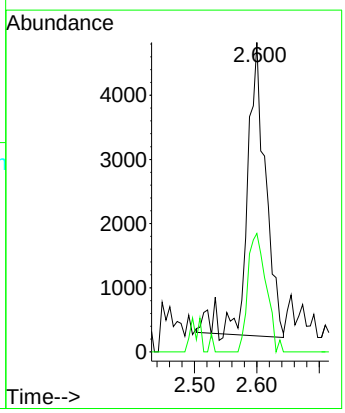


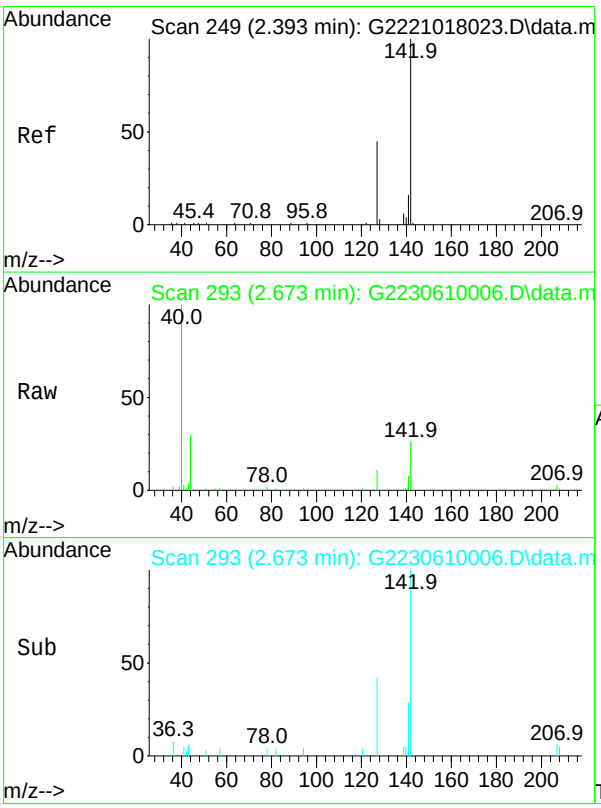


#12
Acetone
Concen: Below Cal
RT: 2.602 min Scan# 281
Delta R.T. -0.006 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 43 Resp: 93793

Ion	Ratio	Lower	Upper
43	100		
58	40.2	0.0	59.7

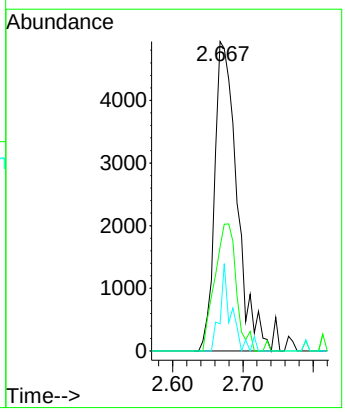


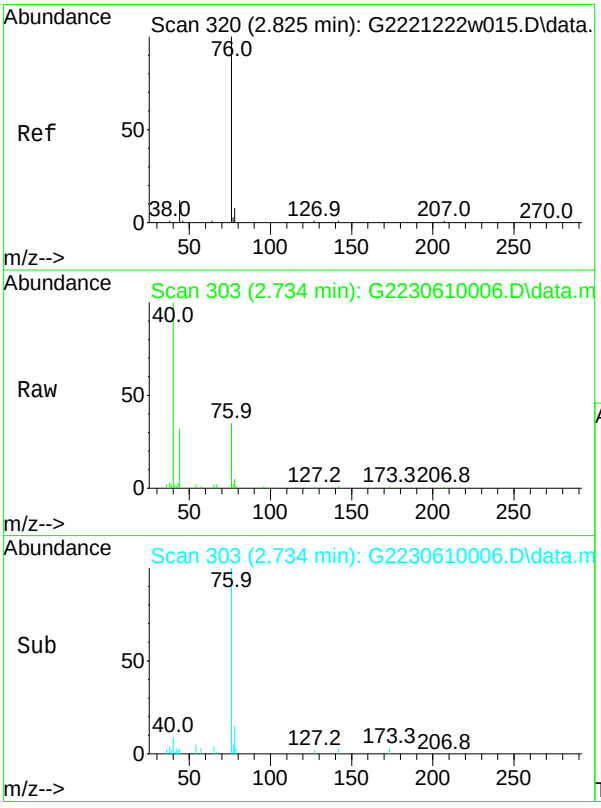


#13
Iodomethane
Concen: 0.26 ug/L
RT: 2.674 min Scan# 293
Delta R.T. -0.002 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion:142 Resp: 110466

Ion	Ratio	Lower	Upper
142	100		
127	38.8	13.3	73.3
141	0.0	0.0	45.3

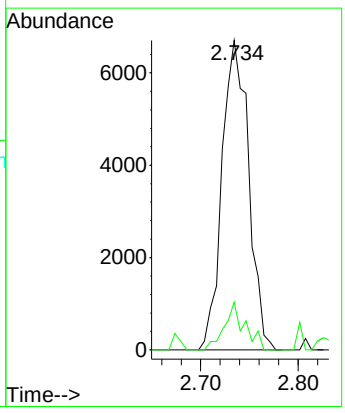


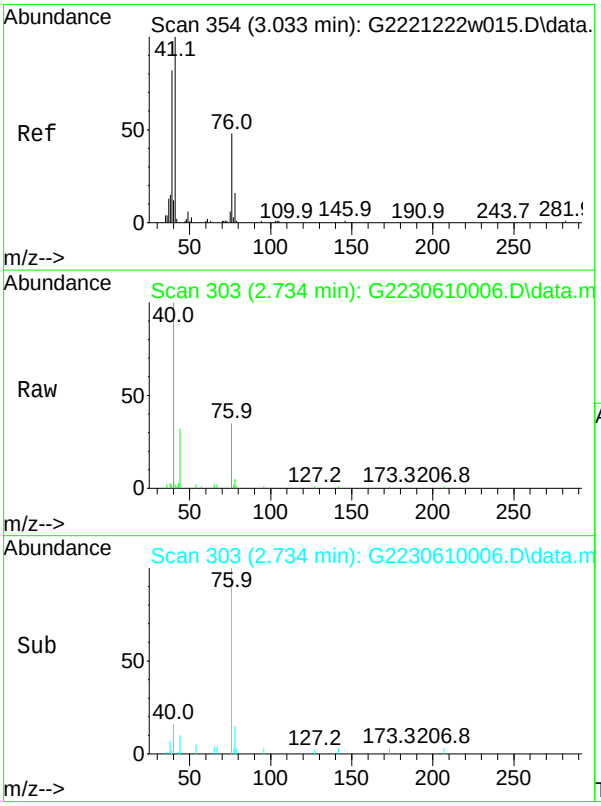


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.002 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 76 Resp: 127348

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

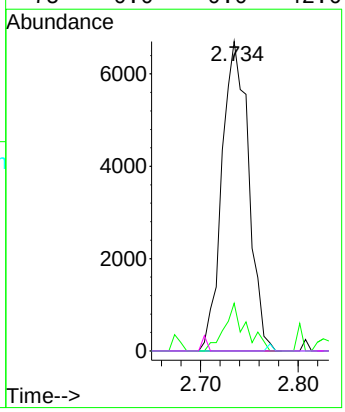


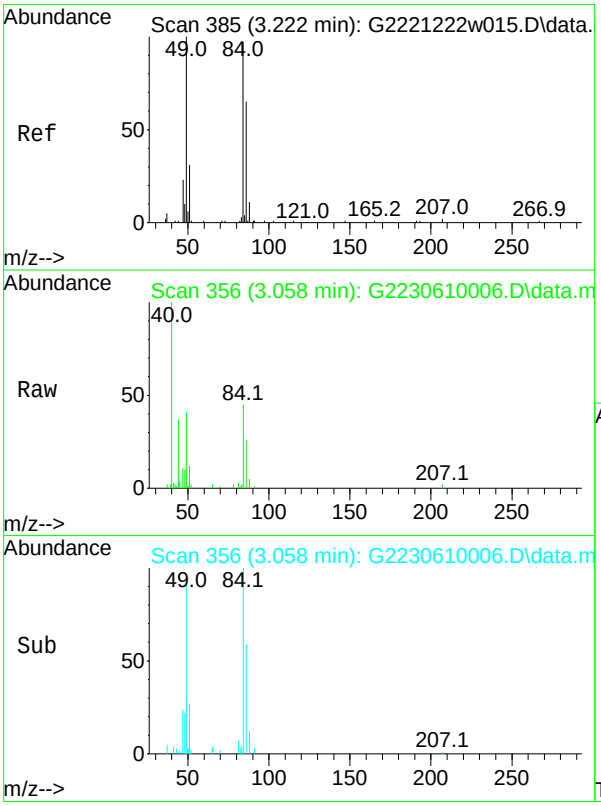


#17
3-Chloro-1-propene
Concen: 0.62 ug/L
RT: 2.737 min Scan# 303
Delta R.T. -0.183 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 76 Resp: 127352

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

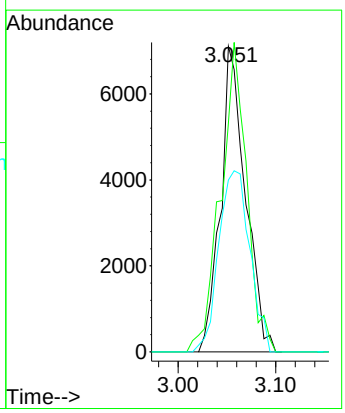


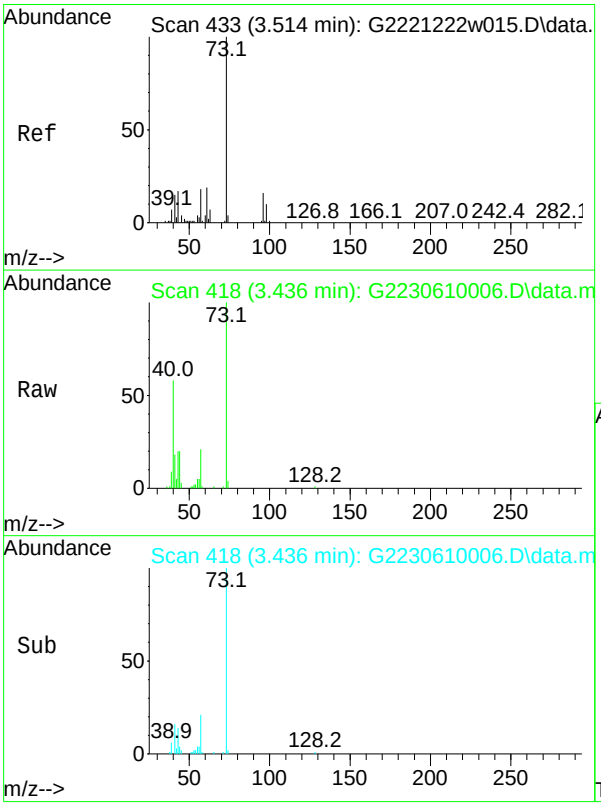


#18
Methylene chloride
Concen: Below Cal
RT: 3.057 min Scan# 356
Delta R.T. -0.005 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 49 Resp: 126236

Ion	Ratio	Lower	Upper
49	100		
84	106.2	57.9	117.9
86	73.9	24.9	84.9

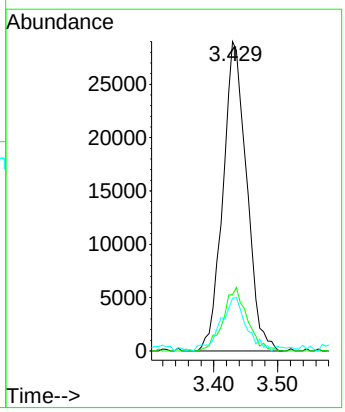


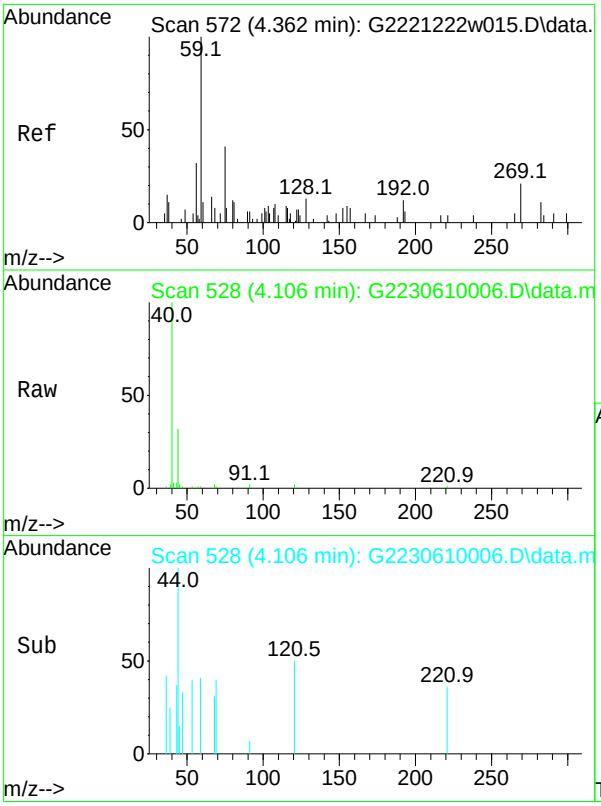


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.434 min Scan# 418
Delta R.T. -0.012 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 73 Resp: 746742

Ion	Ratio	Lower	Upper
73	100		
57	20.8	0.0	51.7
41	17.8	0.0	50.6

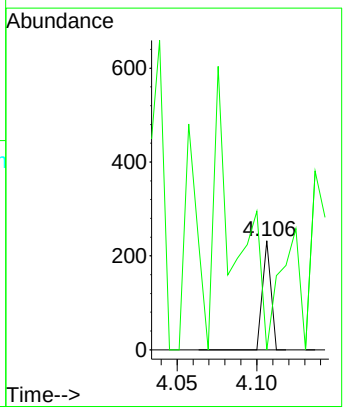


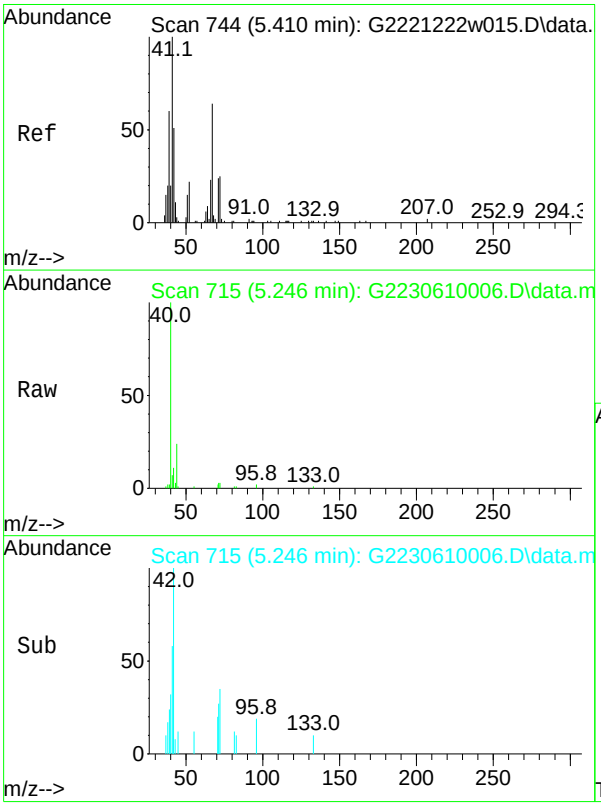


#26
1-propanol
Concen: 0.45 ug/L
RT: 4.108 min Scan# 528
Delta R.T. -0.181 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 59 Resp: 845

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

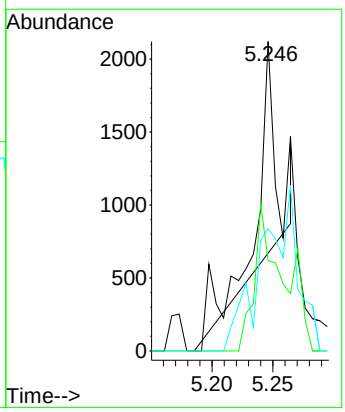


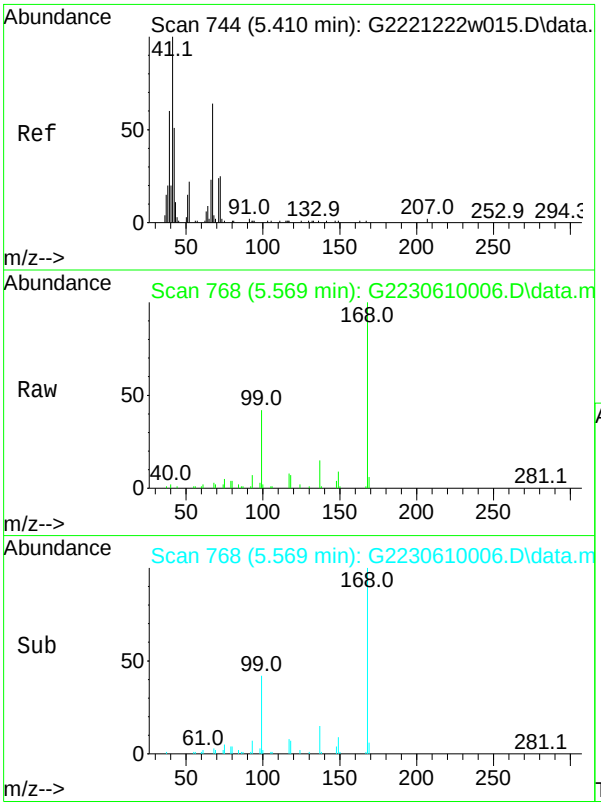


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.249 min Scan# 715
Delta R.T. -0.012 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 42 Resp: 9374

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

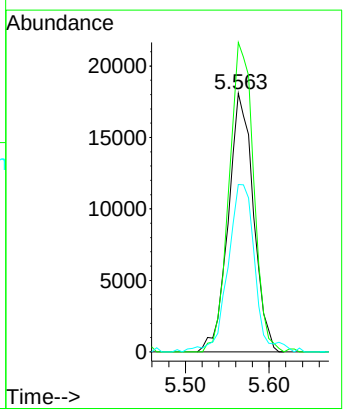


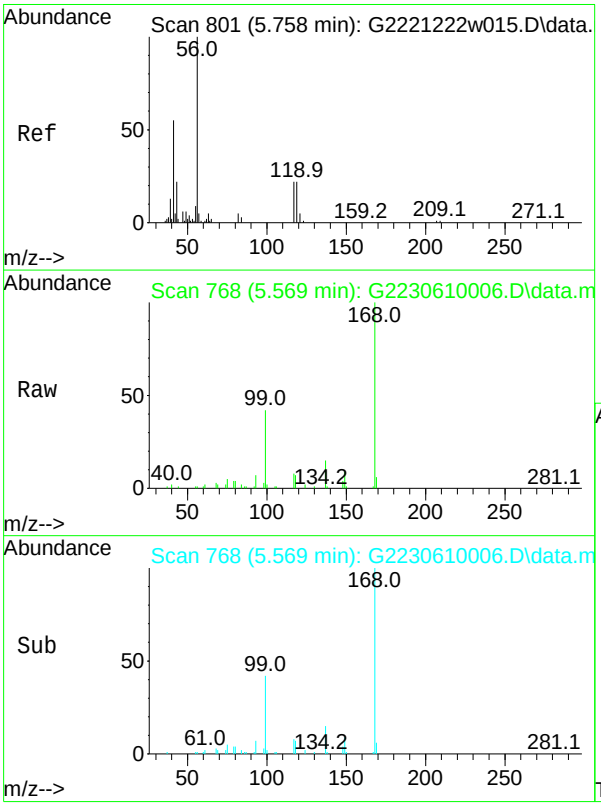


#40
Cyclohexane
Concen: 0.77 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 84 Resp: 375449

Ion	Ratio	Lower	Upper
84	100		
69	117.3	6.8	66.8#
56	69.2	79.1	139.1#

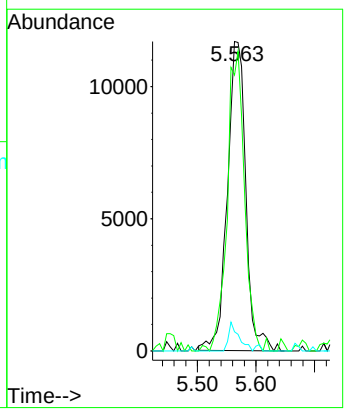


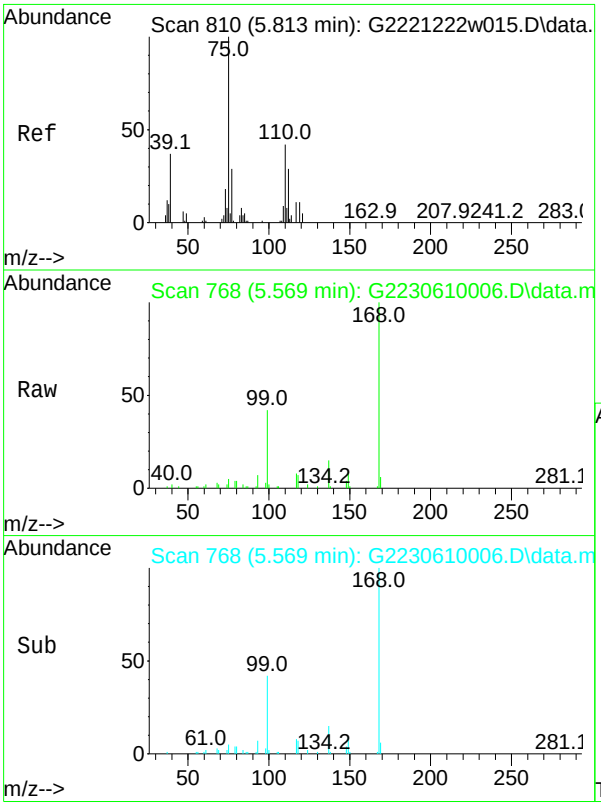


#41
1-Chlorobutane
Concen: 0.46 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 56 Resp: 258134

Ion	Ratio	Lower	Upper
56	100		
55	91.0	0.0	41.0#
57	0.0	0.0	35.7

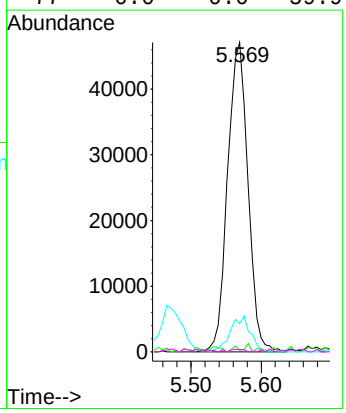


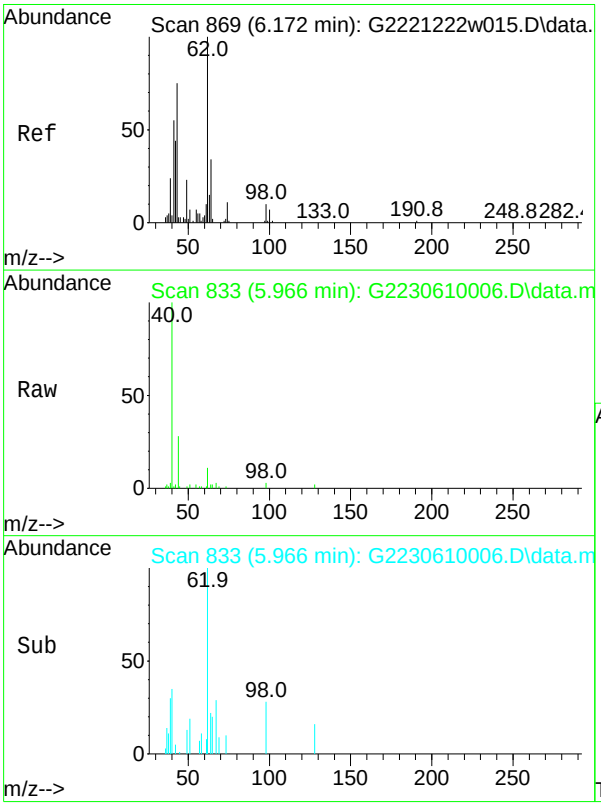


#42
1,1-Dichloropropene
Concen: 2.22 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 75 Resp: 948118

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

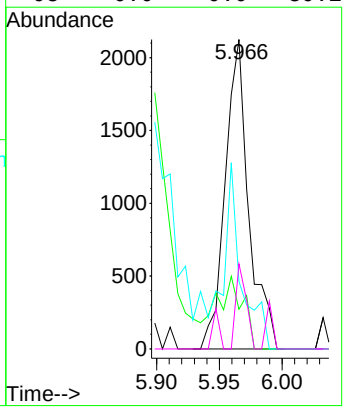


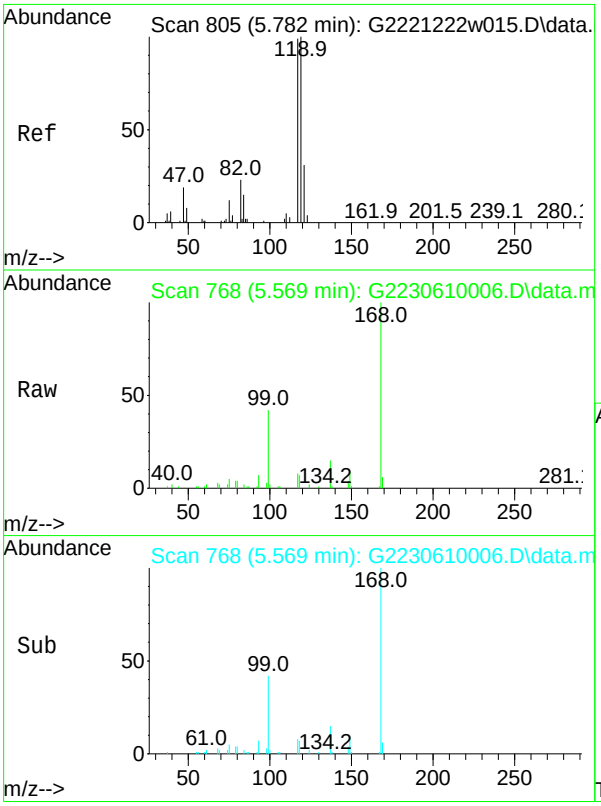


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.966 min Scan# 833
Delta R.T. -0.005 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 62 Resp: 27665

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

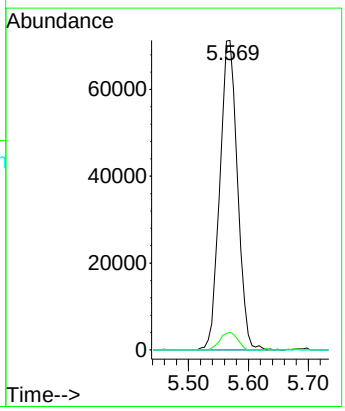


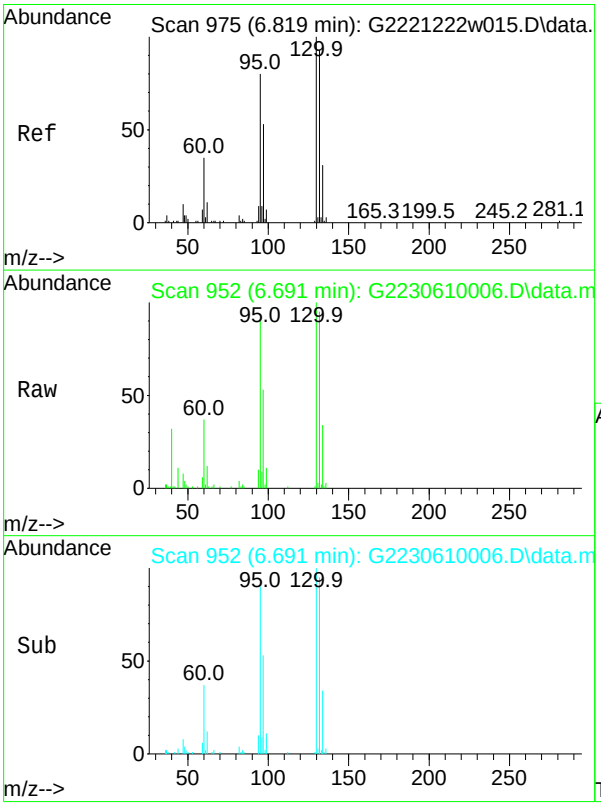


#47
Carbon tetrachloride
Concen: 3.32 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.111 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion:117 Resp: 1460233

Ion	Ratio	Lower	Upper
117	100		
119	5.6	66.4	126.4#
121	0.0	0.4	60.4#

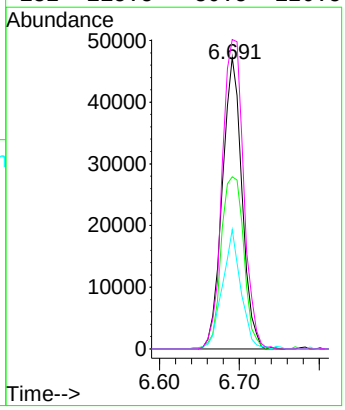


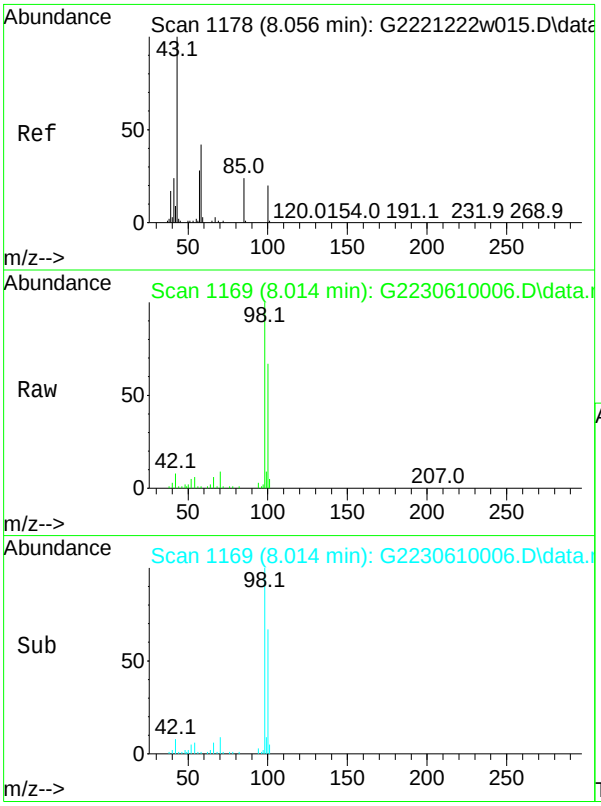


#50
Trichloroethene
Concen: 2.45 ug/L
RT: 6.694 min Scan# 952
Delta R.T. -0.002 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 95 Resp: 809793

Ion	Ratio	Lower	Upper
95	100		
97	67.7	35.5	95.5
60	38.3	14.8	74.8
132	115.5	80.5	120.5

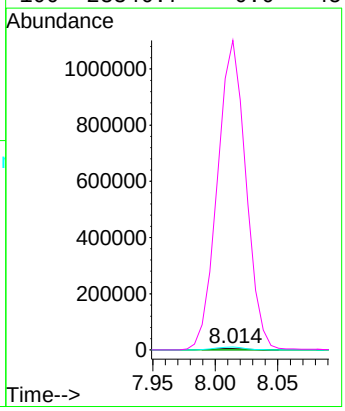


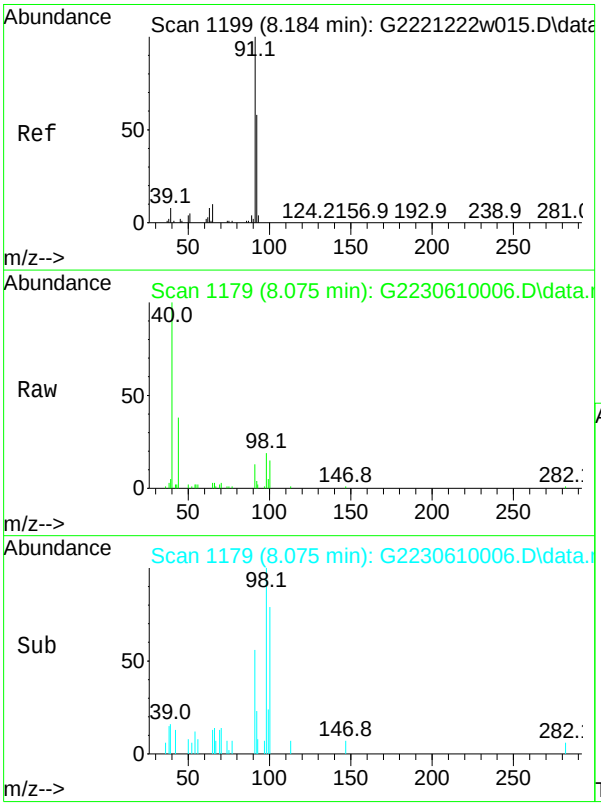


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 43 Resp: 75050

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	219.2	37.0	37.0#
100	23346.7	0.0	45.2#

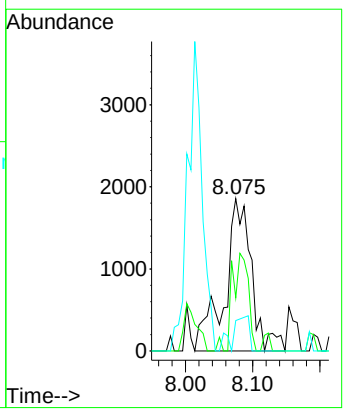


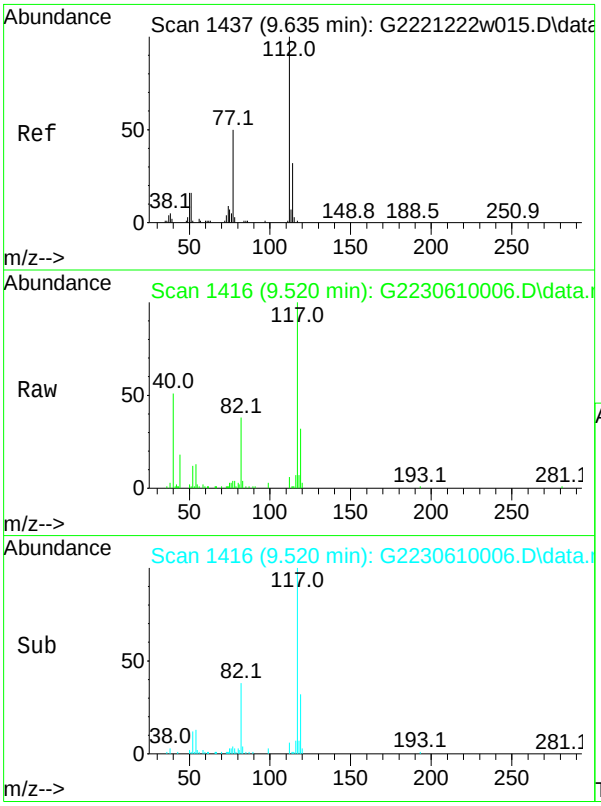


#65
Toluene
Concen: Below Cal
RT: 8.078 min Scan# 1179
Delta R.T. -0.008 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 91 Resp: 51460

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

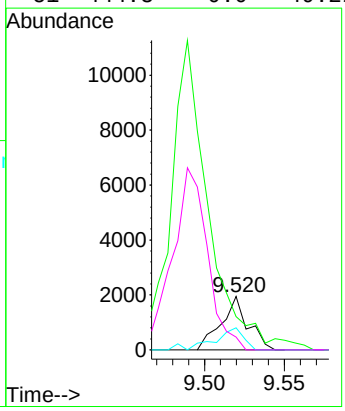


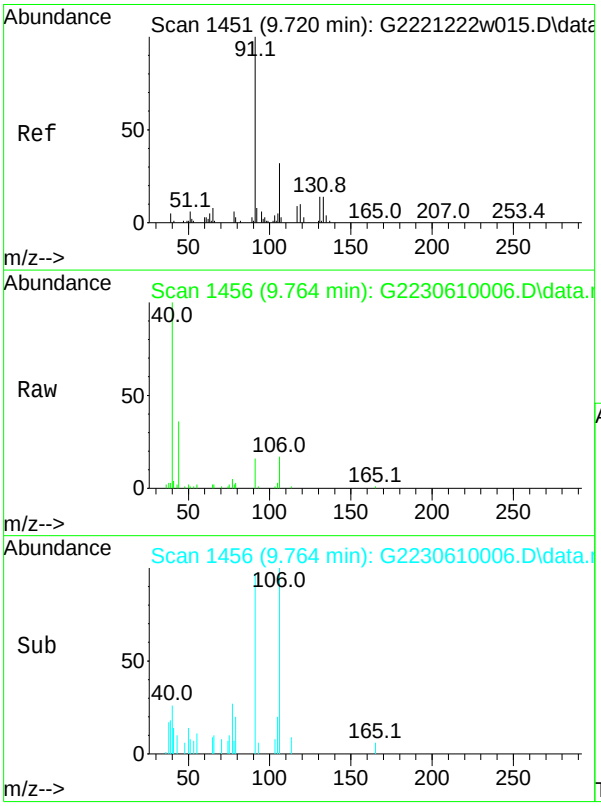


#72
Chlorobenzene
Concen: 0.02 ug/L
RT: 9.521 min Scan# 1416
Delta R.T. -0.003 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion:112 Resp: 22783

Ion	Ratio	Lower	Upper
112	100		
77	810.1	27.8	87.8#
114	0.0	3.4	63.4#
51	444.3	0.0	49.2#

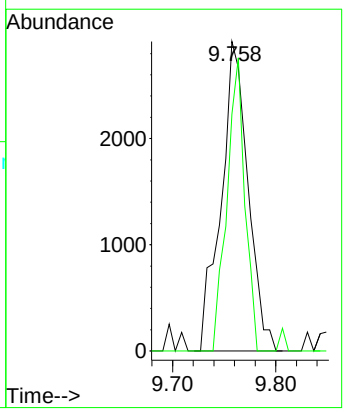


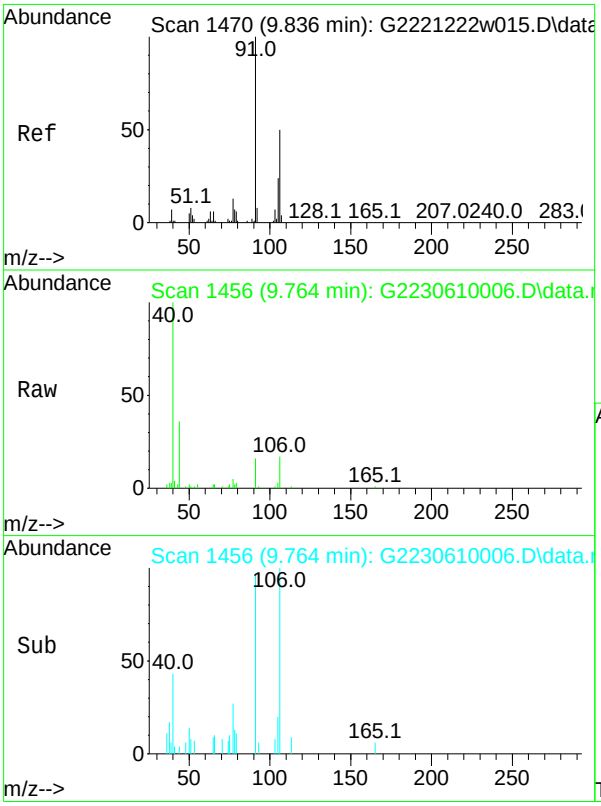


#74
Ethylbenzene
Concen: Below Cal
RT: 9.763 min Scan# 1456
Delta R.T. 0.120 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 91 Resp: 53049

Ion	Ratio	Lower	Upper
91	100		
106	62.5	0.8	60.8#

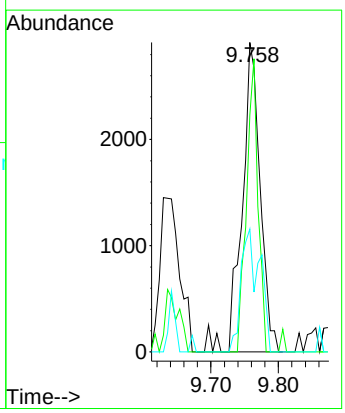


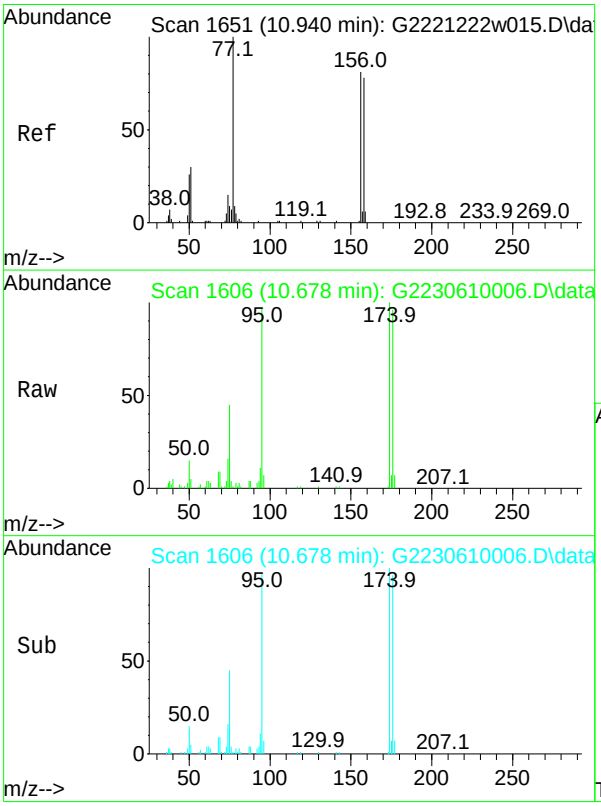


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.762 min Scan# 1456
Delta R.T. -0.002 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 91 Resp: 54608

Ion	Ratio	Lower	Upper
91	100		
106	60.7	19.0	79.0
105	0.0	0.0	52.7

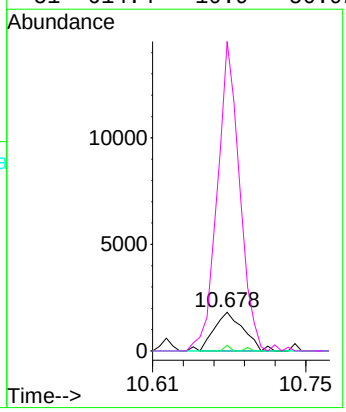


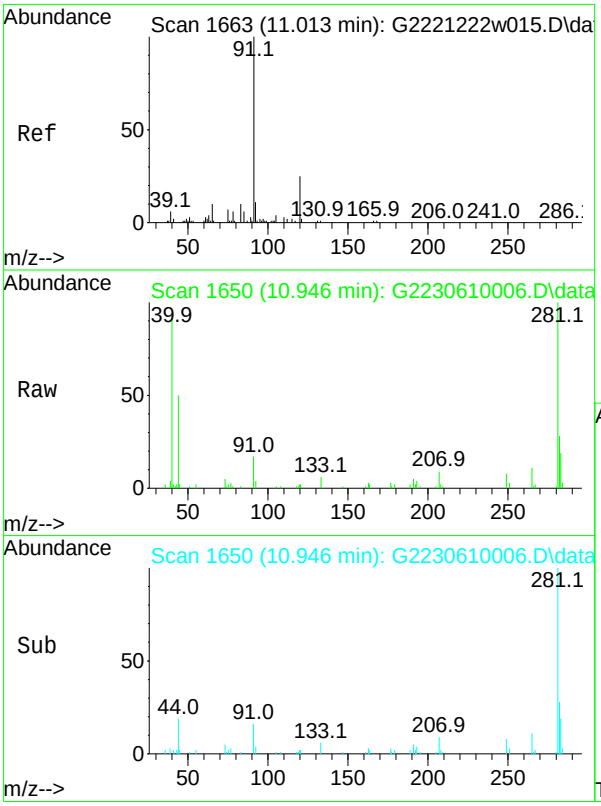


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.680 min Scan# 1606
Delta R.T. -0.148 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 77 Resp: 33180

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	614.4	10.9	50.9#

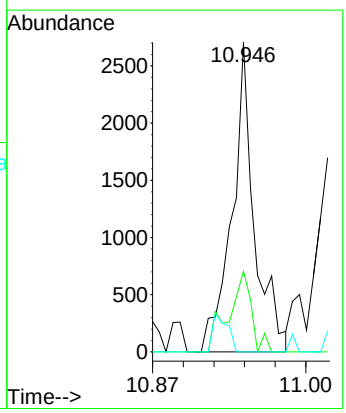


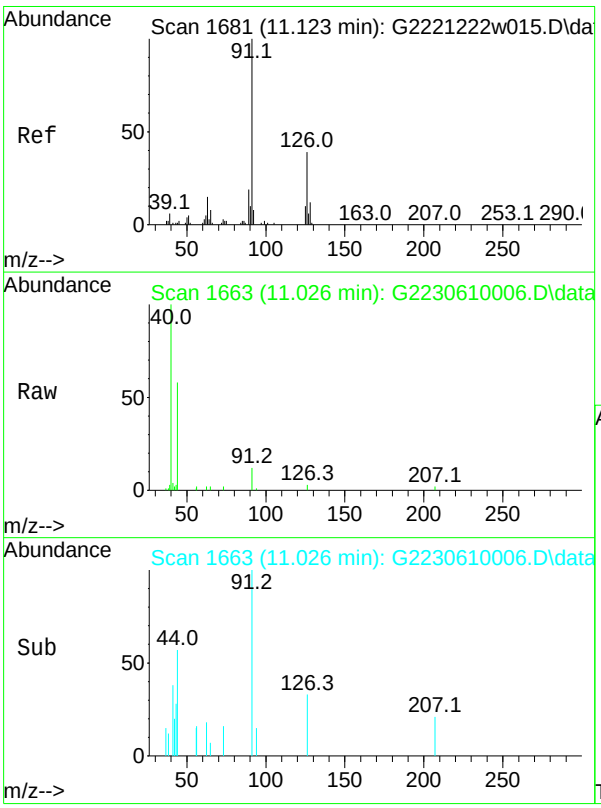


#86
n-Propylbenzene
Concen: 0.02 ug/L
RT: 10.949 min Scan# 1650
Delta R.T. 0.000 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 91 Resp: 35842

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.3
65	0.0	0.0	40.3

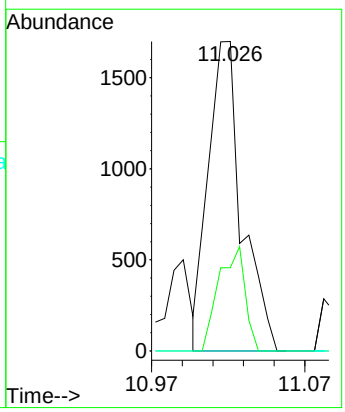


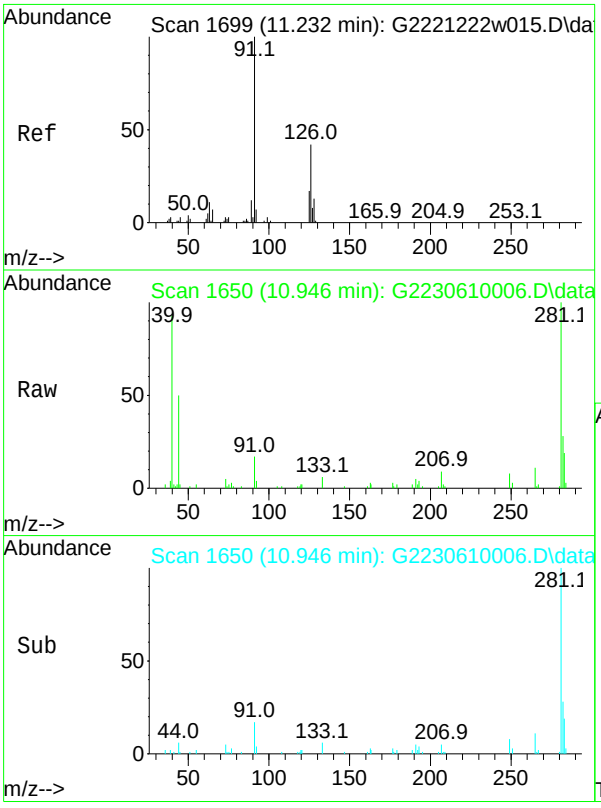


#87
2-Chlorotoluene
Concen: 0.03 ug/L
RT: 11.024 min Scan# 1663
Delta R.T. -0.004 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 91 Resp: 26194

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

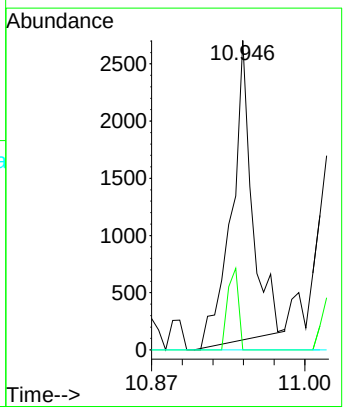


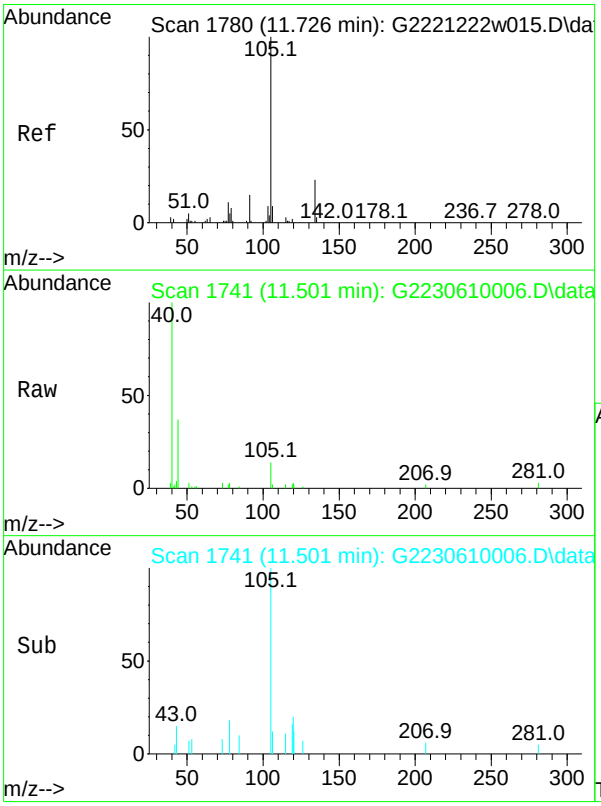


#88
4-Chlorotoluene
Concen: 0.03 ug/L
RT: 10.949 min Scan# 1650
Delta R.T. -0.188 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 91 Resp: 32049

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.7	60.7#
127	0.0	0.0	36.1

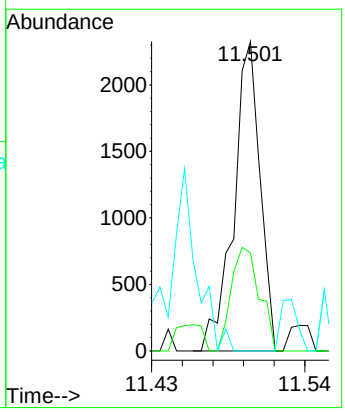


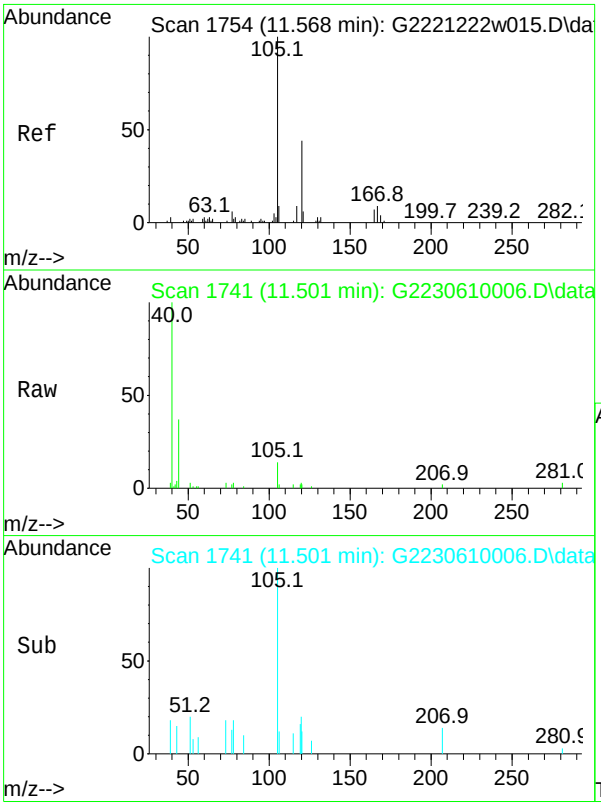


#90
2-ethyl-1-toluene
Concen: 0.02 ug/L
RT: 11.502 min Scan# 1741
Delta R.T. 0.173 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion:105 Resp: 31455

Ion	Ratio	Lower	Upper
105	100		
120	0.0	0.8	60.8#
91	0.0	0.0	42.3

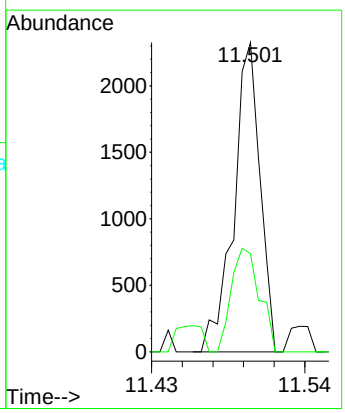


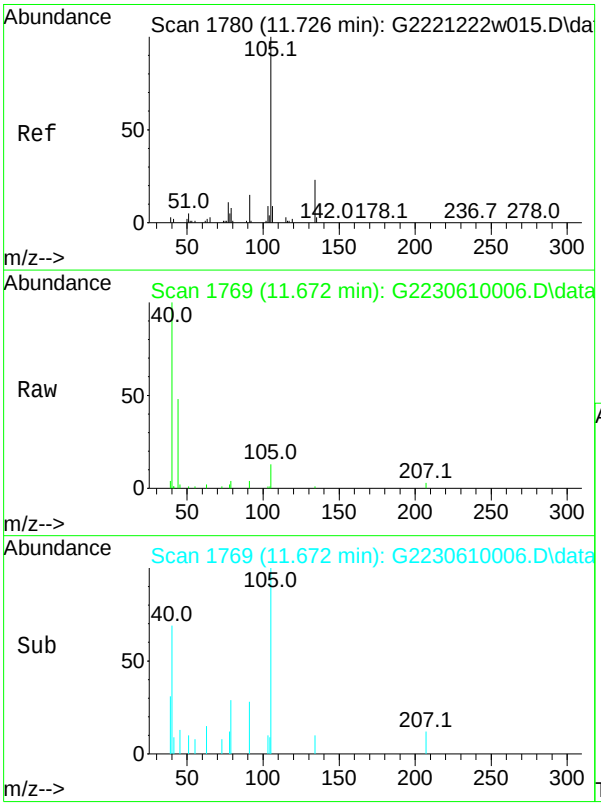


#92
1,2,4-Trimethylbenzene
Concen: 0.03 ug/L
RT: 11.502 min Scan# 1741
Delta R.T. -0.000 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion:105 Resp: 31456

Ion	Ratio	Lower	Upper
105	100		
120	0.0	14.4	74.4#

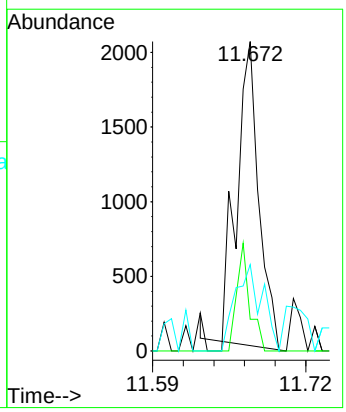


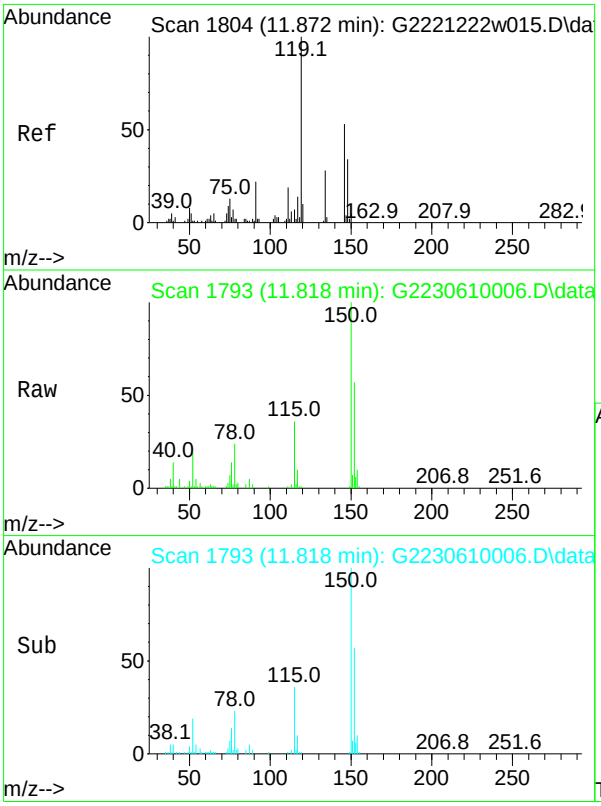


#93
sec-Butylbenzene
Concen: 0.02 ug/L
RT: 11.672 min Scan# 1769
Delta R.T. -0.001 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion:105 Resp: 26412

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	50.7
91	0.0	0.0	46.0

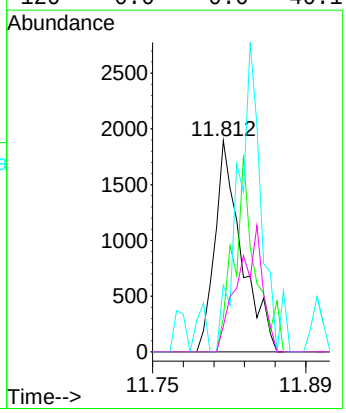


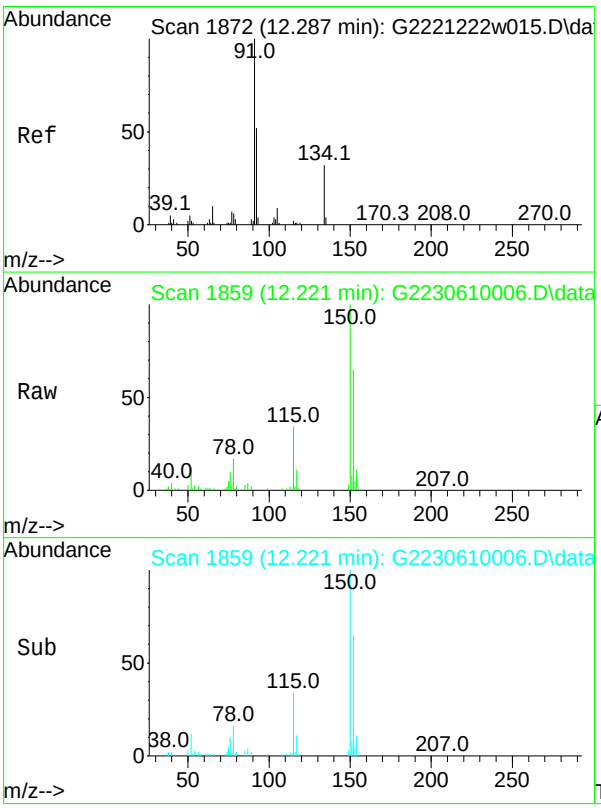


#95
4-Isopropyltoluene
Concen: 0.03 ug/L
RT: 11.815 min Scan# 1793
Delta R.T. -0.008 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion:119 Resp: 32042

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	56.2
91	125.6	0.0	52.5#
120	0.0	0.0	40.1

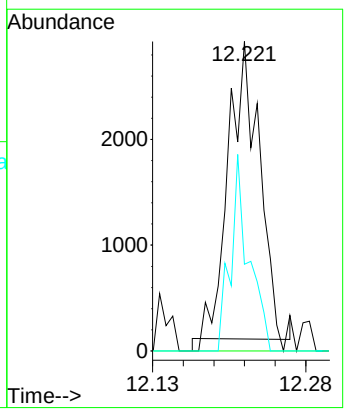




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.222 min Scan# 1859
Delta R.T. -0.009 min
Lab File: G2230610006.D
Acq: 10 Jun 2023 10:19

Tgt Ion: 91 Resp: 55124

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	39.7	0.0	56.6



1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52947WW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-19	File ID:	G2230609027.D
Sampled:	05/29/23 11:50	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 19:45
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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

52947WW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-19	File ID:	G2230609027.D
Sampled:	05/29/23 11:50	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 19:45
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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

52947WW57

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-19	File ID:	G2230609027.D
Sampled:	05/29/23 11:50	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 19:45
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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	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	1.42	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609027.D
Acq On : 09 Jun 2023 19:45
Operator : PO1/MP3
Sample : 23E0775-19
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 10 08:32:17 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

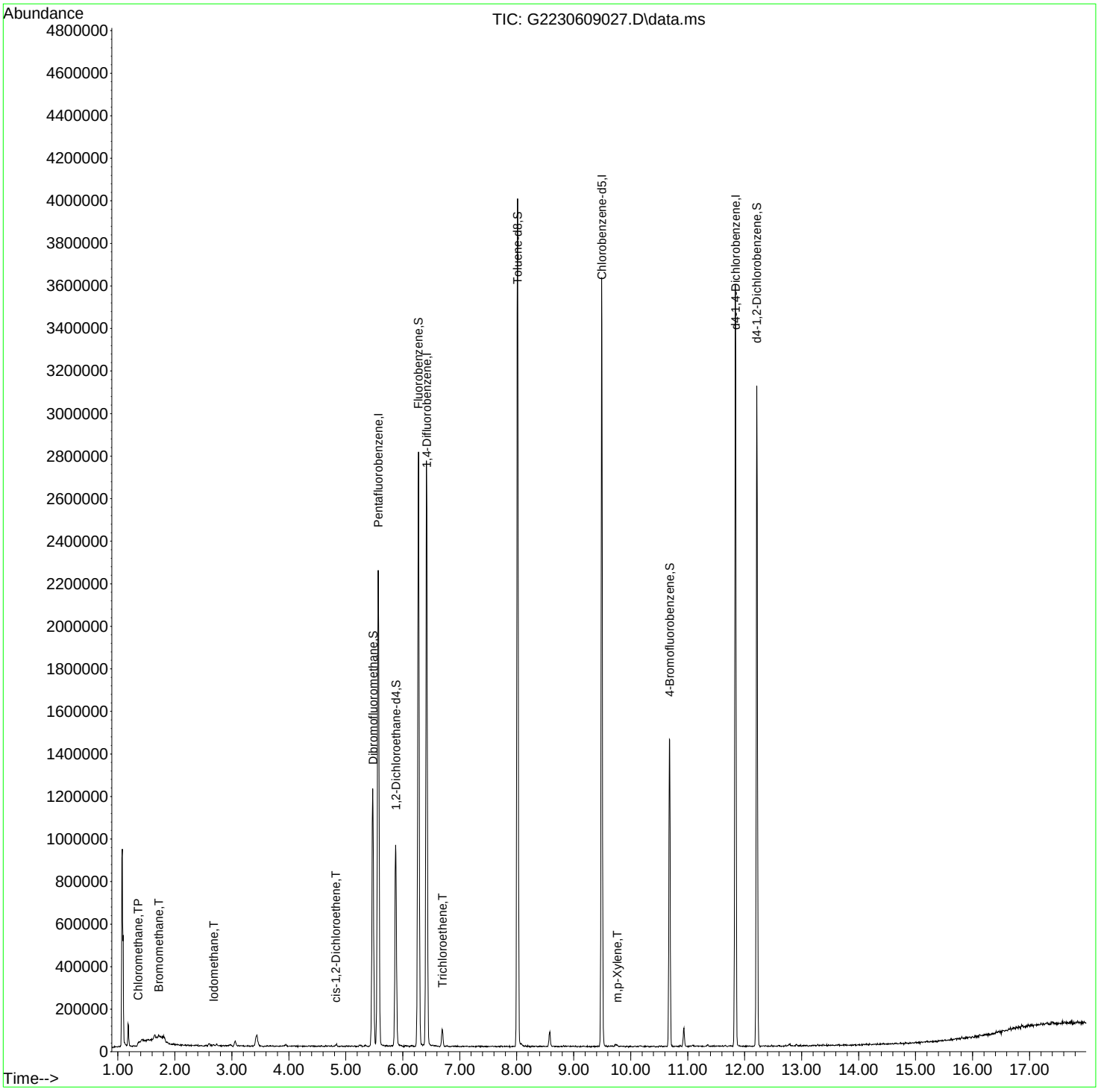
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	17882061	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	24102416	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	21254853	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10174855	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7530351	19.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.70%				
43) 1,2-Dichloroethane-d4	5.877	65	6704078	17.24	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 86.20%				
49) Fluorobenzene	6.277	96	26628569	19.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%				
64) Toluene-d8	8.016	98	25837844	19.29	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%				
81) 4-Bromofluorobenzene	10.685	174	4694244	9.77	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%				
97) d4-1,2-Dichlorobenzene	12.217	152	8829540	20.18	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.90%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	42986	0.04	ug/L	#	41
5) Bromomethane	1.716	94	81688m	0.09	ug/L		
12) Acetone	2.606	43	133639	Below Cal			95
13) Iodomethane	2.680	142	73797	0.18	ug/L	#	41
18) Methylene chloride	3.059	49	115246	Below Cal		#	65
21) Methyl tert-butyl ether	3.440	73	741197	Below Cal			95
28) cis-1,2-Dichloroethene	4.828	61	44417	0.01	ug/L	#	69
50) Trichloroethene	6.694	95	251783	0.71	ug/L		93
65) Toluene	8.082	91	35330	Below Cal		#	30
75) m,p-Xylene	9.764	91	45441	0.04	ug/L	#	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609027.D
Acq On : 09 Jun 2023 19:45
Operator : PO1/MP3
Sample : 23E0775-19
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 10 08:32:17 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609027.D
Acq On : 09 Jun 2023 19:45
Operator : PO1/MP3
Sample : 23E0775-19
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 10 08:32:17 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

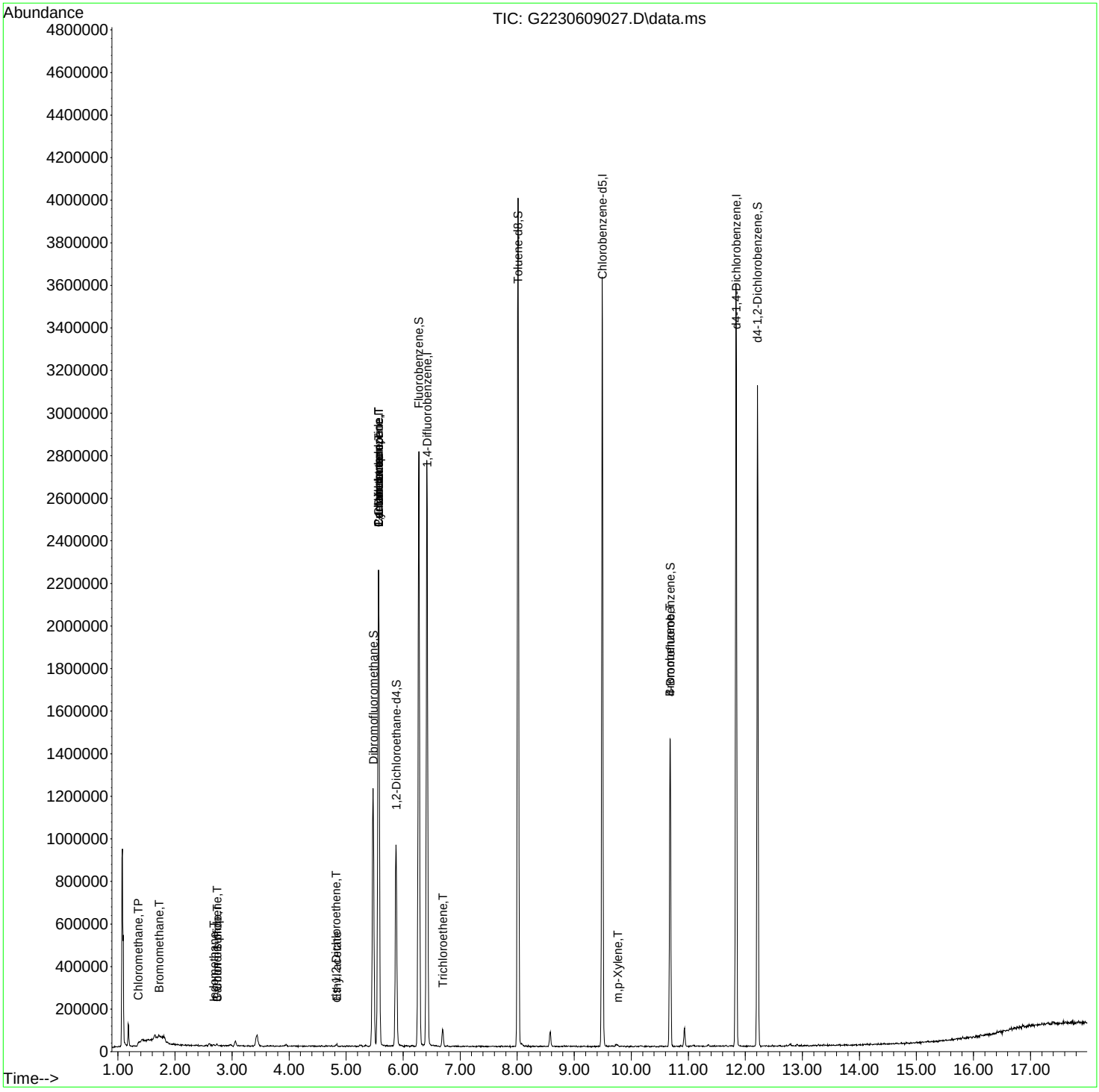
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17882061	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	24102416	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	21254853	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10174855	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7530351	19.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.70%			
43) 1,2-Dichloroethane-d4	5.877	65	6704078	17.24	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 86.20%			
49) Fluorobenzene	6.277	96	26628569	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
64) Toluene-d8	8.016	98	25837844	19.29	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.45%			
81) 4-Bromofluorobenzene	10.685	174	4694244	9.77	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.70%			
97) d4-1,2-Dichlorobenzene	12.217	152	8829540	20.18	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.90%			
Target Compounds						Qvalue
3) Chloromethane	1.355	50	42986	0.04	ug/L #	41
5) Bromomethane	1.721	94	70996	0.05	ug/L #	63
12) Acetone	2.606	43	133639	Below Cal		95
13) Iodomethane	2.680	142	73797	0.18	ug/L #	41
14) Carbon disulfide	2.739	76	123165	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.739	76	123165	0.61	ug/L #	53
18) Methylene chloride	3.059	49	115246	Below Cal	#	65
21) Methyl tert-butyl ether	3.440	73	741197	Below Cal		95
28) cis-1,2-Dichloroethene	4.828	61	44417	0.01	ug/L #	69
31) Ethyl acetate	4.837	61	41011	0.54	ug/L #	45
40) Cyclohexane	5.569	84	385183	0.80	ug/L #	31
41) 1-Chlorobutane	5.567	56	227359	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.570	75	951167	2.27	ug/L #	38
47) Carbon tetrachloride	5.570	117	1430768	3.29	ug/L #	17
50) Trichloroethene	6.694	95	251783	0.71	ug/L	93
60) 4-Methyl-2-pentanone	8.012	43	80465	Below Cal	#	1
65) Toluene	8.082	91	35330	Below Cal	#	30
74) Ethylbenzene	9.765	91	44943	Below Cal	#	44
75) m,p-Xylene	9.764	91	45441	0.04	ug/L #	36
82) Bromobenzene	10.680	77	23587	0.04	ug/L #	1
99) n-Butylbenzene	12.213	91	35921	Below Cal	#	53

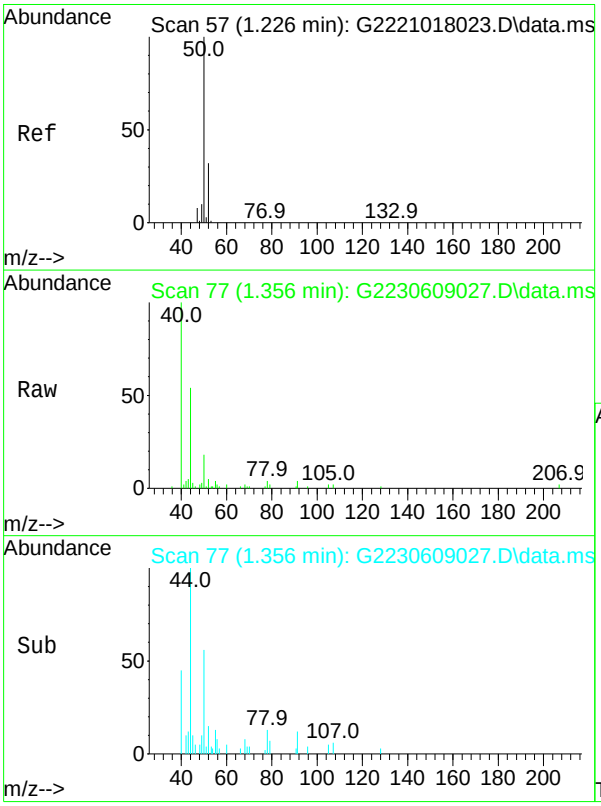
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609027.D
Acq On : 09 Jun 2023 19:45
Operator : PO1/MP3
Sample : 23E0775-19
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 10 08:32:17 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

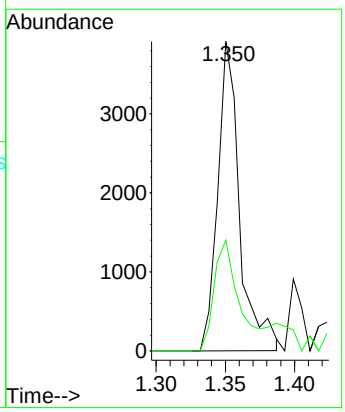


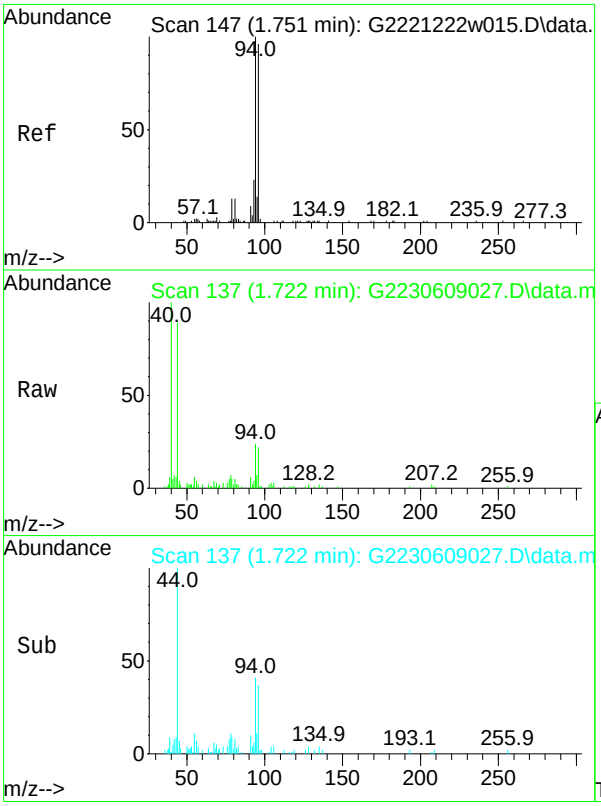


#3
Chloromethane
Concen: 0.04 ug/L
RT: 1.355 min Scan# 77
Delta R.T. 0.001 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 50 Resp: 42986

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

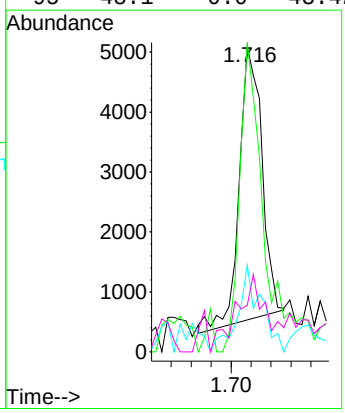


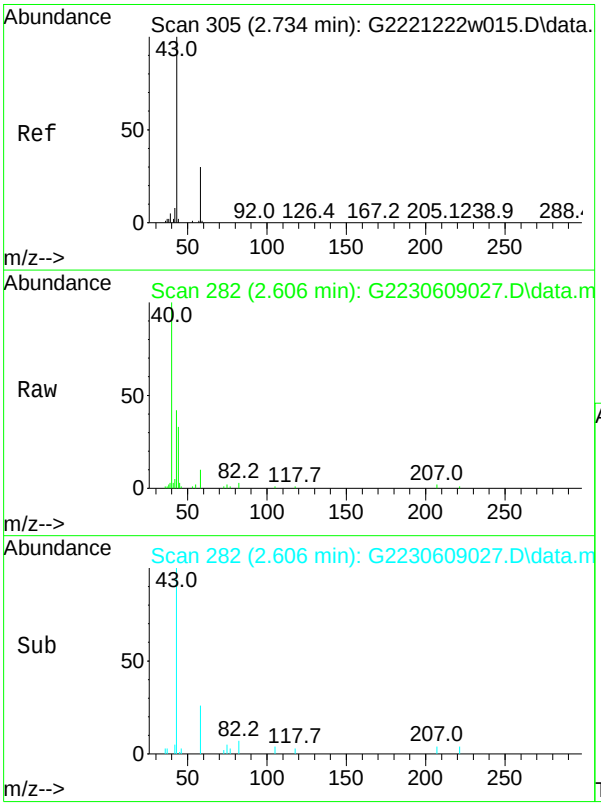


#5
Bromomethane
Concen: 0.05 ug/L
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 94 Resp: 70996

Ion	Ratio	Lower	Upper
94	100		
96	124.0	65.6	125.6
93	0.0	0.0	49.5
95	48.1	0.0	43.4#

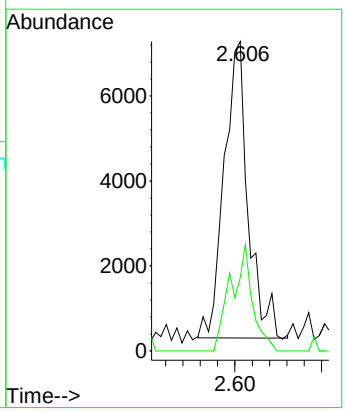


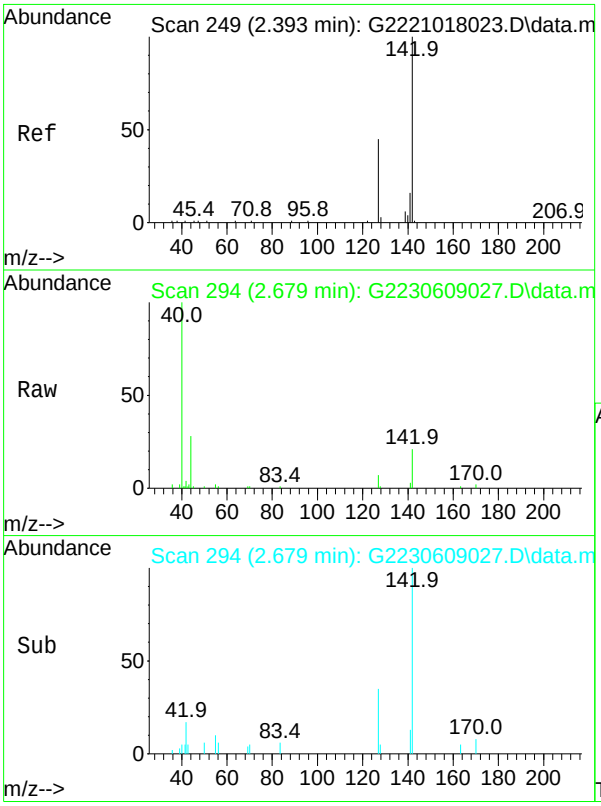


#12
Acetone
Concen: Below Cal
RT: 2.606 min Scan# 282
Delta R.T. -0.002 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 43 Resp: 133639

Ion	Ratio	Lower	Upper
43	100		
58	32.6	0.0	59.7

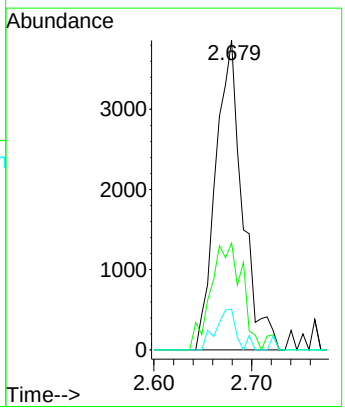


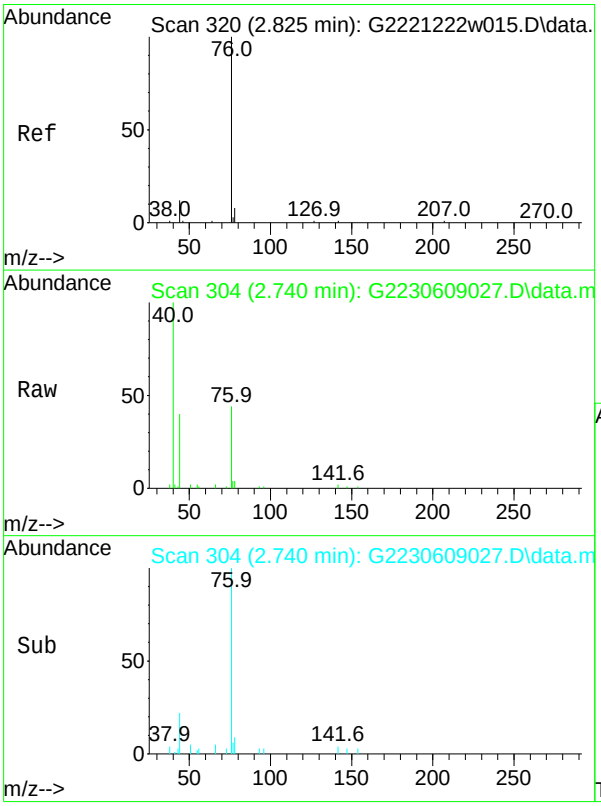


#13
Iodomethane
Concen: 0.18 ug/L
RT: 2.680 min Scan# 294
Delta R.T. 0.004 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion:142 Resp: 73797

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

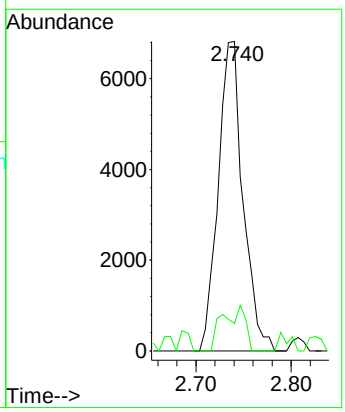


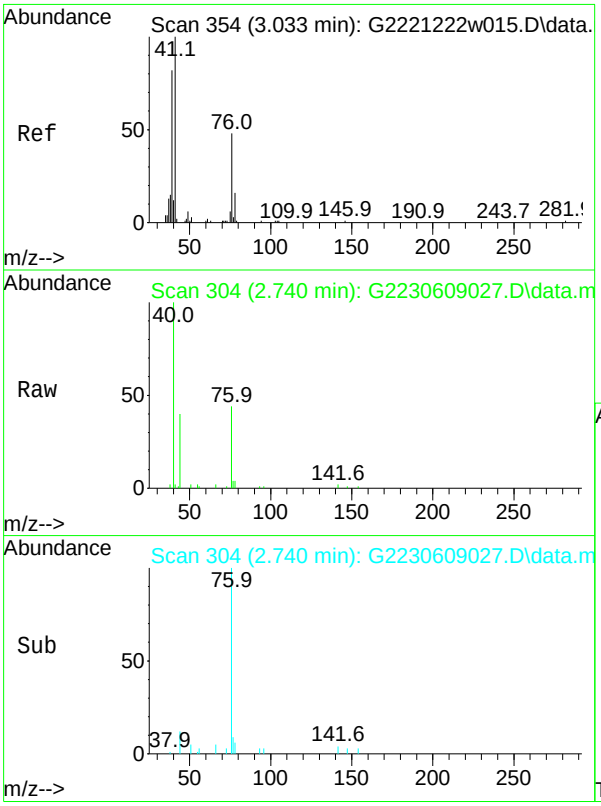


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.000 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 76 Resp: 123165

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

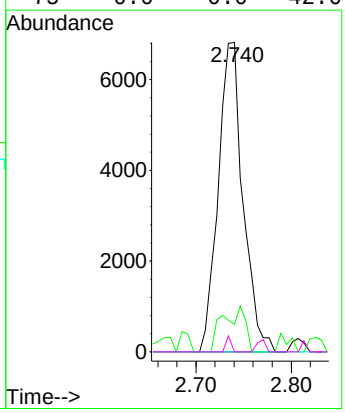


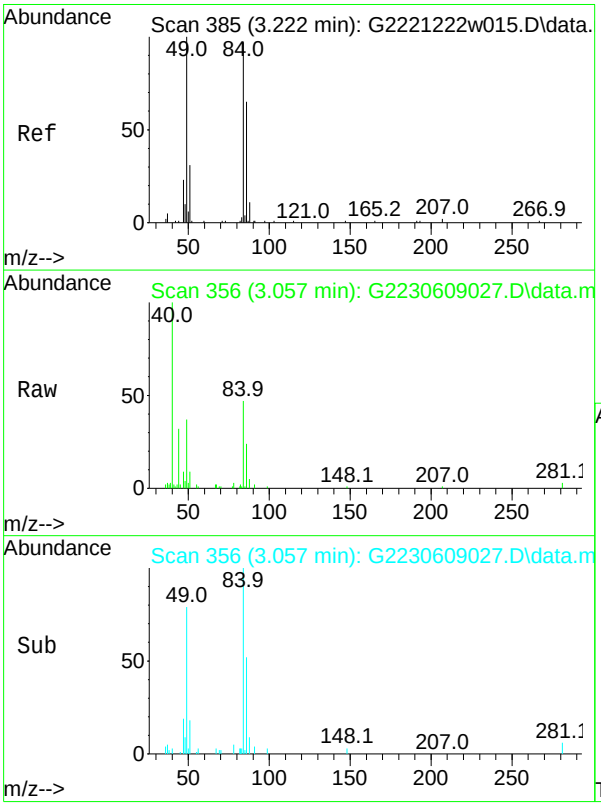


#17
3-Chloro-1-propene
Concen: 0.61 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.181 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 76 Resp: 123165

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

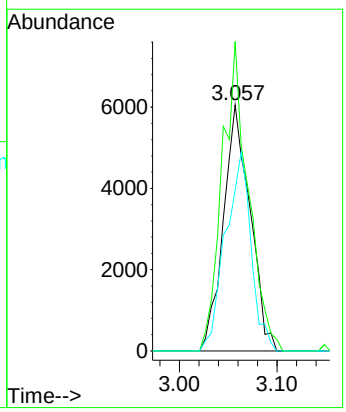


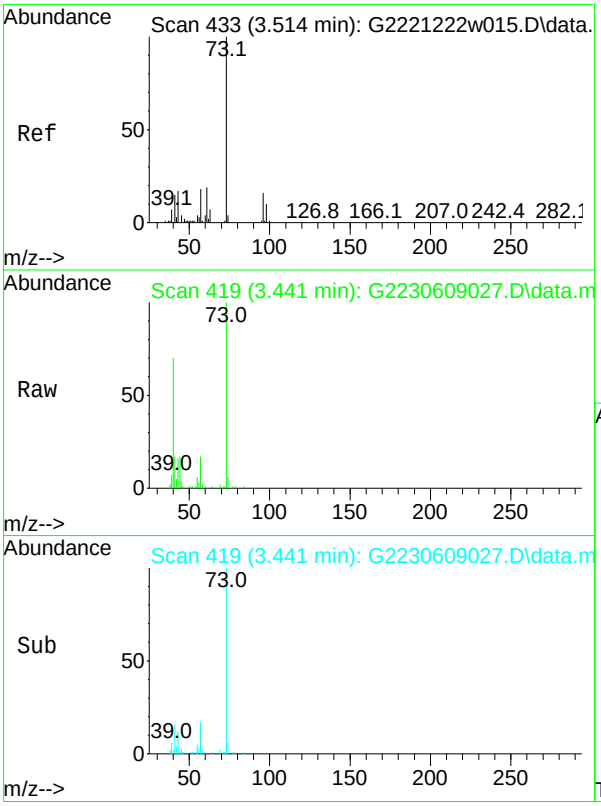


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 49 Resp: 115246

Ion	Ratio	Lower	Upper
49	100		
84	122.9	57.9	117.9#
86	77.6	24.9	84.9

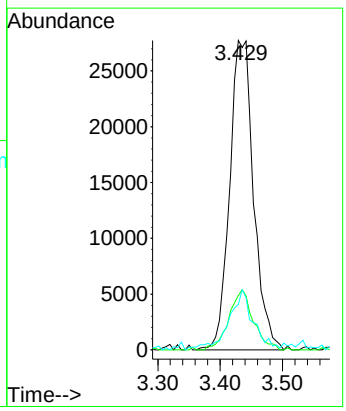


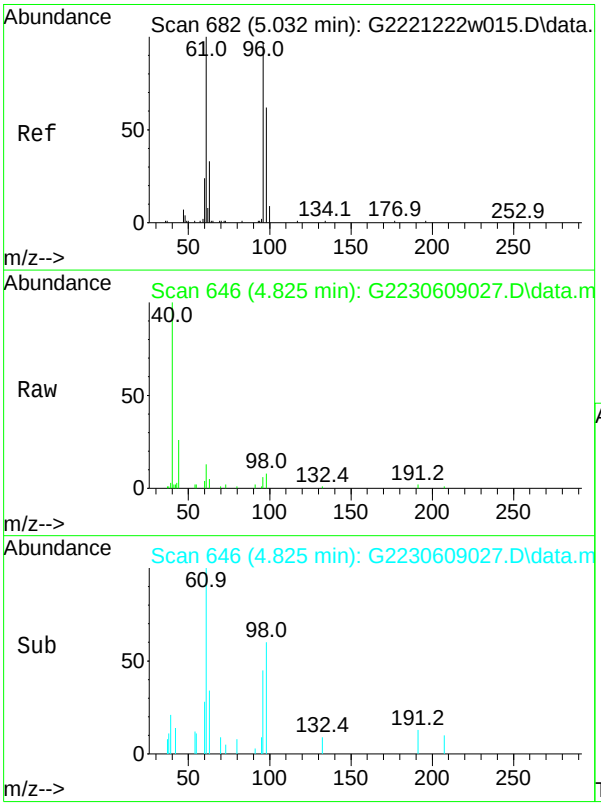


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.440 min Scan# 419
Delta R.T. -0.006 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 73 Resp: 741197

Ion	Ratio	Lower	Upper
73	100		
57	19.7	0.0	51.7
41	18.2	0.0	50.6

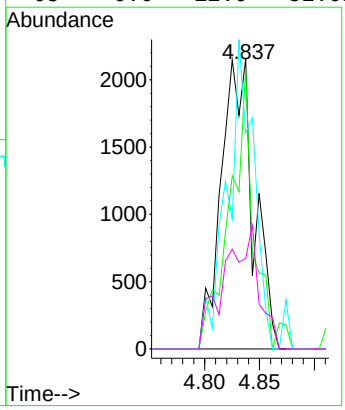


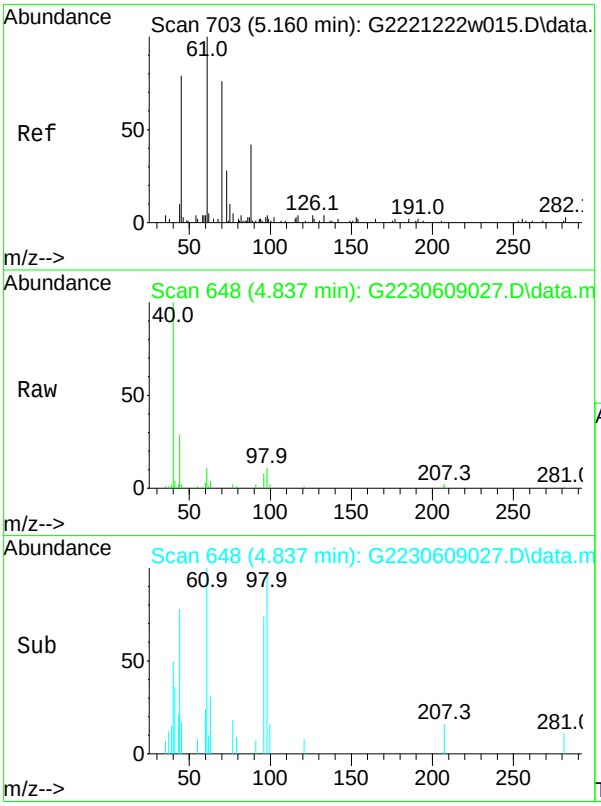


#28
cis-1,2-Dichloroethene
Concen: 0.01 ug/L
RT: 4.828 min Scan# 646
Delta R.T. -0.008 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 61 Resp: 44417

Ion	Ratio	Lower	Upper
61	100		
98	71.9	15.9	75.9
96	81.1	39.6	99.6
63	0.0	12.0	52.0#

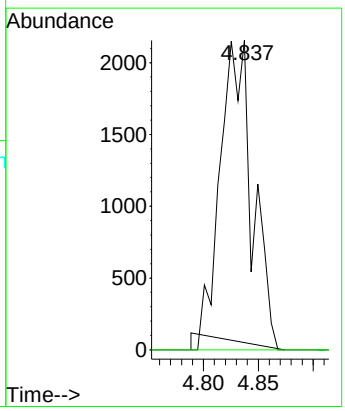


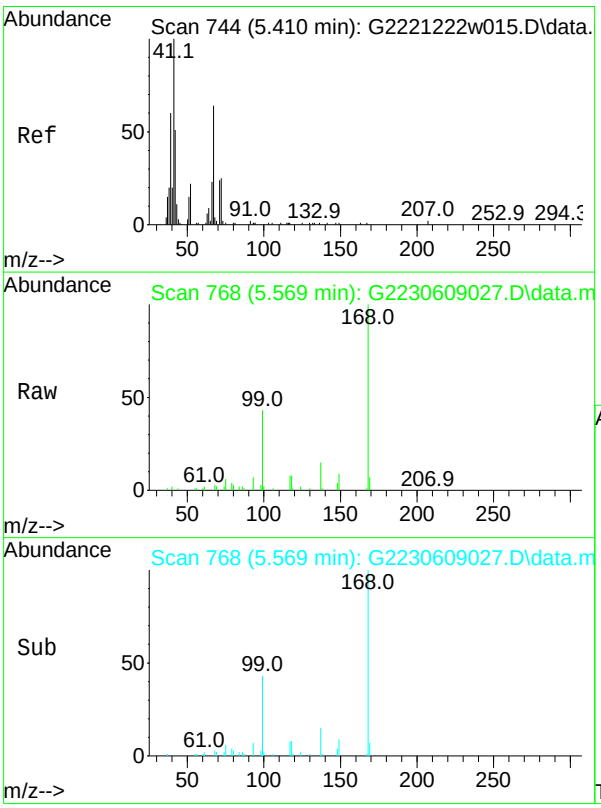


#31
Ethyl acetate
Concen: 0.54 ug/L
RT: 4.837 min Scan# 648
Delta R.T. -0.185 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 61 Resp: 41011

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

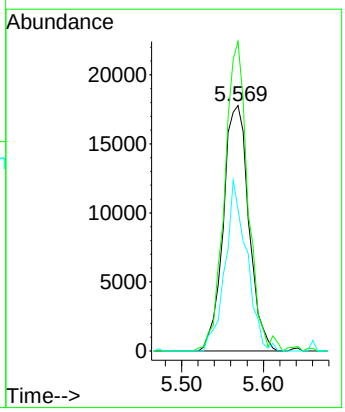


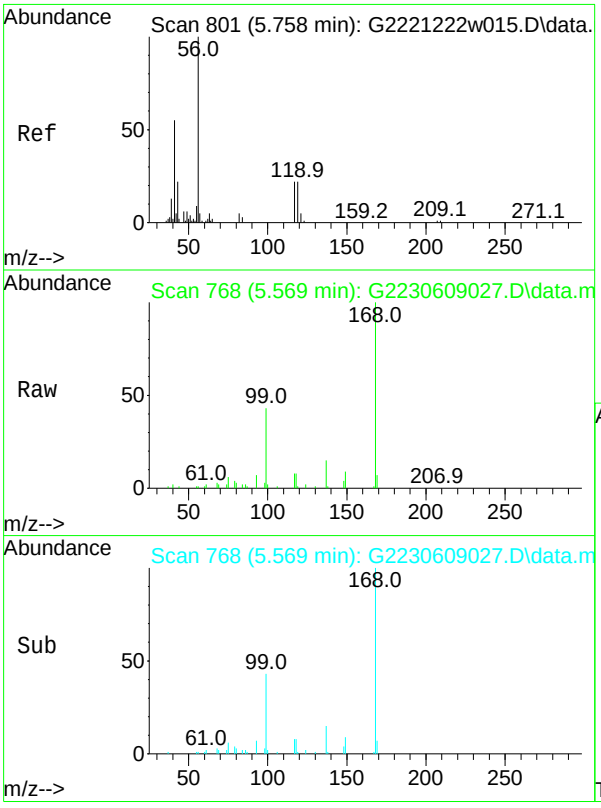


#40
Cyclohexane
Concen: 0.80 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 84 Resp: 385183

Ion	Ratio	Lower	Upper
84	100		
69	115.0	6.8	66.8#
56	59.0	79.1	139.1#

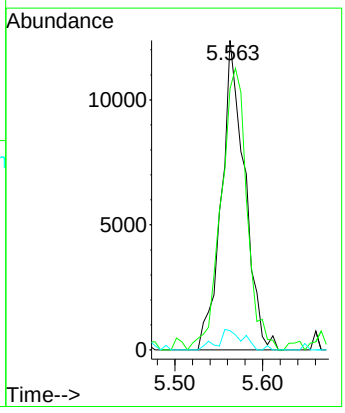


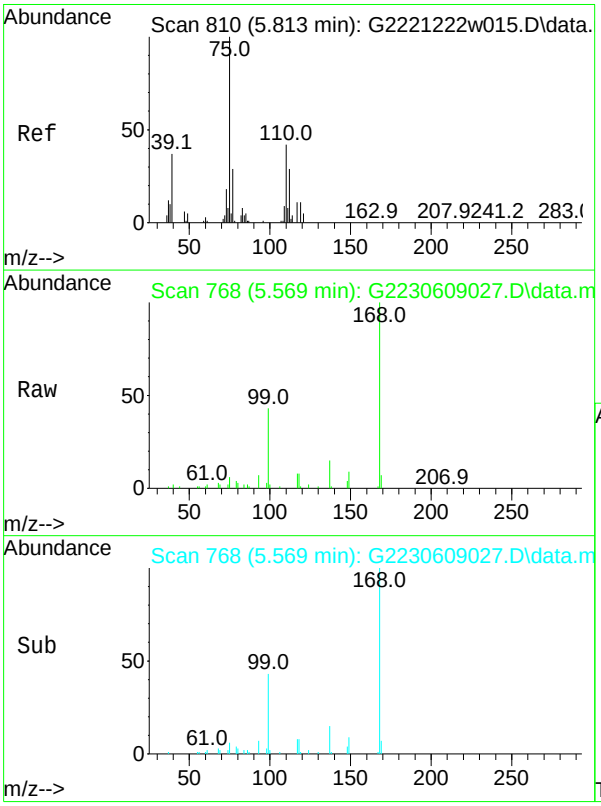


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 56 Resp: 227359

Ion	Ratio	Lower	Upper
56	100		
55	100.6	0.0	41.0#
57	0.0	0.0	35.7

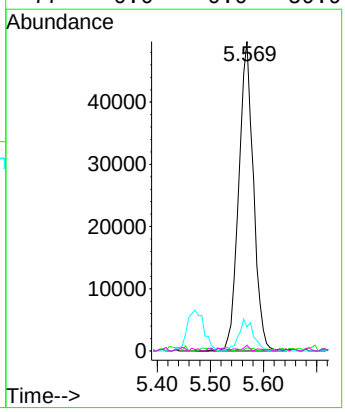


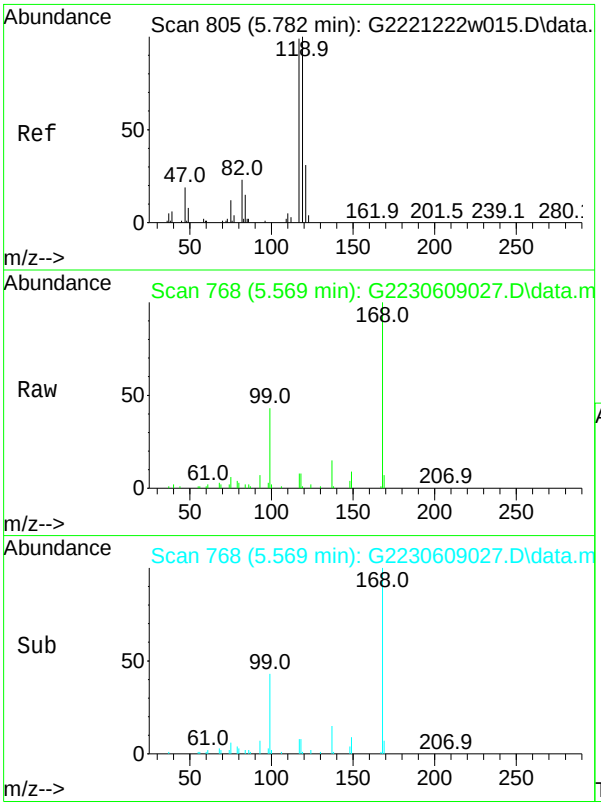


#42
1,1-Dichloropropene
Concen: 2.27 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 75 Resp: 951167

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

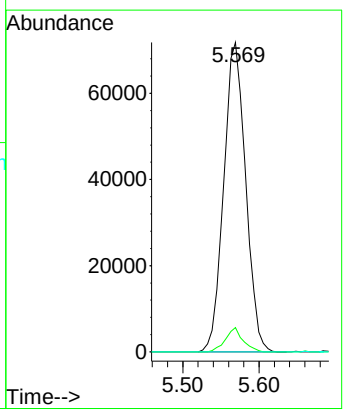


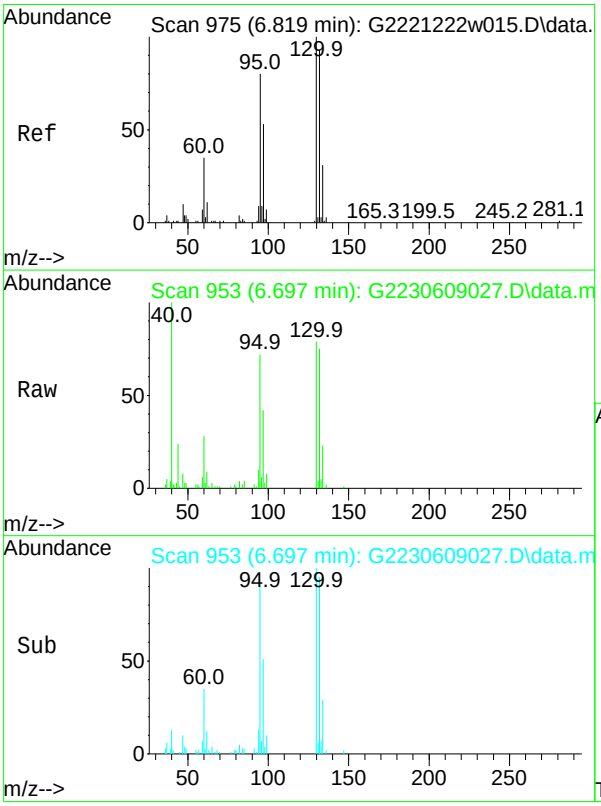


#47
Carbon tetrachloride
Concen: 3.29 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion:117 Resp: 1430768

Ion	Ratio	Lower	Upper
117	100		
119	6.2	66.4	126.4#
121	0.0	0.4	60.4#

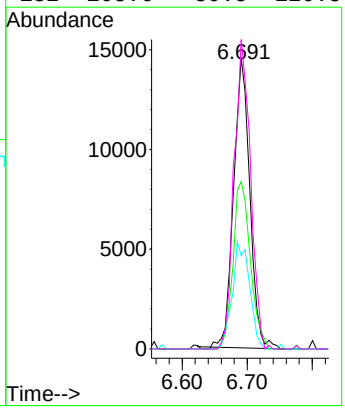


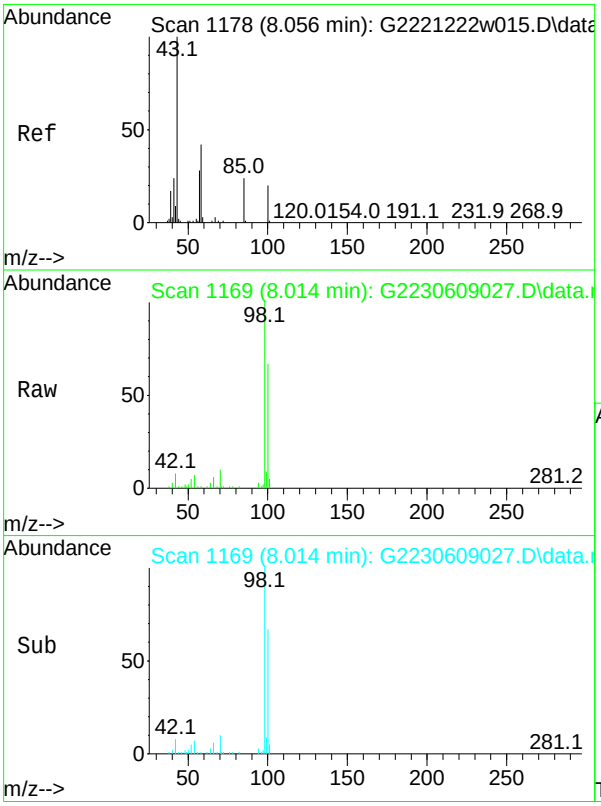


#50
Trichloroethene
Concen: 0.71 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 95 Resp: 251783

Ion	Ratio	Lower	Upper
95	100		
97	62.0	35.5	95.5
60	39.6	14.8	74.8
132	108.6	80.5	120.5

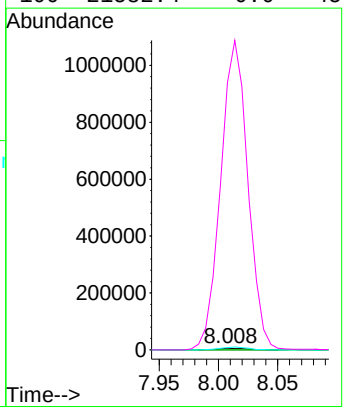


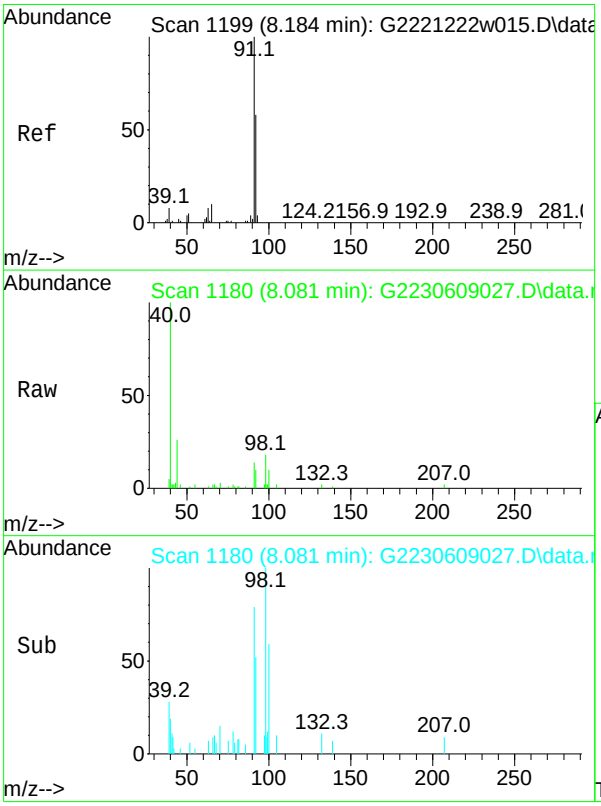


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 43 Resp: 80465

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	194.0	37.0	37.0#
100	21582.4	0.0	45.2#

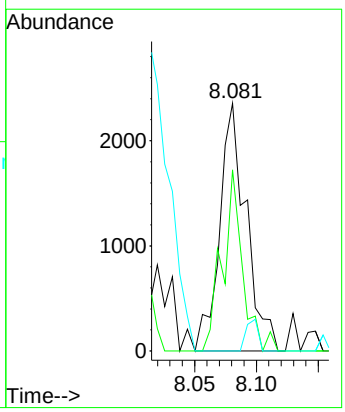


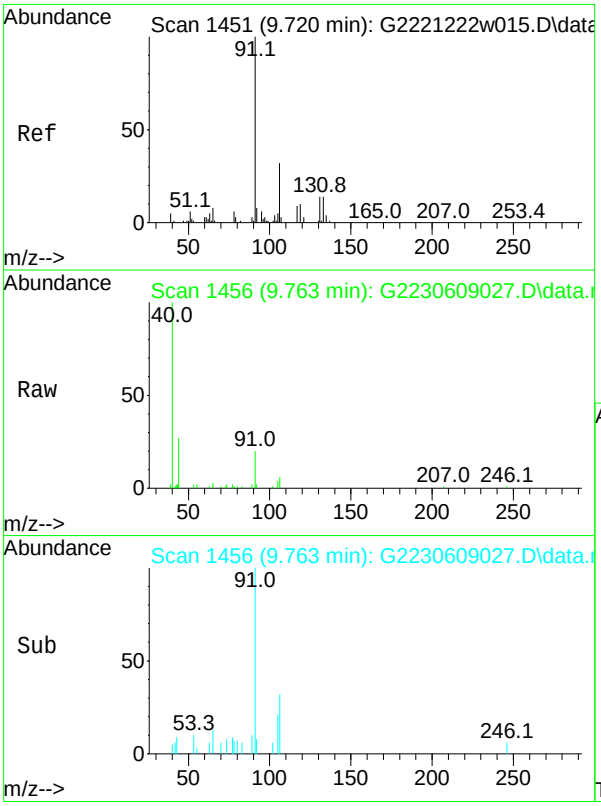


#65
Toluene
Concen: Below Cal
RT: 8.082 min Scan# 1180
Delta R.T. -0.004 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 91 Resp: 35330

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

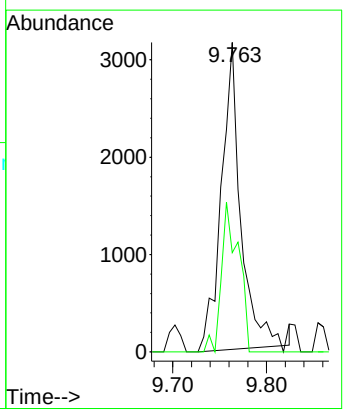


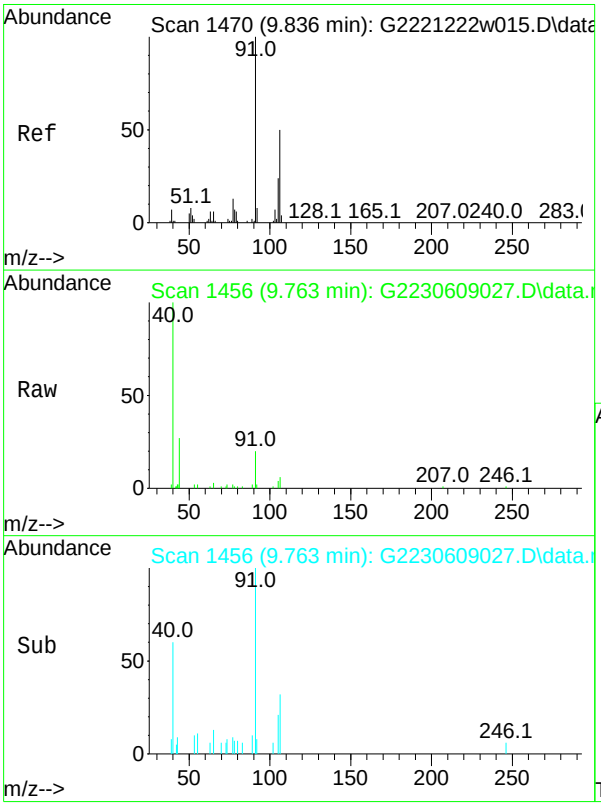


#74
Ethylbenzene
Concen: Below Cal
RT: 9.765 min Scan# 1456
Delta R.T. 0.122 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 91 Resp: 44943

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

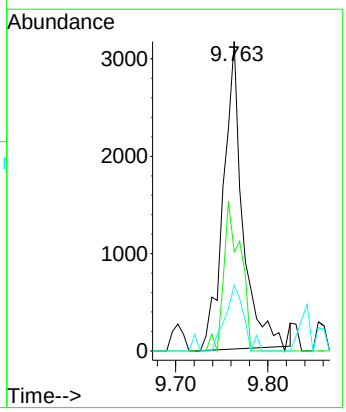


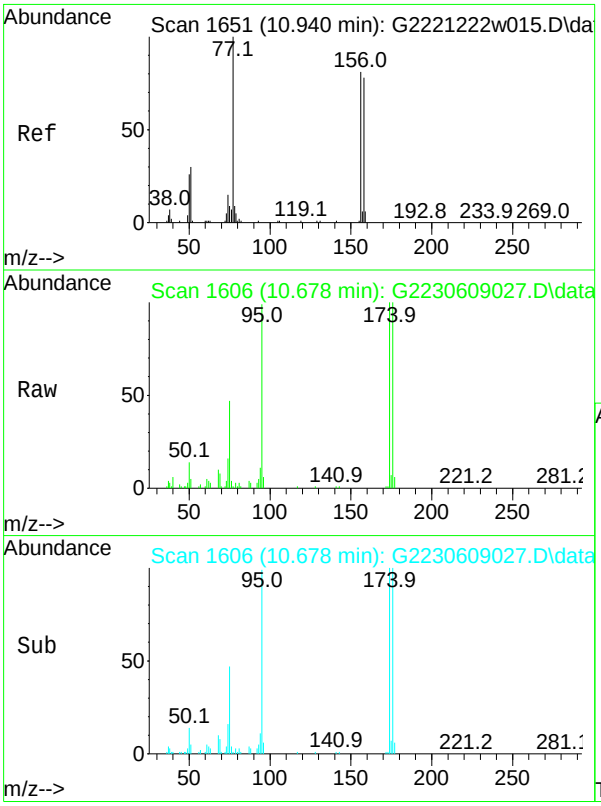


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. 0.000 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 91 Resp: 45441

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

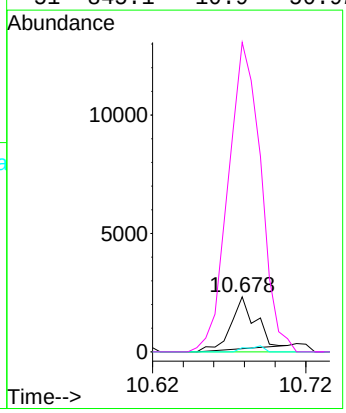


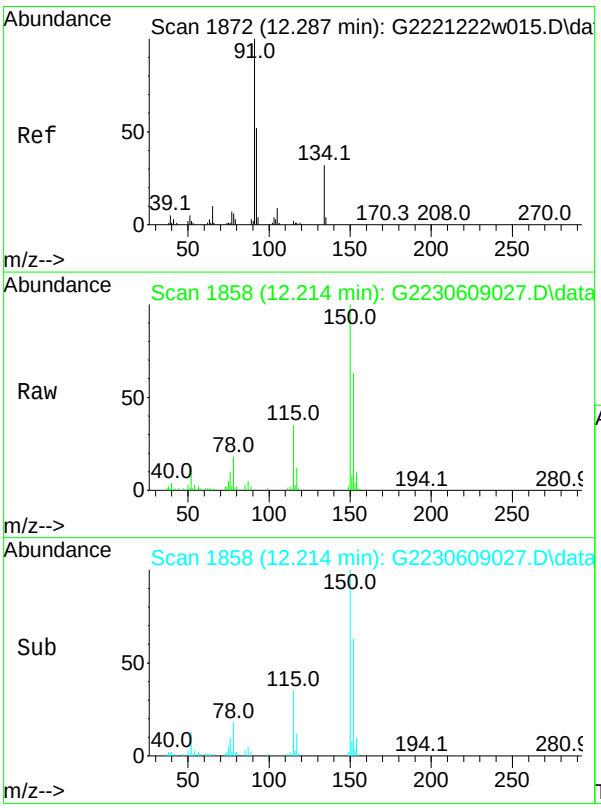


#82
Bromobenzene
Concen: 0.04 ug/L
RT: 10.680 min Scan# 1606
Delta R.T. -0.148 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 77 Resp: 23587

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	845.1	10.9	50.9#

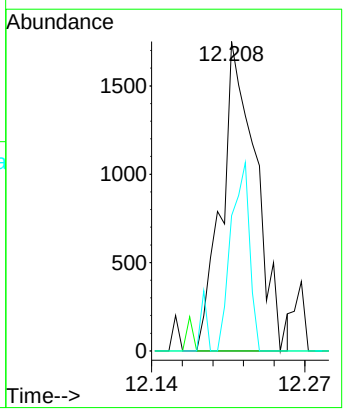




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.213 min Scan# 1858
Delta R.T. -0.018 min
Lab File: G2230609027.D
Acq: 09 Jun 2023 19:45

Tgt Ion: 91 Resp: 35921

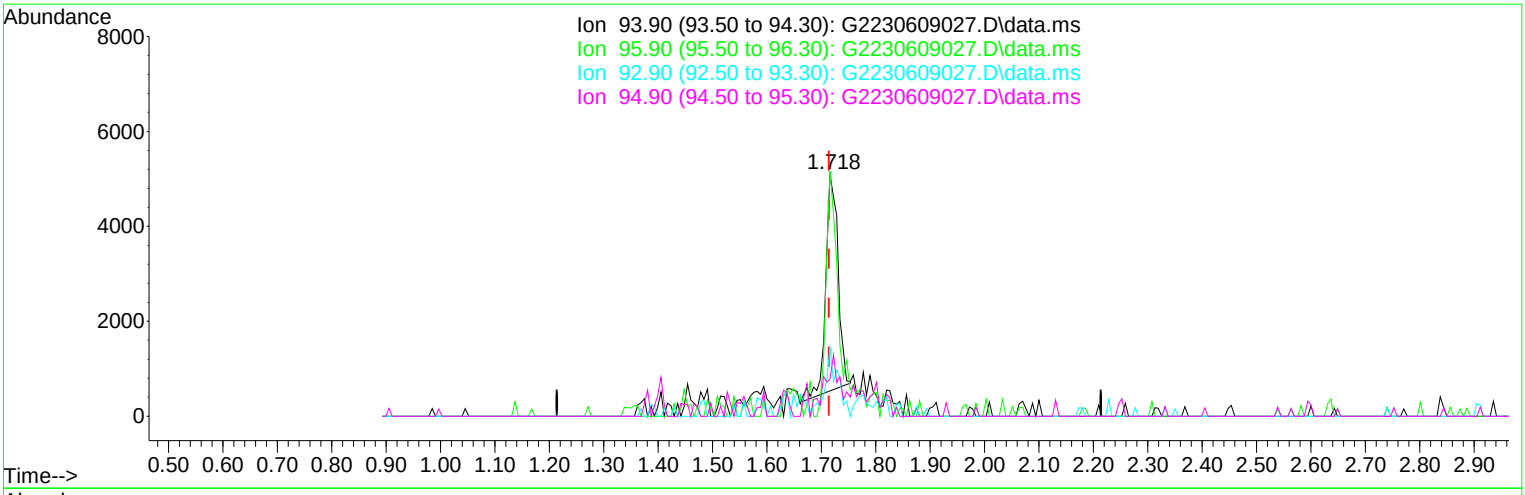
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

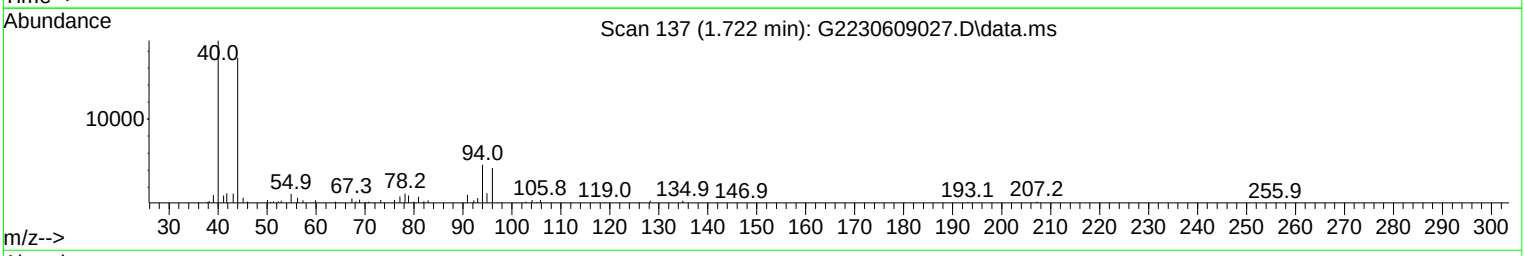


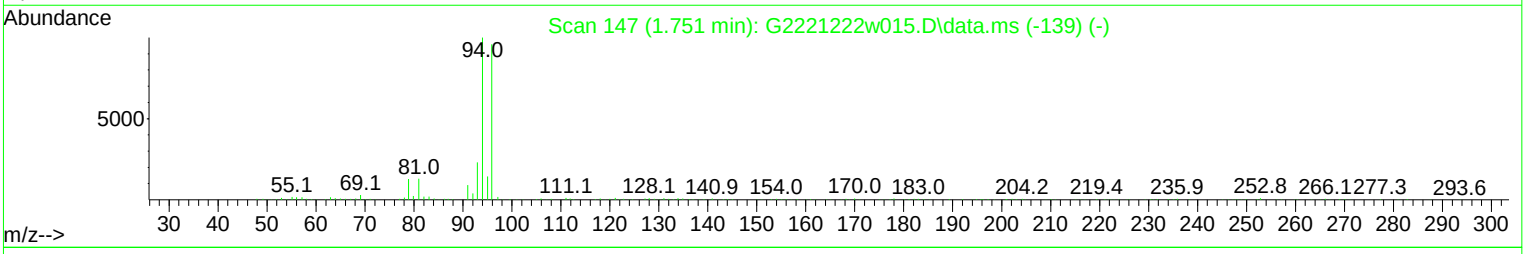
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609027.D
Acq On : 09 Jun 2023 19:45
Operator : PO1/MP3
Sample : 23E0775-19
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 10 08:32:17 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: G2230609027.D\data.ms

(5) Bromomethane (T)

1.721min (+ 0.007) 0.05 ug/L

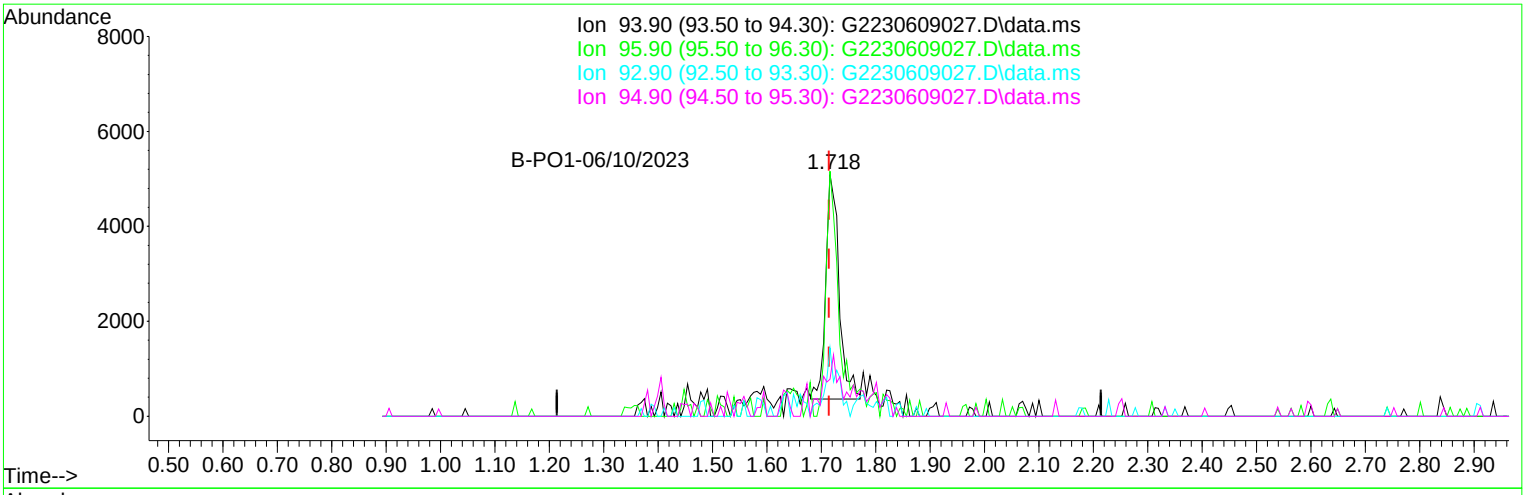
response 70996

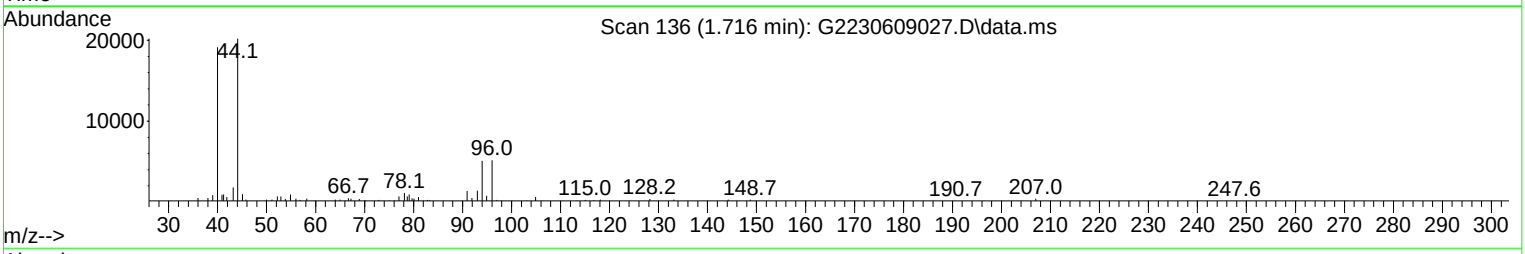
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	123.95
92.90	19.50	0.00
94.90	13.40	48.11#

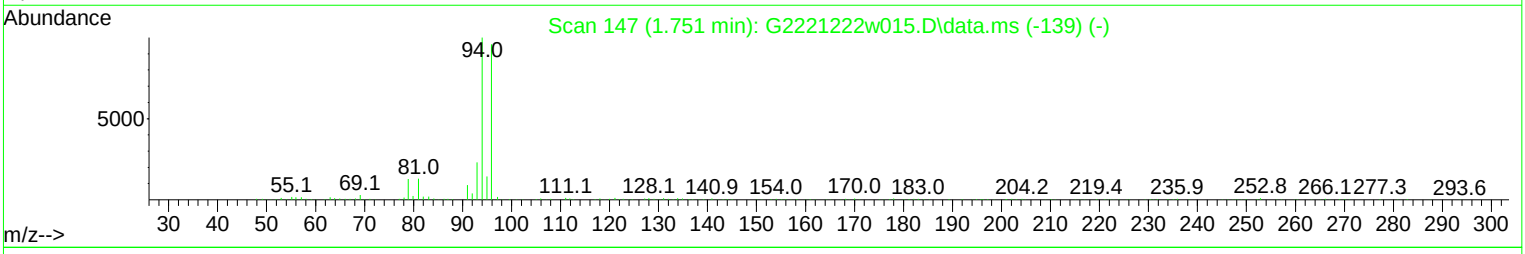
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609027.D
Acq On : 09 Jun 2023 19:45
Operator : PO1/MP3
Sample : 23E0775-19
Misc : 2
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jun 10 08:32:17 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: G2230609027.D\data.ms

(5) Bromomethane (T)

1.716min (+ 0.002) 0.09 ug/L m

response 81688

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	107.73
92.90	19.50	0.00
94.90	13.40	41.82

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

528LHSMW55R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-20	File ID:	G2230609028.D
Sampled:	05/28/23 10:12	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 20:10
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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

528LHSMW55R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-20	File ID:	G2230609028.D
Sampled:	05/28/23 10:12	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 20:10
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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

528LHSMW55R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-20	File ID:	G2230609028.D
Sampled:	05/28/23 10:12	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 20:10
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609028.D
Acq On : 09 Jun 2023 20:10
Operator : PO1/MP3
Sample : 23E0775-20
Misc : 2
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 10 08:34:12 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

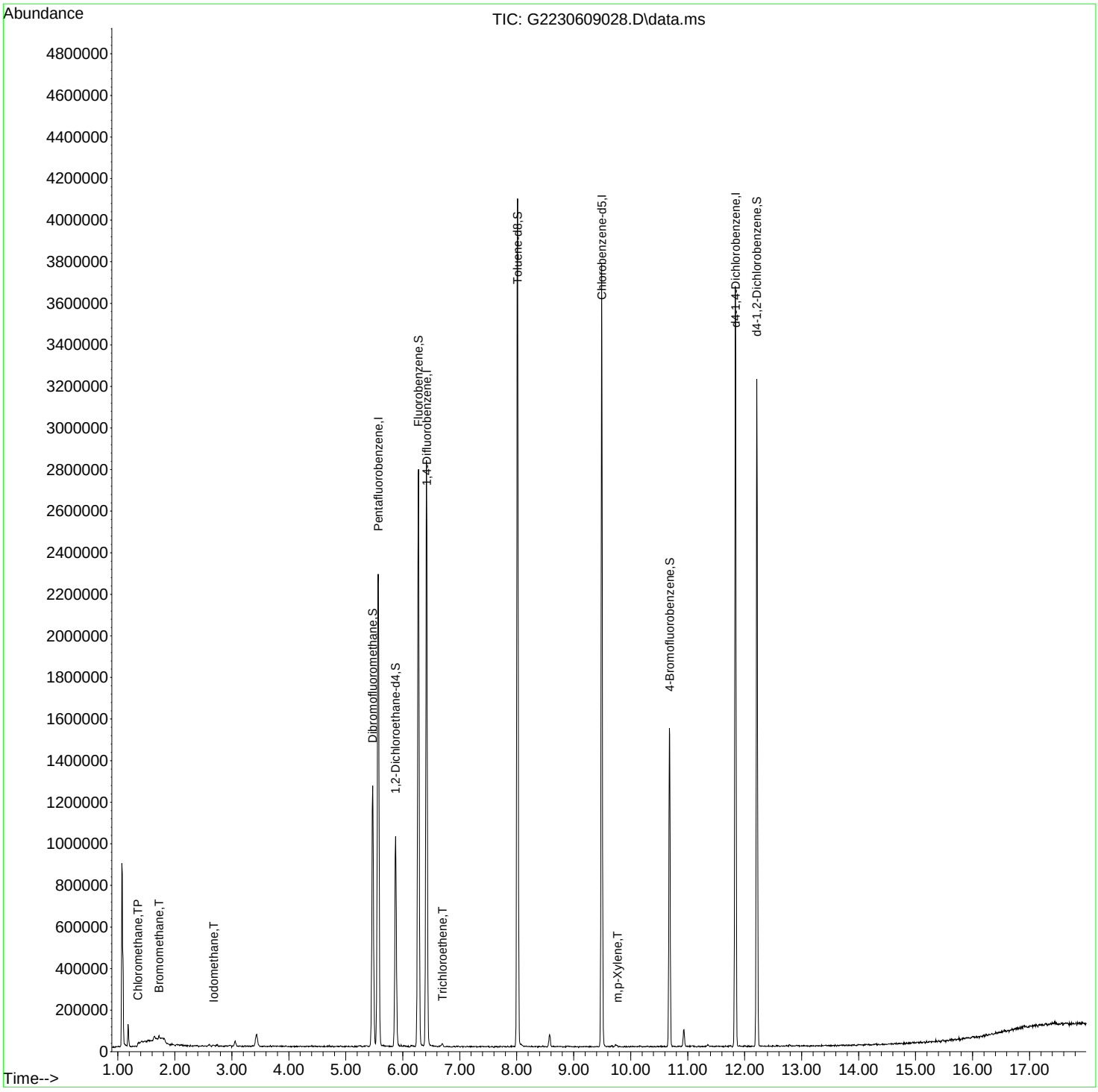
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	18542217	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	24608830	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	21974037	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10230199	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7818276	19.16	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.80%			
43) 1,2-Dichloroethane-d4	5.876	65	7196671	17.85	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.25%			
49) Fluorobenzene	6.276	96	27332240	19.49	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%			
64) Toluene-d8	8.015	98	26793243	19.34	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.70%			
81) 4-Bromofluorobenzene	10.684	174	4951079	10.25	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.50%			
97) d4-1,2-Dichlorobenzene	12.217	152	9033742	20.53	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.65%			
Target Compounds						Qvalue
3) Chloromethane	1.351	50	32872	0.00	ug/L #	41
5) Bromomethane	1.721	94	97213	0.15	ug/L #	81
13) Iodomethane	2.677	142	69685	0.16	ug/L #	41
18) Methylene chloride	3.059	49	129702	Below Cal		90
21) Methyl tert-butyl ether	3.436	73	771824	Below Cal		97
50) Trichloroethene	6.698	95	46950	0.06	ug/L #	59
65) Toluene	8.080	91	31659	Below Cal	#	30
75) m,p-Xylene	9.768	91	32523	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609028.D
Acq On : 09 Jun 2023 20:10
Operator : PO1/MP3
Sample : 23E0775-20
Misc : 2
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 10 08:34:12 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609028.D
Acq On : 09 Jun 2023 20:10
Operator : PO1/MP3
Sample : 23E0775-20
Misc : 2
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 10 08:34:12 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

