

LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 31

2023

Bate Stamp Numbers

01191288 – 01191670

Prepared for

**Department of the Army
Longhorn Army Ammunition Plant**

1976–2023

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

VOLUME 31

2023

A. Title: (Cont'd) Report – Appendix C Level IV DoD to Draft Final Ninth Annual Remedial Action Operation Report, LHAAP-67 (Aboveground Storage Tank Farm), Longhorn Army Ammunition Plant (LHAAP), Karnack, Texas, September 2023

Author(s): Department of the Army

Recipient: Environmental Protection Agency and Texas Commission on Environmental Quality

Date: September 11, 2023

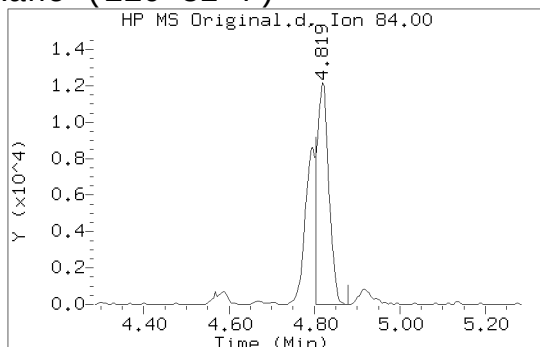
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Cyclohexane (110-82-7)

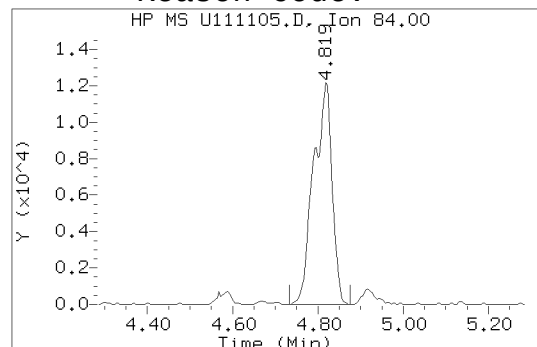
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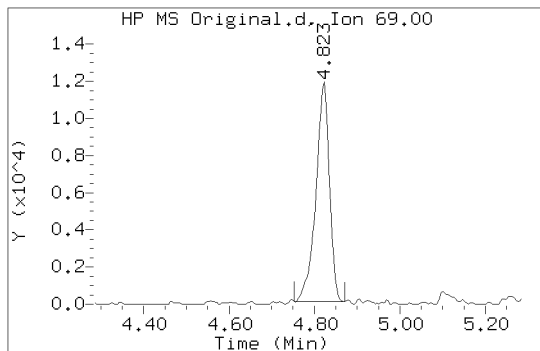
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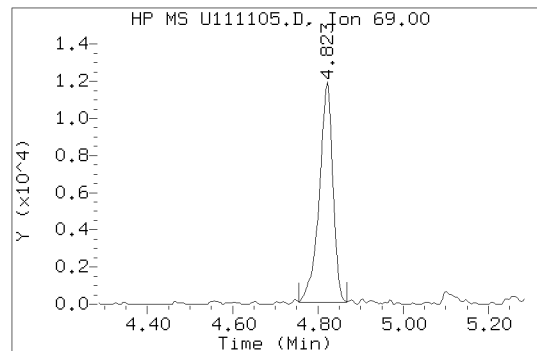
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 Report Date: 16-Nov-2022 09:41

ALS Laboratory Group

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 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.819	4.819	(1.000)		748411	50.0000	
2 Dichlorodifluoromethane	85		1.164	1.164	(0.242)		27052	5.00000	5.10
3 Chloromethane	50		1.299	1.299	(0.270)		42615	5.00000	5.37(M)
5 Vinyl Chloride	62		1.378	1.378	(0.286)		34188	5.00000	4.47(M)
6 Bromomethane	94		1.625	1.625	(0.337)		31789	5.00000	5.06(M)
7 Chloroethane	64		1.704	1.704	(0.354)		26876	5.00000	4.81
8 Trichlorofluoromethane	101		1.903	1.903	(0.395)		46511	5.00000	4.68
9 Acrolein	56		2.270	2.270	(0.471)		6241	10.0000	12.51
10 Acetone	43		2.416	2.416	(0.501)		50255	10.0000	10.18
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)		28925	5.00000	4.53(M)
15 Iodomethane	142		2.472	2.472	(0.513)		51771	10.0000	10.89
16 Acrylonitrile	53		3.076	3.076	(0.638)		36995	10.0000	10.64
17 Methylene Chloride	84		2.799	2.799	(0.581)		39927	5.00000	3.44(M)
18 Methyl tert-butyl ether	73		3.087	3.087	(0.641)		104310	5.00000	4.84
19 Carbon Disulfide	76		2.525	2.525	(0.524)		168705	10.0000	9.08
20 trans-1,2-Dichloroethene	96		3.065	3.065	(0.636)		33425	5.00000	4.73(M)
21 Vinyl Acetate	43		3.616	3.616	(0.750)		185962	10.0000	10.08
22 1,1-Dichloroethane	63		3.522	3.522	(0.731)		60861	5.00000	4.84
24 2-Butanone	43		4.276	4.276	(0.887)		31782	10.0000	10.50
26 2,2-Dichloropropane	77		4.186	4.186	(0.869)		26695	5.00000	5.18



27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	40376	5.00000	4.86
28 Chloroform	83	4.579	4.579 (0.950)	66102	5.00000	4.93

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111106.D Page 2
Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.474	4.474	(0.928)	22149	5.00000	4.99
\$ 30 Dibromofluoromethane	113	4.752	4.752	(0.986)	36389	5.00000	4.54
31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	40005	5.00000	4.43
32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	39356	5.00000	4.48(M)
33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	54464	5.00000	4.90
34 Carbon Tetrachloride	117	4.917	4.917	(0.885)	26439	5.00000	5.10(MH)
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	47752	5.00000	5.05
* 36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	1264749	50.0000	
37 Benzene	78	5.141	5.141	(0.925)	139839	5.00000	4.69
38 Trichloroethene	130	5.794	5.794	(1.042)	39382	5.00000	4.83
39 Bromodichloromethane	83	6.281	6.281	(1.130)	40439	5.00000	4.44(M)
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	37534	5.00000	4.95
44 Dibromomethane	93	6.124	6.124	(1.102)	26886	5.00000	4.92
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	65855	10.0000	9.77
46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.205)	36717	5.00000	5.63(M)
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1146855	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	127033	5.00000	4.65
50 Toluene	91	6.982	6.982	(0.853)	146024	5.00000	4.79
51 trans-1,3-Dichloropropene	75	7.203	7.203	(1.296)	28169	5.00000	5.96(M)
52 2-Hexanone	43	7.597	7.597	(0.928)	43345	10.0000	9.87
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	31556	5.00000	4.81
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	70577	5.00000	5.26
55 Dibromochloromethane	129	7.694	7.694	(0.940)	32648	5.00000	5.13
56 Tetrachloroethene	164	7.458	7.458	(0.911)	32428	5.00000	4.90
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	38150	5.00000	4.74
58 1-Chlorohexane	55	8.197	8.197	(1.475)	25743	5.00000	5.93(M)
59 Chlorobenzene	112	8.212	8.212	(1.003)	107002	5.00000	4.91
60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	32485	5.00000	4.55
61 Ethylbenzene	106	8.309	8.309	(1.015)	48644	5.00000	4.84
62 m,p-Xylenes	106	8.414	8.414	(1.027)	114599	10.0000	9.15
63 o-Xylene	106	8.748	8.748	(1.068)	57990	5.00000	4.69
64 Styrene	104	8.763	8.763	(1.070)	87295	5.00000	5.11(M)
66 Bromoform	173	8.920	8.920	(1.089)	20007	5.00000	5.57
67 Isopropylbenzene	105	9.063	9.063	(1.107)	131029	5.00000	4.60
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	58164	5.00000	5.26
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	50749	5.00000	5.18
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	555284	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	48872	5.00000	5.12
73 n-Propylbenzene	91	9.415	9.415	(0.926)	133875	5.00000	4.47
74 Bromobenzene	156	9.321	9.321	(0.916)	44696	5.00000	5.07
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	106236	5.00000	4.79
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	103500	5.00000	4.91
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	113898	5.00000	4.84
78 tert-Butylbenzene	119	9.839	9.839	(0.967)	84895	5.00000	4.37
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	113976	5.00000	4.89
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	104963	5.00000	5.52
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	94902	5.00000	4.46
83 1,3-Dichlorobenzene	146	10.120	10.120	(0.995)	73825	5.00000	4.89
84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	79339	5.00000	4.78
87 n-Butylbenzene	91	10.495	10.495	(1.032)	69831	5.00000	5.75
88 1,2-Dichlorobenzene	146	10.510	10.510	(1.033)	77734	5.00000	4.87
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	6526	5.00000	6.07



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	35633	5.00000	4.08
91 Hexachlorobutadiene	225	12.002	12.002 (1.180)	13306	5.00000	5.16

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Report Date: 16-Nov-2022 09:41

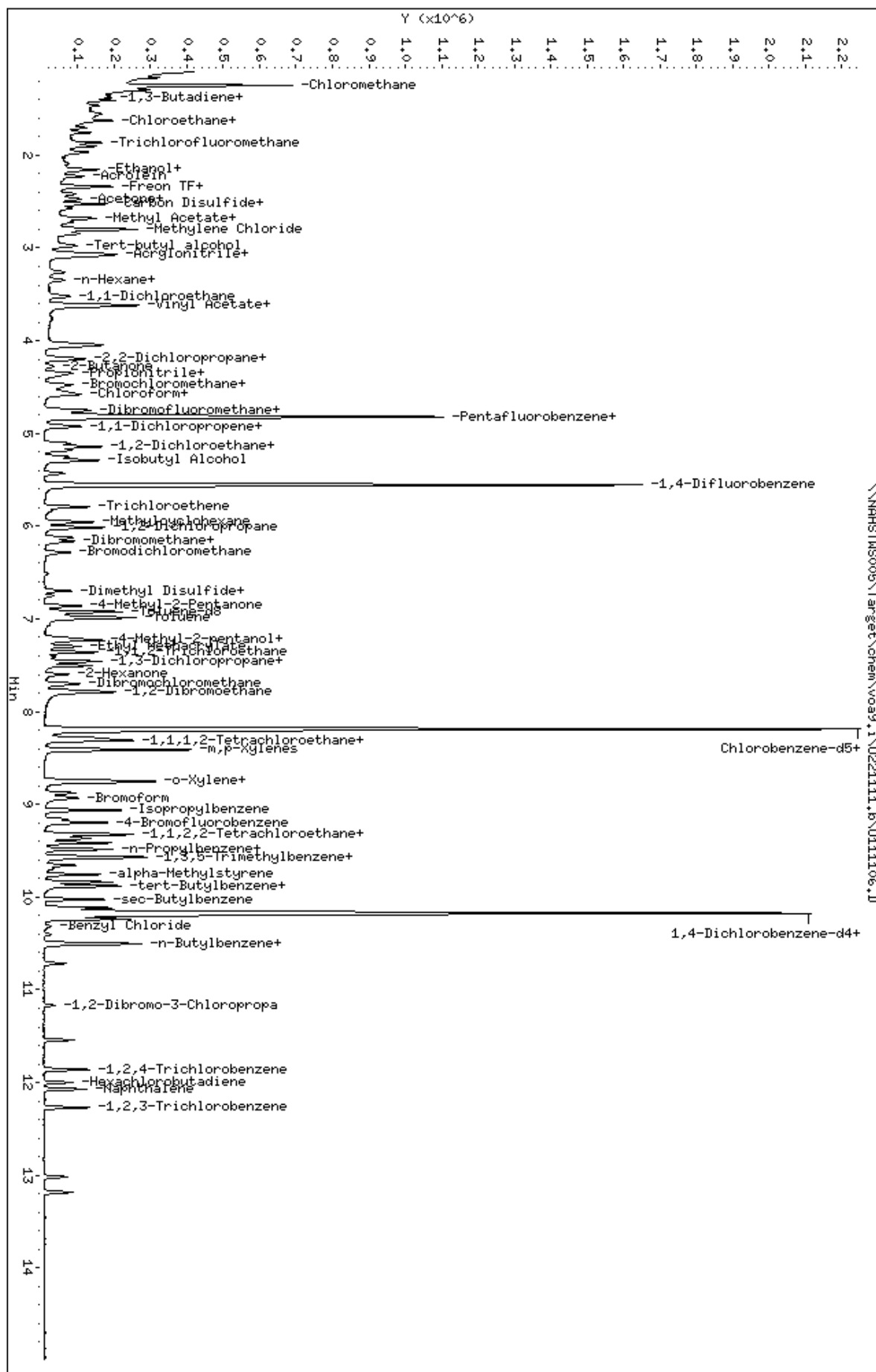
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	86972	5.00000	3.99
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	36621	5.00000	4.23
M 94 1,2-Dichloroethylene (total)	96				73801	10.0000	
M 95 Xylenes (total)	106				172589	15.0000	
135 1,4-Dioxane	88	6.176	6.176	(1.282)	10776	100.000	94.80
141 Cyclohexane	56	4.789	4.789	(0.994)	30806	5.00000	5.02(M)
138 Freon TF	101	2.341	2.341	(0.486)	24730	5.00000	5.50
140 1,3-Butadiene	54	1.408	1.408	(0.292)	21652	5.00000	5.26
147 Methylcyclohexane	55	5.951	5.951	(1.071)	73309	5.00000	4.11
146 Methyl Acetate	43	2.720	2.720	(0.564)	31419	5.00000	5.13
148 Tert-Butyl alcohol	59	2.975	2.975	(0.617)	76422	100.000	105.56
149 Isopropyl Alcohol	45	2.574	2.574	(0.534)	49211	100.000	103.14

QC Flag Legend

M - Compound response manually integrated.

H - Operator selected an alternate compound hit.





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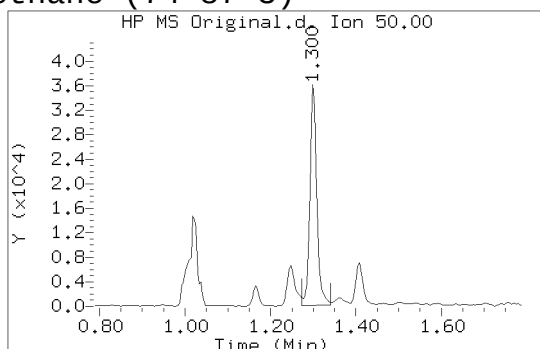
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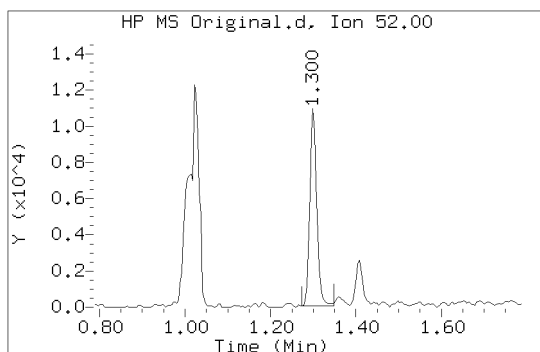
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Chloromethane (74-87-3)**BEFORE**

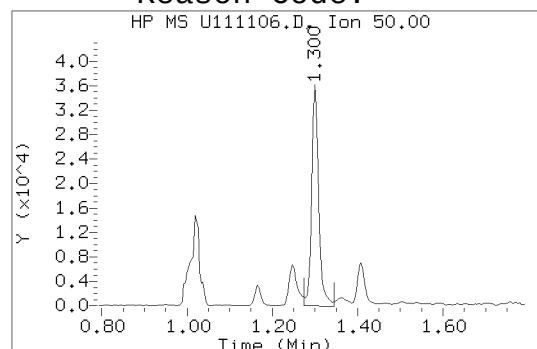
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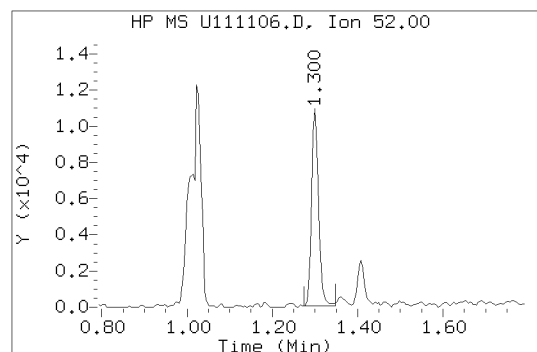
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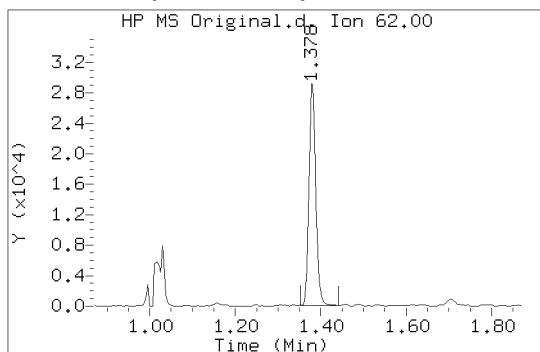
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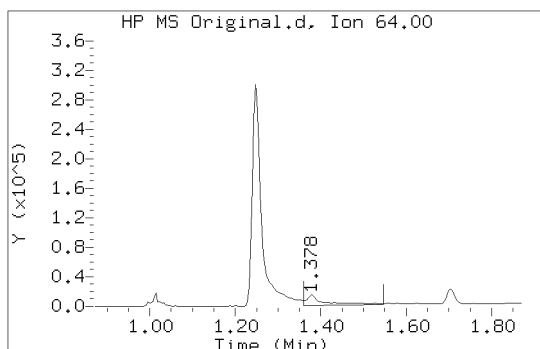
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**Vinyl Chloride (75-01-4)****BEFORE**

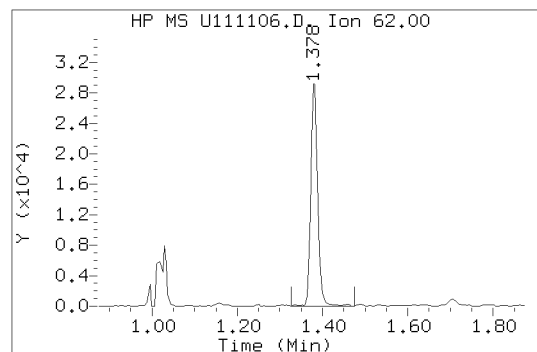
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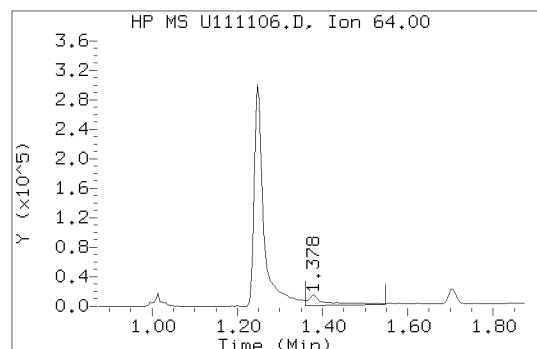
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**AFTER**

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**AFTER**

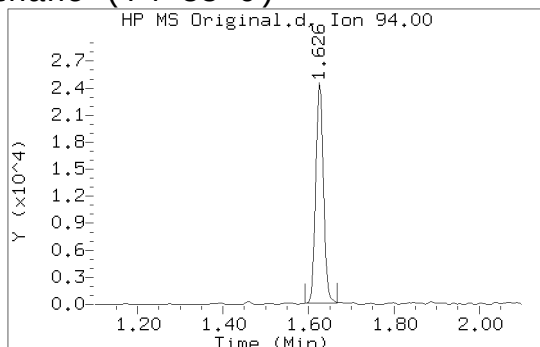
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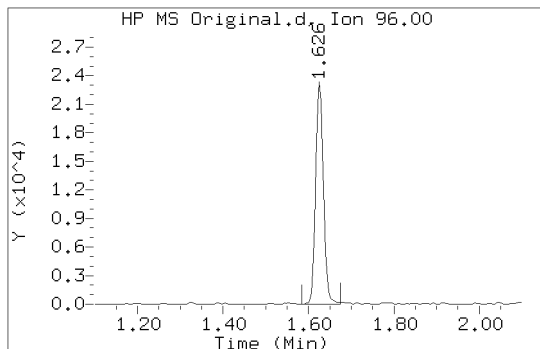
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Bromomethane (74-83-9)**BEFORE**

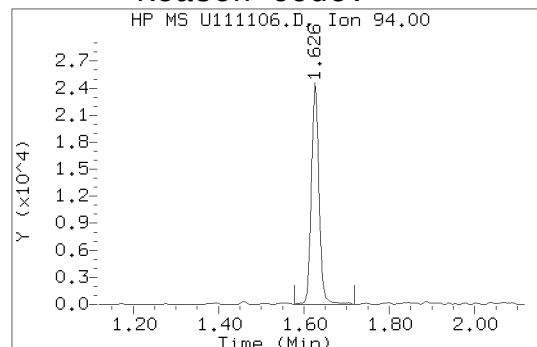
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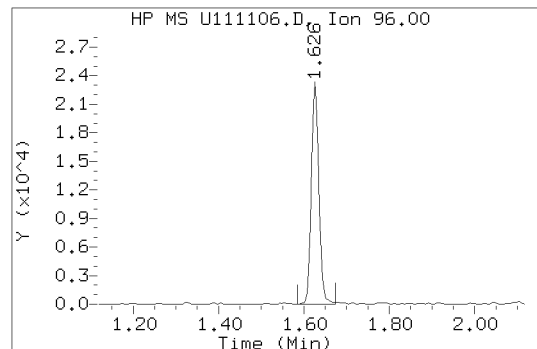
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**AFTER**

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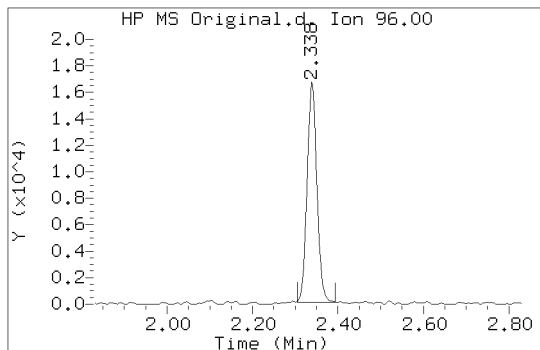
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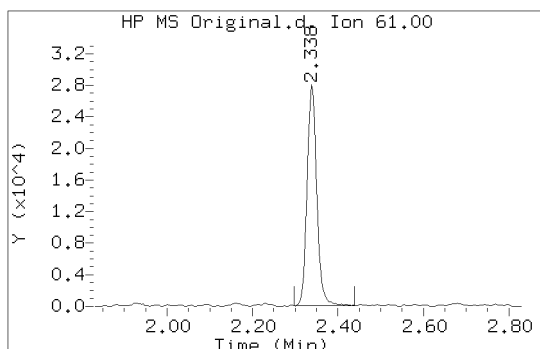
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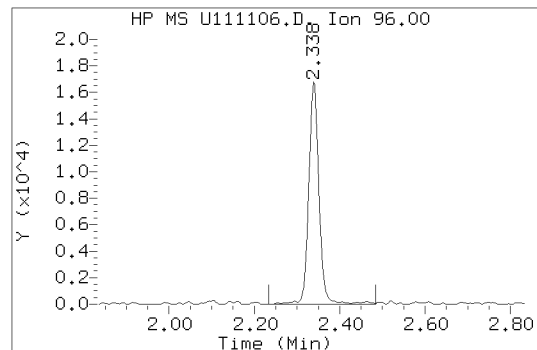
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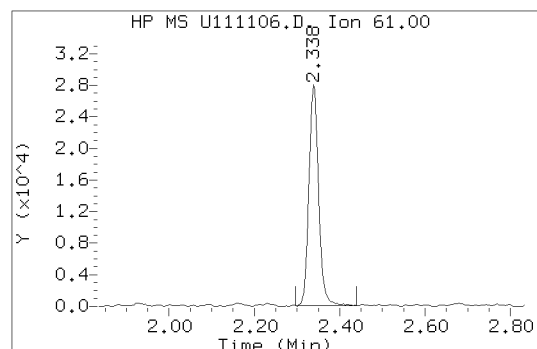
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**AFTER**

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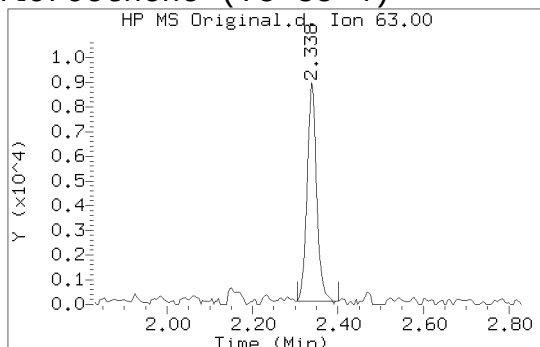
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LabSampID : VSTD005

1,1-Dichloroethene (75-35-4)

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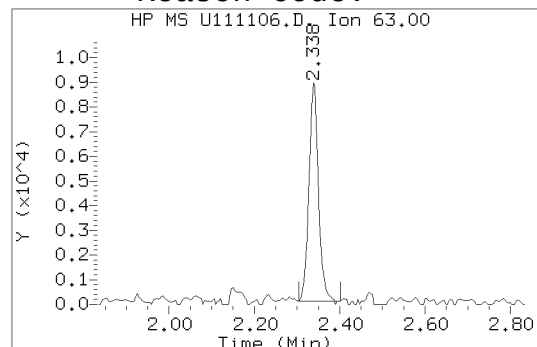
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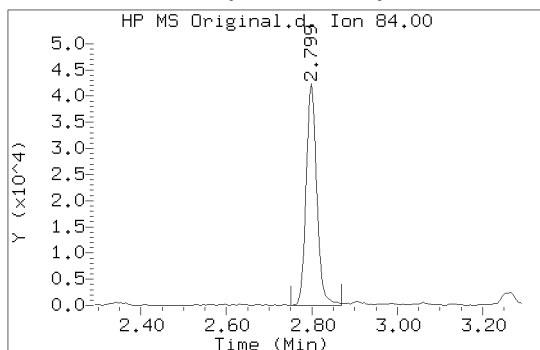
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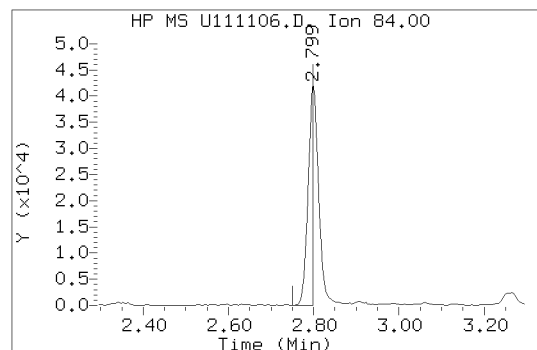
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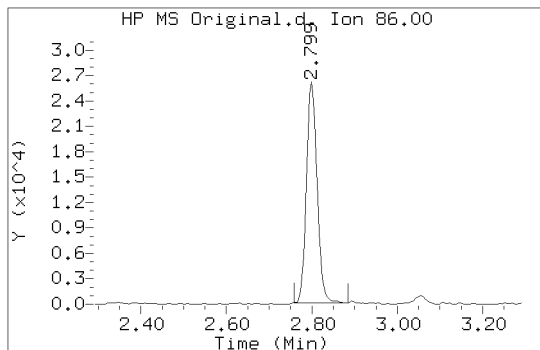
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pham

Reason Code:



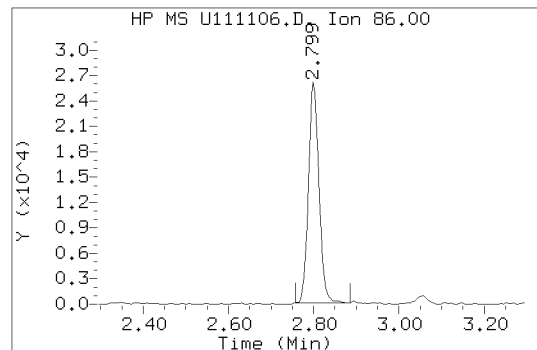
BEFORE

MASS
86
AREA
45489
HEIGHT
26078
16-Nov-2022
09:38
linh
pham



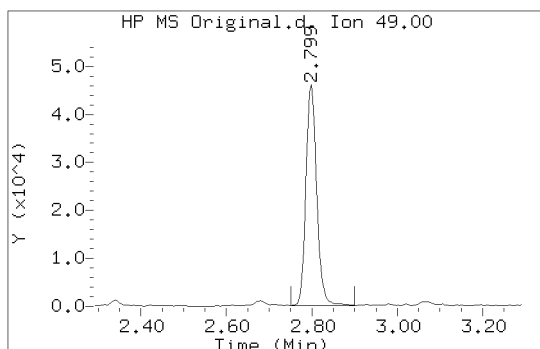
AFTER

MASS
86
AREA
45489
HEIGHT
26078
16-Nov-2022
09:41
linh
pham



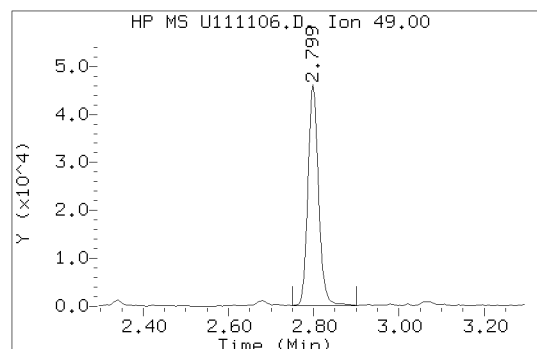
BEFORE

MASS
49
AREA
82374
HEIGHT
46127
16-Nov-2022
09:38
linh
pham



AFTER

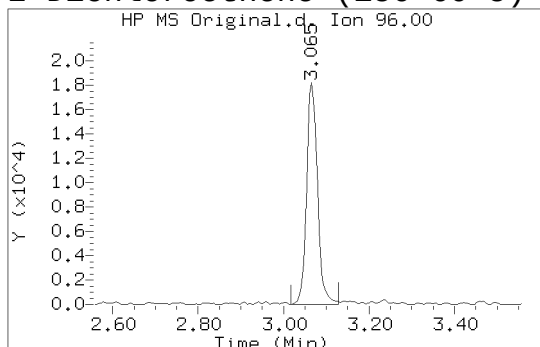
MASS
49
AREA
82374
HEIGHT
46127
16-Nov-2022
09:41
linh
pham



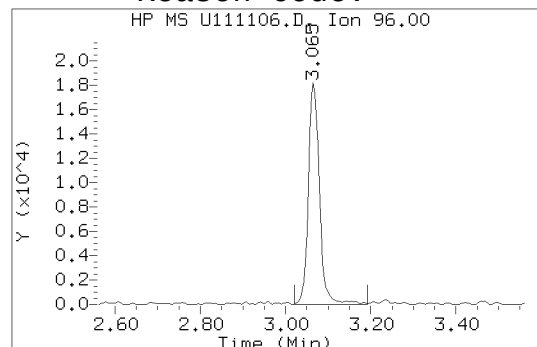
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U221111.b\\U111106.D
Inj Date : 11-NOV-2022 13:47
InstruID : VOA9.i
LabSampID : VSTD005

trans-1,2-Dichloroethene (156-60-5)**BEFORE**

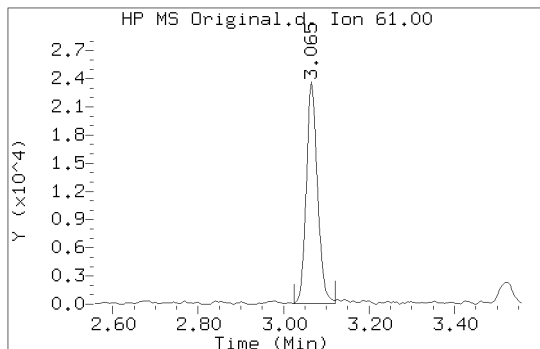
MASS
96
AREA
32752
HEIGHT
18208
16-Nov-2022
09:38
linh
pham

**AFTER**

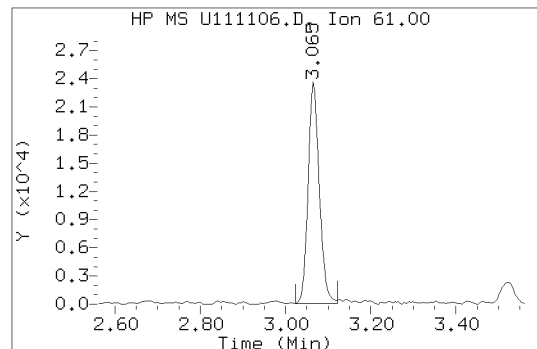
MASS
96
AREA
33425
HEIGHT
18208
16-Nov-2022
09:41
linh
pham

Reason Code:**BEFORE**

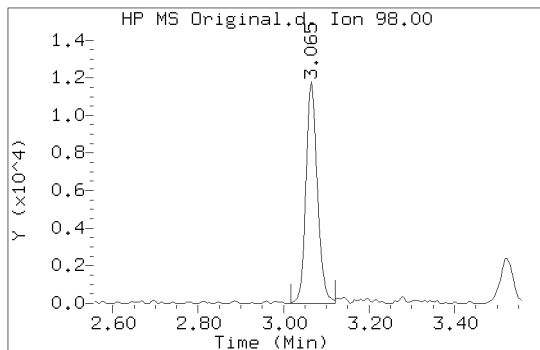
MASS
61
AREA
43467
HEIGHT
23562
16-Nov-2022
09:38
linh
pham

**AFTER**

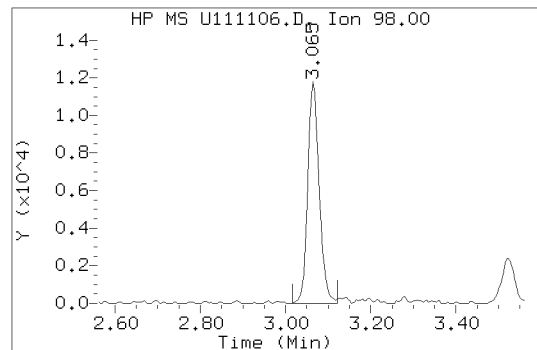
MASS
61
AREA
43467
HEIGHT
23562
16-Nov-2022
09:41
linh
pham

**BEFORE**

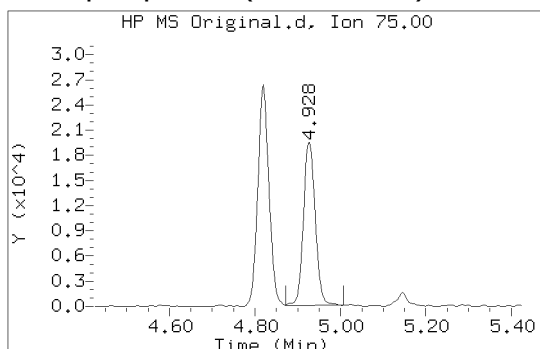
MASS
98
AREA
22331
HEIGHT
11796
16-Nov-2022
09:38
linh
pham

**AFTER**

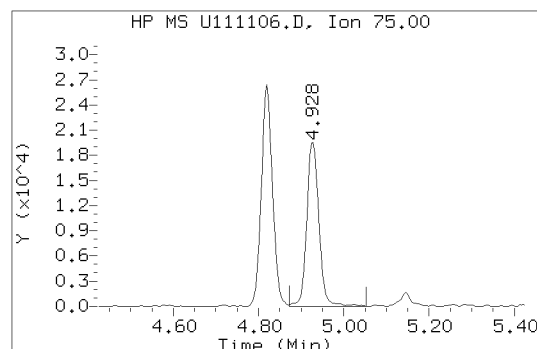
MASS
98
AREA
22331
HEIGHT
11796
16-Nov-2022
09:41
linh
pham

**1,1-Dichloropropene (563-58-6)****BEFORE**

MASS
75
AREA
38344
HEIGHT
19464
16-Nov-2022
09:38
linh
pham

**AFTER**

MASS
75
AREA
39356
HEIGHT
19535
16-Nov-2022
09:41
linh
pham

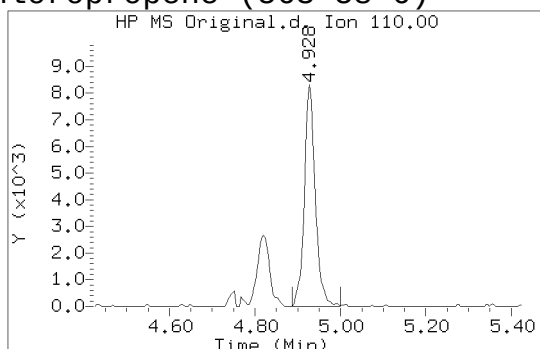
Reason Code:

Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U221111.b\\U111106.D
Inj Date : 11-NOV-2022 13:47
InstruID : VOA9.i
LabSampID : VSTD005

1,1-Dichloropropene (563-58-6)

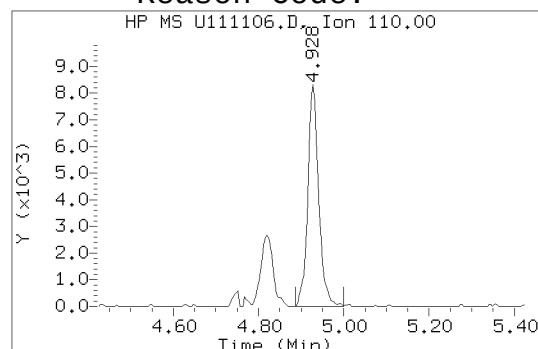
BEFORE

MASS
110
AREA
14970
HEIGHT
8318
16-Nov-2022
09:38
linh



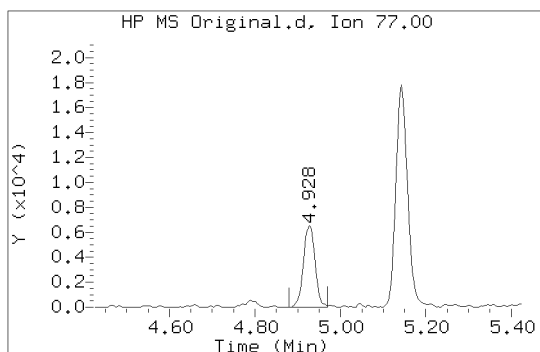
AFTER

MASS
110
AREA
14970
HEIGHT
8318
16-Nov-2022
09:41
linh



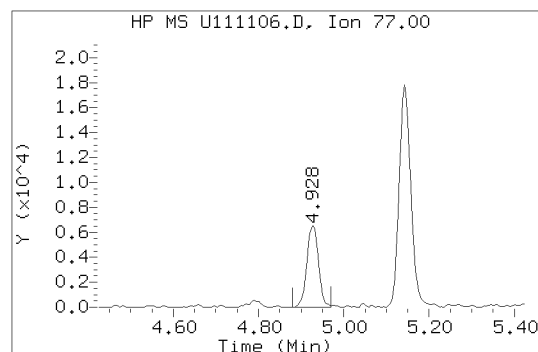
BEFORE

MASS
77
AREA
12594
HEIGHT
6536
16-Nov-2022
09:38
linh
pham



AFTER

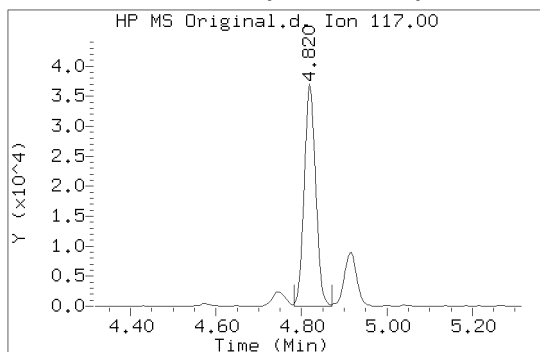
MASS
77
AREA
12594
HEIGHT
6536
16-Nov-2022
09:41
linh
pham



Carbon Tetrachloride (56-23-5)

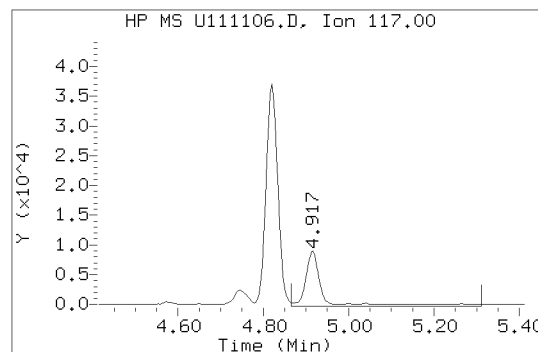
BEFORE

MASS
117
AREA
70347
HEIGHT
37056
16-Nov-2022
09:38
linh
pham



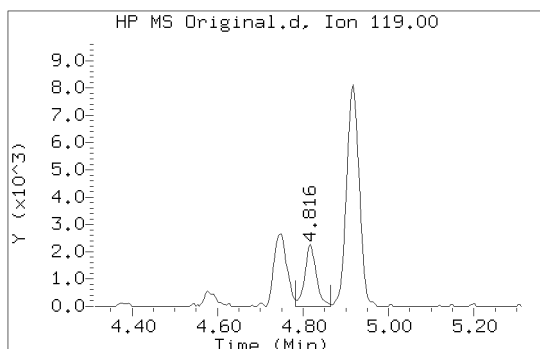
AFTER

MASS
117
AREA
26439
HEIGHT
9250
16-Nov-2022
09:41
linh
pham



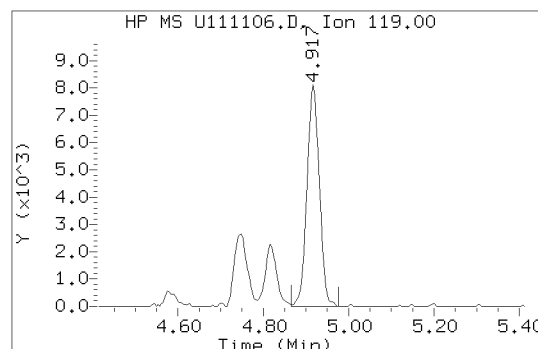
BEFORE

MASS
119
AREA
4362
HEIGHT
2268
16-Nov-2022
09:38
linh
pham



AFTER

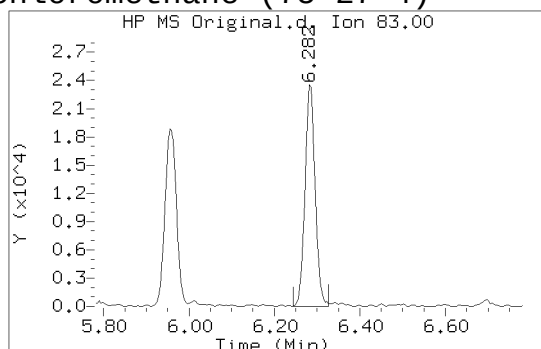
MASS
119
AREA
16720
HEIGHT
8120
16-Nov-2022
09:41
linh
pham



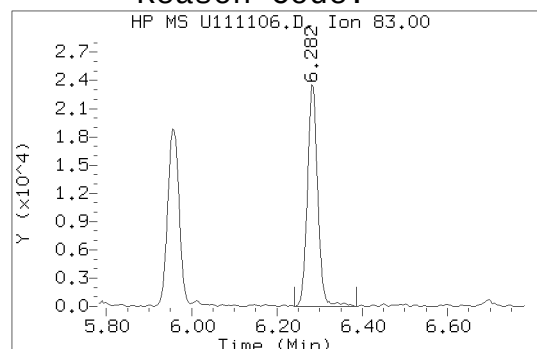
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U221111.b\\U111106.D
Inj Date : 11-NOV-2022 13:47
InstruID : VOA9.i
LabSampID : VSTD005

Bromodichloromethane (75-27-4)**BEFORE**

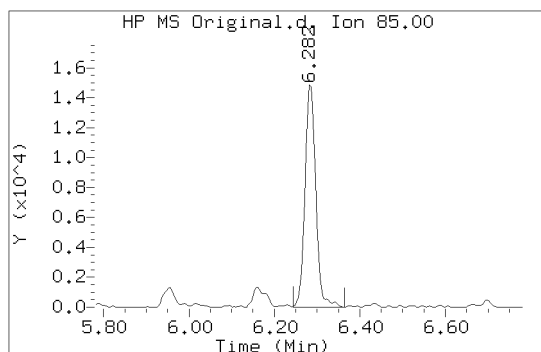
MASS
83
AREA
39635
HEIGHT
23544
16-Nov-2022
09:38
linh
pham

**AFTER**

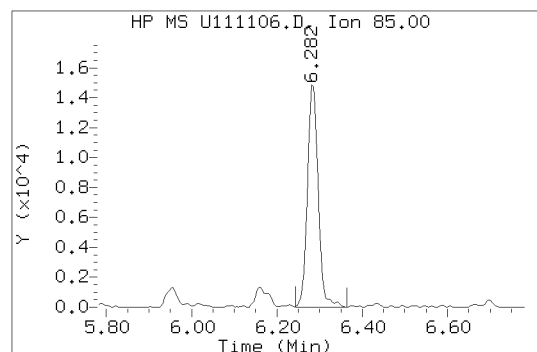
MASS
83
AREA
40439
HEIGHT
23544
16-Nov-2022
09:41
linh
pham

**BEFORE**

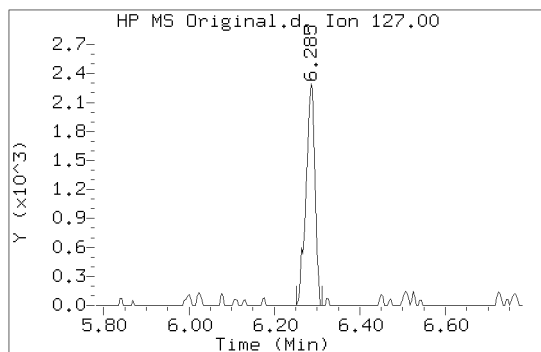
MASS
85
AREA
26749
HEIGHT
14857
16-Nov-2022
09:38
linh
pham

**AFTER**

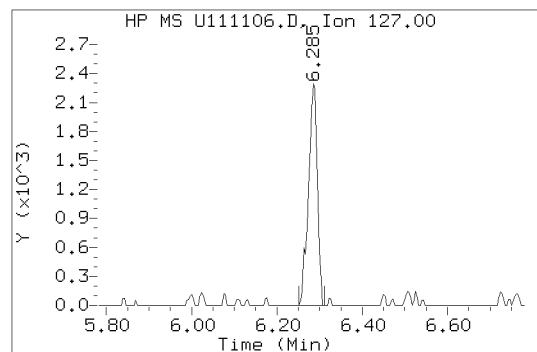
MASS
85
AREA
26749
HEIGHT
14857
16-Nov-2022
09:41
linh
pham

**BEFORE**

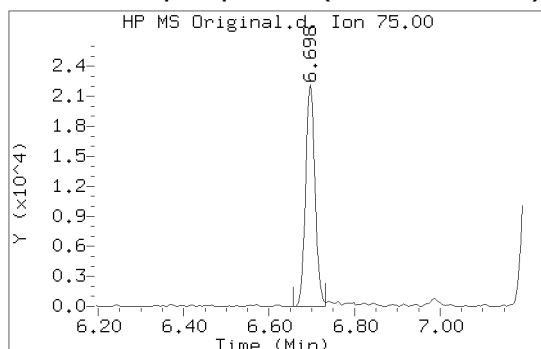
MASS
127
AREA
3421
HEIGHT
2295
16-Nov-2022
09:38
linh
pham

**AFTER**

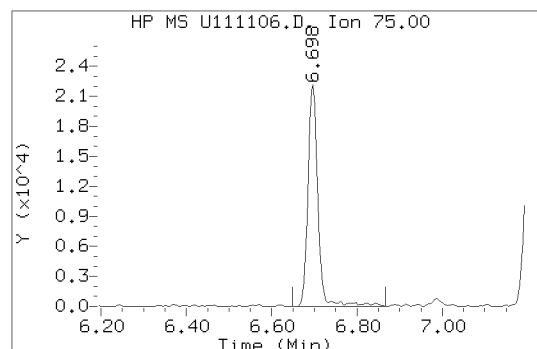
MASS
127
AREA
3421
HEIGHT
2295
16-Nov-2022
09:41
linh
pham

**cis-1,3-Dichloropropene (10061-01-5)****BEFORE**

MASS
75
AREA
34563
HEIGHT
22160
16-Nov-2022
09:38
linh
pham

**AFTER**

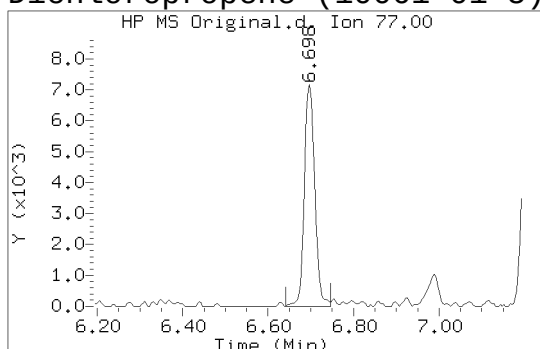
MASS
75
AREA
36717
HEIGHT
22160
16-Nov-2022
09:41
linh
pham



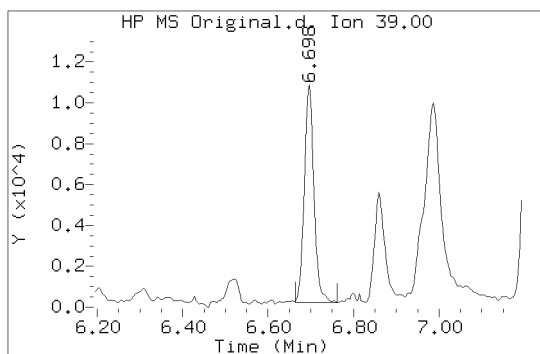
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U221111.b\\U111106.D
Inj Date : 11-NOV-2022 13:47
InstruID : VOA9.i
LabSampID : VSTD005

cis-1,3-Dichloropropene (10061-01-5)**BEFORE**

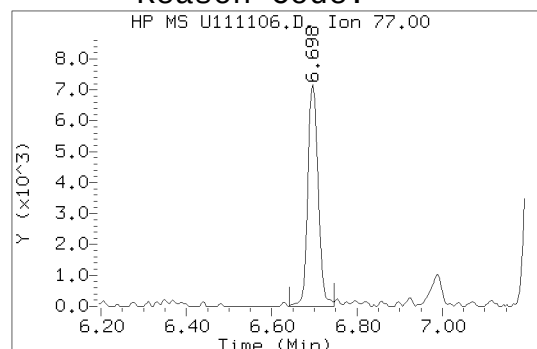
MASS
77
AREA
12442
HEIGHT
7167
16-Nov-2022
09:38
linh

**BEFORE**

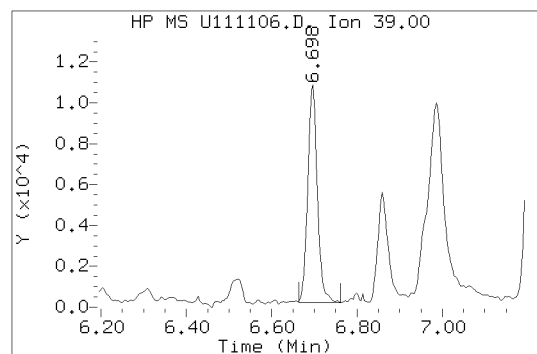
MASS
39
AREA
16901
HEIGHT
10647
16-Nov-2022
09:38
linh
pham

**AFTER**

MASS
77
AREA
12442
HEIGHT
7167
16-Nov-2022
09:41
linh

**AFTER**

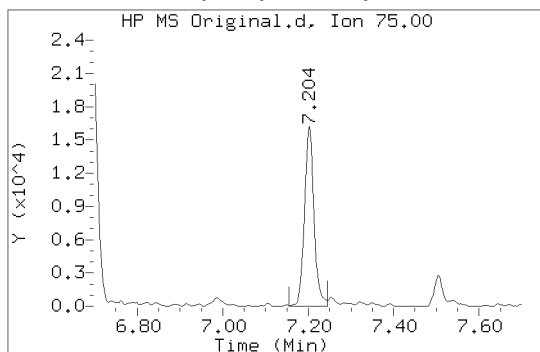
MASS
39
AREA
16901
HEIGHT
10647
16-Nov-2022
09:41
linh
pham



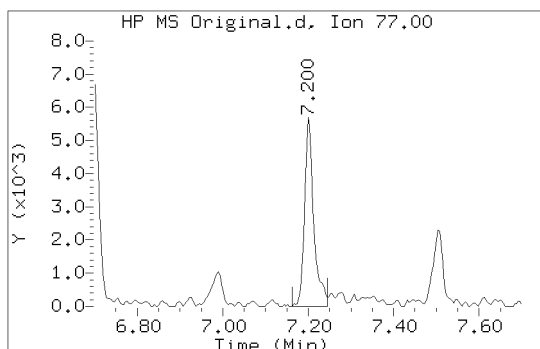
Reason Code:

trans-1,3-Dichloropropene (10061-02-6)**BEFORE**

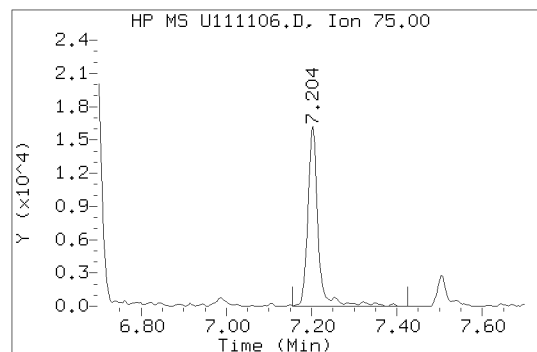
MASS
75
AREA
25866
HEIGHT
16244
16-Nov-2022
09:38
linh
pham

**BEFORE**

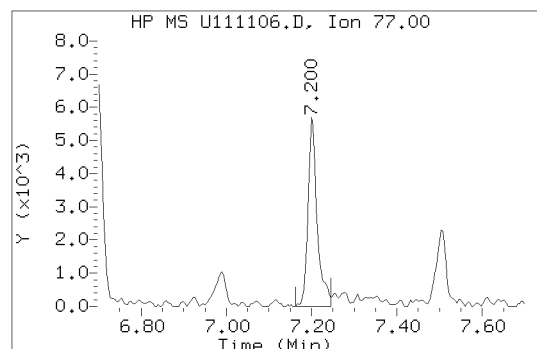
MASS
77
AREA
8739
HEIGHT
5690
16-Nov-2022
09:38
linh
pham

**AFTER**

MASS
75
AREA
28169
HEIGHT
16244
16-Nov-2022
09:41
linh
pham

**AFTER**

MASS
77
AREA
8739
HEIGHT
5690
16-Nov-2022
09:41
linh
pham

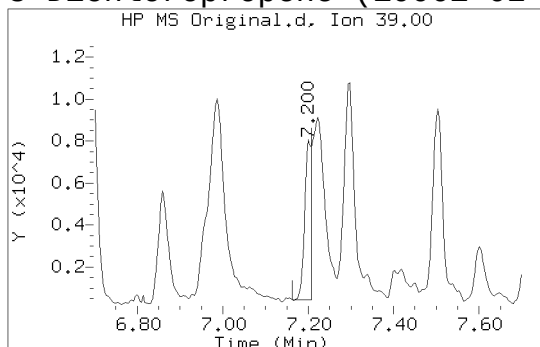


Reason Code:

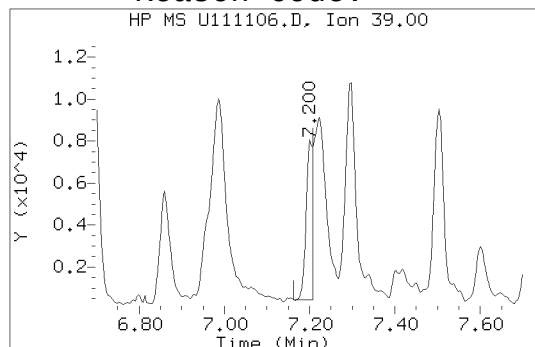
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U221111.b\\U111106.D
Inj Date : 11-NOV-2022 13:47
InstruID : VOA9.i
LabSampID : VSTD005

trans-1,3-Dichloropropene (10061-02-6)**BEFORE**

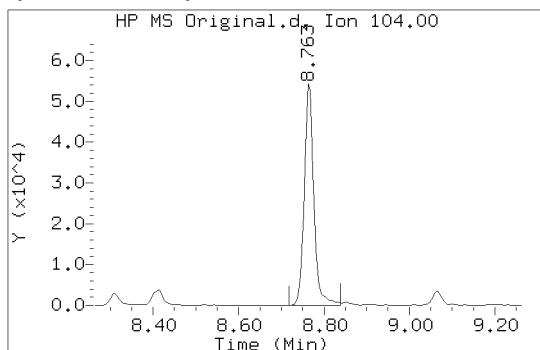
MASS
39
AREA
8739
HEIGHT
7652
16-Nov-2022
09:38
linh
pham

**AFTER**

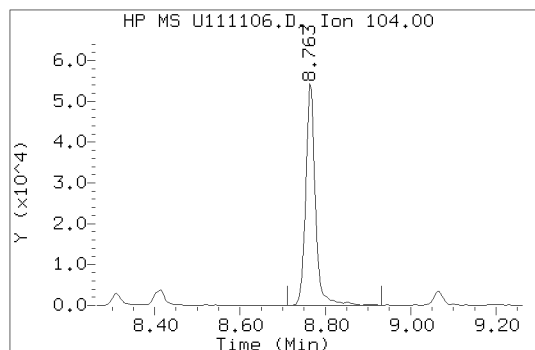
MASS
39
AREA
8739
HEIGHT
7652
16-Nov-2022
09:41
linh
pham

Reason Code:**Styrene (100-42-5)****BEFORE**

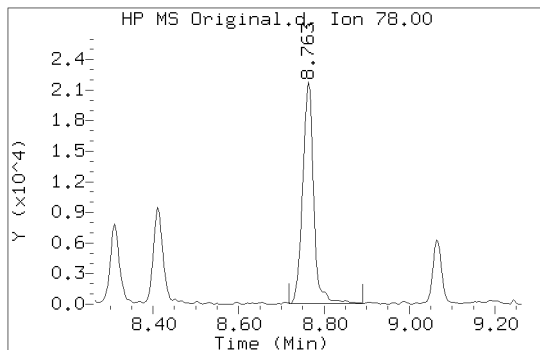
MASS
104
AREA
85821
HEIGHT
54328
16-Nov-2022
09:38
linh
pham

**AFTER**

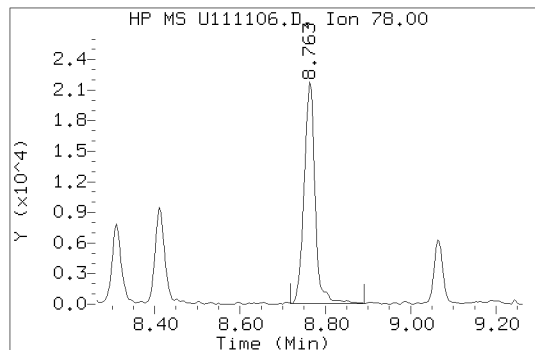
MASS
104
AREA
87295
HEIGHT
54328
16-Nov-2022
09:41
linh
pham

Reason Code:**BEFORE**

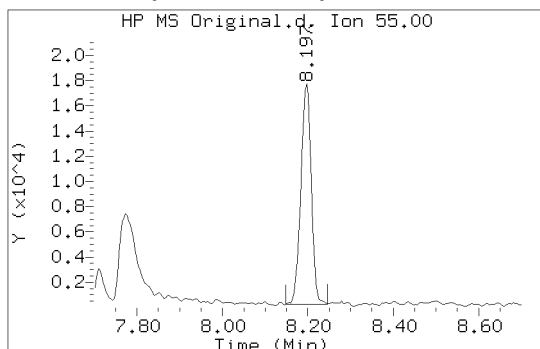
MASS
78
AREA
39453
HEIGHT
21721
16-Nov-2022
09:38
linh
pham

**AFTER**

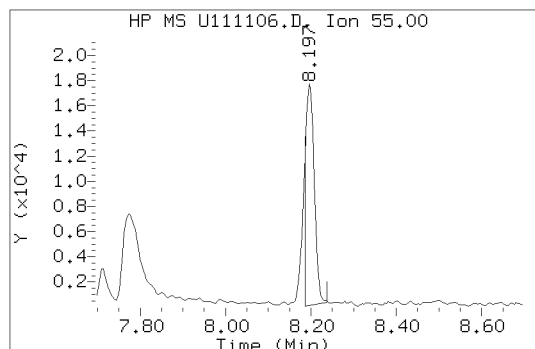
MASS
78
AREA
39453
HEIGHT
21721
16-Nov-2022
09:41
linh
pham

**1-Chlorohexane (544-10-5)****BEFORE**

MASS
55
AREA
30409
HEIGHT
17501
16-Nov-2022
09:38
linh
pham

**AFTER**

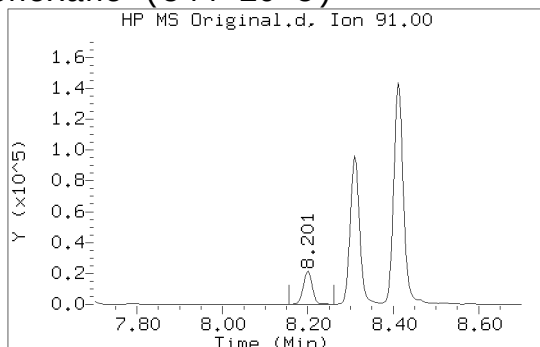
MASS
55
AREA
25743
HEIGHT
17599
16-Nov-2022
09:41
linh
pham

Reason Code:

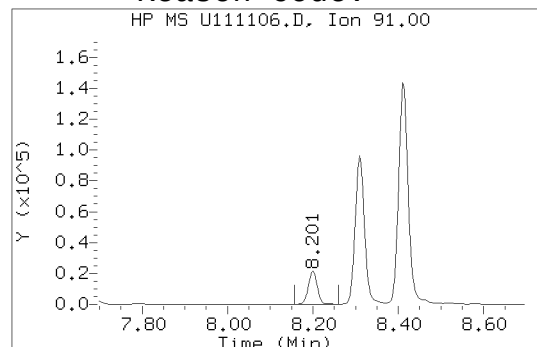
Data File : \\NAHSTWS005\\Target\\chem\\voa9.i\\U221111.b\\U111106.D
Inj Date : 11-NOV-2022 13:47
InstruID : VOA9.i
LabSampID : VSTD005

1-Chlorohexane (544-10-5)**BEFORE**

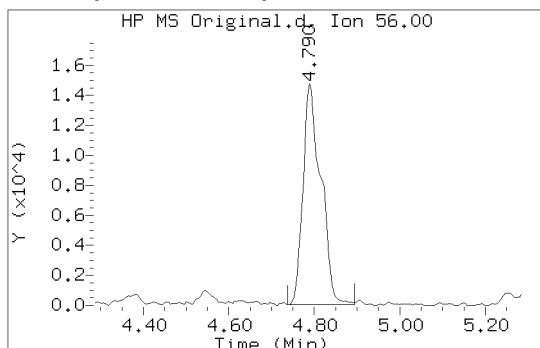
MASS
91
AREA
32333
HEIGHT
21472
16-Nov-2022
09:38
linh
pham

**AFTER**

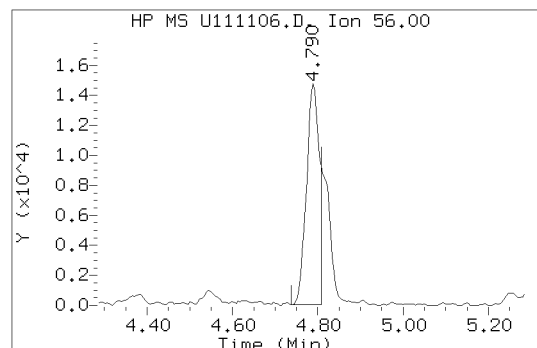
MASS
91
AREA
32333
HEIGHT
21472
16-Nov-2022
09:41
linh
pham

**Cyclohexane (110-82-7)****BEFORE**

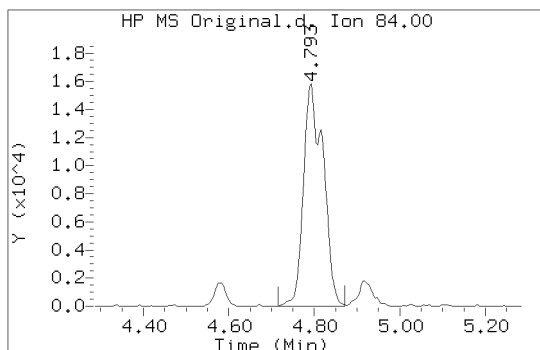
MASS
56
AREA
43204
HEIGHT
14722
16-Nov-2022
09:38
linh
pham

**AFTER**

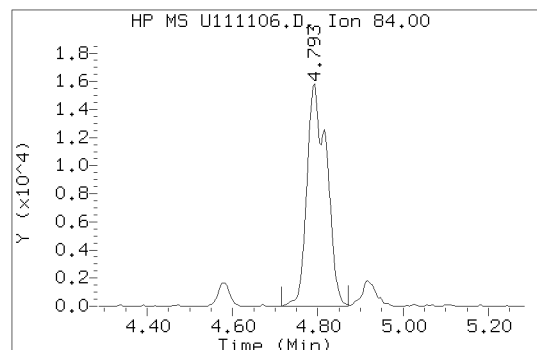
MASS
56
AREA
30806
HEIGHT
14722
16-Nov-2022
09:41
linh
pham

**BEFORE**

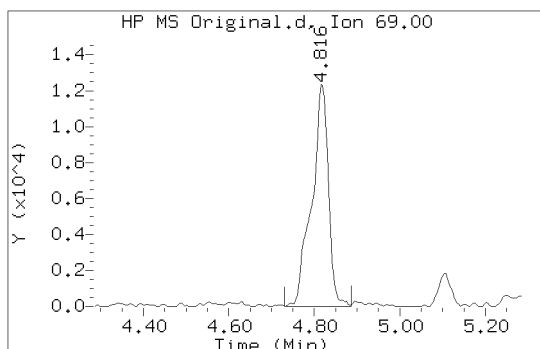
MASS
84
AREA
51343
HEIGHT
15822
16-Nov-2022
09:38
linh
pham

**AFTER**

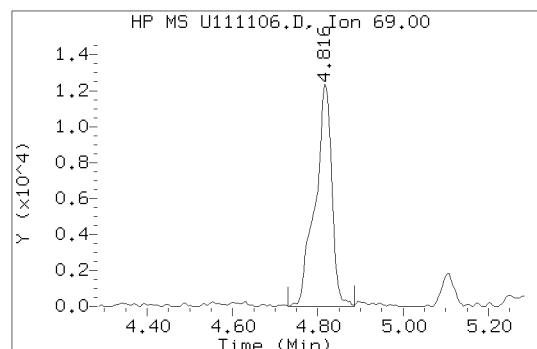
MASS
84
AREA
51343
HEIGHT
15822
16-Nov-2022
09:41
linh
pham

**BEFORE**

MASS
69
AREA
33613
HEIGHT
12333
16-Nov-2022
09:38
linh
pham

**AFTER**

MASS
69
AREA
33613
HEIGHT
12333
16-Nov-2022
09:41
linh
pham



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111107.D Page 1
 Report Date: 16-Nov-2022 09:41

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111107.D
 Lab Smp Id: VSTD020 Client Smp ID: VSTD020
 Inj Date : 11-NOV-2022 14:09
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD020;VSTD020;1;6;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\8260C.m
 Meth Date : 16-Nov-2022 09:41 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 13:47 Cal File: U111106.D
 Als bottle: 8 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.815	(1.000)		772810	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.160	(0.241)		102320	20.0000	17.58
3 Chloromethane	50		1.295	1.295	(0.269)		151074	20.0000	17.86
5 Vinyl Chloride	62		1.374	1.374	(0.285)		127334	20.0000	16.15
6 Bromomethane	94		1.617	1.617	(0.336)		112053	20.0000	19.98
7 Chloroethane	64		1.696	1.696	(0.352)		98029	20.0000	17.02
8 Trichlorofluoromethane	101		1.895	1.895	(0.394)		169022	20.0000	16.49
9 Acrolein	56		2.266	2.266	(0.471)		19477	40.0000	35.80
10 Acetone	43		2.408	2.408	(0.500)		138833	40.0000	39.85
11 1,1-Dichloroethene	96		2.333	2.333	(0.485)		112330	20.0000	17.04
15 Iodomethane	142		2.464	2.464	(0.512)		213421	40.0000	31.53
16 Acrylonitrile	53		3.068	3.068	(0.637)		138298	40.0000	38.53
17 Methylene Chloride	84		2.794	2.794	(0.580)		187449	20.0000	21.13
18 Methyl tert-butyl ether	73		3.079	3.079	(0.640)		421972	20.0000	18.99
19 Carbon Disulfide	76		2.517	2.517	(0.523)		623860	40.0000	32.53
20 trans-1,2-Dichloroethene	96		3.060	3.060	(0.636)		127310	20.0000	17.45
21 Vinyl Acetate	43		3.608	3.608	(0.749)		755041	40.0000	39.66
22 1,1-Dichloroethane	63		3.514	3.514	(0.730)		230735	20.0000	17.79
24 2-Butanone	43		4.268	4.268	(0.886)		128175	40.0000	41.01
26 2,2-Dichloropropane	77		4.181	4.181	(0.868)		103832	20.0000	15.84



27 cis-1,2-Dichloroethene	96	4.196	4.196 (0.872)	157410	20.0000	18.36
28 Chloroform	83	4.575	4.575 (0.950)	255987	20.0000	18.49

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111107.D Page 2
Report Date: 16-Nov-2022 09:41

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128		4.470	4.470	(0.928)		86707	20.0000	18.94
\$ 30 Dibromofluoromethane	113		4.751	4.751	(0.987)		161737	20.0000	20.72
31 1,1,1-Trichloroethane	97		4.744	4.744	(0.985)		161239	20.0000	17.31
32 1,1-Dichloropropene	75		4.924	4.924	(0.887)		149156	20.0000	16.91
33 1,2-Dichloroethane	62		5.178	5.178	(0.933)		218272	20.0000	19.52
34 Carbon Tetrachloride	117		4.912	4.912	(0.885)		99378	20.0000	18.01(MH)
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.100	(1.059)		187085	20.0000	20.97
* 36 1,4-Difluorobenzene	114		5.553	5.553	(1.000)		1272199	50.0000	
37 Benzene	78		5.141	5.141	(0.926)		545291	20.0000	18.19
38 Trichloroethene	130		5.790	5.790	(1.043)		144714	20.0000	17.64
39 Bromodichloromethane	83		6.281	6.281	(1.131)		173335	20.0000	18.92
42 1,2-Dichloropropane	63		6.011	6.011	(1.082)		145372	20.0000	19.07
44 Dibromomethane	93		6.123	6.123	(1.103)		105517	20.0000	19.21
45 4-Methyl-2-Pentanone	43		6.858	6.858	(0.837)		276257	40.0000	39.73
46 cis-1,3-Dichloropropene	75		6.693	6.693	(1.205)		175436	20.0000	16.20
* 47 Chlorobenzene-d5	117		8.189	8.189	(1.000)		1183393	50.0000	
\$ 48 Toluene-d8	98		6.925	6.925	(0.846)		579036	20.0000	20.56
50 Toluene	91		6.982	6.982	(0.853)		595597	20.0000	18.96
51 trans-1,3-Dichloropropene	75		7.199	7.199	(1.296)		139963	20.0000	15.96
52 2-Hexanone	43		7.596	7.596	(0.928)		182995	40.0000	36.24
53 1,1,2-Trichloroethane	83		7.356	7.356	(0.898)		131723	20.0000	19.46
54 1,3-Dichloropropane	76		7.503	7.503	(0.916)		267253	20.0000	19.32
55 Dibromochloromethane	129		7.694	7.694	(0.940)		144312	20.0000	17.22
56 Tetrachloroethene	164		7.458	7.458	(0.911)		113823	20.0000	16.67
57 1,2-Dibromoethane	107		7.788	7.788	(0.951)		166169	20.0000	20.03
58 1-Chlorohexane	55		8.196	8.196	(1.476)		88434	20.0000	16.73
59 Chlorobenzene	112		8.211	8.211	(1.003)		419821	20.0000	18.67
60 1,1,1,2-Tetrachloroethane	131		8.286	8.286	(1.012)		136735	20.0000	18.59
61 Ethylbenzene	106		8.309	8.309	(1.015)		186789	20.0000	18.03
62 m,p-Xylenes	106		8.410	8.410	(1.027)		452798	40.0000	35.07
63 o-Xylene	106		8.751	8.751	(1.069)		234394	20.0000	18.38
64 Styrene	104		8.762	8.762	(1.070)		369850	20.0000	17.20
66 Bromoform	173		8.920	8.920	(1.089)		94499	20.0000	17.28
67 Isopropylbenzene	105		9.066	9.066	(1.107)		519303	20.0000	17.66
68 1,1,2,2-Tetrachloroethane	83		9.332	9.332	(0.917)		231177	20.0000	19.93
\$ 69 4-Bromofluorobenzene	95		9.197	9.197	(1.123)		205602	20.0000	19.84
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		583309	50.0000	
71 1,2,3-Trichloropropane	75		9.362	9.362	(0.920)		194772	20.0000	19.45
73 n-Propylbenzene	91		9.415	9.415	(0.926)		544491	20.0000	17.32
74 Bromobenzene	156		9.321	9.321	(0.916)		180015	20.0000	19.47
75 1,3,5-Trimethylbenzene	105		9.564	9.564	(0.940)		429004	20.0000	18.44
76 2-Chlorotoluene	91		9.486	9.486	(0.933)		418542	20.0000	18.93
77 4-Chlorotoluene	91		9.579	9.579	(0.942)		470703	20.0000	19.04
78 tert-Butylbenzene	119		9.838	9.838	(0.967)		348236	20.0000	17.07
79 1,2,4-Trimethylbenzene	105		9.879	9.879	(0.971)		454043	20.0000	18.56
81 sec-Butylbenzene	105		10.026	10.026	(0.986)		417125	20.0000	16.00
82 p-Isopropyltoluene	119		10.149	10.149	(0.998)		371945	20.0000	16.66
83 1,3-Dichlorobenzene	146		10.119	10.119	(0.995)		294716	20.0000	18.60
84 1,4-Dichlorobenzene	146		10.194	10.194	(1.002)		306903	20.0000	17.60
87 n-Butylbenzene	91		10.494	10.494	(1.032)		294780	20.0000	16.40
88 1,2-Dichlorobenzene	146		10.509	10.509	(1.033)		309206	20.0000	18.44
89 1,2-Dibromo-3-Chloropropane	155		11.169	11.169	(1.098)		27340	20.0000	17.35



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	157107	20.0000	17.13
91 Hexachlorobutadiene	225	12.001	12.001 (1.180)	60901	20.0000	18.12

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111107.D Page 3

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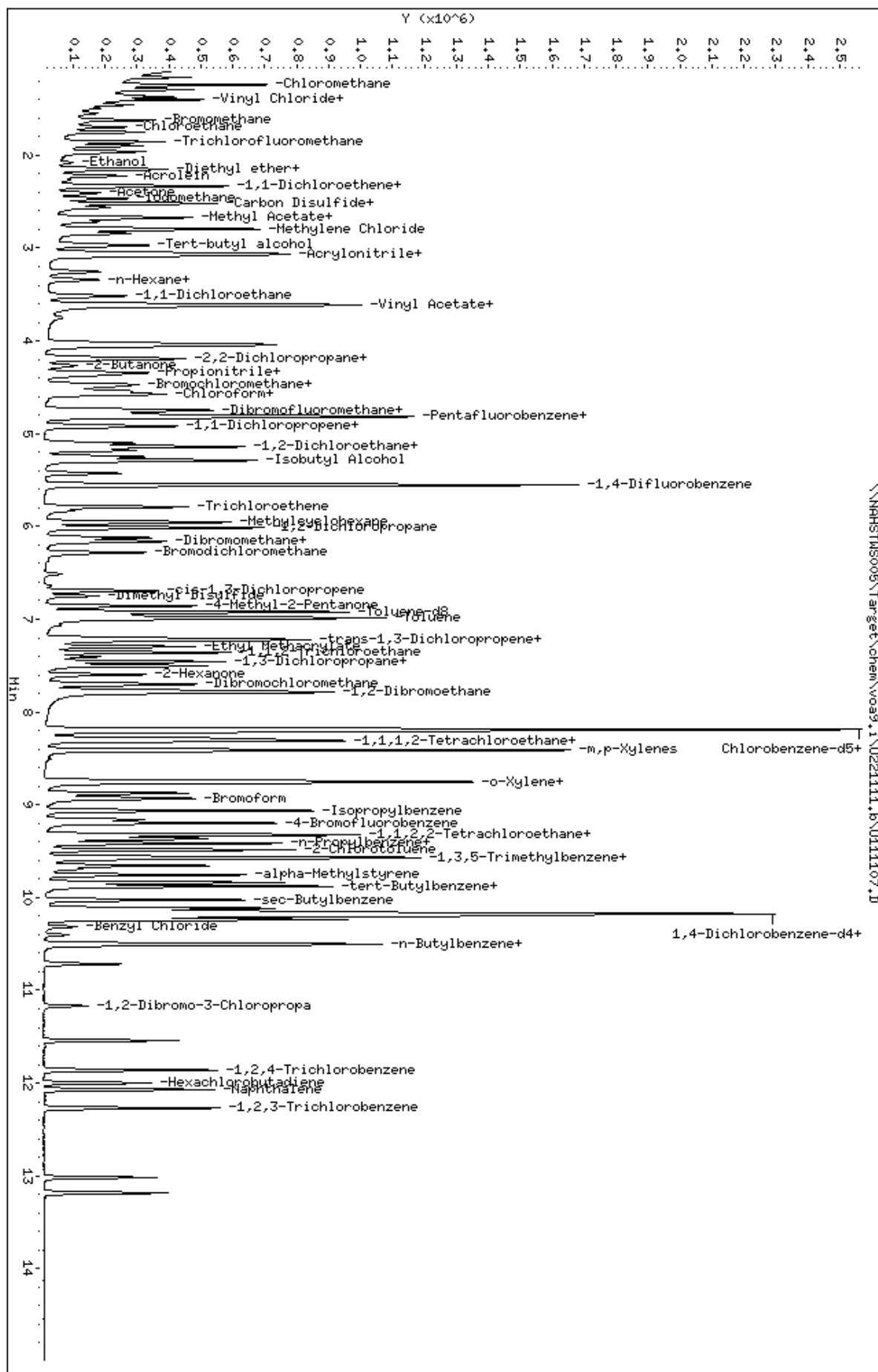
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	397549	20.0000	17.37
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	161195	20.0000	17.73
M 94 1,2-Dichloroethylene (total)	96				284720	40.0000	
M 95 Xylenes (total)	106				687192	60.0000	
135 1,4-Dioxane	88	6.172	6.172	(1.282)	48571	400.000	413.82
141 Cyclohexane	56	4.785	4.785	(0.994)	124554	20.0000	19.51
138 Freon TF	101	2.333	2.333	(0.485)	87464	20.0000	18.93
140 1,3-Butadiene	54	1.400	1.400	(0.291)	86035	20.0000	15.27
147 Methylcyclohexane	55	5.951	5.951	(1.072)	319555	20.0000	17.81
146 Methyl Acetate	43	2.716	2.716	(0.564)	124692	20.0000	19.71
148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	296243	400.000	396.30
149 Isopropyl Alcohol	45	2.562	2.562	(0.532)	191634	400.000	388.99

QC Flag Legend

M - Compound response manually integrated.