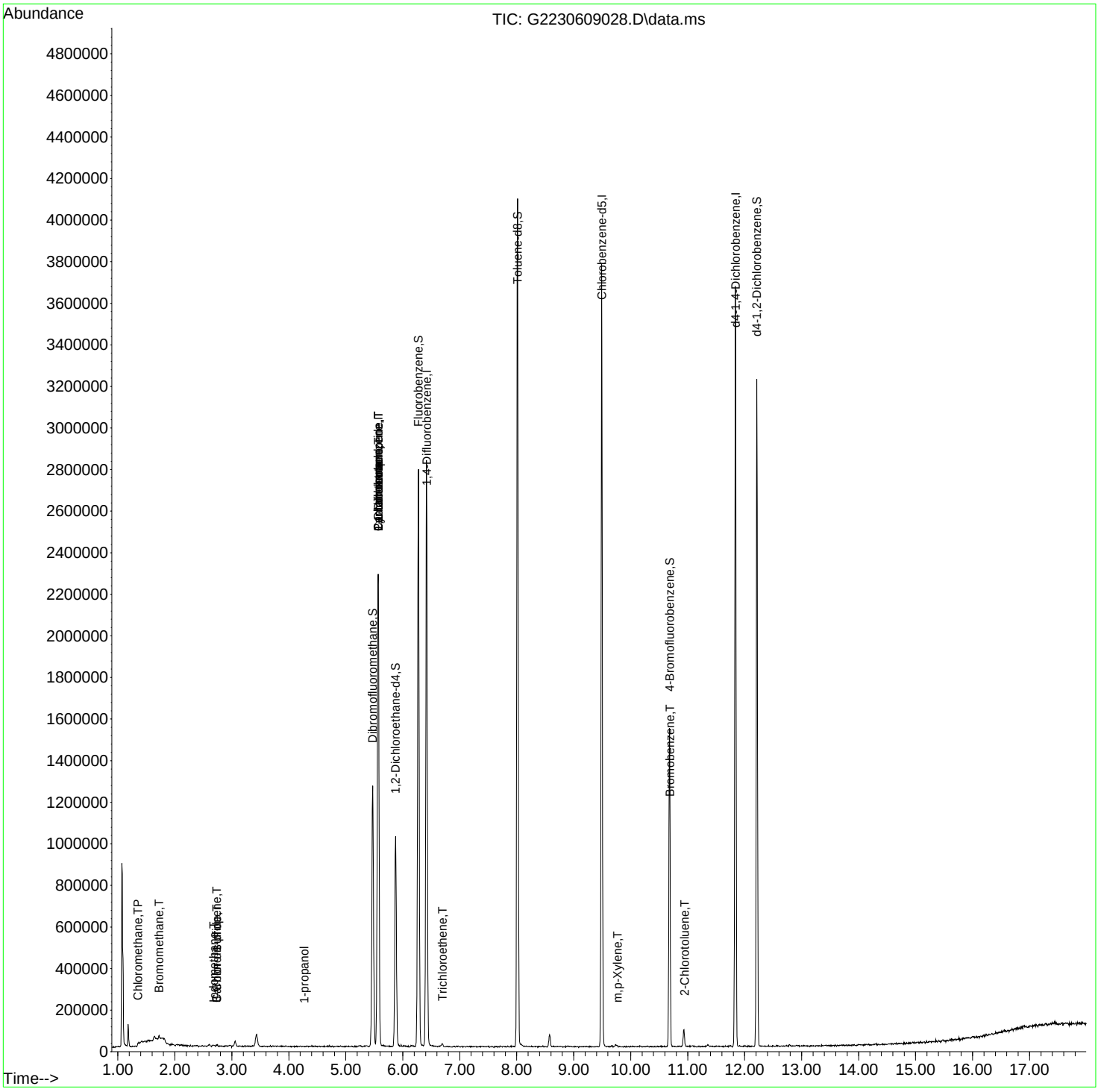
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	18542217	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	24608830	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	21974037	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10230199	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7818276	19.16	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.80%			
43) 1,2-Dichloroethane-d4	5.876	65	7196671	17.85	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.25%			
49) Fluorobenzene	6.276	96	27332240	19.49	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%			
64) Toluene-d8	8.015	98	26793243	19.34	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.70%			
81) 4-Bromofluorobenzene	10.684	174	4951079	10.25	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 102.50%			
97) d4-1,2-Dichlorobenzene	12.217	152	9033742	20.53	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.65%			
Target Compounds						Qvalue
3) Chloromethane	1.351	50	32872	0.00	ug/L #	41
5) Bromomethane	1.721	94	97213	0.15	ug/L #	81
12) Acetone	2.599	43	87608	Below Cal	#	45
13) Iodomethane	2.677	142	69685	0.16	ug/L #	41
14) Carbon disulfide	2.736	76	102294	0.03	ug/L #	74
17) 3-Chloro-1-propene	2.736	76	102294	0.47	ug/L #	53
18) Methylene chloride	3.059	49	129702	Below Cal		90
21) Methyl tert-butyl ether	3.436	73	771824	Below Cal		97
26) 1-propanol	4.273	59	638	0.33	ug/L #	100
40) Cyclohexane	5.568	84	401632	0.81	ug/L #	33
41) 1-Chlorobutane	5.572	56	240879	0.42	ug/L #	1
42) 1,1-Dichloropropene	5.569	75	981392	2.26	ug/L #	38
47) Carbon tetrachloride	5.571	117	1472485	3.32	ug/L #	16
50) Trichloroethene	6.698	95	46950	0.06	ug/L #	59
60) 4-Methyl-2-pentanone	8.011	43	78163	Below Cal	#	1
65) Toluene	8.080	91	31659	Below Cal	#	30
74) Ethylbenzene	9.768	91	32438	Below Cal	#	44
75) m,p-Xylene	9.768	91	32523	0.03	ug/L #	36
82) Bromobenzene	10.690	77	31653	0.06	ug/L #	1
87) 2-Chlorotoluene	10.948	91	12761	0.01	ug/L #	47
99) n-Butylbenzene	12.206	91	20439	Below Cal	#	53

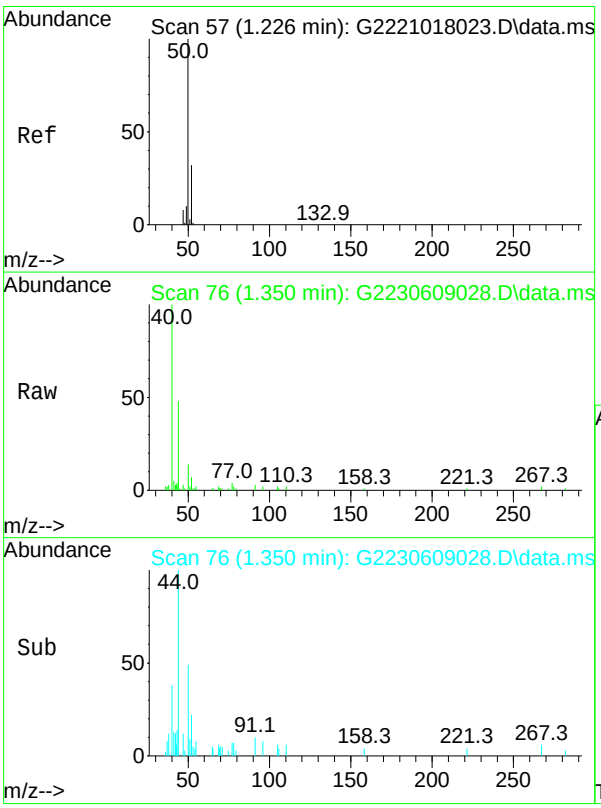
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609028.D
Acq On : 09 Jun 2023 20:10
Operator : PO1/MP3
Sample : 23E0775-20
Misc : 2
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jun 10 08:34:12 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

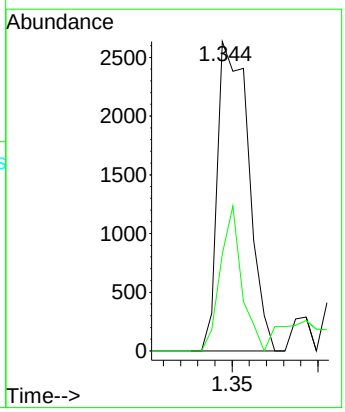


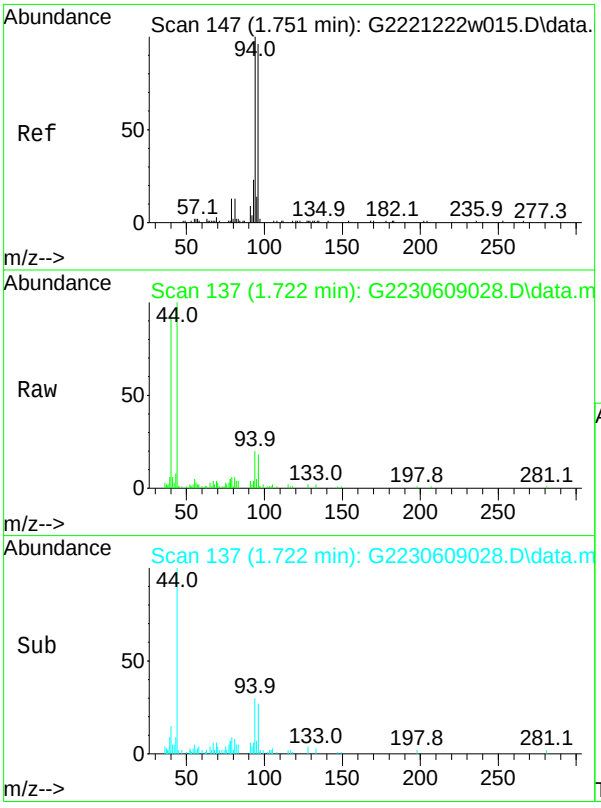


#3
Chloromethane
Concen: 0.00 ug/L
RT: 1.351 min Scan# 76
Delta R.T. -0.003 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 50 Resp: 32872

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

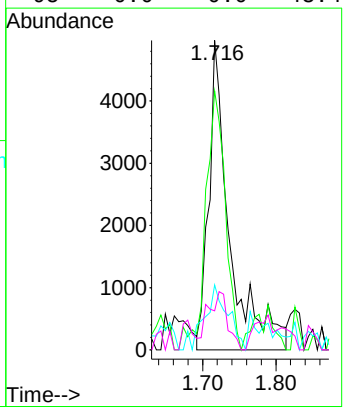


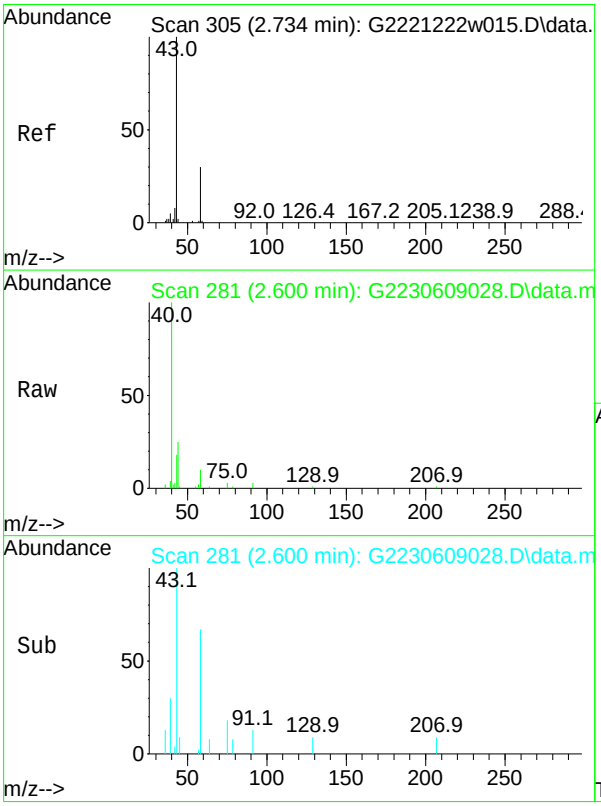


#5
Bromomethane
Concen: 0.15 ug/L
RT: 1.721 min Scan# 137
Delta R.T. 0.007 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 94 Resp: 97213

Ion	Ratio	Lower	Upper
94	100		
96	77.6	65.6	125.6
93	25.5	0.0	49.5
95	0.0	0.0	43.4

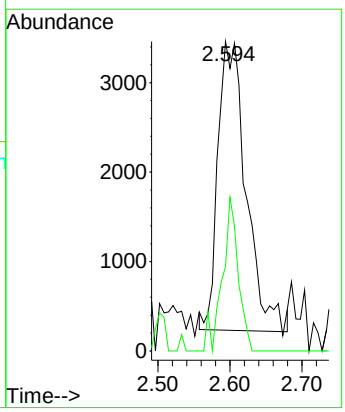


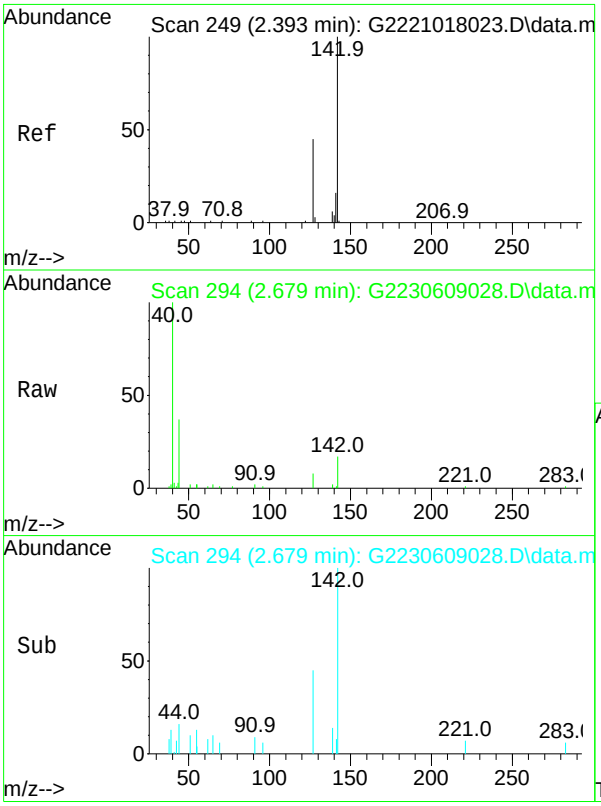


#12
Acetone
Concen: Below Cal
RT: 2.599 min Scan# 281
Delta R.T. -0.009 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 43 Resp: 87608

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

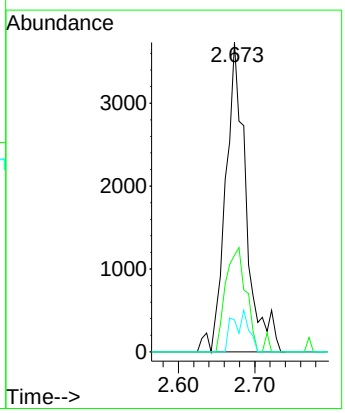


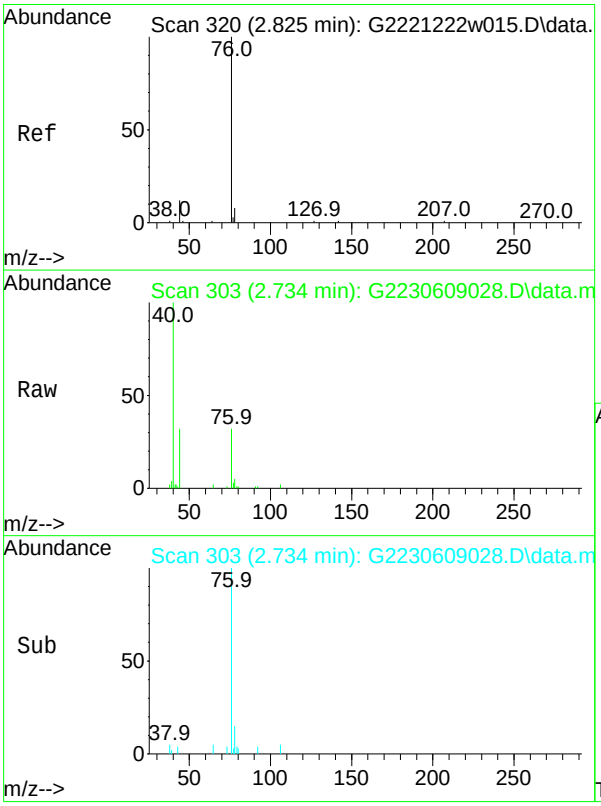


#13
Iodomethane
Concen: 0.16 ug/L
RT: 2.677 min Scan# 294
Delta R.T. 0.001 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion:142 Resp: 69685

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

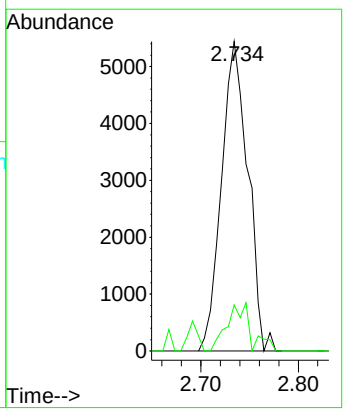


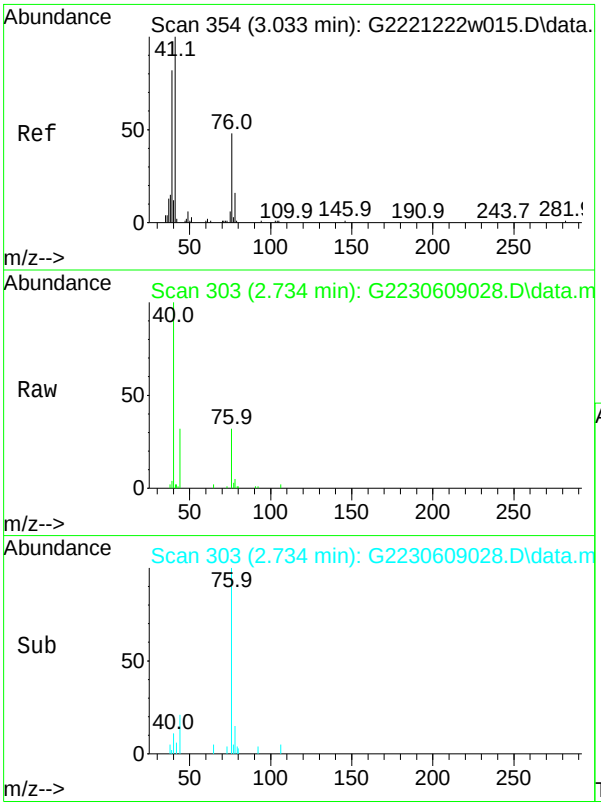


#14
Carbon disulfide
Concen: 0.03 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.003 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 76 Resp: 102294

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

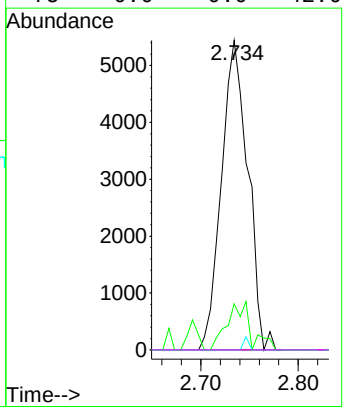


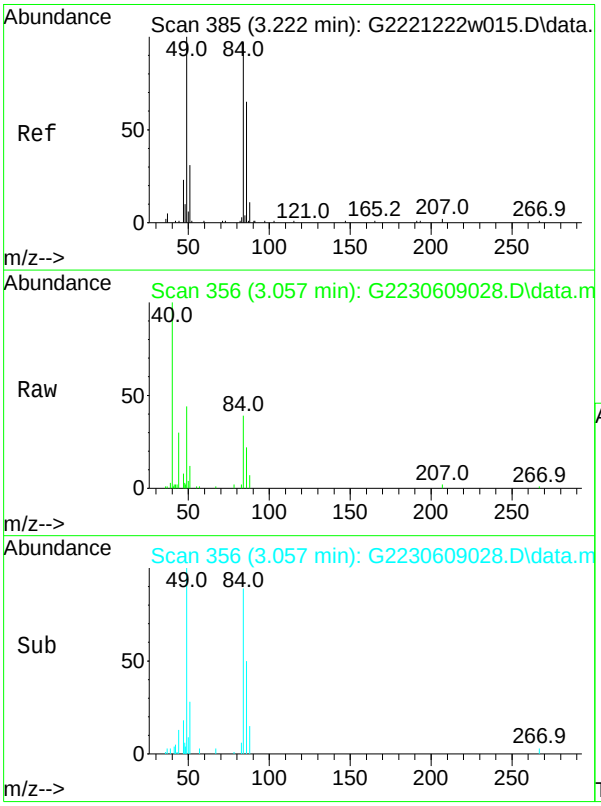


#17
3-Chloro-1-propene
Concen: 0.47 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.184 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 76 Resp: 102294

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

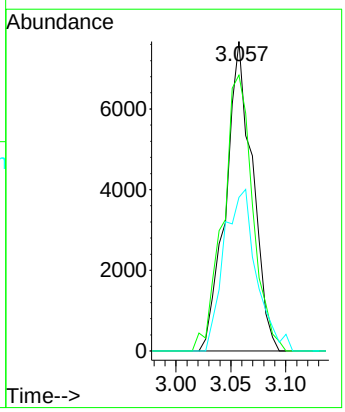


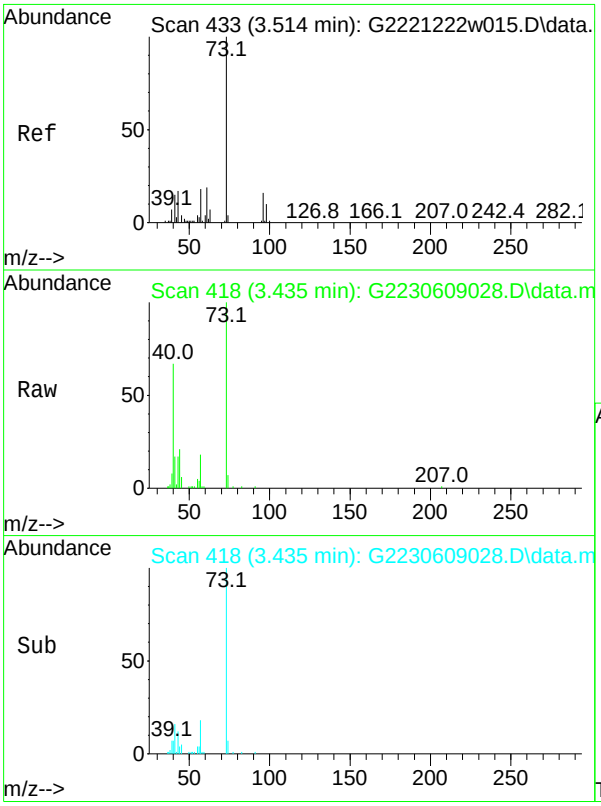


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 49 Resp: 129702

Ion	Ratio	Lower	Upper
49	100		
84	96.5	57.9	117.9
86	63.6	24.9	84.9

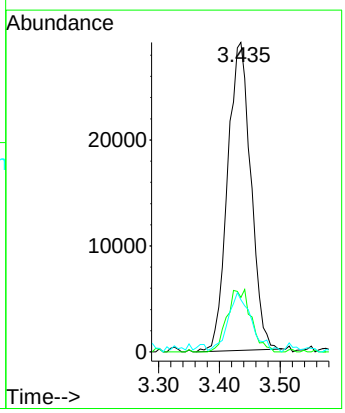


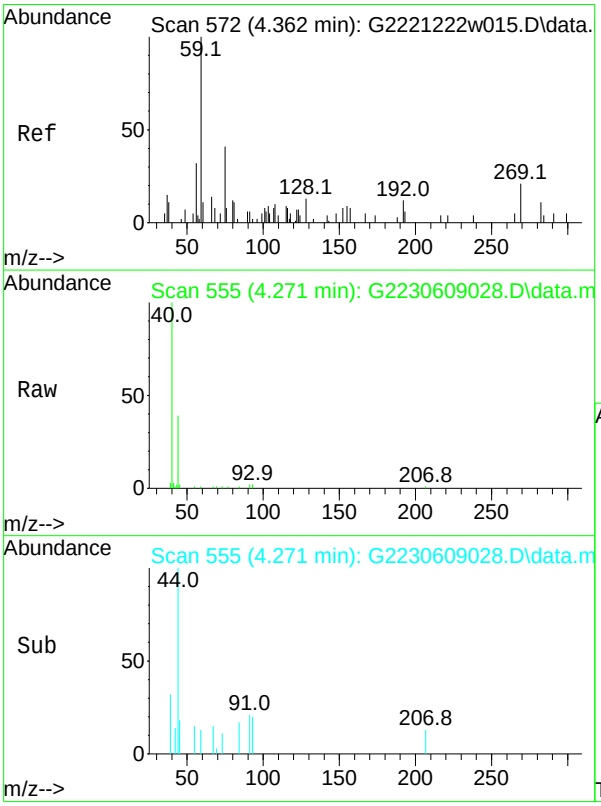


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.436 min Scan# 418
Delta R.T. -0.010 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 73 Resp: 771824

Ion	Ratio	Lower	Upper
73	100		
57	20.9	0.0	51.7
41	18.4	0.0	50.6

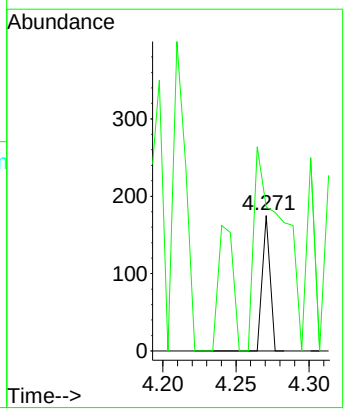


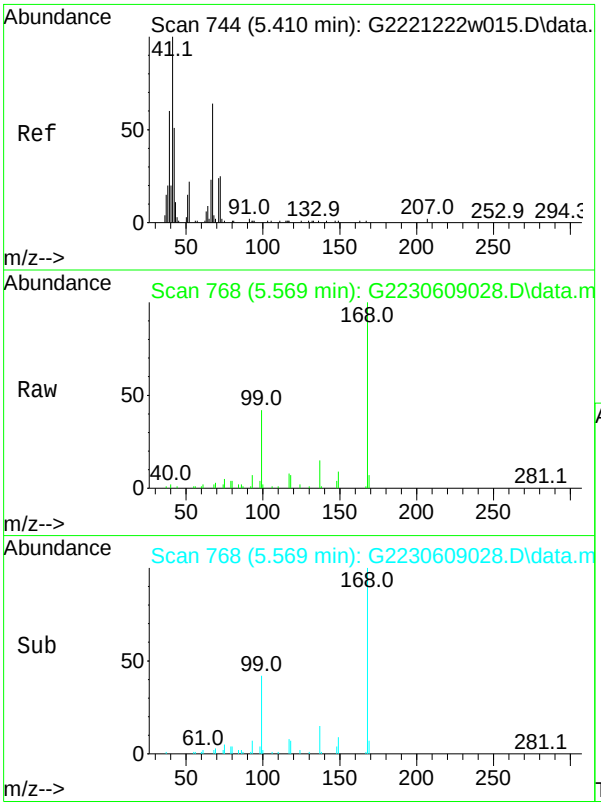


#26
1-propanol
Concen: 0.33 ug/L
RT: 4.273 min Scan# 555
Delta R.T. -0.016 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 59 Resp: 638

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

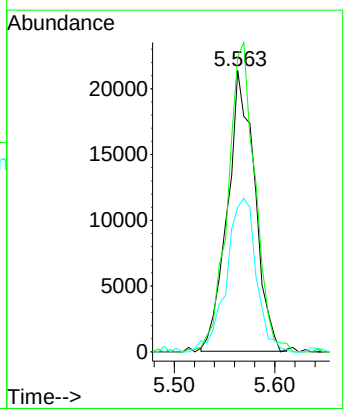


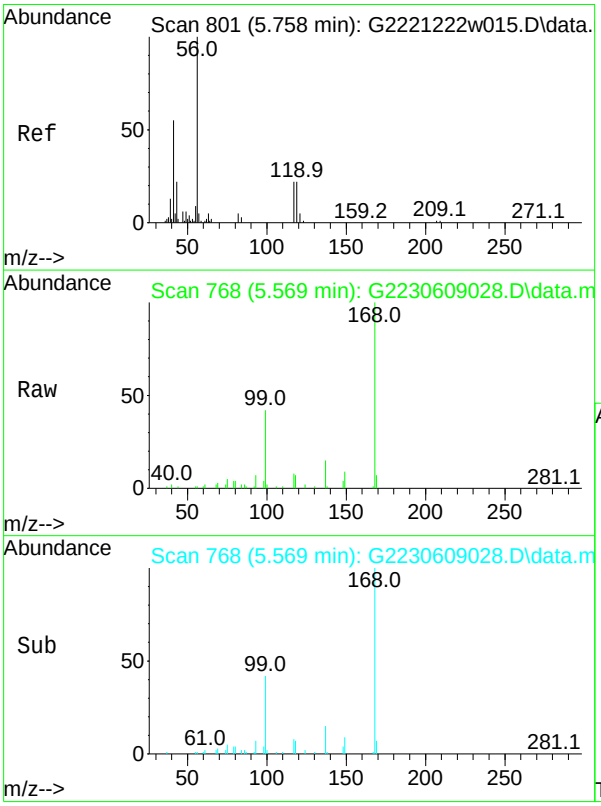


#40
Cyclohexane
Concen: 0.81 ug/L
RT: 5.568 min Scan# 768
Delta R.T. 0.034 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 84 Resp: 401632

Ion	Ratio	Lower	Upper
84	100		
69	111.3	6.8	66.8#
56	60.0	79.1	139.1#

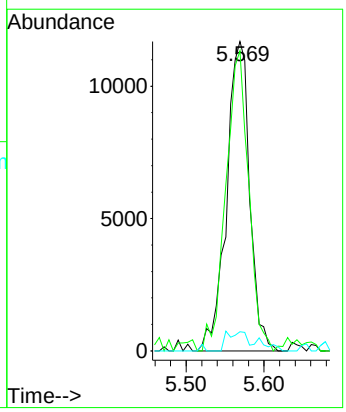


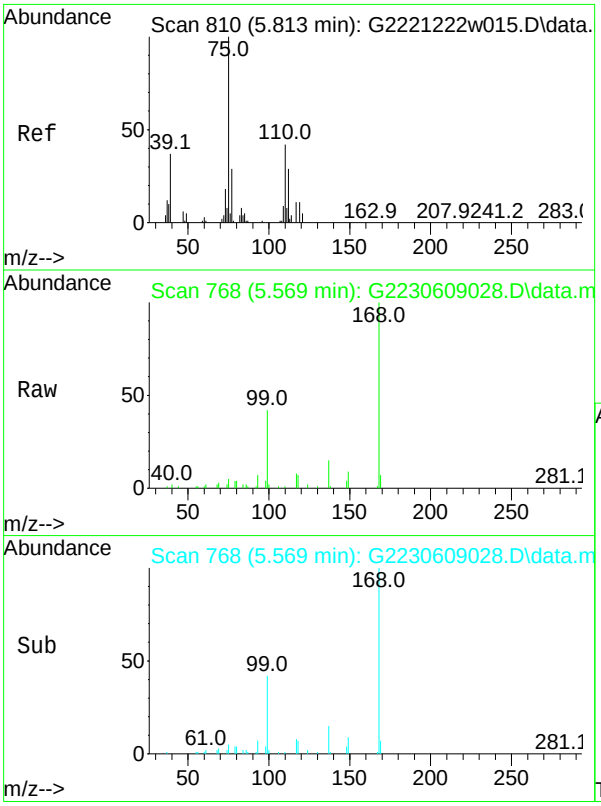


#41
1-Chlorobutane
Concen: 0.42 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.058 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 56 Resp: 240879

Ion	Ratio	Lower	Upper
56	100		
55	97.6	0.0	41.0#
57	0.0	0.0	35.7

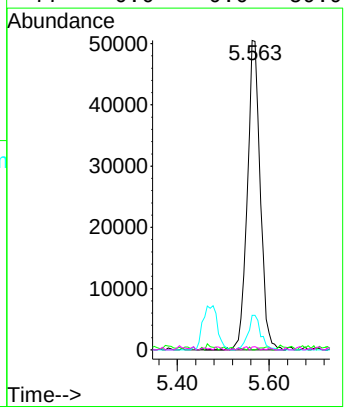


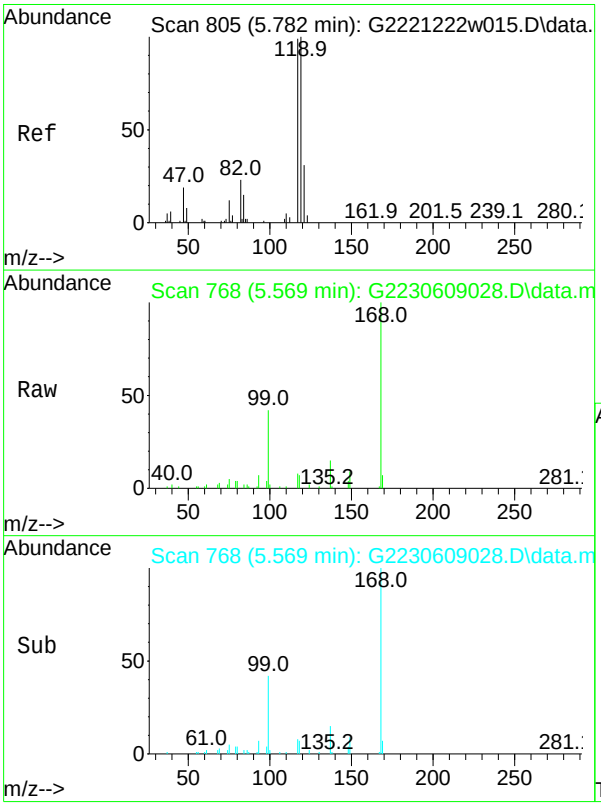


#42
1,1-Dichloropropene
Concen: 2.26 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 75 Resp: 981392

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	11.0	9.1	69.1
77	0.0	0.0	59.9

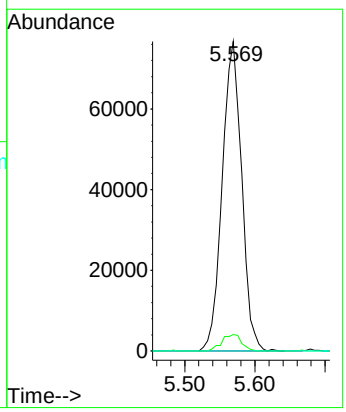


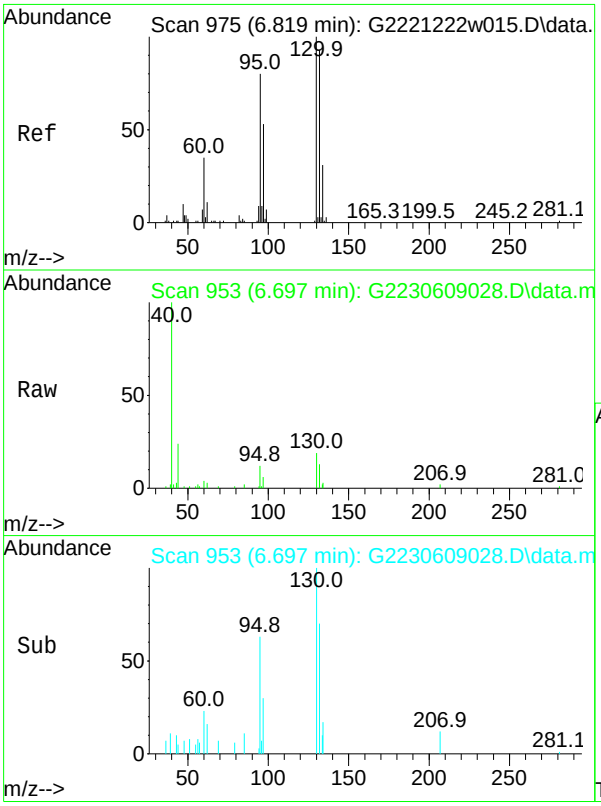


#47
Carbon tetrachloride
Concen: 3.32 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion:117 Resp: 1472485

Ion	Ratio	Lower	Upper
117	100		
119	5.4	66.4	126.4#
121	0.0	0.4	60.4#

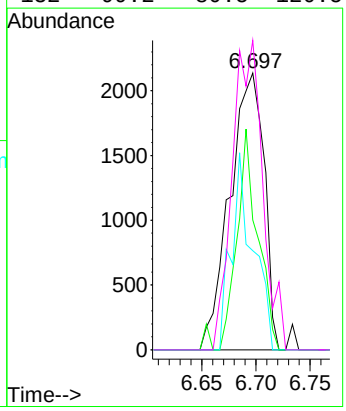


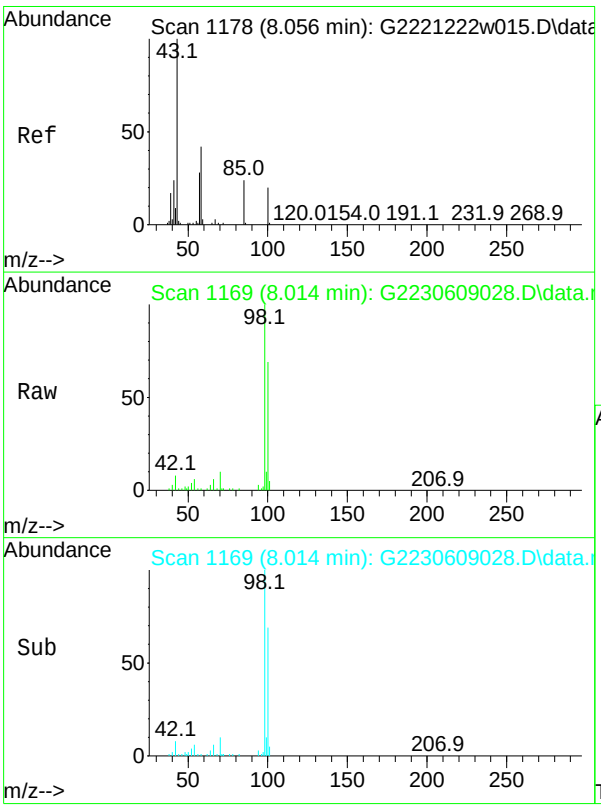


#50
Trichloroethene
Concen: 0.06 ug/L
RT: 6.698 min Scan# 953
Delta R.T. 0.002 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 95 Resp: 46950

Ion	Ratio	Lower	Upper
95	100		
97	0.0	35.5	95.5#
60	0.0	14.8	74.8#
132	99.2	80.5	120.5

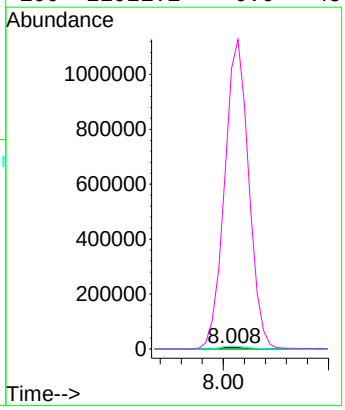


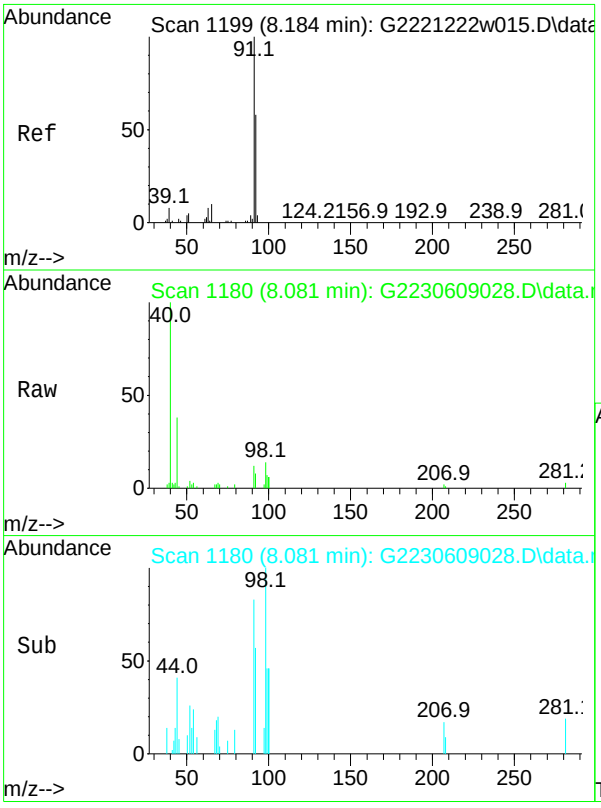


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.011 min Scan# 1169
Delta R.T. 0.067 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 43 Resp: 78163

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	222.7	37.0	37.0#
100	22921.1	0.0	45.2#

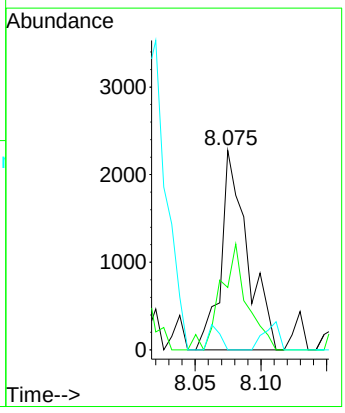


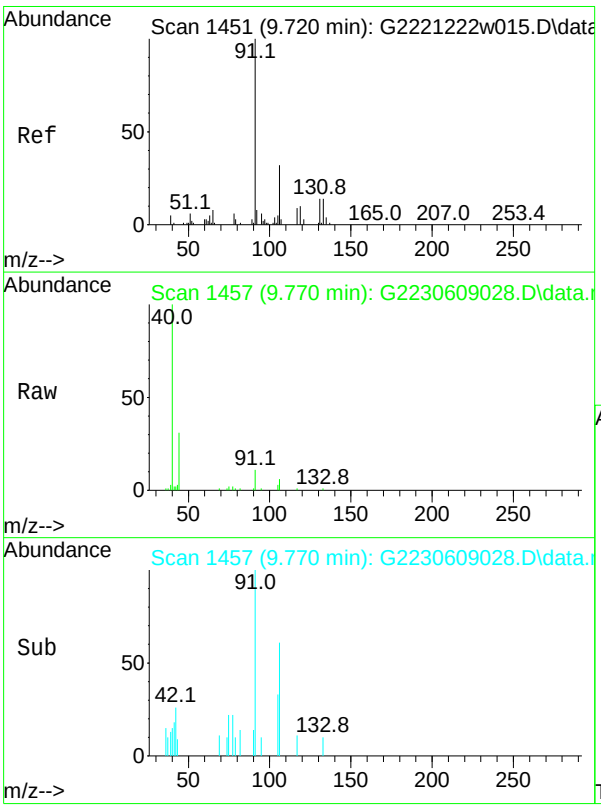


#65
Toluene
Concen: Below Cal
RT: 8.080 min Scan# 1180
Delta R.T. -0.006 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 91 Resp: 31659

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

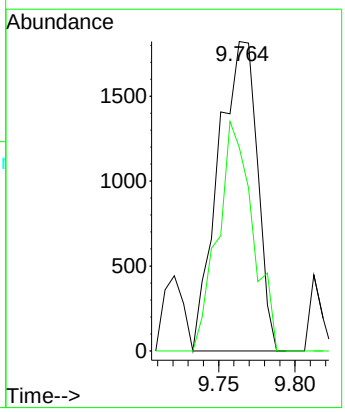


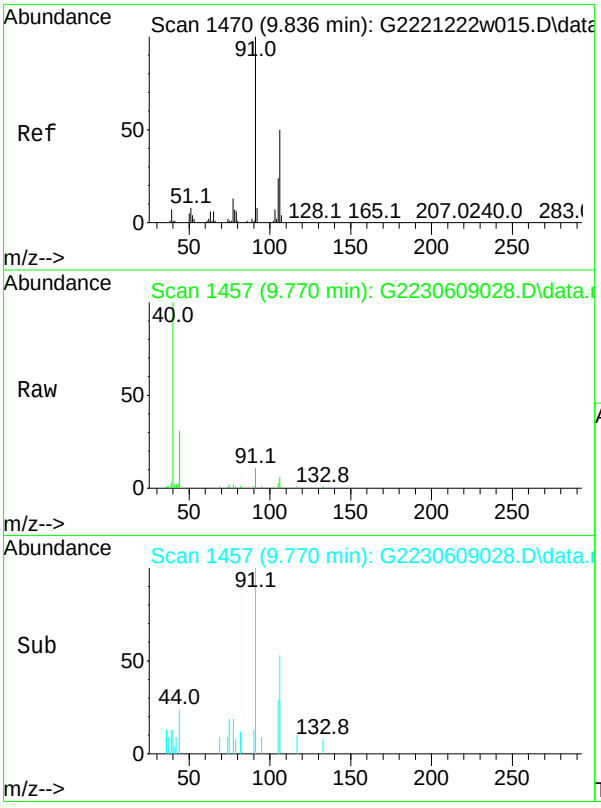


#74
Ethylbenzene
Concen: Below Cal
RT: 9.768 min Scan# 1457
Delta R.T. 0.125 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 91 Resp: 32438

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

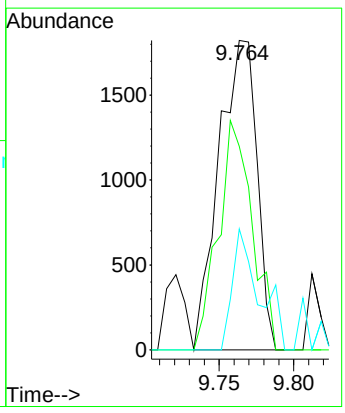


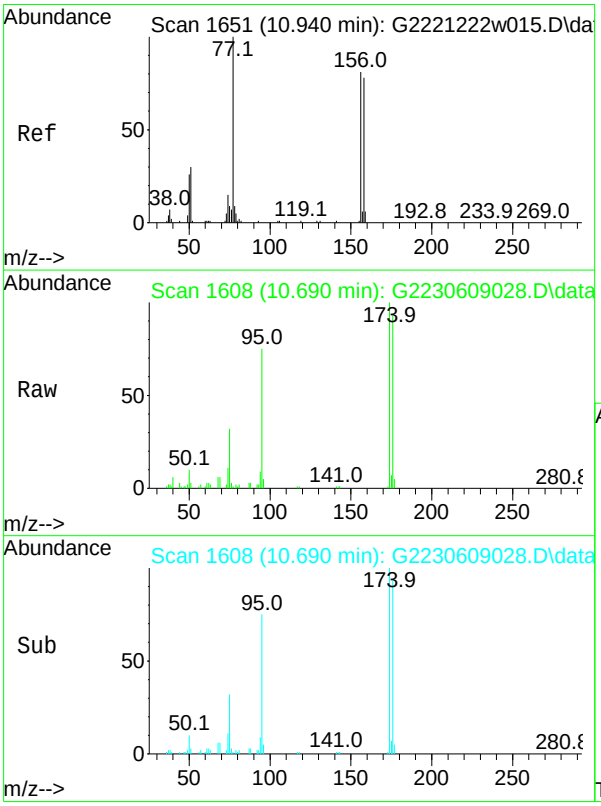


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.768 min Scan# 1457
Delta R.T. 0.004 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 91 Resp: 32523

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

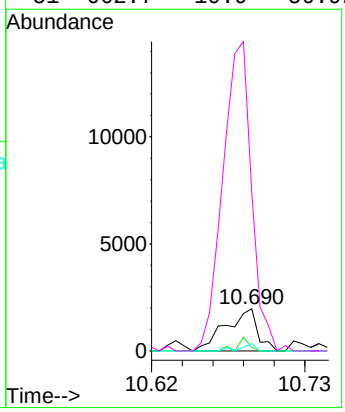


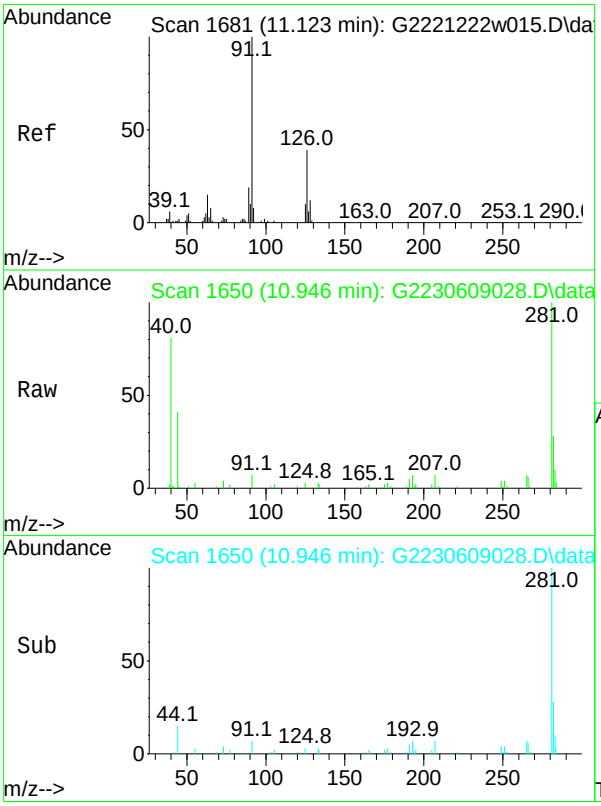


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.690 min Scan# 1608
Delta R.T. -0.138 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 77 Resp: 31653

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	662.7	10.9	50.9#

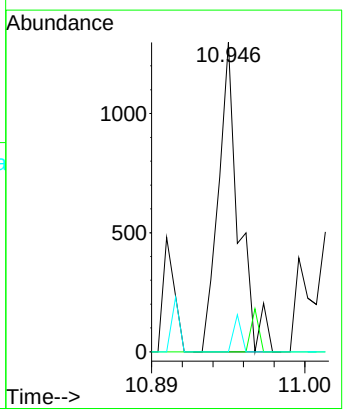


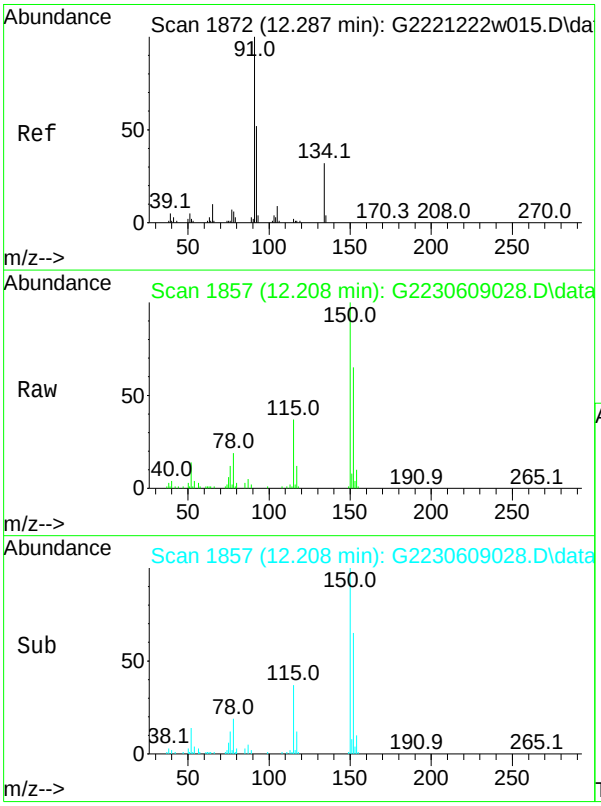


#87
2-Chlorotoluene
Concen: 0.01 ug/L
RT: 10.948 min Scan# 1650
Delta R.T. -0.080 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 91 Resp: 12761

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

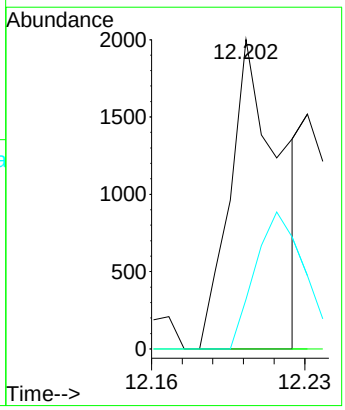




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.206 min Scan# 1857
Delta R.T. -0.025 min
Lab File: G2230609028.D
Acq: 09 Jun 2023 20:10

Tgt Ion: 91 Resp: 20439

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

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21	File ID:	G2230606015.D
Sampled:	05/28/23 12:07	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 16:29
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.490	0.0832	0.200	0.500	J
75-34-3	1,1-Dichloroethane	16.6	0.0669	0.200	0.500	
75-35-4	*1,1-Dichloroethene*	*62.7*	*0.0954*	*0.200*	*0.500*	*J1, E*
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

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21	File ID:	G2230606015.D
Sampled:	05/28/23 12:07	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 16:29
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.730	0.518	2.00	4.00	J
71-43-2	Benzene	0.0900	0.0507	0.200	0.500	J
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	0.210	0.192	0.500	1.00	J
156-59-2	*cis-1,2-Dichloroethene*	*54.2*	*0.103*	*0.300*	*0.600*	*J1, E*
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

SW8260B/D

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21	File ID:	G2230606015.D
Sampled:	05/28/23 12:07	Prepared:	06/06/23 12:30	Analyzed:	06/06/23 16:29
		Preparation:	5030_W	Dilution:	1
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0175	Sequence:	S3F0100	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	0.0600	0.0416	0.200	0.500	J
135-98-8	sec-Butylbenzene		0.0598	0.200	0.500	U
100-42-5	Styrene		0.0453	0.100	0.200	J1, U
98-06-6	tert-Butylbenzene		0.0453	0.200	0.500	U
127-18-4	*Tetrachloroethene*	*0.420*	*0.178*	*0.500*	*1.00*	*Q, J*
108-88-3	Toluene		0.0572	0.200	0.500	U
156-60-5	trans-1,2-Dichloroethene	1.14	0.0855	0.200	0.500	
10061-02-6	trans-1,3-Dichloropropene		0.0587	0.200	0.500	U
79-01-6	*Trichloroethene*	*852*	*0.0781*	*0.200*	*0.500*	*J1, B, E*
75-69-4	Trichlorofluoromethane		0.0505	0.200	0.500	U
75-01-4	Vinyl chloride	5.61	0.129	0.500	1.00	

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606015.D
Acq On : 06 Jun 2023 16:29
Operator : PO1
Sample : 23E0775-21
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 07 08:47:11 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

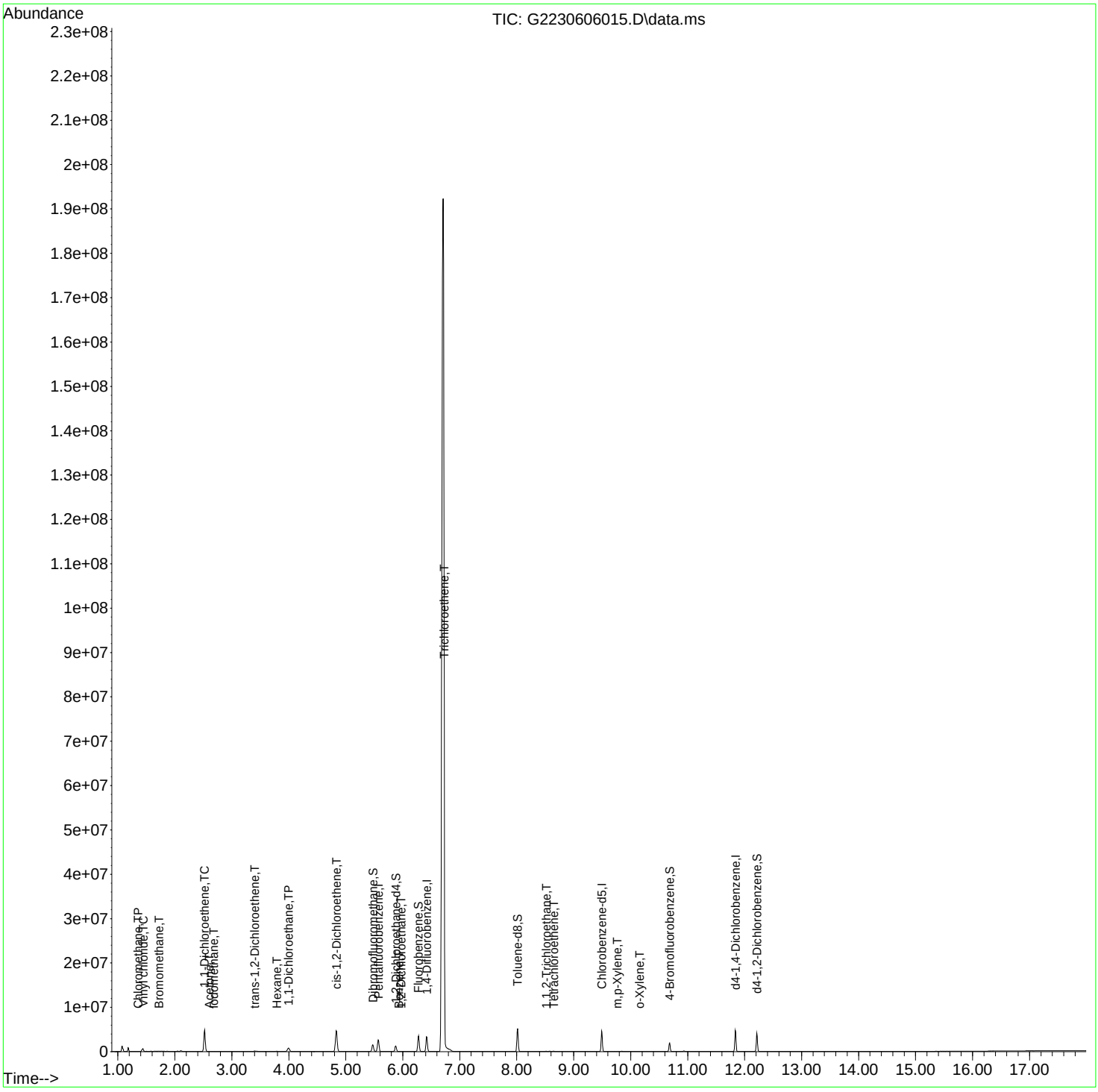
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	20611817	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.422	114	30449803	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	27392539	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	13388607	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	9642738	21.26	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 106.30%				
43) 1,2-Dichloroethane-d4	5.878	65	9026988	20.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%				
49) Fluorobenzene	6.278	96	33974593	19.58	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.90%				
64) Toluene-d8	8.016	98	33571230	19.44	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.20%				
81) 4-Bromofluorobenzene	10.685	174	6129051	9.69	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.90%				
97) d4-1,2-Dichlorobenzene	12.217	152	11772620	20.45	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.25%				
Target Compounds							Qvalue
3) Chloromethane	1.354	50	108022	0.21	ug/L		96
4) Vinyl chloride	1.445	62	2271790	5.61	ug/L		99
5) Bromomethane	1.724	94	98339	0.11	ug/L	#	79
10) 1,1-Dichloroethene	2.522	61	27513754	62.66	ug/L		86
12) Acetone	2.603	43	229261	0.73	ug/L		93
13) Iodomethane	2.679	142	101793	0.21	ug/L	#	89
18) Methylene chloride	3.059	49	137047	Below Cal		#	74
20) trans-1,2-Dichloroethene	3.398	61	510138	1.14	ug/L		86
21) Methyl tert-butyl ether	3.438	73	1097349	Below Cal			89
22) Hexane	3.791	57	416926	1.11	ug/L		92
23) 1,1-Dichloroethane	3.995	63	9514693	16.60	ug/L		96
28) cis-1,2-Dichloroethene	4.835	61	27977617	54.17	ug/L		74
44) 1,2-Dichloroethane	5.970	62	96240	0.10	ug/L	#	65
48) Benzene	5.935	78	142150	0.09	ug/L	#	52
50) Trichloroethene	6.725	95	340665669	852.02	ug/L	#	76
62) 1,1,2-Trichloroethane	8.518	97	195197	0.49	ug/L		97
65) Toluene	8.083	91	117220	Below Cal		#	90
67) Tetrachloroethene	8.647	166	282735	0.42	ug/L		93
75) m,p-Xylene	9.763	91	78358	0.05	ug/L	#	76
79) o-Xylene	10.160	91	100844	0.06	ug/L	#	69

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606015.D
Acq On : 06 Jun 2023 16:29
Operator : PO1
Sample : 23E0775-21
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 07 08:47:11 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606015.D
Acq On : 06 Jun 2023 16:29
Operator : PO1
Sample : 23E0775-21
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 07 08:47:11 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	20611817	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.422	114	30449803	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	27392539	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	13388607	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	9642738	21.26	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 106.30%				
43) 1,2-Dichloroethane-d4	5.878	65	9026988	20.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%				
49) Fluorobenzene	6.278	96	33974593	19.58	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.90%				
64) Toluene-d8	8.016	98	33571230	19.44	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.20%				
81) 4-Bromofluorobenzene	10.685	174	6129051	9.69	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.90%				
97) d4-1,2-Dichlorobenzene	12.217	152	11772620	20.45	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.25%				
Target Compounds							Qvalue
3) Chloromethane	1.354	50	108022	0.21	ug/L		96
4) Vinyl chloride	1.445	62	2271790	5.61	ug/L		99
5) Bromomethane	1.724	94	98339	0.11	ug/L	#	79
8) Ethyl ether	2.522	59	939007	3.37	ug/L	#	13
10) 1,1-Dichloroethene	2.522	61	27513754	62.66	ug/L		86
11) 1,1,2-Trichloro-1,2,2-...	2.522	101	47537	0.14	ug/L	#	14
12) Acetone	2.603	43	229261	0.73	ug/L		93
13) Iodomethane	2.679	142	101793	0.21	ug/L	#	89
14) Carbon disulfide	2.740	76	109528	0.02	ug/L	#	74
15) Isopropanol	2.774	45	86979	5.26	ug/L	#	56
16) acetonitrile	2.963	41	74923	Below Cal			75
17) 3-Chloro-1-propene	2.740	76	109525	0.45	ug/L	#	53
18) Methylene chloride	3.059	49	137047	Below Cal		#	74
20) trans-1,2-Dichloroethene	3.398	61	510138	1.14	ug/L		86
21) Methyl tert-butyl ether	3.438	73	1097349	Below Cal			89
22) Hexane	3.791	57	416926	1.11	ug/L		92
23) 1,1-Dichloroethane	3.995	63	9514693	16.60	ug/L		96
26) 1-propanol	4.188	59	597	0.28	ug/L	#	100
28) cis-1,2-Dichloroethene	4.835	61	27977617	54.17	ug/L		74
29) 2-Butanone	4.838	72	213095	3.62	ug/L	#	42
31) Ethyl acetate	4.835	61	27966979	458.92	ug/L	#	45
33) 1-Bromopropane	5.254	41	38188	0.06	ug/L	#	40
35) Methacrylonitrile	5.335	67	95560	0.38	ug/L	#	25
40) Cyclohexane	5.570	84	507274	0.92	ug/L	#	33
41) 1-Chlorobutane	5.569	56	327103	0.51	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	1080778	2.24	ug/L	#	38
44) 1,2-Dichloroethane	5.970	62	96240	0.10	ug/L	#	65
45) Isobutanol	6.007	43	12797	Below Cal		#	18

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606015.D
Acq On : 06 Jun 2023 16:29
Operator : PO1
Sample : 23E0775-21
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 07 08:47:11 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

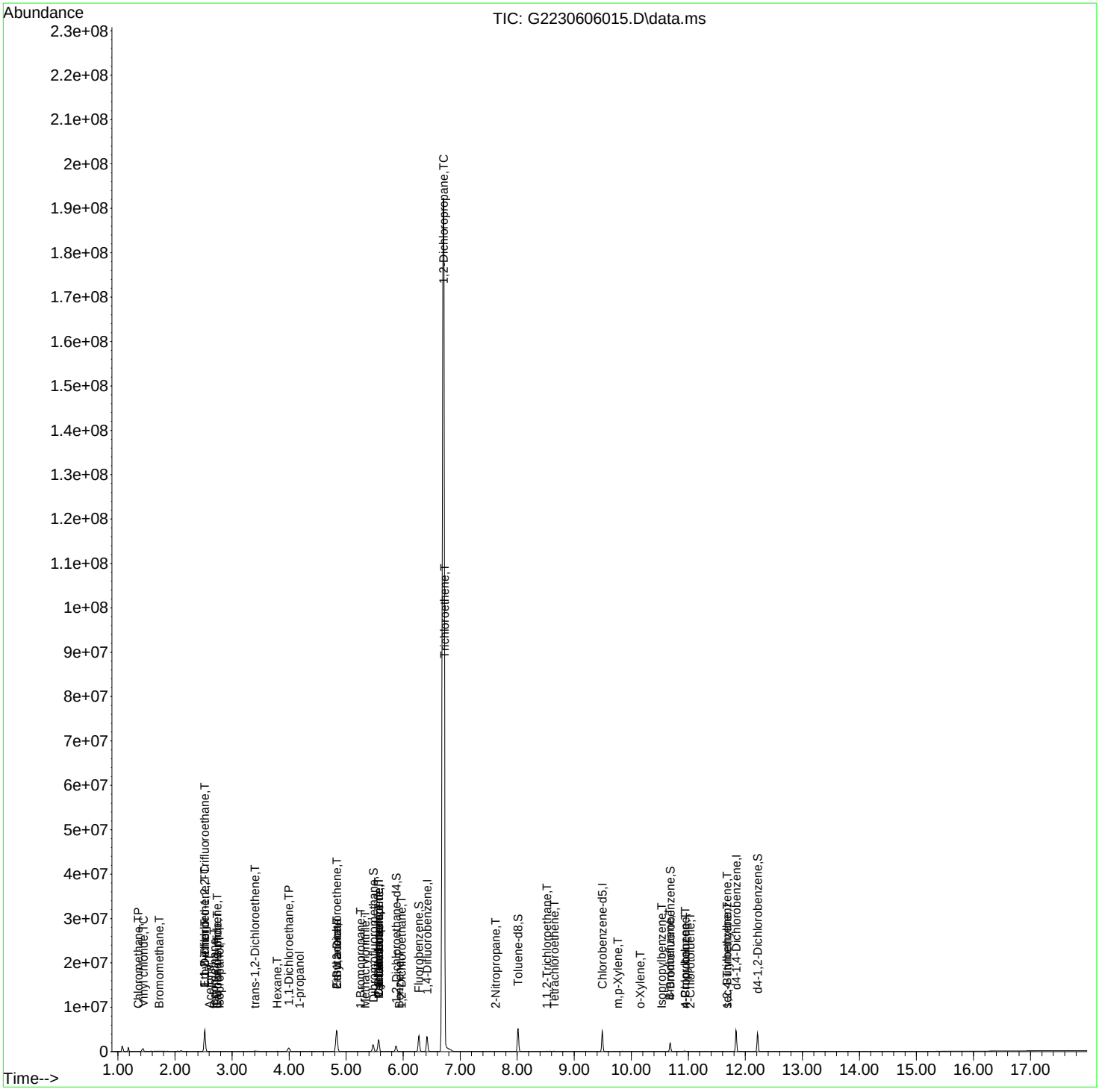
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) Carbon tetrachloride	5.571	117	1623051	2.95 ug/L #	16
48) Benzene	5.935	78	142150	0.09 ug/L #	52
50) Trichloroethene	6.725	95	340665669	852.02 ug/L #	76
52) 1,2-Dichloropropane	6.707	63	5260029	15.25 ug/L #	1
57) 2-Nitropropane	7.621	43	35632	0.06 ug/L #	21
60) 4-Methyl-2-pentanone	8.016	43	104522	Below Cal #	1
62) 1,1,2-Trichloroethane	8.518	97	195197	0.49 ug/L	97
65) Toluene	8.083	91	117220	Below Cal #	90
67) Tetrachloroethene	8.647	166	282735	0.42 ug/L	93
69) 2-Hexanone	8.887	43	13668	Below Cal #	1
74) Ethylbenzene	9.645	91	73930	Below Cal #	44
75) m,p-Xylene	9.763	91	78358	0.05 ug/L #	76
79) o-Xylene	10.160	91	100844	0.06 ug/L #	69
80) Isopropylbenzene	10.529	105	41820	0.02 ug/L #	58
82) Bromobenzene	10.679	77	47003	0.06 ug/L #	1
86) n-Propylbenzene	10.948	91	42147	0.02 ug/L #	58
87) 2-Chlorotoluene	11.031	91	16863	0.01 ug/L #	47
88) 4-Chlorotoluene	10.948	91	41328	0.03 ug/L #	50
92) 1,2,4-Trimethylbenzene	11.677	105	25072	0.02 ug/L #	32
93) sec-Butylbenzene	11.677	105	24812	0.01 ug/L #	58
99) n-Butylbenzene	12.219	91	56177	Below Cal #	53

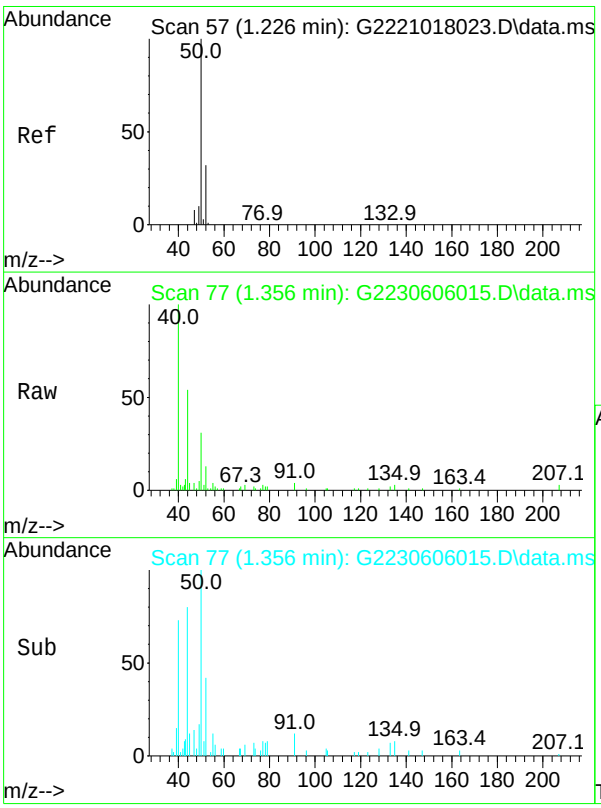
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230606\
Data File : G2230606015.D
Acq On : 06 Jun 2023 16:29
Operator : PO1
Sample : 23E0775-21
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 07 08:47:11 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

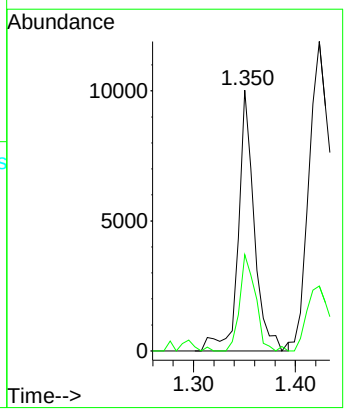


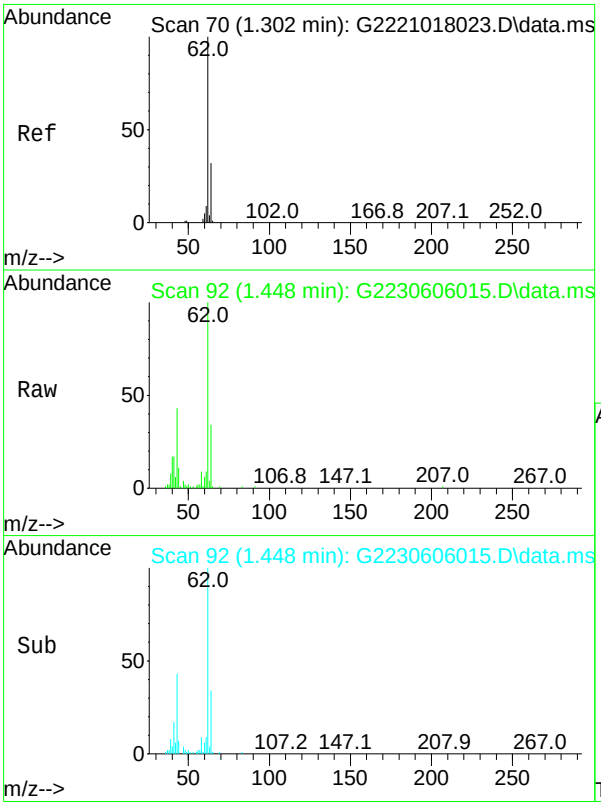


#3
Chloromethane
Concen: 0.21 ug/L
RT: 1.354 min Scan# 77
Delta R.T. 0.000 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 50 Resp: 108022

Ion	Ratio	Lower	Upper
50	100		
52	35.4	3.2	63.2

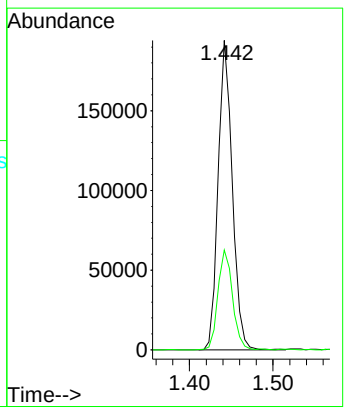


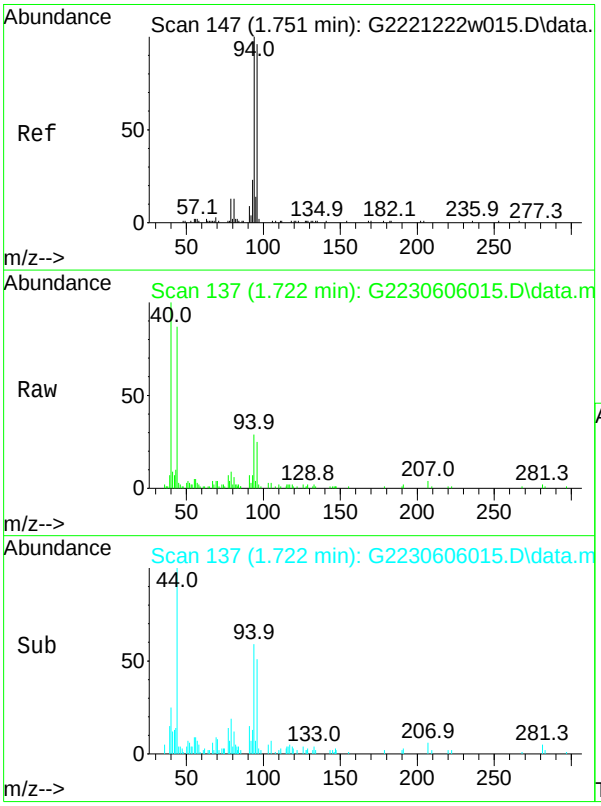


#4
Vinyl chloride
Concen: 5.61 ug/L
RT: 1.445 min Scan# 92
Delta R.T. -0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 62 Resp: 2271790

Ion	Ratio	Lower	Upper
62	100		
64	32.8	2.1	62.1

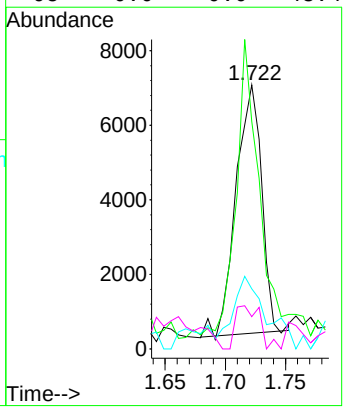


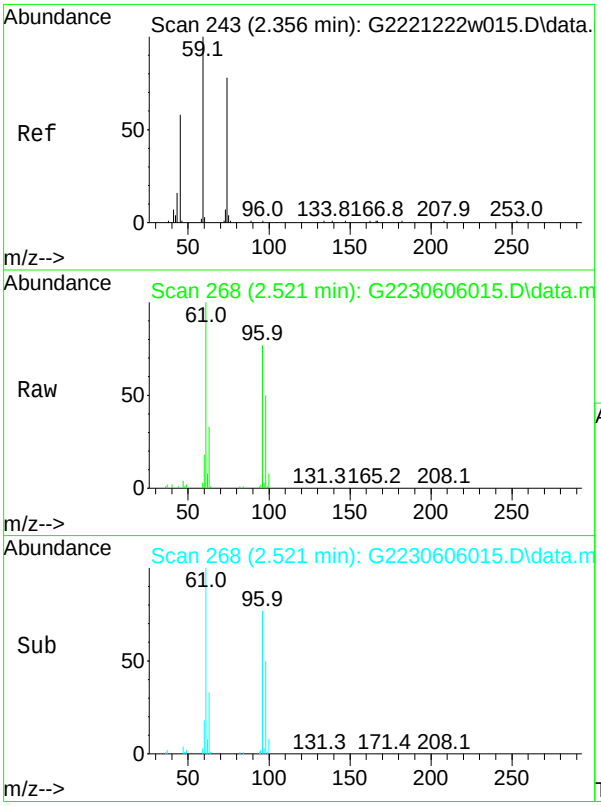


#5
Bromomethane
Concen: 0.11 ug/L
RT: 1.724 min Scan# 137
Delta R.T. 0.010 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 94 Resp: 98339

Ion	Ratio	Lower	Upper
94	100		
96	110.2	65.6	125.6
93	39.8	0.0	49.5
95	0.0	0.0	43.4

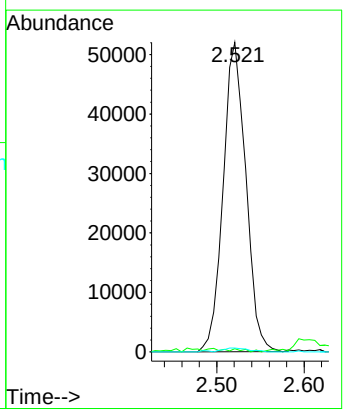


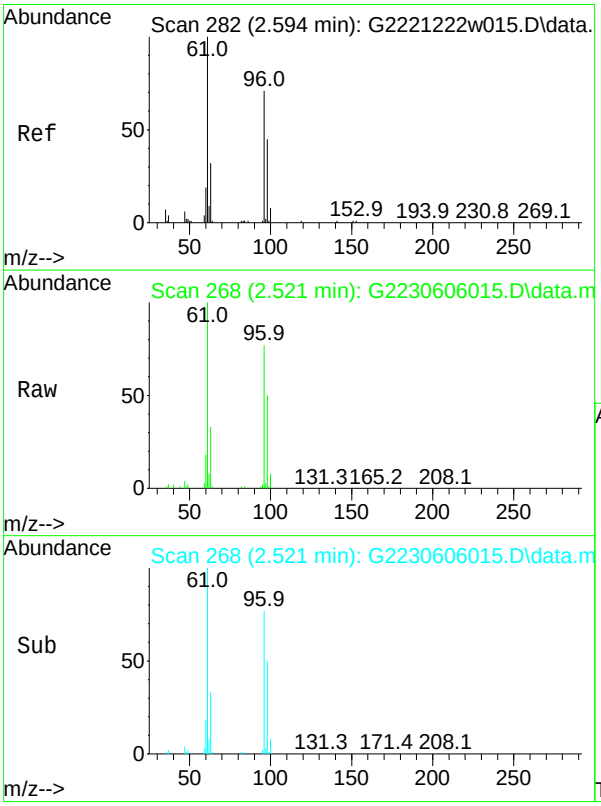


#8
Ethyl ether
Concen: 3.37 ug/L
RT: 2.522 min Scan# 268
Delta R.T. 0.204 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 59 Resp: 939007

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

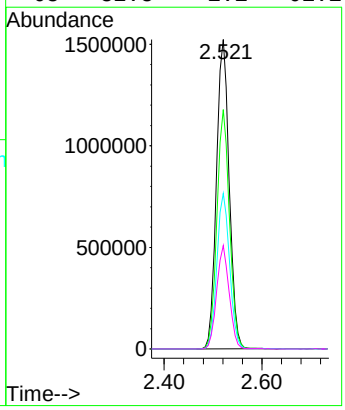


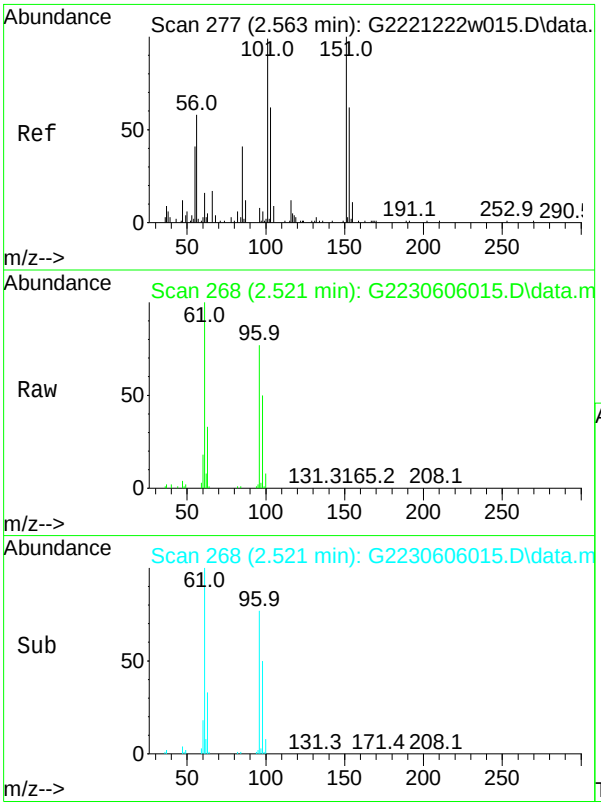


#10
1,1-Dichloroethene
Concen: 62.66 ug/L
RT: 2.522 min Scan# 268
Delta R.T. -0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 61 Resp:27513754

Ion	Ratio	Lower	Upper
61	100		
96	76.4	32.7	92.7
98	50.1	9.3	69.3
63	32.8	1.1	61.1

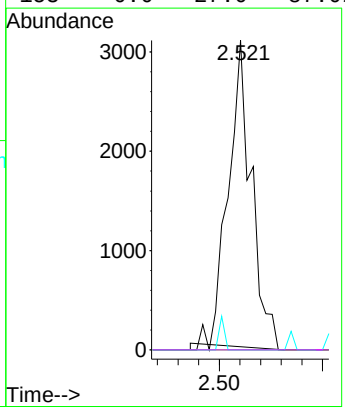


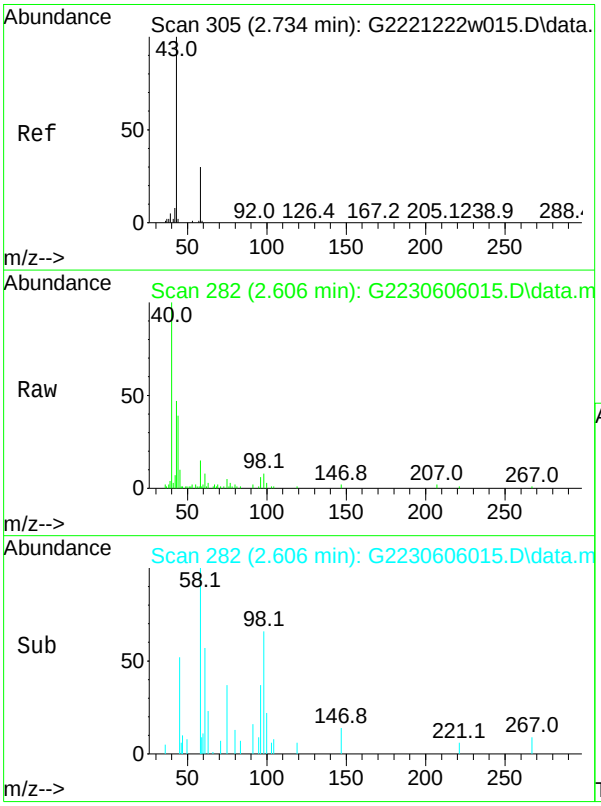


#11
1,1,2-Trichloro-1,2,2-Trifluoroethane
Concen: 0.14 ug/L
RT: 2.522 min Scan# 268
Delta R.T. -0.012 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion:101 Resp: 47537

Ion	Ratio	Lower	Upper
101	100		
151	0.0	56.0	116.0#
103	0.0	35.7	95.7#
153	0.0	27.0	87.0#

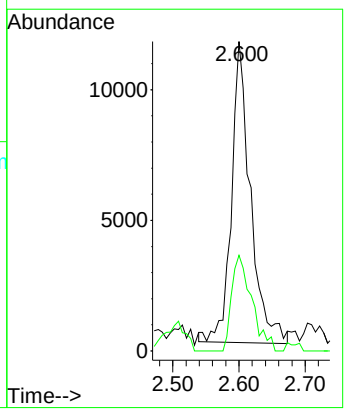


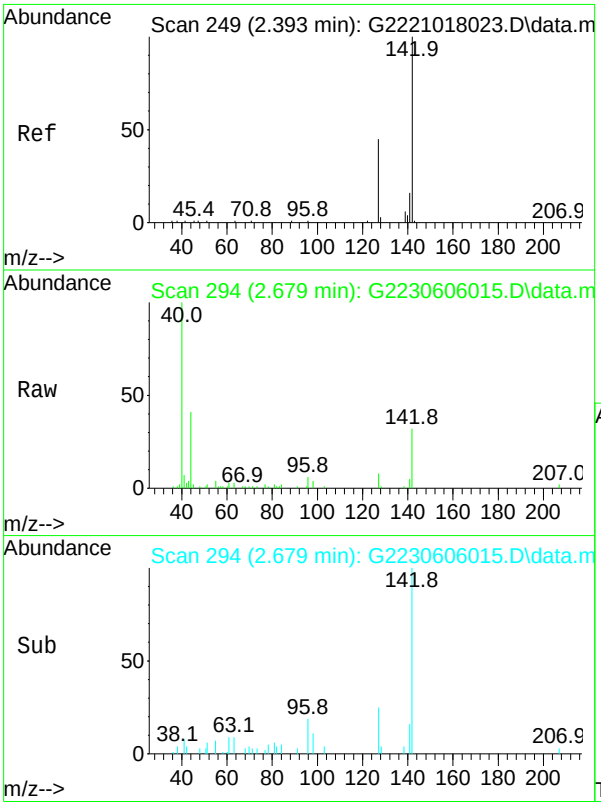


#12
Acetone
Concen: 0.73 ug/L
RT: 2.603 min Scan# 282
Delta R.T. -0.005 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 43 Resp: 229261

Ion	Ratio	Lower	Upper
43	100		
58	33.7	0.0	59.7

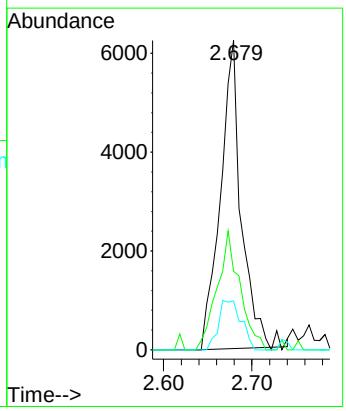


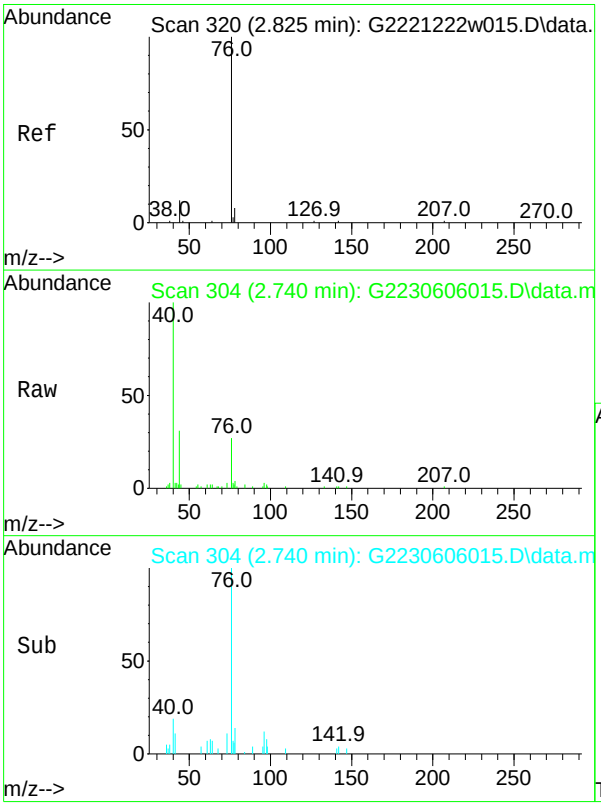


#13
Iodomethane
Concen: 0.21 ug/L
RT: 2.679 min Scan# 294
Delta R.T. 0.003 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion:142 Resp: 101793

Ion	Ratio	Lower	Upper
142	100		
127	42.4	13.3	73.3
141	0.0	0.0	45.3

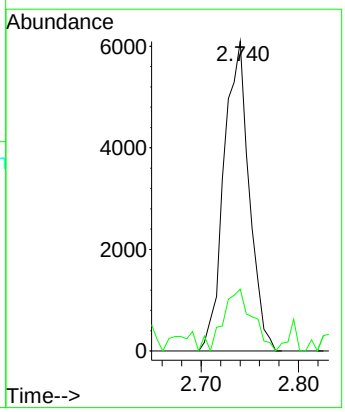


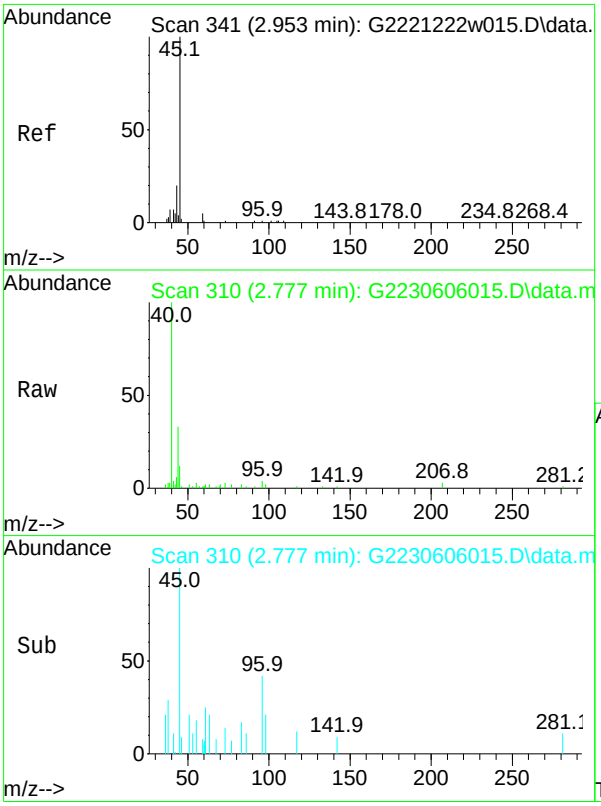


#14
Carbon disulfide
Concen: 0.02 ug/L
RT: 2.740 min Scan# 304
Delta R.T. 0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 76 Resp: 109528

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

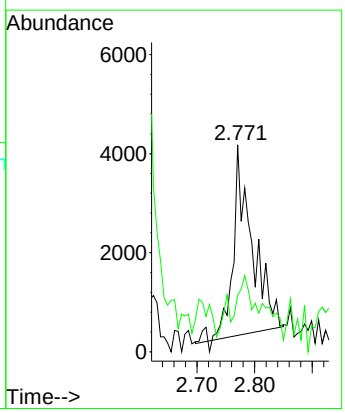


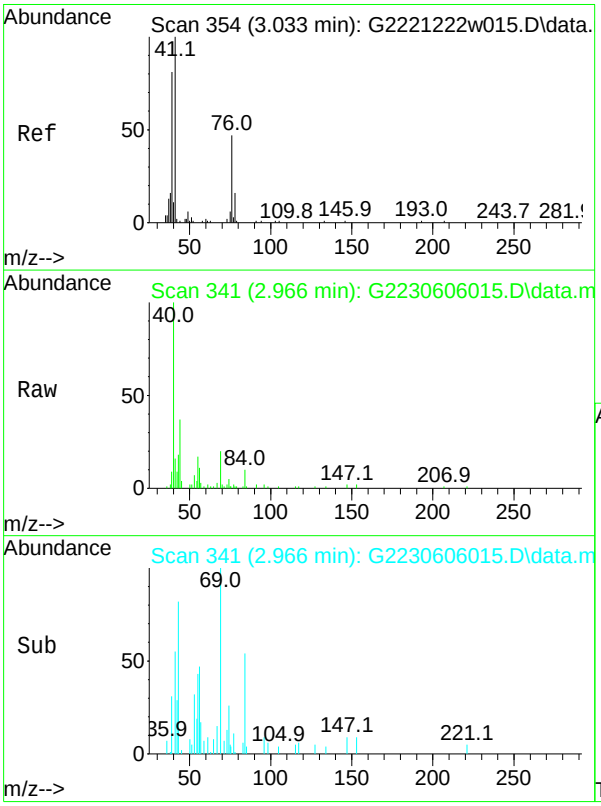


#15
Isopropanol
Concen: 5.26 ug/L
RT: 2.774 min Scan# 310
Delta R.T. -0.018 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 45 Resp: 86979

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

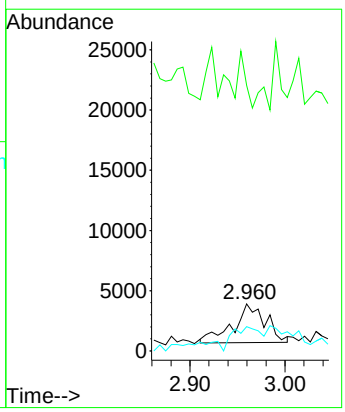


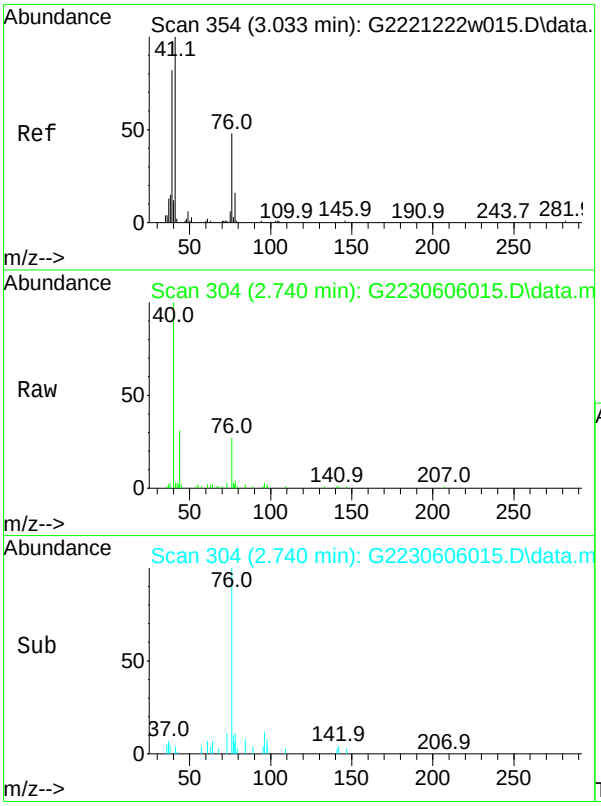


#16
acetonitrile
Concen: Below Cal
RT: 2.963 min Scan# 341
Delta R.T. 0.045 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 41 Resp: 74923

Ion	Ratio	Lower	Upper
41	100		
40	46.2	0.0	54.0
39	45.3	27.5	87.5

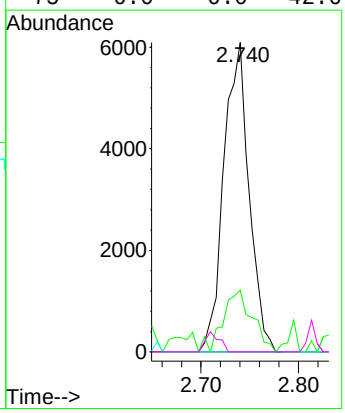


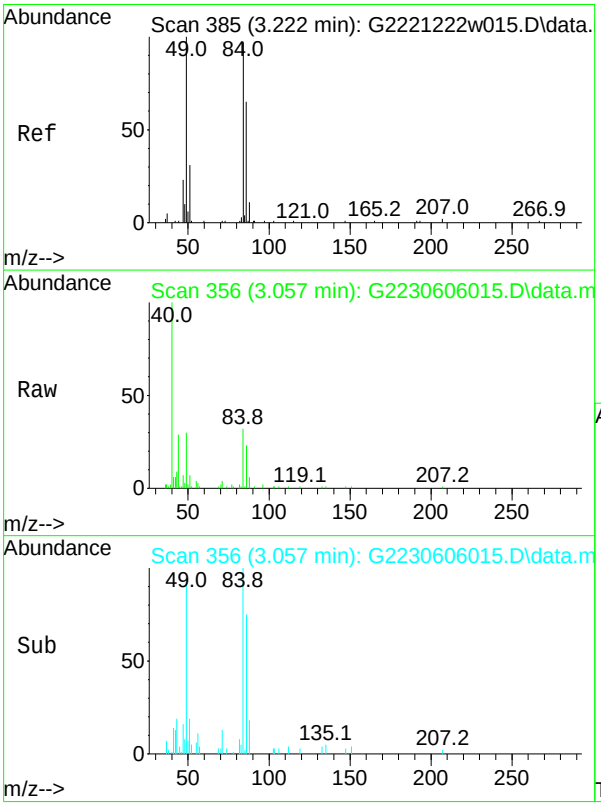


#17
3-Chloro-1-propene
Concen: 0.45 ug/L
RT: 2.740 min Scan# 304
Delta R.T. -0.180 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 76 Resp: 109525

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

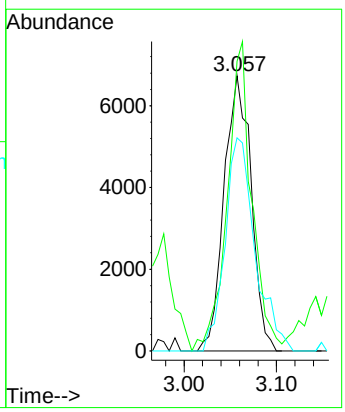


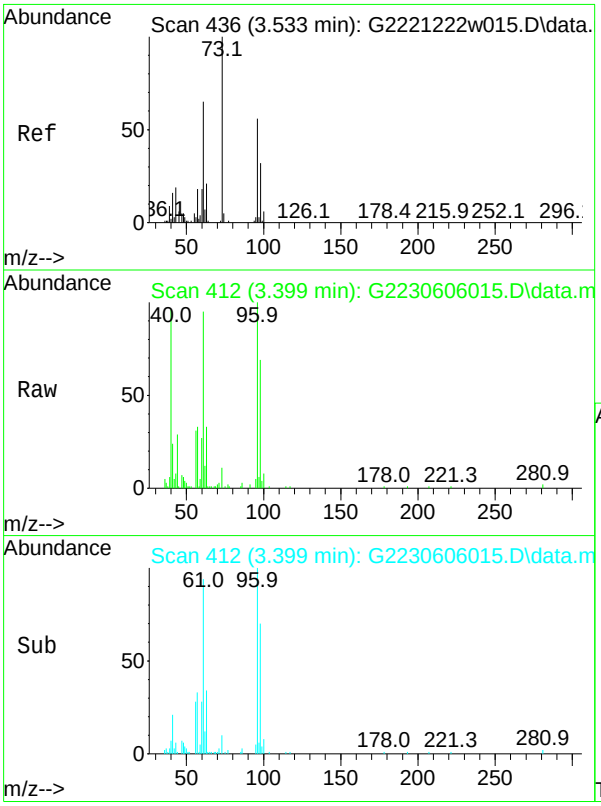


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.002 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 49 Resp: 137047

Ion	Ratio	Lower	Upper
49	100		
84	101.8	57.9	117.9
86	85.8	24.9	84.9#

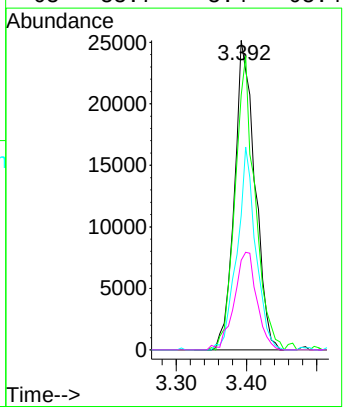


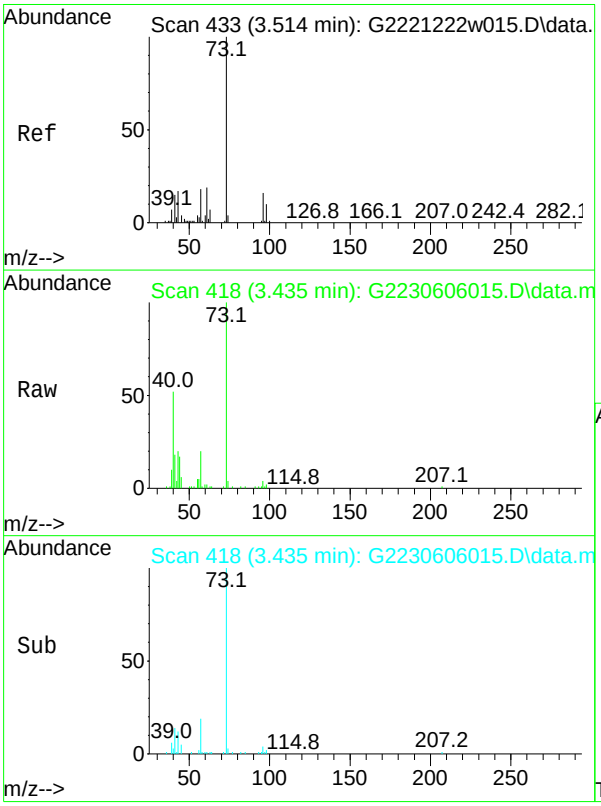


#20
trans-1,2-Dichloroethene
Concen: 1.14 ug/L
RT: 3.398 min Scan# 412
Delta R.T. -0.003 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 61 Resp: 510138

Ion	Ratio	Lower	Upper
61	100		
96	90.9	45.2	105.2
98	59.4	17.2	77.2
63	33.7	3.4	63.4

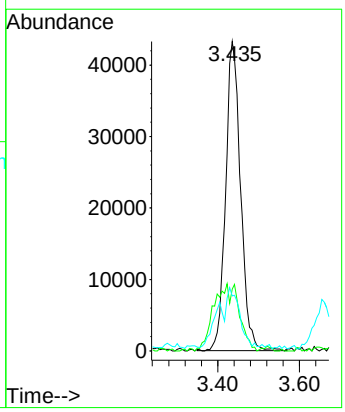


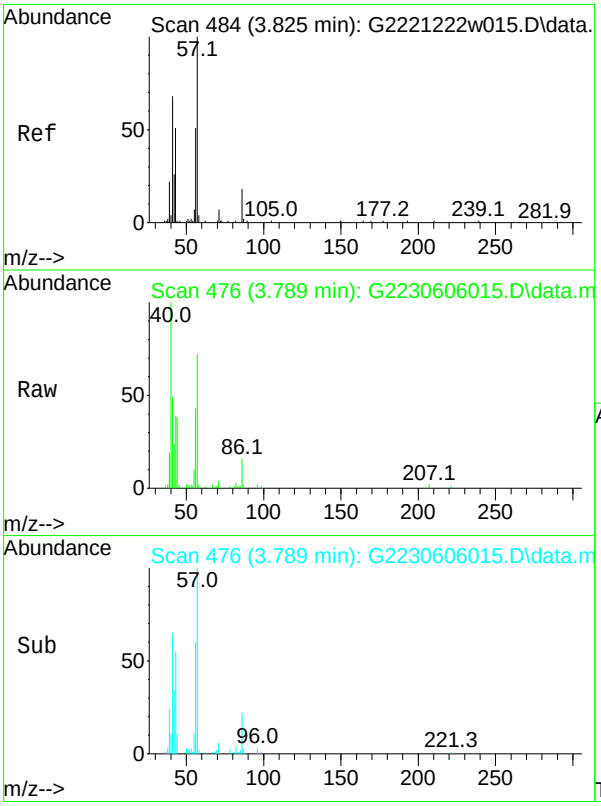


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.438 min Scan# 418
Delta R.T. -0.008 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 73 Resp: 1097349

Ion	Ratio	Lower	Upper
73	100		
57	14.4	0.0	51.7
41	17.8	0.0	50.6

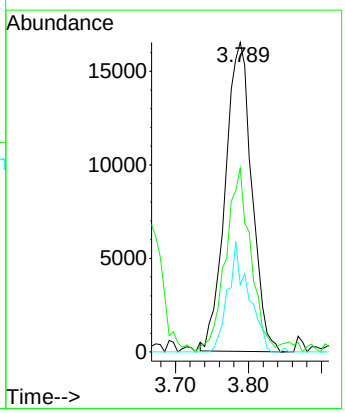


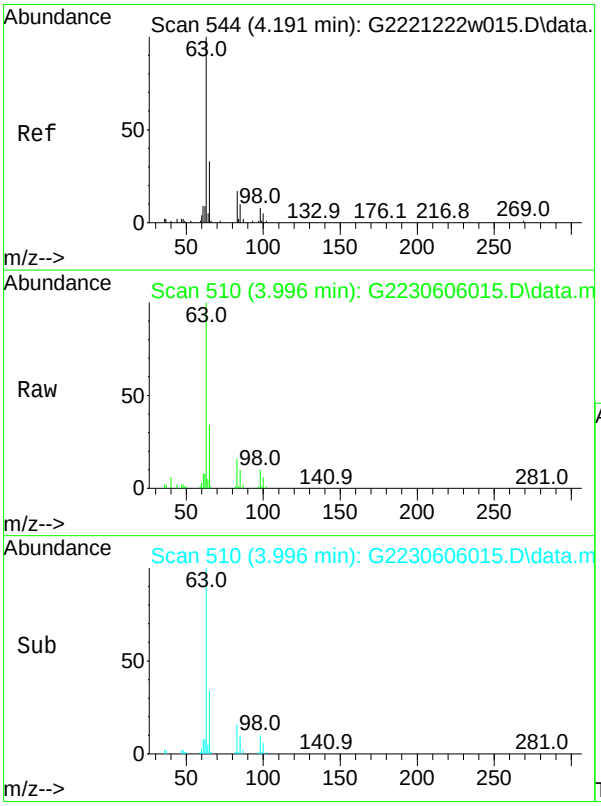


#22
Hexane
Concen: 1.11 ug/L
RT: 3.791 min Scan# 476
Delta R.T. 0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 57 Resp: 416926

Ion	Ratio	Lower	Upper
57	100		
56	53.1	20.4	80.4
86	27.5	0.0	48.1

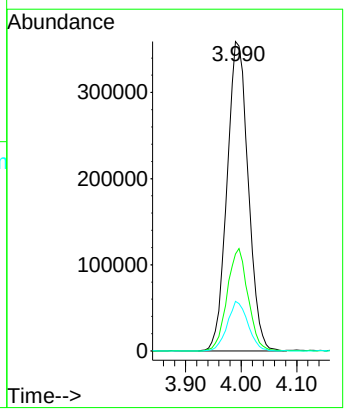


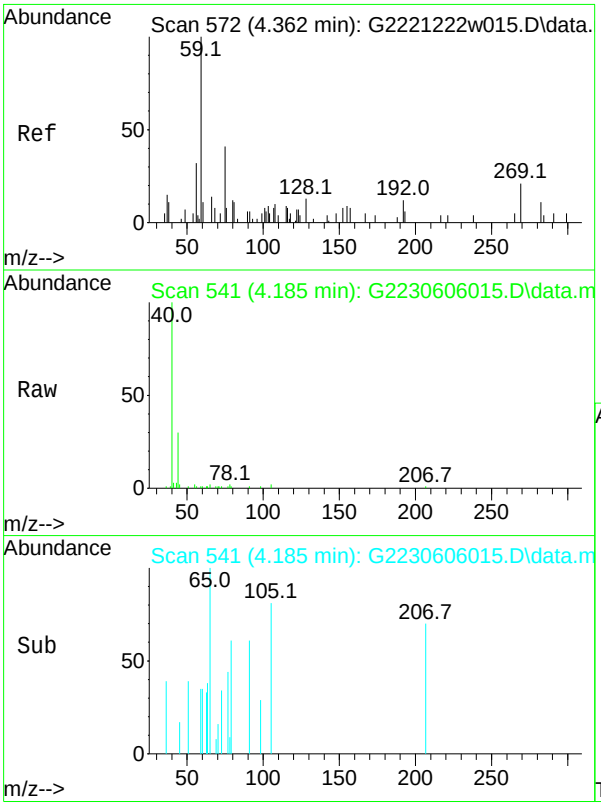


#23
1,1-Dichloroethane
Concen: 16.60 ug/L
RT: 3.995 min Scan# 510
Delta R.T. -0.003 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 63 Resp: 9514693

Ion	Ratio	Lower	Upper
63	100		
65	32.7	1.1	61.1
83	15.6	0.0	42.9

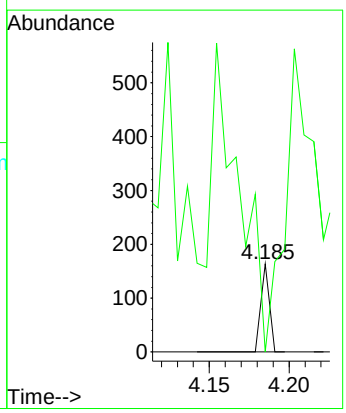


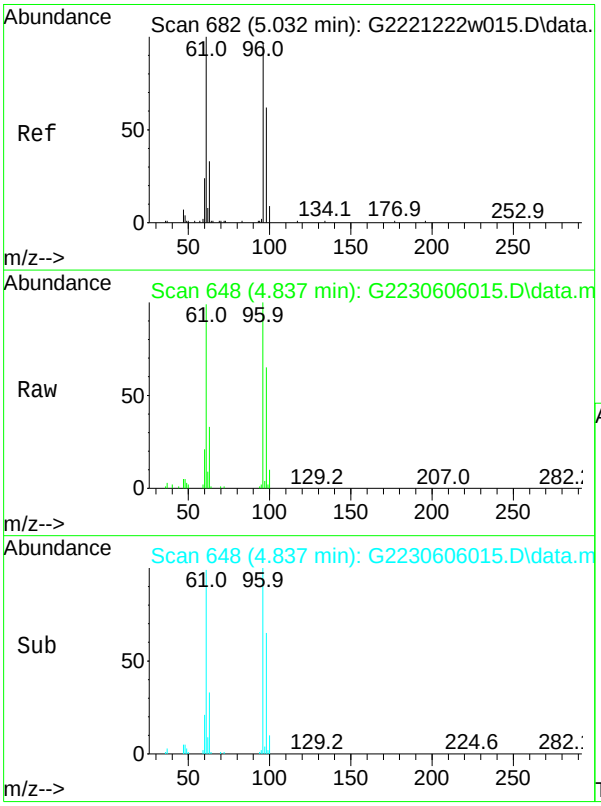


#26
1-propanol
Concen: 0.28 ug/L
RT: 4.188 min Scan# 541
Delta R.T. -0.101 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 59 Resp: 597

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

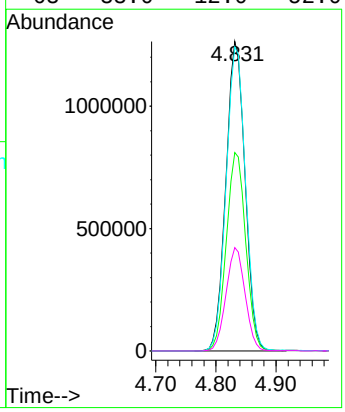


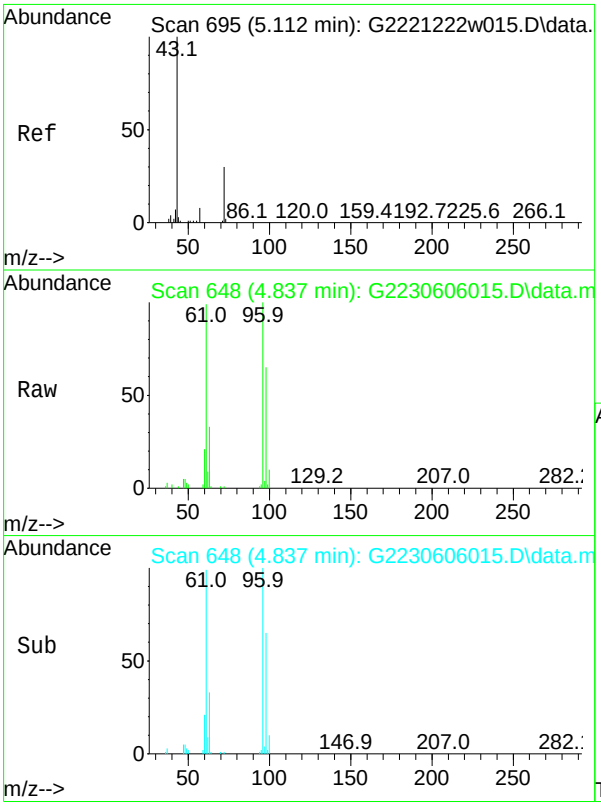


#28
cis-1,2-Dichloroethene
Concen: 54.17 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 61 Resp:27977617

Ion	Ratio	Lower	Upper
61	100		
98	64.9	15.9	75.9
96	99.1	39.6	99.6
63	33.0	12.0	52.0

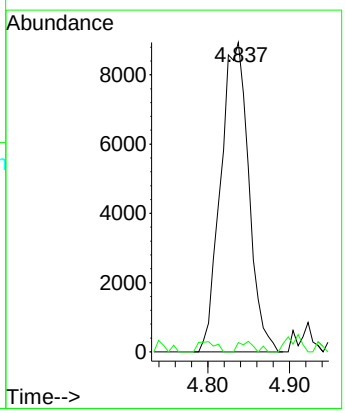


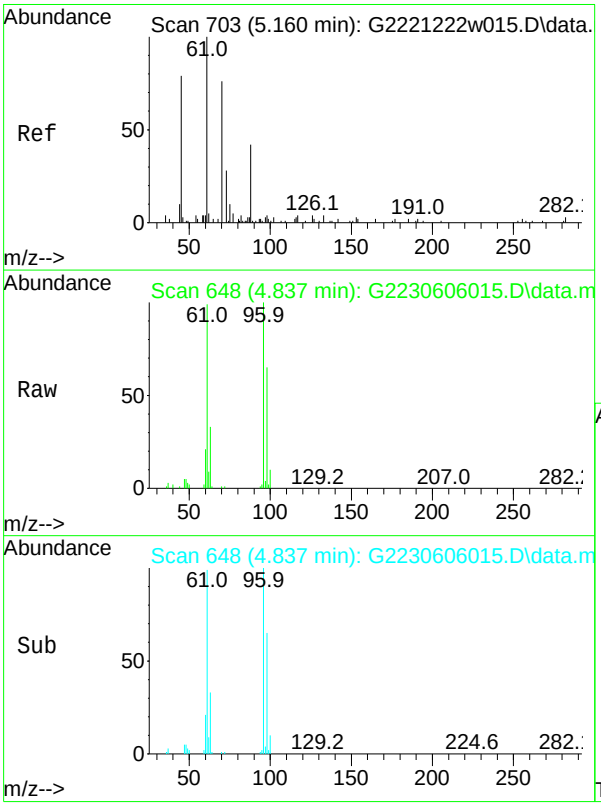


#29
2-Butanone
Concen: 3.62 ug/L
RT: 4.838 min Scan# 648
Delta R.T. -0.081 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 72 Resp: 213095

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

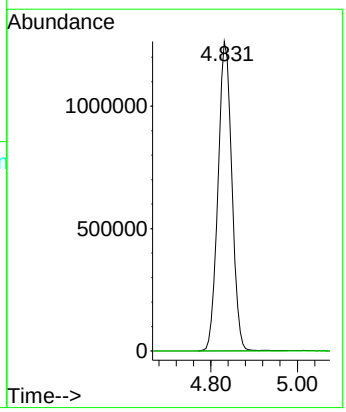


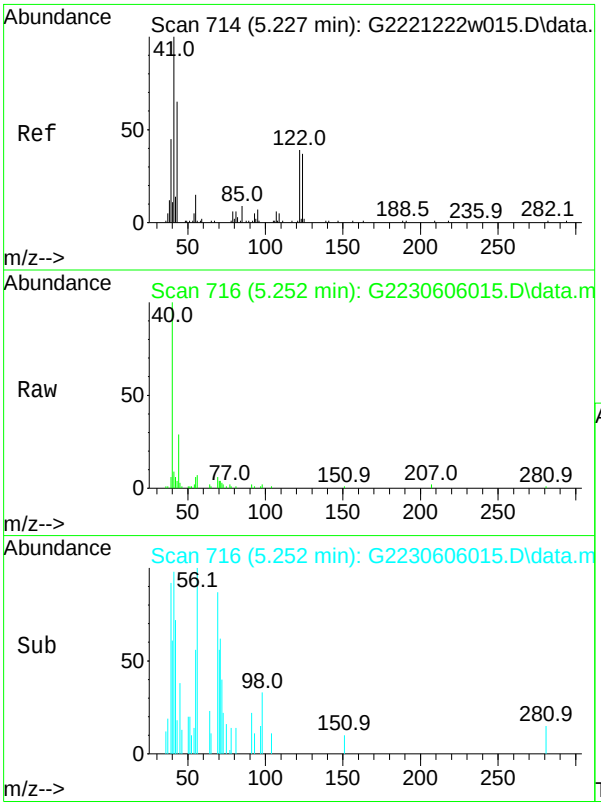


#31
Ethyl acetate
Concen: 458.92 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.187 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 61 Resp:27966979

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

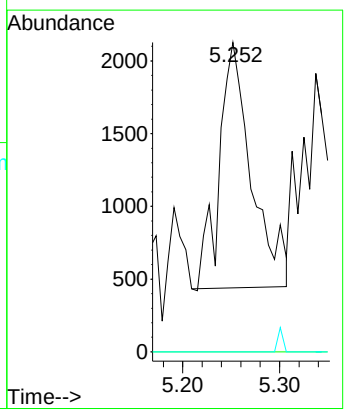


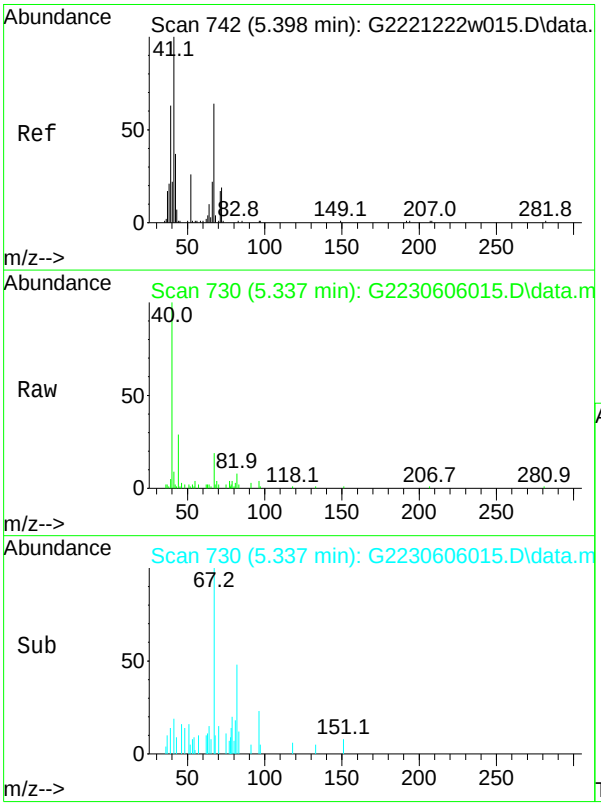


#33
1-Bromopropane
Concen: 0.06 ug/L
RT: 5.254 min Scan# 716
Delta R.T. 0.178 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 41 Resp: 38188

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

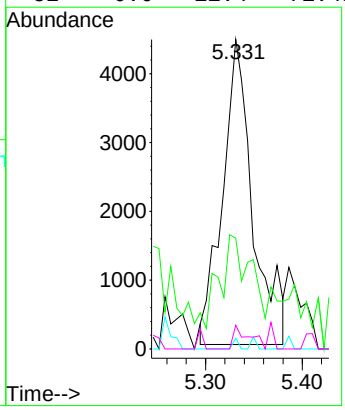


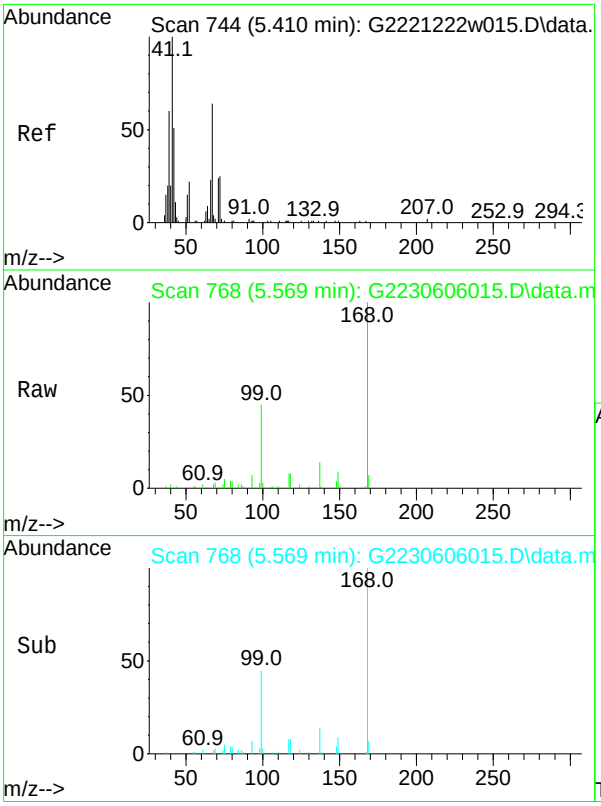


#35
Methacrylonitrile
Concen: 0.38 ug/L
RT: 5.335 min Scan# 730
Delta R.T. 0.158 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 67 Resp: 95560

Ion	Ratio	Lower	Upper
67	100		
39	0.0	22.4	122.4#
66	0.0	5.8	65.8#
52	0.0	11.4	71.4#

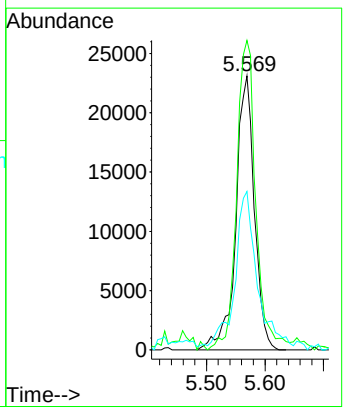


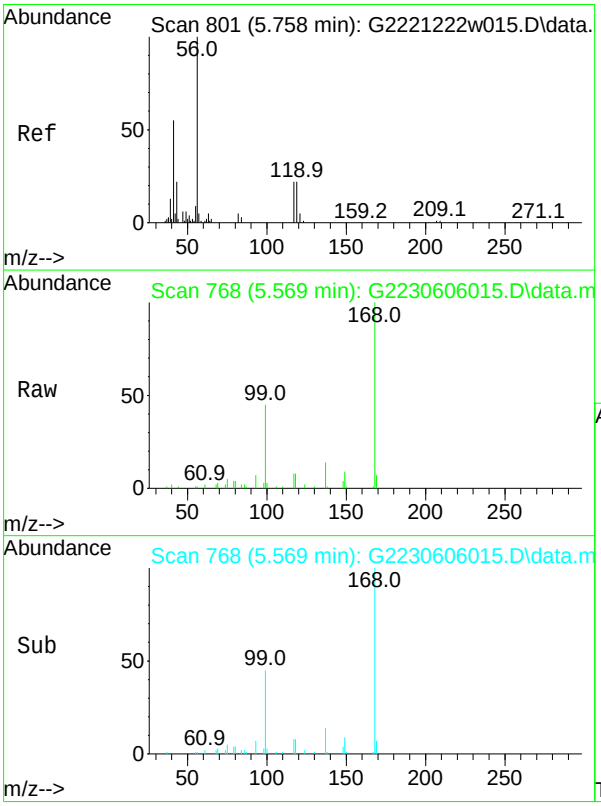


#40
Cyclohexane
Concen: 0.92 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 84 Resp: 507274

Ion	Ratio	Lower	Upper
84	100		
69	115.6	6.8	66.8#
56	62.6	79.1	139.1#

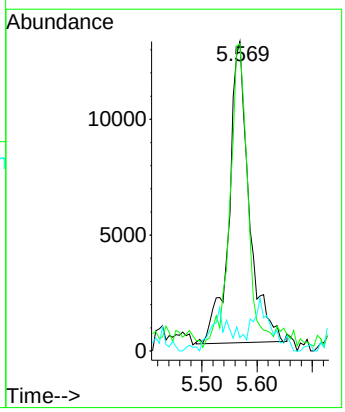


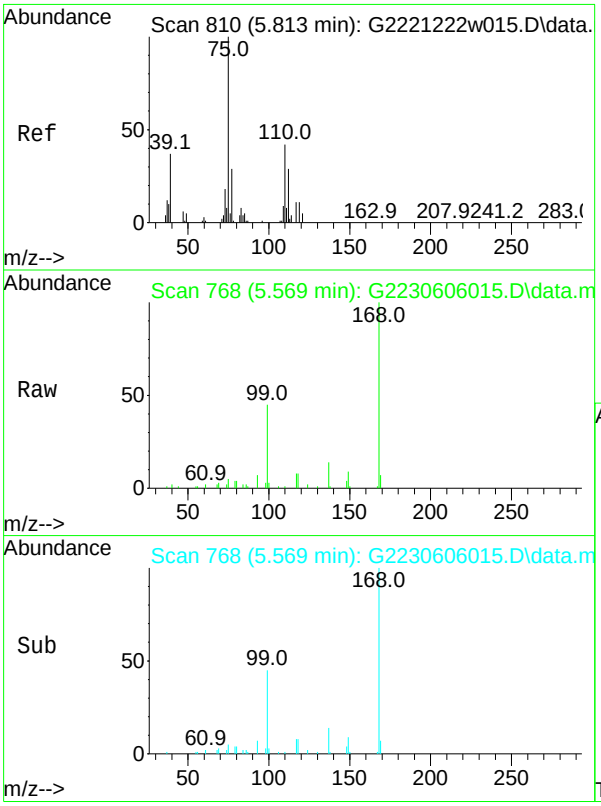


#41
1-Chlorobutane
Concen: 0.51 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.061 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 56 Resp: 327103

Ion	Ratio	Lower	Upper
56	100		
55	83.3	0.0	41.0#
57	10.5	0.0	35.7

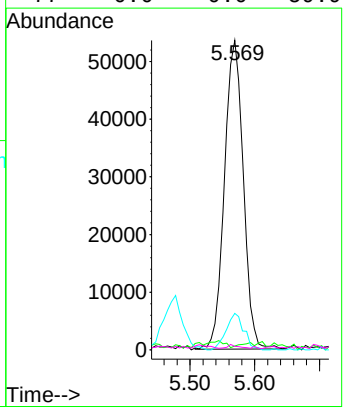


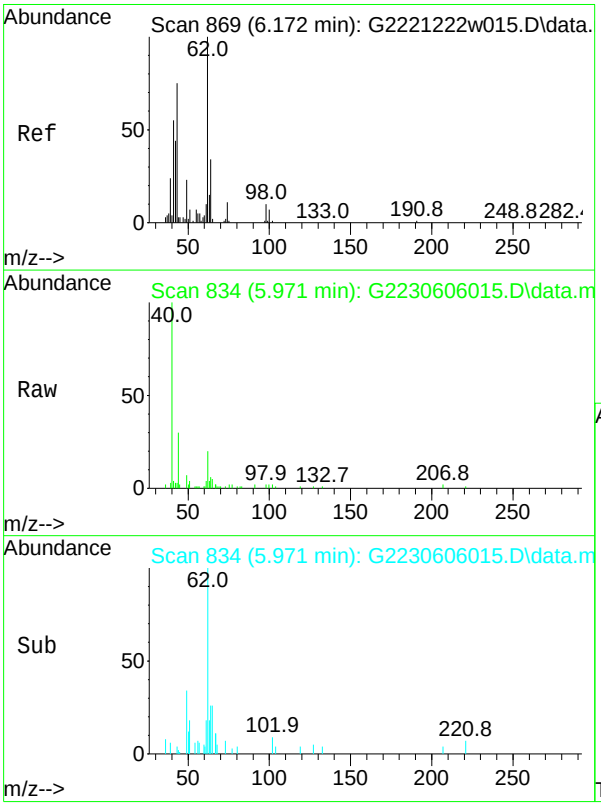


#42
1,1-Dichloropropene
Concen: 2.24 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 75 Resp: 1080778

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

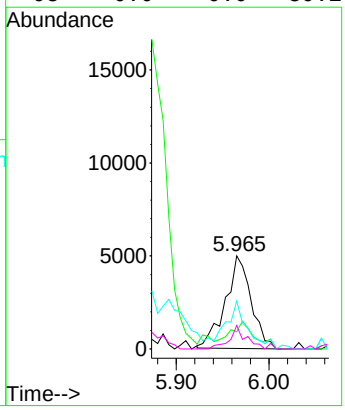


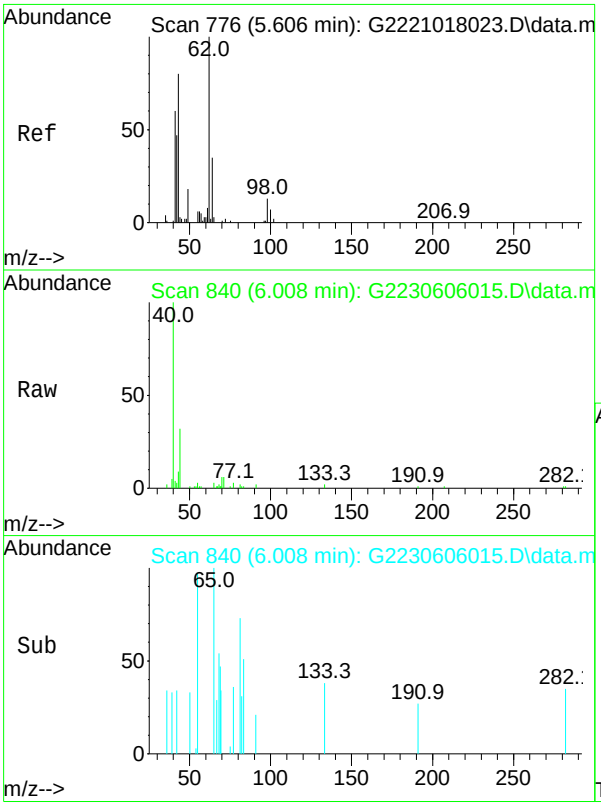


#44
1,2-Dichloroethane
Concen: 0.10 ug/L
RT: 5.970 min Scan# 834
Delta R.T. -0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 62 Resp: 96240

Ion	Ratio	Lower	Upper
62	100		
49	0.0	0.2	60.2#
64	43.8	3.0	63.0
98	0.0	0.0	39.1

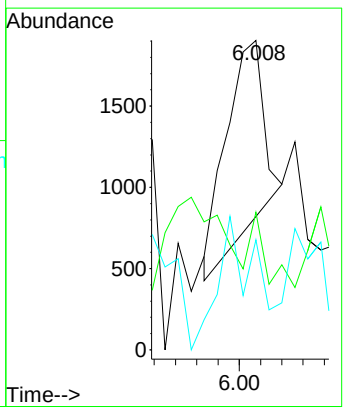


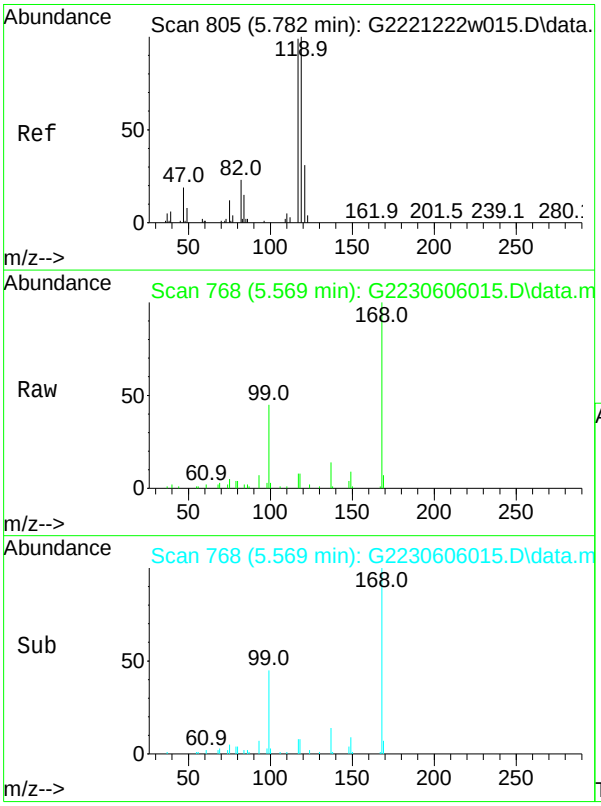


#45
Isobutanol
Concen: Below Cal
RT: 6.007 min Scan# 840
Delta R.T. 0.041 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 43 Resp: 12797

Ion	Ratio	Lower	Upper
43	100		
41	0.0	30.1	110.1#
42	0.0	28.4	88.4#

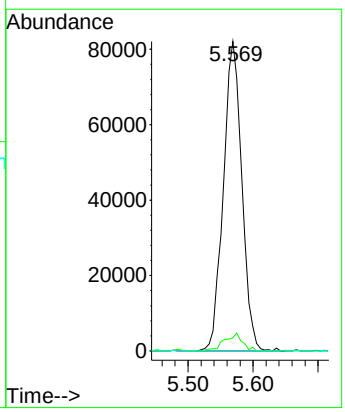


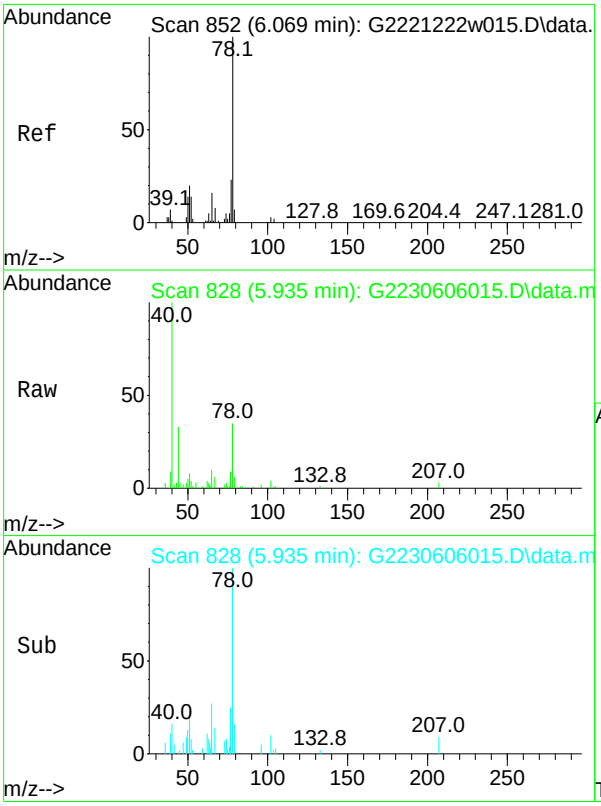


#47
Carbon tetrachloride
Concen: 2.95 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion:117 Resp: 1623051

Ion	Ratio	Lower	Upper
117	100		
119	5.7	66.4	126.4#
121	0.0	0.4	60.4#

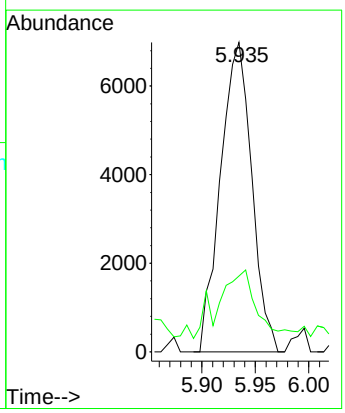


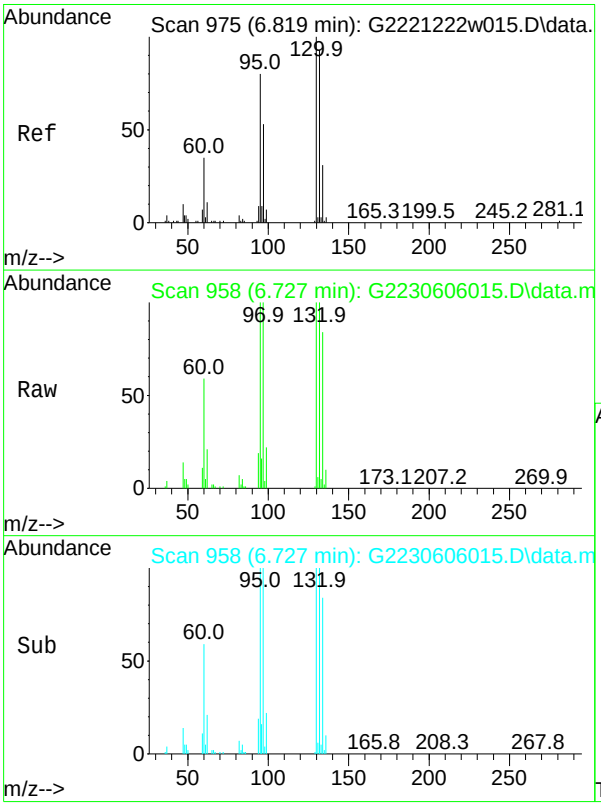


#48
Benzene
Concen: 0.09 ug/L
RT: 5.935 min Scan# 828
Delta R.T. 0.000 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 78 Resp: 142150

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

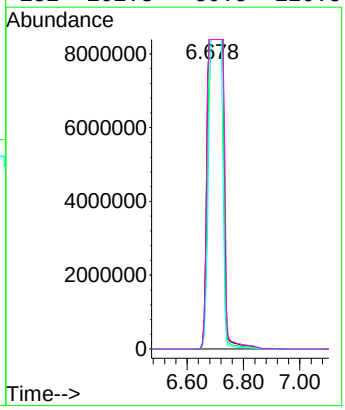


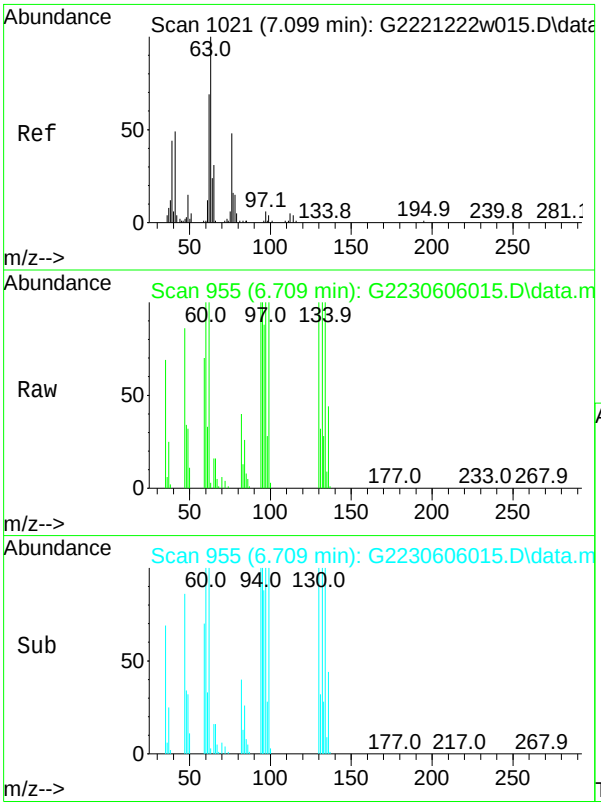


#50
Trichloroethene
Concen: 852.02 ug/L
RT: 6.725 min Scan# 958
Delta R.T. 0.029 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 95 Resp:340665669

Ion	Ratio	Lower	Upper
95	100		
97	93.4	35.5	95.5
60	83.1	14.8	74.8#
132	102.3	80.5	120.5

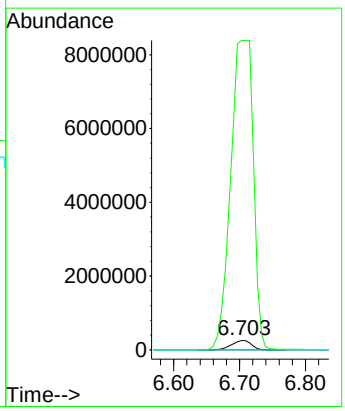


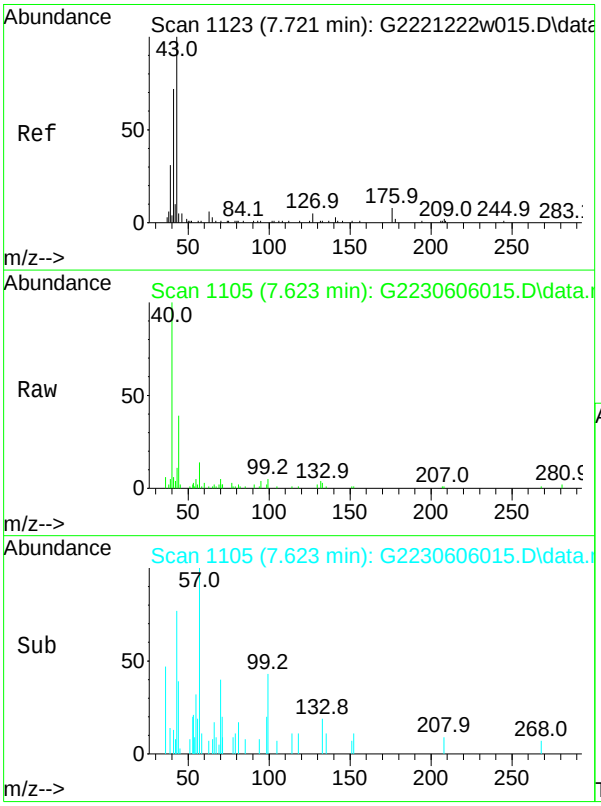


#52
1,2-Dichloropropane
Concen: 15.25 ug/L
RT: 6.707 min Scan# 955
Delta R.T. -0.239 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 63 Resp: 5260029

Ion	Ratio	Lower	Upper
63	100		
62	3827.4	35.2	95.2#
76	0.8	10.7	70.7#

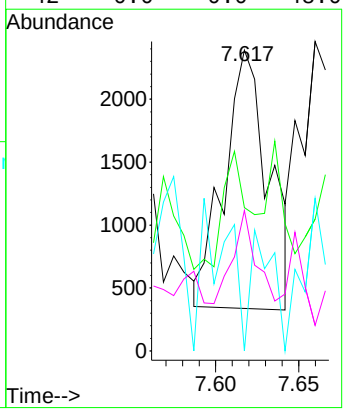


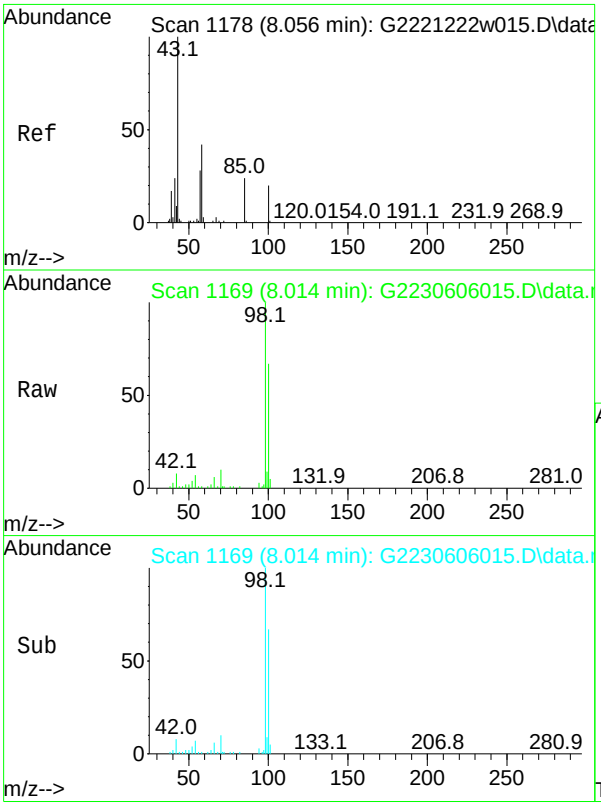


#57
2-Nitropropane
Concen: 0.06 ug/L
RT: 7.621 min Scan# 1105
Delta R.T. 0.097 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 43 Resp: 35632

Ion	Ratio	Lower	Upper
43	100		
41	0.0	58.2	118.2#
39	0.0	3.1	63.1#
42	0.0	0.0	48.0

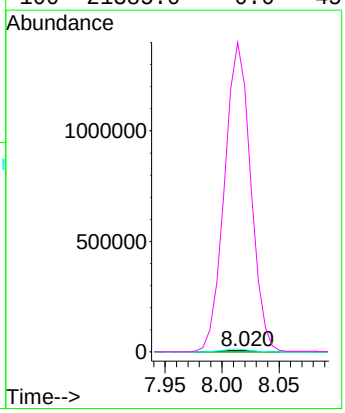


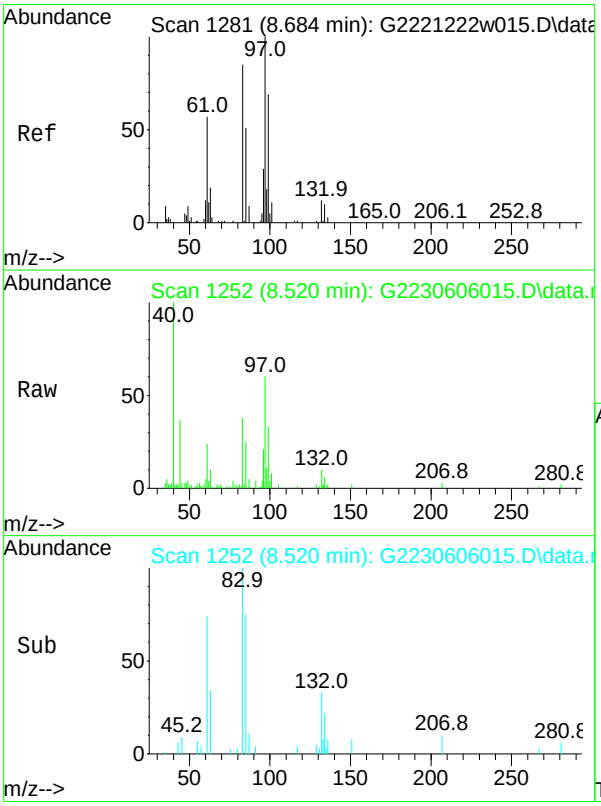


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.016 min Scan# 1169
Delta R.T. 0.072 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 43 Resp: 104522

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	205.6	37.0	37.0#
100	21385.0	0.0	45.2#

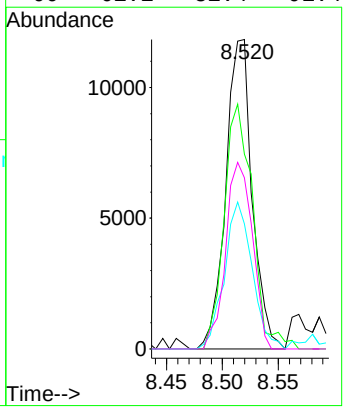


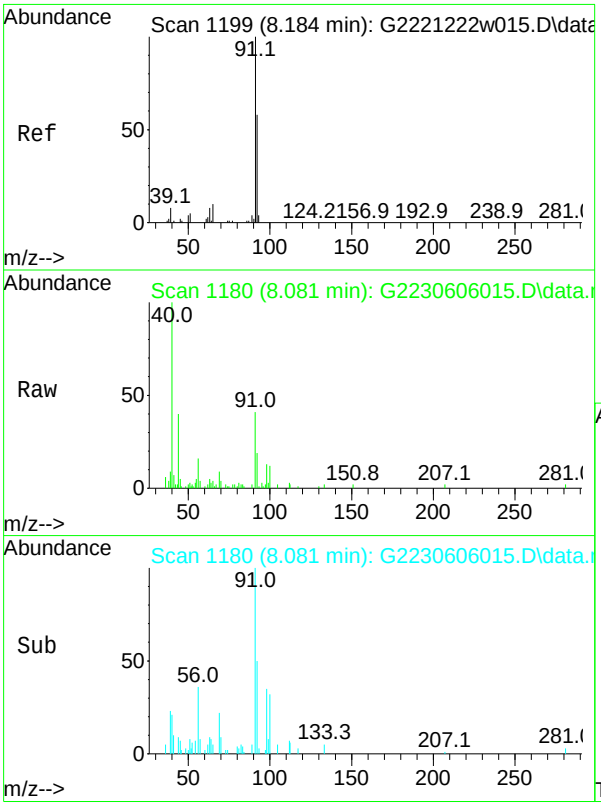


#62
1,1,2-Trichloroethane
Concen: 0.49 ug/L
RT: 8.518 min Scan# 1252
Delta R.T. -0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 97 Resp: 195197

Ion	Ratio	Lower	Upper
97	100		
83	84.9	53.8	113.8
61	53.2	29.0	89.0
99	61.1	31.4	91.4

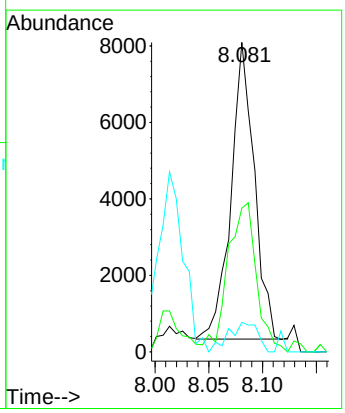


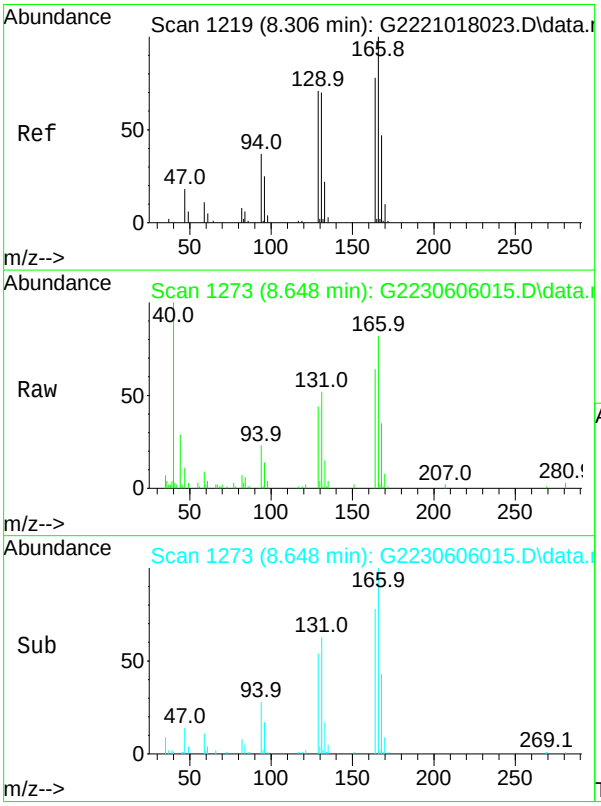


#65
Toluene
Concen: Below Cal
RT: 8.083 min Scan# 1180
Delta R.T. -0.003 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 91 Resp: 117220

Ion	Ratio	Lower	Upper
91	100		
92	61.7	27.5	87.5
65	0.0	0.0	41.4

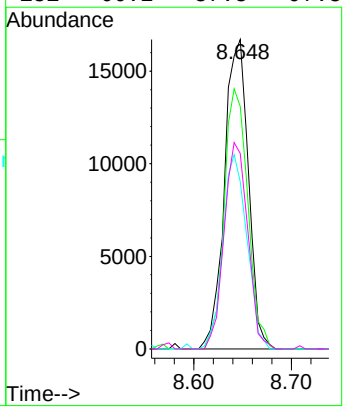


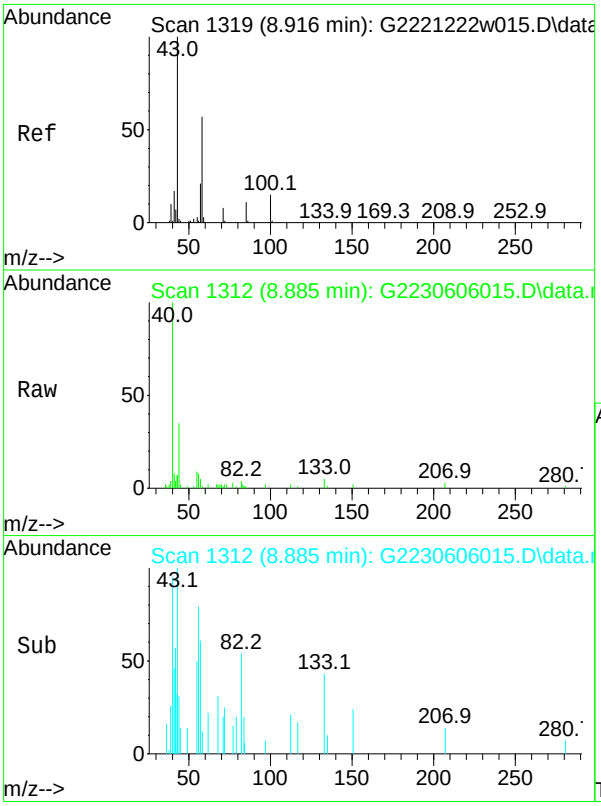


#67
Tetrachloroethene
Concen: 0.42 ug/L
RT: 8.647 min Scan# 1273
Delta R.T. -0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion:166 Resp: 282735

Ion	Ratio	Lower	Upper
166	100		
164	83.5	44.8	104.8
129	63.3	40.6	100.6
131	66.2	37.3	97.3

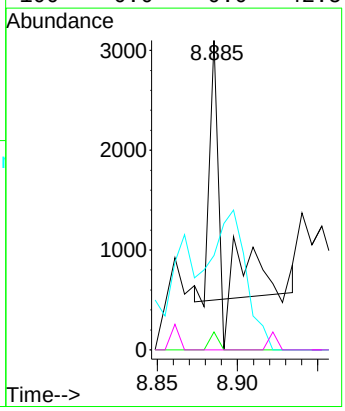


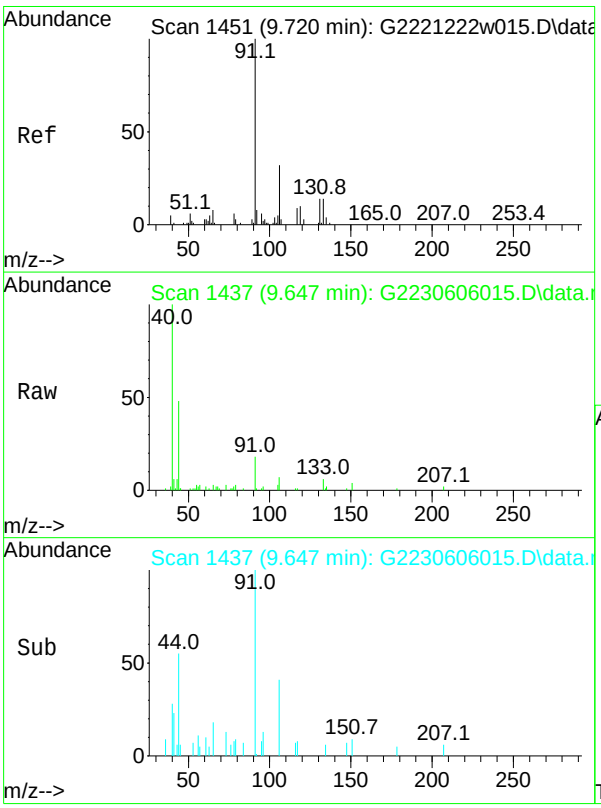


#69
2-Hexanone
Concen: Below Cal
RT: 8.887 min Scan# 1312
Delta R.T. 0.078 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 43 Resp: 13668

Ion	Ratio	Lower	Upper
43	100		
58	0.0	25.2	85.2#
57	303.1	0.0	49.3#
100	0.0	0.0	42.5

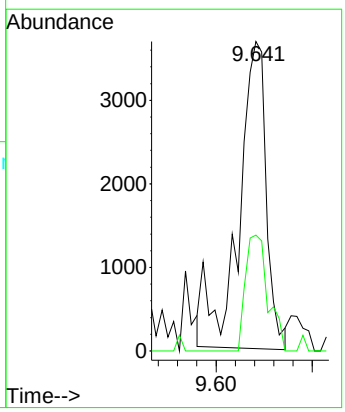


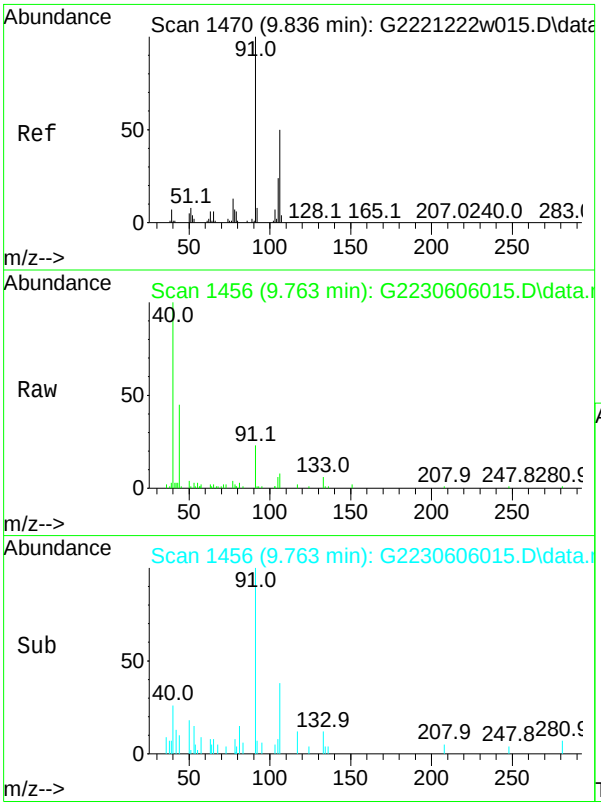


#74
Ethylbenzene
Concen: Below Cal
RT: 9.645 min Scan# 1437
Delta R.T. 0.002 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 91 Resp: 73930

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

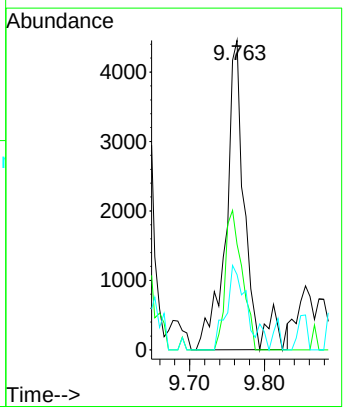


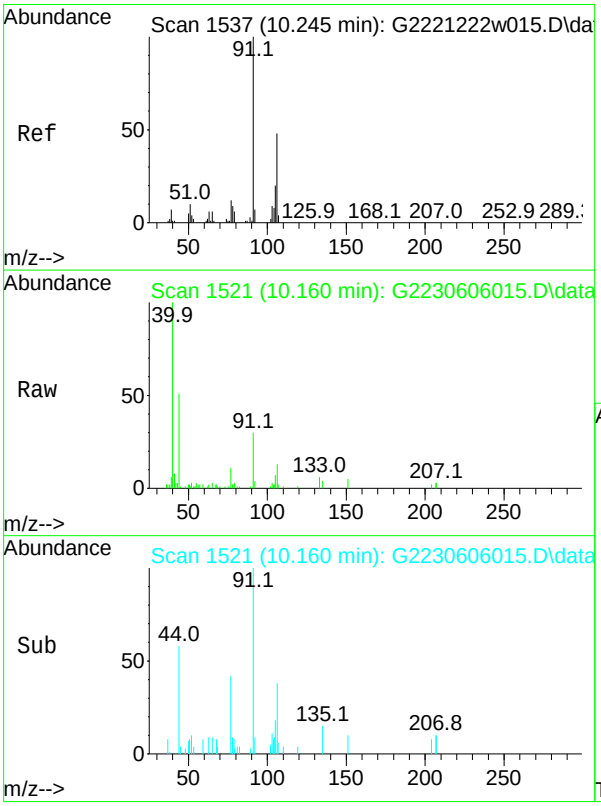


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.763 min Scan# 1456
Delta R.T. -0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 91 Resp: 78358

Ion	Ratio	Lower	Upper
91	100		
106	39.9	19.0	79.0
105	0.0	0.0	52.7

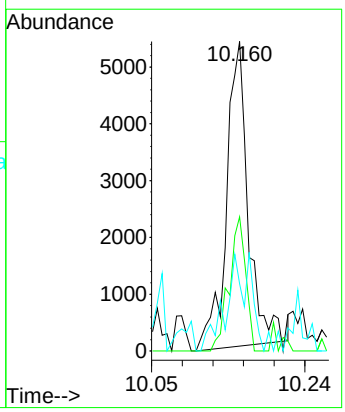


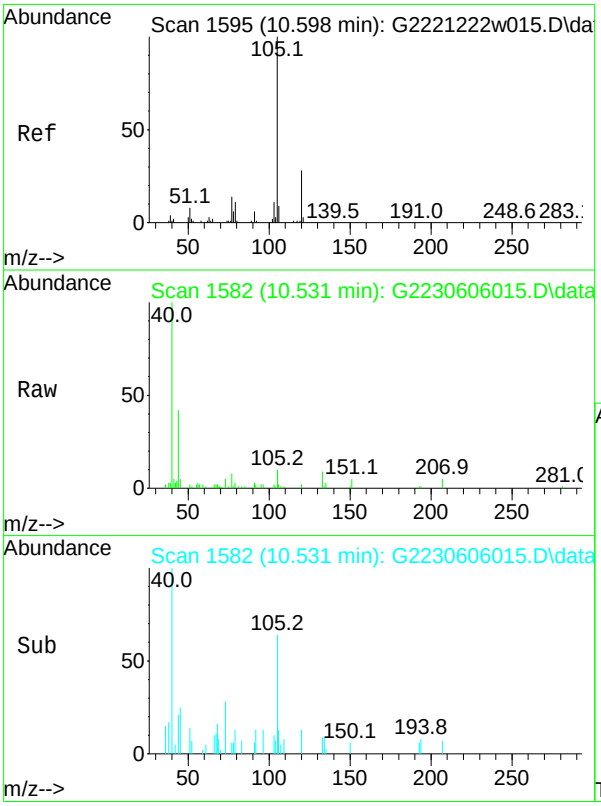


#79
o-Xylene
Concen: 0.06 ug/L
RT: 10.160 min Scan# 1521
Delta R.T. -0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 91 Resp: 100844

Ion	Ratio	Lower	Upper
91	100		
106	34.0	16.2	76.2
105	0.0	0.0	56.7

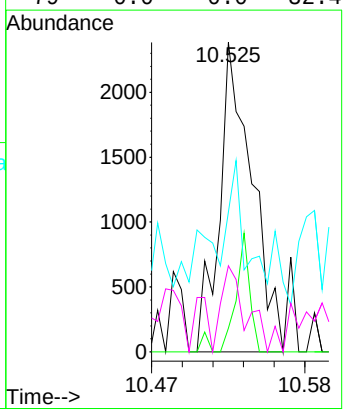


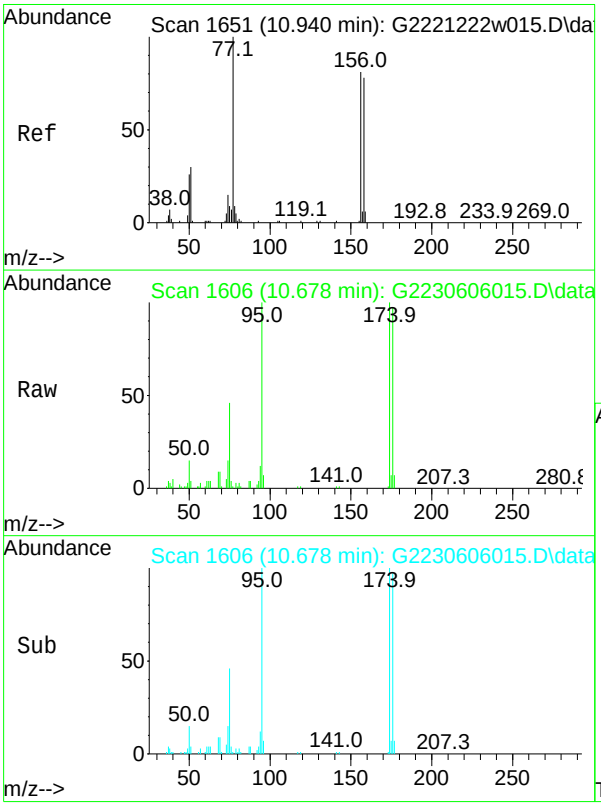


#80
Isopropylbenzene
Concen: 0.02 ug/L
RT: 10.529 min Scan# 1582
Delta R.T. -0.008 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion:105 Resp: 41820

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

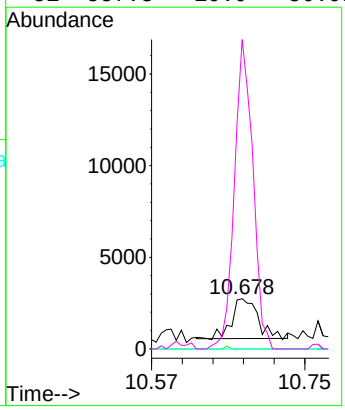


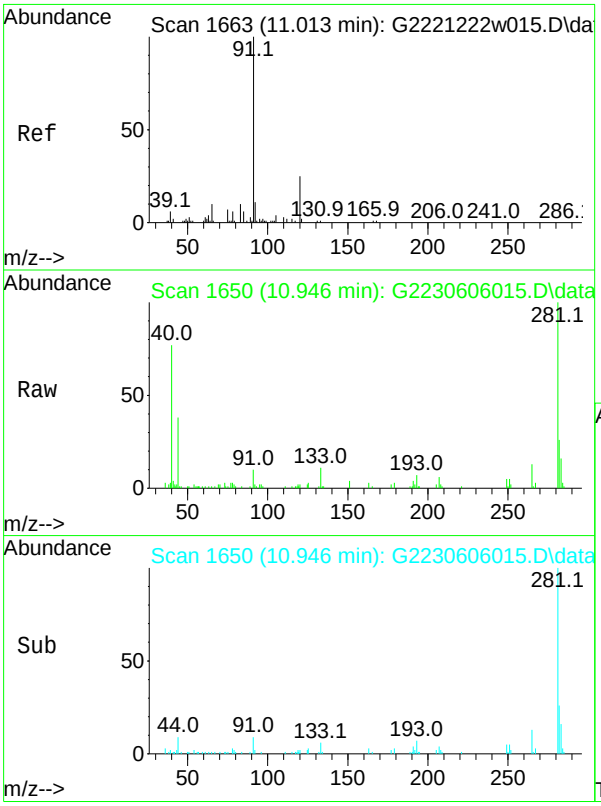


#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.679 min Scan# 1606
Delta R.T. -0.149 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 77 Resp: 47003

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	557.3	10.9	50.9#

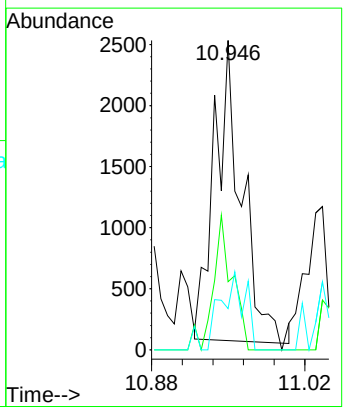


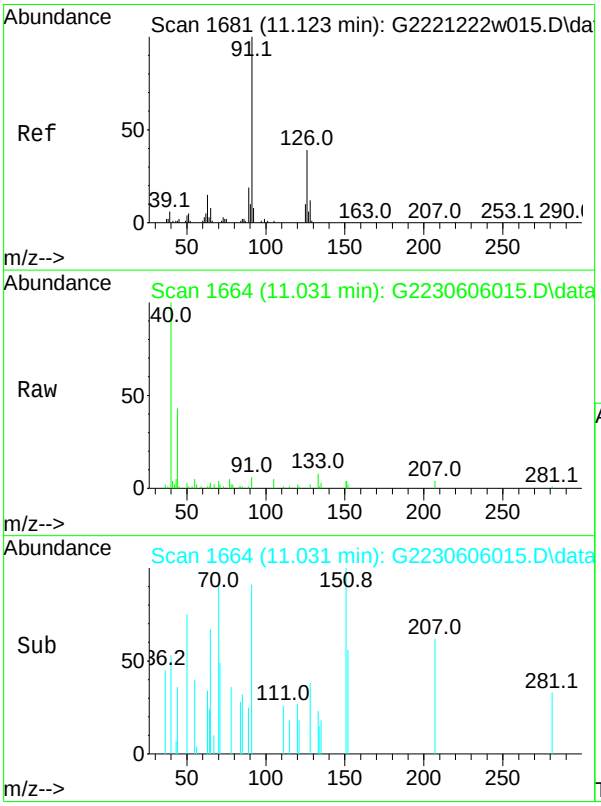


#86
n-Propylbenzene
Concen: 0.02 ug/L
RT: 10.948 min Scan# 1650
Delta R.T. -0.001 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 91 Resp: 42147

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.3
65	0.0	0.0	40.3

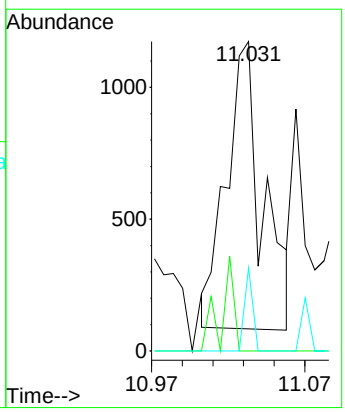


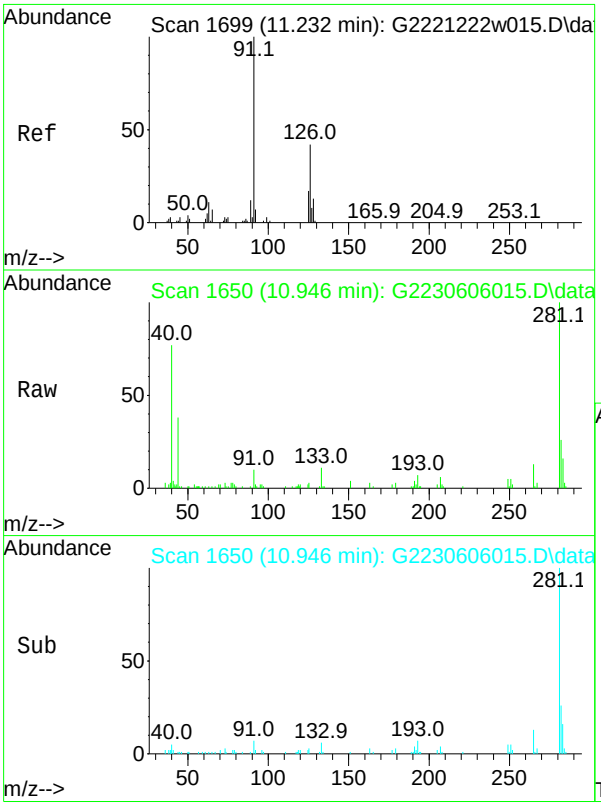


#87
2-Chlorotoluene
Concen: 0.01 ug/L
RT: 11.031 min Scan# 1664
Delta R.T. 0.003 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 91 Resp: 16863

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

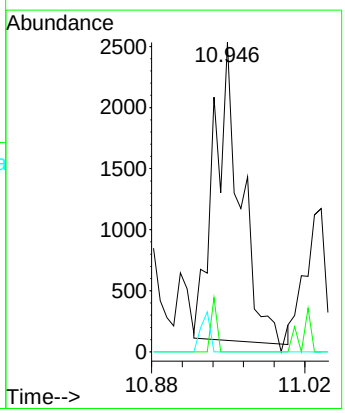


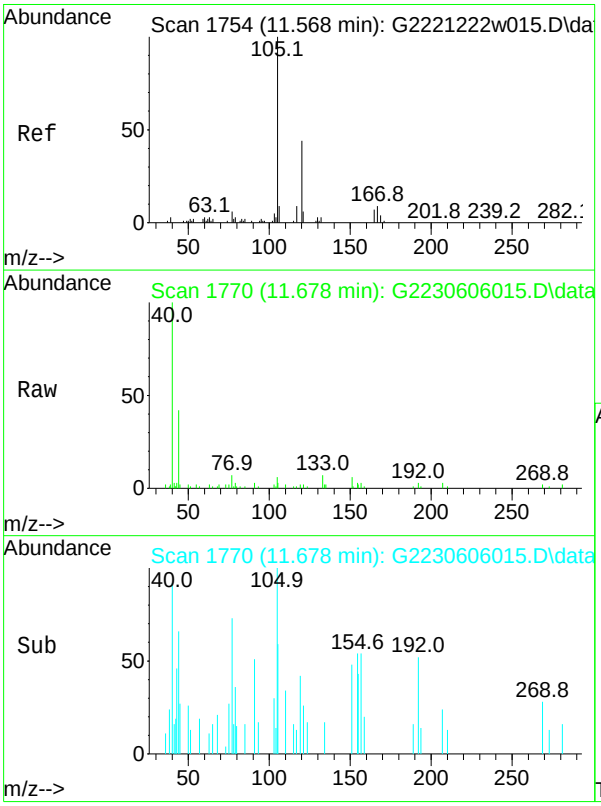


#88
4-Chlorotoluene
Concen: 0.03 ug/L
RT: 10.948 min Scan# 1650
Delta R.T. -0.189 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 91 Resp: 41328

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.7	60.7#
127	0.0	0.0	36.1

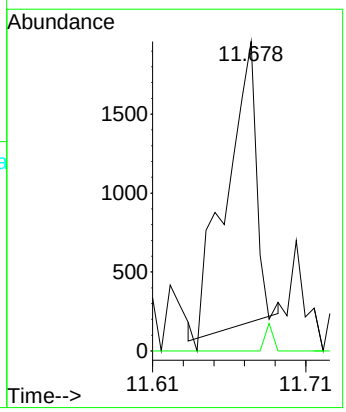


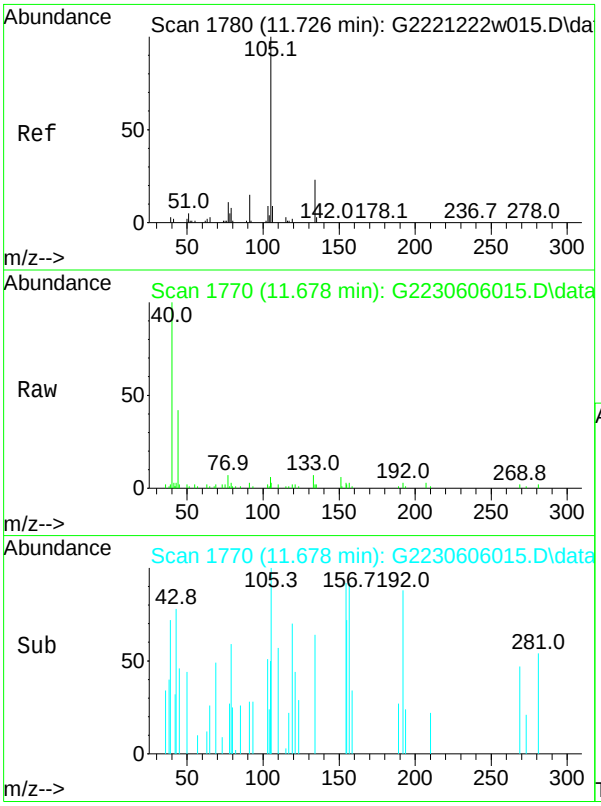


#92
1,2,4-Trimethylbenzene
Concen: 0.02 ug/L
RT: 11.677 min Scan# 1770
Delta R.T. 0.175 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion:105 Resp: 25072

Ion	Ratio	Lower	Upper
105	100		
120	0.0	14.4	74.4#

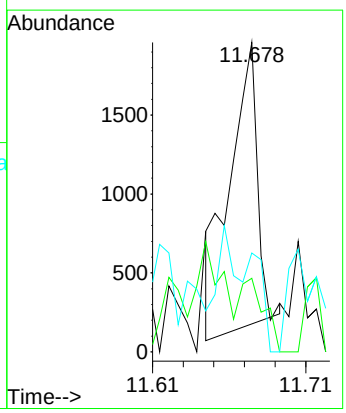


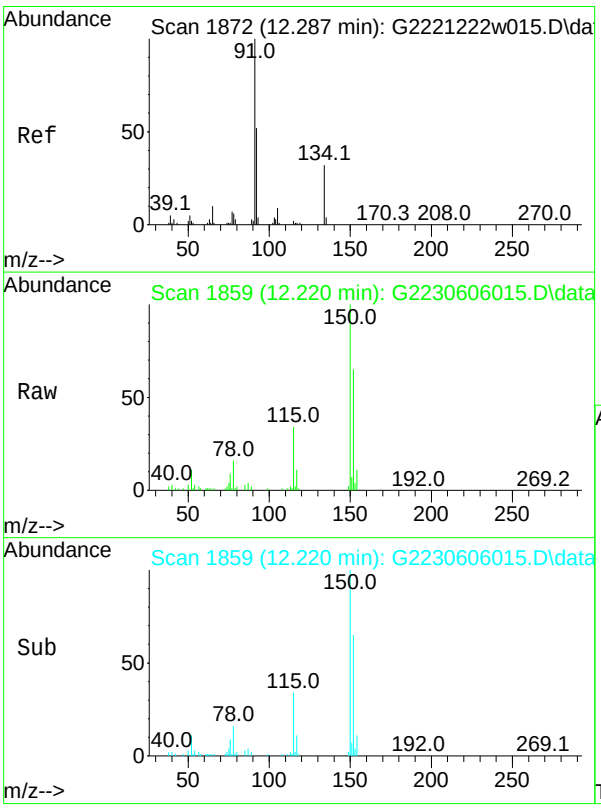


#93
sec-Butylbenzene
Concen: 0.01 ug/L
RT: 11.677 min Scan# 1770
Delta R.T. 0.004 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion:105 Resp: 24812

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	50.7
91	0.0	0.0	46.0

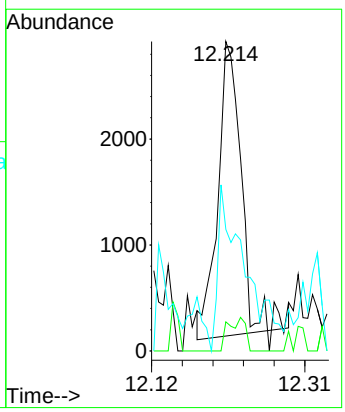




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.219 min Scan# 1859
Delta R.T. -0.012 min
Lab File: G2230606015.D
Acq: 06 Jun 2023 16:29

Tgt Ion: 91 Resp: 56177

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

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21RE1	File ID:	G2230607013.D
Sampled:	05/28/23 12:07	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 19:50
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	*1,1,1,2-Tetrachloroethane*		*13.0*	*40.0*	*100*	*U*
71-55-6	*1,1,1-Trichloroethane*		*17.5*	*40.0*	*100*	*U*
79-34-5	*1,1,2,2-Tetrachloroethane*		*12.4*	*40.0*	*100*	*U*
79-00-5	*1,1,2-Trichloroethane*		*16.6*	*40.0*	*100*	*U*
75-34-3	*1,1-Dichloroethane*		*13.4*	*40.0*	*100*	*U*
75-35-4	1,1-Dichloroethene	46.0	19.1	40.0	100	J, D
563-58-6	*1,1-Dichloropropene*		*14.0*	*40.0*	*100*	*U*
87-61-6	*1,2,3-Trichlorobenzene*		*20.4*	*40.0*	*100*	*U*
96-18-4	*1,2,3-Trichloropropane*		*18.3*	*40.0*	*100*	*U*
120-82-1	*1,2,4-Trichlorobenzene*		*20.5*	*60.0*	*120*	*U*
95-63-6	*1,2,4-Trimethylbenzene*		*13.2*	*40.0*	*100*	*U*
96-12-8	*1,2-Dibromo-3-chloropropane*		*26.0*	*100*	*200*	*U*
106-93-4	*1,2-Dibromoethane*		*10.6*	*40.0*	*100*	*U*
95-50-1	*1,2-Dichlorobenzene*		*12.6*	*40.0*	*100*	*U*
107-06-2	*1,2-Dichloroethane*		*21.2*	*60.0*	*120*	*U*
78-87-5	*1,2-Dichloropropane*		*20.5*	*60.0*	*120*	*U*
108-67-8	*1,3,5-Trimethylbenzene*		*10.0*	*40.0*	*100*	*U*
541-73-1	*1,3-Dichlorobenzene*		*14.5*	*40.0*	*100*	*U*
142-28-9	*1,3-Dichloropropane*		*13.6*	*40.0*	*100*	*U*
106-46-7	*1,4-Dichlorobenzene*		*18.4*	*40.0*	*100*	*U*
594-20-7	*2,2-Dichloropropane*		*18.4*	*40.0*	*100*	*U*
78-93-3	*2-Butanone*		*66.0*	*140*	*350*	*U*
95-49-8	*2-Chlorotoluene*		*14.7*	*40.0*	*100*	*U*
591-78-6	*2-Hexanone*		*14.3*	*140*	*350*	*U*
106-43-4	*4-Chlorotoluene*		*18.4*	*40.0*	*100*	*U*
99-87-6	*4-Isopropyltoluene*		*14.0*	*40.0*	*100*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21RE1	File ID:	G2230607013.D
Sampled:	05/28/23 12:07	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 19:50
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	*4-Methyl-2-pentanone*		*27.0*	*140*	*350*	*U*
67-64-1	*Acetone*		*104*	*400*	*800*	*U*
71-43-2	*Benzene*		*10.1*	*40.0*	*100*	*U*
108-86-1	*Bromobenzene*		*17.0*	*40.0*	*100*	*U*
74-97-5	*Bromochloromethane*		*13.4*	*40.0*	*100*	*U*
75-27-4	*Bromodichloromethane*		*10.6*	*40.0*	*100*	*U*
75-25-2	*Bromoform*		*20.6*	*40.0*	*100*	*U*
74-83-9	*Bromomethane*		*32.0*	*100*	*200*	*U*
75-15-0	*Carbon disulfide*		*28.0*	*100*	*200*	*U*
56-23-5	*Carbon tetrachloride*		*16.9*	*40.0*	*100*	*U*
108-90-7	*Chlorobenzene*		*13.0*	*40.0*	*100*	*U*
75-00-3	*Chloroethane*		*31.1*	*40.0*	*100*	*U*
67-66-3	*Chloroform*		*20.3*	*60.0*	*120*	*U*
74-87-3	*Chloromethane*		*38.4*	*100*	*200*	*U*
156-59-2	cis-1,2-Dichloroethene	34.0	20.5	60.0	120	J, D
10061-01-5	*cis-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
124-48-1	*Dibromochloromethane*		*15.2*	*40.0*	*100*	*U*
74-95-3	*Dibromomethane*		*16.3*	*40.0*	*100*	*U*
75-71-8	*Dichlorodifluoromethane*		*25.9*	*100*	*200*	*U*
100-41-4	*Ethylbenzene*		*6.00*	*20.0*	*40.0*	*U*
87-68-3	*Hexachlorobutadiene*		*20.0*	*40.0*	*100*	*U*
98-82-8	*Isopropylbenzene*		*11.0*	*40.0*	*100*	*U*
179601-23-1	*m,p-Xylene*		*17.8*	*80.0*	*200*	*U*
1634-04-4	*Methyl tert-butyl ether*		*10.6*	*40.0*	*100*	*U*
75-09-2	*Methylene chloride*		*44.7*	*100*	*200*	*U*
104-51-8	*n-Butylbenzene*		*26.0*	*100*	*200*	*U*

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

528LHSMW56R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-21RE1	File ID:	G2230607013.D
Sampled:	05/28/23 12:07	Prepared:	06/07/23 15:50	Analyzed:	06/07/23 19:50
		Preparation:	5030_W	Dilution:	200
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0313	Sequence:	S3F0161	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	*n-Propylbenzene*		*12.6*	*40.0*	*100*	*U*
91-20-3	*Naphthalene*		*14.0*	*40.0*	*100*	*U*
95-47-6	*o-Xylene*		*8.32*	*40.0*	*100*	*U*
135-98-8	*sec-Butylbenzene*		*12.0*	*40.0*	*100*	*U*
100-42-5	*Styrene*		*9.06*	*20.0*	*40.0*	*U*
98-06-6	*tert-Butylbenzene*		*9.06*	*40.0*	*100*	*U*
127-18-4	*Tetrachloroethene*		*35.7*	*100*	*200*	*Q, U*
108-88-3	*Toluene*		*11.4*	*40.0*	*100*	*U*
156-60-5	*trans-1,2-Dichloroethene*		*17.1*	*40.0*	*100*	*U*
10061-02-6	*trans-1,3-Dichloropropene*		*11.7*	*40.0*	*100*	*U*
79-01-6	Trichloroethene	5190	15.6	40.0	100	B, D
75-69-4	*Trichlorofluoromethane*		*10.1*	*40.0*	*100*	*U*
75-01-4	*Vinyl chloride*		*25.8*	*100*	*200*	*U*

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607013.D
Acq On : 07 Jun 2023 19:50
Operator : PO1
Sample : 23E0775-21RE1
Misc : 200
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 08 09:42:44 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

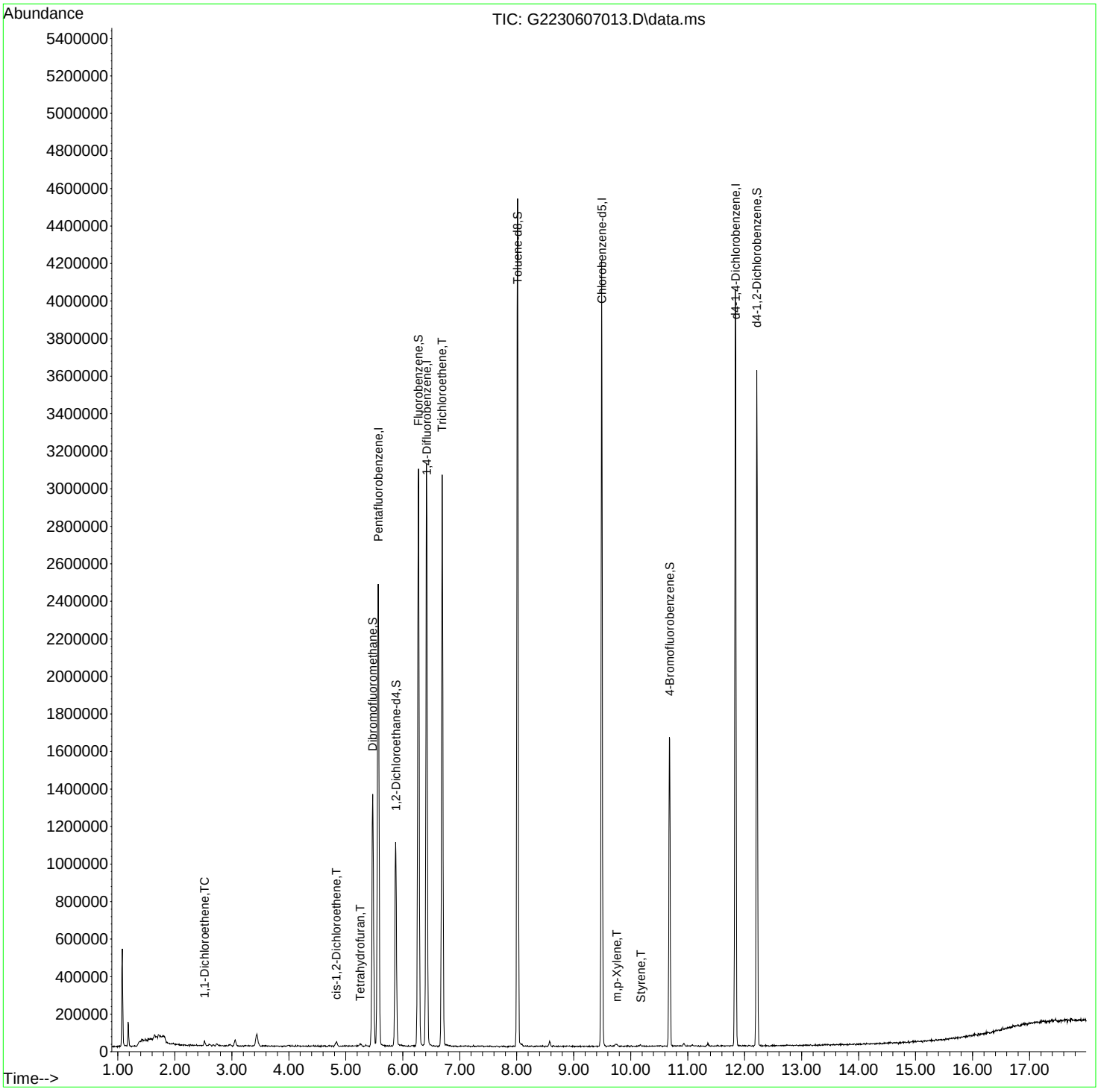
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	19734940	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	27121278	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	24082795	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11466932	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	8424913	19.40	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.00%			
43) 1,2-Dichloroethane-d4	5.877	65	7628864	17.77	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.85%			
49) Fluorobenzene	6.277	96	29964793	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
64) Toluene-d8	8.016	98	29051073	19.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.70%			
81) 4-Bromofluorobenzene	10.685	174	5312269	9.81	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%			
97) d4-1,2-Dichlorobenzene	12.217	152	10050430	20.38	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.90%			
Target Compounds						Qvalue
10) 1,1-Dichloroethene	2.522	61	131918	0.23	ug/L	84
18) Methylene chloride	3.064	49	152857	Below Cal	#	64
21) Methyl tert-butyl ether	3.443	73	878835	Below Cal		96
28) cis-1,2-Dichloroethene	4.834	61	125407	0.17	ug/L #	67
36) Tetrahydrofuran	5.250	42	78460	0.21	ug/L	64
50) Trichloroethene	6.694	95	9274676	25.96	ug/L	91
75) m,p-Xylene	9.760	91	63188	0.05	ug/L #	36
76) Styrene	10.176	104	31204	0.03	ug/L #	29

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607013.D
Acq On : 07 Jun 2023 19:50
Operator : PO1
Sample : 23E0775-21RE1
Misc : 200
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 08 09:42:44 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607013.D
Acq On : 07 Jun 2023 19:50
Operator : PO1
Sample : 23E0775-21RE1
Misc : 200
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 08 09:42:44 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	19734940	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	27121278	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.493	117	24082795	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	11466932	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.474	111	8424913	19.40	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.00%				
43) 1,2-Dichloroethane-d4	5.877	65	7628864	17.77	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.85%				
49) Fluorobenzene	6.277	96	29964793	19.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%				
64) Toluene-d8	8.016	98	29051073	19.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.70%				
81) 4-Bromofluorobenzene	10.685	174	5312269	9.81	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%				
97) d4-1,2-Dichlorobenzene	12.217	152	10050430	20.38	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.90%				
Target Compounds							Qvalue
5) Bromomethane	1.720	94	61973	Below Cal		#	82
10) 1,1-Dichloroethene	2.522	61	131918	0.23	ug/L		84
12) Acetone	2.603	43	82126	Below Cal		#	45
13) Iodomethane	2.678	142	39864	0.09	ug/L	#	41
14) Carbon disulfide	2.739	76	156930	0.09	ug/L	#	74
17) 3-Chloro-1-propene	2.739	76	156939	0.71	ug/L	#	53
18) Methylene chloride	3.064	49	152857	Below Cal		#	64
21) Methyl tert-butyl ether	3.443	73	878835	Below Cal			96
26) 1-propanol	4.224	59	556	0.27	ug/L	#	100
28) cis-1,2-Dichloroethene	4.834	61	125407	0.17	ug/L	#	67
31) Ethyl acetate	4.835	61	125404	1.91	ug/L	#	45
33) 1-Bromopropane	5.259	41	49719	0.12	ug/L	#	40
36) Tetrahydrofuran	5.250	42	78460	0.21	ug/L		64
40) Cyclohexane	5.569	84	431616	0.81	ug/L	#	31
41) 1-Chlorobutane	5.573	56	243069	0.39	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	1022573	2.21	ug/L	#	38
47) Carbon tetrachloride	5.571	117	1621392	3.31	ug/L	#	16
48) Benzene	5.935	78	37957	0.03	ug/L	#	52
50) Trichloroethene	6.694	95	9274676	25.96	ug/L		91
60) 4-Methyl-2-pentanone	8.012	43	98384	Below Cal		#	1
65) Toluene	8.088	91	40625	Below Cal		#	30
74) Ethylbenzene	9.760	91	63197	Below Cal			72
75) m,p-Xylene	9.760	91	63188	0.05	ug/L	#	36
76) Styrene	10.176	104	31204	0.03	ug/L	#	29
82) Bromobenzene	10.676	77	44705	0.07	ug/L	#	1
99) n-Butylbenzene	12.221	91	35910	Below Cal		#	53

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607013.D
Acq On : 07 Jun 2023 19:50
Operator : PO1
Sample : 23E0775-21RE1
Misc : 200
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 08 09:42:44 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

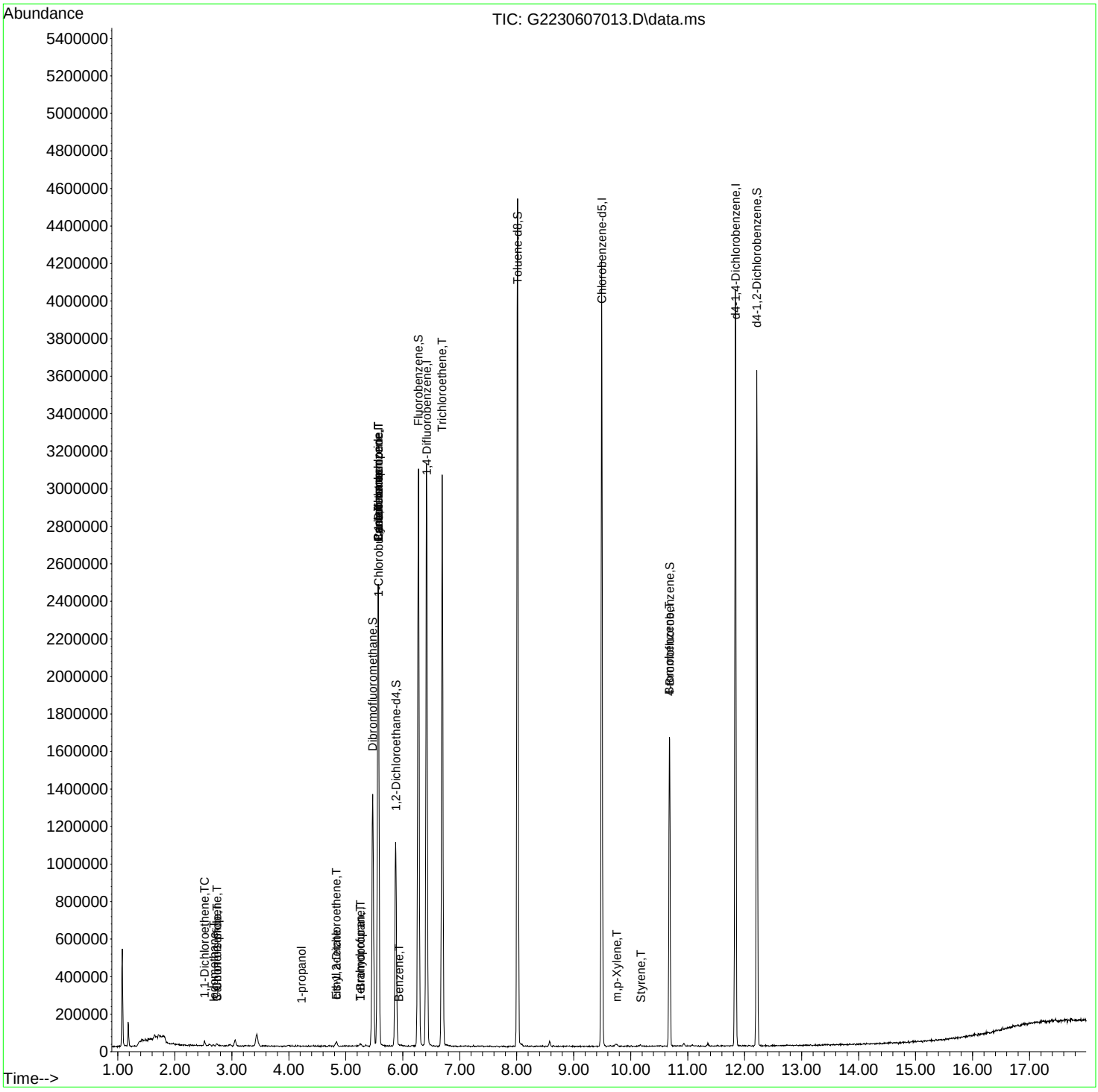
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

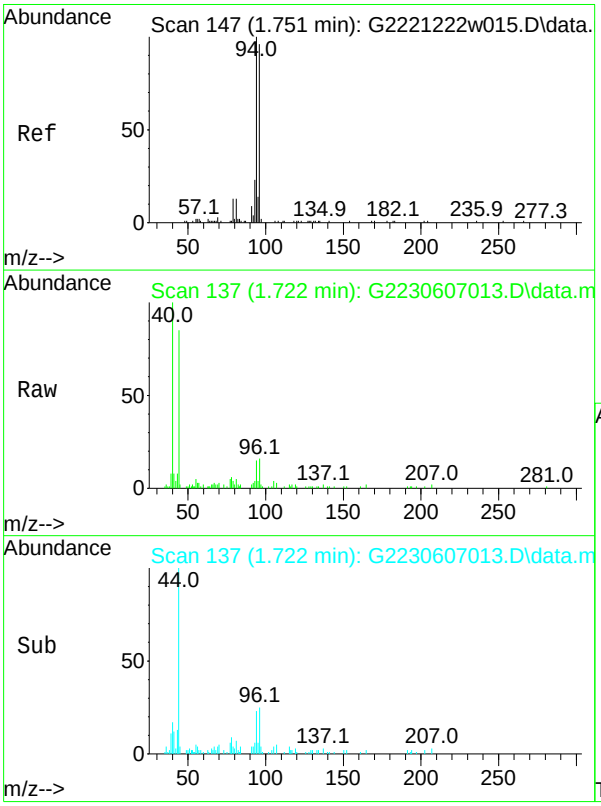
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230607\
Data File : G2230607013.D
Acq On : 07 Jun 2023 19:50
Operator : PO1
Sample : 23E0775-21RE1
Misc : 200
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 08 09:42:44 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

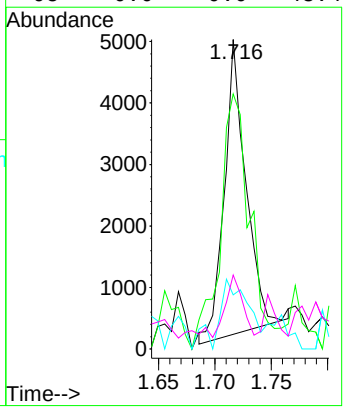


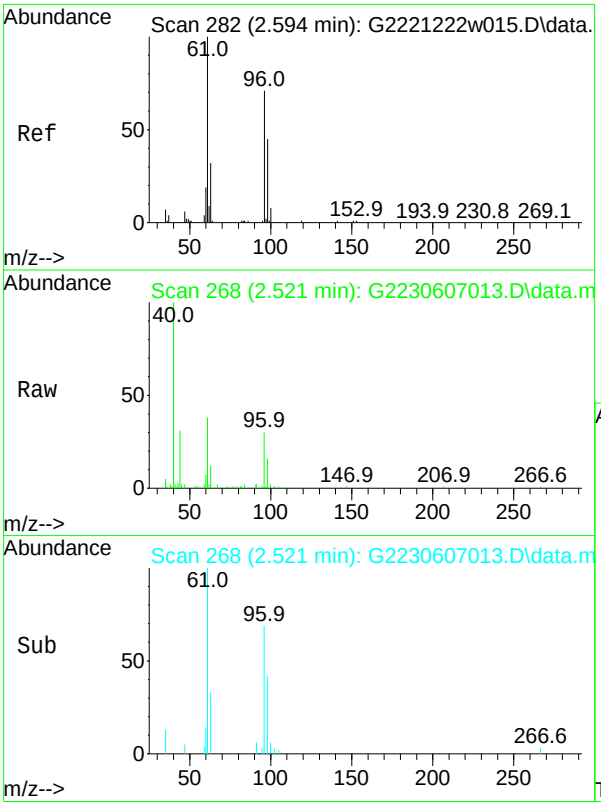


#5
Bromomethane
Concen: Below Cal
RT: 1.720 min Scan# 137
Delta R.T. 0.006 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 94 Resp: 61973

Ion	Ratio	Lower	Upper
94	100		
96	106.4	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

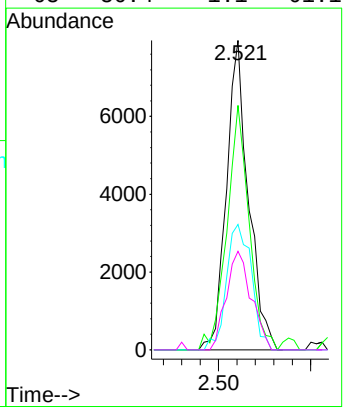


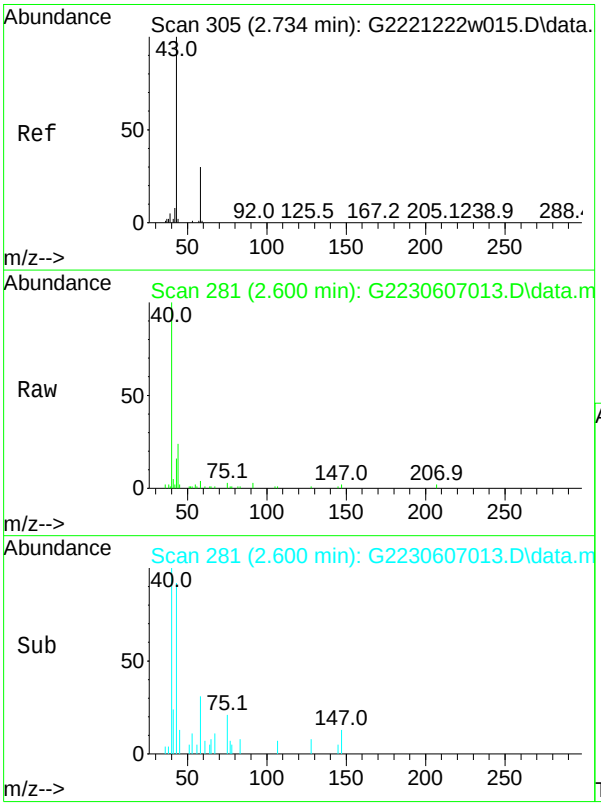


#10
1,1-Dichloroethene
Concen: 0.23 ug/L
RT: 2.522 min Scan# 268
Delta R.T. -0.001 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 61 Resp: 131918

Ion	Ratio	Lower	Upper
61	100		
96	79.5	32.7	92.7
98	46.2	9.3	69.3
63	36.4	1.1	61.1

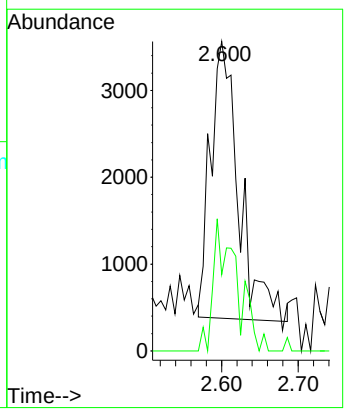


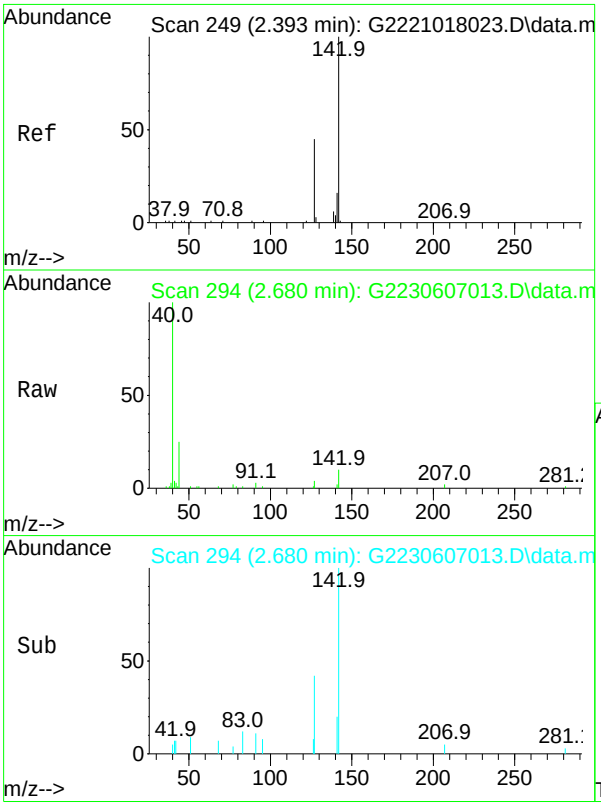


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 281
Delta R.T. -0.005 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 43 Resp: 82126

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

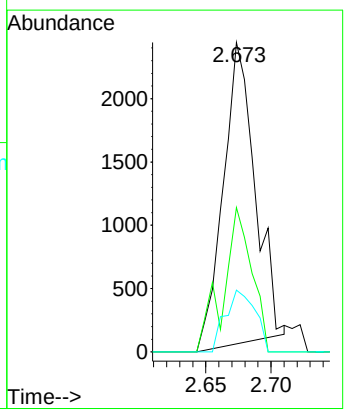


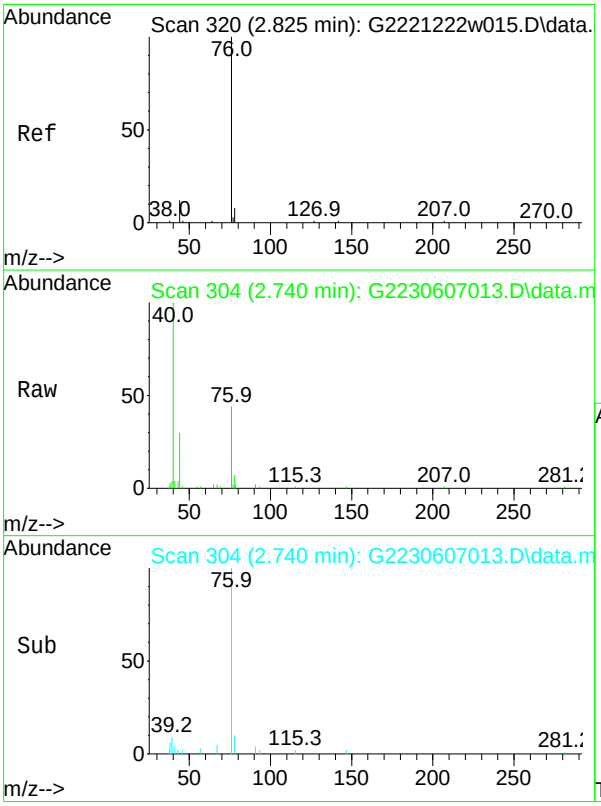


#13
Iodomethane
Concen: 0.09 ug/L
RT: 2.678 min Scan# 294
Delta R.T. 0.002 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion:142 Resp: 39864

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

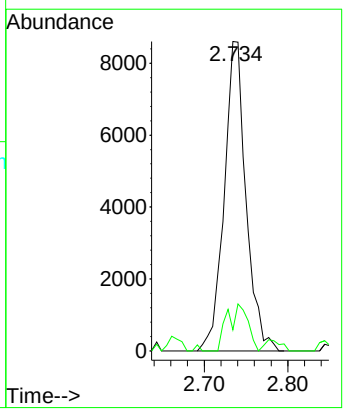


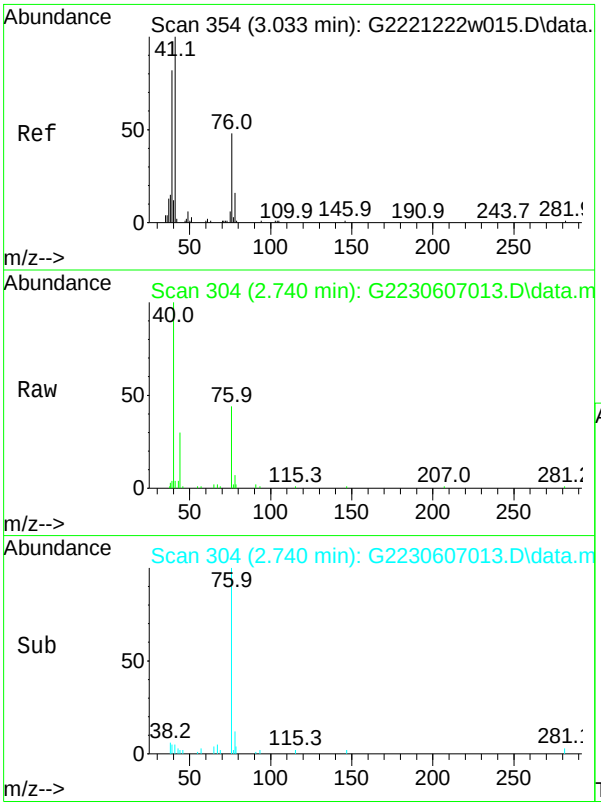


#14
Carbon disulfide
Concen: 0.09 ug/L
RT: 2.739 min Scan# 304
Delta R.T. 0.000 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 76 Resp: 156930

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

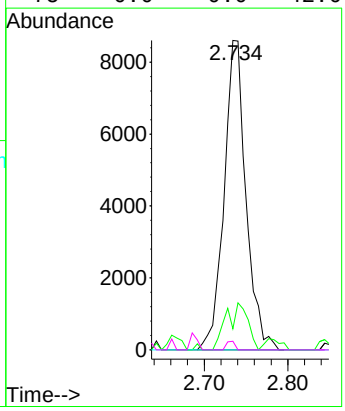


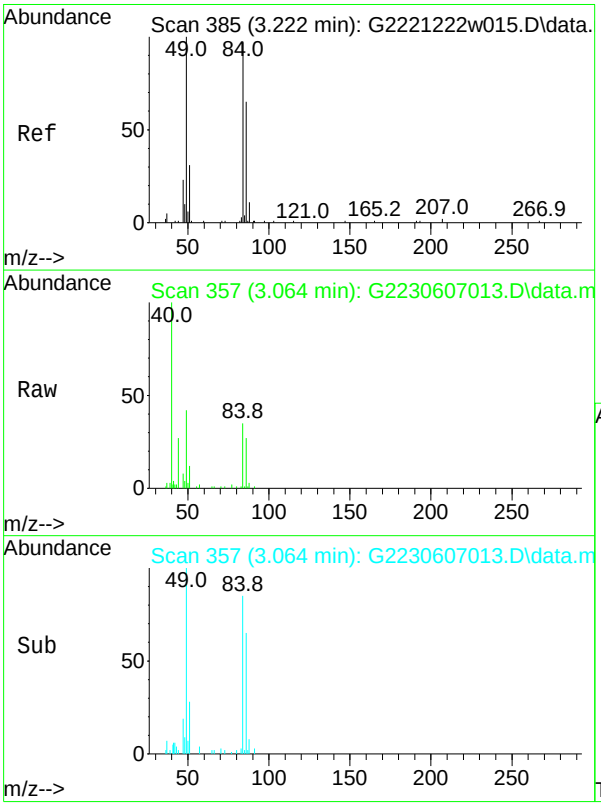


#17
3-Chloro-1-propene
Concen: 0.71 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.181 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 76 Resp: 156939

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

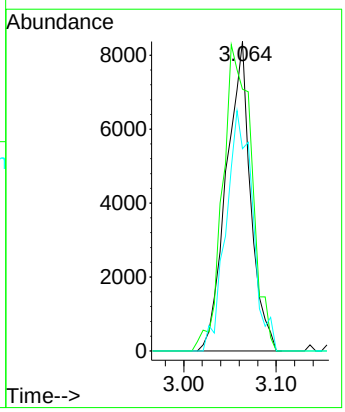


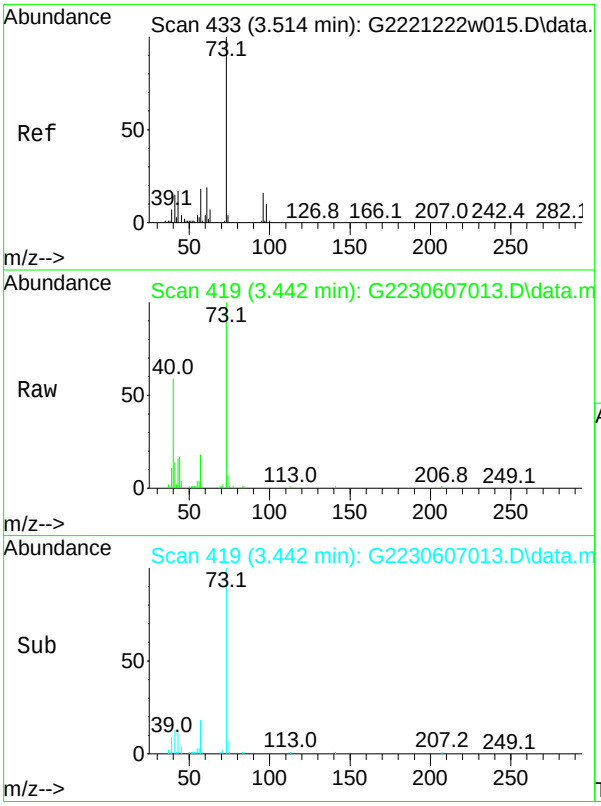


#18
Methylene chloride
Concen: Below Cal
RT: 3.064 min Scan# 357
Delta R.T. 0.002 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 49 Resp: 152857

Ion	Ratio	Lower	Upper
49	100		
84	117.6	57.9	117.9
86	85.0	24.9	84.9#

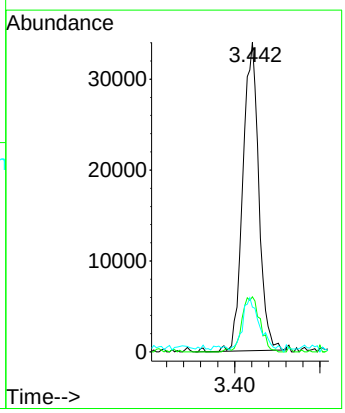


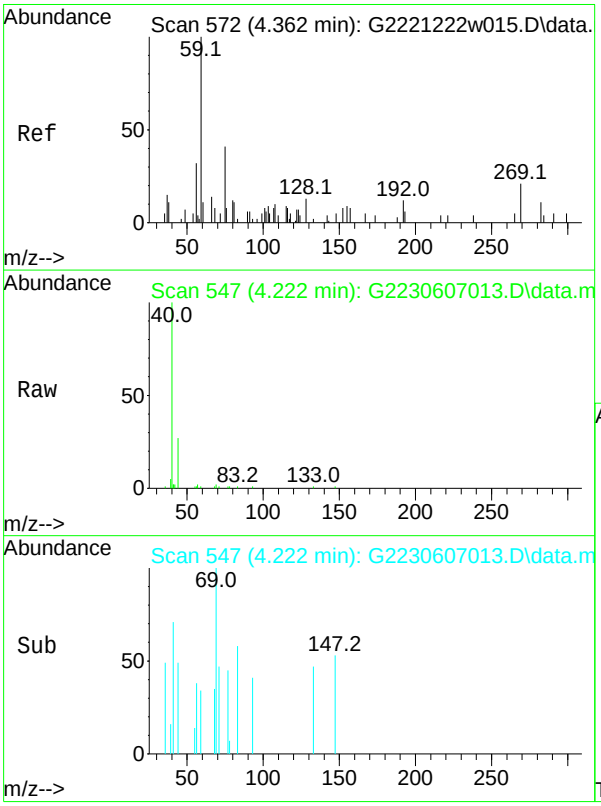


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.443 min Scan# 419
Delta R.T. -0.003 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 73 Resp: 878835

Ion	Ratio	Lower	Upper
73	100		
57	20.4	0.0	51.7
41	17.7	0.0	50.6

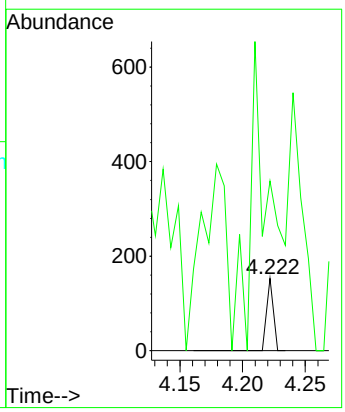


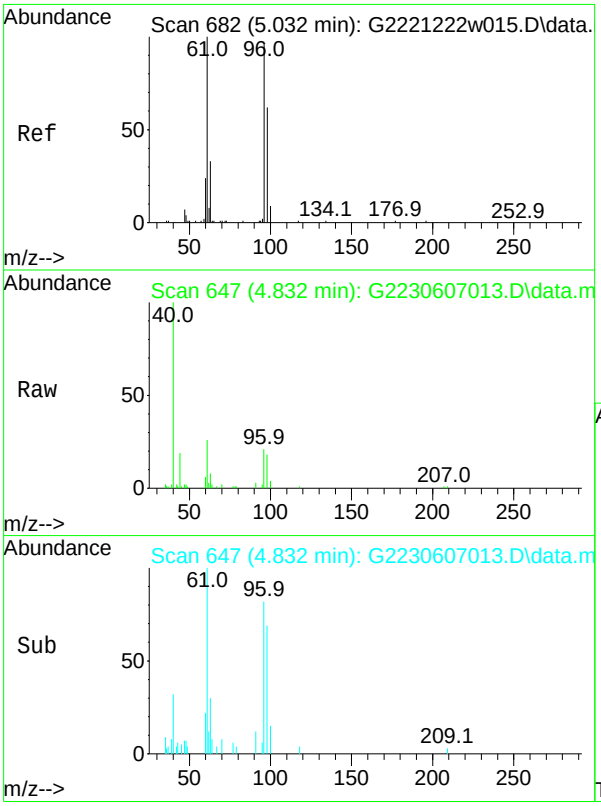


#26
1-propanol
Concen: 0.27 ug/L
RT: 4.224 min Scan# 547
Delta R.T. -0.065 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 59 Resp: 556

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

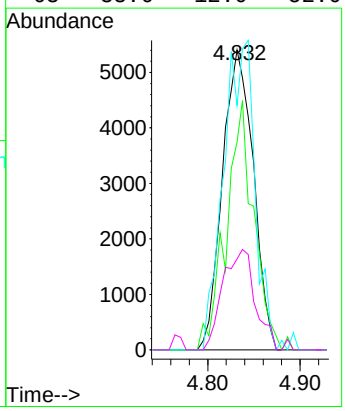


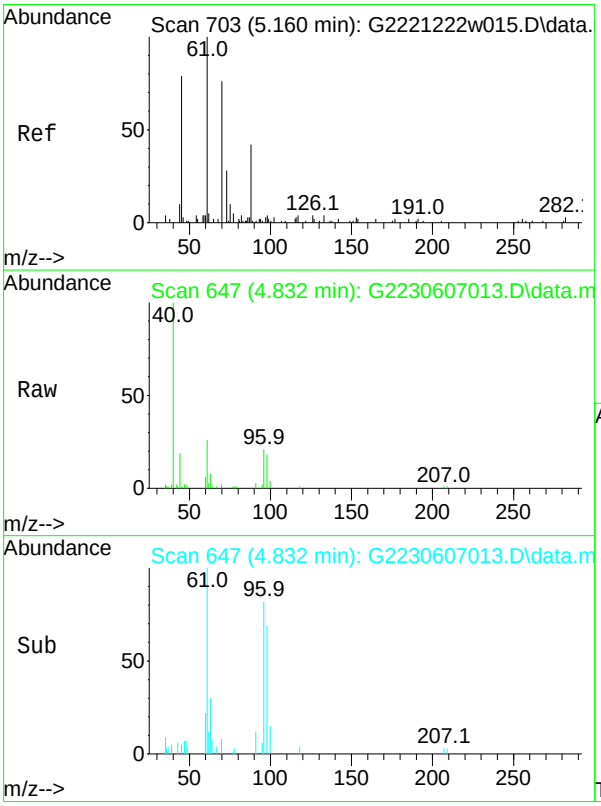


#28
cis-1,2-Dichloroethene
Concen: 0.17 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.002 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 61 Resp: 125407

Ion	Ratio	Lower	Upper
61	100		
98	70.7	15.9	75.9
96	105.9	39.6	99.6#
63	33.6	12.0	52.0

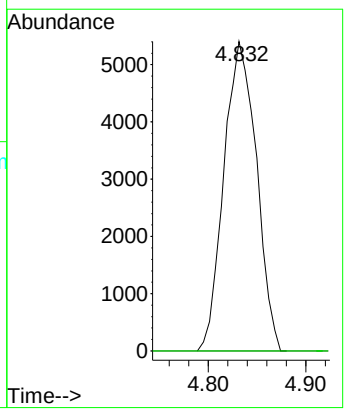


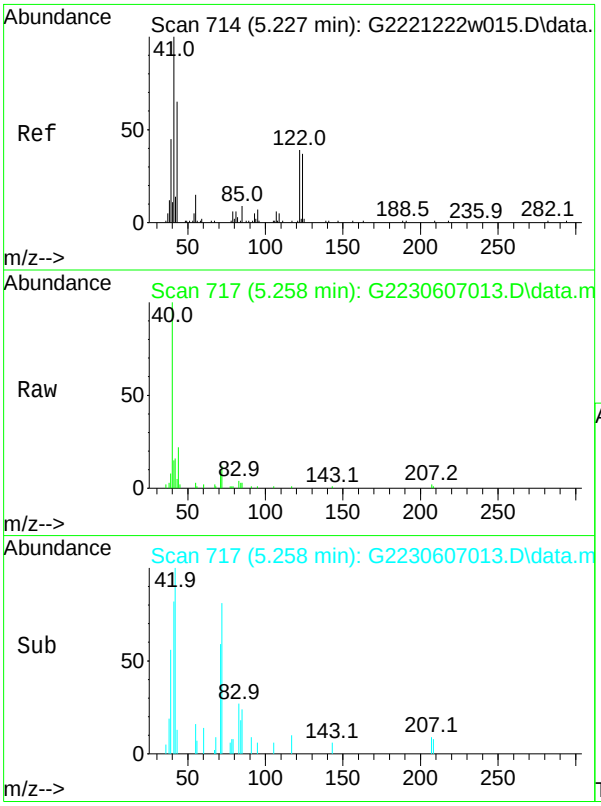


#31
Ethyl acetate
Concen: 1.91 ug/L
RT: 4.835 min Scan# 647
Delta R.T. -0.187 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 61 Resp: 125404

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

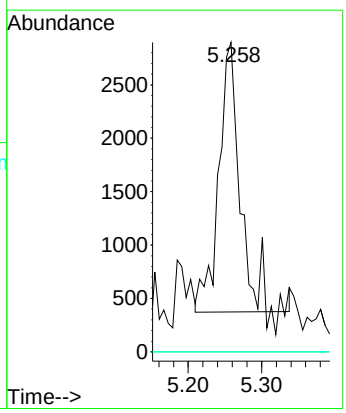


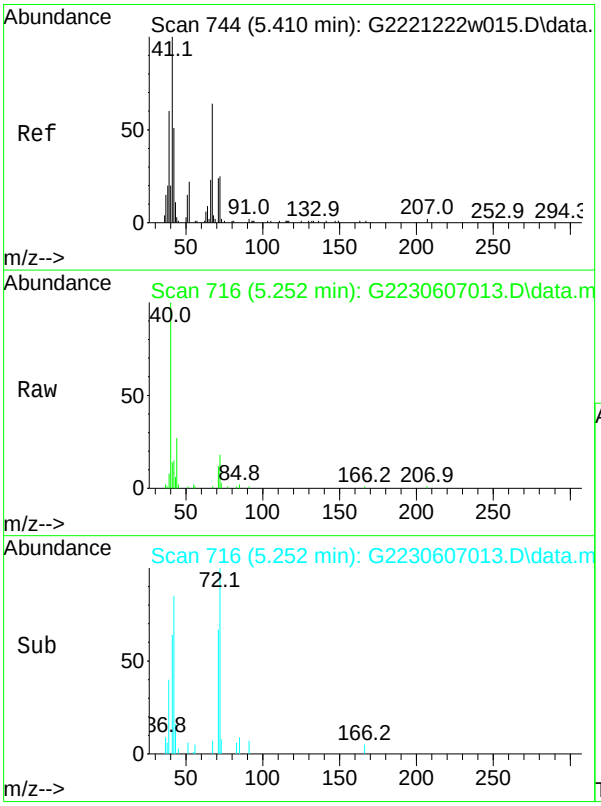


#33
1-Bromopropane
Concen: 0.12 ug/L
RT: 5.259 min Scan# 717
Delta R.T. 0.183 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 41 Resp: 49719

Ion	Ratio	Lower	Upper
41	100		
122	0.0	5.6	65.6#
124	0.0	3.8	63.8#

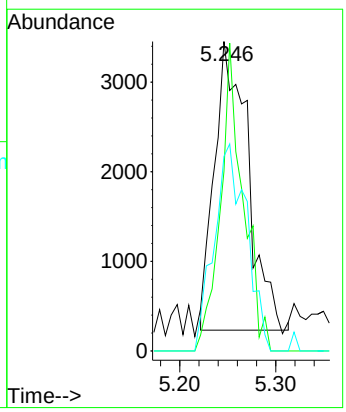


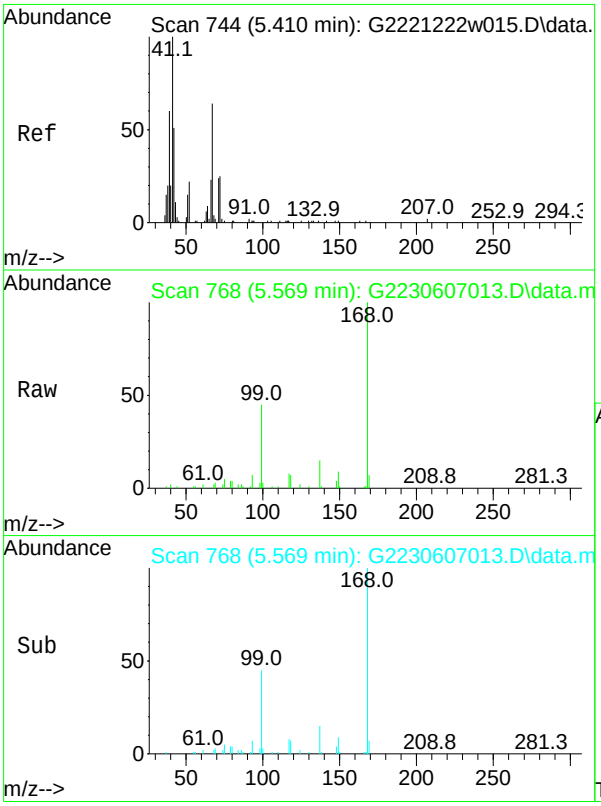


#36
Tetrahydrofuran
Concen: 0.21 ug/L
RT: 5.250 min Scan# 716
Delta R.T. -0.011 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 42 Resp: 78460

Ion	Ratio	Lower	Upper
42	100		
72	71.6	18.8	78.8
71	69.5	14.7	74.7

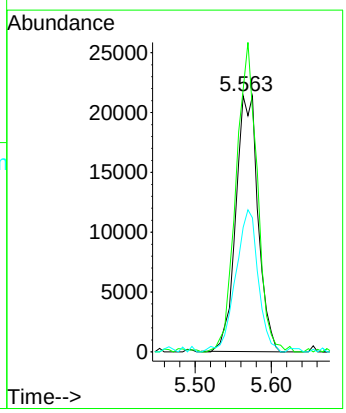


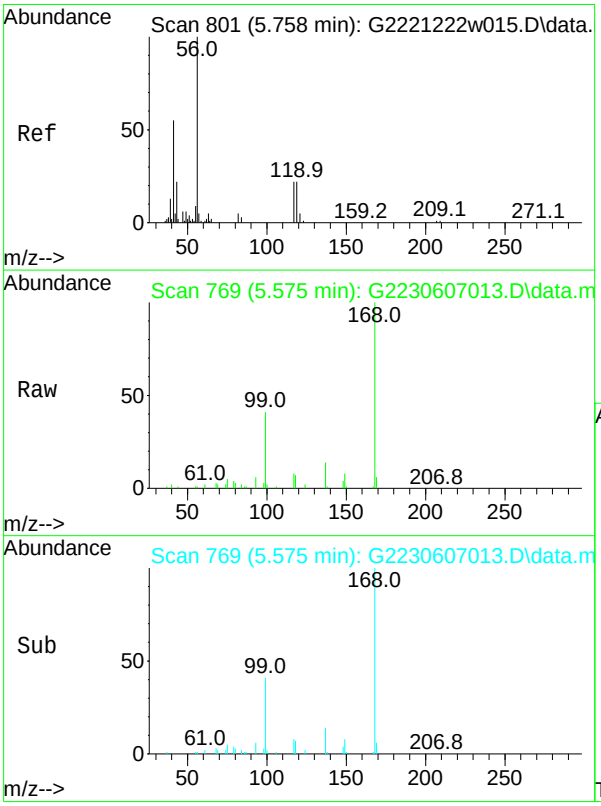


#40
Cyclohexane
Concen: 0.81 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 84 Resp: 431616

Ion	Ratio	Lower	Upper
84	100		
69	112.4	6.8	66.8#
56	57.1	79.1	139.1#

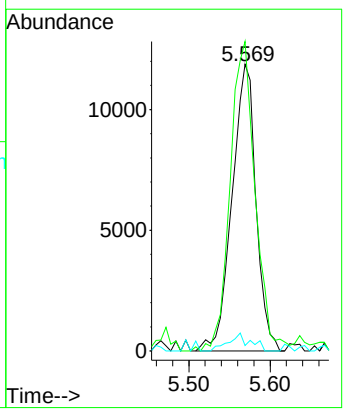


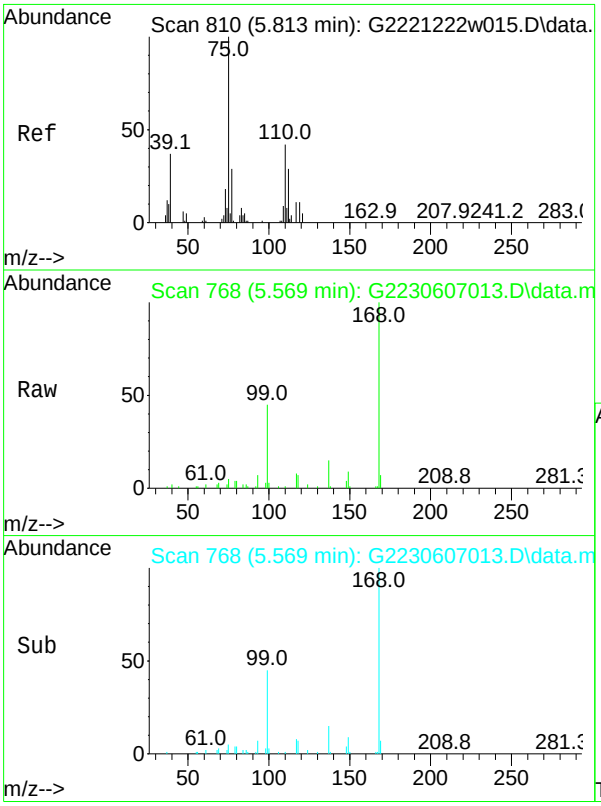


#41
1-Chlorobutane
Concen: 0.39 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.057 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 56 Resp: 243069

Ion	Ratio	Lower	Upper
56	100		
55	108.3	0.0	41.0#
57	0.0	0.0	35.7

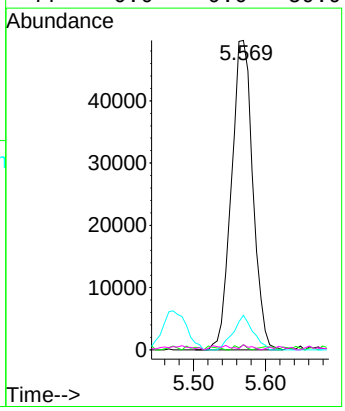


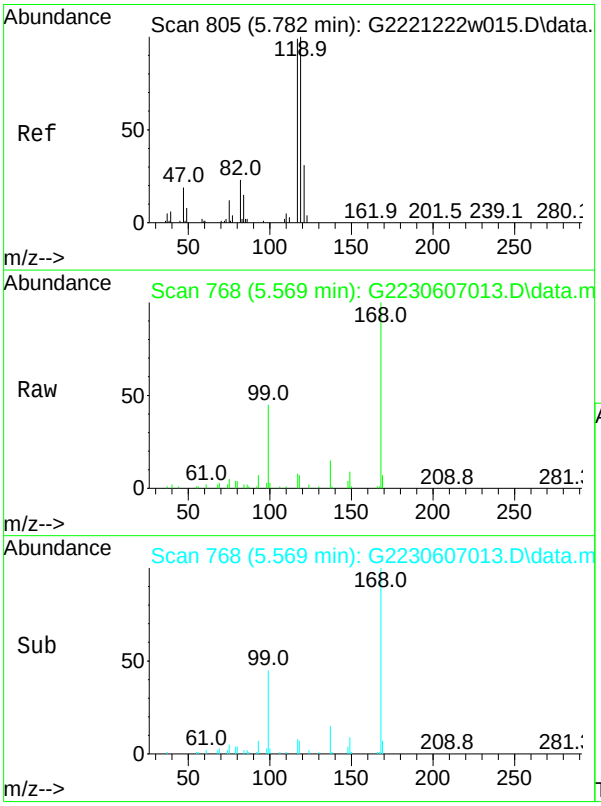


#42
1,1-Dichloropropene
Concen: 2.21 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 75 Resp: 1022573

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.3	9.1	69.1
77	0.0	0.0	59.9

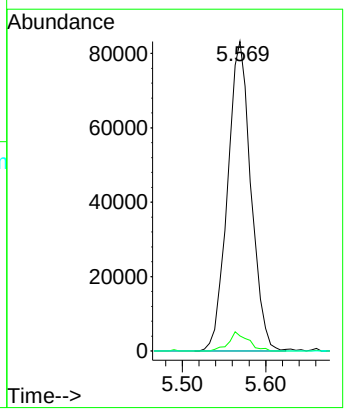


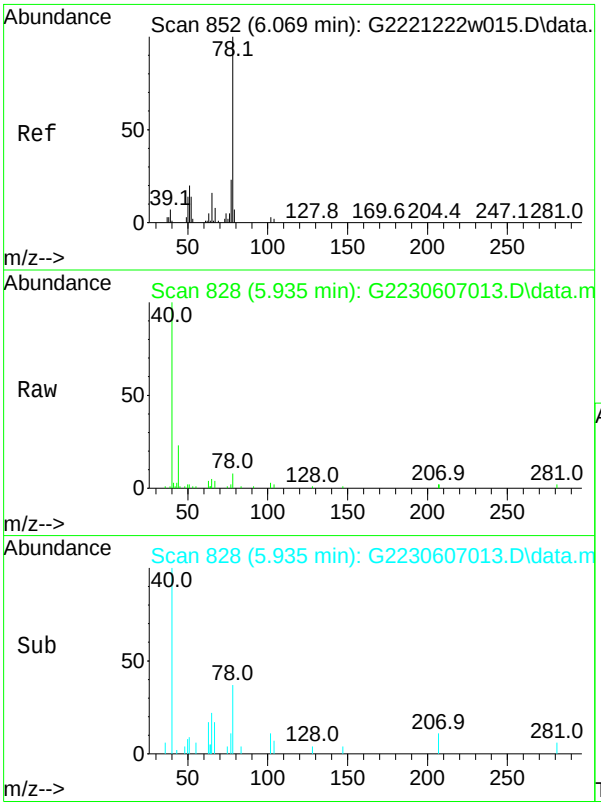


#47
Carbon tetrachloride
Concen: 3.31 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion:117 Resp: 1621392

Ion	Ratio	Lower	Upper
117	100		
119	5.1	66.4	126.4#
121	0.0	0.4	60.4#

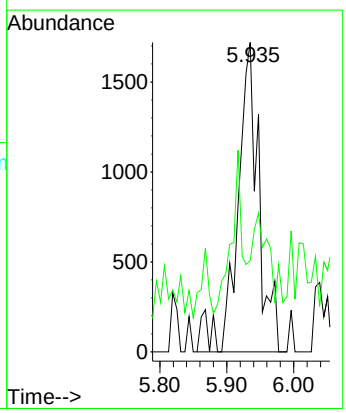


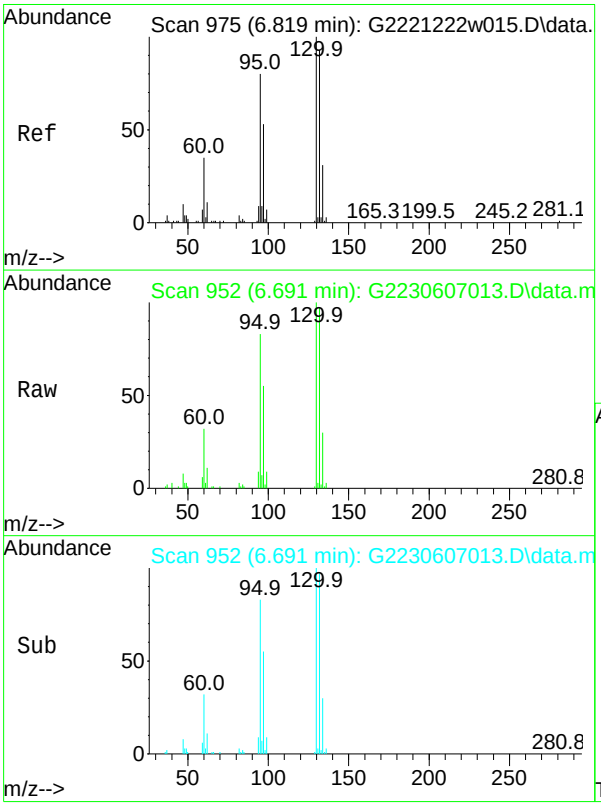


#48
Benzene
Concen: 0.03 ug/L
RT: 5.935 min Scan# 828
Delta R.T. -0.000 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 78 Resp: 37957

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

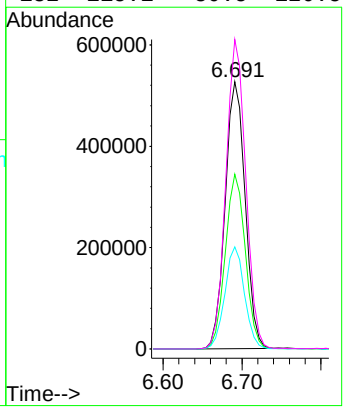


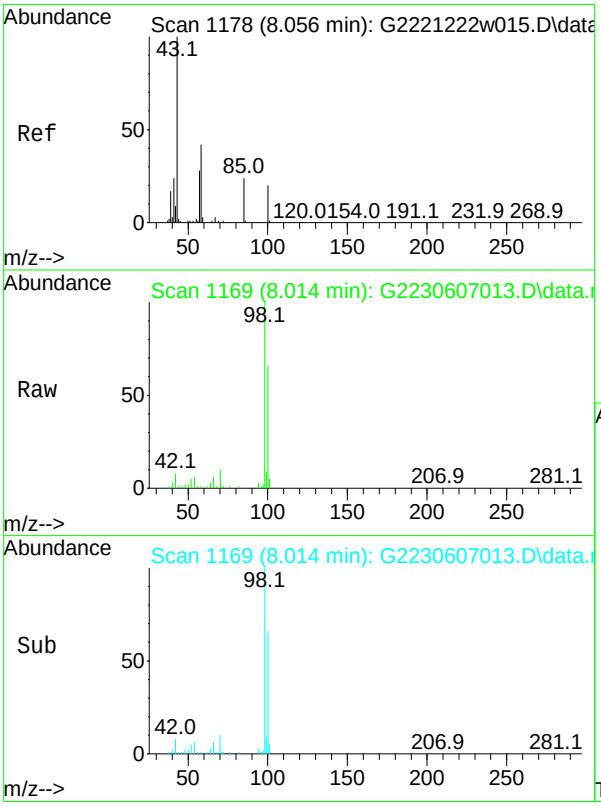


#50
Trichloroethene
Concen: 25.96 ug/L
RT: 6.694 min Scan# 952
Delta R.T. -0.002 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 95 Resp: 9274676

Ion	Ratio	Lower	Upper
95	100		
97	65.8	35.5	95.5
60	37.8	14.8	74.8
132	115.1	80.5	120.5

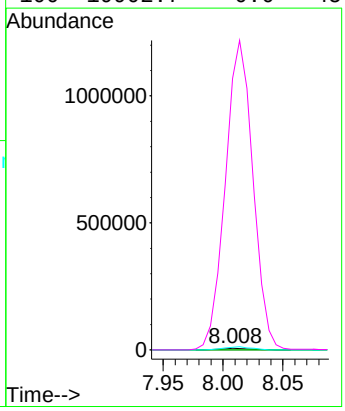


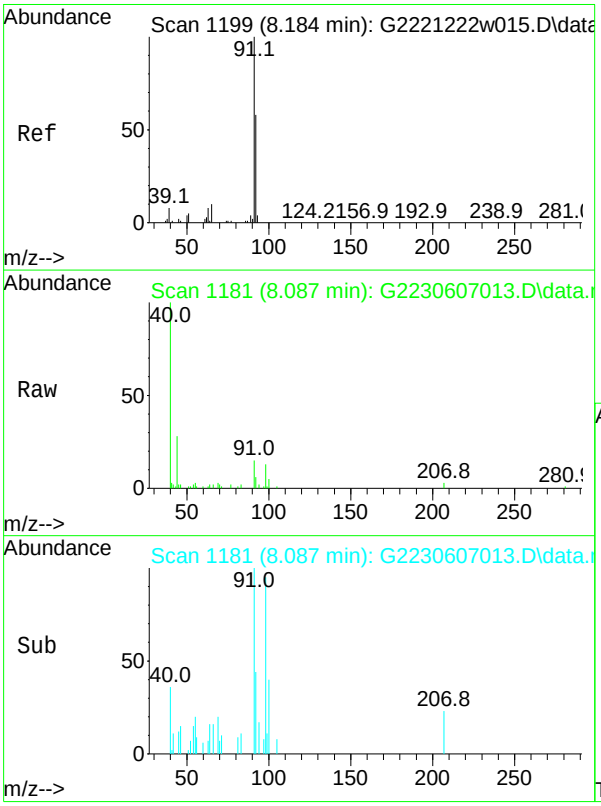


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 43 Resp: 98384

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	193.4	37.0	37.0#
100	19902.7	0.0	45.2#

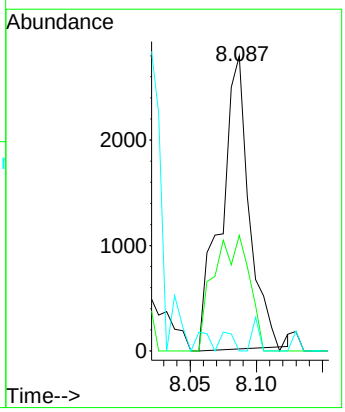


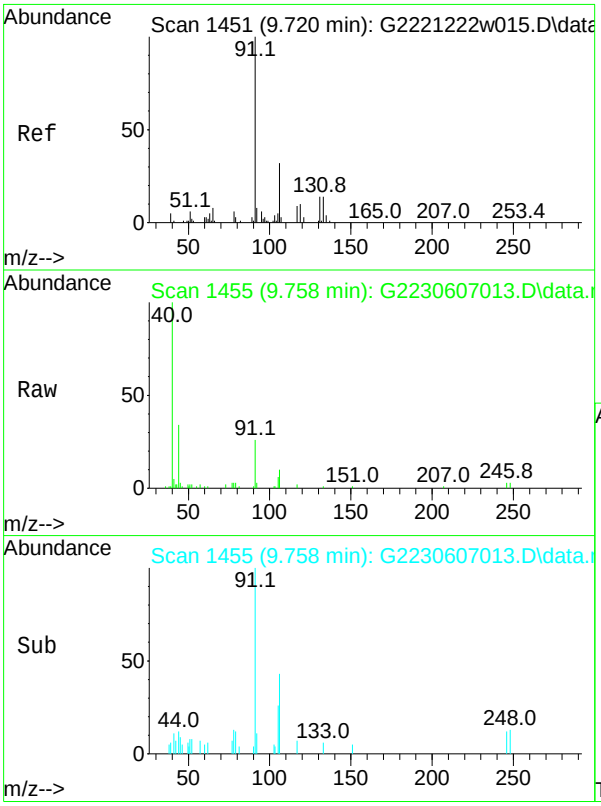


#65
Toluene
Concen: Below Cal
RT: 8.088 min Scan# 1181
Delta R.T. 0.002 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 91 Resp: 40625

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

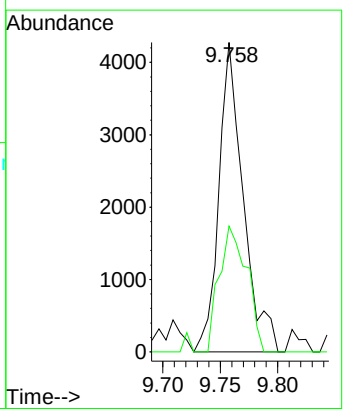


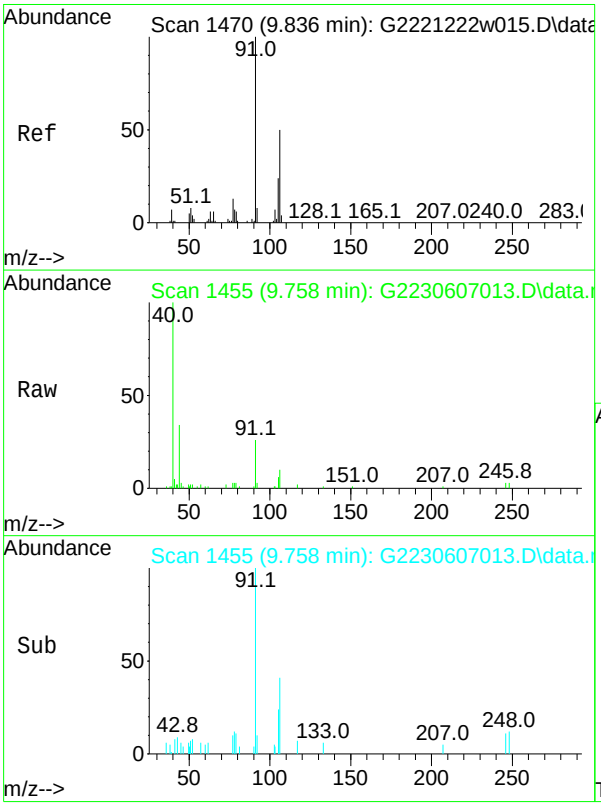


#74
Ethylbenzene
Concen: Below Cal
RT: 9.760 min Scan# 1455
Delta R.T. 0.117 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 91 Resp: 63197

Ion	Ratio	Lower	Upper
91	100		
106	46.2	0.8	60.8

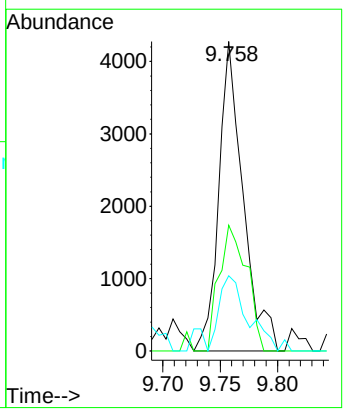


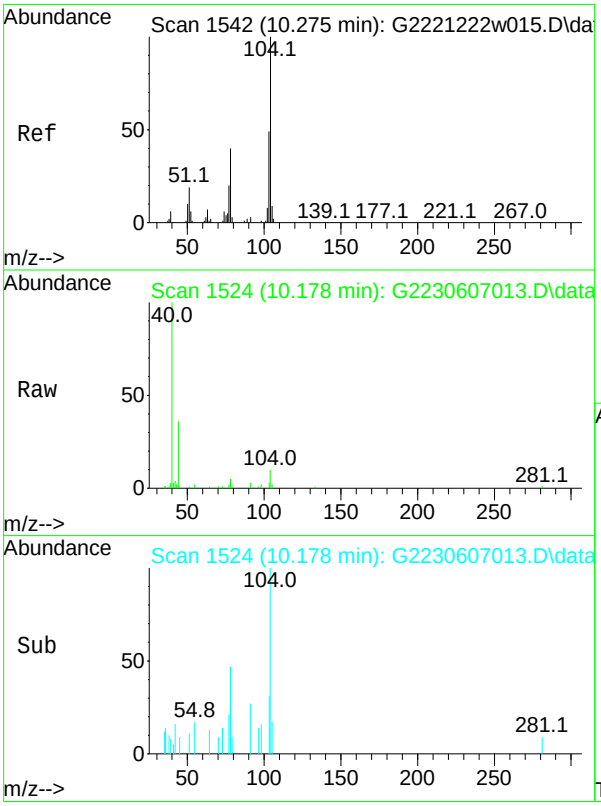


#75
m,p-Xylene
Concen: 0.05 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 91 Resp: 63188

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

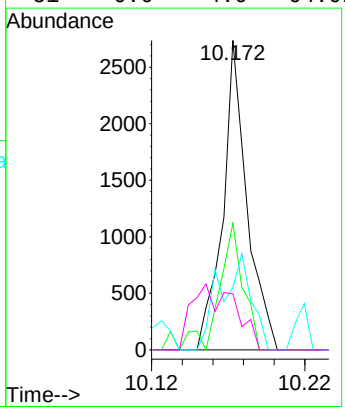


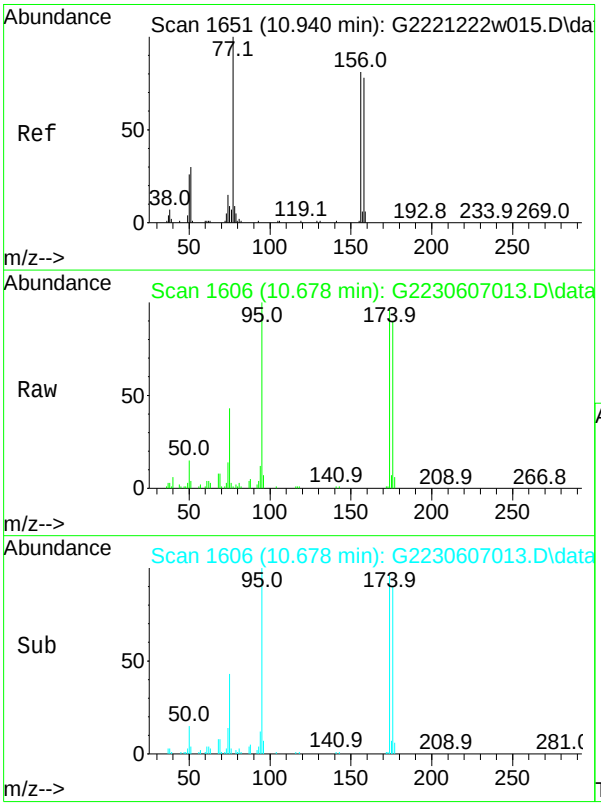


#76
Styrene
Concen: 0.03 ug/L
RT: 10.176 min Scan# 1524
Delta R.T. -0.001 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion:104 Resp: 31204

Ion	Ratio	Lower	Upper
104	100		
103	0.0	25.2	85.2#
78	0.0	19.6	79.6#
51	0.0	4.0	64.0#

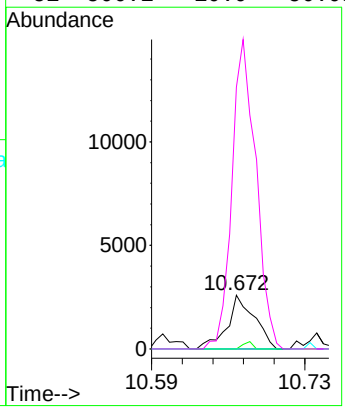


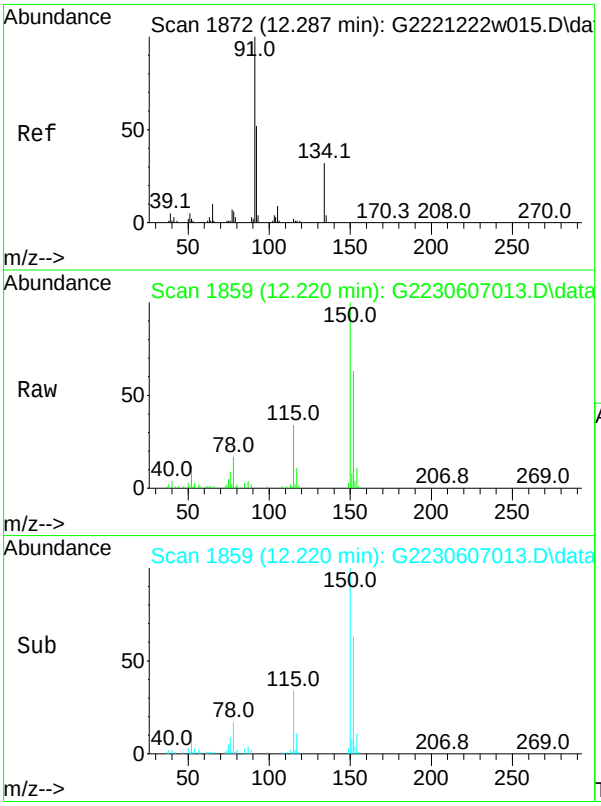


#82
Bromobenzene
Concen: 0.07 ug/L
RT: 10.676 min Scan# 1606
Delta R.T. -0.152 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 77 Resp: 44705

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	506.1	10.9	50.9#

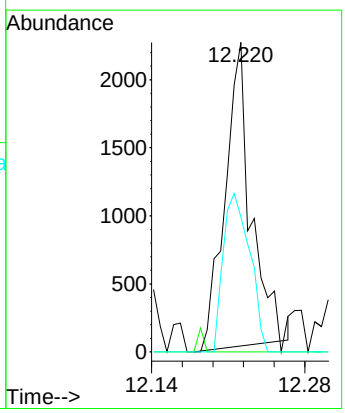




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.221 min Scan# 1859
Delta R.T. -0.010 min
Lab File: G2230607013.D
Acq: 07 Jun 2023 19:50

Tgt Ion: 91 Resp: 35910

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

529LHSMW46R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22	File ID:	G2230609025.D
Sampled:	05/29/23 09:30	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 18:55
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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	0.400	0.134	0.400	1.00	J, D
75-35-4	1,1-Dichloroethene	0.760	0.191	0.400	1.00	J, D
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene	0.280	0.204	0.400	1.00	J, D
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

529LHSMW46R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22	File ID:	G2230609025.D
Sampled:	05/29/23 09:30	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 18:55
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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	0.500	0.320	1.00	2.00	J, D
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	13.1	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	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

529LHSMW46R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22	File ID:	G2230609025.D
Sampled:	05/29/23 09:30	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 18:55
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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	J1, U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	0.640	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	312	0.156	0.400	1.00	E, J1, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride	0.520	0.258	1.00	2.00	J, D

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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

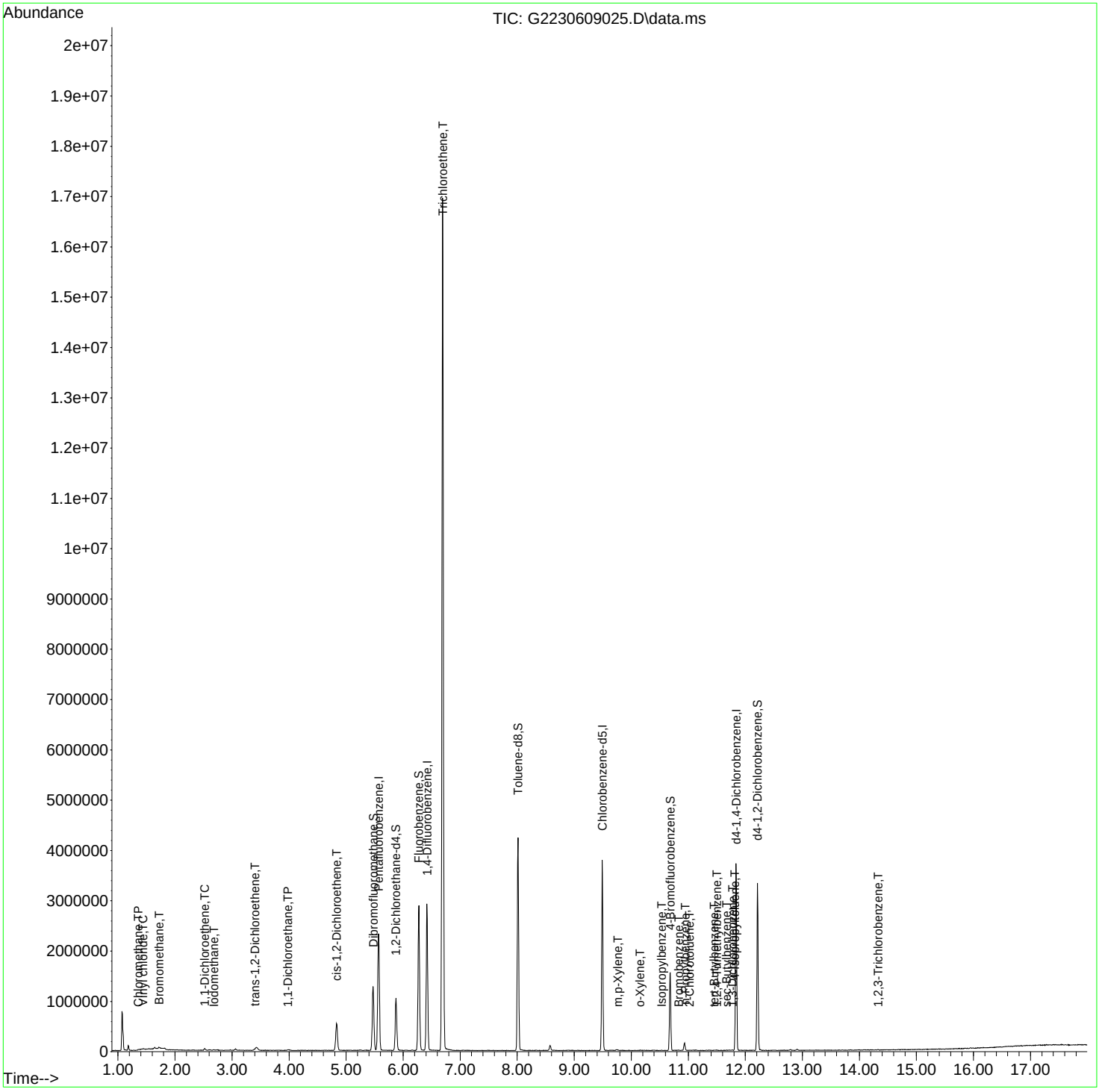
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	18840746	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25404667	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22264796	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10710364	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7879282	19.00	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.00%				
43) 1,2-Dichloroethane-d4	5.877	65	7175299	17.51	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.55%				
49) Fluorobenzene	6.277	96	28218668	19.49	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%				
64) Toluene-d8	8.016	98	27235581	19.41	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%				
81) 4-Bromofluorobenzene	10.685	174	4962676	9.81	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%				
97) d4-1,2-Dichlorobenzene	12.217	152	9390670	20.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.95%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	46989	0.05	ug/L	#	41
4) Vinyl chloride	1.444	62	94615	0.26	ug/L		83
5) Bromomethane	1.722	94	122347	0.25	ug/L	#	88
10) 1,1-Dichloroethene	2.522	61	184802	0.38	ug/L		82
13) Iodomethane	2.682	142	115204	0.26	ug/L	#	89
18) Methylene chloride	3.063	49	136729	Below Cal			79
20) trans-1,2-Dichloroethene	3.401	61	132084	0.32	ug/L		79
21) Methyl tert-butyl ether	3.437	73	822715	Below Cal			95
23) 1,1-Dichloroethane	3.978	63	146006m	0.20	ug/L		
28) cis-1,2-Dichloroethene	4.834	61	3124993	6.54	ug/L	#	72
50) Trichloroethene	6.694	95	52076553	156.04	ug/L		91
74) Ethylbenzene	9.643	91	44223	Below Cal		#	44
75) m,p-Xylene	9.762	91	65975	0.06	ug/L	#	74
79) o-Xylene	10.156	91	36536	0.03	ug/L	#	37
80) Isopropylbenzene	10.533	105	29083	0.02	ug/L	#	58
82) Bromobenzene	10.832	77	22452	0.04	ug/L	#	22
86) n-Propylbenzene	10.947	91	41840	0.02	ug/L	#	58
87) 2-Chlorotoluene	11.022	91	29243	0.03	ug/L	#	47
91) tert-Butylbenzene	11.454	119	28403	0.02	ug/L	#	30
92) 1,2,4-Trimethylbenzene	11.502	105	29835	0.02	ug/L	#	32
93) sec-Butylbenzene	11.669	105	36930	0.03	ug/L	#	58
94) 1,3-Dichlorobenzene	11.777	146	29088	0.04	ug/L	#	25
95) 4-Isopropyltoluene	11.820	119	34163	0.03	ug/L	#	1
105) Naphthalene	14.091	128	36969	Below Cal		#	69
106) 1,2,3-Trichlorobenzene	14.332	180	20859	0.14	ug/L	#	14

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
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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	18840746	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25404667	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22264796	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10710364	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7879282	19.00	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.00%				
43) 1,2-Dichloroethane-d4	5.877	65	7175299	17.51	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.55%				
49) Fluorobenzene	6.277	96	28218668	19.49	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%				
64) Toluene-d8	8.016	98	27235581	19.41	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%				
81) 4-Bromofluorobenzene	10.685	174	4962676	9.81	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%				
97) d4-1,2-Dichlorobenzene	12.217	152	9390670	20.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.95%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	46989	0.05	ug/L	#	41
4) Vinyl chloride	1.444	62	94615	0.26	ug/L		83
5) Bromomethane	1.722	94	122347	0.25	ug/L	#	88
10) 1,1-Dichloroethene	2.522	61	184802	0.38	ug/L		82
12) Acetone	2.600	43	150281	0.02	ug/L		99
13) Iodomethane	2.682	142	115204	0.26	ug/L	#	89
14) Carbon disulfide	2.741	76	160837	0.10	ug/L	#	74
17) 3-Chloro-1-propene	2.741	76	159604	0.76	ug/L	#	53
18) Methylene chloride	3.063	49	136729	Below Cal			79
20) trans-1,2-Dichloroethene	3.401	61	132084	0.32	ug/L		79
21) Methyl tert-butyl ether	3.437	73	822715	Below Cal			95
23) 1,1-Dichloroethane	4.000	63	89711	0.09	ug/L	#	60
26) 1-propanol	4.108	59	800	0.41	ug/L	#	100
28) cis-1,2-Dichloroethene	4.834	61	3124993	6.54	ug/L	#	72
31) Ethyl acetate	4.834	61	3124883	55.89	ug/L	#	45
36) Tetrahydrofuran	5.247	42	43646	Below Cal		#	30
40) Cyclohexane	5.572	84	389476	0.77	ug/L	#	35
41) 1-Chlorobutane	5.567	56	255715	0.44	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	962102	2.18	ug/L	#	38
47) Carbon tetrachloride	5.570	117	1499879	3.27	ug/L	#	16
48) Benzene	5.931	78	30187	0.02	ug/L	#	52
50) Trichloroethene	6.694	95	52076553	156.04	ug/L		91
60) 4-Methyl-2-pentanone	8.013	43	77722	Below Cal		#	1
65) Toluene	8.085	91	50013	Below Cal		#	91
74) Ethylbenzene	9.643	91	44223	Below Cal		#	44
75) m,p-Xylene	9.762	91	65975	0.06	ug/L	#	74
79) o-Xylene	10.156	91	36536	0.03	ug/L	#	37
80) Isopropylbenzene	10.533	105	29083	0.02	ug/L	#	58