H - Operator selected an alternate compound hit.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U221111.b\U111107.D
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Column phase: DB624

Instrument: W0A9.i
Operator: PC
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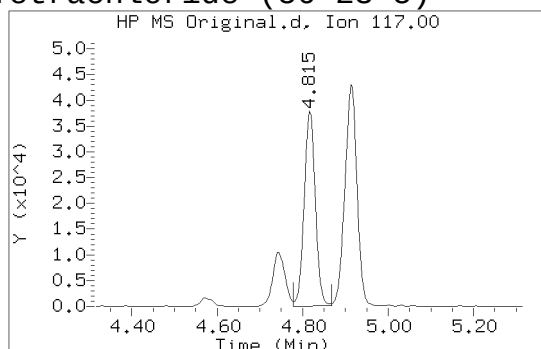


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Inj Date : 11-NOV-2022 14:09
InstruID : VOA9.i
LabSampID : VSTD020

Carbon Tetrachloride (56-23-5)

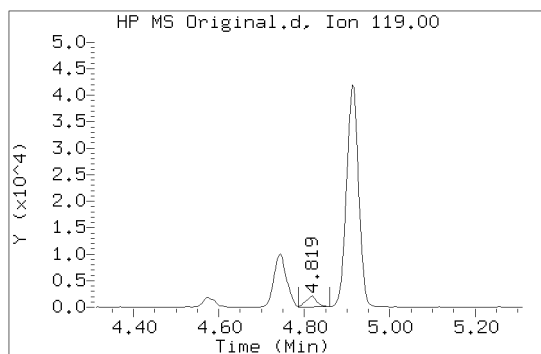
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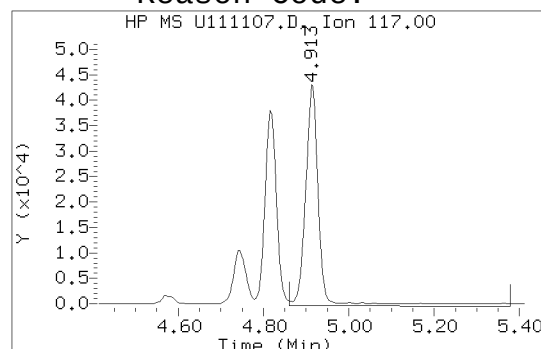
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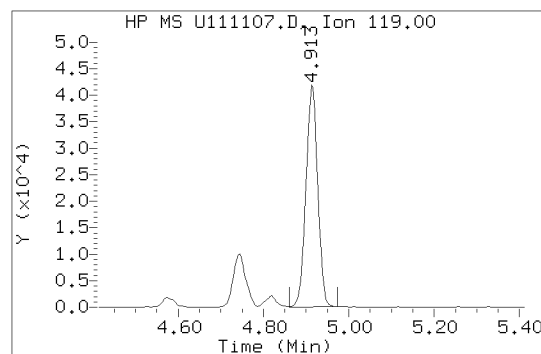
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Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111108.D Page 1
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ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111108.D
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 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD050;VSTD050;1;7;
 Misc Info : 180315V9;WATER;0;1;
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 Cal Date : 11-NOV-2022 14:09 Cal File: U111107.D
 Als bottle: 9 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.823	4.823	(1.000)		812571	50.0000	
2 Dichlorodifluoromethane	85		1.171	1.171	(0.243)		341105	50.0000	51.06
3 Chloromethane	50		1.306	1.306	(0.271)		443180	50.0000	49.39
5 Vinyl Chloride	62		1.385	1.385	(0.287)		412771	50.0000	49.80
6 Bromomethane	94		1.629	1.629	(0.338)		297603	50.0000	52.18
7 Chloroethane	64		1.708	1.708	(0.354)		307590	50.0000	50.80
8 Trichlorofluoromethane	101		1.906	1.906	(0.395)		524429	50.0000	48.66
9 Acrolein	56		2.274	2.274	(0.471)		55154	100.000	94.75
10 Acetone	43		2.420	2.420	(0.502)		354366	100.000	107.49
11 1,1-Dichloroethene	96		2.345	2.345	(0.486)		344288	50.0000	49.68
15 Iodomethane	142		2.476	2.476	(0.513)		724437	100.000	93.00
16 Acrylonitrile	53		3.076	3.076	(0.638)		360930	100.000	95.63
17 Methylene Chloride	84		2.802	2.802	(0.581)		474209	50.0000	53.00
18 Methyl tert-butyl ether	73		3.091	3.091	(0.641)		1129602	50.0000	48.37
19 Carbon Disulfide	76		2.528	2.528	(0.524)		1981178	100.000	98.27
20 trans-1,2-Dichloroethene	96		3.068	3.068	(0.636)		390750	50.0000	50.95
21 Vinyl Acetate	43		3.619	3.619	(0.751)		2038112	100.000	101.83
22 1,1-Dichloroethane	63		3.526	3.526	(0.731)		691036	50.0000	50.69
24 2-Butanone	43		4.275	4.275	(0.887)		333171	100.000	101.39
26 2,2-Dichloropropane	77		4.193	4.193	(0.869)		341067	50.0000	46.68



27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	448891	50.0000	49.80
28 Chloroform	83	4.583	4.583 (0.950)	736374	50.0000	50.59

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111108.D Page 2
Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.478	4.478	(0.928)	238693	50.0000	49.61
\$ 30 Dibromofluoromethane	113	4.755	4.755	(0.986)	387990	50.0000	47.73
31 1,1,1-Trichloroethane	97	4.751	4.751	(0.985)	505108	50.0000	51.59
32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	451088	50.0000	49.77
33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	588781	50.0000	51.25
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	320902	50.0000	50.82(H)
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.058)	449979	50.0000	48.79
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1307600	50.0000	
37 Benzene	78	5.145	5.145	(0.926)	1593869	50.0000	51.74
38 Trichloroethene	130	5.794	5.794	(1.042)	433111	50.0000	51.39
39 Bromodichloromethane	83	6.285	6.285	(1.131)	527754	50.0000	56.04
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	407482	50.0000	52.01
44 Dibromomethane	93	6.127	6.127	(1.103)	293688	50.0000	52.02
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	775791	100.000	106.73
46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.205)	589702	50.0000	46.60
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1237070	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1356612	50.0000	46.09
50 Toluene	91	6.986	6.986	(0.853)	1716781	50.0000	52.28
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	478316	50.0000	45.14
52 2-Hexanone	43	7.597	7.597	(0.928)	526402	100.000	97.39
53 1,1,2-Trichloroethane	83	7.361	7.361	(0.899)	352998	50.0000	49.90
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	742056	50.0000	51.32
55 Dibromochloromethane	129	7.694	7.694	(0.940)	445683	50.0000	48.05
56 Tetrachloroethene	164	7.462	7.462	(0.911)	328049	50.0000	45.97
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	464886	50.0000	53.62
58 1-Chlorohexane	55	8.200	8.200	(1.476)	266333	50.0000	45.09
59 Chlorobenzene	112	8.211	8.211	(1.003)	1173726	50.0000	49.95
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	408823	50.0000	53.18
61 Ethylbenzene	106	8.309	8.309	(1.015)	538156	50.0000	49.70
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1380089	100.000	102.26
63 o-Xylene	106	8.751	8.751	(1.069)	695717	50.0000	52.19
64 Styrene	104	8.763	8.763	(1.070)	1123787	50.0000	47.67
66 Bromoform	173	8.920	8.920	(1.089)	291068	50.0000	46.44
67 Isopropylbenzene	105	9.066	9.066	(1.107)	1573253	50.0000	51.20
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	623822	50.0000	50.25
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	515213	50.0000	47.30
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	624341	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	532419	50.0000	49.69
73 n-Propylbenzene	91	9.415	9.415	(0.926)	1679400	50.0000	49.93
74 Bromobenzene	156	9.321	9.321	(0.916)	498617	50.0000	50.39
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	1261866	50.0000	50.67
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	1190280	50.0000	50.31
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	1354647	50.0000	51.20
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	1051666	50.0000	48.16
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	1293736	50.0000	49.41
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	1297343	50.0000	43.16
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	1116432	50.0000	46.72
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	844411	50.0000	49.79
84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	866696	50.0000	46.44
87 n-Butylbenzene	91	10.494	10.494	(1.032)	902009	50.0000	42.77
88 1,2-Dichlorobenzene	146	10.509	10.509	(1.033)	860829	50.0000	47.97
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	84642	50.0000	45.87



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	477841	50.0000	48.68
91 Hexachlorobutadiene	225	12.001	12.001 (1.180)	169934	50.0000	43.90

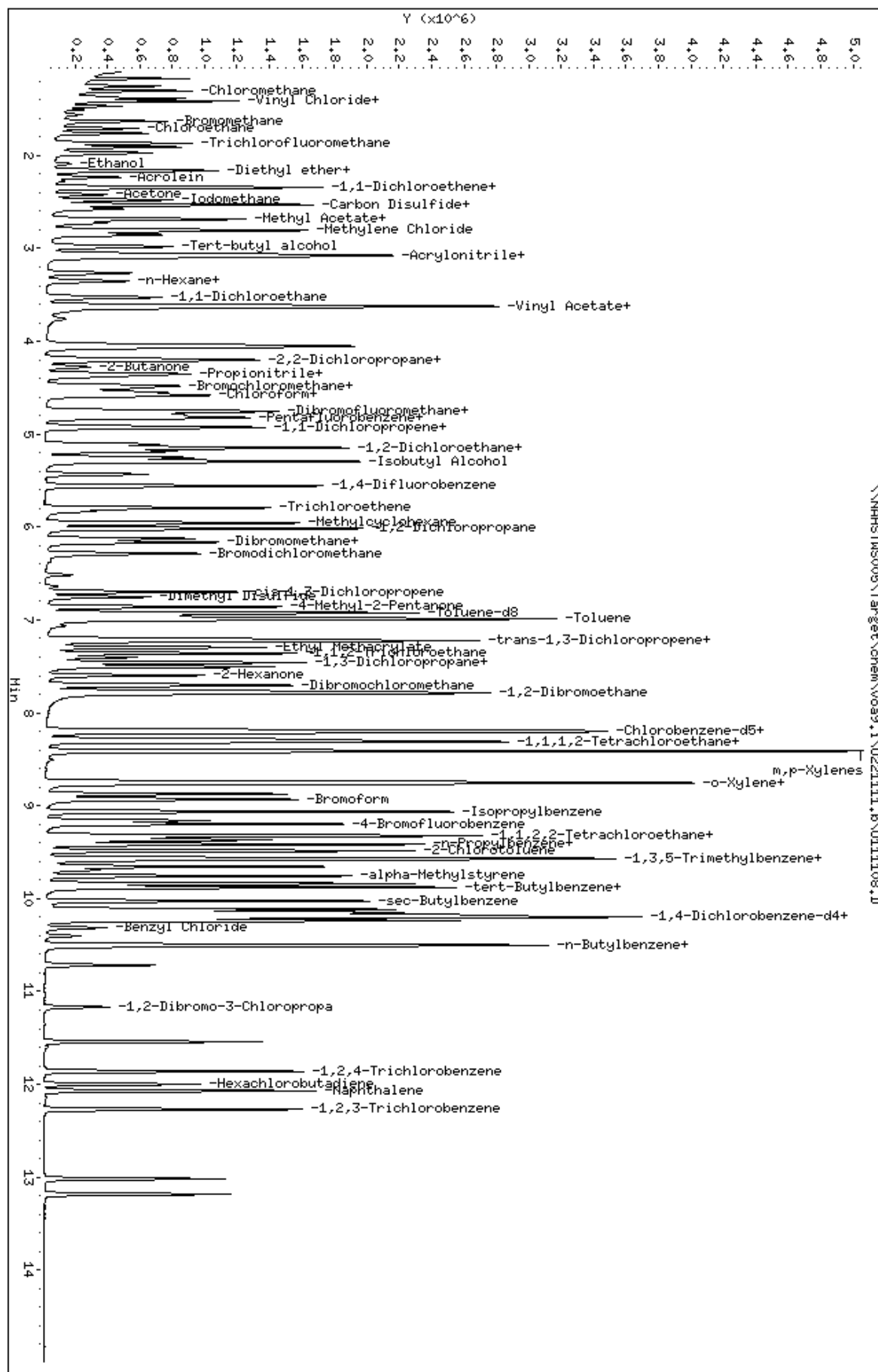
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 Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	1213056	50.0000	49.53
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	466636	50.0000	47.95
M 94 1,2-Dichloroethylene (total)	96				839641	100.000	
M 95 Xylenes (total)	106				2075806	150.000	
135 1,4-Dioxane	88	6.172	6.172	(1.280)	127214	1000.00	1030.82
141 Cyclohexane	56	4.789	4.789	(0.993)	367931	50.0000	50.21
138 Freon TF	101	2.345	2.345	(0.486)	265554	50.0000	50.40
140 1,3-Butadiene	54	1.411	1.411	(0.293)	295655	50.0000	45.96
147 Methylcyclohexane	55	5.951	5.951	(1.071)	858917	50.0000	46.58
146 Methyl Acetate	43	2.723	2.723	(0.565)	318972	50.0000	47.97
148 Tert-Butyl alcohol	59	2.978	2.978	(0.618)	783084	1000.00	996.31
149 Isopropyl Alcohol	45	2.573	2.573	(0.534)	502529	1000.00	970.16

QC Flag Legend

H - Operator selected an alternate compound hit.





Data File: \\NAHSTMS005\Target\chem\voa9.1\UE21111.b\U111108.D
 Date : 11-NOV-2022 14:31
 Client ID: VSTD050
 Sample Info: VSTD050\VSTD050\117;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W049.1
 Operator: PC
 Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111108.D
Inj Date : 11-NOV-2022 14:31
InstruID : VOA9.i
LabSampID : VSTD050

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111109.D Page 1
 Report Date: 16-Nov-2022 09:41

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111109.D
 Lab Smp Id: VSTD100 Client Smp ID: VSTD100
 Inj Date : 11-NOV-2022 14:53
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD100;VSTD100;1;8;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\8260C.m
 Meth Date : 16-Nov-2022 09:41 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 10 Calibration Sample, Level: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG				AMOUNTS	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	829812	50.0000	
2 Dichlorodifluoromethane	85	1.164	1.164	(0.242)	811364	100.000	99.84
3 Chloromethane	50	1.299	1.299	(0.270)	920649	100.000	100.22
5 Vinyl Chloride	62	1.378	1.378	(0.286)	908173	100.000	107.30
6 Bromomethane	94	1.618	1.618	(0.336)	575509	100.000	99.81
7 Chloroethane	64	1.700	1.700	(0.353)	674958	100.000	109.15
8 Trichlorofluoromethane	101	1.903	1.903	(0.395)	1251739	100.000	113.74
9 Acrolein	56	2.270	2.270	(0.471)	117779	200.000	197.04
10 Acetone	43	2.412	2.412	(0.501)	675630	200.000	207.20(A)
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	788572	100.000	111.42
15 Iodomethane	142	2.472	2.472	(0.513)	1610926	200.000	198.28
16 Acrylonitrile	53	3.072	3.072	(0.638)	754362	200.000	195.73
17 Methylene Chloride	84	2.799	2.799	(0.581)	927668	100.000	102.95
18 Methyl tert-butyl ether	73	3.087	3.087	(0.641)	2372627	100.000	99.48
19 Carbon Disulfide	76	2.525	2.525	(0.524)	4294866	200.000	208.61
20 trans-1,2-Dichloroethene	96	3.065	3.065	(0.636)	830414	100.000	106.04
21 Vinyl Acetate	43	3.612	3.612	(0.750)	4171958	200.000	204.12
22 1,1-Dichloroethane	63	3.522	3.522	(0.731)	1385774	100.000	99.54
24 2-Butanone	43	4.272	4.272	(0.886)	680227	200.000	202.71
26 2,2-Dichloropropane	77	4.189	4.189	(0.869)	779680	100.000	102.84



27 cis-1,2-Dichloroethene	96	4.201	4.201 (0.872)	912807	100.000	99.16
28 Chloroform	83	4.579	4.579 (0.950)	1504695	100.000	101.22

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111109.D Page 2
 Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
29 Bromochloromethane	128	4.474	4.474	(0.928)	474397	100.000	96.55
\$ 30 Dibromofluoromethane	113	4.755	4.755	(0.987)	851798	100.000	103.02
31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	1173978	100.000	117.42
32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	1056974	100.000	113.14
33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	1206603	100.000	101.89
34 Carbon Tetrachloride	117	4.917	4.917	(0.885)	877292	100.000	99.91(H)
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	940738	100.000	100.56
* 36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	1347798	50.0000	
37 Benzene	78	5.145	5.145	(0.926)	3318477	100.000	104.52
38 Trichloroethene	130	5.794	5.794	(1.042)	943387	100.000	108.59
39 Bromodichloromethane	83	6.281	6.281	(1.130)	1105555	100.000	113.91
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	855507	100.000	105.95
44 Dibromomethane	93	6.124	6.124	(1.102)	596416	100.000	102.49
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	1649677	200.000	219.72
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	1314625	100.000	97.52
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1277881	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	3140659	100.000	103.31
50 Toluene	91	6.982	6.982	(0.853)	3683725	100.000	108.60
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	1103954	100.000	96.84
52 2-Hexanone	43	7.593	7.593	(0.927)	1147474	200.000	204.02
53 1,1,2-Trichloroethane	83	7.361	7.361	(0.899)	719281	100.000	98.44
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	1516127	100.000	101.52
55 Dibromochloromethane	129	7.694	7.694	(0.940)	982012	100.000	100.86
56 Tetrachloroethene	164	7.458	7.458	(0.911)	799766	100.000	108.50
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	963236	100.000	107.56
58 1-Chlorohexane	55	8.200	8.200	(1.475)	699070	100.000	105.24
59 Chlorobenzene	112	8.212	8.212	(1.003)	2494297	100.000	102.76
60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	870281	100.000	109.60
61 Ethylbenzene	106	8.309	8.309	(1.015)	1233798	100.000	110.30
62 m,p-Xylenes	106	8.410	8.410	(1.027)	3160058	200.000	226.68
63 o-Xylene	106	8.748	8.748	(1.068)	1532844	100.000	111.33
64 Styrene	104	8.763	8.763	(1.070)	2515807	100.000	101.89
66 Bromoform	173	8.920	8.920	(1.089)	649870	100.000	97.71
67 Isopropylbenzene	105	9.066	9.066	(1.107)	3736190	100.000	117.71
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	1273124	100.000	96.46
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	1154383	100.000	102.39
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	663876	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	1174548	100.000	103.10
73 n-Propylbenzene	91	9.415	9.415	(0.926)	4075504	100.000	113.96
74 Bromobenzene	156	9.321	9.321	(0.916)	1082776	100.000	102.92
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	2918072	100.000	110.21
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	2623517	100.000	104.30
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	3031770	100.000	107.77
78 tert-Butylbenzene	119	9.839	9.839	(0.967)	2619000	100.000	112.81
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	2894060	100.000	103.95
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	3454225	100.000	105.43
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	2860193	100.000	112.57
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	1858925	100.000	103.10
84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	1940353	100.000	97.78
87 n-Butylbenzene	91	10.495	10.495	(1.032)	2374641	100.000	102.61
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	1887767	100.000	98.93
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	194924	100.000	96.67



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1159756	100.000	111.12
91 Hexachlorobutadiene	225	12.002	12.002 (1.180)	483913	100.000	105.49

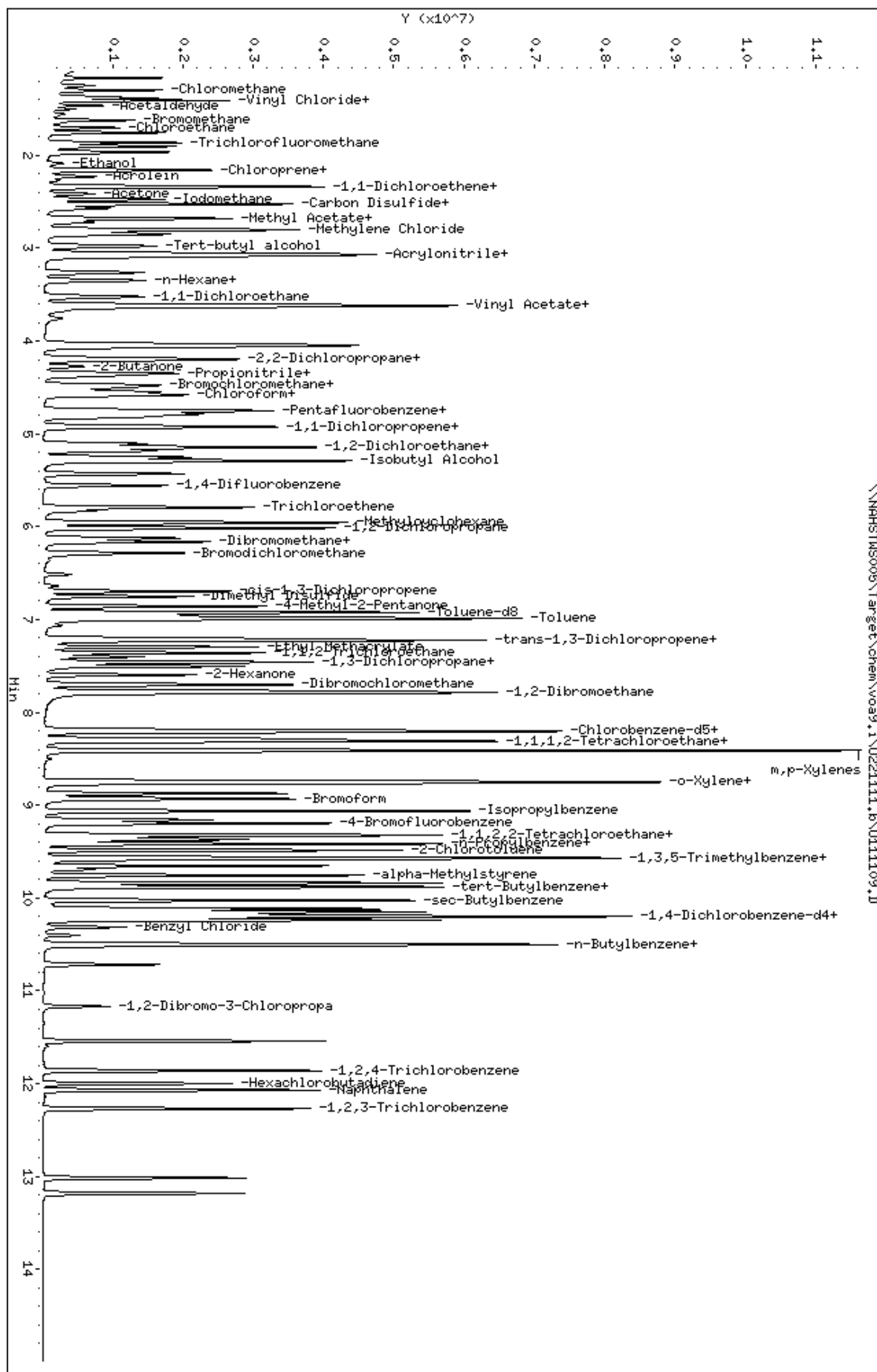
Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111109.D Page 3
 Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	2897700	100.000	111.26
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	1114963	100.000	107.75
M 94 1,2-Dichloroethylene (total)	96				1743221	200.000	
M 95 Xylenes (total)	106				4692902	300.000	
135 1,4-Dioxane	88	6.172	6.172	(1.281)	257083	2000.00	2039.87
141 Cyclohexane	56	4.789	4.789	(0.994)	998644	100.000	99.97
138 Freon TF	101	2.341	2.341	(0.486)	692856	100.000	99.95
140 1,3-Butadiene	54	1.408	1.408	(0.292)	689246	100.000	102.68
147 Methylcyclohexane	55	5.951	5.951	(1.071)	2142631	100.000	112.74(A)
146 Methyl Acetate	43	2.720	2.720	(0.564)	643954	100.000	94.83
148 Tert-Butyl alcohol	59	2.975	2.975	(0.617)	1622406	2000.00	2021.29
149 Isopropyl Alcohol	45	2.570	2.570	(0.533)	1024602	2000.00	1936.96

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- H - Operator selected an alternate compound hit.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U221111.b\U111109.D
 Date: 11-NOV-2022 14:53
 Client ID: WSTD100
 Sample Info: WSTD100;WSTD100;118;
 Purge Volume: 5.0
 Column phase: DB624

\\NAHSTMS005\Target\chem\voa9.i\U221111.b\U111109.D

Instrument: W099.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111109.D
Inj Date : 11-NOV-2022 14:53
InstruID : VOA9.i
LabSampID : VSTD100

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111110.D Page 1
 Report Date: 16-Nov-2022 09:41

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111110.D
 Lab Smp Id: VSTD150 Client Smp ID: VSTD150
 Inj Date : 11-NOV-2022 15:16
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD150;VSTD150;1;9;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\8260C.m
 Meth Date : 16-Nov-2022 09:41 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:53 Cal File: U111109.D
 Als bottle: 11 Calibration Sample, Level: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.823	4.823	(1.000)		828884	50.0000	
2 Dichlorodifluoromethane	85		1.168	1.168	(0.242)		1207713	150.000	124.64
3 Chloromethane	50		1.303	1.303	(0.270)		1404641	150.000	152.95
5 Vinyl Chloride	62		1.381	1.381	(0.287)		1402887	150.000	165.93
6 Bromomethane	94		1.618	1.618	(0.335)		870933	150.000	151.80
7 Chloroethane	64		1.704	1.704	(0.353)		982326	150.000	159.04
8 Trichlorofluoromethane	101		1.903	1.903	(0.395)		1817450	150.000	165.34
9 Acrolein	56		2.274	2.274	(0.471)		185978	300.000	310.90
10 Acetone	43		2.416	2.416	(0.501)		999241	300.000	310.41(A)
11 1,1-Dichloroethene	96		2.341	2.341	(0.485)		1168198	150.000	165.25
15 Iodomethane	142		2.476	2.476	(0.513)		2556299	300.000	313.47
16 Acrylonitrile	53		3.076	3.076	(0.638)		1116139	300.000	289.92
17 Methylene Chloride	84		2.802	2.802	(0.581)		1389833	150.000	155.18
18 Methyl tert-butyl ether	73		3.091	3.091	(0.641)		3653746	150.000	153.37
19 Carbon Disulfide	76		2.525	2.525	(0.524)		6401851	300.000	311.30
20 trans-1,2-Dichloroethene	96		3.068	3.068	(0.636)		1241525	150.000	158.72
21 Vinyl Acetate	43		3.616	3.616	(0.750)		6360761	300.000	311.57
22 1,1-Dichloroethane	63		3.526	3.526	(0.731)		2077294	150.000	149.38
24 2-Butanone	43		4.275	4.275	(0.887)		1018651	300.000	303.90
26 2,2-Dichloropropane	77		4.193	4.193	(0.869)		1201871	150.000	157.99



27 cis-1,2-Dichloroethene	96	4.204	4.204 (0.872)	1408492	150.000	153.18
28 Chloroform	83	4.583	4.583 (0.950)	2281202	150.000	153.63

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111110.D Page 2
Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
29 Bromochloromethane	128	4.478	4.478	(0.928)	725474	150.000	147.82
\$ 30 Dibromofluoromethane	113	4.755	4.755	(0.986)	1264289	150.000	153.25
31 1,1,1-Trichloroethane	97	4.752	4.752	(0.985)	1786137	150.000	178.85
32 1,1-Dichloropropene	75	4.928	4.928	(0.887)	1583473	150.000	164.70
33 1,2-Dichloroethane	62	5.183	5.183	(0.933)	1828835	150.000	150.07
34 Carbon Tetrachloride	117	4.920	4.920	(0.885)	1382113	150.000	107.71(H)
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.058)	1438278	150.000	154.26
* 36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	1387080	50.0000	
37 Benzene	78	5.145	5.145	(0.926)	4991600	150.000	152.76
38 Trichloroethene	130	5.794	5.794	(1.042)	1457254	150.000	163.00
39 Bromodichloromethane	83	6.285	6.285	(1.131)	1744141	150.000	174.61
41 2-Chloroethylvinyl ether	63	6.637	6.637	(1.194)	2806	300.000	
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	1298725	150.000	156.28
44 Dibromomethane	93	6.124	6.124	(1.102)	915651	150.000	152.89
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	2554596	300.000	325.36
46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.205)	2111427	150.000	150.62
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1336375	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	4505364	150.000	141.71
50 Toluene	91	6.986	6.986	(0.853)	5611422	150.000	158.19
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	1776839	150.000	149.52
52 2-Hexanone	43	7.597	7.597	(0.928)	1804472	300.000	306.12
53 1,1,2-Trichloroethane	83	7.361	7.361	(0.899)	1116139	150.000	146.06
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	2322064	150.000	148.68
55 Dibromochloromethane	129	7.698	7.698	(0.940)	1554115	150.000	151.89
56 Tetrachloroethene	164	7.462	7.462	(0.911)	1206878	150.000	156.56
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	1482684	150.000	158.32
58 1-Chlorohexane	55	8.200	8.200	(1.476)	1079275	150.000	148.02
59 Chlorobenzene	112	8.212	8.212	(1.003)	3815579	150.000	150.32
60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	1375009	150.000	165.59
61 Ethylbenzene	106	8.309	8.309	(1.015)	1921044	150.000	164.23
62 m,p-Xylenes	106	8.410	8.410	(1.027)	4870772	300.000	334.11
63 o-Xylene	106	8.751	8.751	(1.069)	2417950	150.000	167.93
64 Styrene	104	8.763	8.763	(1.070)	3972522	150.000	153.22
66 Bromoform	173	8.920	8.920	(1.089)	1062982	150.000	151.53
67 Isopropylbenzene	105	9.066	9.066	(1.107)	5773262	150.000	173.93
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	1960046	150.000	141.85
\$ 69 4-Bromofluorobenzene	95	9.197	9.197	(1.123)	1769020	150.000	149.95
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	694986	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	1861149	150.000	156.06
73 n-Propylbenzene	91	9.415	9.415	(0.926)	6409319	150.000	171.19
74 Bromobenzene	156	9.321	9.321	(0.916)	1698038	150.000	154.18
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	4566398	150.000	164.74
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	4063643	150.000	154.32
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	4759800	150.000	161.63
78 tert-Butylbenzene	119	9.839	9.839	(0.967)	4069891	150.000	167.46
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	4585262	150.000	157.32
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	5412058	150.000	156.92
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	4616018	150.000	173.55
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	2942446	150.000	155.89
84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	3075621	150.000	148.06
87 n-Butylbenzene	91	10.495	10.495	(1.032)	3785172	150.000	155.08
88 1,2-Dichlorobenzene	146	10.510	10.510	(1.033)	2996374	150.000	150.00



89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	327600	150.000	153.80
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	1891097	150.000	173.09



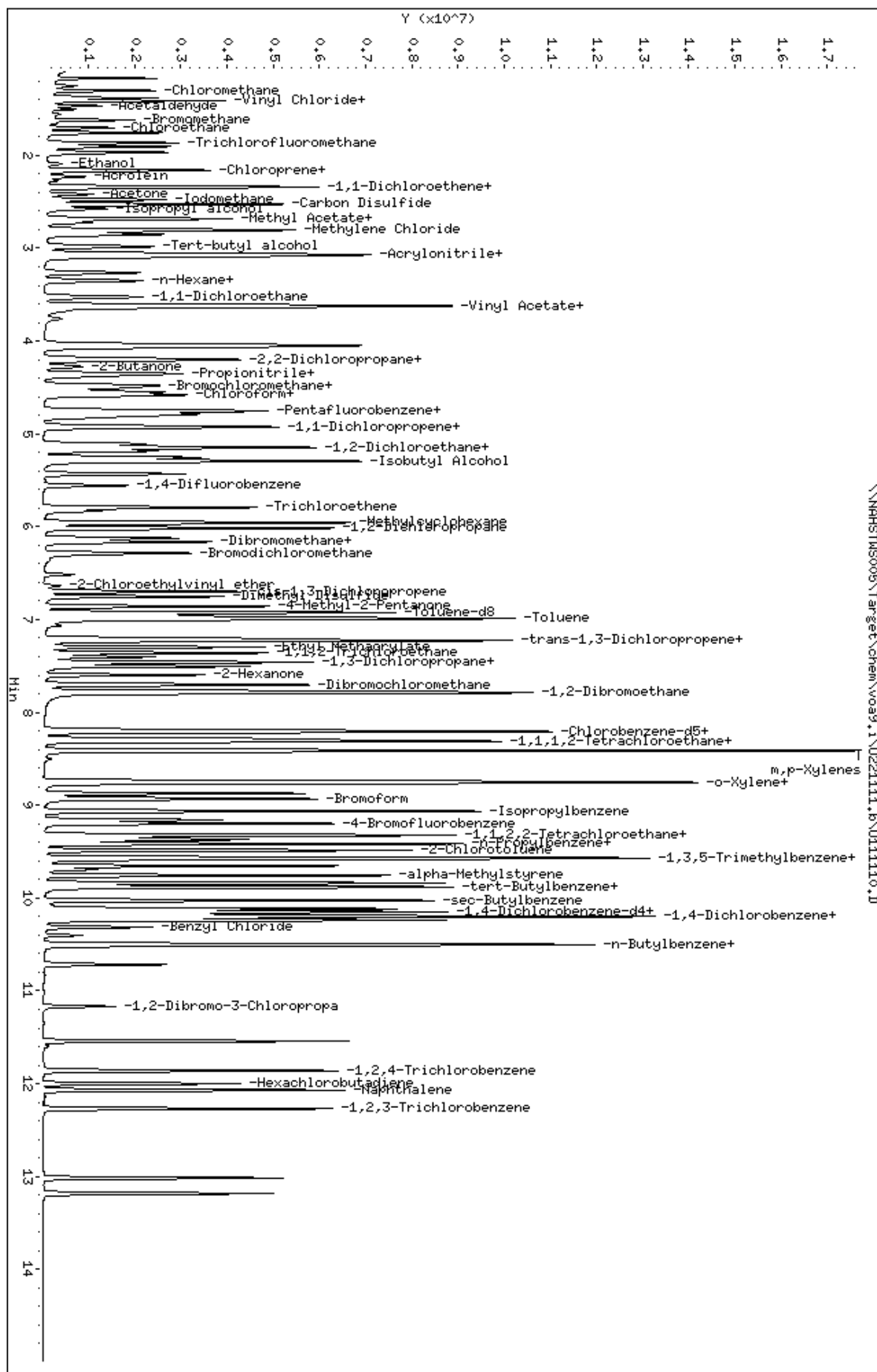
Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111110.D Page 3
 Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	12.002	12.002	(1.180)	776762	150.000	148.03
92 Naphthalene	128	12.069	12.069	(1.186)	4699937	150.000	172.39
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	1814441	150.000	167.50
M 94 1,2-Dichloroethylene (total)	96				2650017	300.000	
M 95 Xylenes (total)	106				7288722	450.000	
135 1,4-Dioxane	88	6.172	6.172	(1.280)	378469	3000.00	3006.39
141 Cyclohexane	56	4.789	4.789	(0.993)	1498127	150.000	109.40
138 Freon TF	101	2.341	2.341	(0.485)	1033853	150.000	113.96
140 1,3-Butadiene	54	1.411	1.411	(0.293)	1073997	150.000	159.20
147 Methylcyclohexane	55	5.951	5.951	(1.071)	3377575	150.000	172.69(A)
146 Methyl Acetate	43	2.724	2.724	(0.565)	959384	150.000	141.44
148 Tert-Butyl alcohol	59	2.982	2.982	(0.618)	2478594	3000.00	3091.45
149 Isopropyl Alcohol	45	2.574	2.574	(0.534)	1556758	3000.00	2946.27

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
 H - Operator selected an alternate compound hit.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U221111.b\U111110.D
 Date: 11-Nov-2022 15:16
 Client ID: WSTD150
 Sample Info: WSTD150\WSTD150\119;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W099.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111110.D
Inj Date : 11-NOV-2022 15:16
InstruID : VOA9.i
LabSampID : VSTD150

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111111.D Page 1
 Report Date: 16-Nov-2022 09:41

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111111.D
 Lab Smp Id: VSTD200 Client Smp ID: VSTD200
 Inj Date : 11-NOV-2022 15:38
 Operator : PC Inst ID: VOA9.i
 Smp Info : VSTD200;VSTD200;1;10;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\8260C.m
 Meth Date : 16-Nov-2022 09:41 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 15:16 Cal File: U111110.D
 Als bottle: 12 Calibration Sample, Level: 10
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG				AMOUNTS	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.815	4.815	(1.000)	902669	50.0000	
2 Dichlorodifluoromethane	85	1.156	1.156	(0.240)	1585170	200.000	132.11
3 Chloromethane	50	1.288	1.288	(0.267)	1980029	200.000	197.91
5 Vinyl Chloride	62	1.370	1.370	(0.285)	1897666	200.000	206.11(A)
6 Bromomethane	94	1.599	1.599	(0.332)	1235875	200.000	198.13
7 Chloroethane	64	1.689	1.689	(0.351)	1312142	200.000	195.08
8 Trichlorofluoromethane	101	1.891	1.891	(0.393)	2311910	200.000	193.13
9 Acrolein	56	2.259	2.259	(0.469)	257093	400.000	394.39
10 Acetone	43	2.405	2.405	(0.499)	1345589	400.000	385.62(A)
11 1,1-Dichloroethene	96	2.330	2.330	(0.484)	1555002	200.000	201.99(A)
15 Iodomethane	142	2.461	2.461	(0.511)	3486199	400.000	392.25
16 Acrylonitrile	53	3.064	3.064	(0.636)	1544836	400.000	368.48
17 Methylene Chloride	84	2.791	2.791	(0.580)	1881972	200.000	193.33
18 Methyl tert-butyl ether	73	3.079	3.079	(0.640)	5073009	200.000	195.54
19 Carbon Disulfide	76	2.513	2.513	(0.522)	8467076	400.000	378.07
20 trans-1,2-Dichloroethene	96	3.057	3.057	(0.635)	1680883	200.000	197.32
21 Vinyl Acetate	43	3.608	3.608	(0.749)	8517236	400.000	383.10
22 1,1-Dichloroethane	63	3.514	3.514	(0.730)	2767452	200.000	182.74
24 2-Butanone	43	4.268	4.268	(0.886)	1397427	400.000	382.83
26 2,2-Dichloropropane	77	4.182	4.182	(0.868)	1601634	200.000	193.03



27 cis-1,2-Dichloroethene	96	4.197	4.197 (0.872)	1915555	200.000	191.30
28 Chloroform	83	4.575	4.575 (0.950)	3102241	200.000	191.85

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111111.D Page 2
 Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.470	4.470	(0.928)	994790	200.000	186.12
\$ 30 Dibromofluoromethane	113	4.751	4.751	(0.987)	1763288	200.000	196.36
31 1,1,1-Trichloroethane	97	4.744	4.744	(0.985)	2381933	200.000	219.01(A)
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	2101515	200.000	207.64(A)
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	2507241	200.000	195.43
34 Carbon Tetrachloride	117	4.913	4.913	(0.885)	1867061	200.000	90.86(H)
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.100	(1.059)	1994105	200.000	196.56
* 36 1,4-Difluorobenzene	114	5.554	5.554	(1.000)	1460248	50.0000	
37 Benzene	78	5.141	5.141	(0.926)	6792893	200.000	197.47
38 Trichloroethene	130	5.790	5.790	(1.043)	1974142	200.000	209.75(A)
39 Bromodichloromethane	83	6.281	6.281	(1.131)	2436310	200.000	231.69(A)
41 2-Chloroethylvinyl ether	63	6.637	6.637	(1.195)	4550	400.000	
42 1,2-Dichloropropane	63	6.011	6.011	(1.082)	1795902	200.000	205.28(A)
44 Dibromomethane	93	6.120	6.120	(1.102)	1273209	200.000	201.95(A)
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.837)	3507946	400.000	418.70(A)
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	2990718	200.000	201.68(A)
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1426014	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	6432000	200.000	189.60
50 Toluene	91	6.982	6.982	(0.853)	7472960	200.000	197.42
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	2555944	200.000	203.05(A)
52 2-Hexanone	43	7.597	7.597	(0.928)	2481566	400.000	394.13
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	1528222	200.000	187.42
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	3189971	200.000	191.42
55 Dibromochloromethane	129	7.694	7.694	(0.940)	2175278	200.000	198.78
56 Tetrachloroethene	164	7.458	7.458	(0.911)	1597367	200.000	194.19
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	2061309	200.000	206.27(A)
58 1-Chlorohexane	55	8.200	8.200	(1.477)	1405026	200.000	174.68
59 Chlorobenzene	112	8.211	8.211	(1.003)	5256392	200.000	194.07
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	1899770	200.000	214.41(A)
61 Ethylbenzene	106	8.309	8.309	(1.015)	2576228	200.000	206.39(A)
62 m,p-Xylenes	106	8.410	8.410	(1.027)	6457254	400.000	415.09(A)
63 o-Xylene	106	8.751	8.751	(1.069)	3295988	200.000	214.52(A)
64 Styrene	104	8.762	8.762	(1.070)	5467718	200.000	197.28
66 Bromoform	173	8.924	8.924	(1.090)	1509527	200.000	200.90(A)
67 Isopropylbenzene	105	9.066	9.066	(1.107)	7620726	200.000	215.16(A)
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	2688484	200.000	182.39
\$ 69 4-Bromofluorobenzene	95	9.197	9.197	(1.123)	2511444	200.000	199.44
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	741394	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	2597070	200.000	204.14(A)
73 n-Propylbenzene	91	9.415	9.415	(0.926)	8091721	200.000	202.60(A)
74 Bromobenzene	156	9.321	9.321	(0.916)	2366942	200.000	201.46(A)
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	6106217	200.000	206.51(A)
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	5447970	200.000	193.94
77 4-Chlorotoluene	91	9.576	9.576	(0.941)	6333292	200.000	201.60(A)
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	5383177	200.000	207.63(A)
79 1,2,4-Trimethylbenzene	105	9.883	9.883	(0.972)	6132740	200.000	197.24
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	7122212	200.000	193.17
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	6152832	200.000	216.85(A)
83 1,3-Dichlorobenzene	146	10.120	10.120	(0.995)	3991215	200.000	198.22
84 1,4-Dichlorobenzene	146	10.194	10.194	(1.002)	4180524	200.000	188.65
87 n-Butylbenzene	91	10.494	10.494	(1.032)	5128466	200.000	196.37
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	4055565	200.000	190.31



89	1,2-Dibromo-3-Chloropropane	155	11.169	11.169 (1.098)	455426	200.000	199.74
90	1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	2572834	200.000	220.75(A)



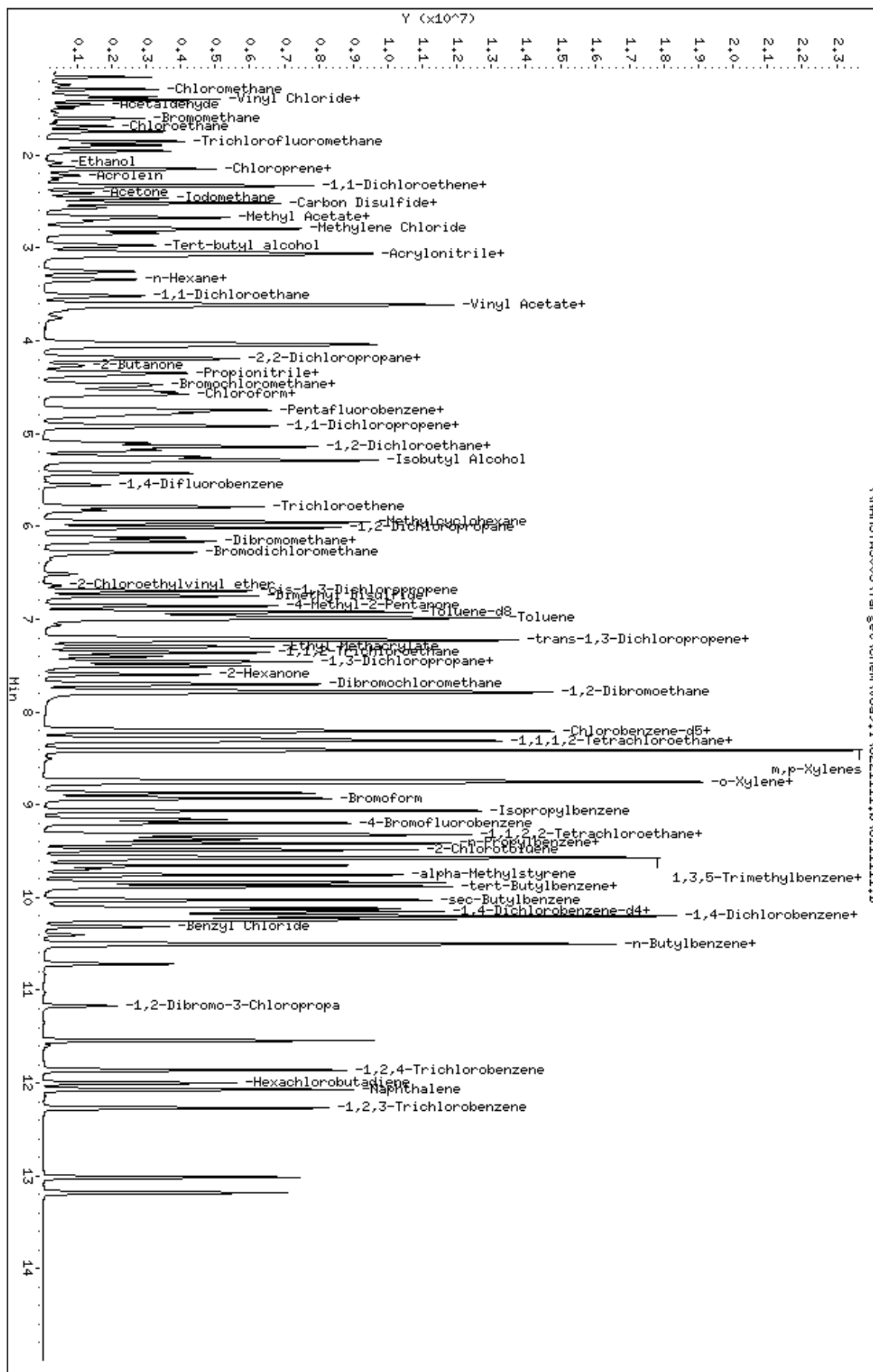
Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111111.D Page 3
 Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
91 Hexachlorobutadiene	225	12.001	12.001	(1.180)	1001731	200.000	169.22
92 Naphthalene	128	12.069	12.069	(1.186)	6493084	200.000	223.26(A)
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	2468081	200.000	213.59(A)
M 94 1,2-Dichloroethylene (total)	96				3596438	400.000	
M 95 Xylenes (total)	106				9753242	600.000	
135 1,4-Dioxane	88	6.168	6.168	(1.281)	523461	4000.00	3818.25
141 Cyclohexane	56	4.785	4.785	(0.994)	1915642	200.000	103.49
138 Freon TF	101	2.330	2.330	(0.484)	1338573	200.000	111.43
140 1,3-Butadiene	54	1.396	1.396	(0.290)	1414871	200.000	192.22
147 Methylcyclohexane	55	5.947	5.947	(1.071)	4697351	200.000	228.14(A)
146 Methyl Acetate	43	2.712	2.712	(0.563)	1312197	200.000	177.64
148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	3461937	4000.00	3964.98
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	2109579	4000.00	3666.17

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- H - Operator selected an alternate compound hit.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U221111.b\U221111.D
 Date : 11-NOV-2022 15:38
 Client ID: WSTD200
 Sample Info: WSTD200;WSTD200;1;10;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W0A9.i
 Operator: PC
 Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111111.D
Inj Date : 11-NOV-2022 15:38
InstruID : VOA9.i
LabSampID : VSTD200

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111114.D Page 1
 Report Date: 16-Nov-2022 09:41

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111114.D
 Lab Smp Id: ICV Client Smp ID: ICV
 Inj Date : 11-NOV-2022 16:44
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCV;CCV;2;;;ICV
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\8260C.m
 Meth Date : 16-Nov-2022 09:41 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 15:38 Cal File: U111111.D
 Als bottle: 15 QC Sample: METHSPIKE
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 08260V9.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.819	4.815	(1.000)		903566	50.0000	
2 Dichlorodifluoromethane	85		1.168	1.156	(0.242)		339897	46.3518	46.35
3 Chloromethane	50		1.299	1.288	(0.270)		439111	44.0426	44.04
5 Vinyl Chloride	62		1.381	1.370	(0.287)		396199	42.9901	42.99
6 Bromomethane	94		1.625	1.599	(0.337)		306260	48.2123	48.21
7 Chloroethane	64		1.704	1.689	(0.354)		301887	44.8379	44.83
8 Trichlorofluoromethane	101		1.902	1.891	(0.395)		516374	43.0942	43.09
9 Acrolein	56		2.270	2.259	(0.471)		62358	96.3215	96.32
10 Acetone	43		2.412	2.405	(0.501)		341779	92.2347	92.23
11 1,1-Dichloroethene	96		2.341	2.330	(0.486)		335443	43.5304	43.53
15 Iodomethane	142		2.472	2.461	(0.513)		723163	83.8885	83.88
16 Acrylonitrile	53		3.072	3.064	(0.638)		366124	87.2440	87.24
17 Methylene Chloride	84		2.798	2.791	(0.581)		479084	48.0204	48.02
18 Methyl tert-butyl ether	73		3.087	3.079	(0.641)		1181037	45.4800	45.47
19 Carbon Disulfide	76		2.525	2.513	(0.524)		1945931	86.8052	86.80
20 trans-1,2-Dichloroethene	96		3.065	3.057	(0.636)		392501	46.0313	46.03
21 Vinyl Acetate	43		3.616	3.608	(0.750)		2145502	96.4085	96.40
22 1,1-Dichloroethane	63		3.522	3.514	(0.731)		657620	43.3829	43.38
24 2-Butanone	43		4.272	4.268	(0.886)		341017	93.3309	93.33
26 2,2-Dichloropropane	77		4.189	4.182	(0.869)		356318	43.9375	43.93



27 cis-1,2-Dichloroethene	96	4.204	4.197 (0.872)	446229	44.5194	44.51
28 Chloroform	83	4.579	4.575 (0.950)	729812	45.0901	45.09

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111114.D Page 2
Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.478	4.470	(0.929)	239563	44.7787	44.77	
\$ 30 Dibromofluoromethane	113	4.755	4.751	(0.987)	444059	49.1418	49.14	
31 1,1,1-Trichloroethane	97	4.748	4.744	(0.985)	506065	46.4866	46.48	
32 1,1-Dichloropropene	75	4.928	4.924	(0.887)	454927	44.9896	44.98	
33 1,2-Dichloroethane	62	5.183	5.179	(0.933)	590455	46.0656	46.06	
34 Carbon Tetrachloride	117	4.916	4.913	(0.885)	327270	47.0953	47.09	
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.100	(1.059)	493674	48.1349	48.13	
* 36 1,4-Difluorobenzene	114	5.557	5.554	(1.000)	1458939	50.0000		
37 Benzene	78	5.145	5.141	(0.926)	1561785	45.4439	45.44	
38 Trichloroethene	130	5.794	5.790	(1.042)	441626	46.9648	46.96	
39 Bromodichloromethane	83	6.285	6.281	(1.131)	533093	50.7431	50.74	
42 1,2-Dichloropropane	63	6.015	6.011	(1.082)	410894	47.0109	47.01	
44 Dibromomethane	93	6.123	6.120	(1.102)	295095	46.8489	46.84	
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	812954	102.727	102.72	
46 cis-1,3-Dichloropropene	75	6.697	6.693	(1.205)	612033	43.5489	43.54	
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1346975	50.0000		
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1648046	51.4321	51.43	
50 Toluene	91	6.982	6.982	(0.853)	1736562	48.5704	48.57	
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	505013	42.9012	42.90	
52 2-Hexanone	43	7.597	7.597	(0.928)	554920	94.3338	94.33	
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	351552	45.6455	45.64	
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	745926	47.3876	47.38	
55 Dibromochloromethane	129	7.694	7.694	(0.940)	460116	45.6418	45.64	
56 Tetrachloroethene	164	7.458	7.458	(0.911)	345019	44.4066	44.40	
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	473574	50.1720	50.17	
58 1-Chlorohexane	55	8.200	8.200	(1.476)	276164	42.1279	42.12	
59 Chlorobenzene	112	8.211	8.211	(1.003)	1198088	46.8312	46.83	
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	422554	50.4897	50.48	
61 Ethylbenzene	106	8.309	8.309	(1.015)	571600	48.4820	48.48	
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1457721	99.2056	99.20	
63 o-Xylene	106	8.748	8.751	(1.068)	724704	49.9375	49.93	
64 Styrene	104	8.763	8.762	(1.070)	1186991	46.2872	46.28	
66 Bromoform	173	8.920	8.924	(1.089)	304563	44.7264	44.72	
67 Isopropylbenzene	105	9.066	9.066	(1.107)	1644157	49.1456	49.14	
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	634417	46.6066	46.60	
\$ 69 4-Bromofluorobenzene	95	9.194	9.197	(1.123)	604232	50.9379	50.93	
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	684688	50.0000		
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	566529	48.2208	48.22	
73 n-Propylbenzene	91	9.415	9.415	(0.926)	1800408	48.8132	48.81	
74 Bromobenzene	156	9.321	9.321	(0.916)	536084	49.4092	49.40	
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	1360874	49.8369	49.83	
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	1261469	48.6270	48.62	
77 4-Chlorotoluene	91	9.580	9.576	(0.942)	1453611	50.1050	50.10	
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	1119496	46.7562	46.75	
79 1,2,4-Trimethylbenzene	105	9.880	9.883	(0.971)	1449923	50.4960	50.49	
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	1415536	42.9537	42.95	
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	1256735	47.9610	47.96	
83 1,3-Dichlorobenzene	146	10.116	10.120	(0.994)	924074	49.6948	49.69	
84 1,4-Dichlorobenzene	146	10.195	10.194	(1.002)	971570	47.4754	47.47	
87 n-Butylbenzene	91	10.494	10.494	(1.032)	1022097	44.1234	44.12	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	944927	48.0157	48.01	
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	89589	44.3518	44.35	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	568095	52.7807	52.78
91 Hexachlorobutadiene	225	12.001	12.001 (1.180)	193967	45.5503	45.55

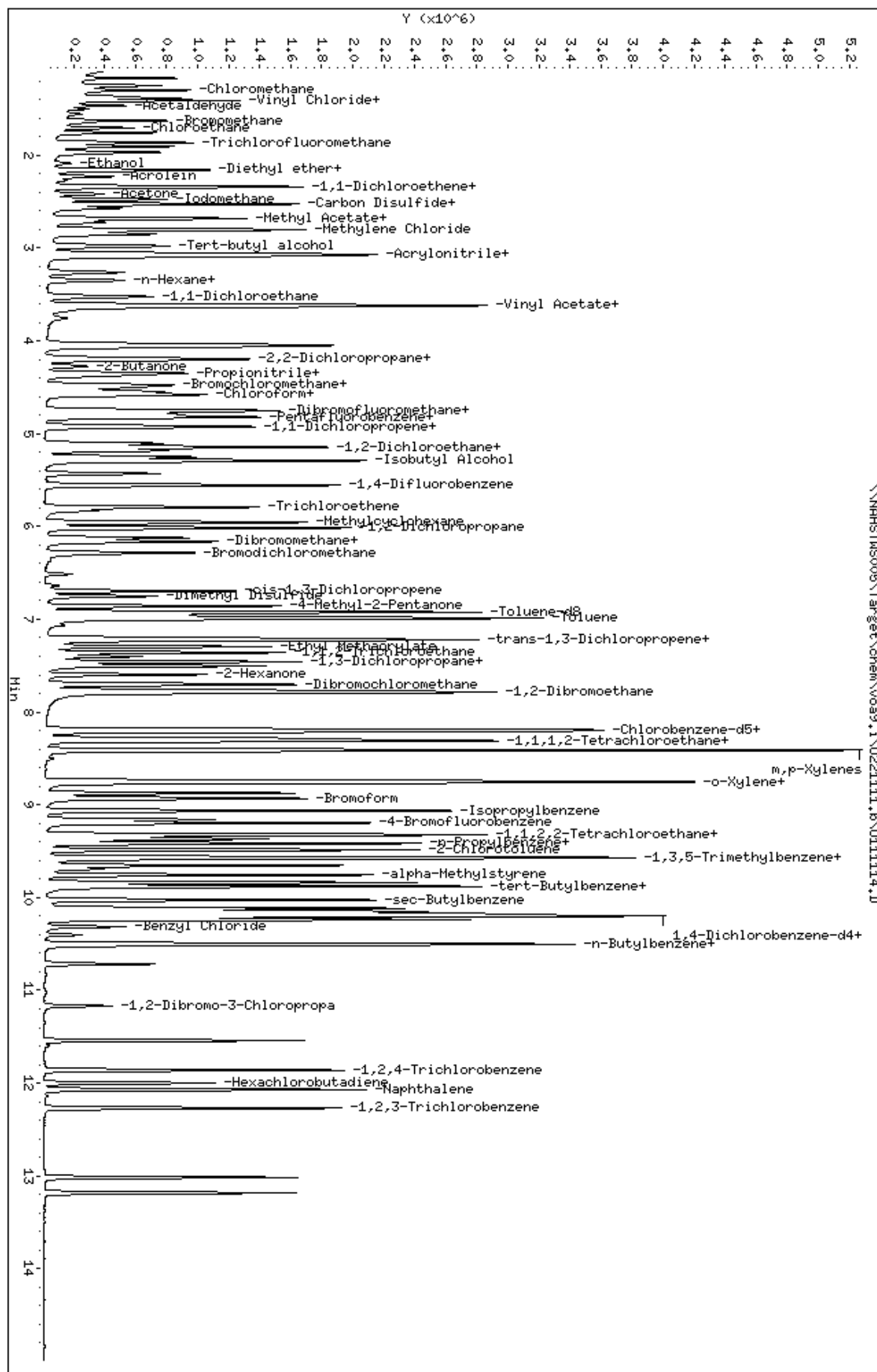
Data File: \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111114.D Page 3
 Report Date: 16-Nov-2022 09:41

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	1520233	56.6016	56.60
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	570054	53.4189	53.41
M 94 1,2-Dichloroethylene (total)	96				838730	90.5507	90.55(R)
M 95 Xylenes (total)	106				2182425	149.143	149.14
135 1,4-Dioxane	88	6.172	6.168	(1.281)	127503	929.116	929.11
141 Cyclohexane	56	4.789	4.785	(0.994)	365175	45.5382	45.53
138 Freon TF	101	2.341	2.330	(0.486)	263371	45.6394	45.63
140 1,3-Butadiene	54	1.408	1.396	(0.292)	296170	41.5785	41.57
147 Methylcyclohexane	55	5.951	5.947	(1.071)	925534	44.9923	44.99
146 Methyl Acetate	43	2.720	2.712	(0.564)	322186	43.5752	43.57
148 Tert-Butyl alcohol	59	2.975	2.971	(0.617)	834771	955.121	955.12
149 Isopropyl Alcohol	45	2.570	2.566	(0.533)	520783	904.154	904.15

QC Flag Legend

R - Spike/Surrogate failed recovery limits.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U221111.b\U111114.D
 Date : 11-NOV-2022 16:44
 Client ID: ICV
 Sample Info: CCV\CCV\221111\ICV
 Purge Volume: 5.0
 Column phase: DB624

Instrument: VOA9.1
 Operator: PC
 Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U221111.b\U111114.D
Inj Date : 11-NOV-2022 16:44
InstruID : VOA9.i
LabSampID : ICV

NO MANUAL INTEGRATIONS





right solutions.
right partner.

Raw Data VOA9 422102

Volatiles by EPA 8260

Workorder
HS22110582

Client
Aptim Environmental & Infrastructure,
Inc.

Project
LHAAP 67 November 2022

12/05/2022

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111701.D Page 1
 Report Date: 17-Nov-2022 20:44

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111701.D
 Lab Smp Id: BFB Client Smp ID: BFB
 Inj Date : 17-NOV-2022 10:08
 Operator : PC Inst ID: VOA9.i
 Smp Info : BFB;BFB;3;;BFB
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\bfb.m
 Meth Date : 27-Sep-2022 15:12 Linh.Pham Quant Type: ISTD
 Cal Date : 30-MAR-2018 18:09 Cal File: U033003.d
 Als bottle: 1 QC Sample: BFB
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: all.sub
 Target Version: 4.14 Sample Matrix: WATER
 Processing Host: NAHSTW7051

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	2.000	Injection Volume
Cpnd Variable		Local Compound Variable

CONCENTRATIONS									
ON-COL FINAL									
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/l)	TARGET	RANGE	RATIO
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
1 bfb				CAS #: 460-00-4					
9.197	9.262 (0.000)	95	221376				0.00-	100.00	100.00
9.197	9.262 (0.000)	50	37832				15.00-	40.00	17.09
9.197	9.262 (0.000)	75	103352				30.00-	60.00	46.69
9.197	9.262 (0.000)	96	15144				5.00-	9.00	6.84
9.197	9.262 (0.000)	173	0	0.0	0.0	0.00-	2.00	0.00	
9.197	9.262 (0.000)	174	182336				50.00-	0.00	82.36
9.197	9.262 (0.000)	175	14602				5.00-	9.00	8.01
9.197	9.262 (0.000)	176	175232				95.00-	101.00	96.10
9.197	9.262 (0.000)	177	11732				5.00-	9.00	6.70



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.09
75	30.00 - 60.00% of mass 95	46.69
96	5.00 - 9.00% of mass 95	6.84
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	82.36
175	5.00 - 9.00% of mass 174	6.60 (8.01)
176	95.00 - 101.00% of mass 174	79.16 (96.10)
177	5.00 - 9.00% of mass 176	5.30 (6.70)

Data File: U111701.D
 Spectrum: Scan 2294 (9.19)
 Location of Maximum: 95.05
 Number of points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2282	69.10	30664	106.00	1026	144.10	158
37.10	9883	70.10	6706	107.00	554	144.80	316
38.10	9916	71.10	651	108.90	227	146.00	318
39.10	9904	72.10	1437	109.80	154	147.00	241
40.10	2741	73.10	9096	110.80	114	147.80	527
41.10	9007	74.10	37128	111.80	114	150.00	282
42.10	14464	75.10	103352	112.20	121	151.00	52
43.10	10709	76.10	9464	113.10	112	152.90	256
44.10	4105	77.10	1453	114.30	119	153.90	72
45.10	4701	78.00	1227	115.00	448	154.80	687
46.20	350	79.00	7312	116.00	1113	157.10	498
47.10	2601	80.00	3491	116.90	1392	157.90	78
48.00	1514	81.00	6460	117.90	661	158.90	218
49.00	8638	82.00	1734	118.90	1015	160.80	260
50.10	37832	83.10	2597	121.70	84	167.90	202
51.10	13064	84.10	209	122.50	73	169.00	155
52.10	933	85.00	204	123.80	316	169.60	135
53.00	1658	86.10	290	126.90	1962	170.90	1042
54.10	2101	87.00	9361	127.90	1586	171.90	744
55.10	20688	88.00	9360	128.80	294	174.00	182336
56.10	5808	91.00	963	129.10	279	175.00	14602
57.10	6882	92.00	6209	129.90	774	176.00	175232
58.10	3938	93.00	9635	130.90	306	177.00	11732
59.10	7219	94.10	25200	133.60	103	178.00	391
60.00	2310	95.10	221376	134.00	68	184.90	184
61.00	10809	96.10	15144	134.70	433	186.00	1459
62.10	10108	97.10	1066	136.00	159	186.90	69
63.10	7614	98.10	10162	137.00	299	194.30	65
64.10	1008	99.00	682	138.80	190	207.90	73
65.10	772	100.20	68	140.10	329	233.80	112
66.00	433	103.00	267	141.00	2895	273.10	57
67.10	1439	103.90	1109	141.90	1817		
68.00	23120	105.00	732	143.00	2506		

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111701.D

Page 1

Date : 17-NOV-2022 10:08

Client ID: BFB

Instrument: VOA9.i

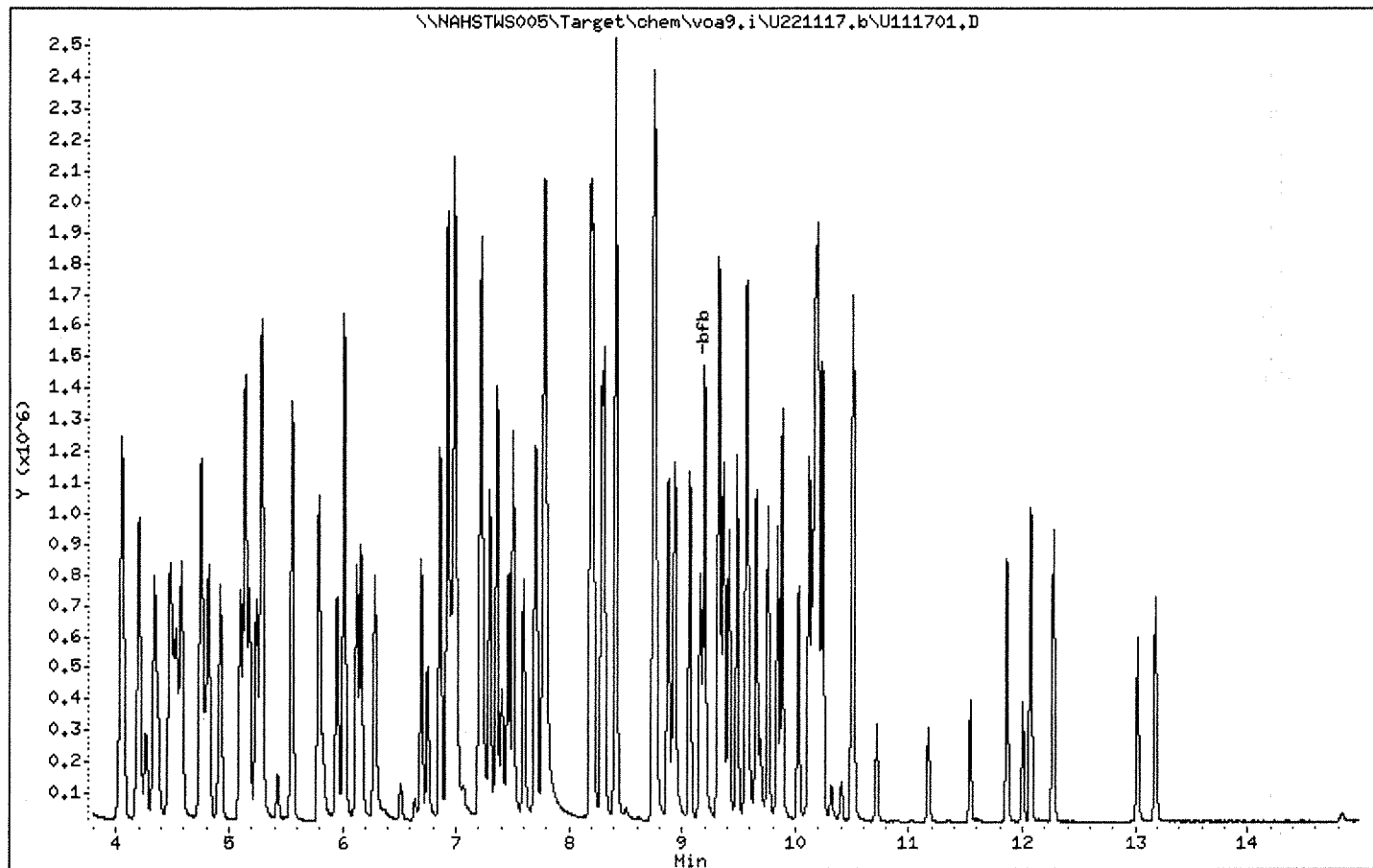
Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111701.D

Page 2

Date : 17-NOV-2022 10:08

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB:BFB;3;:BFB

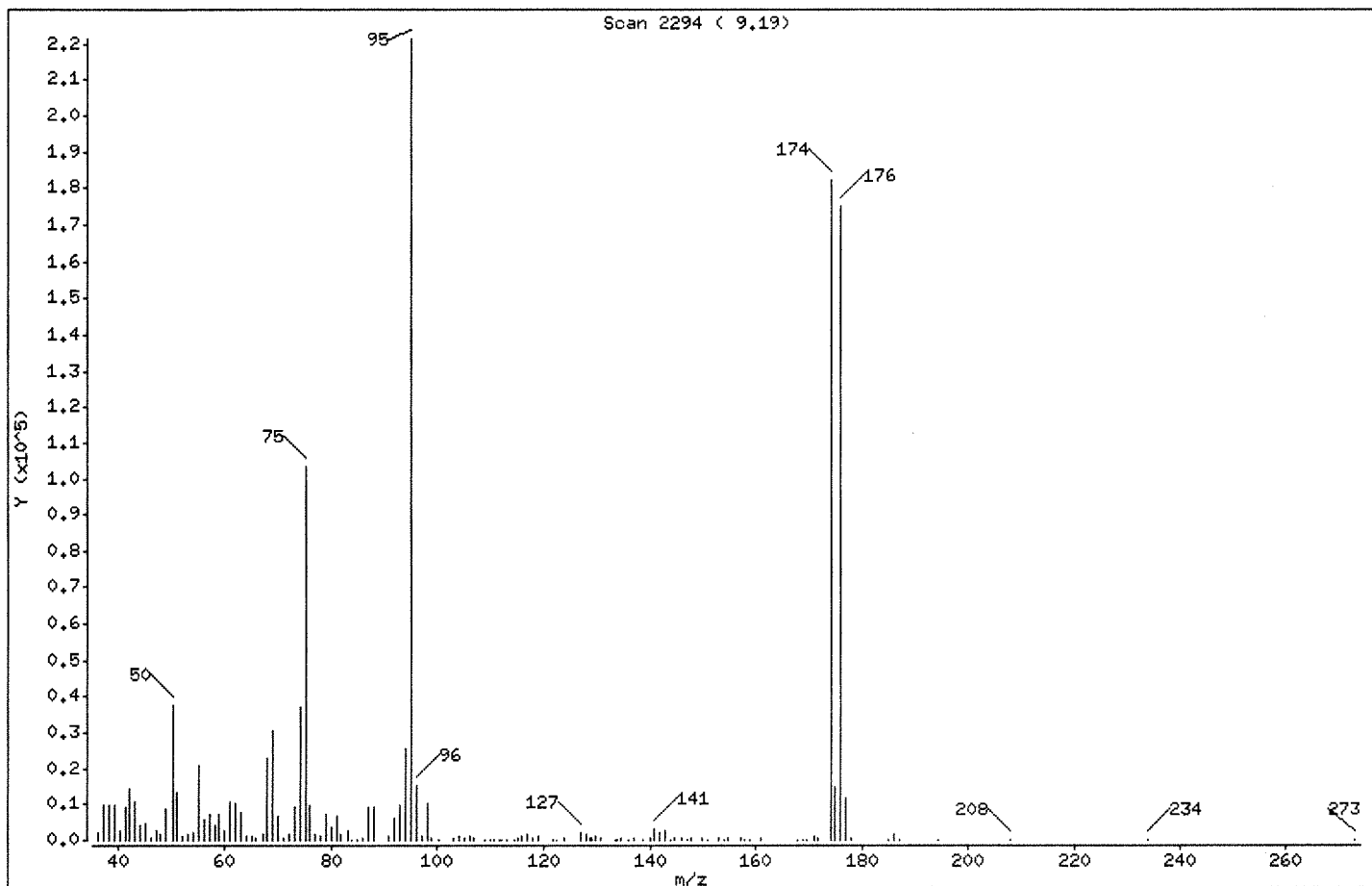
Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.09
75	30.00 - 60.00% of mass 95	46.69
96	5.00 - 9.00% of mass 95	6.84
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	82.36
175	5.00 - 9.00% of mass 174	6.60 (8.01)
176	95.00 - 101.00% of mass 174	79.16 (96.10)
177	5.00 - 9.00% of mass 176	5.30 (6.70)

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111701.D

Page 3

Date : 17-NOV-2022 10:08

Client ID: BFB

Instrument: VOA9.i

Sample Info: BFB;BFB;3;;BFB

Volume Injected (uL): 2.0

Operator: PC

Column phase: DB624

Column diameter: 0.25

Data File: U111701.D

Spectrum: Scan 2294 (9.19)

Location of Maximum: 95.05

Number of points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y

36.00	2282	69.10	30664	106.00	1026	144.10	158
37.10	9883	70.10	6706	107.00	554	144.80	316
38.10	9916	71.10	651	108.90	227	146.00	318
39.10	9904	72.10	1437	109.80	154	147.00	241
40.10	2741	73.10	9096	110.80	114	147.80	527

41.10	9007	74.10	37128	111.80	114	150.00	282
42.10	14464	75.10	103352	112.20	121	151.00	52
43.10	10709	76.10	9464	113.10	112	152.90	256
44.10	4105	77.10	1453	114.30	119	153.90	72
45.10	4701	78.00	1227	115.00	448	154.80	687

46.20	350	79.00	7312	116.00	1113	157.10	498
47.10	2601	80.00	3491	116.90	1392	157.90	78
48.00	1514	81.00	6460	117.90	661	158.90	218
49.00	8638	82.00	1734	118.90	1015	160.80	260
50.10	37832	83.10	2597	121.70	84	167.90	202

51.10	13064	84.10	209	122.50	73	169.00	155
52.10	933	85.00	204	123.80	316	169.60	135
53.00	1658	86.10	290	126.90	1962	170.90	1042
54.10	2101	87.00	9361	127.90	1586	171.90	744
55.10	20688	88.00	9360	128.80	294	174.00	182336

56.10	5808	91.00	963	129.10	279	175.00	14602
57.10	6882	92.00	6209	129.90	774	176.00	175232
58.10	3938	93.00	9635	130.90	306	177.00	11732
59.10	7219	94.10	25200	133.60	103	178.00	391
60.00	2310	95.10	221376	134.00	68	184.90	184

61.00	10809	96.10	15144	134.70	433	186.00	1459
62.10	10108	97.10	1066	136.00	159	186.90	69
63.10	7614	98.10	10162	137.00	299	194.30	65
64.10	1008	99.00	682	138.80	190	207.90	73
65.10	772	100.20	68	140.10	329	233.80	112

66.00	433	103.00	267	141.00	2895	273.10	57
67.10	1439	103.90	1109	141.90	1817		
68.00	23120	105.00	732	143.00	2506		



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111701.D
Inj Date : 17-NOV-2022 10:08
InstruID : VOA9.i
LabSampID : BFB

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111703.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111703.D
 Lab Smp Id: CCV Client Smp ID: CCV
 Inj Date : 17-NOV-2022 10:53
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCV;CCV;2;;;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 3 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						AMOUNTS	
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.819	4.819	(1.000)		831464	50.0000	
2 Dichlorodifluoromethane	85		1.164	1.164	(0.242)		277520	50.0000	41.64
3 Chloromethane	50		1.295	1.295	(0.269)		408438	50.0000	44.51
5 Vinyl Chloride	62		1.378	1.378	(0.286)		366068	50.0000	43.16
6 Bromomethane	94		1.621	1.621	(0.337)		258004	50.0000	44.04
7 Chloroethane	64		1.700	1.700	(0.353)		284978	50.0000	45.99
8 Trichlorofluoromethane	101		1.899	1.899	(0.394)		476090	50.0000	43.17
9 Acrolein	56		2.266	2.266	(0.470)		58325	100.000	97.88
10 Acetone	43		2.409	2.409	(0.500)		376348	100.000	111.85
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)		292927	50.0000	41.30
15 Iodomethane	142		2.469	2.469	(0.512)		755239	100.000	94.68
16 Acrylonitrile	53		3.068	3.068	(0.637)		391315	100.000	101.33
17 Methylene Chloride	84		2.798	2.798	(0.581)		456591	50.0000	49.78
18 Methyl tert-butyl ether	73		3.083	3.083	(0.640)		1186672	50.0000	49.65
19 Carbon Disulfide	76		2.521	2.521	(0.523)		1712951	100.000	83.03
20 trans-1,2-Dichloroethene	96		3.065	3.065	(0.636)		351833	50.0000	44.83
21 Vinyl Acetate	43		3.612	3.612	(0.750)		2195700	100.000	107.22
22 1,1-Dichloroethane	63		3.518	3.518	(0.730)		619068	50.0000	44.38
24 2-Butanone	43		4.268	4.268	(0.886)		393375	100.000	116.99
26 2,2-Dichloropropane	77		4.185	4.185	(0.869)		328837	50.0000	44.06



27 cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	435850	50.0000	47.25
28 Chloroform	83	4.575	4.575 (0.949)	710079	50.0000	47.67

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111703.D Page 2
 Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.474	4.474	(0.928)	240207	50.0000	48.79
\$ 30 Dibromofluoromethane	113	4.751	4.751	(0.986)	448643	50.0000	53.98
31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	468627	50.0000	46.78
32 1,1-Dichloropropene	75	4.924	4.924	(0.886)	428373	50.0000	45.93
33 1,2-Dichloroethane	62	5.179	5.179	(0.932)	605890	50.0000	51.25
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	340326	50.0000	52.12
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	496070	50.0000	52.62
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1345581	50.0000	
37 Benzene	78	5.141	5.141	(0.925)	1512089	50.0000	47.70
38 Trichloroethene	130	5.790	5.790	(1.042)	405451	50.0000	46.75
39 Bromodichloromethane	83	6.281	6.281	(1.130)	511124	50.0000	52.75
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	414663	50.0000	51.43
44 Dibromomethane	93	6.123	6.123	(1.102)	292286	50.0000	50.31
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	811719	100.000	110.54
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.204)	592344	50.0000	45.55
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1249800	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1573917	50.0000	52.93
50 Toluene	91	6.982	6.982	(0.853)	1610090	50.0000	48.53
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	481641	50.0000	44.24
52 2-Hexanone	43	7.597	7.597	(0.928)	549826	100.000	100.64
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	364493	50.0000	51.00
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	756338	50.0000	51.78
55 Dibromochloromethane	129	7.694	7.694	(0.940)	443887	50.0000	47.39
56 Tetrachloroethene	164	7.458	7.458	(0.911)	300765	50.0000	41.72
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	468706	50.0000	53.51
58 1-Chlorohexane	55	8.200	8.200	(1.476)	222624	50.0000	37.17
59 Chlorobenzene	112	8.212	8.212	(1.003)	1138174	50.0000	47.94
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	405798	50.0000	52.25
61 Ethylbenzene	106	8.309	8.309	(1.015)	492571	50.0000	45.02
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1241861	100.000	91.08
63 o-Xylene	106	8.751	8.751	(1.069)	636443	50.0000	47.26
64 Styrene	104	8.763	8.763	(1.070)	1049249	50.0000	44.15
66 Bromoform	173	8.920	8.920	(1.089)	285728	50.0000	45.19
67 Isopropylbenzene	105	9.066	9.066	(1.107)	1336736	50.0000	43.06
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	639518	50.0000	51.52
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	578823	50.0000	52.58
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	624281	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	552597	50.0000	51.58
73 n-Propylbenzene	91	9.415	9.415	(0.926)	1412068	50.0000	41.98
74 Bromobenzene	156	9.321	9.321	(0.916)	490039	50.0000	49.53
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	1085394	50.0000	43.59
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	1089880	50.0000	46.07
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	1231147	50.0000	46.54
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	872660	50.0000	39.97
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	1163589	50.0000	44.44
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	1075129	50.0000	36.07
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	941710	50.0000	39.41
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	776503	50.0000	45.79
84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	810842	50.0000	43.45
87 n-Butylbenzene	91	10.494	10.494	(1.032)	766831	50.0000	36.70
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	799746	50.0000	44.57
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	79682	50.0000	43.32



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	430039	50.0000	43.82
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	150237	50.0000	39.18



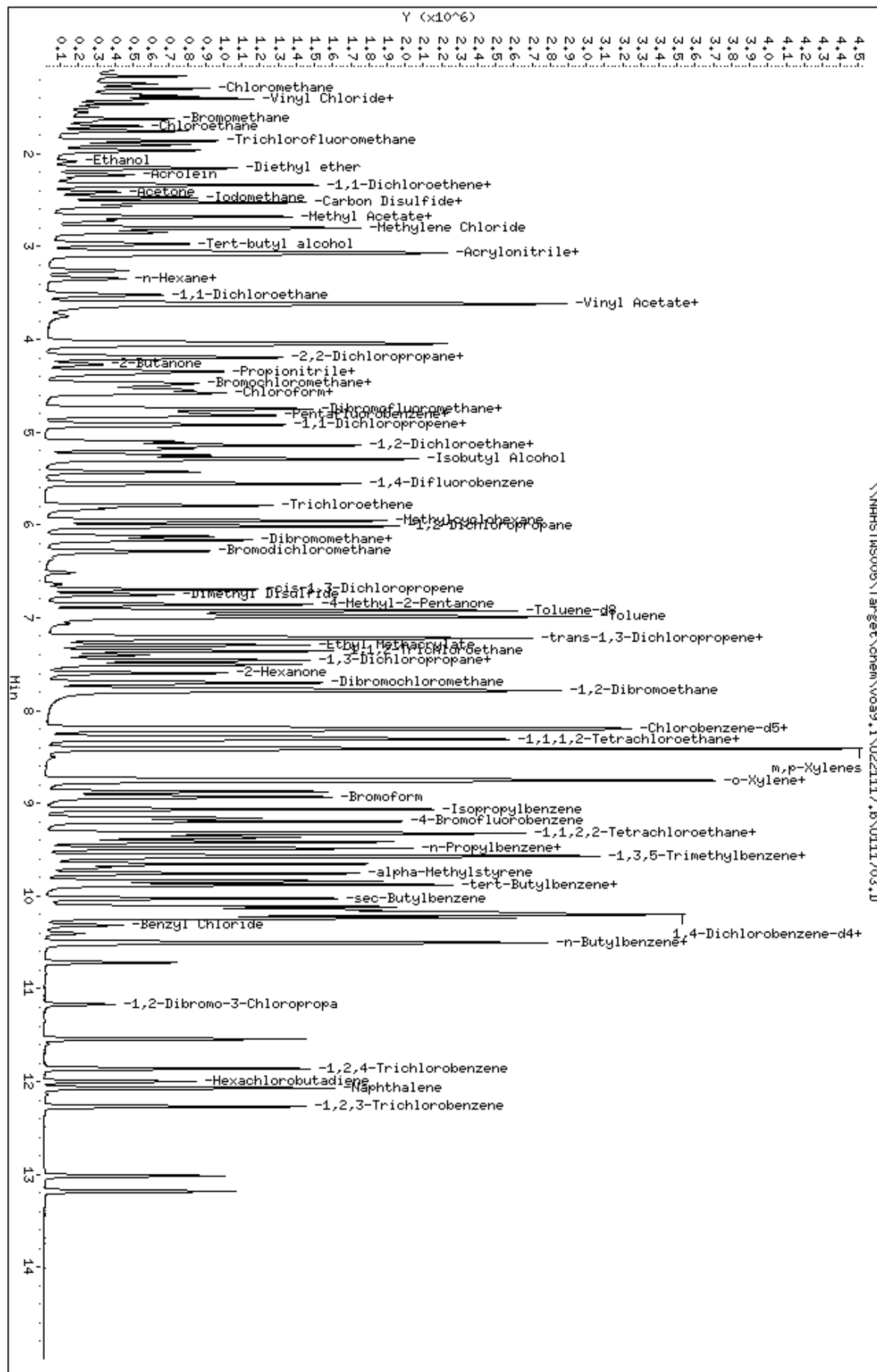
Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111703.D Page 3
 Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	1177654	50.0000	48.08
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	433453	50.0000	44.54
M 94 1,2-Dichloroethylene (total)	96				787683	100.000	(a)
135 1,4-Dioxane	88	6.168	6.168	(1.280)	118564	1000.00	938.89
141 Cyclohexane	56	4.789	4.789	(0.994)	341904	50.0000	46.22
138 Freon TF	101	2.337	2.337	(0.485)	244303	50.0000	45.96
140 1,3-Butadiene	54	1.404	1.404	(0.291)	267085	50.0000	40.78
147 Methylcyclohexane	55	5.951	5.951	(1.071)	1017889	50.0000	53.65
146 Methyl Acetate	43	2.716	2.716	(0.564)	325848	50.0000	47.89
148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	778904	1000.00	968.48
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	503625	1000.00	950.18
72 trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	82610	50.0000	42.99
12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	954601	1000.00	914.42
13 Acetonitrile	39	2.675	2.675	(0.555)	424758	500.000	502.72
14 Allyl Chloride	41	2.675	2.675	(0.555)	996971	50.0000	51.56
25 Methacrylonitrile	41	4.500	4.500	(0.934)	269001	50.0000	54.71
40 Methyl Methacrylate	41	6.161	6.161	(1.278)	395273	50.0000	53.46
4 Propionitrile	54	4.343	4.343	(0.901)	711825	500.000	535.17
131 Methyl Acrylate	55	4.373	4.373	(0.907)	579765	50.0000	54.79
49 Ethyl Methacrylate	69	7.293	7.293	(1.312)	718008	50.0000	57.39

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).





Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U11703.D
 Date : 17-NOV-2022 10:53
 Client ID: CCV
 Sample Info: CCV\CCV\2117
 Purge Volume: 5.0
 Column phase: DB624

Instrument: VOA9.1
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111703.D
Inj Date : 17-NOV-2022 10:53
InstruID : VOA9.i
LabSampID : CCV

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111704.D Page 1
 Report Date: 17-Nov-2022 20:42

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111704.D
 Lab Smp Id: CCB Client Smp ID: CCB
 Inj Date : 17-NOV-2022 11:15
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCB;CCB;;;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\nahstws005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 17-Nov-2022 20:41 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTWS005

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.822	4.819	(1.000)		1063947	50.0000	
24 2-Butanone	43		4.275	4.268	(0.887)		18824	4.37523	4.37(a)
\$ 30 Dibromofluoromethane	113		4.755	4.751	(0.986)		474762	44.5876	44.58
\$ 35 1,2-Dichloroethane-d4	65		5.103	5.104	(1.058)		541331	44.7814	44.78
* 36 1,4-Difluorobenzene	114		5.557	5.557	(1.000)		1545003	50.0000	
* 47 Chlorobenzene-d5	117		8.189	8.189	(1.000)		1352231	50.0000	
\$ 48 Toluene-d8	98		6.925	6.926	(0.846)		1719019	53.4385	53.43
\$ 69 4-Bromofluorobenzene	95		9.197	9.194	(1.123)		575765	48.3587	48.35
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		590654	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111705.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111705.D
 Lab Smp Id: VLCSW-221117 Client Smp ID: VLCSW-221117
 Inj Date : 17-NOV-2022 11:37
 Operator : PC Inst ID: VOA9.i
 Smp Info : VLCSW-221117;VLCSW-221117;3;;LCS
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 5 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.819	4.819	(1.000)		868110	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.164	(0.241)		129644	19.7169	19.71
3 Chloromethane	50		1.295	1.295	(0.269)		185538	19.5087	19.50
5 Vinyl Chloride	62		1.378	1.378	(0.286)		170701	19.2786	19.27
6 Bromomethane	94		1.621	1.621	(0.337)		124454	19.7483	19.74
7 Chloroethane	64		1.700	1.700	(0.353)		122434	18.9273	18.92
8 Trichlorofluoromethane	101		1.899	1.899	(0.394)		224035	19.4605	19.46
9 Acrolein	56		2.266	2.266	(0.470)		22873	37.3909	37.39
10 Acetone	43		2.409	2.409	(0.500)		169055	43.8345	43.83
11 1,1-Dichloroethene	96		2.334	2.337	(0.484)		142797	19.2876	19.28
15 Iodomethane	142		2.469	2.469	(0.512)		319291	40.6790	40.67
16 Acrylonitrile	53		3.068	3.068	(0.637)		155540	38.5775	38.57
17 Methylene Chloride	84		2.795	2.798	(0.580)		213505	21.4492	21.44
18 Methyl tert-butyl ether	73		3.083	3.083	(0.640)		463440	18.5753	18.57
19 Carbon Disulfide	76		2.521	2.521	(0.523)		777510	36.1002	36.10
20 trans-1,2-Dichloroethene	96		3.061	3.065	(0.635)		157947	19.2801	19.28
21 Vinyl Acetate	43		3.612	3.612	(0.750)		855608	40.0172	40.01
22 1,1-Dichloroethane	63		3.518	3.518	(0.730)		279390	19.1840	19.18
24 2-Butanone	43		4.272	4.268	(0.886)		162933	46.4134	46.41
26 2,2-Dichloropropane	77		4.186	4.185	(0.869)		138263	18.5385	18.53



27 cis-1,2-Dichloroethene	96	4.201	4.200 (0.872)	194519	20.1994	20.19
28 Chloroform	83	4.575	4.575 (0.949)	313200	20.1408	20.14

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111705.D Page 2
 Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.474	4.474	(0.928)	103011	20.0411	20.04	
\$ 30 Dibromofluoromethane	113	4.752	4.751	(0.986)	454663	52.3932	52.39	
31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	210984	20.1723	20.17	
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	195452	20.0759	20.07	
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	256913	20.8181	20.81	
34 Carbon Tetrachloride	117	4.913	4.916	(0.885)	146490	23.6318	23.63	
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.104	(1.058)	507455	51.5440	51.54	
* 36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	1404664	50.0000		
37 Benzene	78	5.141	5.141	(0.926)	683987	20.6713	20.67	
38 Trichloroethene	130	5.790	5.790	(1.043)	182594	20.1683	20.16	
39 Bromodichloromethane	83	6.281	6.281	(1.131)	204285	20.1964	20.19	
42 1,2-Dichloropropane	63	6.011	6.015	(1.082)	177794	21.1276	21.12	
44 Dibromomethane	93	6.124	6.123	(1.103)	119889	19.7689	19.76	
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	302435	40.1617	40.16	
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	212517	17.5048	17.50	
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1281728	50.0000		
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1587052	52.0499	52.04	
50 Toluene	91	6.982	6.982	(0.853)	727376	21.3798	21.37	
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	165557	16.8636	16.86	
52 2-Hexanone	43	7.597	7.597	(0.928)	210215	38.3640	38.36	
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	153634	20.9633	20.96	
54 1,3-Dichloropropane	76	7.499	7.503	(0.916)	321445	21.4605	21.46	
55 Dibromochloromethane	129	7.694	7.694	(0.940)	169654	18.5750	18.57	
56 Tetrachloroethene	164	7.458	7.458	(0.911)	143332	19.3870	19.38	
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	190091	21.1640	21.16	
58 1-Chlorohexane	55	8.200	8.200	(1.476)	114064	19.2697	19.26	
59 Chlorobenzene	112	8.212	8.212	(1.003)	498018	20.4576	20.45	
60 1,1,1,2-Tetrachloroethane	131	8.287	8.286	(1.012)	167194	20.9945	20.99	
61 Ethylbenzene	106	8.309	8.309	(1.015)	228242	20.3445	20.34	
62 m,p-Xylenes	106	8.410	8.410	(1.027)	564948	40.4049	40.40	
63 o-Xylene	106	8.748	8.751	(1.068)	279547	20.2435	20.24	
64 Styrene	104	8.763	8.763	(1.070)	456432	19.4355	19.43	
66 Bromoform	173	8.920	8.920	(1.089)	100083	16.9548	16.95	
67 Isopropylbenzene	105	9.063	9.066	(1.107)	639863	20.0998	20.09	
68 1,1,2,2-Tetrachloroethane	83	9.329	9.332	(0.917)	256940	20.5950	20.59	
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	581123	51.4816	51.48	
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	627531	50.0000		
71 1,2,3-Trichloropropane	75	9.362	9.366	(0.920)	220590	20.4859	20.48	
73 n-Propylbenzene	91	9.415	9.415	(0.926)	664250	19.6497	19.64	
74 Bromobenzene	156	9.321	9.321	(0.916)	212192	21.3384	21.33	
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	526510	21.0377	21.03	
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	502452	21.1326	21.13	
77 4-Chlorotoluene	91	9.576	9.580	(0.941)	559407	21.0387	21.03	
78 tert-Butylbenzene	119	9.839	9.838	(0.967)	429499	19.5720	19.57	
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	560815	21.3103	21.31	
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	520728	18.2927	18.29	
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	458739	19.1015	19.10	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	354912	20.8249	20.82	
84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	371028	19.7815	19.78	
87 n-Butylbenzene	91	10.495	10.494	(1.032)	366791	18.6309	18.63	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	362810	20.1151	20.11	
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	28330	16.8049	16.80	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	181564	18.4052	18.40
91 Hexachlorobutadiene	225	12.002	11.998 (1.180)	76959	21.0092	21.00



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111705.D Page 3
 Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	448040	18.2009	18.20
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	190262	19.4531	19.45
M 94 1,2-Dichloroethylene (total)	96				352466	39.4795	39.47
M 95 Xylenes (total)	106				844495	60.6484	60.64
135 1,4-Dioxane	88	6.172	6.168	(1.281)	48612	368.704	368.70
141 Cyclohexane	56	4.785	4.789	(0.993)	177286	24.4466	24.44
138 Freon TF	101	2.337	2.337	(0.485)	119005	22.7721	22.77
140 1,3-Butadiene	54	1.404	1.404	(0.291)	127093	19.5375	19.53
147 Methylcyclohexane	55	5.951	5.951	(1.072)	376234	18.9963	18.99
146 Methyl Acetate	43	2.716	2.716	(0.564)	135252	19.0398	19.03
148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	311714	371.221	371.22
149 Isopropyl Alcohol	45	2.566	2.566	(0.533)	195657	353.563	353.56
72 trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	29585	17.9241	17.92
12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	347388	361.060	361.05
13 Acetonitrile	39	2.675	2.675	(0.555)	166688	188.958	188.95
14 Allyl Chloride	41	2.675	2.675	(0.555)	394769	19.5552	19.55
25 Methacrylonitrile	41	4.500	4.500	(0.934)	102400	19.9491	19.94
40 Methyl Methacrylate	41	6.161	6.161	(1.278)	156425	20.2635	20.26
4 Propionitrile	54	4.343	4.343	(0.901)	285020	205.242	205.24(a)
131 Methyl Acrylate	55	4.373	4.373	(0.907)	221029	20.0074	20.00
49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	267565	20.4884	20.48

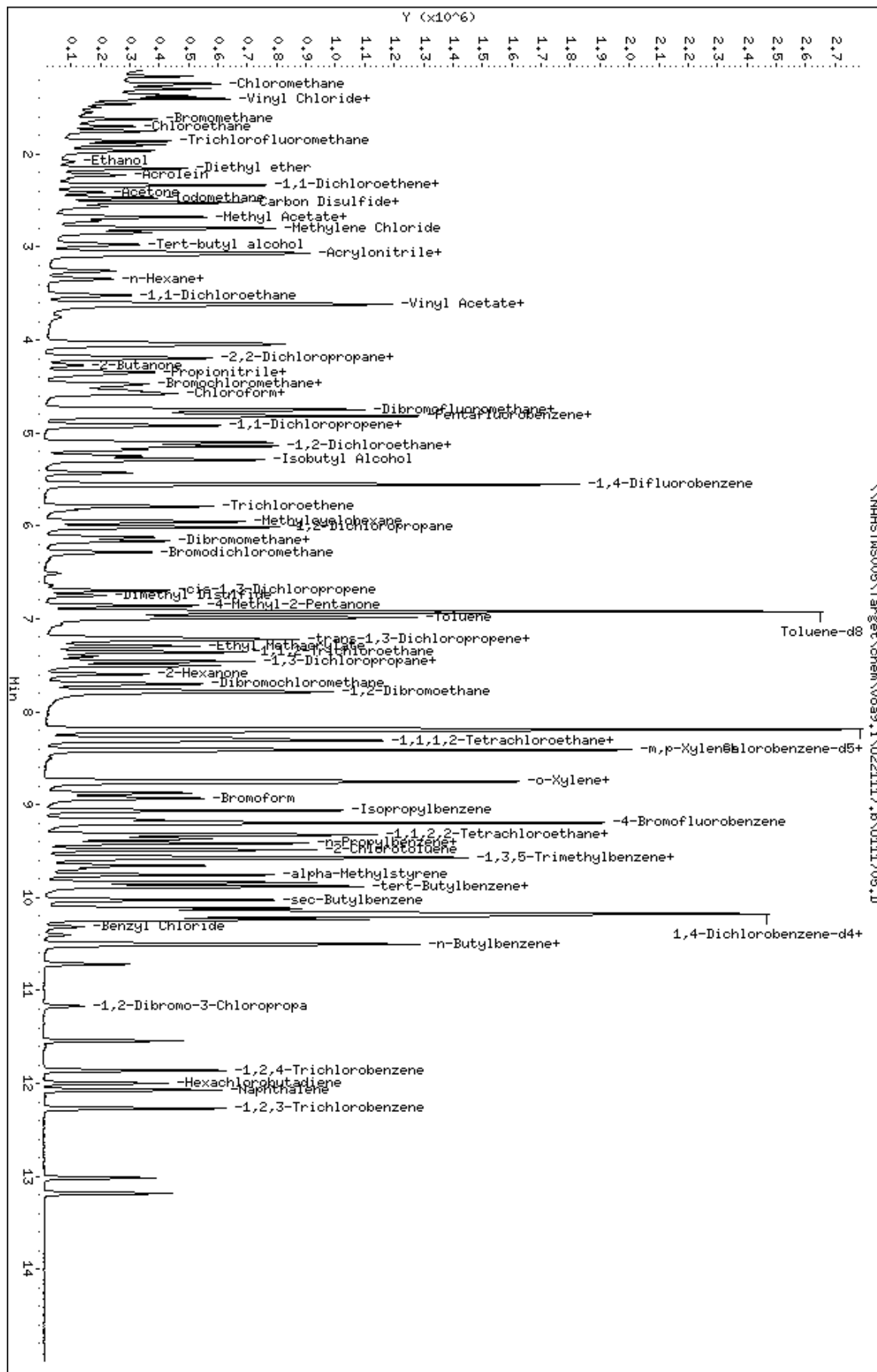
QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U11705.D
 Date : 17-NOV-2022 11:37
 Client ID: WLCM-22117
 Sample Info: WLCM-22117\WLCM-22117\3\LC5
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W09.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111705.D
Inj Date : 17-NOV-2022 11:37
InstruID : VOA9.i
LabSampID : VLCSW-221117

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111707.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111707.D
 Lab Smp Id: VBLKW-221117 Client Smp ID: VBLKW-221117
 Inj Date : 17-NOV-2022 12:22
 Operator : PC Inst ID: VOA9.i
 Smp Info : VBLKW-221117;VBLKW-221117;3;;BLANK
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 7 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	1048263	50.0000	
\$ 30 Dibromofluoromethane	113	4.755	4.751	(0.987)	474667	45.2508	45.25
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	543033	45.6059	45.60
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1549924	50.0000	
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1328748	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1728740	54.6904	54.69
\$ 69 4-Bromofluorobenzene	95	9.197	9.194	(1.123)	562823	48.1081	48.10
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	582726	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.1\U22117.b\U41707.D

Date : 17-NOV-2022 12:22

Client ID: VBLKM-22117

Sample Info: VBLKM-22117;VBLKM-22117;3;BLANK

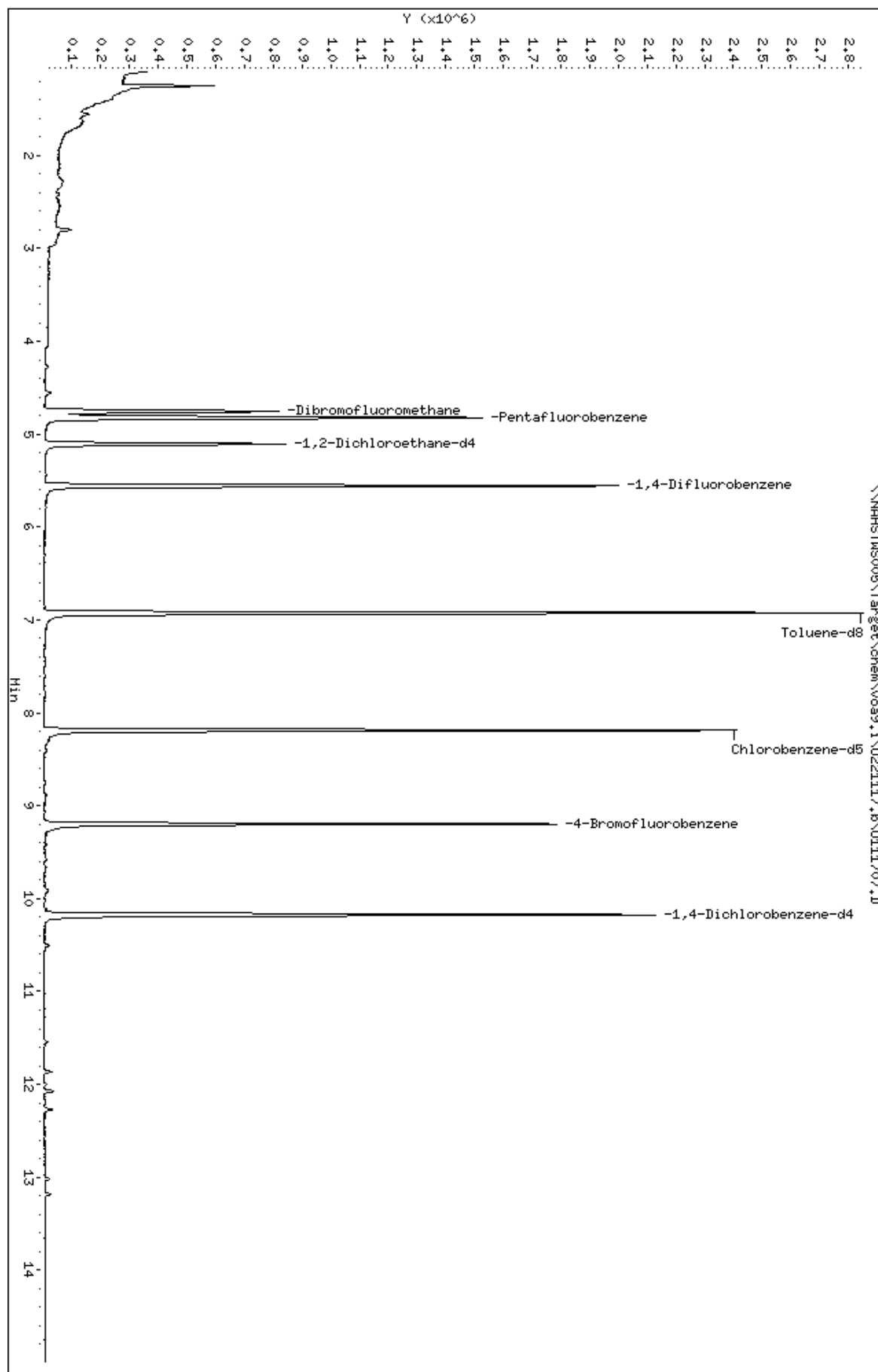
Purge Volume: 5.0

Column phase: DB624

Instrument: W009.1

Operator: PC

Column diameter: 0.18



Page 1

Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111707.D
Inj Date : 17-NOV-2022 12:22
InstruID : VOA9.i
LabSampID : VBLKW-221117

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111708.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111708.D
 Lab Smp Id: HS22110582-04 Client Smp ID: HS22110582-04
 Inj Date : 17-NOV-2022 12:44
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110582-04;HS22110582-04;;;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168		4.819	4.819	(1.000)	1023957	50.0000	
11 1,1-Dichloroethene	96		2.334	2.337	(0.484)	171060	19.5885	19.58
22 1,1-Dichloroethane	63		3.518	3.518	(0.730)	89691	5.22120	5.22
\$ 30 Dibromofluoromethane	113		4.751	4.751	(0.986)	470545	45.9279	45.92
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.104	(1.058)	543760	46.7670	46.76
* 36 1,4-Difluorobenzene	114		5.554	5.557	(1.000)	1538532	50.0000	
* 47 Chlorobenzene-d5	117		8.189	8.189	(1.000)	1329361	50.0000	
\$ 48 Toluene-d8	98		6.926	6.926	(0.846)	1718321	54.3358	54.33
\$ 69 4-Bromofluorobenzene	95		9.197	9.194	(1.123)	558532	47.7208	47.72
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	586503	50.0000	
135 1,4-Dioxane	88		6.176	6.168	(1.282)	6748	43.3913	43.39(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.P\U11708.D

Date: 17-NOV-2022 12:44

Client ID: HS22110582-04

Sample Info: HS22110582-04\HS22110582-04.1

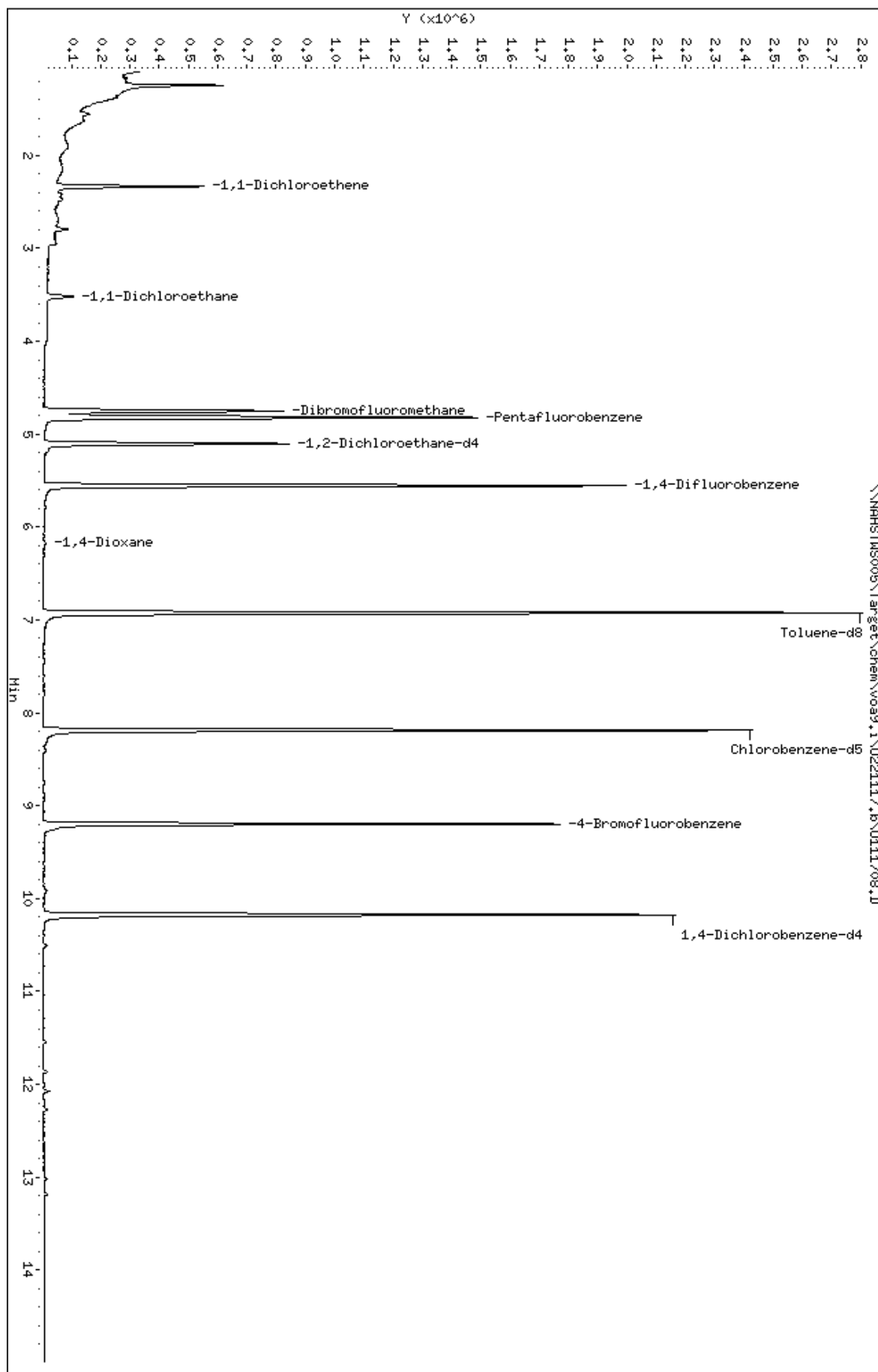
Purge Volume: 5.0

Column phase: DB624

Instrument: VDA9.1

Operator: PC

Column diameter: 0.18



Page 1



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111708.D

Page 2

Date : 17-NOV-2022 12:44

Client ID: HS22110582-04

Instrument: VOA9.i

Sample Info: HS22110582-04;HS22110582-04;;;

Purge Volume: 5.0

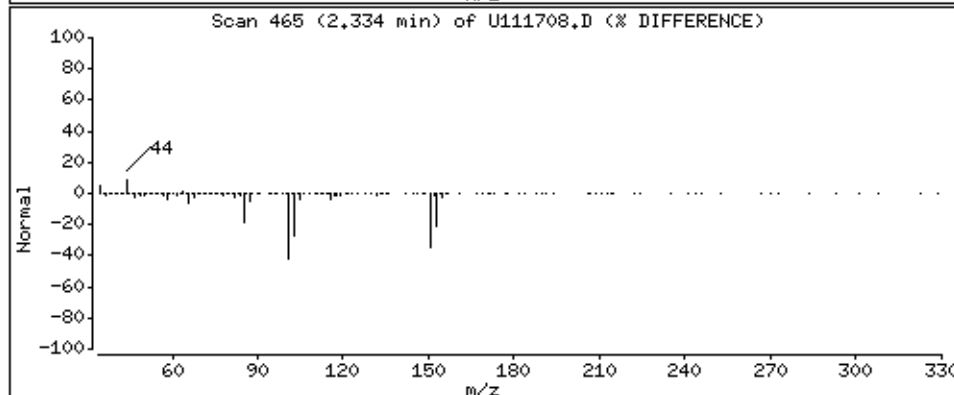
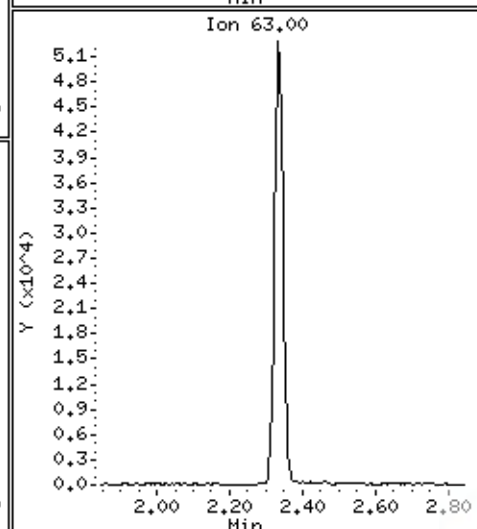
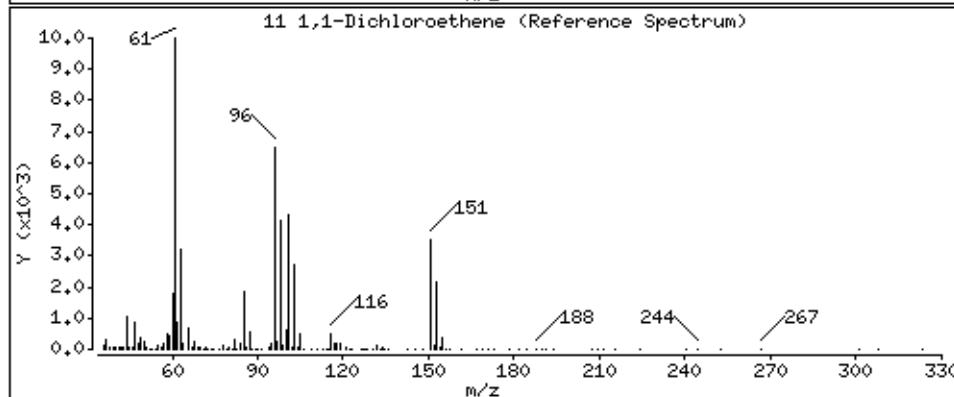
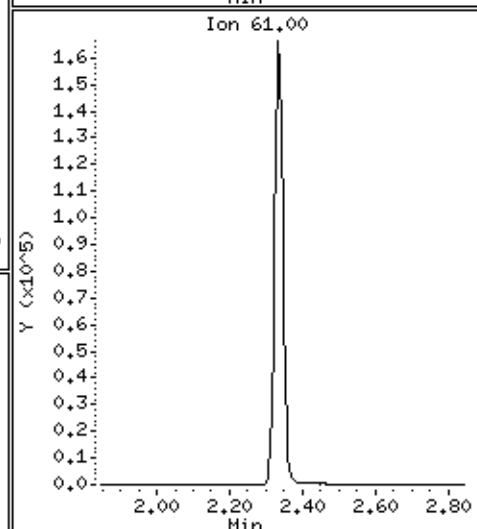
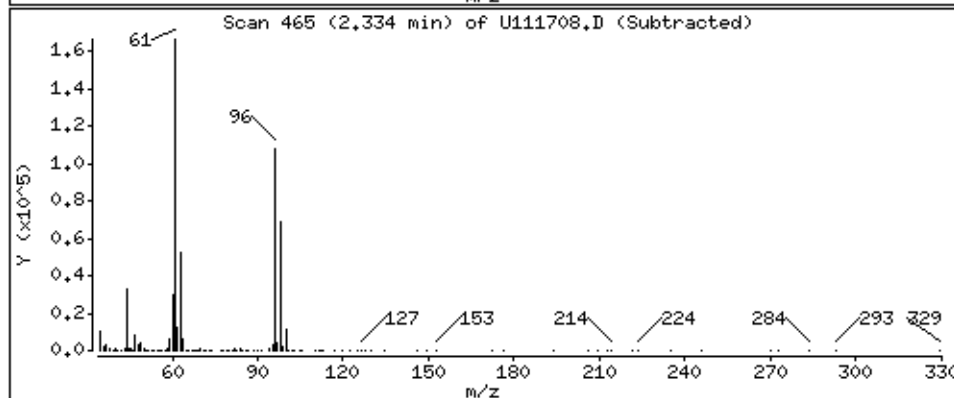
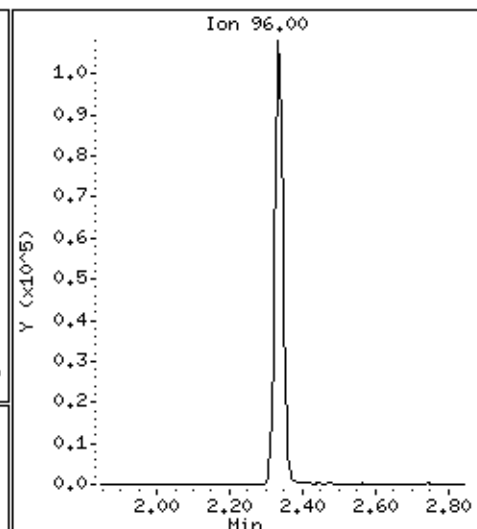
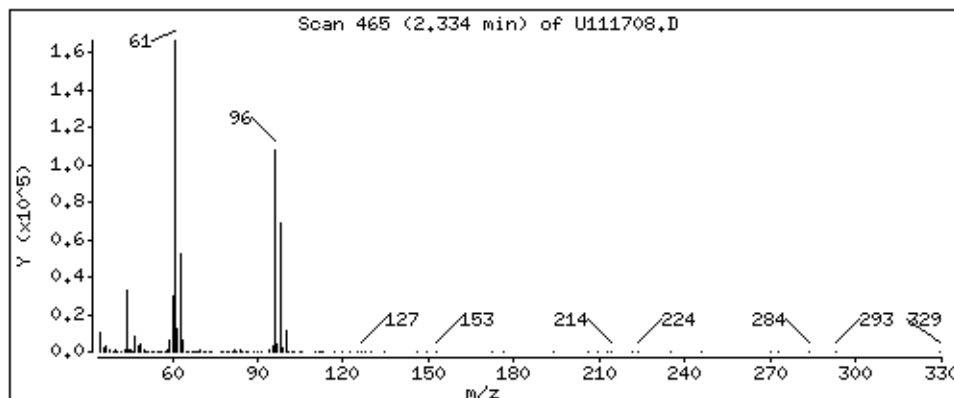
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 19.58 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111708.D

Page 3

Date : 17-NOV-2022 12:44

Client ID: HS22110582-04

Instrument: VOA9.i

Sample Info: HS22110582-04;HS22110582-04;;;

Purge Volume: 5.0

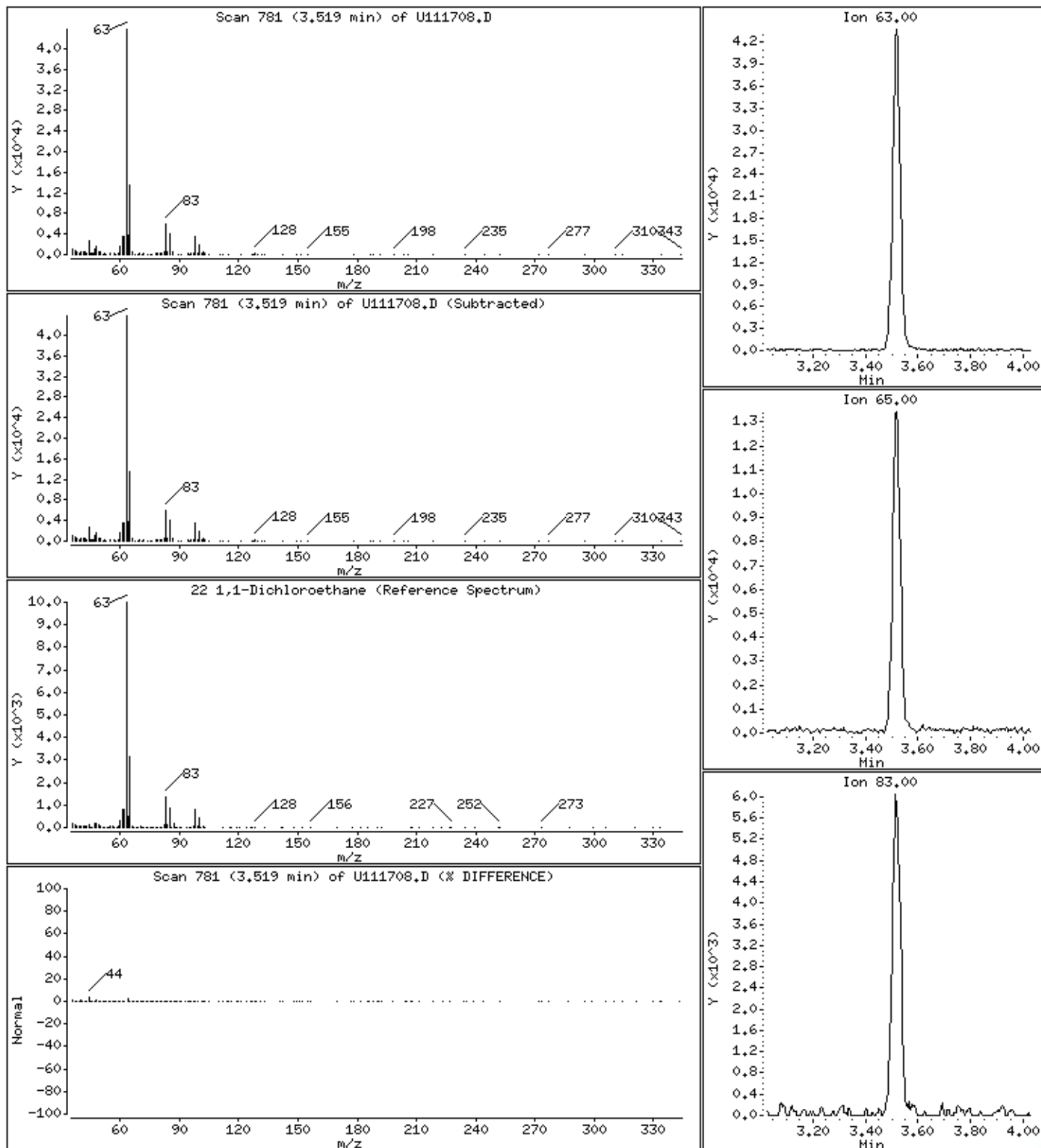
Operator: PC

Column phase: DB624

Column diameter: 0.18

22 1,1-Dichloroethane

Concentration: 5.22 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9,i\U221117.b\U111708.D

Date : 17-NOV-2022 12:44

Client ID: HS22110582-04

Instrument: VOA9.i

Sample Info: HS22110582-04;HS22110582-04;;;

Purge Volume: 5.0

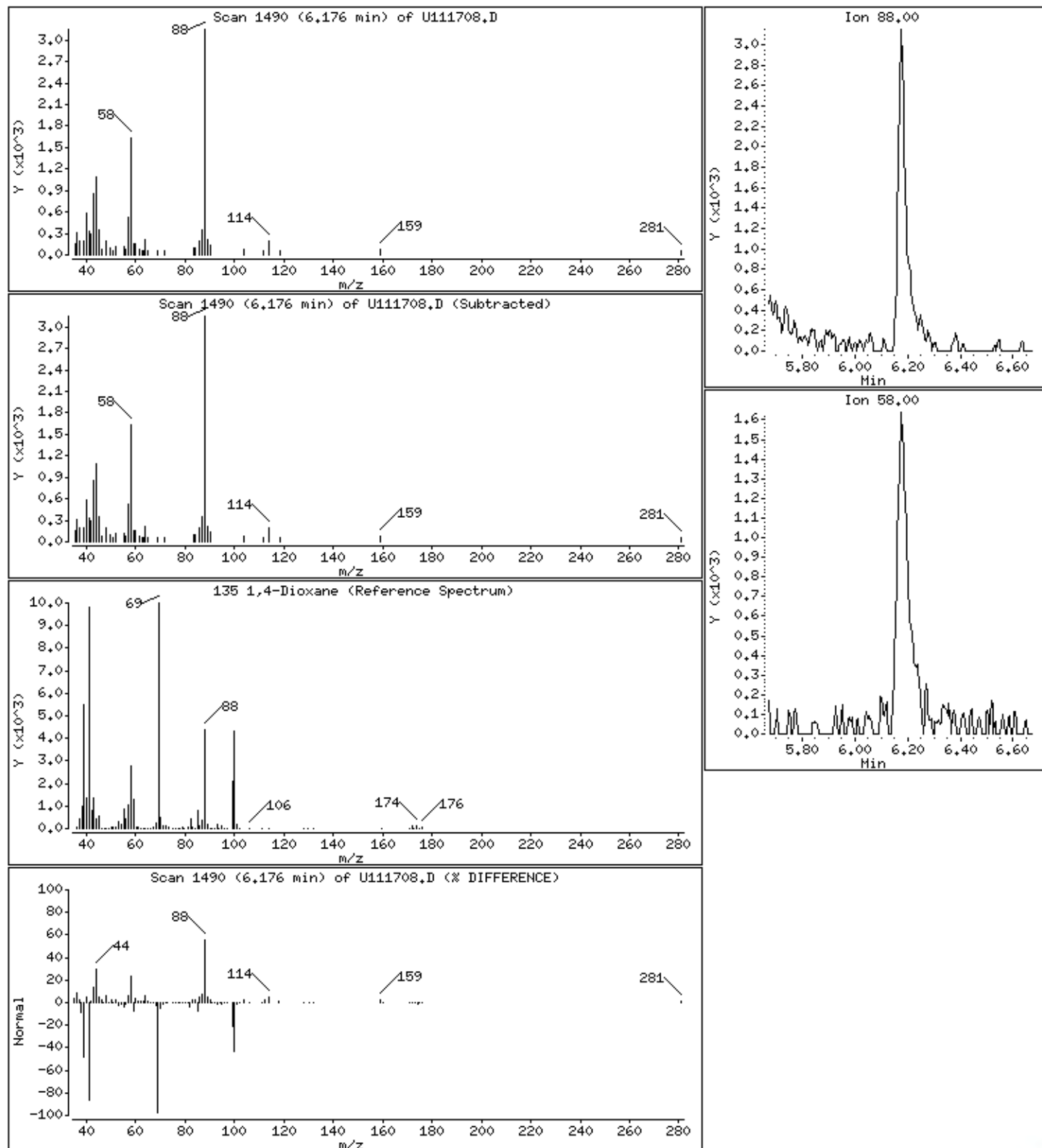
Operator: PC

Column phase: DB624

Column diameter: 0.18

135 1,4-Dioxane

Concentration: 43.39 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111708.D
Inj Date : 17-NOV-2022 12:44
InstruID : VOA9.i
LabSampID : HS22110582-04

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111709.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111709.D
 Lab Smp Id: HS22110582-03 Client Smp ID: HS22110582-03
 Inj Date : 17-NOV-2022 13:06
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110582-03;HS22110582-03;;;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL	
	MASS						(ug/l)	(ug/l)	
=====	=====		=====	=====	=====	=====	=====	=====	
* 1 Pentafluorobenzene	168		4.819	4.819	(1.000)	1030191	50.0000		
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)	171010	19.4643	19.46	
22 1,1-Dichloroethane	63		3.518	3.518	(0.730)	91074	5.26963	5.26	
\$ 30 Dibromofluoromethane	113		4.755	4.751	(0.987)	471783	45.7688	45.76	
33 1,2-Dichloroethane	62		5.183	5.179	(0.933)	8242	0.61200	0.61(a)	
\$ 35 1,2-Dichloroethane-d4	65		5.104	5.104	(1.059)	544719	46.5632	46.56	
* 36 1,4-Difluorobenzene	114		5.557	5.557	(1.000)	1532878	50.0000		
* 47 Chlorobenzene-d5	117		8.189	8.189	(1.000)	1314295	50.0000		
\$ 48 Toluene-d8	98		6.926	6.926	(0.846)	1711980	54.7558	54.75	
\$ 69 4-Bromofluorobenzene	95		9.197	9.194	(1.123)	548731	47.4220	47.42	
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)	566477	50.0000		
135 1,4-Dioxane	88		6.176	6.168	(1.282)	6428	41.0835	41.08(a)	

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa9.i\U221117.b\U111709.D

Date: 17-Nov-2022 13:06

Client ID: HS22110582-03

Sample Info: HS22110582-03;HS22110582-03;;

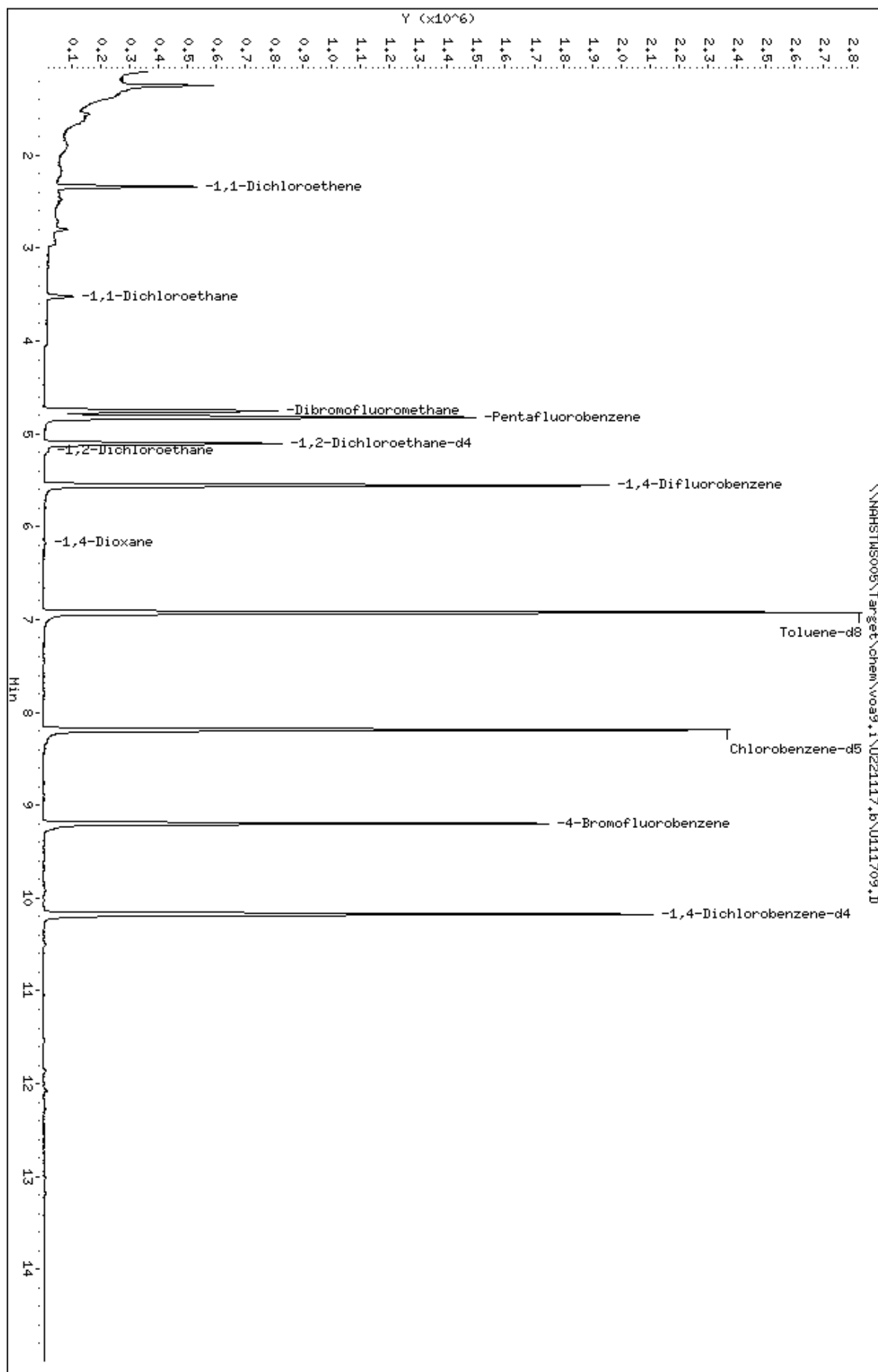
Purge Volume: 5.0

Column phase: DB624

Instrument: W083.i

Operator: PC

Column diameter: 0.18



Page 1



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111709.D

Page 2

Date : 17-NOV-2022 13:06

Client ID: HS22110582-03

Instrument: VOA9.i

Sample Info: HS22110582-03;HS22110582-03;;

Purge Volume: 5.0

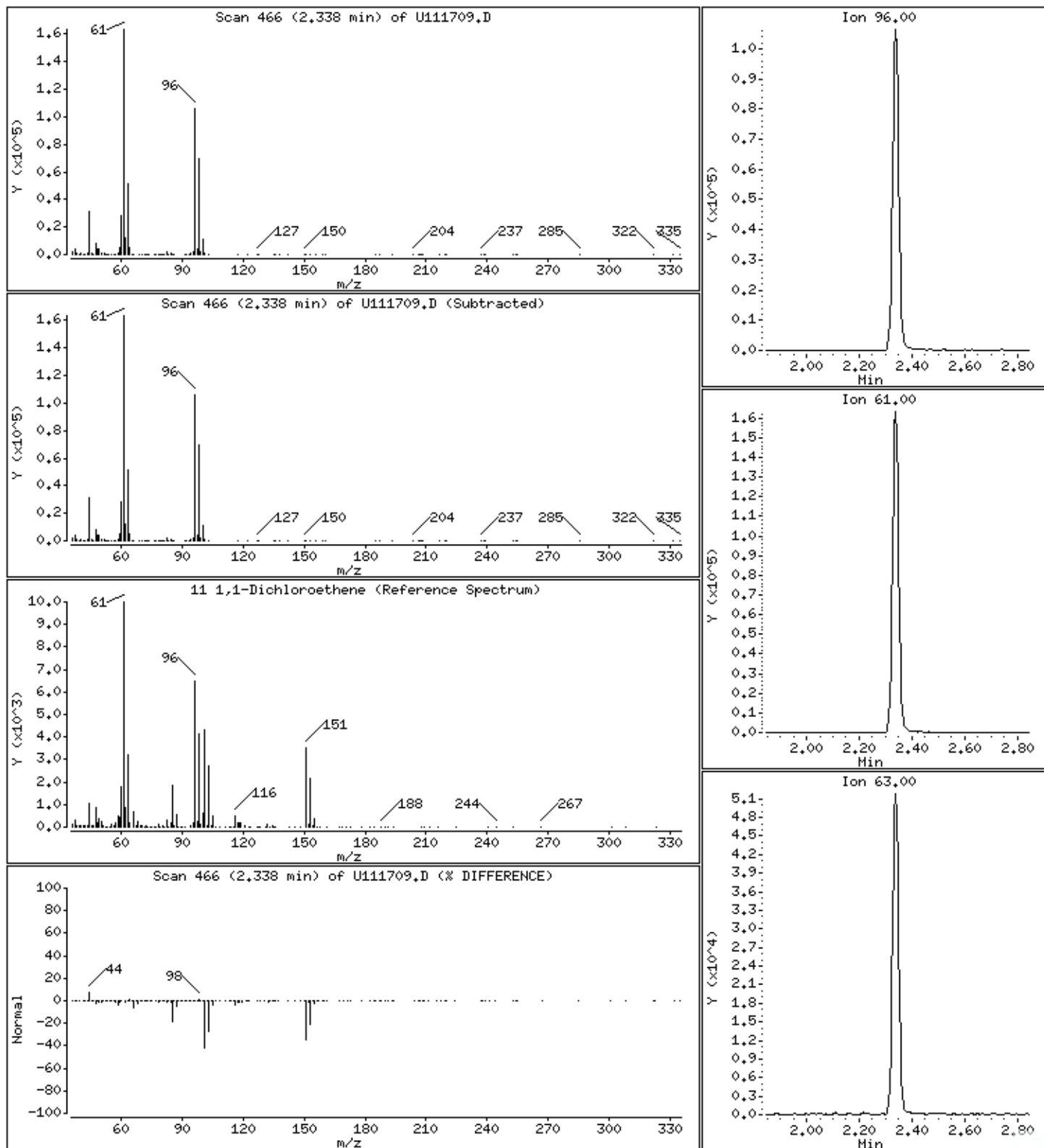
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 19.46 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111709.D

Page 3

Date : 17-NOV-2022 13:06

Client ID: HS22110582-03

Instrument: VOA9.i

Sample Info: HS22110582-03;HS22110582-03;;;

Purge Volume: 5.0

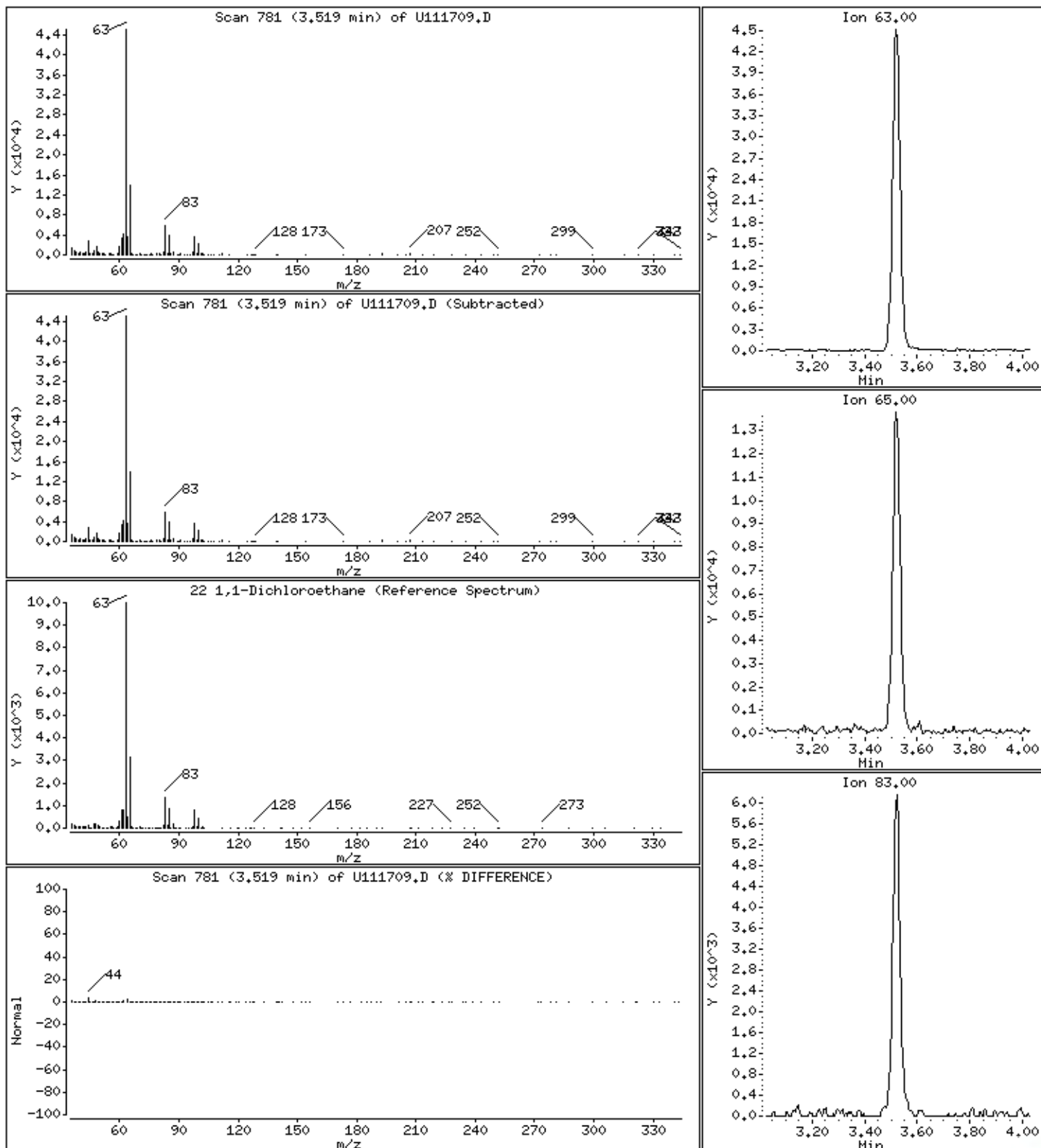
Operator: PC

Column phase: DB624

Column diameter: 0.18

22 1,1-Dichloroethane

Concentration: 5.26 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111709.D

Page 4

Date : 17-NOV-2022 13:06

Client ID: HS22110582-03

Instrument: VOA9.i

Sample Info: HS22110582-03;HS22110582-03;;;

Purge Volume: 5.0

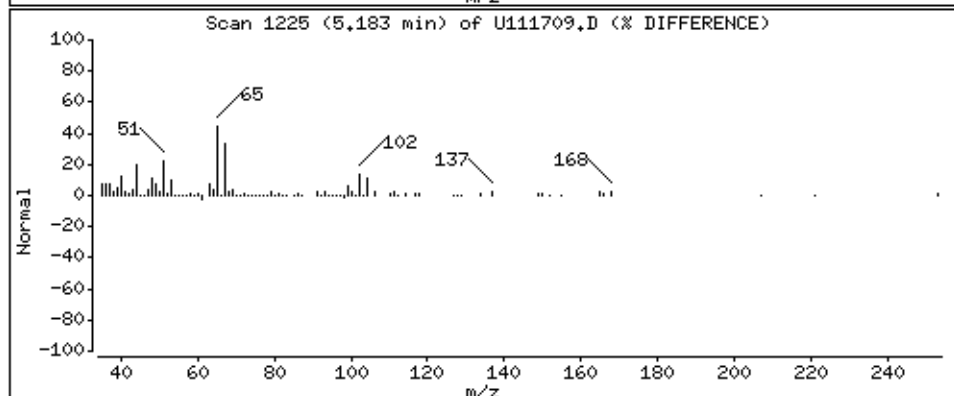
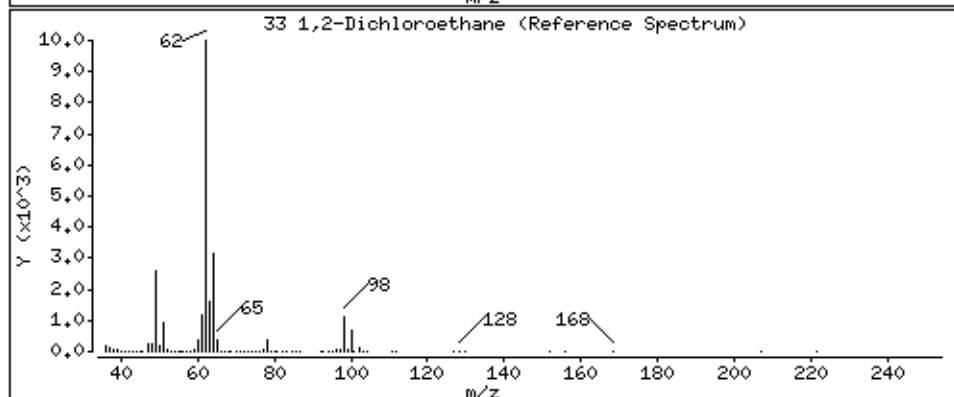
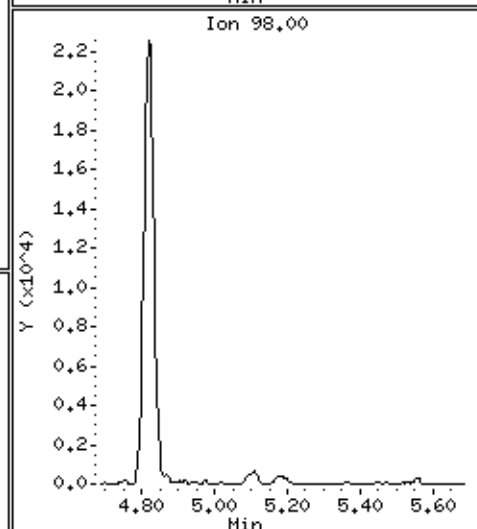
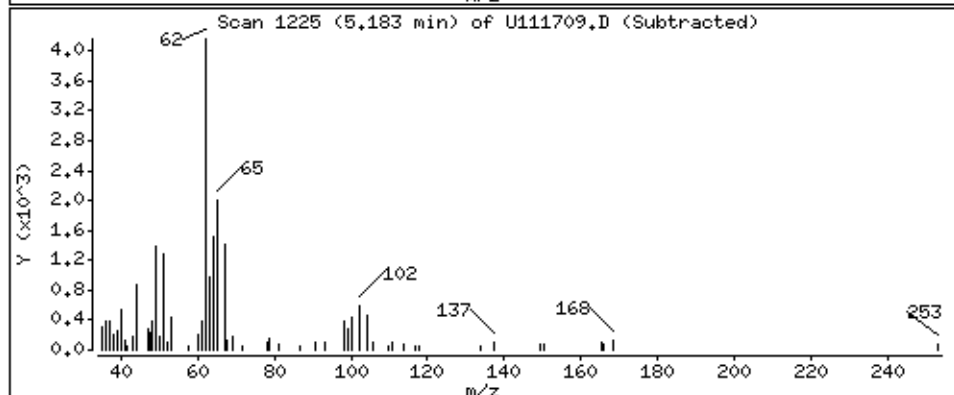
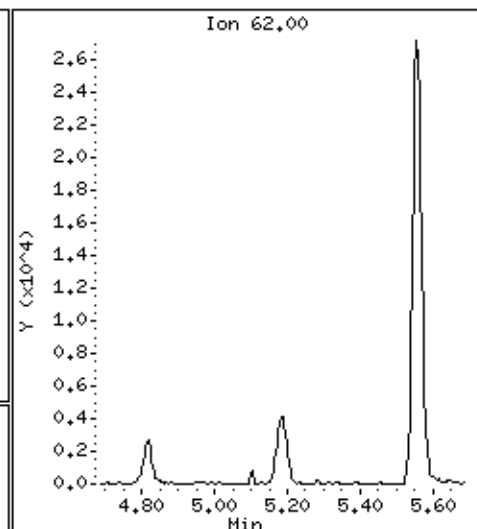
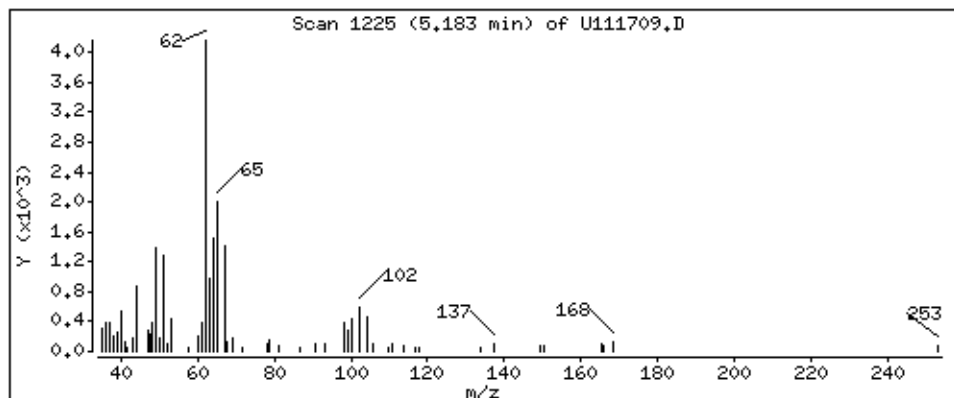
Operator: PC

Column phase: DB624

Column diameter: 0.18

33 1,2-Dichloroethane

Concentration: 0.61 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111709.D

Page 5

Date : 17-NOV-2022 13:06

Client ID: HS22110582-03

Instrument: VOA9.i

Sample Info: HS22110582-03;HS22110582-03;;;

Purge Volume: 5.0

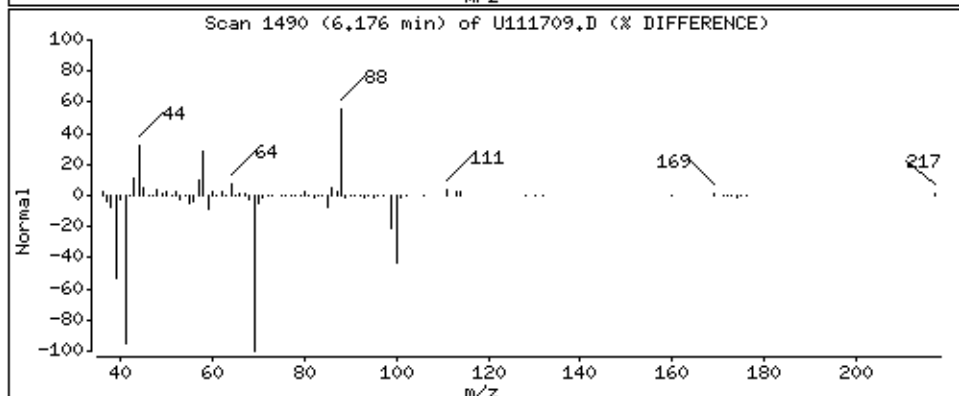
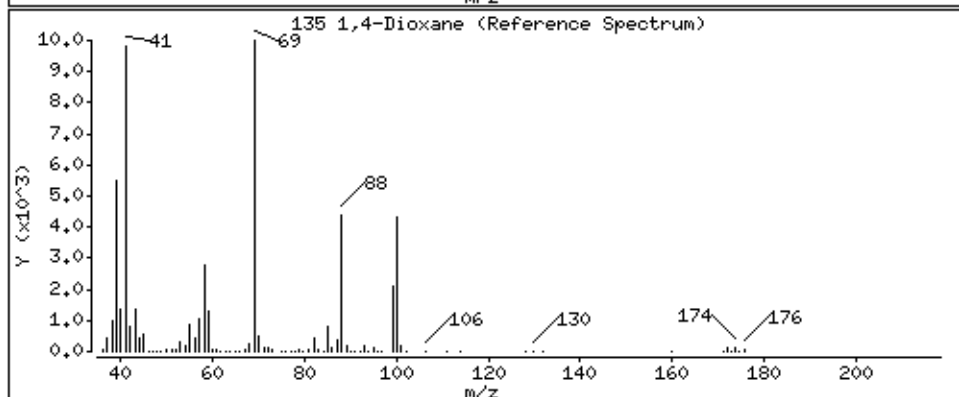
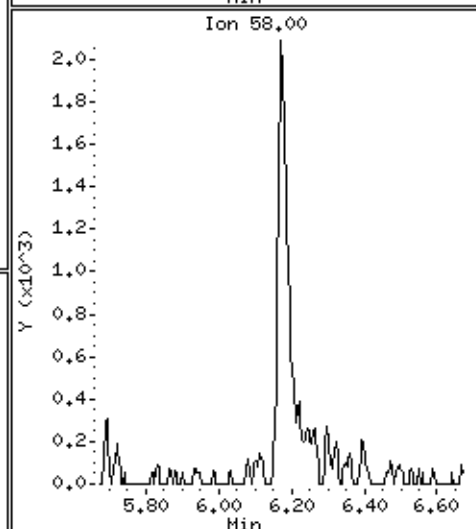
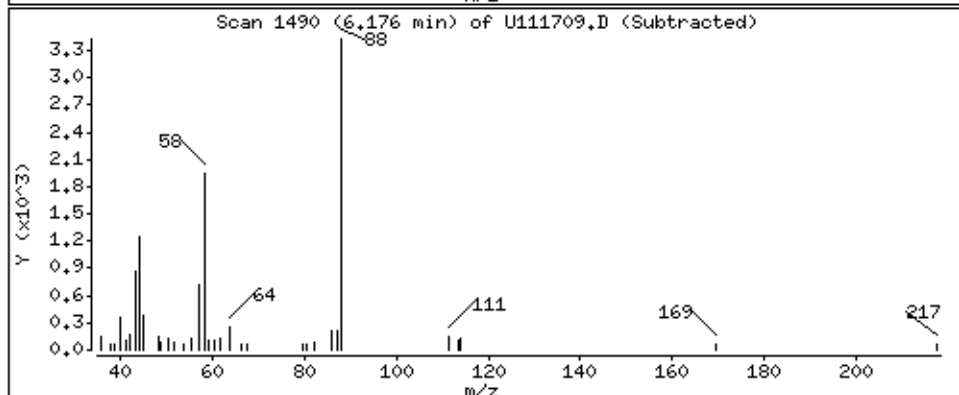
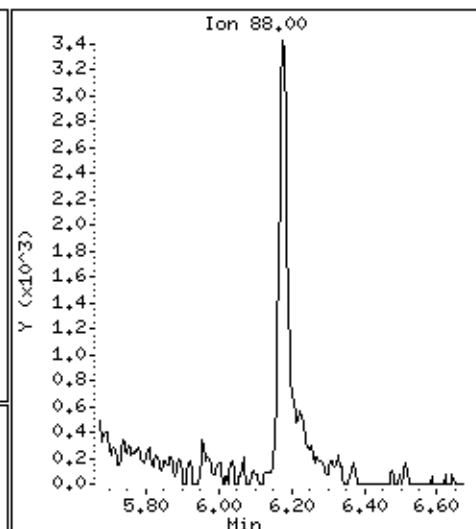
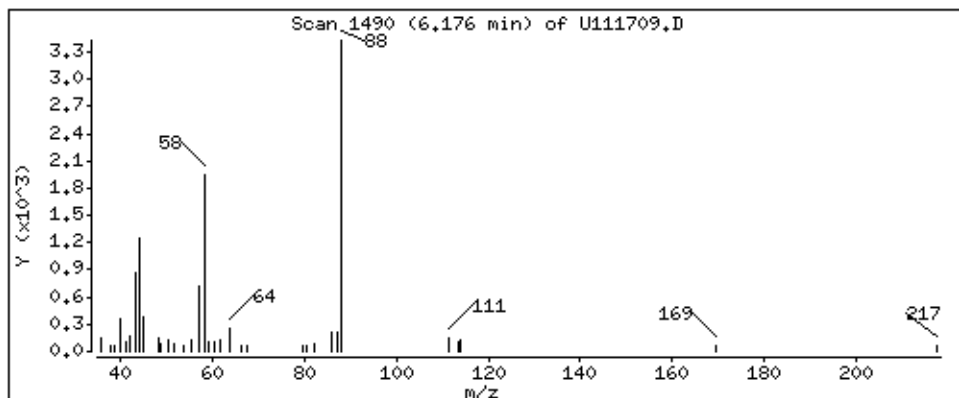
Operator: PC

Column phase: DB624

Column diameter: 0.18

135 1,4-Dioxane

Concentration: 41.08 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111709.D
Inj Date : 17-NOV-2022 13:06
InstruID : VOA9.i
LabSampID : HS22110582-03

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111710.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111710.D
 Lab Smp Id: HS22110582-05 Client Smp ID: HS22110582-05
 Inj Date : 17-NOV-2022 13:29
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110582-05;HS22110582-05;;;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.815	4.819	(1.000)		1028299	50.0000	
11 1,1-Dichloroethene	96		2.330	2.337	(0.484)		4809194	548.387	548.38(A)
22 1,1-Dichloroethane	63		3.514	3.518	(0.730)		430562	24.9586	24.95
27 cis-1,2-Dichloroethene	96		4.200	4.200	(0.872)		14046	1.23136	1.23(a)
\$ 30 Dibromofluoromethane	113		4.752	4.751	(0.987)		475063	46.1749	46.17
33 1,2-Dichloroethane	62		5.179	5.179	(0.933)		460422	33.9508	33.95
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.104	(1.059)		535968	45.8904	45.89
* 36 1,4-Difluorobenzene	114		5.554	5.557	(1.000)		1543596	50.0000	
38 Trichloroethene	130		5.790	5.790	(1.043)		21052	2.11600	2.11(a)
* 47 Chlorobenzene-d5	117		8.189	8.189	(1.000)		1337305	50.0000	
\$ 48 Toluene-d8	98		6.926	6.926	(0.846)		1718065	54.0049	54.00
53 1,1,2-Trichloroethane	83		7.357	7.357	(0.898)		33159	4.33650	4.33(a)
\$ 69 4-Bromofluorobenzene	95		9.197	9.194	(1.123)		565129	47.9966	47.99
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		583265	50.0000	
M 94 1,2-Dichloroethylene (total)	96						14046	1.23136	1.23(a)
135 1,4-Dioxane	88		6.176	6.168	(1.283)		12249	78.4315	78.43(a)

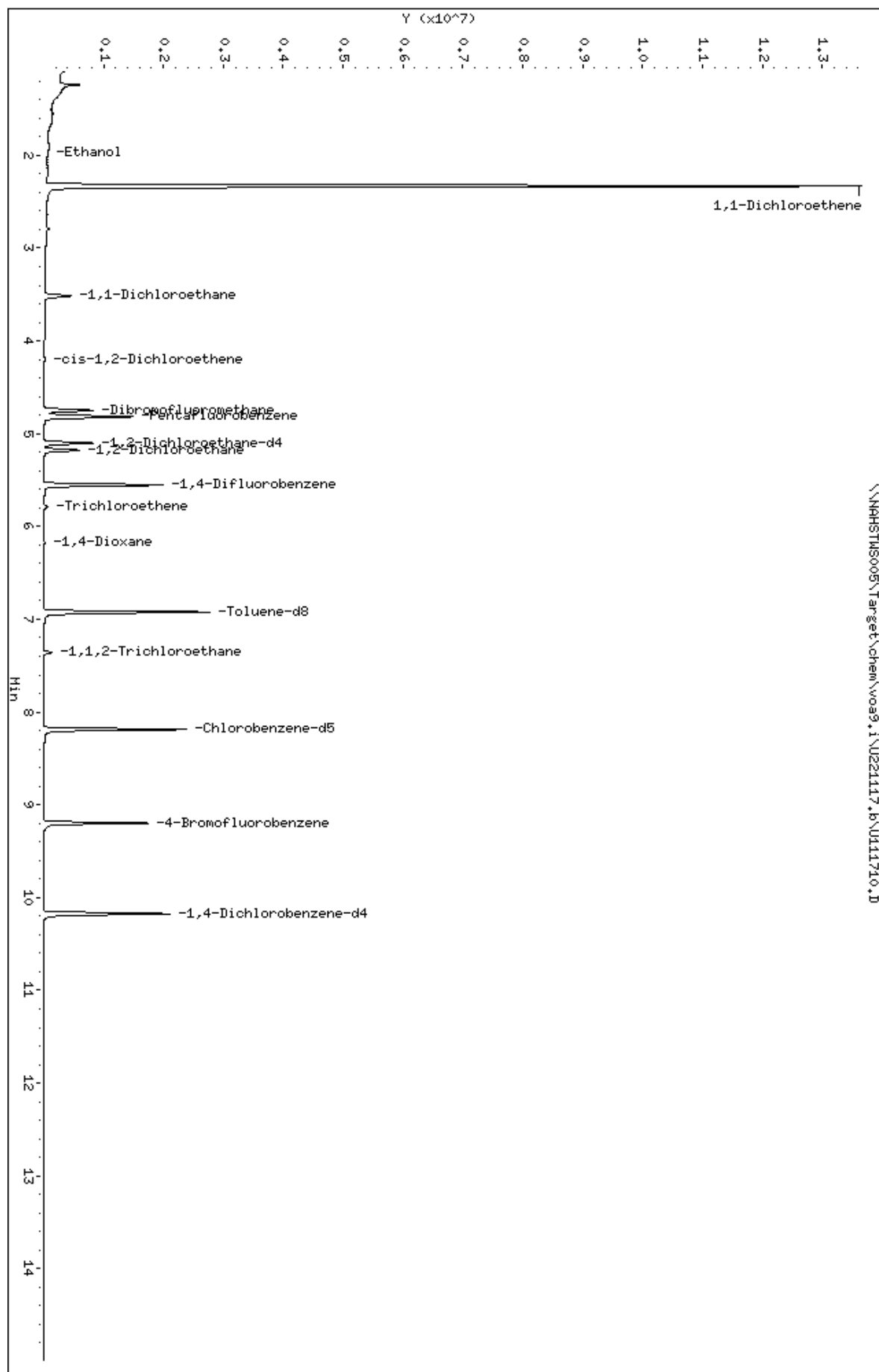
QC Flag Legend



- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U11710.D
Date : 17-NOV-2022 13:29
Client ID: HS22110582-05
Sample Info: HS22110582-05;HS22110582-05;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111710.D

Page 2

Date : 17-NOV-2022 13:29

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;;

Purge Volume: 5.0

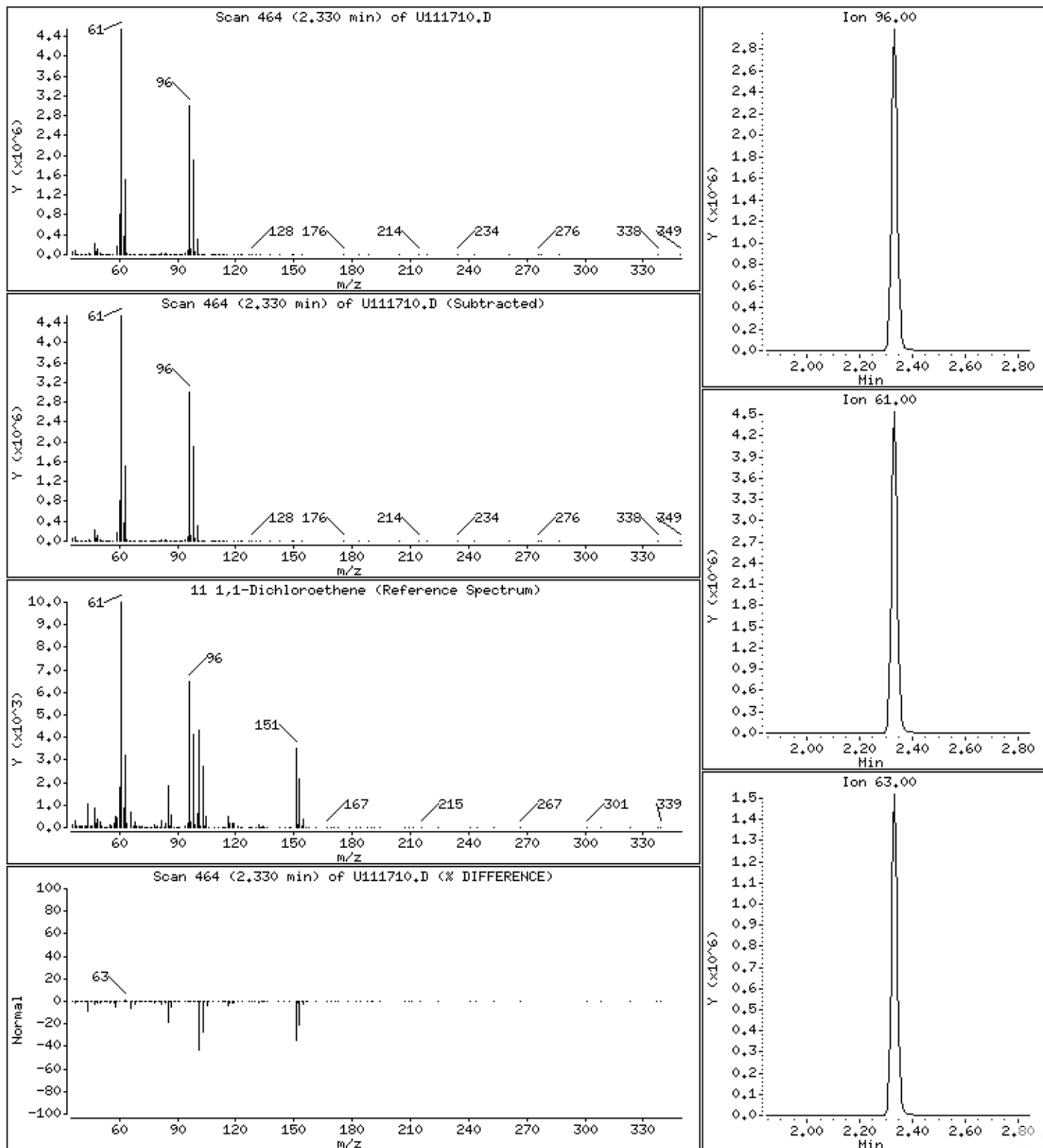
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 548.38 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111710.D

Page 3

Date : 17-NOV-2022 13:29

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;;

Purge Volume: 5.0

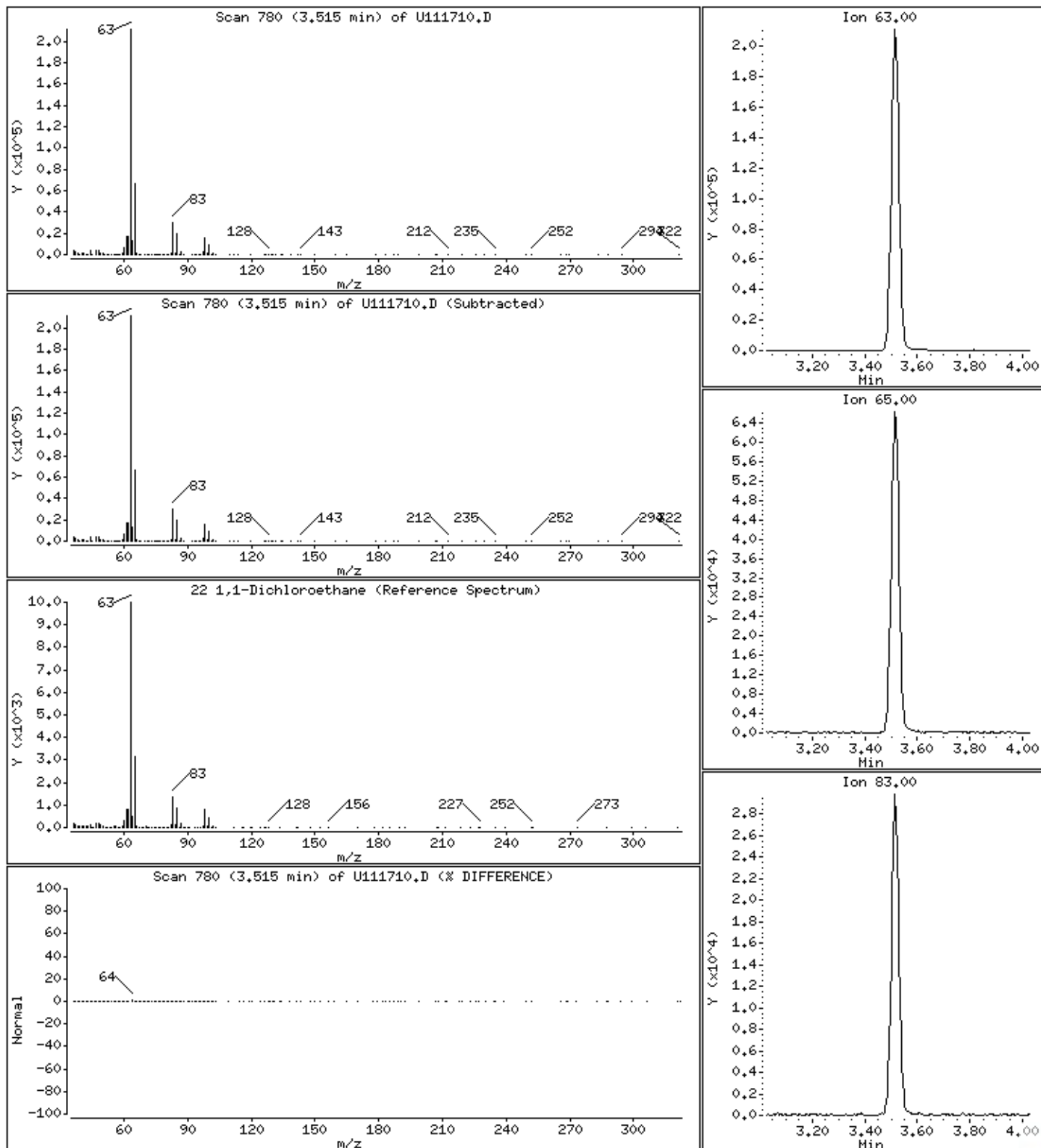
Operator: PC

Column phase: DB624

Column diameter: 0.18

22 1,1-Dichloroethane

Concentration: 24.95 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9,i\U221117,b\U111710.D

Page 4

Date : 17-NOV-2022 13:29

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;