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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

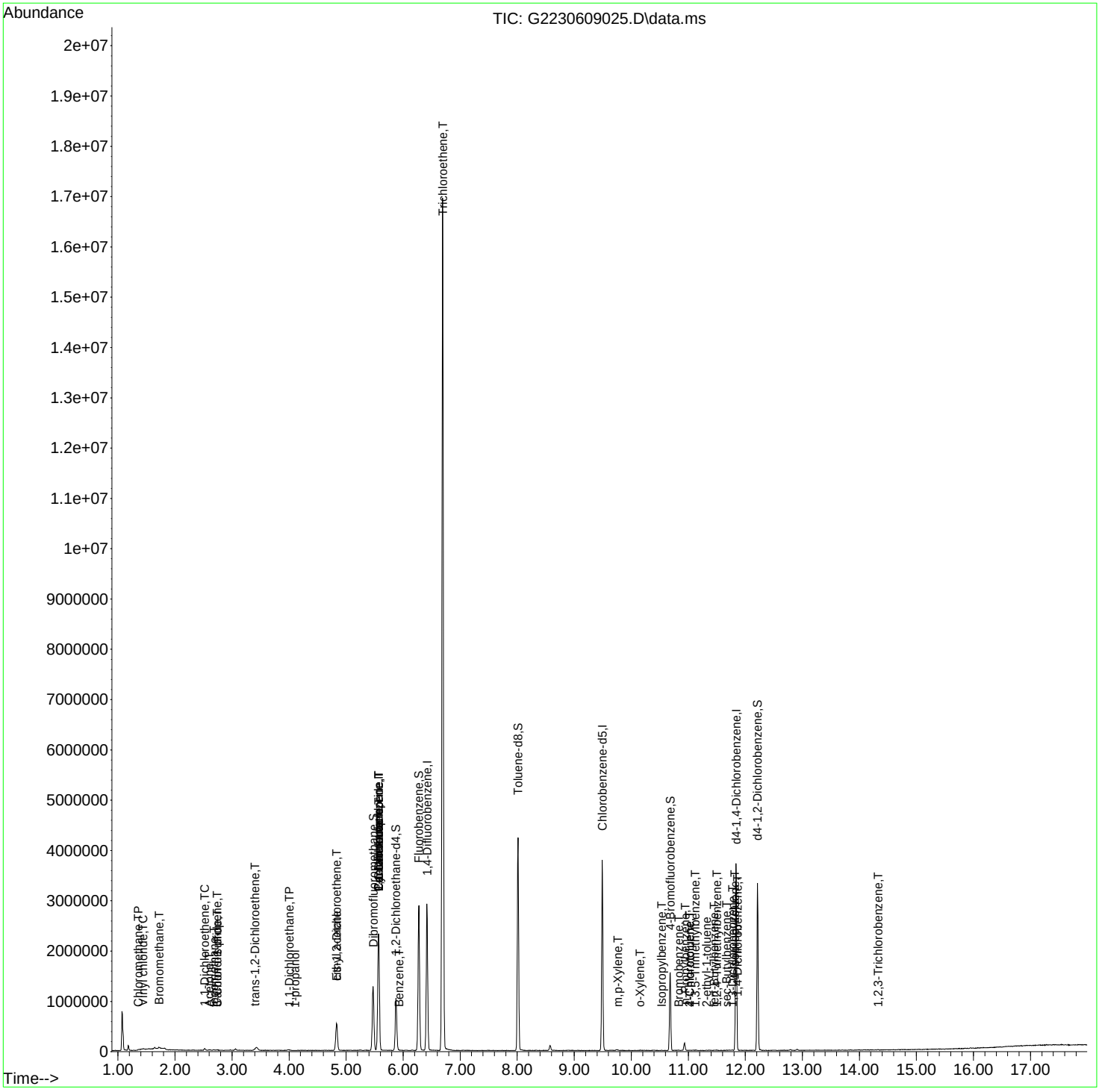
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
82) Bromobenzene	10.832	77	22452	0.04	ug/L	#	22
86) n-Propylbenzene	10.947	91	41840	0.02	ug/L	#	58
87) 2-Chlorotoluene	11.022	91	29243	0.03	ug/L	#	47
88) 4-Chlorotoluene	11.023	91	29244	0.03	ug/L	#	50
89) 1,3,5-Trimethylbenzene	11.125	105	23598	0.02	ug/L	#	42
90) 2-ethyl-1-toluene	11.326	105	27626	0.02	ug/L	#	51
91) tert-Butylbenzene	11.454	119	28403	0.02	ug/L	#	30
92) 1,2,4-Trimethylbenzene	11.502	105	29835	0.02	ug/L	#	32
93) sec-Butylbenzene	11.669	105	36930	0.03	ug/L	#	58
94) 1,3-Dichlorobenzene	11.777	146	29088	0.04	ug/L	#	25
95) 4-Isopropyltoluene	11.820	119	34163	0.03	ug/L	#	1
96) 1,4-Dichlorobenzene	11.863	146	42105	0.06	ug/L	#	1
98) 1,2-Dichlorobenzene	12.230	146	31748	Below Cal		#	1
99) n-Butylbenzene	12.231	91	51902	Below Cal		#	53
105) Naphthalene	14.091	128	36969	Below Cal		#	69
106) 1,2,3-Trichlorobenzene	14.332	180	20859	0.14	ug/L	#	14

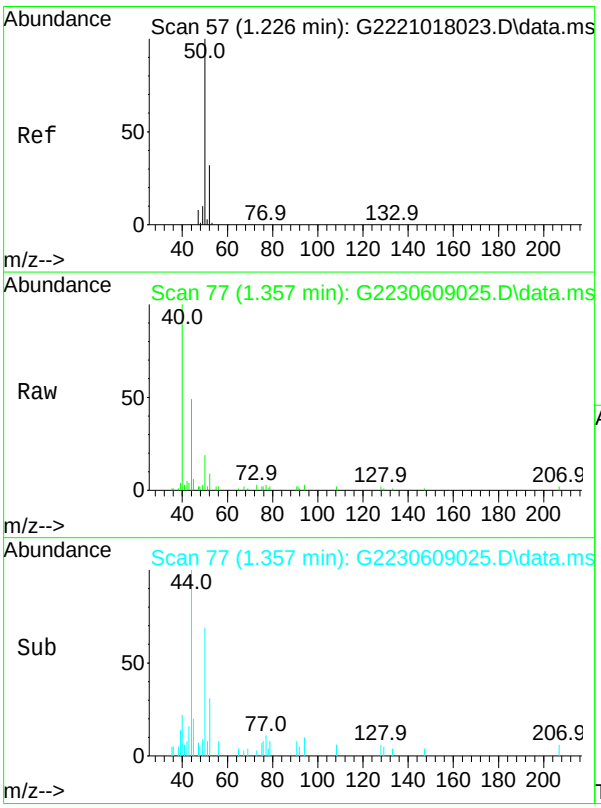
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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

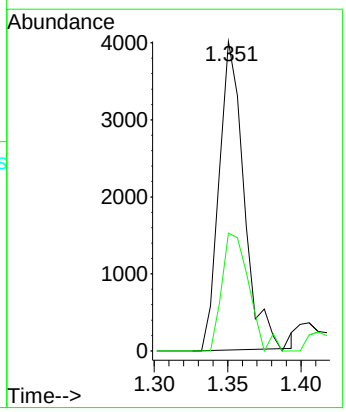


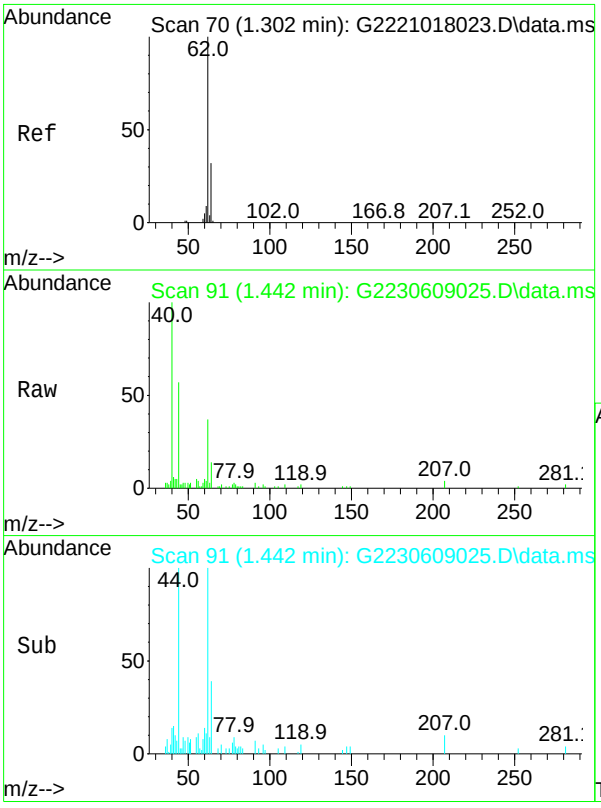


#3
Chloromethane
Concen: 0.05 ug/L
RT: 1.355 min Scan# 77
Delta R.T. 0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 50 Resp: 46989

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

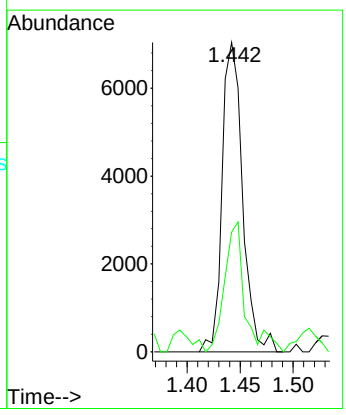


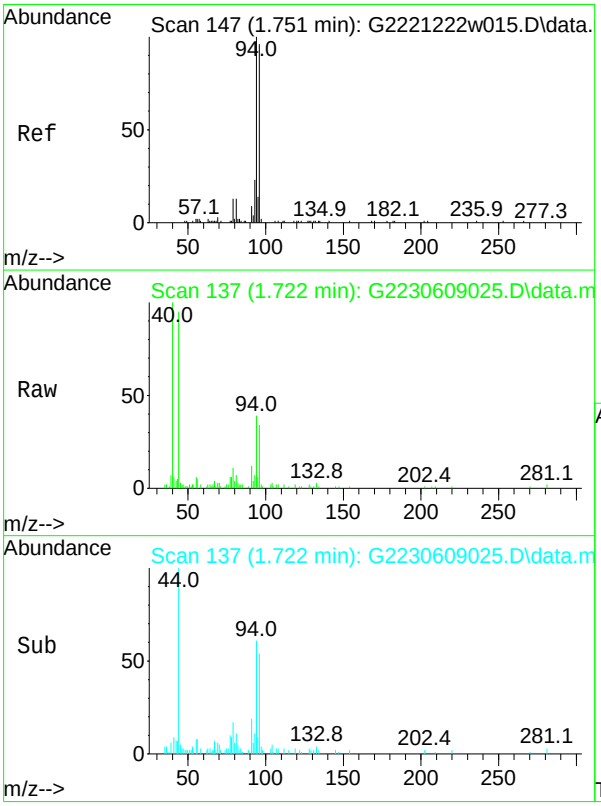


#4
Vinyl chloride
Concen: 0.26 ug/L
RT: 1.444 min Scan# 91
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 62 Resp: 94615

Ion	Ratio	Lower	Upper
62	100		
64	41.8	2.1	62.1

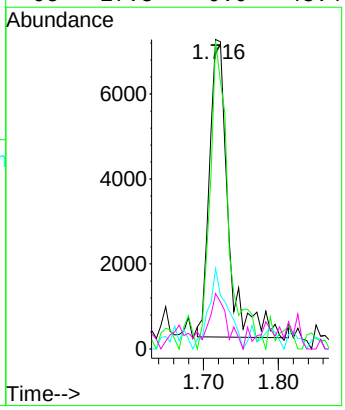


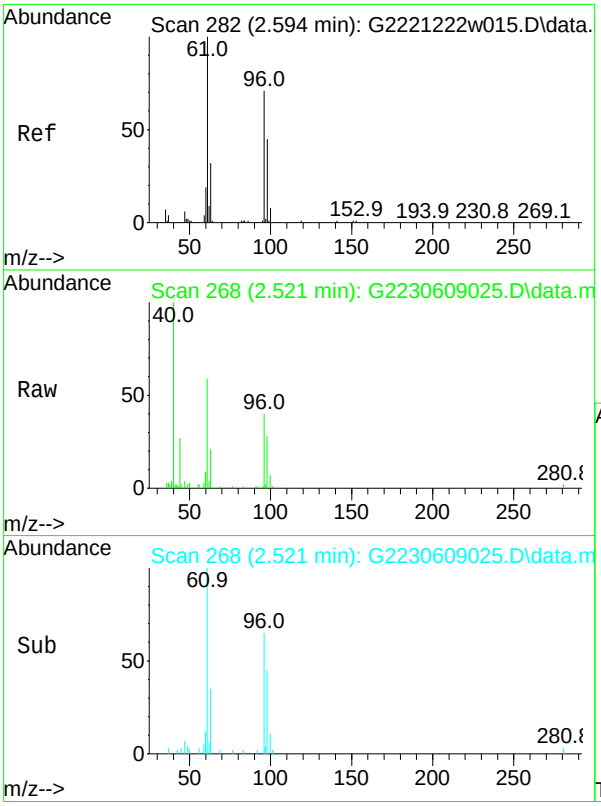


#5
Bromomethane
Concen: 0.25 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 94 Resp: 122347

Ion	Ratio	Lower	Upper
94	100		
96	93.5	65.6	125.6
93	0.0	0.0	49.5
95	27.8	0.0	43.4

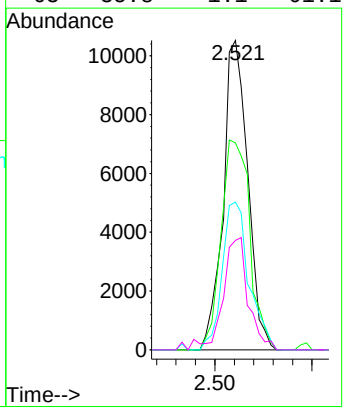


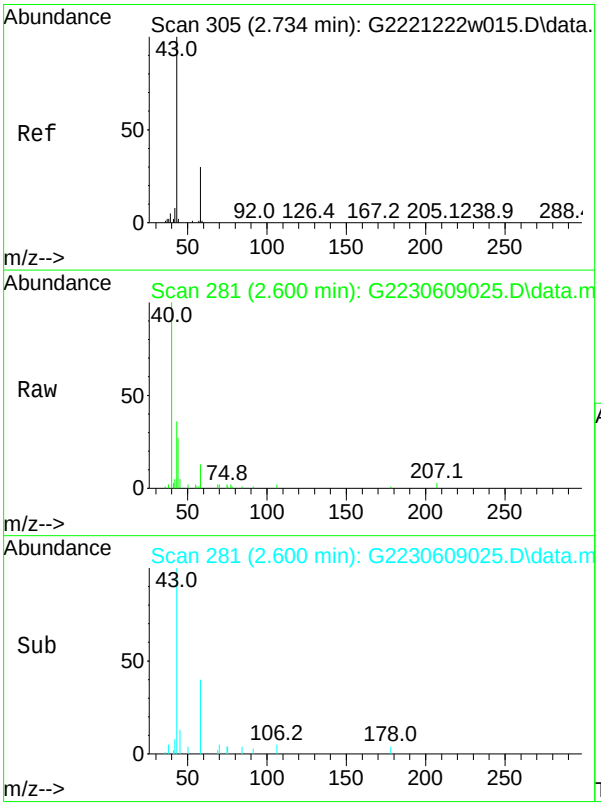


#10
1,1-Dichloroethene
Concen: 0.38 ug/L
RT: 2.522 min Scan# 268
Delta R.T. -0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 61 Resp: 184802

Ion	Ratio	Lower	Upper
61	100		
96	79.3	32.7	92.7
98	52.5	9.3	69.3
63	35.8	1.1	61.1

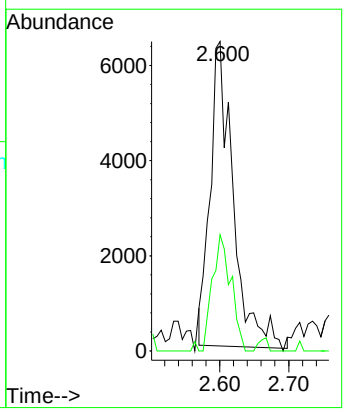


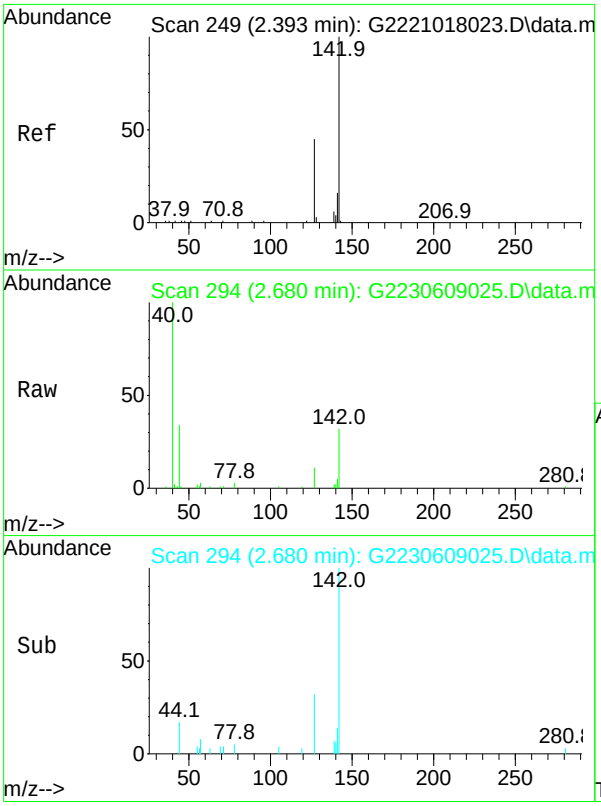


#12
Acetone
Concen: 0.02 ug/L
RT: 2.600 min Scan# 281
Delta R.T. -0.008 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 43 Resp: 150281

Ion	Ratio	Lower	Upper
43	100		
58	30.4	0.0	59.7

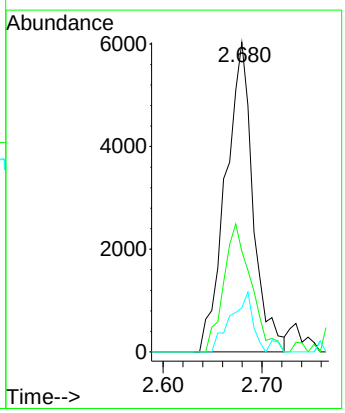


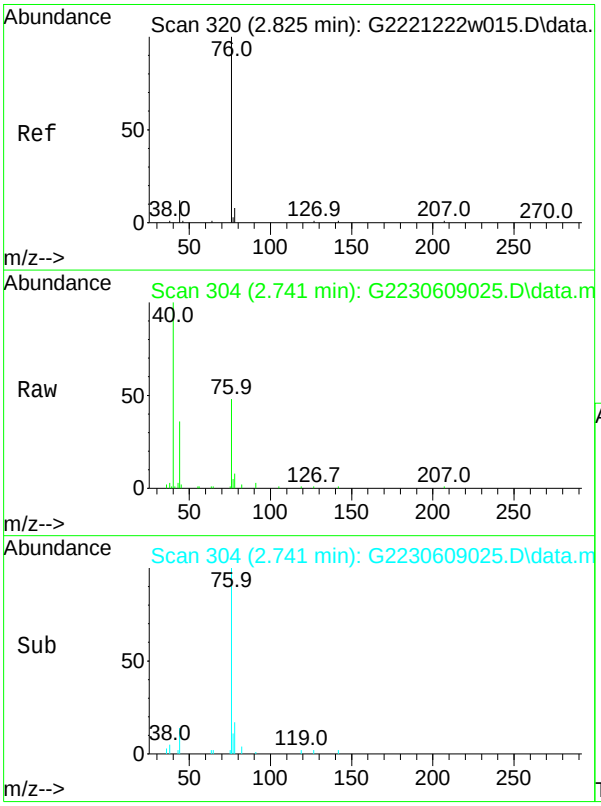


#13
Iodomethane
Concen: 0.26 ug/L
RT: 2.682 min Scan# 294
Delta R.T. 0.006 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:142 Resp: 115204

Ion	Ratio	Lower	Upper
142	100		
127	41.7	13.3	73.3
141	0.0	0.0	45.3

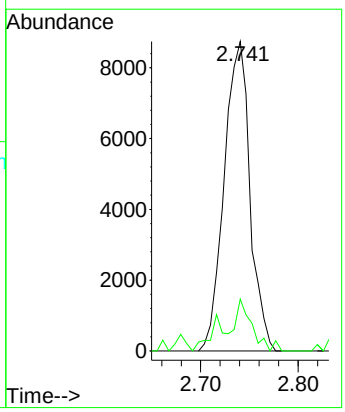


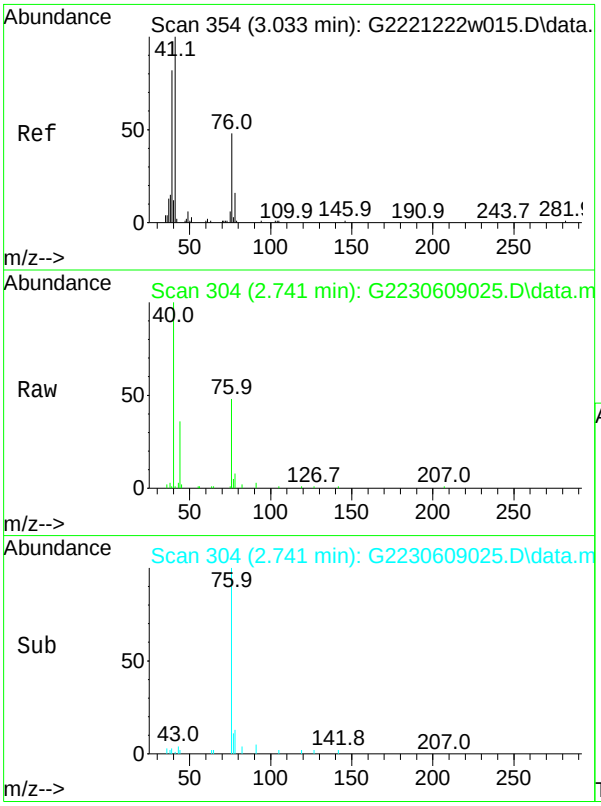


#14
Carbon disulfide
Concen: 0.10 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 76 Resp: 160837

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

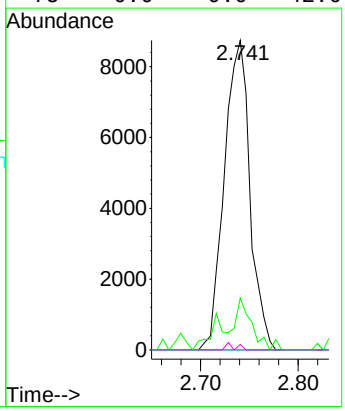


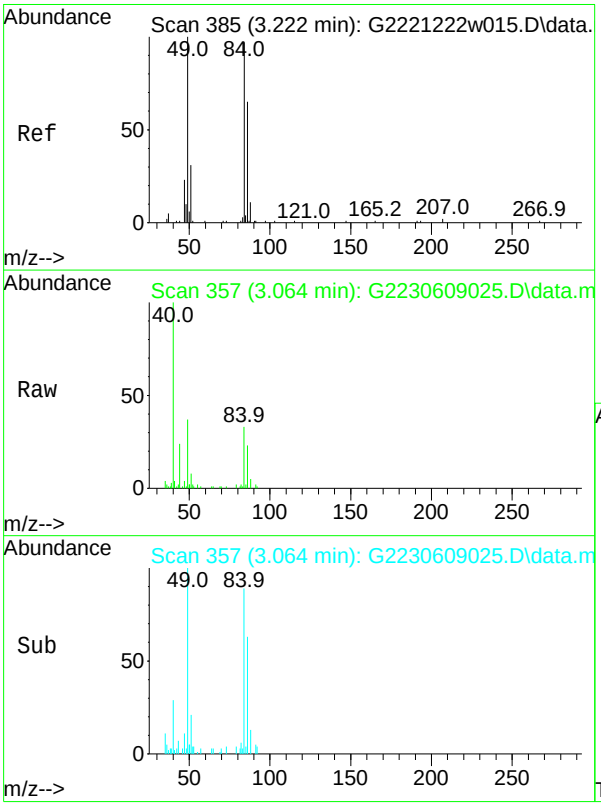


#17
3-Chloro-1-propene
Concen: 0.76 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 76 Resp: 159604

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

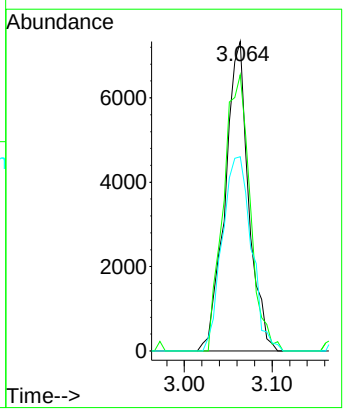


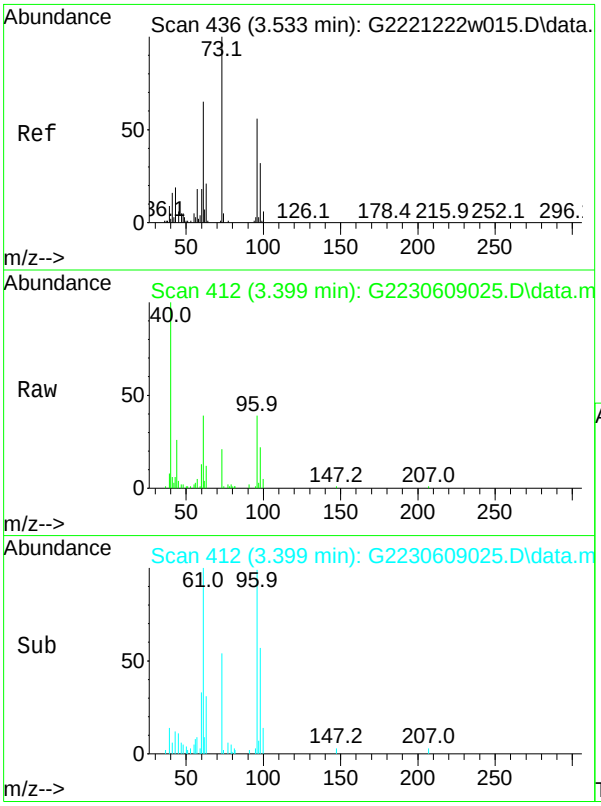


#18
Methylene chloride
Concen: Below Cal
RT: 3.063 min Scan# 357
Delta R.T. 0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 49 Resp: 136729

Ion	Ratio	Lower	Upper
49	100		
84	100.8	57.9	117.9
86	77.6	24.9	84.9

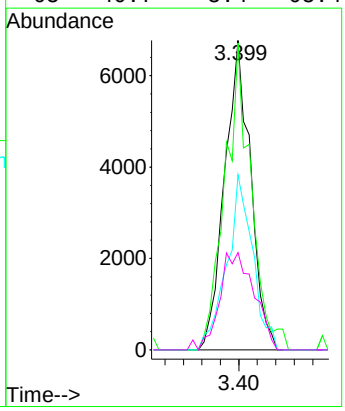


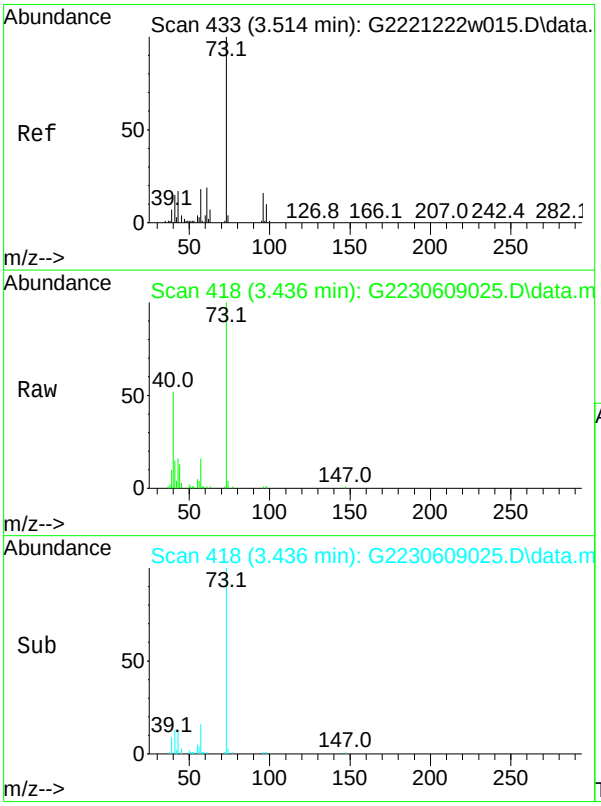


#20
trans-1,2-Dichloroethene
Concen: 0.32 ug/L
RT: 3.401 min Scan# 412
Delta R.T. 0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 61 Resp: 132084

Ion	Ratio	Lower	Upper
61	100		
96	100.4	45.2	105.2
98	56.4	17.2	77.2
63	40.7	3.4	63.4

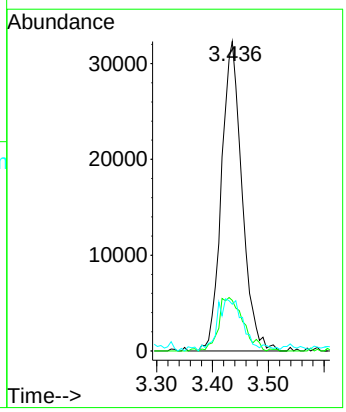


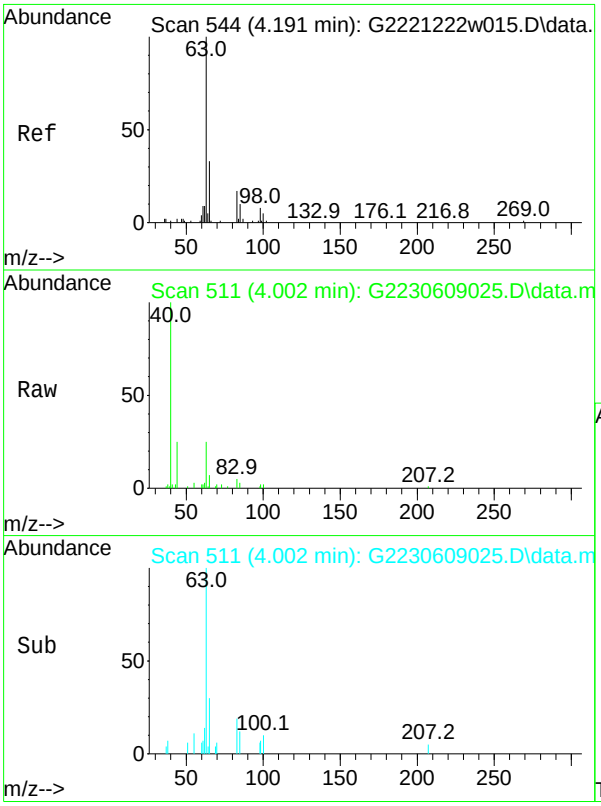


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 73 Resp: 822715

Ion	Ratio	Lower	Upper
73	100		
57	19.4	0.0	51.7
41	17.8	0.0	50.6

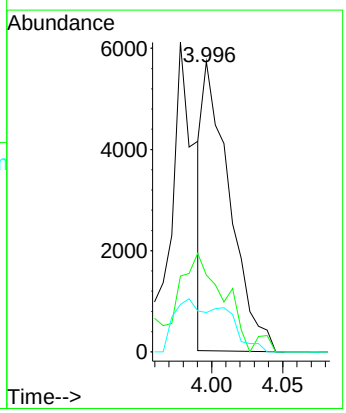


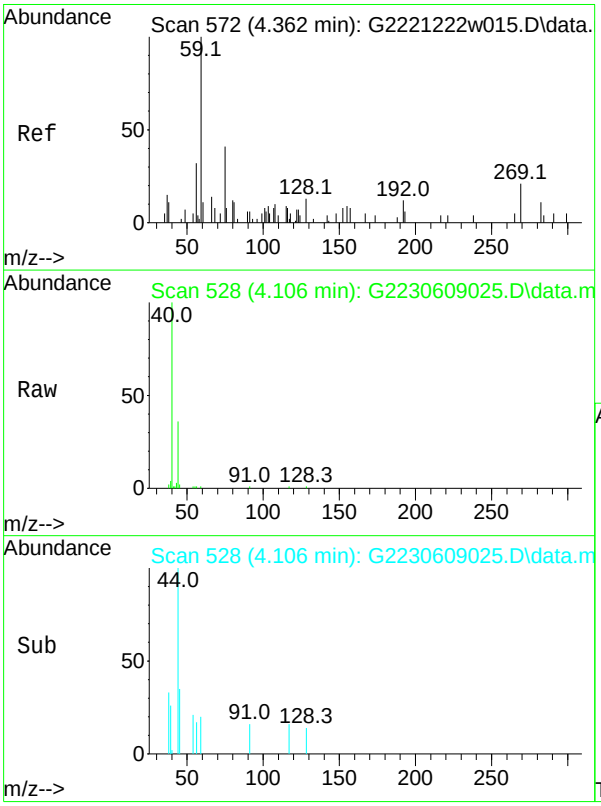


#23
1,1-Dichloroethane
Concen: 0.09 ug/L
RT: 4.000 min Scan# 511
Delta R.T. 0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 63 Resp: 89711

Ion	Ratio	Lower	Upper
63	100		
65	54.5	1.1	61.1
83	0.0	0.0	42.9

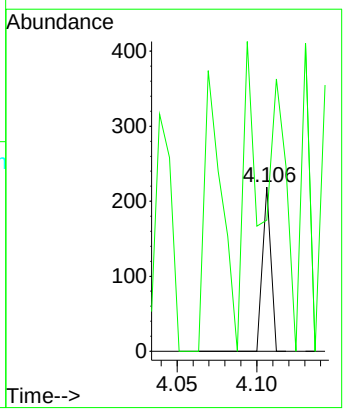


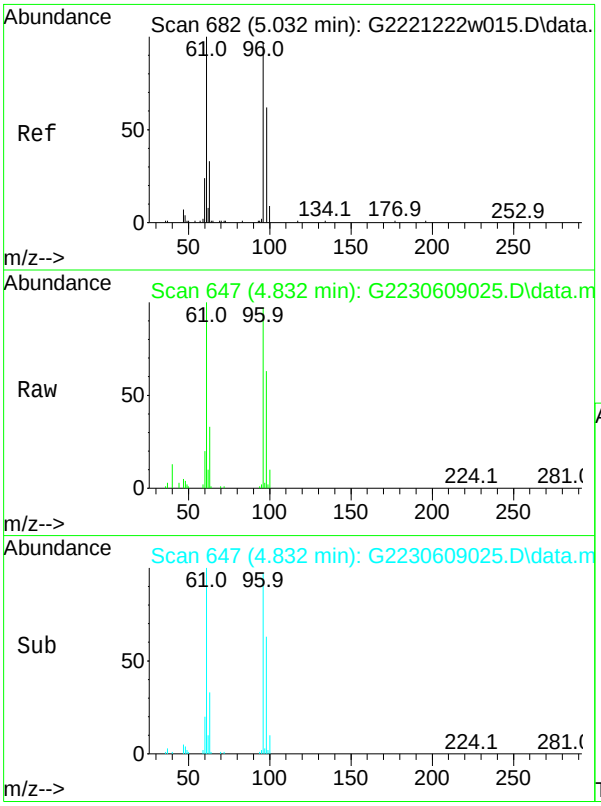


#26
1-propanol
Concen: 0.41 ug/L
RT: 4.108 min Scan# 528
Delta R.T. -0.181 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 59 Resp: 800

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

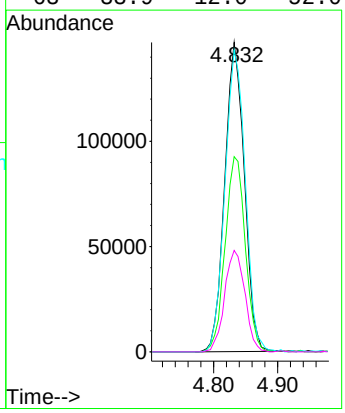


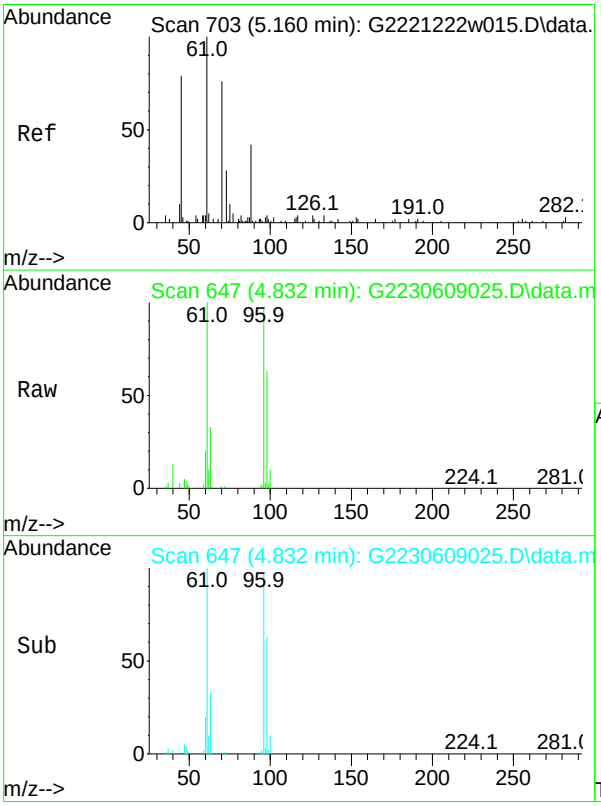


#28
cis-1,2-Dichloroethene
Concen: 6.54 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 61 Resp: 3124993

Ion	Ratio	Lower	Upper
61	100		
98	65.3	15.9	75.9
96	101.5	39.6	99.6#
63	33.9	12.0	52.0

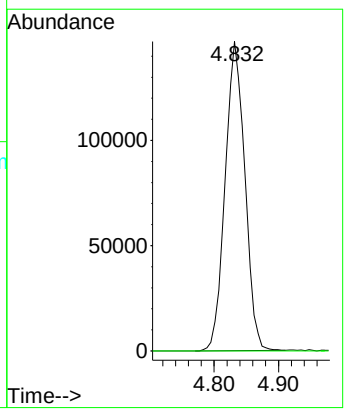


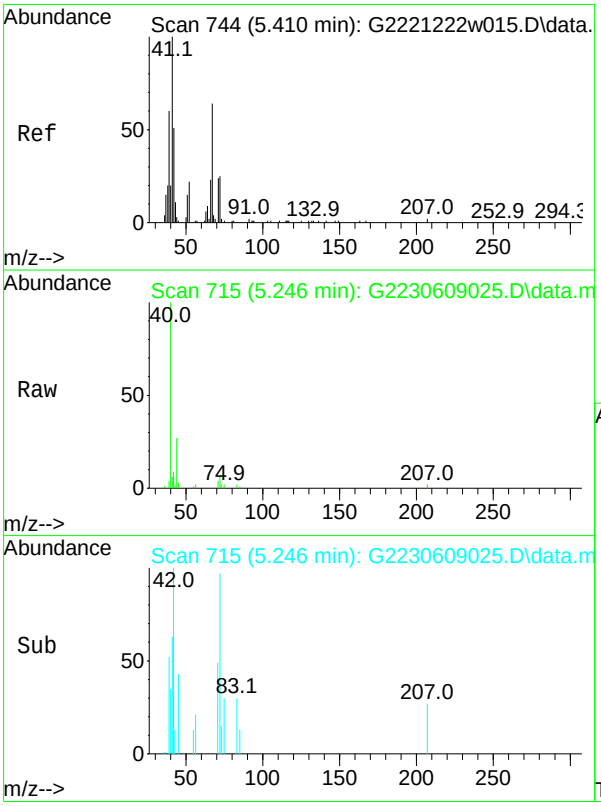


#31
Ethyl acetate
Concen: 55.89 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.188 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 61 Resp: 3124883

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

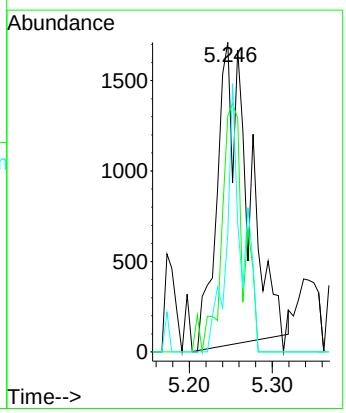


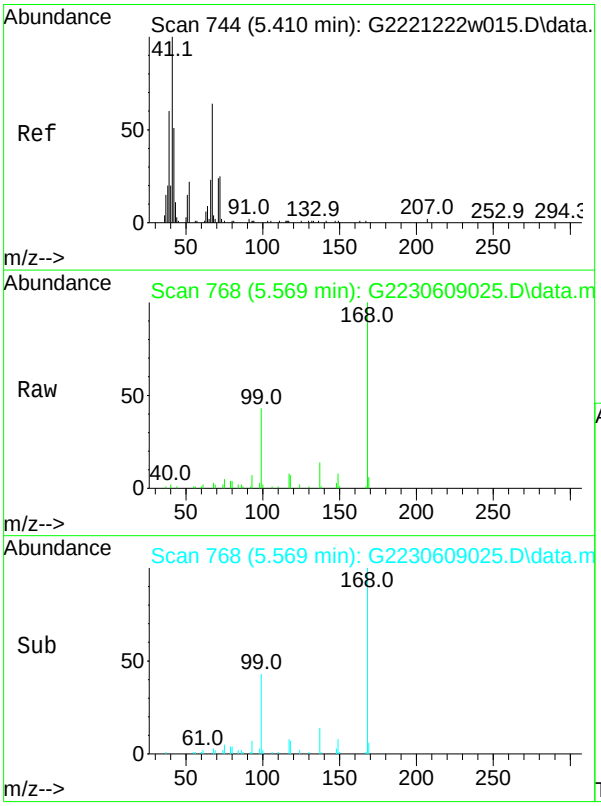


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.247 min Scan# 715
Delta R.T. -0.014 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 42 Resp: 43646

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

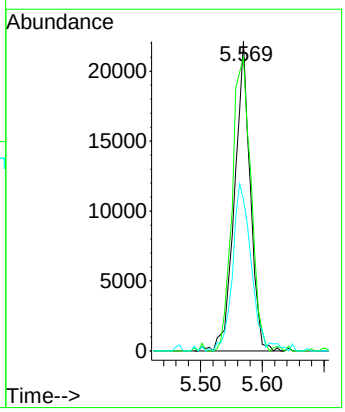


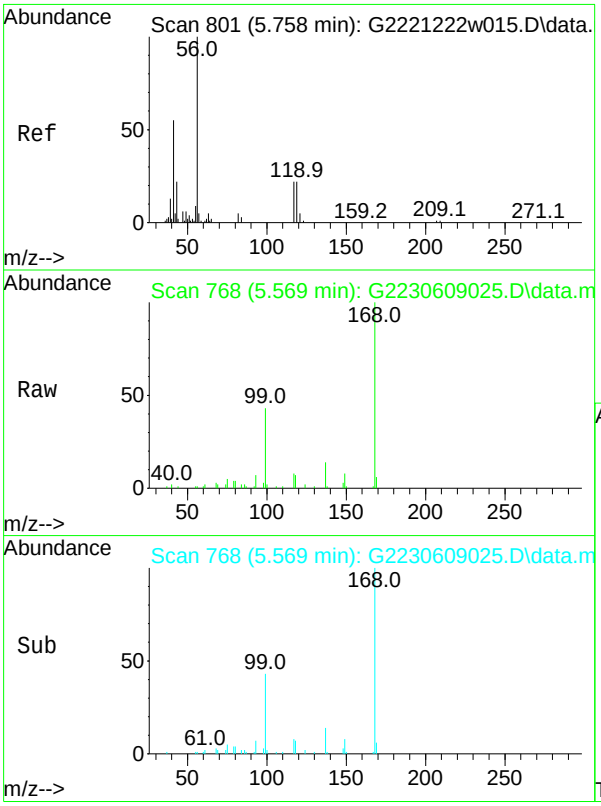


#40
Cyclohexane
Concen: 0.77 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 84 Resp: 389476

Ion	Ratio	Lower	Upper
84	100		
69	110.8	6.8	66.8#
56	62.4	79.1	139.1#

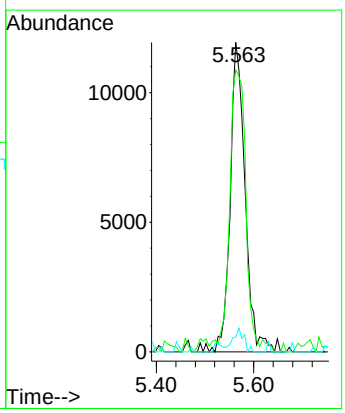


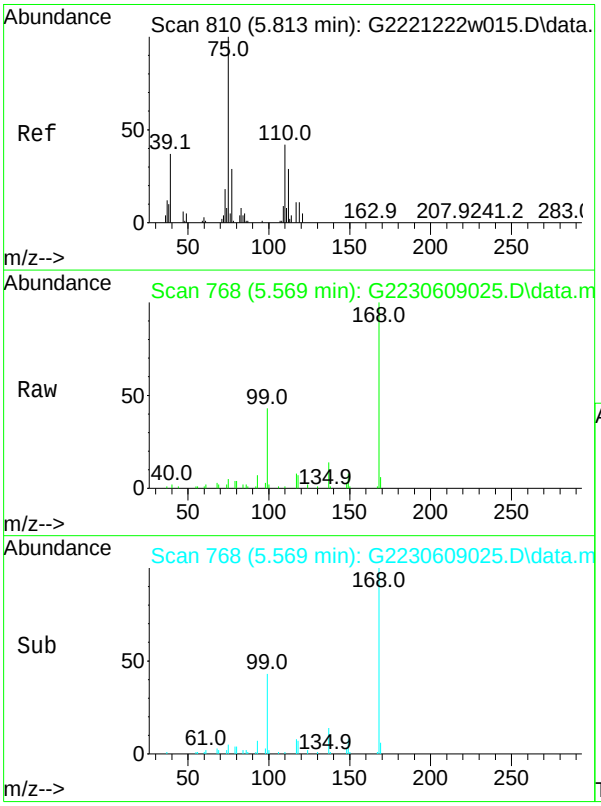


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 56 Resp: 255715

Ion	Ratio	Lower	Upper
56	100		
55	102.3	0.0	41.0#
57	0.0	0.0	35.7

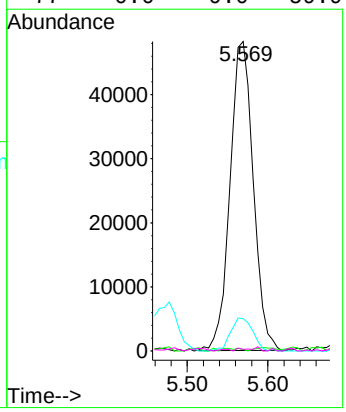


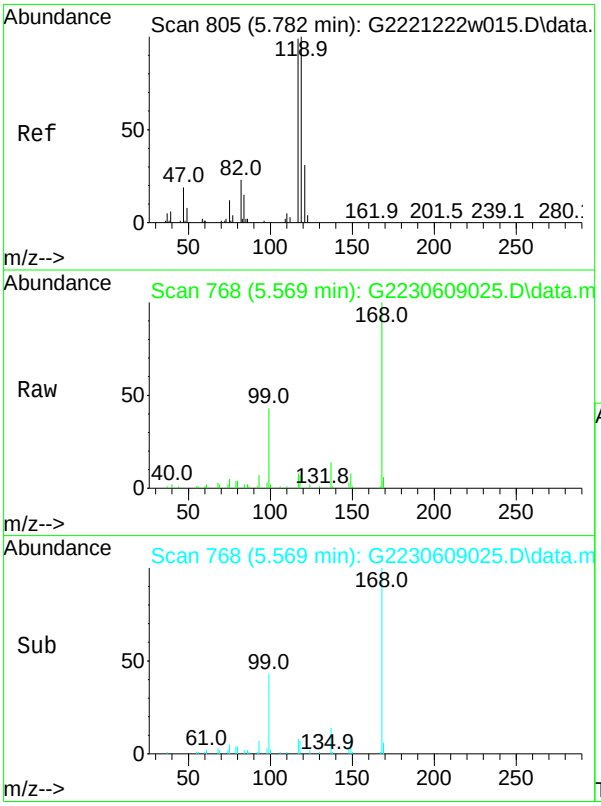


#42
1,1-Dichloropropene
Concen: 2.18 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 75 Resp: 962102

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.3	9.1	69.1
77	0.0	0.0	59.9

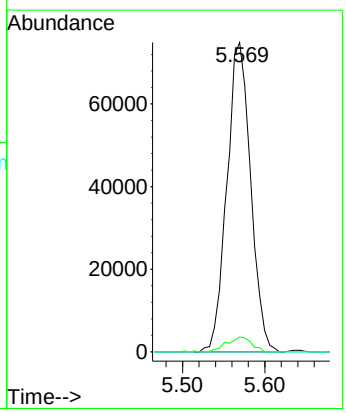


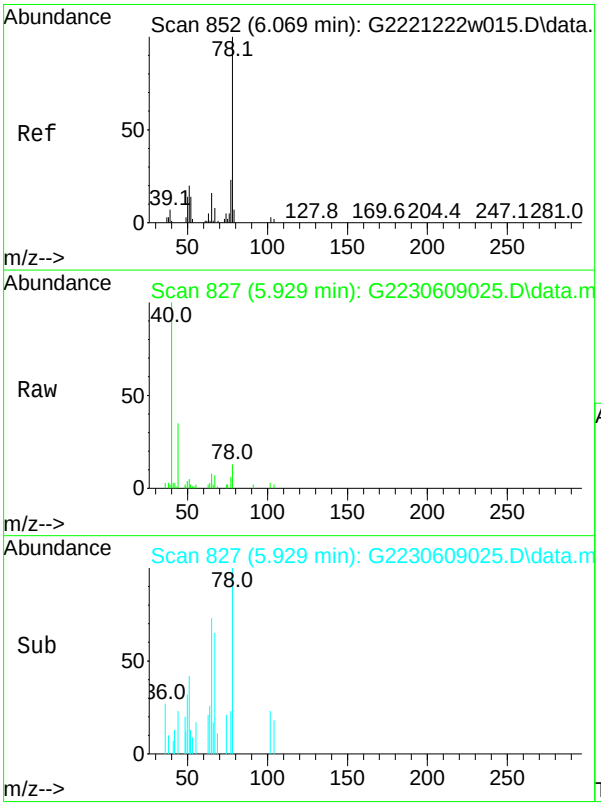


#47
Carbon tetrachloride
Concen: 3.27 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:117 Resp: 1499879

Ion	Ratio	Lower	Upper
117	100		
119	5.0	66.4	126.4#
121	0.0	0.4	60.4#

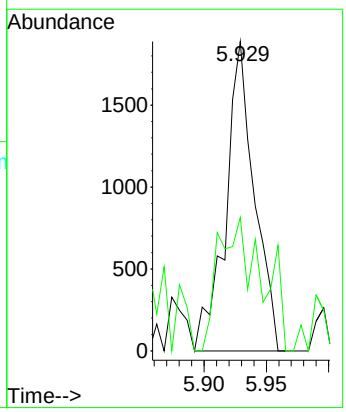


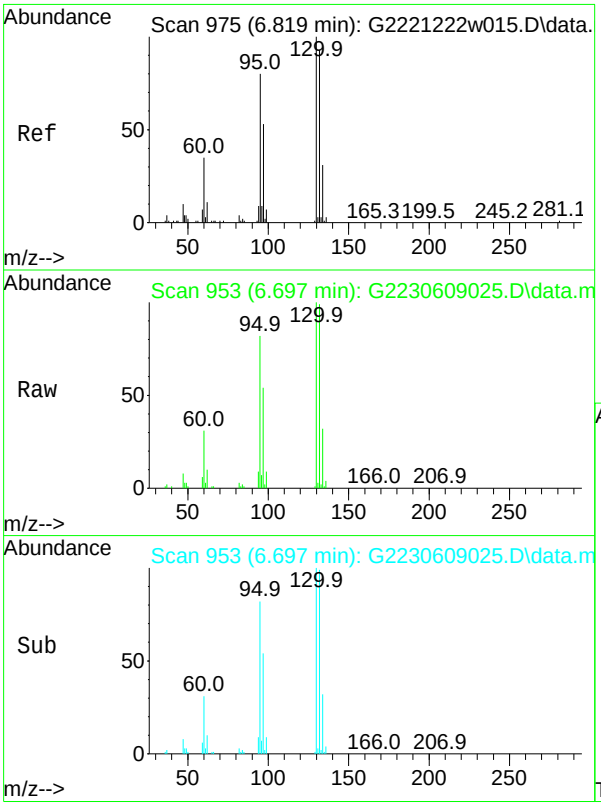


#48
Benzene
Concen: 0.02 ug/L
RT: 5.931 min Scan# 827
Delta R.T. -0.004 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 78 Resp: 30187

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

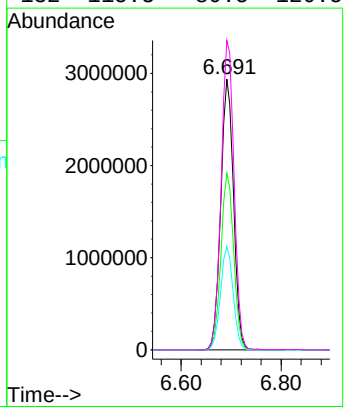


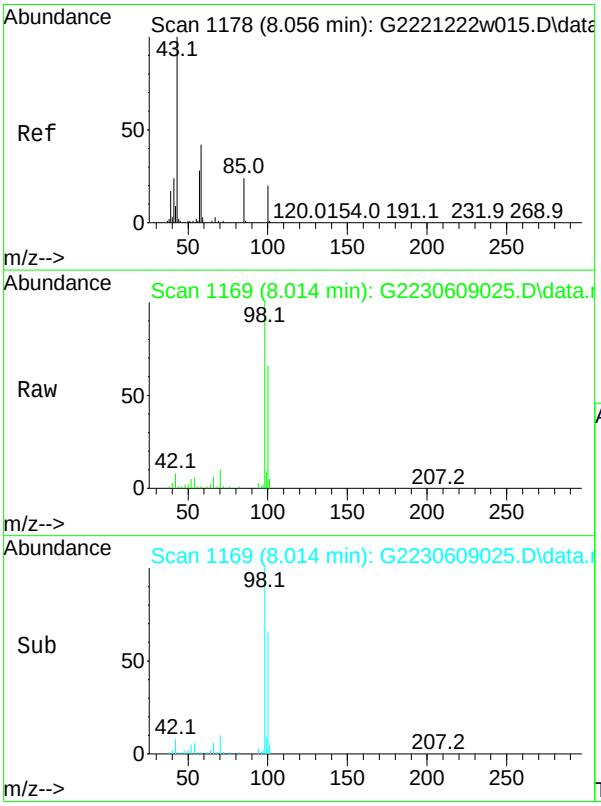


#50
Trichloroethene
Concen: 156.04 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 95 Resp:52076553

Ion	Ratio	Lower	Upper
95	100		
97	65.1	35.5	95.5
60	37.9	14.8	74.8
132	115.3	80.5	120.5

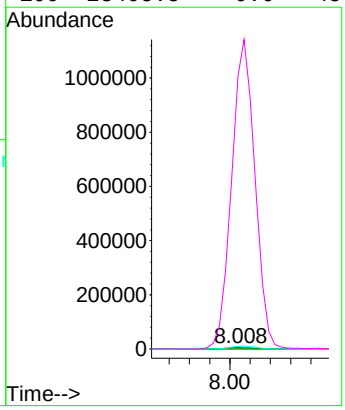


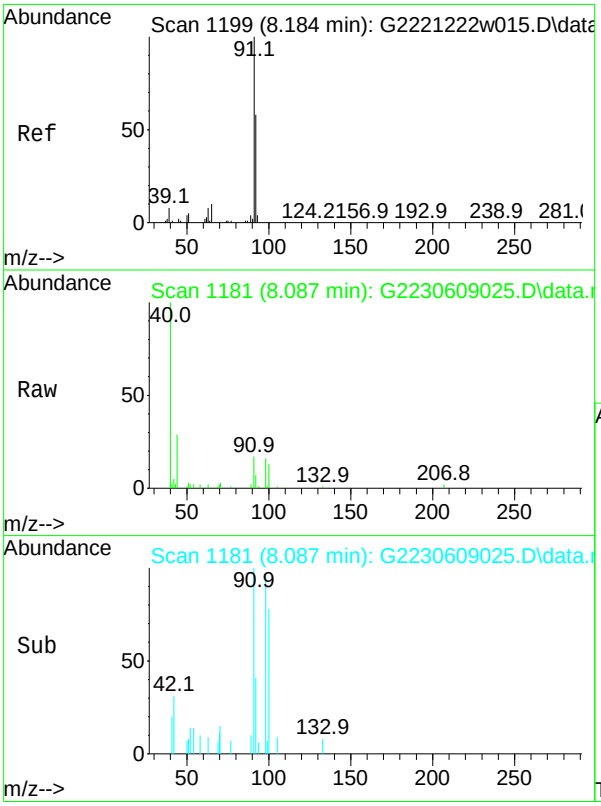


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 43 Resp: 77722

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	225.4	37.0	37.0#
100	23405.5	0.0	45.2#

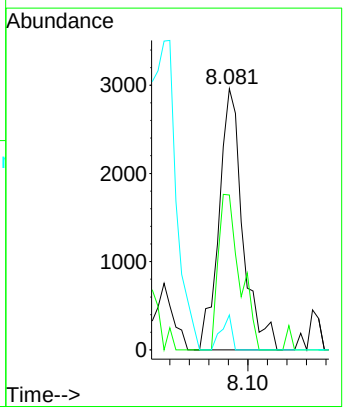


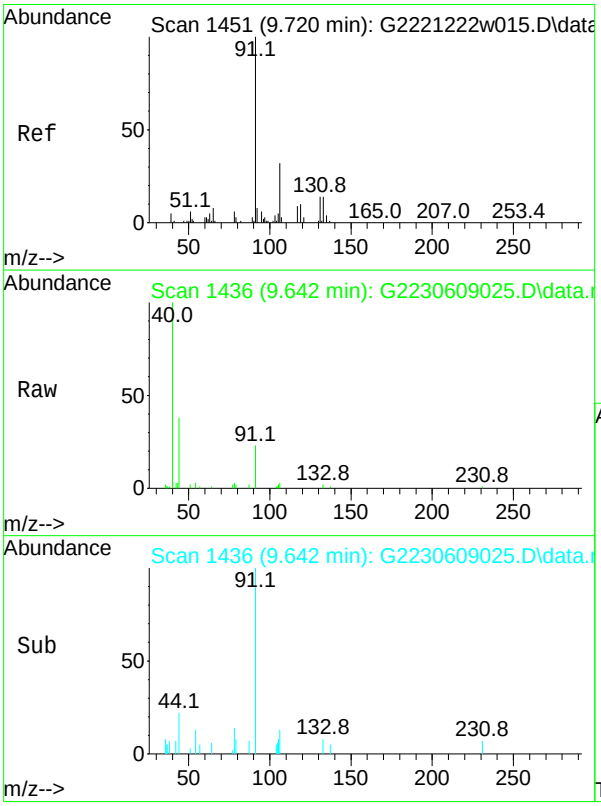


#65
Toluene
Concen: Below Cal
RT: 8.085 min Scan# 1181
Delta R.T. -0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 50013

Ion	Ratio	Lower	Upper
91	100		
92	54.2	27.5	87.5
65	0.0	0.0	41.4

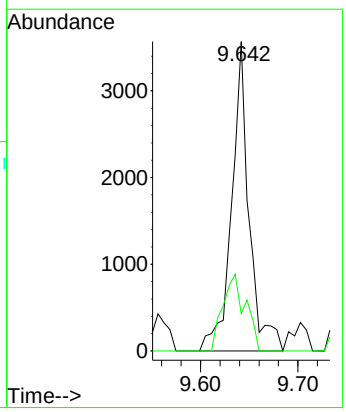


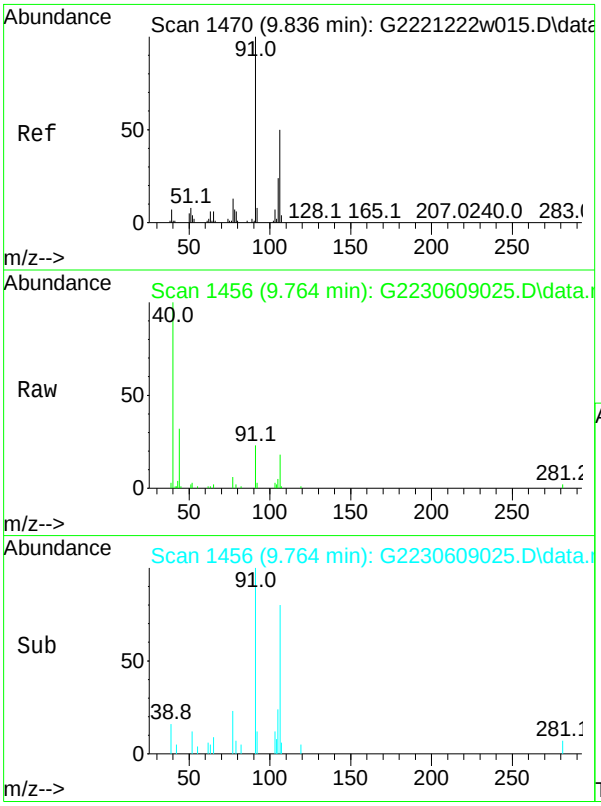


#74
Ethylbenzene
Concen: Below Cal
RT: 9.643 min Scan# 1436
Delta R.T. 0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 44223

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

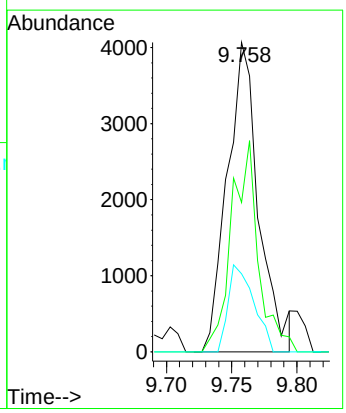


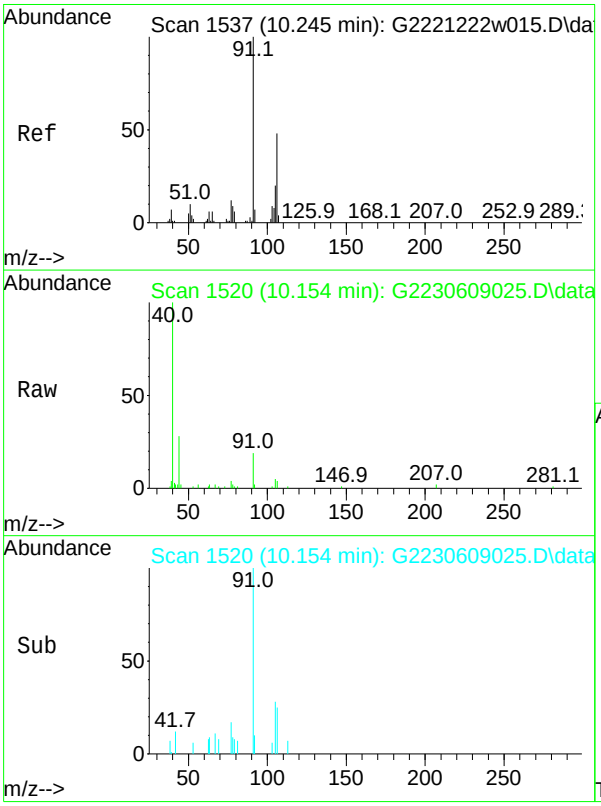


#75
m,p-Xylene
Concen: 0.06 ug/L
RT: 9.762 min Scan# 1456
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 65975

Ion	Ratio	Lower	Upper
91	100		
106	60.2	19.0	79.0
105	0.0	0.0	52.7

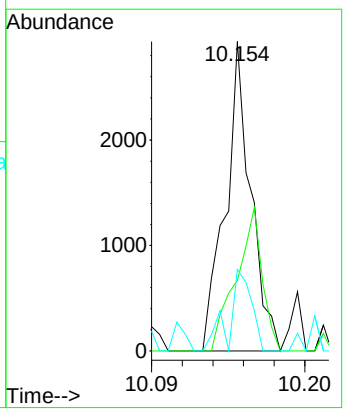


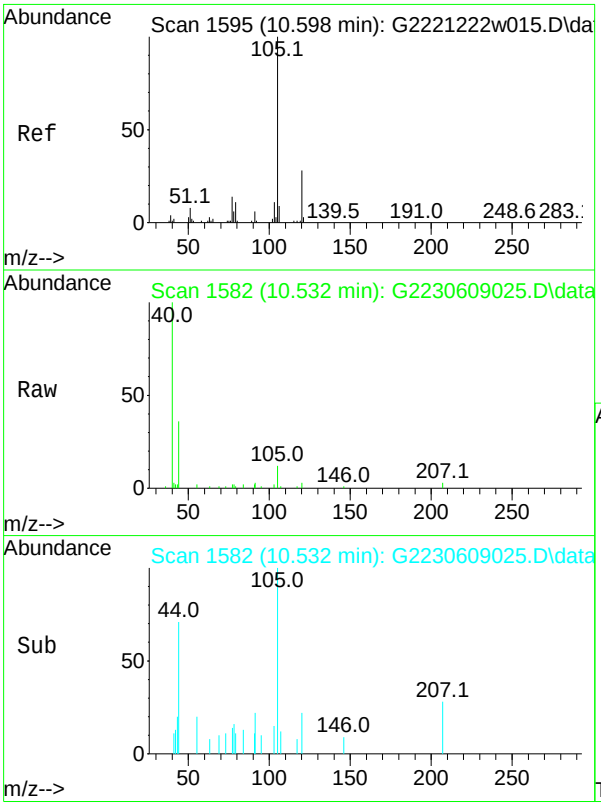


#79
o-Xylene
Concen: 0.03 ug/L
RT: 10.156 min Scan# 1520
Delta R.T. -0.005 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 36536

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.2	76.2#
105	0.0	0.0	56.7

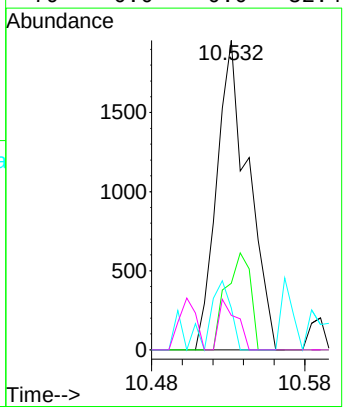


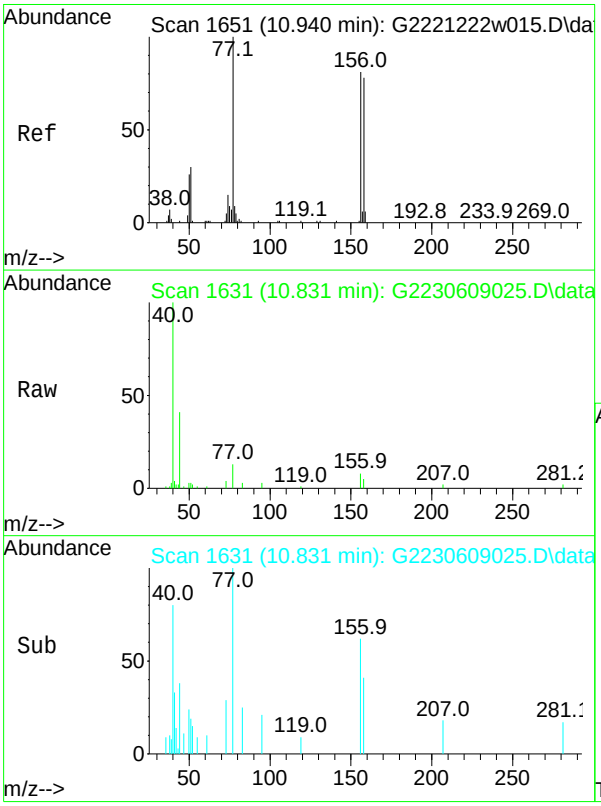


#80
Isopropylbenzene
Concen: 0.02 ug/L
RT: 10.533 min Scan# 1582
Delta R.T. -0.004 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 29083

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

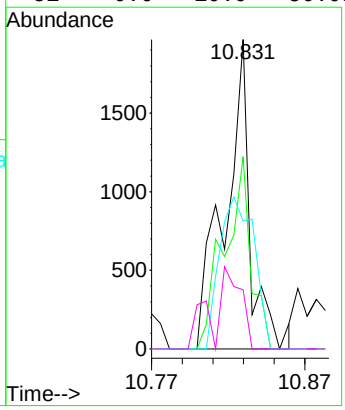


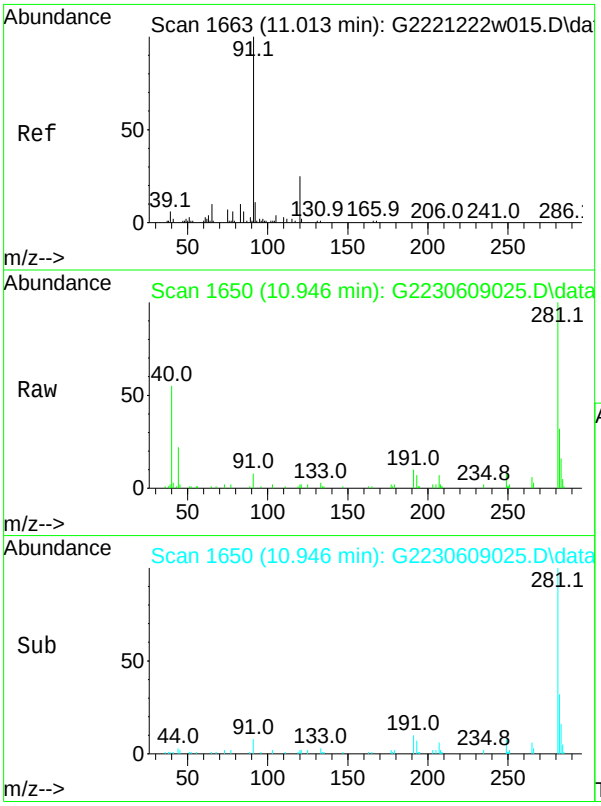


#82
Bromobenzene
Concen: 0.04 ug/L
RT: 10.832 min Scan# 1631
Delta R.T. 0.004 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 77 Resp: 22452

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	0.0	10.9	50.9#

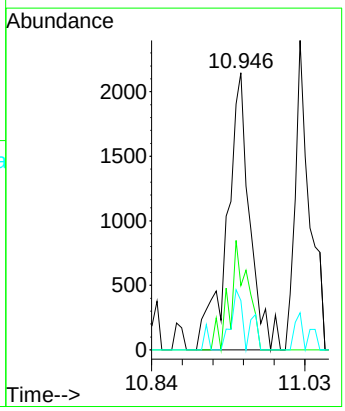


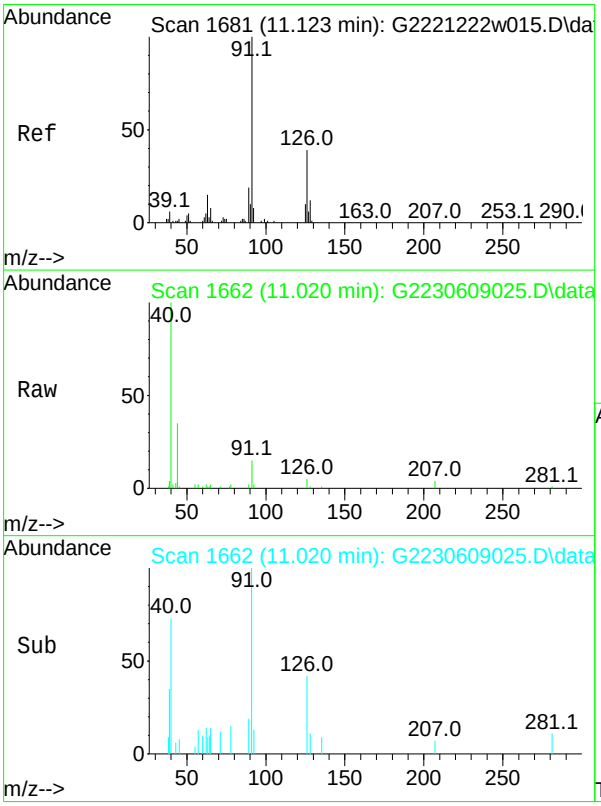


#86
n-Propylbenzene
Concen: 0.02 ug/L
RT: 10.947 min Scan# 1650
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 41840

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.3
65	0.0	0.0	40.3

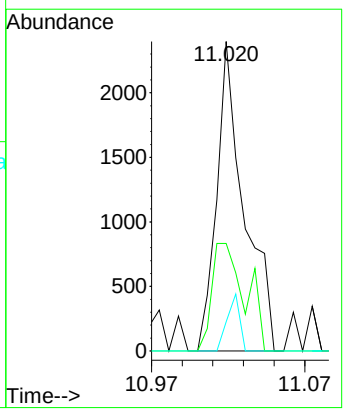


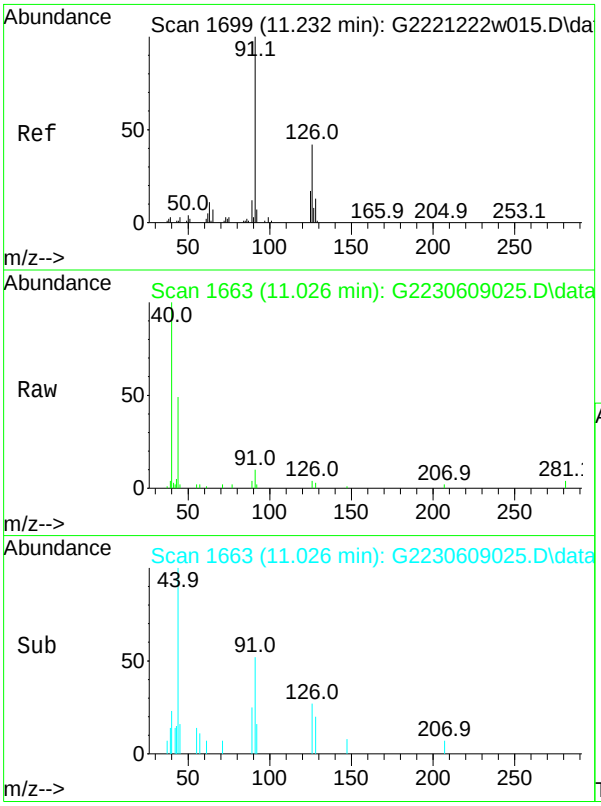


#87
2-Chlorotoluene
Concen: 0.03 ug/L
RT: 11.022 min Scan# 1662
Delta R.T. -0.006 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 29243

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

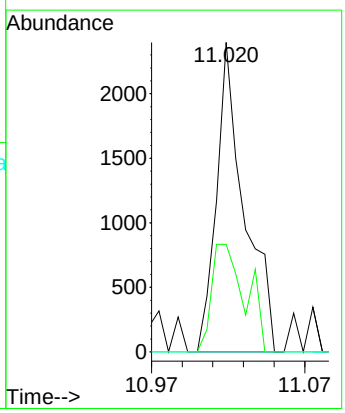


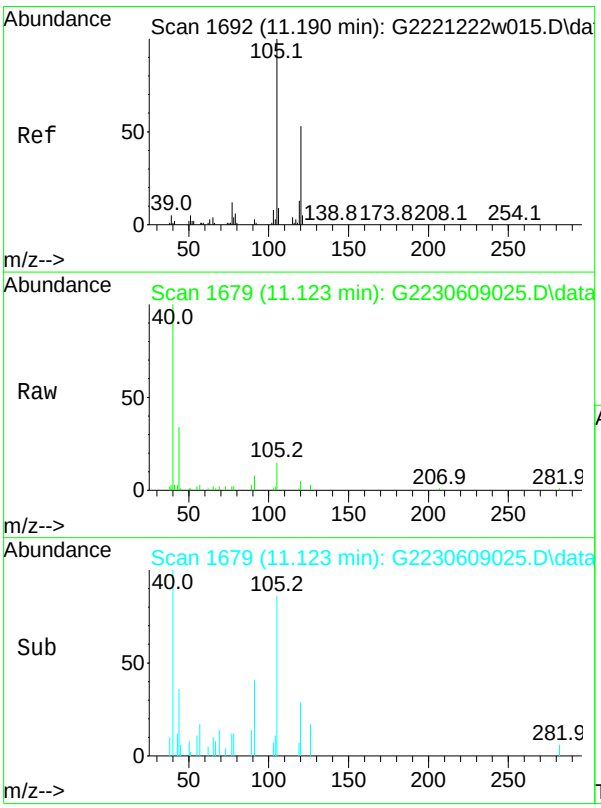


#88
4-Chlorotoluene
Concen: 0.03 ug/L
RT: 11.023 min Scan# 1663
Delta R.T. -0.114 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 29244

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.7	60.7#
127	0.0	0.0	36.1

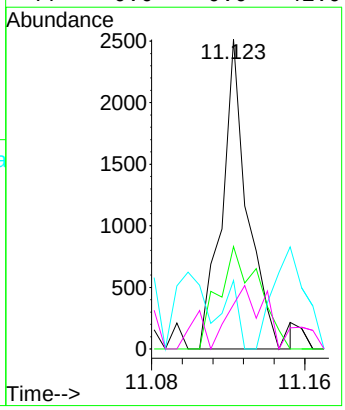


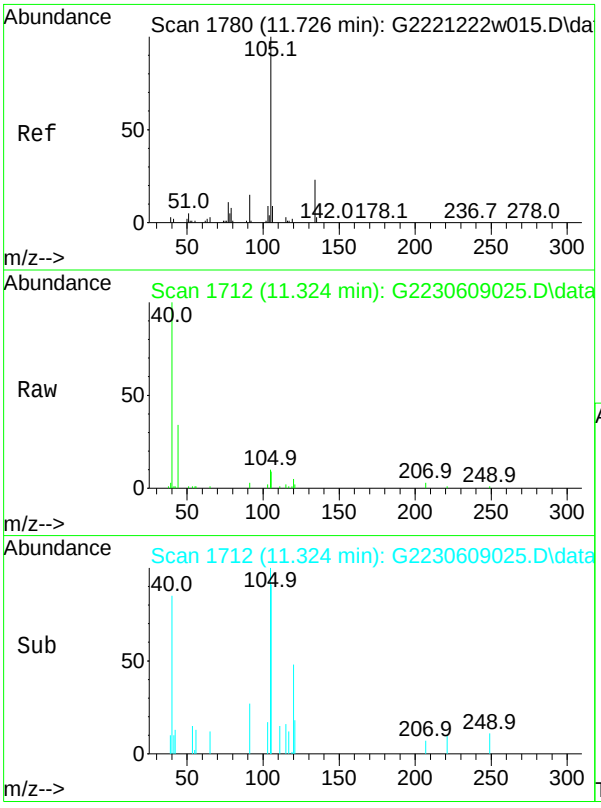


#89
1,3,5-Trimethylbenzene
Concen: 0.02 ug/L
RT: 11.125 min Scan# 1679
Delta R.T. -0.005 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 23598

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.0	79.0#
39	0.0	0.0	42.6
77	0.0	0.0	42.9

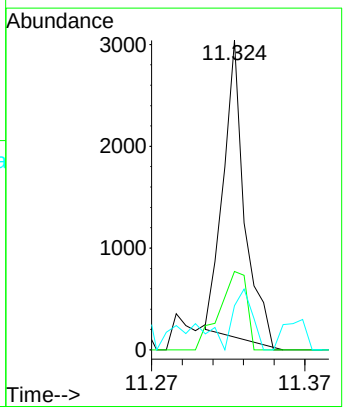


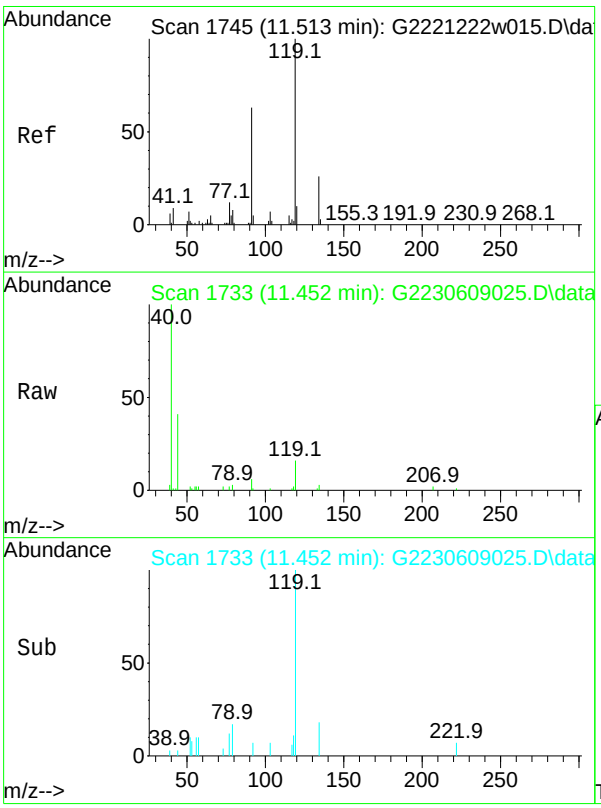


#90
2-ethyl-1-toluene
Concen: 0.02 ug/L
RT: 11.326 min Scan# 1712
Delta R.T. -0.003 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 27626

Ion	Ratio	Lower	Upper
105	100		
120	0.0	0.8	60.8#
91	0.0	0.0	42.3

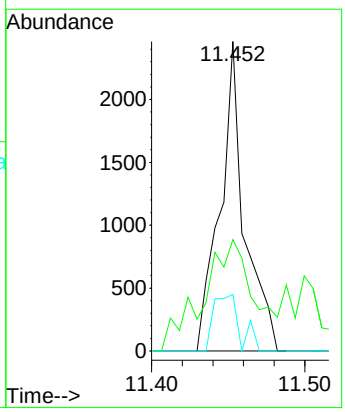


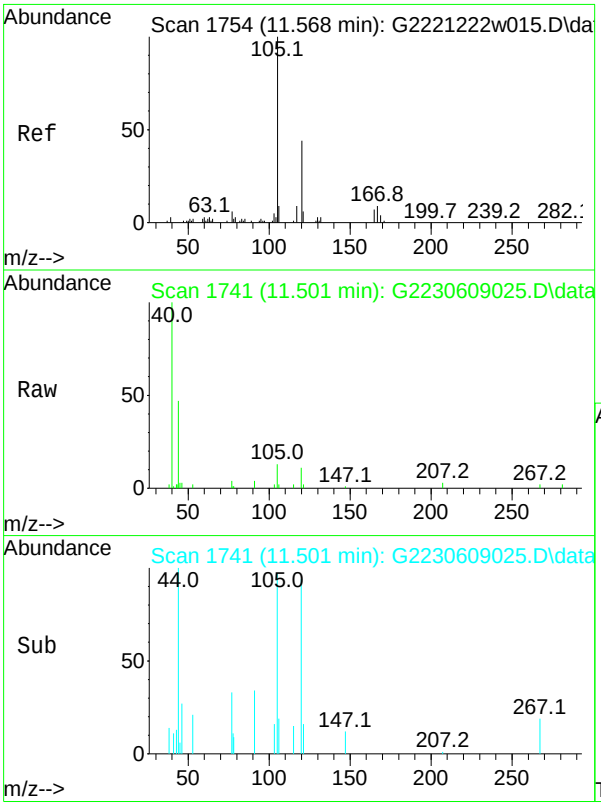


#91
tert-Butylbenzene
Concen: 0.02 ug/L
RT: 11.454 min Scan# 1733
Delta R.T. 0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:119 Resp: 28403

Ion	Ratio	Lower	Upper
119	100		
91	0.0	29.8	89.8#
134	0.0	0.0	53.2

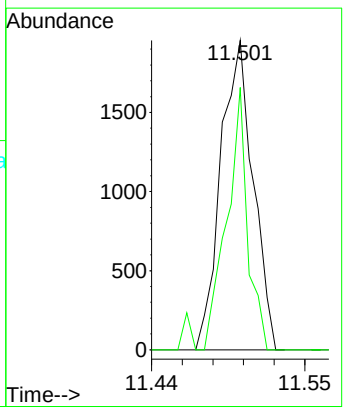


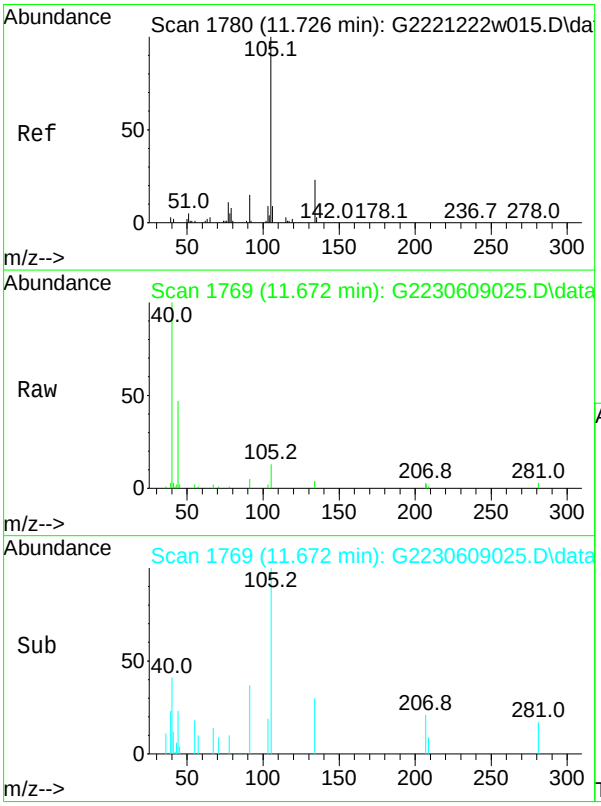


#92
1,2,4-Trimethylbenzene
Concen: 0.02 ug/L
RT: 11.502 min Scan# 1741
Delta R.T. -0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 29835

Ion	Ratio	Lower	Upper
105	100		
120	0.0	14.4	74.4#

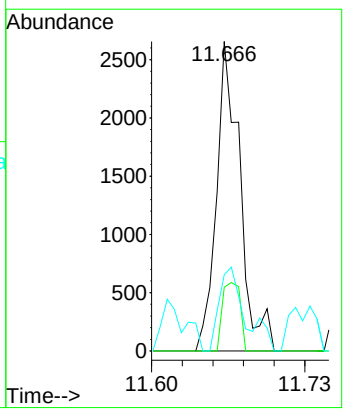


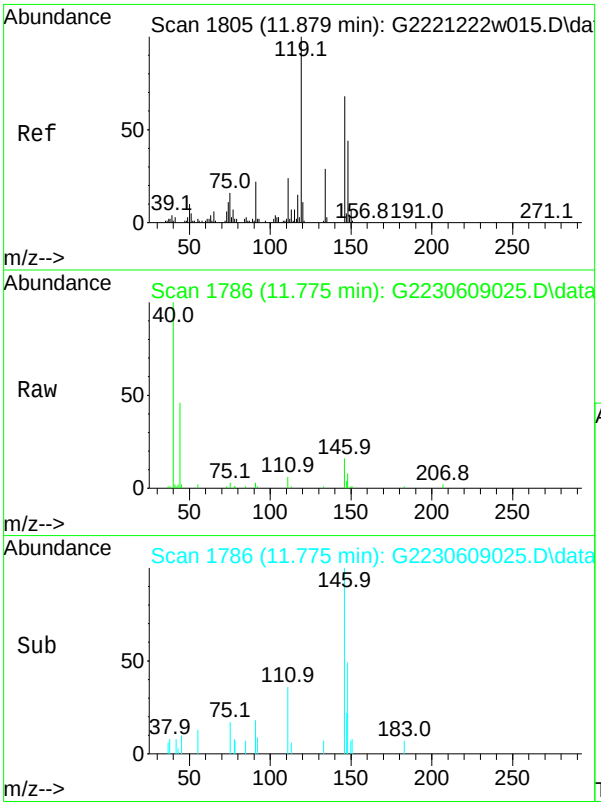


#93
sec-Butylbenzene
Concen: 0.03 ug/L
RT: 11.669 min Scan# 1769
Delta R.T. -0.004 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 36930

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	50.7
91	0.0	0.0	46.0

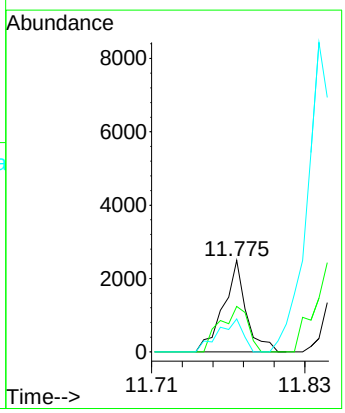


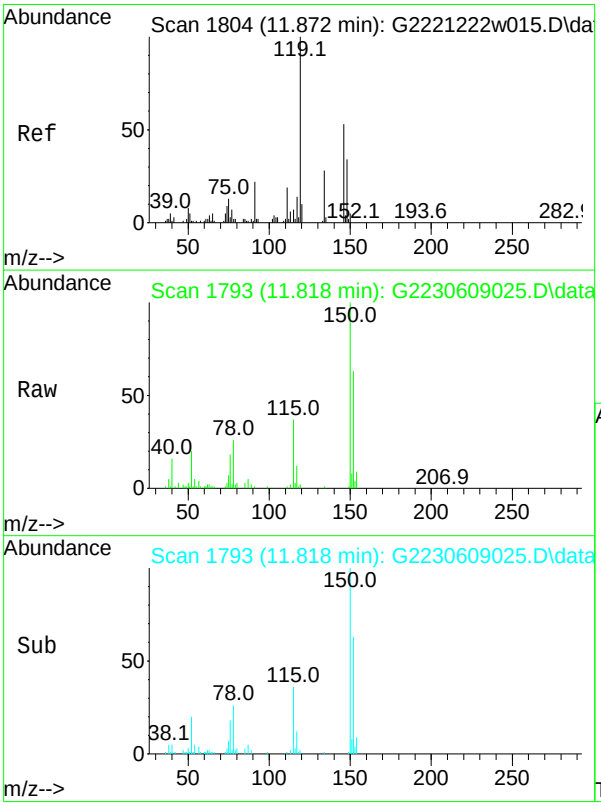


#94
1,3-Dichlorobenzene
Concen: 0.04 ug/L
RT: 11.777 min Scan# 1786
Delta R.T. 0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:146 Resp: 29088

Ion	Ratio	Lower	Upper
146	100		
148	0.0	33.6	93.6#
111	0.0	8.2	68.2#

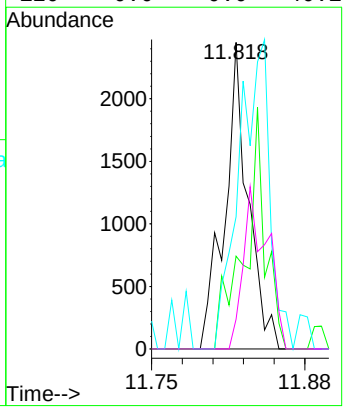


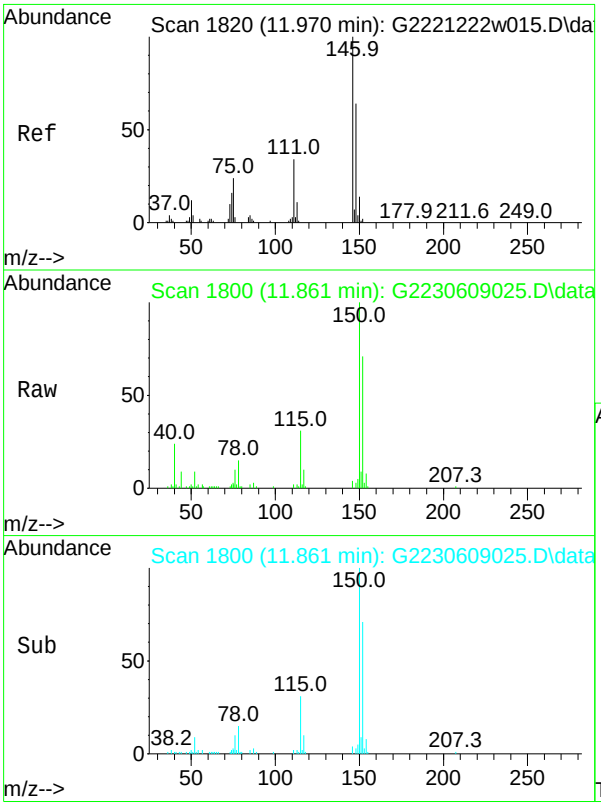


#95
4-Isopropyltoluene
Concen: 0.03 ug/L
RT: 11.820 min Scan# 1793
Delta R.T. -0.003 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:119 Resp: 34163

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	56.2
91	132.0	0.0	52.5#
120	0.0	0.0	40.1

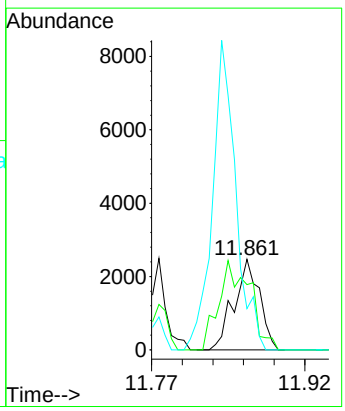


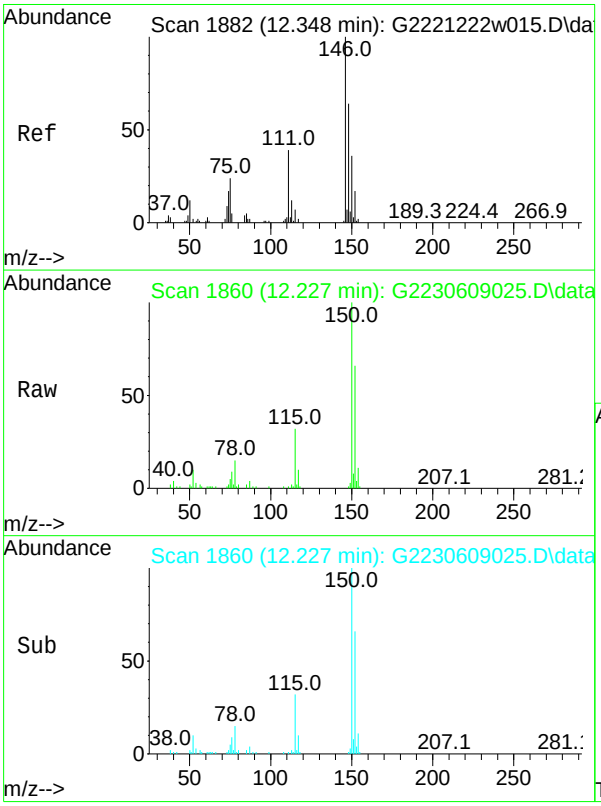


#96
1,4-Dichlorobenzene
Concen: 0.06 ug/L
RT: 11.863 min Scan# 1800
Delta R.T. -0.003 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:146 Resp: 42105

Ion	Ratio	Lower	Upper
146	100		
148	121.8	33.9	93.9#
111	315.0	8.3	68.3#

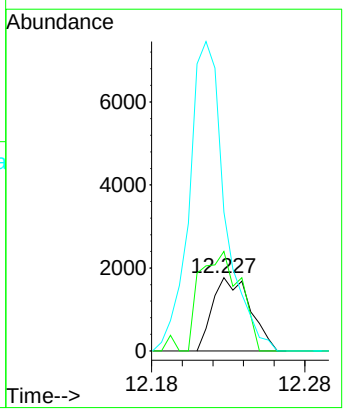


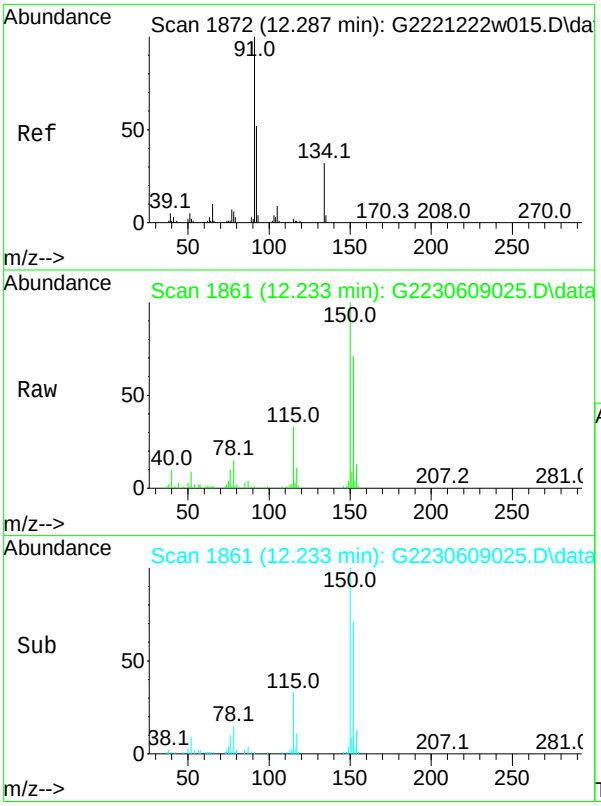


#98
1,2-Dichlorobenzene
Concen: Below Cal
RT: 12.230 min Scan# 1860
Delta R.T. -0.007 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:146 Resp: 31748

Ion	Ratio	Lower	Upper
146	100		
148	141.2	34.8	94.8#
111	402.0	11.0	71.0#

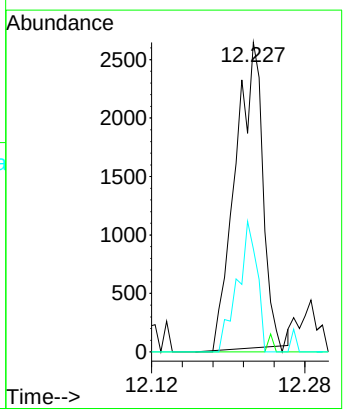


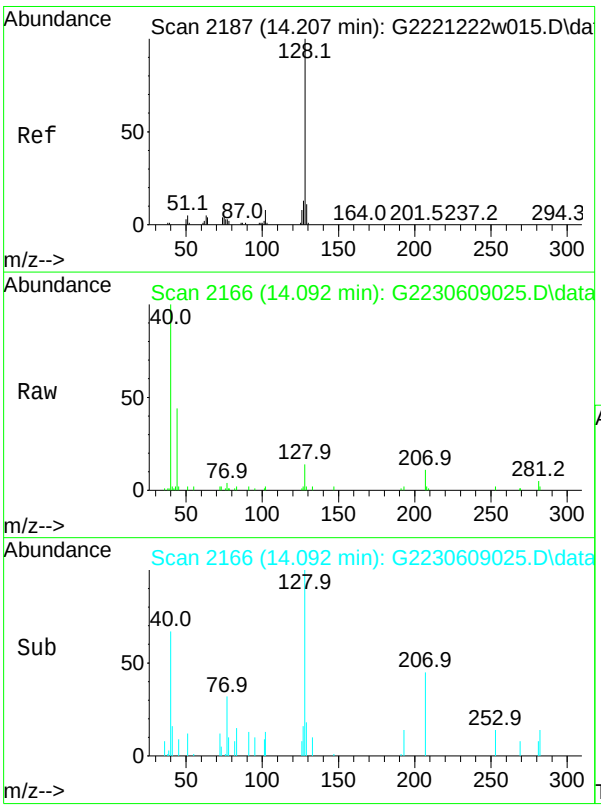


#99
n-Butylbenzene
Concen: Below Cal
RT: 12.231 min Scan# 1861
Delta R.T. -0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 51902

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

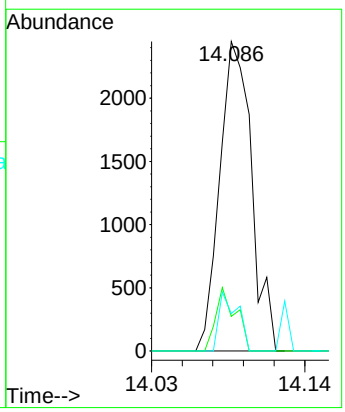


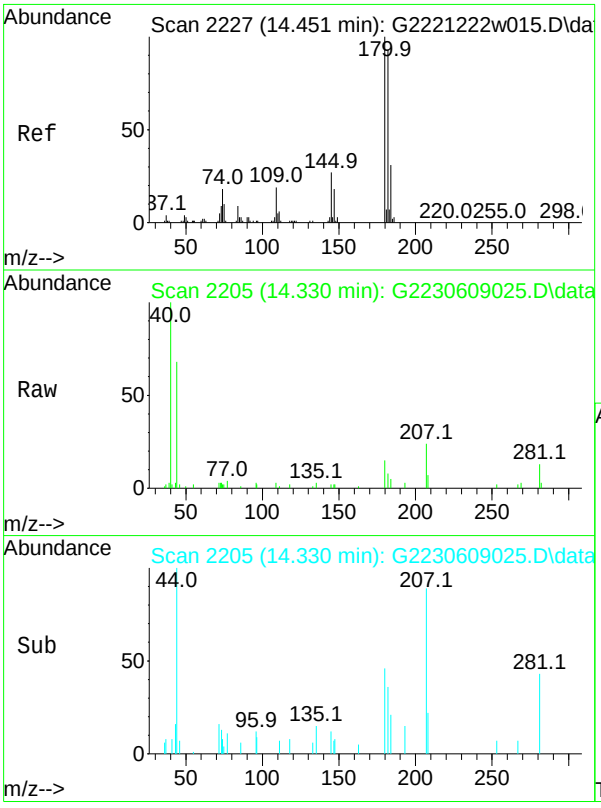


#105
Naphthalene
Concen: Below Cal
RT: 14.091 min Scan# 2166
Delta R.T. -0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:128 Resp: 36969

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.2
129	0.0	0.0	40.9

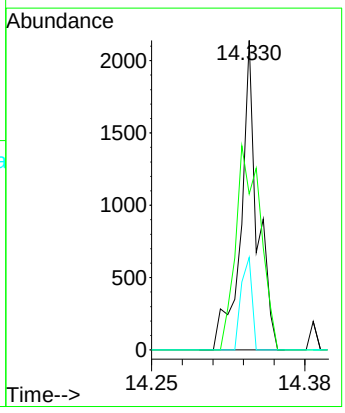




#106
1,2,3-Trichlorobenzene
Concen: 0.14 ug/L
RT: 14.332 min Scan# 2205
Delta R.T. -0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:180 Resp: 20859

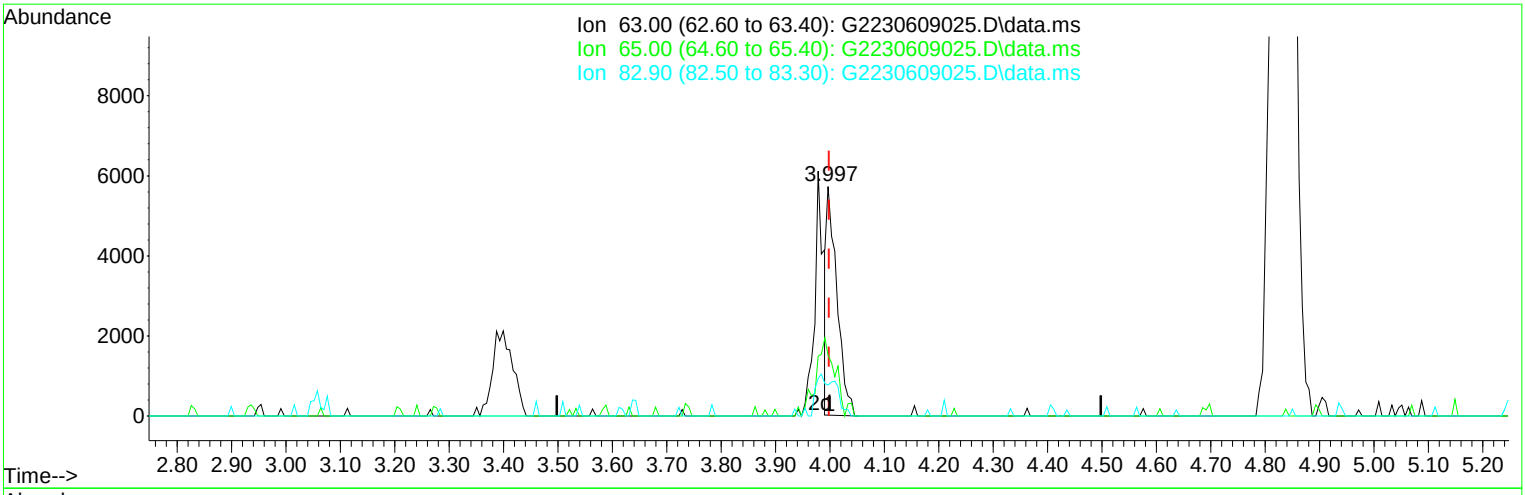
Ion	Ratio	Lower	Upper
180	100		
182	0.0	61.8	121.8#
184	0.0	0.7	60.7#

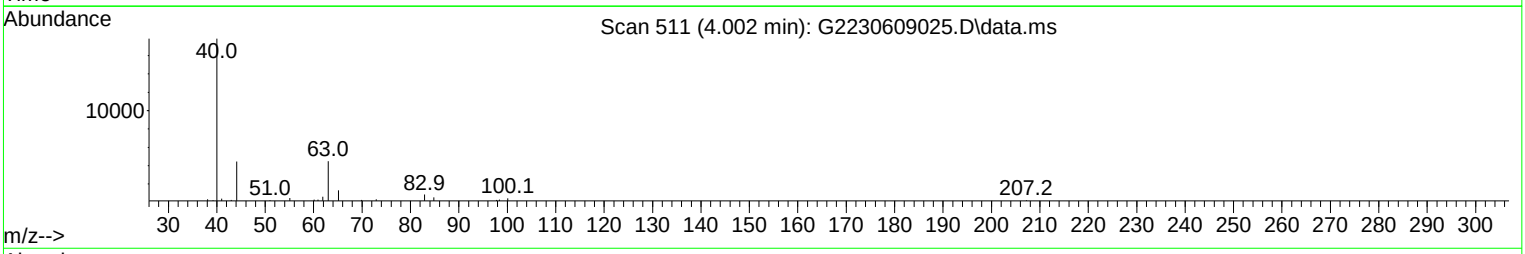


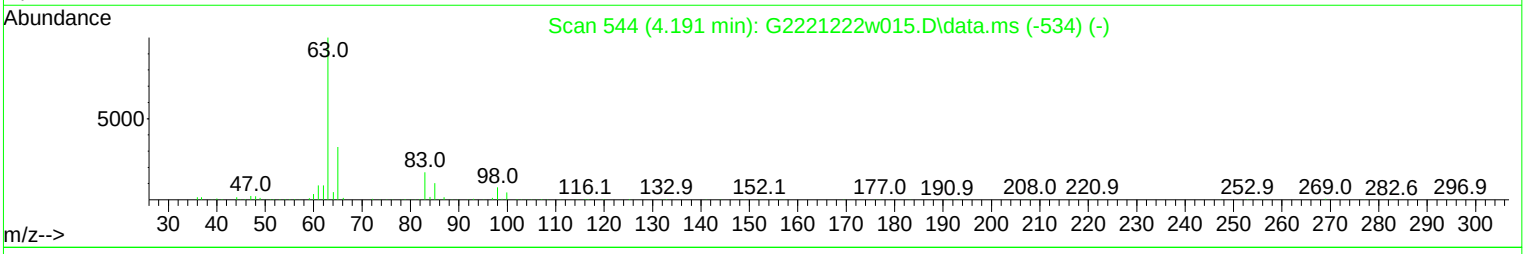
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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







TIC: G2230609025.D\data.ms

(23) 1,1-Dichloroethane (TP)

4.000min (+ 0.002) 0.09 ug/L

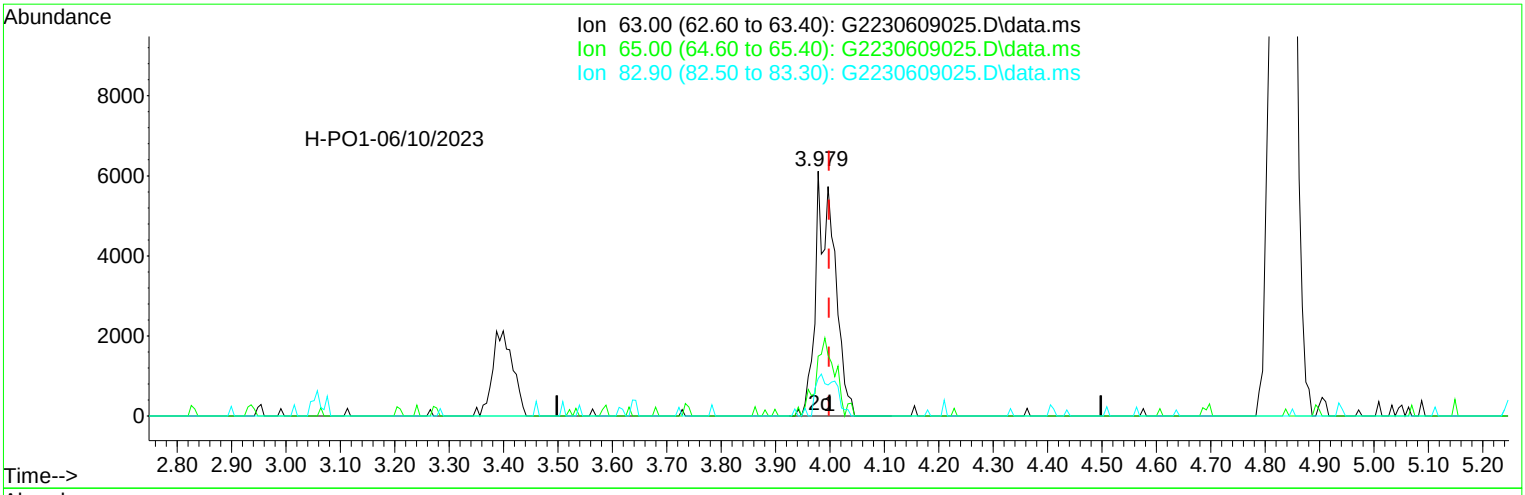
response 89711

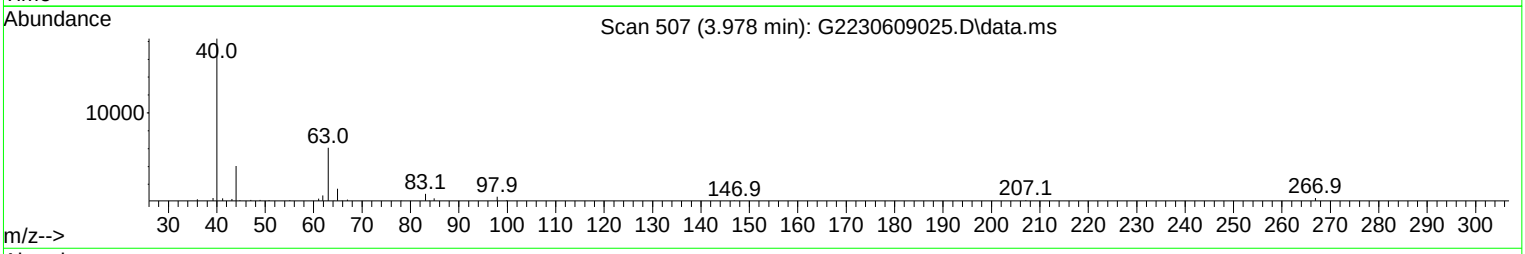
Ion	Exp%	Act%
63.00	100.00	100.00
65.00	31.10	54.47
82.90	12.90	0.00
0.00	0.00	0.00

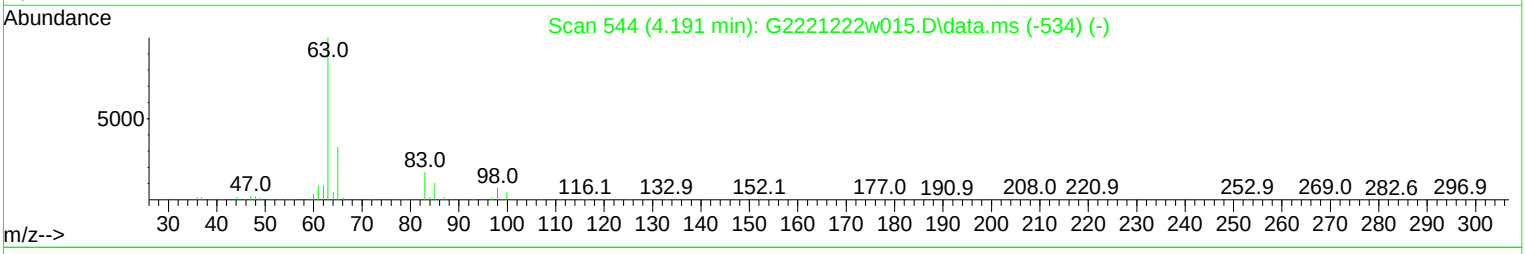
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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







TIC: G2230609025.D\data.ms

(23) 1,1-Dichloroethane (TP)

3.978min (-0.020) 0.20 ug/L m

response 146006

Ion	Exp%	Act%
63.00	100.00	100.00
65.00	31.10	33.47
82.90	12.90	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

529LHSMW46R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22	File ID:	G2230609025.D
Sampled:	05/29/23 09:30	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 18:55
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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	0.400	0.134	0.400	1.00	J, D
75-35-4	1,1-Dichloroethene	0.760	0.191	0.400	1.00	J, D
563-58-6	1,1-Dichloropropene		0.140	0.400	1.00	U
87-61-6	1,2,3-Trichlorobenzene	0.280	0.204	0.400	1.00	J, D
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

529LHSMW46R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22	File ID:	G2230609025.D
Sampled:	05/29/23 09:30	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 18:55
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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	0.500	0.320	1.00	2.00	J, D
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	13.1	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	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

529LHSMW46R

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-22	File ID:	G2230609025.D
Sampled:	05/29/23 09:30	Prepared:	06/09/23 16:30	Analyzed:	06/09/23 18:55
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0175	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	J1, U
98-06-6	tert-Butylbenzene		0.0906	0.400	1.00	U
127-18-4	Tetrachloroethene		0.357	1.00	2.00	U
108-88-3	Toluene		0.114	0.400	1.00	U
156-60-5	trans-1,2-Dichloroethene	0.640	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	312	0.156	0.400	1.00	E, J1, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride	0.520	0.258	1.00	2.00	J, D

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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

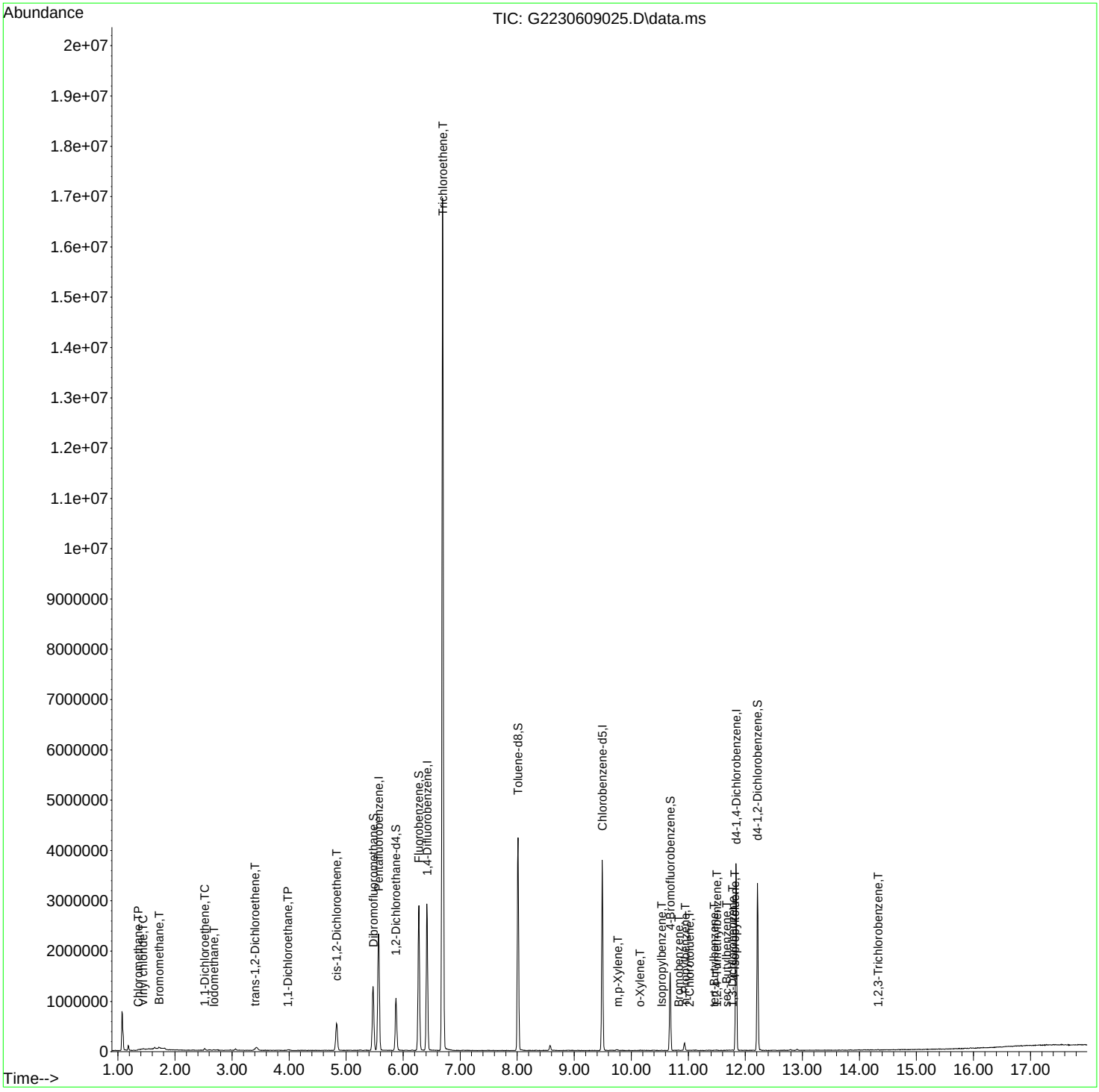
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	18840746	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25404667	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22264796	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10710364	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7879282	19.00	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.00%				
43) 1,2-Dichloroethane-d4	5.877	65	7175299	17.51	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.55%				
49) Fluorobenzene	6.277	96	28218668	19.49	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%				
64) Toluene-d8	8.016	98	27235581	19.41	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%				
81) 4-Bromofluorobenzene	10.685	174	4962676	9.81	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%				
97) d4-1,2-Dichlorobenzene	12.217	152	9390670	20.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.95%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	46989	0.05	ug/L	#	41
4) Vinyl chloride	1.444	62	94615	0.26	ug/L		83
5) Bromomethane	1.722	94	122347	0.25	ug/L	#	88
10) 1,1-Dichloroethene	2.522	61	184802	0.38	ug/L		82
13) Iodomethane	2.682	142	115204	0.26	ug/L	#	89
18) Methylene chloride	3.063	49	136729	Below Cal			79
20) trans-1,2-Dichloroethene	3.401	61	132084	0.32	ug/L		79
21) Methyl tert-butyl ether	3.437	73	822715	Below Cal			95
23) 1,1-Dichloroethane	3.978	63	146006m	0.20	ug/L		
28) cis-1,2-Dichloroethene	4.834	61	3124993	6.54	ug/L	#	72
50) Trichloroethene	6.694	95	52076553	156.04	ug/L		91
74) Ethylbenzene	9.643	91	44223	Below Cal		#	44
75) m,p-Xylene	9.762	91	65975	0.06	ug/L	#	74
79) o-Xylene	10.156	91	36536	0.03	ug/L	#	37
80) Isopropylbenzene	10.533	105	29083	0.02	ug/L	#	58
82) Bromobenzene	10.832	77	22452	0.04	ug/L	#	22
86) n-Propylbenzene	10.947	91	41840	0.02	ug/L	#	58
87) 2-Chlorotoluene	11.022	91	29243	0.03	ug/L	#	47
91) tert-Butylbenzene	11.454	119	28403	0.02	ug/L	#	30
92) 1,2,4-Trimethylbenzene	11.502	105	29835	0.02	ug/L	#	32
93) sec-Butylbenzene	11.669	105	36930	0.03	ug/L	#	58
94) 1,3-Dichlorobenzene	11.777	146	29088	0.04	ug/L	#	25
95) 4-Isopropyltoluene	11.820	119	34163	0.03	ug/L	#	1
105) Naphthalene	14.091	128	36969	Below Cal		#	69
106) 1,2,3-Trichlorobenzene	14.332	180	20859	0.14	ug/L	#	14

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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	5.572	168	18840746	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	25404667	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	22264796	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.841	152	10710364	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7879282	19.00	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.00%				
43) 1,2-Dichloroethane-d4	5.877	65	7175299	17.51	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.55%				
49) Fluorobenzene	6.277	96	28218668	19.49	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.45%				
64) Toluene-d8	8.016	98	27235581	19.41	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%				
81) 4-Bromofluorobenzene	10.685	174	4962676	9.81	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.10%				
97) d4-1,2-Dichlorobenzene	12.217	152	9390670	20.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.95%				
Target Compounds							Qvalue
3) Chloromethane	1.355	50	46989	0.05	ug/L	#	41
4) Vinyl chloride	1.444	62	94615	0.26	ug/L		83
5) Bromomethane	1.722	94	122347	0.25	ug/L	#	88
10) 1,1-Dichloroethene	2.522	61	184802	0.38	ug/L		82
12) Acetone	2.600	43	150281	0.02	ug/L		99
13) Iodomethane	2.682	142	115204	0.26	ug/L	#	89
14) Carbon disulfide	2.741	76	160837	0.10	ug/L	#	74
17) 3-Chloro-1-propene	2.741	76	159604	0.76	ug/L	#	53
18) Methylene chloride	3.063	49	136729	Below Cal			79
20) trans-1,2-Dichloroethene	3.401	61	132084	0.32	ug/L		79
21) Methyl tert-butyl ether	3.437	73	822715	Below Cal			95
23) 1,1-Dichloroethane	4.000	63	89711	0.09	ug/L	#	60
26) 1-propanol	4.108	59	800	0.41	ug/L	#	100
28) cis-1,2-Dichloroethene	4.834	61	3124993	6.54	ug/L	#	72
31) Ethyl acetate	4.834	61	3124883	55.89	ug/L	#	45
36) Tetrahydrofuran	5.247	42	43646	Below Cal		#	30
40) Cyclohexane	5.572	84	389476	0.77	ug/L	#	35
41) 1-Chlorobutane	5.567	56	255715	0.44	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	962102	2.18	ug/L	#	38
47) Carbon tetrachloride	5.570	117	1499879	3.27	ug/L	#	16
48) Benzene	5.931	78	30187	0.02	ug/L	#	52
50) Trichloroethene	6.694	95	52076553	156.04	ug/L		91
60) 4-Methyl-2-pentanone	8.013	43	77722	Below Cal		#	1
65) Toluene	8.085	91	50013	Below Cal		#	91
74) Ethylbenzene	9.643	91	44223	Below Cal		#	44
75) m,p-Xylene	9.762	91	65975	0.06	ug/L	#	74
79) o-Xylene	10.156	91	36536	0.03	ug/L	#	37
80) Isopropylbenzene	10.533	105	29083	0.02	ug/L	#	58

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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

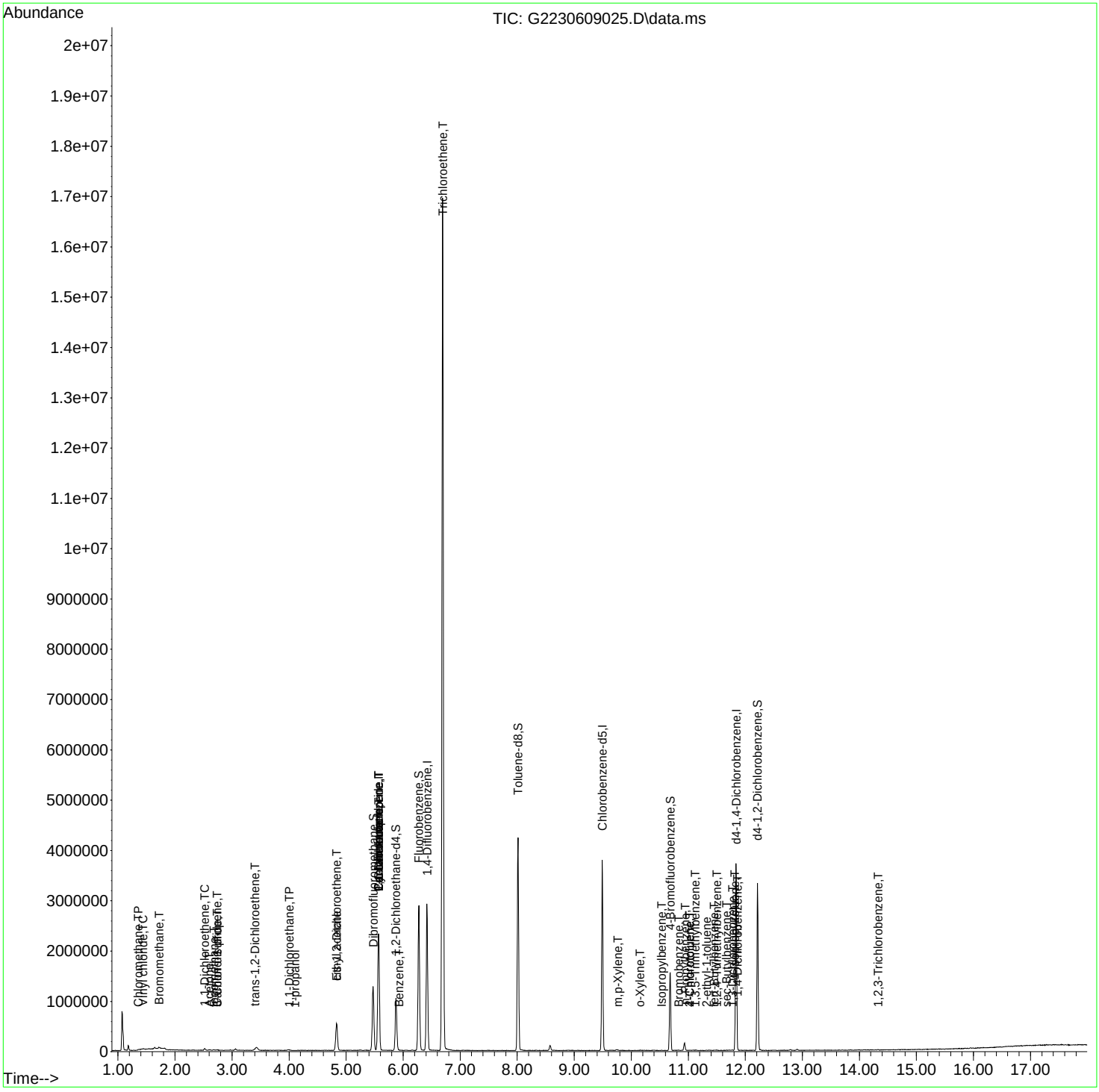
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
82) Bromobenzene	10.832	77	22452	0.04 ug/L #	22
86) n-Propylbenzene	10.947	91	41840	0.02 ug/L #	58
87) 2-Chlorotoluene	11.022	91	29243	0.03 ug/L #	47
88) 4-Chlorotoluene	11.023	91	29244	0.03 ug/L #	50
89) 1,3,5-Trimethylbenzene	11.125	105	23598	0.02 ug/L #	42
90) 2-ethyl-1-toluene	11.326	105	27626	0.02 ug/L #	51
91) tert-Butylbenzene	11.454	119	28403	0.02 ug/L #	30
92) 1,2,4-Trimethylbenzene	11.502	105	29835	0.02 ug/L #	32
93) sec-Butylbenzene	11.669	105	36930	0.03 ug/L #	58
94) 1,3-Dichlorobenzene	11.777	146	29088	0.04 ug/L #	25
95) 4-Isopropyltoluene	11.820	119	34163	0.03 ug/L #	1
96) 1,4-Dichlorobenzene	11.863	146	42105	0.06 ug/L #	1
98) 1,2-Dichlorobenzene	12.230	146	31748	Below Cal #	1
99) n-Butylbenzene	12.231	91	51902	Below Cal #	53
105) Naphthalene	14.091	128	36969	Below Cal #	69
106) 1,2,3-Trichlorobenzene	14.332	180	20859	0.14 ug/L #	14

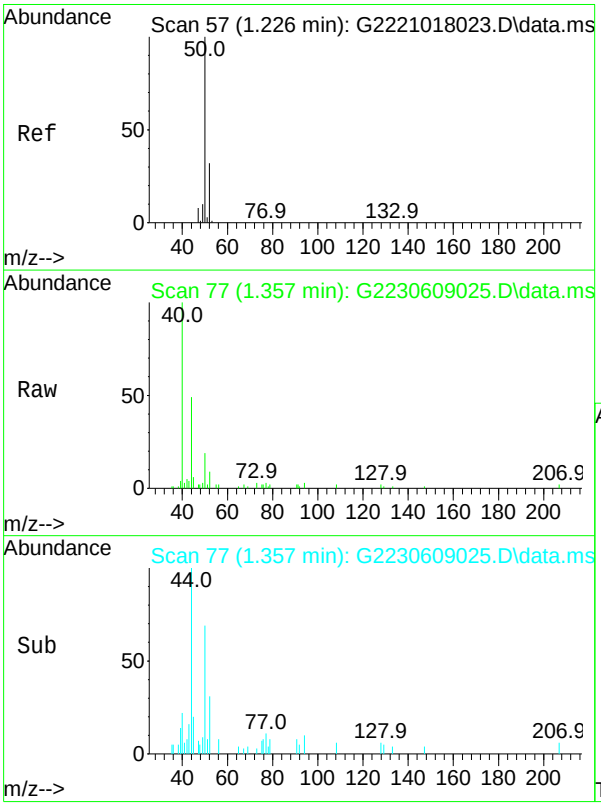
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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

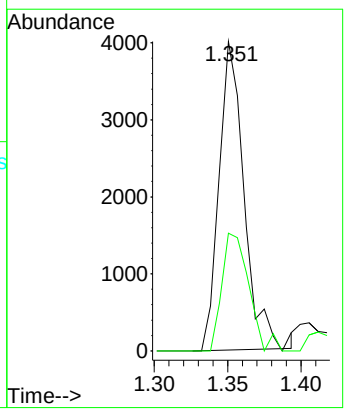


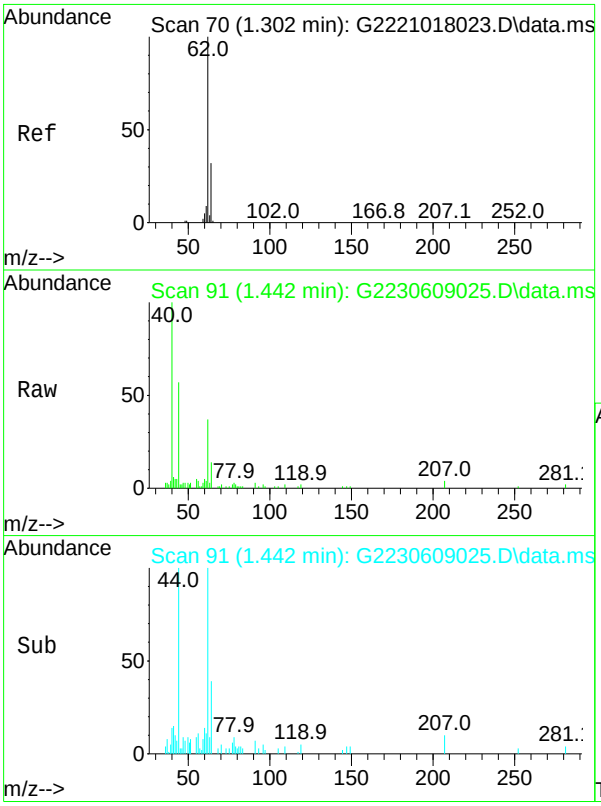


#3
Chloromethane
Concen: 0.05 ug/L
RT: 1.355 min Scan# 77
Delta R.T. 0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 50 Resp: 46989

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

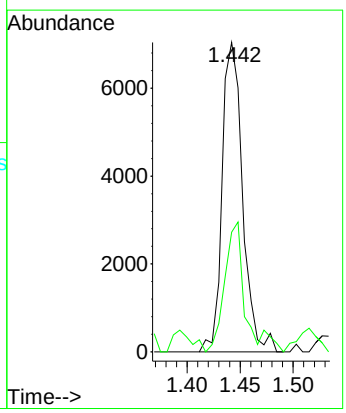


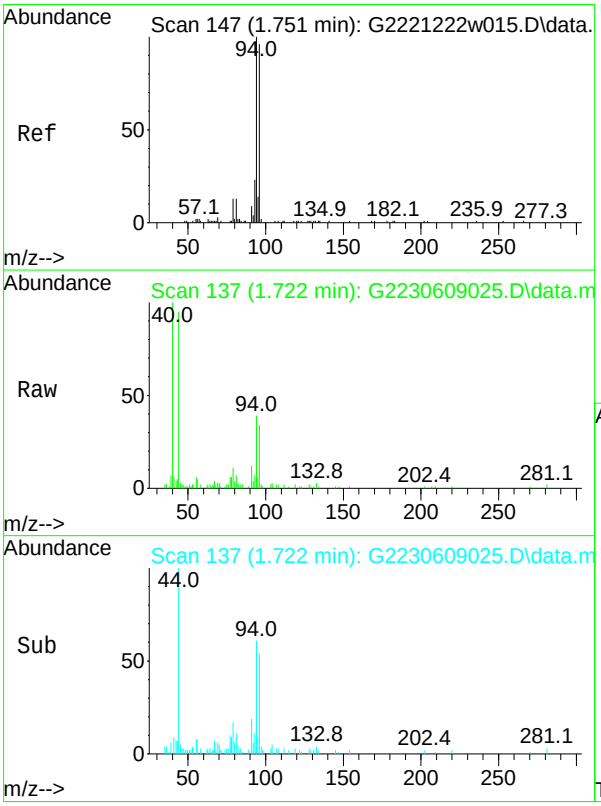


#4
Vinyl chloride
Concen: 0.26 ug/L
RT: 1.444 min Scan# 91
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 62 Resp: 94615

Ion	Ratio	Lower	Upper
62	100		
64	41.8	2.1	62.1

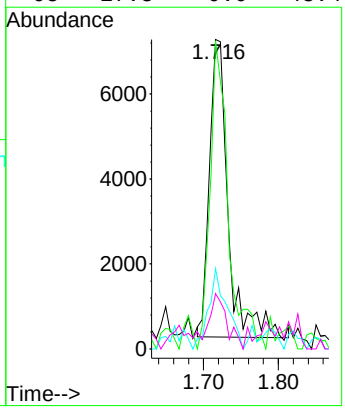


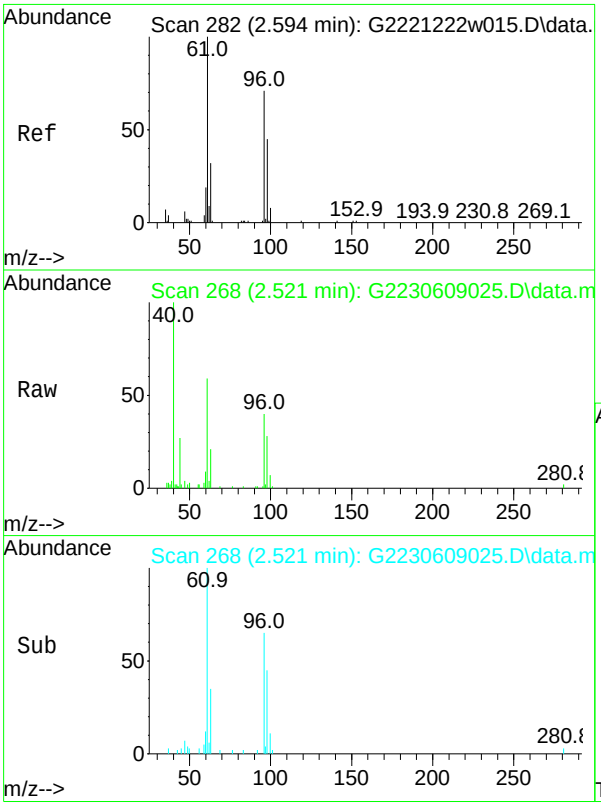


#5
Bromomethane
Concen: 0.25 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 94 Resp: 122347

Ion	Ratio	Lower	Upper
94	100		
96	93.5	65.6	125.6
93	0.0	0.0	49.5
95	27.8	0.0	43.4

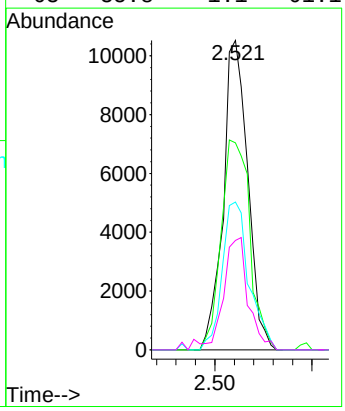


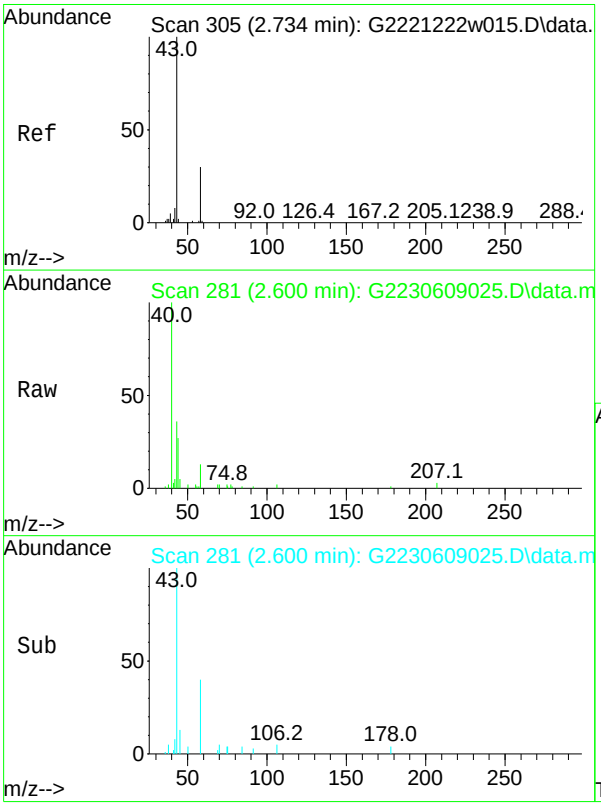


#10
1,1-Dichloroethene
Concen: 0.38 ug/L
RT: 2.522 min Scan# 268
Delta R.T. -0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 61 Resp: 184802

Ion	Ratio	Lower	Upper
61	100		
96	79.3	32.7	92.7
98	52.5	9.3	69.3
63	35.8	1.1	61.1

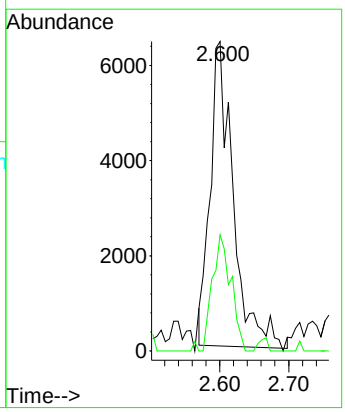


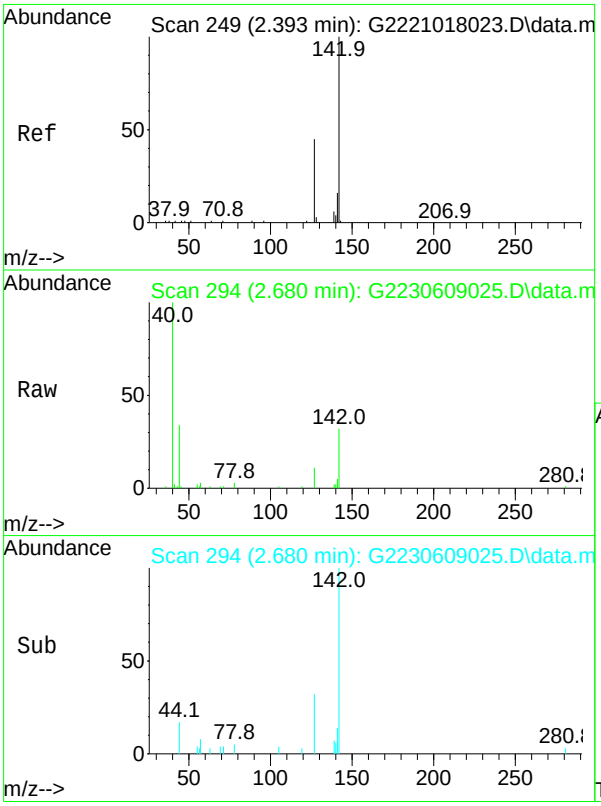


#12
Acetone
Concen: 0.02 ug/L
RT: 2.600 min Scan# 281
Delta R.T. -0.008 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 43 Resp: 150281

Ion	Ratio	Lower	Upper
43	100		
58	30.4	0.0	59.7

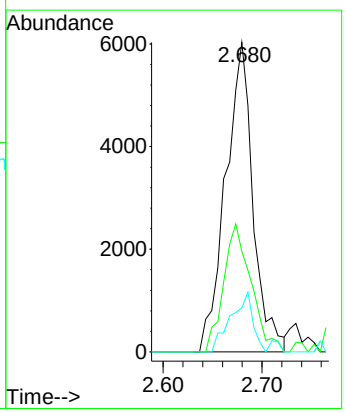


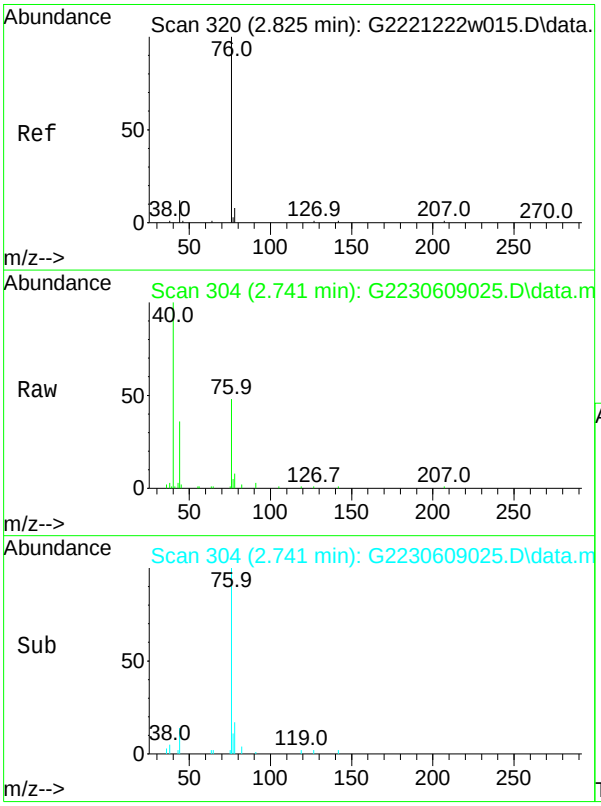


#13
Iodomethane
Concen: 0.26 ug/L
RT: 2.682 min Scan# 294
Delta R.T. 0.006 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:142 Resp: 115204

Ion	Ratio	Lower	Upper
142	100		
127	41.7	13.3	73.3
141	0.0	0.0	45.3

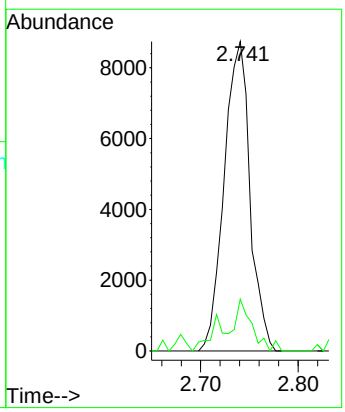


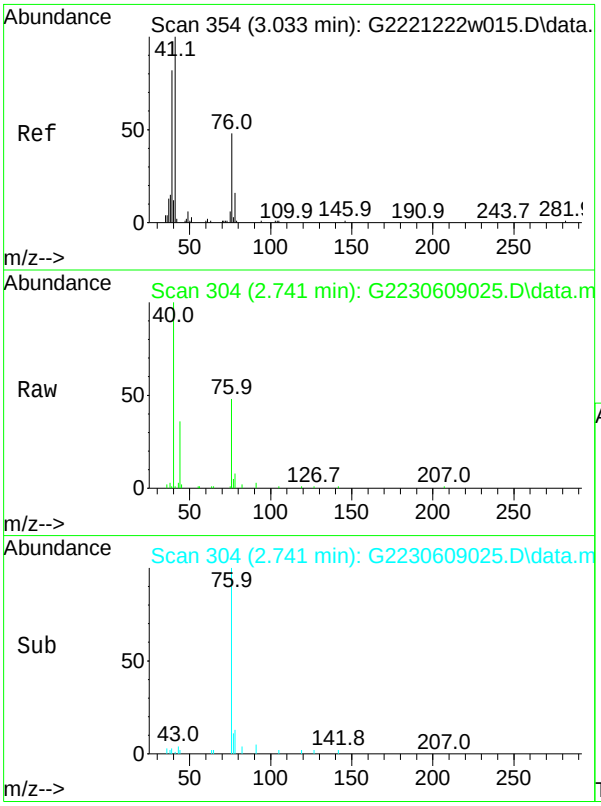


#14
Carbon disulfide
Concen: 0.10 ug/L
RT: 2.741 min Scan# 304
Delta R.T. 0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 76 Resp: 160837

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

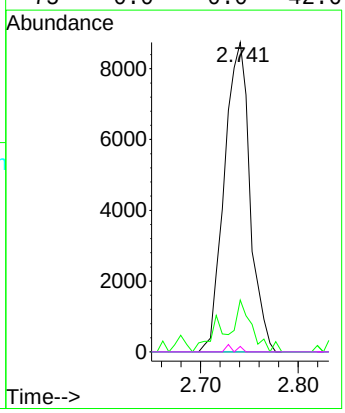


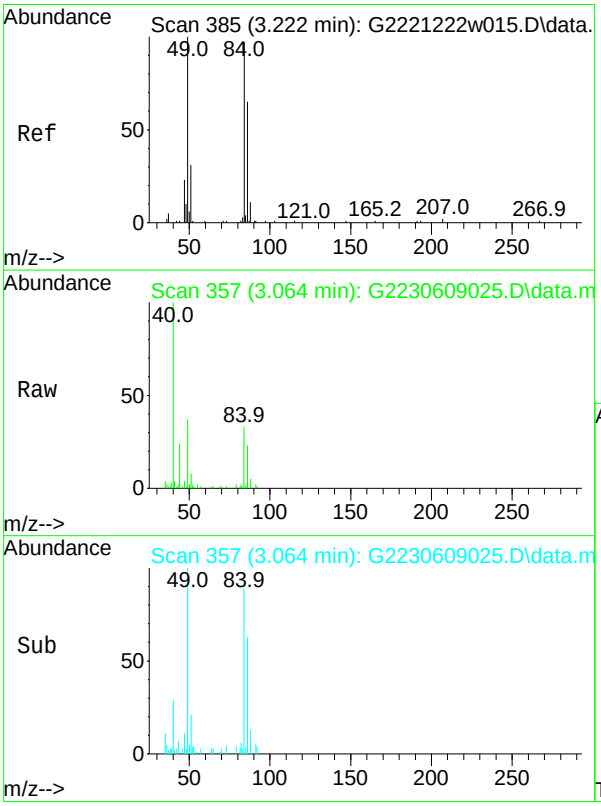


#17
3-Chloro-1-propene
Concen: 0.76 ug/L
RT: 2.741 min Scan# 304
Delta R.T. -0.179 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 76 Resp: 159604

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

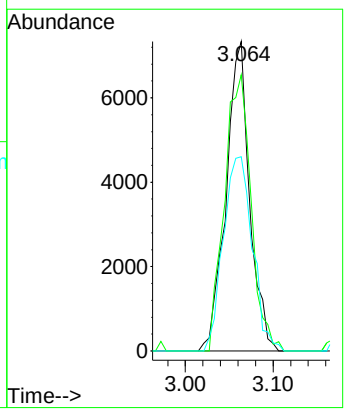


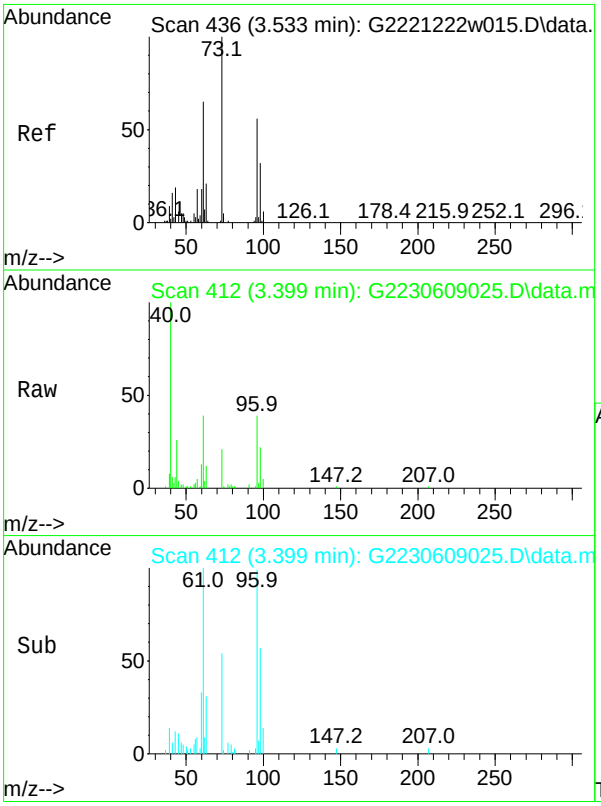


#18
Methylene chloride
Concen: Below Cal
RT: 3.063 min Scan# 357
Delta R.T. 0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 49 Resp: 136729

Ion	Ratio	Lower	Upper
49	100		
84	100.8	57.9	117.9
86	77.6	24.9	84.9

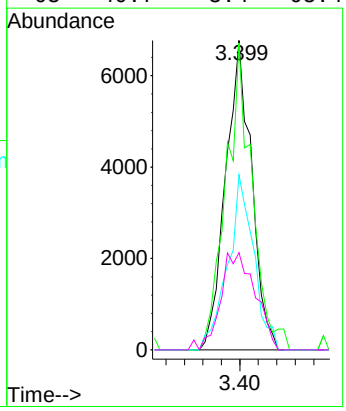


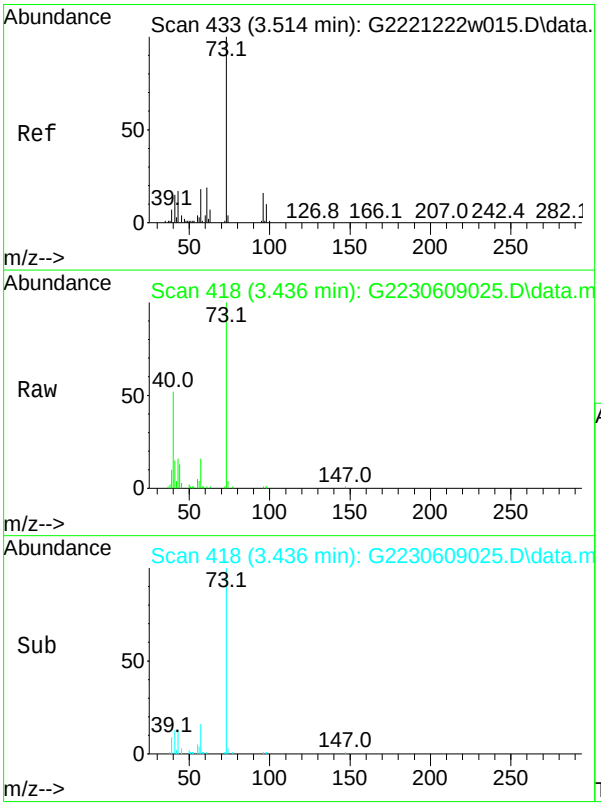


#20
trans-1,2-Dichloroethene
Concen: 0.32 ug/L
RT: 3.401 min Scan# 412
Delta R.T. 0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 61 Resp: 132084

Ion	Ratio	Lower	Upper
61	100		
96	100.4	45.2	105.2
98	56.4	17.2	77.2
63	40.7	3.4	63.4

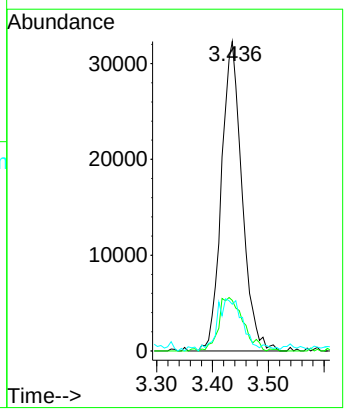


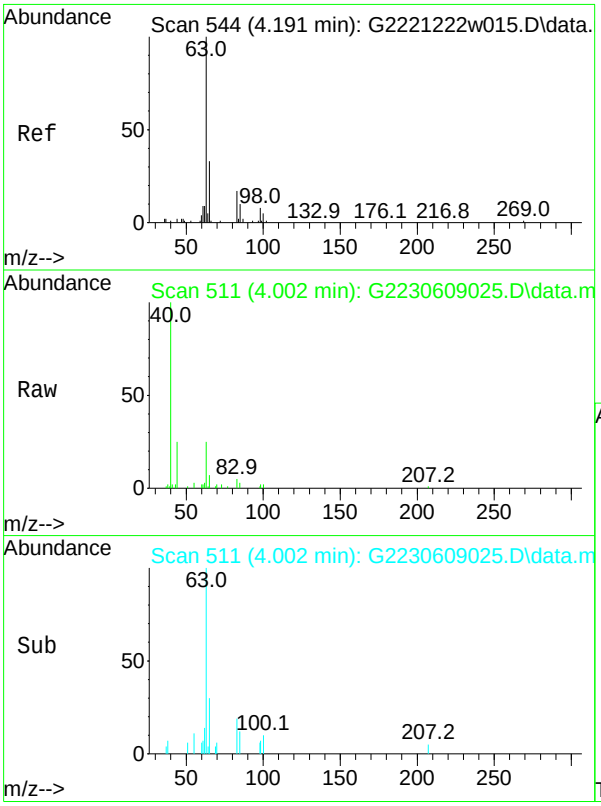


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 73 Resp: 822715

Ion	Ratio	Lower	Upper
73	100		
57	19.4	0.0	51.7
41	17.8	0.0	50.6

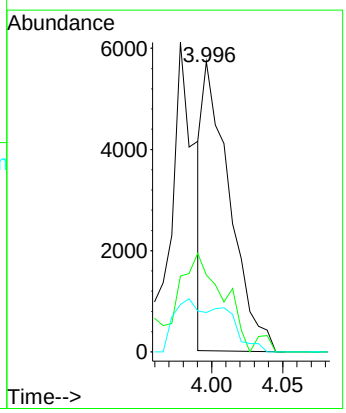


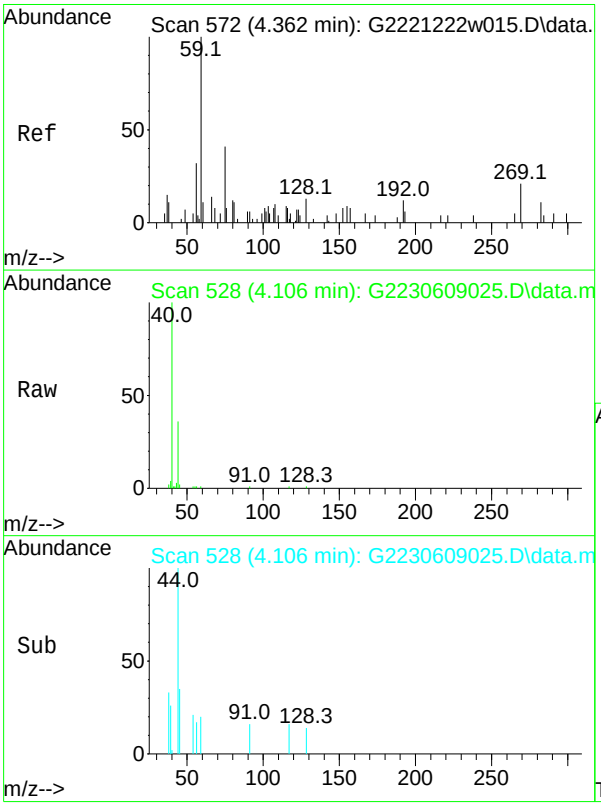


#23
1,1-Dichloroethane
Concen: 0.09 ug/L
RT: 4.000 min Scan# 511
Delta R.T. 0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 63 Resp: 89711

Ion	Ratio	Lower	Upper
63	100		
65	54.5	1.1	61.1
83	0.0	0.0	42.9

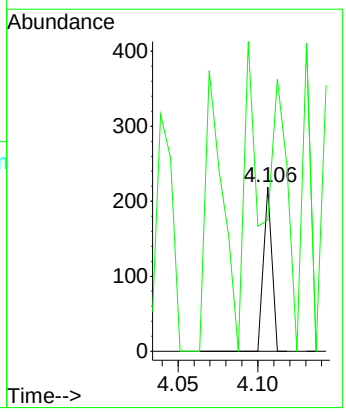


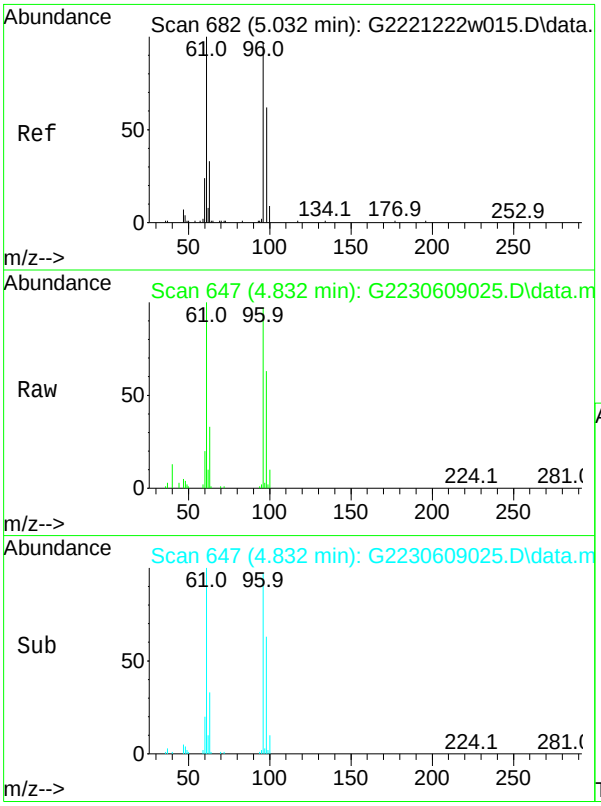


#26
1-propanol
Concen: 0.41 ug/L
RT: 4.108 min Scan# 528
Delta R.T. -0.181 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 59 Resp: 800

Ion	Ratio	Lower	Upper
59	100		
42	0.0	0.0	50.0

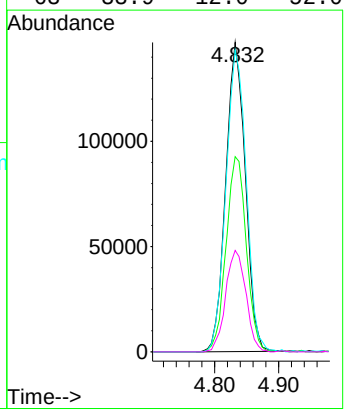


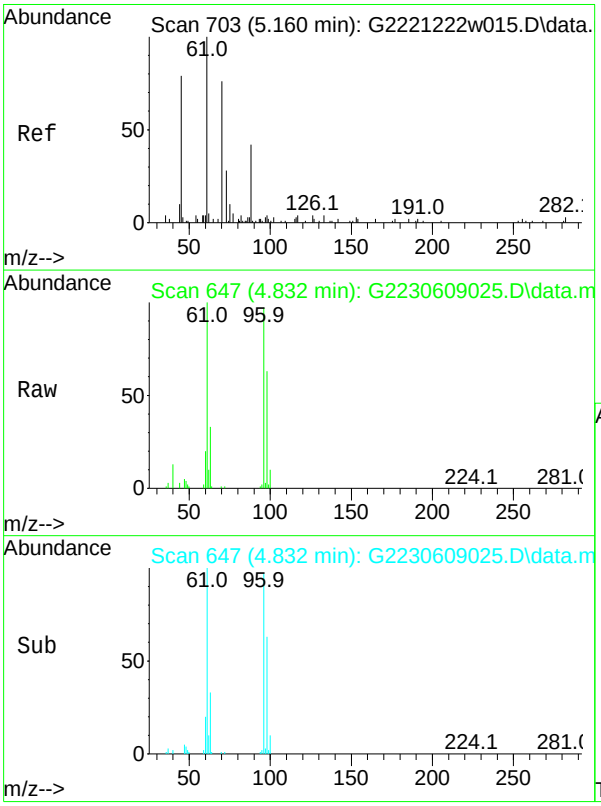


#28
cis-1,2-Dichloroethene
Concen: 6.54 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 61 Resp: 3124993

Ion	Ratio	Lower	Upper
61	100		
98	65.3	15.9	75.9
96	101.5	39.6	99.6#
63	33.9	12.0	52.0

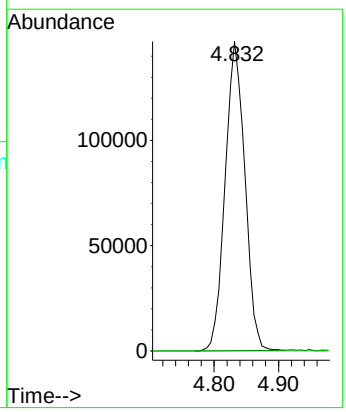


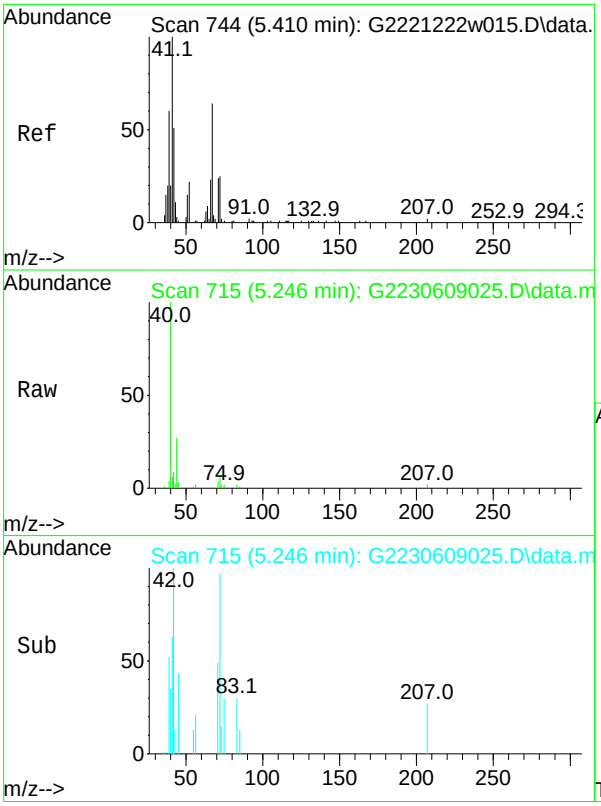


#31
Ethyl acetate
Concen: 55.89 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.188 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 61 Resp: 3124883

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

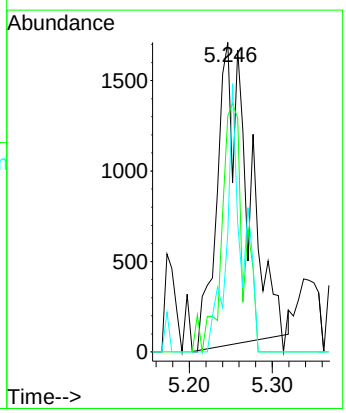


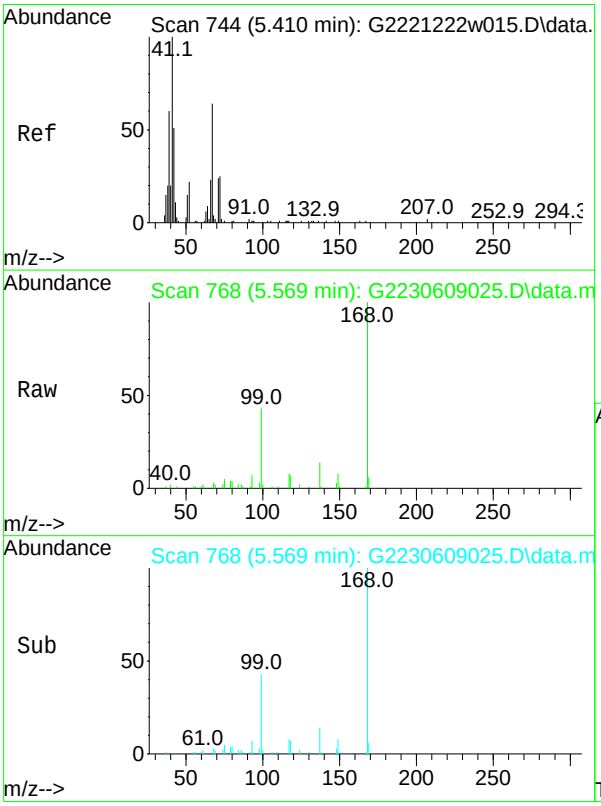


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.247 min Scan# 715
Delta R.T. -0.014 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 42 Resp: 43646

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

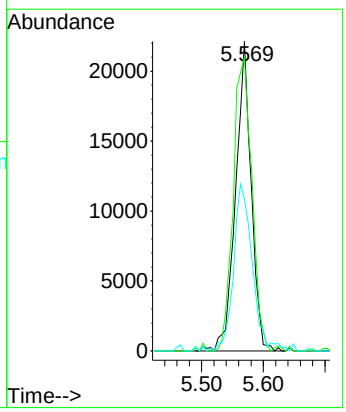


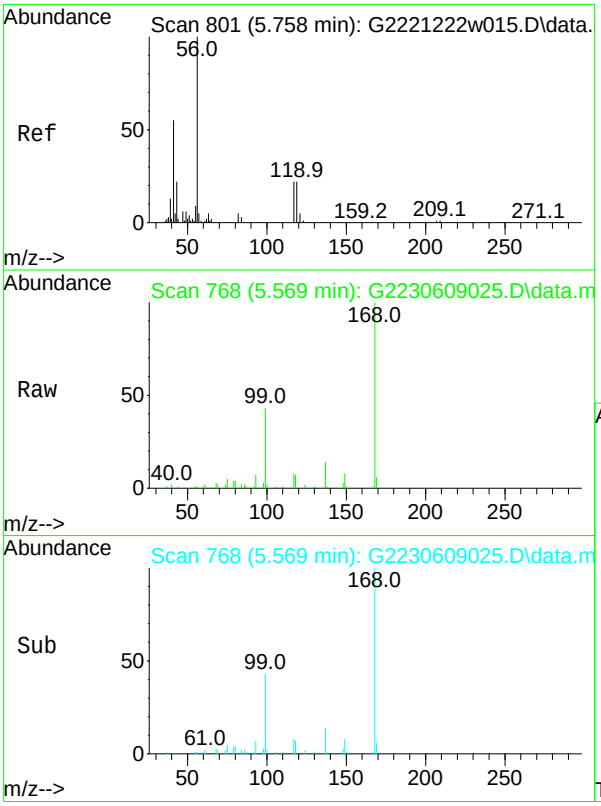


#40
Cyclohexane
Concen: 0.77 ug/L
RT: 5.572 min Scan# 768
Delta R.T. 0.038 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 84 Resp: 389476

Ion	Ratio	Lower	Upper
84	100		
69	110.8	6.8	66.8#
56	62.4	79.1	139.1#

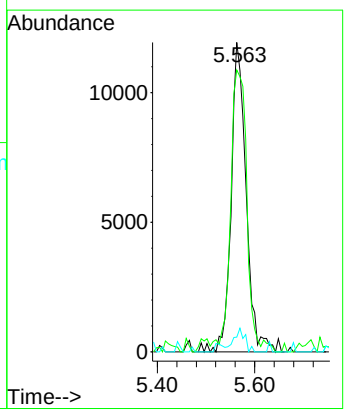


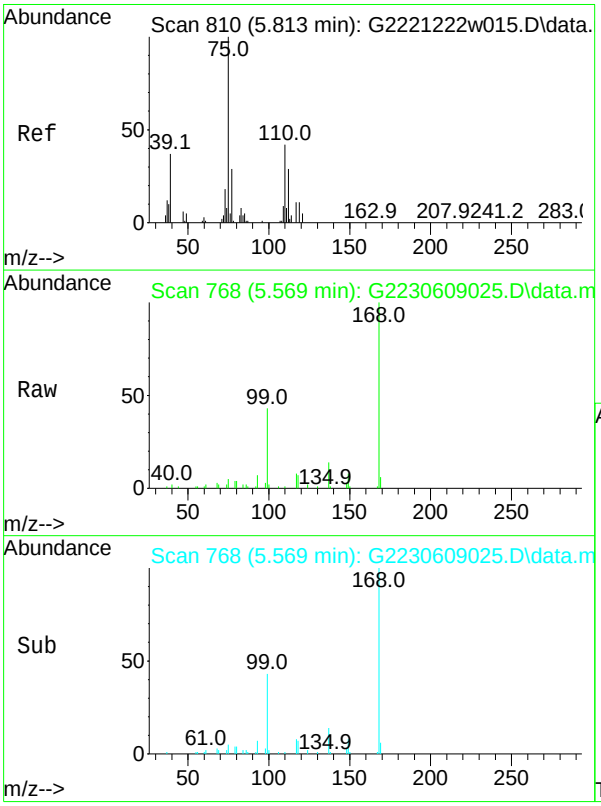


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 56 Resp: 255715

Ion	Ratio	Lower	Upper
56	100		
55	102.3	0.0	41.0#
57	0.0	0.0	35.7

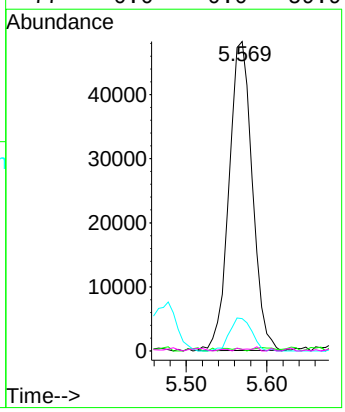


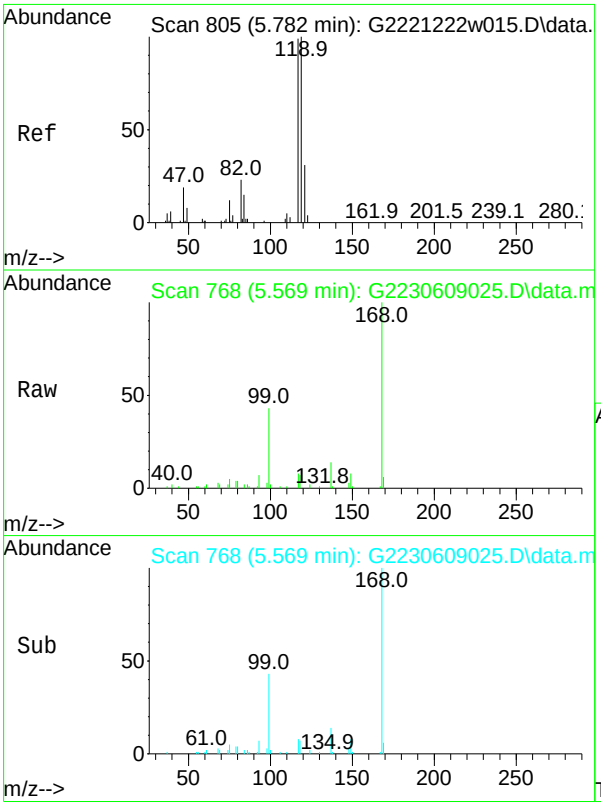


#42
1,1-Dichloropropene
Concen: 2.18 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 75 Resp: 962102

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.3	9.1	69.1
77	0.0	0.0	59.9

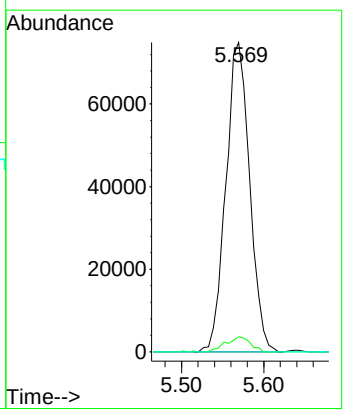


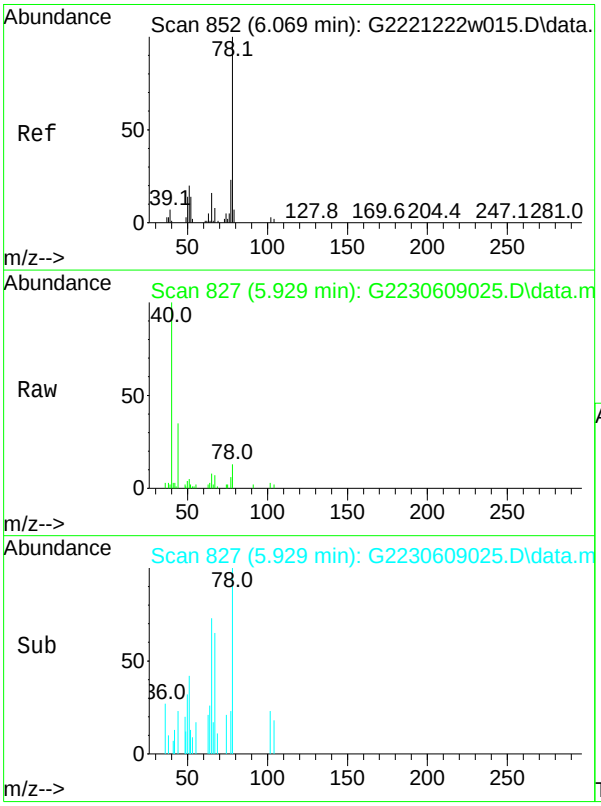


#47
Carbon tetrachloride
Concen: 3.27 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:117 Resp: 1499879

Ion	Ratio	Lower	Upper
117	100		
119	5.0	66.4	126.4#
121	0.0	0.4	60.4#

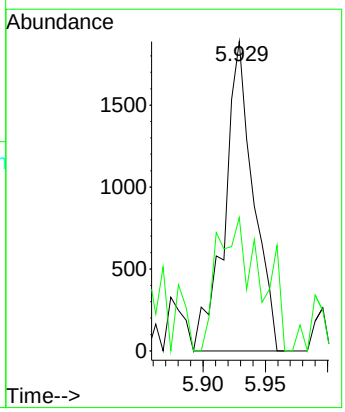


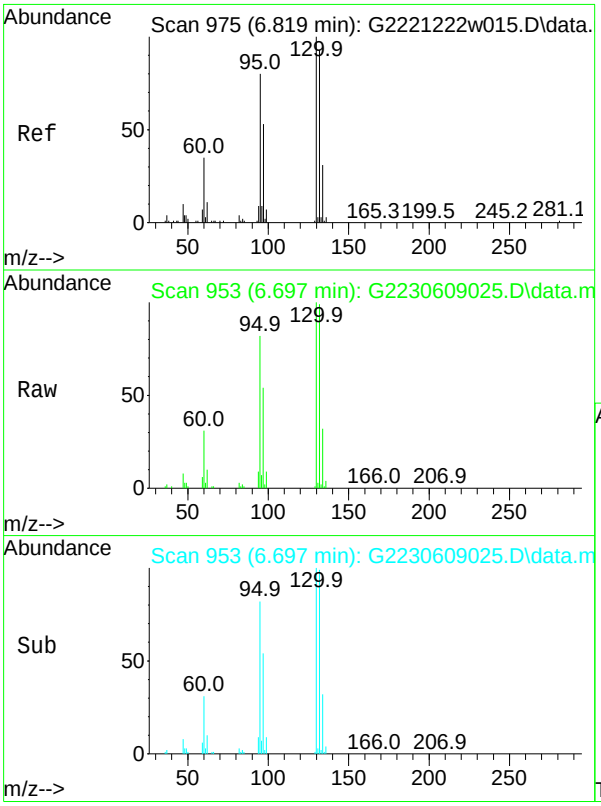


#48
Benzene
Concen: 0.02 ug/L
RT: 5.931 min Scan# 827
Delta R.T. -0.004 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 78 Resp: 30187

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.8

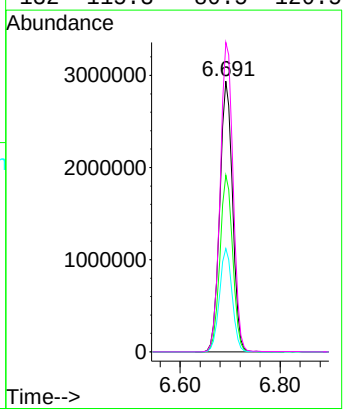


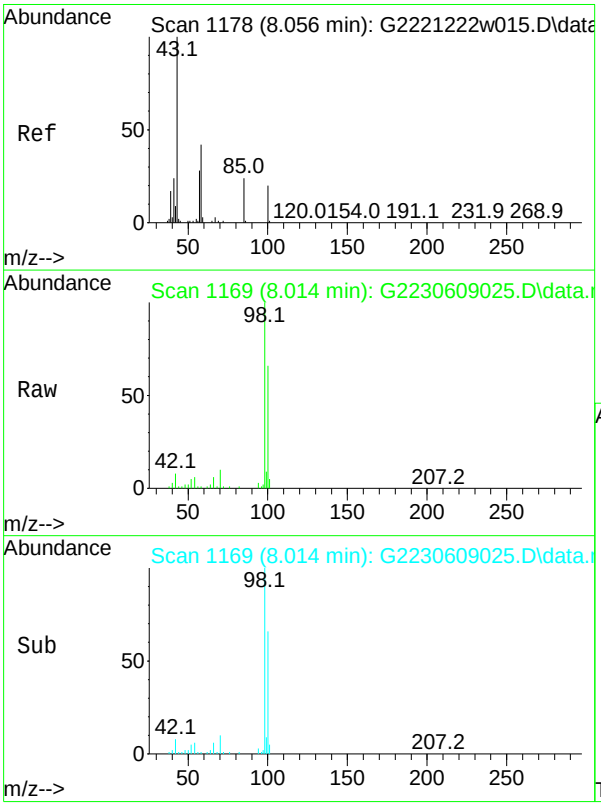


#50
Trichloroethene
Concen: 156.04 ug/L
RT: 6.694 min Scan# 953
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 95 Resp:52076553

Ion	Ratio	Lower	Upper
95	100		
97	65.1	35.5	95.5
60	37.9	14.8	74.8
132	115.3	80.5	120.5

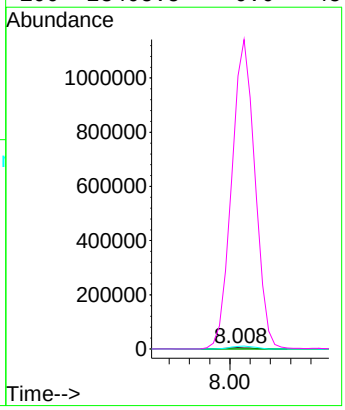


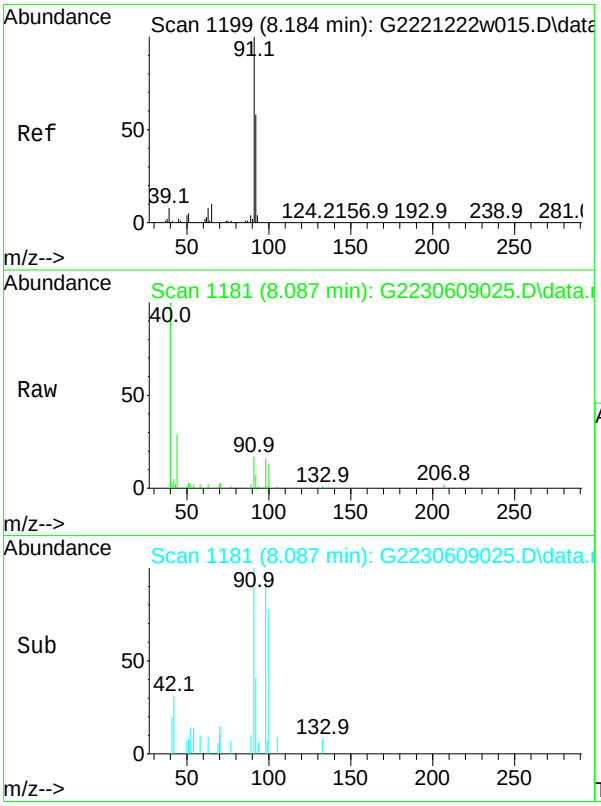


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.013 min Scan# 1169
Delta R.T. 0.069 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 43 Resp: 77722

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	225.4	37.0	37.0#
100	23405.5	0.0	45.2#

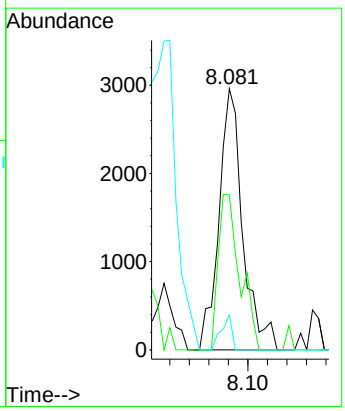


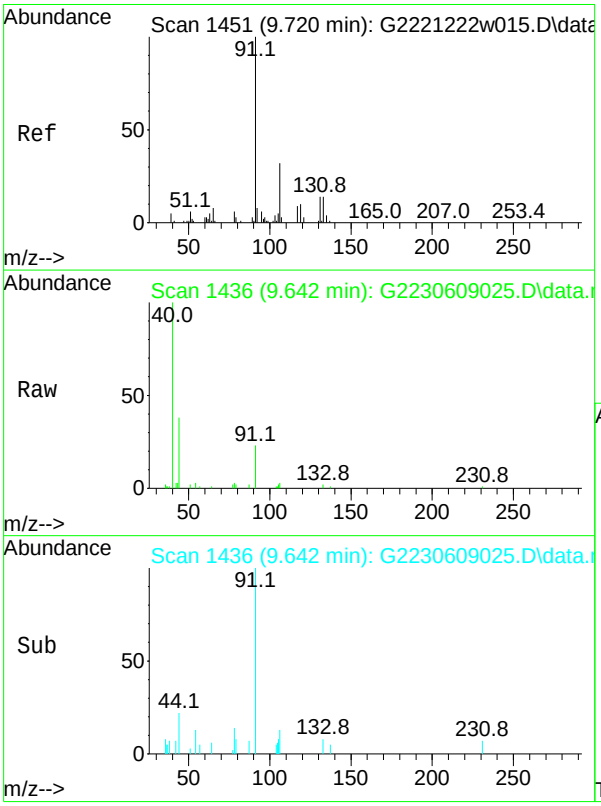


#65
Toluene
Concen: Below Cal
RT: 8.085 min Scan# 1181
Delta R.T. -0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 50013

Ion	Ratio	Lower	Upper
91	100		
92	54.2	27.5	87.5
65	0.0	0.0	41.4

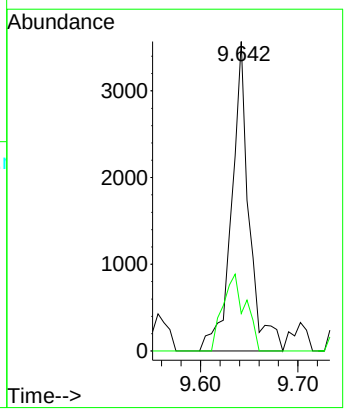


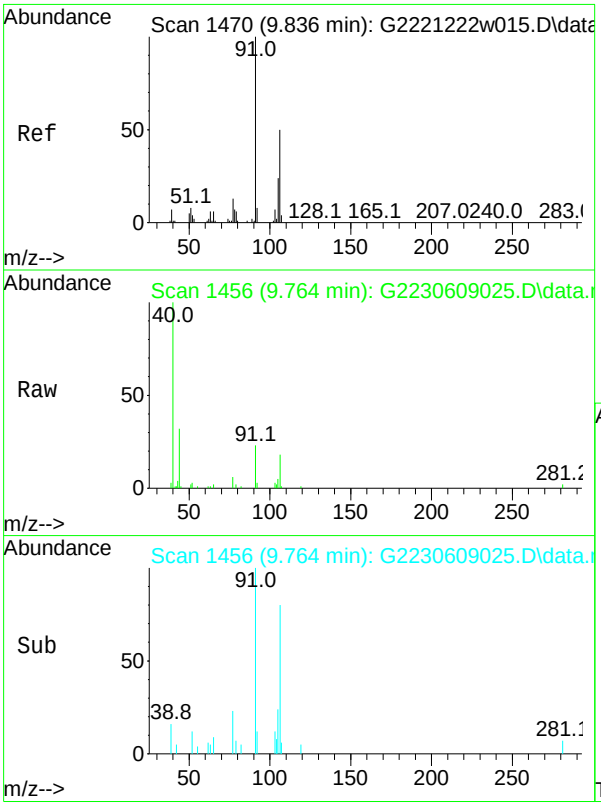


#74
Ethylbenzene
Concen: Below Cal
RT: 9.643 min Scan# 1436
Delta R.T. 0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 44223

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

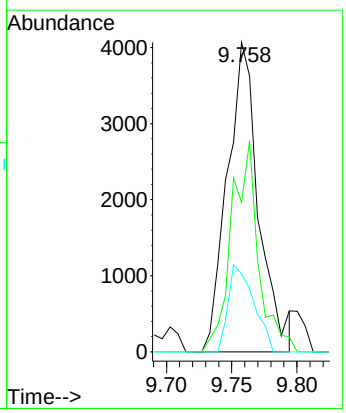


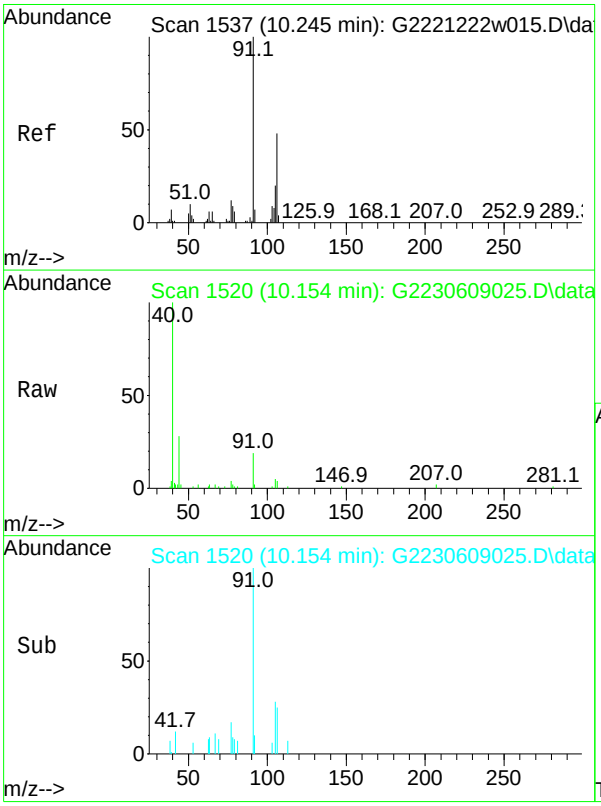


#75
m,p-Xylene
Concen: 0.06 ug/L
RT: 9.762 min Scan# 1456
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 65975

Ion	Ratio	Lower	Upper
91	100		
106	60.2	19.0	79.0
105	0.0	0.0	52.7

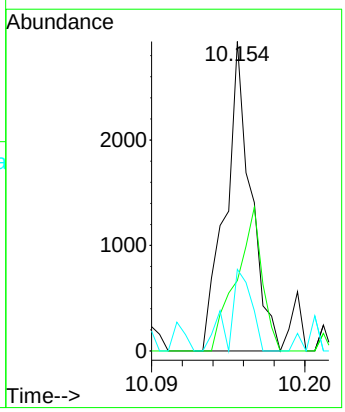


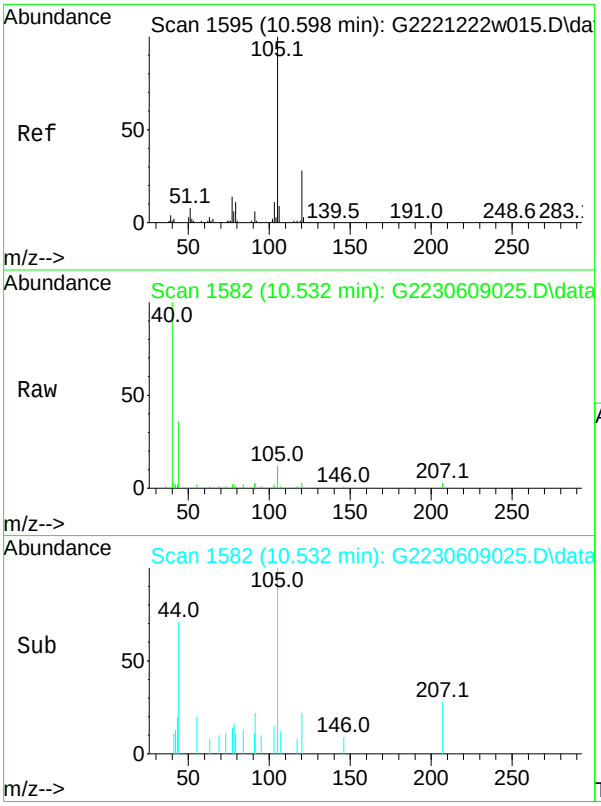


#79
o-Xylene
Concen: 0.03 ug/L
RT: 10.156 min Scan# 1520
Delta R.T. -0.005 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 36536

Ion	Ratio	Lower	Upper
91	100		
106	0.0	16.2	76.2#
105	0.0	0.0	56.7

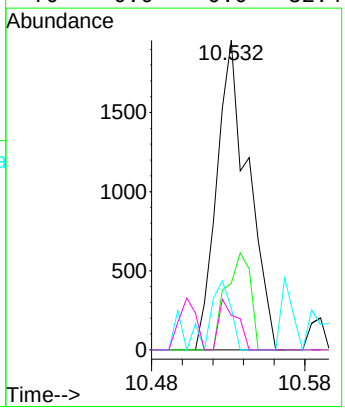


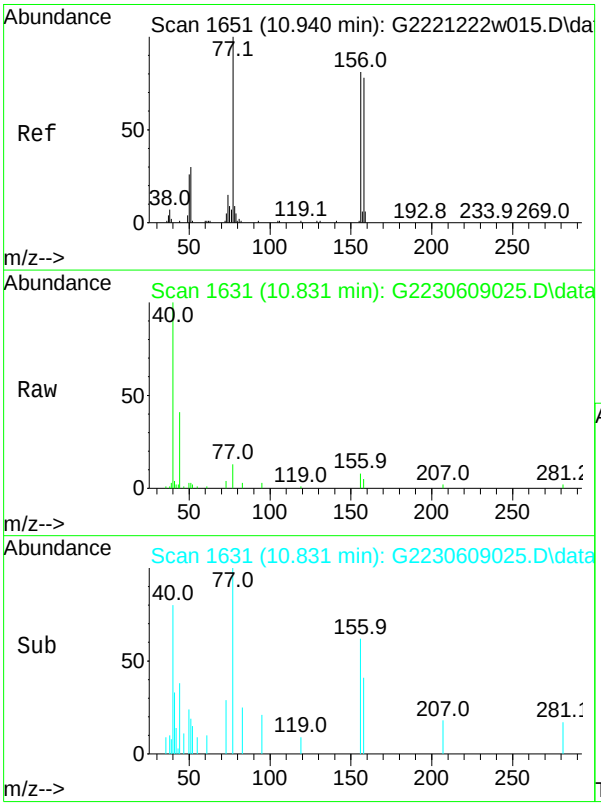


#80
Isopropylbenzene
Concen: 0.02 ug/L
RT: 10.533 min Scan# 1582
Delta R.T. -0.004 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 29083

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

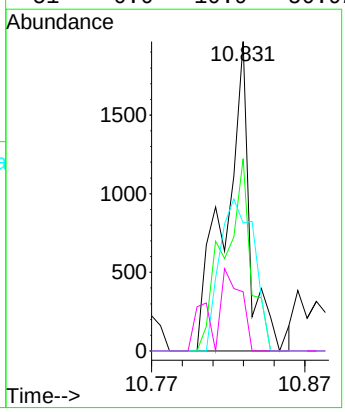


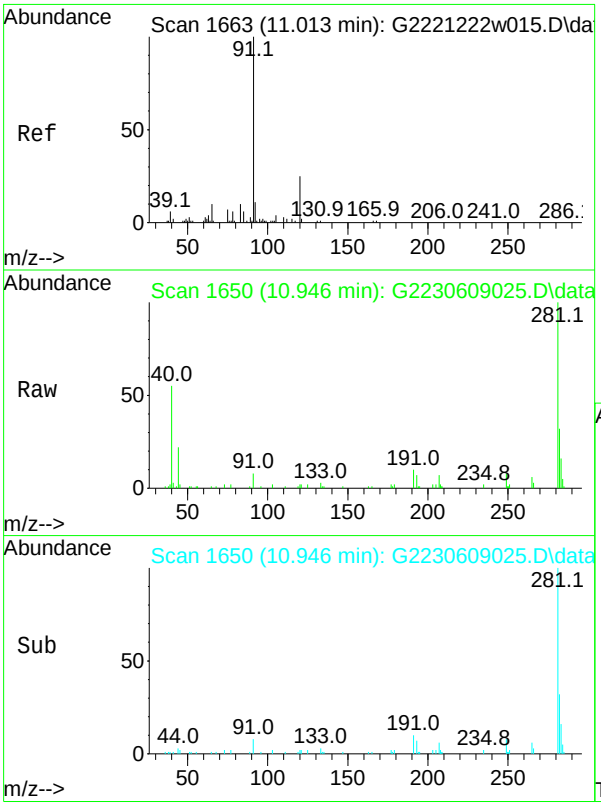


#82
Bromobenzene
Concen: 0.04 ug/L
RT: 10.832 min Scan# 1631
Delta R.T. 0.004 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 77 Resp: 22452

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	0.0	10.9	50.9#

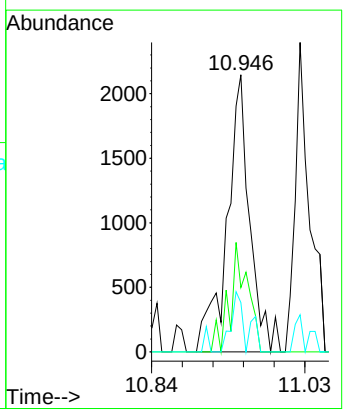


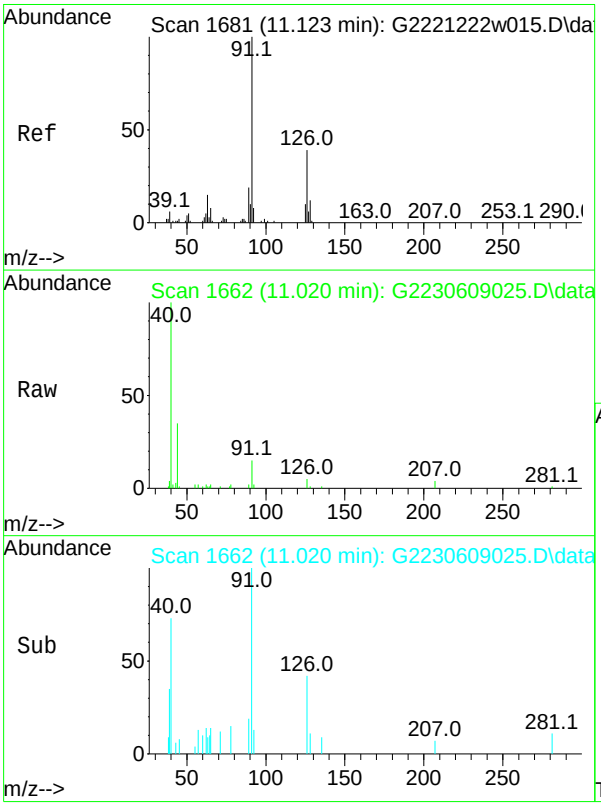


#86
n-Propylbenzene
Concen: 0.02 ug/L
RT: 10.947 min Scan# 1650
Delta R.T. -0.002 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 41840

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	53.3
65	0.0	0.0	40.3

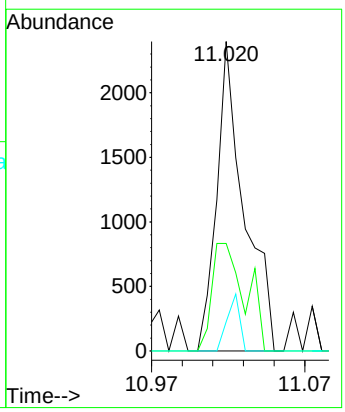


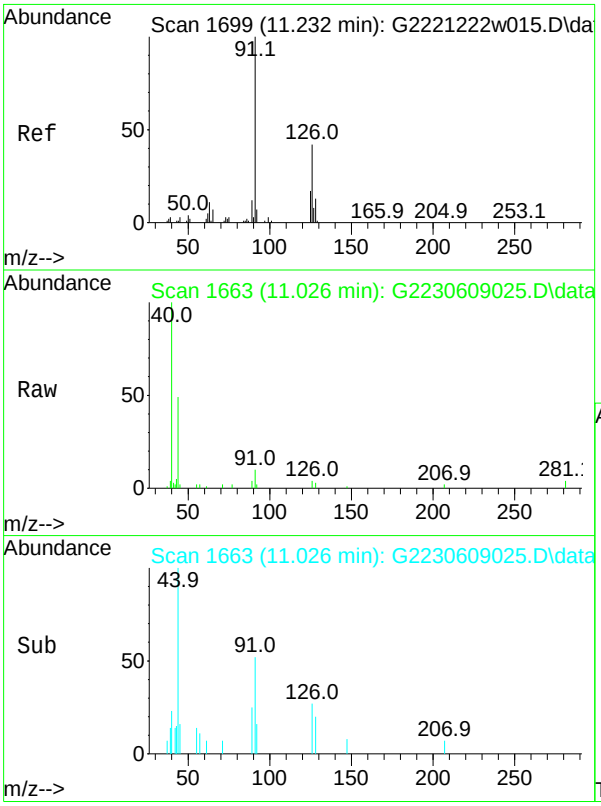


#87
2-Chlorotoluene
Concen: 0.03 ug/L
RT: 11.022 min Scan# 1662
Delta R.T. -0.006 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 29243

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

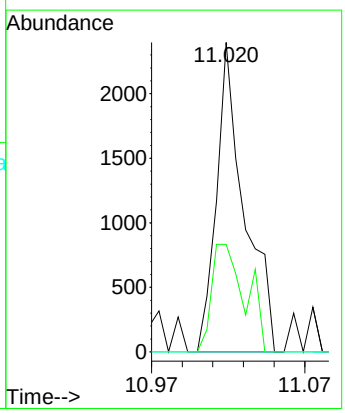


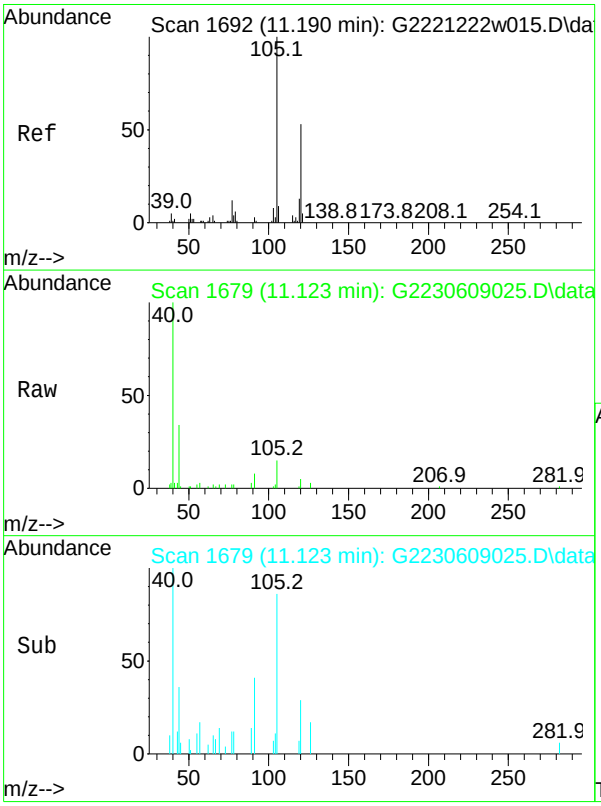


#88
4-Chlorotoluene
Concen: 0.03 ug/L
RT: 11.023 min Scan# 1663
Delta R.T. -0.114 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 29244

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.7	60.7#
127	0.0	0.0	36.1

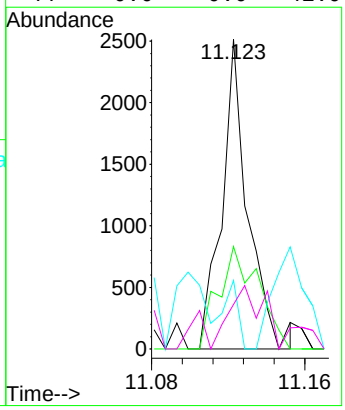


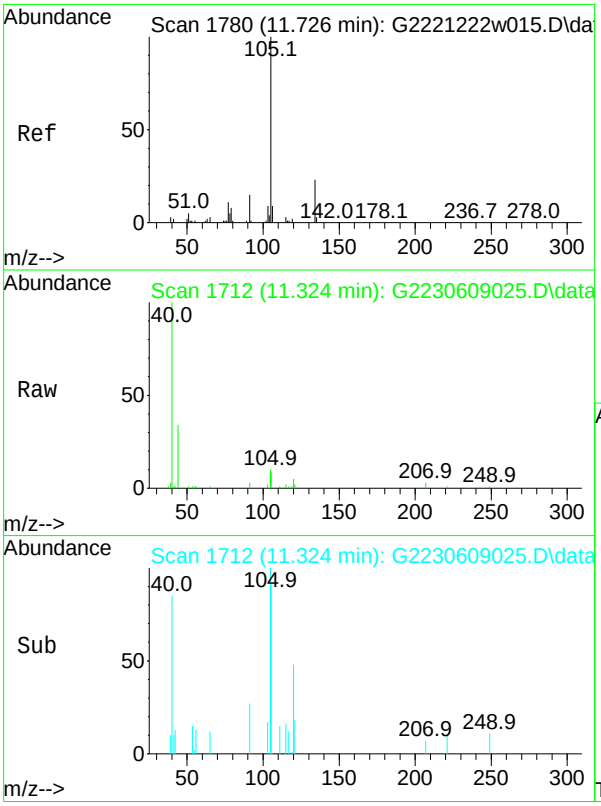


#89
1,3,5-Trimethylbenzene
Concen: 0.02 ug/L
RT: 11.125 min Scan# 1679
Delta R.T. -0.005 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 23598

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.0	79.0#
39	0.0	0.0	42.6
77	0.0	0.0	42.9

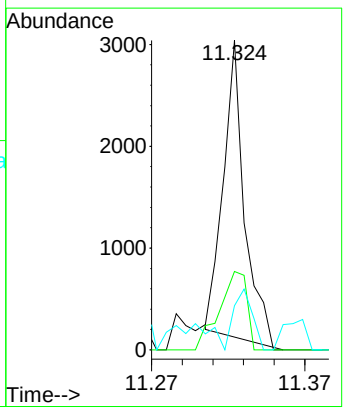


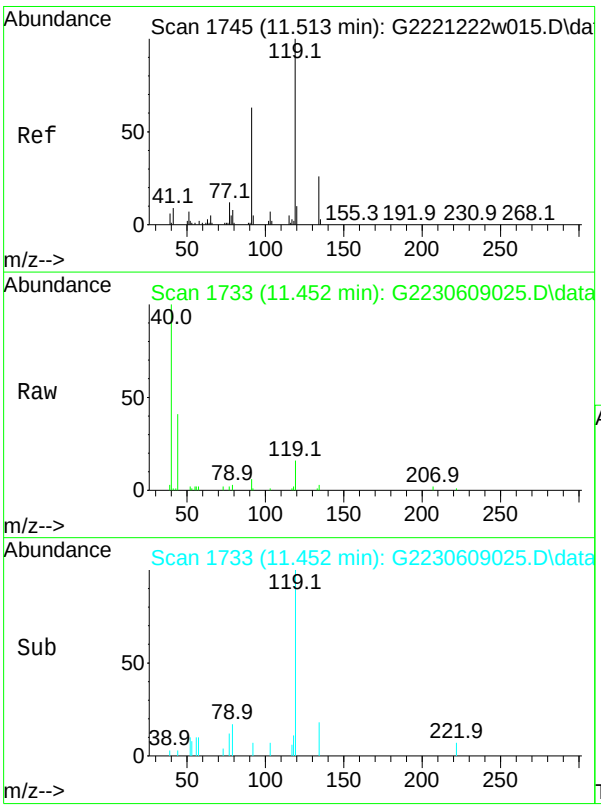


#90
2-ethyl-1-toluene
Concen: 0.02 ug/L
RT: 11.326 min Scan# 1712
Delta R.T. -0.003 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 27626

Ion	Ratio	Lower	Upper
105	100		
120	0.0	0.8	60.8#
91	0.0	0.0	42.3

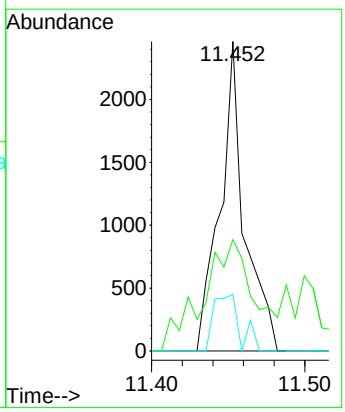


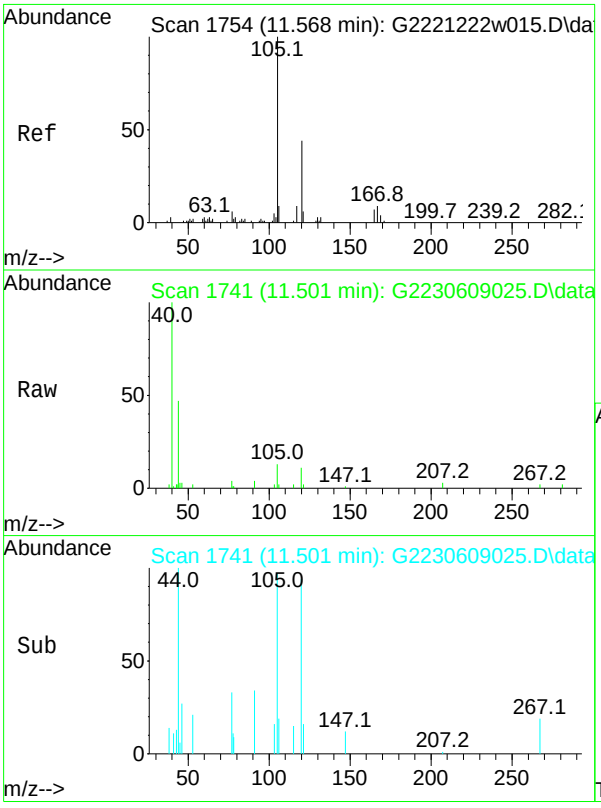


#91
tert-Butylbenzene
Concen: 0.02 ug/L
RT: 11.454 min Scan# 1733
Delta R.T. 0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:119 Resp: 28403

Ion	Ratio	Lower	Upper
119	100		
91	0.0	29.8	89.8#
134	0.0	0.0	53.2

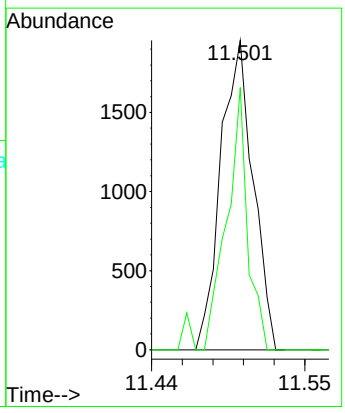


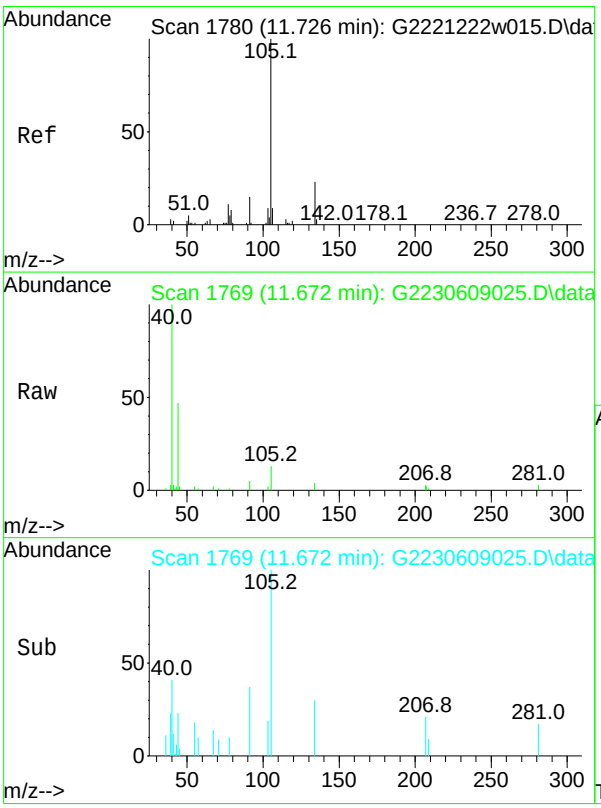


#92
1,2,4-Trimethylbenzene
Concen: 0.02 ug/L
RT: 11.502 min Scan# 1741
Delta R.T. -0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 29835

Ion	Ratio	Lower	Upper
105	100		
120	0.0	14.4	74.4#

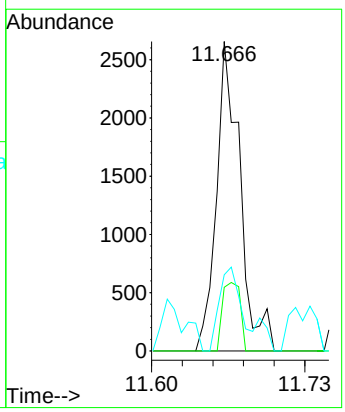


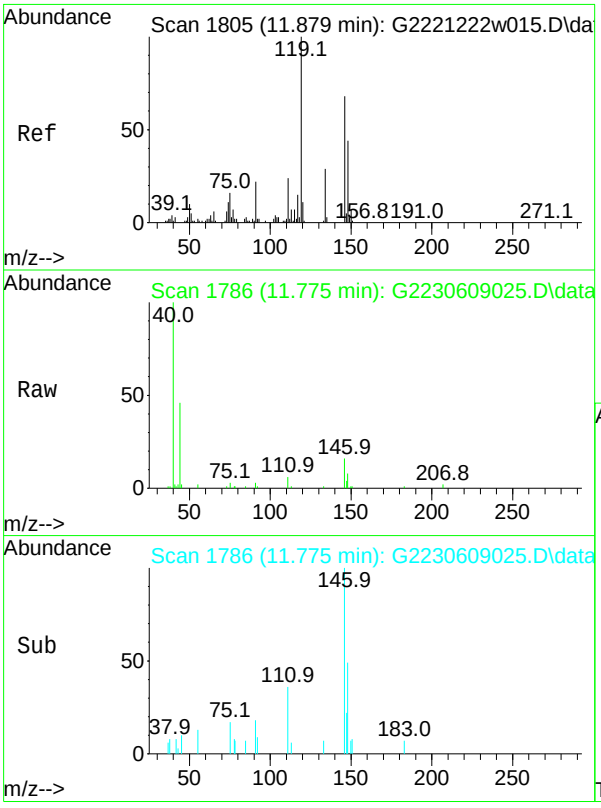


#93
sec-Butylbenzene
Concen: 0.03 ug/L
RT: 11.669 min Scan# 1769
Delta R.T. -0.004 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:105 Resp: 36930

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	50.7
91	0.0	0.0	46.0

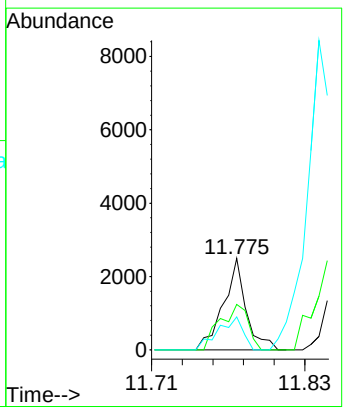


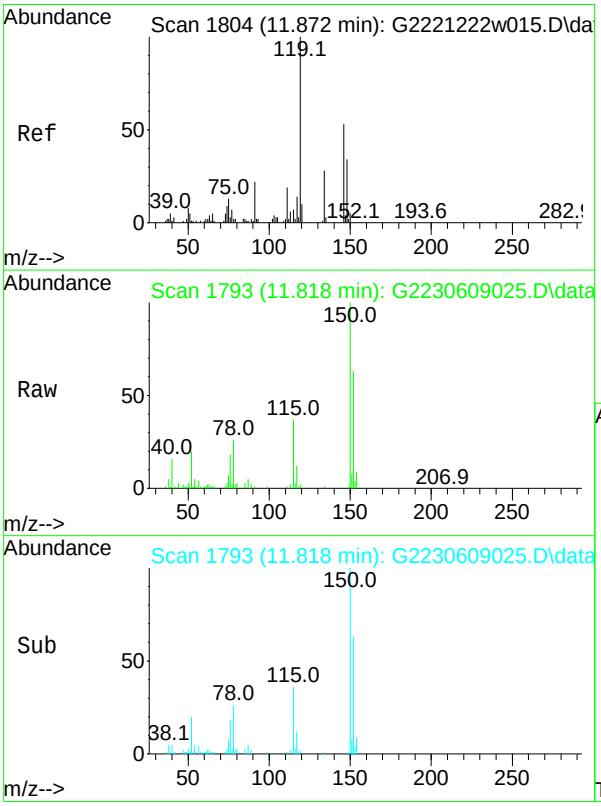


#94
1,3-Dichlorobenzene
Concen: 0.04 ug/L
RT: 11.777 min Scan# 1786
Delta R.T. 0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:146 Resp: 29088

Ion	Ratio	Lower	Upper
146	100		
148	0.0	33.6	93.6#
111	0.0	8.2	68.2#

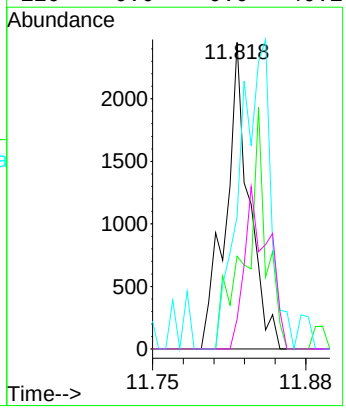


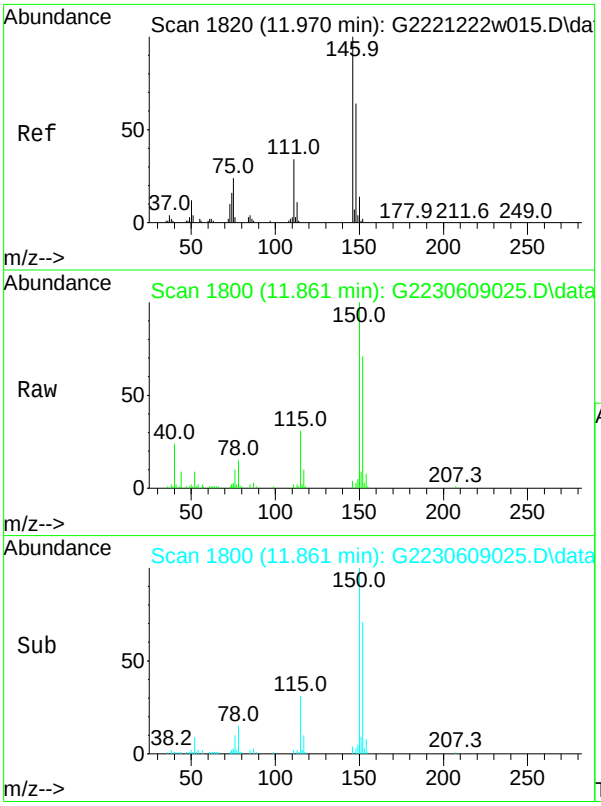


#95
4-Isopropyltoluene
Concen: 0.03 ug/L
RT: 11.820 min Scan# 1793
Delta R.T. -0.003 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:119 Resp: 34163

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	56.2
91	132.0	0.0	52.5#
120	0.0	0.0	40.1

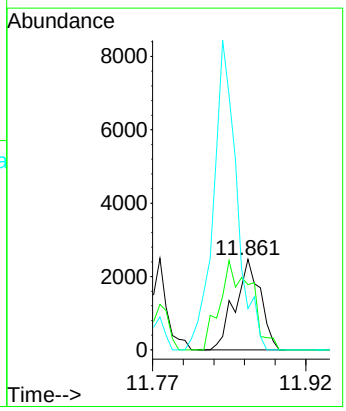


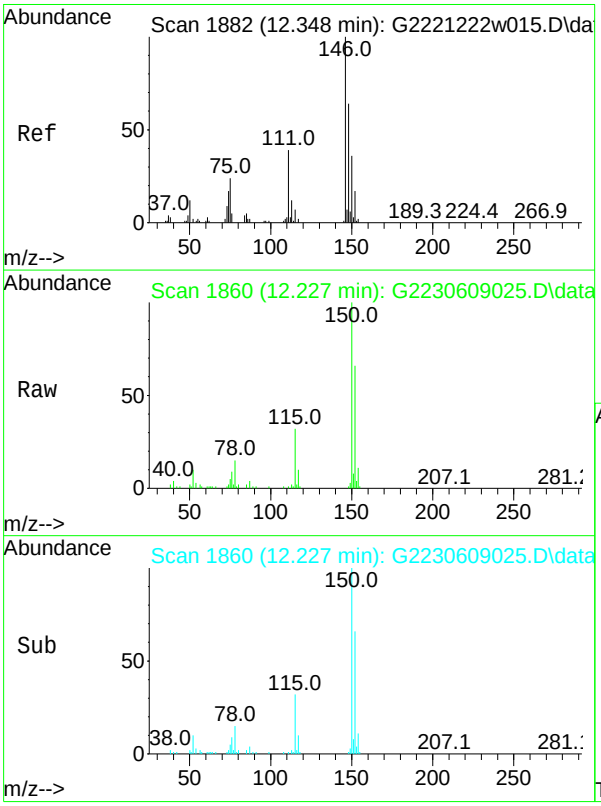


#96
1,4-Dichlorobenzene
Concen: 0.06 ug/L
RT: 11.863 min Scan# 1800
Delta R.T. -0.003 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:146 Resp: 42105

Ion	Ratio	Lower	Upper
146	100		
148	121.8	33.9	93.9#
111	315.0	8.3	68.3#

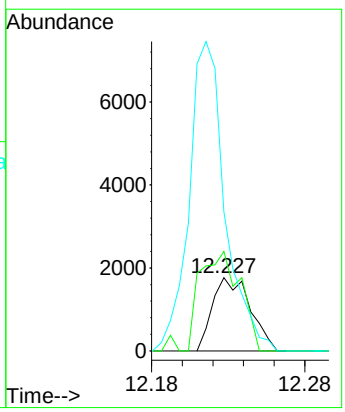


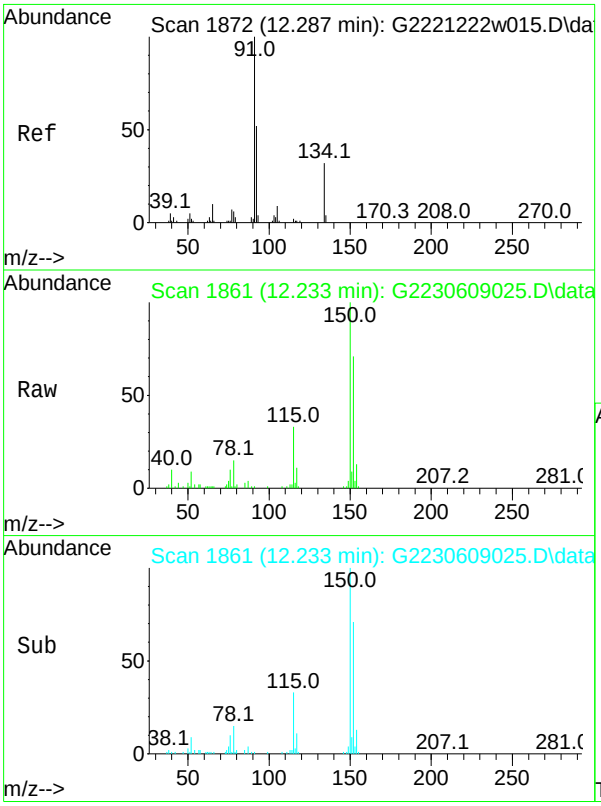


#98
1,2-Dichlorobenzene
Concen: Below Cal
RT: 12.230 min Scan# 1860
Delta R.T. -0.007 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:146 Resp: 31748

Ion	Ratio	Lower	Upper
146	100		
148	141.2	34.8	94.8#
111	402.0	11.0	71.0#

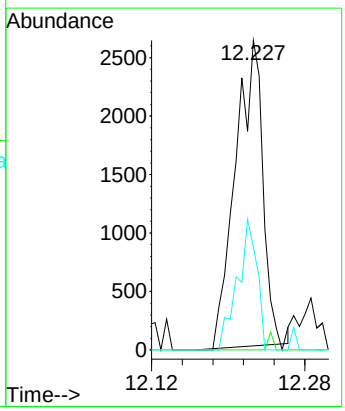


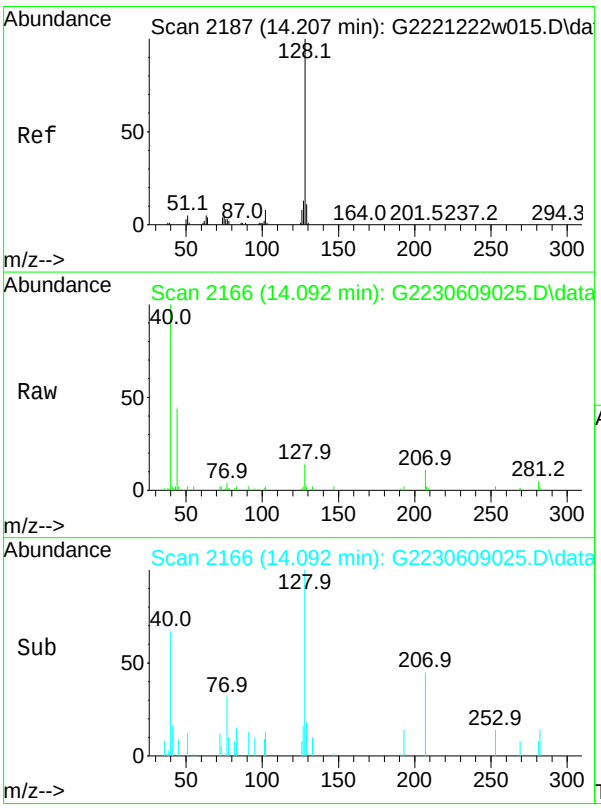


#99
n-Butylbenzene
Concen: Below Cal
RT: 12.231 min Scan# 1861
Delta R.T. -0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion: 91 Resp: 51902

Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

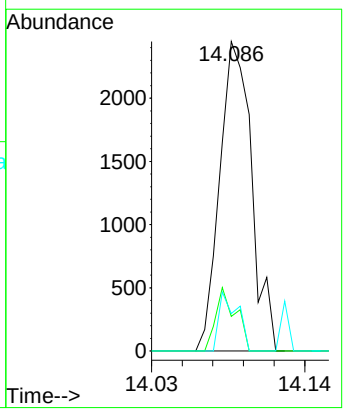


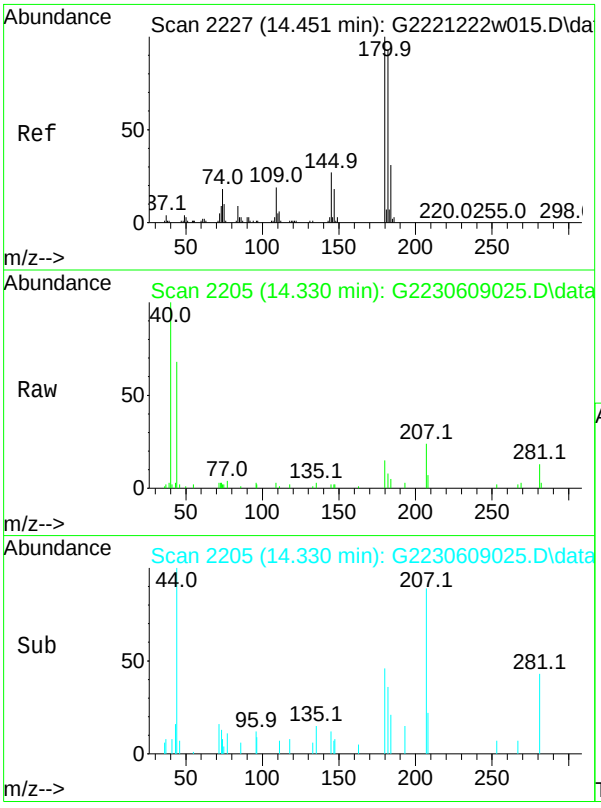


#105
Naphthalene
Concen: Below Cal
RT: 14.091 min Scan# 2166
Delta R.T. -0.000 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:128 Resp: 36969

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.2
129	0.0	0.0	40.9

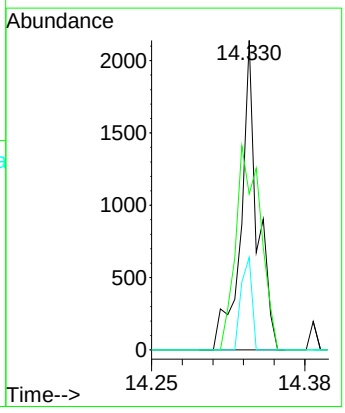




#106
1,2,3-Trichlorobenzene
Concen: 0.14 ug/L
RT: 14.332 min Scan# 2205
Delta R.T. -0.001 min
Lab File: G2230609025.D
Acq: 09 Jun 2023 18:55

Tgt Ion:180 Resp: 20859

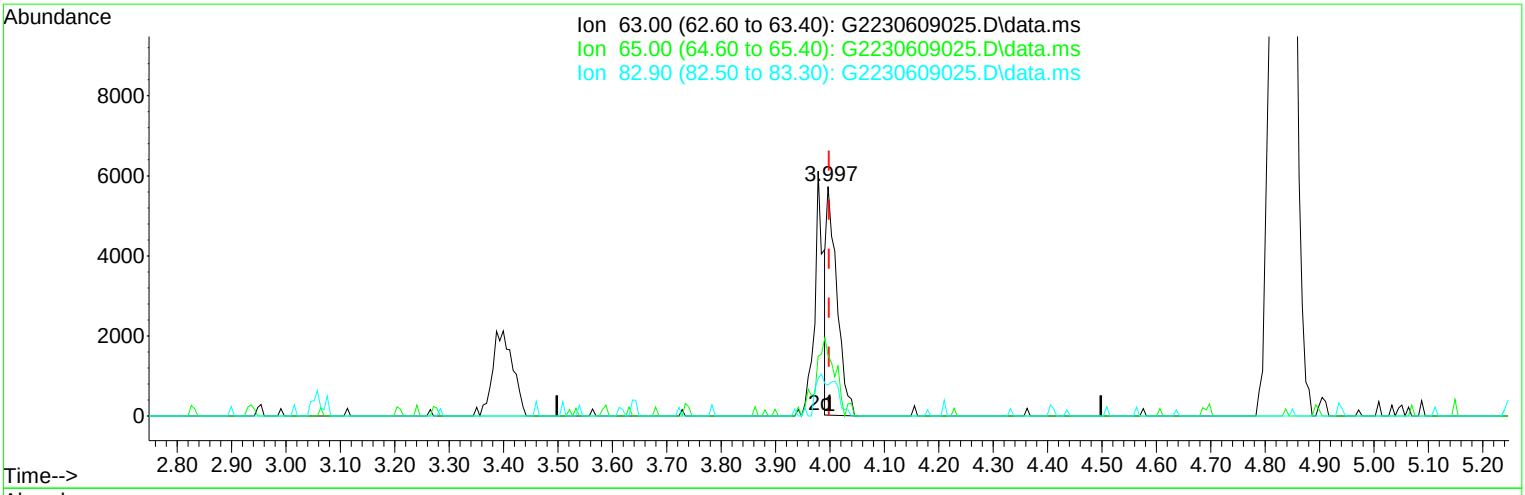
Ion	Ratio	Lower	Upper
180	100		
182	0.0	61.8	121.8#
184	0.0	0.7	60.7#

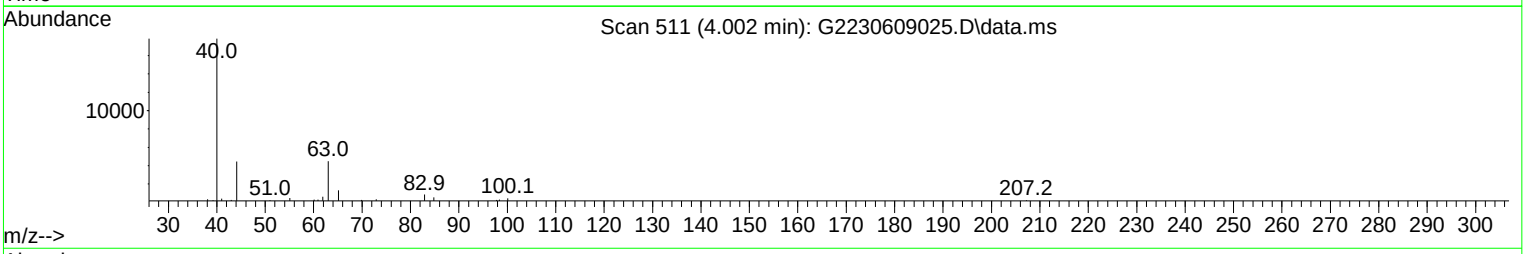


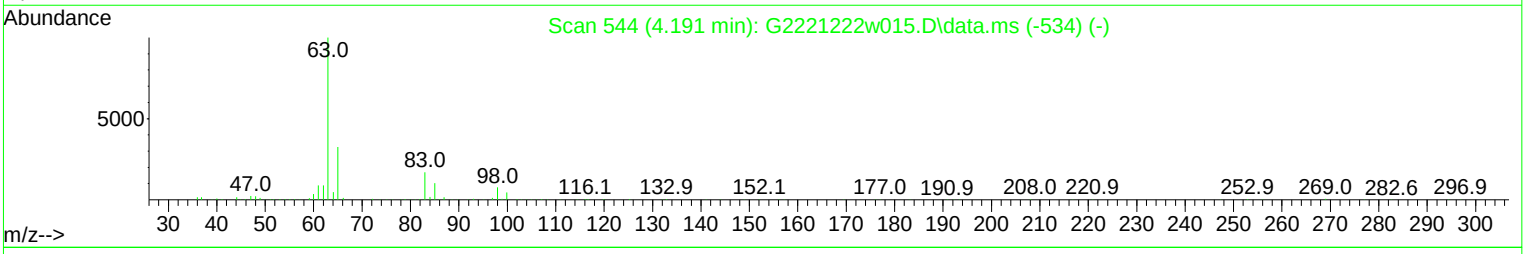
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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







TIC: G2230609025.D\data.ms

(23) 1,1-Dichloroethane (TP)

4.000min (+ 0.002) 0.09 ug/L

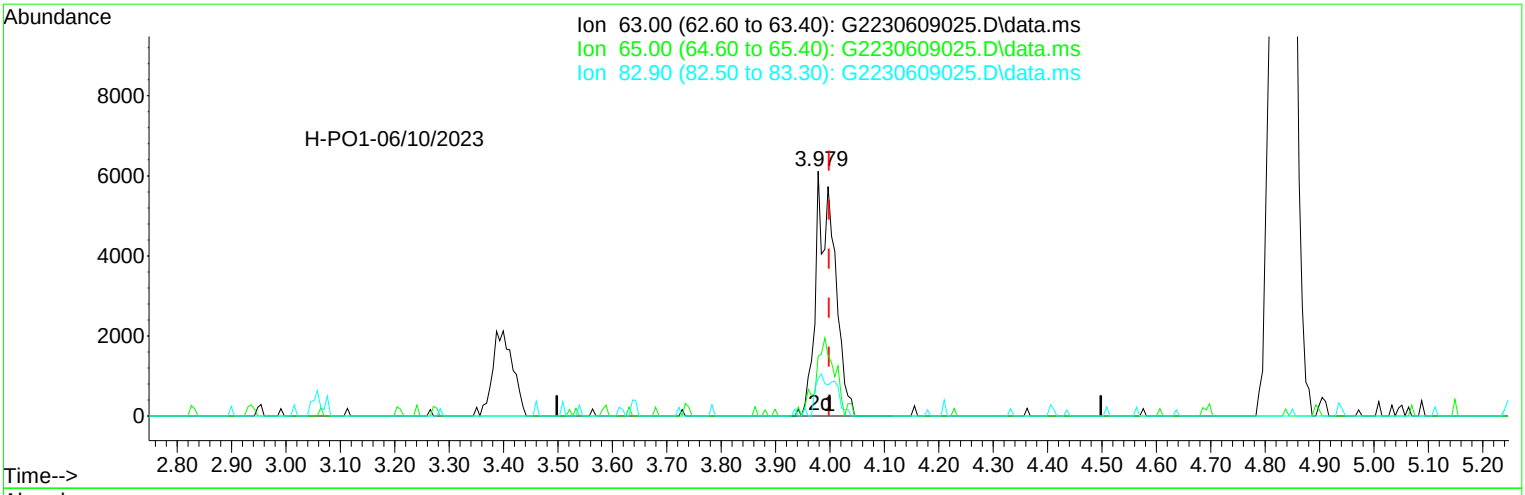
response 89711

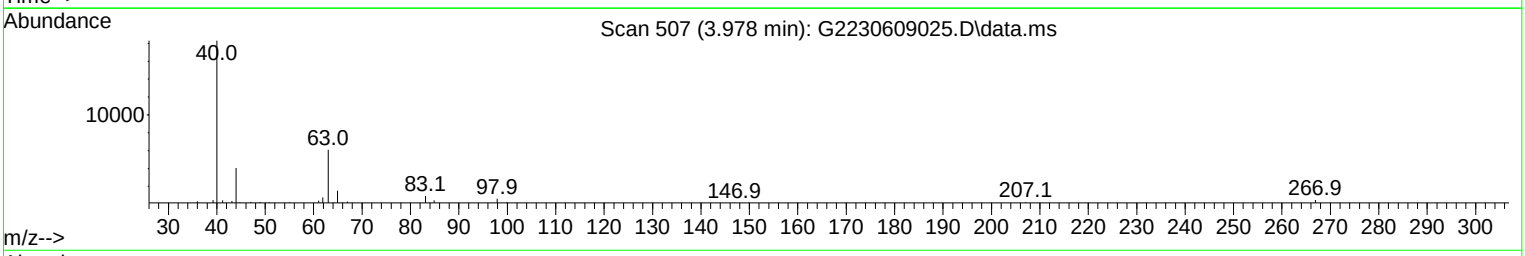
Ion	Exp%	Act%
63.00	100.00	100.00
65.00	31.10	54.47
82.90	12.90	0.00
0.00	0.00	0.00

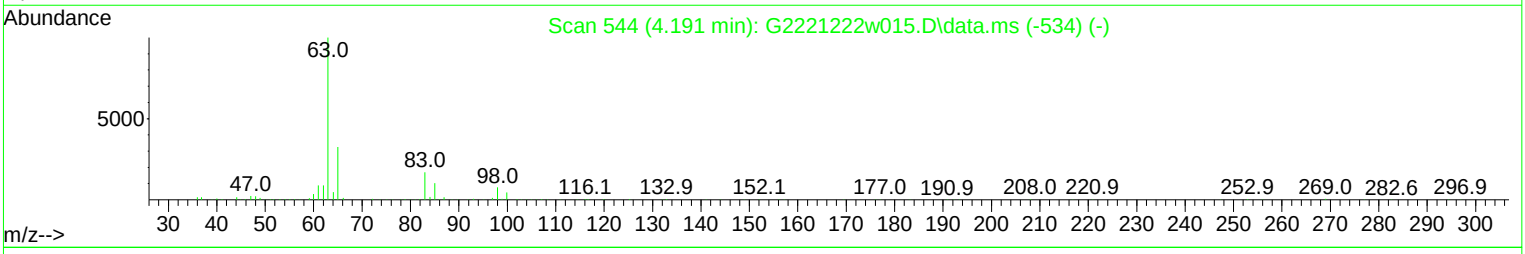
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230609\
Data File : G2230609025.D
Acq On : 09 Jun 2023 18:55
Operator : PO1/MP3
Sample : 23E0775-22
Misc : 2
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Jun 10 08:25:53 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







TIC: G2230609025.D\data.ms

(23) 1,1-Dichloroethane (TP)

3.978min (-0.020) 0.20 ug/L m

response 146006

Ion	Exp%	Act%
63.00	100.00	100.00
65.00	31.10	33.47
82.90	12.90	0.00
0.00	0.00	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

529LHSMW44

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-23	File ID:	G2230610015.D
Sampled:	05/29/23 14:00	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 14:17
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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

529LHSMW44

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-23	File ID:	G2230610015.D
Sampled:	05/29/23 14:00	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 14:17
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	0.400	0.320	1.00	2.00	J, D
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	7.90	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	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

529LHSMW44

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-23	File ID:	G2230610015.D
Sampled:	05/29/23 14:00	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 14:17
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	9.66	0.156	0.400	1.00	D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride	0.280	0.258	1.00	2.00	J, D

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610015.D
Acq On : 10 Jun 2023 14:17
Operator : PO1/MP3
Sample : 23E0775-23
Misc : 2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 12 10:03:37 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

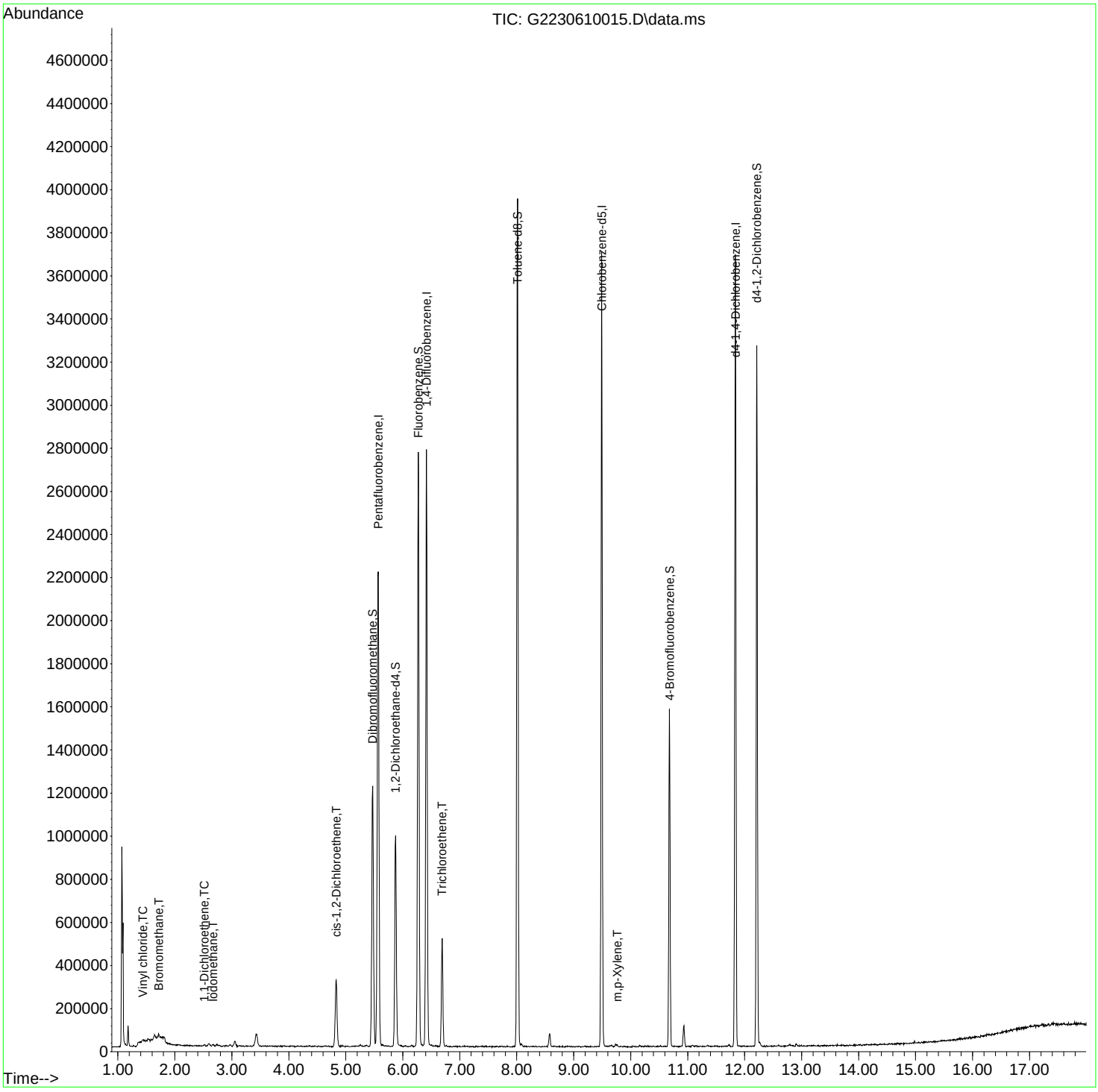
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	17926557	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	24146838	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	21477579	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10379085	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7631154	19.34	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.70%			
43) 1,2-Dichloroethane-d4	5.875	65	7008112	17.98	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.90%			
49) Fluorobenzene	6.275	96	26752981	19.44	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.20%			
64) Toluene-d8	8.015	98	26006108	19.21	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%			
81) 4-Bromofluorobenzene	10.683	174	4725955	9.64	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.40%			
97) d4-1,2-Dichlorobenzene	12.217	152	9159725	20.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.60%			
Target Compounds						Qvalue
4) Vinyl chloride	1.443	62	49485	0.14	ug/L #	43
5) Bromomethane	1.716	94	106582m	0.20	ug/L	
10) 1,1-Dichloroethene	2.515	61	32920	0.00	ug/L #	30
13) Iodomethane	2.670	142	83466	0.20	ug/L #	74
18) Methylene chloride	3.056	49	120682	Below Cal	#	68
21) Methyl tert-butyl ether	3.431	73	763884	Below Cal		97
28) cis-1,2-Dichloroethene	4.833	61	1810949	3.95	ug/L #	72
50) Trichloroethene	6.693	95	1555718	4.83	ug/L	91
65) Toluene	8.082	91	34873	Below Cal	#	30
75) m,p-Xylene	9.764	91	40288	0.04	ug/L #	80

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610015.D
Acq On : 10 Jun 2023 14:17
Operator : PO1/MP3
Sample : 23E0775-23
Misc : 2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 12 10:03:37 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610015.D
Acq On : 10 Jun 2023 14:17
Operator : PO1/MP3
Sample : 23E0775-23
Misc : 2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 12 10:03:37 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

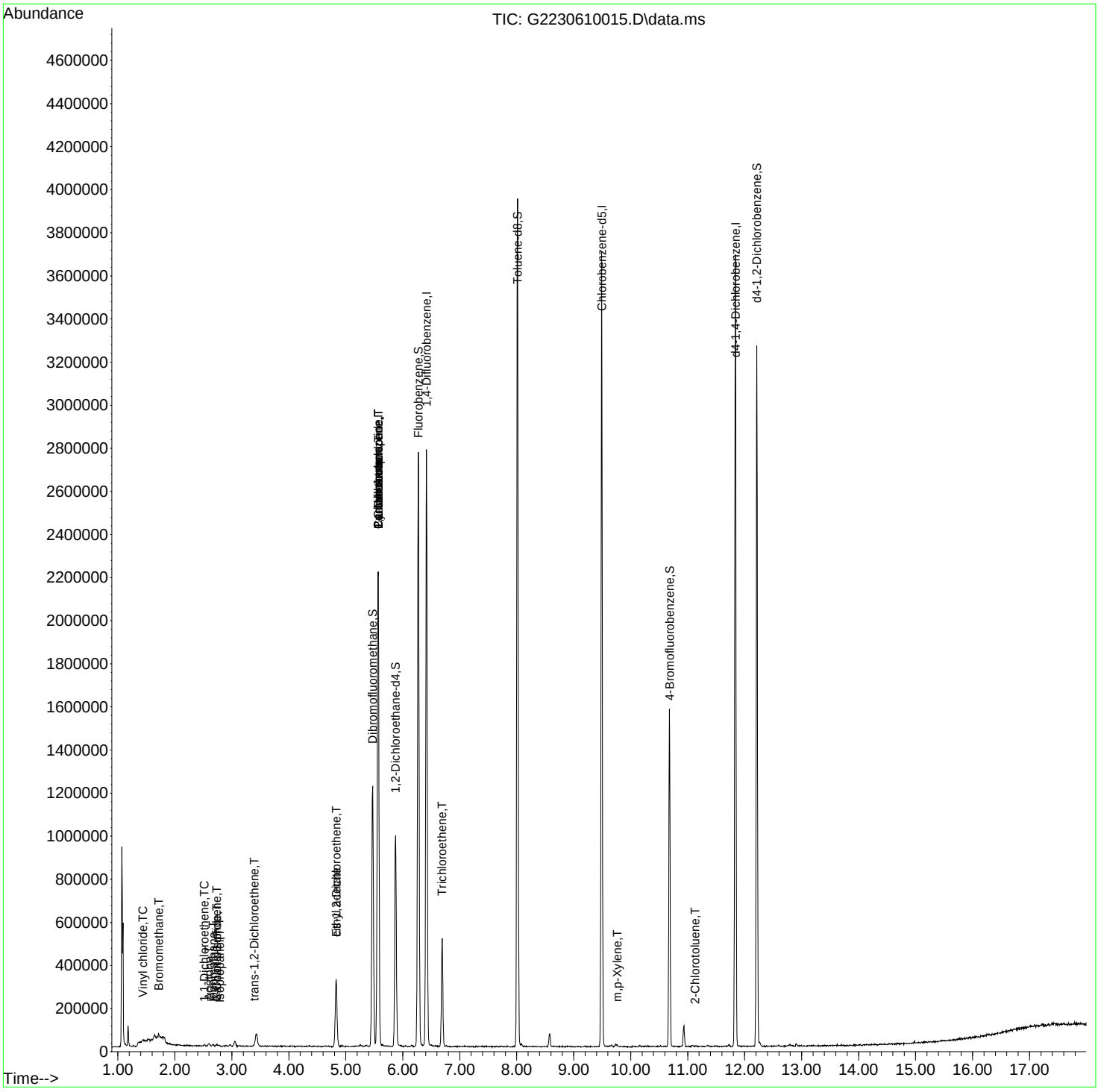
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.570	168	17926557	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	24146838	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	21477579	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10379085	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.472	111	7631154	19.34	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.70%			
43) 1,2-Dichloroethane-d4	5.875	65	7008112	17.98	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 89.90%			
49) Fluorobenzene	6.275	96	26752981	19.44	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.20%			
64) Toluene-d8	8.015	98	26006108	19.21	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%			
81) 4-Bromofluorobenzene	10.683	174	4725955	9.64	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.40%			
97) d4-1,2-Dichlorobenzene	12.217	152	9159725	20.52	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.60%			
Target Compounds						Qvalue
3) Chloromethane	1.353	50	30962	Below Cal	#	41
4) Vinyl chloride	1.443	62	49485	0.14	ug/L #	43
5) Bromomethane	1.718	94	98604	0.17	ug/L #	80
10) 1,1-Dichloroethene	2.515	61	32920	0.00	ug/L #	30
12) Acetone	2.598	43	141957	0.01	ug/L	93
13) Iodomethane	2.670	142	83466	0.20	ug/L #	74
14) Carbon disulfide	2.736	76	103768	0.04	ug/L #	74
15) Isopropanol	2.785	45	35511	2.47	ug/L #	56
17) 3-Chloro-1-propene	2.736	76	103774	0.50	ug/L #	53
18) Methylene chloride	3.056	49	120682	Below Cal	#	68
20) trans-1,2-Dichloroethene	3.393	61	34676	0.09	ug/L #	23
21) Methyl tert-butyl ether	3.431	73	763884	Below Cal		97
28) cis-1,2-Dichloroethene	4.833	61	1810949	3.95	ug/L #	72
31) Ethyl acetate	4.833	61	1810952	33.95	ug/L #	45
36) Tetrahydrofuran	5.253	42	45578	Below Cal	#	30
40) Cyclohexane	5.566	84	397695	0.83	ug/L #	29
41) 1-Chlorobutane	5.567	56	215628	0.39	ug/L #	1
42) 1,1-Dichloropropene	5.569	75	940660	2.24	ug/L #	38
47) Carbon tetrachloride	5.570	117	1468421	3.37	ug/L #	16
50) Trichloroethene	6.693	95	1555718	4.83	ug/L	91
60) 4-Methyl-2-pentanone	8.012	43	99746	Below Cal	#	1
65) Toluene	8.082	91	34873	Below Cal	#	30
74) Ethylbenzene	9.637	91	44722	Below Cal	#	44
75) m,p-Xylene	9.764	91	40288	0.04	ug/L #	80
87) 2-Chlorotoluene	11.127	91	18530	0.02	ug/L #	47

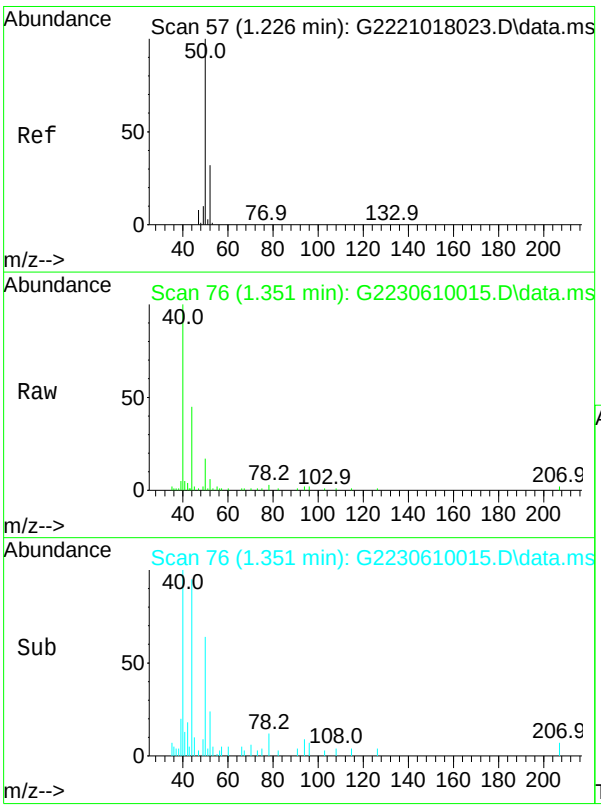
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610015.D
Acq On : 10 Jun 2023 14:17
Operator : PO1/MP3
Sample : 23E0775-23
Misc : 2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 12 10:03:37 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

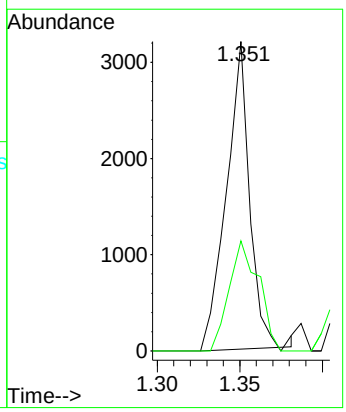


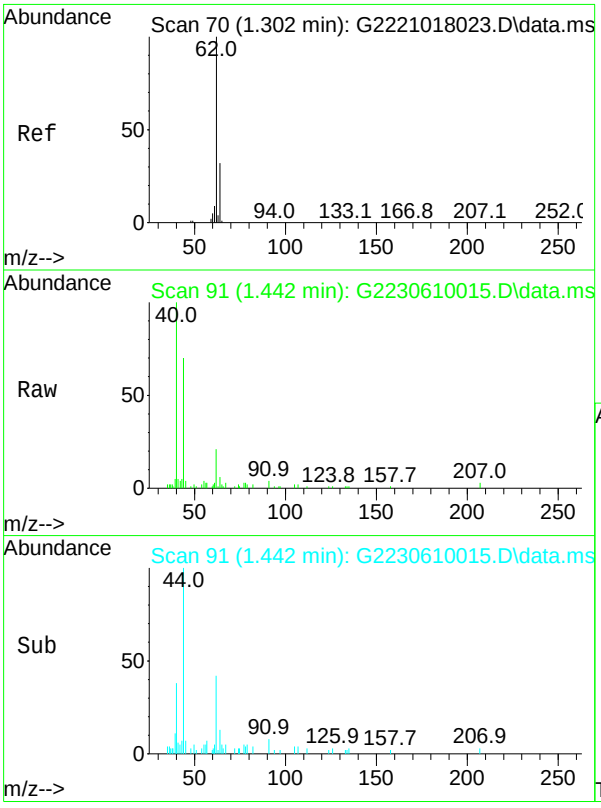


#3
Chloromethane
Concen: Below Cal
RT: 1.353 min Scan# 76
Delta R.T. -0.001 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 50 Resp: 30962

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

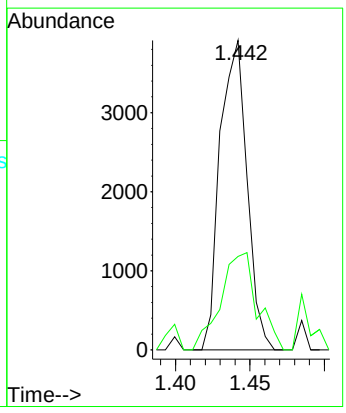


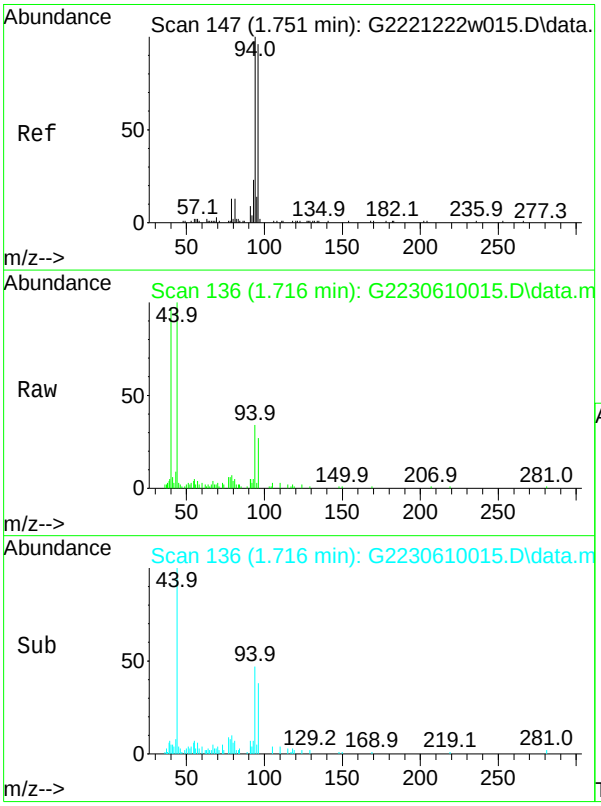


#4
Vinyl chloride
Concen: 0.14 ug/L
RT: 1.443 min Scan# 91
Delta R.T. -0.003 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 62 Resp: 49485

Ion	Ratio	Lower	Upper
62	100		
64	0.0	2.1	62.1#

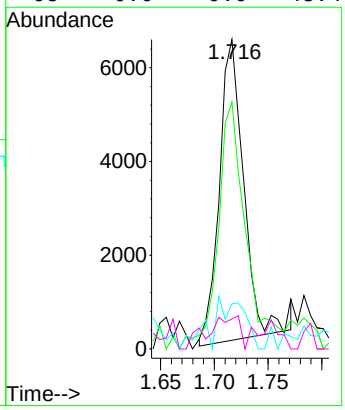


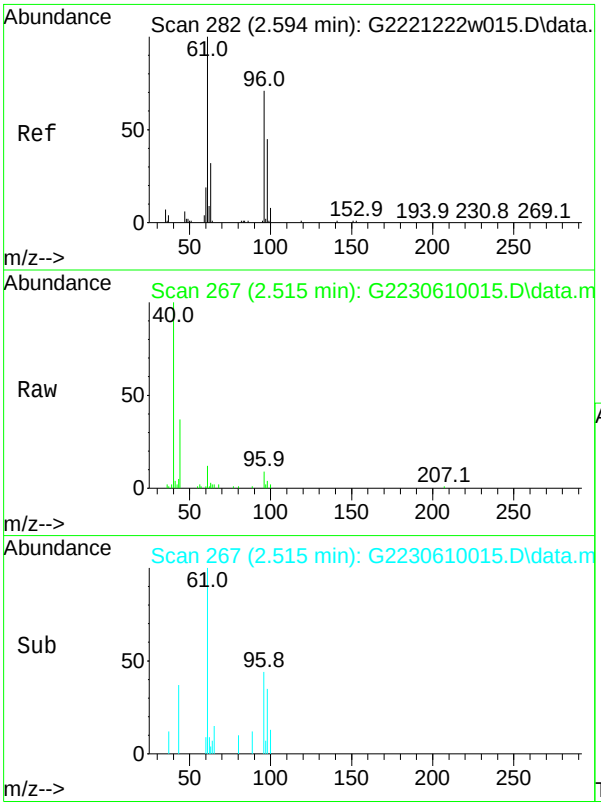


#5
Bromomethane
Concen: 0.17 ug/L
RT: 1.718 min Scan# 136
Delta R.T. 0.004 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 94 Resp: 98604

Ion	Ratio	Lower	Upper
94	100		
96	82.2	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

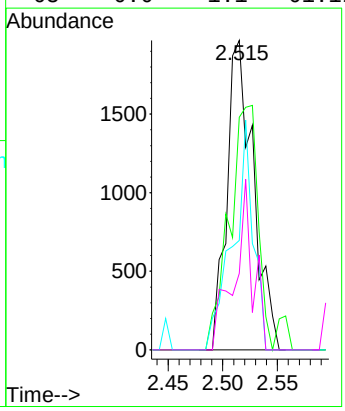


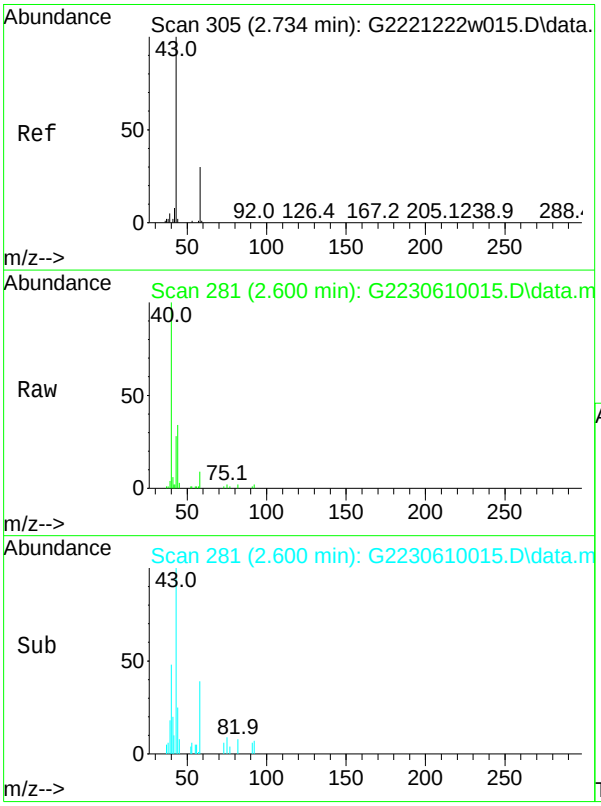


#10
1,1-Dichloroethene
Concen: 0.00 ug/L
RT: 2.515 min Scan# 267
Delta R.T. -0.008 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 61 Resp: 32920

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#

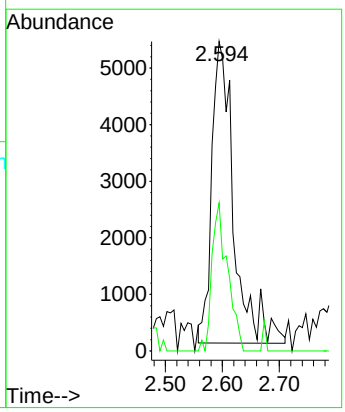


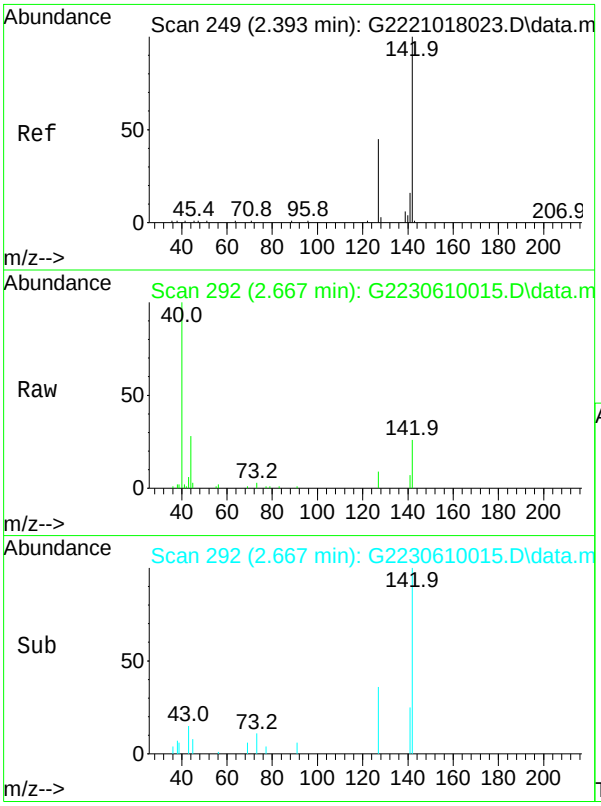


#12
Acetone
Concen: 0.01 ug/L
RT: 2.598 min Scan# 281
Delta R.T. -0.010 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 43 Resp: 141957

Ion	Ratio	Lower	Upper
43	100		
58	33.7	0.0	59.7

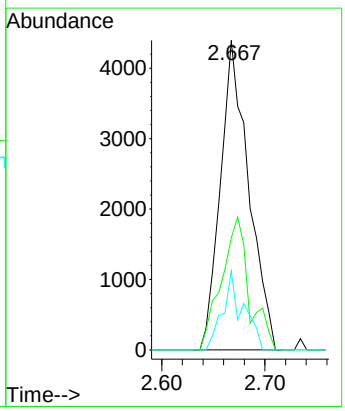


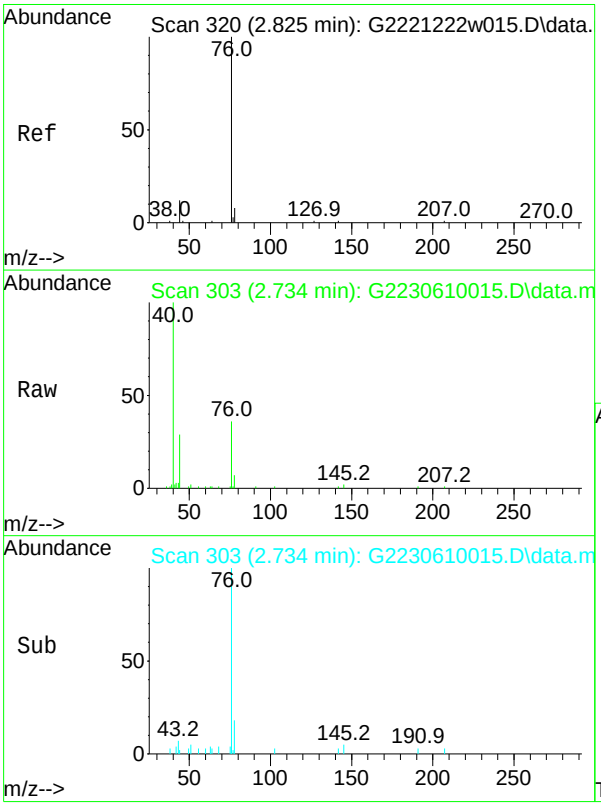


#13
Iodomethane
Concen: 0.20 ug/L
RT: 2.670 min Scan# 292
Delta R.T. -0.006 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion:142 Resp: 83466