Purge Volume: 5.0

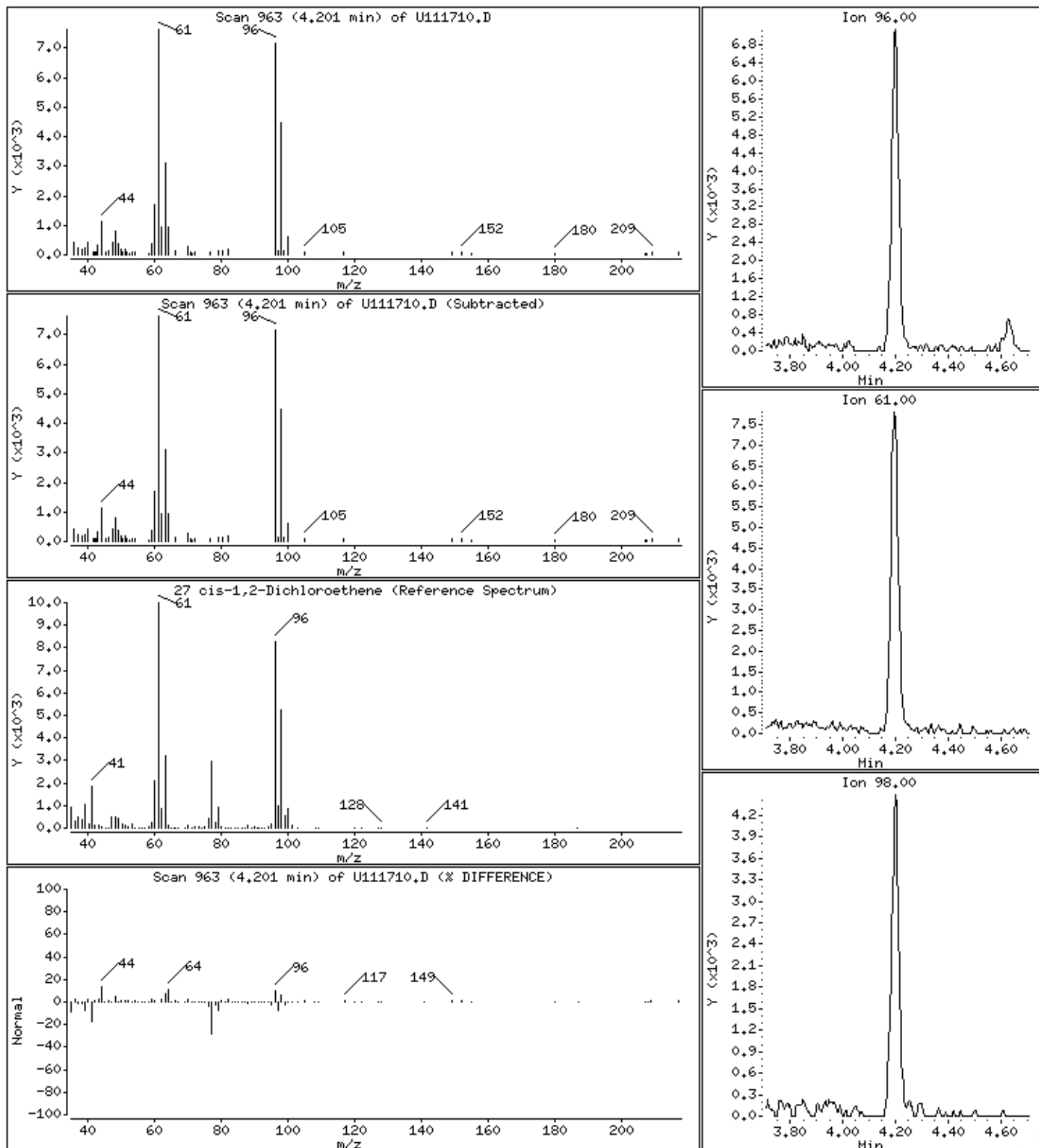
Operator: PC

Column phase: DB624

Column diameter: 0.18

27 cis-1,2-Dichloroethene

Concentration: 1.23 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9,i\U221117,b\U111710.D

Page 5

Date : 17-NOV-2022 13:29

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;;

Purge Volume: 5.0

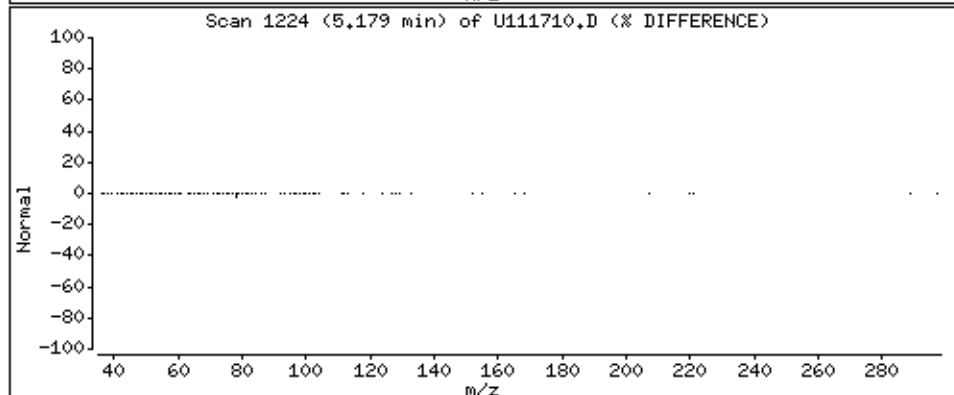
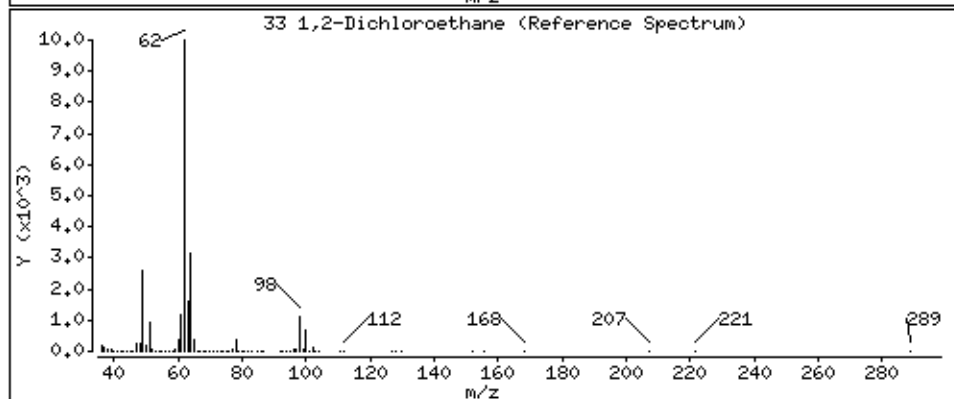
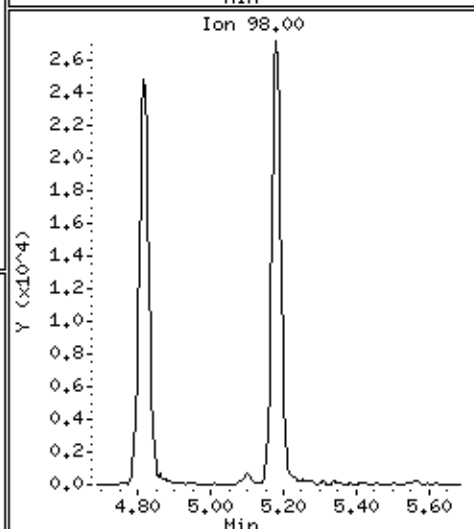
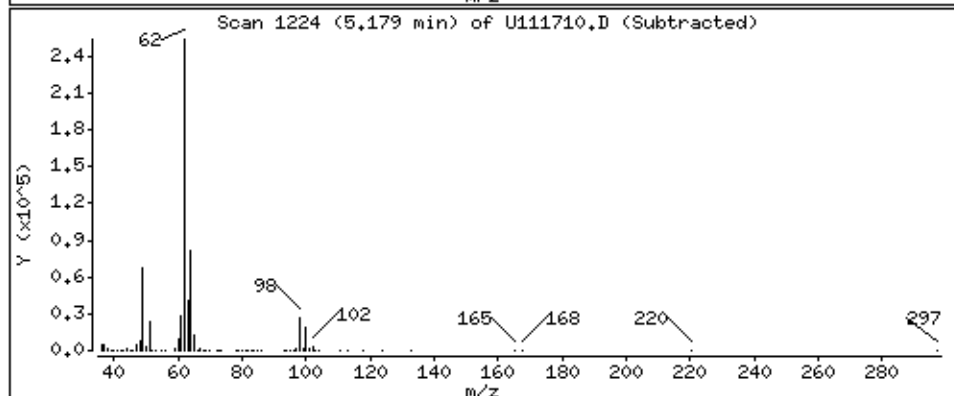
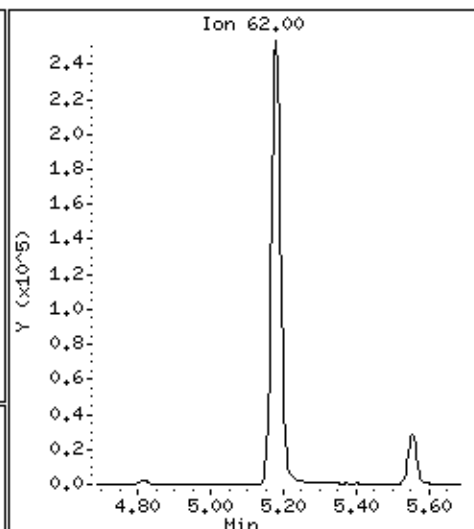
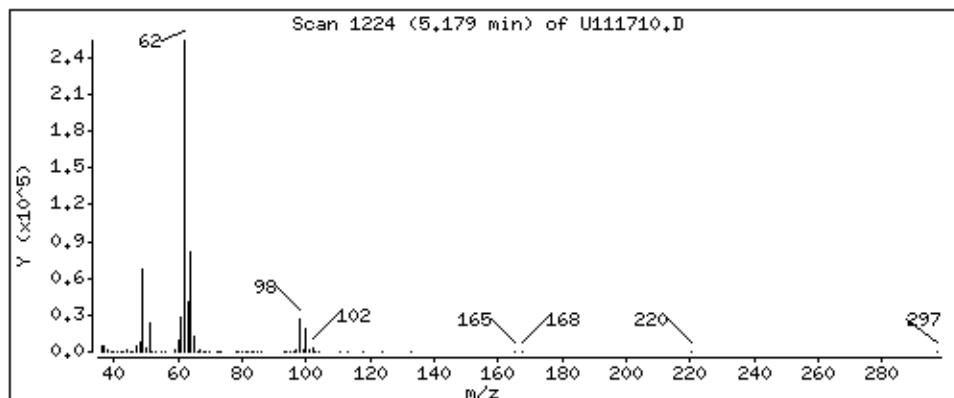
Operator: PC

Column phase: DB624

Column diameter: 0,18

33 1,2-Dichloroethane

Concentration: 33,95 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111710.D

Page 6

Date : 17-NOV-2022 13:29

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;;

Purge Volume: 5.0

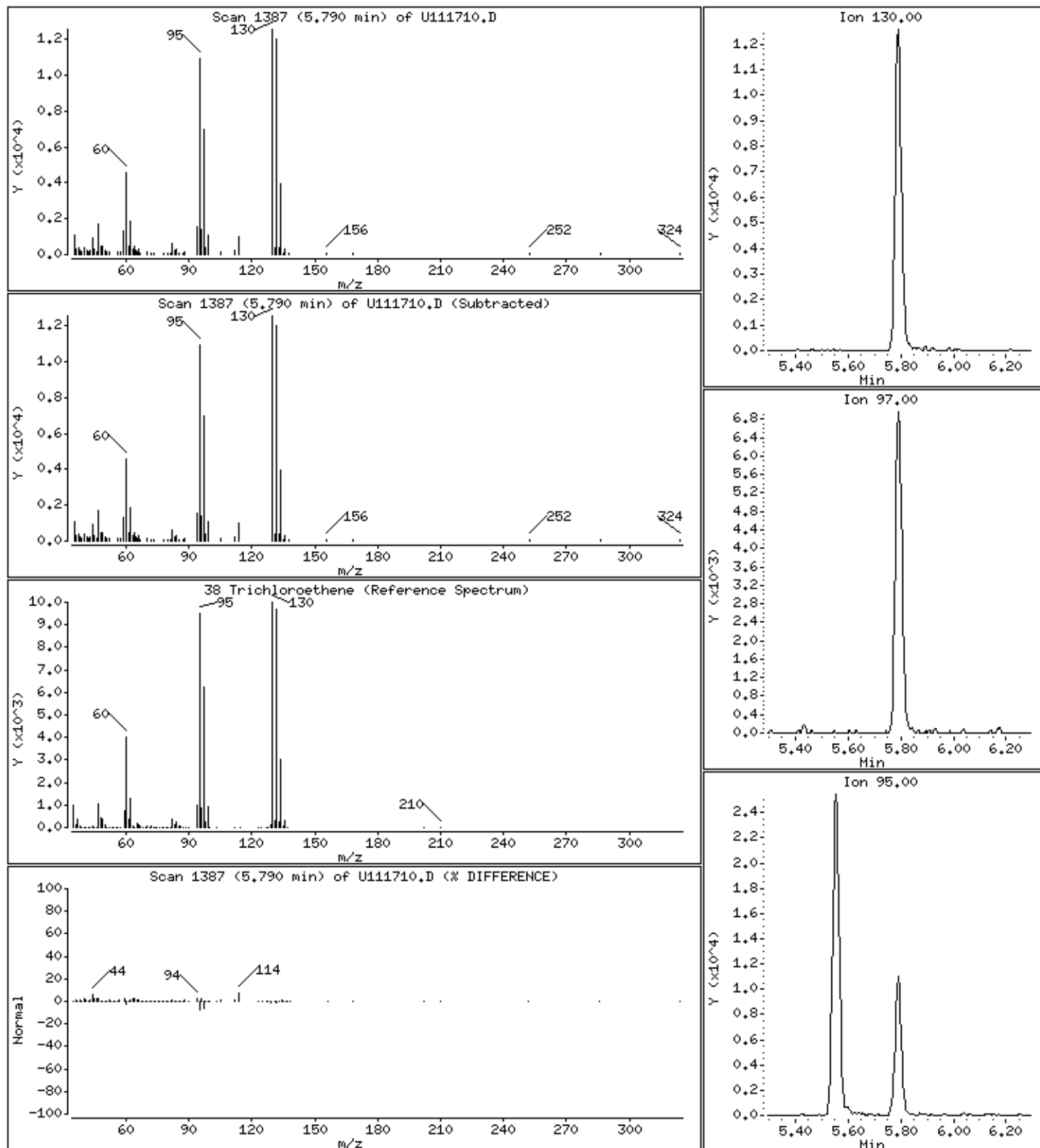
Operator: PC

Column phase: DB624

Column diameter: 0.18

38 Trichloroethene

Concentration: 2.11 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111710.D

Page 7

Date : 17-NOV-2022 13:29

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;

Purge Volume: 5.0

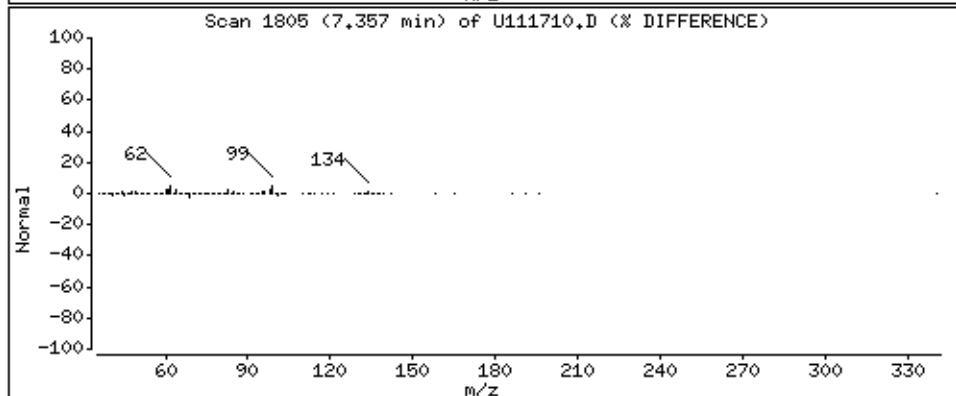
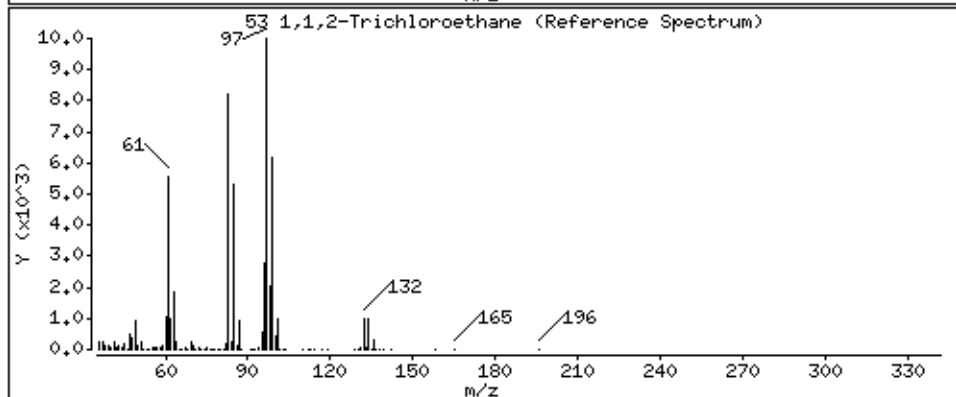
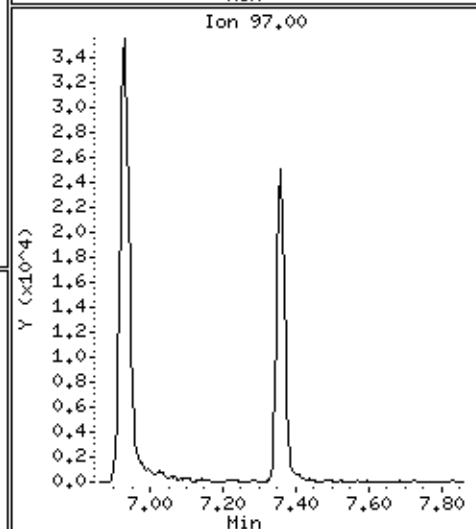
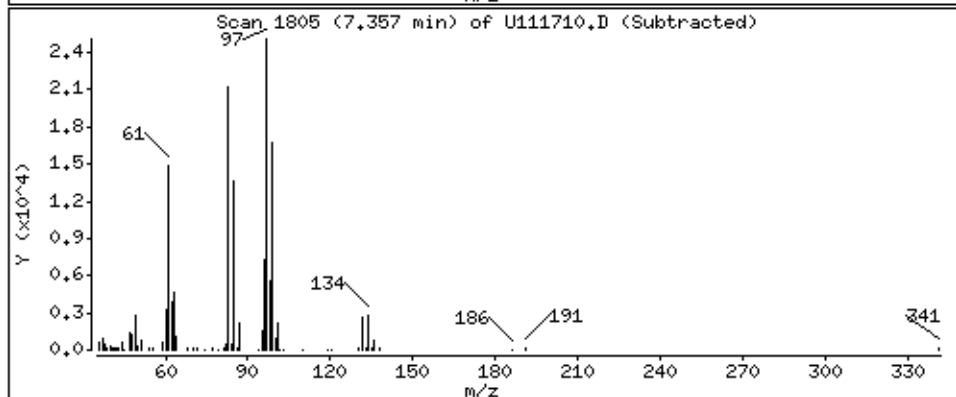
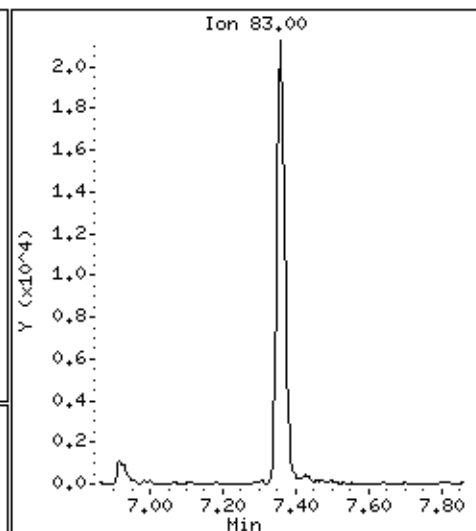
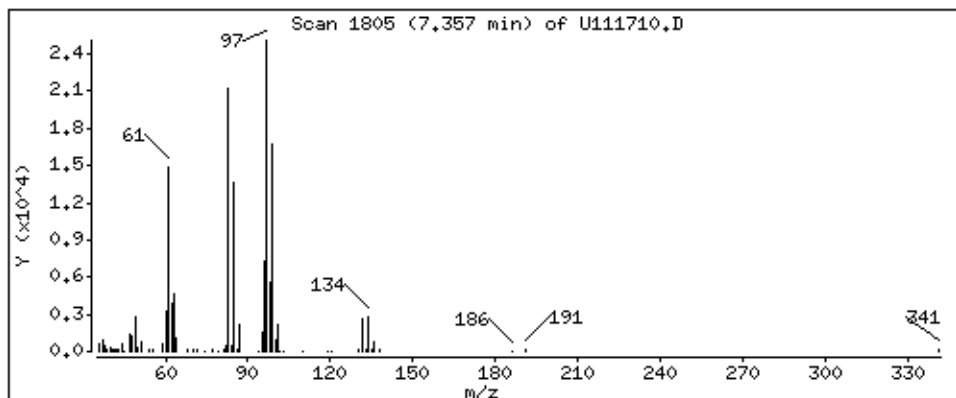
Operator: PC

Column phase: DB624

Column diameter: 0.18

53 1,1,2-Trichloroethane

Concentration: 4.33 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111710.D

Page 8

Date : 17-NOV-2022 13:29

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;;

Purge Volume: 5.0

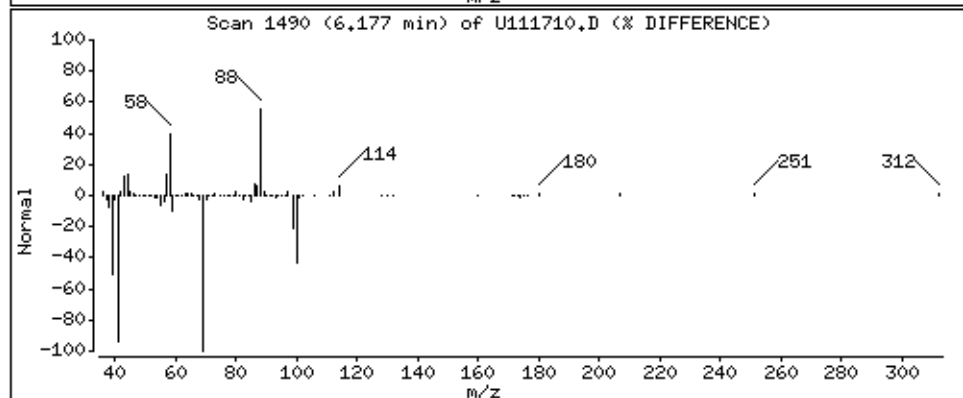
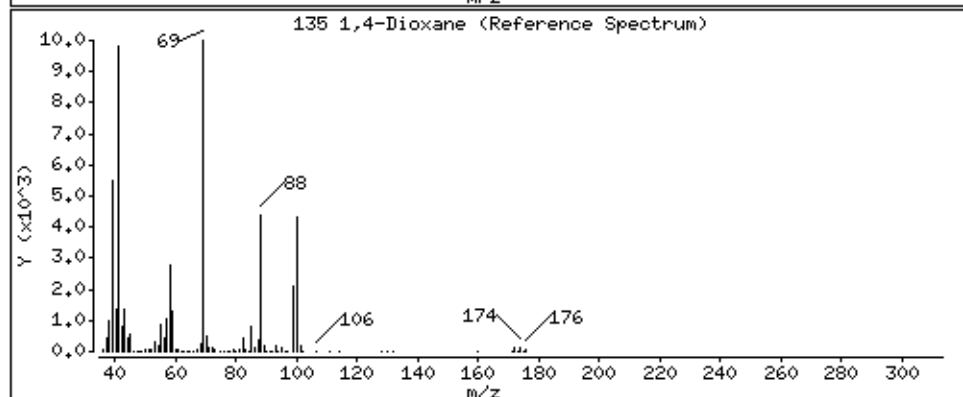
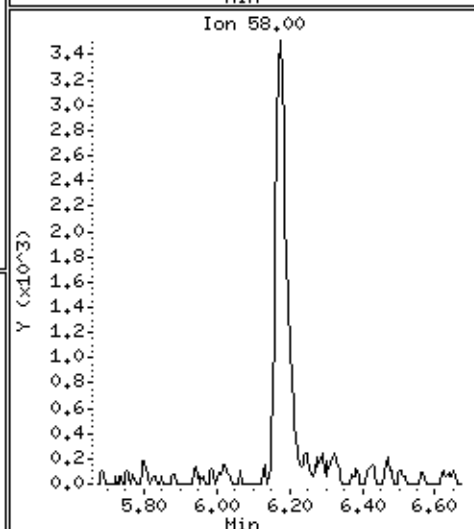
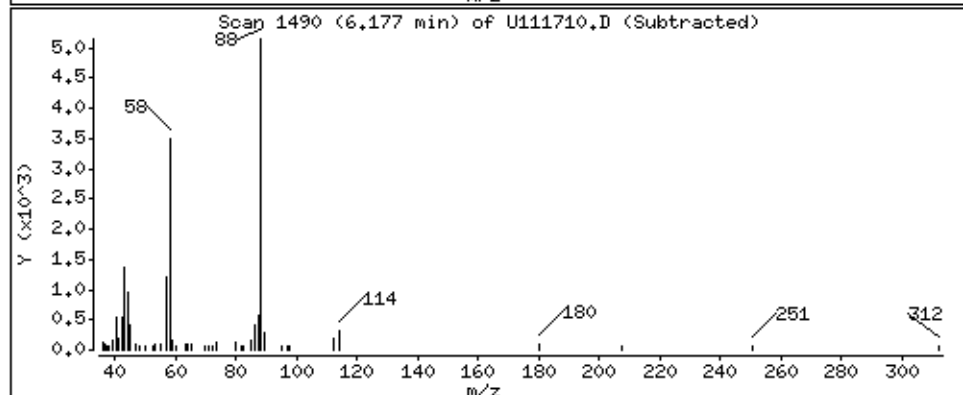
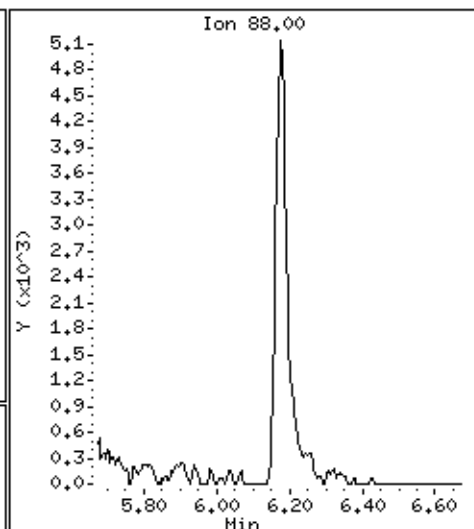
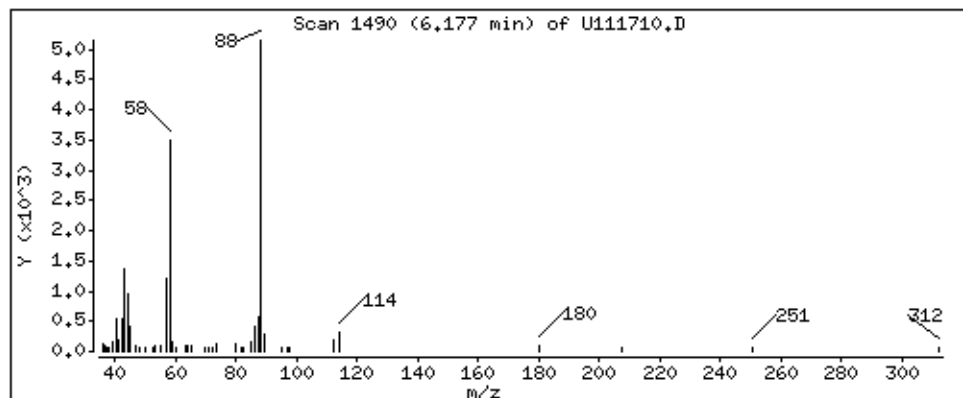
Operator: PC

Column phase: DB624

Column diameter: 0.18

135 1,4-Dioxane

Concentration: 78.43 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111710.D
Inj Date : 17-NOV-2022 13:29
InstruID : VOA9.i
LabSampID : HS22110582-05

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111713.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111713.D
 Lab Smp Id: HS22110582-05MS Client Smp ID: HS22110582-05MS
 Inj Date : 17-NOV-2022 14:36
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110582-05MS;HS22110582-05MS;3;;MS
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 12 QC Sample: MS
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.819	4.819	(1.000)		1050951	50.0000	
2 Dichlorodifluoromethane	85		1.160	1.164	(0.241)		165305	20.7103	20.71
3 Chloromethane	50		1.295	1.295	(0.269)		224455	19.4949	19.49
5 Vinyl Chloride	62		1.374	1.378	(0.285)		226075	21.0904	21.09
6 Bromomethane	94		1.618	1.621	(0.336)		154657	20.3009	20.30
7 Chloroethane	64		1.696	1.700	(0.352)		157056	20.0555	20.05
8 Trichlorofluoromethane	101		1.895	1.899	(0.393)		314278	22.5499	22.54
9 Acrolein	56		2.266	2.266	(0.470)		18118	24.8101	24.81
10 Acetone	43		2.408	2.409	(0.500)		131089	25.3714	25.37
11 1,1-Dichloroethene	96		2.334	2.337	(0.484)		4970609	554.576	554.57(A)
15 Iodomethane	142		2.468	2.469	(0.512)		370841	39.1883	39.18
16 Acrylonitrile	53		3.068	3.068	(0.637)		145517	29.8125	29.81
17 Methylene Chloride	84		2.795	2.798	(0.580)		238855	19.7044	19.70
18 Methyl tert-butyl ether	73		3.083	3.083	(0.640)		424060	14.0398	14.03
19 Carbon Disulfide	76		2.521	2.521	(0.523)		1012079	38.8160	38.81
20 trans-1,2-Dichloroethene	96		3.061	3.065	(0.635)		206220	20.7932	20.79
21 Vinyl Acetate	43		3.608	3.612	(0.749)		946530	36.5678	36.56
22 1,1-Dichloroethane	63		3.514	3.518	(0.729)		782728	44.3947	44.39
24 2-Butanone	43		4.268	4.268	(0.886)		154547	36.3653	36.36
26 2,2-Dichloropropane	77		4.185	4.185	(0.869)		189113	20.7724	20.77



27 cis-1,2-Dichloroethene	96	4.197	4.200 (0.871)	250419	21.4801	21.48
28 Chloroform	83	4.575	4.575 (0.949)	393509	20.9027	20.90

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111713.D Page 2
Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.470	4.474	(0.928)	119314	19.1744	19.17	
\$ 30 Dibromofluoromethane	113	4.751	4.751	(0.986)	483615	45.9916	45.99	
31 1,1,1-Trichloroethane	97	4.744	4.748	(0.984)	295108	23.3067	23.30	
32 1,1-Dichloropropene	75	4.924	4.924	(0.887)	287521	26.7944	26.79	
33 1,2-Dichloroethane	62	5.179	5.179	(0.933)	766025	56.3166	56.31	
34 Carbon Tetrachloride	117	4.913	4.916	(0.885)	220403	31.4828	31.48	
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.104	(1.058)	528076	44.2172	44.21	
* 36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	1548224	50.0000		
37 Benzene	78	5.141	5.141	(0.926)	852141	23.3652	23.36	
38 Trichloroethene	130	5.790	5.790	(1.043)	277962	27.8552	27.85	
39 Bromodichloromethane	83	6.281	6.281	(1.131)	242741	21.7731	21.77	
42 1,2-Dichloropropane	63	6.011	6.015	(1.082)	209968	22.6373	22.63	
44 Dibromomethane	93	6.123	6.123	(1.103)	142419	21.3064	21.30	
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	352481	43.6286	43.62	
46 cis-1,3-Dichloropropene	75	6.693	6.693	(1.205)	253325	18.7020	18.70	
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1375119	50.0000		
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1799550	55.0108	55.01	
50 Toluene	91	6.982	6.982	(0.853)	933151	25.5654	25.56	
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.296)	185842	17.1114	17.11	
52 2-Hexanone	43	7.597	7.597	(0.928)	226863	38.5825	38.58	
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	211945	26.9557	26.95	
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	365214	22.7267	22.72	
55 Dibromochloromethane	129	7.694	7.694	(0.940)	190634	19.3858	19.38	
56 Tetrachloroethene	164	7.458	7.458	(0.911)	220477	27.7963	27.79	
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	215302	22.3429	22.34	
58 1-Chlorohexane	55	8.196	8.200	(1.476)	174708	26.0707	26.07	
59 Chlorobenzene	112	8.211	8.212	(1.003)	611111	23.3984	23.39	
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	200542	23.4717	23.47	
61 Ethylbenzene	106	8.309	8.309	(1.015)	306685	25.4801	25.48	
62 m,p-Xylenes	106	8.410	8.410	(1.027)	734387	48.9560	48.95	
63 o-Xylene	106	8.751	8.751	(1.069)	362167	24.4452	24.44	
64 Styrene	104	8.763	8.763	(1.070)	517439	20.4674	20.46	
66 Bromoform	173	8.920	8.920	(1.089)	113023	17.7253	17.72	
67 Isopropylbenzene	105	9.066	9.066	(1.107)	919799	26.9311	26.93	
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	296222	22.3390	22.33	
\$ 69 4-Bromofluorobenzene	95	9.197	9.194	(1.123)	627323	51.7990	51.79	
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	666989	50.0000		
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	249102	21.7652	21.76	
73 n-Propylbenzene	91	9.415	9.415	(0.926)	956435	26.6192	26.61	
74 Bromobenzene	156	9.321	9.321	(0.916)	251717	23.8156	23.81	
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	718695	27.0179	27.01	
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	648565	25.6642	25.66	
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	722043	25.5488	25.54	
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	632269	27.1077	27.10	
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	716691	25.6223	25.62	
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	809024	25.9273	25.92	
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	683757	26.7868	26.78	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	435370	24.0346	24.03	
84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	443174	22.2302	22.23	
87 n-Butylbenzene	91	10.494	10.494	(1.032)	567468	26.1047	26.10	
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	437613	22.8270	22.82	
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	31769	17.6038	17.60	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	218138	20.8046	20.80
91 Hexachlorobutadiene	225	11.998	11.998 (1.179)	127265	31.6118	31.61

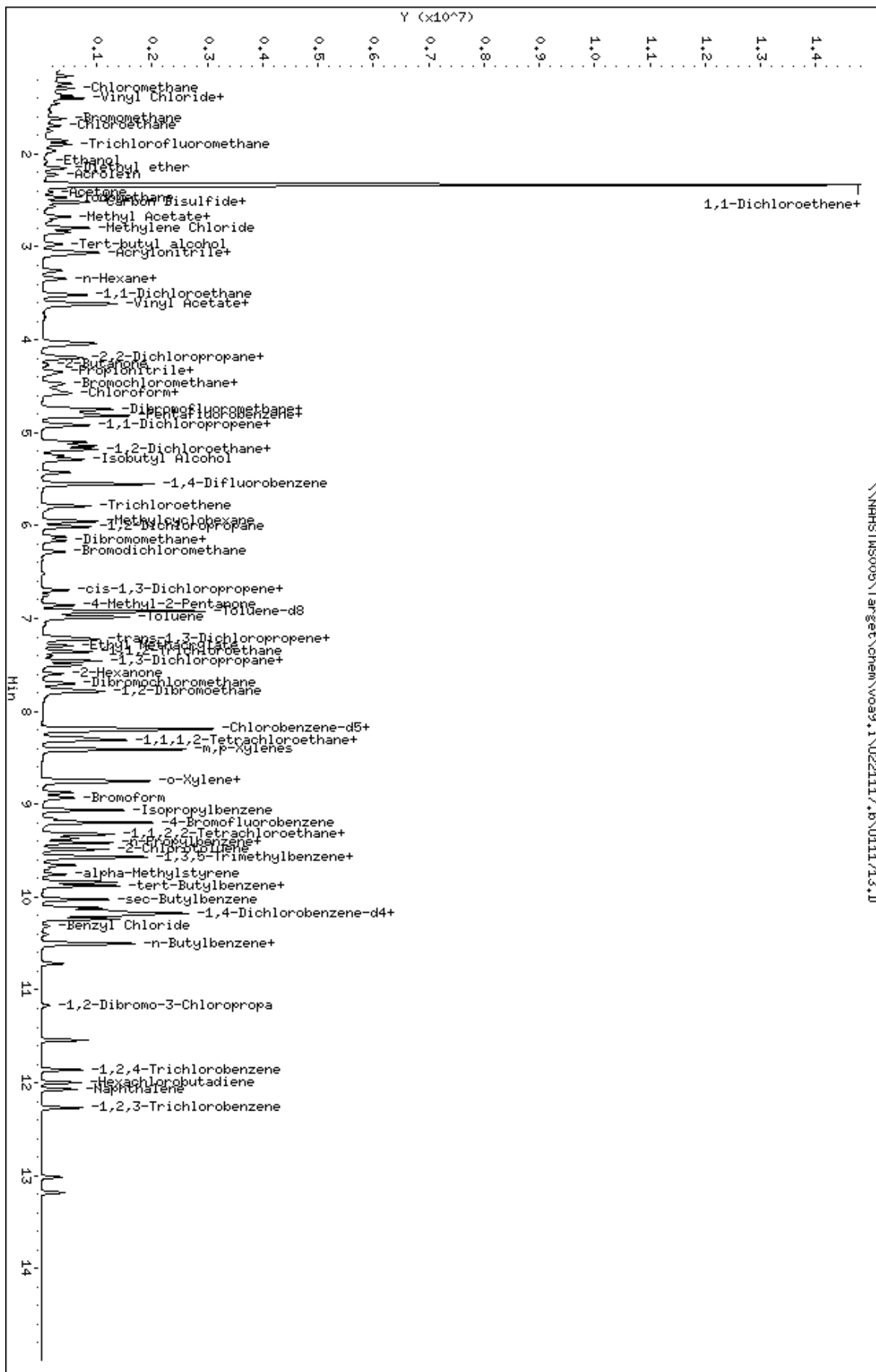
Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111713.D Page 3
 Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	475428	18.1709	18.17
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	212587	20.4498	20.44
M 94 1,2-Dichloroethylene (total)	96				456639	42.2733	42.27
M 95 Xylenes (total)	106				1096554	73.4013	73.40
135 1,4-Dioxane	88	6.172	6.168	(1.281)	62734	393.034	393.03
141 Cyclohexane	56	4.785	4.789	(0.993)	306554	34.0426	34.04
138 Freon TF	101	2.334	2.337	(0.484)	217458	33.5222	33.52
140 1,3-Butadiene	54	1.400	1.404	(0.291)	161008	20.3639	20.36
147 Methylcyclohexane	55	5.951	5.951	(1.072)	467534	21.4172	21.41
146 Methyl Acetate	43	2.716	2.716	(0.564)	145143	16.8774	16.87
148 Tert-Butyl alcohol	59	2.971	2.971	(0.617)	334178	328.735	328.73
149 Isopropyl Alcohol	45	2.562	2.566	(0.532)	214390	320.013	320.01
72 trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	30393	17.3529	17.35
12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	397858	345.081	345.08
13 Acetonitrile	39	2.675	2.675	(0.555)	165419	154.896	154.89
14 Allyl Chloride	41	2.675	2.675	(0.555)	367669	15.0442	15.04
25 Methacrylonitrile	41	4.500	4.500	(0.934)	104779	16.8612	16.86
40 Methyl Methacrylate	41	6.161	6.161	(1.278)	157972	16.9037	16.90
4 Propionitrile	54	4.343	4.343	(0.901)	265181	157.734	157.73(a)
131 Methyl Acrylate	55	4.373	4.373	(0.907)	221064	16.5292	16.52
49 Ethyl Methacrylate	69	7.293	7.293	(1.313)	286626	19.9128	19.91

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount exceeded maximum amount.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U11713.D
 Date : 17-NOV-2022 14:36
 Client ID: HS22110582-05MS
 Sample Info: HS22110582-05MS;HS22110582-05MS;3;MS
 Purge Volume: 5.0
 Column phase: DB624

Instrument: VOA9.1
 Operator: PC
 Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111713.D
Inj Date : 17-NOV-2022 14:36
InstruID : VOA9.i
LabSampID : HS22110582-05MS

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111714.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111714.D
 Lab Smp Id: HS22110582-05MSD Client Smp ID: HS22110582-05MSD
 Inj Date : 17-NOV-2022 14:58
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110582-05MSD;HS22110582-05MSD;3;;MSD
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 12 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.819	4.819	(1.000)		1067289	50.0000	
2 Dichlorodifluoromethane	85		1.164	1.164	(0.242)		162847	20.1222	20.12
3 Chloromethane	50		1.299	1.295	(0.270)		222109	19.0022	19.00
5 Vinyl Chloride	62		1.377	1.378	(0.286)		224361	20.6101	20.61
6 Bromomethane	94		1.621	1.621	(0.336)		148649	19.1539	19.15
7 Chloroethane	64		1.700	1.700	(0.353)		155803	19.5909	19.59
8 Trichlorofluoromethane	101		1.902	1.899	(0.395)		313827	22.1729	22.17
9 Acrolein	56		2.270	2.266	(0.471)		19759	26.5693	26.56
10 Acetone	43		2.412	2.409	(0.501)		124533	23.2478	23.24
11 1,1-Dichloroethene	96		2.337	2.337	(0.485)		4971400	546.174	546.17(A)
15 Iodomethane	142		2.472	2.469	(0.513)		374692	39.0094	39.00
16 Acrylonitrile	53		3.072	3.068	(0.638)		141241	28.4935	28.49
17 Methylene Chloride	84		2.798	2.798	(0.581)		235815	19.1130	19.11
18 Methyl tert-butyl ether	73		3.087	3.083	(0.641)		423573	13.8090	13.80
19 Carbon Disulfide	76		2.524	2.521	(0.524)		1008372	38.0818	38.08
20 trans-1,2-Dichloroethene	96		3.064	3.065	(0.636)		208139	20.6654	20.66
21 Vinyl Acetate	43		3.612	3.612	(0.750)		915218	34.8168	34.81
22 1,1-Dichloroethane	63		3.522	3.518	(0.731)		780085	43.5675	43.56
24 2-Butanone	43		4.271	4.268	(0.886)		152514	35.3376	35.33
26 2,2-Dichloropropane	77		4.189	4.185	(0.869)		183574	19.9141	19.91



27 cis-1,2-Dichloroethene	96	4.200	4.200 (0.872)	246666	20.8343	20.83
28 Chloroform	83	4.579	4.575 (0.950)	390061	20.4024	20.40

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111714.D Page 2
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Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.474	4.474	(0.928)	117260	18.5558	18.55	
\$ 30 Dibromofluoromethane	113	4.755	4.751	(0.987)	501632	46.9822	46.98	
31 1,1,1-Trichloroethane	97	4.747	4.748	(0.985)	294620	22.9119	22.91	
32 1,1-Dichloropropene	75	4.927	4.924	(0.887)	278799	25.3347	25.33	
33 1,2-Dichloroethane	62	5.182	5.179	(0.933)	761511	54.5910	54.59	
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	214412	30.0033	30.00	
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	546562	45.0767	45.07	
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1587752	50.0000		
37 Benzene	78	5.145	5.141	(0.926)	839146	22.4360	22.43	
38 Trichloroethene	130	5.793	5.790	(1.042)	260996	25.5039	25.50	
39 Bromodichloromethane	83	6.281	6.281	(1.130)	238226	20.8361	20.83	
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	207347	21.7982	21.79	
44 Dibromomethane	93	6.123	6.123	(1.102)	140904	20.5549	20.55	
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.837)	344850	41.3146	41.31	
46 cis-1,3-Dichloropropene	75	6.697	6.693	(1.205)	248437	18.0075	18.00	
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1420702	50.0000		
\$ 48 Toluene-d8	98	6.925	6.926	(0.846)	1826299	54.0373	54.03	
50 Toluene	91	6.985	6.982	(0.853)	909263	24.1117	24.11	
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	186606	16.8255	16.82	
52 2-Hexanone	43	7.596	7.597	(0.928)	226221	37.2857	37.28	
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	204814	25.2130	25.21	
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	362855	21.8554	21.85	
55 Dibromochloromethane	129	7.694	7.694	(0.940)	189023	18.6637	18.66	
56 Tetrachloroethene	164	7.462	7.458	(0.911)	210011	25.6273	25.62	
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	217880	21.8850	21.88	
58 1-Chlorohexane	55	8.200	8.200	(1.476)	173177	25.2644	25.26	
59 Chlorobenzene	112	8.211	8.212	(1.003)	610500	22.6250	22.62	
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	193785	21.9532	21.95	
61 Ethylbenzene	106	8.309	8.309	(1.015)	301394	24.2371	24.23	
62 m,p-Xylenes	106	8.410	8.410	(1.027)	741091	47.8178	47.81	
63 o-Xylene	106	8.751	8.751	(1.069)	360622	23.5600	23.55	
64 Styrene	104	8.762	8.763	(1.070)	511928	19.6517	19.65	
66 Bromoform	173	8.923	8.920	(1.090)	111623	17.0457	17.04	
67 Isopropylbenzene	105	9.066	9.066	(1.107)	914084	25.9050	25.90	
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	288820	21.1046	21.10	
\$ 69 4-Bromofluorobenzene	95	9.197	9.194	(1.123)	648595	51.8370	51.83	
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	688360	50.0000		
71 1,2,3-Trichloropropane	75	9.362	9.366	(0.920)	242086	20.4955	20.49	
73 n-Propylbenzene	91	9.415	9.415	(0.926)	963541	25.9844	25.98	
74 Bromobenzene	156	9.321	9.321	(0.916)	249854	22.9054	22.90	
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	714562	26.0286	26.02	
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	648150	24.8516	24.85	
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	708285	24.2839	24.28	
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	632763	26.2866	26.28	
79 1,2,4-Trimethylbenzene	105	9.879	9.880	(0.971)	720067	24.9438	24.94	
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	814080	25.3233	25.32	
82 p-Isopropyltoluene	119	10.149	10.150	(0.998)	678119	25.7411	25.74	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	440840	23.5810	23.58	
84 1,4-Dichlorobenzene	146	10.194	10.195	(1.002)	449169	21.8314	21.83	
87 n-Butylbenzene	91	10.494	10.494	(1.032)	585682	26.1060	26.10	
88 1,2-Dichlorobenzene	146	10.509	10.506	(1.033)	436864	22.0805	22.08	
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	31340	16.9281	16.92	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	233362	21.5656	21.56
91 Hexachlorobutadiene	225	12.001	11.998 (1.180)	124638	30.1140	30.11

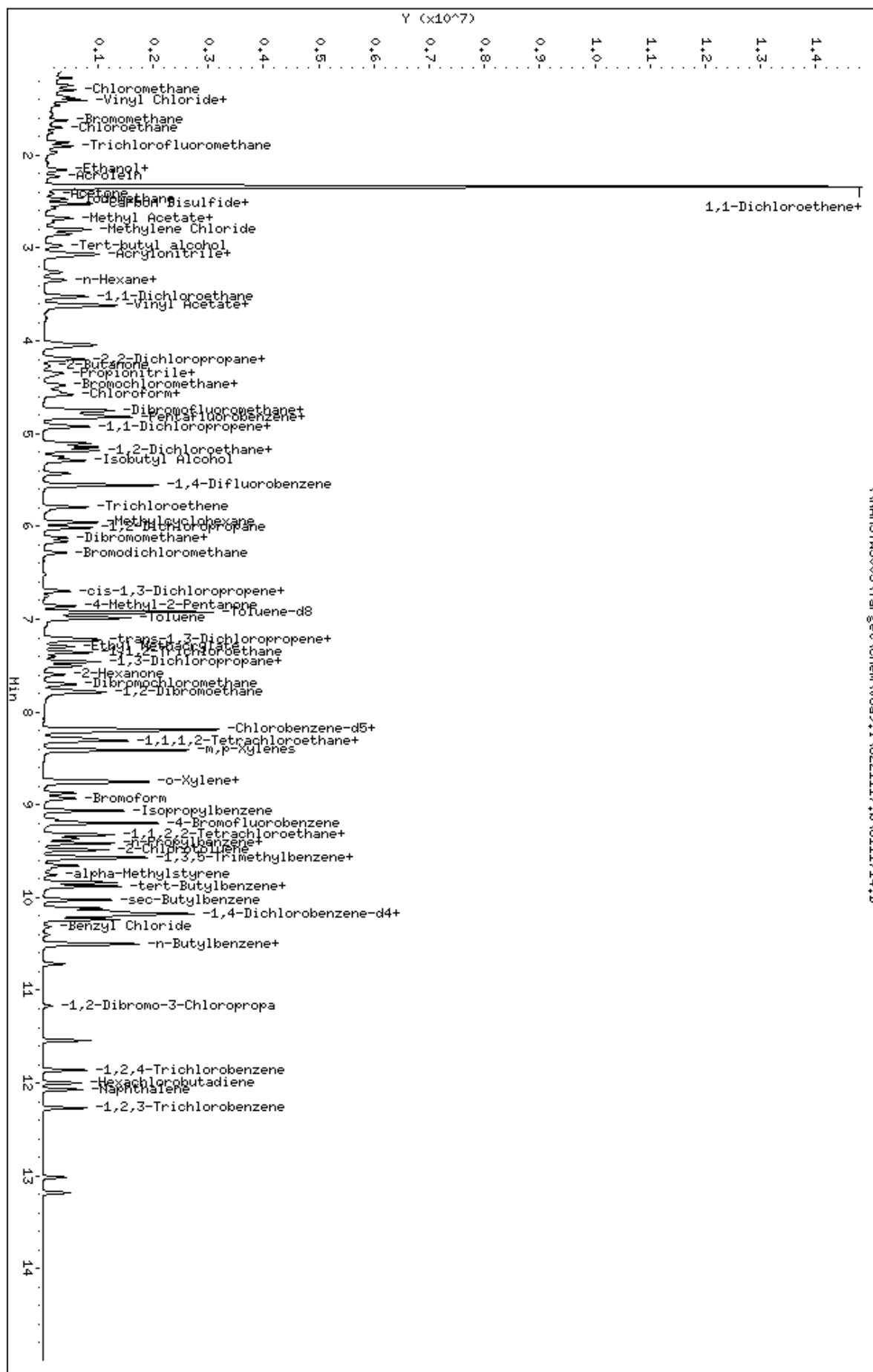
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Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	538124	19.9286	19.92
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	228852	21.3310	21.33
M 94 1,2-Dichloroethylene (total)	96				454805	41.4997	41.49
M 95 Xylenes (total)	106				1101713	71.3778	71.37
135 1,4-Dioxane	88	6.172	6.168	(1.281)	64190	396.000	395.99
141 Cyclohexane	56	4.789	4.789	(0.994)	297053	32.6132	32.61
138 Freon TF	101	2.341	2.337	(0.486)	206957	31.5709	31.57
140 1,3-Butadiene	54	1.407	1.404	(0.292)	161174	20.0978	20.09
147 Methylcyclohexane	55	5.951	5.951	(1.071)	462418	20.6555	20.65
146 Methyl Acetate	43	2.719	2.716	(0.564)	142317	16.2955	16.29
148 Tert-Butyl alcohol	59	2.974	2.971	(0.617)	331312	320.927	320.92
149 Isopropyl Alcohol	45	2.569	2.566	(0.533)	214018	314.568	314.56
72 trans-1,4-Dichloro-2-butene	53	9.377	9.381	(1.145)	29533	16.5869	16.58
12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	368685	320.570	320.57
13 Acetonitrile	39	2.678	2.675	(0.556)	162500	149.833	149.83
14 Allyl Chloride	41	2.678	2.675	(0.556)	369003	14.8676	14.86
25 Methacrylonitrile	41	4.504	4.500	(0.935)	98251	15.5687	15.56
40 Methyl Methacrylate	41	6.161	6.161	(1.278)	152631	16.0822	16.08
4 Propionitrile	54	4.346	4.343	(0.902)	268550	157.293	157.29(a)
131 Methyl Acrylate	55	4.376	4.373	(0.908)	218382	16.0787	16.07
49 Ethyl Methacrylate	69	7.293	7.293	(1.312)	281604	19.0769	19.07

QC Flag Legend

- a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
- A - Target compound detected but, quantitated amount
exceeded maximum amount.





Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U11714.D
 Date: 17-Nov-2022 14:58
 Client ID: HS22110582-05HSD
 Sample Info: HS22110582-05HSD;HS22110582-05HSD;3;HSD
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W009.i
 Operator: PC
 Column diameter: 0.18

Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111714.D
Inj Date : 17-NOV-2022 14:58
InstruID : VOA9.i
LabSampID : HS22110582-05MSD

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111715.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111715.D
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 Inj Date : 17-NOV-2022 15:20
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110859-03MS;HS22110859-03MS;3;;MS
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 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 13 QC Sample: MS
 Dil Factor: 500.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	500.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG				CONCENTRATIONS	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	1074664	50.0000	
2 Dichlorodifluoromethane	85	1.168	1.164	(0.242)	159762	19.6320	9815.97
3 Chloromethane	50	1.299	1.295	(0.270)	224141	19.0439	9521.96
5 Vinyl Chloride	62	1.381	1.378	(0.287)	221942	20.2480	10123.98
6 Bromomethane	94	1.625	1.621	(0.337)	151600	19.4144	9707.19
7 Chloroethane	64	1.704	1.700	(0.354)	157118	19.6207	9810.33
8 Trichlorofluoromethane	101	1.902	1.899	(0.395)	318687	22.3617	11180.86
9 Acrolein	56	2.270	2.266	(0.471)	21067	28.0749	14037.46
10 Acetone	43	2.416	2.409	(0.501)	134753	25.5447	12772.35
11 1,1-Dichloroethene	96	2.337	2.337	(0.485)	198422	21.6497	10824.83
15 Iodomethane	142	2.472	2.469	(0.513)	392708	40.4419	20220.92
16 Acrylonitrile	53	3.072	3.068	(0.638)	143790	28.8087	14404.33
17 Methylene Chloride	84	2.798	2.798	(0.581)	240901	19.4136	9706.80
18 Methyl tert-butyl ether	73	3.087	3.083	(0.641)	430196	13.9287	6964.34
19 Carbon Disulfide	76	2.525	2.521	(0.524)	1023283	38.3797	19189.84
20 trans-1,2-Dichloroethene	96	3.064	3.065	(0.636)	206815	20.3930	10196.51
21 Vinyl Acetate	43	3.615	3.612	(0.750)	975112	36.8407	18420.36
22 1,1-Dichloroethane	63	3.522	3.518	(0.731)	348494	19.3297	9664.86
24 2-Butanone	43	4.271	4.268	(0.886)	165011	37.9708	18985.37
26 2,2-Dichloropropane	77	4.189	4.185	(0.869)	187767	20.2081	10104.06



27 cis-1,2-Dichloroethene	96	4.204	4.200 (0.872)	239395	20.0814	10040.70
28 Chloroform	83	4.579	4.575 (0.950)	385378	20.0191	10009.55

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111715.D Page 2
 Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.478	4.474	(0.929)	118731	18.6596	9329.82
\$ 30 Dibromofluoromethane	113	4.755	4.751	(0.987)	504525	46.9285	46.92
31 1,1,1-Trichloroethane	97	4.748	4.748	(0.985)	296703	22.9156	11457.78
32 1,1-Dichloropropene	75	4.927	4.924	(0.887)	285716	25.6100	12805.02
33 1,2-Dichloroethane	62	5.182	5.179	(0.933)	293358	20.7441	10372.02
34 Carbon Tetrachloride	117	4.916	4.916	(0.885)	216391	29.8798	14939.88
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.059)	549902	45.0404	45.04
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1609651	50.0000	
37 Benzene	78	5.145	5.141	(0.926)	833012	21.9690	10984.51
38 Trichloroethene	130	5.793	5.790	(1.042)	845012	81.4491	40724.56
39 Bromodichloromethane	83	6.285	6.281	(1.131)	242944	20.9597	10479.85
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	210713	21.8507	10925.35
44 Dibromomethane	93	6.123	6.123	(1.102)	141874	20.4148	10207.42
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.837)	329569	39.7861	19893.03
46 cis-1,3-Dichloropropene	75	6.697	6.693	(1.205)	257825	18.3671	9183.57
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1409910	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1840405	54.8714	54.87
50 Toluene	91	6.986	6.982	(0.853)	927535	24.7845	12392.25
51 trans-1,3-Dichloropropene	75	7.199	7.199	(1.295)	192438	17.0563	8528.17
52 2-Hexanone	43	7.597	7.597	(0.928)	221829	36.8577	18428.86
53 1,1,2-Trichloroethane	83	7.357	7.357	(0.898)	175028	21.7112	10855.60
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	360909	21.9046	10952.29
55 Dibromochloromethane	129	7.694	7.694	(0.940)	191171	18.9925	9496.27
56 Tetrachloroethene	164	7.462	7.458	(0.911)	381931	46.9632	23481.58
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	212049	21.4624	10731.18
58 1-Chlorohexane	55	8.200	8.200	(1.476)	175636	25.2737	12636.86
59 Chlorobenzene	112	8.211	8.212	(1.003)	602885	22.5138	11256.91
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	198139	22.6182	11309.11
61 Ethylbenzene	106	8.309	8.309	(1.015)	301873	24.4614	12230.69
62 m,p-Xylenes	106	8.410	8.410	(1.027)	743370	48.3320	24166.01
63 o-Xylene	106	8.751	8.751	(1.069)	362445	23.8603	11930.16
64 Styrene	104	8.762	8.763	(1.070)	545739	21.0190	10509.49
66 Bromoform	173	8.924	8.920	(1.090)	112587	17.2868	8643.39
67 Isopropylbenzene	105	9.066	9.066	(1.107)	927268	26.4798	13239.89
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	293553	21.1165	10558.25
\$ 69 4-Bromofluorobenzene	95	9.197	9.194	(1.123)	643308	51.8081	51.80
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	699245	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	236425	19.7047	9852.33
73 n-Propylbenzene	91	9.415	9.415	(0.926)	966328	25.6539	12826.96
74 Bromobenzene	156	9.321	9.321	(0.916)	253809	22.9058	11452.90
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	720921	25.8514	12925.70
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	656608	24.7839	12391.97
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	720590	24.3212	12160.59
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	631789	25.8376	12918.78
79 1,2,4-Trimethylbenzene	105	9.879	9.880	(0.971)	728334	24.8374	12418.69
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	810718	24.8607	12430.34
82 p-Isopropyltoluene	119	10.149	10.150	(0.998)	693244	25.9056	12952.81
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	442036	23.2769	11638.44
84 1,4-Dichlorobenzene	146	10.194	10.195	(1.002)	458457	21.9360	10967.98
87 n-Butylbenzene	91	10.494	10.494	(1.032)	583638	25.6523	12826.12
88 1,2-Dichlorobenzene	146	10.506	10.506	(1.033)	442890	22.0366	11018.29
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	31549	16.7964	8398.19



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	241852	22.0022	11001.12
91 Hexachlorobutadiene	225	12.001	11.998 (1.180)	120705	28.8110	14405.48



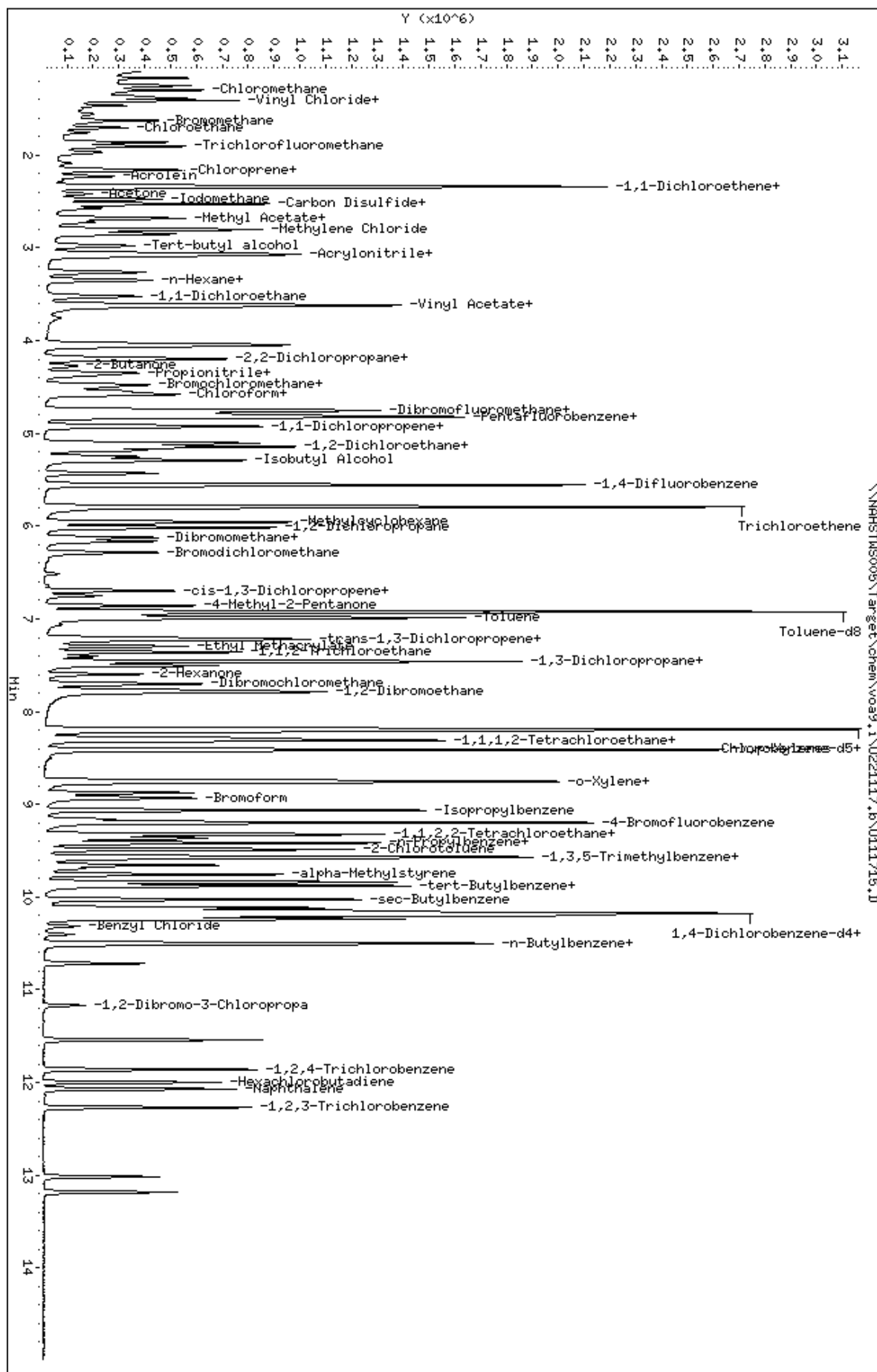
Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111715.D Page 3
 Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	553547	20.1807	10090.34
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	238968	21.9271	10963.57
M 94 1,2-Dichloroethylene (total)	96				446210	40.4744	20237.21
M 95 Xylenes (total)	106				1105815	72.1924	36096.18
135 1,4-Dioxane	88	6.172	6.168	(1.281)	50985	312.377	156188.49
141 Cyclohexane	56	4.789	4.789	(0.994)	295855	32.2879	16143.94
138 Freon TF	101	2.341	2.337	(0.486)	641695	81.2025	40601.24
140 1,3-Butadiene	54	1.407	1.404	(0.292)	170183	20.9906	10495.29
147 Methylcyclohexane	55	5.951	5.951	(1.071)	447344	19.7103	9855.13
146 Methyl Acetate	43	2.720	2.716	(0.564)	143118	16.2748	8137.37
148 Tert-Butyl alcohol	59	2.974	2.971	(0.617)	332049	319.433	159716.65
149 Isopropyl Alcohol	45	2.570	2.566	(0.533)	207291	302.589	151294.58
72 trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	29801	16.7904	8395.20
12 Isobutyl Alcohol	43	5.291	5.291	(1.098)	397691	338.786	169392.96
13 Acetonitrile	39	2.678	2.675	(0.556)	167703	153.569	76784.64
14 Allyl Chloride	41	2.678	2.675	(0.556)	375503	15.0257	7512.83
25 Methacrylonitrile	41	4.504	4.500	(0.935)	97686	15.3729	7686.46
40 Methyl Methacrylate	41	6.161	6.161	(1.278)	156319	16.3577	8178.86
4 Propionitrile	54	4.346	4.343	(0.902)	264862	154.068	77034.08(a)
131 Methyl Acrylate	55	4.376	4.373	(0.908)	211643	15.4756	7737.80
49 Ethyl Methacrylate	69	7.297	7.293	(1.313)	284207	18.9913	9495.64

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).





Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U11715.D
 Date: 17-Nov-2022 15:20
 Client ID: HS22110859-03MS
 Sample Info: HS22110859-03MS\HS22110859-03MS\3;MS
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W0A9.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111715.D
Inj Date : 17-NOV-2022 15:20
InstruID : VOA9.i
LabSampID : HS22110859-03MS

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111716.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111716.D
 Lab Smp Id: HS22110859-03MSD Client Smp ID: HS22110859-03MSD
 Inj Date : 17-NOV-2022 15:42
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110859-03MSD;HS22110859-03MSD;3;;MSD
 Misc Info : 180315V9;WATER;0;500;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 13 QC Sample: MSD
 Dil Factor: 500.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	500.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
* 1	Pentafluorobenzene	168	4.823	4.819	(1.000)	1076907	50.0000		
2	Dichlorodifluoromethane	85	1.171	1.164	(0.243)	152742	18.7750	9387.48	
3	Chloromethane	50	1.306	1.295	(0.271)	209975	17.8194	8909.69	
5	Vinyl Chloride	62	1.385	1.378	(0.287)	213478	19.4352	9717.60	
6	Bromomethane	94	1.629	1.621	(0.338)	142925	18.1993	9099.64	
7	Chloroethane	64	1.707	1.700	(0.354)	154809	19.2921	9646.03	
8	Trichlorofluoromethane	101	1.906	1.899	(0.395)	307798	21.5527	10776.34	
9	Acrolein	56	2.277	2.266	(0.472)	22282	29.5769	14788.44	
10	Acetone	43	2.420	2.409	(0.502)	142806	27.4480	13724.01	
11	1,1-Dichloroethene	96	2.345	2.337	(0.486)	185221	20.1672	10083.61	
15	Iodomethane	142	2.480	2.469	(0.514)	379159	39.1104	19555.19	
16	Acrylonitrile	53	3.076	3.068	(0.638)	146489	29.2883	14644.14	
17	Methylene Chloride	84	2.802	2.798	(0.581)	235672	18.9161	9458.05	
18	Methyl tert-butyl ether	73	3.091	3.083	(0.641)	429610	13.8808	6940.37	
19	Carbon Disulfide	76	2.528	2.521	(0.524)	980781	36.7090	18354.48	
20	trans-1,2-Dichloroethene	96	3.068	3.065	(0.636)	195347	19.2221	9611.04	
21	Vinyl Acetate	43	3.619	3.612	(0.751)	949391	35.7943	17897.13	
22	1,1-Dichloroethane	63	3.526	3.518	(0.731)	336492	18.6251	9312.57	
24	2-Butanone	43	4.275	4.268	(0.887)	168153	38.6132	19306.58	
26	2,2-Dichloropropane	77	4.189	4.185	(0.869)	180920	19.4818	9740.92	



27 cis-1,2-Dichloroethene	96	4.208	4.200 (0.873)	230241	19.2733	9636.65
28 Chloroform	83	4.583	4.575 (0.950)	376070	19.4949	9747.44

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111716.D Page 2
Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS						CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)	
=====	=====	=====	=====	=====	=====	=====	=====	
29 Bromochloromethane	128	4.478	4.474	(0.928)	118815	18.6340	9316.97	
\$ 30 Dibromofluoromethane	113	4.759	4.751	(0.987)	495995	46.0324	46.03	
31 1,1,1-Trichloroethane	97	4.751	4.748	(0.985)	283180	21.8256	10912.79	
32 1,1-Dichloropropene	75	4.931	4.924	(0.887)	270050	24.0447	12022.35	
33 1,2-Dichloroethane	62	5.183	5.179	(0.933)	292522	20.5473	10273.62	
34 Carbon Tetrachloride	117	4.920	4.916	(0.885)	208444	28.6964	14348.17	
\$ 35 1,2-Dichloroethane-d4	65	5.104	5.104	(1.058)	549921	44.9468	44.94	
* 36 1,4-Difluorobenzene	114	5.557	5.557	(1.000)	1620437	50.0000		
37 Benzene	78	5.145	5.141	(0.926)	815019	21.3514	10675.71	
38 Trichloroethene	130	5.794	5.790	(1.042)	812266	77.7717	38885.83	
39 Bromodichloromethane	83	6.285	6.281	(1.131)	232026	19.8845	9942.26	
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	206034	21.2233	10611.64	
44 Dibromomethane	93	6.127	6.123	(1.103)	138941	19.8597	9929.86	
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.837)	337183	40.6917	20345.86	
46 cis-1,3-Dichloropropene	75	6.697	6.693	(1.205)	252092	17.9201	8960.03	
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1410378	50.0000		
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1854361	55.2692	55.26	
50 Toluene	91	6.986	6.982	(0.853)	896946	23.9592	11979.59	
51 trans-1,3-Dichloropropene	75	7.203	7.199	(1.296)	194783	17.1306	8565.31	
52 2-Hexanone	43	7.597	7.597	(0.928)	220829	36.6859	18342.94	
53 1,1,2-Trichloroethane	83	7.360	7.357	(0.899)	169418	21.0084	10504.17	
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	356479	21.6285	10814.26	
55 Dibromochloromethane	129	7.698	7.694	(0.940)	190357	18.9121	9456.02	
56 Tetrachloroethene	164	7.462	7.458	(0.911)	360205	44.2770	22138.49	
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	211238	21.3732	10686.59	
58 1-Chlorohexane	55	8.200	8.200	(1.476)	170753	24.4734	12236.67	
59 Chlorobenzene	112	8.211	8.212	(1.003)	590285	22.0360	11017.99	
60 1,1,1,2-Tetrachloroethane	131	8.286	8.286	(1.012)	194195	22.1607	11080.33	
61 Ethylbenzene	106	8.309	8.309	(1.015)	294536	23.8589	11929.46	
62 m,p-Xylenes	106	8.410	8.410	(1.027)	728252	47.3334	23666.69	
63 o-Xylene	106	8.751	8.751	(1.069)	348485	22.9337	11466.85	
64 Styrene	104	8.762	8.763	(1.070)	536674	20.6838	10341.88	
66 Bromoform	173	8.924	8.920	(1.090)	113298	17.3764	8688.19	
67 Isopropylbenzene	105	9.066	9.066	(1.107)	893265	25.5003	12750.15	
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	294781	21.3453	10672.65	
\$ 69 4-Bromofluorobenzene	95	9.197	9.194	(1.123)	642505	51.7266	51.72	
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	694644	50.0000		
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	244724	20.5314	10265.71	
73 n-Propylbenzene	91	9.415	9.415	(0.926)	951962	25.4399	12719.97	
74 Bromobenzene	156	9.321	9.321	(0.916)	245091	22.2655	11132.76	
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	697000	25.1592	12579.58	
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	641789	24.3851	12192.52	
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	704215	23.9259	11962.96	
78 tert-Butylbenzene	119	9.838	9.838	(0.967)	617249	25.4101	12705.07	
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	724989	24.8871	12443.53	
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	795717	24.5834	12291.69	
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	674517	25.3728	12686.38	
83 1,3-Dichlorobenzene	146	10.116	10.116	(0.994)	425440	22.5514	11275.68	
84 1,4-Dichlorobenzene	146	10.194	10.195	(1.002)	441775	21.2778	10638.88	
87 n-Butylbenzene	91	10.494	10.494	(1.032)	571116	25.3015	12650.73	
88 1,2-Dichlorobenzene	146	10.509	10.506	(1.033)	422630	21.1678	10583.90	
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	31937	17.0720	8535.98	



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	239855	21.9651	10982.54
91 Hexachlorobutadiene	225	12.001	11.998 (1.180)	115943	27.9270	13963.51



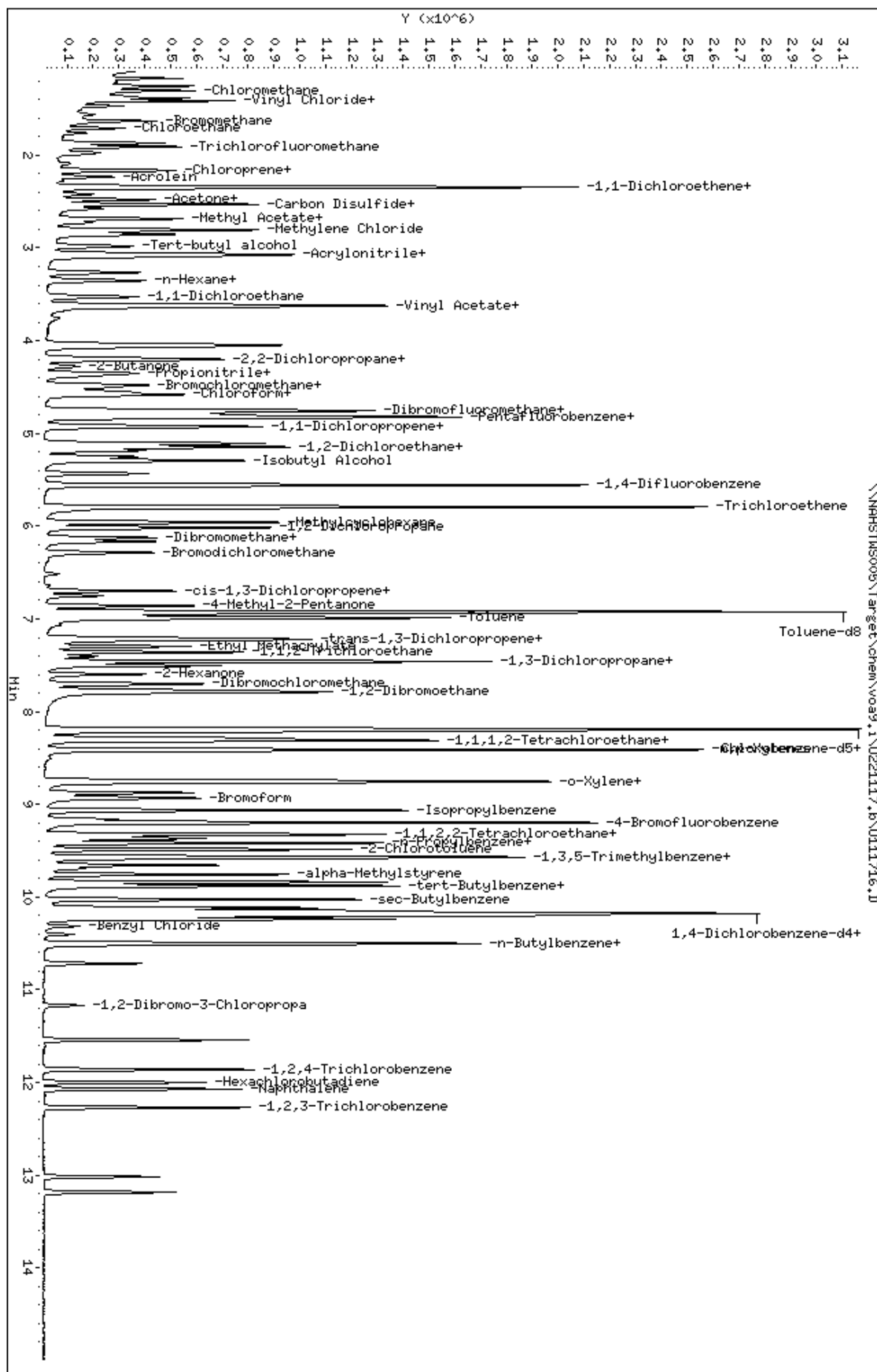
Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111716.D Page 3
 Report Date: 18-Nov-2022 17:58

Compounds	QUANT SIG MASS					CONCENTRATIONS	
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	562215	20.6325	10316.23
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	237945	21.9779	10988.94
M 94 1,2-Dichloroethylene (total)	96				425588	38.4954	19247.70
M 95 Xylenes (total)	106				1076737	70.2671	35133.55
135 1,4-Dioxane	88	6.172	6.168	(1.280)	50118	306.425	153212.72
141 Cyclohexane	56	4.793	4.789	(0.994)	282082	30.8426	15421.30
138 Freon TF	101	2.345	2.337	(0.486)	603342	77.5975	38798.76
140 1,3-Butadiene	54	1.411	1.404	(0.293)	167662	20.6660	10333.01
147 Methylcyclohexane	55	5.955	5.951	(1.071)	436819	19.1184	9559.21
146 Methyl Acetate	43	2.727	2.716	(0.566)	141818	16.0933	8046.66
148 Tert-Butyl alcohol	59	2.978	2.971	(0.618)	333693	320.346	160173.12
149 Isopropyl Alcohol	45	2.577	2.566	(0.534)	207652	302.485	151242.39
72 trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	30329	17.0045	8502.24
12 Isobutyl Alcohol	43	5.291	5.291	(1.097)	371528	320.241	160120.52
13 Acetonitrile	39	2.682	2.675	(0.556)	163971	149.839	74919.53
14 Allyl Chloride	41	2.682	2.675	(0.556)	370469	14.7934	7396.68
25 Methacrylonitrile	41	4.508	4.500	(0.935)	106665	16.7510	8375.50
40 Methyl Methacrylate	41	6.161	6.161	(1.277)	157338	16.4301	8215.03
4 Propionitrile	54	4.350	4.343	(0.902)	267104	155.049	77524.35(a)
131 Methyl Acrylate	55	4.380	4.373	(0.908)	214033	15.6178	7808.89
49 Ethyl Methacrylate	69	7.297	7.293	(1.313)	292233	19.3976	9698.81

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).





Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U111716.D
 Date : 17-Nov-2022 15:42
 Client ID: HS22110859-03MSD
 Sample Info: HS22110859-03MSD\HS22110859-03MSD\311MSD
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W099.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111716.D
Inj Date : 17-NOV-2022 15:42
InstruID : VOA9.i
LabSampID : HS22110859-03MSD

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111717.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111717.D
 Lab Smp Id: HS22110582-05 Client Smp ID: HS22110582-05
 Inj Date : 17-NOV-2022 16:05
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110582-05;HS22110582-05;;;
 Misc Info : 180315V9;WATER;0;10;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 14
 Dil Factor: 10.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG						CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN	FINAL
								(ug/l)	(ug/l)
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168		4.823	4.819	(1.000)		1060797	50.0000	
11 1,1-Dichloroethene	96		2.345	2.337	(0.486)		431271	47.6708	476.70
22 1,1-Dichloroethane	63		3.526	3.518	(0.731)		41686	2.34240	23.42(a)
\$ 30 Dibromofluoromethane	113		4.759	4.751	(0.987)		480666	45.2815	45.28
33 1,2-Dichloroethane	62		5.186	5.179	(0.933)		48762	3.44595	34.45(a)
\$ 35 1,2-Dichloroethane-d4	65		5.108	5.104	(1.059)		555557	46.1134	46.11
* 36 1,4-Difluorobenzene	114		5.561	5.557	(1.000)		1610645	50.0000	
* 47 Chlorobenzene-d5	117		8.189	8.189	(1.000)		1383007	50.0000	
\$ 48 Toluene-d8	98		6.926	6.926	(0.846)		1788225	54.3528	54.35
\$ 69 4-Bromofluorobenzene	95		9.198	9.194	(1.123)		584735	48.0205	48.02
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172	(1.000)		609522	50.0000	

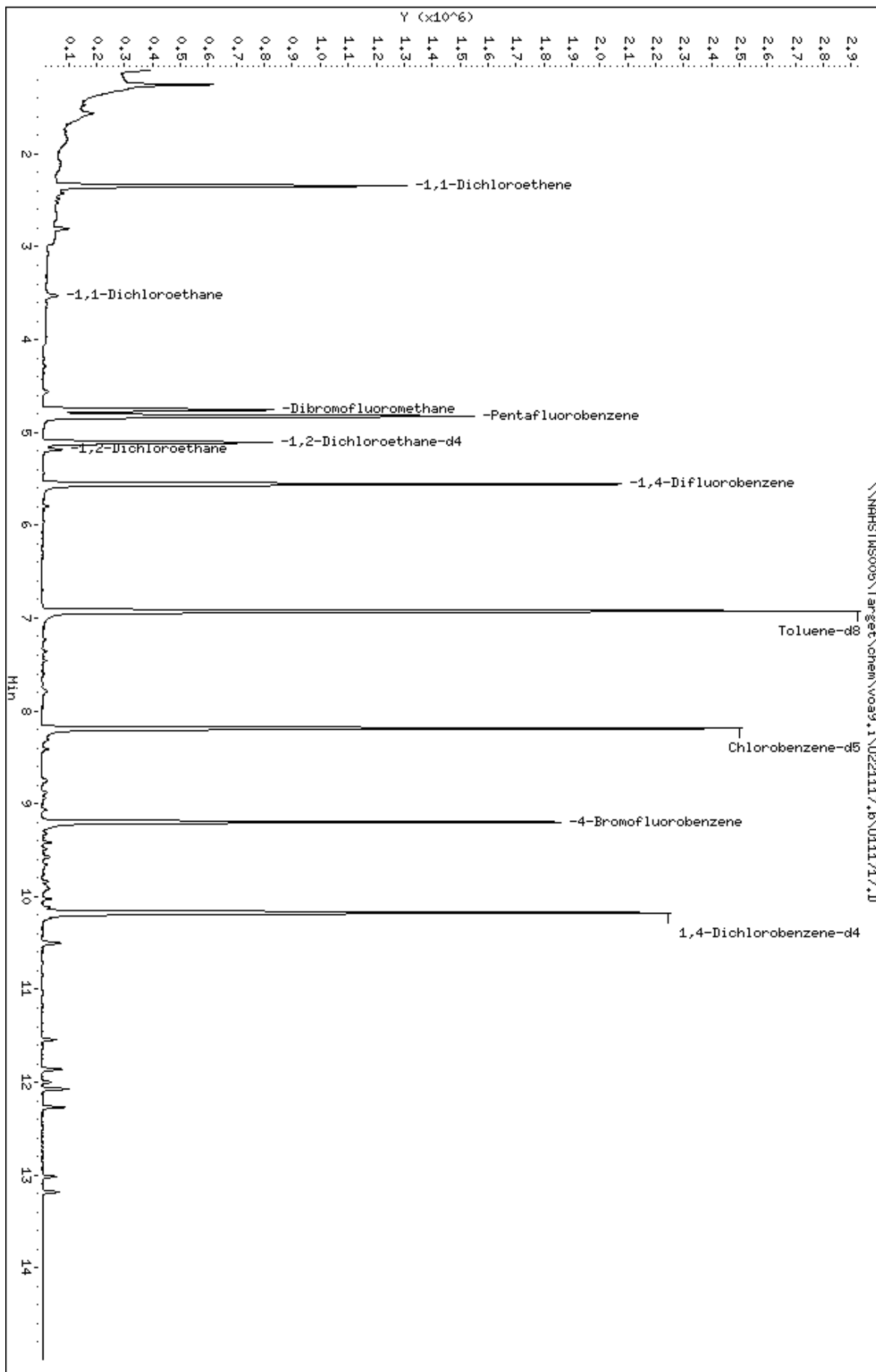
QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\voa9,i\U22117.D
Date : 17-Nov-2022 16:05
Client ID: HS22110582-05
Sample Info: HS22110582-05;HS22110582-05;;
Purge Volume: 5.0
Column phase: DB624

Instrument: VOA9.i
Operator: PC
Column diameter: 0.18



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.D

Page 2

Date : 17-NOV-2022 16:05

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;

Purge Volume: 5.0

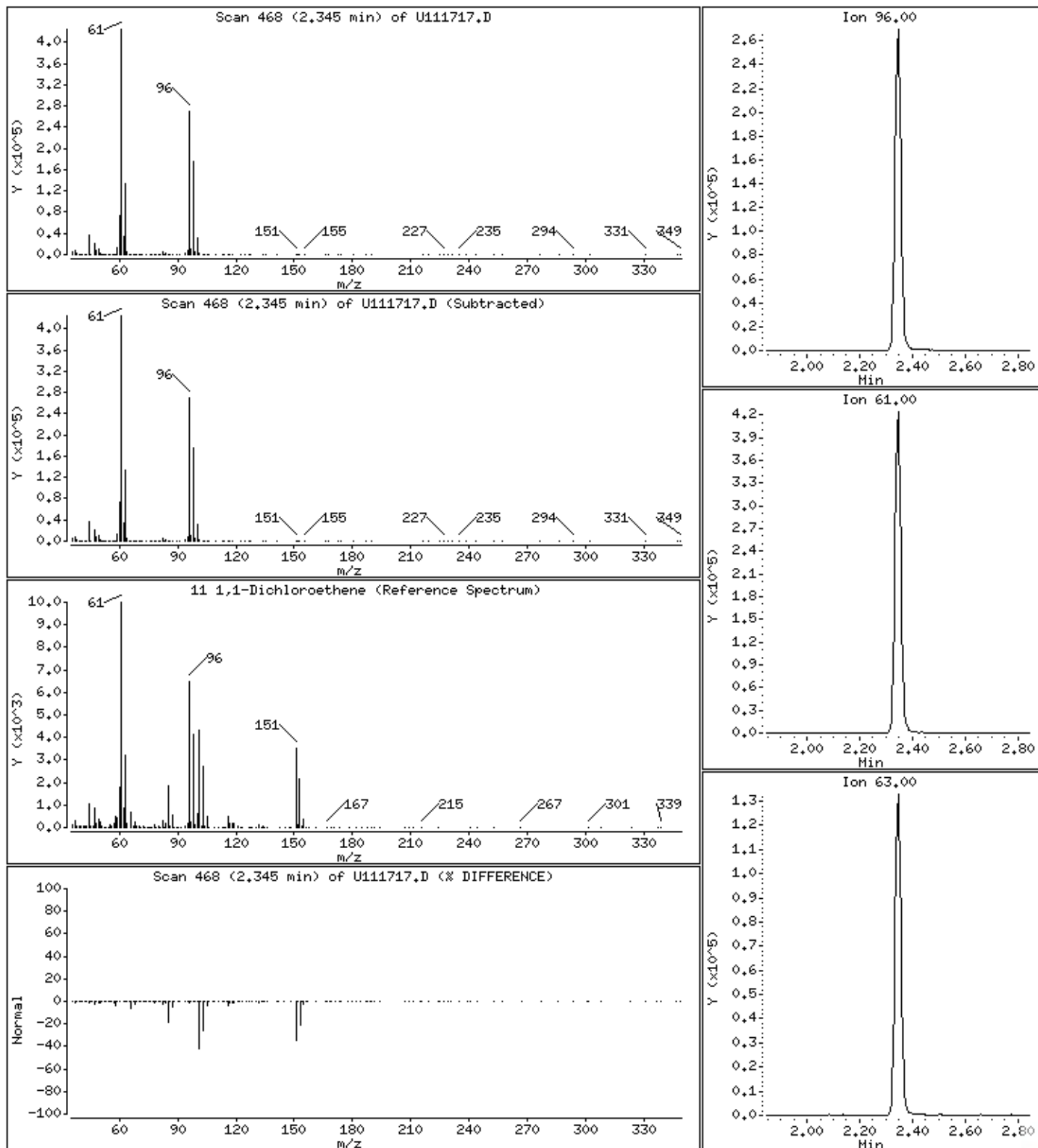
Operator: PC

Column phase: DB624

Column diameter: 0.18

11 1,1-Dichloroethene

Concentration: 476.70 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.D

Page 3

Date : 17-NOV-2022 16:05

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;;

Purge Volume: 5.0

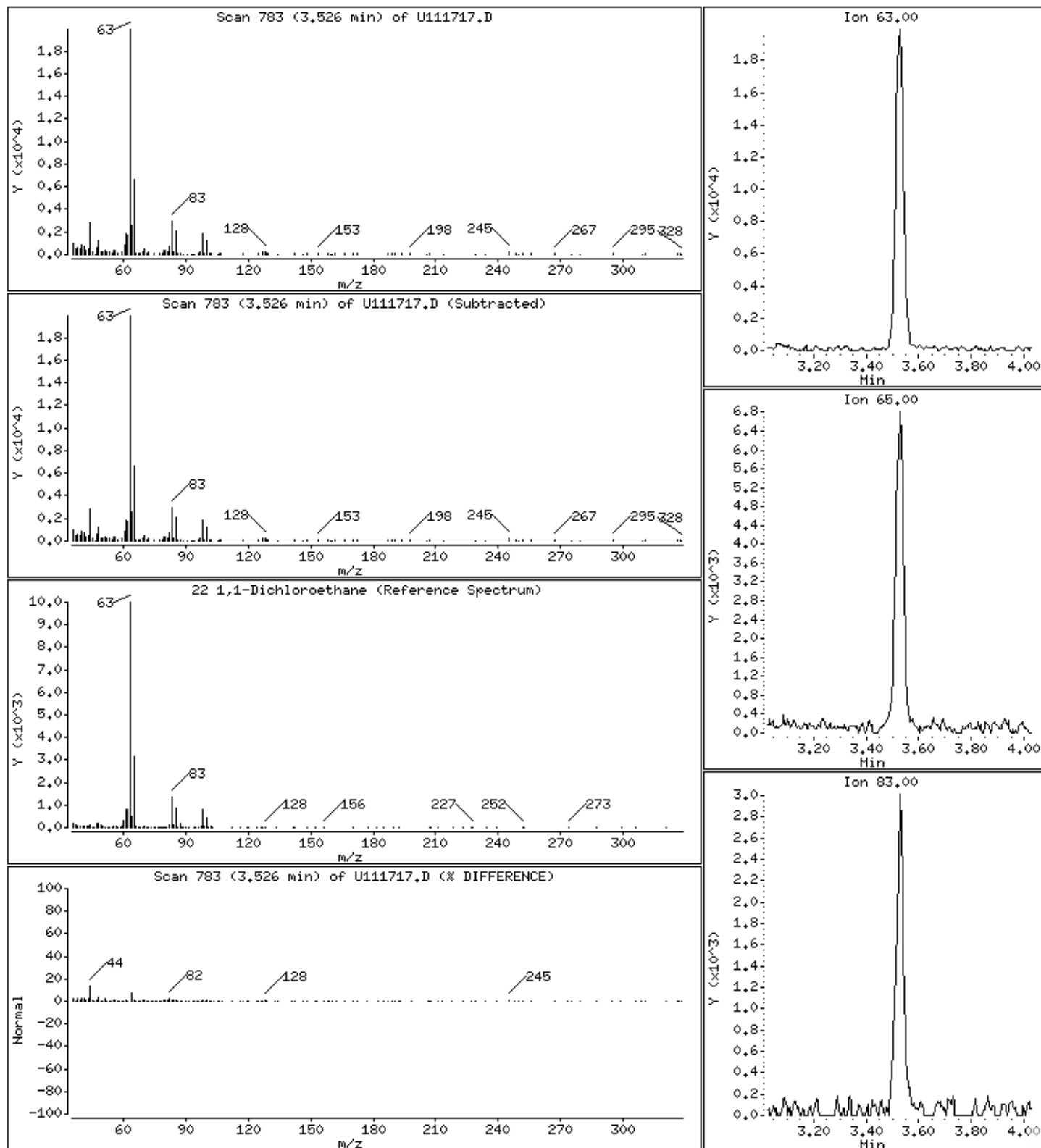
Operator: PC

Column phase: DB624

Column diameter: 0.18

22 1,1-Dichloroethane

Concentration: 23.42 ug/l



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.D\U111717.D

Page 4

Date : 17-NOV-2022 16:05

Client ID: HS22110582-05

Instrument: VOA9.i

Sample Info: HS22110582-05;HS22110582-05;;;

Purge Volume: 5.0

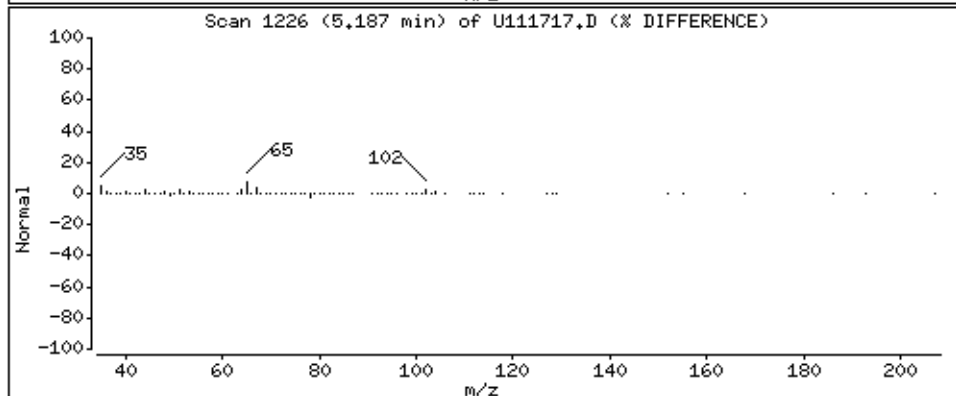
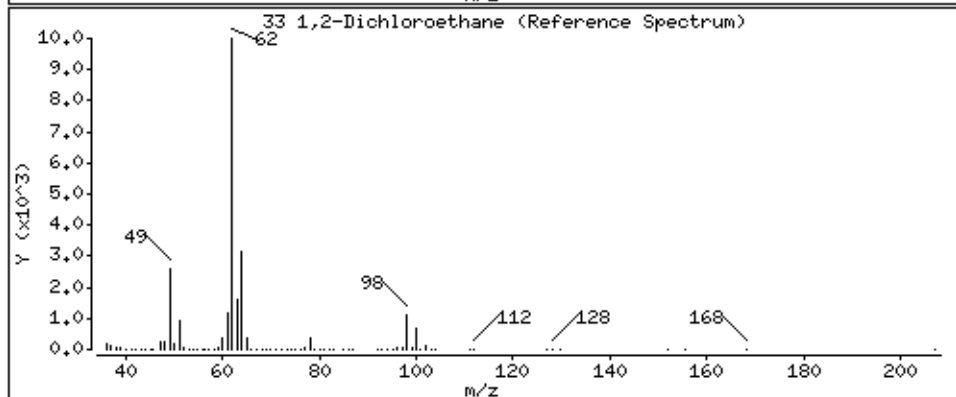
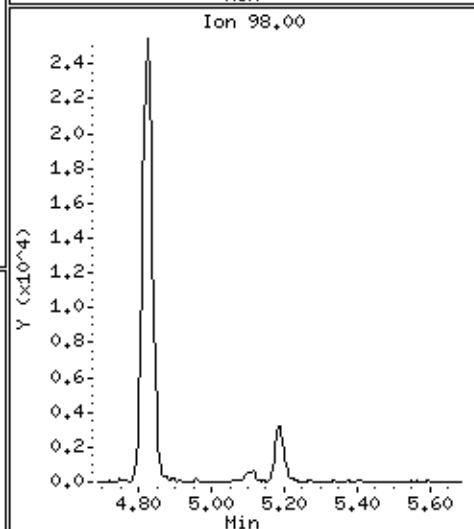
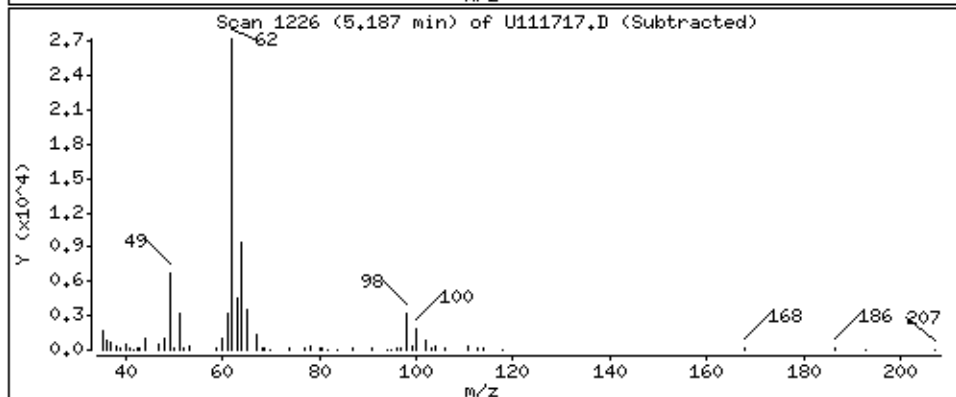
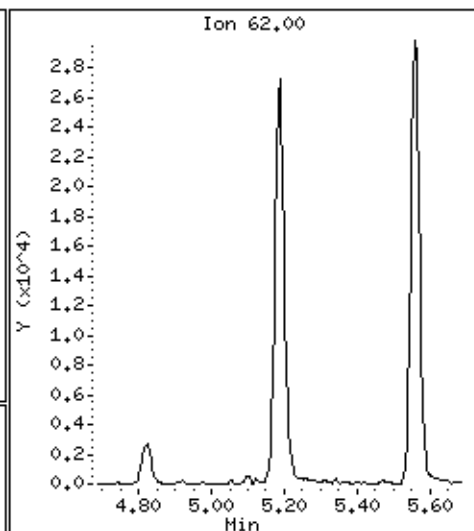
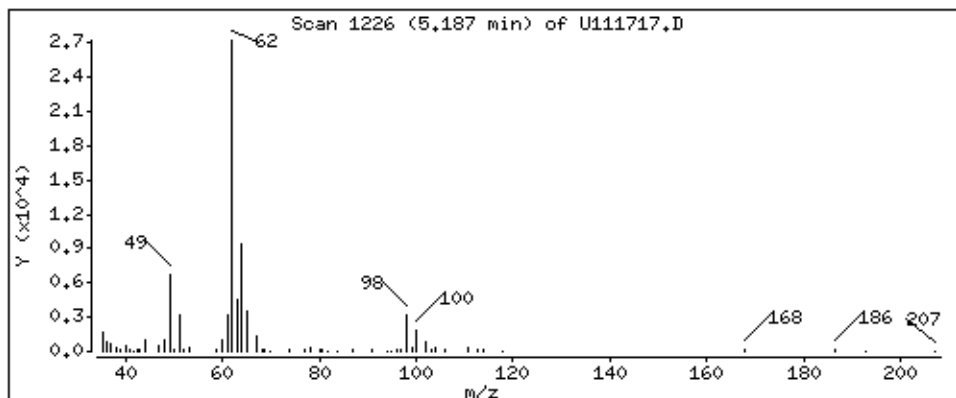
Operator: PC

Column phase: DB624

Column diameter: 0.18

33 1,2-Dichloroethane

Concentration: 34.45 ug/l



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111717.D
Inj Date : 17-NOV-2022 16:05
InstruID : VOA9.i
LabSampID : HS22110582-05

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111718.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111718.D
 Lab Smp Id: HS22110582-06 Client Smp ID: HS22110582-06
 Inj Date : 17-NOV-2022 16:27
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110582-06;HS22110582-06;;;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 15
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168	4.819	4.819	(1.000)	1028484	50.0000	
\$ 30 Dibromofluoromethane	113	4.752	4.751	(0.986)	472472	45.9129	45.91
\$ 35 1,2-Dichloroethane-d4	65	5.100	5.104	(1.058)	545423	46.7027	46.70
* 36 1,4-Difluorobenzene	114	5.554	5.557	(1.000)	1550063	50.0000	
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1321580	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1733329	55.1330	55.13
\$ 69 4-Bromofluorobenzene	95	9.194	9.194	(1.123)	560111	48.1359	48.13
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	575742	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U11718.D

Date : 17-NOV-2022 16:27

Client ID: HS22110582-06

Sample Info: HS22110582-06;HS22110582-06;??

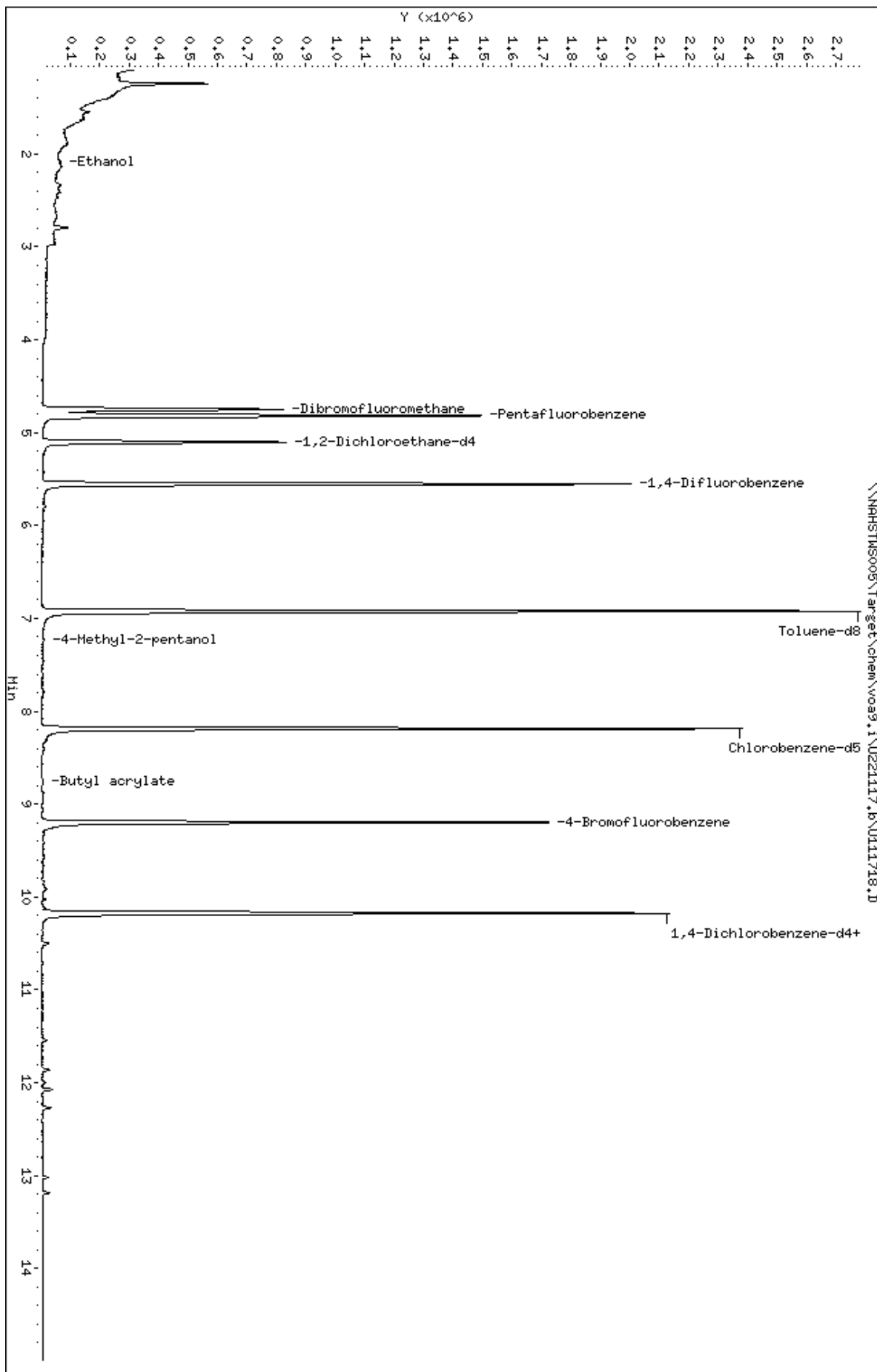
Purge Volume: 5.0

Column phase: DB624

Instrument: W049.i

Operator: PC

Column diameter: 0.18



Page 1

Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111718.D
Inj Date : 17-NOV-2022 16:27
InstruID : VOA9.i
LabSampID : HS22110582-06

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111721.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111721.D
 Lab Smp Id: HS22110582-01 Client Smp ID: HS22110582-01
 Inj Date : 17-NOV-2022 17:34
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110582-01;HS22110582-01;;;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 18
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168		4.822	4.819	(1.000)	1037369	50.0000	
\$ 30 Dibromofluoromethane	113		4.755	4.751	(0.986)	474339	45.6979	45.69
\$ 35 1,2-Dichloroethane-d4	65		5.104	5.104	(1.058)	549368	46.6367	46.63
* 36 1,4-Difluorobenzene	114		5.557	5.557	(1.000)	1557073	50.0000	
* 47 Chlorobenzene-d5	117		8.189	8.189	(1.000)	1341932	50.0000	
\$ 48 Toluene-d8	98		6.926	6.926	(0.846)	1729237	54.1687	54.16
\$ 69 4-Bromofluorobenzene	95		9.197	9.194	(1.123)	552521	46.7687	46.76
* 70 1,4-Dichlorobenzene-d4	152		10.176	10.172	(1.000)	586906	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U11721.D

Date: 17-Nov-2022 17:34

Client ID: HS22110582-01

Sample Info: HS22110582-01;HS22110582-01;;

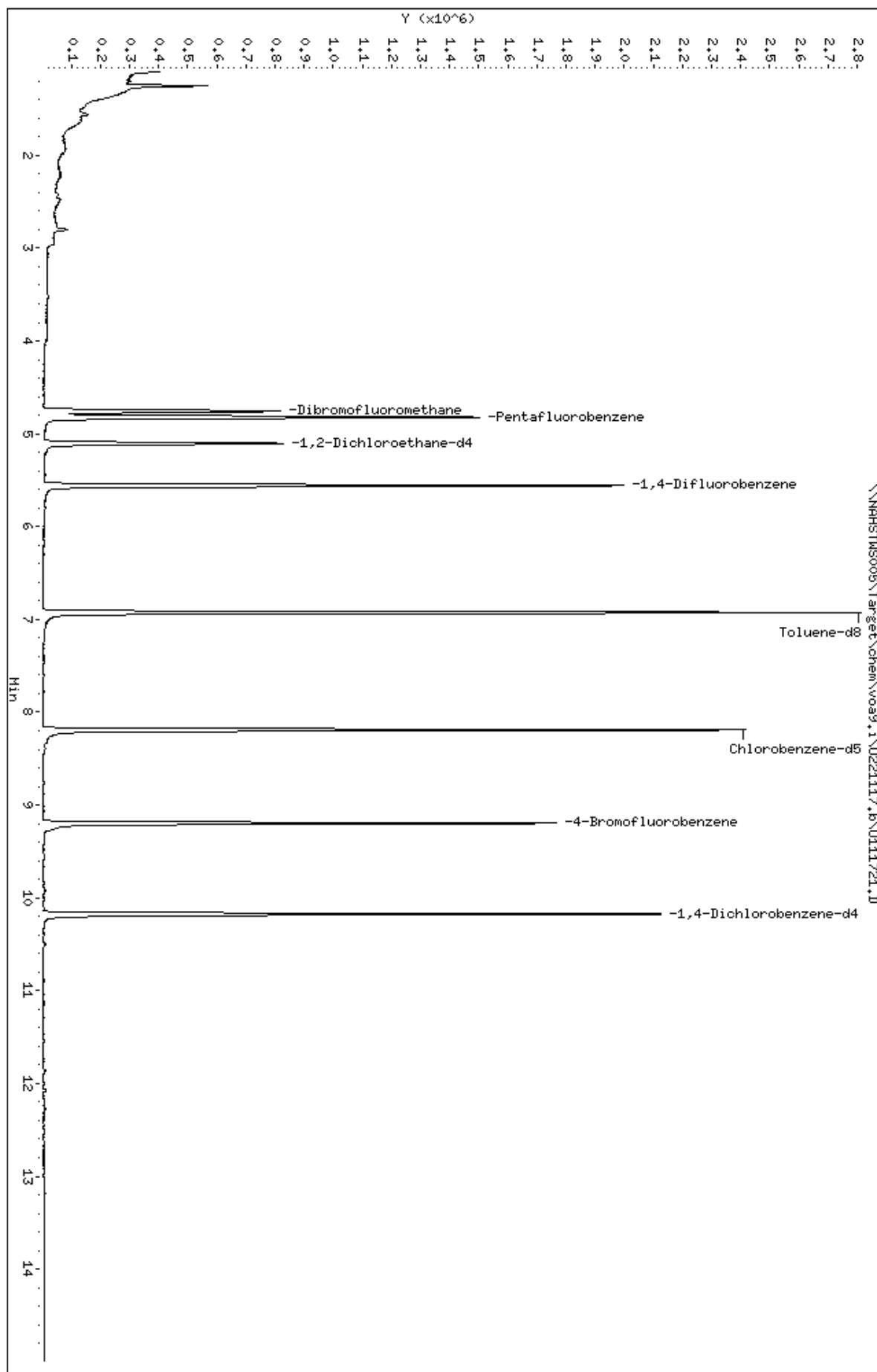
Purge Volume: 5.0

Column phase: DB624

Instrument: W099.i

Operator: PC

Column diameter: 0.18



Page 1

Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111721.D
Inj Date : 17-NOV-2022 17:34
InstruID : VOA9.i
LabSampID : HS22110582-01

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111722.D Page 1
 Report Date: 18-Nov-2022 17:58

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111722.D
 Lab Smp Id: HS22110582-02 Client Smp ID: HS22110582-02
 Inj Date : 17-NOV-2022 17:56
 Operator : PC Inst ID: VOA9.i
 Smp Info : HS22110582-02;HS22110582-02;;;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:58 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 19
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG						CONCENTRATIONS	
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/l)	FINAL (ug/l)
* 1 Pentafluorobenzene	168		4.815	4.819 (1.000)		1018338	50.0000	
\$ 30 Dibromofluoromethane	113		4.752	4.751 (0.987)		468209	45.9522	45.95
\$ 35 1,2-Dichloroethane-d4	65		5.100	5.104 (1.059)		540112	46.7088	46.70
* 36 1,4-Difluorobenzene	114		5.554	5.557 (1.000)		1523507	50.0000	
* 47 Chlorobenzene-d5	117		8.189	8.189 (1.000)		1328306	50.0000	
\$ 48 Toluene-d8	98		6.926	6.926 (0.846)		1693058	53.5794	53.57
\$ 69 4-Bromofluorobenzene	95		9.198	9.194 (1.123)		542718	46.4115	46.41
* 70 1,4-Dichlorobenzene-d4	152		10.172	10.172 (1.000)		577863	50.0000	



Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.P\U11722.D

Date : 17-NOV-2022 17:56

Client ID: HS22110582-02

Sample Info: HS22110582-02;HS22110582-02;;

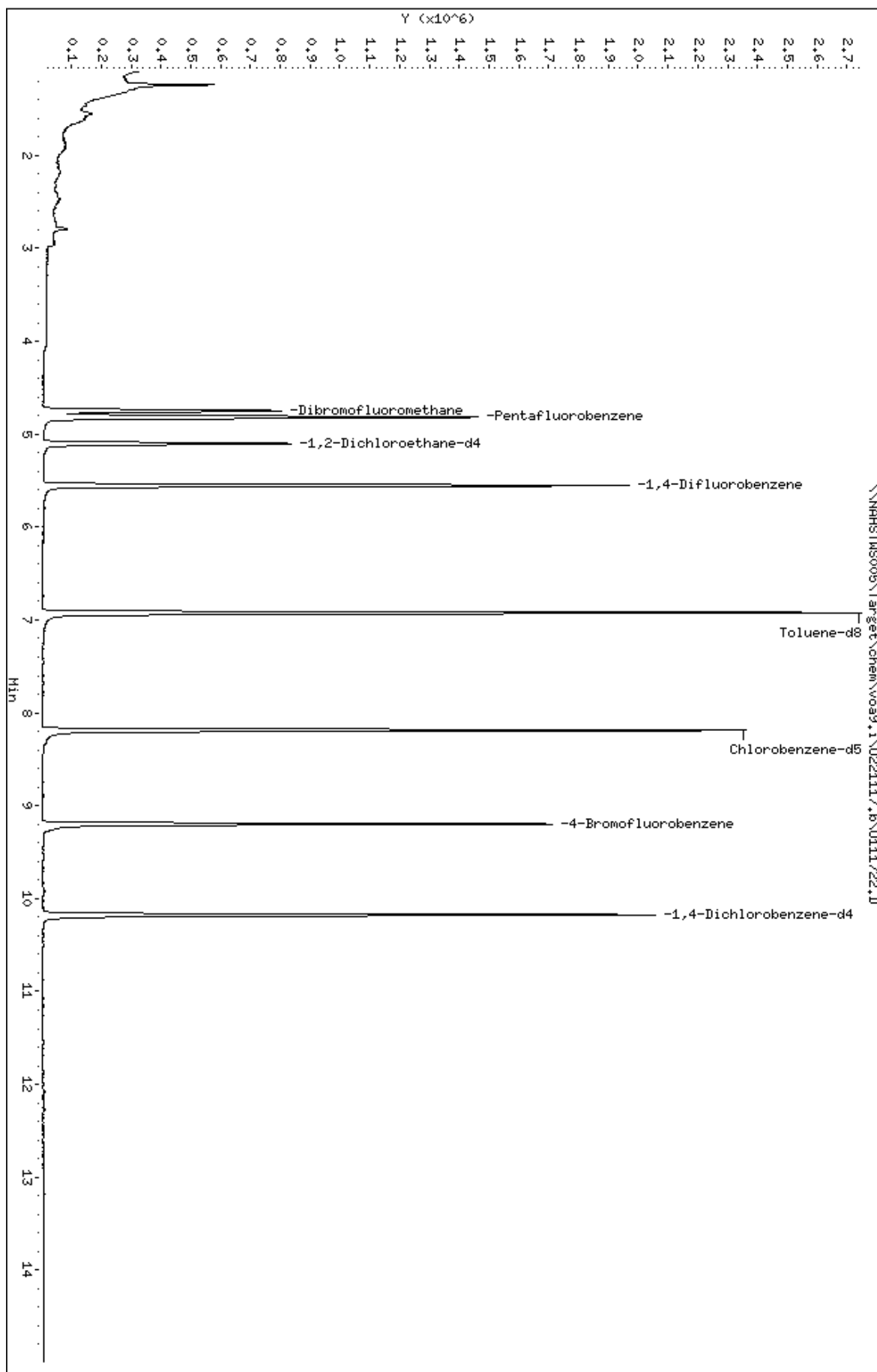
Purge Volume: 5.0

Column phase: DB624

Instrument: VDA9.i

Operator: PC

Column diameter: 0.18



Page 1



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111722.D
Inj Date : 17-NOV-2022 17:56
InstruID : VOA9.i
LabSampID : HS22110582-02

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111732.D Page 1
 Report Date: 18-Nov-2022 17:59

ALS Laboratory Group

Data file : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111732.D
 Lab Smp Id: CCV-END Client Smp ID: CCV-END
 Inj Date : 17-NOV-2022 21:39
 Operator : PC Inst ID: VOA9.i
 Smp Info : CCV-END;CCV-END;2;;;;
 Misc Info : 180315V9;WATER;0;1;
 Comment :
 Method : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\8260C.m
 Meth Date : 18-Nov-2022 17:59 VOA9.i Quant Type: ISTD
 Cal Date : 11-NOV-2022 14:31 Cal File: U111108.D
 Als bottle: 29 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: 8260_GB.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * (Uf/Vo)*1 * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	sample purged
Cpnd Variable		Local Compound Variable

		QUANT SIG				AMOUNTS	
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
* 1 Pentafluorobenzene	168	4.823	4.823	(1.000)	879993	50.0000	
2 Dichlorodifluoromethane	85	1.172	1.172	(0.243)	358549	50.0000	49.74
3 Chloromethane	50	1.307	1.307	(0.271)	452179	50.0000	46.55
5 Vinyl Chloride	62	1.385	1.385	(0.287)	425266	50.0000	47.38
6 Bromomethane	94	1.629	1.629	(0.338)	287903	50.0000	46.49
7 Chloroethane	64	1.708	1.708	(0.354)	302460	50.0000	46.12
8 Trichlorofluoromethane	101	1.910	1.910	(0.396)	526550	50.0000	45.12
9 Acrolein	56	2.277	2.277	(0.472)	56454	100.000	89.60
10 Acetone	43	2.420	2.420	(0.502)	292601	100.000	80.16
11 1,1-Dichloroethene	96	2.345	2.345	(0.486)	329412	50.0000	43.89
15 Iodomethane	142	2.480	2.480	(0.514)	760519	100.000	90.27
16 Acrylonitrile	53	3.080	3.080	(0.639)	371348	100.000	90.85
17 Methylene Chloride	84	2.806	2.806	(0.582)	480833	50.0000	49.53
18 Methyl tert-butyl ether	73	3.091	3.091	(0.641)	1063247	50.0000	42.04
19 Carbon Disulfide	76	2.532	2.532	(0.525)	1849910	100.000	84.73
20 trans-1,2-Dichloroethene	96	3.072	3.072	(0.637)	379745	50.0000	45.72
21 Vinyl Acetate	43	3.619	3.619	(0.751)	1773217	100.000	81.81
22 1,1-Dichloroethane	63	3.526	3.526	(0.731)	678744	50.0000	45.97
24 2-Butanone	43	4.275	4.275	(0.887)	347312	100.000	97.59
26 2,2-Dichloropropane	77	4.193	4.193	(0.869)	278767	50.0000	35.55



27 cis-1,2-Dichloroethene	96	4.208	4.208 (0.873)	463886	50.0000	47.52
28 Chloroform	83	4.583	4.583 (0.950)	764511	50.0000	48.49

Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111732.D Page 2
Report Date: 18-Nov-2022 17:59

Compounds	QUANT SIG MASS					AMOUNTS	
		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
29 Bromochloromethane	128	4.478	4.478	(0.928)	243685	50.0000	46.76
\$ 30 Dibromofluoromethane	113	4.759	4.759	(0.987)	477635	50.0000	54.30
31 1,1,1-Trichloroethane	97	4.752	4.752	(0.985)	508075	50.0000	47.92
32 1,1-Dichloropropene	75	4.932	4.932	(0.887)	469490	50.0000	47.13
33 1,2-Dichloroethane	62	5.186	5.186	(0.933)	611914	50.0000	48.46
34 Carbon Tetrachloride	117	4.920	4.920	(0.885)	371034	50.0000	53.03
\$ 35 1,2-Dichloroethane-d4	65	5.108	5.108	(1.059)	532985	50.0000	53.42
* 36 1,4-Difluorobenzene	114	5.558	5.558	(1.000)	1437005	50.0000	
37 Benzene	78	5.145	5.145	(0.926)	1617247	50.0000	47.77
38 Trichloroethene	130	5.794	5.794	(1.042)	446217	50.0000	48.17
39 Bromodichloromethane	83	6.285	6.285	(1.131)	520032	50.0000	50.25
42 1,2-Dichloropropane	63	6.015	6.015	(1.082)	430591	50.0000	50.01
44 Dibromomethane	93	6.127	6.127	(1.103)	299016	50.0000	48.19
45 4-Methyl-2-Pentanone	43	6.858	6.858	(0.838)	772432	100.000	98.80
46 cis-1,3-Dichloropropene	75	6.697	6.697	(1.205)	564519	50.0000	40.96
* 47 Chlorobenzene-d5	117	8.189	8.189	(1.000)	1330646	50.0000	
\$ 48 Toluene-d8	98	6.926	6.926	(0.846)	1697803	50.0000	53.63
50 Toluene	91	6.986	6.986	(0.853)	1738979	50.0000	49.23
51 trans-1,3-Dichloropropene	75	7.203	7.203	(1.296)	443037	50.0000	38.58
52 2-Hexanone	43	7.597	7.597	(0.928)	497162	100.000	85.67
53 1,1,2-Trichloroethane	83	7.361	7.361	(0.899)	369285	50.0000	48.53
54 1,3-Dichloropropane	76	7.503	7.503	(0.916)	759995	50.0000	48.87
55 Dibromochloromethane	129	7.698	7.698	(0.940)	441121	50.0000	44.33
56 Tetrachloroethene	164	7.462	7.462	(0.911)	346932	50.0000	45.20
57 1,2-Dibromoethane	107	7.788	7.788	(0.951)	463724	50.0000	49.73
58 1-Chlorohexane	55	8.200	8.200	(1.475)	267886	50.0000	41.53
59 Chlorobenzene	112	8.212	8.212	(1.003)	1188160	50.0000	47.01
60 1,1,1,2-Tetrachloroethane	131	8.287	8.287	(1.012)	416409	50.0000	50.36
61 Ethylbenzene	106	8.309	8.309	(1.015)	546377	50.0000	46.91
62 m,p-Xylenes	106	8.410	8.410	(1.027)	1356266	100.000	93.43
63 o-Xylene	106	8.751	8.751	(1.069)	689772	50.0000	48.11
64 Styrene	104	8.763	8.763	(1.070)	1093179	50.0000	43.23
66 Bromoform	173	8.924	8.924	(1.090)	273906	50.0000	40.92
67 Isopropylbenzene	105	9.066	9.066	(1.107)	1551748	50.0000	46.95
68 1,1,2,2-Tetrachloroethane	83	9.332	9.332	(0.917)	609422	50.0000	47.30
\$ 69 4-Bromofluorobenzene	95	9.198	9.198	(1.123)	611551	50.0000	52.18
* 70 1,4-Dichlorobenzene-d4	152	10.172	10.172	(1.000)	648030	50.0000	
71 1,2,3-Trichloropropane	75	9.366	9.366	(0.921)	528491	50.0000	47.52
73 n-Propylbenzene	91	9.415	9.415	(0.926)	1613868	50.0000	46.23
74 Bromobenzene	156	9.321	9.321	(0.916)	507493	50.0000	49.42
75 1,3,5-Trimethylbenzene	105	9.565	9.565	(0.940)	1239691	50.0000	47.96
76 2-Chlorotoluene	91	9.486	9.486	(0.933)	1195660	50.0000	48.69
77 4-Chlorotoluene	91	9.580	9.580	(0.942)	1326012	50.0000	48.29
78 tert-Butylbenzene	119	9.839	9.839	(0.967)	1036599	50.0000	45.74
79 1,2,4-Trimethylbenzene	105	9.880	9.880	(0.971)	1278918	50.0000	47.06
81 sec-Butylbenzene	105	10.026	10.026	(0.986)	1273847	50.0000	40.92
82 p-Isopropyltoluene	119	10.150	10.150	(0.998)	1063283	50.0000	42.87
83 1,3-Dichlorobenzene	146	10.120	10.120	(0.995)	830021	50.0000	47.16
84 1,4-Dichlorobenzene	146	10.195	10.195	(1.002)	841621	50.0000	43.45
87 n-Butylbenzene	91	10.495	10.495	(1.032)	863077	50.0000	39.60
88 1,2-Dichlorobenzene	146	10.510	10.510	(1.033)	847598	50.0000	45.50
89 1,2-Dibromo-3-Chloropropane	155	11.169	11.169	(1.098)	73804	50.0000	38.90



90 1,2,4-Trichlorobenzene	180	11.859	11.859 (1.166)	424552	50.0000	41.67
91 Hexachlorobutadiene	225	12.002	12.002 (1.180)	167997	50.0000	41.97



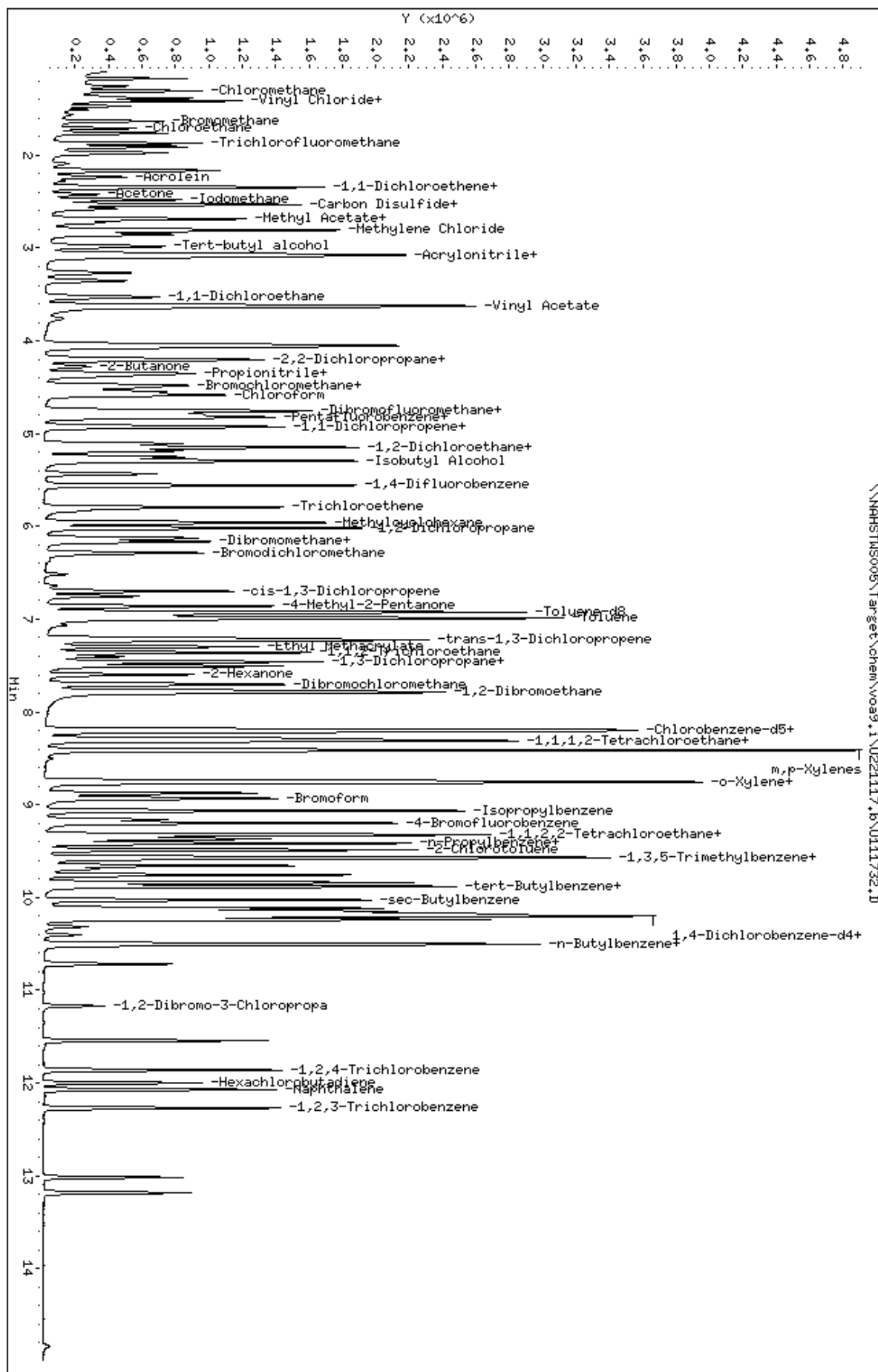
Data File: \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111732.D Page 3
 Report Date: 18-Nov-2022 17:59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
						CAL-AMT (ug/l)	ON-COL (ug/l)
=====	=====	=====	=====	=====	=====	=====	=====
92 Naphthalene	128	12.069	12.069	(1.186)	1027720	50.0000	40.42
93 1,2,3-Trichlorobenzene	180	12.271	12.271	(1.206)	429492	50.0000	42.52
M 94 1,2-Dichloroethylene (total)	96				843631	100.000	(a)
135 1,4-Dioxane	88	6.172	6.172	(1.280)	118214	1000.00	884.50
141 Cyclohexane	56	4.793	4.793	(0.994)	413318	50.0000	51.80
138 Freon TF	101	2.345	2.345	(0.486)	271138	50.0000	47.90
140 1,3-Butadiene	54	1.415	1.415	(0.294)	297308	50.0000	42.80
147 Methylcyclohexane	55	5.951	5.951	(1.071)	908619	50.0000	44.84
146 Methyl Acetate	43	2.727	2.727	(0.566)	301974	50.0000	41.93
148 Tert-Butyl alcohol	59	2.982	2.982	(0.618)	697588	1000.00	819.54
149 Isopropyl Alcohol	45	2.574	2.574	(0.534)	448922	1000.00	800.27
72 trans-1,4-Dichloro-2-butene	53	9.381	9.381	(1.146)	68428	50.0000	34.44
12 Isobutyl Alcohol	43	5.295	5.295	(1.098)	878351	1000.00	803.47
13 Acetonitrile	39	2.686	2.686	(0.557)	382595	500.000	427.85
14 Allyl Chloride	41	2.686	2.686	(0.557)	922558	50.0000	45.08
25 Methacrylonitrile	41	4.508	4.508	(0.935)	243933	50.0000	46.88
40 Methyl Methacrylate	41	6.161	6.161	(1.277)	347483	50.0000	44.40
4 Propionitrile	54	4.350	4.350	(0.902)	671475	500.000	476.99
131 Methyl Acrylate	55	4.380	4.380	(0.908)	521529	50.0000	46.57
49 Ethyl Methacrylate	69	7.297	7.297	(1.313)	627419	50.0000	46.96

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).





Data File: \\NAHSTMS005\Target\chem\voa9.i\U22117.b\U11732.D
 Date: 17-NOV-2022 21:39
 Client ID: CCV-END
 Sample Info: CCV-END;CCV-END;2;;
 Purge Volume: 5.0
 Column phase: DB624

Instrument: W0A9.i
 Operator: PC
 Column diameter: 0.18



Data File : \\NAHSTWS005\Target\chem\voa9.i\U221117.b\U111732.D
Inj Date : 17-NOV-2022 21:39
InstruID : VOA9.i
LabSampID : CCV-END

NO MANUAL INTEGRATIONS



HS22110582-GCSEMI-RSK-175

ALS WO# HS22110582





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Form 1

Organic Analysis Data Sheet

Semi-Volatiles by RSK-175

Workorder
HS22110582

Client
Aptim Environmental & Infrastructure,
Inc.

Project
LHAAP 67 November 2022

12/05/2022

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

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Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

Semi-Volatiles by RSK-175

HS22110582-03			Collected			Received			Matrix	Basis
67WW08-221109			11/09/22 08:40			11/10/22 09:00			Groundwater	Wet
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	11/11/22 16:12	FID-4_421701	023
Ethene	mg/L	0.00100	U	0.000234	0.00100	0.00100	1	11/11/22 16:12	FID-4_421701	023
Methane	mg/L	0.00232		0.000107	0.000500	0.000500	1	11/11/22 16:12	FID-4_421701	023





Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

Semi-Volatiles by RSK-175

HS22110582-04			Collected		Received		Matrix		Basis	
67WW08-221109-FD			11/09/22 08:40		11/10/22 09:00		Water		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	11/11/22 16:31	FID-4_421701	024
Ethene	mg/L	0.00100	U	0.000234	0.00100	0.00100	1	11/11/22 16:31	FID-4_421701	024
Methane	mg/L	0.000500	U	0.000107	0.000500	0.000500	1	11/11/22 16:31	FID-4_421701	024





Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

Semi-Volatiles by RSK-175

HS22110582-05			Collected		Received		Matrix		Basis	
67WW13-221109			11/09/22 09:35		11/10/22 09:00		Groundwater		Wet	
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	11/11/22 16:43	FID-4_421701	025
Ethene	mg/L	0.00100	U	0.000234	0.00100	0.00100	1	11/11/22 16:43	FID-4_421701	025
Methane	mg/L	0.000500	U	0.000107	0.000500	0.000500	1	11/11/22 16:43	FID-4_421701	025





Form 1 - Organic Analysis Data Sheet

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

Semi-Volatiles by RSK-175

MBLK-221111				Collected			Received		Matrix	Basis
MBLK-221111				NA			NA		Aqueous	Wet
Analyte	Units	Result	Q	DL	LOD	LOQ	DF	Analysis Date	Run ID	DataFile
Ethane	mg/L	0.00100	U	0.000144	0.00100	0.00100	1	11/11/22 08:52	FID-4_421701	002
Ethene	mg/L	0.00100	U	0.000234	0.00100	0.00100	1	11/11/22 08:52	FID-4_421701	002
Methane	mg/L	0.000500	U	0.000107	0.000500	0.000500	1	11/11/22 08:52	FID-4_421701	002





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Form 3A

Matrix Spike/Spike Duplicate Recovery

Workorder
HS22110582

Client
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Form 3A - Matrix Spike/Spike Duplicate Recovery

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

		HS22110281-01			HS22110281-01MS				HS22110281-01MSD						
Sample Matrix Aqueous		Run Date 11/11/22		11/11/22		11/11/22		11/11/22		11/11/22					
Units ug/L		Run Time 12:49		14:15		14:32		14:32		14:32					
		Data File 017.D		018.D		019.D		019.D							
Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q	
Ethane	75-125	1	0	24.04	18.04	133	*	24.99	18.04	139	*	30	3.90		
Ethene	75-125	1	0	22.33	16.80	133	*	22.7	16.80	135	*	30	1.60		
Methane	75-125	1	1.261	9.369	9.647	84		9.509	9.647	86		30	1.50		

		HS22110582-05			HS22110582-05MS				HS22110582-05MSD						
Sample Matrix Aqueous		Run Date 11/11/22		11/11/22		11/11/22		11/11/22		11/11/22					
Units ug/L		Run Time 16:43		17:06		17:18		17:18		17:18					
		Data File 025.D		026.D		027.D		027.D							
Analyte	%R Limits	DF	Result	MS Result	Spike Added	%R	Q	MSD Result	Spike Added	%R	Q	RPD Limit	RPD	Q	
Ethane	75-125	1	0	21.21	18.04	118		21.55	18.04	119		30	1.60		
Ethene	75-125	1	0	18.72	16.80	111		19.54	16.80	116		30	4.30		
Methane	75-125	1	0	8.861	9.647	92		9.115	9.647	95		30	2.80		

- %Recovery / RPD Flag

* - %Recovery / RPD Outside Limits

OL - Outside Limits





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Form 3B

Laboratory Control Sample Recovery

Semi-Volatiles by RSK-175

Workorder
HS22110582

Client
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Form 3B - Laboratory Control Sample Recovery

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

Semi-Volatiles by RSK-175

FID-4_421701	QC ID		LCS-221111			LCS-221111					
QC Matrix Aqueous	Units mg/L	Run Date	11/11/22			11/11/22					
		Run Time	09:00			09:08					
Analyte	%R Limits	Spike Added	LCS Result	%R	Q	LCSD Result	%R	Q	RPD Limit	RPD	Q
Ethane	75-125	0.01804	0.0201	112		0.0206	114.0		30	2.54	
Ethene	75-125	0.0168	0.0186	111		0.0190	113.0		30	2.1	
Methane	75-125	0.009647	0.00859	89		0.00887	92.0		30	3.23	

- %Recovery / RPD Flag

* - %Recovery / RPD Outside Limits



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Form 4

Method Blank Summary

Semi-Volatiles by RSK-175

Workorder

HS22110582

Client

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Project

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Form 4 - Method Blank Summary

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

Semi-Volatiles by RSK-175

Client Sample ID	Type	Lab Sample ID	File ID	Date Analyzed	Run ID
METHOD BLANK	MBLK	MBLK-221111	002.D	11/11/22 08:52	FID-4_421701
LCS-221111	LCS	LCS-221111	003.D	11/11/22 09:00	FID-4_421701
LCSD-221111	LCSD	LCSD-221111	004.D	11/11/22 09:08	FID-4_421701
BatchQC	MS	HS22110281-01MS	018.D	11/11/22 14:15	FID-4_421701
BatchQC	MSD	HS22110281-01MSD	019.D	11/11/22 14:32	FID-4_421701
67WW08-221109	SAMP	HS22110582-03	023.D	11/11/22 16:12	FID-4_421701
67WW08-221109-FD	SAMP	HS22110582-04	024.D	11/11/22 16:31	FID-4_421701
67WW13-221109	SAMP	HS22110582-05	025.D	11/11/22 16:43	FID-4_421701
67WW13-221109	MS	HS22110582-05MS	026.D	11/11/22 17:06	FID-4_421701
67WW13-221109	MSD	HS22110582-05MSD	027.D	11/11/22 17:18	FID-4_421701



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Form 6

Initial Calibration Data

Workorder
HS22110582

Client
**Aptim Environmental & Infrastructure,
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Project
LHAAP 67 November 2022

12/05/2022

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Initial Calibration Data

Client Aptim Environmental & Infrastructure, Inc.
Project LHAAP 67 November 2022

Workorder
HS22110582

RunID
 FID-4_322102

Volatiles Organics by Method 8260C

Calibration Files

ICAL Start Date 24-JAN-2017 0906
ICAL End Date 24-JAN-2017 1113

Calibration File Names

Level 1	..FID-4.i\170124.b\001.D	Level 4	..FID-4.i\170124.b\004.D
Level 2	..FID-4.i\170124.b\002.D	Level 5	..FID-4.i\170124.b\005.D
Level 3	..FID-4.i\170124.b\003.D	Level 6	..FID-4.i\170124.b\006.D
		Level 7	..FID-4.i\170124.b\007.D

	Level 1 10.00 Level 7 1000.0	Level 2 25.00	Level 3 50.00	Level 4 100.00	Level 5 250.00	Level 6 500.00					%RSD or R ²	Q
Compound							Curve	b	m1	m2		
Methane	969 1082	978	1020	881	961	931	AVRG		974		6.55041	
Ethene	536 829	567	565	516	665	426	AVRG		586		21.93197	
Ethane	602 999	670	659	597	809	818	AVRG		736		19.88517	
Propane	500 96509	1279	2602	4785	18294	38286	QUAD	0.97987	0.00153	-4.583e-00	0.99914	
N-Butane	438 114164	936	2034	3864	18446	42817	QUAD	2.46870	0.00183	-5.537e-00	0.99808	
Pentane	115 488	3945	2080	950	501	412	AVRG		1213		112	*

NE - Not Evaluated, AVRG - Averaged, LINR - Linear Regression, WLIN - Weighted Linear, QUAD - Quadratic, * - Curve Fit Outside Limits



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Form 6I

Initial Calibration Verification (ICV)

Workorder
HS22110582

Client
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Project
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Initial Calibration Verification (ICV)

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

RunID

FID-4_322102

Volatiles Organics by Method 8260C

Compound	Amount Added	Amount Recovered	% Recovered	Limits	Q
Methane	9.647	9.597	99.49	75-125	
Ethene	16.800	19.090	113.63	75-125	
Ethane	18.043	19.657	108.95	75-125	
Propane	26.463	27.238	102.93	75-125	
N-Butane	34.955	36.010	103.02	75-125	



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Form 7

Continuing Calibration Verification (CCV)

Workorder
HS22110582

Client
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Project
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12/05/2022

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Continuing Calibration Verification (CCV)

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

RunID

FID-4_421701

Volatiles Organics by Method 8260C

Instrument ID FID-4.i Injection Date 11-NOV-2022 0845
 Lab File ID 001.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
 Analysis Type WATER ICAL Times 0906 1113
 Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{\text{RRF}} /$ RRF / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	879	879	0.010	9.84239	20.0	Averaged	
Ethene	586	655	655	0.010	-11.89391	20.0	Averaged	
Ethane	719	825	825	0.010	-14.63784	20.0	Averaged	



Continuing Calibration Verification (CCV)

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

RunID

FID-4_421701

Volatiles Organics by Method 8260C

Instrument ID FID-4.i Injection Date 11-NOV-2022 1131
 Lab File ID 011.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
 Analysis Type WATER ICAL Times 0906 1113
 Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{\text{RRF}} /$ RRF / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	841	841	0.010	13.75489	20.0	Averaged	
Ethene	586	666	666	0.010	-13.75814	20.0	Averaged	
Ethane	719	819	819	0.010	-13.84442	20.0	Averaged	





Continuing Calibration Verification (CCV)

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

RunID

FID-4_421701

Volatiles Organics by Method 8260C

Instrument ID FID-4.i Injection Date 11-NOV-2022 1557
 Lab File ID 022.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
 Analysis Type WATER ICAL Times 0906 1113
 Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF}$ / RRF / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	823	823	0.010	15.58356	20.0	Averaged	
Ethene	586	653	653	0.010	-11.47851	20.0	Averaged	
Ethane	719	799	799	0.010	-10.98656	20.0	Averaged	





Continuing Calibration Verification (CCV)

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

RunID

FID-4_421701

Volatiles Organics by Method 8260C

Instrument ID FID-4.i Injection Date 11-NOV-2022 1753
 Lab File ID 028.D ICAL Date(s) 24-JAN-2017 24-JAN-2017
 Analysis Type WATER ICAL Times 0906 1113
 Lab Sample ID RSK-CCV Quant Type ESTD

Compound	$\overline{RRF} /$ RRF / Amount	RF250	CCV RRF250	Min RRF	%D / %D / %DRIFT	Max %D / %D / %DRIFT	Curve CURVE TYPE	Q
Methane	975	886	886	0.010	9.16196	20.0	Averaged	
Ethene	586	669	669	0.010	-14.27485	20.0	Averaged	
Ethane	719	804	804	0.010	-11.70295	20.0	Averaged	



Analysis Run Log

Semi-Volatiles by RSK-175

Workorder
HS22110582

Client
Aptim Environmental & Infrastructure,
Inc.

Project
LHAAP 67 November 2022

12/05/2022

ALS Environmental–Houston Laboratory

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Phone (281) 530-5656 Fax (281) 530-5887

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FID04 -Logbook

Batch: 26730
Date: 01-24-2017
Method: RSK 175 ICAL
Comments: Target Sequence 170124

Analyst: Nosa Izekor
Reviewer:
Laboratory: Houston

#	Samp ID	Type	Analyzed	DF	Init Wt/Vol	Final Vol	File ID	Matrix	Status	pH
1	ICAL1	CALIB_1	01-24-2017 09:06 am	1.00	0.00 mL	0.00 mL	001.D	Liquid	Y	NA
2	ICAL2	CALIB_2	01-24-2017 09:30 am	1.00	0.00 mL	0.00 mL	002.D	Liquid	Y	NA
3	ICAL3	CALIB_3	01-24-2017 09:59 am	1.00	0.00 mL	0.00 mL	003.D	Liquid	Y	NA
4	ICAL4	CALIB_4	01-24-2017 10:15 am	1.00	0.00 mL	0.00 mL	004.D	Liquid	Y	NA
5	ICAL5	CALIB_5	01-24-2017 10:39 am	1.00	0.00 mL	0.00 mL	005.D	Liquid	Y	NA
6	ICAL6	CALIB_6	01-24-2017 10:57 am	1.00	0.00 mL	0.00 mL	006.D	Liquid	Y	NA
7	ICAL7	CALIB_7	01-24-2017 11:13 am	1.00	0.00 mL	0.00 mL	007.D	Liquid	Y	NA
8	ICV	METHSPIKI	01-24-2017 12:05 pm	1.00	0.00 mL	0.00 mL	008.D	Liquid	Y	NA
9	LCS-170124	LCS	01-24-2017 12:24 pm	1.00	0.00 mL	0.00 mL	009.D	Liquid	Y	NA
10	LCSD-170124	LCSD	01-24-2017 12:40 pm	1.00	0.00 mL	0.00 mL	010.D	Liquid	Y	NA
11	MBLK-170124	MBLK	01-24-2017 12:57 pm	1.00	0.00 mL	0.00 mL	011.D	Liquid	Y	NA
12	HS17010778-01	SAMP	01-24-2017 01:14 pm	1.00	0.00 mL	0.00 mL	012.D	Liquid	Y	NA
13	HS17010779-01	SAMP	01-24-2017 01:31 pm	1.00	0.00 mL	0.00 mL	013.D	Liquid	Y	NA
14	HS17010779-01DUP	SAMP	01-24-2017 01:47 pm	1.00	0.00 mL	0.00 mL	014.D	Liquid	Y	NA
15	CCV	CCV	01-24-2017 02:01 pm	1.00	0.00 mL	0.00 mL	015.D	Liquid	Y	NA

Chemical	Value
ICAL STD ID	30010700217
ICV STD ID	30010700610





Form 13 - Analysis Run Log

Client Aptim Environmental & Infrastructure, Inc.

Project LHAAP 67 November 2022

Workorder

HS22110582

RUNID

FID-4_421701

Semi-Volatiles by RSK-175

Run ID	FID-4_421701	Start Date	11/11/22	EndDate	11/11/22	Matrix	Aqueous
Client Sample ID	Type	Lab Sample ID	File ID	Analysis Date	DF		
RSK-CCV	CCV	RSK-CCV	001.D	11/11/22 08:45	1		
MBLK-221111	MBLK	MBLK-221111	002.D	11/11/22 08:52	1		
LCS-221111	LCS	LCS-221111	003.D	11/11/22 09:00	1		
LCSD-221111	LCSD	LCSD-221111	004.D	11/11/22 09:08	1		
RSK-CCV	CCV	RSK-CCV	011.D	11/11/22 11:31	1		
BatchQC	MS	HS22110281-01MS	018.D	11/11/22 14:15	1		
BatchQC	MSD	HS22110281-01MSD	019.D	11/11/22 14:32	1		
RSK-CCV	CCV	RSK-CCV	022.D	11/11/22 15:57	1		
67WW08-221109	SAMP	HS22110582-03	023.D	11/11/22 16:12	1		
67WW08-221109-FD	SAMP	HS22110582-04	024.D	11/11/22 16:31	1		
67WW13-221109	SAMP	HS22110582-05	025.D	11/11/22 16:43	1		
67WW13-221109	MS	HS22110582-05MS	026.D	11/11/22 17:06	1		
67WW13-221109	MSD	HS22110582-05MSD	027.D	11/11/22 17:18	1		
RSK-CCV	CCV	RSK-CCV	028.D	11/11/22 17:53	1		





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Raw Data FID-4 322102

Semi-Volatiles by RSK-175

Workorder
HS22110582

Client
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Project
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12/05/2022

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Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D
 Report Date: 28-Sep-2022 10:00

Page 1

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D
 Lab Smp Id: ICAL1 Client Smp ID: ICAL1
 Inj Date : 24-JAN-2017 09:06
 Operator : JA Inst ID: FID-4.i
 Smp Info : ICAL1;ICAL1;;;
 Misc Info :
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
 Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
 Als bottle: 1 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: stdNIP2.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	1.043	1.043	0.000	374		0.38600	0.383(a)
2 Ethene	1.553	1.553	0.000	361		0.67400	0.615(a)
3 Ethane	1.716	1.716	0.000	435		0.72200	0.590(a)
4 Propane	4.073	4.073	0.000	500		1.05900	1.743
5 N-Butane	7.640	7.640	0.000	438		1.39800	3.271

QC Flag Legend

a - Target compound detected but, quantitated amount
 Below Limit Of Quantitation(BLOQ).



Data File: \\NAHSTMS005\Target\chem\FID-4.i\170124.b\001.D

Date : 24-JAN-2017 09:06

Client ID: ICAL1

Sample Info: ICAL1;ICAL1;??

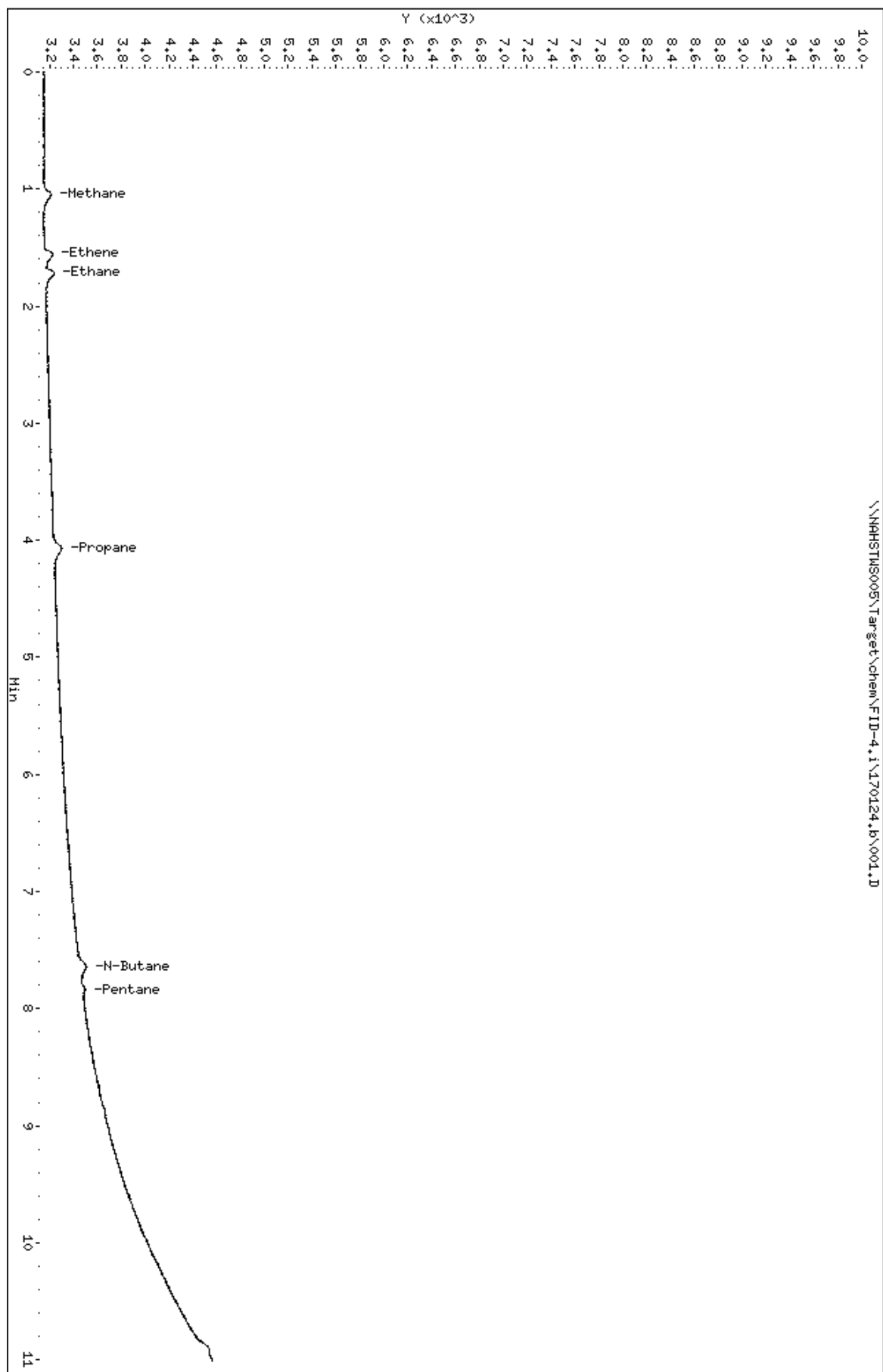
Page 1

Instrument: FID-4.i

Operator: JA

Column diameter: 0.53

Column phase: Rtx-PL0T



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\001.D
Inj Date : 24-JAN-2017 09:06
InstruID : FID-4.i
LabSampID : ICAL1

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D

Page 1

Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D
 Lab Smp Id: ICAL2 Client Smp ID: ICAL2
 Inj Date : 24-JAN-2017 09:30
 Operator : MA Inst ID: FID-4.i
 Smp Info : ICAL2;ICAL2;;;
 Misc Info : ;1;0;1
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
 Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 09:06 Cal File: 001.D
 Als bottle: 2 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: stdNIP2.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	1.023	1.023	0.000	944		0.96500	0.968
2 Ethene	1.560	1.560	0.000	956		1.68500	1.630
3 Ethane	1.723	1.723	0.000	1209		1.80400	1.641
4 Propane	4.123	4.123	0.000	1279		2.64600	2.927
5 N-Butane	7.716	7.716	0.000	936		3.49600	4.180



Data File: \\NAHSTMS005\Target\chem\FID-4.1\170124.b\002.D

Date : 24-JAN-2017 09:30

Client ID: ICAL2

Sample Info: ICAL2;ICAL2;;

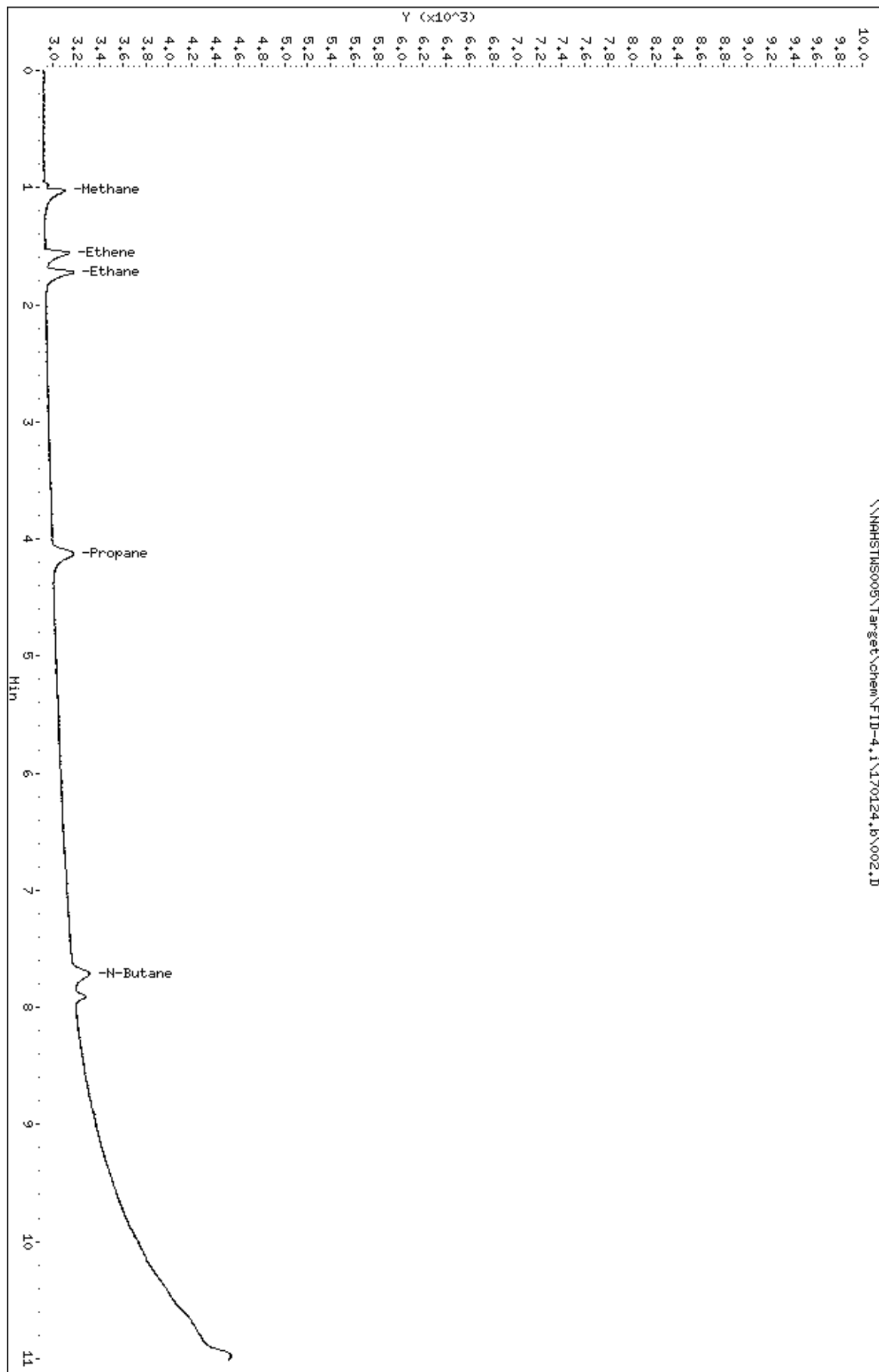
Column phase: Rtx-PL0T

Instrument: FID-4.1

Operator: HA

Column diameter: 0.53

Page 1



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\002.D
Inj Date : 24-JAN-2017 09:30
InstruID : FID-4.i
LabSampID : ICAL2

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D

Page 1

Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
 Lab Smp Id: ICAL3 Client Smp ID: ICAL3
 Inj Date : 24-JAN-2017 09:59
 Operator : MA Inst ID: FID-4.i
 Smp Info : ICAL3;ICAL3;;;
 Misc Info : ;1;0;1
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
 Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 09:30 Cal File: 002.D
 Als bottle: 3 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: stdNIP2.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	1.043	1.043	0.000	1967		1.92900	2.018
2 Ethene	1.570	1.570	0.000	1904		3.37000	3.247
3 Ethane	1.736	1.736	0.000	2378		3.60900	3.229
4 Propane	4.123	4.123	0.000	2602		5.29300	4.926
5 N-Butane	7.703	7.703	0.000	2034		6.99100	6.176



Data File: \\NAHSTMS005\Target\chem\FID-4,1\170124,b\003.D

Date : 24-JAN-2017 09:59

Client ID: ICAL3

Sample Info: ICAL3;ICAL3;??