Ion	Ratio	Lower	Upper
142	100		
127	28.6	13.3	73.3
141	0.0	0.0	45.3

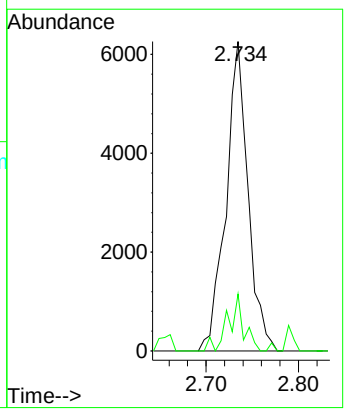


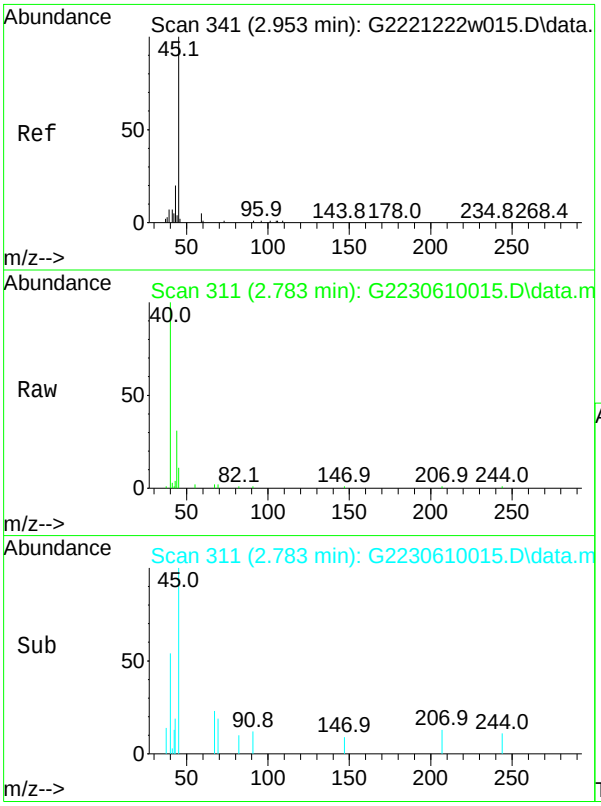


#14
Carbon disulfide
Concen: 0.04 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.003 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 76 Resp: 103768

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

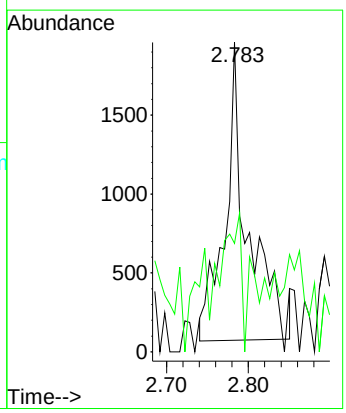


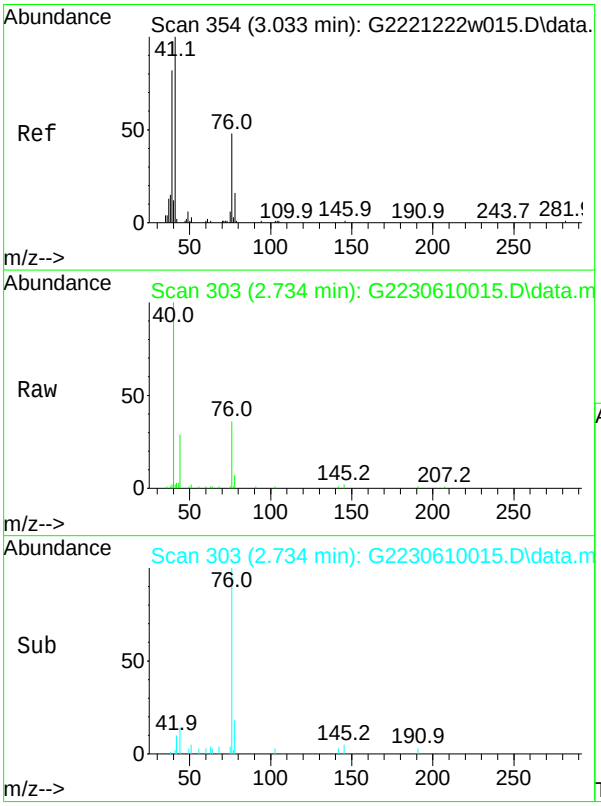


#15
Isopropanol
Concen: 2.47 ug/L
RT: 2.785 min Scan# 311
Delta R.T. -0.007 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 45 Resp: 35511

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	50.3

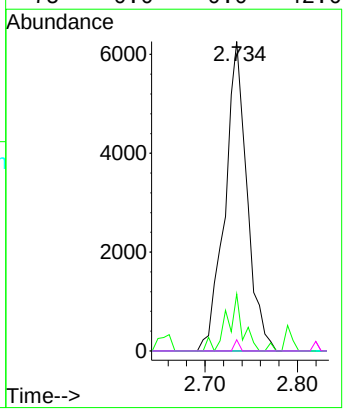


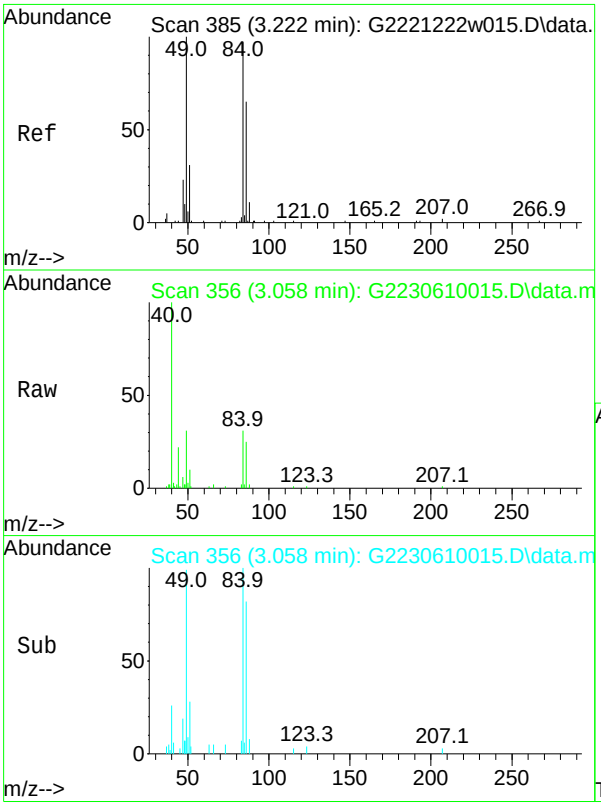


#17
3-Chloro-1-propene
Concen: 0.50 ug/L
RT: 2.736 min Scan# 303
Delta R.T. -0.184 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 76 Resp: 103774

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

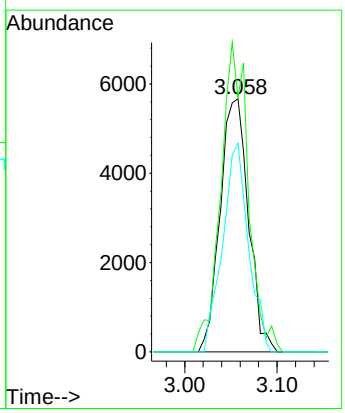


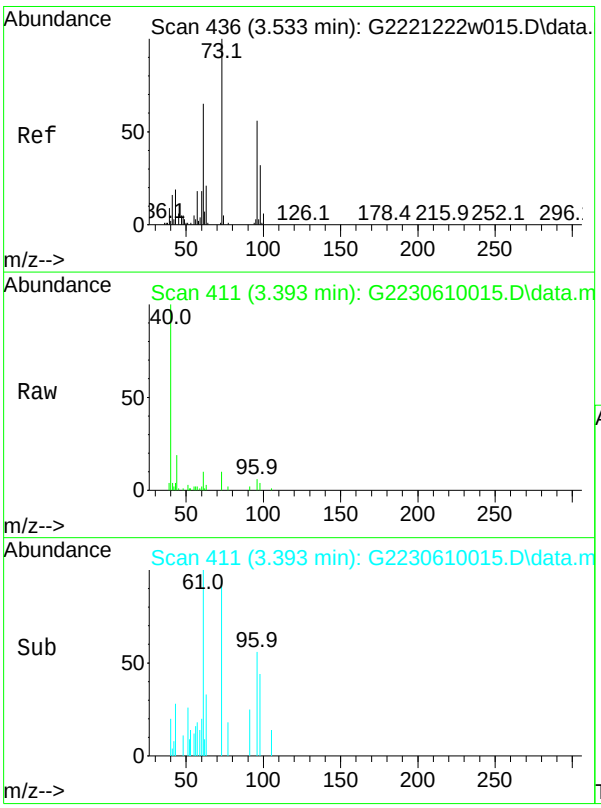


#18
Methylene chloride
Concen: Below Cal
RT: 3.056 min Scan# 356
Delta R.T. -0.006 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 49 Resp: 120682

Ion	Ratio	Lower	Upper
49	100		
84	119.2	57.9	117.9#
86	75.5	24.9	84.9

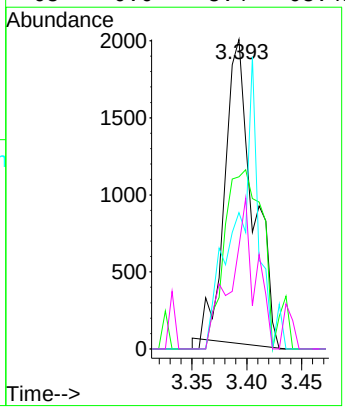


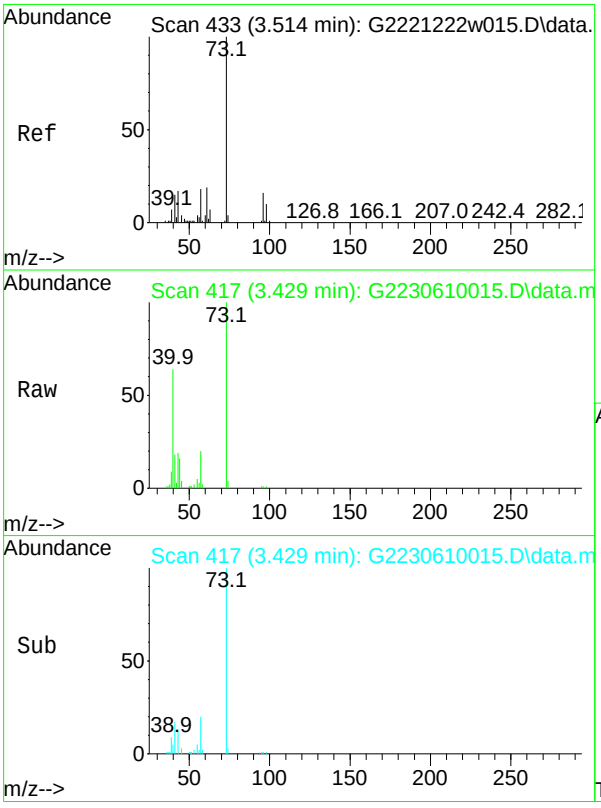


#20
trans-1,2-Dichloroethene
Concen: 0.09 ug/L
RT: 3.393 min Scan# 411
Delta R.T. -0.008 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 61 Resp: 34676

Ion	Ratio	Lower	Upper
61	100		
96	0.0	45.2	105.2#
98	0.0	17.2	77.2#
63	0.0	3.4	63.4#

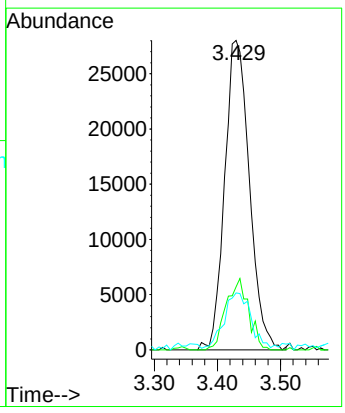


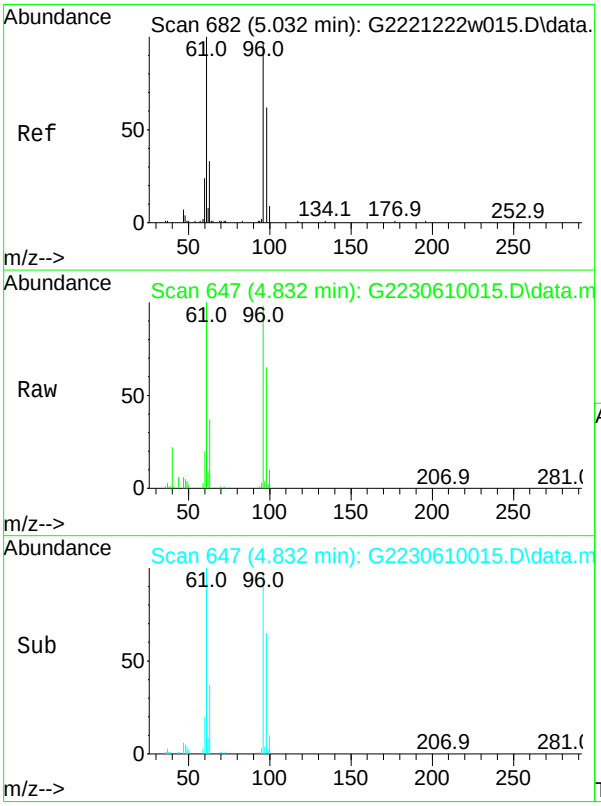


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.431 min Scan# 417
Delta R.T. -0.015 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 73 Resp: 763884

Ion	Ratio	Lower	Upper
73	100		
57	21.1	0.0	51.7
41	18.1	0.0	50.6

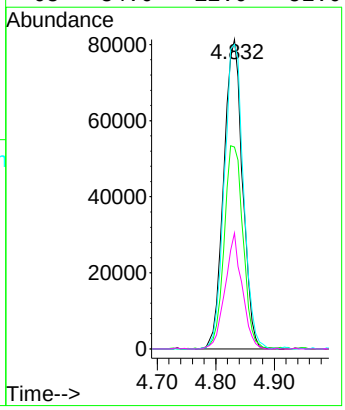


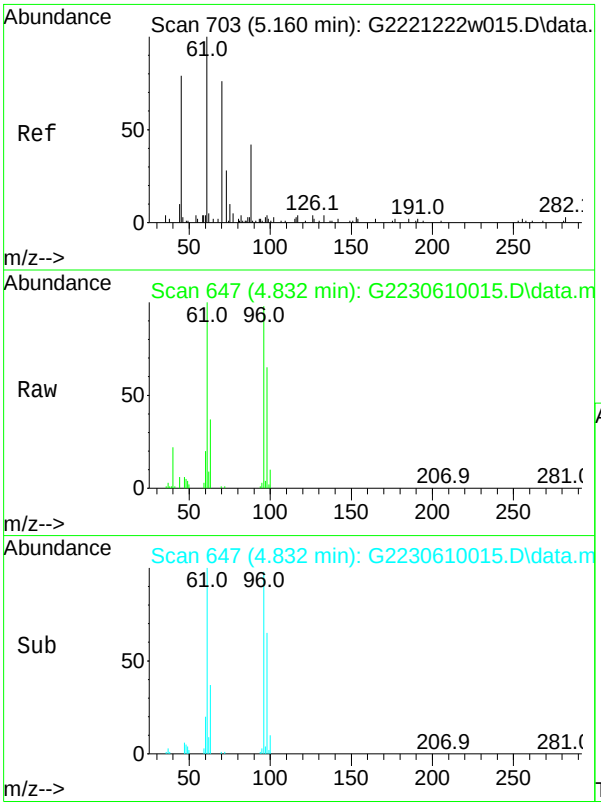


#28
cis-1,2-Dichloroethene
Concen: 3.95 ug/L
RT: 4.833 min Scan# 647
Delta R.T. -0.003 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 61 Resp: 1810949

Ion	Ratio	Lower	Upper
61	100		
98	66.1	15.9	75.9
96	99.9	39.6	99.6#
63	34.0	12.0	52.0

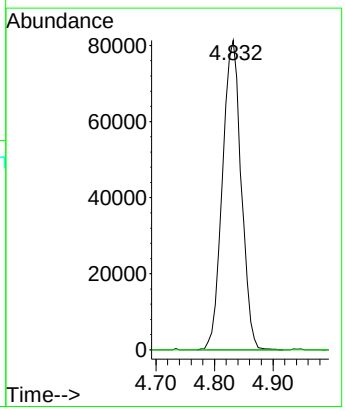


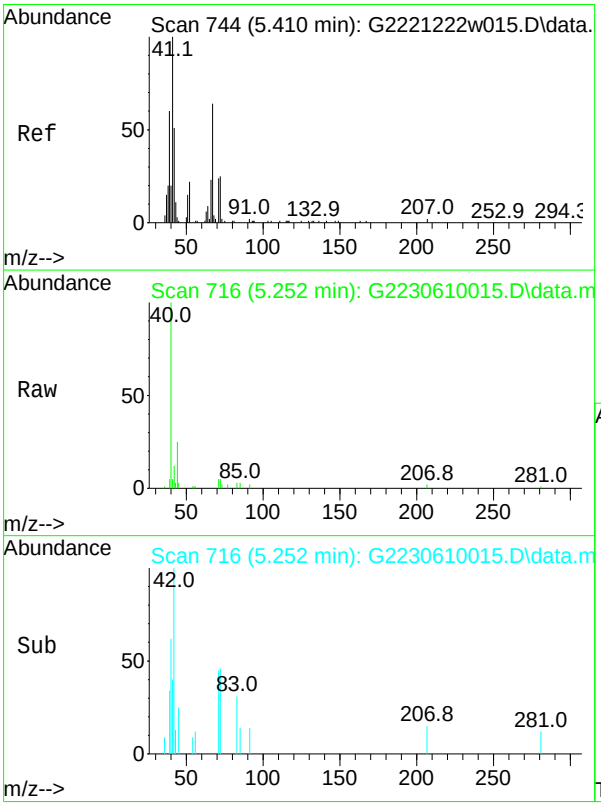


#31
Ethyl acetate
Concen: 33.95 ug/L
RT: 4.833 min Scan# 647
Delta R.T. -0.189 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 61 Resp: 1810952

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

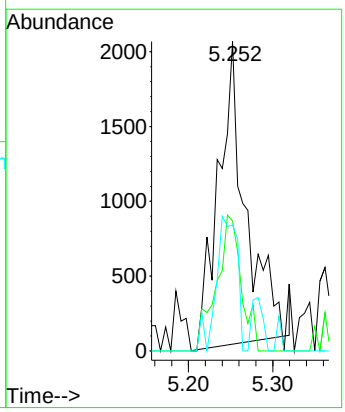


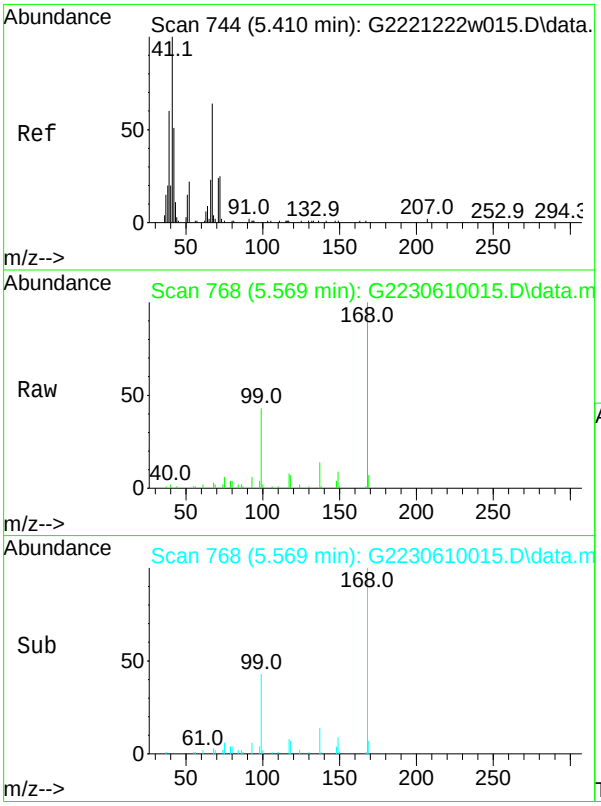


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.253 min Scan# 716
Delta R.T. -0.008 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 42 Resp: 45578

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

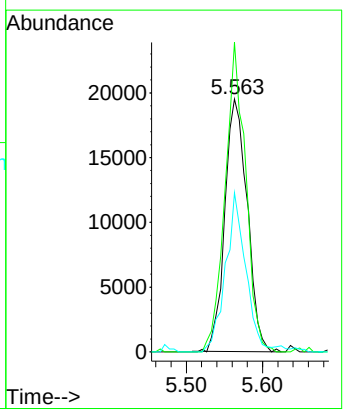


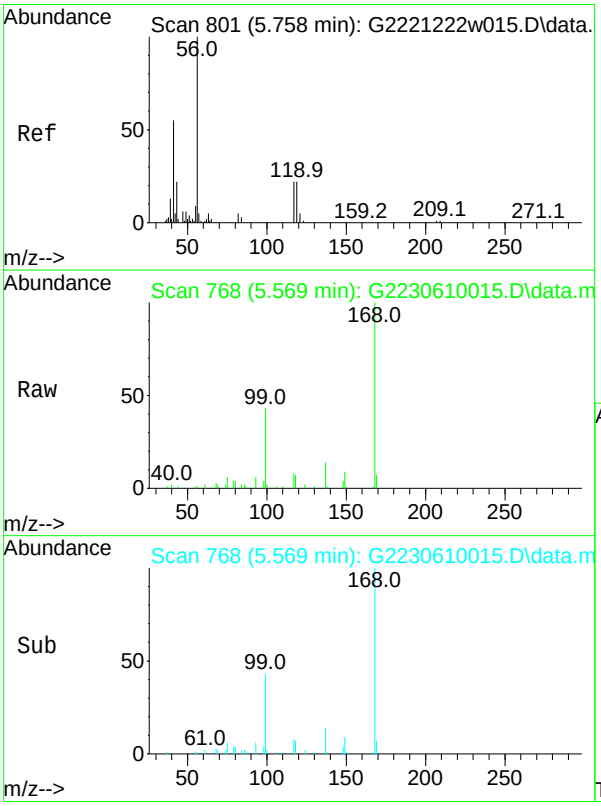


#40
Cyclohexane
Concen: 0.83 ug/L
RT: 5.566 min Scan# 768
Delta R.T. 0.032 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 84 Resp: 397695

Ion	Ratio	Lower	Upper
84	100		
69	112.8	6.8	66.8#
56	54.2	79.1	139.1#

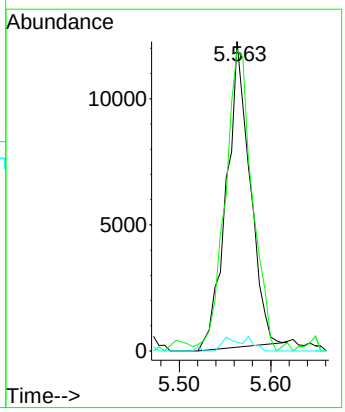


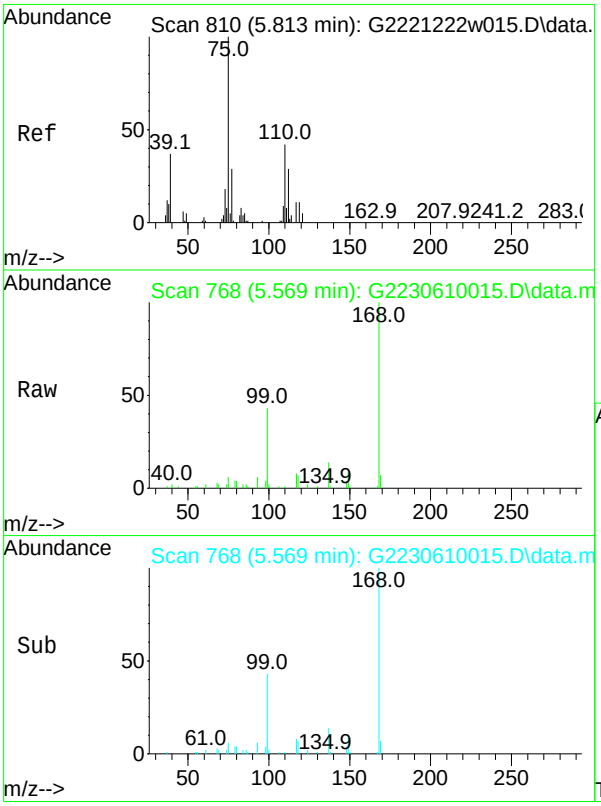


#41
1-Chlorobutane
Concen: 0.39 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 56 Resp: 215628

Ion	Ratio	Lower	Upper
56	100		
55	110.1	0.0	41.0#
57	0.0	0.0	35.7

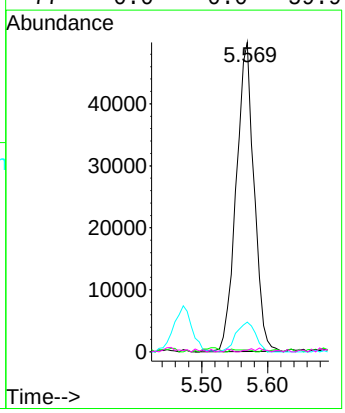


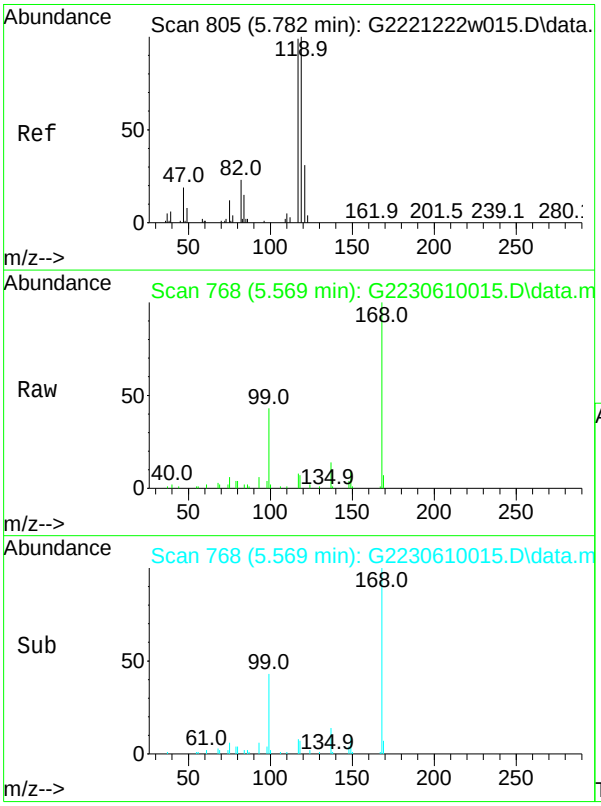


#42
1,1-Dichloropropene
Concen: 2.24 ug/L
RT: 5.569 min Scan# 768
Delta R.T. -0.120 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 75 Resp: 940660

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

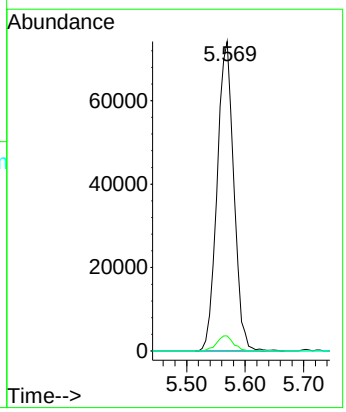


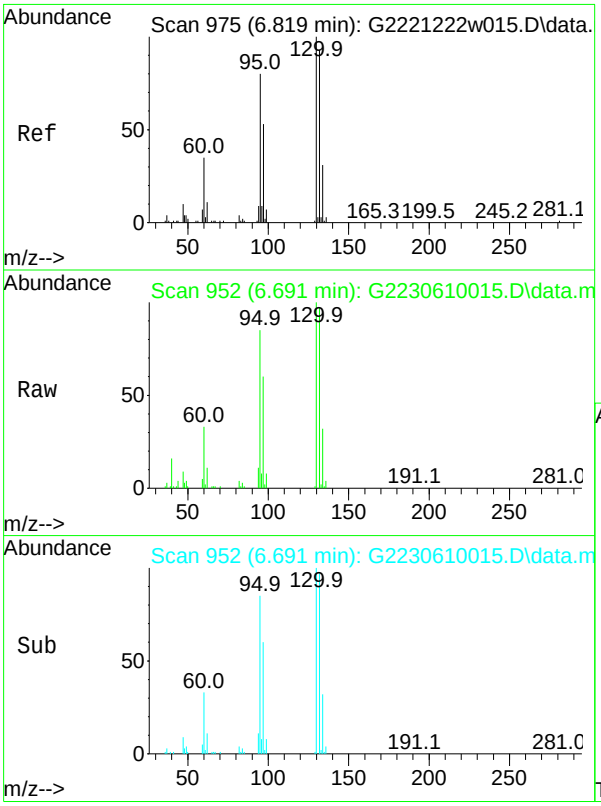


#47
Carbon tetrachloride
Concen: 3.37 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion:117 Resp: 1468421

Ion	Ratio	Lower	Upper
117	100		
119	4.9	66.4	126.4#
121	0.0	0.4	60.4#

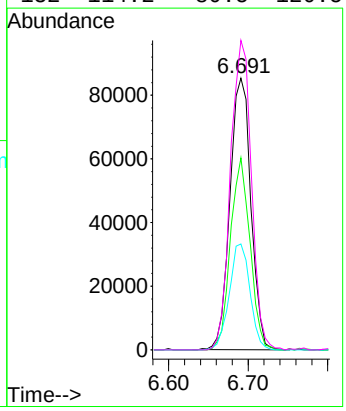


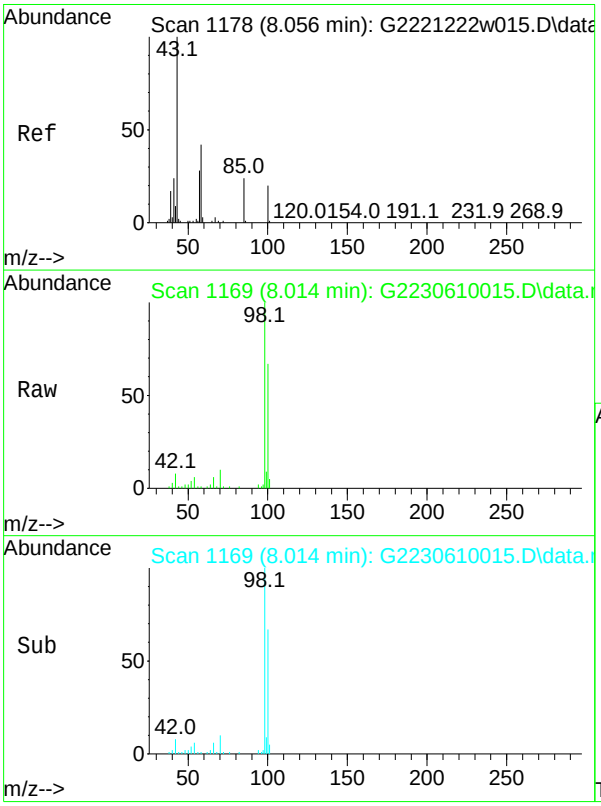


#50
Trichloroethene
Concen: 4.83 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 95 Resp: 1555718

Ion	Ratio	Lower	Upper
95	100		
97	66.0	35.5	95.5
60	38.6	14.8	74.8
132	114.2	80.5	120.5

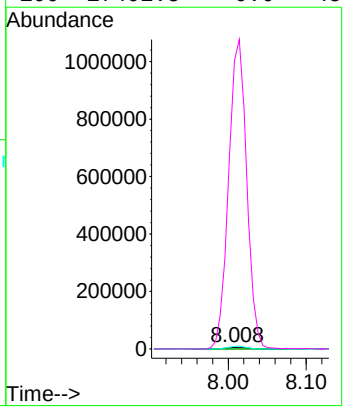


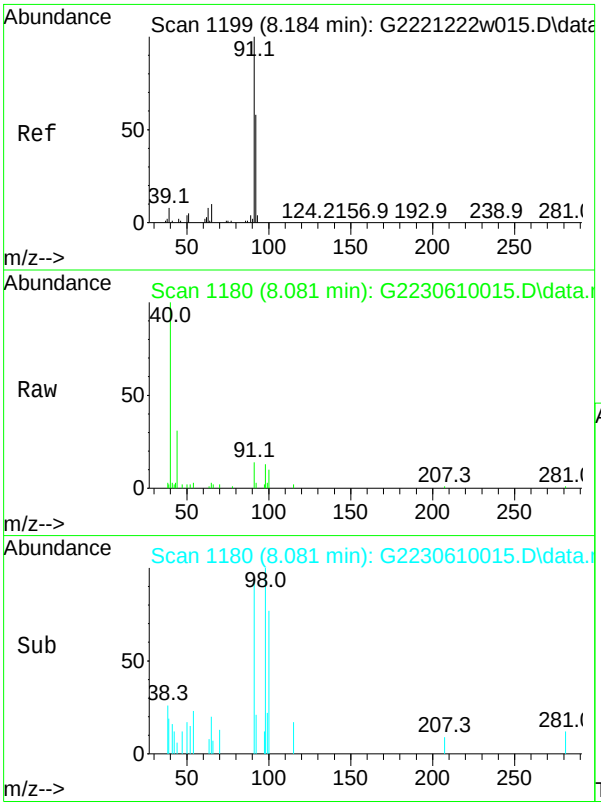


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.012 min Scan# 1169
Delta R.T. 0.068 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 43 Resp: 99746

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	159.5	37.0	37.0#
100	17402.5	0.0	45.2#

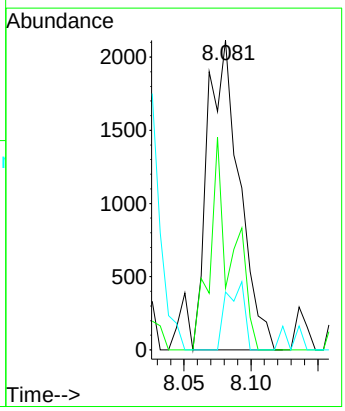


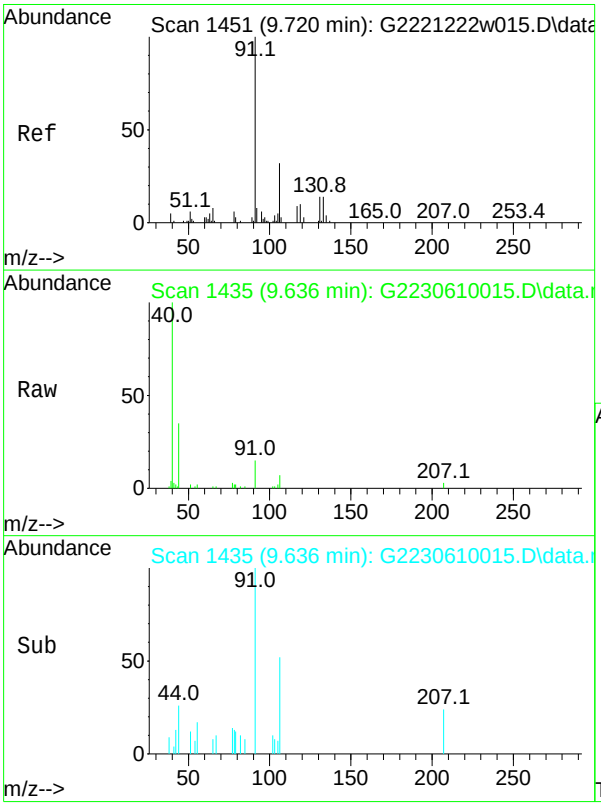


#65
Toluene
Concen: Below Cal
RT: 8.082 min Scan# 1180
Delta R.T. -0.004 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 91 Resp: 34873

Ion	Ratio	Lower	Upper
91	100		
92	0.0	27.5	87.5#
65	0.0	0.0	41.4

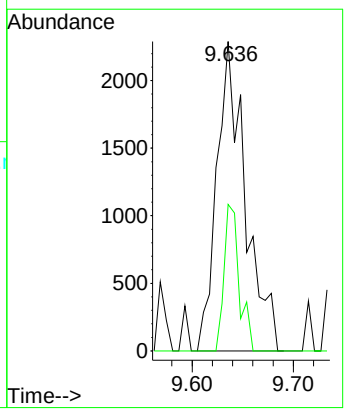


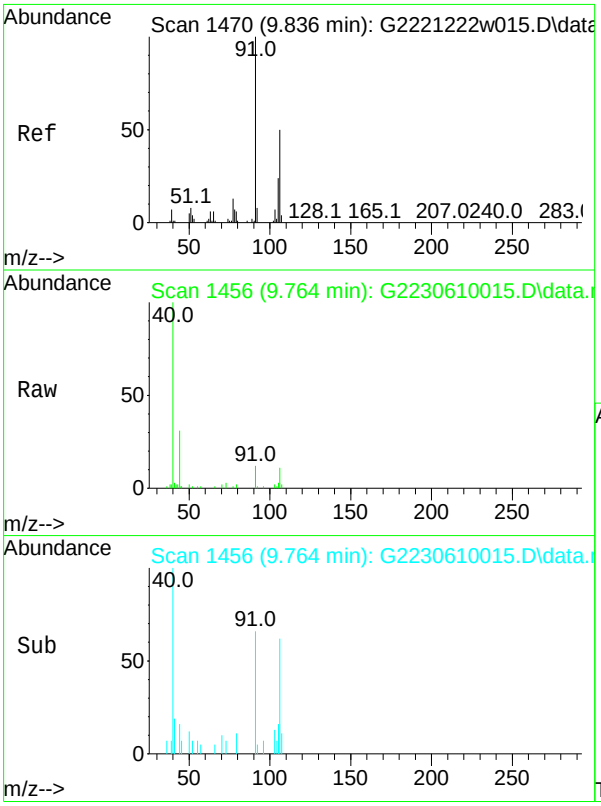


#74
Ethylbenzene
Concen: Below Cal
RT: 9.637 min Scan# 1435
Delta R.T. -0.006 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 91 Resp: 44722

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

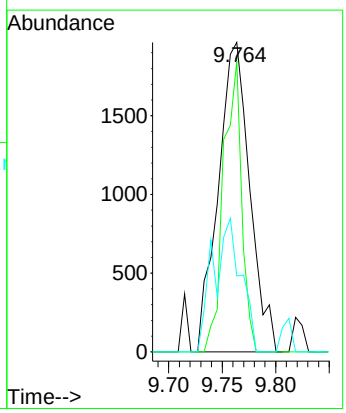


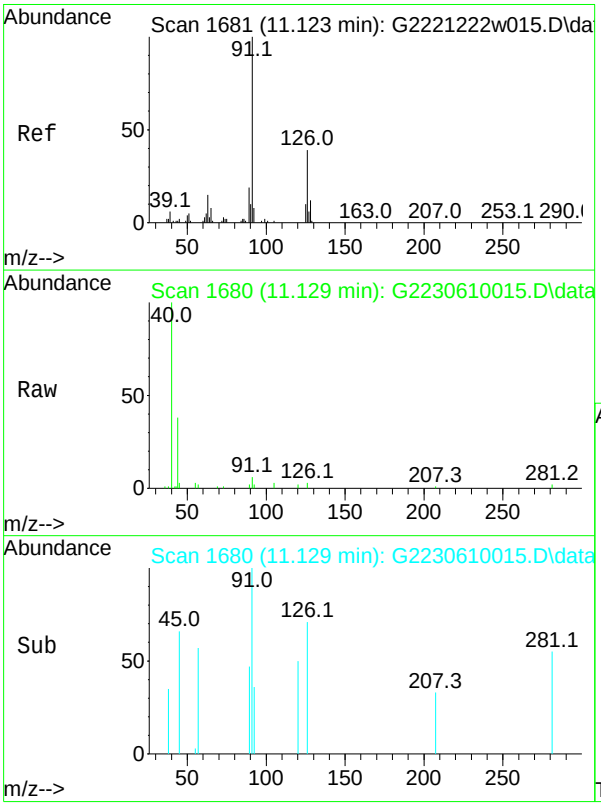


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. -0.000 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 91 Resp: 40288

Ion	Ratio	Lower	Upper
91	100		
106	53.9	19.0	79.0
105	0.0	0.0	52.7

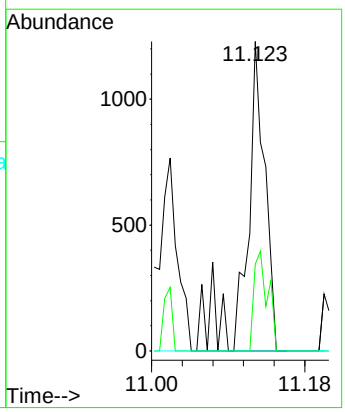




#87
2-Chlorotoluene
Concen: 0.02 ug/L
RT: 11.127 min Scan# 1680
Delta R.T. 0.099 min
Lab File: G2230610015.D
Acq: 10 Jun 2023 14:17

Tgt Ion: 91 Resp: 18530

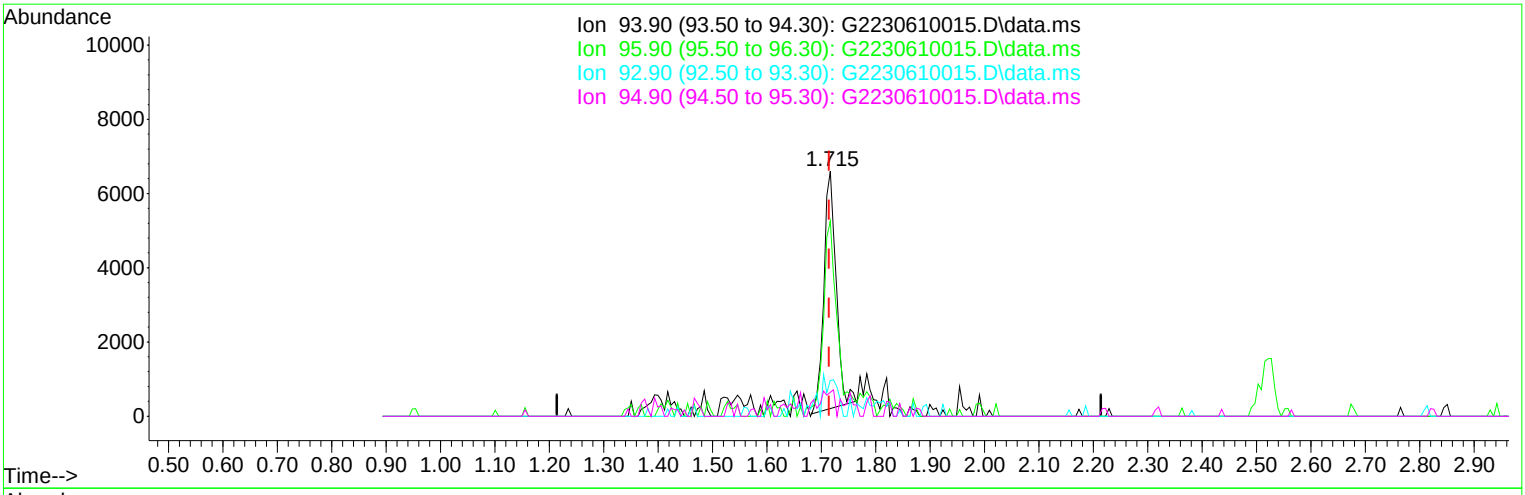
Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.7	64.7#
128	0.0	0.0	41.4

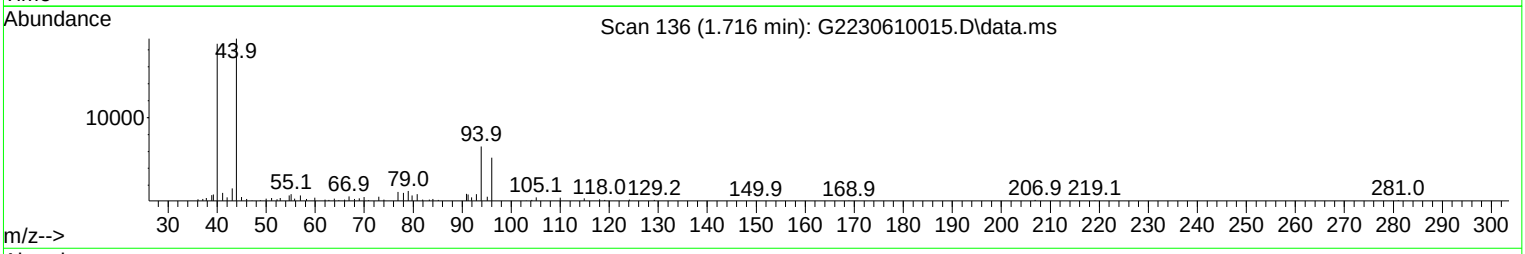


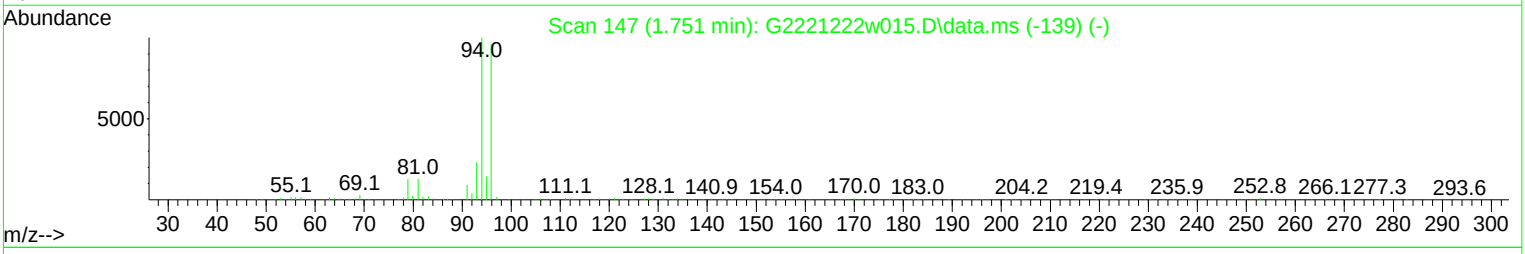
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610015.D
Acq On : 10 Jun 2023 14:17
Operator : PO1/MP3
Sample : 23E0775-23
Misc : 2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 12 10:03:37 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: G2230610015.D\data.ms

(5) Bromomethane (T)

1.718min (+ 0.004) 0.17 ug/L

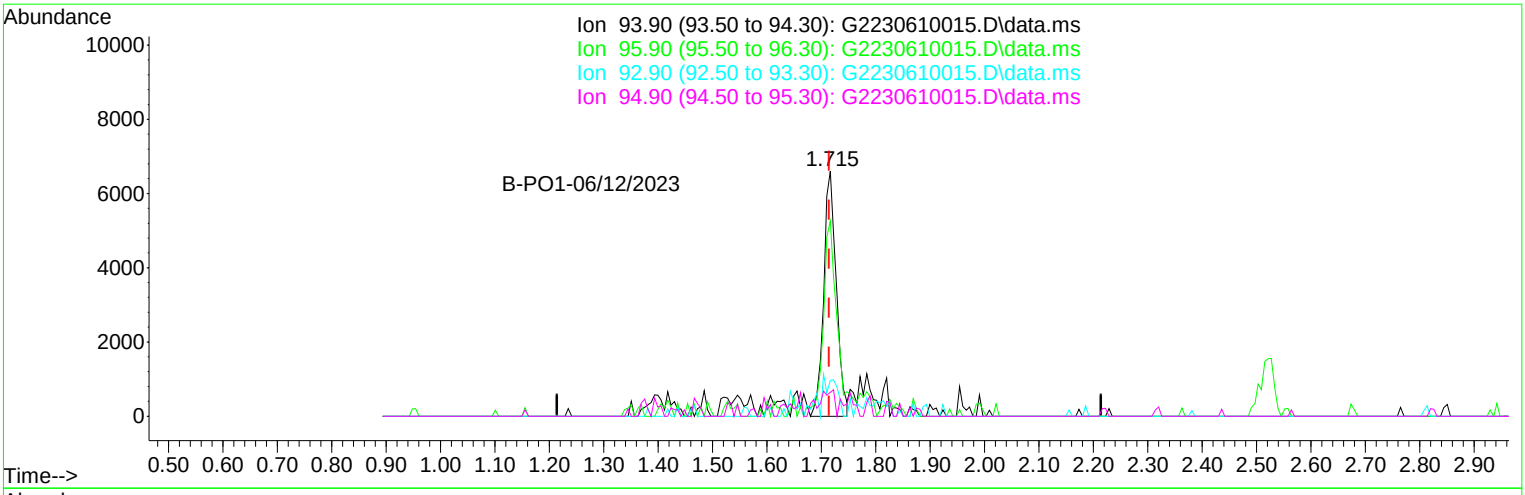
response 98604

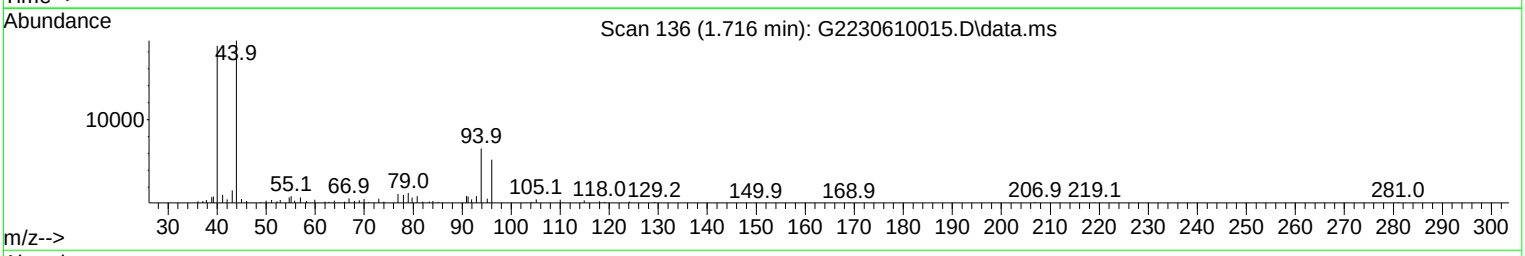
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	82.16
92.90	19.50	0.00
94.90	13.40	0.00

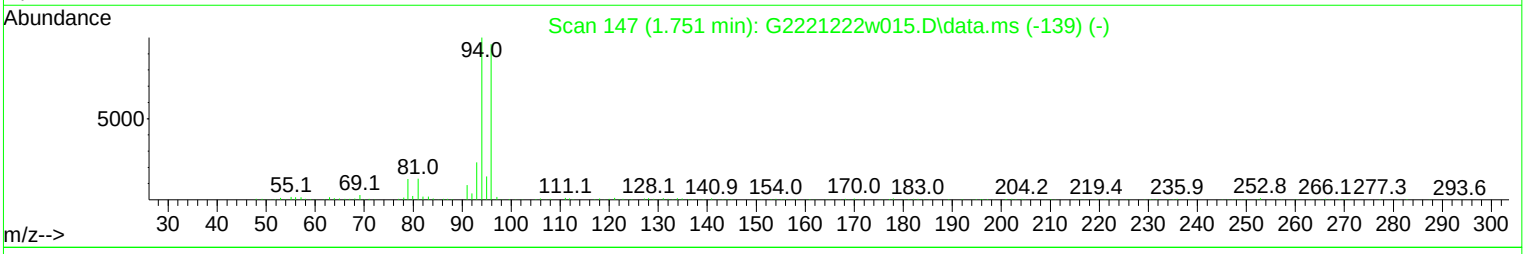
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610015.D
Acq On : 10 Jun 2023 14:17
Operator : PO1/MP3
Sample : 23E0775-23
Misc : 2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 12 10:03:37 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: G2230610015.D\data.ms

(5) Bromomethane (T)

1.716min (+ 0.002) 0.20 ug/L m

response 106582

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	76.01
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

529LHSMW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-24	File ID:	G2230610016.D
Sampled:	05/29/23 15:25	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 14:42
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	0.300	0.191	0.400	1.00	J, 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

529LHSMW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-24	File ID:	G2230610016.D
Sampled:	05/29/23 15:25	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 14:42
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	2.74	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	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

529LHSMW41

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-24	File ID:	G2230610016.D
Sampled:	05/29/23 15:25	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 14:42
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	0.280	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	174	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610016.D
Acq On : 10 Jun 2023 14:42
Operator : PO1/MP3
Sample : 23E0775-24
Misc : 2
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 12 10:22:56 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

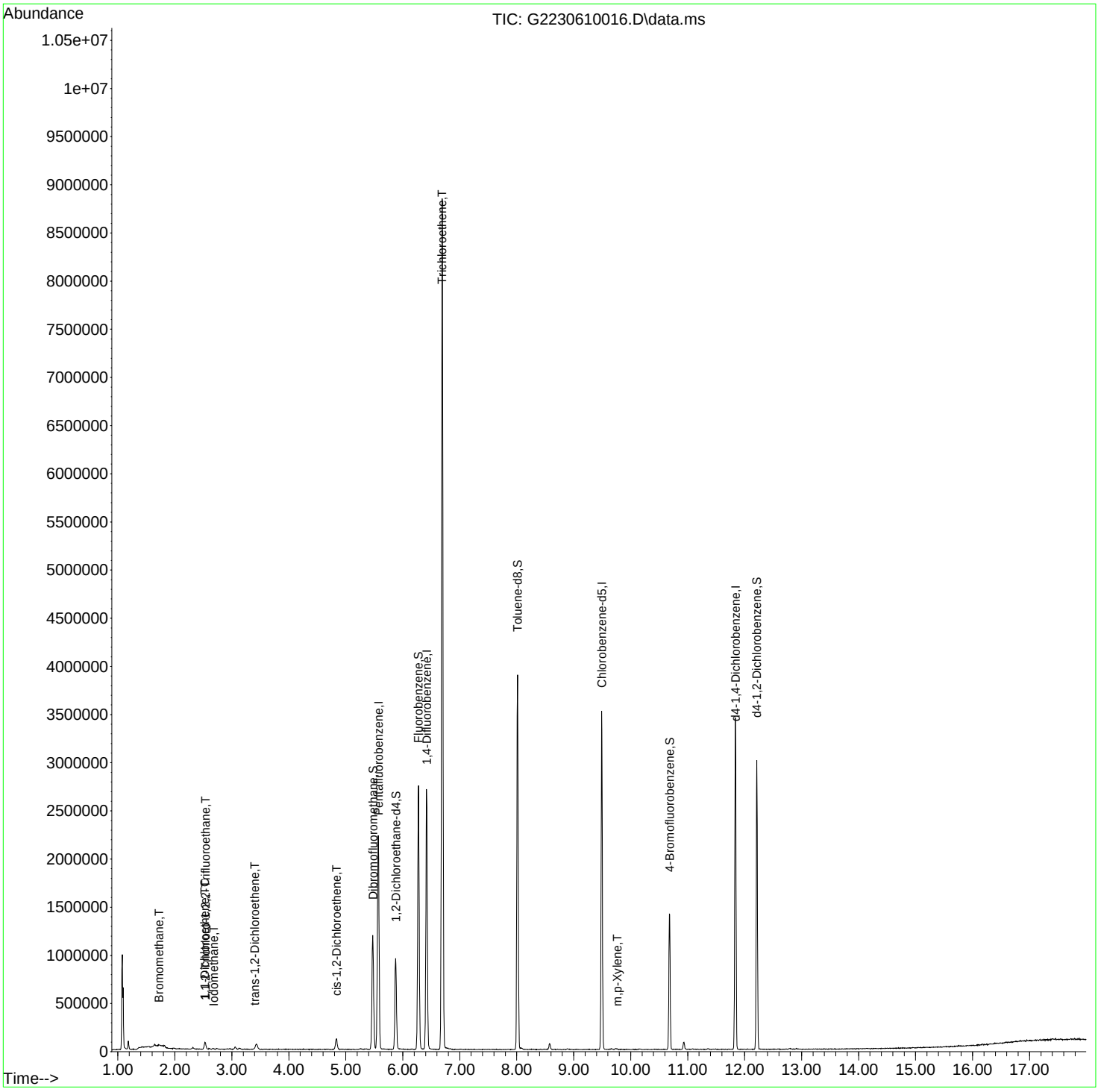
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	17567054	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	23643161	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	20678438	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9782713	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7362849	19.05	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.25%				
43) 1,2-Dichloroethane-d4	5.877	65	6734272	17.63	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.15%				
49) Fluorobenzene	6.277	96	26181540	19.43	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%				
64) Toluene-d8	8.016	98	25526731	19.59	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%				
81) 4-Bromofluorobenzene	10.684	174	4527911	9.80	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.00%				
97) d4-1,2-Dichlorobenzene	12.216	152	8433408	20.05	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.25%				
Target Compounds							Qvalue
5) Bromomethane	1.722	94	77650	0.08	ug/L	#	94
10) 1,1-Dichloroethene	2.525	61	87239	0.15	ug/L	#	69
11) 1,1,2-Trichloro-1,2,2-...	2.536	101	240547	0.84	ug/L		89
13) Iodomethane	2.677	142	63395	0.16	ug/L	#	89
18) Methylene chloride	3.059	49	112618	Below Cal		#	65
20) trans-1,2-Dichloroethene	3.400	61	52464	0.14	ug/L	#	57
21) Methyl tert-butyl ether	3.439	73	763232	Below Cal			92
28) cis-1,2-Dichloroethene	4.835	61	640912	1.37	ug/L	#	71
50) Trichloroethene	6.694	95	27069064	87.12	ug/L		90
65) Toluene	8.088	91	77777	Below Cal		#	89
75) m,p-Xylene	9.760	91	47544	0.04	ug/L	#	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610016.D
Acq On : 10 Jun 2023 14:42
Operator : PO1/MP3
Sample : 23E0775-24
Misc : 2
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 12 10:22:56 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610016.D
Acq On : 10 Jun 2023 14:42
Operator : PO1/MP3
Sample : 23E0775-24
Misc : 2
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 12 10:22:56 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

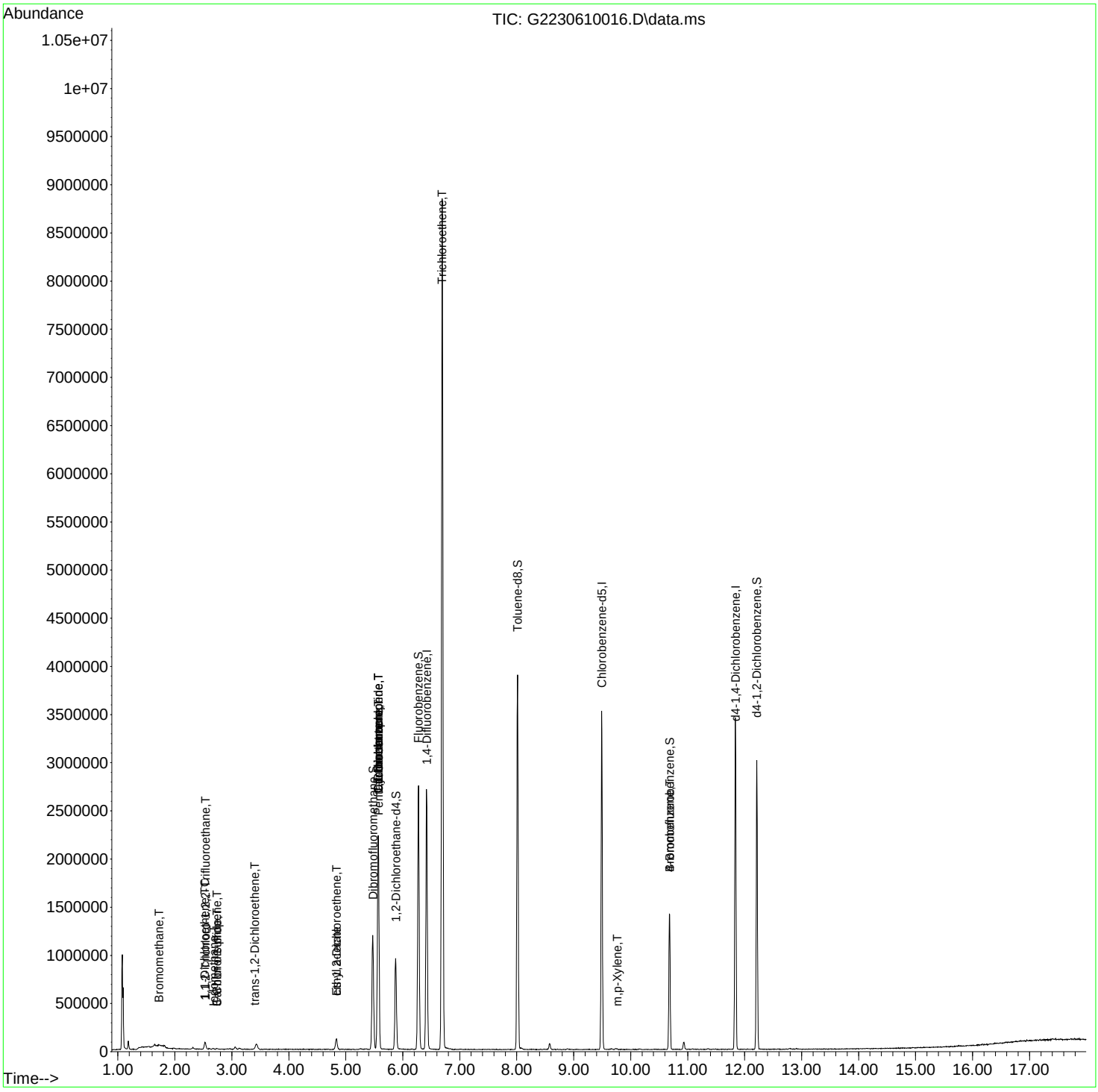
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.572	168	17567054	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.421	114	23643161	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	20678438	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9782713	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.475	111	7362849	19.05	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.25%				
43) 1,2-Dichloroethane-d4	5.877	65	6734272	17.63	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.15%				
49) Fluorobenzene	6.277	96	26181540	19.43	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.15%				
64) Toluene-d8	8.016	98	25526731	19.59	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%				
81) 4-Bromofluorobenzene	10.684	174	4527911	9.80	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 98.00%				
97) d4-1,2-Dichlorobenzene	12.216	152	8433408	20.05	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.25%				
Target Compounds							Qvalue
5) Bromomethane	1.722	94	77650	0.08	ug/L	#	94
10) 1,1-Dichloroethene	2.525	61	87239	0.15	ug/L	#	69
11) 1,1,2-Trichloro-1,2,2-...	2.536	101	240547	0.84	ug/L		89
12) Acetone	2.605	43	95344	Below Cal			93
13) Iodomethane	2.677	142	63395	0.16	ug/L	#	89
14) Carbon disulfide	2.738	76	106983	0.04	ug/L	#	74
17) 3-Chloro-1-propene	2.738	76	106983	0.53	ug/L	#	53
18) Methylene chloride	3.059	49	112618	Below Cal		#	65
20) trans-1,2-Dichloroethene	3.400	61	52464	0.14	ug/L	#	57
21) Methyl tert-butyl ether	3.439	73	763232	Below Cal			92
28) cis-1,2-Dichloroethene	4.835	61	640912	1.37	ug/L	#	71
31) Ethyl acetate	4.835	61	640875	12.11	ug/L	#	45
40) Cyclohexane	5.571	84	378801	0.80	ug/L	#	33
41) 1-Chlorobutane	5.570	56	223396	0.41	ug/L	#	1
42) 1,1-Dichloropropene	5.571	75	882811	2.14	ug/L	#	38
47) Carbon tetrachloride	5.572	117	1427913	3.35	ug/L	#	16
50) Trichloroethene	6.694	95	27069064	87.12	ug/L		90
60) 4-Methyl-2-pentanone	8.014	43	84335	Below Cal		#	1
65) Toluene	8.088	91	77777	Below Cal		#	89
74) Ethylbenzene	9.761	91	47542	Below Cal		#	44
75) m,p-Xylene	9.760	91	47544	0.04	ug/L	#	36
82) Bromobenzene	10.686	77	26755	0.05	ug/L	#	1
99) n-Butylbenzene	12.226	91	42332	Below Cal		#	53

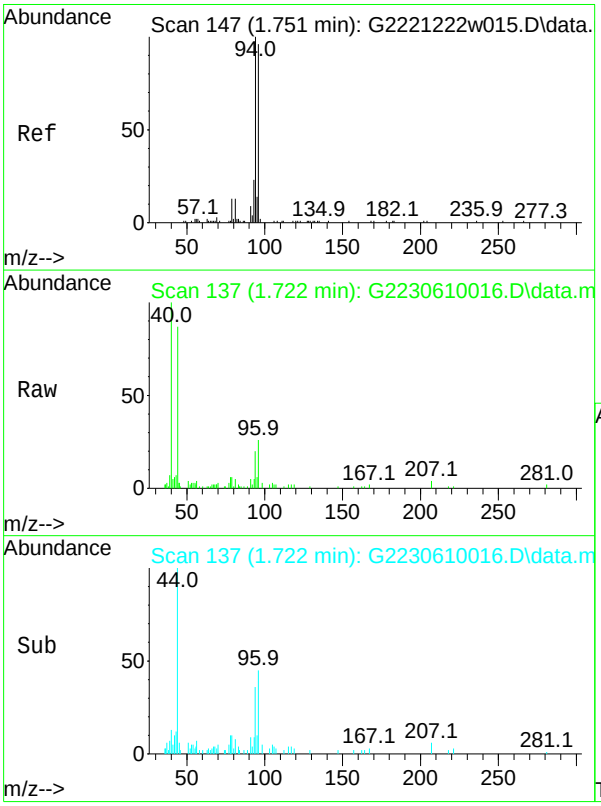
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610016.D
Acq On : 10 Jun 2023 14:42
Operator : PO1/MP3
Sample : 23E0775-24
Misc : 2
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jun 12 10:22:56 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

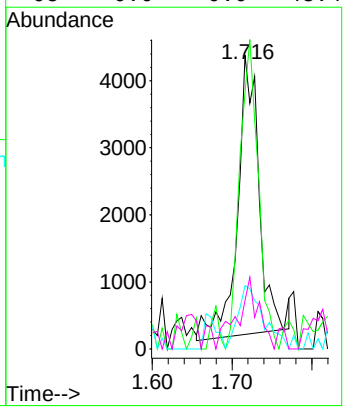


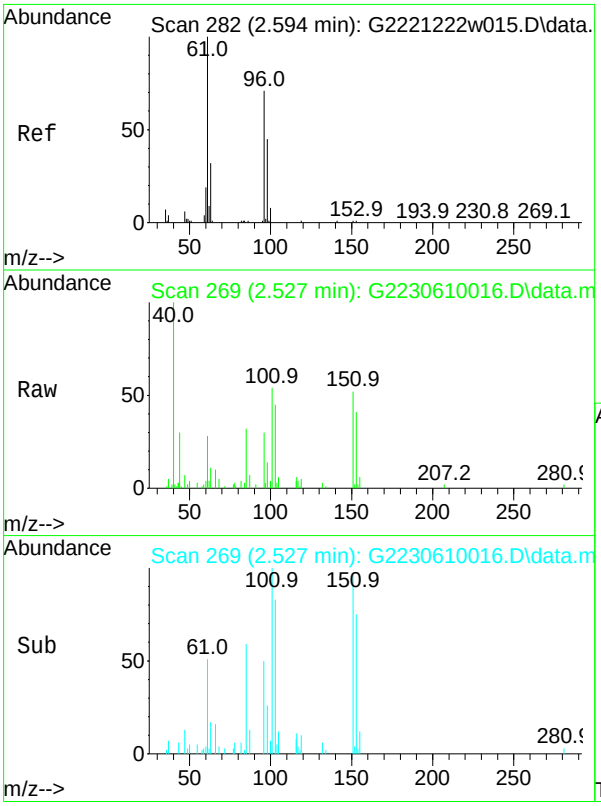


#5
Bromomethane
Concen: 0.08 ug/L
RT: 1.722 min Scan# 137
Delta R.T. 0.008 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 94 Resp: 77650

Ion	Ratio	Lower	Upper
94	100		
96	95.8	65.6	125.6
93	26.7	0.0	49.5
95	0.0	0.0	43.4

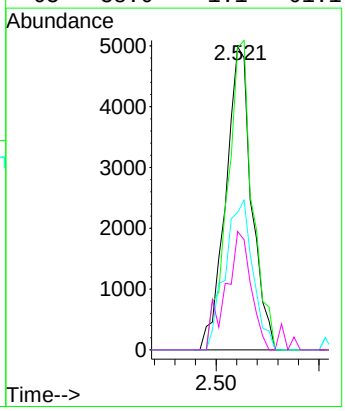


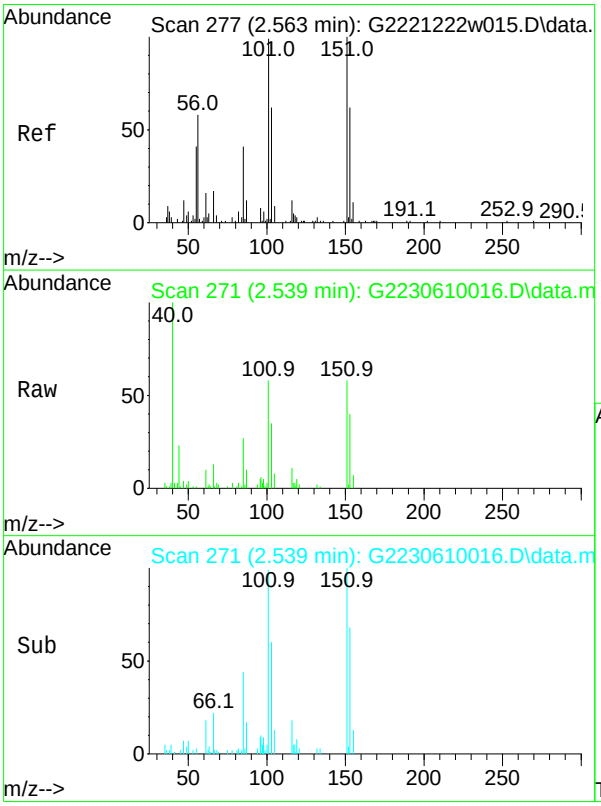


#10
1,1-Dichloroethene
Concen: 0.15 ug/L
RT: 2.525 min Scan# 269
Delta R.T. 0.002 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 61 Resp: 87239

Ion	Ratio	Lower	Upper
61	100		
96	97.8	32.7	92.7#
98	53.0	9.3	69.3
63	38.0	1.1	61.1

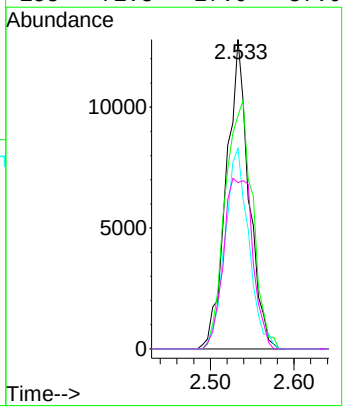


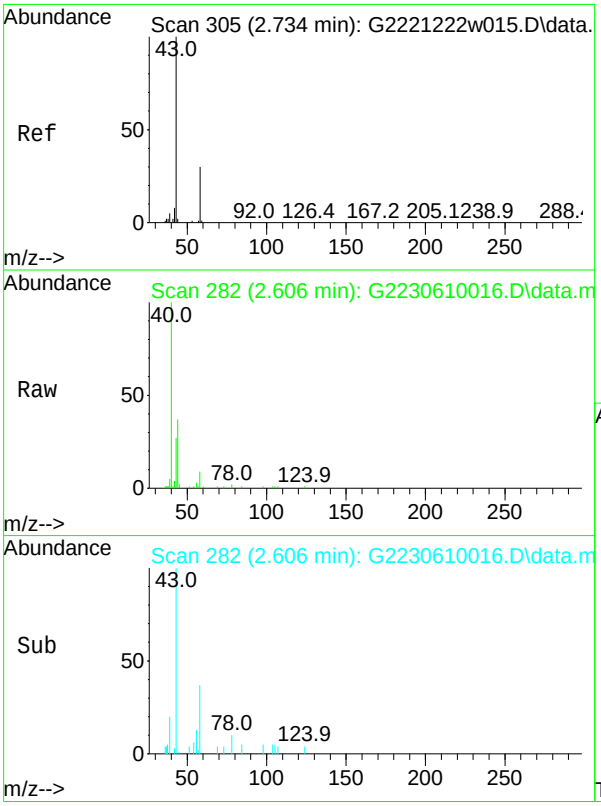


#11
1,1,2-Trichloro-1,2,2-Trifluoroethane
Concen: 0.84 ug/L
RT: 2.536 min Scan# 271
Delta R.T. 0.002 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion:101 Resp: 240547

Ion	Ratio	Lower	Upper
101	100		
151	97.0	56.0	116.0
103	68.1	35.7	95.7
153	71.3	27.0	87.0

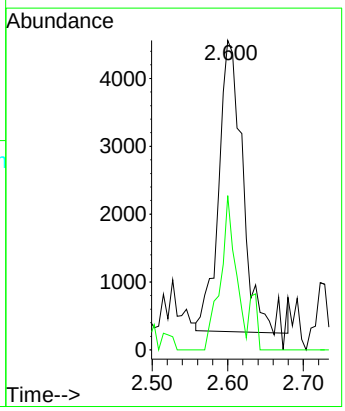


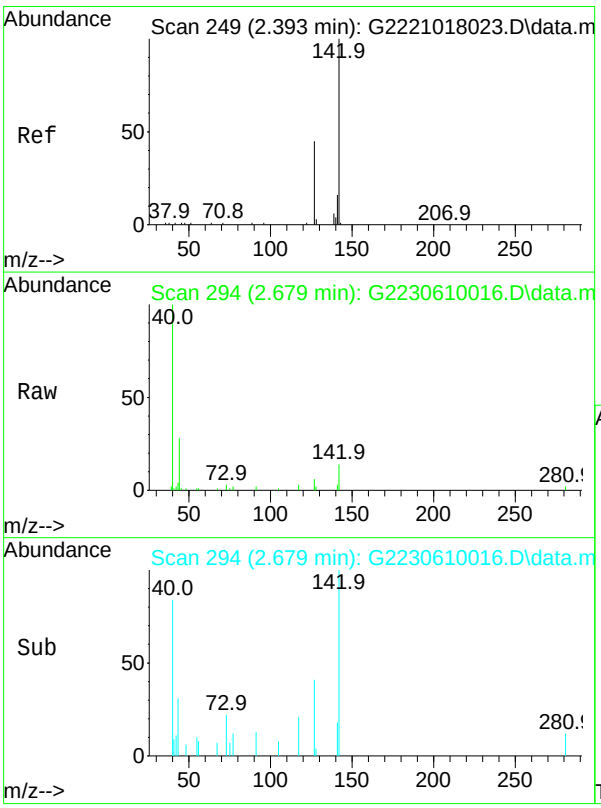


#12
Acetone
Concen: Below Cal
RT: 2.605 min Scan# 282
Delta R.T. -0.003 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 43 Resp: 95344

Ion	Ratio	Lower	Upper
43	100		
58	33.3	0.0	59.7

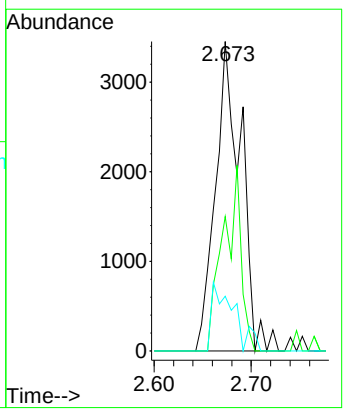


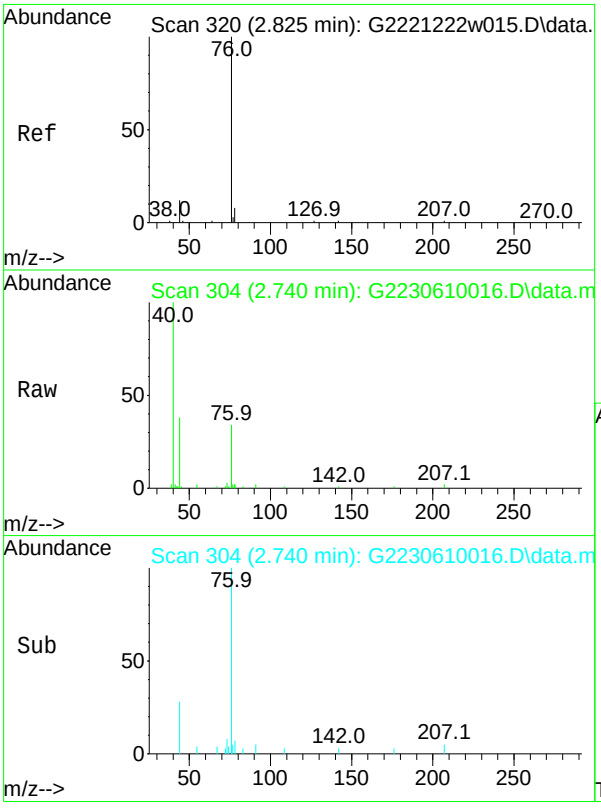


#13
Iodomethane
Concen: 0.16 ug/L
RT: 2.677 min Scan# 294
Delta R.T. 0.001 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion:142 Resp: 63395

Ion	Ratio	Lower	Upper
142	100		
127	42.0	13.3	73.3
141	0.0	0.0	45.3

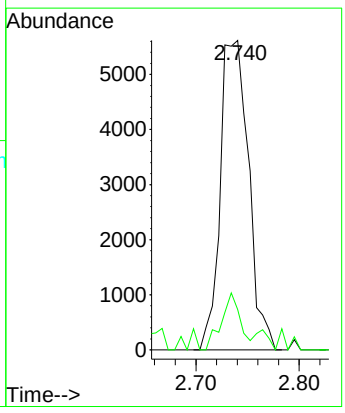


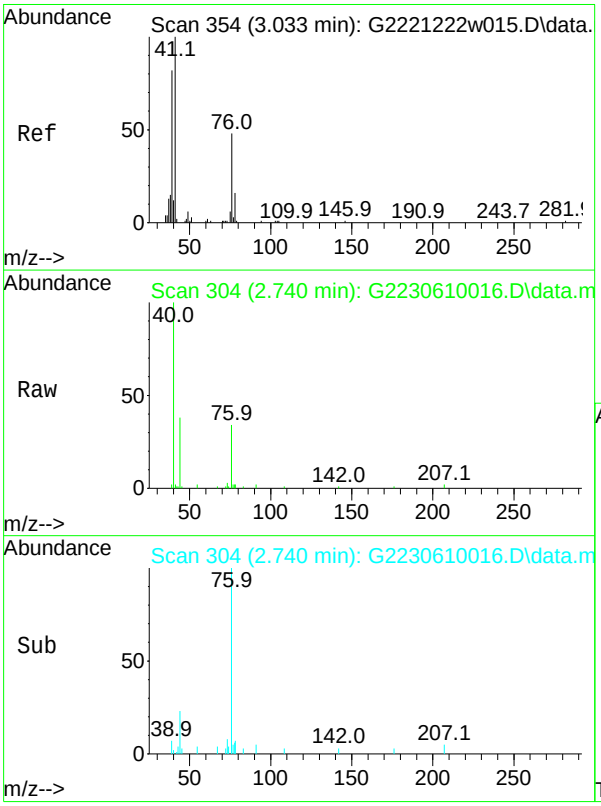


#14
Carbon disulfide
Concen: 0.04 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.001 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 76 Resp: 106983

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

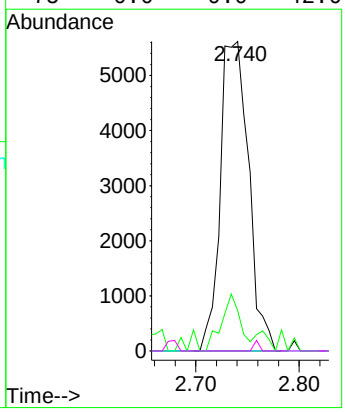


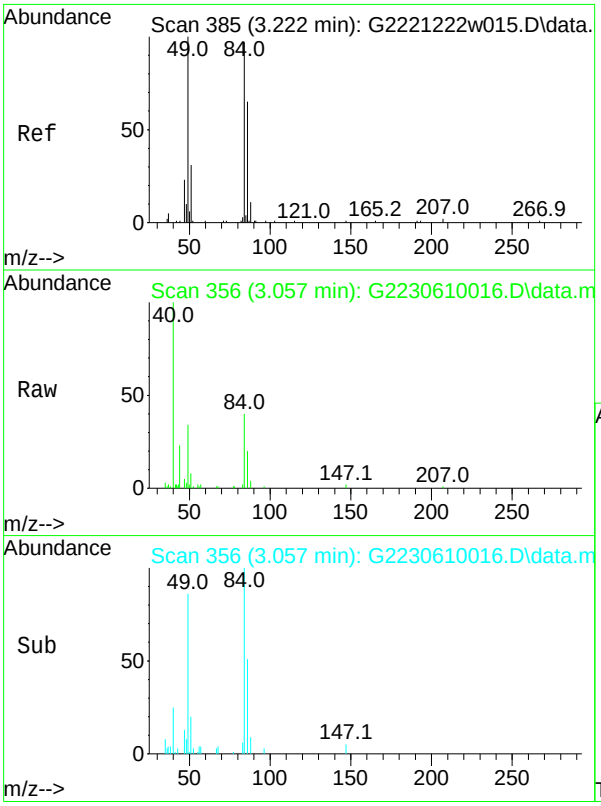


#17
3-Chloro-1-propene
Concen: 0.53 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.182 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 76 Resp: 106983

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

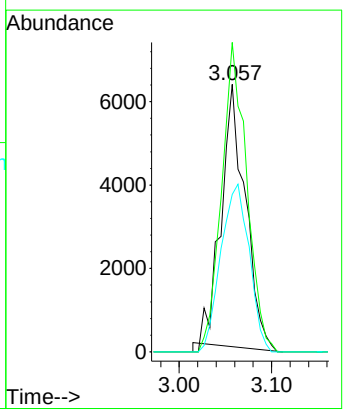


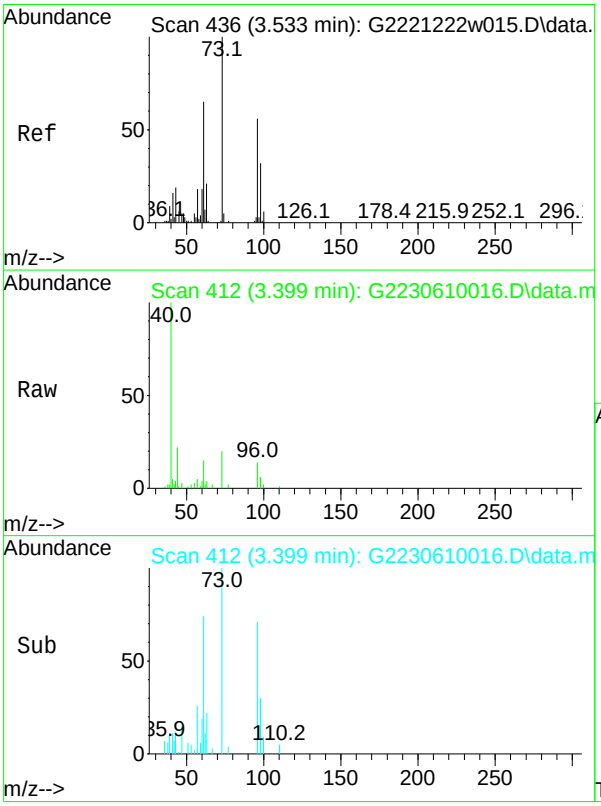


#18
Methylene chloride
Concen: Below Cal
RT: 3.059 min Scan# 356
Delta R.T. -0.003 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 49 Resp: 112618

Ion	Ratio	Lower	Upper
49	100		
84	124.3	57.9	117.9#
86	76.1	24.9	84.9

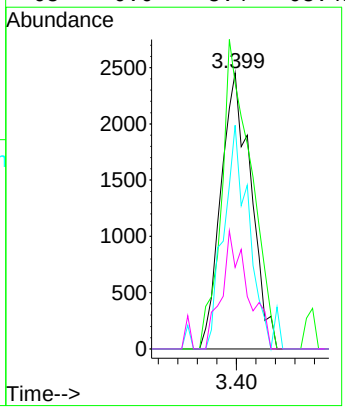


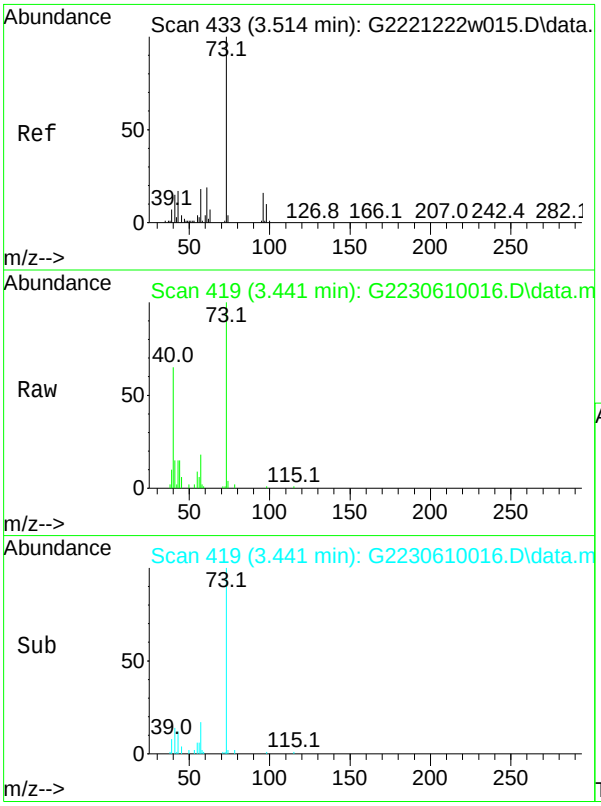


#20
trans-1,2-Dichloroethene
Concen: 0.14 ug/L
RT: 3.400 min Scan# 412
Delta R.T. -0.001 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 61 Resp: 52464

Ion	Ratio	Lower	Upper
61	100		
96	110.2	45.2	105.2#
98	69.8	17.2	77.2
63	0.0	3.4	63.4#

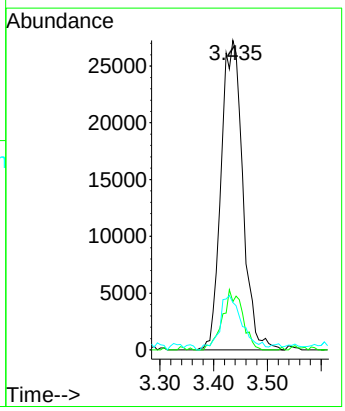


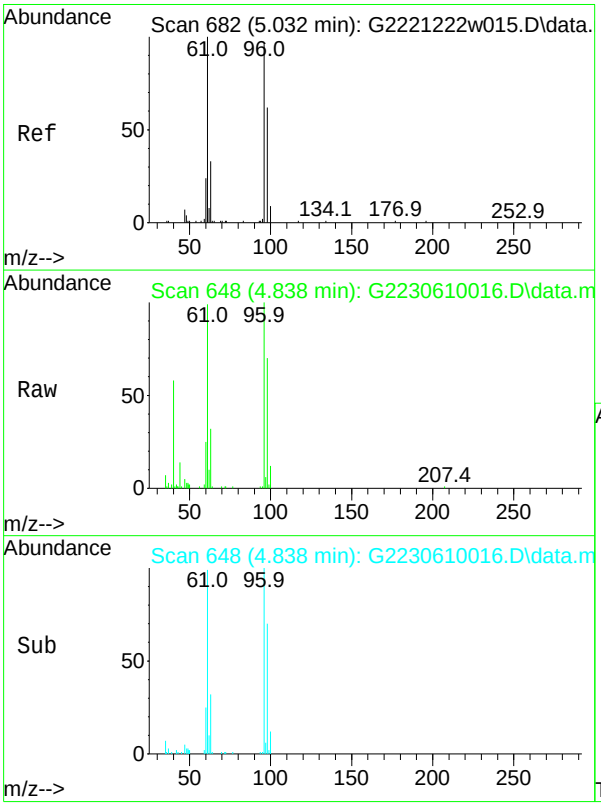


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.439 min Scan# 419
Delta R.T. -0.007 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 73 Resp: 763232

Ion	Ratio	Lower	Upper
73	100		
57	18.0	0.0	51.7
41	16.7	0.0	50.6

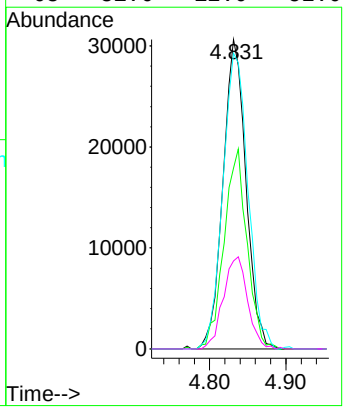


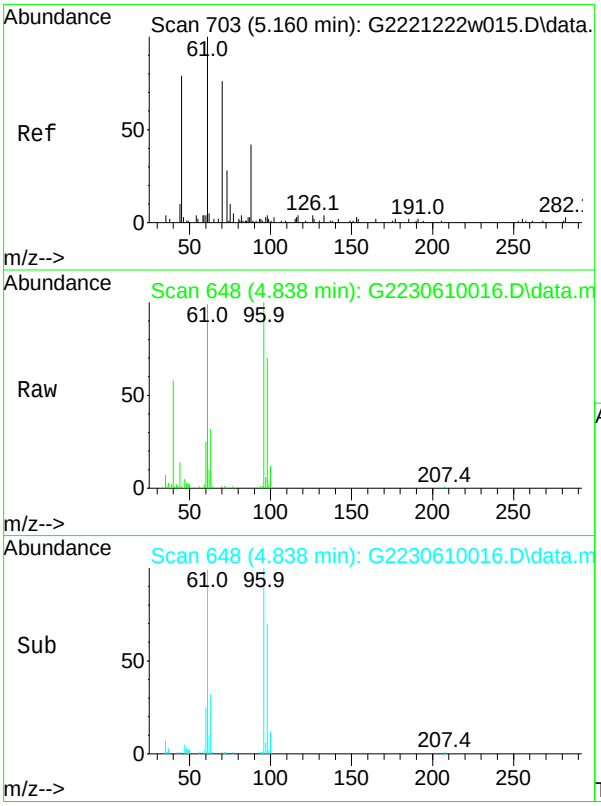


#28
cis-1,2-Dichloroethene
Concen: 1.37 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.001 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 61 Resp: 640912

Ion	Ratio	Lower	Upper
61	100		
98	64.8	15.9	75.9
96	104.3	39.6	99.6#
63	31.6	12.0	52.0

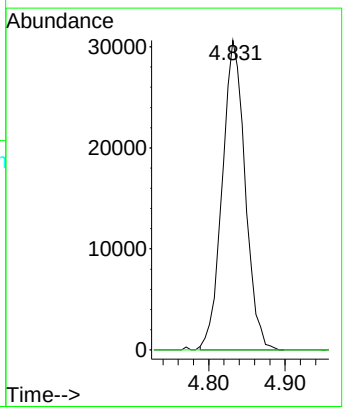


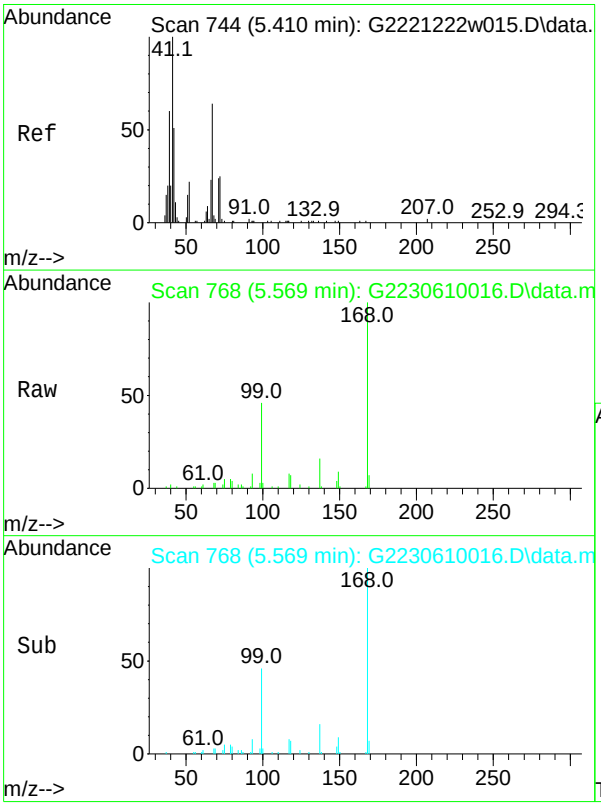


#31
Ethyl acetate
Concen: 12.11 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.187 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 61 Resp: 640875

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

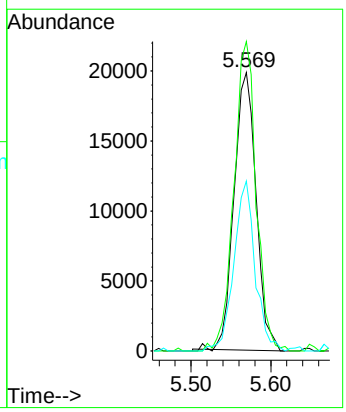


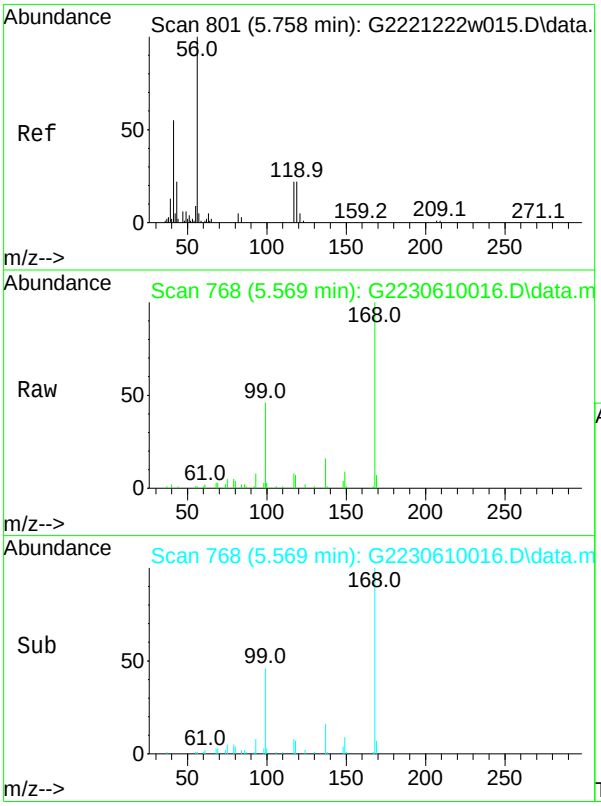


#40
Cyclohexane
Concen: 0.80 ug/L
RT: 5.571 min Scan# 768
Delta R.T. 0.037 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 84 Resp: 378801

Ion	Ratio	Lower	Upper
84	100		
69	111.3	6.8	66.8#
56	58.9	79.1	139.1#

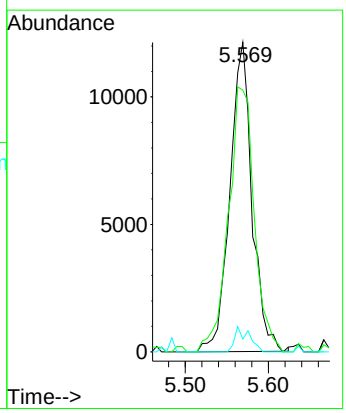


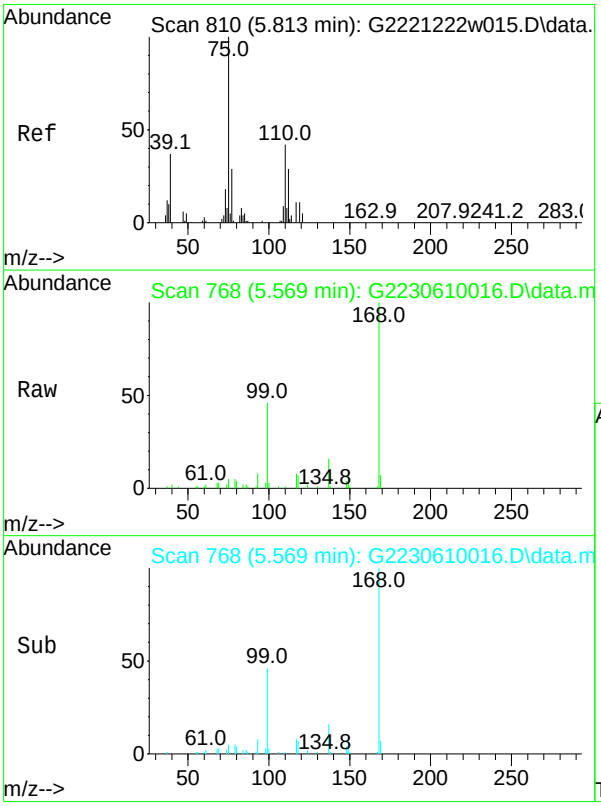


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 56 Resp: 223396

Ion	Ratio	Lower	Upper
56	100		
55	100.7	0.0	41.0#
57	0.0	0.0	35.7

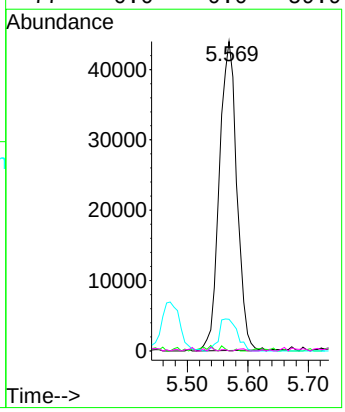


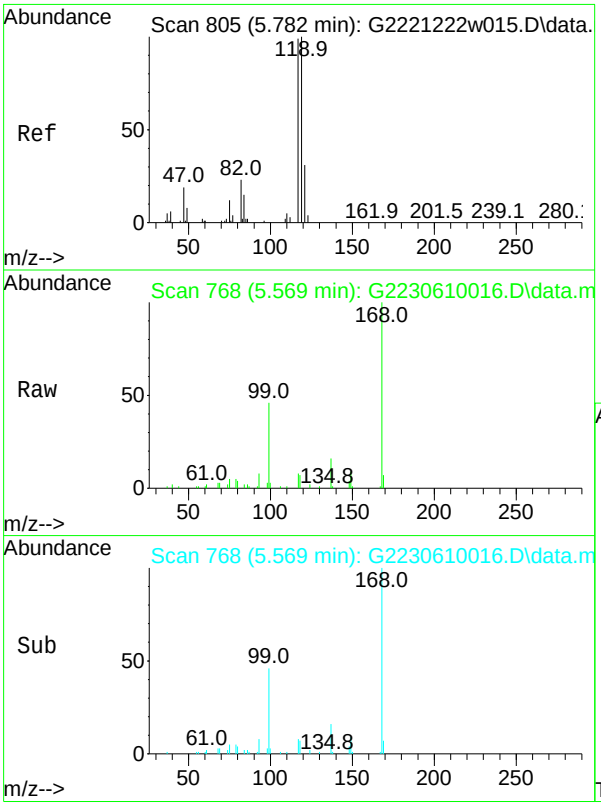


#42
1,1-Dichloropropene
Concen: 2.14 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 75 Resp: 882811

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

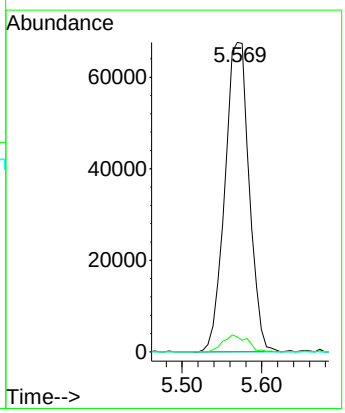


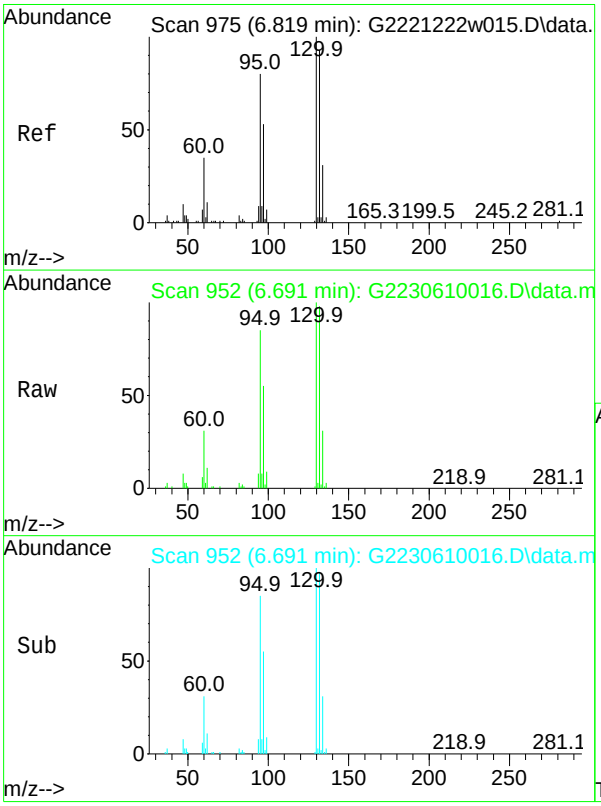


#47
Carbon tetrachloride
Concen: 3.35 ug/L
RT: 5.572 min Scan# 768
Delta R.T. -0.108 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion:117 Resp: 1427913

Ion	Ratio	Lower	Upper
117	100		
119	5.6	66.4	126.4#
121	0.0	0.4	60.4#

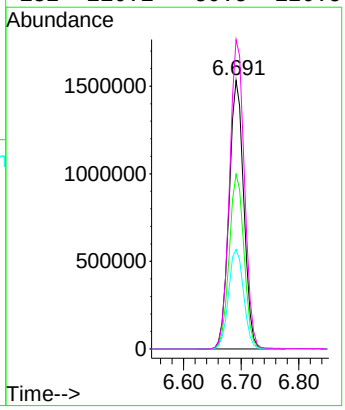


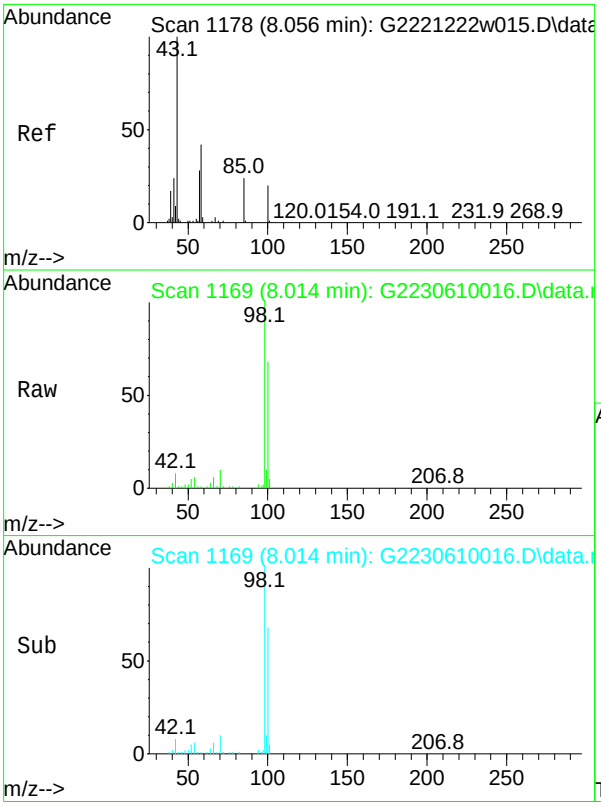


#50
Trichloroethene
Concen: 87.12 ug/L
RT: 6.694 min Scan# 952
Delta R.T. -0.002 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 95 Resp:27069064

Ion	Ratio	Lower	Upper
95	100		
97	65.4	35.5	95.5
60	38.0	14.8	74.8
132	116.1	80.5	120.5

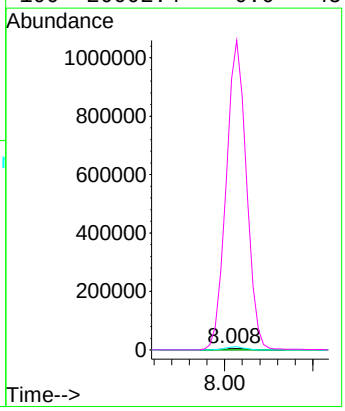


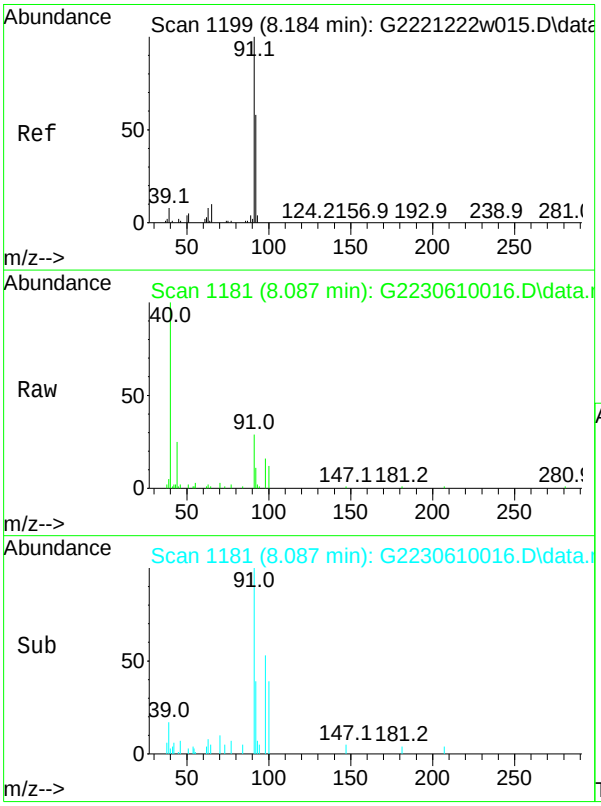


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.014 min Scan# 1169
Delta R.T. 0.070 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 43 Resp: 84335

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	191.9	37.0	37.0#
100	20002.4	0.0	45.2#

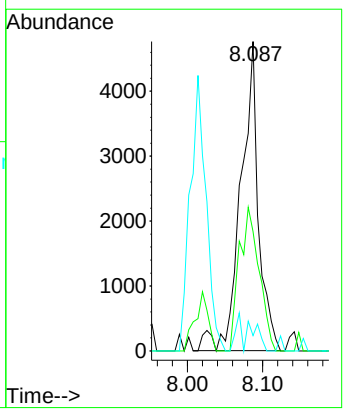


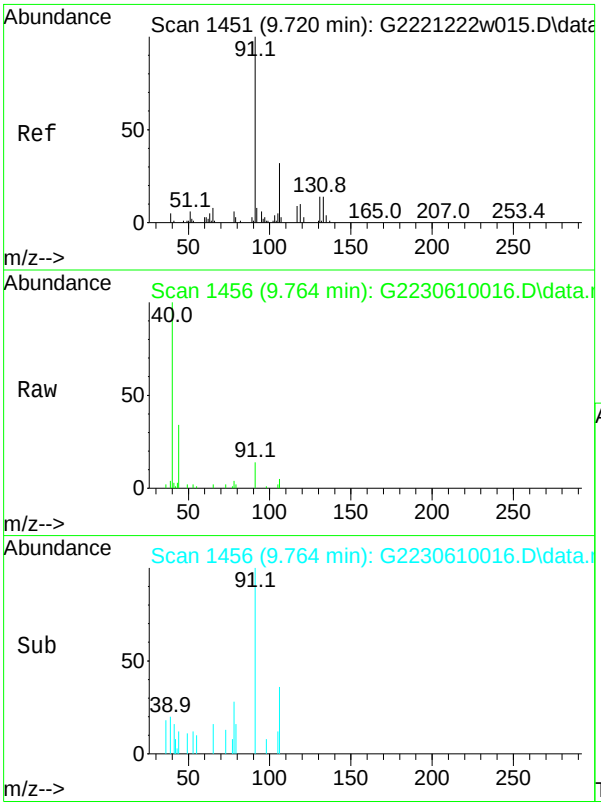


#65
Toluene
Concen: Below Cal
RT: 8.088 min Scan# 1181
Delta R.T. 0.002 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 91 Resp: 77777

Ion	Ratio	Lower	Upper
91	100		
92	52.1	27.5	87.5
65	0.0	0.0	41.4

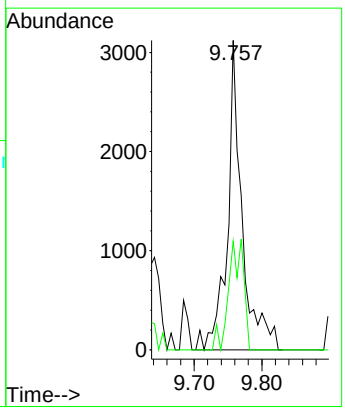


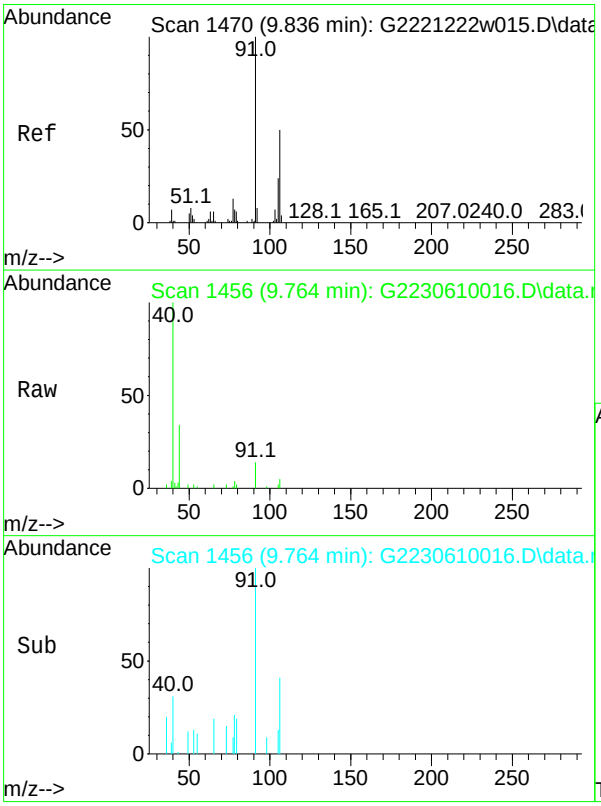


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 91 Resp: 47542

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

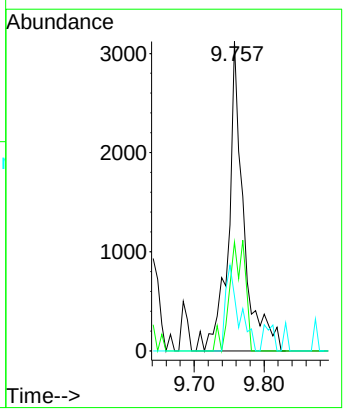


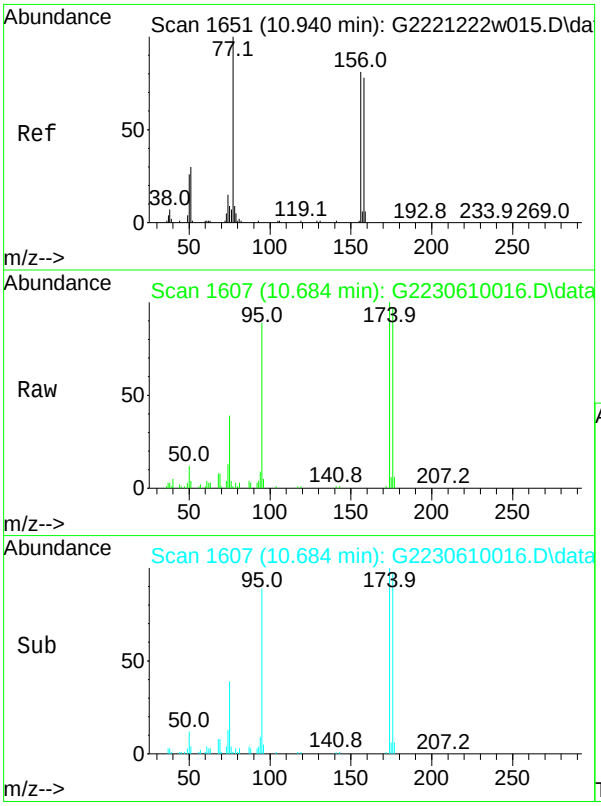


#75
m,p-Xylene
Concen: 0.04 ug/L
RT: 9.760 min Scan# 1456
Delta R.T. -0.004 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 91 Resp: 47544

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

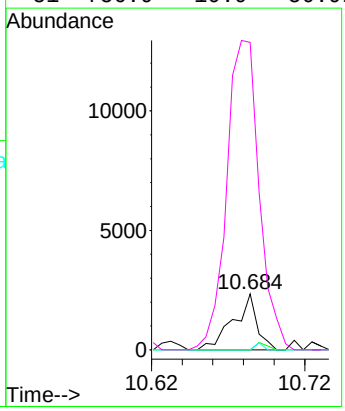


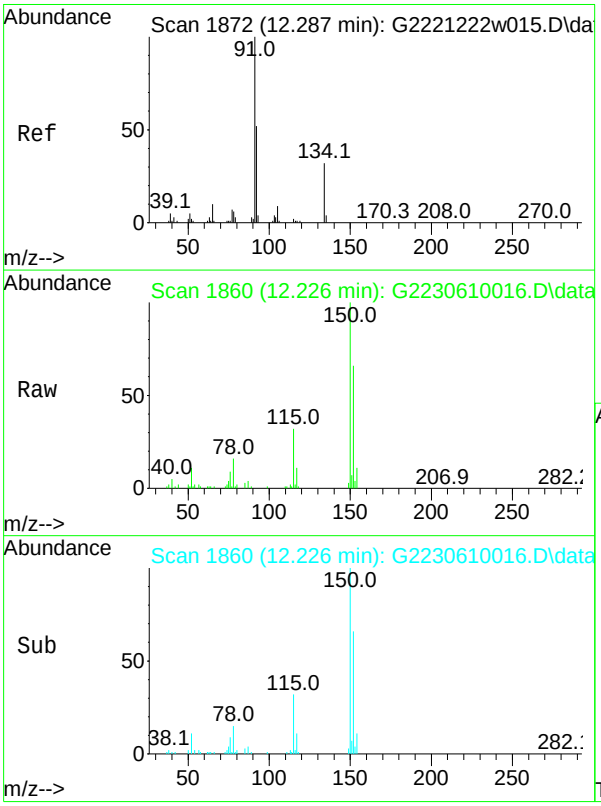


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.686 min Scan# 1607
Delta R.T. -0.142 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 77 Resp: 26755

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	756.9	10.9	50.9#

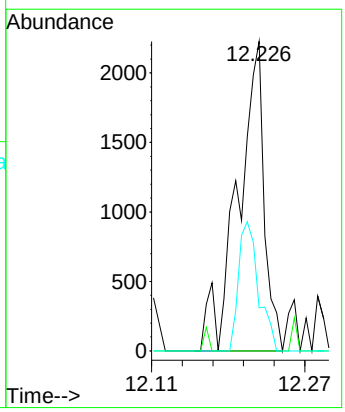




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.226 min Scan# 1860
Delta R.T. -0.005 min
Lab File: G2230610016.D
Acq: 10 Jun 2023 14:42

Tgt Ion: 91 Resp: 42332

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

52947WW56

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-25	File ID:	G2230610020.D
Sampled:	05/29/23 16:26	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 16:22
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
630-20-6	1,1,1,2-Tetrachloroethane		26.0	80.0	200	U
71-55-6	1,1,1-Trichloroethane		35.1	80.0	200	U
79-34-5	1,1,2,2-Tetrachloroethane		24.8	80.0	200	U
79-00-5	1,1,2-Trichloroethane		33.3	80.0	200	U
75-34-3	1,1-Dichloroethane		26.8	80.0	200	U
75-35-4	1,1-Dichloroethene		38.2	80.0	200	U
563-58-6	1,1-Dichloropropene		28.0	80.0	200	U
87-61-6	1,2,3-Trichlorobenzene		40.8	80.0	200	U
96-18-4	1,2,3-Trichloropropane		36.5	80.0	200	U
120-82-1	1,2,4-Trichlorobenzene		41.0	120	240	U
95-63-6	1,2,4-Trimethylbenzene		26.4	80.0	200	U
96-12-8	1,2-Dibromo-3-chloropropane		52.0	200	400	U
106-93-4	1,2-Dibromoethane		21.2	80.0	200	U
95-50-1	1,2-Dichlorobenzene		25.2	80.0	200	U
107-06-2	1,2-Dichloroethane		42.4	120	240	U
78-87-5	1,2-Dichloropropane		40.9	120	240	U
108-67-8	1,3,5-Trimethylbenzene		20.0	80.0	200	U
541-73-1	1,3-Dichlorobenzene		29.0	80.0	200	U
142-28-9	1,3-Dichloropropane		27.2	80.0	200	U
106-46-7	1,4-Dichlorobenzene		36.8	80.0	200	U
594-20-7	2,2-Dichloropropane		36.8	80.0	200	U
78-93-3	2-Butanone		132	280	700	U
95-49-8	2-Chlorotoluene		29.3	80.0	200	U
591-78-6	2-Hexanone		28.6	280	700	U
106-43-4	4-Chlorotoluene		36.8	80.0	200	U
99-87-6	4-Isopropyltoluene		28.0	80.0	200	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52947WW56

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-25	File ID:	G2230610020.D
Sampled:	05/29/23 16:26	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 16:22
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
108-10-1	4-Methyl-2-pentanone		54.0	280	700	U
67-64-1	Acetone		207	800	1600	U
71-43-2	Benzene		20.3	80.0	200	U
108-86-1	Bromobenzene		33.9	80.0	200	U
74-97-5	Bromochloromethane		26.8	80.0	200	U
75-27-4	Bromodichloromethane		21.2	80.0	200	U
75-25-2	Bromoform		41.3	80.0	200	U
74-83-9	Bromomethane		64.1	200	400	U
75-15-0	Carbon disulfide		56.0	200	400	U
56-23-5	Carbon tetrachloride		33.8	80.0	200	U
108-90-7	Chlorobenzene		26.0	80.0	200	U
75-00-3	Chloroethane		62.2	80.0	200	U
67-66-3	Chloroform		40.5	120	240	U
74-87-3	Chloromethane		76.8	200	400	U
156-59-2	cis-1,2-Dichloroethene		41.0	120	240	U
10061-01-5	cis-1,3-Dichloropropene		23.5	80.0	200	U
124-48-1	Dibromochloromethane		30.4	80.0	200	U
74-95-3	Dibromomethane		32.7	80.0	200	U
75-71-8	Dichlorodifluoromethane		51.8	200	400	U
100-41-4	Ethylbenzene		12.0	40.0	80.0	U
87-68-3	Hexachlorobutadiene		40.0	80.0	200	U
98-82-8	Isopropylbenzene		22.0	80.0	200	U
179601-23-1	m,p-Xylene		35.6	160	400	U
1634-04-4	Methyl tert-butyl ether		21.2	80.0	200	U
75-09-2	Methylene chloride		89.4	200	400	U
104-51-8	n-Butylbenzene		52.0	200	400	U

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52947WW56

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-25	File ID:	G2230610020.D
Sampled:	05/29/23 16:26	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 16:22
		Preparation:	5030_W	Dilution:	400
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	Calibration:	EE30097	Instrument:	G2

CAS NO.	COMPOUND	CONC. (ug/L)	MDL	LOD	LOQ	Q
103-65-1	n-Propylbenzene		25.2	80.0	200	U
91-20-3	Naphthalene		28.0	80.0	200	U
95-47-6	o-Xylene		16.6	80.0	200	U
135-98-8	sec-Butylbenzene		23.9	80.0	200	U
100-42-5	Styrene		18.1	40.0	80.0	U
98-06-6	tert-Butylbenzene		18.1	80.0	200	U
127-18-4	Tetrachloroethene		71.3	200	400	Q, U
108-88-3	Toluene		22.9	80.0	200	U
156-60-5	trans-1,2-Dichloroethene		34.2	80.0	200	U
10061-02-6	trans-1,3-Dichloropropene		23.5	80.0	200	U
79-01-6	Trichloroethene	1070	31.2	80.0	200	D
75-69-4	Trichlorofluoromethane		20.2	80.0	200	U
75-01-4	Vinyl chloride		51.6	200	400	U

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610020.D
Acq On : 10 Jun 2023 16:22
Operator : PO1/MP3
Sample : 23E0775-25
Misc : 400
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 12 10:41:11 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

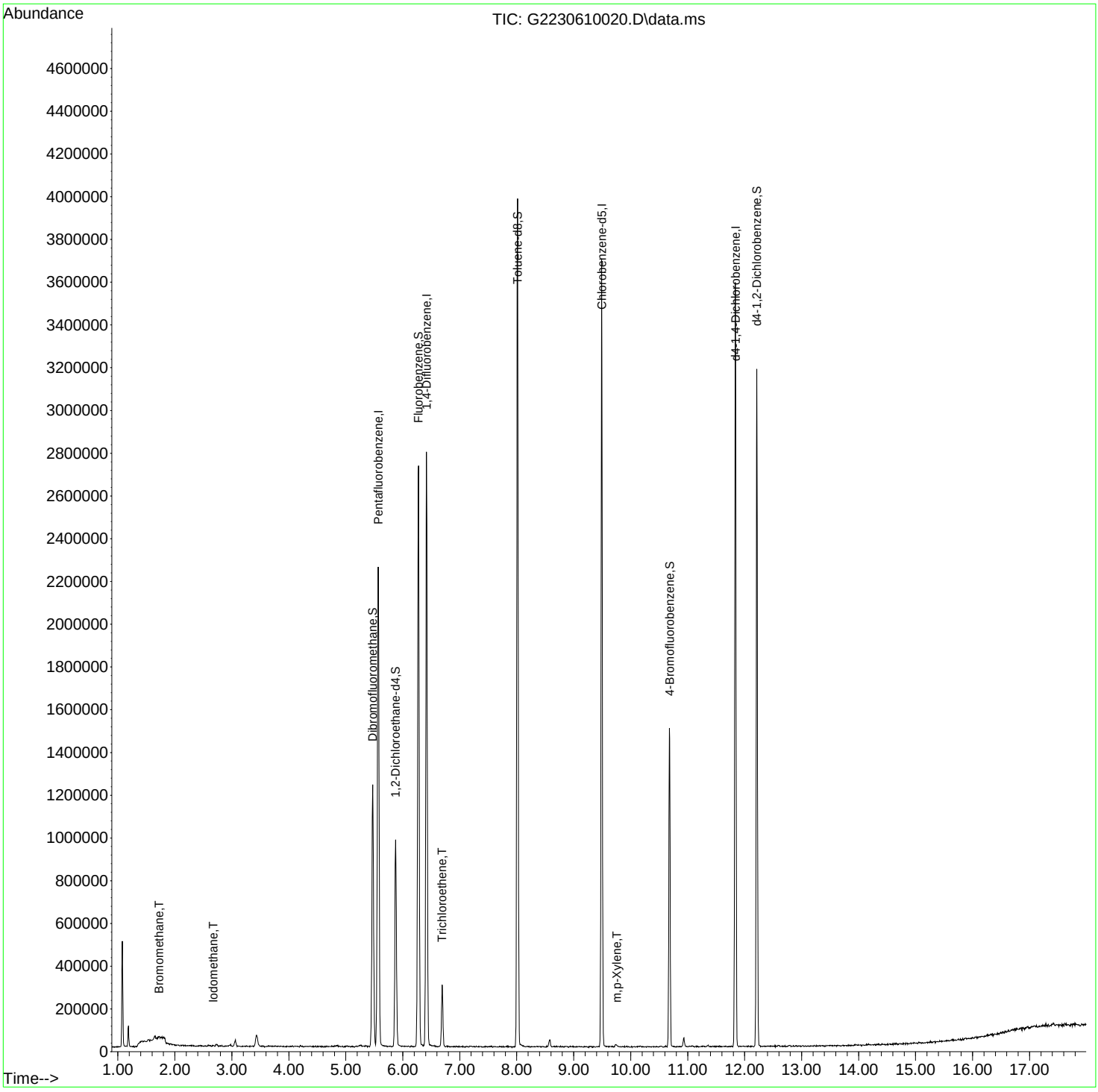
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17888485	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	24093276	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	21356426	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10155987	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7480828	19.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.00%			
43) 1,2-Dichloroethane-d4	5.876	65	6856414	17.62	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.10%			
49) Fluorobenzene	6.277	96	26689361	19.44	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.20%			
64) Toluene-d8	8.015	98	26131491	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
81) 4-Bromofluorobenzene	10.684	174	4636327	9.67	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.70%			
97) d4-1,2-Dichlorobenzene	12.216	152	8935241	20.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.30%			
Target Compounds						Qvalue
5) Bromomethane	1.722	94	71634m	0.05	ug/L	
12) Acetone	2.600	43	68345	Below Cal	#	45
13) Iodomethane	2.675	142	40232	0.10	ug/L #	41
18) Methylene chloride	3.062	49	127077	Below Cal	#	59
21) Methyl tert-butyl ether	3.435	73	727181	Below Cal		93
50) Trichloroethene	6.693	95	872235	2.68	ug/L	93
75) m,p-Xylene	9.760	91	39467	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610020.D
Acq On : 10 Jun 2023 16:22
Operator : PO1/MP3
Sample : 23E0775-25
Misc : 400
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 12 10:41:11 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610020.D
Acq On : 10 Jun 2023 16:22
Operator : PO1/MP3
Sample : 23E0775-25
Misc : 400
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 12 10:41:11 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

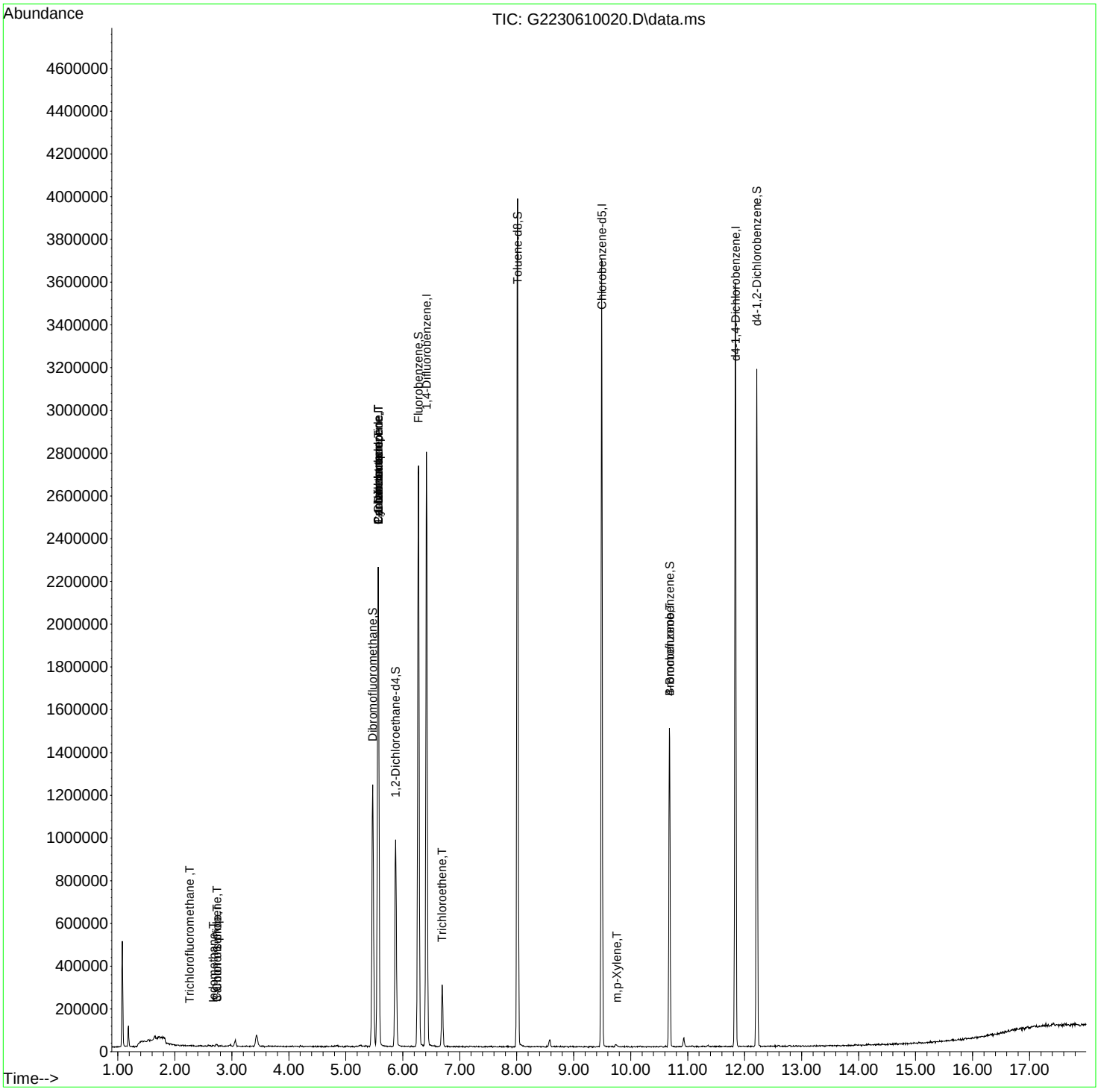
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	17888485	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.419	114	24093276	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	21356426	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10155987	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.474	111	7480828	19.00	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.00%			
43) 1,2-Dichloroethane-d4	5.876	65	6856414	17.62	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.10%			
49) Fluorobenzene	6.277	96	26689361	19.44	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.20%			
64) Toluene-d8	8.015	98	26131491	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
81) 4-Bromofluorobenzene	10.684	174	4636327	9.67	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 96.70%			
97) d4-1,2-Dichlorobenzene	12.216	152	8935241	20.46	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.30%			
Target Compounds						Qvalue
5) Bromomethane	1.723	94	57865	Below Cal	#	82
7) Trichlorofluoromethane	2.261	101	741	0.00	ug/L #	16
12) Acetone	2.600	43	68345	Below Cal	#	45
13) Iodomethane	2.675	142	40232	0.10	ug/L #	41
14) Carbon disulfide	2.740	76	105782	0.04	ug/L #	74
17) 3-Chloro-1-propene	2.740	76	105779	0.51	ug/L #	53
18) Methylene chloride	3.062	49	127077	Below Cal	#	59
21) Methyl tert-butyl ether	3.435	73	727181	Below Cal		93
36) Tetrahydrofuran	5.258	42	41559	Below Cal	#	30
40) Cyclohexane	5.569	84	373562	0.78	ug/L #	30
41) 1-Chlorobutane	5.567	56	226681	0.41	ug/L #	1
42) 1,1-Dichloropropene	5.570	75	956322	2.28	ug/L #	38
47) Carbon tetrachloride	5.571	117	1468426	3.38	ug/L #	16
50) Trichloroethene	6.693	95	872235	2.68	ug/L	93
60) 4-Methyl-2-pentanone	8.017	43	94058	Below Cal	#	1
74) Ethylbenzene	9.761	91	39467	Below Cal	#	44
75) m,p-Xylene	9.760	91	39467	0.03	ug/L #	36
82) Bromobenzene	10.682	77	33228	0.06	ug/L #	1

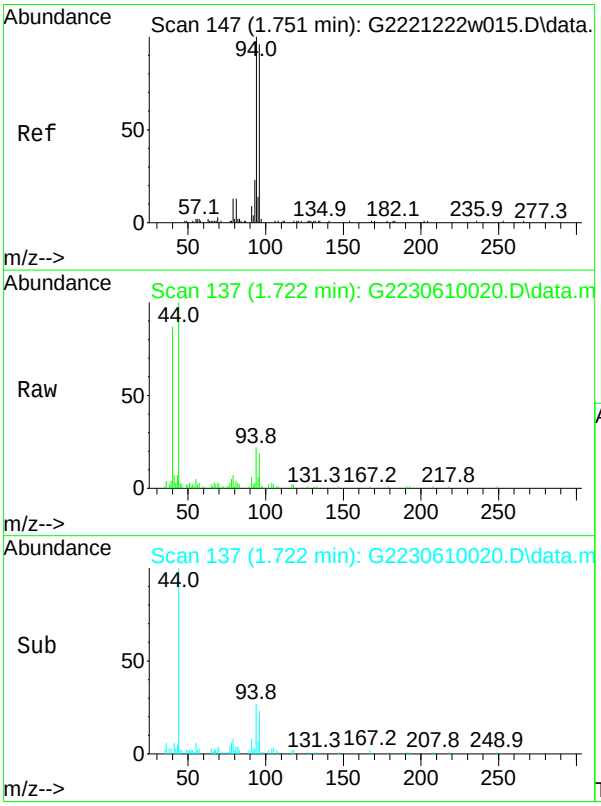
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610020.D
Acq On : 10 Jun 2023 16:22
Operator : PO1/MP3
Sample : 23E0775-25
Misc : 400
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 12 10:41:11 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