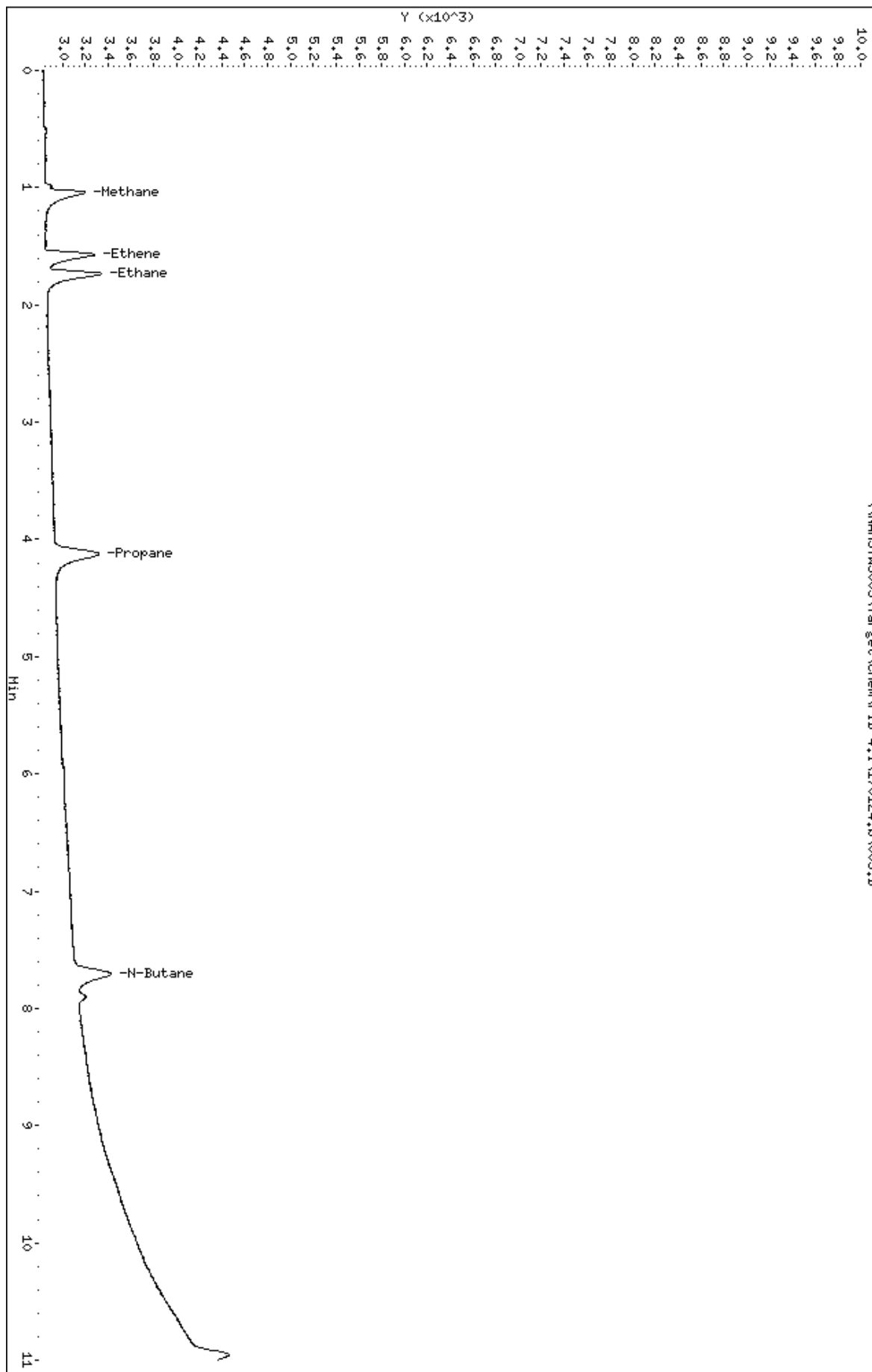
Instrument: FID-4.i

Operator: HQ

Column diameter: 0.53

Column phase: Rtx-PL0T

\\NAHSTMS005\Target\chem\FID-4,1\170124,b\003.D



Page 1

Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\003.D
Inj Date : 24-JAN-2017 09:59
InstruID : FID-4.i
LabSampID : ICAL3

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
 Report Date: 28-Sep-2022 10:02

Page 1

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
 Lab Smp Id: ICAL4 Client Smp ID: ICAL4
 Inj Date : 24-JAN-2017 10:15
 Operator : MA Inst ID: FID-4.i
 Smp Info : ICAL4;ICAL4;;;
 Misc Info : ;1;0;1
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
 Meth Date : 28-Sep-2022 10:02 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
 Als bottle: 4 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: stdNIP2.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	1.033	1.033	0.000	3399		3.85900	3.488
2 Ethene	1.563	1.563	0.000	3478		6.74000	5.932
3 Ethane	1.726	1.726	0.000	4310		7.21700	5.853
4 Propane	4.120	4.120	0.000	4785		10.5850	8.190
5 N-Butane	7.703	7.703	0.000	3864		13.9820	9.473(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\FID-4.i\170124.b\004.D

Date : 24-JAN-2017 10:15

Client ID: ICAL4

Sample Info: ICAL4;ICAL4;;;

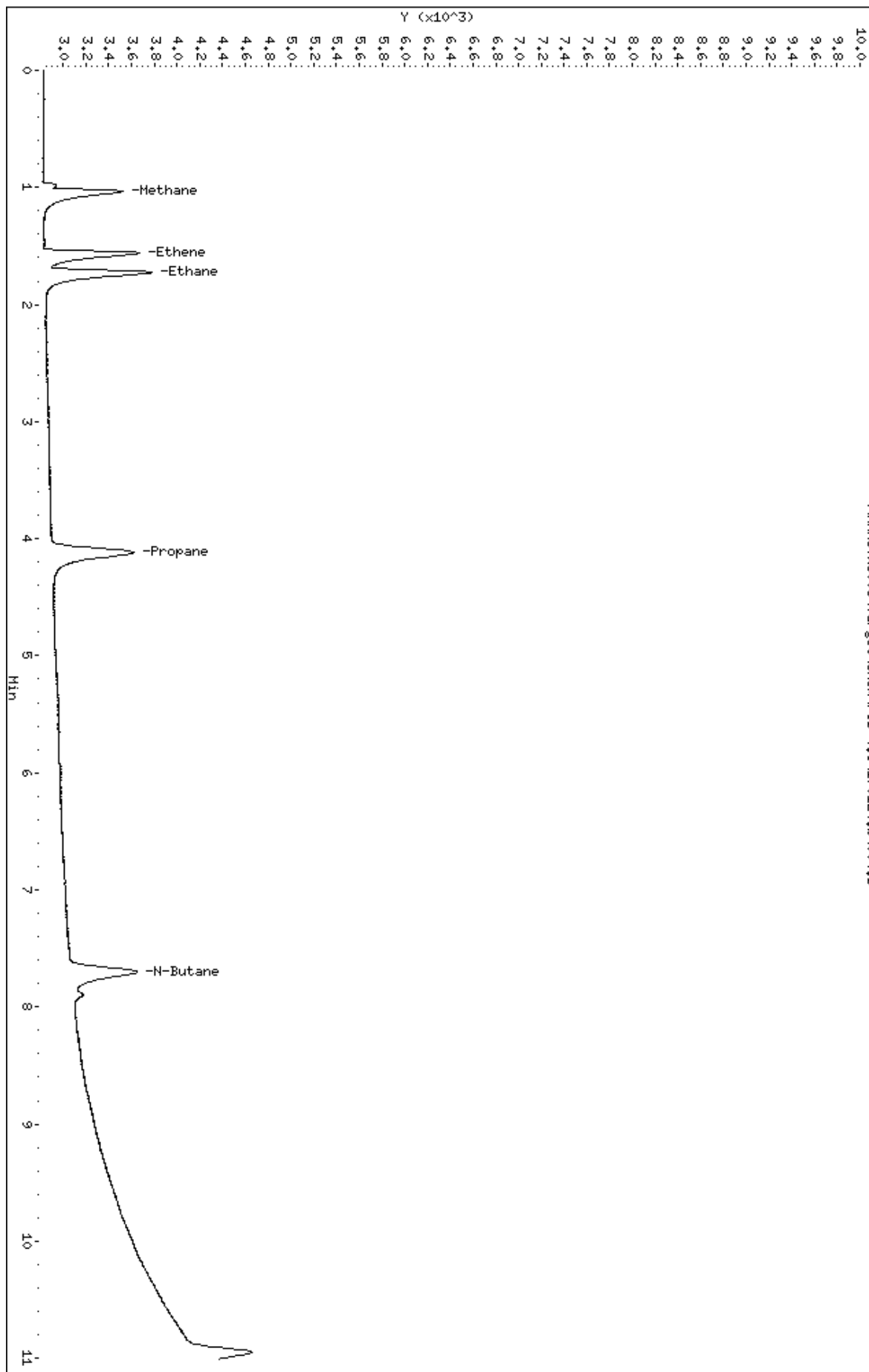
Column phase: Rtx-PL0T

Instrument: FID-4.i

Operator: HA

Column diameter: 0.53

\\NAHSTMS005\Target\chem\FID-4.i\170124.b\004.D

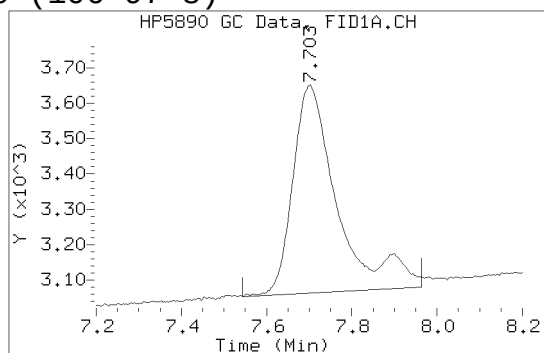


Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\004.D
Inj Date : 24-JAN-2017 10:15
InstruID : FID-4.i
LabSampID : ICAL4

N-Butane (106-97-8)

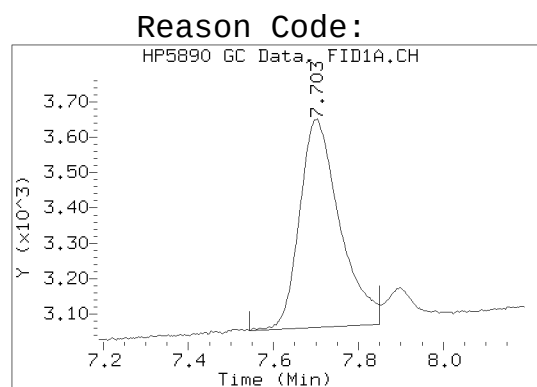
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28-Sep-2022
10:02
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AFTER

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591
28-Sep-2022
10:02
linh
pham



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D
 Report Date: 28-Sep-2022 10:02

Page 1

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D
 Lab Smp Id: ICAL5 Client Smp ID: ICAL5
 Inj Date : 24-JAN-2017 10:39
 Operator : MA Inst ID: FID-4.i
 Smp Info : ICAL5;ICAL5;;;
 Misc Info : ;1;0;1
 Comment :
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 Meth Date : 28-Sep-2022 10:02 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 5 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: stdNIP2.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1 Methane	1.043	1.043	0.000	9268	9.64700	9.511
2 Ethene	1.570	1.570	0.000	11210	16.8500	19.121
3 Ethane	1.733	1.733	0.000	14588	18.0430	19.811
4 Propane	4.120	4.120	0.000	18294	26.4630	27.415
5 N-Butane	7.700	7.700	0.000	18446	34.9550	34.419(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\FID-4.1\170124.b\005.D

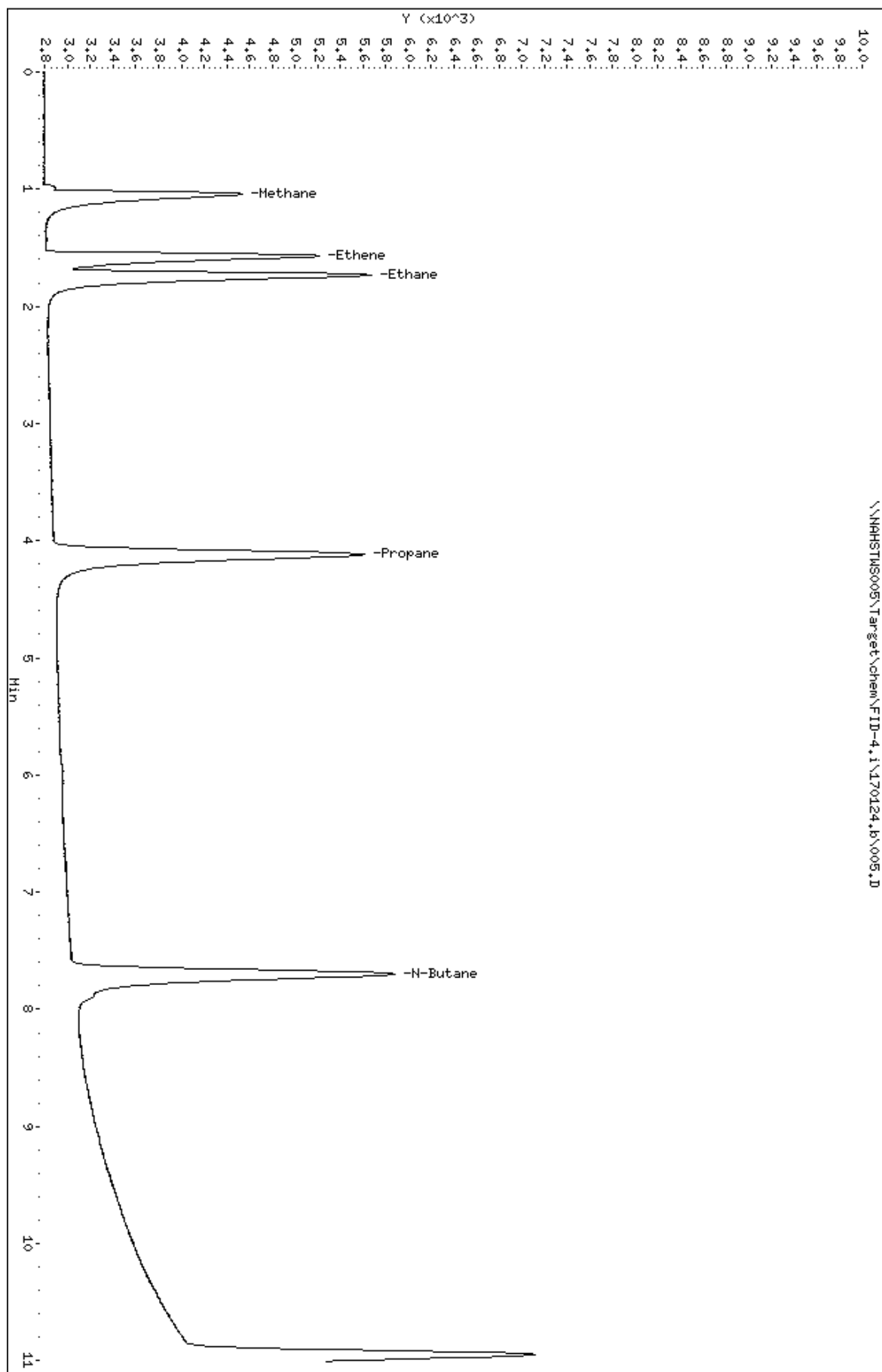
Date : 24-JAN-2017 10:39

Client ID: ICAL5

Sample Info: ICAL5;ICAL5;;

Page 1

Column phase: Rtx-PL0T

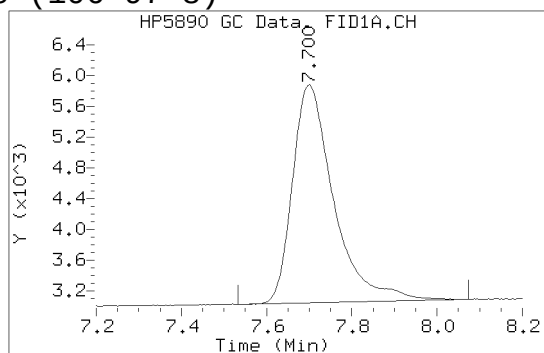
Instrument: FID-4.1
Operator: HA
Column diameter: 0.53

Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\005.D
Inj Date : 24-JAN-2017 10:39
InstruID : FID-4.i
LabSampID : ICAL5

N-Butane (106-97-8)

BEFORE

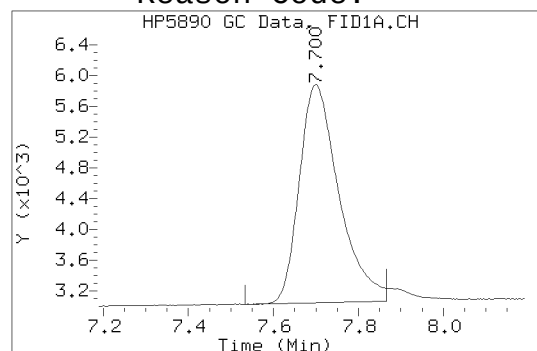
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28-Sep-2022
10:02
linh
pham



AFTER

MASS
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HEIGHT
2838
28-Sep-2022
10:02
linh
pham

Reason Code:



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D

Page 1

Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D
 Lab Smp Id: ICAL6 Client Smp ID: ICAL6
 Inj Date : 24-JAN-2017 10:57
 Operator : MA Inst ID: FID-4.i
 Smp Info : ICAL6;ICAL6;;
 Misc Info : ;1;0;1
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
 Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:39 Cal File: 005.D
 Als bottle: 6 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: stdNIP2.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1 Methane	1.023	1.023	0.000	17957	19.2940	18.429
2 Ethene	1.550	1.550	0.000	22910	53.8200	39.078
3 Ethane	1.716	1.716	0.000	29505	36.0860	40.070
4 Propane	4.110	4.110	0.000	38286	52.9260	52.796
5 N-Butane	7.696	7.696	0.000	42817	69.9110	70.855



Data File: \\NAHSTMS005\Target\chem\FID-4.i\170124.b\006.D

Date : 24-JAN-2017 10:57

Client ID: ICAL6

Sample Info: ICAL6;ICAL6;;

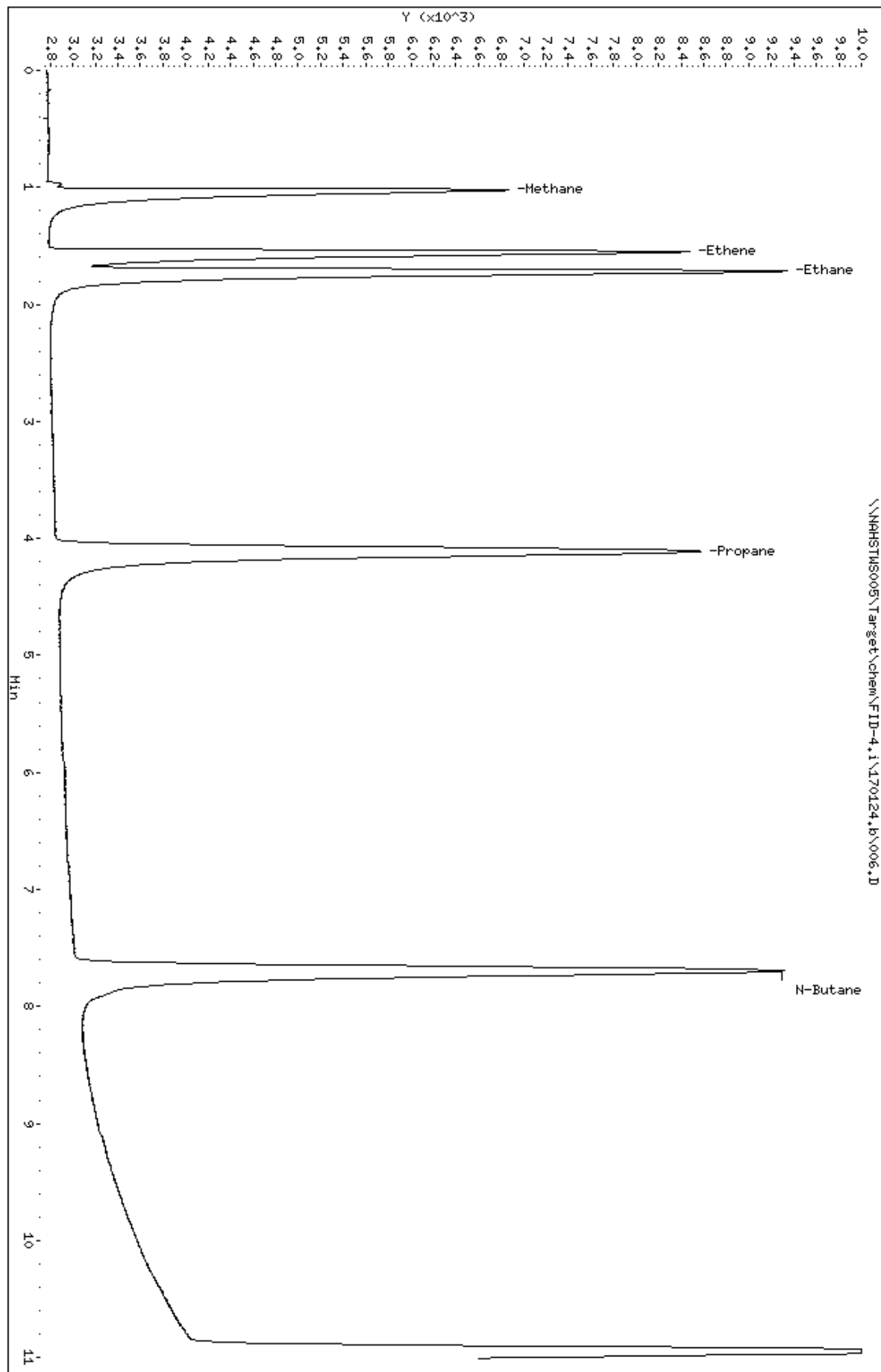
Column phase: Rtx-PL0T

Instrument: FID-4.i

Operator: MA

Column diameter: 0.53

Page 1



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\006.D
Inj Date : 24-JAN-2017 10:57
InstruID : FID-4.i
LabSampID : ICAL6

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D

Page 1

Report Date: 28-Sep-2022 10:00

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D
 Lab Smp Id: ICAL7 Client Smp ID: ICAL7
 Inj Date : 24-JAN-2017 11:13
 Operator : MA Inst ID: FID-4.i
 Smp Info : ICAL7;ICAL7;;;
 Misc Info : ;1;0;1
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
 Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:57 Cal File: 006.D
 Als bottle: 7 Calibration Sample, Level: 7
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: stdNIP2.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds					AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1 Methane	1.030	1.030	0.000	41736	38.5880	42.833(A)
2 Ethene	1.556	1.556	0.000	55865	67.4000	95.291(A)
3 Ethane	1.723	1.723	0.000	72124	72.1720	97.951(A)
4 Propane	4.113	4.113	0.000	96509	105.852	105.844
5 N-Butane	7.690	7.690	0.000	114164	139.821	139.707

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.



Data File: \\NAHSTMS005\Target\chem\FID-4.1\170124.b\007.D

Date : 24-JAN-2017 11:13

Client ID: ICAL7

Sample Info: ICAL7;ICAL7;;

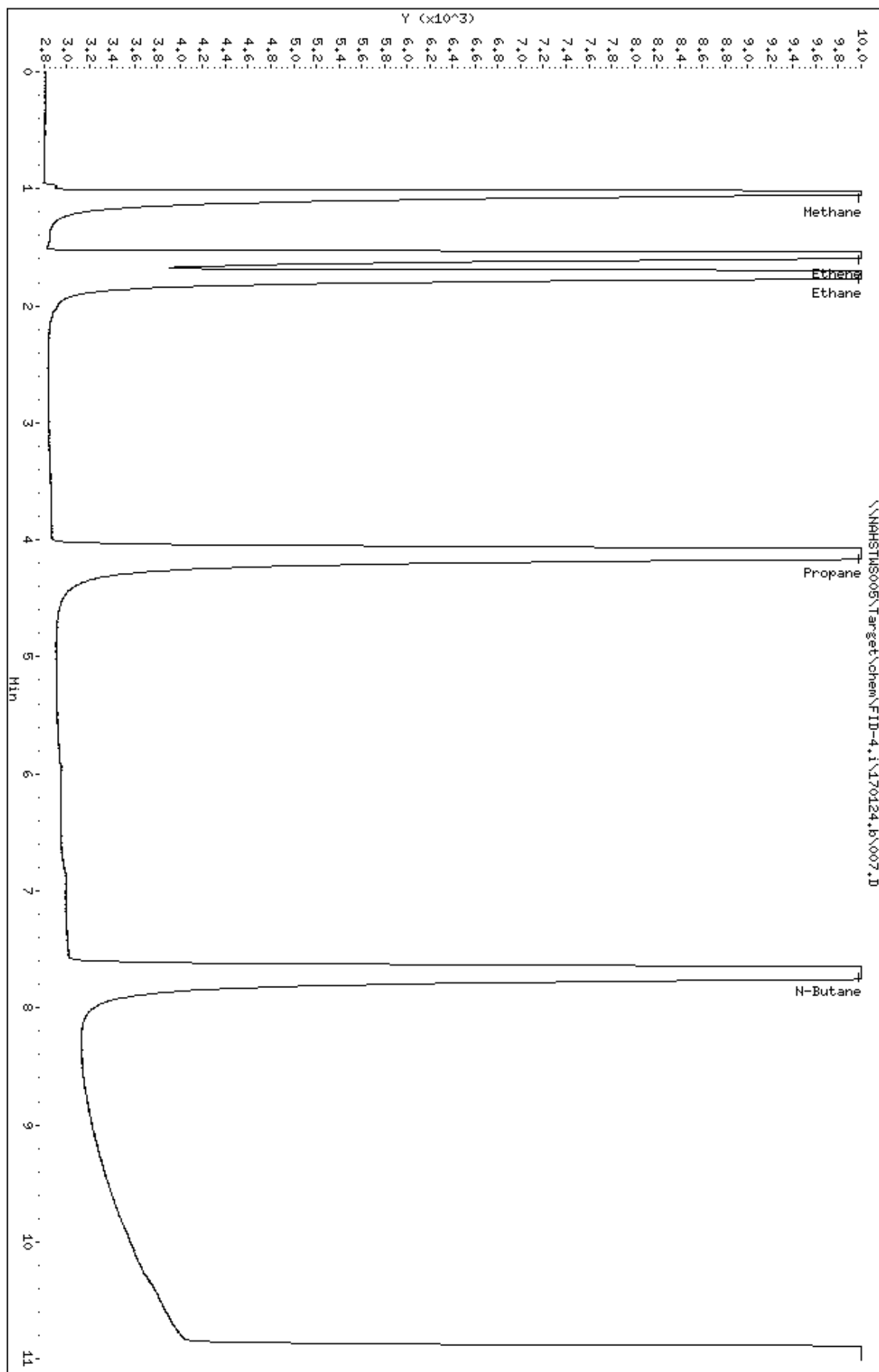
Column phase: RtX-PL0T

Instrument: FID-4.i

Operator: MA

Column diameter: 0.53

Page 1



Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\007.D
Inj Date : 24-JAN-2017 11:13
InstruID : FID-4.i
LabSampID : ICAL7

NO MANUAL INTEGRATIONS



Data File: \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D
 Report Date: 28-Sep-2022 10:00

Page 1

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D
 Lab Smp Id: ICV Client Smp ID: ICV
 Inj Date : 24-JAN-2017 12:05
 Operator : MA Inst ID: FID-4.i
 Smp Info : ICV;ICV;;;
 Misc Info : ;1;0;1
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\RSKNI2.m
 Meth Date : 28-Sep-2022 10:00 FID-4.i Quant Type: ESTD
 Cal Date : 24-JAN-2017 11:13 Cal File: 007.D
 Als bottle: 8 QC Sample: METHSPIKE
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: stdNIP2.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	====	=====	=====	=====	=====	=====
1 Methane	1.046	1.030	0.016	9352	9.59792	9.597
2 Ethene	1.573	1.556	0.017	11192	19.0906	19.090
3 Ethane	1.736	1.723	0.013	14474	19.6571	19.657
4 Propane	4.116	4.113	0.003	18164	27.2381	27.238
5 N-Butane	7.696	7.690	0.006	19425	36.0103	36.010



Data File: \\NAHSTMS005\Target\chem\FID-4.i\170124.b\008.D

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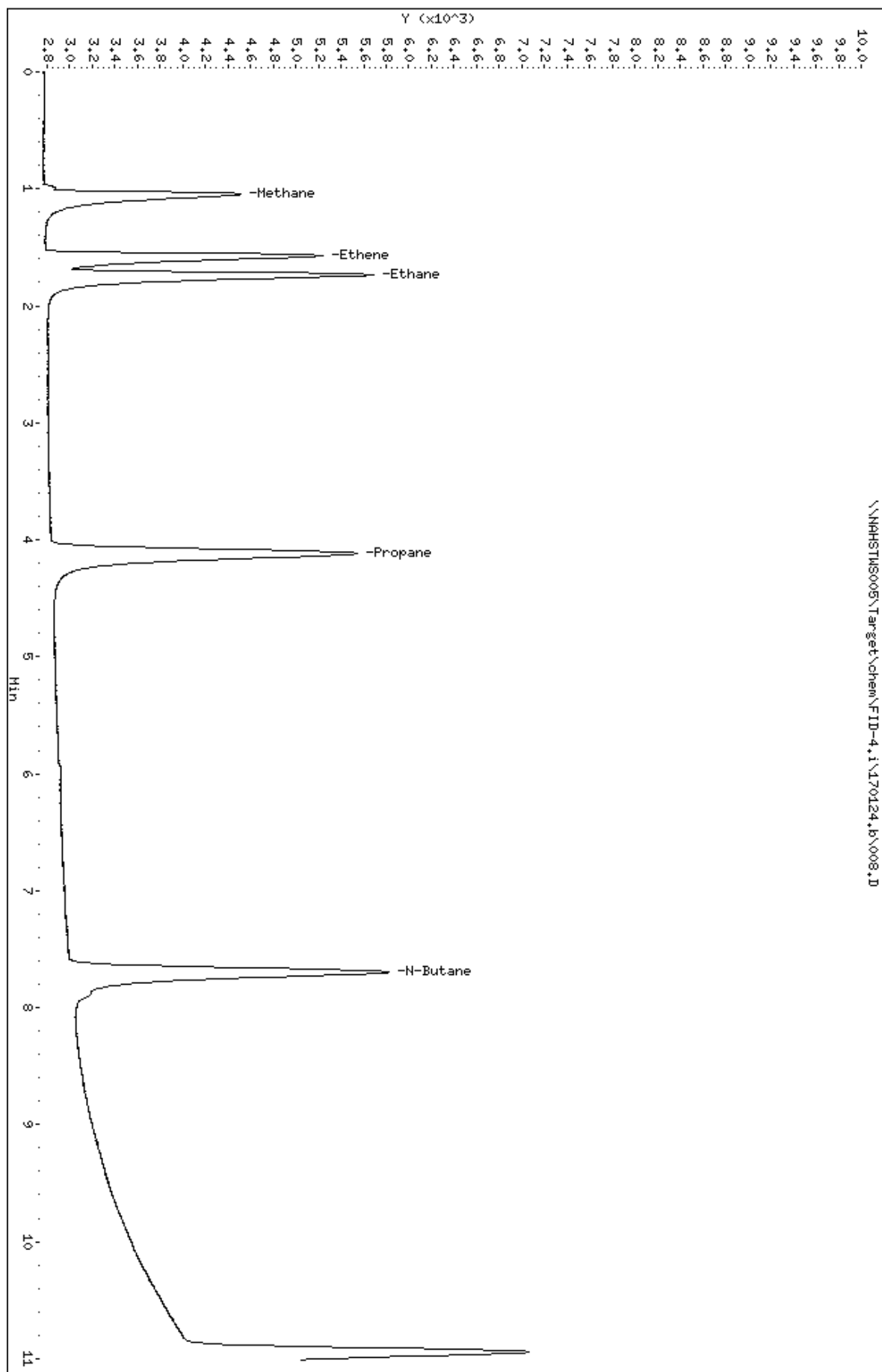
Date : 24-JAN-2017 12:05

Client ID: ICV

Instrument: FID-4.i

Sample Info: ICV;ICV;;

Column phase: Rtx-PL0T

Operator: HQ
Column diameter: 0.53

Data File : \\NAHSTWS005\Target\chem\FID-4.i\170124.b\008.D
Inj Date : 24-JAN-2017 12:05
InstruID : FID-4.i
LabSampID : ICV

NO MANUAL INTEGRATIONS





Raw Data FID-4 421701

Semi-Volatiles by RSK-175

Workorder
HS22110582

Client
Aptim Environmental & Infrastructure,
Inc.

Project
LHAAP 67 November 2022

12/05/2022

ALS Environmental–Houston Laboratory

10450 Stancliff Road, Suite 210, Houston, TX 77099

Phone (281) 530-5656 Fax (281) 530-5887

www.alsglobal.com



Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\001.D

Page 1

Report Date: 14-Nov-2022 10:03

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\001.D
 Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
 Inj Date : 11-NOV-2022 08:45
 Operator : PL Inst ID: FID-4.i
 Smp Info : RSK-CCV;RSK-CCV;2;4
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 11-Nov-2022 18:00 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 1 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	0.443	0.443	0.000	8480		9.64700	8.697
2 Ethene	0.666	0.666	0.000	11044		16.8500	18.854
3 Ethane	0.736	0.736	0.000	14882		18.0430	20.684



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\001.D

Date : 11-NOV-2022 08:45

Client ID: RSK-CCV

Sample Info: RSK-CCV;RSK-CCV;2;4

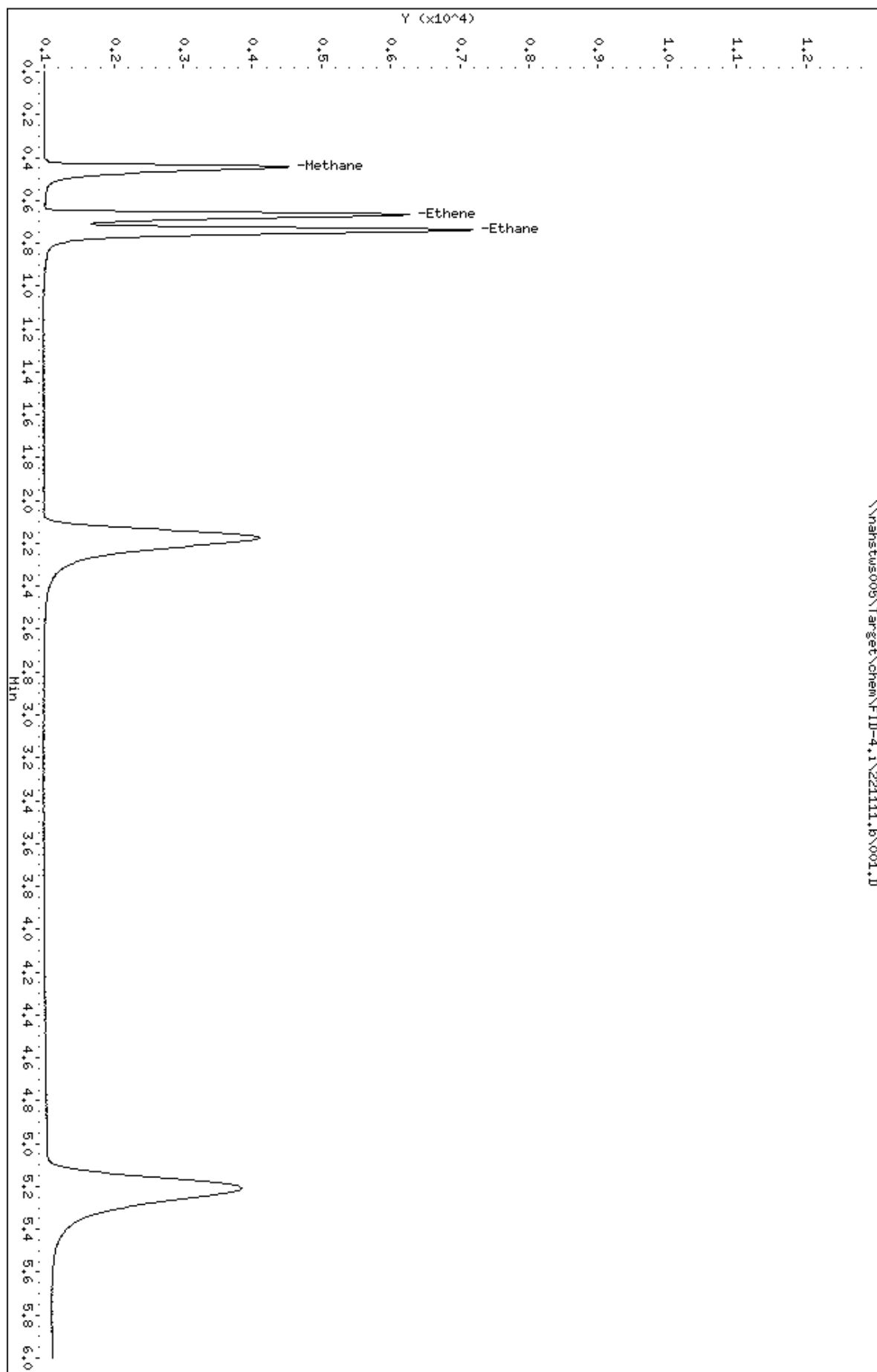
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Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

Page 1



Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\001.D
Inj Date : 11-NOV-2022 08:45
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS



Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\002.D

Page 1

Report Date: 14-Nov-2022 10:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\002.D
 Lab Smp Id: MBLK-221111 Client Smp ID: MBLK-221111
 Inj Date : 11-NOV-2022 08:52
 Operator : PL Inst ID: FID-4.i
 Smp Info : MBLK-221111;MBLK-221111;3;;BLANK
 Misc Info : ;1;0;1
 Comment :
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 Meth Date : 11-Nov-2022 18:00 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 2 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE		ON-COLUMN	FINAL
						(ug/L)	(ug/L)
=====	====	=====	=====	=====		=====	=====



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\002.D

Date : 11-NOV-2022 08:52

Client ID: MBLK-221111

Sample Info: MBLK-221111;MBLK-221111;3;;BLANK

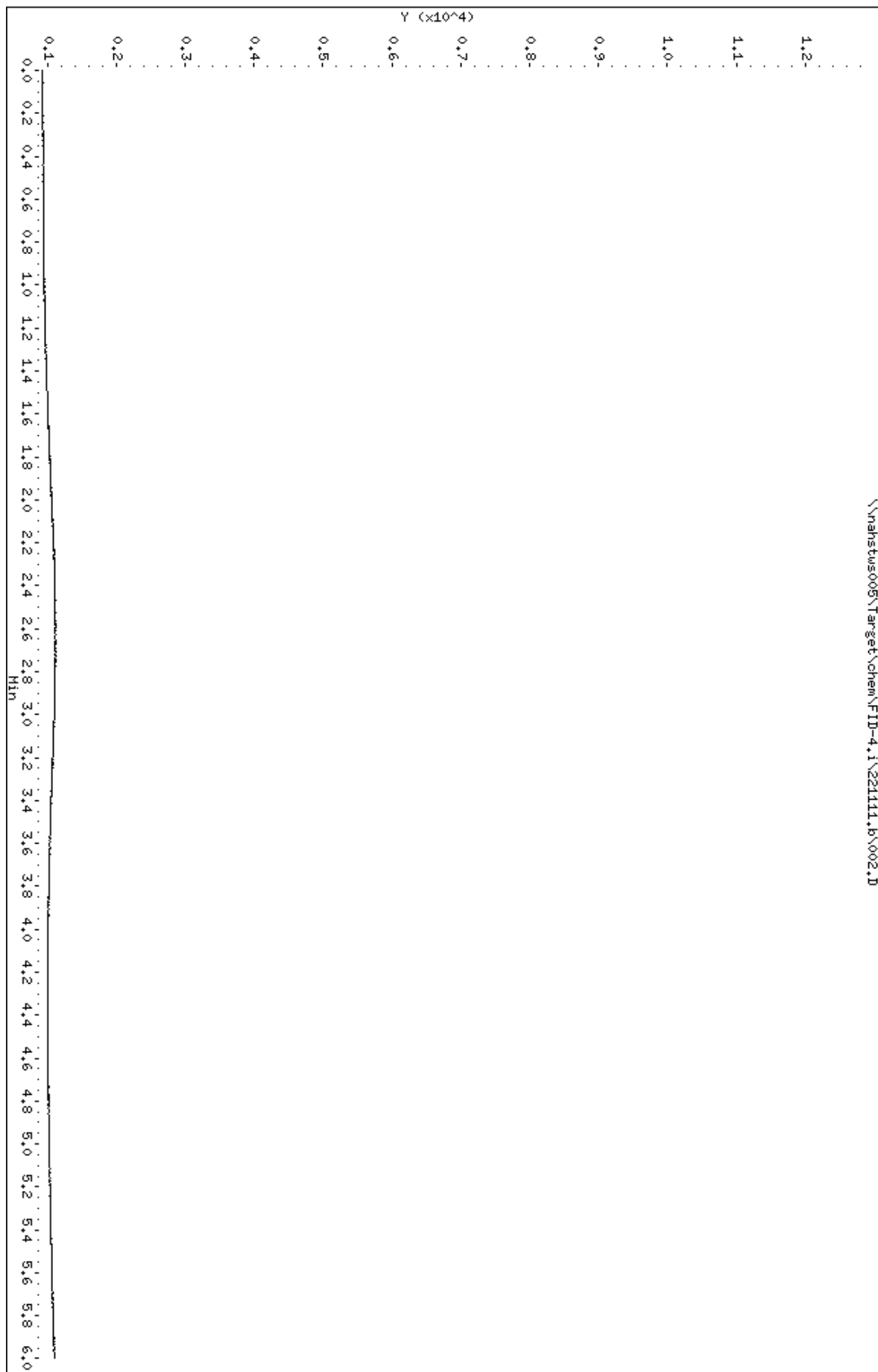
Column phase: Rtx-PL01

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

\\nahstus005\Target\chem\FID-4.i\221111.b\002.D



Page 1

Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\002.D
Inj Date : 11-NOV-2022 08:52
InstruID : FID-4.i
LabSampID : MBLK-221111

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\003.D

Page 1

Report Date: 14-Nov-2022 10:04

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\003.D
 Lab Smp Id: LCS-221111 Client Smp ID: LCS-221111
 Inj Date : 11-NOV-2022 09:00
 Operator : PL Inst ID: FID-4.i
 Smp Info : LCS-221111;LCS-221111;3;;LCS
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 11-Nov-2022 18:00 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 3 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1 Methane	0.443	0.443	0.000	8373	8.58776	8.587
2 Ethene	0.670	0.666	0.004	10908	18.6219	18.621
3 Ethane	0.743	0.736	0.007	14476	20.1198	20.119



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\003.D

Date : 11-NOV-2022 09:00

Client ID: LCS-221111

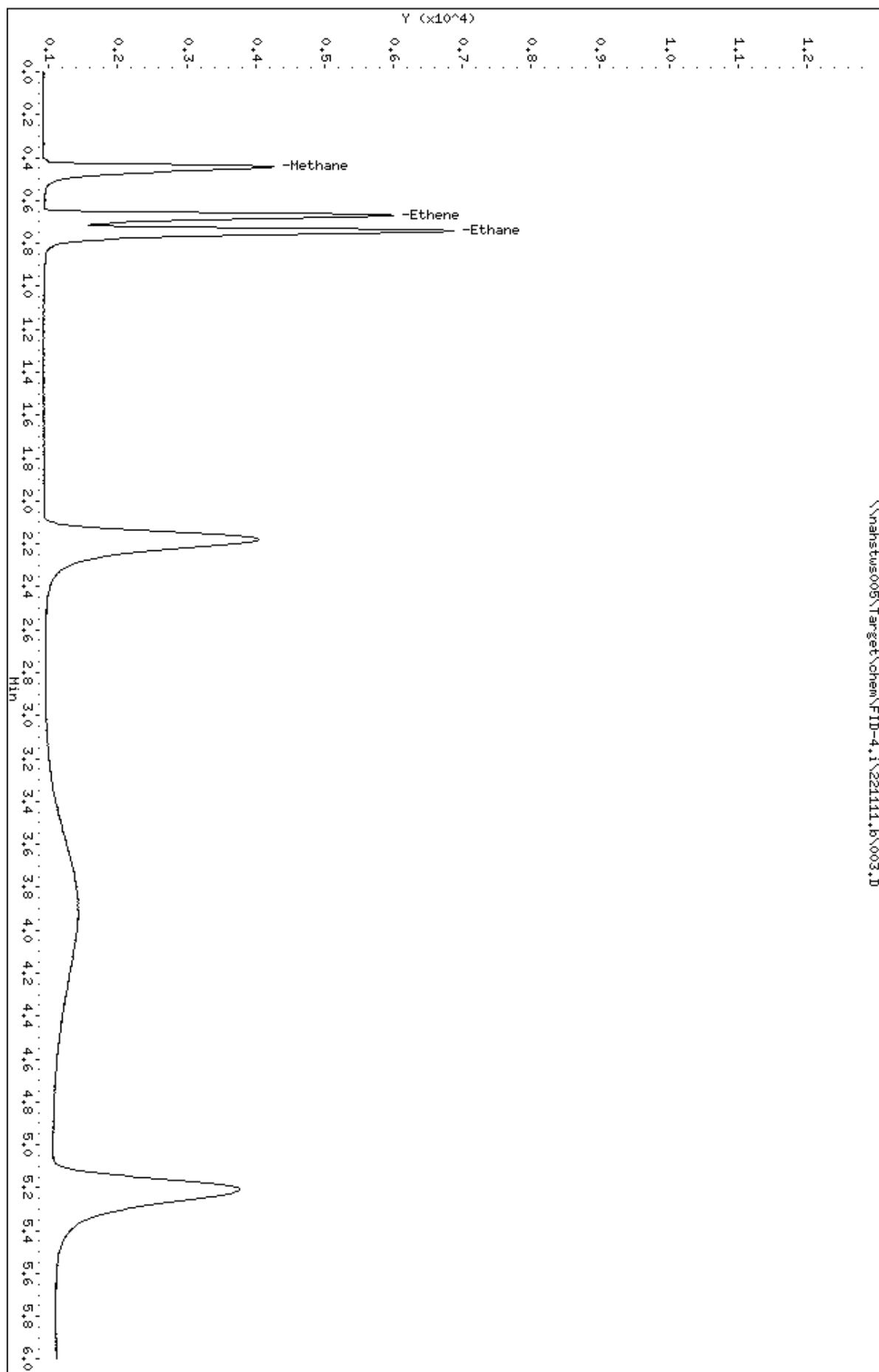
Sample Info: LCS-221111;LCS-221111;3;;LCS

Column phase: Rtx-PL0T

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53



Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\003.D
Inj Date : 11-NOV-2022 09:00
InstruID : FID-4.i
LabSampID : LCS-221111

NO MANUAL INTEGRATIONS



Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\004.D
 Report Date: 11-Nov-2022 10:07

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ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\004.D
 Lab Smp Id: LCSD-221111 Client Smp ID: LCSD-221111
 Inj Date : 11-NOV-2022 09:08
 Operator : PL Inst ID: FID-4.i
 Smp Info : LCSD-221111;LCSD-221111;3;;LCSD
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 11-Nov-2022 10:06 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 4 QC Sample: LCSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.440	0.443	-0.003	8648	8.86981	8.869
2 Ethene	0.666	0.666	0.000	11139	19.0163	19.016
3 Ethane	0.740	0.736	0.004	14849	20.6382	20.638



Data File: \\nahstus005\Target\chem\FID-4,1\221111.b\004.D

Date : 11-NOV-2022 09:08

Client ID: LCSD-221111

Sample Info: LCSD-221111;LCSD-221111;3;LCSD

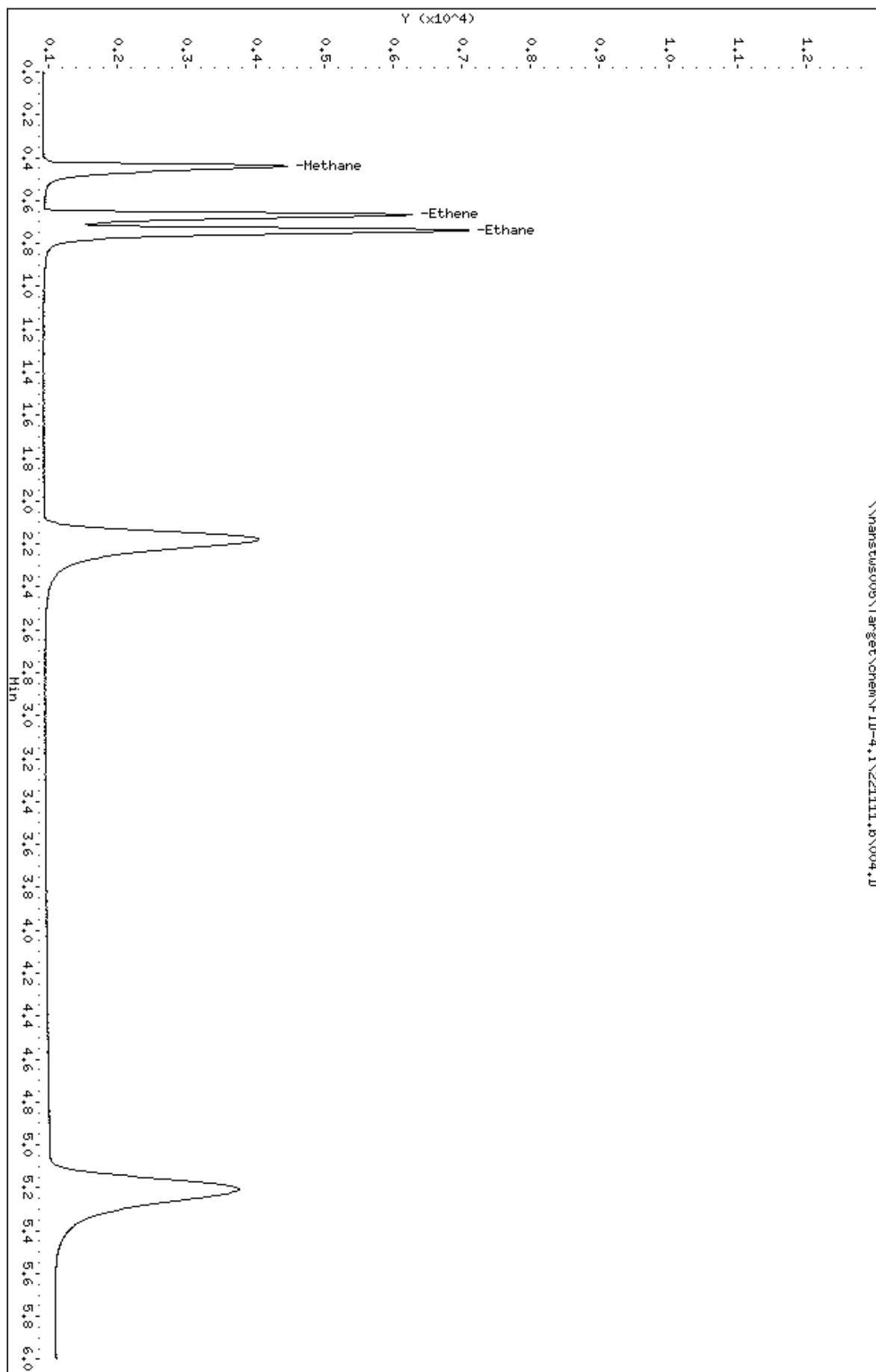
Column phase: Rtx-PL0T

Instrument: FID-4,1

Operator: PL

Column diameter: 0.53

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Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\004.D
Inj Date : 11-NOV-2022 09:08
InstruID : FID-4.i
LabSampID : LCSD-221111

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\011.D
 Report Date: 11-Nov-2022 11:41

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ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\011.D
 Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
 Inj Date : 11-NOV-2022 11:31
 Operator : PL Inst ID: FID-4.i
 Smp Info : RSK-CCV;RSK-CCV;2;4
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 11-Nov-2022 11:41 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 11 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	0.436	0.436	0.000	8112		9.64700	8.320
2 Ethene	0.656	0.656	0.000	11228		16.8500	19.168
3 Ethane	0.730	0.730	0.000	14779		18.0430	20.540



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\011.D

Page 1

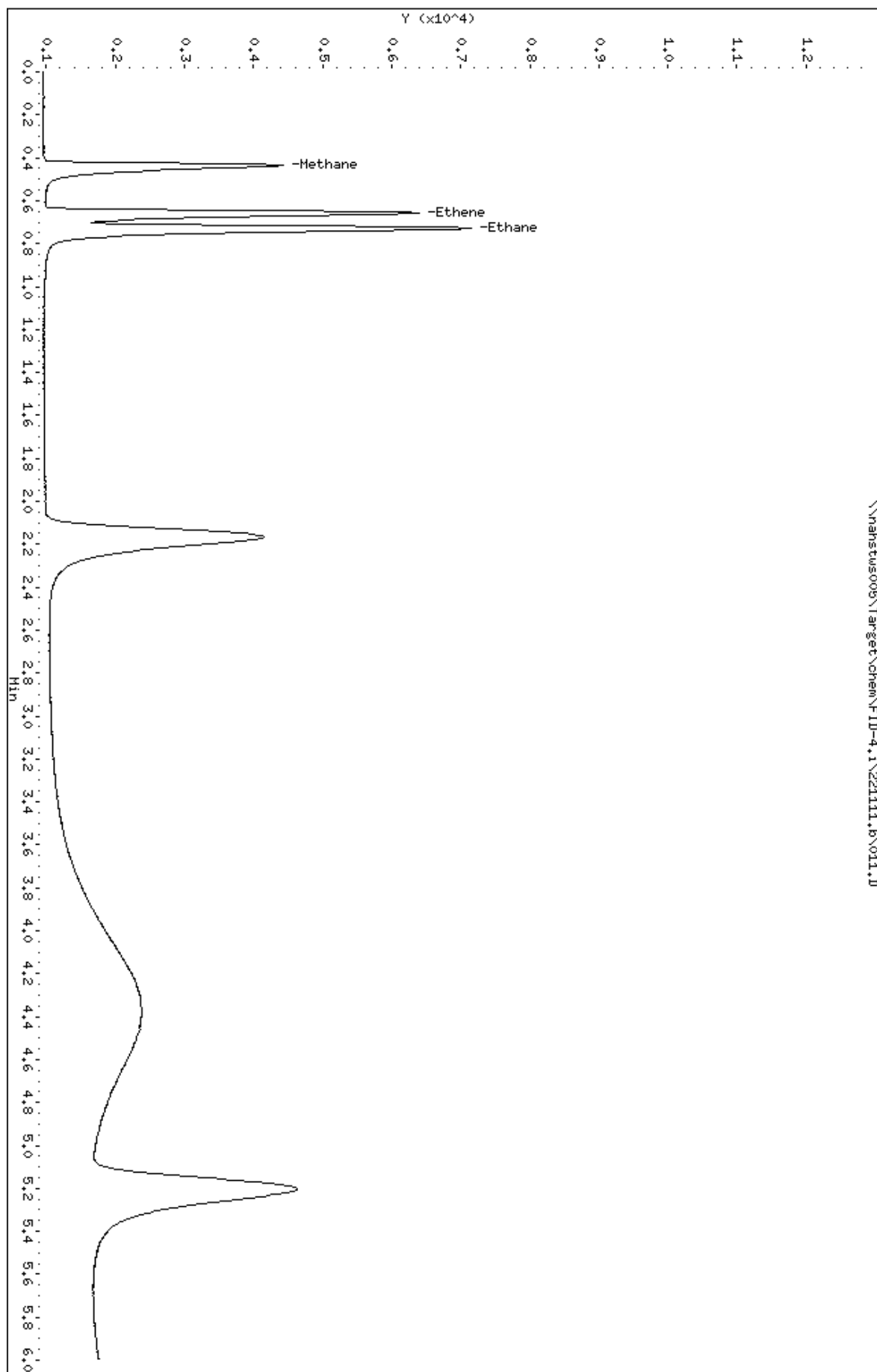
Date : 11-NOV-2022 11:31

Client ID: RSK-CCV

Instrument: FID-4.i

Sample Info: RSK-CCV\RSK-CCV\214

Column phase: Rtx-PL01

Operator: PL
Column diameter: 0.53

Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\011.D
Inj Date : 11-NOV-2022 11:31
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS



Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\018.D
 Report Date: 14-Nov-2022 10:16

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ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\018.D
 Lab Smp Id: HS22110281-01MS Client Smp ID: HS22110281-01MS
 Inj Date : 11-NOV-2022 14:15
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS22110281-01MS;HS22110281-01MS
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 11-Nov-2022 18:00 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 18
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN	FINAL
					(ug/L)	(ug/L)
=====	====	=====	=====	=====	=====	=====
1 Methane	0.440	0.443	-0.003	9135	9.36930	9.369(M)
2 Ethene	0.660	0.666	-0.006	13081	22.3317	22.331
3 Ethane	0.730	0.736	-0.006	17293	24.0351	24.035

QC Flag Legend

M - Compound response manually integrated.



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\018.D

Date : 11-NOV-2022 14:15

Client ID: HS22110281-01MS

Sample Info: HS22110281-01MS;HS22110281-01MS

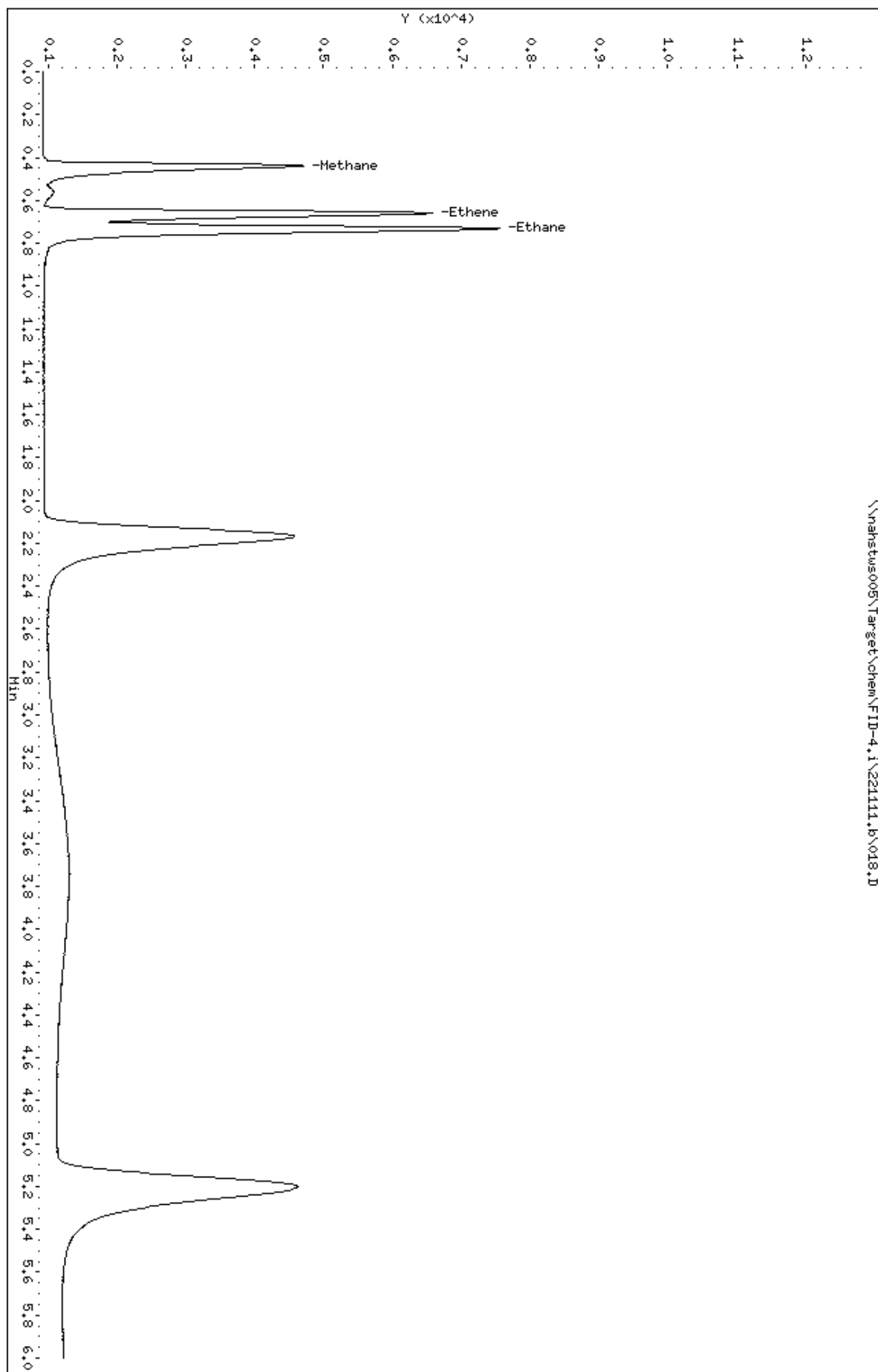
Column phase: RtX-PL0T

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

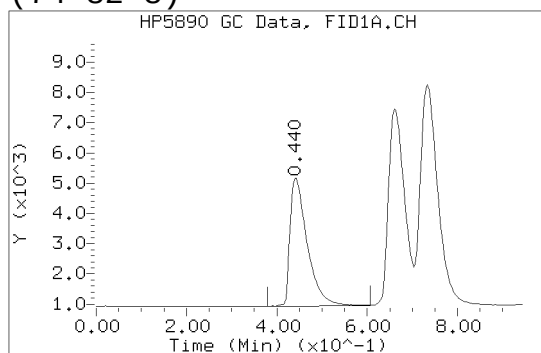
Page 1



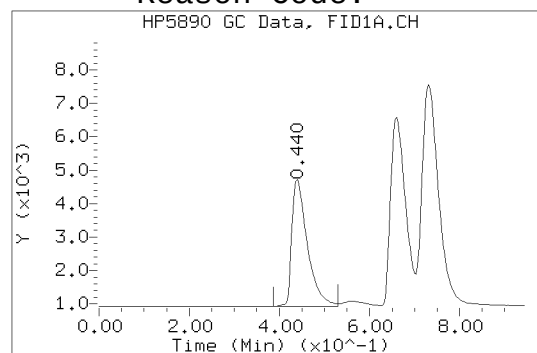
Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\018.D
Inj Date : 11-NOV-2022 14:15
InstruID : FID-4.i
LabSampID : HS22110281-01MS

Methane (74-82-8)**BEFORE**

MASS
100
AREA
0
HEIGHT
0
11-Nov-2022
13:11
ALSHS
Server

**AFTER**

MASS
100
AREA
9135
HEIGHT
3787
14-Nov-2022
10:16
ALSHS
Ser

Reason Code:

Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\019.D
 Report Date: 14-Nov-2022 10:16

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ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\019.D
 Lab Smp Id: HS22110281-01MSD Client Smp ID: HS22110281-01MSD
 Inj Date : 11-NOV-2022 14:32
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS22110281-01MSD;HS22110281-01MSD
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 11-Nov-2022 18:00 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 19
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	====	=====	=====	=====	=====	=====
1 Methane	0.436	0.443	-0.007	9271	9.50879	9.508
2 Ethene	0.656	0.666	-0.010	13295	22.6970	22.696
3 Ethane	0.730	0.736	-0.006	17982	24.9927	24.992



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\019.D

Date : 11-NOV-2022 14:32

Client ID: HS22110281-01HSD

Sample Info: HS22110281-01HSD;HS22110281-01HSD

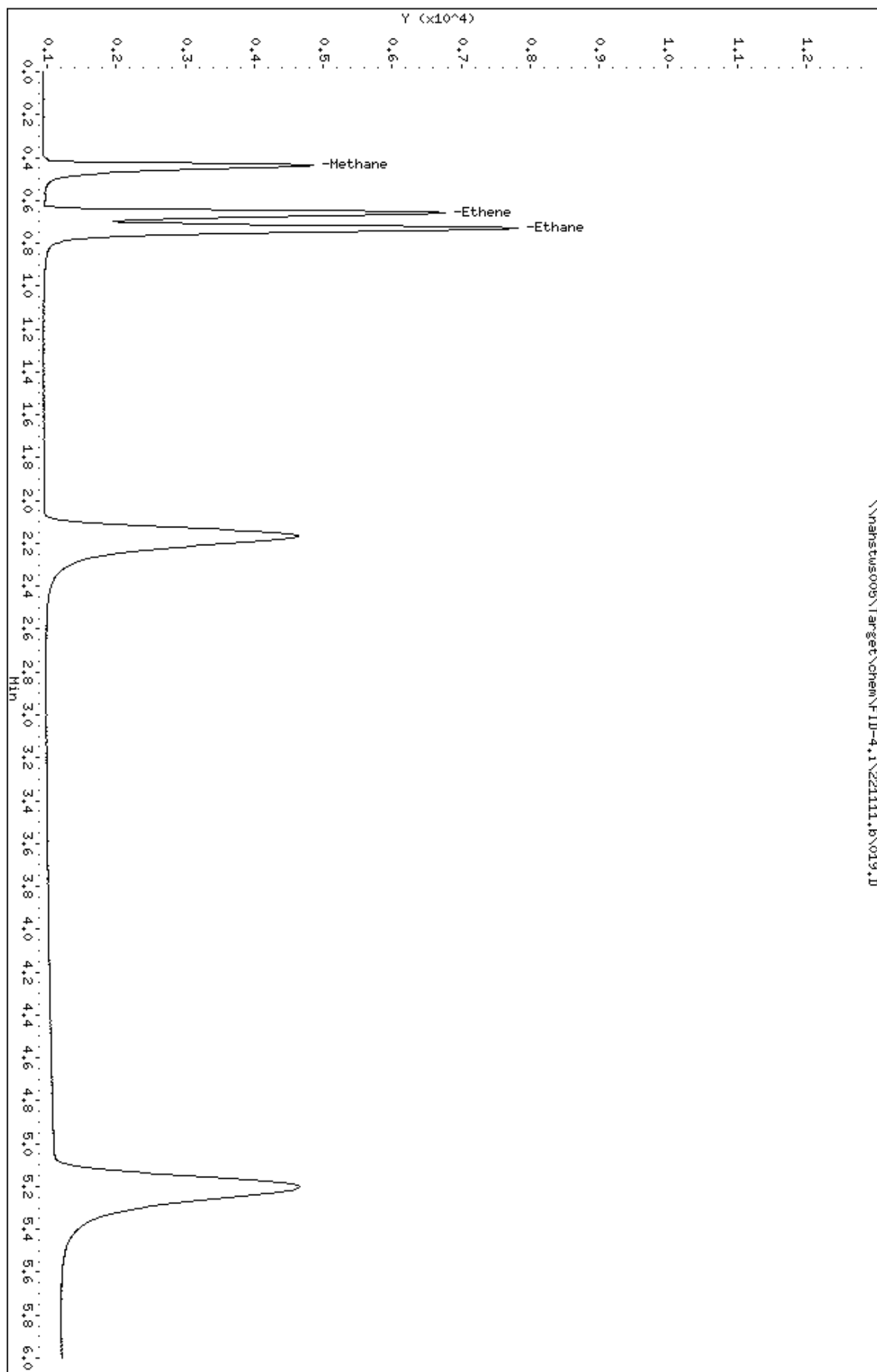
Column phase: Rtx-PL01

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

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Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\019.D
Inj Date : 11-NOV-2022 14:32
InstruID : FID-4.i
LabSampID : HS22110281-01MSD

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\022.D
 Report Date: 14-Nov-2022 10:17

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ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\022.D
 Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
 Inj Date : 11-NOV-2022 15:57
 Operator : PL Inst ID: FID-4.i
 Smp Info : RSK-CCV;RSK-CCV;2;4
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 14-Nov-2022 10:17 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 22 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	0.433	0.433	0.000	7940		9.64700	8.143
2 Ethene	0.656	0.656	0.000	11003		16.8500	18.784
3 Ethane	0.726	0.726	0.000	14408		18.0430	20.025



Data File: \\nahstus005\\Target\\chem\\FID-4.i\\221111.b\\022.D

Date : 11-NOV-2022 15:57

Client ID: RSK-CCV

Sample Info: RSK-CCV\\RSK-CCV\\214

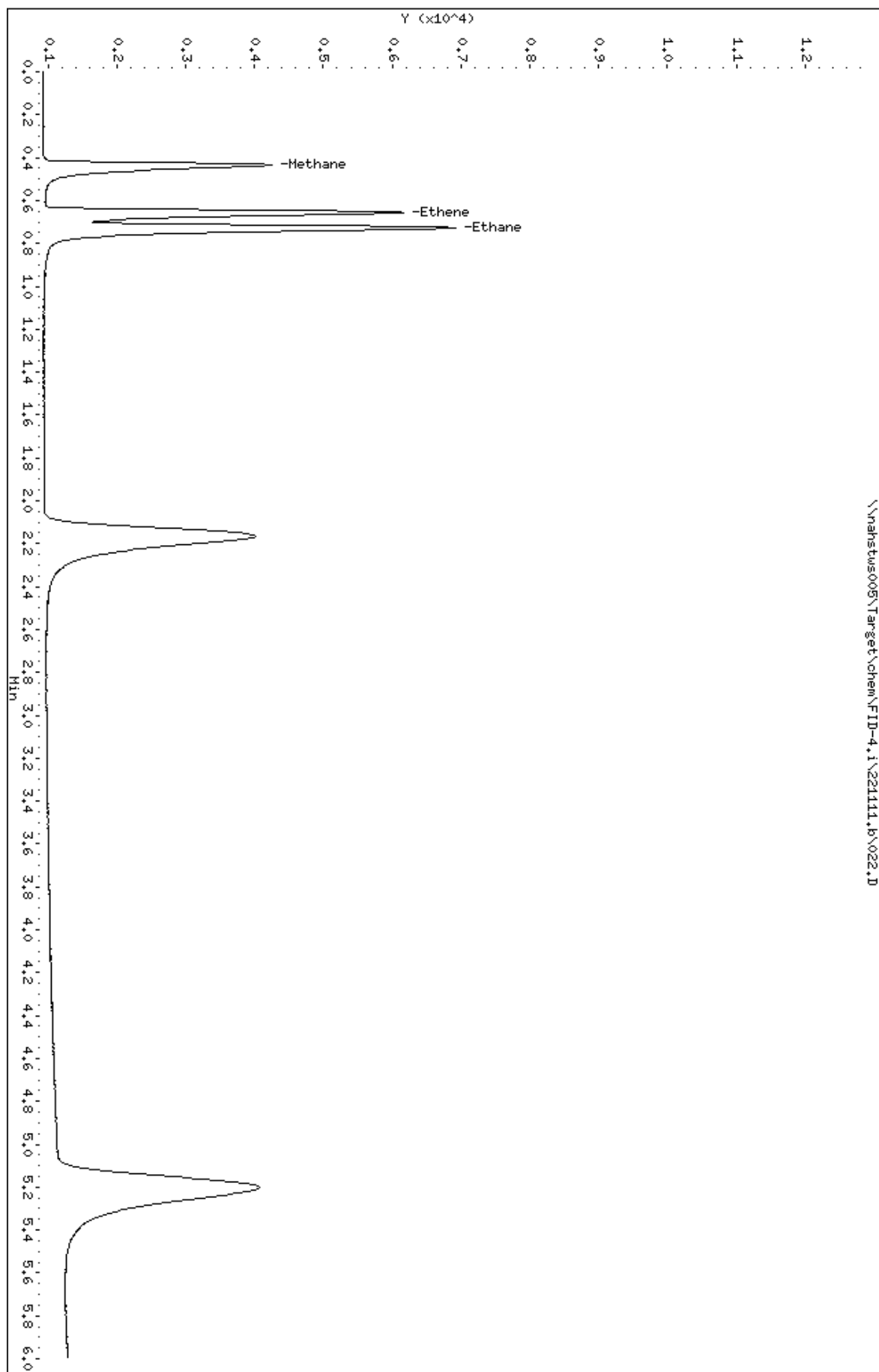
Page 1

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

Column phase: Rtx-PL0T



Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\022.D
Inj Date : 11-NOV-2022 15:57
InstruID : FID-4.i
LabSampID : RSK-CCV

NO MANUAL INTEGRATIONS



Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\023.D

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Report Date: 14-Nov-2022 10:18

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\023.D
 Lab Smp Id: HS22110582-03 Client Smp ID: HS22110582-03
 Inj Date : 11-NOV-2022 16:12
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS22110582-03;HS22110582-03
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 14-Nov-2022 10:17 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 23
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE		ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====		=====	=====
1 Methane	0.446	0.436	0.010	2259		2.31694	2.316(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\nahstus005\Target\chem\FID-4.1\221111.b\023.D

Date : 11-NOV-2022 16:12

Client ID: HS22110582-03

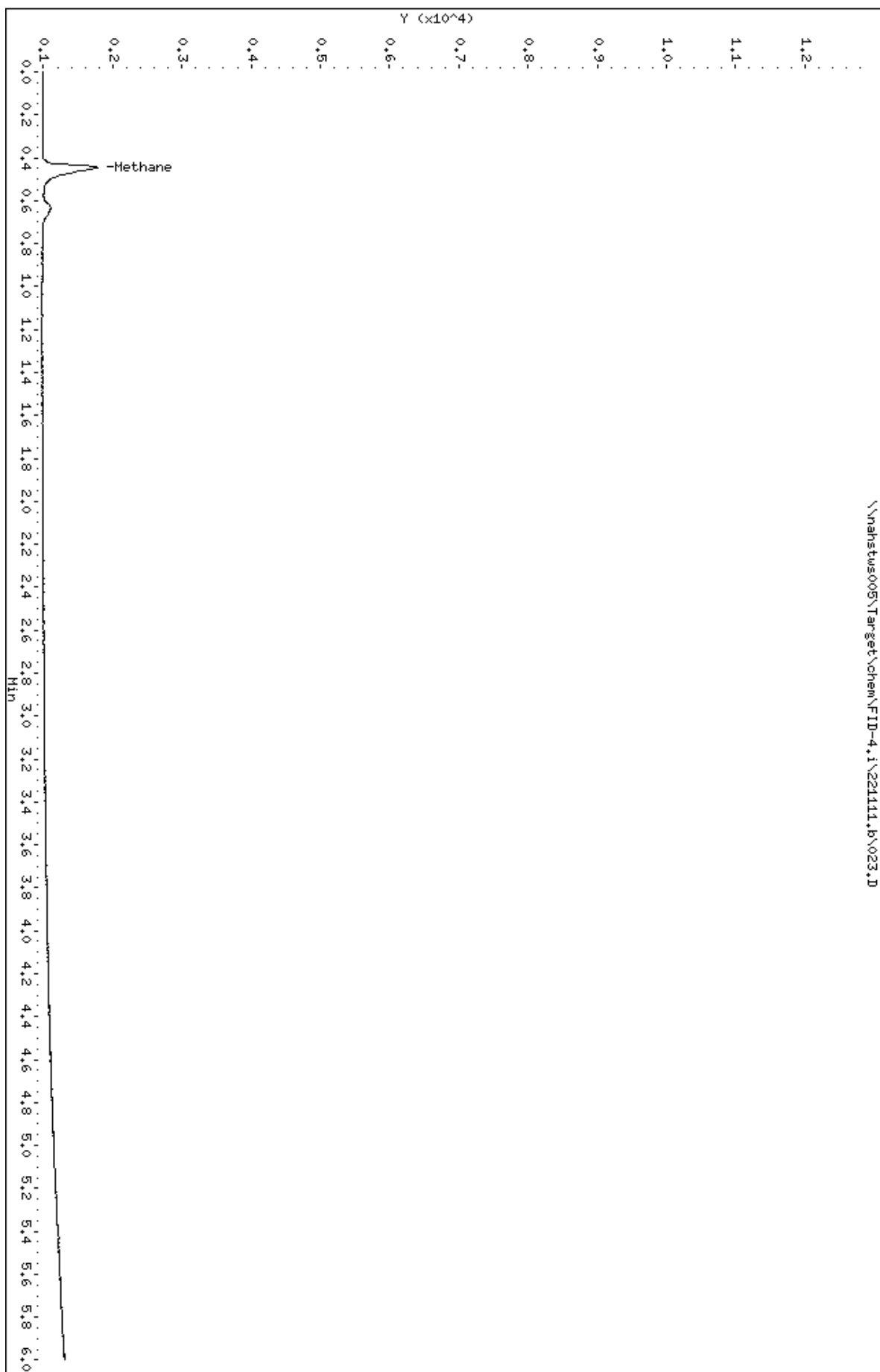
Sample Info: HS22110582-03;HS22110582-03

Instrument: FID-4.1

Operator: PL

Column diameter: 0.53

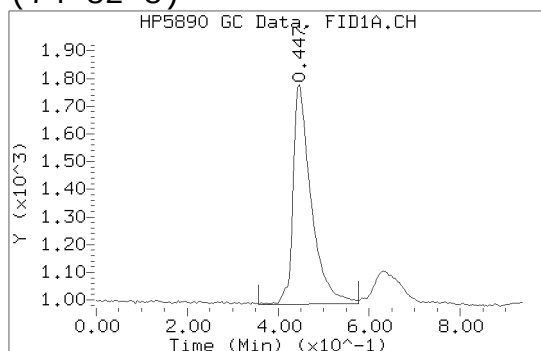
Column phase: Rtx-PL01



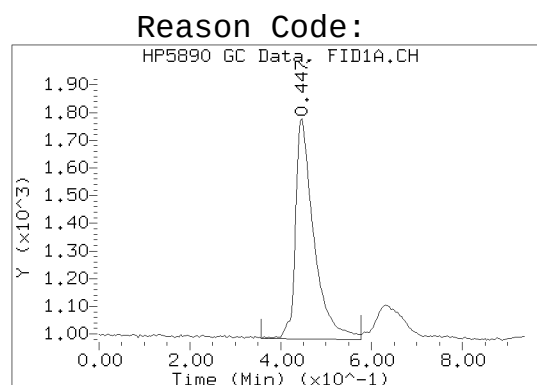
Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\023.D
Inj Date : 11-NOV-2022 16:12
InstruID : FID-4.i
LabSampID : HS22110582-03

Methane (74-82-8)**BEFORE**

MASS
100
AREA
0
HEIGHT
0
11-Nov-2022
16:19
ALSHS
Server

**AFTER**

MASS
100
AREA
2259
HEIGHT
796
14-Nov-2022
10:18
ALSHS
Ser



Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\024.D

Page 1

Report Date: 14-Nov-2022 10:17

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\024.D
 Lab Smp Id: HS22110582-04 Client Smp ID: HS22110582-04
 Inj Date : 11-NOV-2022 16:31
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS22110582-04;HS22110582-04
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 14-Nov-2022 10:17 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 24
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE		ON-COLUMN	FINAL
						(ug/L)	(ug/L)
=====	====	=====	=====	=====		=====	=====



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\024.D

Date : 11-NOV-2022 16:31

Client ID: HS22110582-04

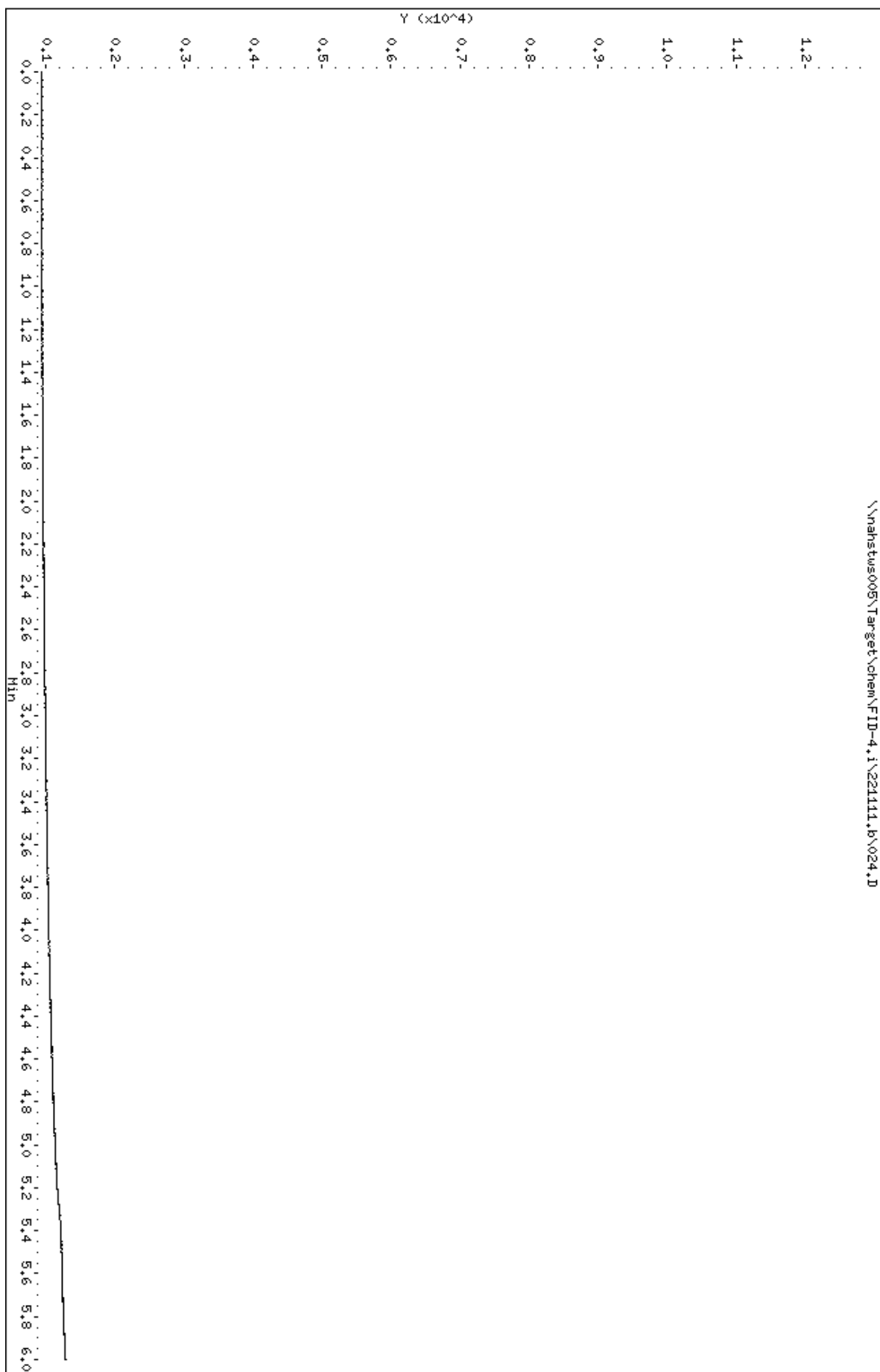
Sample Info: HS22110582-04;HS22110582-04

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

Column phase: Rtx-PL01



Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\024.D
Inj Date : 11-NOV-2022 16:31
InstruID : FID-4.i
LabSampID : HS22110582-04

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\025.D
 Report Date: 14-Nov-2022 10:17

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ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\025.D
 Lab Smp Id: HS22110582-05 Client Smp ID: HS22110582-05
 Inj Date : 11-NOV-2022 16:43
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS22110582-05;HS22110582-05
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 14-Nov-2022 10:17 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 25
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE		ON-COLUMN (ug/L)	FINAL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	0.450	0.433	0.017	817		0.83796	0.837
2 Ethene	0.633	0.656	-0.023	317		0.54118	0.541



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\025.D

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Date : 11-NOV-2022 16:43

Client ID: HS22110582-05

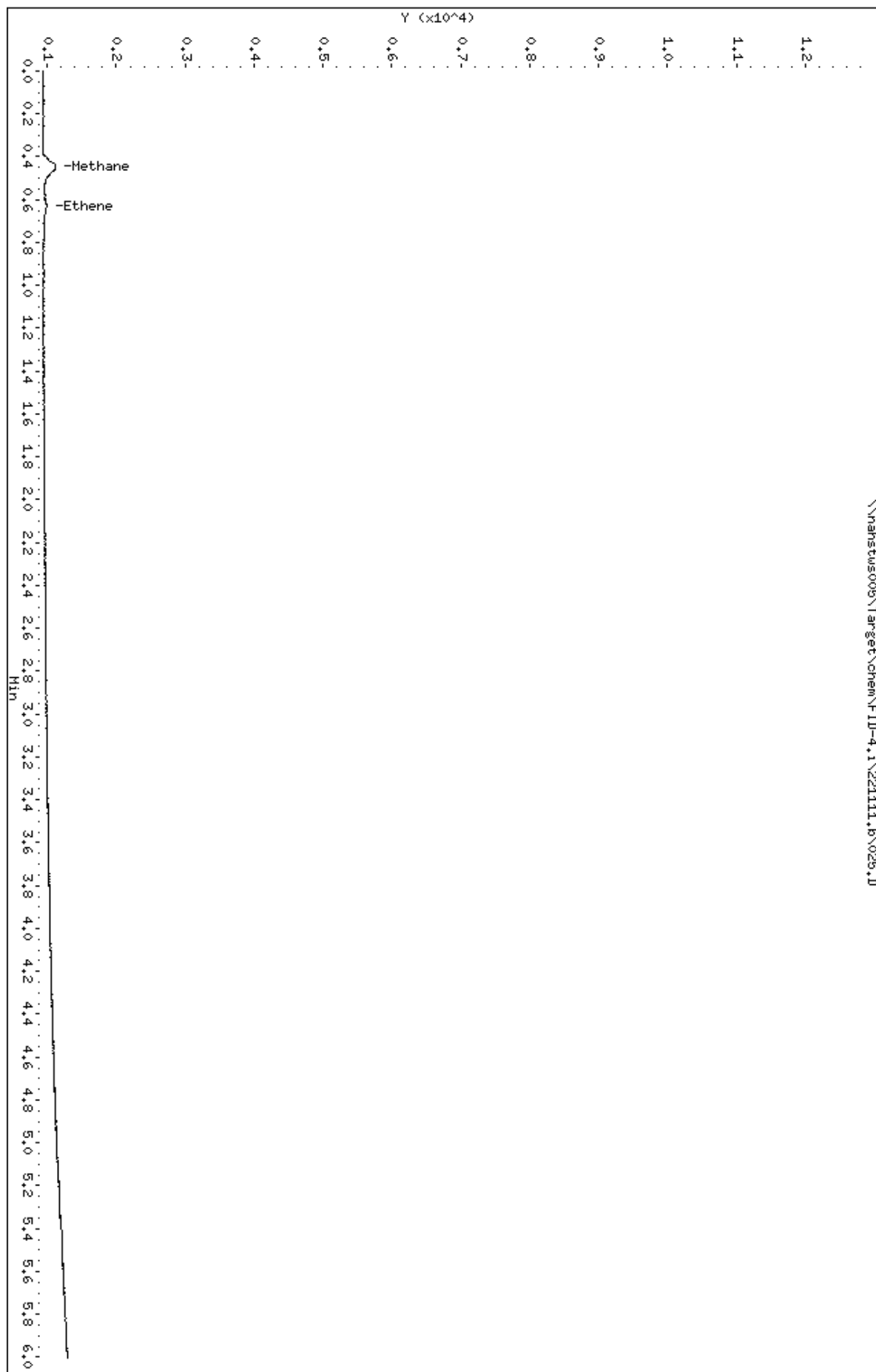
Instrument: FID-4.i

Sample Info: HS22110582-05\HS22110582-05

Column phase: Rtx-PL01

Operator: PL

Column diameter: 0.53



Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\025.D
Inj Date : 11-NOV-2022 16:43
InstruID : FID-4.i
LabSampID : HS22110582-05

NO MANUAL INTEGRATIONS

Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\026.D
 Report Date: 14-Nov-2022 10:19

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ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\026.D
 Lab Smp Id: HS22110582-05MS Client Smp ID: HS22110582-05MS
 Inj Date : 11-NOV-2022 17:06
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS22110582-05MS;HS22110582-05MS
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 14-Nov-2022 10:17 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 26
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
=====	=====	=====	=====	=====	=====	=====
1 Methane	0.443	0.436	0.007	8639	8.86058	8.860
2 Ethene	0.663	0.660	0.003	10963	18.7158	18.715
3 Ethane	0.736	0.726	0.010	15259	21.2081	21.208



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\026.D

Date : 11-NOV-2022 17:06

Client ID: HS22110582-05HS

Sample Info: HS22110582-05HS;HS22110582-05HS

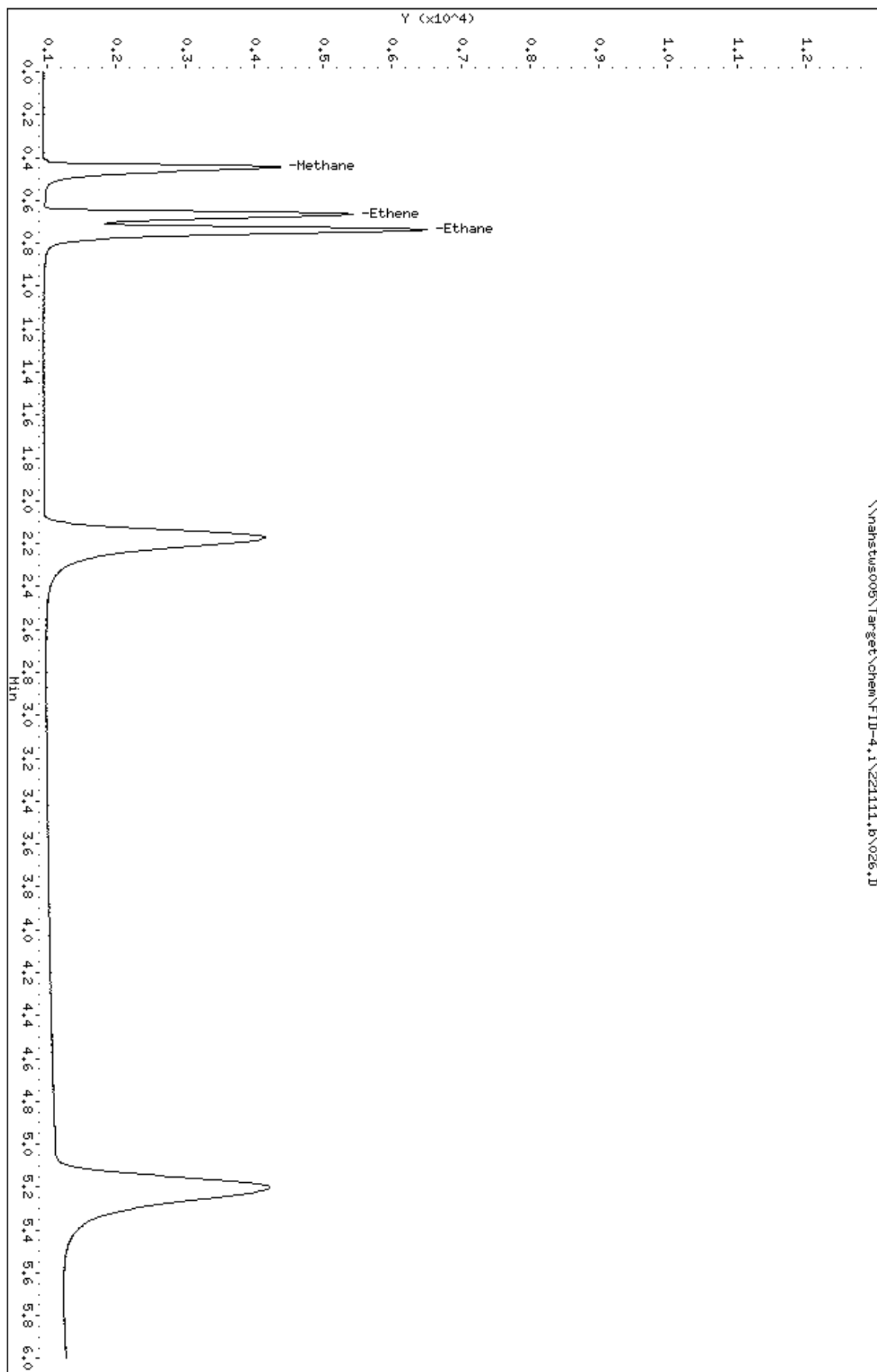
Column phase: RtX-PL0T

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

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Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\026.D
Inj Date : 11-NOV-2022 17:06
InstruID : FID-4.i
LabSampID : HS22110582-05MS

NO MANUAL INTEGRATIONS

Data File: \\NAHSTWS005\Target\chem\FID-4.i\221111.b\027.D
 Report Date: 21-Nov-2022 12:26

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ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\NAHSTWS005\Target\chem\FID-4.i\221111.b\027.D
 Lab Smp Id: HS22110582-05MSD Client Smp ID: HS22110582-05MSD
 Inj Date : 11-NOV-2022 17:18
 Operator : PL Inst ID: FID-4.i
 Smp Info : HS22110582-05MSD;HS22110582-05MSD
 Misc Info : ;1;0;1
 Comment :
 Method : \\NAHSTWS005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 14-Nov-2022 10:17 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 27 QC Sample: MSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7056

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds	CONCENTRATIONS					
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ug/L)	FINAL (ug/L)
1 Methane	0.446	0.436	0.010	8887	9.11494	9.114(M)
2 Ethene	0.666	0.660	0.006	11445	19.5387	19.538(M)
3 Ethane	0.740	0.730	0.010	15506	21.5514	21.551(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\NAHSTMS005\Target\chem\FID-4,1\221111.b\027.D

Date : 11-NOV-2022 17:18

Client ID: HS22110582-05MSD

Sample Info: HS22110582-05MSD;HS22110582-05MSD

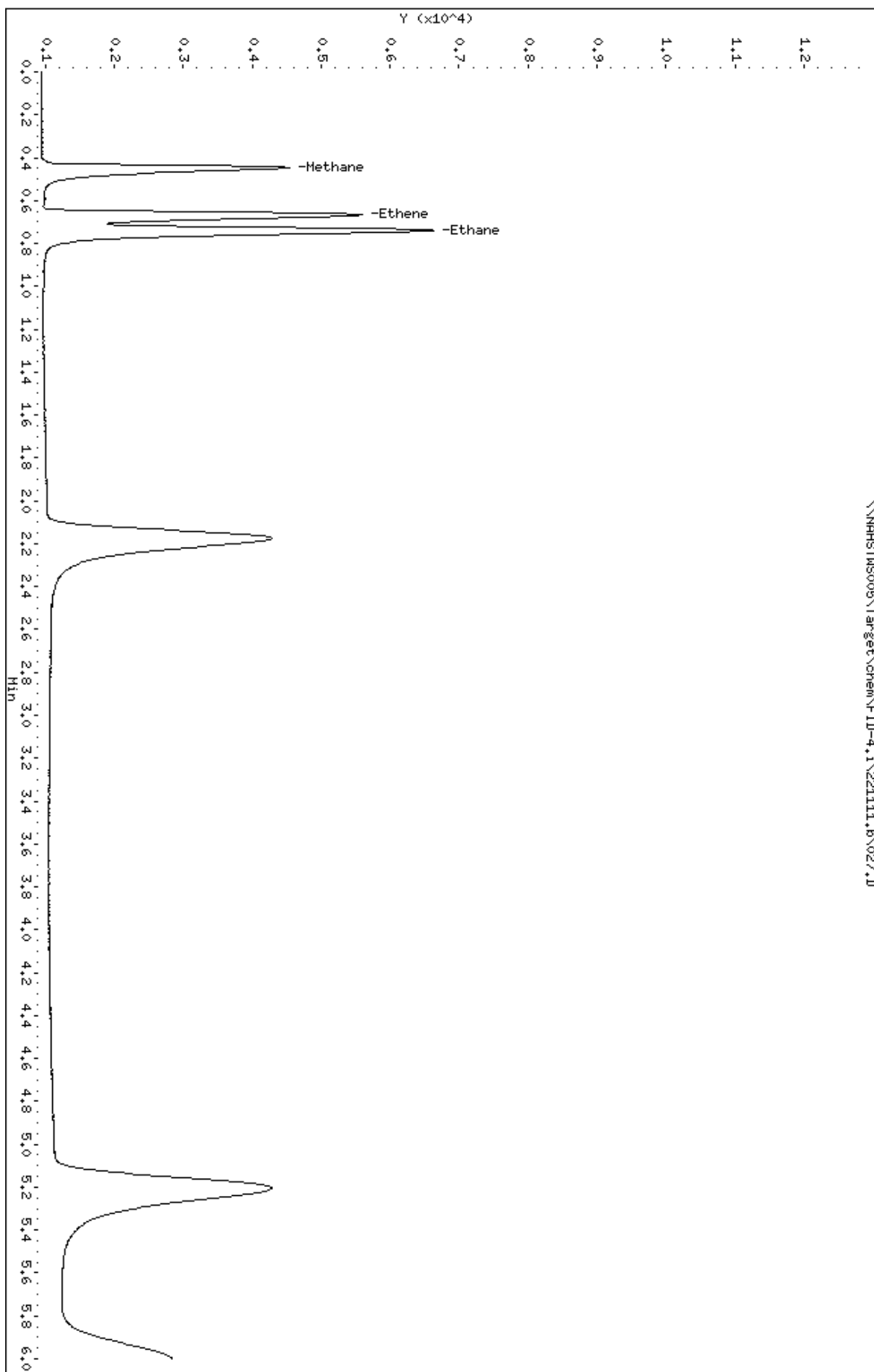
Column phase: Rtx-PL01

Instrument: FID-4,1

Operator: PL

Column diameter: 0.53

Page 1

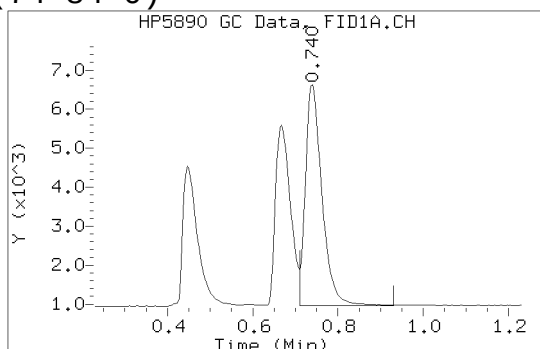


Data File : \\NAHSTWS005\\Target\\chem\\FID-4.i\\221111.b\\027.D
 Inj Date : 11-NOV-2022 17:18
 InstruID : FID-4.i
 LabSampID : HS22110582-05MSD

Ethane (74-84-0)

BEFORE

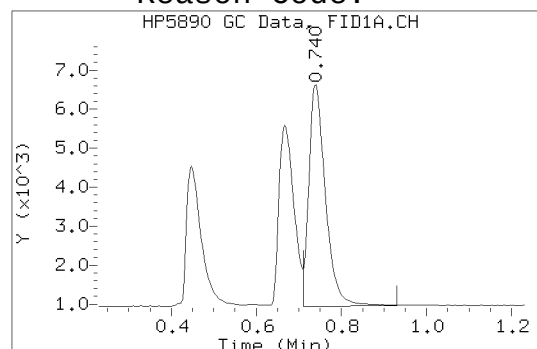
MASS
44
AREA
15293
HEIGHT
5666
11-Nov-2022
17:25
ALSHS
Server



AFTER

MASS
44
AREA
15506
HEIGHT
5677
21-Nov-2022
12:26
ALSHS
Ser

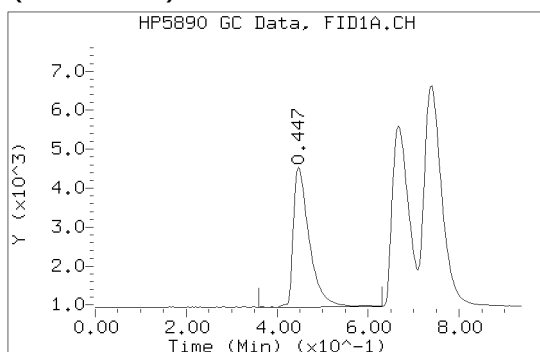
Reason Code:



Methane (74-82-8)

BEFORE

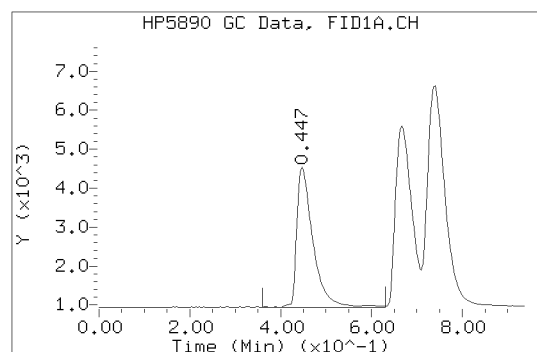
MASS
100
AREA
0
HEIGHT
0
11-Nov-2022
17:25
ALSHS
Server



AFTER

MASS
100
AREA
8887
HEIGHT
3601
21-Nov-2022
12:26
ALSHS
Ser

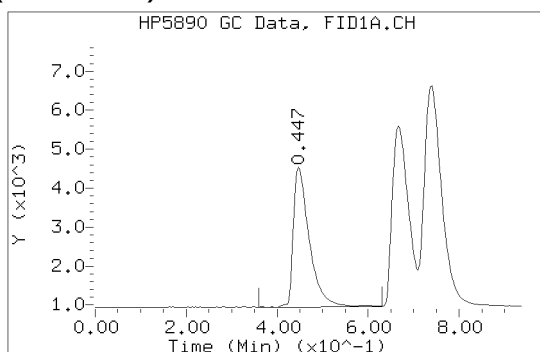
Reason Code:



Ethene (74-85-1)

BEFORE

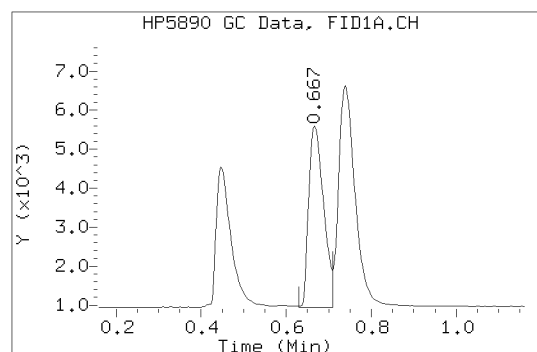
MASS
100
AREA
0
HEIGHT
0
11-Nov-2022
17:25
ALSHS
Server



AFTER

MASS
100
AREA
11445
HEIGHT
4647
21-Nov-2022
12:26
ALSHS
Ser

Reason Code:



Data File: \\nahstws005\Target\chem\FID-4.i\221111.b\028.D
 Report Date: 14-Nov-2022 10:20

Page 1

ALS Laboratory Group

Dissolved Gases Analysis

Data file : \\nahstws005\Target\chem\FID-4.i\221111.b\028.D
 Lab Smp Id: RSK-CCV Client Smp ID: RSK-CCV
 Inj Date : 11-NOV-2022 17:53
 Operator : PL Inst ID: FID-4.i
 Smp Info : RSK-CCV;RSK-CCV;2;4
 Misc Info : ;1;0;1
 Comment :
 Method : \\nahstws005\Target\chem\FID-4.i\221111.b\RSKNI3.m
 Meth Date : 14-Nov-2022 10:17 samy.mata Quant Type: ESTD
 Cal Date : 24-JAN-2017 10:15 Cal File: 004.D
 Als bottle: 28 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: RSK175.sub
 Target Version: 4.14
 Processing Host: NAHSTW7022

Concentration Formula: Amt * DF * CpndVariable
 Cpnd Variable Local Compound Variable

Compounds						AMOUNTS	
	RT	EXP RT	DLT RT	RESPONSE		CAL-AMT (ug/L)	ON-COL (ug/L)
=====	====	=====	=====	=====		=====	=====
1 Methane	0.436	0.436	0.000	8544		9.64700	8.763
2 Ethene	0.660	0.660	0.000	11279		16.8500	19.255(M)
3 Ethane	0.730	0.730	0.000	14501		18.0430	20.154(M)

QC Flag Legend

M - Compound response manually integrated.