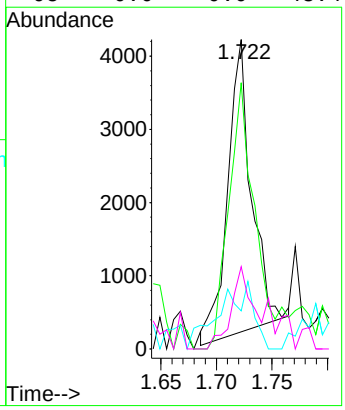


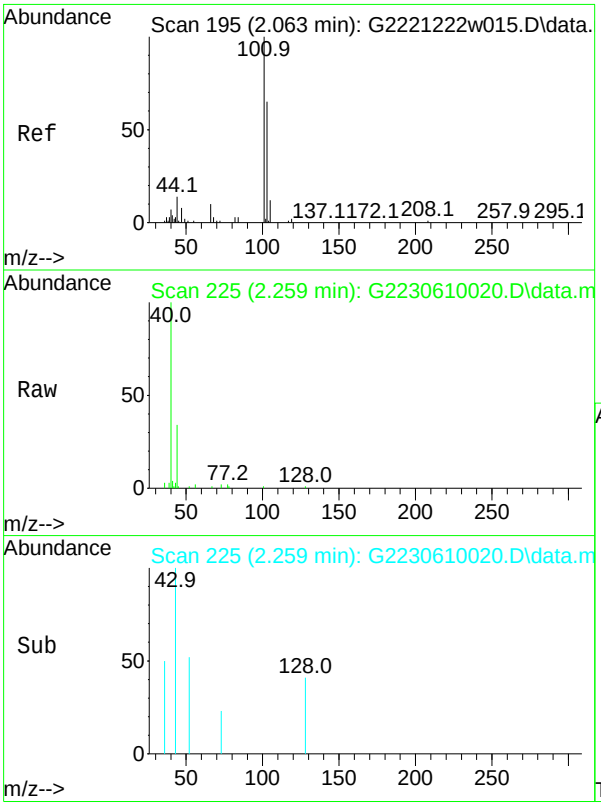


#5
Bromomethane
Concen: Below Cal
RT: 1.723 min Scan# 137
Delta R.T. 0.009 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 94 Resp: 57865

Ion	Ratio	Lower	Upper
94	100		
96	106.0	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

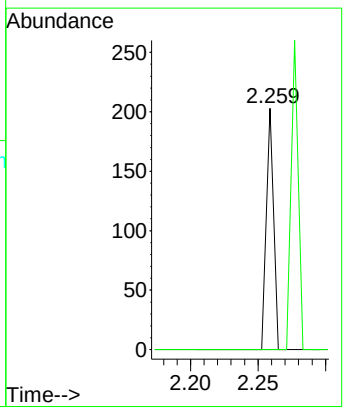


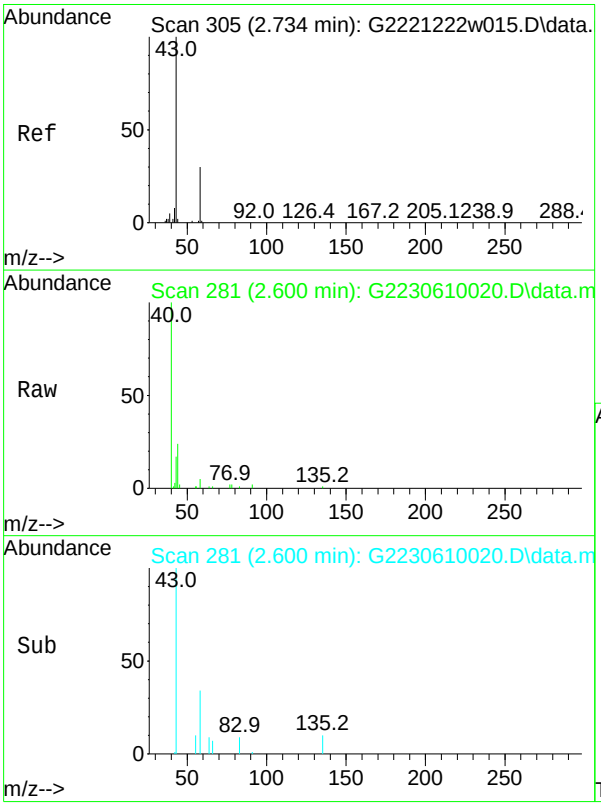


#7
Trichlorofluoromethane
Concen: 0.00 ug/L
RT: 2.261 min Scan# 225
Delta R.T. 0.231 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion:101 Resp: 741

Ion	Ratio	Lower	Upper
101	100		
103	0.0	36.9	96.9#

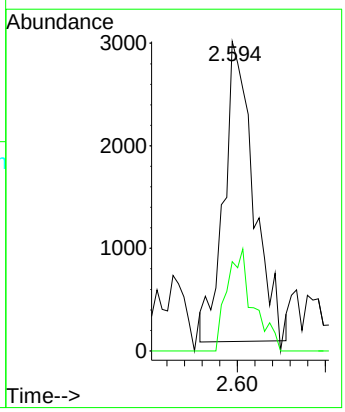


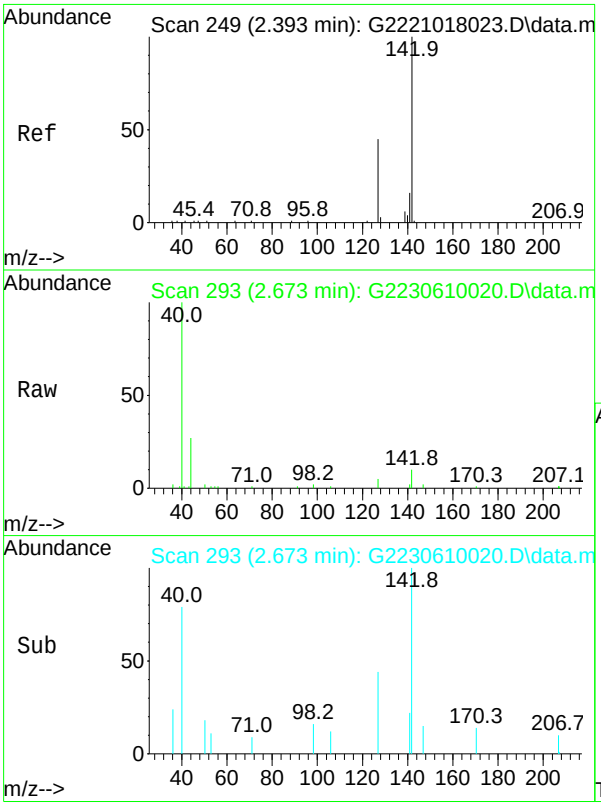


#12
Acetone
Concen: Below Cal
RT: 2.600 min Scan# 281
Delta R.T. -0.008 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 43 Resp: 68345

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

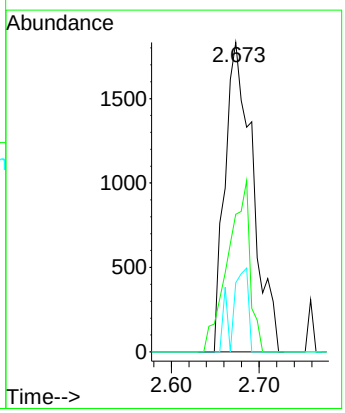


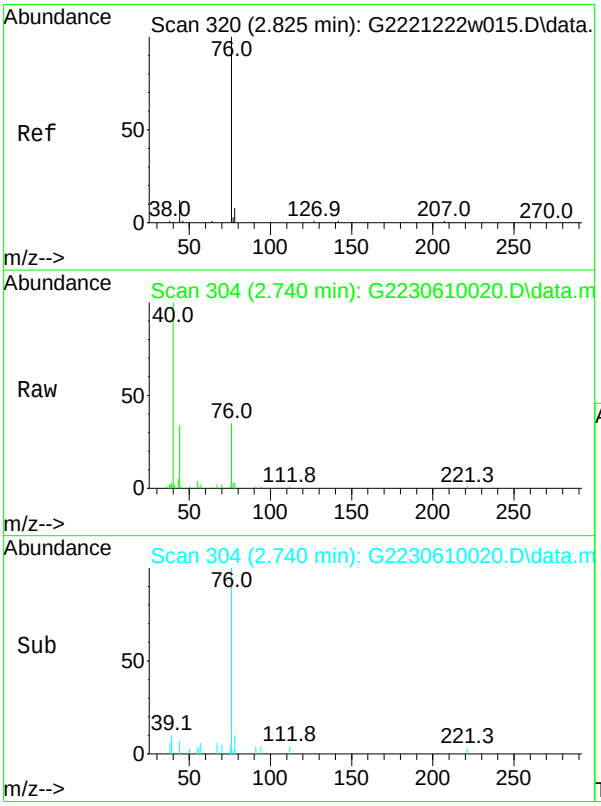


#13
Iodomethane
Concen: 0.10 ug/L
RT: 2.675 min Scan# 293
Delta R.T. -0.001 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion:142 Resp: 40232

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

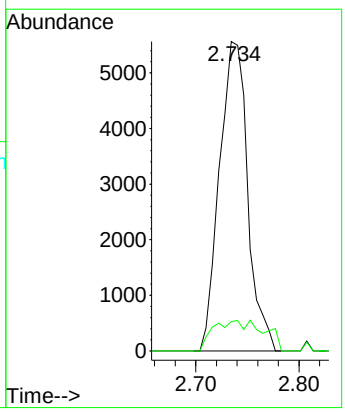


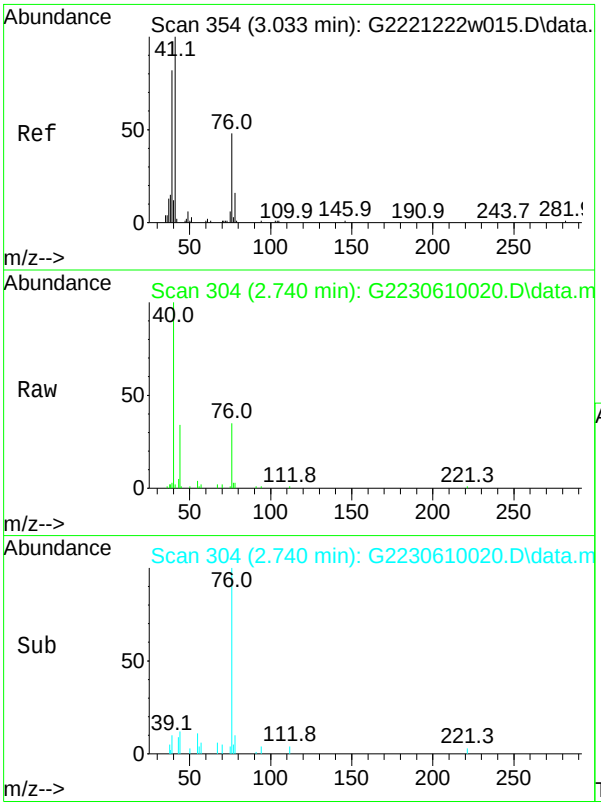


#14
Carbon disulfide
Concen: 0.04 ug/L
RT: 2.740 min Scan# 304
Delta R.T. 0.001 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 76 Resp: 105782

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

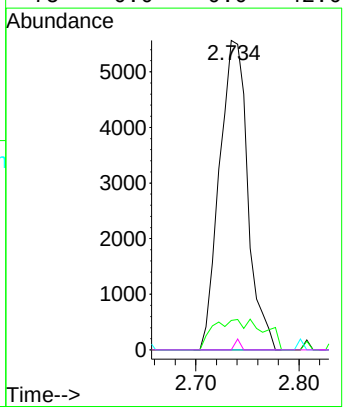


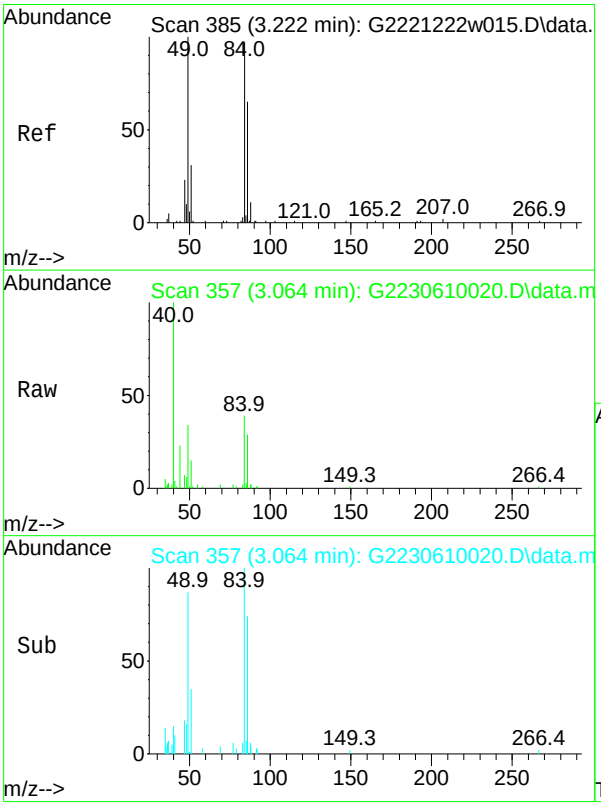


#17
3-Chloro-1-propene
Concen: 0.51 ug/L
RT: 2.740 min Scan# 304
Delta R.T. -0.180 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 76 Resp: 105779

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

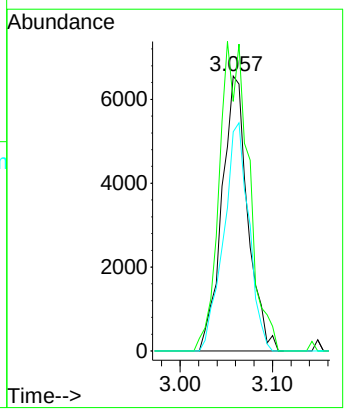


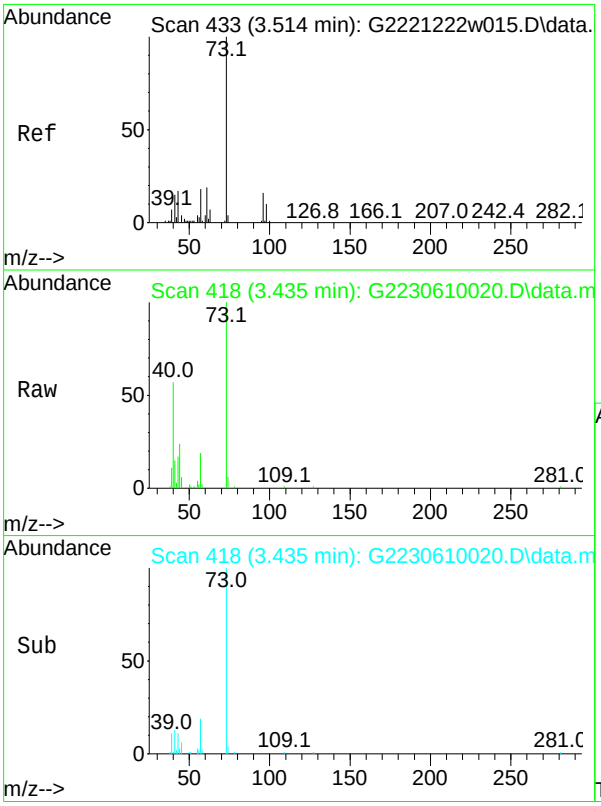


#18
Methylene chloride
Concen: Below Cal
RT: 3.062 min Scan# 357
Delta R.T. 0.000 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 49 Resp: 127077

Ion	Ratio	Lower	Upper
49	100		
84	128.1	57.9	117.9#
86	81.2	24.9	84.9

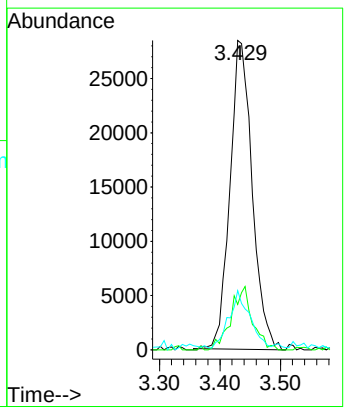


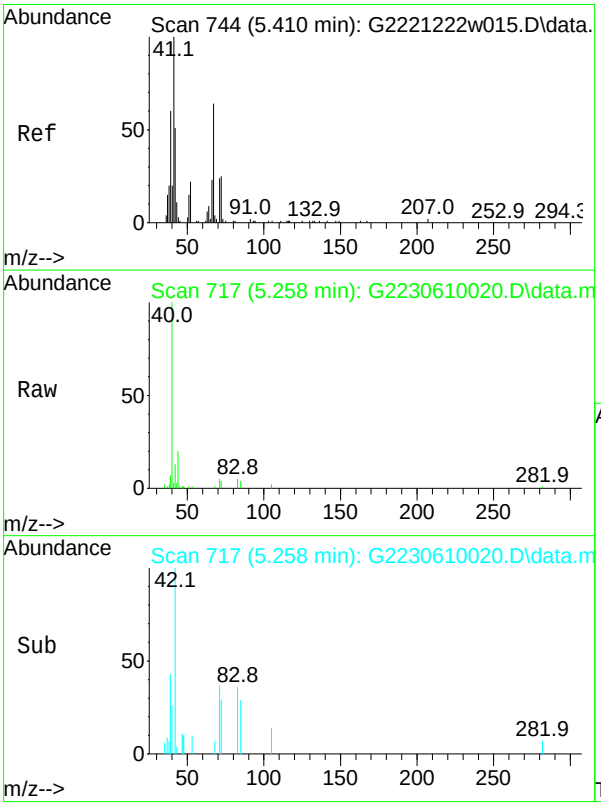


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.435 min Scan# 418
Delta R.T. -0.011 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 73 Resp: 727181

Ion	Ratio	Lower	Upper
73	100		
57	19.8	0.0	51.7
41	16.3	0.0	50.6

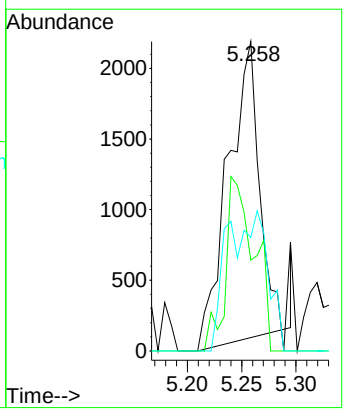


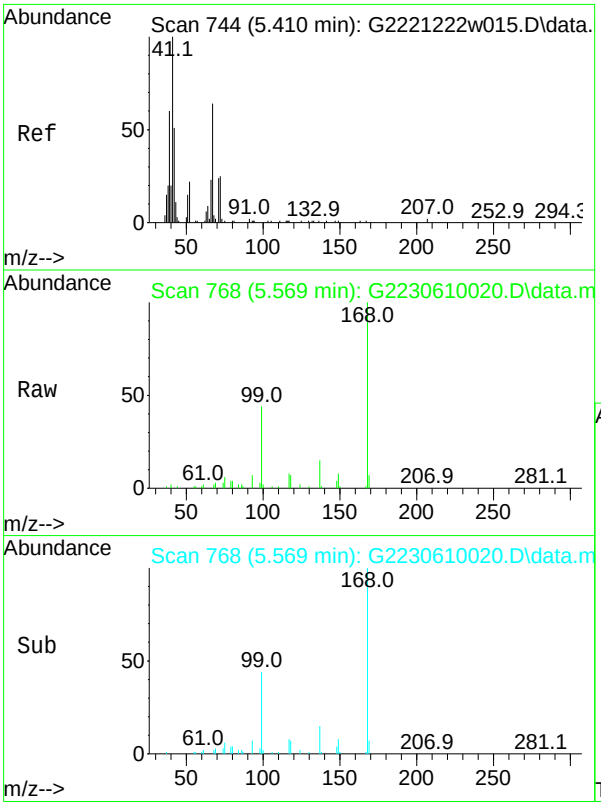


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.258 min Scan# 717
Delta R.T. -0.003 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 42 Resp: 41559

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

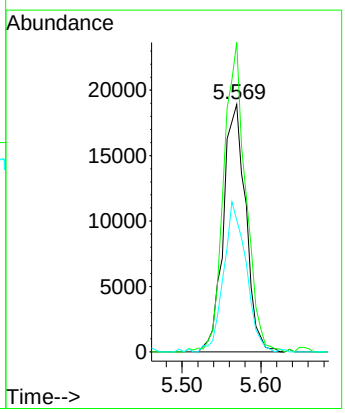


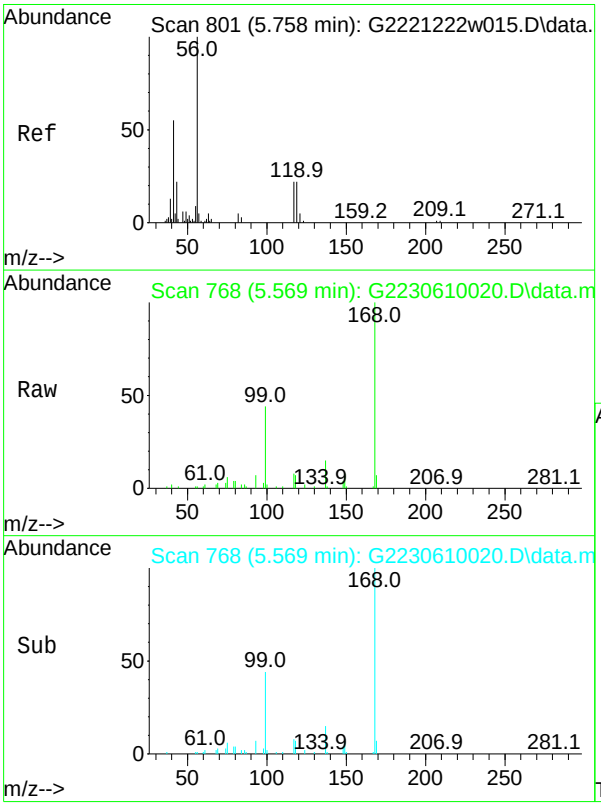


#40
Cyclohexane
Concen: 0.78 ug/L
RT: 5.569 min Scan# 768
Delta R.T. 0.035 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 84 Resp: 373562

Ion	Ratio	Lower	Upper
84	100		
69	120.4	6.8	66.8#
56	60.1	79.1	139.1#

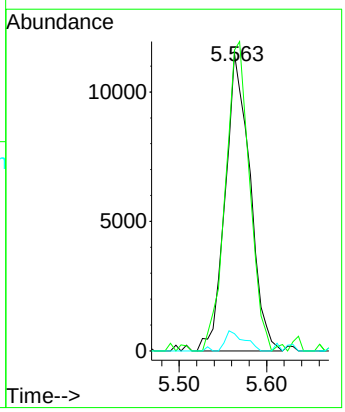


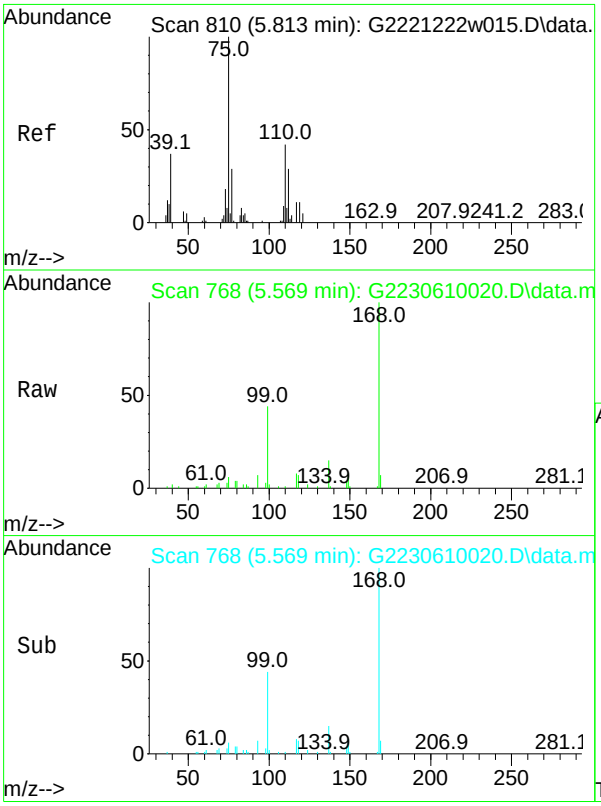


#41
1-Chlorobutane
Concen: 0.41 ug/L
RT: 5.567 min Scan# 768
Delta R.T. -0.063 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 56 Resp: 226681

Ion	Ratio	Lower	Upper
56	100		
55	101.0	0.0	41.0#
57	0.0	0.0	35.7

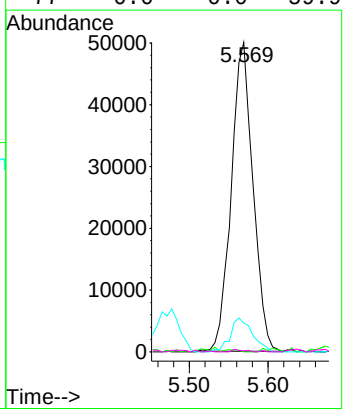


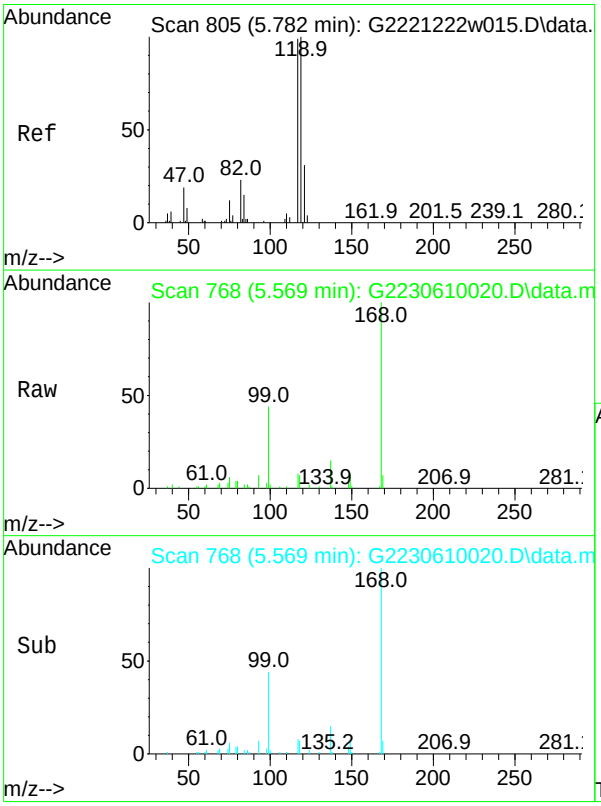


#42
1,1-Dichloropropene
Concen: 2.28 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 75 Resp: 956322

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

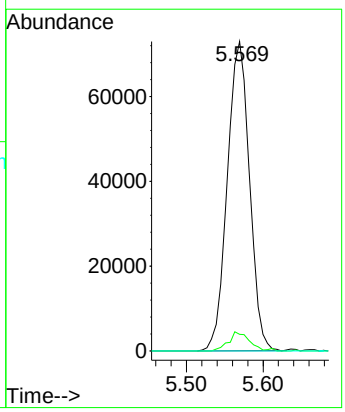


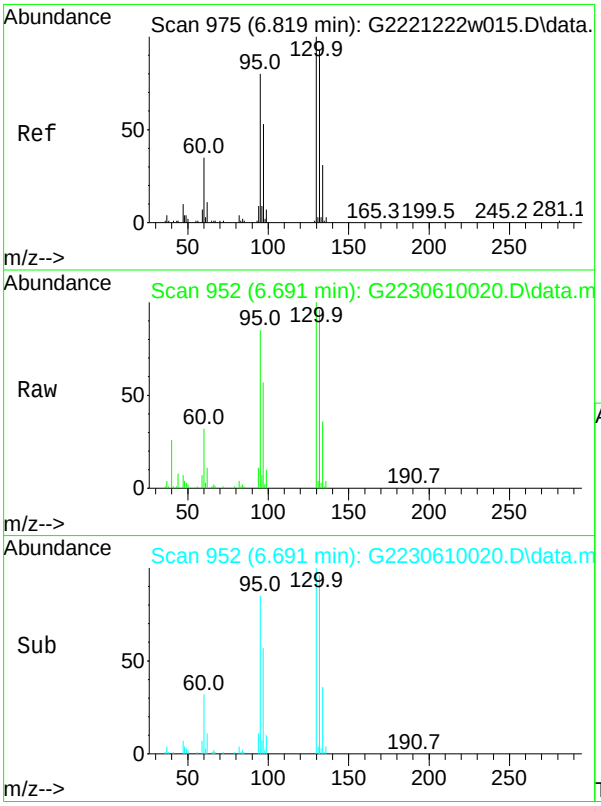


#47
Carbon tetrachloride
Concen: 3.38 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.109 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion:117 Resp: 1468426

Ion	Ratio	Lower	Upper
117	100		
119	5.3	66.4	126.4#
121	0.0	0.4	60.4#

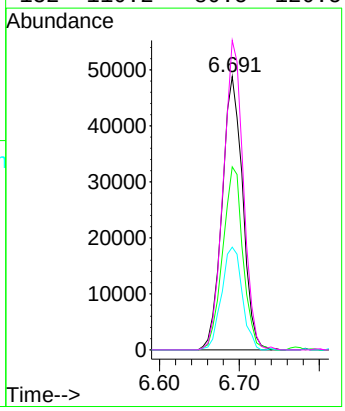


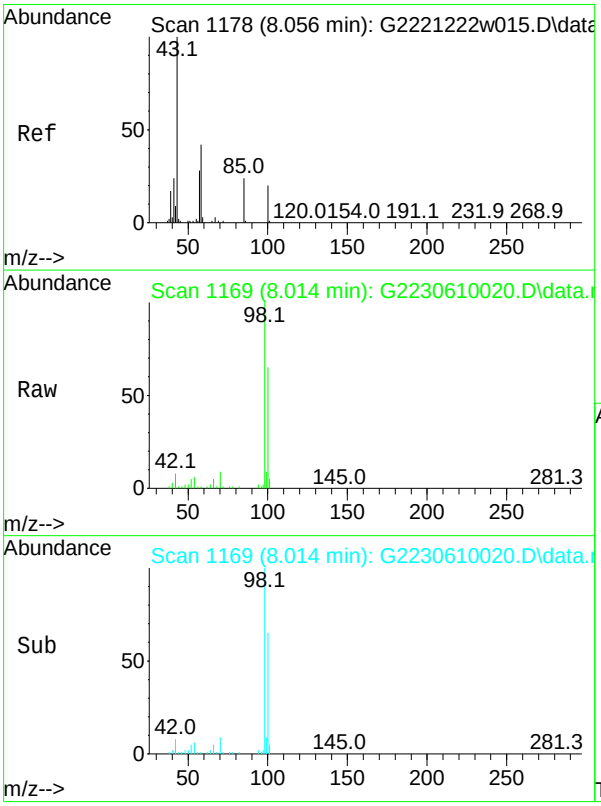


#50
Trichloroethene
Concen: 2.68 ug/L
RT: 6.693 min Scan# 952
Delta R.T. -0.003 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 95 Resp: 872235

Ion	Ratio	Lower	Upper
95	100		
97	66.0	35.5	95.5
60	37.8	14.8	74.8
132	110.2	80.5	120.5

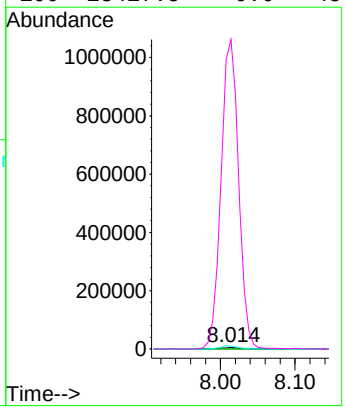


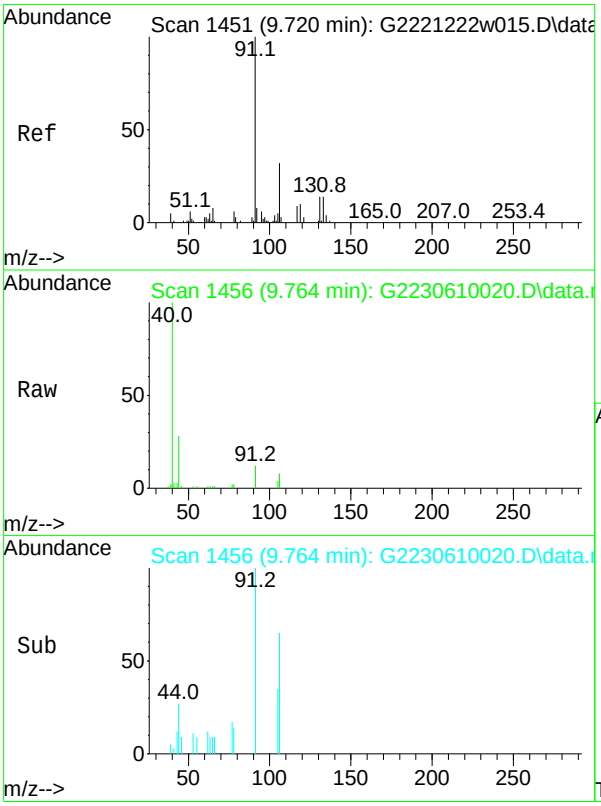


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.017 min Scan# 1169
Delta R.T. 0.073 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 43 Resp: 94058

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	181.6	37.0	37.0#
100	18417.5	0.0	45.2#

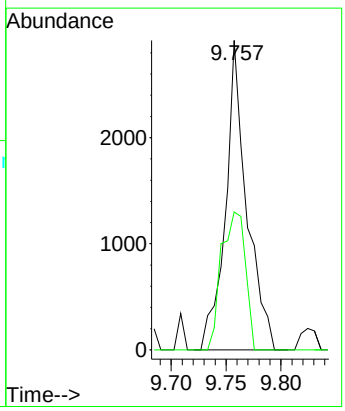


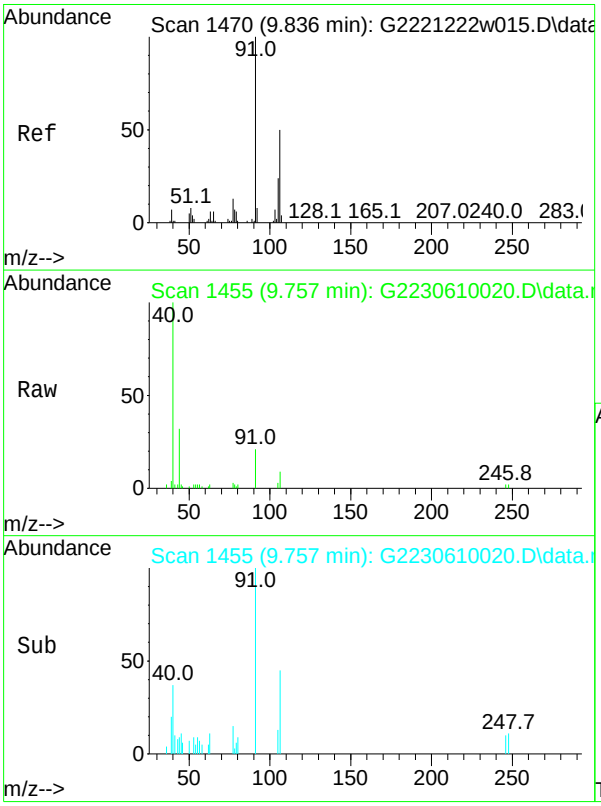


#74
Ethylbenzene
Concen: Below Cal
RT: 9.761 min Scan# 1456
Delta R.T. 0.118 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 91 Resp: 39467

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

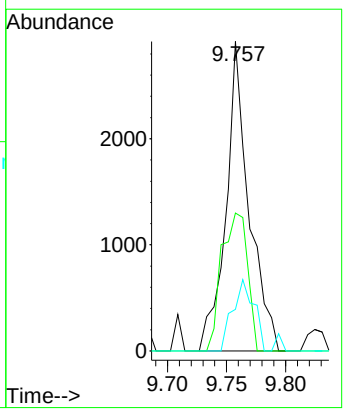


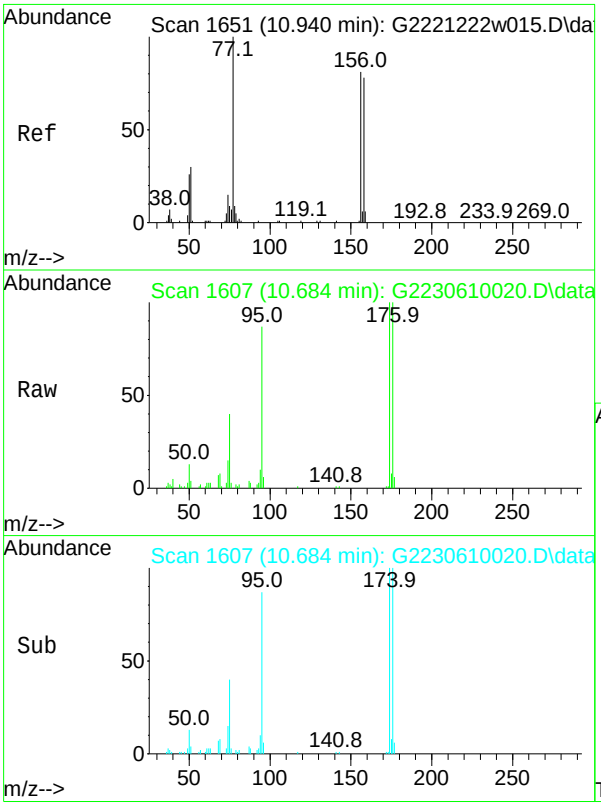


#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 91 Resp: 39467

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

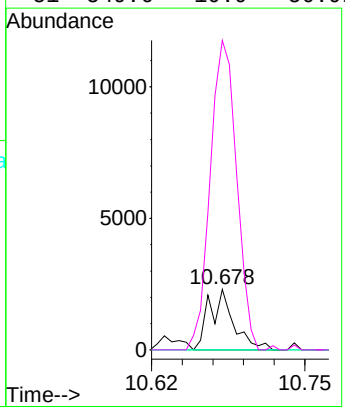




#82
Bromobenzene
Concen: 0.06 ug/L
RT: 10.682 min Scan# 1607
Delta R.T. -0.146 min
Lab File: G2230610020.D
Acq: 10 Jun 2023 16:22

Tgt Ion: 77 Resp: 33228

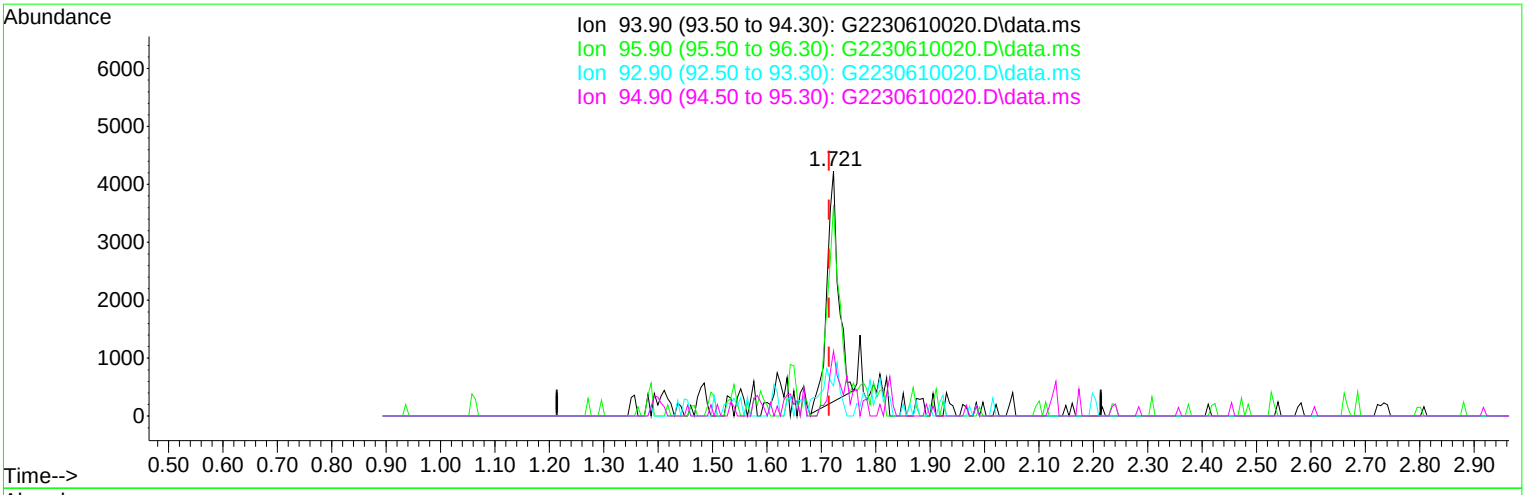
Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	549.6	10.9	50.9#

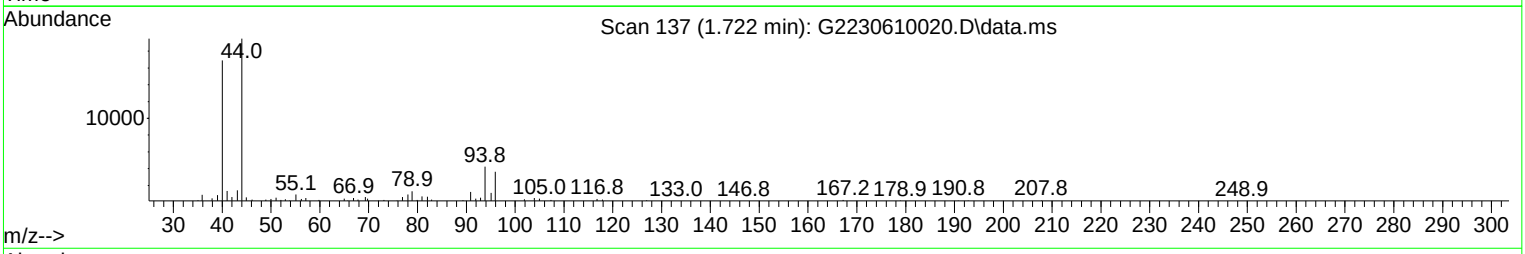


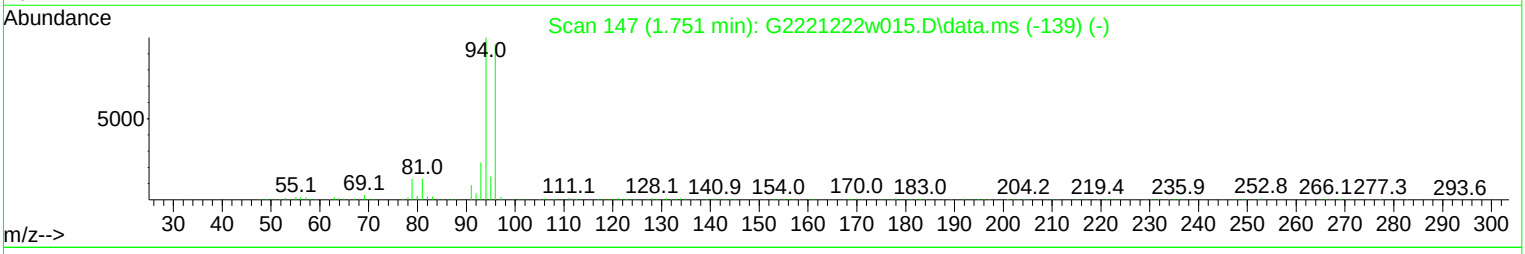
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610020.D
Acq On : 10 Jun 2023 16:22
Operator : PO1/MP3
Sample : 23E0775-25
Misc : 400
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 12 10:41:11 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: G2230610020.D\data.ms

(5) Bromomethane (T)

1.723min (+ 0.009) -0.01 ug/L

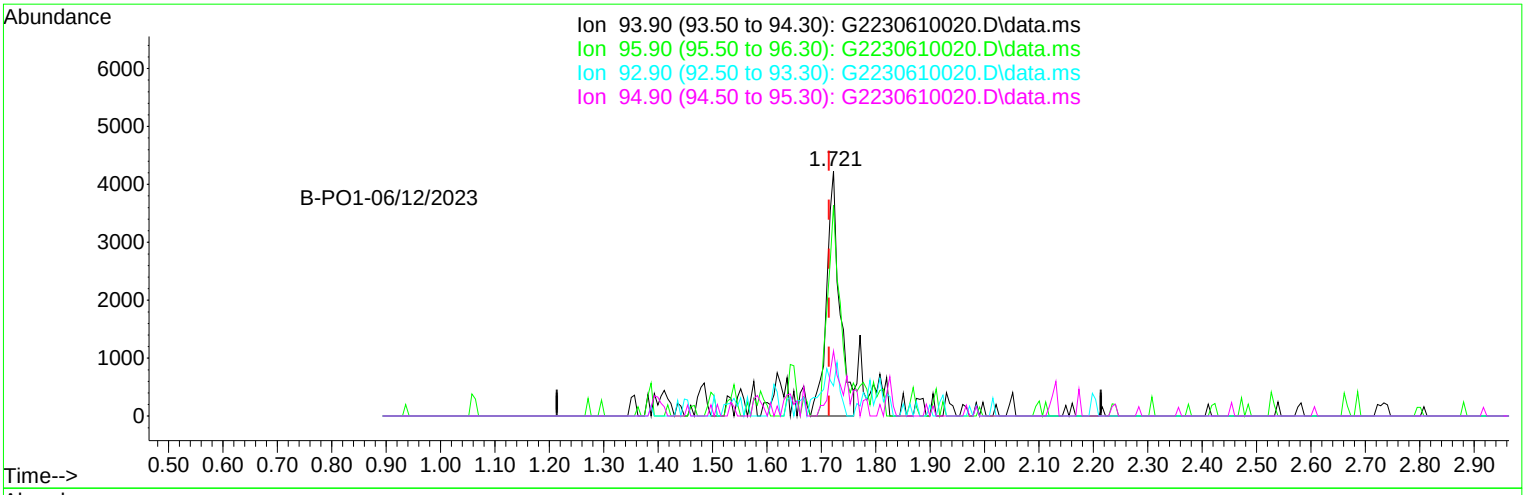
response 57865

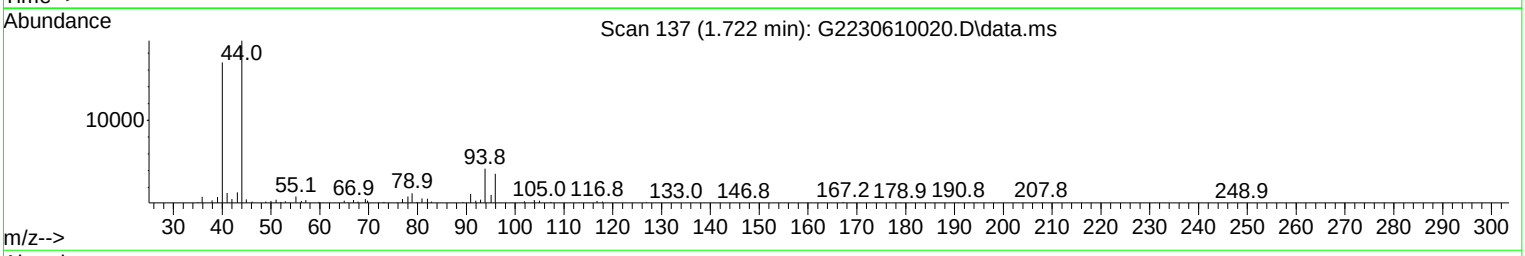
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	105.98
92.90	19.50	0.00
94.90	13.40	0.00

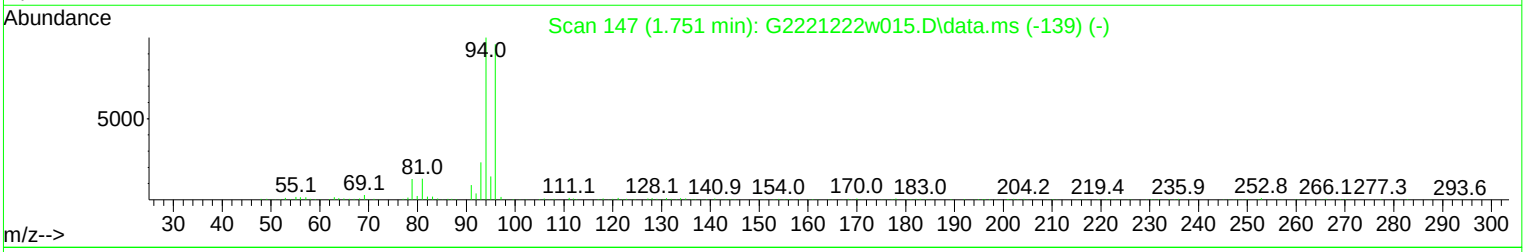
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610020.D
Acq On : 10 Jun 2023 16:22
Operator : PO1/MP3
Sample : 23E0775-25
Misc : 400
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jun 12 10:41:11 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: G2230610020.D\data.ms

(5) Bromomethane (T)

1.722min (+ 0.008) 0.05 ug/L m

response 71634

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	85.61
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52947WW52

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-26	File ID:	G2230610017.D
Sampled:	05/29/23 09:30	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 15:07
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	1.00	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

52947WW52

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-26	File ID:	G2230610017.D
Sampled:	05/29/23 09:30	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 15:07
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	2.12	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	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

52947WW52

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-26	File ID:	G2230610017.D
Sampled:	05/29/23 09:30	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 15:07
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	0.380	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	1610	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610017.D
Acq On : 10 Jun 2023 15:07
Operator : PO1/MP3
Sample : 23E0775-26
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 12 10:25:32 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

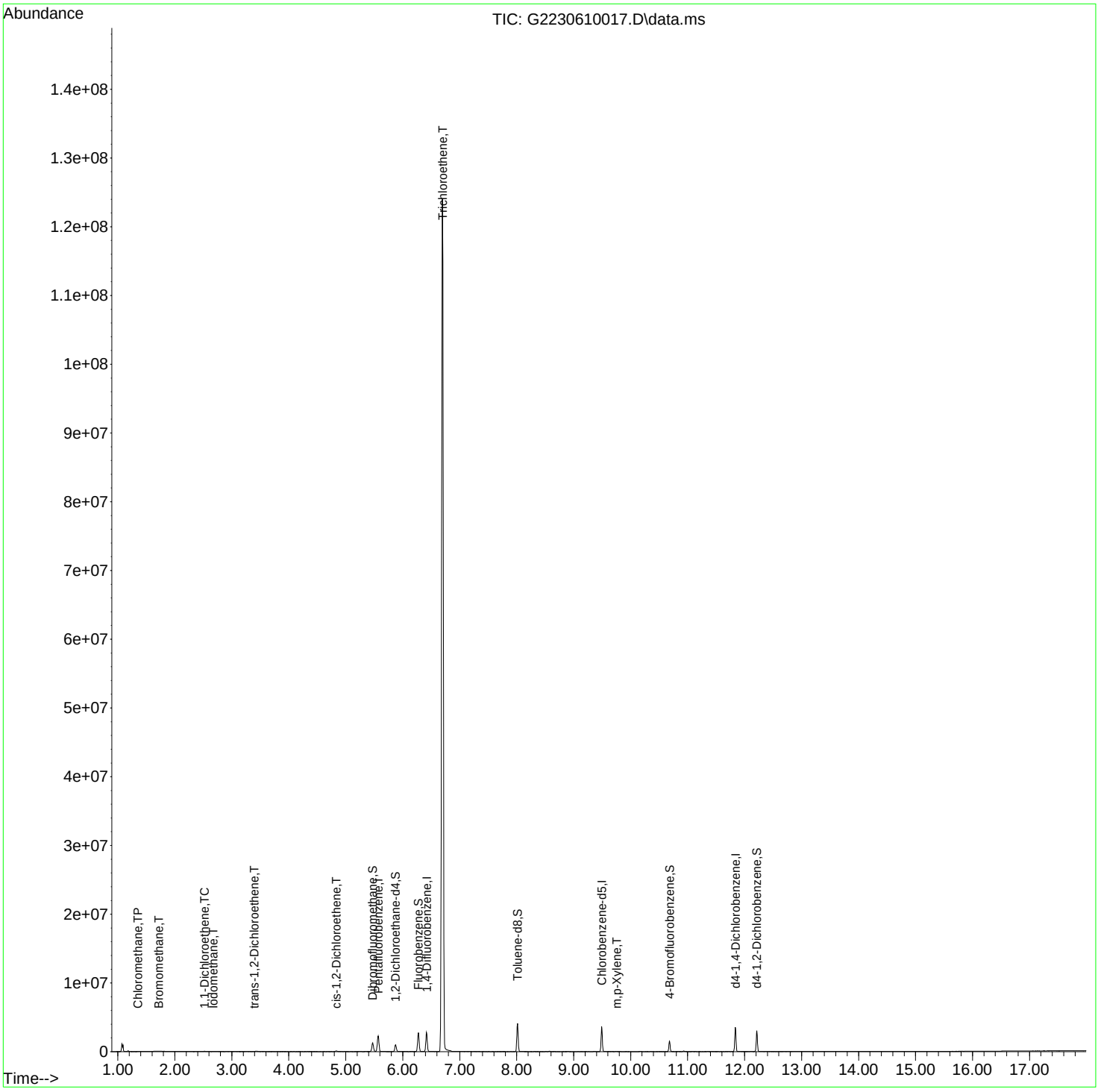
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.571	168	18204207	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.420	114	24636422	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	21416292	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9902392	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.473	111	7766577	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
43) 1,2-Dichloroethane-d4	5.876	65	7033771	17.77	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.85%			
49) Fluorobenzene	6.276	96	27207141	19.38	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%			
64) Toluene-d8	8.016	98	26258673	19.45	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.25%			
81) 4-Bromofluorobenzene	10.684	174	4736332	10.13	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%			
97) d4-1,2-Dichlorobenzene	12.217	152	8577046	20.14	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%			
Target Compounds						Qvalue
3) Chloromethane	1.354	50	85292	0.18	ug/L	94
5) Bromomethane	1.716	94	70908m	0.04	ug/L	
10) 1,1-Dichloroethene	2.521	61	225452	0.50	ug/L	85
13) Iodomethane	2.674	142	60280	0.14	ug/L #	41
18) Methylene chloride	3.057	49	123972	Below Cal	#	66
20) trans-1,2-Dichloroethene	3.395	61	73962	0.19	ug/L	81
21) Methyl tert-butyl ether	3.435	73	791216	Below Cal		92
28) cis-1,2-Dichloroethene	4.833	61	520769	1.06	ug/L	76
44) 1,2-Dichloroethane	5.966	62	31053m	Below Cal		
50) Trichloroethene	6.704	95	259623593	802.54	ug/L	80
75) m,p-Xylene	9.760	91	35019	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610017.D
Acq On : 10 Jun 2023 15:07
Operator : PO1/MP3
Sample : 23E0775-26
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 12 10:25:32 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610017.D
Acq On : 10 Jun 2023 15:07
Operator : PO1/MP3
Sample : 23E0775-26
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 12 10:25:32 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

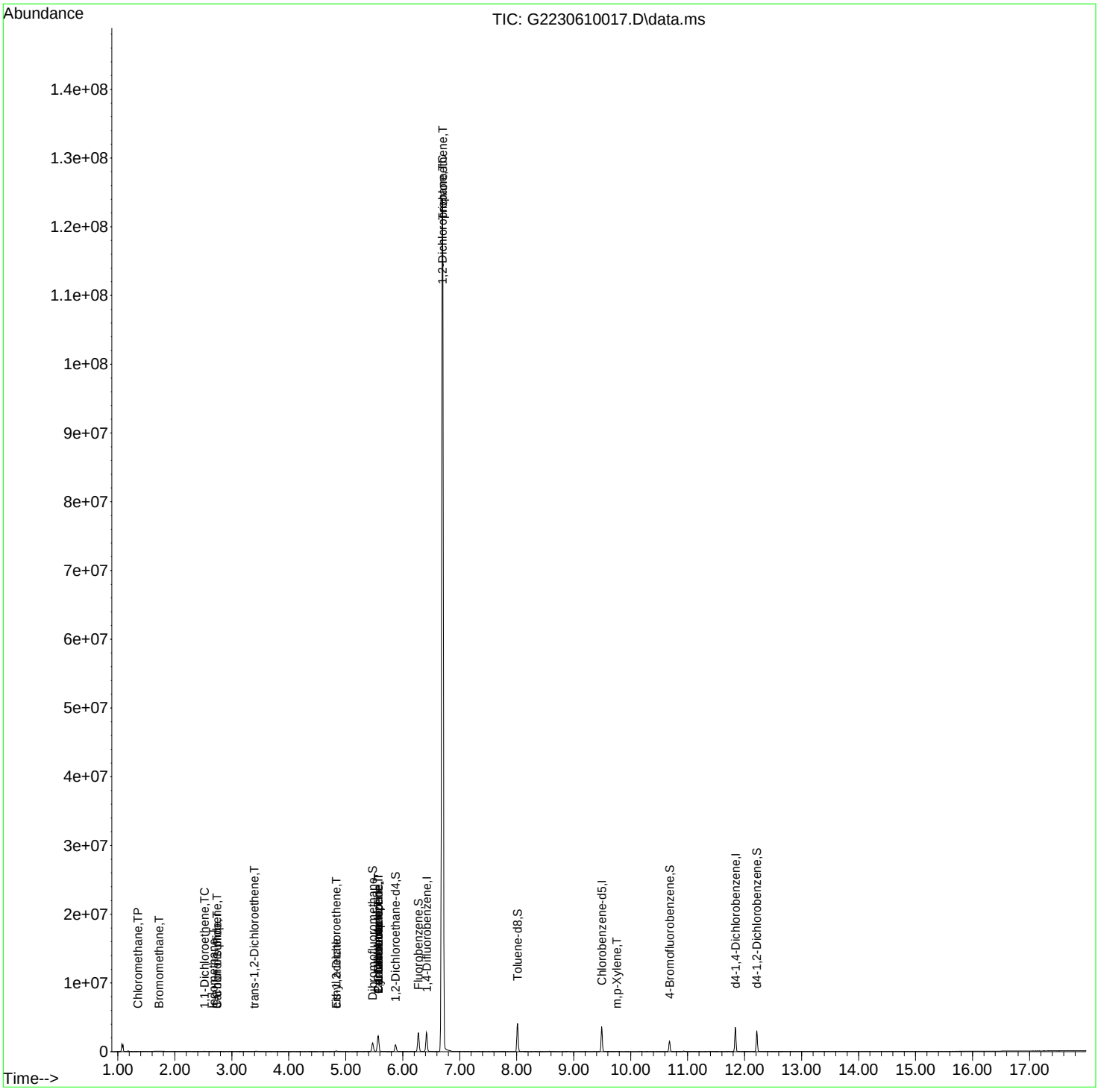
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	5.571	168	18204207	20.00	ug/L		0.00
46) 1,4-Difluorobenzene	6.420	114	24636422	20.00	ug/L		0.00
63) Chlorobenzene-d5	9.494	117	21416292	20.00	ug/L		0.00
78) d4-1,4-Dichlorobenzene	11.840	152	9902392	20.00	ug/L		0.00
System Monitoring Compounds							
38) Dibromofluoromethane	5.473	111	7766577	19.39	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%				
43) 1,2-Dichloroethane-d4	5.876	65	7033771	17.77	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.85%				
49) Fluorobenzene	6.276	96	27207141	19.38	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%				
64) Toluene-d8	8.016	98	26258673	19.45	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.25%				
81) 4-Bromofluorobenzene	10.684	174	4736332	10.13	ug/L		0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 101.30%				
97) d4-1,2-Dichlorobenzene	12.217	152	8577046	20.14	ug/L		0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%				
Target Compounds							Qvalue
3) Chloromethane	1.354	50	85292	0.18	ug/L		94
5) Bromomethane	1.720	94	63223	0.01	ug/L	#	78
10) 1,1-Dichloroethene	2.521	61	225452	0.50	ug/L		85
12) Acetone	2.603	43	71023	Below Cal		#	45
13) Iodomethane	2.674	142	60280	0.14	ug/L	#	41
14) Carbon disulfide	2.738	76	113932	0.05	ug/L	#	74
17) 3-Chloro-1-propene	2.738	76	113931	0.54	ug/L	#	53
18) Methylene chloride	3.057	49	123972	Below Cal		#	66
20) trans-1,2-Dichloroethene	3.395	61	73962	0.19	ug/L		81
21) Methyl tert-butyl ether	3.435	73	791216	Below Cal			92
28) cis-1,2-Dichloroethene	4.833	61	520769	1.06	ug/L		76
31) Ethyl acetate	4.833	61	520766	9.44	ug/L	#	45
36) Tetrahydrofuran	5.251	42	48409	Below Cal		#	30
40) Cyclohexane	5.570	84	388766	0.80	ug/L	#	33
41) 1-Chlorobutane	5.566	56	236152	0.42	ug/L	#	1
42) 1,1-Dichloropropene	5.570	75	943753	2.21	ug/L	#	38
44) 1,2-Dichloroethane	5.969	62	28920	Below Cal		#	47
47) Carbon tetrachloride	5.570	117	1499818	3.37	ug/L	#	15
50) Trichloroethene	6.704	95	259623593	802.54	ug/L		80
52) 1,2-Dichloropropane	6.696	63	1772719	6.31	ug/L	#	1
60) 4-Methyl-2-pentanone	8.017	43	77010	Below Cal		#	1
74) Ethylbenzene	9.760	91	35025	Below Cal		#	44
75) m,p-Xylene	9.760	91	35019	0.03	ug/L	#	36

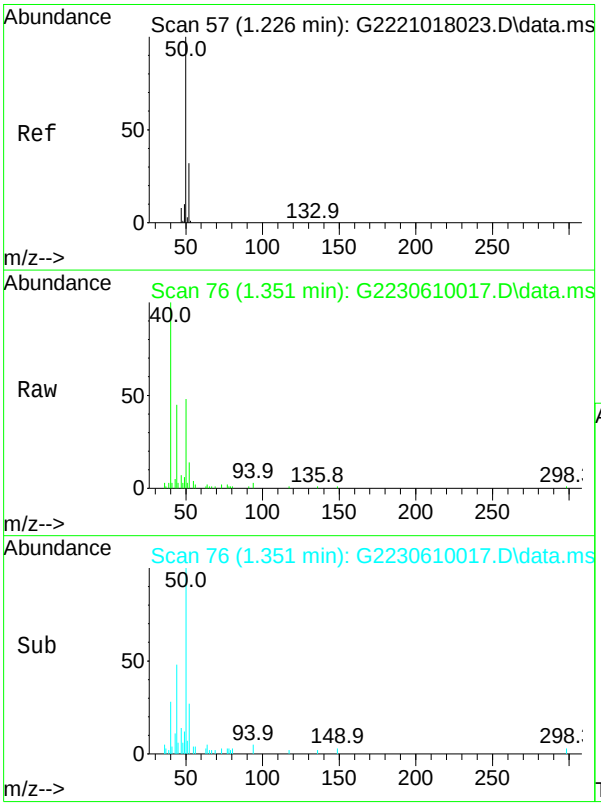
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610017.D
Acq On : 10 Jun 2023 15:07
Operator : PO1/MP3
Sample : 23E0775-26
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 12 10:25:32 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

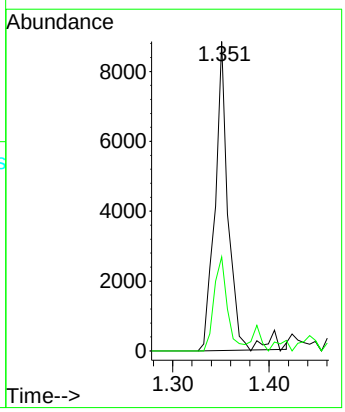


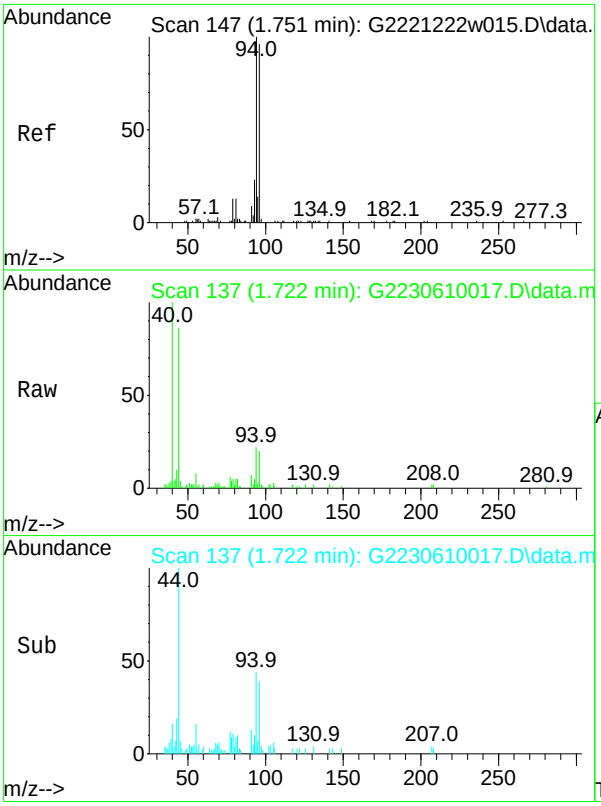


#3
Chloromethane
Concen: 0.18 ug/L
RT: 1.354 min Scan# 76
Delta R.T. -0.000 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 50 Resp: 85292

Ion	Ratio	Lower	Upper
50	100		
52	29.9	3.2	63.2

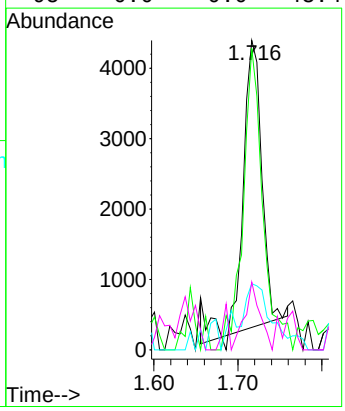


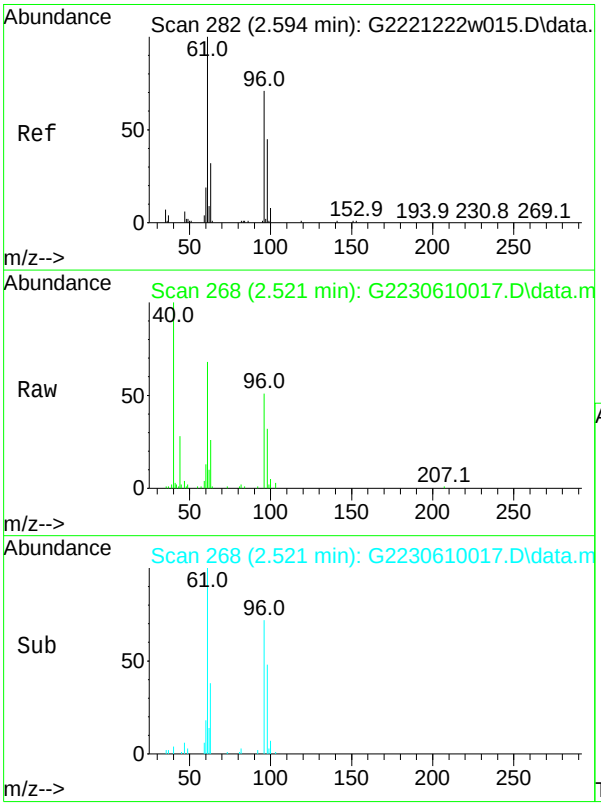


#5
Bromomethane
Concen: 0.01 ug/L
RT: 1.720 min Scan# 137
Delta R.T. 0.006 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 94 Resp: 63223

Ion	Ratio	Lower	Upper
94	100		
96	111.0	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

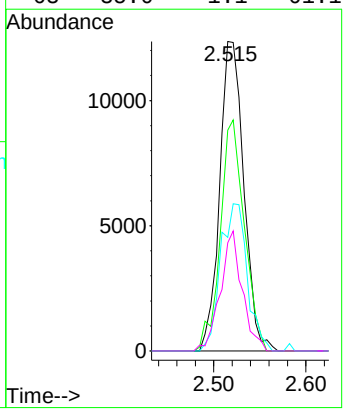


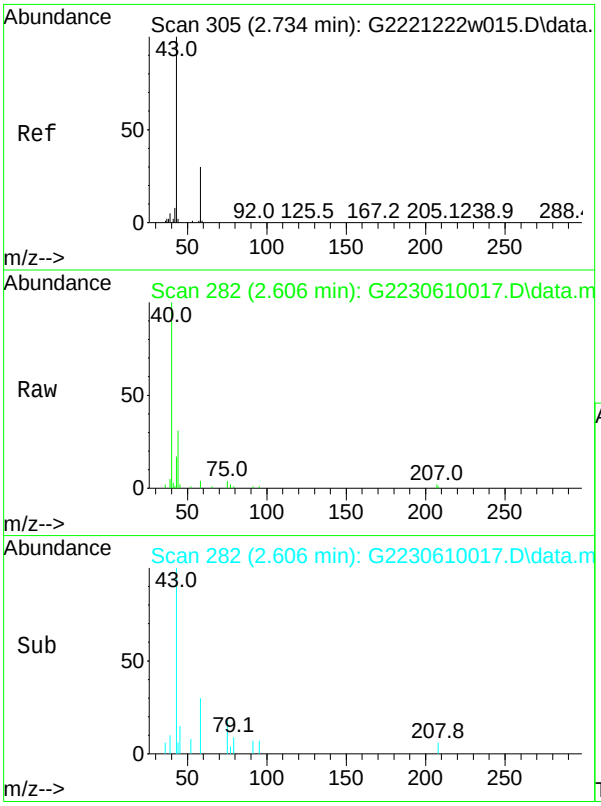


#10
1,1-Dichloroethene
Concen: 0.50 ug/L
RT: 2.521 min Scan# 268
Delta R.T. -0.002 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 61 Resp: 225452

Ion	Ratio	Lower	Upper
61	100		
96	74.3	32.7	92.7
98	52.4	9.3	69.3
63	35.0	1.1	61.1

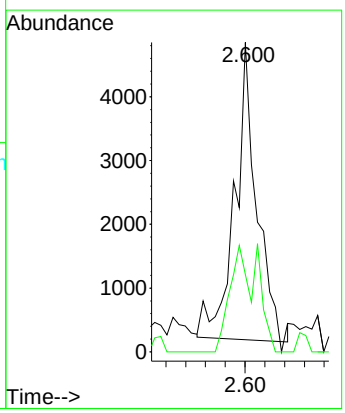


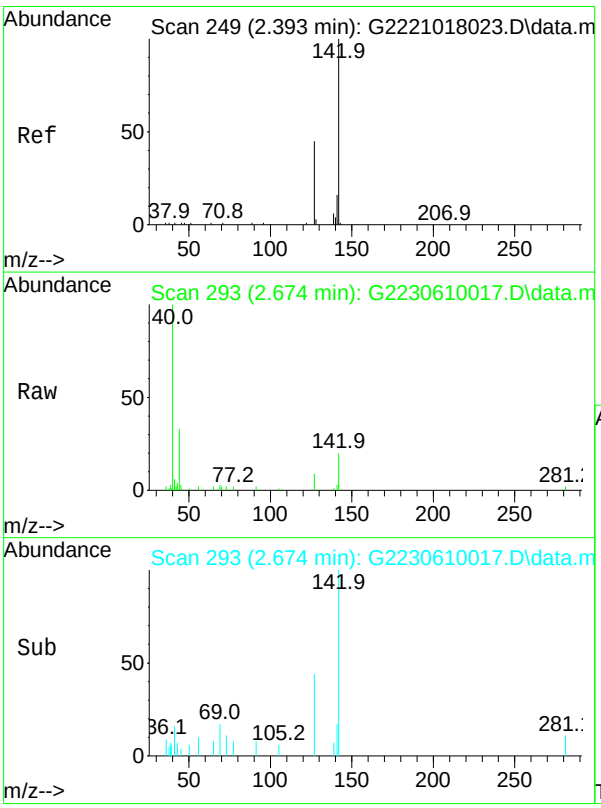


#12
Acetone
Concen: Below Cal
RT: 2.603 min Scan# 282
Delta R.T. -0.005 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 43 Resp: 71023

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.7

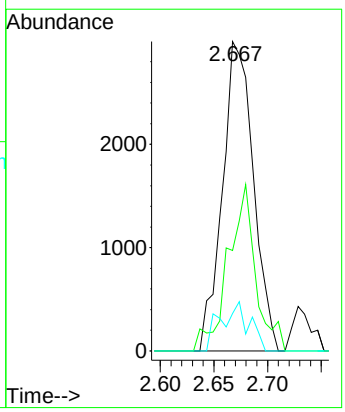


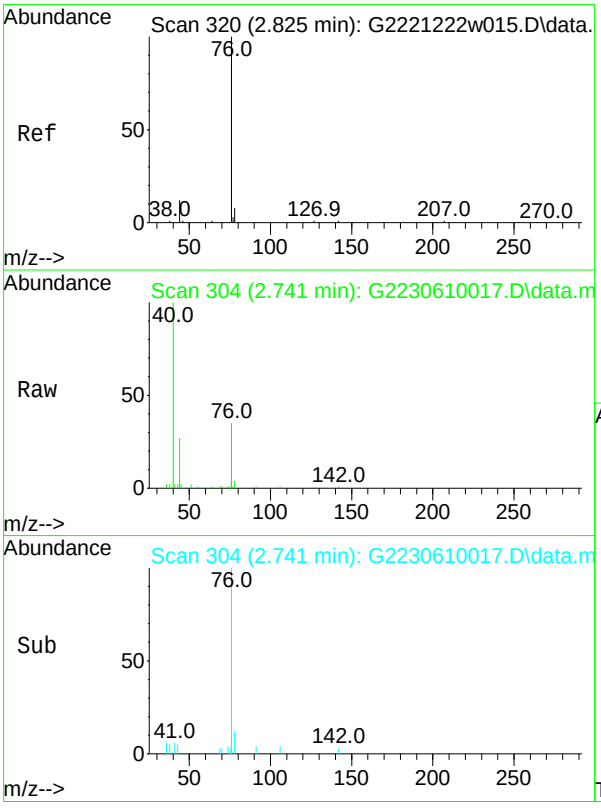


#13
Iodomethane
Concen: 0.14 ug/L
RT: 2.674 min Scan# 293
Delta R.T. -0.002 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion:142 Resp: 60280

Ion	Ratio	Lower	Upper
142	100		
127	0.0	13.3	73.3#
141	0.0	0.0	45.3

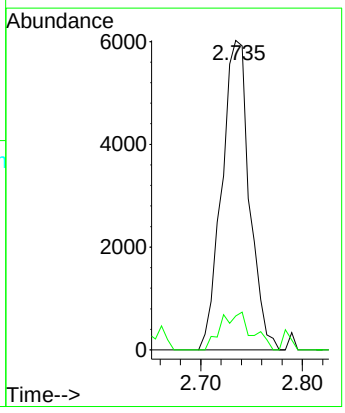


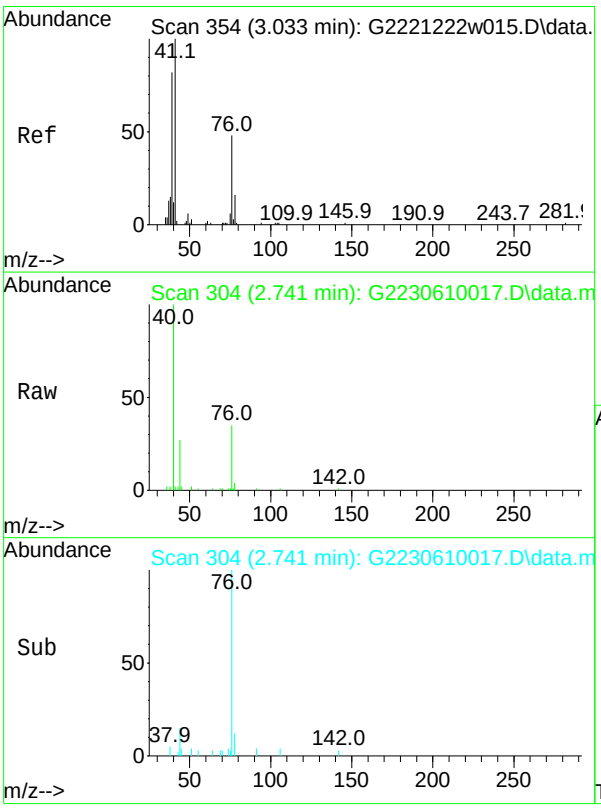


#14
Carbon disulfide
Concen: 0.05 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.001 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 76 Resp: 113932

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

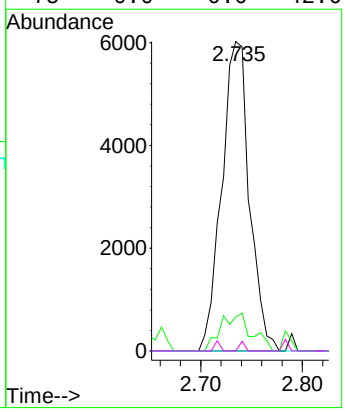


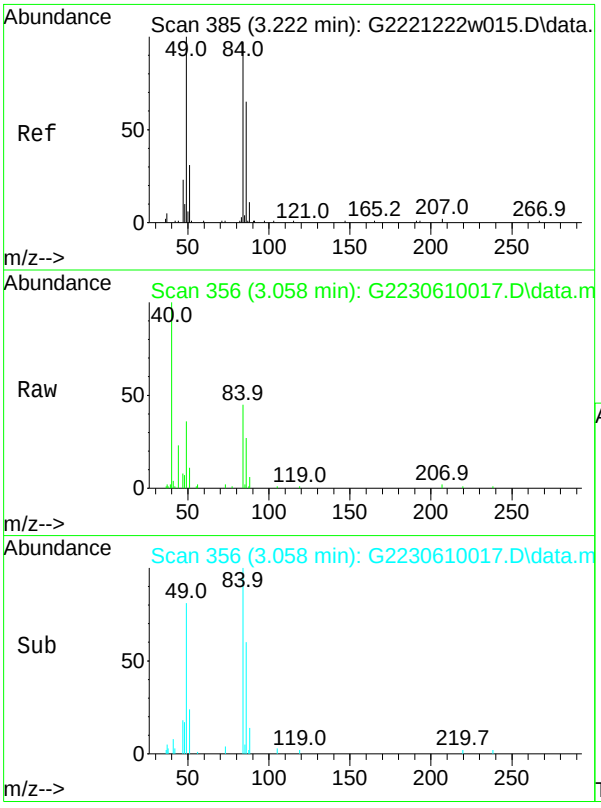


#17
3-Chloro-1-propene
Concen: 0.54 ug/L
RT: 2.738 min Scan# 304
Delta R.T. -0.182 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 76 Resp: 113931

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

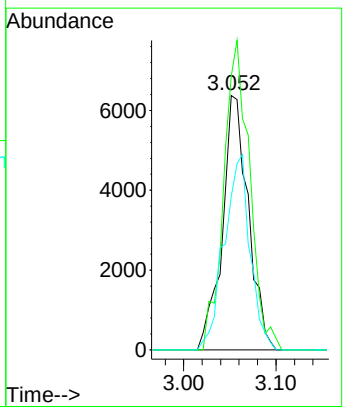


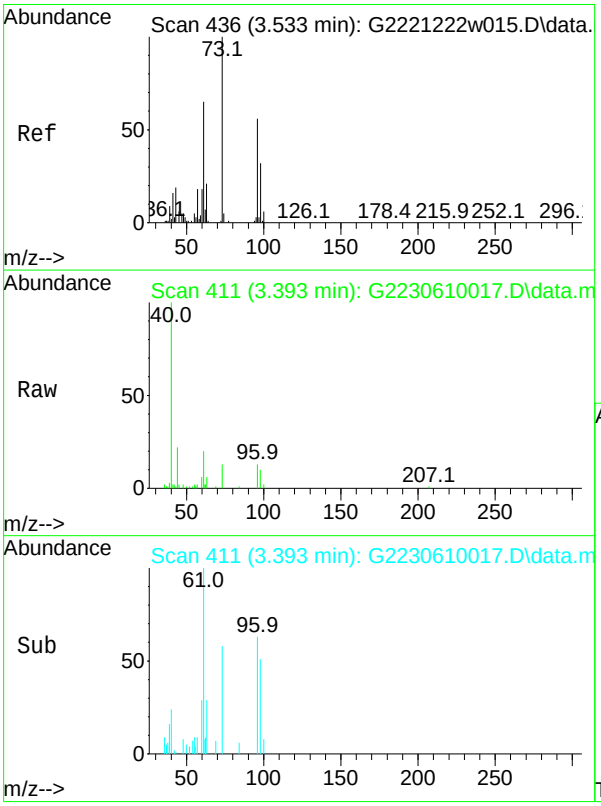


#18
Methylene chloride
Concen: Below Cal
RT: 3.057 min Scan# 356
Delta R.T. -0.005 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 49 Resp: 123972

Ion	Ratio	Lower	Upper
49	100		
84	121.8	57.9	117.9#
86	76.9	24.9	84.9

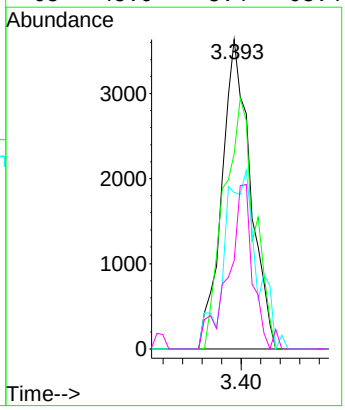


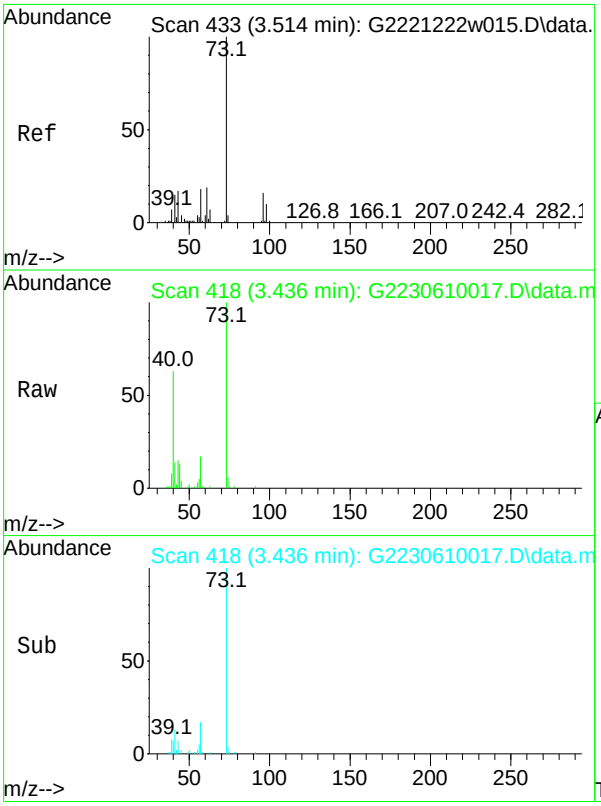


#20
trans-1,2-Dichloroethene
Concen: 0.19 ug/L
RT: 3.395 min Scan# 411
Delta R.T. -0.006 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 61 Resp: 73962

Ion	Ratio	Lower	Upper
61	100		
96	86.2	45.2	105.2
98	65.6	17.2	77.2
63	45.9	3.4	63.4

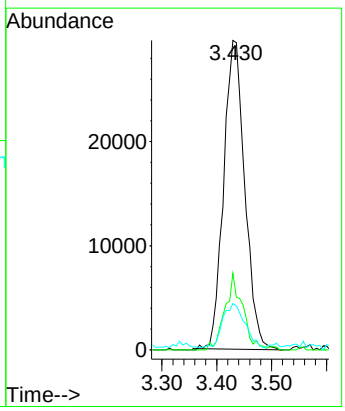


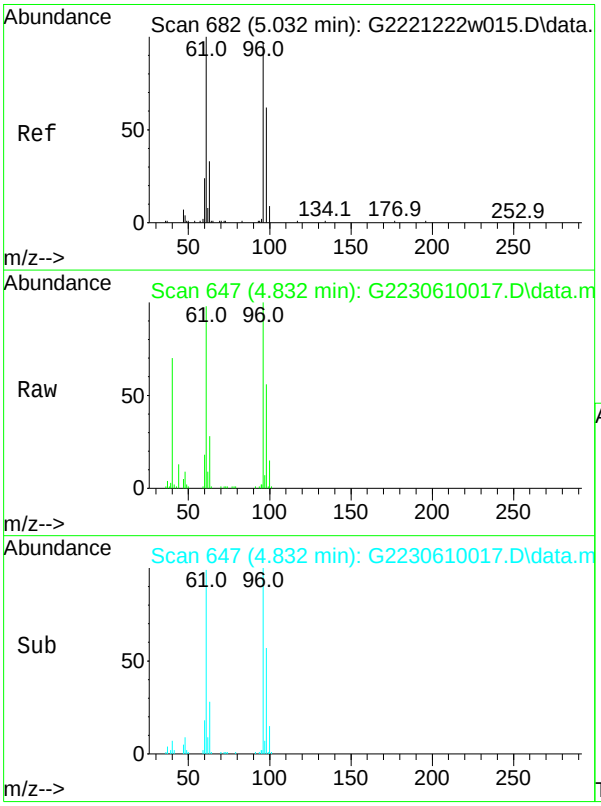


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.435 min Scan# 418
Delta R.T. -0.011 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 73 Resp: 791216

Ion	Ratio	Lower	Upper
73	100		
57	20.5	0.0	51.7
41	14.6	0.0	50.6

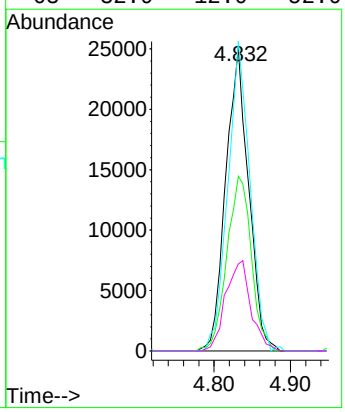


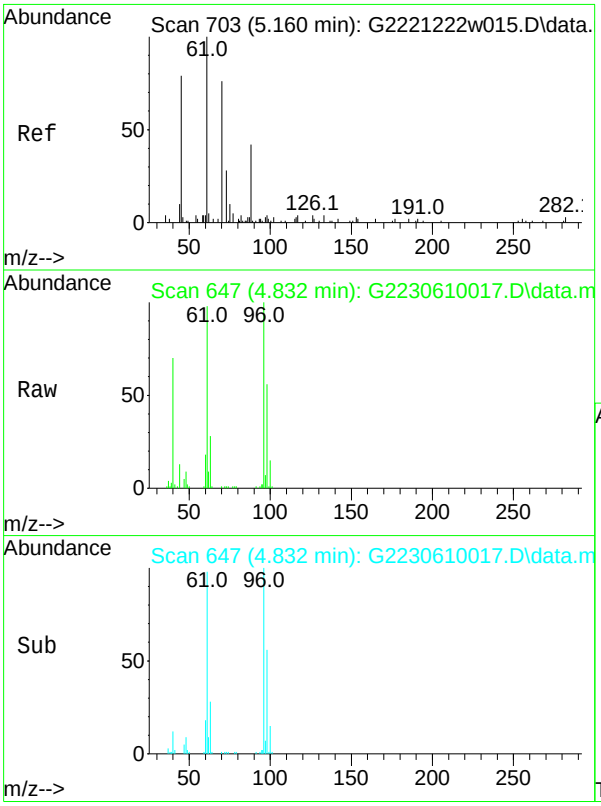


#28
cis-1,2-Dichloroethene
Concen: 1.06 ug/L
RT: 4.833 min Scan# 647
Delta R.T. -0.003 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 61 Resp: 520769

Ion	Ratio	Lower	Upper
61	100		
98	61.5	15.9	75.9
96	98.7	39.6	99.6
63	32.9	12.0	52.0

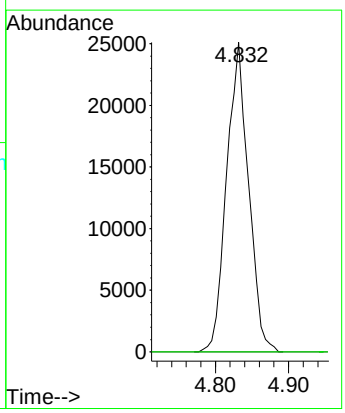


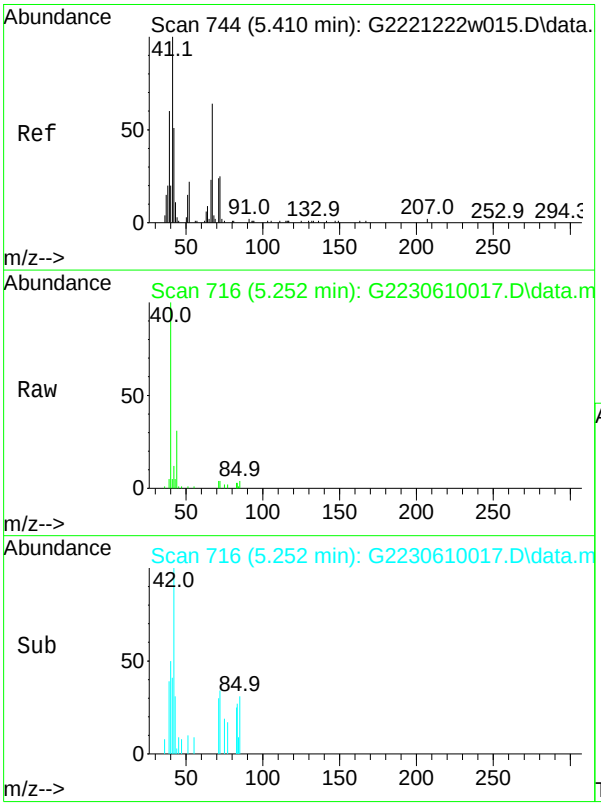


#31
Ethyl acetate
Concen: 9.44 ug/L
RT: 4.833 min Scan# 647
Delta R.T. -0.189 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 61 Resp: 520766

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

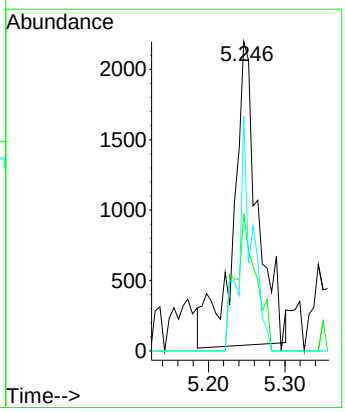


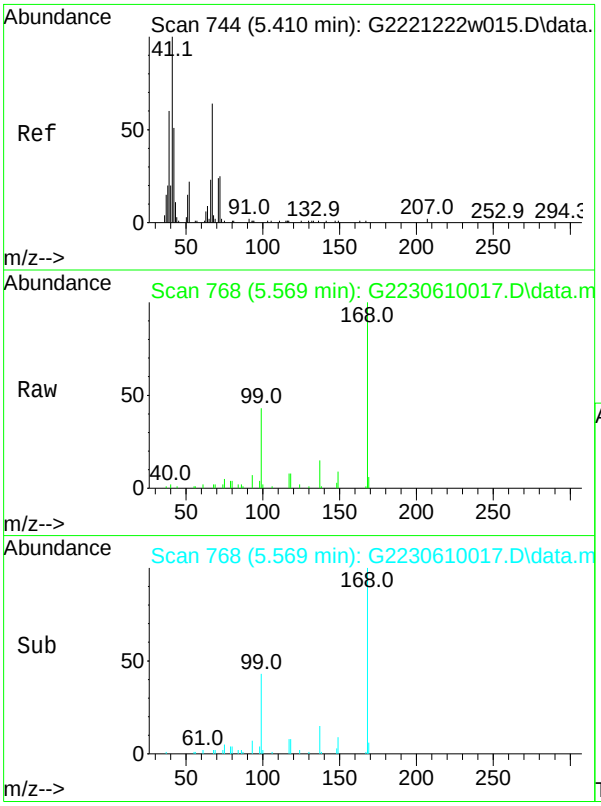


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.251 min Scan# 716
Delta R.T. -0.010 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 42 Resp: 48409

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

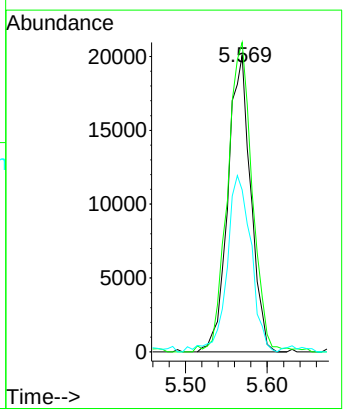


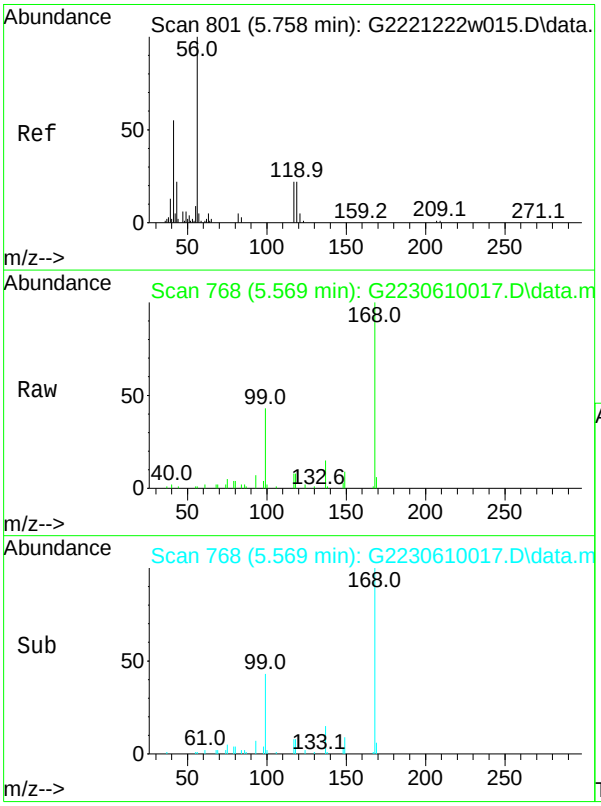


#40
Cyclohexane
Concen: 0.80 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 84 Resp: 388766

Ion	Ratio	Lower	Upper
84	100		
69	112.6	6.8	66.8#
56	60.6	79.1	139.1#

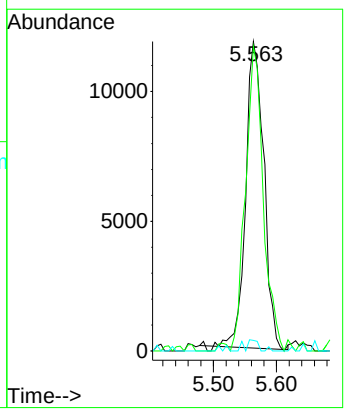


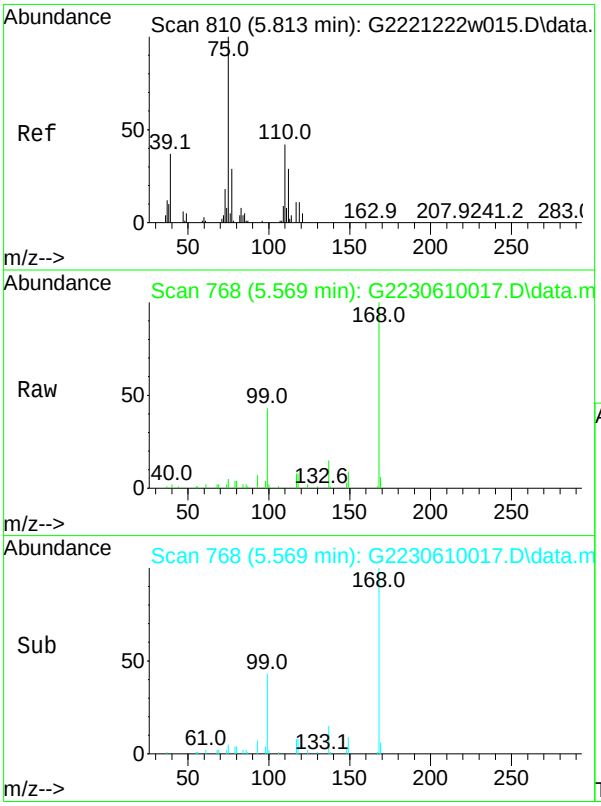


#41
1-Chlorobutane
Concen: 0.42 ug/L
RT: 5.566 min Scan# 768
Delta R.T. -0.064 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 56 Resp: 236152

Ion	Ratio	Lower	Upper
56	100		
55	98.4	0.0	41.0#
57	0.0	0.0	35.7

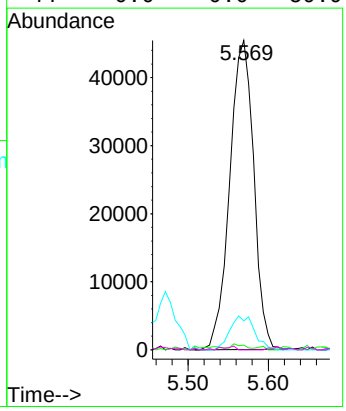


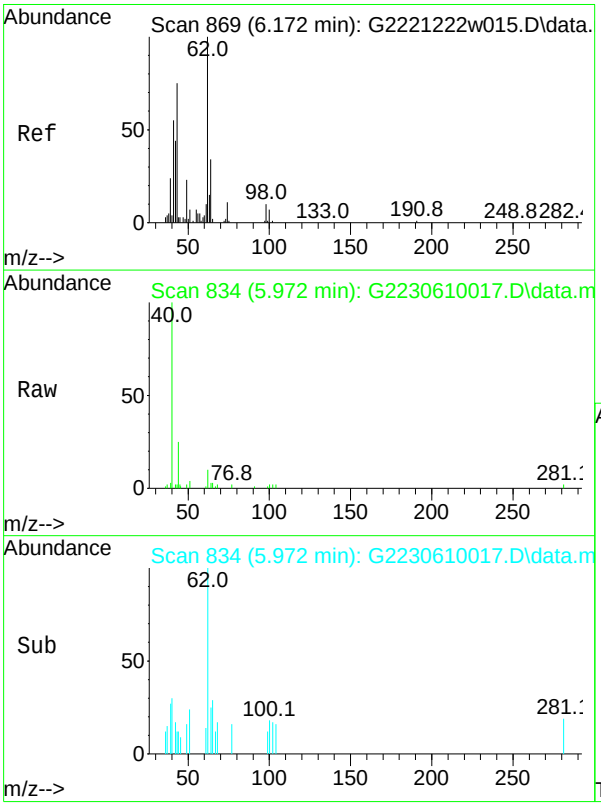


#42
1,1-Dichloropropene
Concen: 2.21 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.119 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 75 Resp: 943753

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

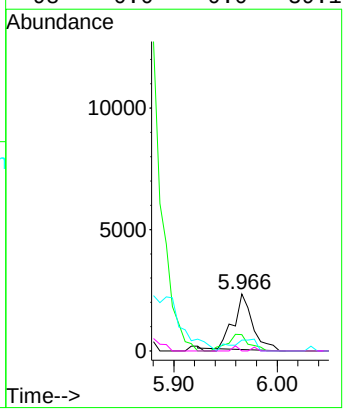


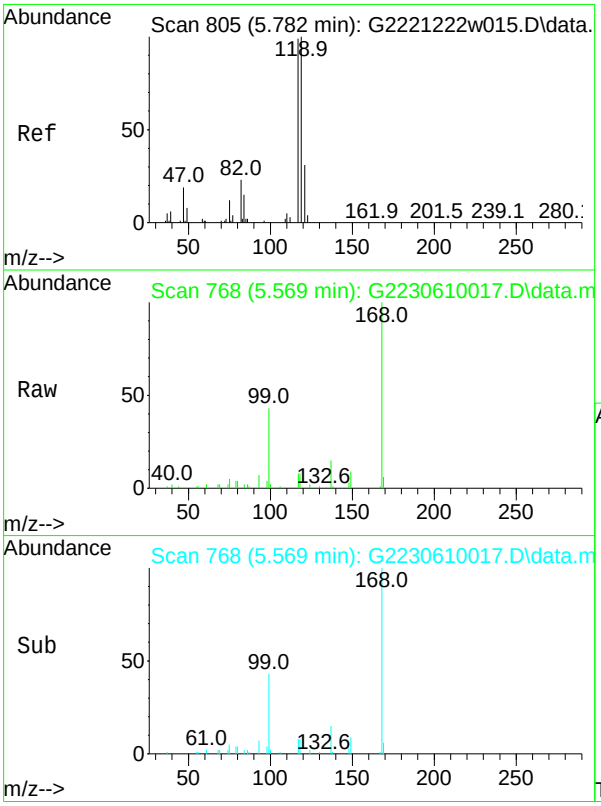


#44
1,2-Dichloroethane
Concen: Below Cal
RT: 5.969 min Scan# 834
Delta R.T. -0.002 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 62 Resp: 28920

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

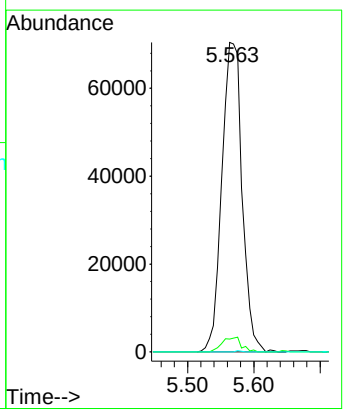


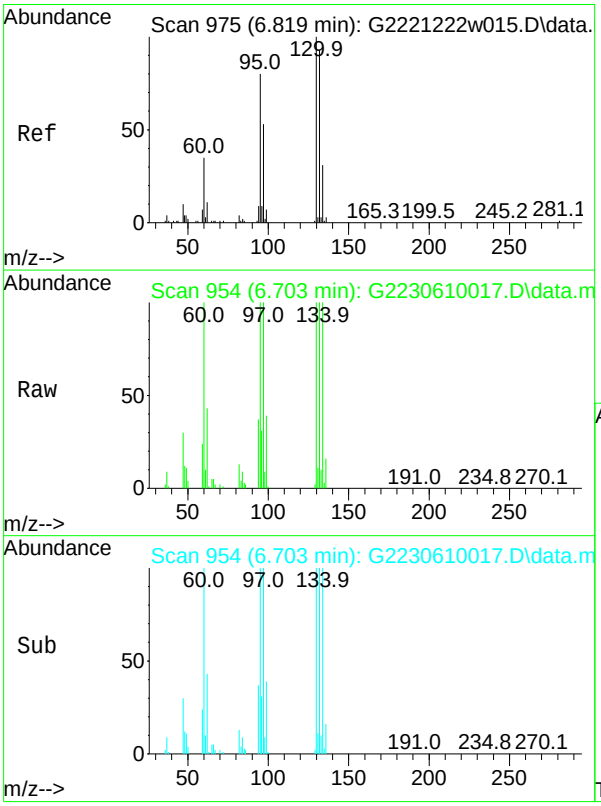


#47
Carbon tetrachloride
Concen: 3.37 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.110 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion:117 Resp: 1499818

Ion	Ratio	Lower	Upper
117	100		
119	4.5	66.4	126.4#
121	0.0	0.4	60.4#

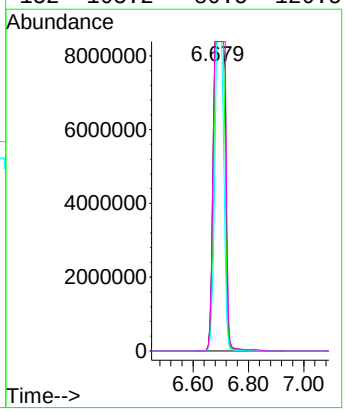


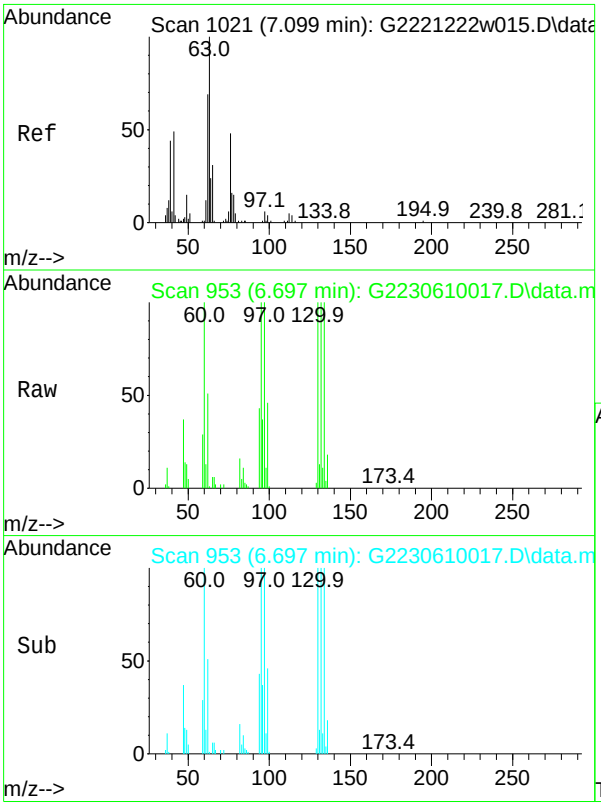


#50
Trichloroethene
Concen: 802.54 ug/L
RT: 6.704 min Scan# 954
Delta R.T. 0.008 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 95 Resp:259623593

Ion	Ratio	Lower	Upper
95	100		
97	89.6	35.5	95.5
60	74.1	14.8	74.8
132	103.2	80.5	120.5

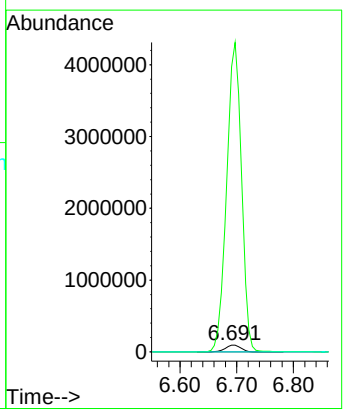


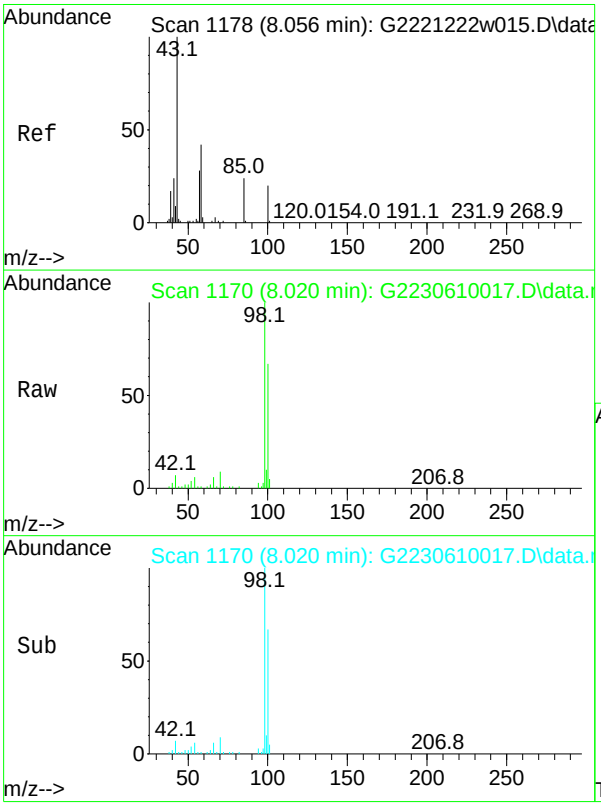


#52
1,2-Dichloropropane
Concen: 6.31 ug/L
RT: 6.696 min Scan# 953
Delta R.T. -0.250 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 63 Resp: 1772719

Ion	Ratio	Lower	Upper
63	100		
62	4431.0	35.2	95.2#
76	0.0	10.7	70.7#

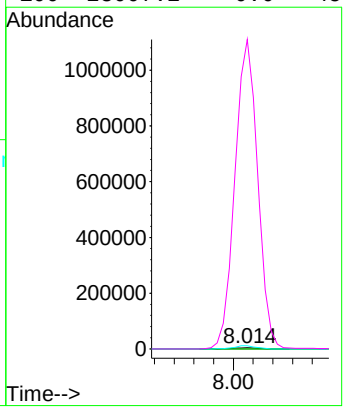


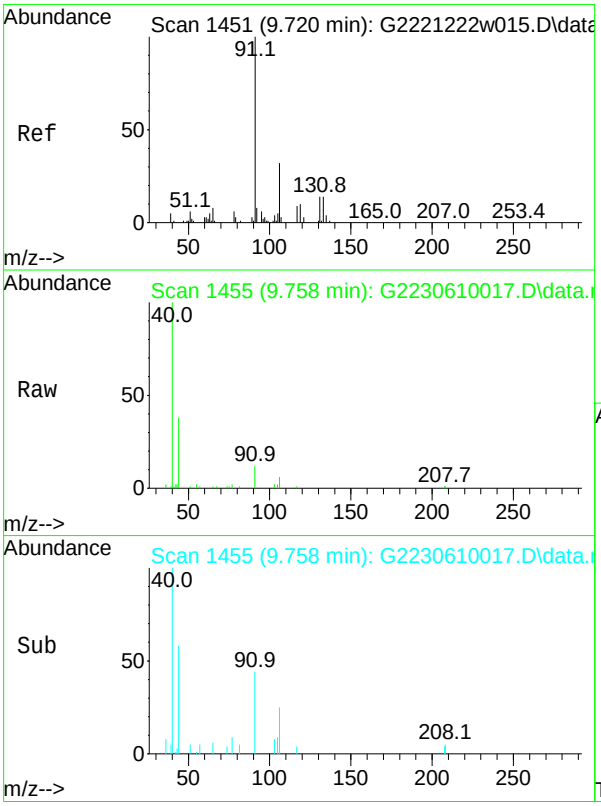


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.017 min Scan# 1170
Delta R.T. 0.073 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 43 Resp: 77010

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	232.5	37.0	37.0#
100	23007.2	0.0	45.2#

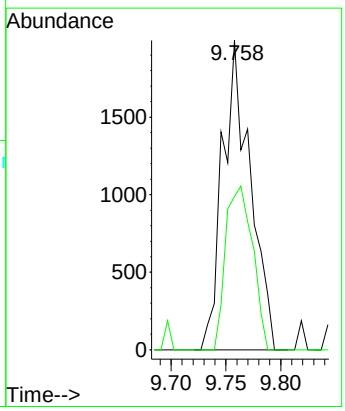


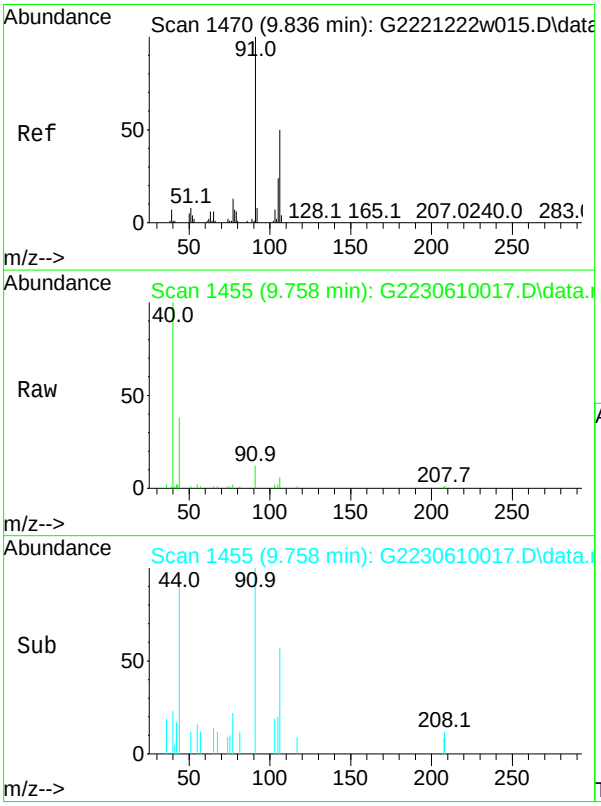


#74
Ethylbenzene
Concen: Below Cal
RT: 9.760 min Scan# 1455
Delta R.T. 0.117 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 91 Resp: 35025

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

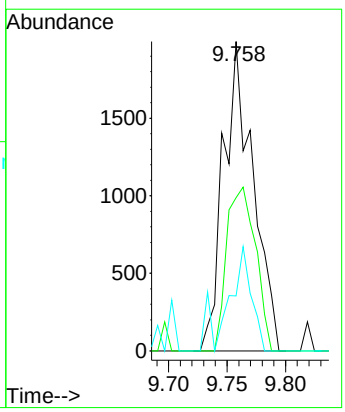




#75
m,p-Xylene
Concen: 0.03 ug/L
RT: 9.760 min Scan# 1455
Delta R.T. -0.004 min
Lab File: G2230610017.D
Acq: 10 Jun 2023 15:07

Tgt Ion: 91 Resp: 35019

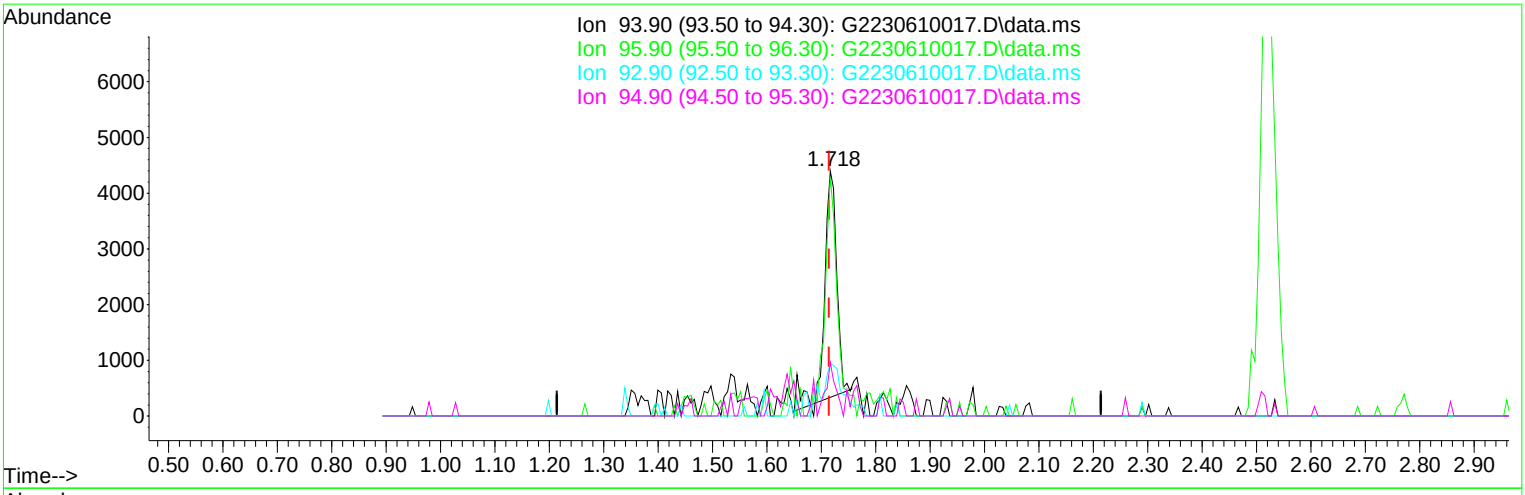
Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

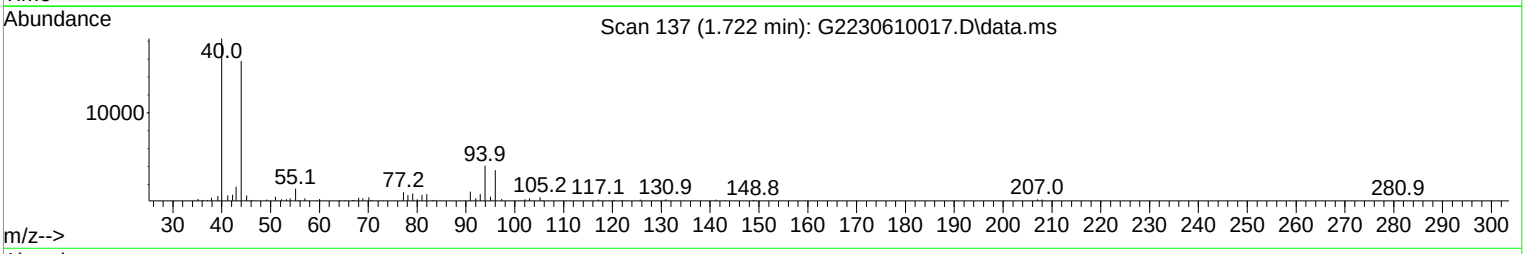


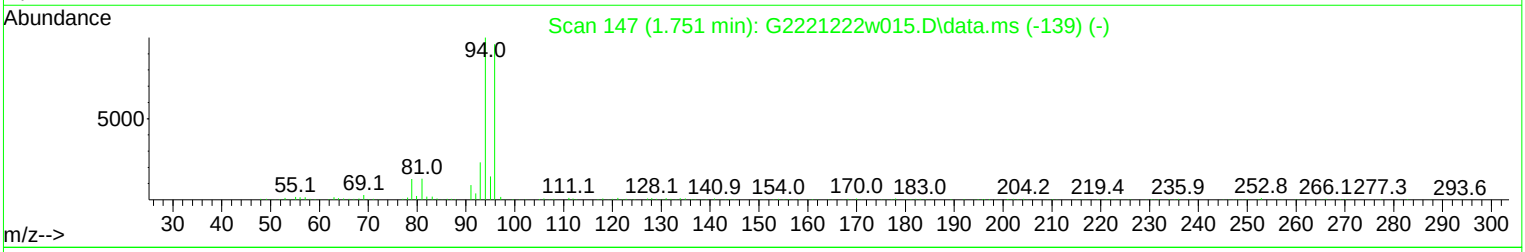
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610017.D
Acq On : 10 Jun 2023 15:07
Operator : PO1/MP3
Sample : 23E0775-26
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 12 10:25:32 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







TIC: G2230610017.D\data.ms

(5) Bromomethane (T)

1.720min (+ 0.006) 0.01 ug/L

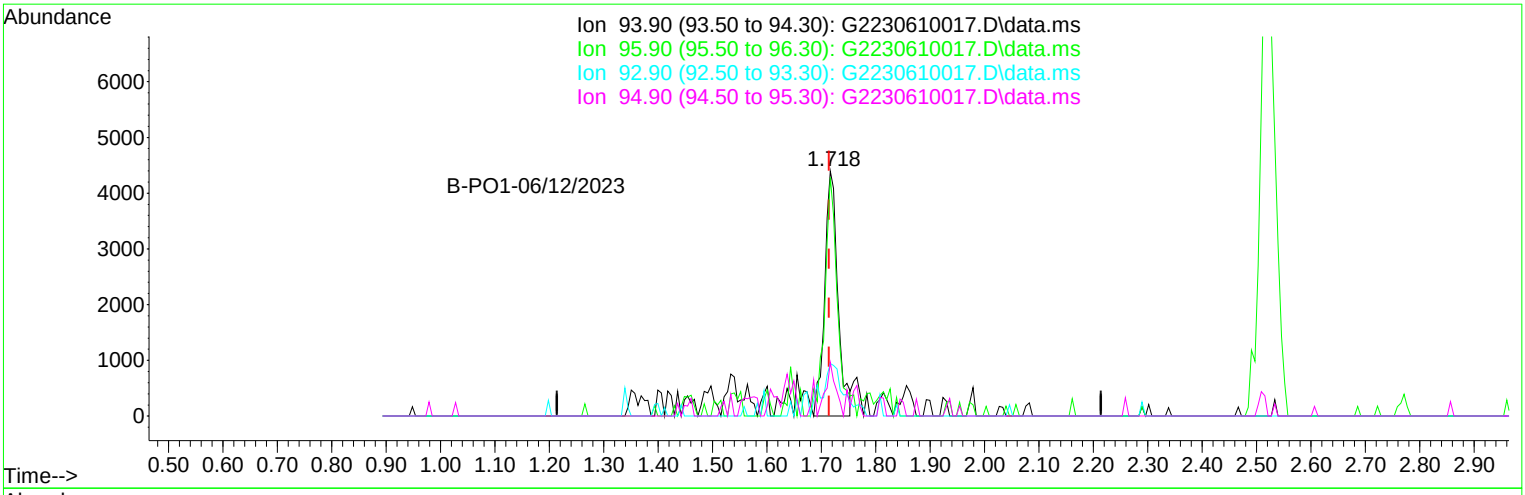
response 63223

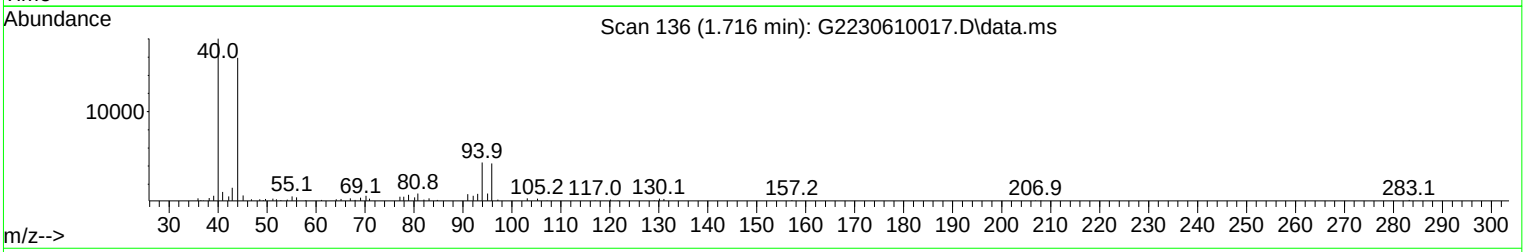
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	110.98
92.90	19.50	0.00
94.90	13.40	0.00

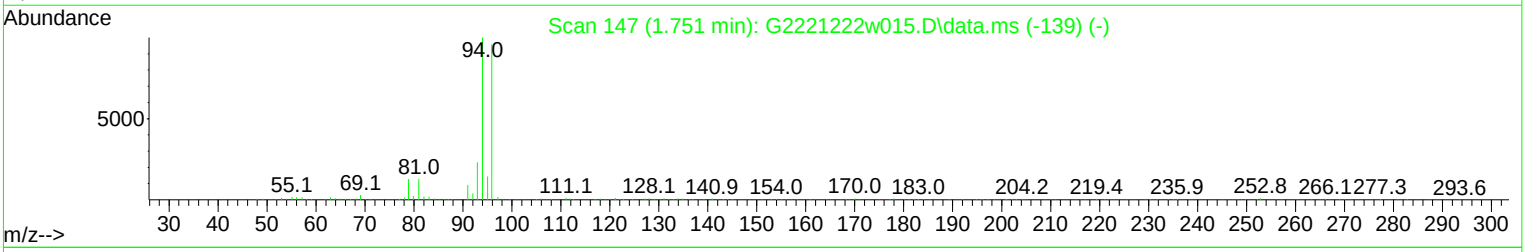
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610017.D
Acq On : 10 Jun 2023 15:07
Operator : PO1/MP3
Sample : 23E0775-26
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 12 10:25:32 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







TIC: G2230610017.D\data.ms

(5) Bromomethane (T)

1.716min (+ 0.002) 0.04 ug/L m

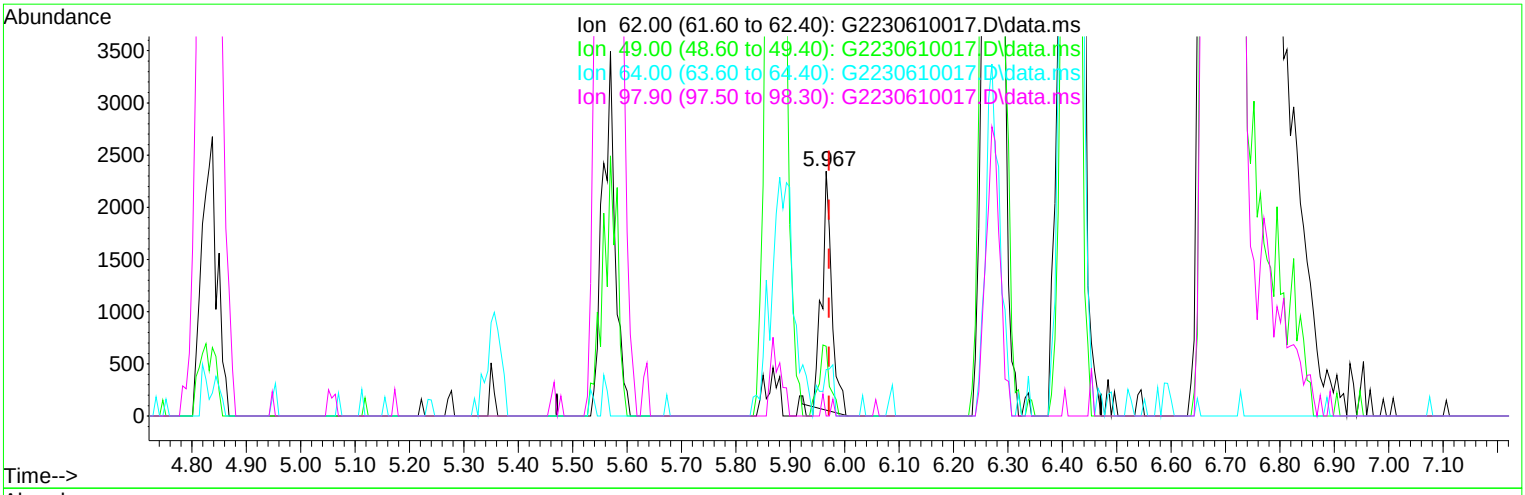
response 70908

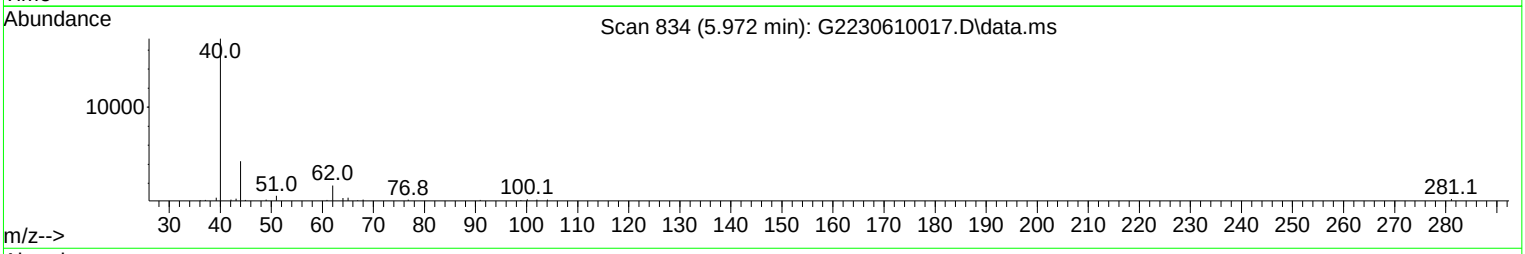
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	98.95
92.90	19.50	0.00
94.90	13.40	0.00

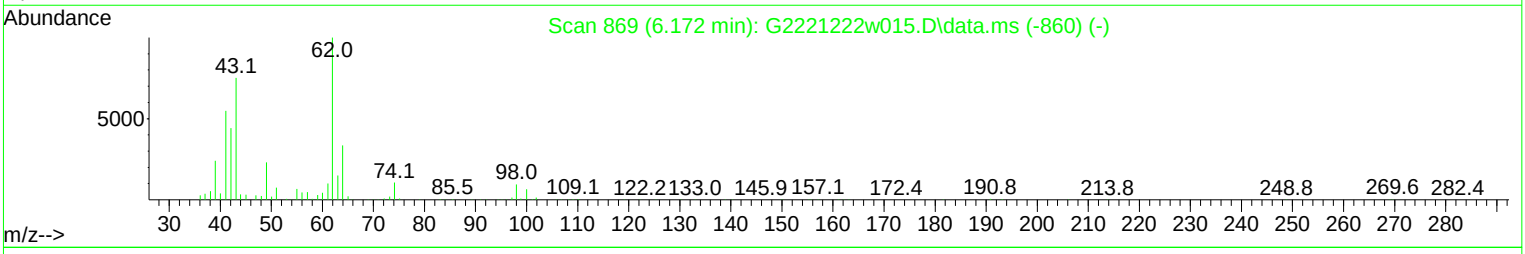
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610017.D
Acq On : 10 Jun 2023 15:07
Operator : PO1/MP3
Sample : 23E0775-26
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 12 10:25:32 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







TIC: G2230610017.D\data.ms

(44) 1,2-Dichloroethane (T)

5.969min (-0.002) -0.04 ug/L

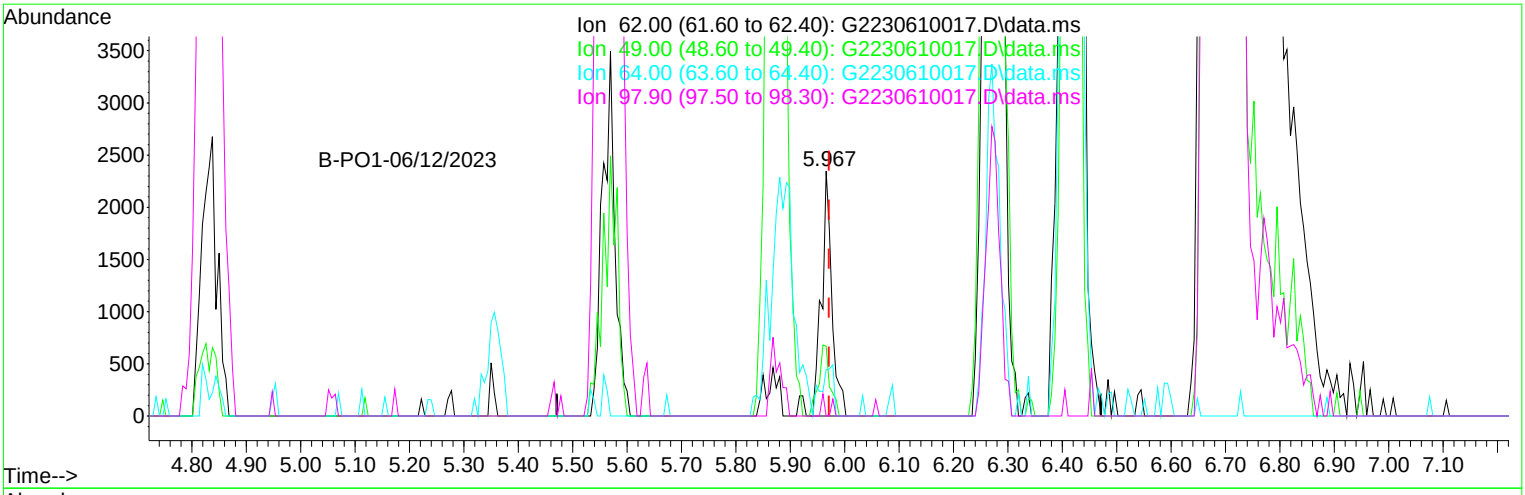
response 28920

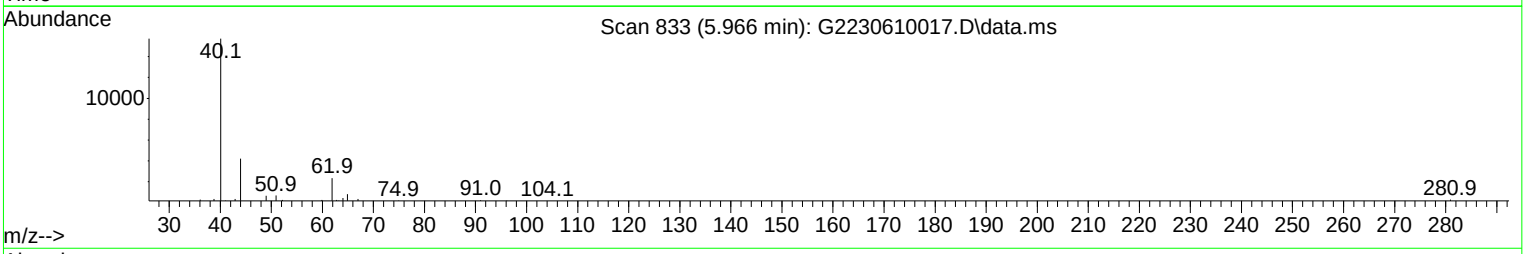
Ion	Exp%	Act%
62.00	100.00	100.00
49.00	30.20	0.00#
64.00	33.00	0.00#
97.90	9.10	0.00

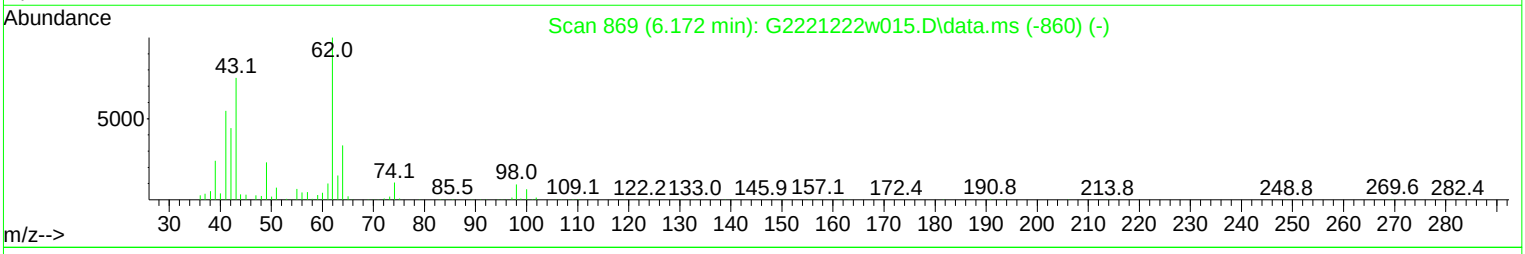
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610017.D
Acq On : 10 Jun 2023 15:07
Operator : PO1/MP3
Sample : 23E0775-26
Misc : 2
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jun 12 10:25:32 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







TIC: G2230610017.D\data.ms

(44) 1,2-Dichloroethane (T)

5.966min (-0.005) -0.03 ug/L m

response 31053

Ion	Exp%	Act%
62.00	100.00	100.00
49.00	30.20	0.00#
64.00	33.00	0.00#
97.90	9.10	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52947WW55

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-27	File ID:	G2230610018.D
Sampled:	05/29/23 11:10	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 15:32
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	0.420	0.191	0.400	1.00	J, 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

52947WW55

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-27	File ID:	G2230610018.D
Sampled:	05/29/23 11:10	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 15:32
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	1.78	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	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

52947WW55

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-27	File ID:	G2230610018.D
Sampled:	05/29/23 11:10	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 15:32
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	0.380	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	1380	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

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610018.D
Acq On : 10 Jun 2023 15:32
Operator : PO1/MP3
Sample : 23E0775-27
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 12 10:28:59 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

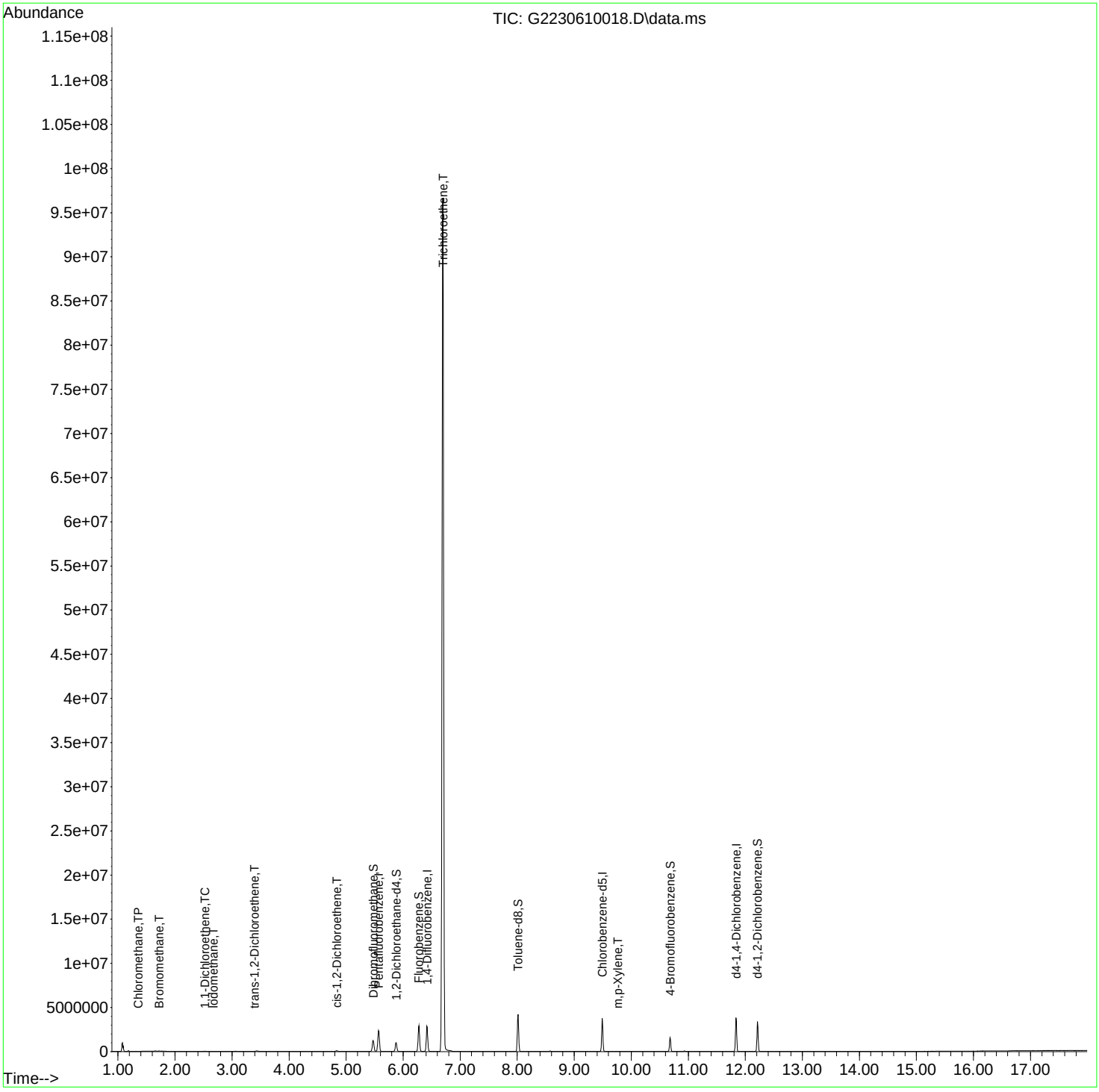
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	18653630	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	25245079	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22181229	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10875070	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7961070	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
43) 1,2-Dichloroethane-d4	5.878	65	7176104	17.69	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.45%			
49) Fluorobenzene	6.278	96	28046737	19.50	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.50%			
64) Toluene-d8	8.016	98	26988514	19.30	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.50%			
81) 4-Bromofluorobenzene	10.684	174	4886757	9.52	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.20%			
97) d4-1,2-Dichlorobenzene	12.217	152	9498732	20.31	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.55%			
Target Compounds						Qvalue
3) Chloromethane	1.356	50	47436	0.05	ug/L #	41
5) Bromomethane	1.722	94	96204m	0.14	ug/L	
10) 1,1-Dichloroethene	2.524	61	117107	0.21	ug/L	81
13) Iodomethane	2.676	142	53551	0.12	ug/L #	83
18) Methylene chloride	3.064	49	131835	Below Cal		72
20) trans-1,2-Dichloroethene	3.395	61	77403	0.19	ug/L #	78
21) Methyl tert-butyl ether	3.437	73	835245	Below Cal		92
28) cis-1,2-Dichloroethene	4.835	61	455329	0.89	ug/L #	67
50) Trichloroethene	6.705	95	229276253	691.64	ug/L	85
75) m,p-Xylene	9.764	91	29429	0.02	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610018.D
Acq On : 10 Jun 2023 15:32
Operator : PO1/MP3
Sample : 23E0775-27
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 12 10:28:59 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610018.D
Acq On : 10 Jun 2023 15:32
Operator : PO1/MP3
Sample : 23E0775-27
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 12 10:28:59 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

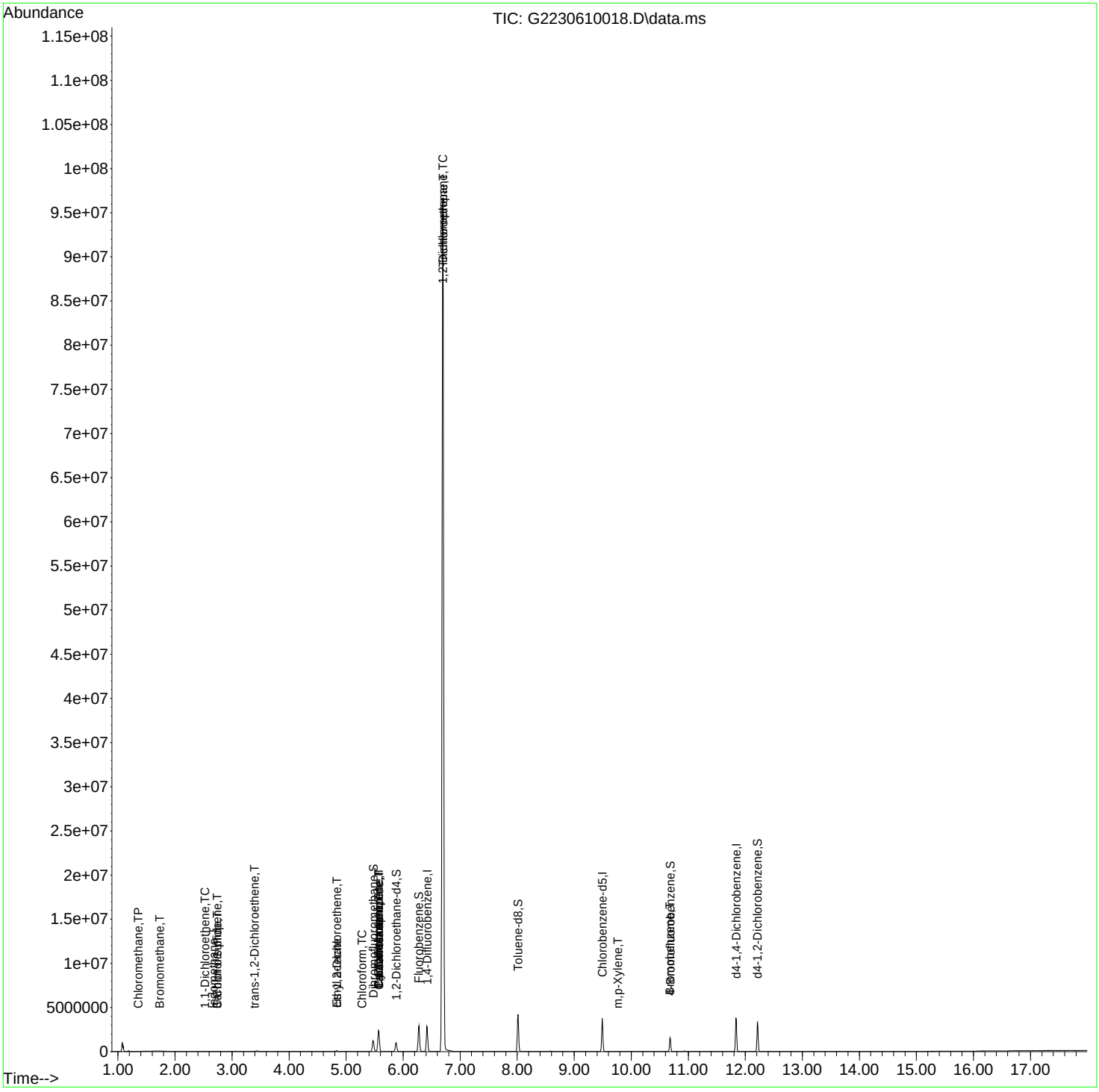
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.572	168	18653630	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.421	114	25245079	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.494	117	22181229	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10875070	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.475	111	7961070	19.39	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.95%			
43) 1,2-Dichloroethane-d4	5.878	65	7176104	17.69	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 88.45%			
49) Fluorobenzene	6.278	96	28046737	19.50	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.50%			
64) Toluene-d8	8.016	98	26988514	19.30	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.50%			
81) 4-Bromofluorobenzene	10.684	174	4886757	9.52	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 95.20%			
97) d4-1,2-Dichlorobenzene	12.217	152	9498732	20.31	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.55%			
Target Compounds						Qvalue
3) Chloromethane	1.356	50	47436	0.05	ug/L #	41
5) Bromomethane	1.726	94	82295	0.08	ug/L #	82
10) 1,1-Dichloroethene	2.524	61	117107	0.21	ug/L	81
12) Acetone	2.608	43	85536	Below Cal		68
13) Iodomethane	2.676	142	53551	0.12	ug/L #	83
14) Carbon disulfide	2.739	76	114776	0.04	ug/L #	74
17) 3-Chloro-1-propene	2.739	76	114772	0.53	ug/L #	53
18) Methylene chloride	3.064	49	131835	Below Cal		72
20) trans-1,2-Dichloroethene	3.395	61	77403	0.19	ug/L #	78
21) Methyl tert-butyl ether	3.437	73	835245	Below Cal		92
28) cis-1,2-Dichloroethene	4.835	61	455329	0.89	ug/L #	67
31) Ethyl acetate	4.835	61	455320	8.02	ug/L #	45
36) Tetrahydrofuran	5.250	42	47335	Below Cal	#	30
37) Chloroform	5.277	83	43179	0.07	ug/L #	25
40) Cyclohexane	5.570	84	383393	0.77	ug/L #	32
41) 1-Chlorobutane	5.570	56	253873	0.44	ug/L #	1
42) 1,1-Dichloropropene	5.571	75	989463	2.26	ug/L #	38
47) Carbon tetrachloride	5.573	117	1507195	3.31	ug/L #	16
50) Trichloroethene	6.705	95	229276253	691.64	ug/L	85
52) 1,2-Dichloropropane	6.696	63	1143431	3.94	ug/L #	1
60) 4-Methyl-2-pentanone	8.015	43	84620	Below Cal	#	1
74) Ethylbenzene	9.764	91	29427	Below Cal	#	44
75) m,p-Xylene	9.764	91	29429	0.02	ug/L #	36
82) Bromobenzene	10.680	77	28336	0.05	ug/L #	1
99) n-Butylbenzene	12.218	91	36175	Below Cal	#	53

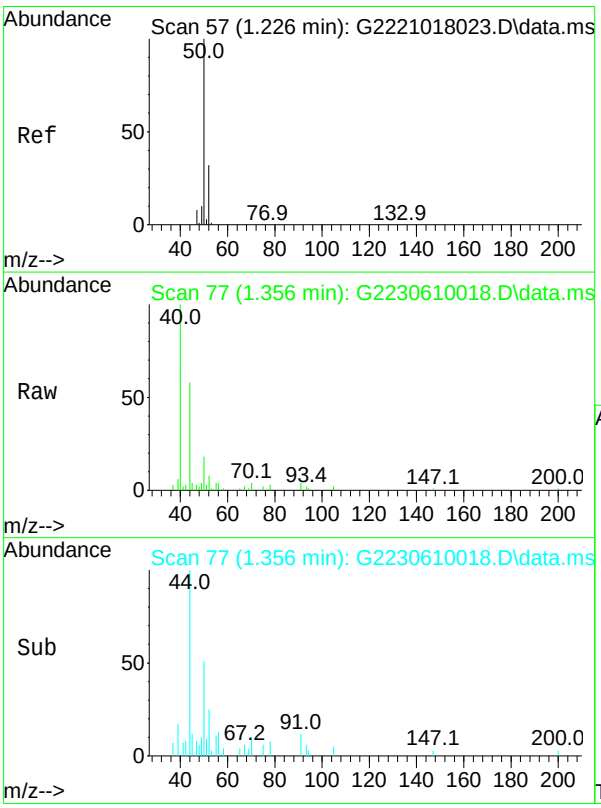
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610018.D
Acq On : 10 Jun 2023 15:32
Operator : PO1/MP3
Sample : 23E0775-27
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 12 10:28:59 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

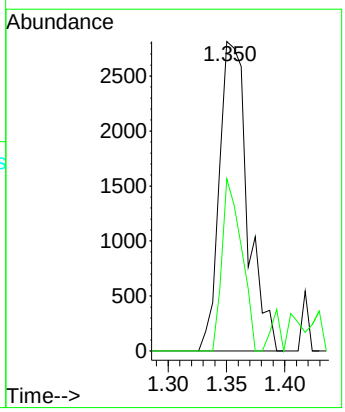


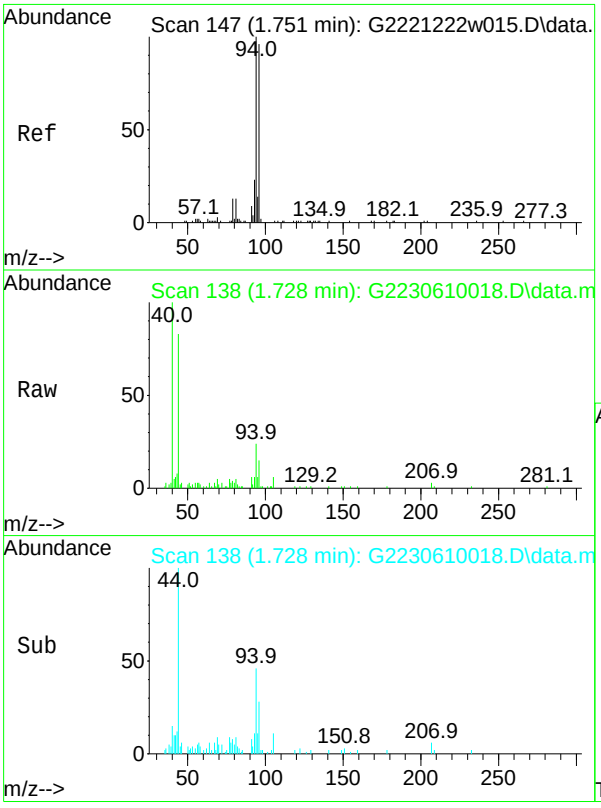


#3
Chloromethane
Concen: 0.05 ug/L
RT: 1.356 min Scan# 77
Delta R.T. 0.002 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 50 Resp: 47436

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

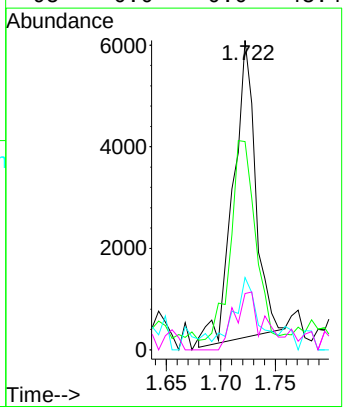


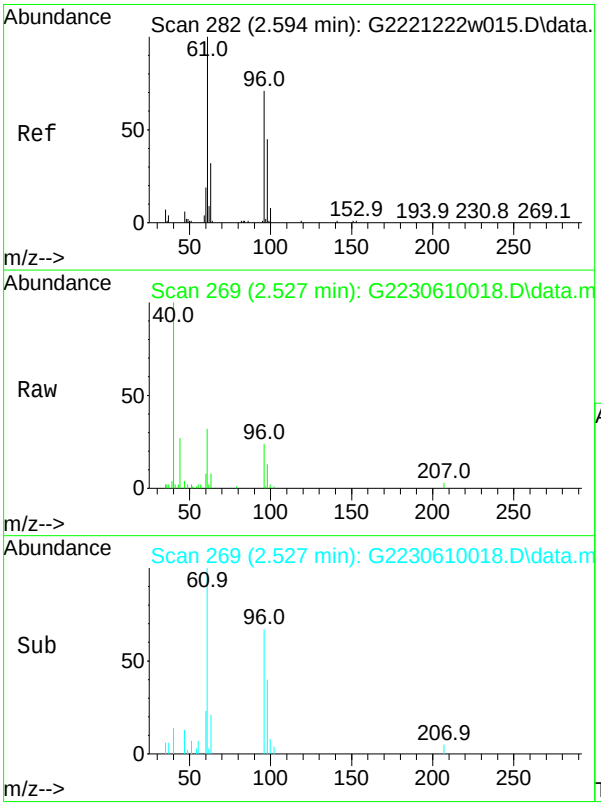


#5
Bromomethane
Concen: 0.08 ug/L
RT: 1.726 min Scan# 138
Delta R.T. 0.012 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 94 Resp: 82295

Ion	Ratio	Lower	Upper
94	100		
96	85.3	65.6	125.6
93	0.0	0.0	49.5
95	0.0	0.0	43.4

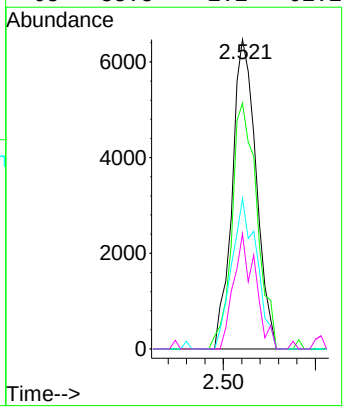


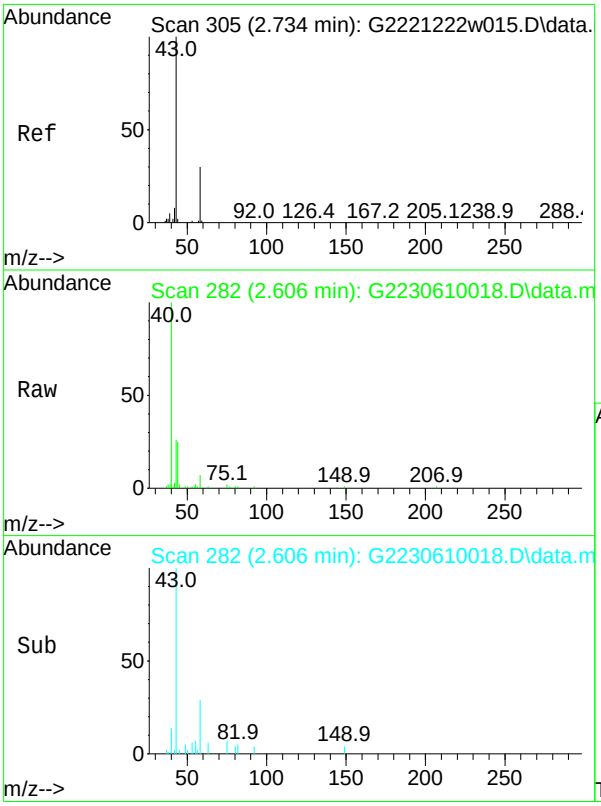


#10
1,1-Dichloroethene
Concen: 0.21 ug/L
RT: 2.524 min Scan# 269
Delta R.T. 0.001 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 61 Resp: 117107

Ion	Ratio	Lower	Upper
61	100		
96	82.9	32.7	92.7
98	50.7	9.3	69.3
63	33.8	1.1	61.1

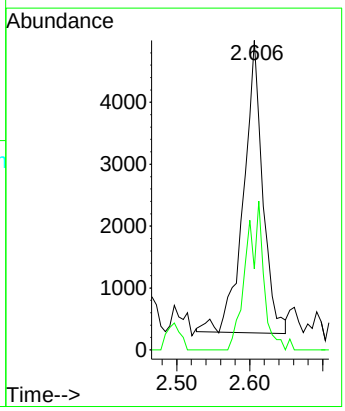


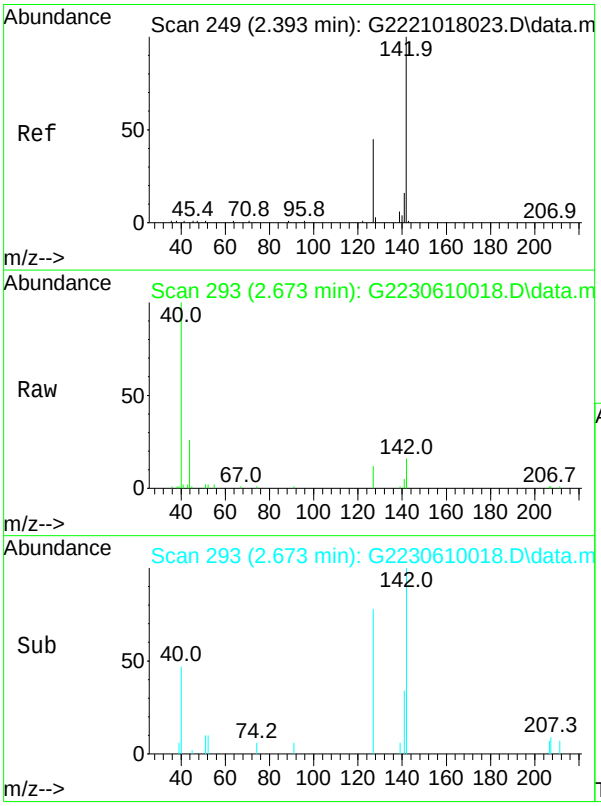


#12
Acetone
Concen: Below Cal
RT: 2.608 min Scan# 282
Delta R.T. 0.000 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 43 Resp: 85536

Ion	Ratio	Lower	Upper
43	100		
58	46.8	0.0	59.7

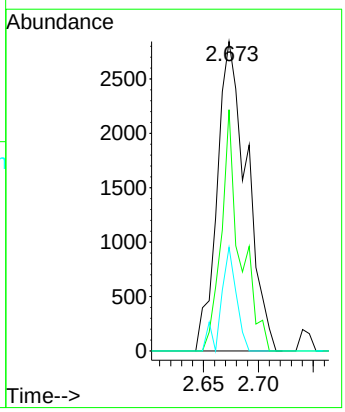


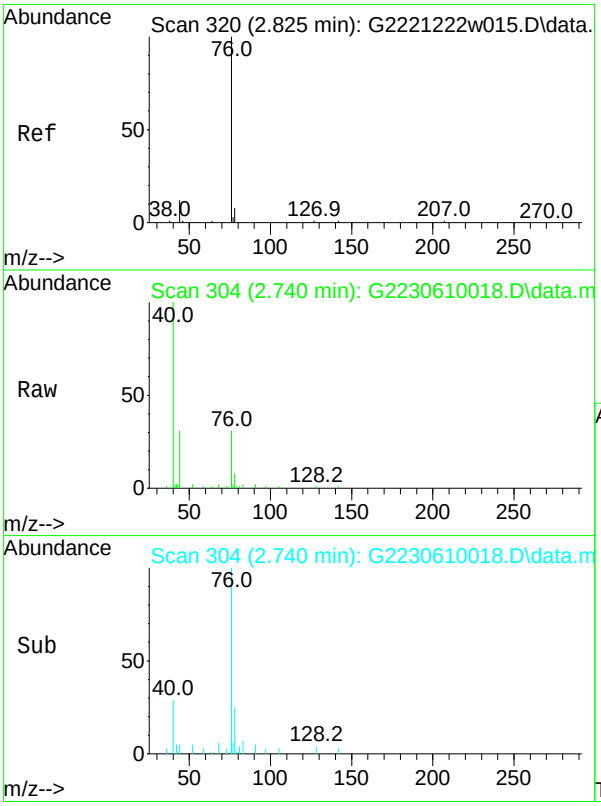


#13
Iodomethane
Concen: 0.12 ug/L
RT: 2.676 min Scan# 293
Delta R.T. -0.000 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion:142 Resp: 53551

Ion	Ratio	Lower	Upper
142	100		
127	49.7	13.3	73.3
141	0.0	0.0	45.3

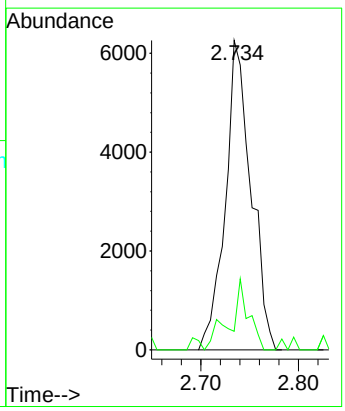


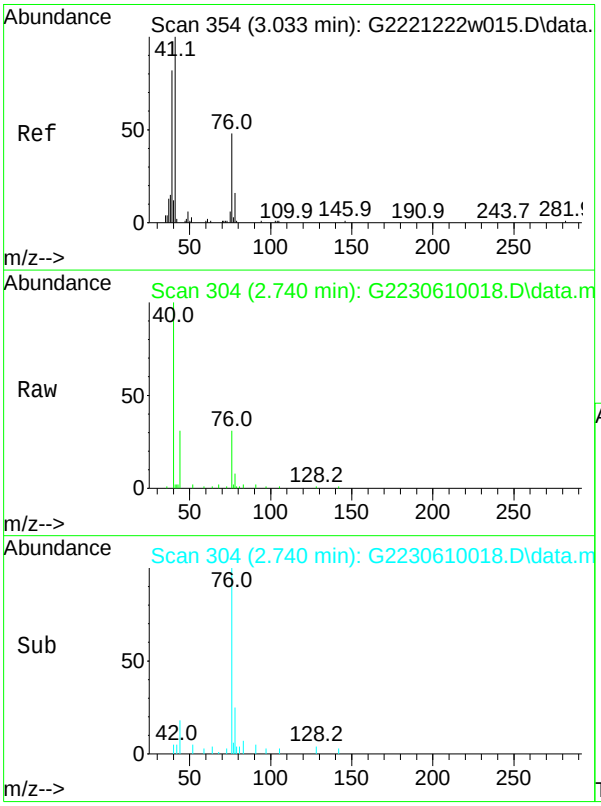


#14
Carbon disulfide
Concen: 0.04 ug/L
RT: 2.739 min Scan# 304
Delta R.T. 0.000 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 76 Resp: 114776

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

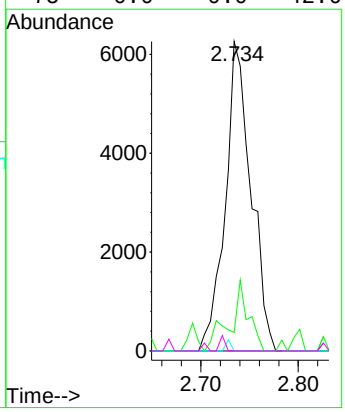


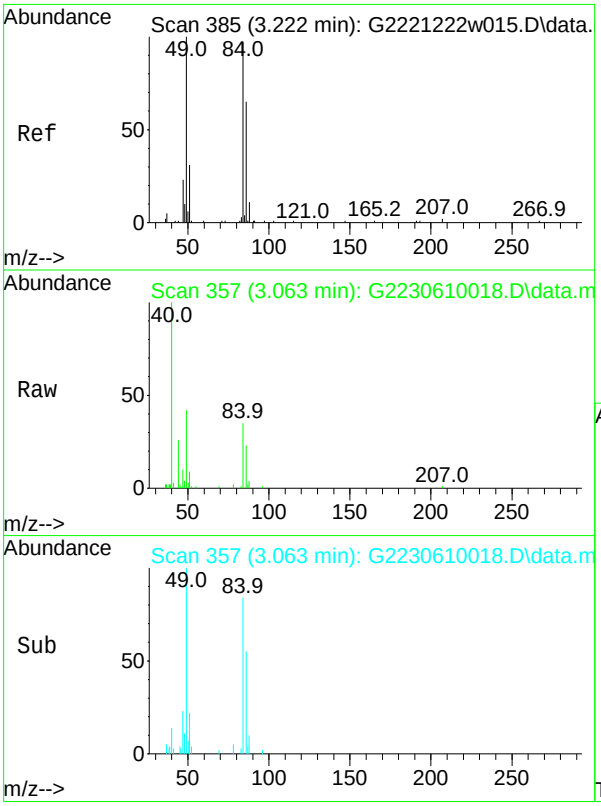


#17
3-Chloro-1-propene
Concen: 0.53 ug/L
RT: 2.739 min Scan# 304
Delta R.T. -0.181 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 76 Resp: 114772

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

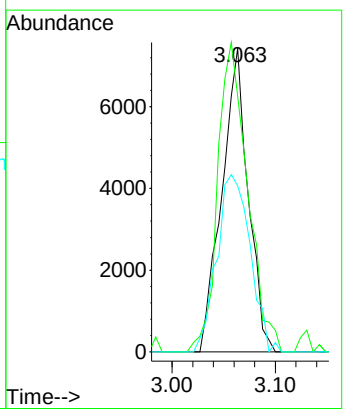


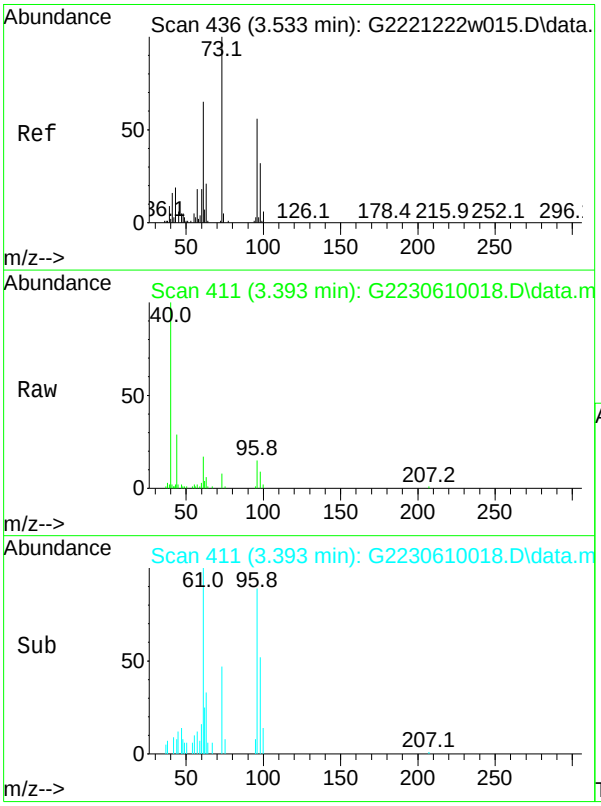


#18
Methylene chloride
Concen: Below Cal
RT: 3.064 min Scan# 357
Delta R.T. 0.002 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 49 Resp: 131835

Ion	Ratio	Lower	Upper
49	100		
84	115.3	57.9	117.9
86	74.0	24.9	84.9

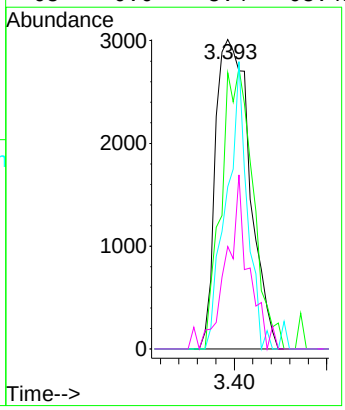


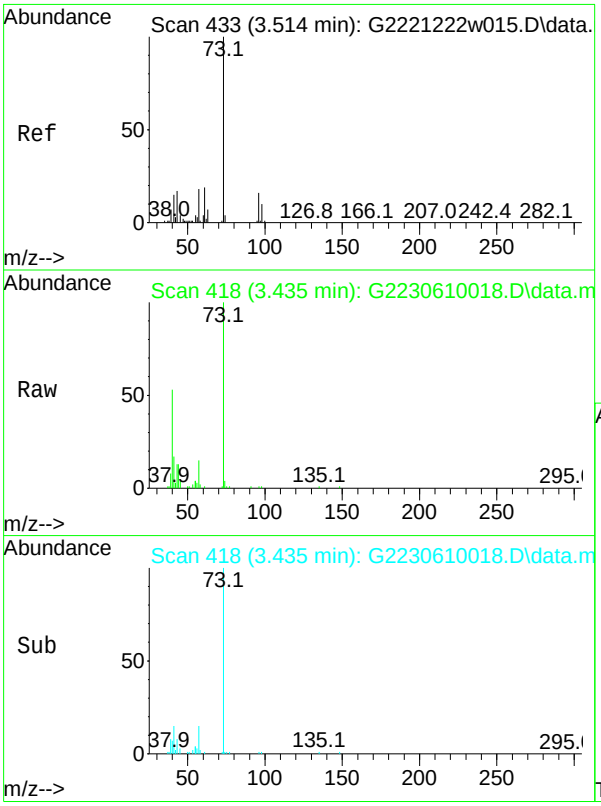


#20
trans-1,2-Dichloroethene
Concen: 0.19 ug/L
RT: 3.395 min Scan# 411
Delta R.T. -0.006 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 61 Resp: 77403

Ion	Ratio	Lower	Upper
61	100		
96	84.7	45.2	105.2
98	56.5	17.2	77.2
63	0.0	3.4	63.4#

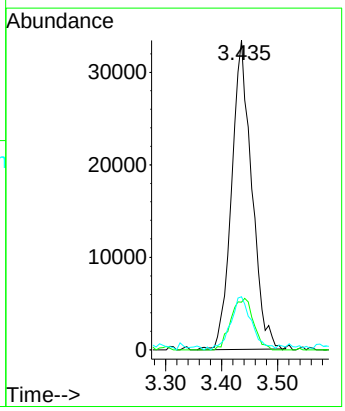


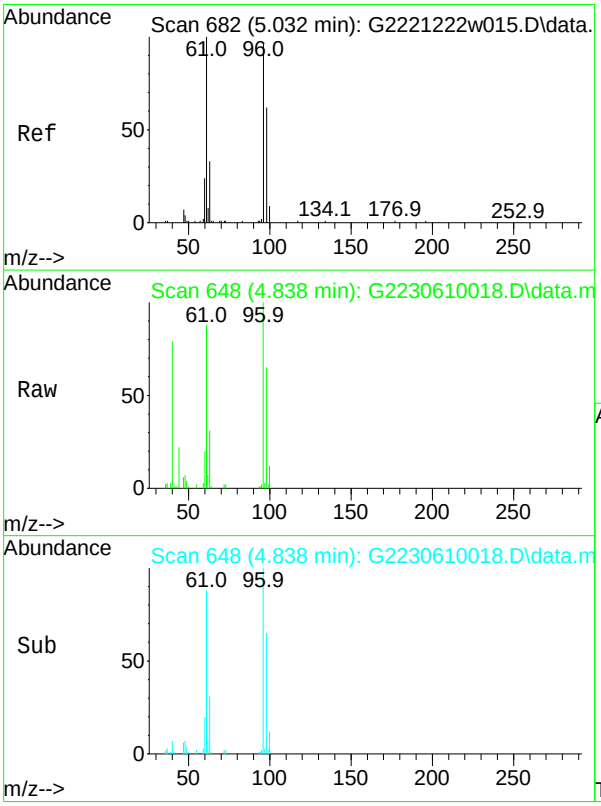


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.437 min Scan# 418
Delta R.T. -0.009 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 73 Resp: 835245

Ion	Ratio	Lower	Upper
73	100		
57	18.7	0.0	51.7
41	16.5	0.0	50.6

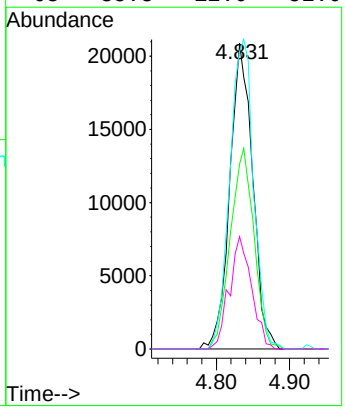


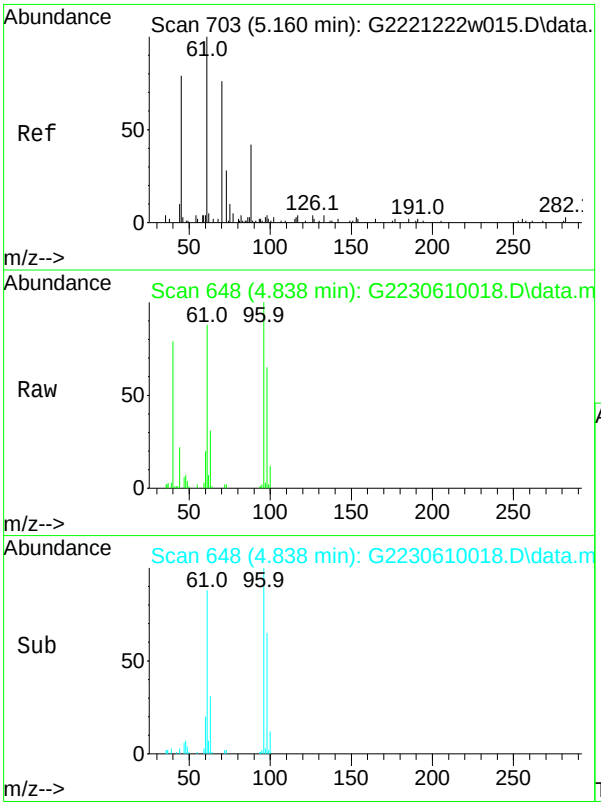


#28
cis-1,2-Dichloroethene
Concen: 0.89 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.001 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 61 Resp: 455329

Ion	Ratio	Lower	Upper
61	100		
98	68.0	15.9	75.9
96	105.7	39.6	99.6#
63	35.8	12.0	52.0

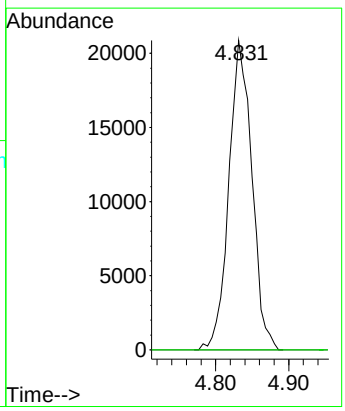


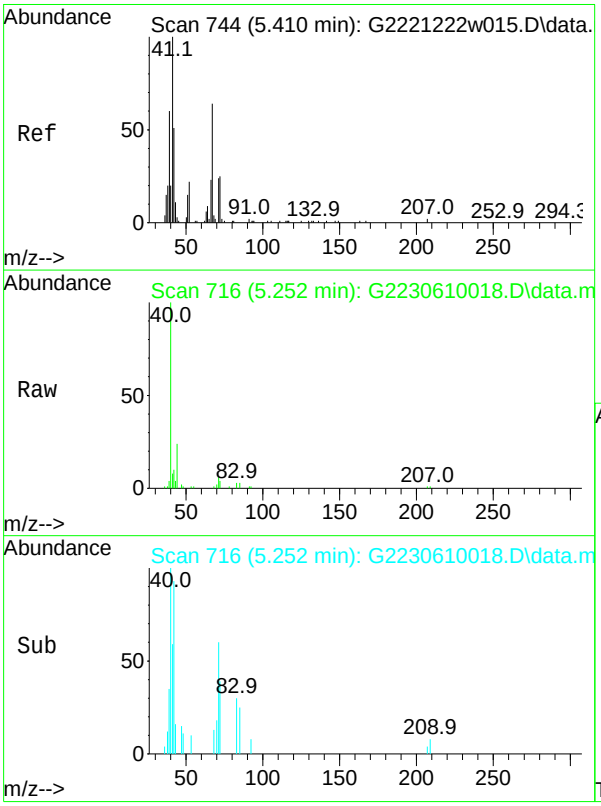


#31
Ethyl acetate
Concen: 8.02 ug/L
RT: 4.835 min Scan# 648
Delta R.T. -0.187 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 61 Resp: 455320

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#

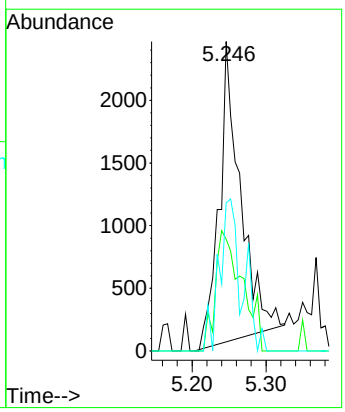


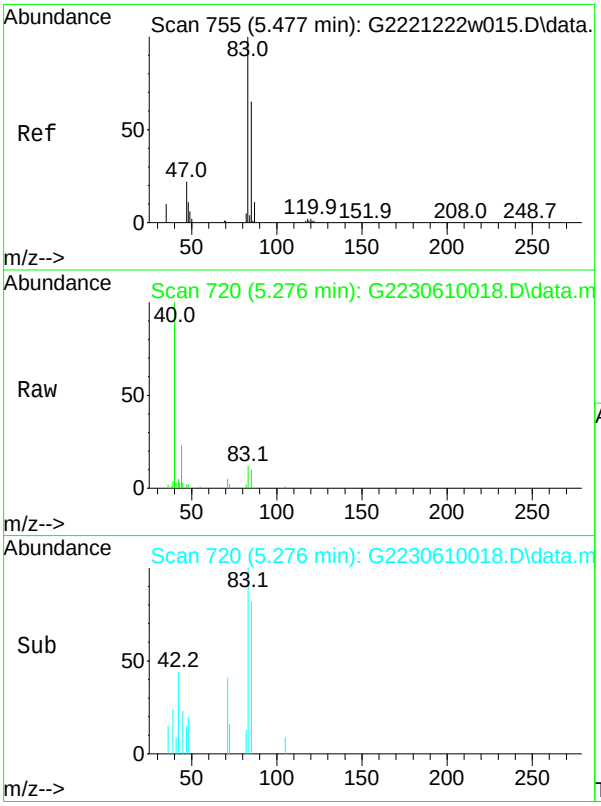


#36
Tetrahydrofuran
Concen: Below Cal
RT: 5.250 min Scan# 716
Delta R.T. -0.011 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 42 Resp: 47335

Ion	Ratio	Lower	Upper
42	100		
72	0.0	18.8	78.8#
71	0.0	14.7	74.7#

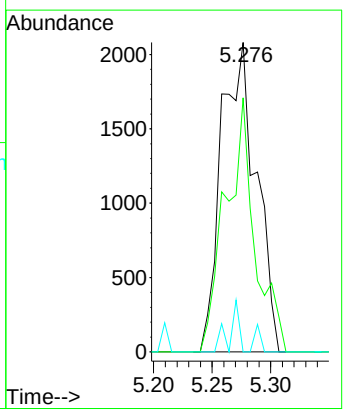


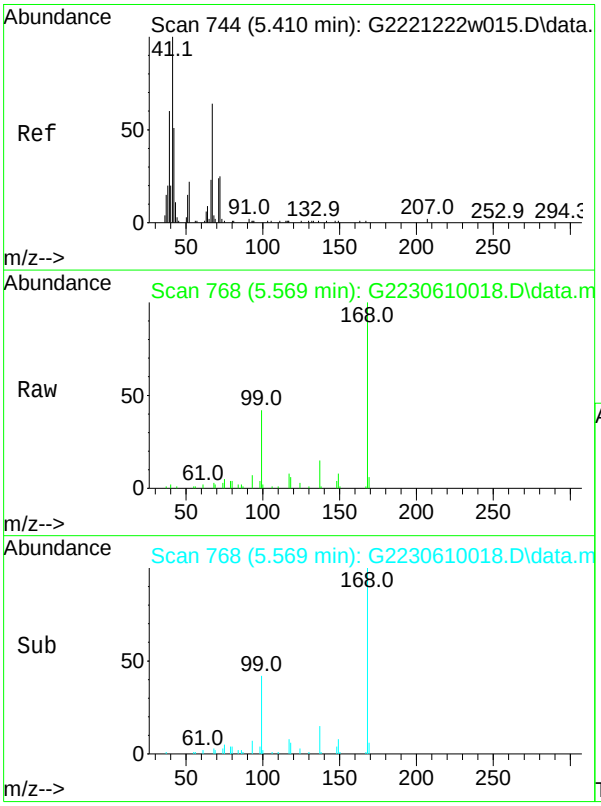


#37
Chloroform
Concen: 0.07 ug/L
RT: 5.277 min Scan# 720
Delta R.T. 0.001 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 83 Resp: 43179

Ion	Ratio	Lower	Upper
83	100		
85	0.0	35.4	95.4#
87	0.0	0.0	40.8

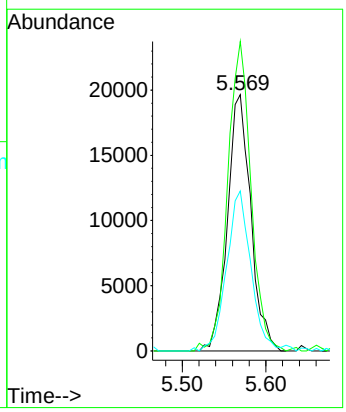


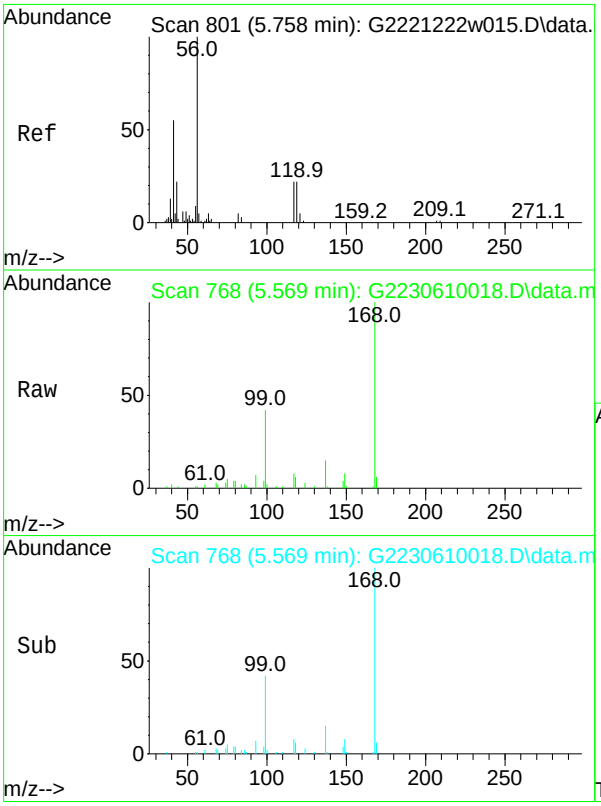


#40
Cyclohexane
Concen: 0.77 ug/L
RT: 5.570 min Scan# 768
Delta R.T. 0.036 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 84 Resp: 383393

Ion	Ratio	Lower	Upper
84	100		
69	117.9	6.8	66.8#
56	61.6	79.1	139.1#

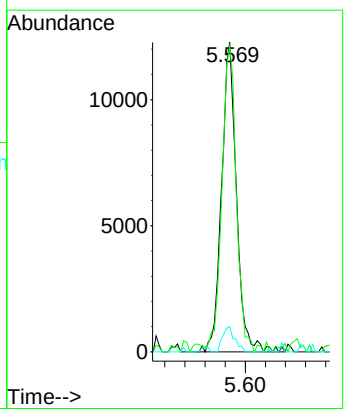


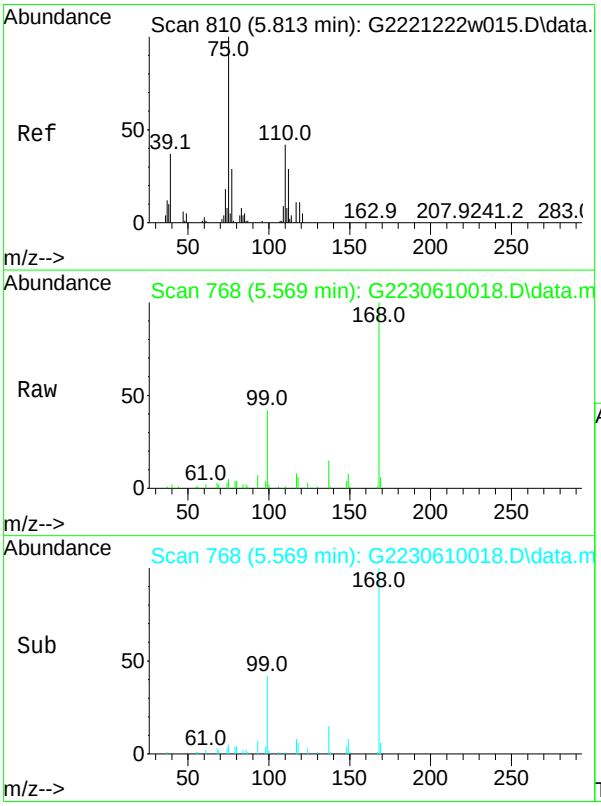


#41
1-Chlorobutane
Concen: 0.44 ug/L
RT: 5.570 min Scan# 768
Delta R.T. -0.060 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 56 Resp: 253873

Ion	Ratio	Lower	Upper
56	100		
55	98.0	0.0	41.0#
57	0.0	0.0	35.7

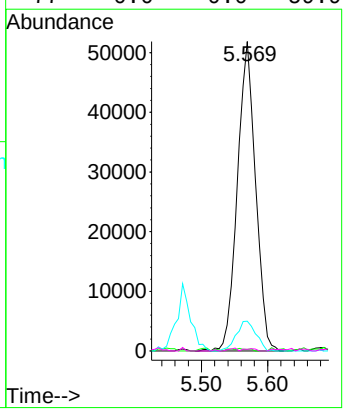


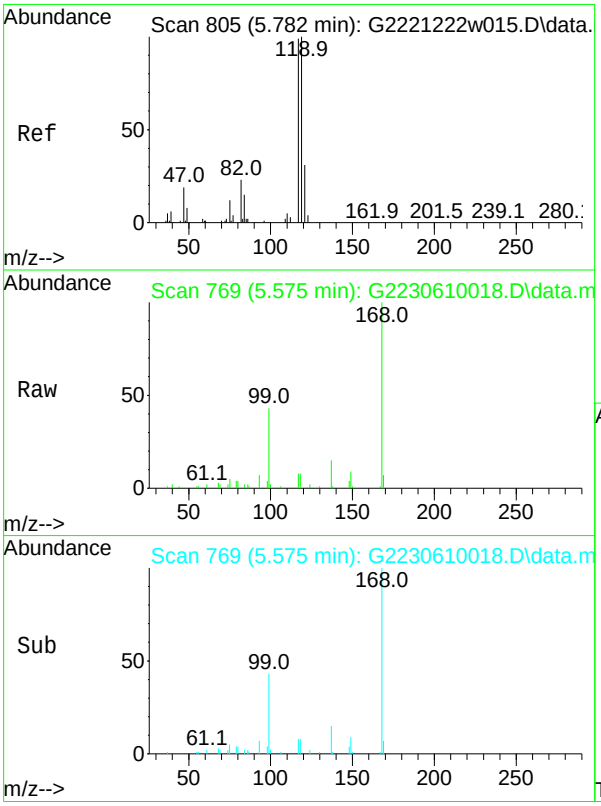


#42
1,1-Dichloropropene
Concen: 2.26 ug/L
RT: 5.571 min Scan# 768
Delta R.T. -0.118 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 75 Resp: 989463

Ion	Ratio	Lower	Upper
75	100		
39	0.0	25.8	85.8#
110	10.4	9.1	69.1
77	0.0	0.0	59.9

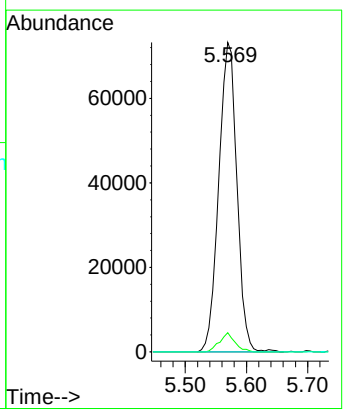


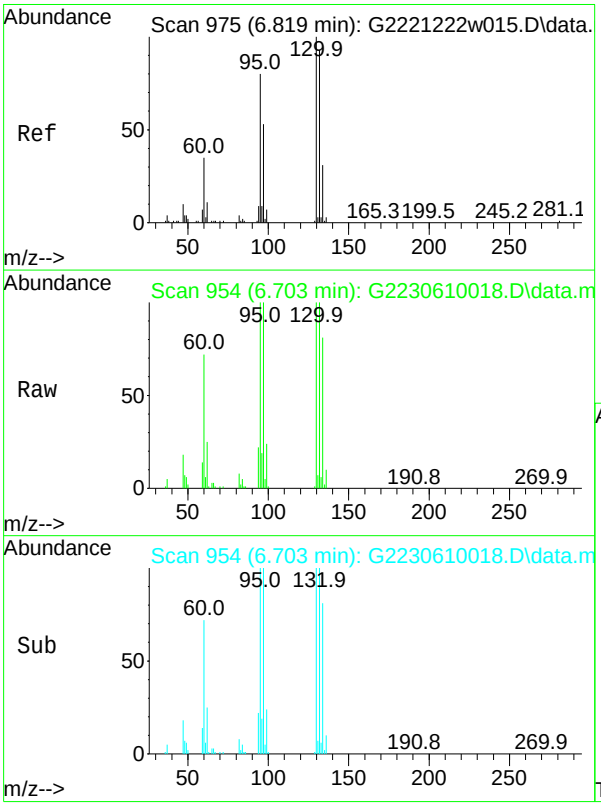


#47
Carbon tetrachloride
Concen: 3.31 ug/L
RT: 5.573 min Scan# 769
Delta R.T. -0.107 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion:117 Resp: 1507195

Ion	Ratio	Lower	Upper
117	100		
119	5.3	66.4	126.4#
121	0.0	0.4	60.4#

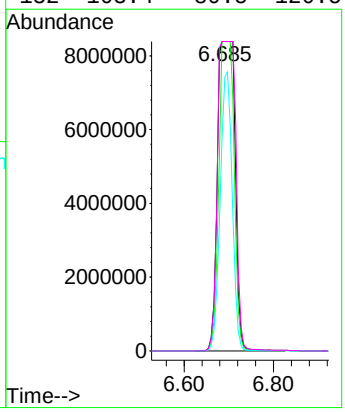


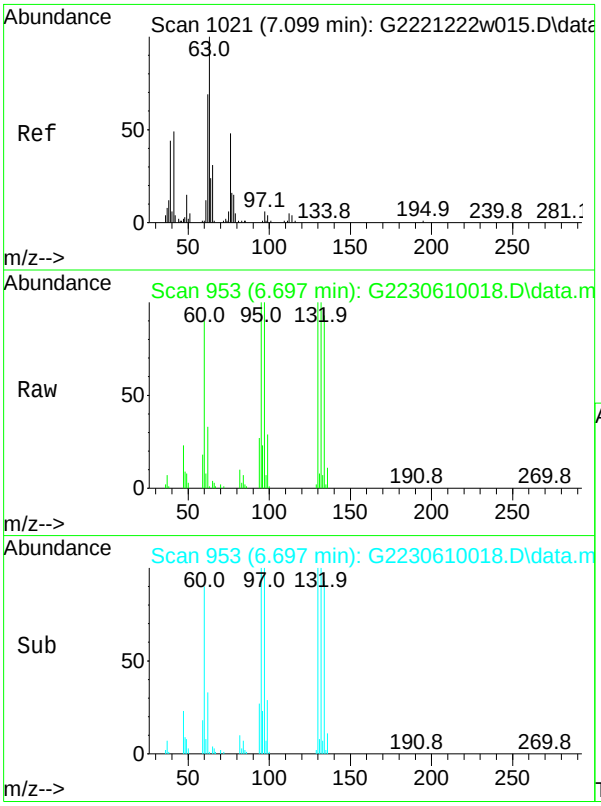


#50
Trichloroethene
Concen: 691.64 ug/L
RT: 6.705 min Scan# 954
Delta R.T. 0.009 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 95 Resp:229276253

Ion	Ratio	Lower	Upper
95	100		
97	86.3	35.5	95.5
60	61.6	14.8	74.8
132	103.4	80.5	120.5

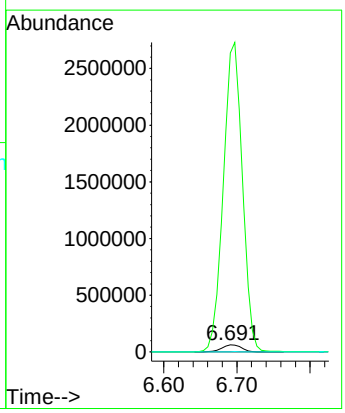


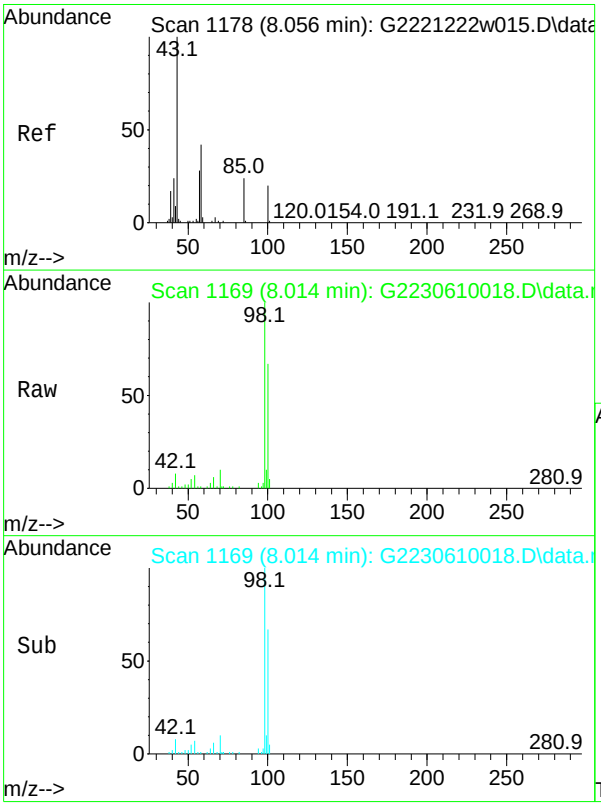


#52
1,2-Dichloropropane
Concen: 3.94 ug/L
RT: 6.696 min Scan# 953
Delta R.T. -0.250 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 63 Resp: 1143431

Ion	Ratio	Lower	Upper
63	100		
62	4319.8	35.2	95.2#
76	0.0	10.7	70.7#

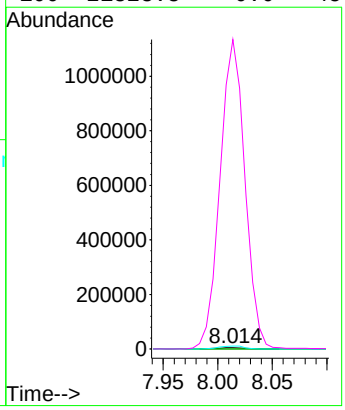


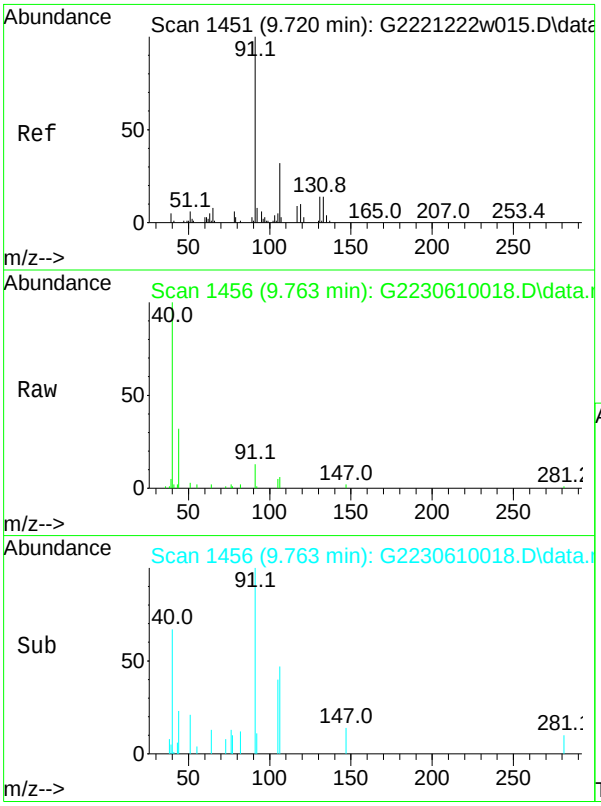


#60
4-Methyl-2-pentanone
Concen: Below Cal
RT: 8.015 min Scan# 1169
Delta R.T. 0.071 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 43 Resp: 84620

Ion	Ratio	Lower	Upper
43	100		
85	0.0	0.0	47.7
58	205.2	37.0	37.0#
100	21323.3	0.0	45.2#

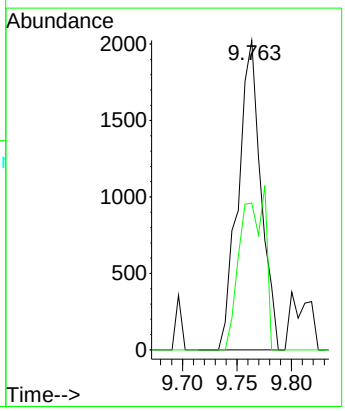


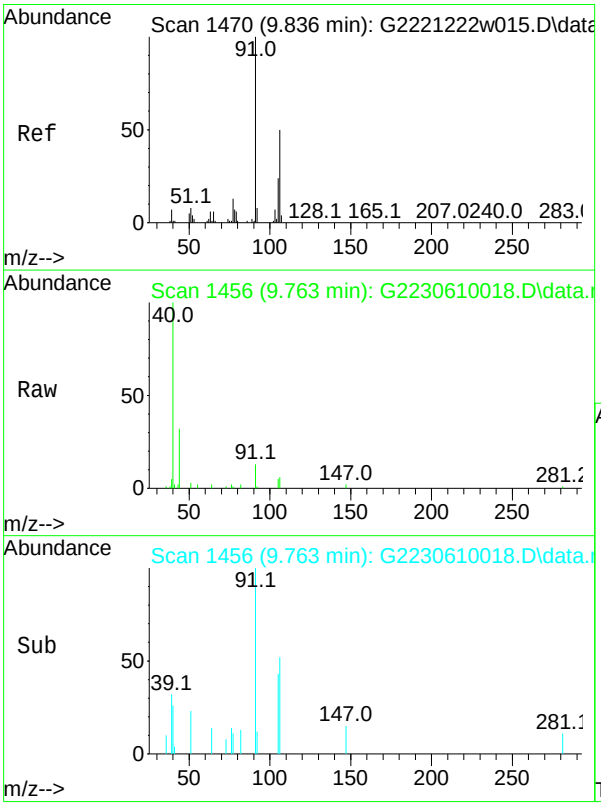


#74
Ethylbenzene
Concen: Below Cal
RT: 9.764 min Scan# 1456
Delta R.T. 0.121 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 91 Resp: 29427

Ion	Ratio	Lower	Upper
91	100		
106	0.0	0.8	60.8#

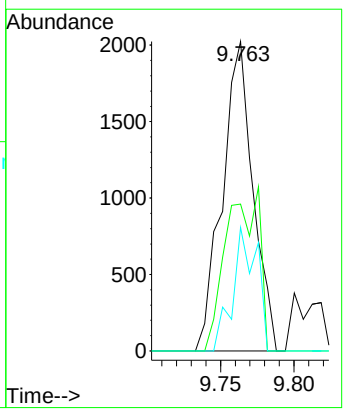


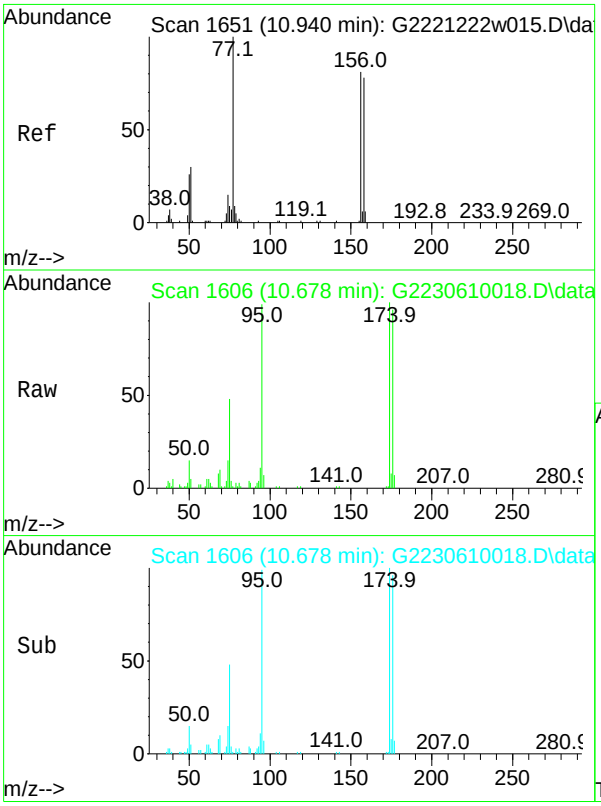


#75
m,p-Xylene
Concen: 0.02 ug/L
RT: 9.764 min Scan# 1456
Delta R.T. 0.000 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 91 Resp: 29429

Ion	Ratio	Lower	Upper
91	100		
106	0.0	19.0	79.0#
105	0.0	0.0	52.7

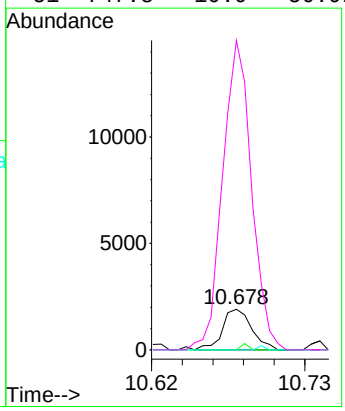


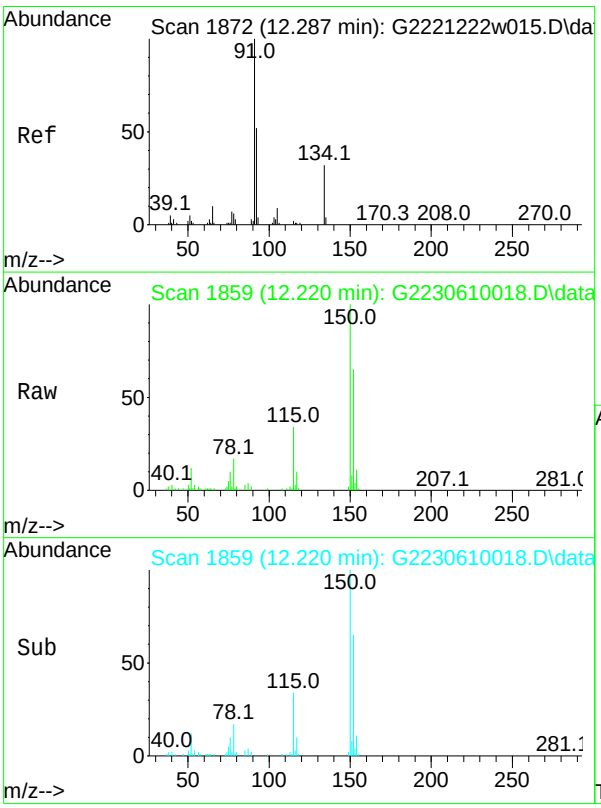


#82
Bromobenzene
Concen: 0.05 ug/L
RT: 10.680 min Scan# 1606
Delta R.T. -0.148 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 77 Resp: 28336

Ion	Ratio	Lower	Upper
77	100		
156	0.0	49.1	89.1#
158	0.0	44.8	84.8#
51	747.8	10.9	50.9#

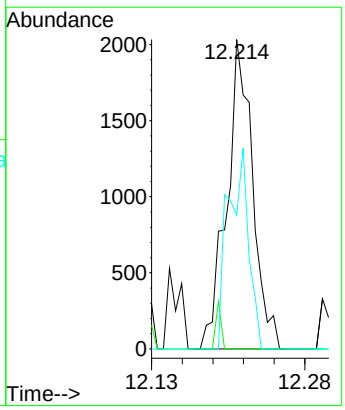




#99
n-Butylbenzene
Concen: Below Cal
RT: 12.218 min Scan# 1859
Delta R.T. -0.013 min
Lab File: G2230610018.D
Acq: 10 Jun 2023 15:32

Tgt Ion: 91 Resp: 36175

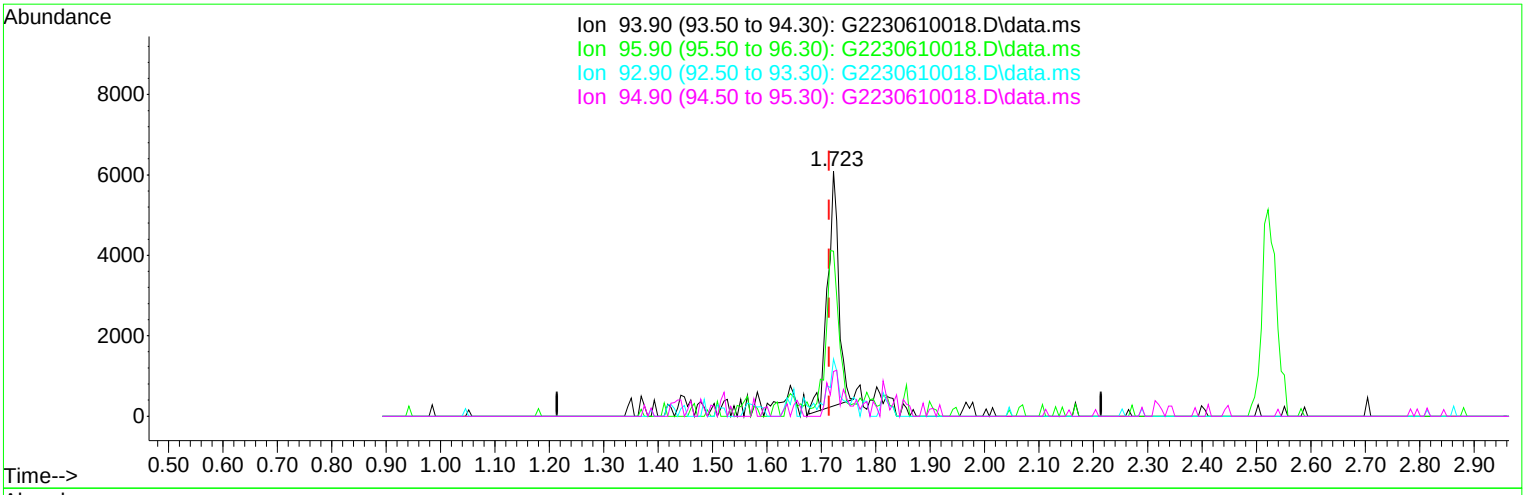
Ion	Ratio	Lower	Upper
91	100		
93	0.0	0.0	33.6
134	0.0	0.0	56.6

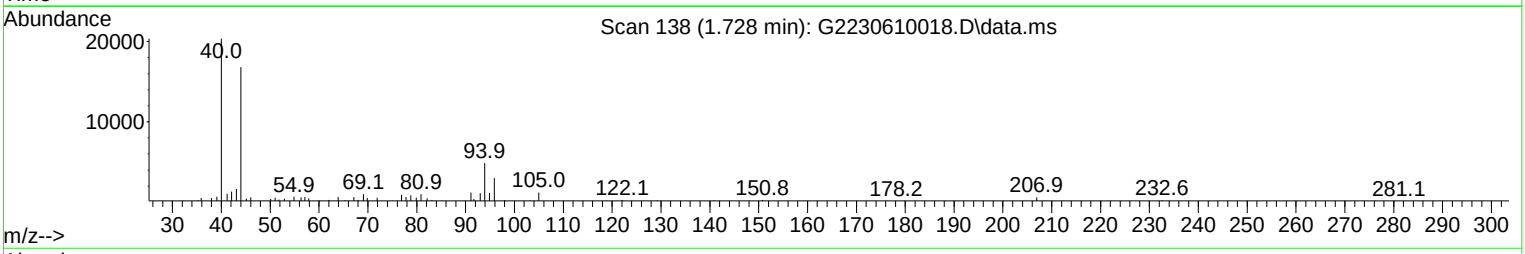


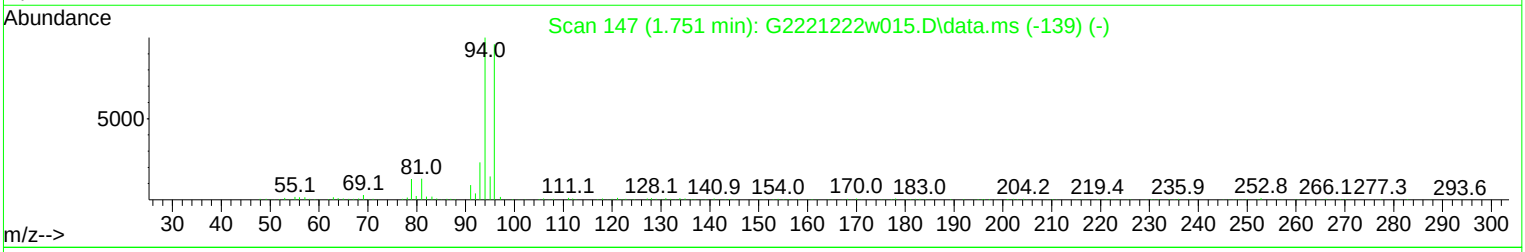
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610018.D
Acq On : 10 Jun 2023 15:32
Operator : PO1/MP3
Sample : 23E0775-27
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 12 10:28:59 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: G2230610018.D\data.ms

(5) Bromomethane (T)

1.726min (+ 0.012) 0.08 ug/L

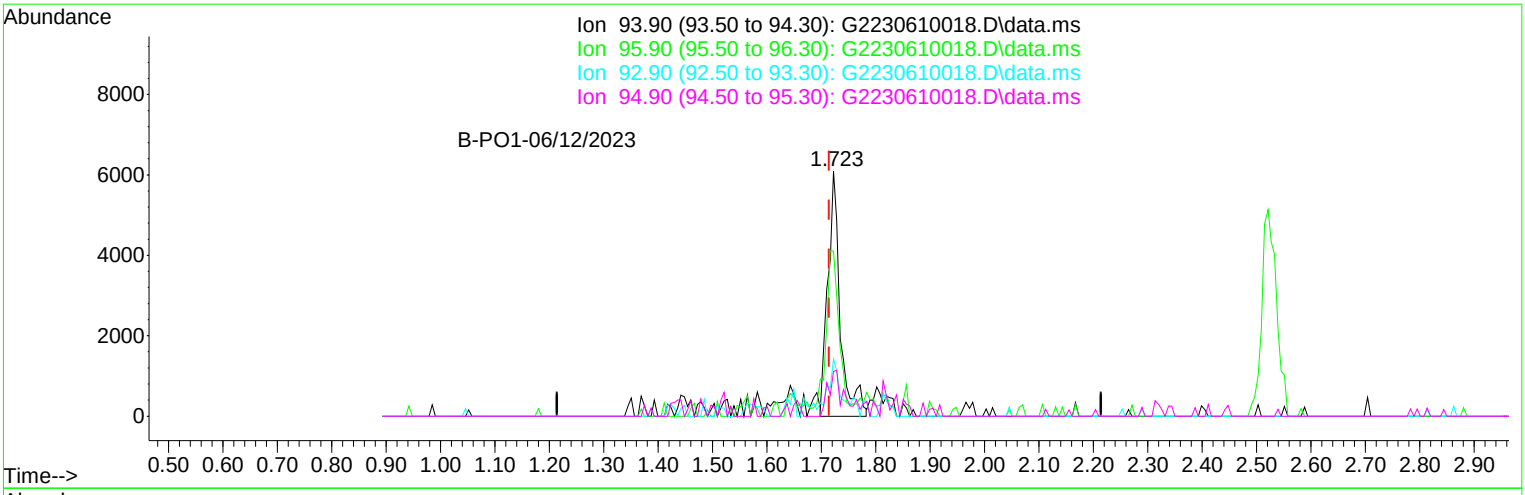
response 82295

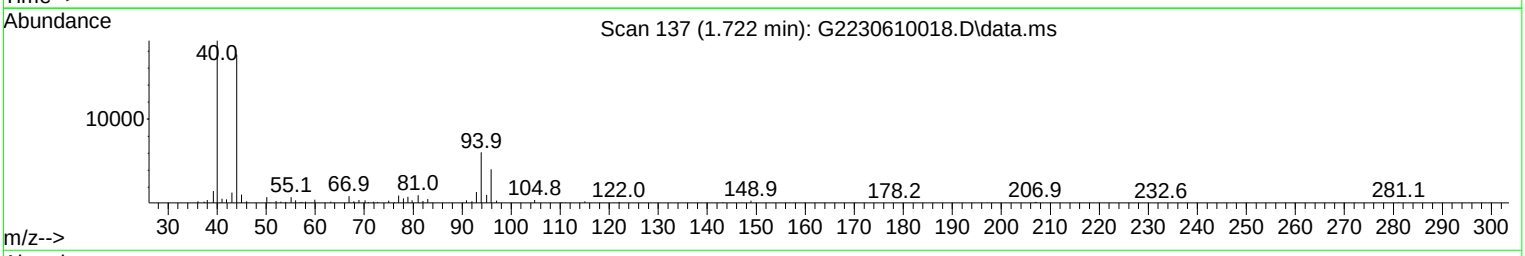
Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	85.30
92.90	19.50	0.00
94.90	13.40	0.00

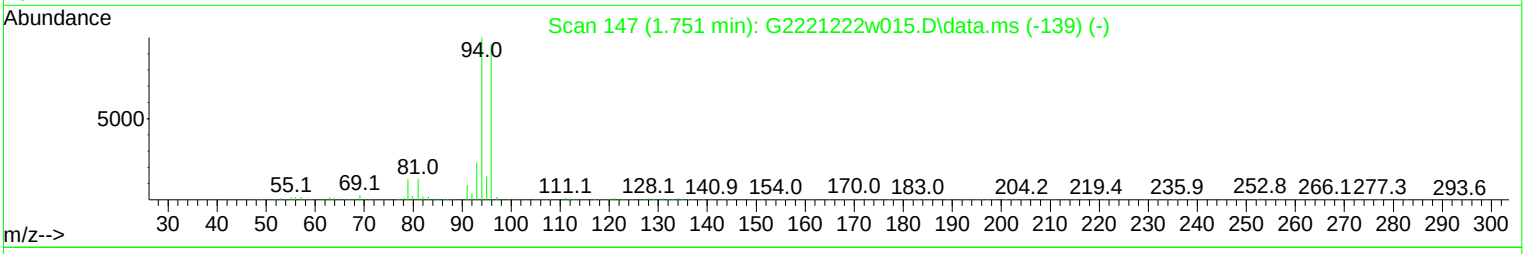
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610018.D
Acq On : 10 Jun 2023 15:32
Operator : PO1/MP3
Sample : 23E0775-27
Misc : 2
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jun 12 10:28:59 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: G2230610018.D\data.ms

(5) Bromomethane (T)

1.722min (+ 0.008) 0.14 ug/L m

response 96204

Ion	Exp%	Act%
93.90	100.00	100.00
95.90	95.60	72.97
92.90	19.50	0.00
94.90	13.40	0.00

1 - FORM I
ANALYSIS DATA SHEET

SW8260B/D

52947WW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-28	File ID:	G2230610019.D
Sampled:	05/29/23 14:31	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 15:57
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	8.36	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

52947WW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-28	File ID:	G2230610019.D
Sampled:	05/29/23 14:31	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 15:57
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	69.8	0.205	0.600	1.20	E, 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	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

52947WW54

Laboratory:	Sterling Labs			SDG:	23E0775
Client:	HDR			Project:	Longhorn AAP
Matrix:	Groundwater	Laboratory ID:	23E0775-28	File ID:	G2230610019.D
Sampled:	05/29/23 14:31	Prepared:	06/10/23 11:00	Analyzed:	06/10/23 15:57
		Preparation:	5030_W	Dilution:	2
Initial/Final:	5 ml / 5 ml				
Batch:	B3F0327	Sequence:	S3F0187	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	4.62	0.171	0.400	1.00	D
10061-02-6	trans-1,3-Dichloropropene		0.117	0.400	1.00	U
79-01-6	Trichloroethene	1940	0.156	0.400	1.00	E, D
75-69-4	Trichlorofluoromethane		0.101	0.400	1.00	U
75-01-4	Vinyl chloride	0.680	0.258	1.00	2.00	J, D

Italicized = secondary result

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610019.D
Acq On : 10 Jun 2023 15:57
Operator : PO1/MP3
Sample : 23E0775-28
Misc : 2
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 12 10:38:05 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

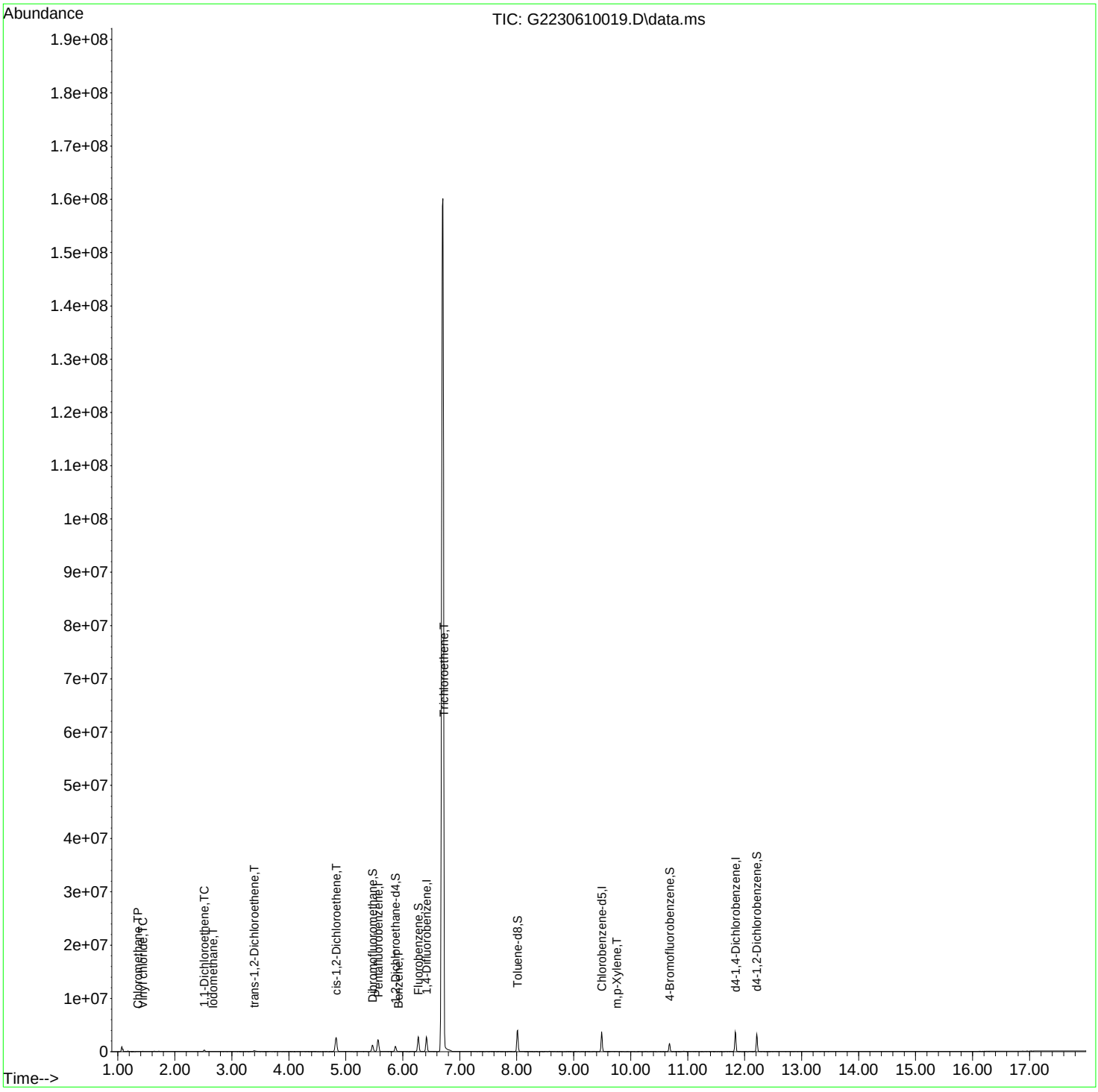
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.569	168	18039829	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.418	114	24429336	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	21445380	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10366821	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.471	111	7593170	19.13	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.65%			
43) 1,2-Dichloroethane-d4	5.874	65	6901534	17.59	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.95%			
49) Fluorobenzene	6.275	96	26768842	19.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%			
64) Toluene-d8	8.015	98	26236211	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
81) 4-Bromofluorobenzene	10.684	174	4766681	9.74	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.40%			
97) d4-1,2-Dichlorobenzene	12.216	152	9114576	20.44	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.20%			
Target Compounds						Qvalue
3) Chloromethane	1.350	50	40378	0.03	ug/L #	41
4) Vinyl chloride	1.439	62	121699	0.34	ug/L	96
5) Bromomethane	1.719	94	57634	Below Cal	#	60
10) 1,1-Dichloroethene	2.517	61	1636877	4.18	ug/L	87
12) Acetone	2.602	43	80880	Below Cal		96
13) Iodomethane	2.669	142	50457	0.12	ug/L #	76
18) Methylene chloride	3.054	49	134238	Below Cal		78
20) trans-1,2-Dichloroethene	3.395	61	904390	2.31	ug/L	86
21) Methyl tert-butyl ether	3.432	73	770896	Below Cal		96
28) cis-1,2-Dichloroethene	4.831	61	15800460	34.92	ug/L #	73
48) Benzene	5.923	78	32456m	0.03	ug/L	
50) Trichloroethene	6.719	95	310756981	968.77	ug/L #	78
75) m,p-Xylene	9.760	91	30309	0.03	ug/L #	36

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610019.D
Acq On : 10 Jun 2023 15:57
Operator : PO1/MP3
Sample : 23E0775-28
Misc : 2
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 12 10:38:05 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



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610019.D
Acq On : 10 Jun 2023 15:57
Operator : PO1/MP3
Sample : 23E0775-28
Misc : 2
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 12 10:38:05 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	18039829	20.00	ug/L	0.00
46) 1,4-Difluorobenzene	6.418	114	24429336	20.00	ug/L	0.00
63) Chlorobenzene-d5	9.493	117	21445380	20.00	ug/L	0.00
78) d4-1,4-Dichlorobenzene	11.840	152	10366821	20.00	ug/L	0.00
System Monitoring Compounds						
38) Dibromofluoromethane	5.471	111	7593170	19.13	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.65%			
43) 1,2-Dichloroethane-d4	5.874	65	6901534	17.59	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.95%			
49) Fluorobenzene	6.275	96	26768842	19.23	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.15%			
64) Toluene-d8	8.015	98	26236211	19.41	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.05%			
81) 4-Bromofluorobenzene	10.684	174	4766681	9.74	ug/L	0.00
Spiked Amount 10.000	Range 80 - 120		Recovery = 97.40%			
97) d4-1,2-Dichlorobenzene	12.216	152	9114576	20.44	ug/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.20%			
Target Compounds						Qvalue
3) Chloromethane	1.350	50	40378	0.03	ug/L #	41
4) Vinyl chloride	1.439	62	121699	0.34	ug/L	96
5) Bromomethane	1.719	94	57634	Below Cal	#	60
8) Ethyl ether	2.515	59	64574	0.19	ug/L #	13
10) 1,1-Dichloroethene	2.517	61	1636877	4.18	ug/L	87
12) Acetone	2.602	43	80880	Below Cal		96
13) Iodomethane	2.669	142	50457	0.12	ug/L #	76
14) Carbon disulfide	2.735	76	122157	0.06	ug/L #	74
17) 3-Chloro-1-propene	2.735	76	122583	0.60	ug/L #	53
18) Methylene chloride	3.054	49	134238	Below Cal		78
20) trans-1,2-Dichloroethene	3.395	61	904390	2.31	ug/L	86
21) Methyl tert-butyl ether	3.432	73	770896	Below Cal		96
28) cis-1,2-Dichloroethene	4.831	61	15800460	34.92	ug/L #	73
29) 2-Butanone	4.834	72	128444	2.32	ug/L #	42
31) Ethyl acetate	4.831	61	15857310	297.23	ug/L #	45
40) Cyclohexane	5.565	84	368690	0.76	ug/L #	36
41) 1-Chlorobutane	5.564	56	241643	0.43	ug/L #	1
42) 1,1-Dichloropropene	5.566	75	908736	2.15	ug/L #	39
47) Carbon tetrachloride	5.569	117	1409214	3.20	ug/L #	16
48) Benzene	5.925	78	21898	0.02	ug/L #	52
50) Trichloroethene	6.719	95	310756981	968.77	ug/L #	78
52) 1,2-Dichloropropane	6.701	63	3388017	12.23	ug/L #	1
60) 4-Methyl-2-pentanone	8.013	43	85428	Below Cal	#	1
74) Ethylbenzene	9.761	91	28112	Below Cal	#	44
75) m,p-Xylene	9.760	91	30309	0.03	ug/L #	36
82) Bromobenzene	10.689	77	33500	0.06	ug/L #	1

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610019.D
Acq On : 10 Jun 2023 15:57
Operator : PO1/MP3
Sample : 23E0775-28
Misc : 2
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 12 10:38:05 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

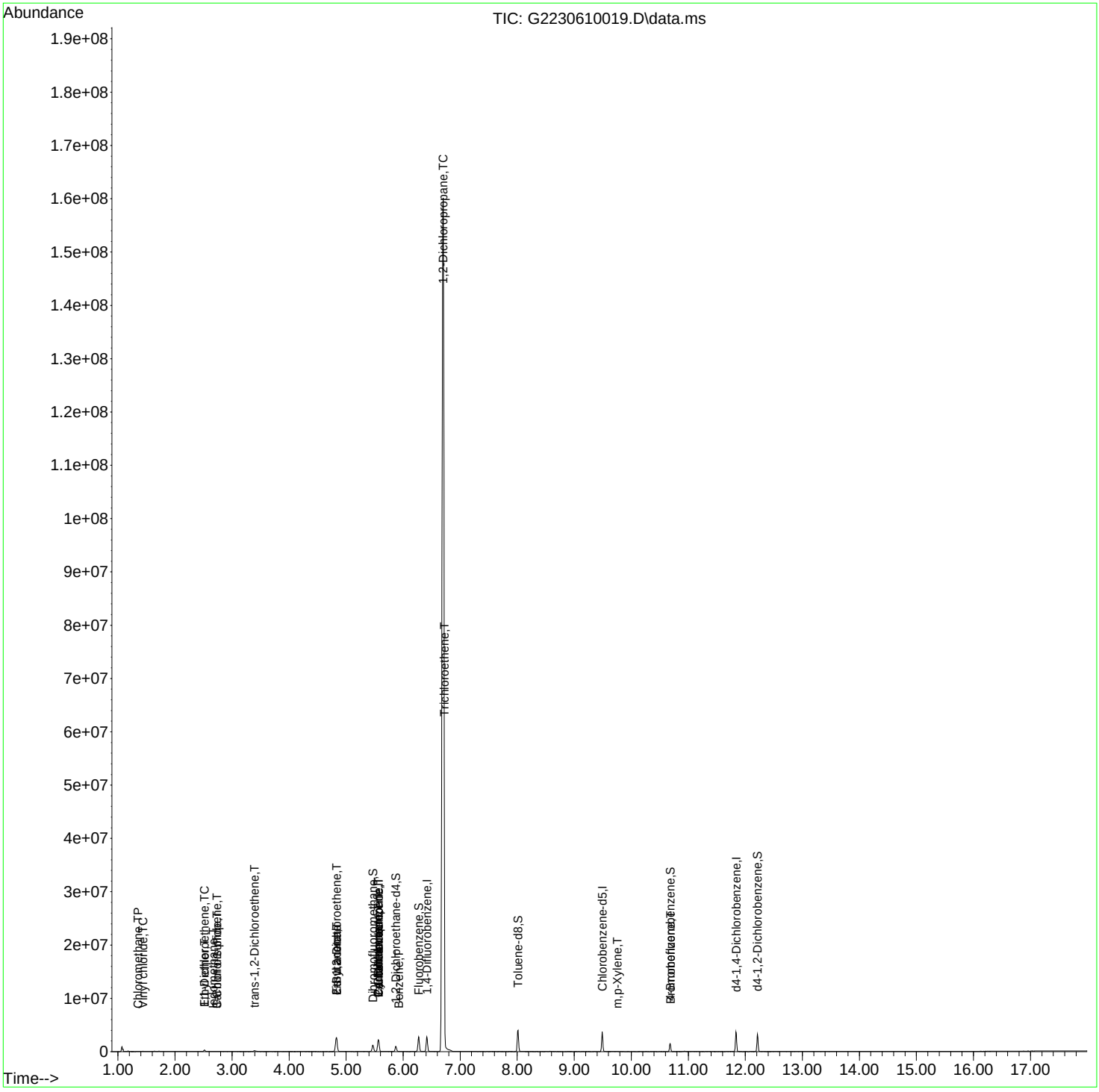
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

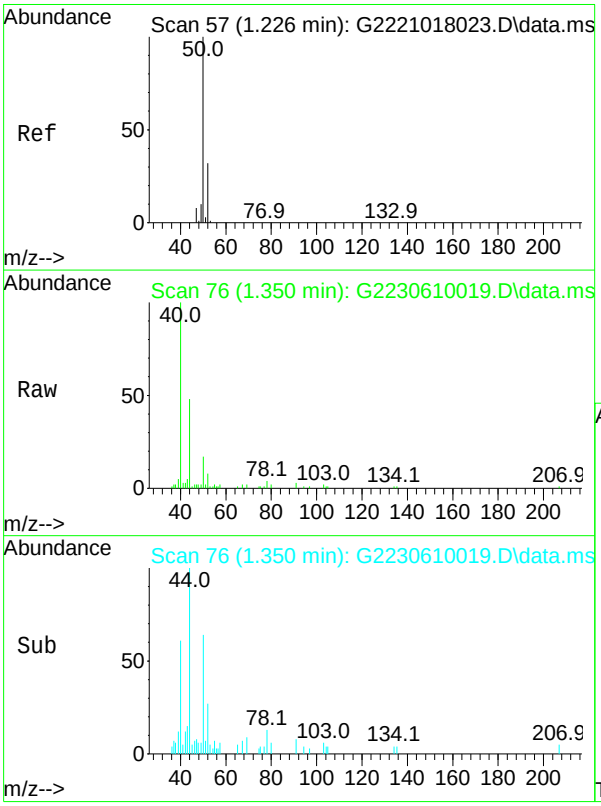
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\2023\(F) June\G2230610\
Data File : G2230610019.D
Acq On : 10 Jun 2023 15:57
Operator : PO1/MP3
Sample : 23E0775-28
Misc : 2
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jun 12 10:38:05 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

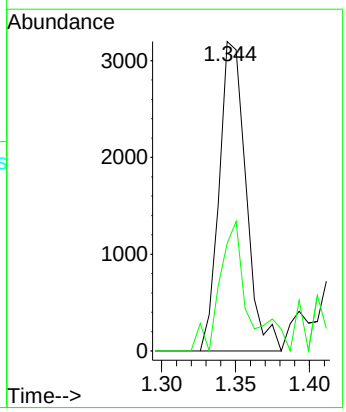


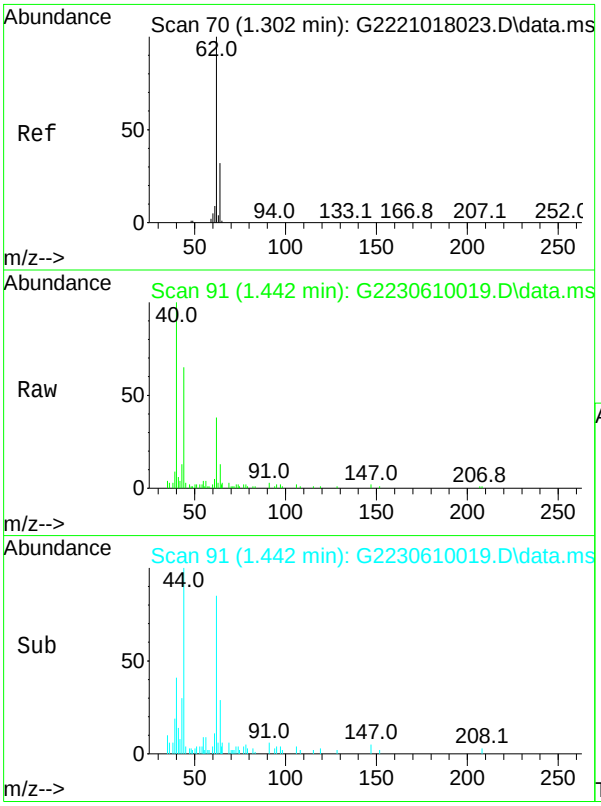


#3
Chloromethane
Concen: 0.03 ug/L
RT: 1.350 min Scan# 76
Delta R.T. -0.004 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 50 Resp: 40378

Ion	Ratio	Lower	Upper
50	100		
52	0.0	3.2	63.2#

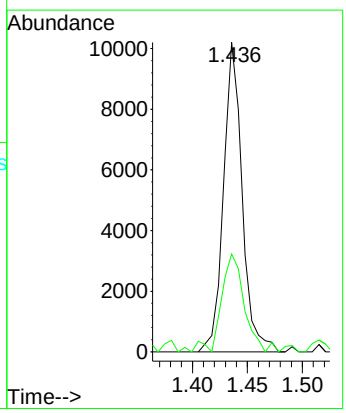


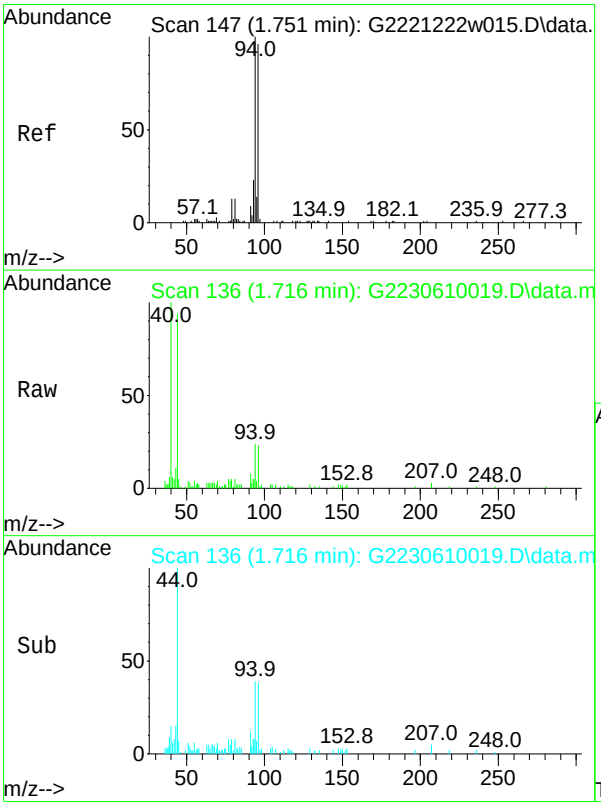


#4
Vinyl chloride
Concen: 0.34 ug/L
RT: 1.439 min Scan# 91
Delta R.T. -0.007 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 62 Resp: 121699

Ion	Ratio	Lower	Upper
62	100		
64	34.6	2.1	62.1

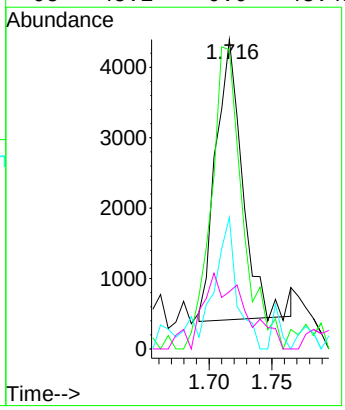


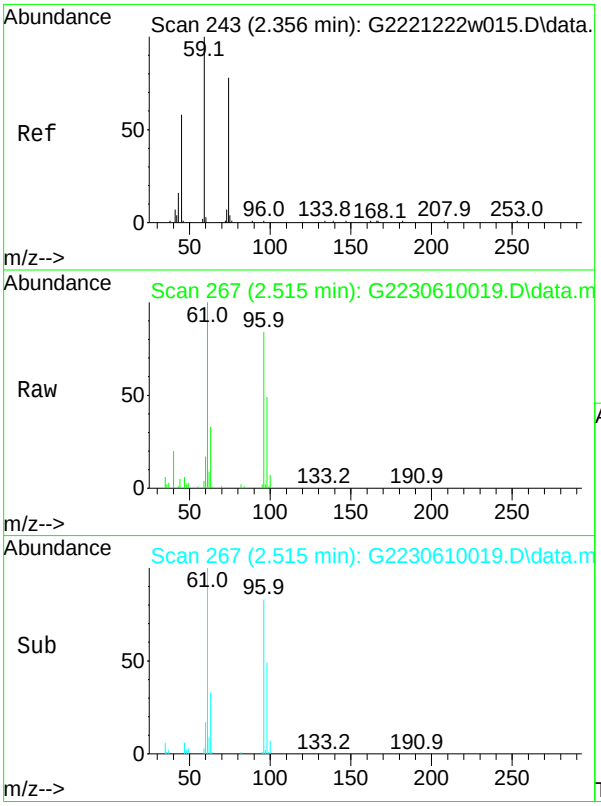


#5
Bromomethane
Concen: Below Cal
RT: 1.719 min Scan# 136
Delta R.T. 0.005 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 94 Resp: 57634

Ion	Ratio	Lower	Upper
94	100		
96	128.0	65.6	125.6#
93	0.0	0.0	49.5
95	45.2	0.0	43.4#

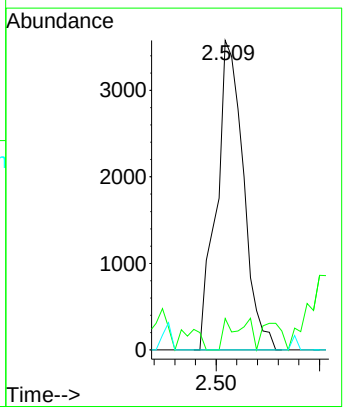


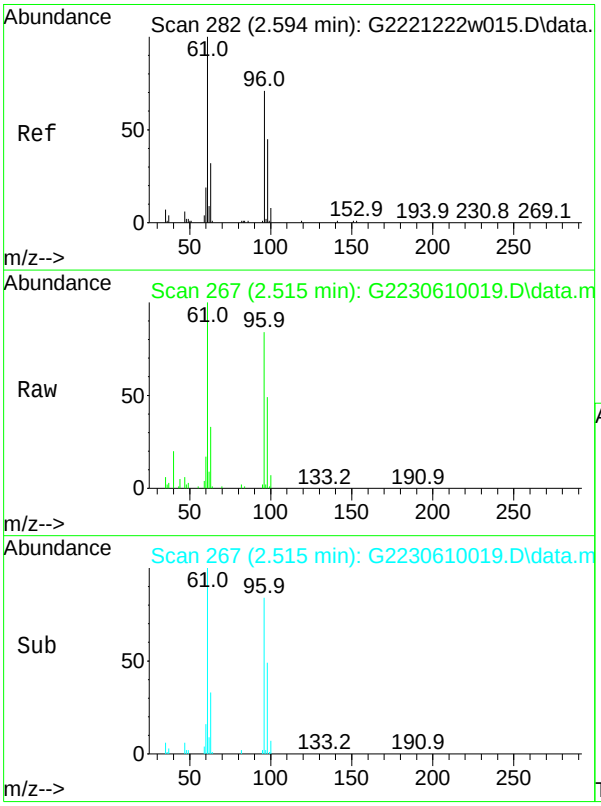


#8
Ethyl ether
Concen: 0.19 ug/L
RT: 2.515 min Scan# 267
Delta R.T. 0.197 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 59 Resp: 64574

Ion	Ratio	Lower	Upper
59	100		
45	0.0	41.5	101.5#
74	0.0	43.4	103.4#

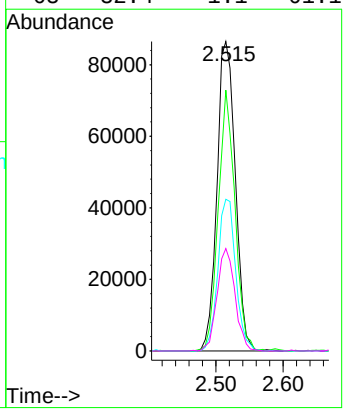


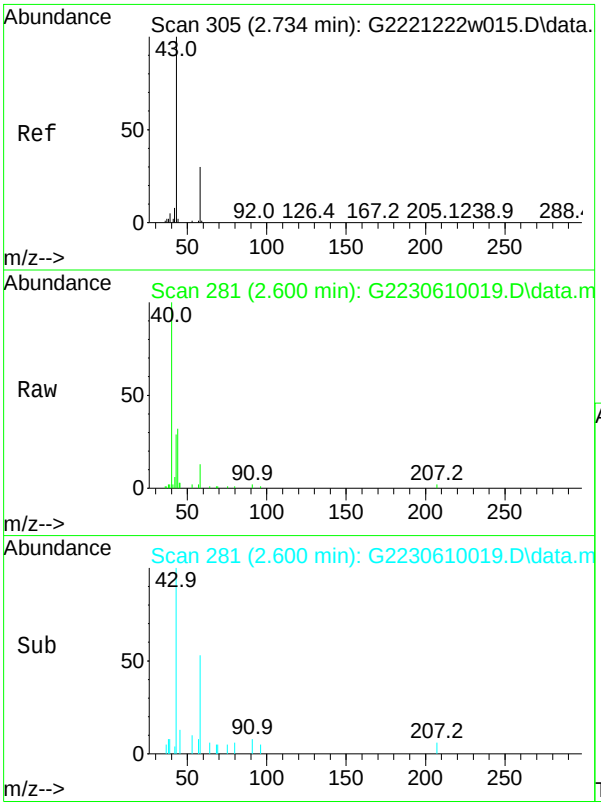


#10
1,1-Dichloroethene
Concen: 4.18 ug/L
RT: 2.517 min Scan# 267
Delta R.T. -0.006 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 61 Resp: 1636877

Ion	Ratio	Lower	Upper
61	100		
96	76.7	32.7	92.7
98	47.8	9.3	69.3
63	32.4	1.1	61.1

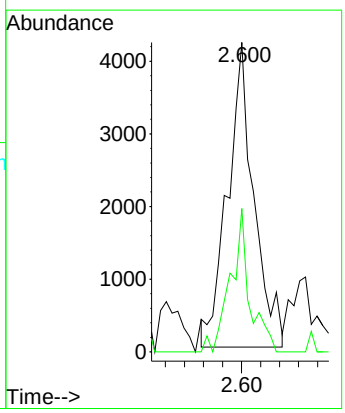


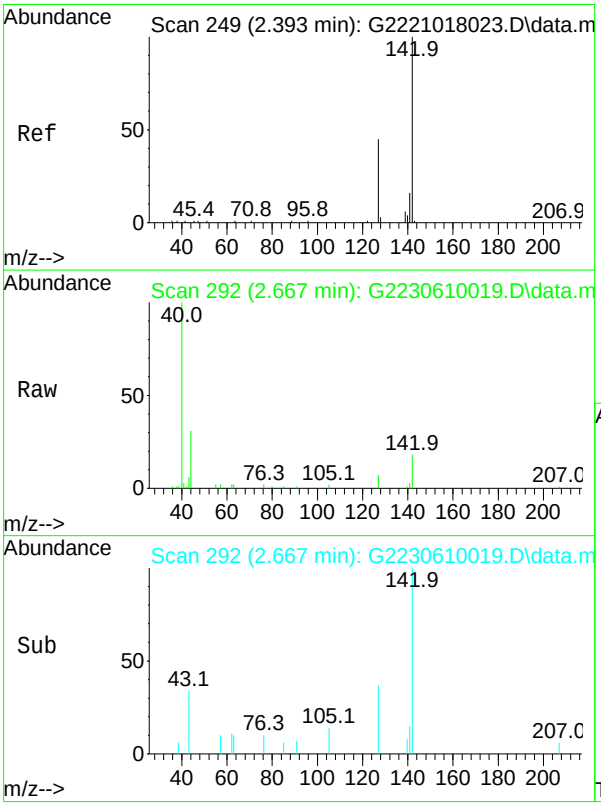


#12
Acetone
Concen: Below Cal
RT: 2.602 min Scan# 281
Delta R.T. -0.006 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 43 Resp: 80880

Ion	Ratio	Lower	Upper
43	100		
58	31.7	0.0	59.7

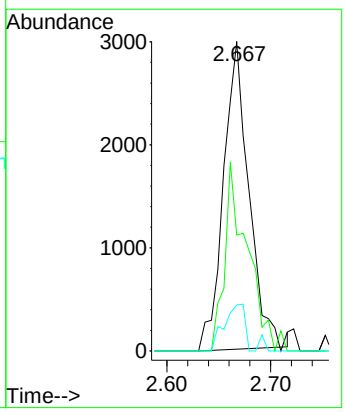


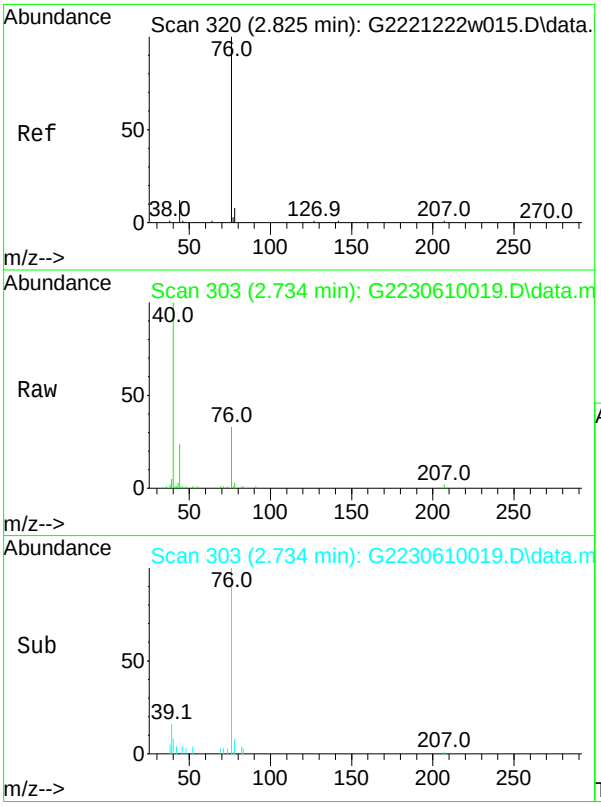


#13
Iodomethane
Concen: 0.12 ug/L
RT: 2.669 min Scan# 292
Delta R.T. -0.007 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion:142 Resp: 50457

Ion	Ratio	Lower	Upper
142	100		
127	55.6	13.3	73.3
141	0.0	0.0	45.3

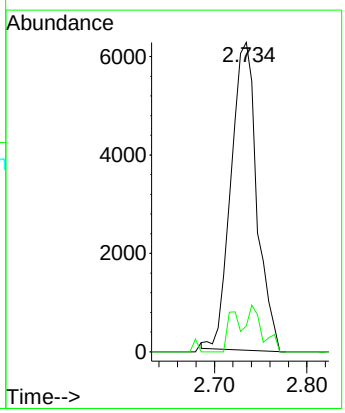


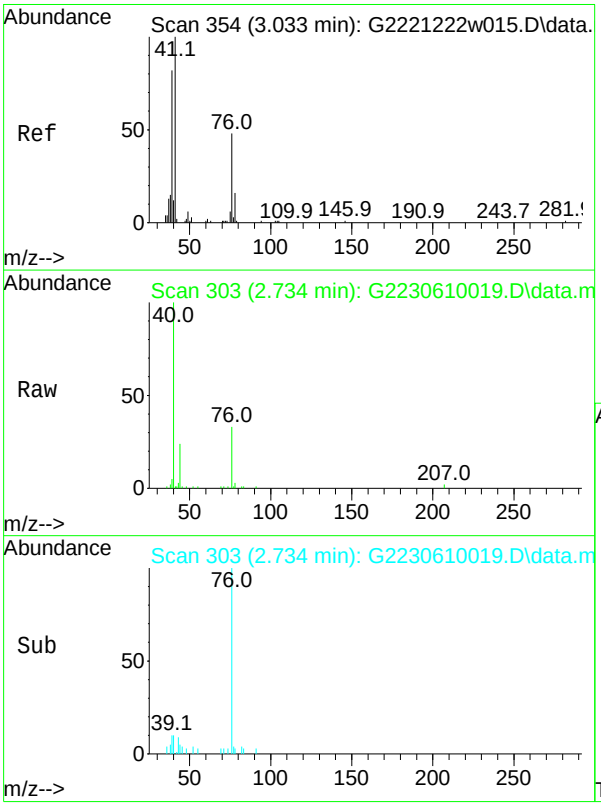


#14
Carbon disulfide
Concen: 0.06 ug/L
RT: 2.735 min Scan# 303
Delta R.T. -0.004 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 76 Resp: 122157

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3

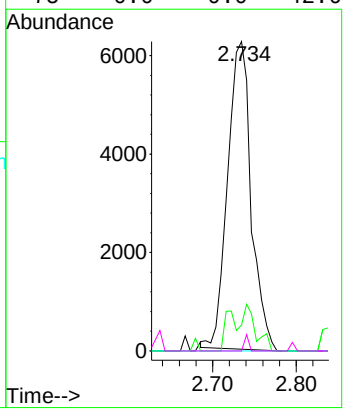


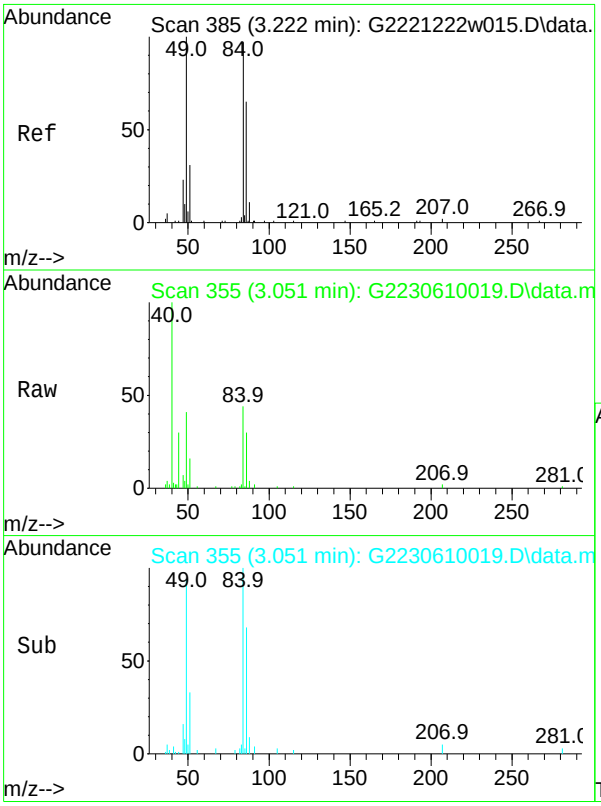


#17
3-Chloro-1-propene
Concen: 0.60 ug/L
RT: 2.735 min Scan# 303
Delta R.T. -0.185 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 76 Resp: 122583

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

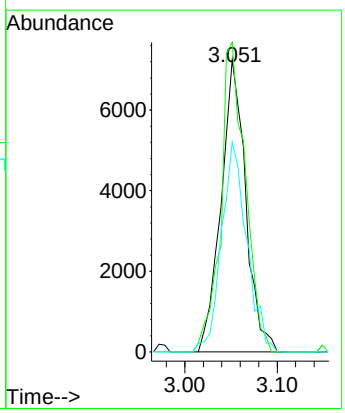


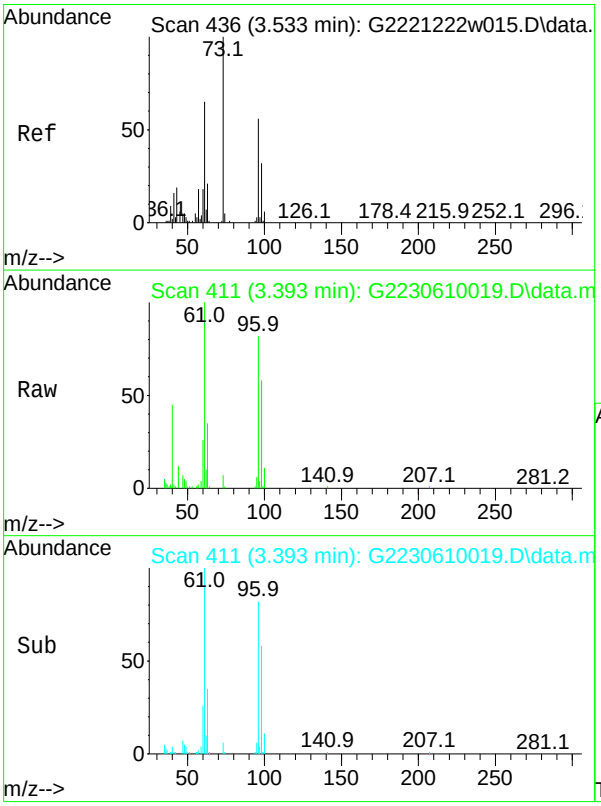


#18
Methylene chloride
Concen: Below Cal
RT: 3.054 min Scan# 355
Delta R.T. -0.008 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 49 Resp: 134238

Ion	Ratio	Lower	Upper
49	100		
84	105.5	57.9	117.9
86	73.7	24.9	84.9

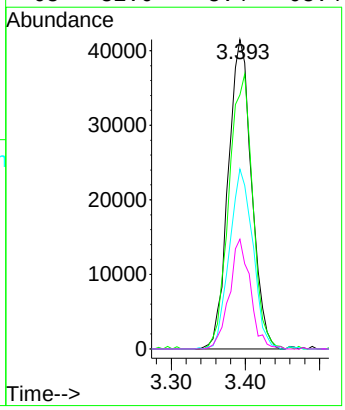


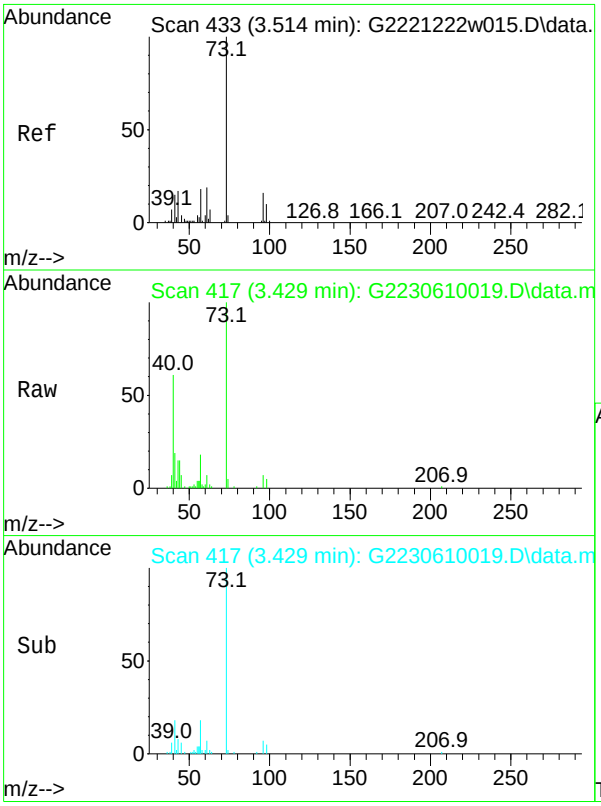


#20
trans-1,2-Dichloroethene
Concen: 2.31 ug/L
RT: 3.395 min Scan# 411
Delta R.T. -0.006 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 61 Resp: 904390

Ion	Ratio	Lower	Upper
61	100		
96	90.1	45.2	105.2
98	58.0	17.2	77.2
63	32.0	3.4	63.4

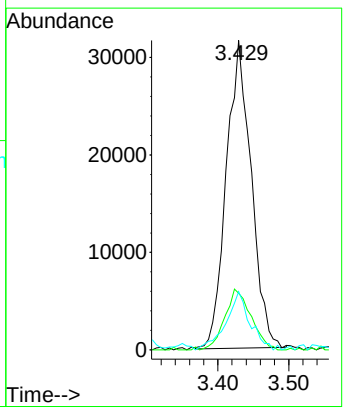


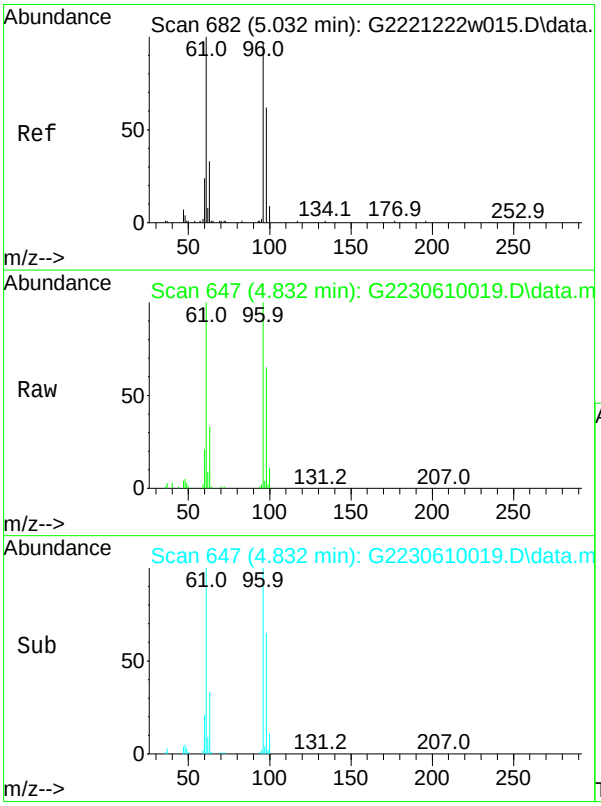


#21
Methyl tert-butyl ether
Concen: Below Cal
RT: 3.432 min Scan# 417
Delta R.T. -0.014 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 73 Resp: 770896

Ion	Ratio	Lower	Upper
73	100		
57	20.5	0.0	51.7
41	17.6	0.0	50.6

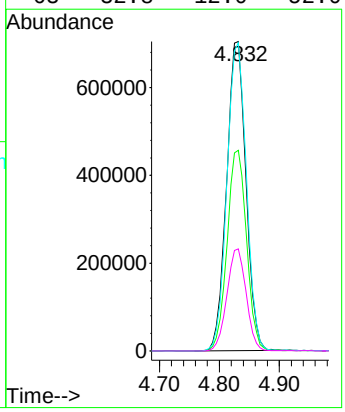


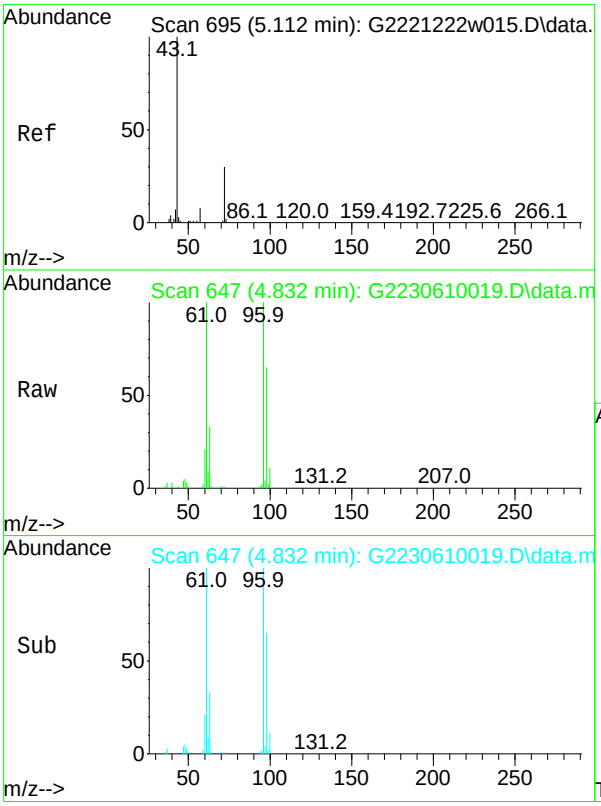


#28
cis-1,2-Dichloroethene
Concen: 34.92 ug/L
RT: 4.831 min Scan# 647
Delta R.T. -0.005 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 61 Resp:15800460

Ion	Ratio	Lower	Upper
61	100		
98	65.2	15.9	75.9
96	100.2	39.6	99.6#
63	32.8	12.0	52.0

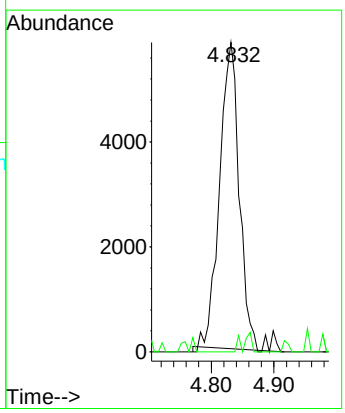


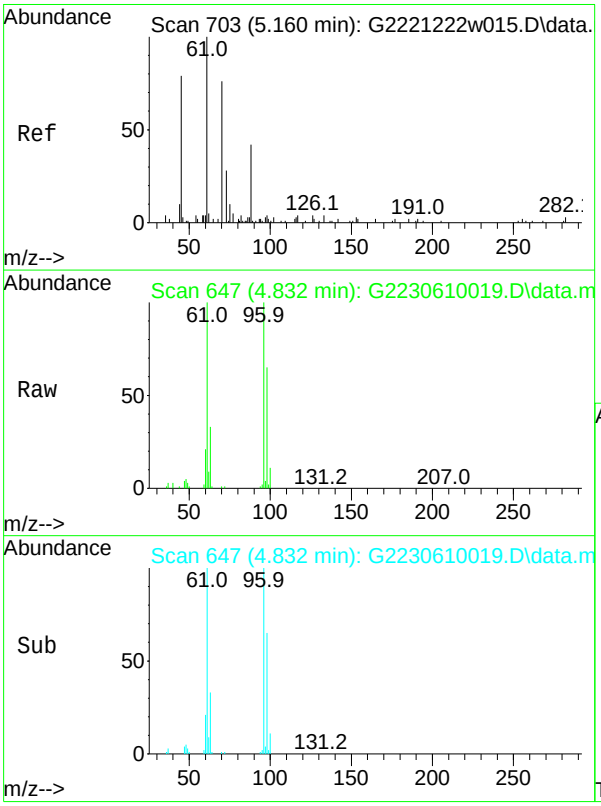


#29
2-Butanone
Concen: 2.32 ug/L
RT: 4.834 min Scan# 647
Delta R.T. -0.085 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 72 Resp: 128444

Ion	Ratio	Lower	Upper
72	100		
57	0.0	2.3	62.3#

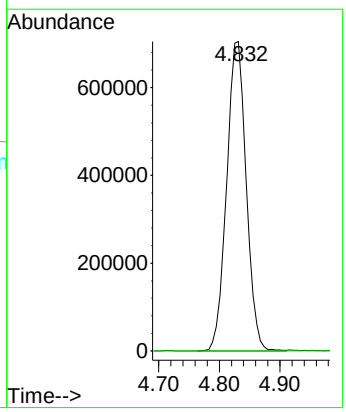


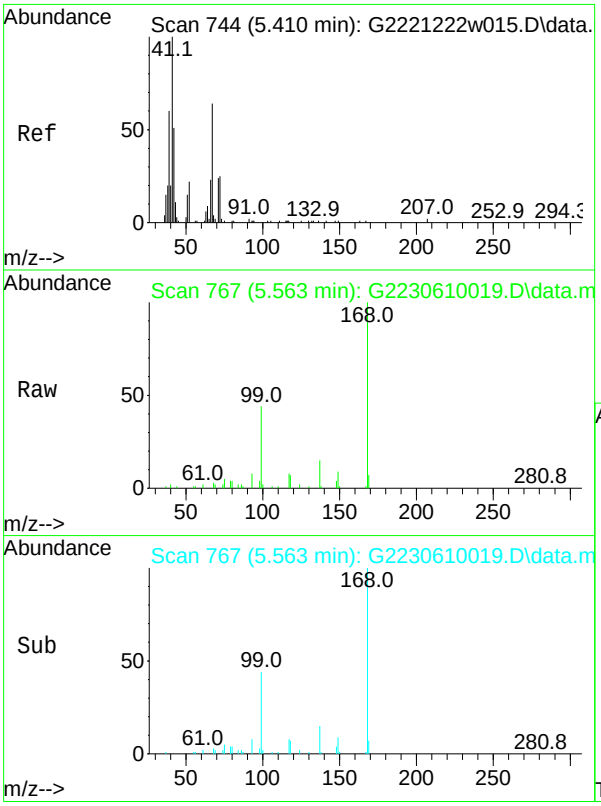


#31
Ethyl acetate
Concen: 297.23 ug/L
RT: 4.831 min Scan# 647
Delta R.T. -0.191 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 61 Resp:15857310

Ion	Ratio	Lower	Upper
61	100		
88	0.0	0.1	60.1#





#40
Cyclohexane
Concen: 0.76 ug/L
RT: 5.565 min Scan# 767
Delta R.T. 0.031 min
Lab File: G2230610019.D
Acq: 10 Jun 2023 15:57

Tgt Ion: 84 Resp: 368690

Ion	Ratio	Lower	Upper
84	100		
69	116.4	6.8	66.8#
56	66.6	79.1	139.1#