Data File: \\nahstus005\Target\chem\FID-4.i\221111.b\028.D

Date : 11-NOV-2022 17:53

Client ID: RSK-CCV

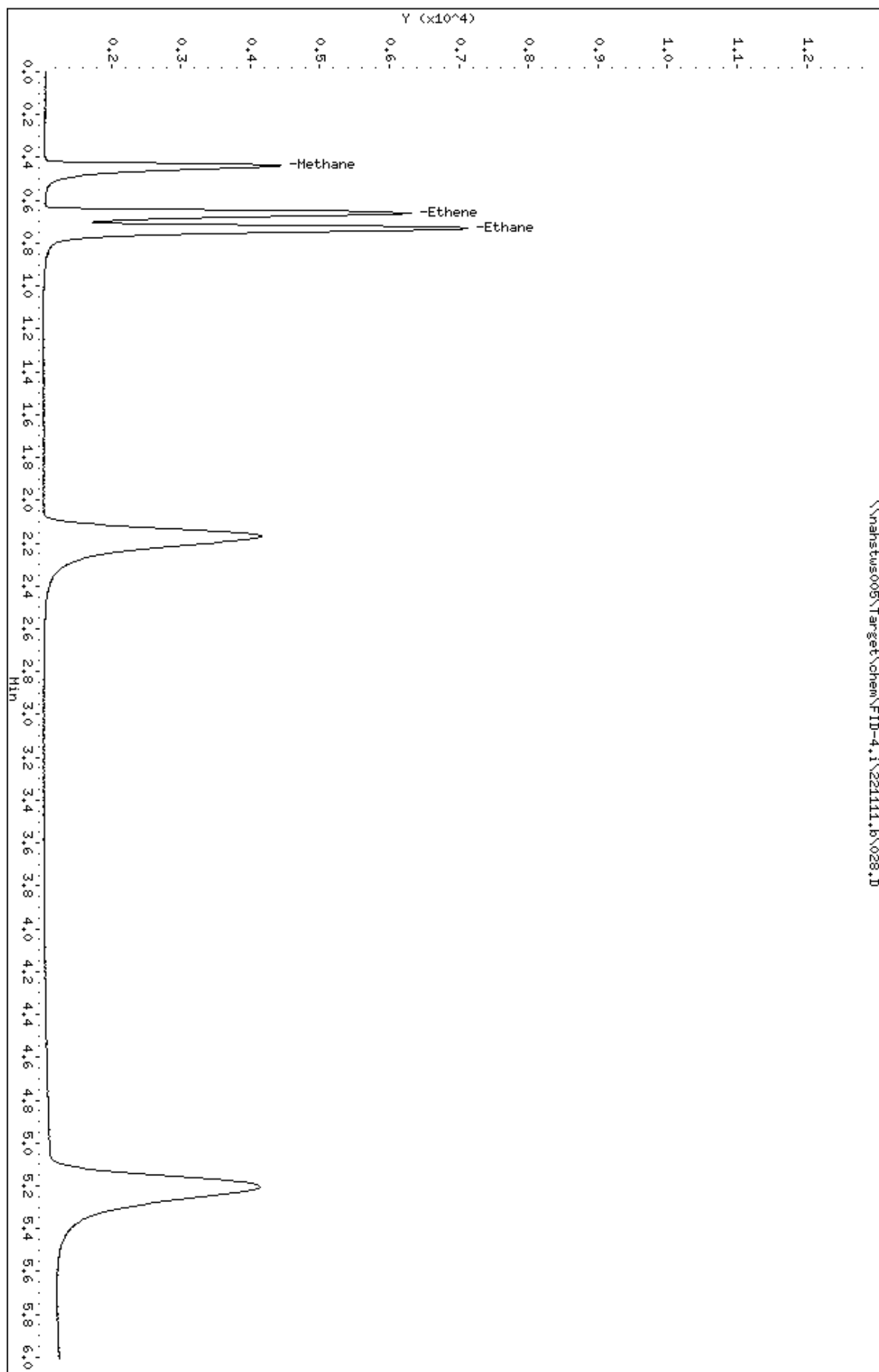
Sample Info: RSK-CCV;RSK-CCV;2;4

Instrument: FID-4.i

Operator: PL

Column diameter: 0.53

Column phase: Rtx-PL01



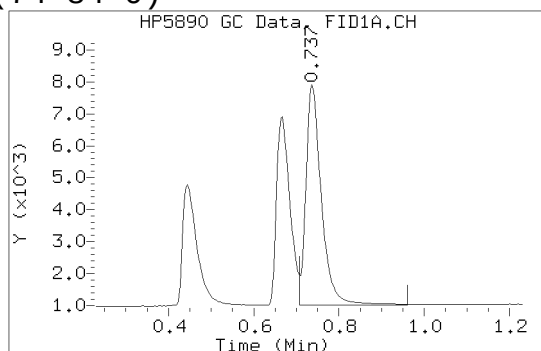
Page 1

Data File : \\nahstws005\Target\chem\FID-4.i\221111.b\028.D
 Inj Date : 11-NOV-2022 17:53
 InstruID : FID-4.i
 LabSampID : RSK-CCV

Ethane (74-84-0)

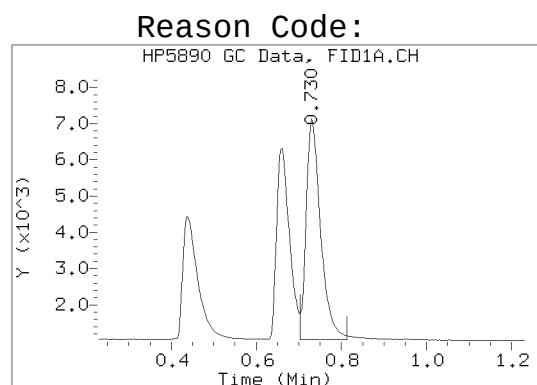
BEFORE

MASS
44
AREA
17567
HEIGHT
6898
11-Nov-2022
17:36
ALSHS
Server



AFTER

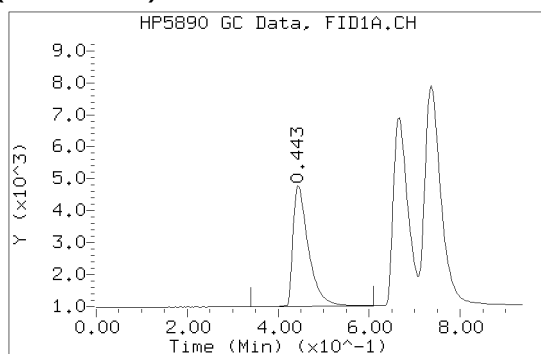
MASS
44
AREA
14501
HEIGHT
6101
14-Nov-2022
10:20
ALSHS
Ser



Ethene (74-85-1)

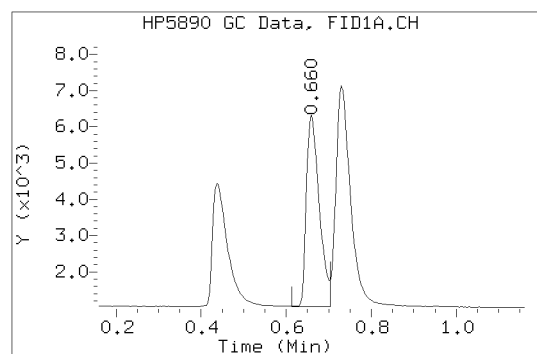
BEFORE

MASS
100
AREA
0
HEIGHT
0
11-Nov-2022
17:36
ALSHS
Server



AFTER

MASS
100
AREA
11279
HEIGHT
5284
14-Nov-2022
10:20
ALSHS
Ser



HS22110582 Wet Chemistry

ALS WO# HS22110582



H522110582

	Type	Analysis	Sample Nam	Sample ID	Origin	Manual Diluti	Result	Notes
1	Standard	NPOC	CAL	3100606211	09_21_2022	1.000		
2	Unknown	NPOC	ICV	3100606203	09_21_2022	1.000	NPOC:10.36mg/L	
3	Unknown	NPOC	ICB		09_21_2022	1.000	NPOC:0.2313mg/L	

C:\TOC-L\Data\2022_09_21_001_CAL.tlx

	Status	Date / Time	Vial
1	Completed	9/21/2022 9:03:26	1, 2, 3, 4, 5,
2	Completed	9/21/2022 9:16:57	8
3	Completed	9/21/2022 9:29:29	1



TOC-Control L Report

2022_09_21_001_CAL.tlx

Instr. Information

Instrument Options
Catalyst

TOC/ASI/IC Unit/
Regular Sensitivity

Cal. Curve

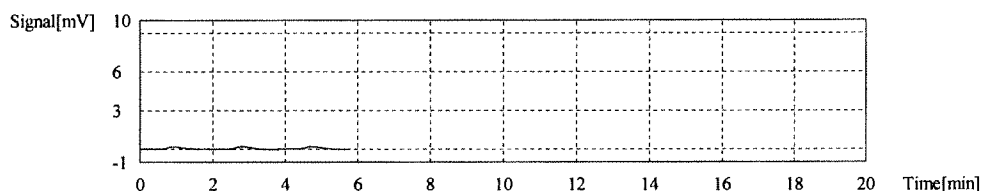
Sample Name: CAL
Sample ID: 3100606211
Cal. Curve: 09_21_2022_CAL.2022_09_21_07_29_28.cal
Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.4792	50uL	1.000	*****		9/21/2022 7:38:03 AM
2	0.5340	50uL	1.000	*****		9/21/2022 7:40:11 AM
3	0.5493	50uL	1.000	*****		9/21/2022 7:42:19 AM

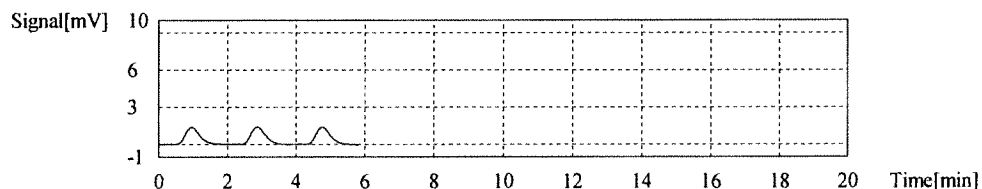
Acid Add. 1.500%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 0.5208



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	3.969	50uL	1.000	*****		9/21/2022 7:50:23 AM
2	4.146	50uL	1.000	*****		9/21/2022 7:52:31 AM
3	4.208	50uL	1.000	*****		9/21/2022 7:54:45 AM

Acid Add. 1.500%
Spurge Gas Flow 80mL/min
Sp. Time 120.0sec
Mean Area 4.108



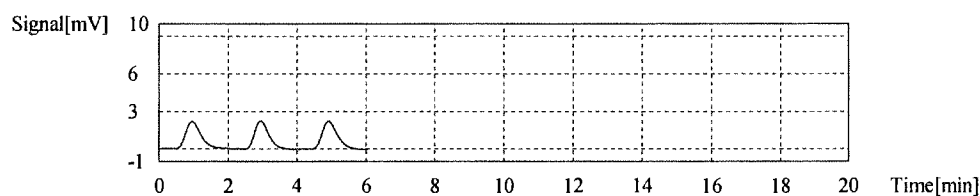
Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.528	50uL	1.000	*****		9/21/2022 8:02:54 AM
2	6.494	50uL	1.000	*****		9/21/2022 8:05:05 AM
3	6.989	50uL	1.000	*****		9/21/2022 8:07:25 AM

TOC-Control L Report

2022_09_21_001_CAL.tlx

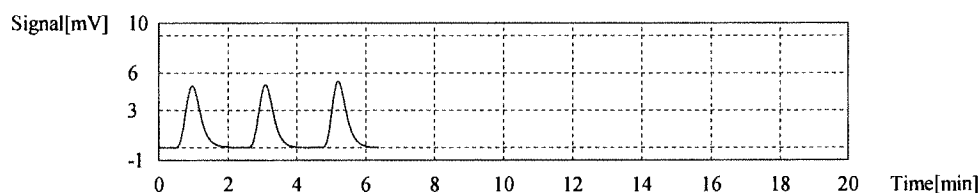
Acid Add. 1.500%
 Spurge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 6.670



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.19	50uL	1.000	*****		9/21/2022 8:15:40 AM
2	15.41	50uL	1.000	*****		9/21/2022 8:18:04 AM
3	15.79	50uL	1.000	*****		9/21/2022 8:20:25 AM

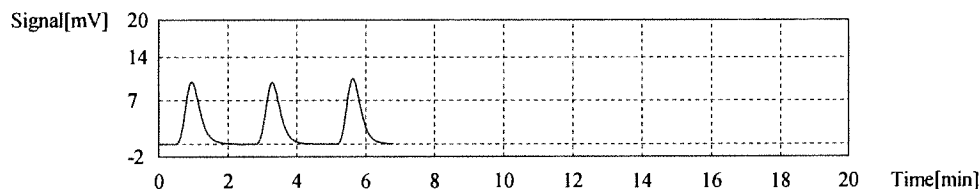
Acid Add. 1.500%
 Spurge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 15.46



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.38	50uL	1.000	*****		9/21/2022 8:28:52 AM
2	30.33	50uL	1.000	*****		9/21/2022 8:31:30 AM
3	31.44	50uL	1.000	*****		9/21/2022 8:33:52 AM

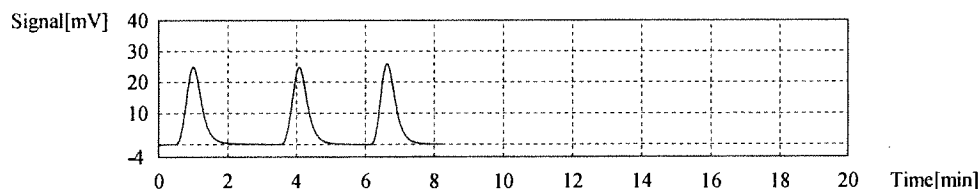
Acid Add. 1.500%
 Spurge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 30.72



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	79.43	50uL	1.000	*****		9/21/2022 8:43:05 AM
2	78.82	50uL	1.000	*****		9/21/2022 8:45:57 AM
3	79.74	50uL	1.000	*****		9/21/2022 8:48:43 AM

Acid Add. 1.500%
 Spurge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 79.33



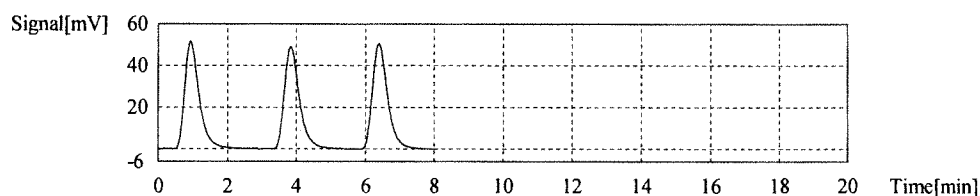
Conc: 50.00mg/L

TOC-Control L Report

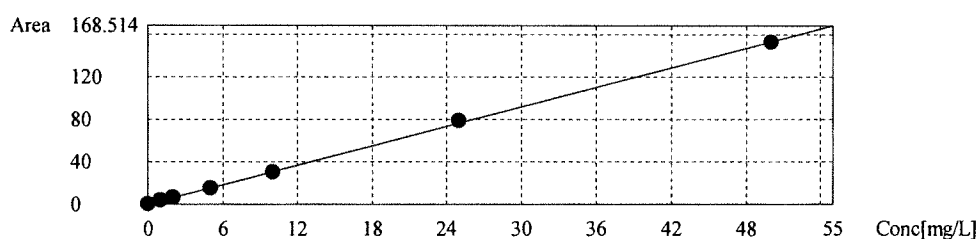
2022_09_21_001_CAL.tlx

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	152.3	50uL	1.000	*****		9/21/2022 8:57:45 AM
2	150.9	50uL	1.000	*****		9/21/2022 9:00:32 AM
3	156.0	50uL	1.000	*****		9/21/2022 9:03:26 AM

Acid Add. 1.500%
 Spurge Gas Flow 80mL/min
 Sp. Time 120.0sec
 Mean Area 153.1



Slope: 3.064
 Intercept: 0.000
 r^2 : 0.9997
 r : 0.9998
 RSE(%): N/A
 Zero Shift: Yes



Sample

Sample Name: ICV
 Sample ID: 3100606203
 Origin: 09_21_2022_CAL.cal
 Status: Completed
 Chk. Result:

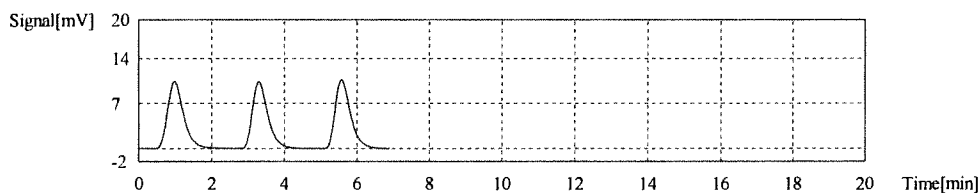
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	31.84	10.39mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	9/21/2022 9:11:57 AM
2	31.47	10.27mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	9/21/2022 9:14:28 AM
3	31.92	10.42mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	9/21/2022 9:16:57 AM

Mean Area 31.74
 Mean Conc. 10.36mg/L



Sample



TOC-Control L Report

2022_09_21_001_CAL.tlx

Sample Name: ICB
 Sample ID:
 Origin: 09_21_2022_CAL.cal
 Status: Completed
 Chk. Result

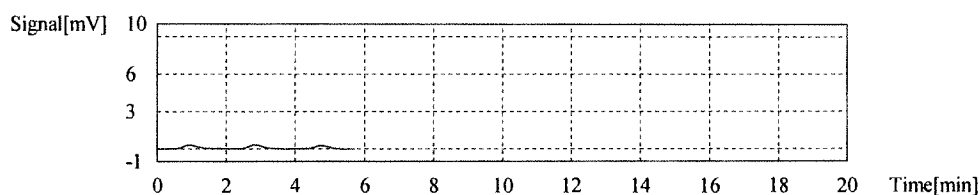
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2313mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol	Aut. Dil	Ex.	Cal. Curve	Date / Time
1	0.6700	0.2187mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	9/21/2022 9:25:13 AM
2	0.7827	0.2555mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	9/21/2022 9:27:21 AM
3	0.6729	0.2196mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	9/21/2022 9:29:29 AM

Mean Area: 0.7085
 Mean Conc.: 0.2313mg/L



	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
1	Unknown	NPOC	CCV	320076008	09_21_2022	1.000	NPOC:24.85mg/L	
2	Unknown	NPOC	CCB		09_21_2022	1.000	NPOC:0.2731mg/L	
3	Unknown	NPOC	MBLK-11222022		09_21_2022	1.000	NPOC:0.1412mg/L	
4	Unknown	NPOC	LCS-11222022	3100606203	09_21_2022	1.000	NPOC:10.38mg/L	
5	Unknown	NPOC	LCSD-11222022		09_21_2022	1.000	NPOC:10.34mg/L	
6	Unknown	NPOC	HS22110349-01		09_21_2022	1.000	NPOC:0.9067mg/L	
7	Unknown	NPOC	HS22110349-01MS		09_21_2022	1.000	NPOC:13.23mg/L	
8	Unknown	NPOC	HS22110349-02		09_21_2022	1.000	NPOC:1.075mg/L	
9	Unknown	NPOC	HS22110349-03		09_21_2022	1.000	NPOC:1.215mg/L	
10	Unknown	NPOC	HS22110349-04		09_21_2022	1.000	NPOC:2.839mg/L	
11	Unknown	NPOC	HS22110349-05		09_21_2022	1.000	NPOC:3.258mg/L	
12	Unknown	NPOC	HS22110349-06		09_21_2022	1.000	NPOC:3.328mg/L	
13	Unknown	NPOC	CCV	320076008	09_21_2022	1.000	NPOC:25.87mg/L	
14	Unknown	NPOC	CCB		09_21_2022	1.000	NPOC:0.4093mg/L	
15	Unknown	NPOC	HS22110349-07		09_21_2022	1.000	NPOC:5.231mg/L	
16	Unknown	NPOC	HS22110349-08		09_21_2022	1.000	NPOC:5.606mg/L	
17	Unknown	NPOC	HS22110349-09		09_21_2022	1.000	NPOC:5.577mg/L	
18	Unknown	NPOC	HS22110349-10		09_21_2022	1.000	NPOC:1.200mg/L	
19	Unknown	NPOC	CCV	320076008	09_21_2022	1.000	NPOC:25.23mg/L	
20	Unknown	NPOC	CCB		09_21_2022	1.000	NPOC:0.3055mg/L	
21	Unknown	NPOC	MBLK-11222022		09_21_2022	1.000	NPOC:0.1758mg/L	
22	Unknown	NPOC	LCS-11222022	3100606203	09_21_2022	1.000	NPOC:10.25mg/L	
23	Unknown	NPOC	LCSD-11222022		09_21_2022	1.000	NPOC:10.42mg/L	
24	Unknown	NPOC	HS22110349-11		09_21_2022	1.000	NPOC:0.5247mg/L	
25	Unknown	NPOC	HS22110349-11MS		09_21_2022	1.000	NPOC:11.32mg/L	
26	Unknown	NPOC	HS22110349-12		09_21_2022	1.000	NPOC:0.7754mg/L	
27	Unknown	NPOC	HS22110349-13		09_21_2022	1.000	NPOC:1.323mg/L	
28	Unknown	NPOC	HS22110349-14		09_21_2022	1.000	NPOC:1.720mg/L	
29	Unknown	NPOC	HS22110349-15		09_21_2022	1.000	NPOC:1.640mg/L	
30	Unknown	NPOC	HS22110349-16		09_21_2022	1.000	NPOC:2.822mg/L	
31	Unknown	NPOC	CCV	320076008	09_21_2022	1.000	NPOC:25.55mg/L	
32	Unknown	NPOC	CCB		09_21_2022	1.000	NPOC:0.4344mg/L	
33	Unknown	NPOC	HS22110349-17		09_21_2022	1.000	NPOC:2.306mg/L	
34	Unknown	NPOC	HS22110349-18		09_21_2022	1.000	NPOC:2.555mg/L	
35	Unknown	NPOC	HS22110349-19		09_21_2022	1.000	NPOC:2.560mg/L	
36	Unknown	NPOC	HS22110349-20		09_21_2022	1.000	NPOC:2.583mg/L	
37	Unknown	NPOC	CCV	320076008	09_21_2022	1.000	NPOC:25.21mg/L	
38	Unknown	NPOC	CCB		09_21_2022	1.000	NPOC:0.4251mg/L	
39	Unknown	NPOC	MBLK-11222022		09_21_2022	1.000	NPOC:0.2030mg/L	
40	Unknown	NPOC	LCS-11222022	3100606203	09_21_2022	1.000	NPOC:10.10mg/L	
41	Unknown	NPOC	LCSD-11222022		09_21_2022	1.000	NPOC:10.30mg/L	
42	Unknown	NPOC	HS22110349-21		09_21_2022	1.000	NPOC:2.030mg/L	
43	Unknown	NPOC	HS22110349-21MS		09_21_2022	1.000	NPOC:12.51mg/L	
44	Unknown	NPOC	HS22110349-22		09_21_2022	1.000	NPOC:1.406mg/L	
45	Unknown	NPOC	HS22110349-23		09_21_2022	1.000	NPOC:1.244mg/L	
46	Unknown	NPOC	HS22110349-24		09_21_2022	1.000	NPOC:1.223mg/L	
47	Unknown	NPOC	HS22110349-25		09_21_2022	1.000	NPOC:1.747mg/L	
48	Unknown	NPOC	HS22110349-26		09_21_2022	1.000	NPOC:1.660mg/L	
49	Unknown	NPOC	CCV	320076008	09_21_2022	1.000	NPOC:25.23mg/L	
50	Unknown	NPOC	CCB		09_21_2022	1.000	NPOC:0.4839mg/L	
51	Unknown	NPOC	HS22110349-27		09_21_2022	1.000	NPOC:1.786mg/L	

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes
52	Unknown	NPOC	HS22110349-28		09_21_2022	1.000	NPOC:0.7860mg/L	
53	Unknown	NPOC	HS22110958-01DF10		09_21_2022	1.000	NPOC:14.98mg/L	
54	Unknown	NPOC	HS22110958-02DF10		09_21_2022	1.000	NPOC:0.2833mg/L	
55	Unknown	NPOC	CCV	320076008	09_21_2022	1.000	NPOC:24.62mg/L	
56	Unknown	NPOC	CCB		09_21_2022	1.000	NPOC:0.3603mg/L	
57	Unknown	NPOC	MBLK-11222022		09_21_2022	1.000	NPOC:0.1670mg/L	
58	Unknown	NPOC	LCS-11222022	3100606203	09_21_2022	1.000	NPOC:10.19mg/L	
59	Unknown	NPOC	LCSD-11222022		09_21_2022	1.000	NPOC:10.34mg/L	
60	Unknown	NPOC	HS22110960-01DF10		09_21_2022	1.000	NPOC:0.3383mg/L	
61	Unknown	NPOC	HS22110960-02DF10		09_21_2022	1.000	NPOC:0.3237mg/L	
62	Unknown	NPOC	HS22110960-03DF10		09_21_2022	1.000	NPOC:6.168mg/L	
63	Unknown	NPOC	HS22110962-01		09_21_2022	1.000	NPOC:11.42mg/L	
64	Unknown	NPOC	HS22110582-03		09_21_2022	1.000	NPOC:4.155mg/L	
65	Unknown	NPOC	HS22110582-04		09_21_2022	1.000	NPOC:4.415mg/L	
66	Unknown	NPOC	CCV	320076008	09_21_2022	1.000	NPOC:25.08mg/L	
67	Unknown	NPOC	CCB		09_21_2022	1.000	NPOC:0.4738mg/L	
68	Unknown	NPOC	HS22110582-05		09_21_2022	1.000	NPOC:2.919mg/L	
69	Unknown	NPOC	HS22110582-05MS		09_21_2022	1.000	NPOC:13.22mg/L	
70	Unknown	NPOC	HS22110707-01		09_21_2022	1.000	NPOC:1.710mg/L	
71	Unknown	NPOC	HS22110707-02		09_21_2022	1.000	NPOC:1.916mg/L	
72	Unknown	NPOC	HS22110707-03		09_21_2022	1.000	NPOC:1.998mg/L	
73	Unknown	NPOC	CCV	320076008	09_21_2022	1.000	NPOC:25.01mg/L	
74	Unknown	NPOC	CCB		09_21_2022	1.000	NPOC:0.3251mg/L	

	Status	Date / Time	Vial
1	Completed	11/22/2022 7:51:59 PM	1
2	Completed	11/22/2022 8:04:19 PM	2
3	Completed	11/22/2022 8:16:39 PM	3
4	Completed	11/22/2022 8:30:14 PM	4
5	Completed	11/22/2022 8:43:58 PM	5
6	Completed	11/22/2022 8:56:18 PM	6
7	Completed	11/22/2022 9:10:18 PM	7
8	Completed	11/22/2022 9:22:46 PM	8
9	Completed	11/22/2022 9:35:22 PM	9
10	Completed	11/22/2022 9:48:12 PM	10
11	Completed	11/22/2022 10:01:39 PM	11
12	Completed	11/22/2022 10:14:33 PM	12
13	Completed	11/22/2022 10:29:11 PM	1
14	Completed	11/22/2022 10:41:30 PM	2
15	Completed	11/22/2022 10:54:51 PM	13
16	Completed	11/22/2022 11:07:59 PM	14
17	Completed	11/22/2022 11:21:22 PM	15
18	Completed	11/22/2022 11:33:42 PM	16
19	Completed	11/22/2022 11:48:02 PM	1
20	Completed	11/23/2022 12:00:21 AM	2
21	Completed	11/23/2022 12:12:38 AM	3
22	Completed	11/23/2022 12:26:26 AM	4
23	Completed	11/23/2022 12:40:07 AM	5
24	Completed	11/23/2022 12:52:33 AM	17
25	Completed	11/23/2022 1:06:17 AM	18
26	Completed	11/23/2022 1:18:34 AM	19
27	Completed	11/23/2022 1:30:59 AM	20
28	Completed	11/23/2022 1:43:32 AM	21
29	Completed	11/23/2022 1:55:55 AM	22
30	Completed	11/23/2022 2:08:34 AM	23
31	Completed	11/23/2022 2:23:09 AM	24
32	Completed	11/23/2022 2:35:28 AM	25
33	Completed	11/23/2022 2:48:29 AM	26
34	Completed	11/23/2022 3:01:25 AM	27
35	Completed	11/23/2022 3:14:13 AM	28
36	Completed	11/23/2022 3:27:11 AM	29
37	Completed	11/23/2022 3:41:58 AM	24
38	Completed	11/23/2022 3:54:18 AM	25
39	Completed	11/23/2022 4:06:40 AM	3
40	Completed	11/23/2022 4:20:18 AM	4
41	Completed	11/23/2022 4:33:58 AM	5
42	Completed	11/23/2022 4:46:56 AM	30
43	Completed	11/23/2022 5:00:33 AM	31
44	Completed	11/23/2022 5:12:59 AM	32
45	Completed	11/23/2022 5:25:21 AM	33
46	Completed	11/23/2022 5:37:43 AM	34
47	Completed	11/23/2022 5:50:18 AM	35
48	Completed	11/23/2022 6:02:57 AM	36
49	Completed	11/23/2022 6:17:13 AM	24
50	Completed	11/23/2022 6:29:33 AM	25
51	Completed	11/23/2022 6:42:12 AM	37



	Status	Date / Time	Vial
52	Completed	11/23/2022 6:54:45 AM	38
53	Completed	11/23/2022 7:09:02 AM	39
54	Completed	11/23/2022 7:21:22 AM	40
55	Completed	11/23/2022 7:35:45 AM	41
56	Completed	11/23/2022 7:48:03 AM	42
57	Completed	11/23/2022 8:00:26 AM	3
58	Completed	11/23/2022 8:14:01 AM	4
59	Completed	11/23/2022 8:28:02 AM	5
60	Completed	11/23/2022 8:40:29 AM	43
61	Completed	11/23/2022 8:52:47 AM	44
62	Completed	11/23/2022 9:06:26 AM	45
63	Completed	11/23/2022 9:20:24 AM	46
64	Completed	11/23/2022 9:33:53 AM	47
65	Completed	11/23/2022 9:47:04 AM	48
66	Completed	11/23/2022 10:01:31 AM	41
67	Completed	11/23/2022 10:13:49 AM	42
68	Completed	11/23/2022 10:26:40 AM	49
69	Completed	11/23/2022 10:40:46 AM	50
70	Completed	11/23/2022 10:53:21 AM	51
71	Completed	11/23/2022 11:05:47 AM	52
72	Completed	11/23/2022 11:18:15 AM	53
73	Completed	11/23/2022 11:32:42 AM	41
74	Completed	11/23/2022 11:45:00 AM	42

TOC-Control L Report

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Instr. Information

Instrument Options
Catalyst

TOC/ASI/IC Unit/
Regular Sensitivity

Sample

Sample Name: CCV
Sample ID: 320076008
Origin: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

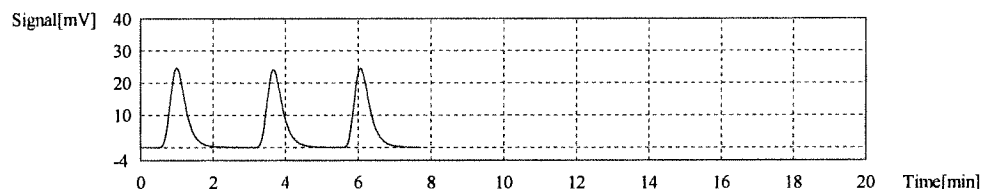
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.62mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.23	24.55mg/L	50ul	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 7:30:13 AM
2	74.92	24.45mg/L	50ul	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 7:32:52 AM
3	76.11	24.84mg/L	50ul	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 7:35:45 AM

Mean Area 75.42
Mean Conc. 24.62mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3603mg/L

1. Det

Anal.: NPOC

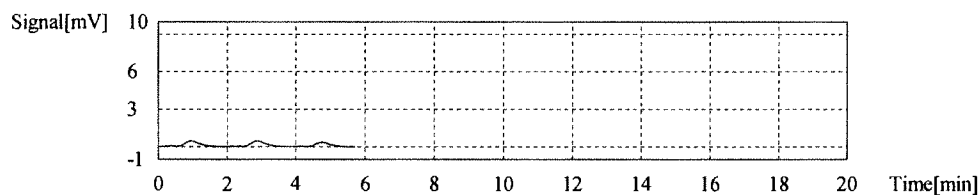
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.168	0.3812mg/L	50ul	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 7:43:49 AM
2	1.259	0.4109mg/L	50ul	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 7:45:56 AM
3	0.8852	0.2889mg/L	50ul	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 7:48:03 AM



TOC-Control L Report

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Mean Area 1.104
Mean Conc. 0.3603mg/L



Sample

Sample Name: MBLK-11222022
Sample ID:
Origin: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

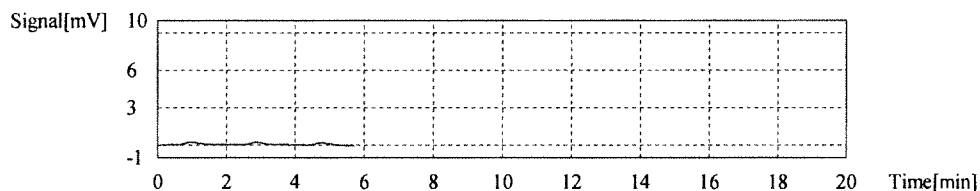
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1670mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5354	0.1747mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	11/23/2022 7:56:12 AM
2	0.4739	0.1547mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	11/23/2022 7:58:19 AM
3	0.5261	0.1717mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	11/23/2022 8:00:26 AM

Mean Area 0.5118
Mean Conc. 0.1670mg/L



Sample

Sample Name: LCS-11222022
Sample ID: 3100606203
Origin: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.19mg/L

1. Det

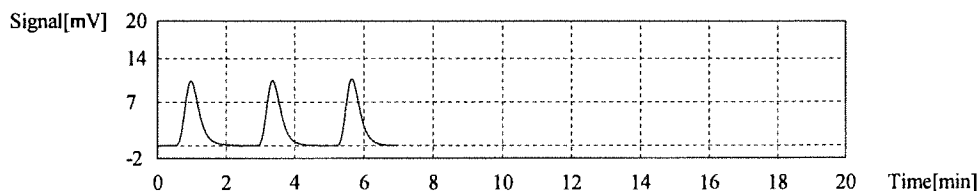
Anal.: NPOC

TOC-Control L Report

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	31.26	10.20mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 8:08:58 AM
2	30.96	10.10mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 8:11:31 AM
3	31.47	10.27mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 8:14:01 AM

Mean Area 31.23
Mean Conc. 10.19mg/L



Sample

Sample Name: LCSD-11222022
Sample ID:
Origin: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

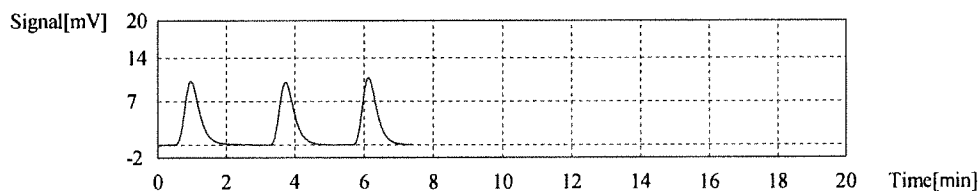
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.17	10.50mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 8:22:57 AM
2	30.91	10.09mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 8:25:35 AM
3	31.97	10.43mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 8:28:02 AM

Mean Area 31.68
Mean Conc. 10.34mg/L



Sample

Sample Name: HS22110582-03
Sample ID:
Origin: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.155mg/L

1. Det



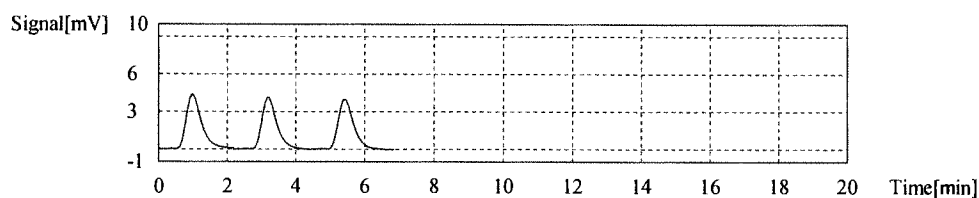
TOC-Control L Report

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Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal Curve	Date / Time
1	13.21	4.312mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 9:28:46 AM
2	12.52	4.086mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 9:31:13 AM
3	12.46	4.067mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 9:33:53 AM

Mean Area 12.73
Mean Conc. 4.155mg/L



Sample

Sample Name: HS22110582-04
Sample ID:
Origin: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

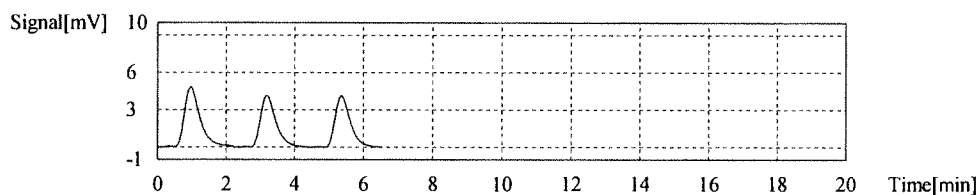
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.415mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal Curve	Date / Time
1	14.95	4.879mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 9:42:16 AM
2	13.05	4.259mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 9:44:41 AM
3	12.58	4.106mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 9:47:04 AM

Mean Area 13.53
Mean Conc. 4.415mg/L



Sample

Sample Name: CCV
Sample ID: 320076008
Origin: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.08mg/L



TOC-Control L Report

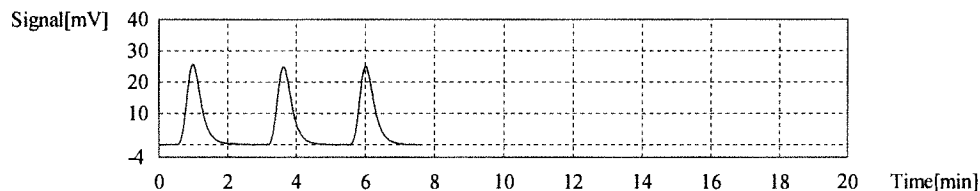
2022_11_22_002.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol	Aut. Dil	Ex.	Cal Curve	Date / Time
1	78.01	25.46mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 9:56:02 AM
2	75.72	24.71mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 9:58:41 AM
3	76.76	25.05mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 10:01:31 AM

Mean Area 76.83
Mean Conc. 25.08mg/L



Sample

Sample Name: CCB
Sample ID: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

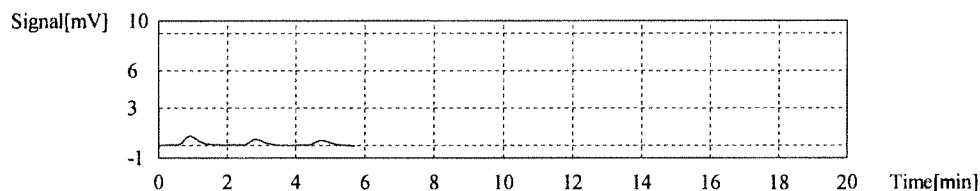
Type	Anal	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4738mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol	Aut. Dil	Ex.	Cal Curve	Date / Time
1	1.915	0.6250mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 10:09:35 AM
2	1.312	0.4282mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 10:11:42 AM
3	1.128	0.3682mg/L	50ul	1.000		09_21_2022_CAL 2022_09_21_07_29_28.cal	11/23/2022 10:13:49 AM

Mean Area 1.452
Mean Conc. 0.4738mg/L



Sample

Sample Name: HS22110582-05
Sample ID: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

TOC-Control L Report

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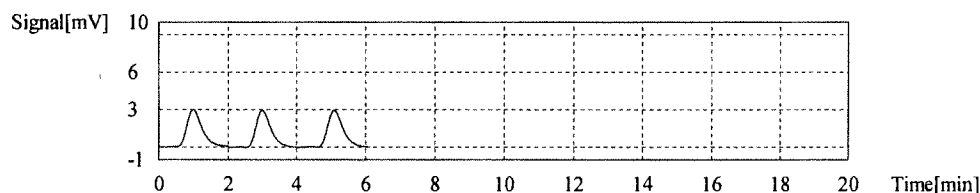
Type	Anal	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.919mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.794	2.870mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 10:22:05 AM
2	9.026	2.946mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 10:24:25 AM
3	9.011	2.941mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 10:26:40 AM

Mean Area 8.944
Mean Conc. 2.919mg/L



Sample

Sample Name: HS22110582-05MS
Sample ID:
Origin: 09_21_2022_CAL.cal
Status: Completed
Chk. Result

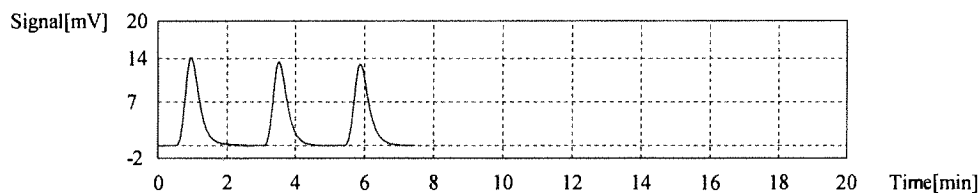
Type	Anal	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.22mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.68	13.60mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 10:35:25 AM
2	39.67	12.95mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 10:38:01 AM
3	40.12	13.09mg/L	50uL	1.000		09_21_2022_CAL_2022_09_21_07_29_28.cal	11/23/2022 10:40:46 AM

Mean Area 40.49
Mean Conc. 13.22mg/L



Sample

TOC-Control L Report

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Sample Name: CCV
 Sample ID: 320076008
 Origin: 09_21_2022_CAL.cal
 Status: Completed
 Chk. Result

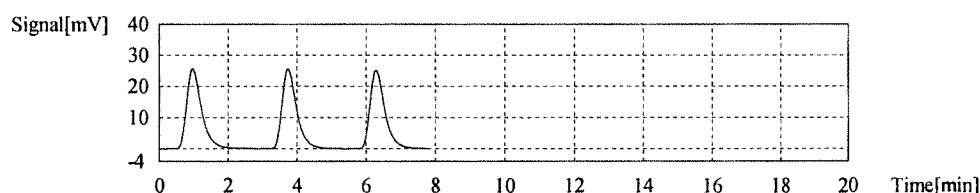
Type	Anal	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.01mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.70	25.69mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	11/23/2022 11:27:16 AM
2	76.12	24.84mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	11/23/2022 11:30:03 AM
3	75.04	24.49mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	11/23/2022 11:32:42 AM

Mean Area 76.62
 Mean Conc. 25.01mg/L



Sample

Sample Name: CCB
 Sample ID:
 Origin: 09_21_2022_CAL.cal
 Status: Completed
 Chk. Result

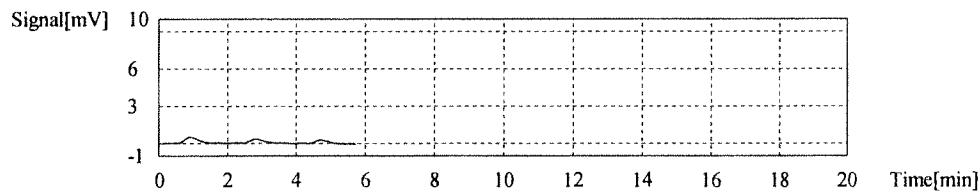
Type	Anal	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3251mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.342	0.4380mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	11/23/2022 11:40:46 AM
2	0.8515	0.2779mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	11/23/2022 11:42:53 AM
3	0.7949	0.2594mg/L	50uL	1.000		09_21_2022_CAL.2022_09_21_07_29_28.cal	11/23/2022 11:45:00 AM

Mean Area 0.9961
 Mean Conc. 0.3251mg/L



HS22110582 9056_W IC

ALS WO# HS22110582



Sequence: 111822
Last Update Operator: alsht.nouser

CD	Name	Comment	Type	Position	Dilution	Level	Instrument Method	Processing Method	Volume	Status
	STD1	9056-W	Calibratio	BB1	1.00	1	Anions Program	Anions Processing Method ISO	5.0	Finished
	STD2		Calibratio	BB2	1.00	2	Anions Program	Anions Processing Method ISO	5.0	Finished
	STD3		Calibratio	BB3	1.00	3	Anions Program	Anions Processing Method ISO	5.0	Finished
	STD4		Calibratio	BB4	1.00	4	Anions Program	Anions Processing Method ISO	5.0	Finished
	STD5		Calibratio	BB5	1.00	5	Anions Program	Anions Processing Method ISO	5.0	Finished
	STD6		Calibratio	BB6	1.00	6	Anions Program	Anions Processing Method ISO	5.0	Finished
	ICV		Unknown	BB7	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	ICB		Unknown	R7	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCV1		Unknown	R3	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R8	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	MBLK		Unknown	R5	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	LCS		Unknown	R2	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110164-08DF2		Unknown	GA4	2.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110164-08MSDF2		Unknown	GA5	2.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110164-08MSDDF		Unknown	GA6	2.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCV		Unknown	R1	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R6	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110582-05		Unknown	GB8	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110582-05MS		Unknown	GC1	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110582-05MSD		Unknown	GC2	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110582-05DF50		Unknown	GC3	50.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110582-03		Unknown	GC4	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110582-03DF50		Unknown	GC5	50.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCV1		Unknown	R3	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R8	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110582-04		Unknown	GC6	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	HS22110582-04DF50		Unknown	GC7	50.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCV		Unknown	R1	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R6	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCV1		Unknown	R3	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	G7	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCV		Unknown	R1	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R6	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCV1		Unknown	R3	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished
	CCB		Unknown	R7	1.00		Anions Program	Anions Processing Method ISO	5.0	Finished

Sequence: 111822
Last Update Operator: alshs.nouser

Inject Time
11/14/2022 3:23:57 PM -06:00
11/14/2022 3:29:16 PM -06:00
11/14/2022 3:34:36 PM -06:00
11/14/2022 3:39:55 PM -06:00
11/14/2022 3:45:14 PM -06:00
11/14/2022 3:50:34 PM -06:00
11/14/2022 3:55:53 PM -06:00
11/14/2022 4:06:32 PM -06:00
11/18/2022 4:47:13 PM -06:00
11/18/2022 4:57:47 PM -06:00
11/18/2022 5:03:04 PM -06:00
11/18/2022 5:08:21 PM -06:00
11/18/2022 5:55:56 PM -06:00
11/18/2022 6:01:13 PM -06:00
11/18/2022 6:06:30 PM -06:00
11/18/2022 6:22:22 PM -06:00
11/18/2022 6:32:56 PM -06:00
11/18/2022 6:59:22 PM -06:00
11/18/2022 7:04:39 PM -06:00
11/18/2022 7:09:56 PM -06:00
11/18/2022 7:15:13 PM -06:00
11/18/2022 7:20:30 PM -06:00
11/18/2022 7:25:47 PM -06:00
11/18/2022 7:41:38 PM -06:00
11/18/2022 7:52:13 PM -06:00
11/18/2022 7:57:30 PM -06:00
11/18/2022 8:02:47 PM -06:00
11/18/2022 9:00:53 PM -06:00
11/18/2022 9:11:27 PM -06:00
11/19/2022 3:34:58 AM -06:00
11/19/2022 3:50:49 AM -06:00
11/19/2022 6:51:14 AM -06:00
11/19/2022 7:07:05 AM -06:00
11/19/2022 7:44:04 AM -06:00
11/19/2022 8:05:12 AM -06:00



Sequence: 111822
Injection #6: STD6

Calibration

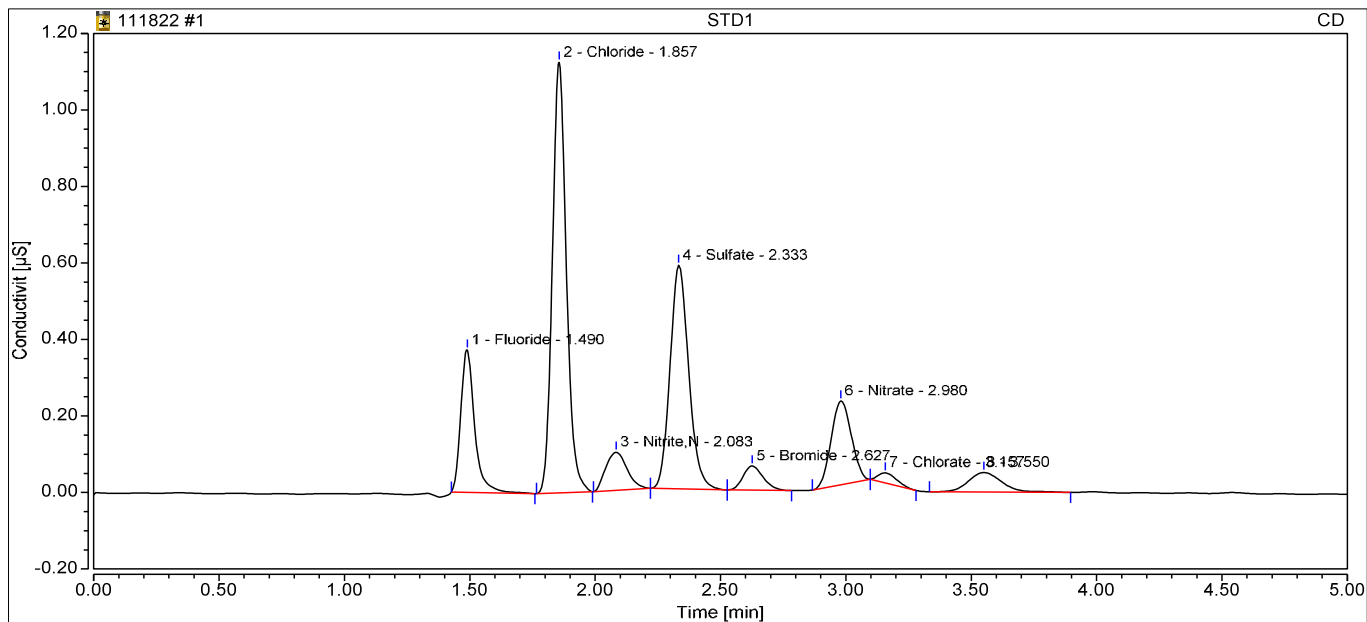
Peak No.	Peak Name	Cal.Type	Eval.Type	Number of Points	Rel.Std.Dev. %	Coeff.of Determination	C0 (Offset)	C1 (Slope)	C2 (Curve)
1	Fluoride	Lin, WithOffset, 1/A	Area	6	22.2363	0.99704	0.0063	0.2182	0.0000
2	Chloride	Lin, WithOffset, 1/A	Area	6	2.8407	0.99996	0.0003	0.1437	0.0000
3	Nitrite,N	Quad, WithOffset, 1/A	Area	6	7.9786	0.99977	-0.0198	0.3242	-0.0038
4	Sulfate	Lin, WithOffset, 1/A	Area	6	9.4078	0.99952	0.0021	0.1025	0.0000
5	Bromide	Lin, WithOffset, 1/A	Area	6	5.4776	0.99985	-0.0009	0.0628	0.0000
6	Nitrate	Lin, WithOffset, 1/A	Area	6	5.3523	0.99987	-0.0117	0.3307	0.0000
7	Chlorate	Quad, WithOffset, 1/A	Area	6	13.9968	0.99928	-0.0011	0.0295	-0.0002
n.a.	Phosphate	Lin, WithOffset, 1/A	Area	0	n.a.	n.a.	n.a.	n.a.	n.a.
Maximum					22.2363	0.99996			
Minimum					2.8407	0.99704			



1 STD1

Sample Name:	STD1	Injection Volume:	5.00
Vial Number:	BB1	Channel:	CD
Sample Type:	Calibration Standard	Wavelength:	n.a.
Control Program:	Anions Program ISO37mM 150mm short 0.4 Constant current	Bandwidth:	n.a.
Quantif. Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Recording Time:	11/14/2022 15:23	Sample Weight:	1.0000

Run Time:



Integration Results

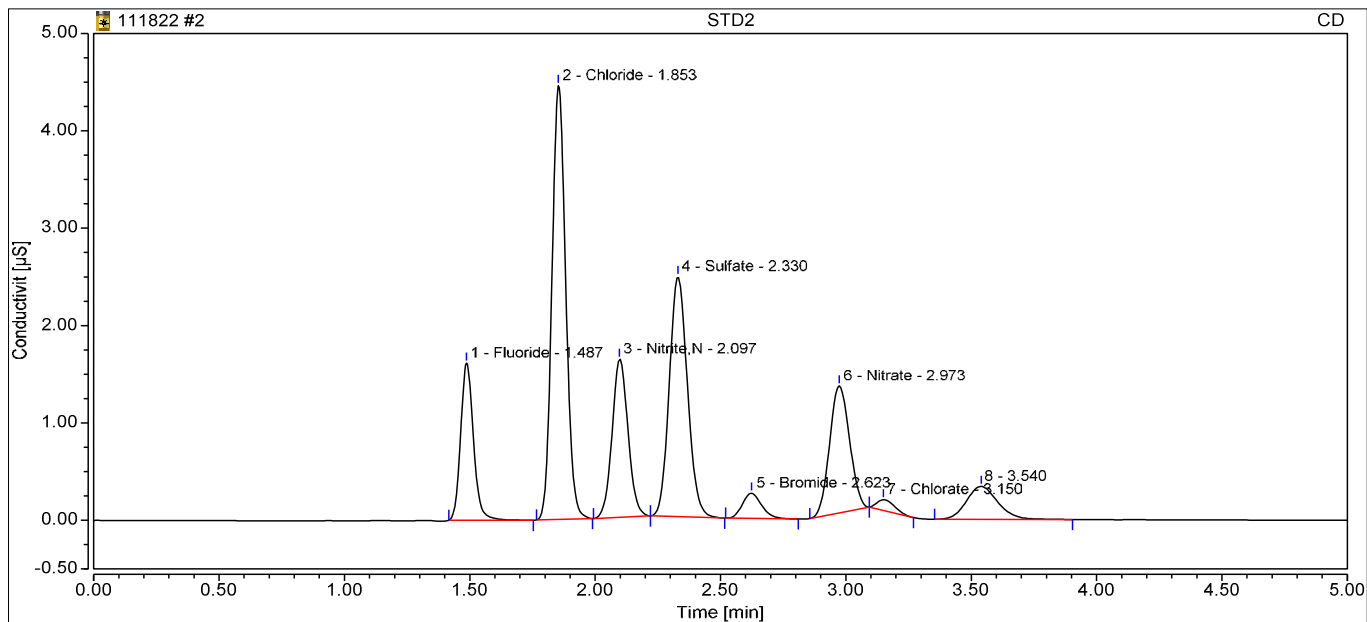
No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.024	0.0805	0.0805	1.0000
2	1.86	Chloride	BMB	0.073	0.5049	0.5049	1.0000
3	2.08	Nitrite,N	BMB	0.010	0.0916	0.0916	1.0000
4	2.33	Sulfate	BMB	0.051	0.4728	0.4728	1.0000
5	2.63	Bromide	BMB	0.006	0.1081	0.1081	1.0000
6	2.98	Nitrate	BMB	0.021	0.0975	0.0975	1.0000
7	3.16	Chlorate	BMB	0.002	0.1156	0.1156	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.186	1.47		



2 STD2

Sample Name:	STD2	Injection Volume:	5.00
Vial Number:	BB2	Channel:	CD
Sample Type:	Calibration Standard	Wavelength:	n.a.
Control Program:	Anions Program ISO37mM 150mm short 0.4 Constant current	Bandwidth:	n.a.
Quantif. Method:	Anions Processing Method ISO	Dilution Factor:	1.0000
Recording Time:	11/14/2022 15:29	Sample Weight:	1.0000

Run Time:



Integration Results

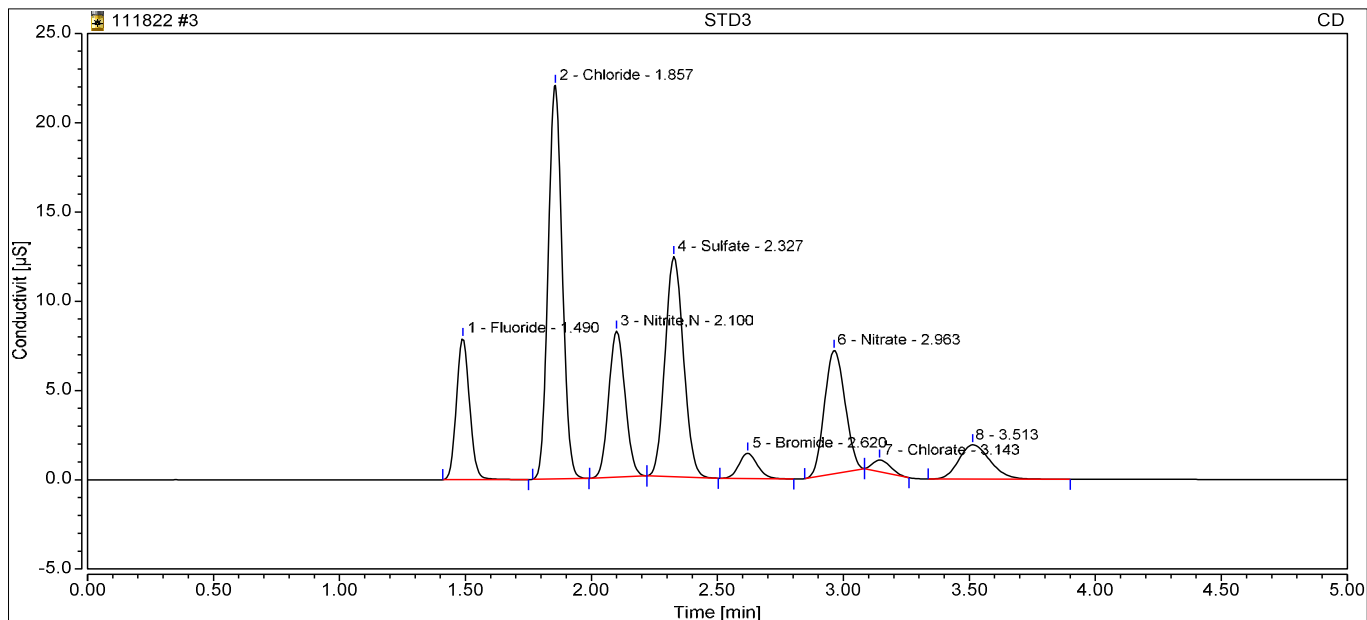
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.096	0.4091	0.4091	1.0000
2	1.85	Chloride	BMB	0.284	1.9761	1.9761	1.0000
3	2.10	Nitrite,N	BMB	0.119	0.4316	0.4316	1.0000
4	2.33	Sulfate	BMB	0.207	1.9967	1.9967	1.0000
5	2.62	Bromide	BMB	0.023	0.3814	0.3814	1.0000
6	2.97	Nitrate	BMB	0.120	0.3995	0.3995	1.0000
7	3.15	Chlorate	BMB	0.009	0.3502	0.3502	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.859	5.94		



3 STD3

Sample Name: **STD3**
 Vial Number: **BB3**
 Sample Type: **Calibration Standard**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **11/14/2022 15:34**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



Integration Results

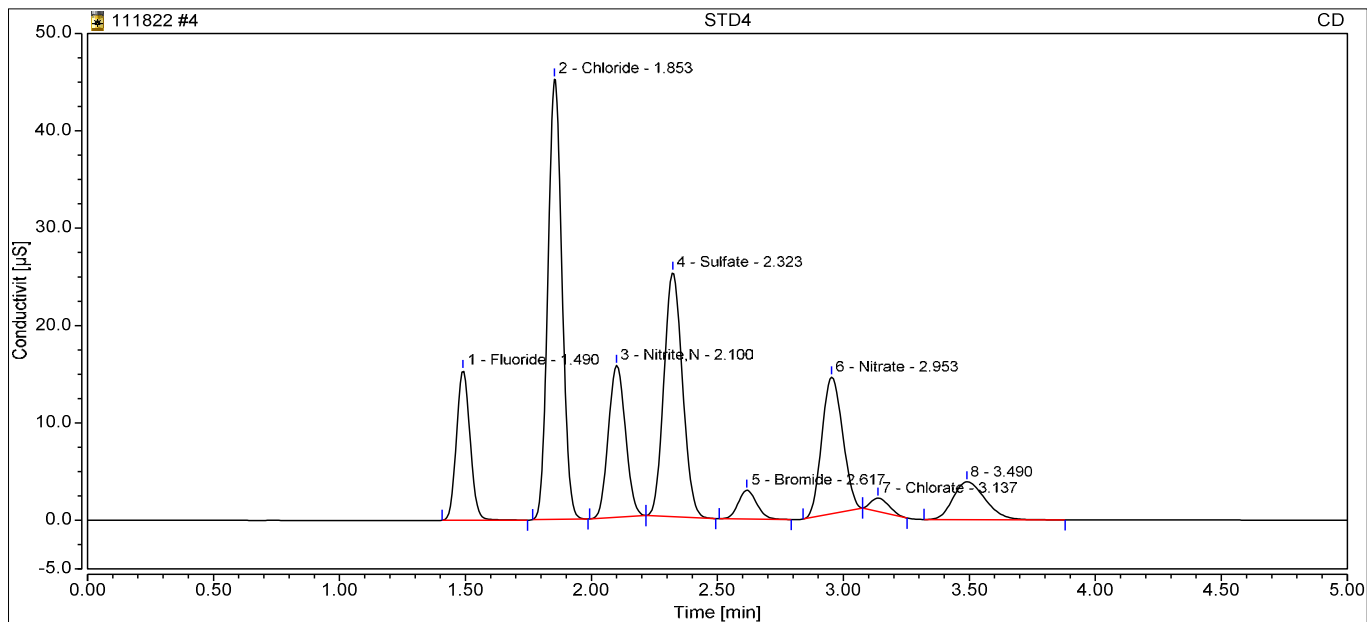
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.480	2.1731	2.1731	1.0000
2	1.86	Chloride	BMB	1.420	9.8774	9.8774	1.0000
3	2.10	Nitrite,N	BMB	0.618	2.0145	2.0145	1.0000
4	2.33	Sulfate	BMB	1.044	10.1614	10.1614	1.0000
5	2.62	Bromide	BMB	0.120	1.9212	1.9212	1.0000
6	2.96	Nitrate	BMB	0.652	2.0062	2.0062	1.0000
7	3.14	Chlorate	BMB	0.054	1.8885	1.8885	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	4.387	30.04		



4 STD4

Sample Name: **STD4**
 Vial Number: **BB4**
 Sample Type: **Calibration Standard**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **11/14/2022 15:39**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



Integration Results

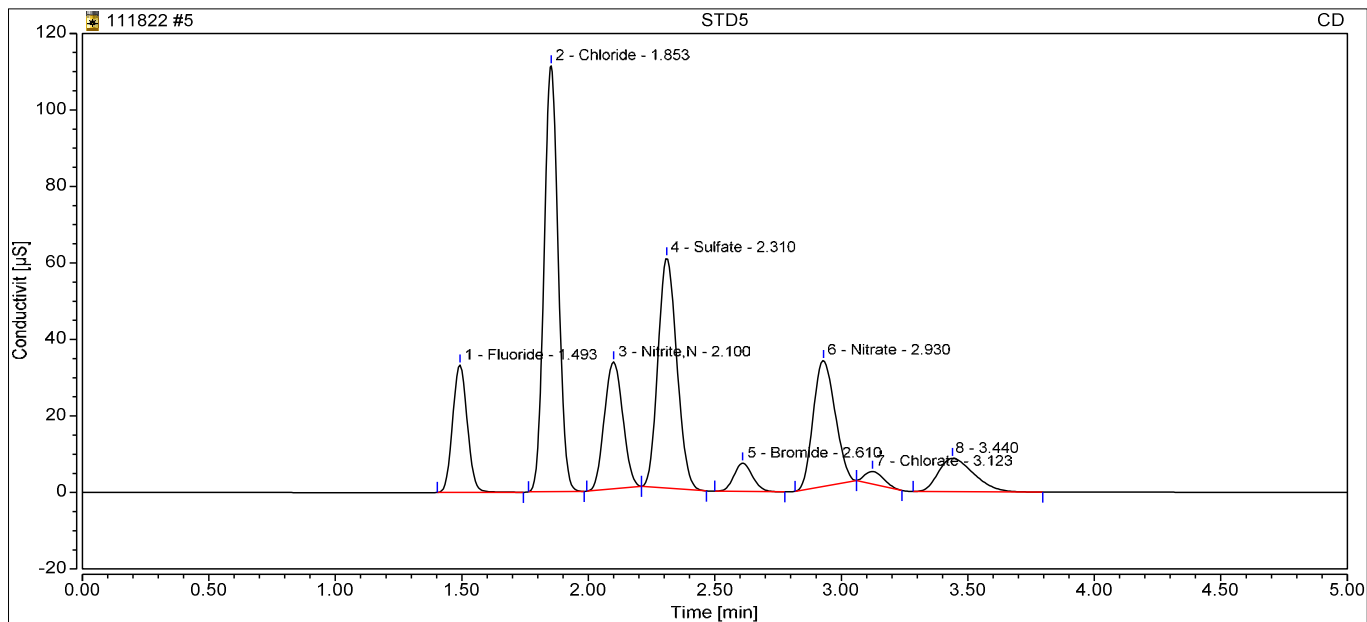
No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.967	4.4026	4.4026	1.0000
2	1.85	Chloride	BMB	2.918	20.2995	20.2995	1.0000
3	2.10	Nitrite,N	BMB	1.228	4.0401	4.0401	1.0000
4	2.32	Sulfate	BMB	2.139	20.8444	20.8444	1.0000
5	2.62	Bromide	BMB	0.250	3.9997	3.9997	1.0000
6	2.95	Nitrate	BMB	1.347	4.1081	4.1081	1.0000
7	3.14	Chlorate	BMB	0.115	4.0232	4.0232	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	8.963	61.72		



5 STD5

Sample Name: **STD5**
 Vial Number: **BB5**
 Sample Type: **Calibration Standard**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**
 Recording Time: **11/14/2022 15:45**
 Run Time:

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**



Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	2.245	10.2597	10.2597	1.0000
2	1.85	Chloride	BMB	7.201	50.1056	50.1056	1.0000
3	2.10	Nitrite, N	BMB	2.799	9.8335	9.8335	1.0000
4	2.31	Sulfate	BMB	5.204	50.7491	50.7491	1.0000
5	2.61	Bromide	BMB	0.628	10.0012	10.0012	1.0000
6	2.93	Nitrate	BMB	3.309	10.0419	10.0419	1.0000
7	3.12	Chlorate	BMB	0.282	10.2589	10.2589	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	21.669	151.25		

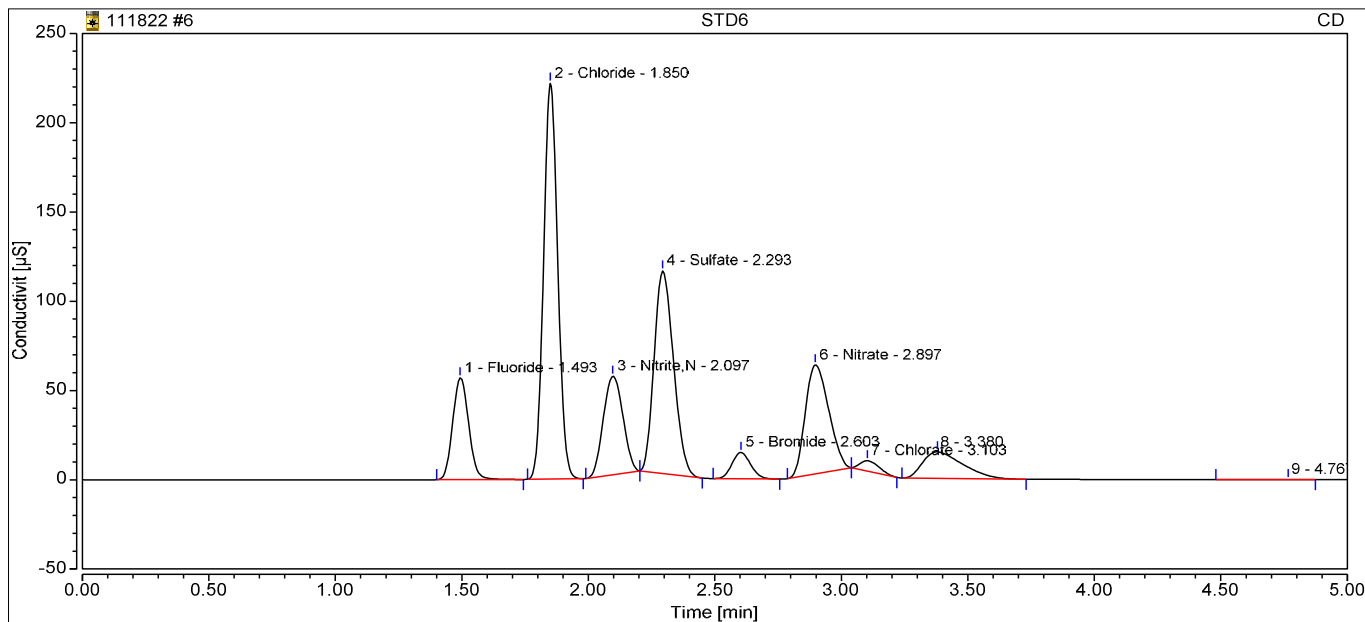


6 STD6

Sample Name: **STD6**
 Vial Number: **BB6**
 Sample Type: **Calibration Standard**
 Control Program: **Anions Program ISO37mM 150mm short 0.4 Constant current**
 Quantif. Method: **Anions Processing Method ISO**

Injection Volume: **5.00**
 Channel: **CD**
 Wavelength: **n.a.**
 Bandwidth: **n.a.**
 Dilution Factor: **1.0000**
 Sample Weight: **1.0000**

Run Time:



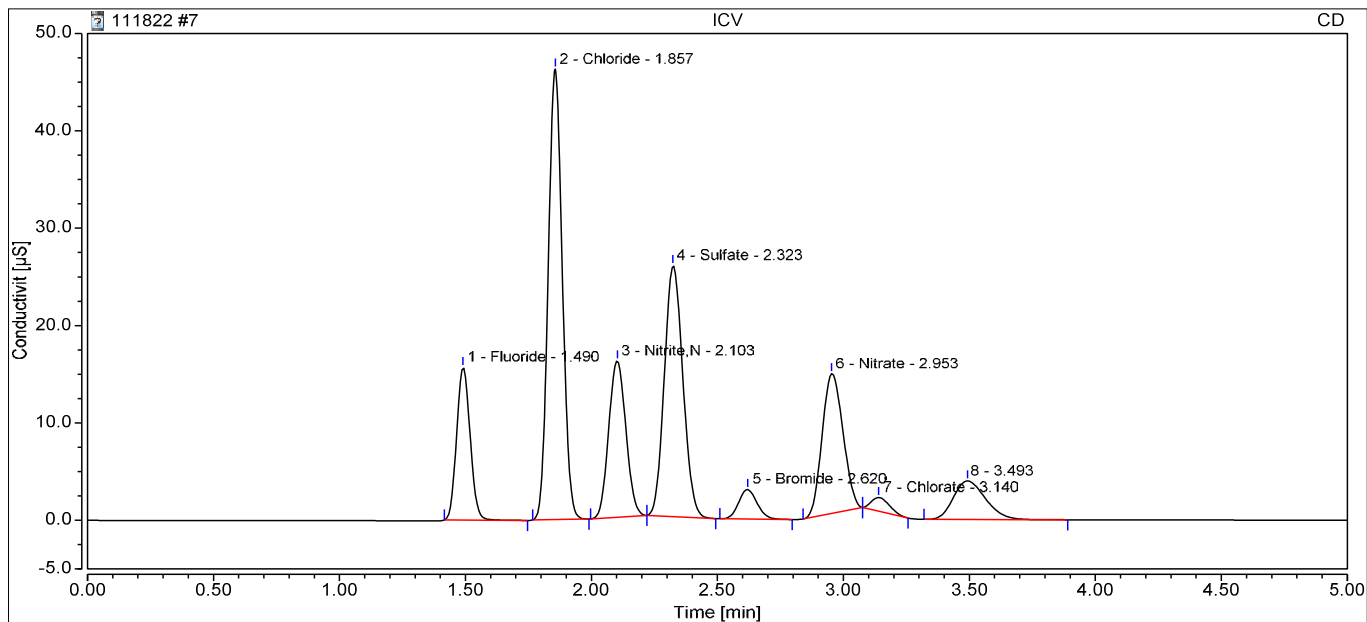
Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	4.191	19.1750	19.1750	1.0000
2	1.85	Chloride	BMB	14.334	99.7366	99.7366	1.0000
3	2.10	Nitrite, N	BMB	4.956	20.1034	20.1034	1.0000
4	2.29	Sulfate	BMB	10.076	98.2756	98.2756	1.0000
5	2.60	Bromide	BMB	1.261	20.0884	20.0884	1.0000
6	2.90	Nitrate	BMB	6.552	19.8469	19.8469	1.0000
7	3.10	Chlorate	BMB	0.513	19.8598	19.8598	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	41.883	297.09		

7 ICV

Sample Name: ICV
 Vial Number: BB7
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/14/2022 15:55
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

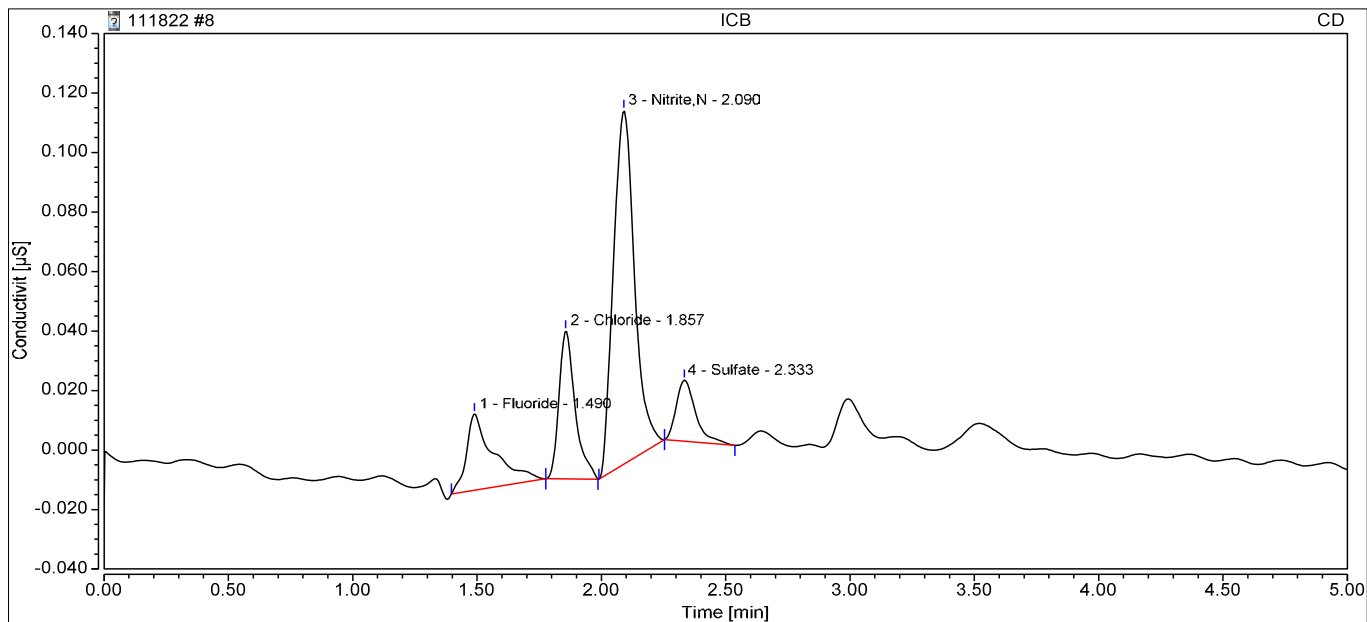
No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.977	4.4493	4.4493	1.0000
2	1.86	Chloride	BMB	2.988	20.7910	20.7910	1.0000
3	2.10	Nitrite, N	BMB	1.268	4.1762	4.1762	1.0000
4	2.32	Sulfate	BMB	2.198	21.4170	21.4170	1.0000
5	2.62	Bromide	BMB	0.257	4.1011	4.1011	1.0000
6	2.95	Nitrate	BMB	1.380	4.2070	4.2070	1.0000
7	3.14	Chlorate	BMB	0.118	4.1500	4.1500	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	9.185	63.29		



8 ICB

Sample Name: ICB
 Vial Number: R7
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/14/2022 16:06
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



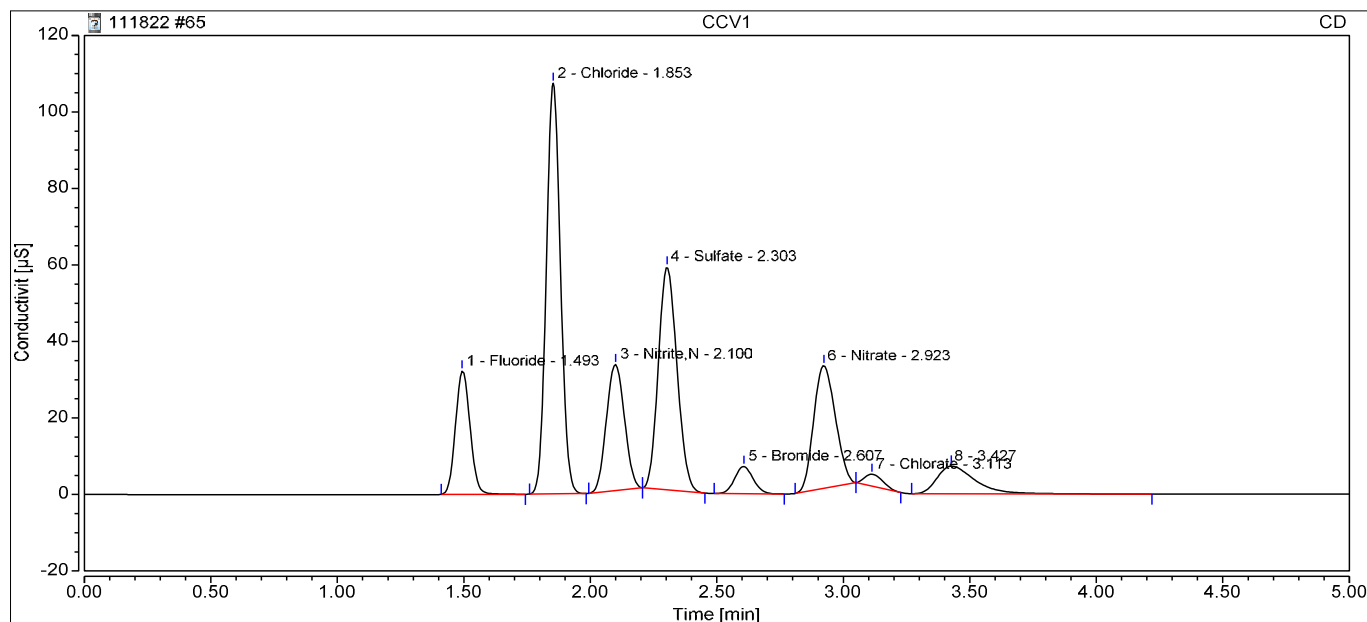
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.003	n.a.	n.a.	1.0000
2	1.86	Chloride	BMB	0.004	0.0241	0.0241	1.0000
3	2.09	Nitrite, N	BMB	0.012	0.0971	0.0971	1.0000
4	2.33	Sulfate	BMB	0.002	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.021	0.12		

65 CCV1

Sample Name: CCV1
 Vial Number: R3
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/18/2022 16:47
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



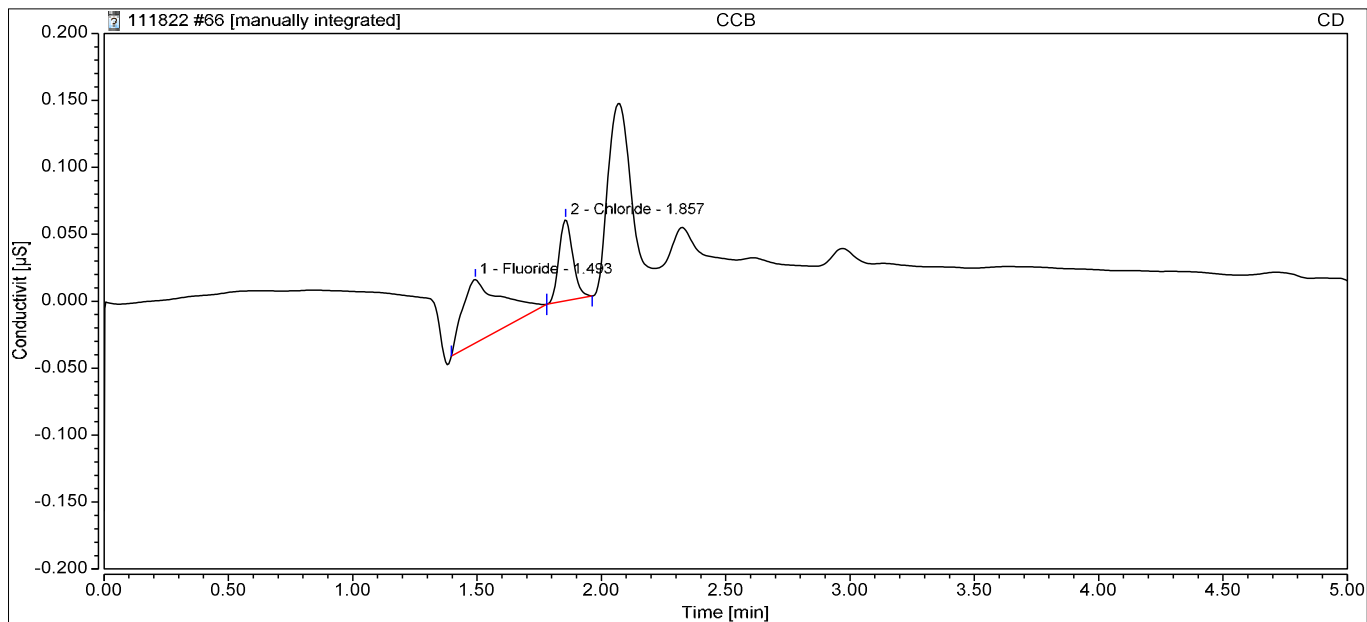
Integration Results							
No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	2.164	9.8872	9.8872	1.0000
2	1.85	Chloride	BMB	6.940	48.2912	48.2912	1.0000
3	2.10	Nitrite,N	BMB	2.727	9.5440	9.5440	1.0000
4	2.30	Sulfate	BMB	4.971	48.4757	48.4757	1.0000
5	2.61	Bromide	BMB	0.601	9.5798	9.5798	1.0000
6	2.92	Nitrate	BMB	3.187	9.6723	9.6723	1.0000
7	3.11	Chlorate	BMB	0.263	9.5086	9.5086	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	20.853	144.96		



66 CCB

Sample Name: CCB
 Vial Number: R8
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/18/2022 16:57
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

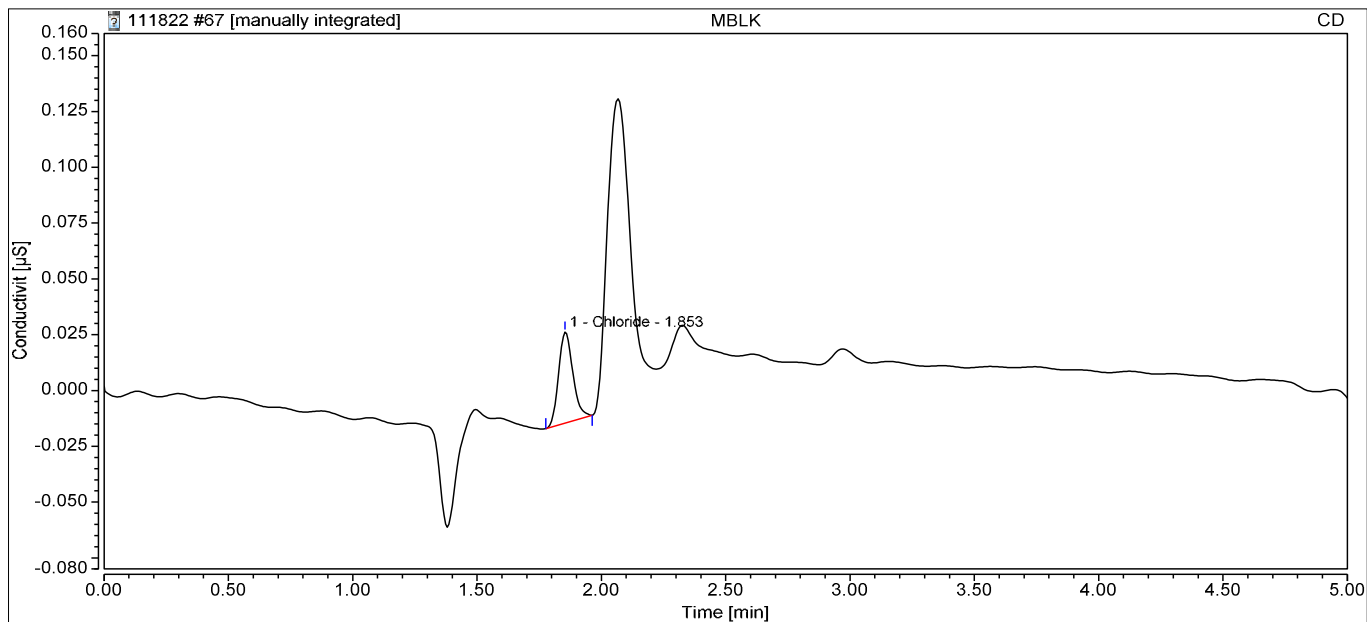
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.008	0.0100	0.0100	1.0000
2	1.86	Chloride	BMB	0.004	0.0255	0.0255	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.012	0.04		



67 MBLK

Sample Name: MBLK
 Vial Number: R5
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/18/2022 17:03
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.85	Chloride	BMB	0.003	0.0169	0.0169	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.003	0.02		



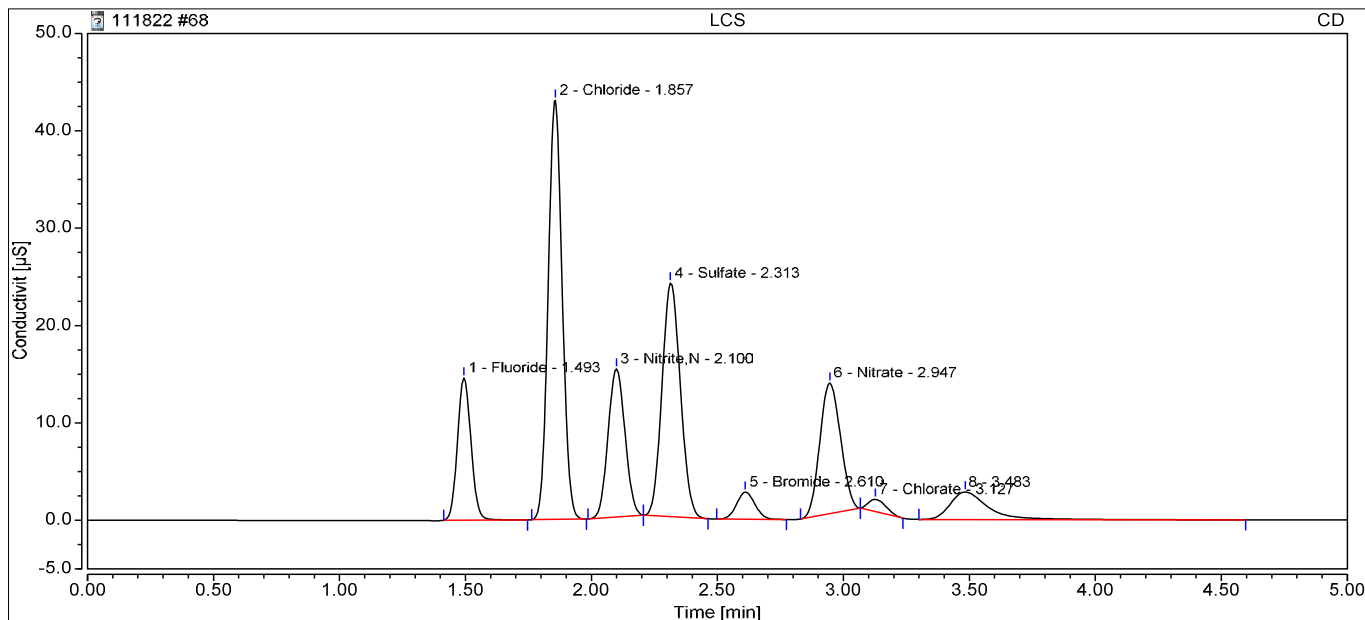
68 LCS

Sample Name: LCS
 Vial Number: R2
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000

Recording Time: 11/18/2022 17:08

Run Time:



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.916	4.1673	4.1673	1.0000
2	1.86	Chloride	BMB	2.768	19.2610	19.2610	1.0000
3	2.10	Nitrite,N	BMB	1.188	3.9034	3.9034	1.0000
4	2.31	Sulfate	BMB	2.025	19.7387	19.7387	1.0000
5	2.61	Bromide	BMB	0.235	3.7532	3.7532	1.0000
6	2.95	Nitrate	BMB	1.278	3.9006	3.9006	1.0000
7	3.13	Chlorate	BMB	0.104	3.6555	3.6555	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	8.515	58.38		



74 HS22110164-08DF2

Sample Name: HS22110164-08DF2

Vial Number: GA4

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 17:55

Run Time:

Injection Volume: 5.00

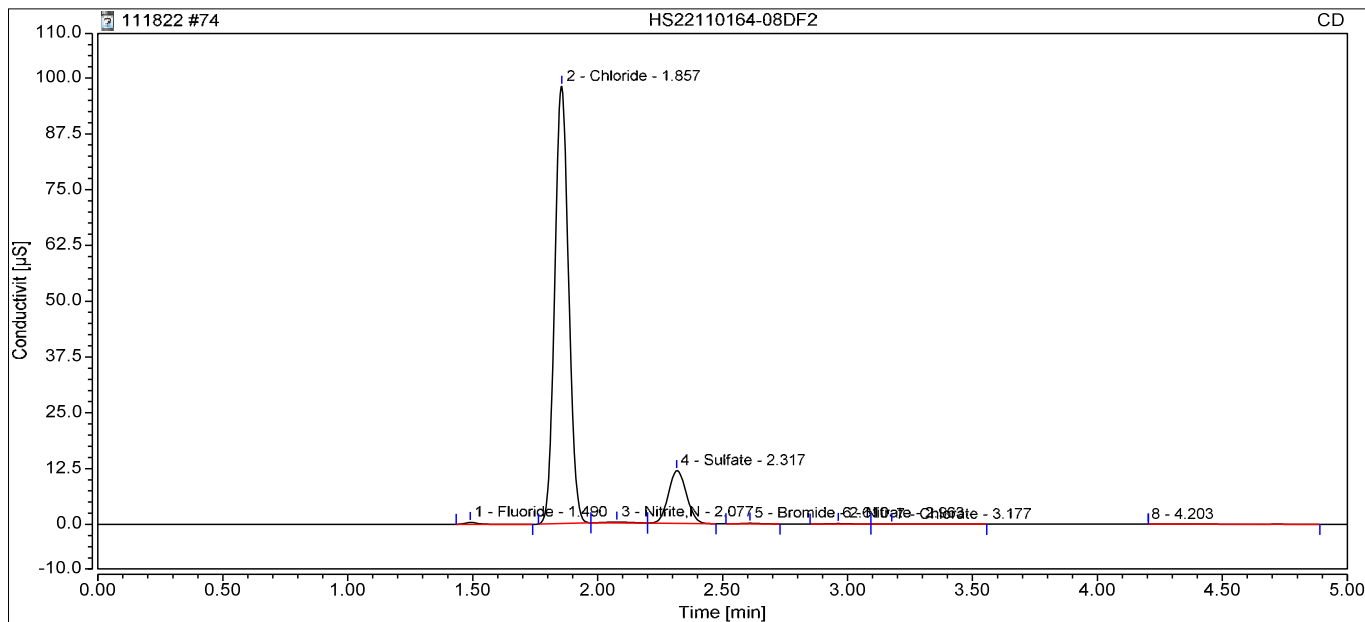
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 2.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.028	0.0984	0.1968	2.0000
2	1.86	Chloride	BMB	6.313	43.9289	87.8578	2.0000
3	2.08	Nitrite,N	BMB	0.021	0.1268	0.2536	2.0000
4	2.32	Sulfate	BMB	0.990	9.6330	19.2660	2.0000
5	2.61	Bromide	BMB	0.012	0.1977	0.3955	2.0000
6	2.96	Nitrate	BMB	0.010	0.0642	0.1285	2.0000
7	3.18	Chlorate	BMB	0.002	0.1018	0.2036	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			0.000	7.375	108.30		



75 HS22110164-08MSDF2

Sample Name: HS22110164-08MSDF2

Vial Number: GA5

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 18:01

Run Time:

Injection Volume: 5.00

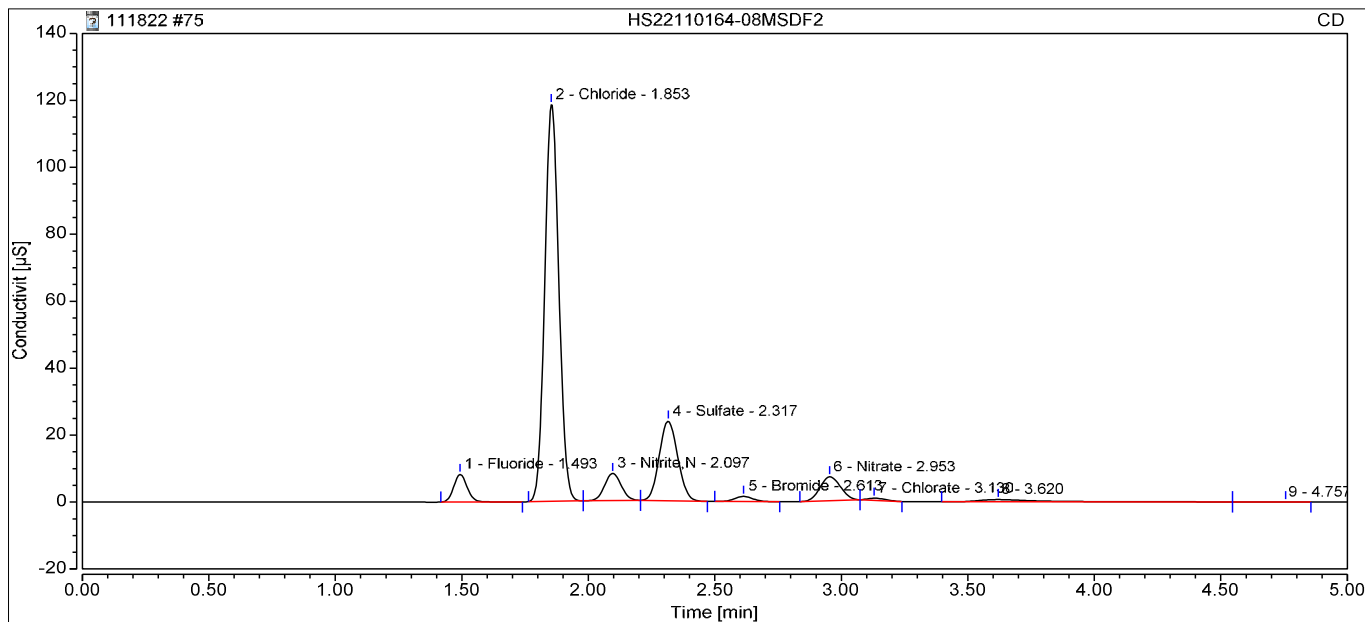
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 2.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.509	2.3060	4.6119	2.0000
2	1.85	Chloride	BMB	7.647	53.2056	106.4111	2.0000
3	2.10	Nitrite, N	BMB	0.613	2.0003	4.0005	2.0000
4	2.32	Sulfate	BMB	2.019	19.6718	39.3436	2.0000
5	2.61	Bromide	BMB	0.130	2.0898	4.1796	2.0000
6	2.95	Nitrate	BMB	0.670	2.0626	4.1253	2.0000
7	3.13	Chlorate	BMB	0.052	1.8299	3.6599	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			0.000	11.641	166.33		



76 HS22110164-08MSDDF2

Sample Name: HS22110164-08MSDDF2

Vial Number: GA6

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 18:06

Run Time:

Injection Volume: 5.00

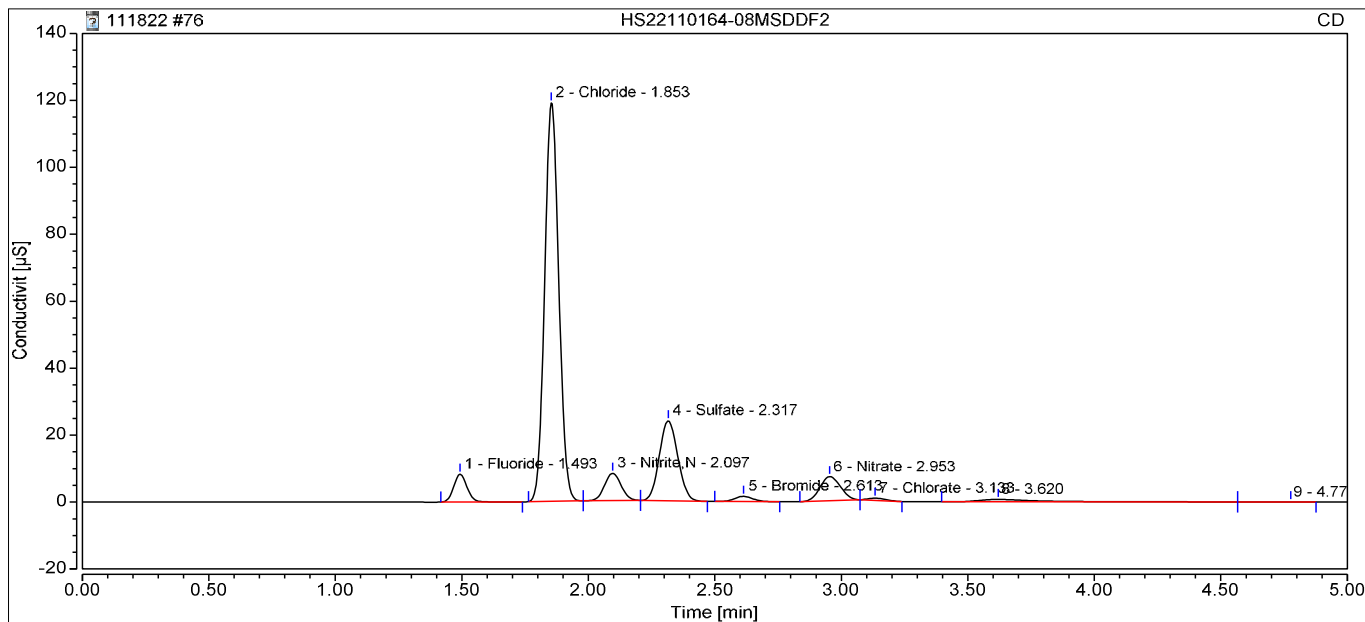
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 2.0000

Sample Weight: 1.0000



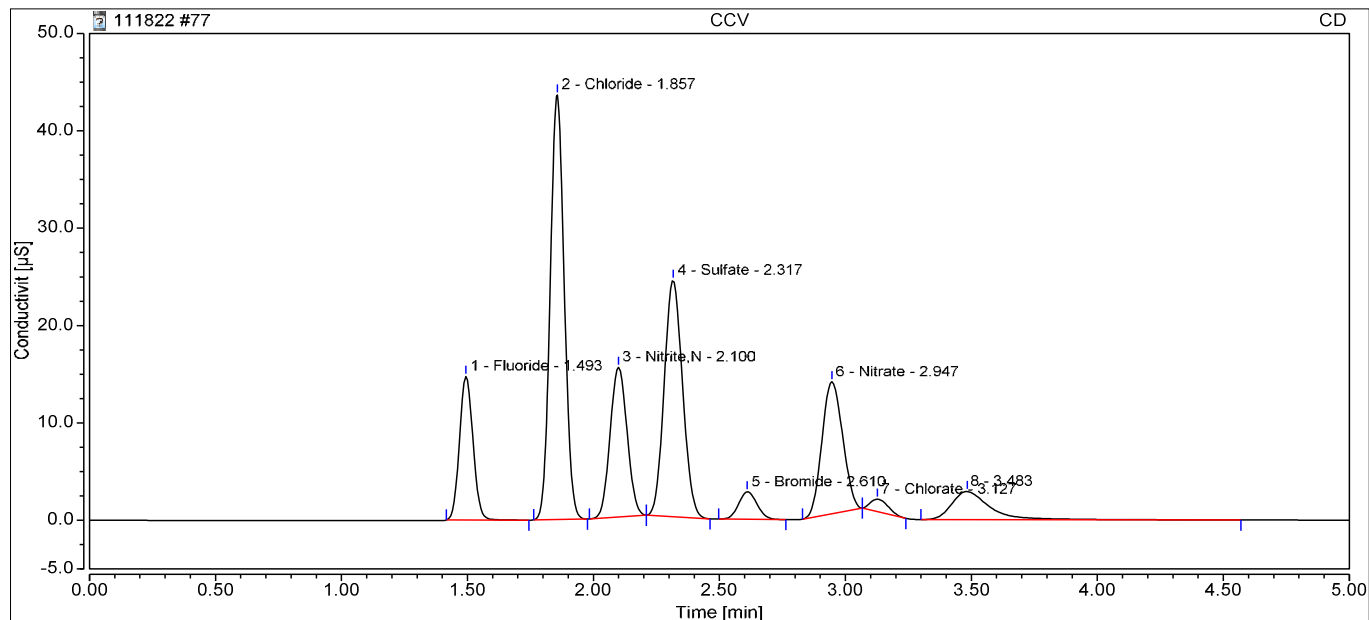
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.510	2.3096	4.6192	2.0000
2	1.85	Chloride	BMB	7.678	53.4205	106.8411	2.0000
3	2.10	Nitrite, N	BMB	0.618	2.0134	4.0269	2.0000
4	2.32	Sulfate	BMB	2.027	19.7534	39.5069	2.0000
5	2.61	Bromide	BMB	0.131	2.1058	4.2117	2.0000
6	2.95	Nitrate	BMB	0.676	2.0781	4.1563	2.0000
7	3.13	Chlorate	BMB	0.053	1.8606	3.7211	2.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	2.0000
Total:			0.000	11.692	167.08		

77 CCV

Sample Name: CCV
 Vial Number: R1
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/18/2022 18:22
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000

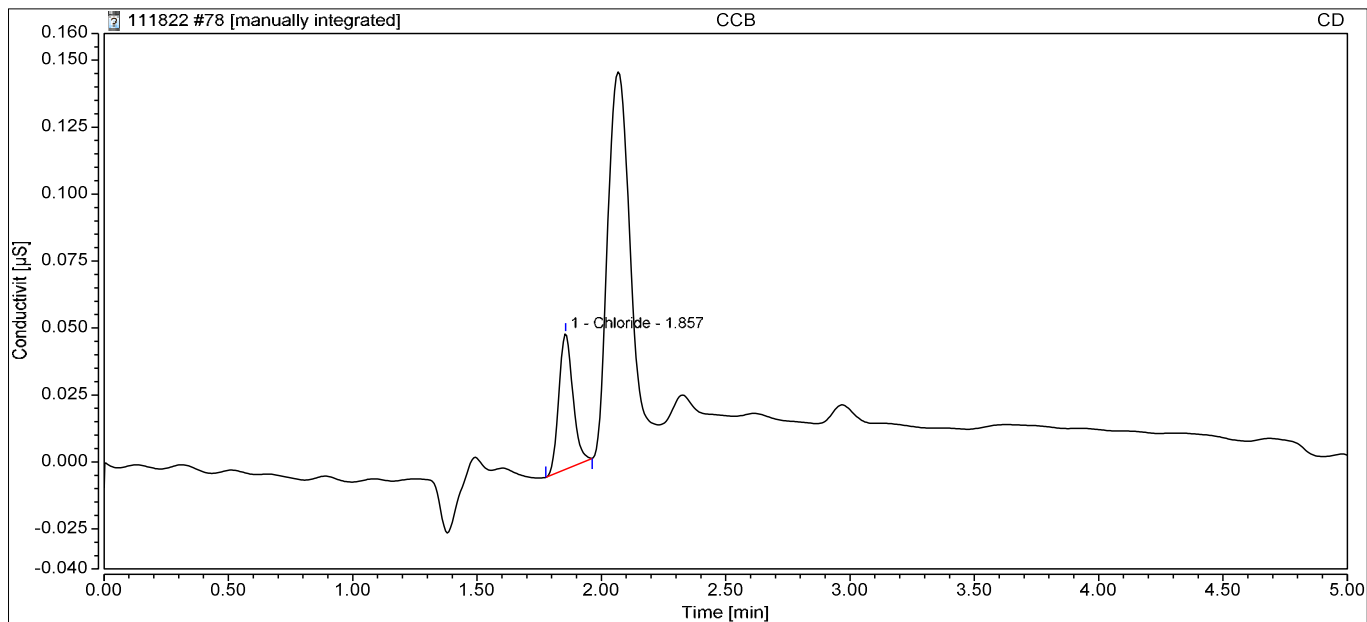


Integration Results							
No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.920	4.1891	4.1891	1.0000
2	1.86	Chloride	BMB	2.804	19.5120	19.5120	1.0000
3	2.10	Nitrite,N	BMB	1.202	3.9535	3.9535	1.0000
4	2.32	Sulfate	BMB	2.049	19.9689	19.9689	1.0000
5	2.61	Bromide	BMB	0.239	3.8180	3.8180	1.0000
6	2.95	Nitrate	BMB	1.293	3.9456	3.9456	1.0000
7	3.13	Chlorate	BMB	0.107	3.7494	3.7494	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	8.615	59.14		

78 CCB

Sample Name: CCB
 Vial Number: R6
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/18/2022 18:32
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.86	Chloride	BMB	0.003	0.0211	0.0211	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.003	0.02		



83 HS22110582-05

Sample Name: HS22110582-05

Vial Number: GB8

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 18:59

Run Time:

Injection Volume: 5.00

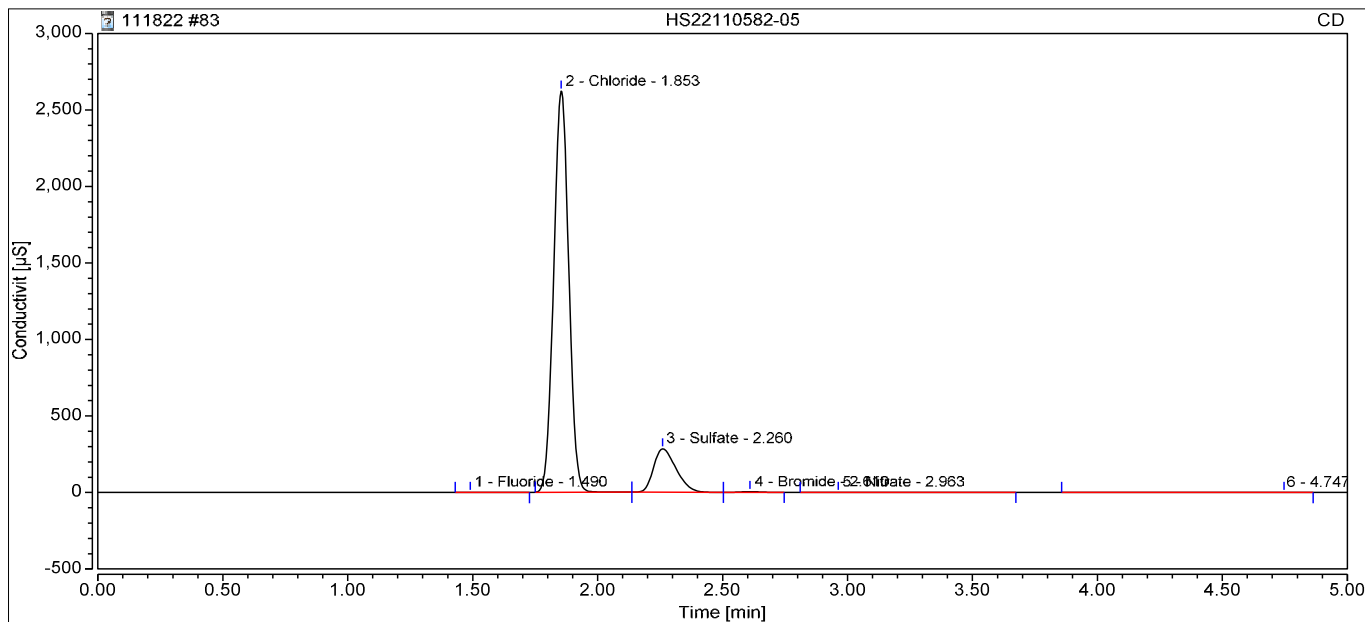
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.053	0.2120	0.2120	1.0000
2	1.85	Chloride	BMB	183.260	1275.1723	1275.1723	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.26	Sulfate	BMB	29.545	288.1971	288.1971	1.0000
4	2.61	Bromide	BMB	0.395	6.2994	6.2994	1.0000
5	2.96	Nitrate	BMB	0.026	0.1144	0.1144	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	213.278	1570.00		

84 HS22110582-05MS

Sample Name: HS22110582-05MS

Vial Number: GC1

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 19:04

Run Time:

Injection Volume: 5.00

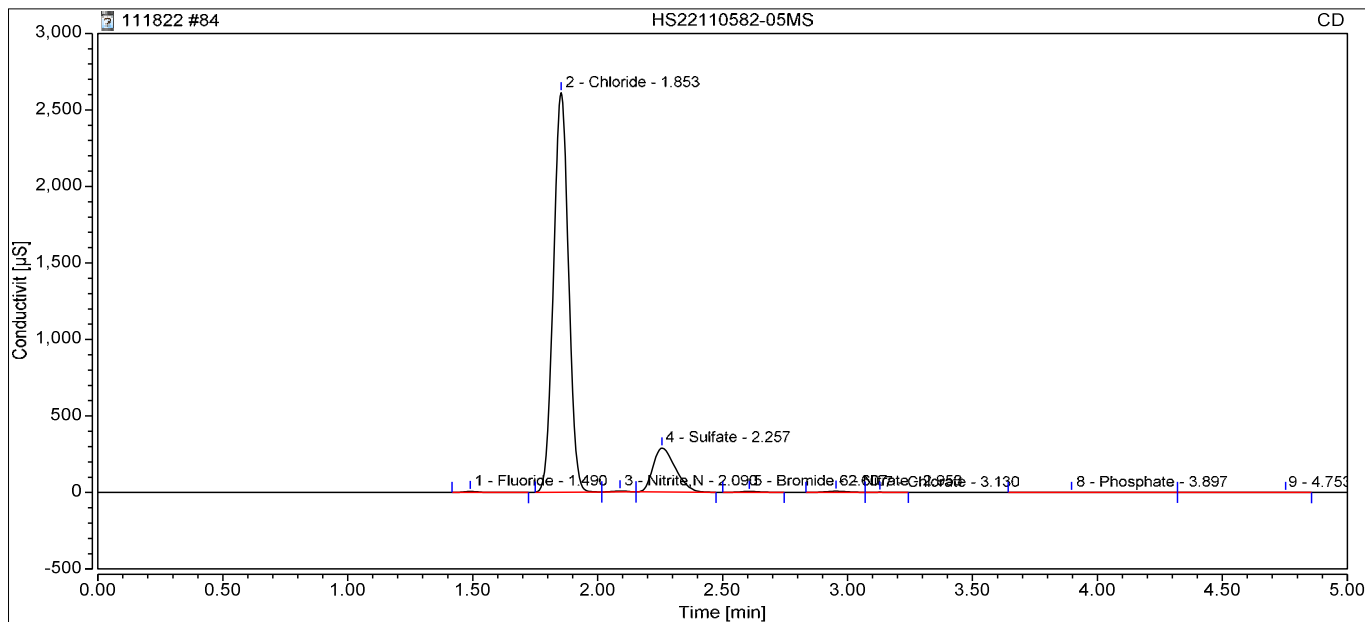
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.469	2.1227	2.1227	1.0000
2	1.85	Chloride	BMB	182.111	1267.1792	1267.1792	1.0000
3	2.09	Nitrite, N	BMB	0.408	1.3416	1.3416	1.0000
4	2.26	Sulfate	BMB	29.853	291.2101	291.2101	1.0000
5	2.61	Bromide	BMB	0.519	8.2706	8.2706	1.0000
6	2.95	Nitrate	BMB	0.677	2.0826	2.0826	1.0000
7	3.13	Chlorate	BMB	0.053	1.8706	1.8706	1.0000
8	3.90	Phosphate	BMB	0.067	n.a.	n.a.	1.0000
Total:			0.000	214.159	1574.08		

85 HS22110582-05MSD

Sample Name: HS22110582-05MSD

Vial Number: GC2

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 19:09

Run Time:

Injection Volume: 5.00

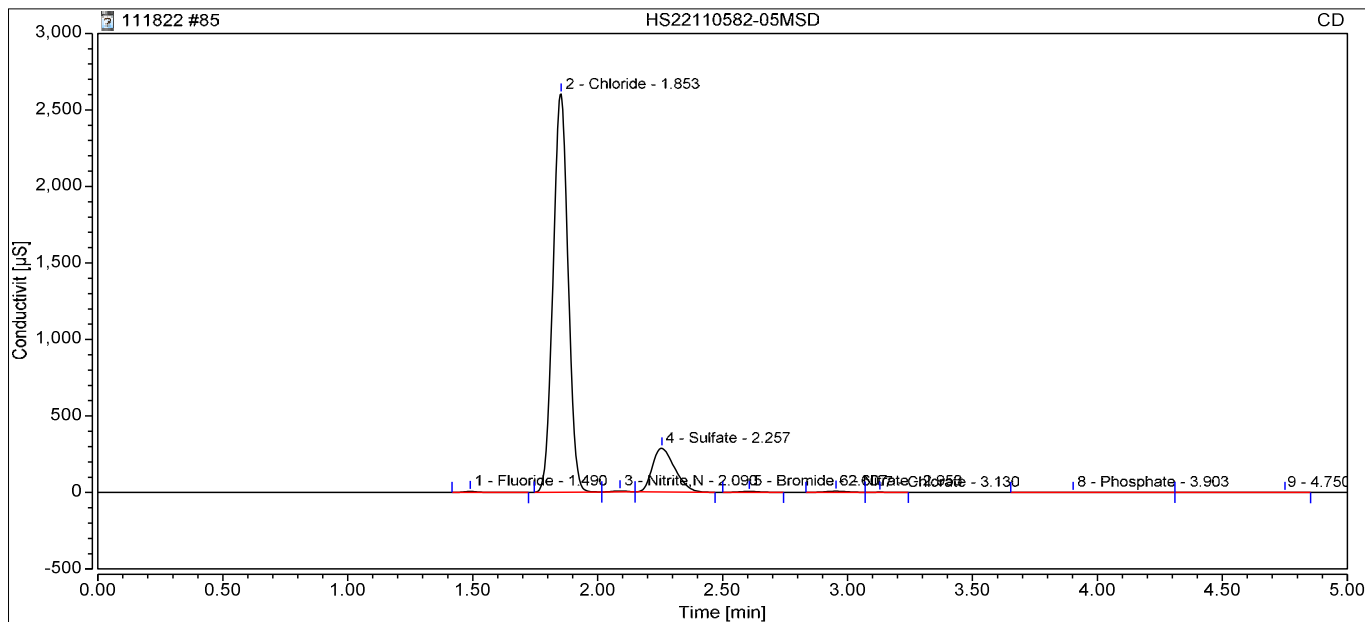
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.468	2.1164	2.1164	1.0000
2	1.85	Chloride	BMB	181.558	1263.3312	1263.3312	1.0000
3	2.09	Nitrite,N	BMB	0.402	1.3220	1.3220	1.0000
4	2.26	Sulfate	BMB	29.816	290.8433	290.8433	1.0000
5	2.61	Bromide	BMB	0.519	8.2672	8.2672	1.0000
6	2.95	Nitrate	BMB	0.678	2.0849	2.0849	1.0000
7	3.13	Chlorate	BMB	0.054	1.8854	1.8854	1.0000
8	3.90	Phosphate	BMB	0.067	n.a.	n.a.	1.0000
Total:			0.000	213.562	1569.85		

86 HS22110582-05DF50

Sample Name: HS22110582-05DF50

Vial Number: GC3

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 19:15

Run Time:

Injection Volume: 5.00

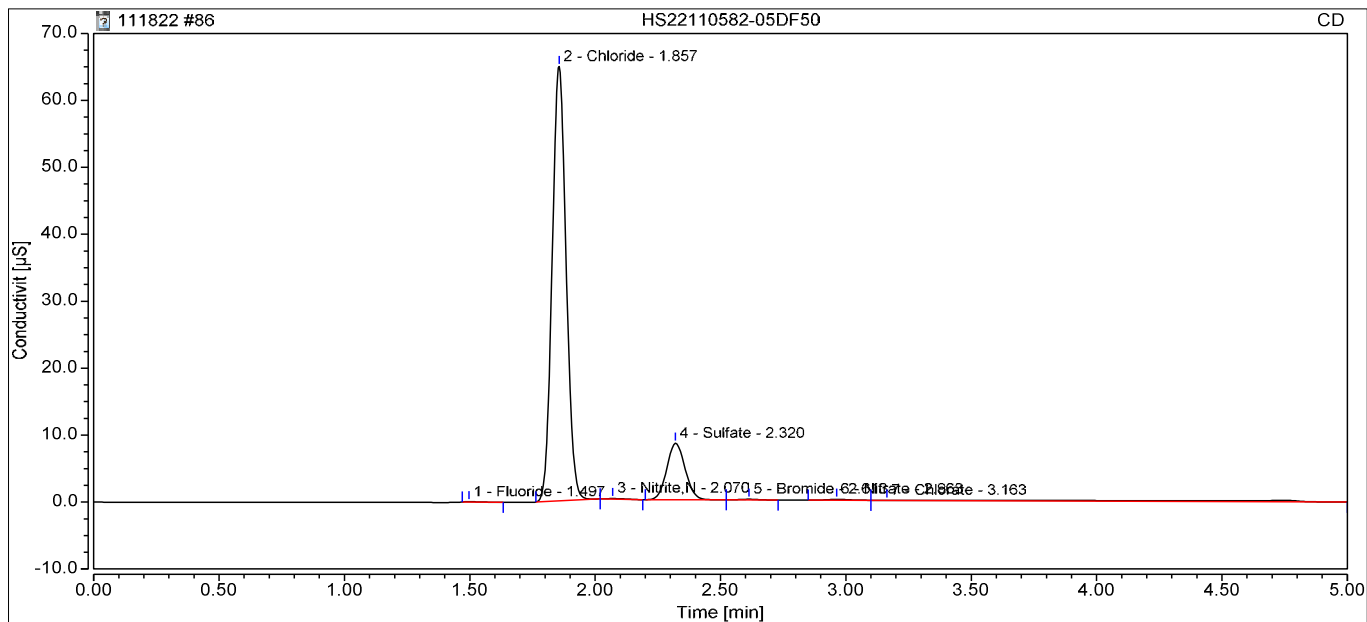
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 50.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	0.003	n.a.	n.a.	50.0000
2	1.86	Chloride	BMB	4.200	29.2249	1461.2448	50.0000
3	2.07	Nitrite,N	BMB	0.007	0.0823	4.1166	50.0000
4	2.32	Sulfate	BMB	0.716	6.9652	348.2582	50.0000
5	2.61	Bromide	BMB	0.008	0.1468	7.3378	50.0000
6	2.96	Nitrate	BMB	0.012	0.0717	3.5834	50.0000
7	3.16	Chlorate	BMB	0.146	5.1388	256.9401	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			0.000	5.093	2081.48		

87 HS22110582-03

Sample Name: HS22110582-03

Vial Number: GC4

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 19:20

Run Time:

Injection Volume: 5.00

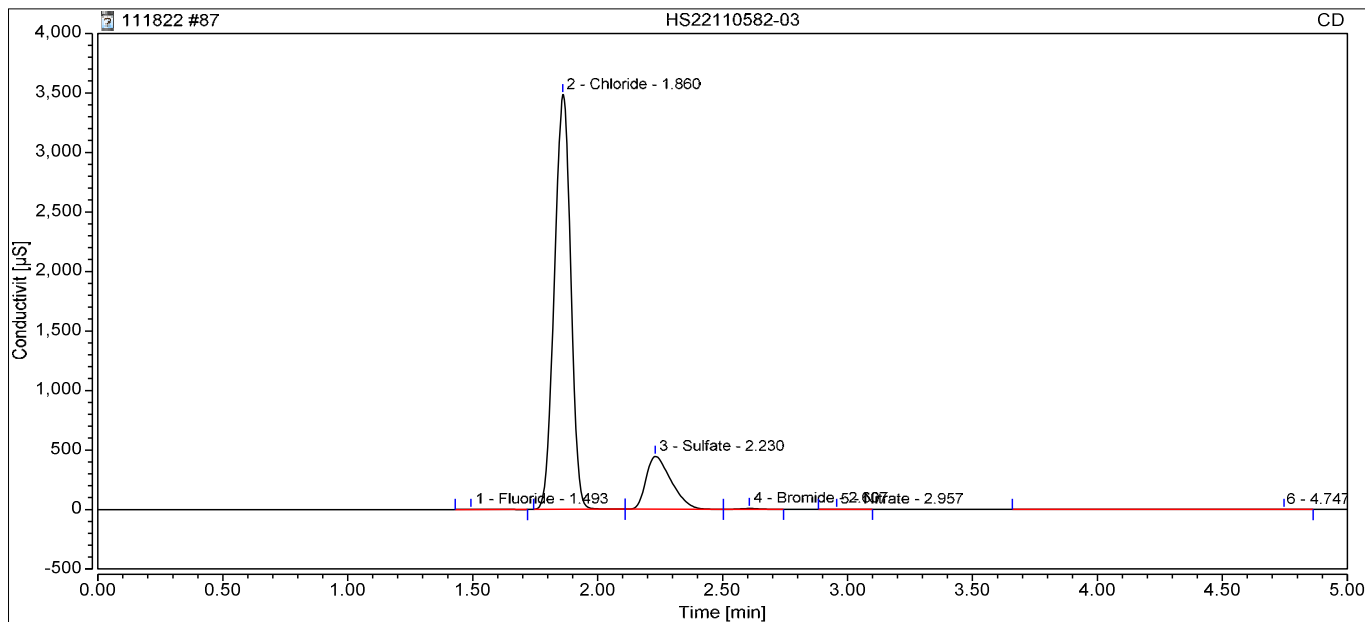
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.045	0.1797	0.1797	1.0000
2	1.86	Chloride	BMB	264.697	1841.8319	1841.8319	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.23	Sulfate	BMB	51.599	503.3445	503.3445	1.0000
4	2.61	Bromide	BMB	0.590	9.4062	9.4062	1.0000
5	2.96	Nitrate	BMB	0.003	0.0458	0.0458	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	316.935	2354.81		

88 HS22110582-03DF50

Sample Name: HS22110582-03DF50

Vial Number: GC5

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 19:25

Run Time:

Injection Volume: 5.00

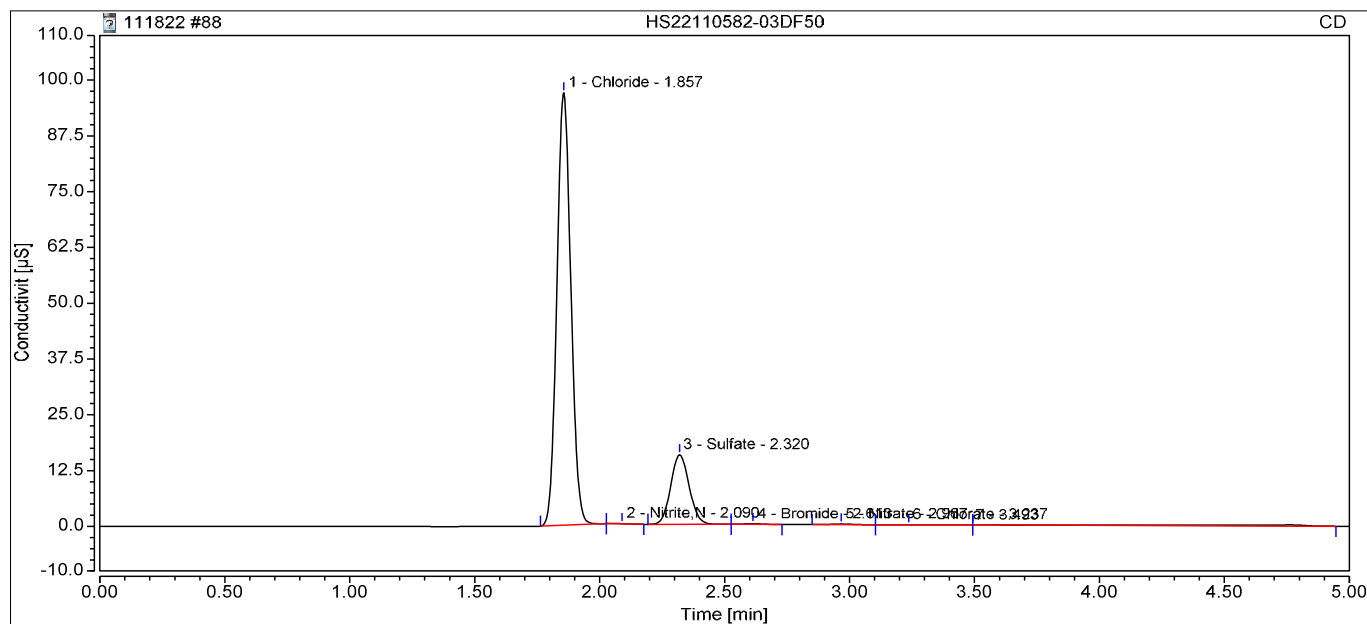
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 50.0000

Sample Weight: 1.0000



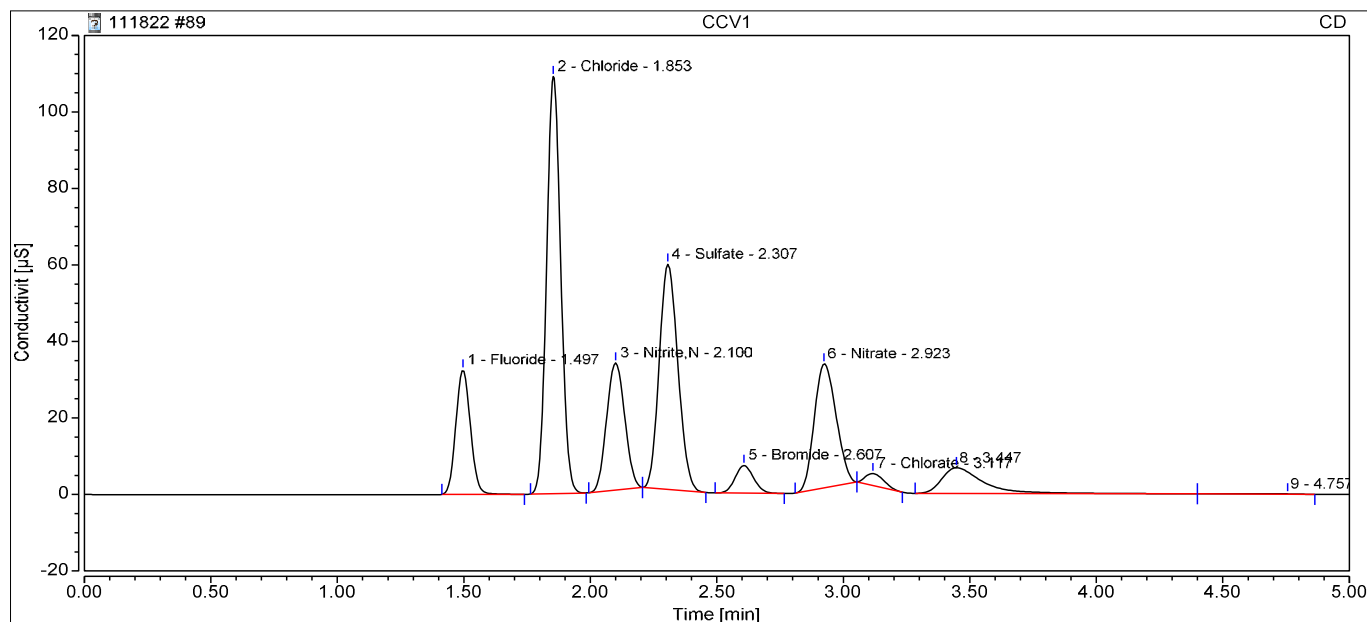
Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	50.0000
1	1.86	Chloride	BMB	6.290	43.7639	2188.1953	50.0000
2	2.09	Nitrite,N	BMB	0.004	0.0739	3.6946	50.0000
3	2.32	Sulfate	BMB	1.333	12.9852	649.2596	50.0000
4	2.61	Bromide	BMB	0.013	0.2168	10.8395	50.0000
5	2.97	Nitrate	BMB	0.015	0.0797	3.9851	50.0000
6	3.24	Chlorate	BMB	0.002	0.1194	5.9706	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			0.000	7.657	2861.94		

89 CCV1

Sample Name: CCV1
 Vial Number: R3
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/18/2022 19:41
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

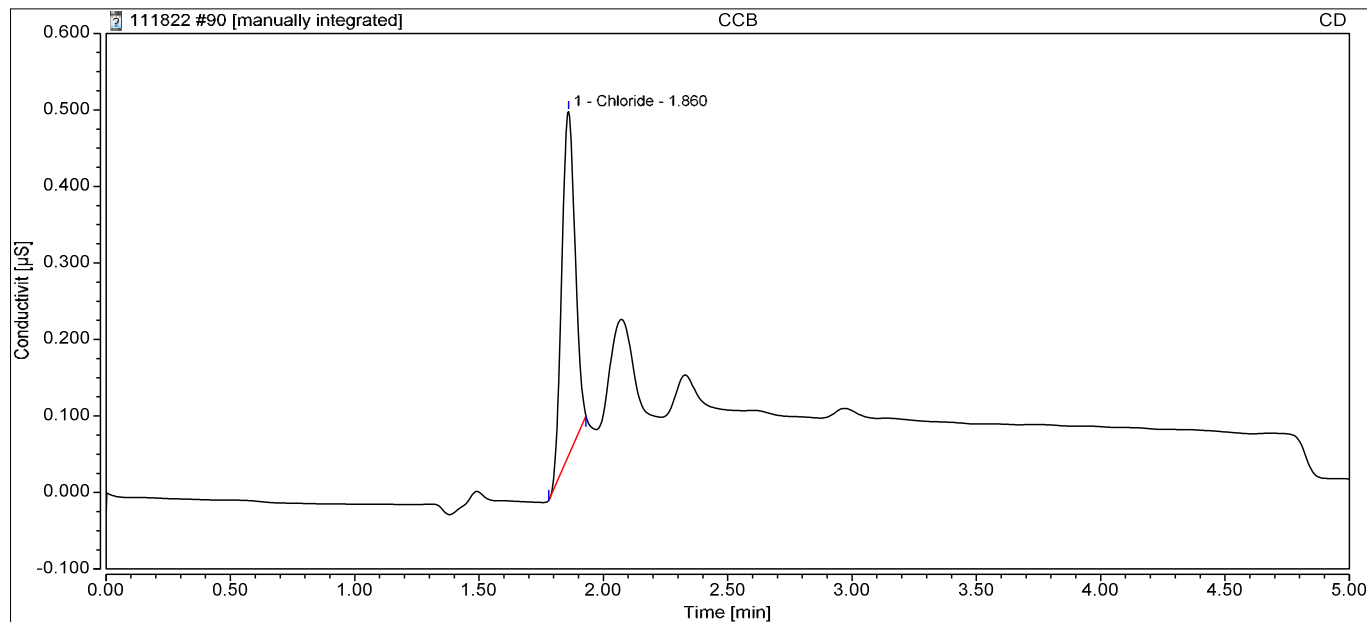
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	2.178	9.9503	9.9503	1.0000
2	1.85	Chloride	BMB	7.045	49.0181	49.0181	1.0000
3	2.10	Nitrite, N	BMB	2.765	9.6952	9.6952	1.0000
4	2.31	Sulfate	BMB	5.050	49.2449	49.2449	1.0000
5	2.61	Bromide	BMB	0.613	9.7728	9.7728	1.0000
6	2.92	Nitrate	BMB	3.233	9.8105	9.8105	1.0000
7	3.12	Chlorate	BMB	0.268	9.7208	9.7208	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	21.152	147.21		



90 CCB

Sample Name: CCB
 Vial Number: R8
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/18/2022 19:52
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.86	Chloride	BMB*	0.028	0.1918	0.1918	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.028	0.19		



91 HS22110582-04

Sample Name: HS22110582-04

Vial Number: GC6

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 19:57

Run Time:

Injection Volume: 5.00

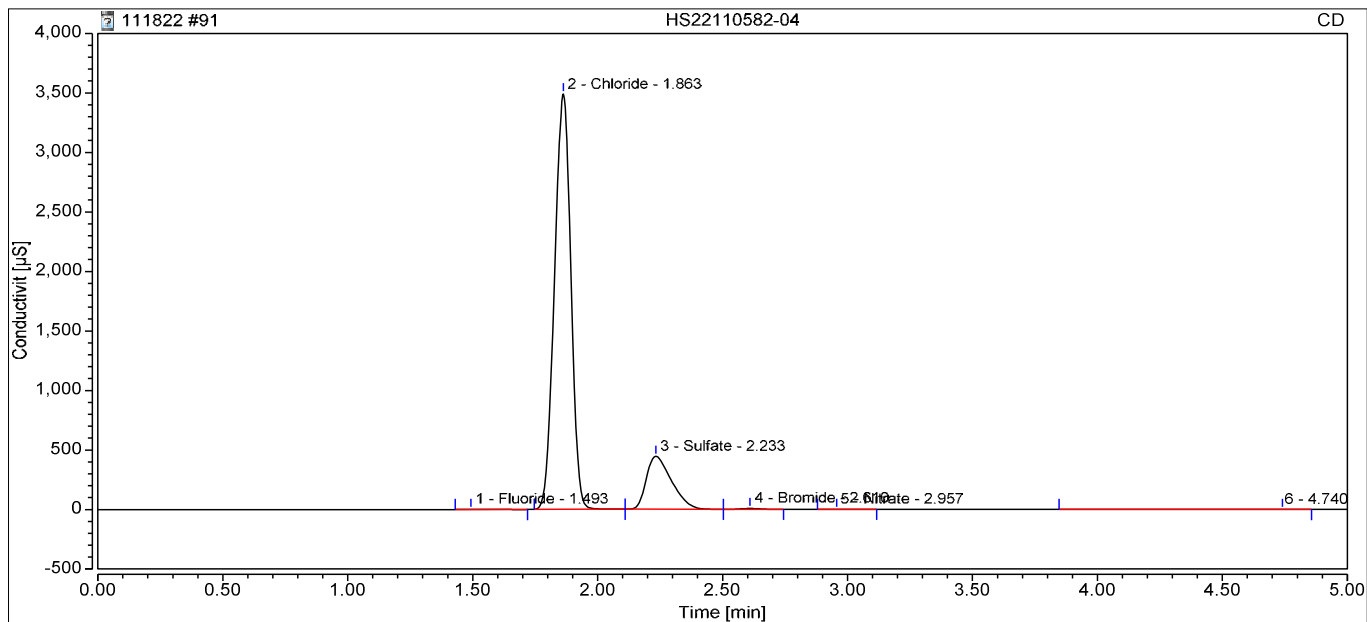
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 1.0000

Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.046	0.1830	0.1830	1.0000
2	1.86	Chloride	BMB	265.019	1844.0716	1844.0716	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
3	2.23	Sulfate	BMB	51.746	504.7778	504.7778	1.0000
4	2.61	Bromide	BMB	0.590	9.4089	9.4089	1.0000
5	2.96	Nitrate	BMB	0.005	0.0492	0.0492	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	317.406	2358.49		

92 HS22110582-04DF50

Sample Name: HS22110582-04DF50

Vial Number: GC7

Sample Type: Unknown

Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current

Quantif. Method: Anions Processing Method ISO

Recording Time: 11/18/2022 20:02

Run Time:

Injection Volume: 5.00

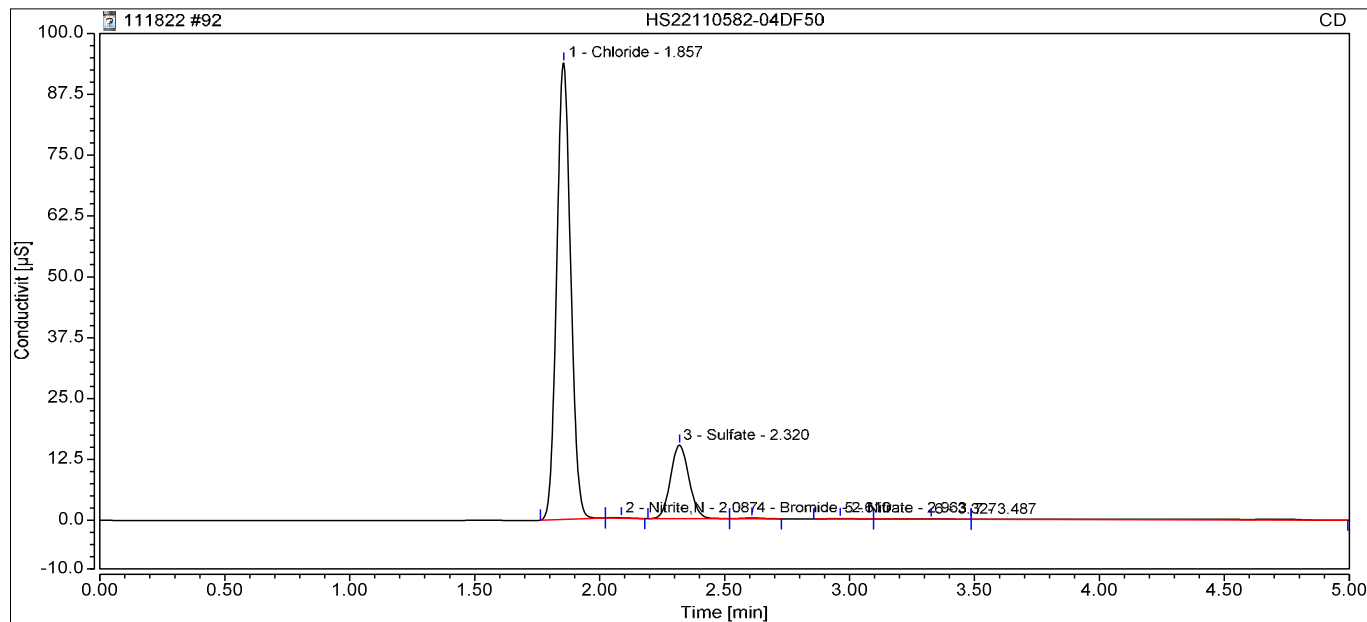
Channel: CD

Wavelength: n.a.

Bandwidth: n.a.

Dilution Factor: 50.0000

Sample Weight: 1.0000



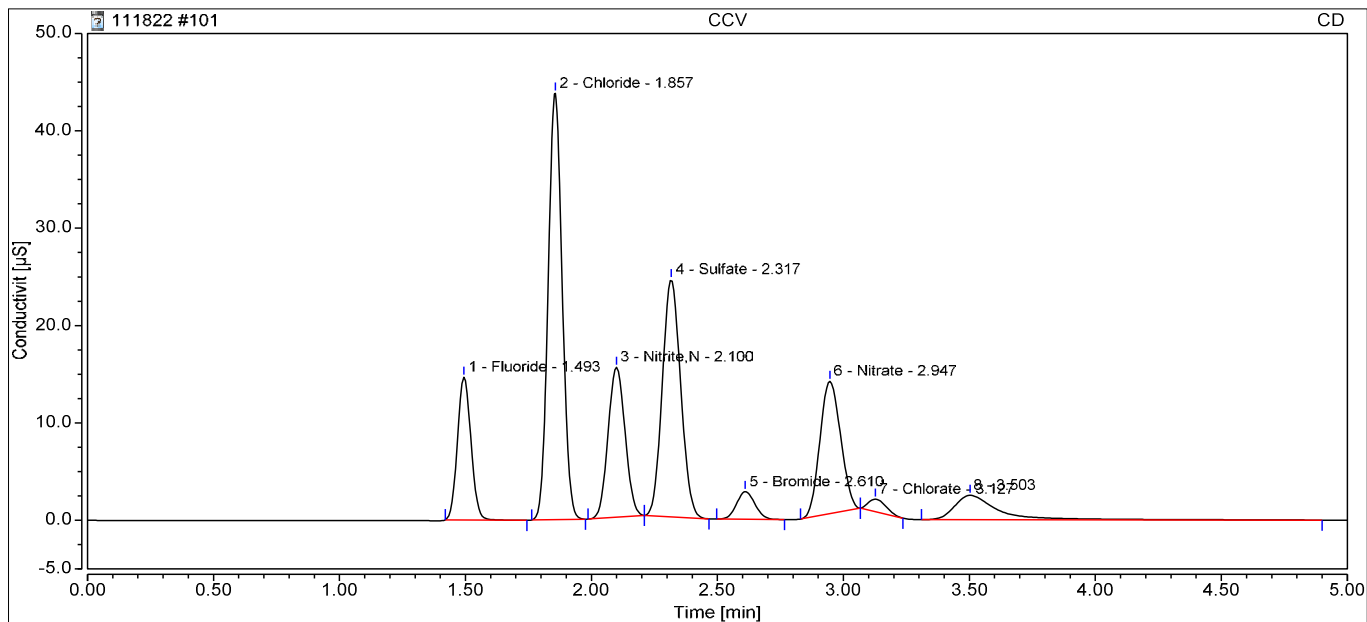
Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	50.0000
1	1.86	Chloride	BMB	6.085	42.3385	2116.9246	50.0000
2	2.09	Nitrite,N	BMB	0.005	0.0779	3.8930	50.0000
3	2.32	Sulfate	BMB	1.292	12.5801	629.0036	50.0000
4	2.61	Bromide	BMB	0.012	0.2094	10.4693	50.0000
5	2.96	Nitrate	BMB	0.009	0.0620	3.1014	50.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	50.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	50.0000
Total:			0.000	7.403	2763.39		

101 CCV

Sample Name: CCV
 Vial Number: R1
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/18/2022 21:00
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

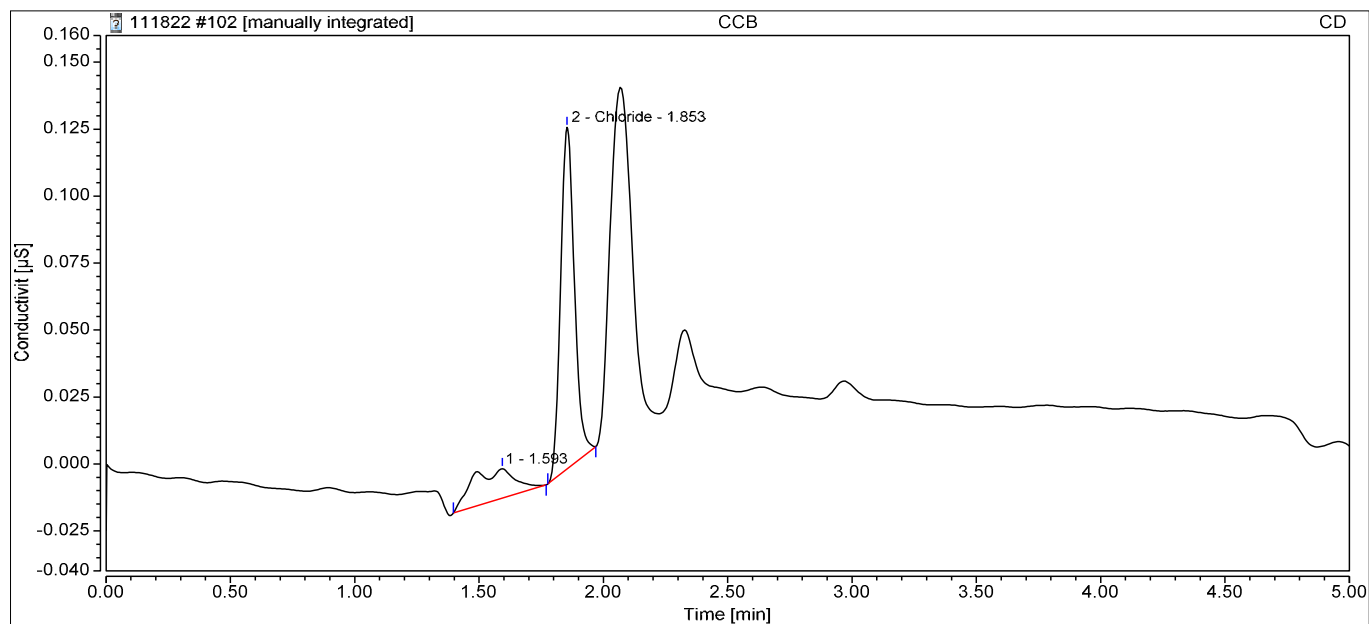
No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.915	4.1635	4.1635	1.0000
2	1.86	Chloride	BMB	2.819	19.6115	19.6115	1.0000
3	2.10	Nitrite,N	BMB	1.205	3.9620	3.9620	1.0000
4	2.32	Sulfate	BMB	2.057	20.0480	20.0480	1.0000
5	2.61	Bromide	BMB	0.239	3.8171	3.8171	1.0000
6	2.95	Nitrate	BMB	1.297	3.9570	3.9570	1.0000
7	3.13	Chlorate	BMB	0.107	3.7508	3.7508	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	8.638	59.31		

102 CCB

Sample Name: CCB
 Vial Number: R6
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/18/2022 21:11

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000

Run Time:



Integration Results

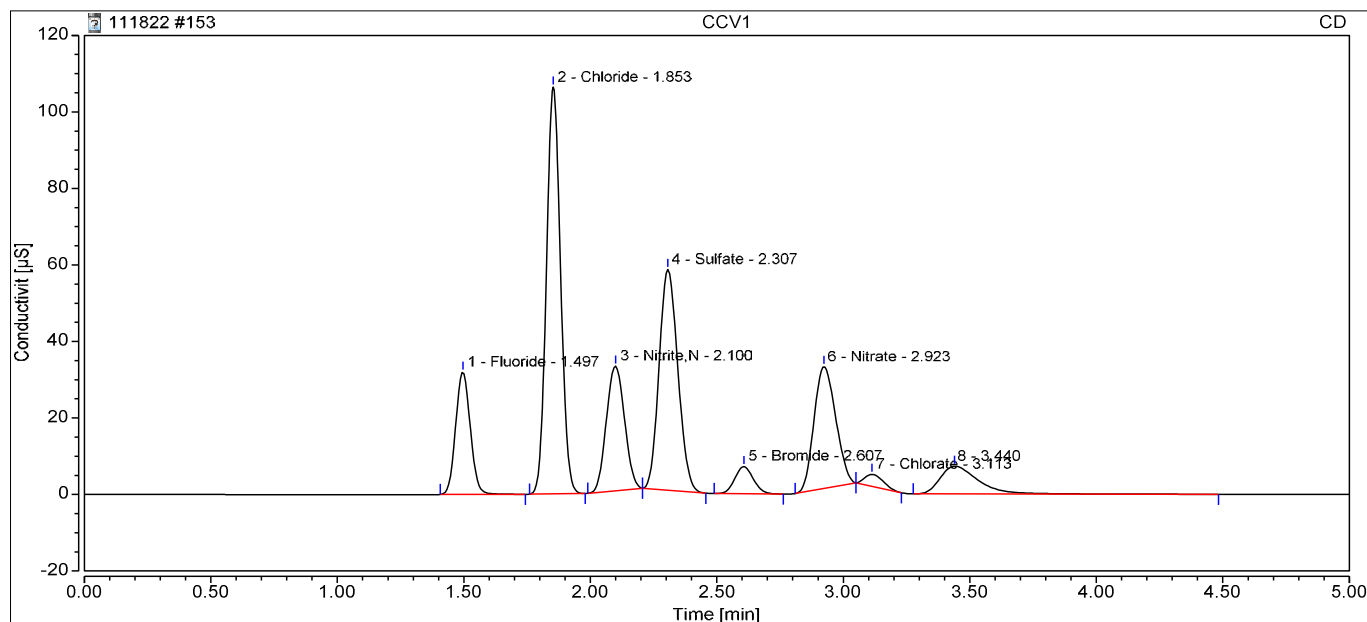
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
2	1.85	Chloride	BMB	0.008	0.0550	0.0550	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.008	0.06		



153 CCV1

Sample Name: CCV1
 Vial Number: R3
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/19/2022 03:34
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



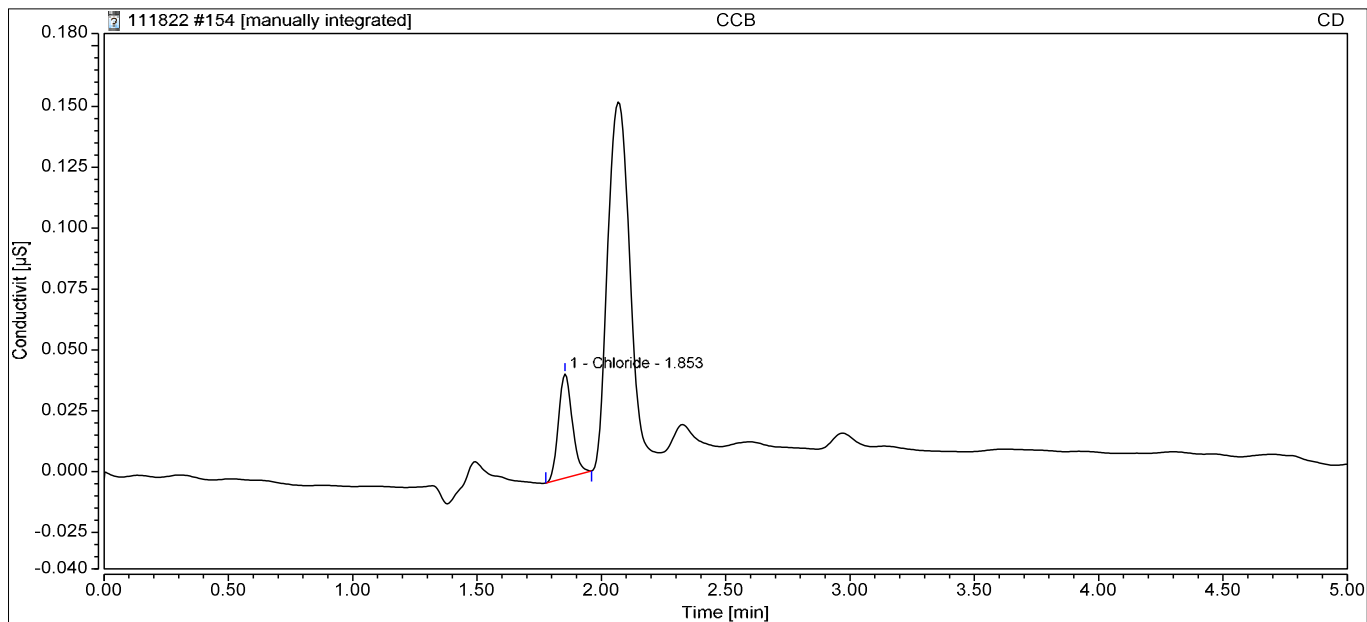
Integration Results							
No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	2.150	9.8218	9.8218	1.0000
2	1.85	Chloride	BMB	6.860	47.7337	47.7337	1.0000
3	2.10	Nitrite,N	BMB	2.711	9.4794	9.4794	1.0000
4	2.31	Sulfate	BMB	4.946	48.2259	48.2259	1.0000
5	2.61	Bromide	BMB	0.600	9.5678	9.5678	1.0000
6	2.92	Nitrate	BMB	3.163	9.5999	9.5999	1.0000
7	3.11	Chlorate	BMB	0.266	9.6240	9.6240	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	20.696	144.05		



154 CCB

Sample Name: CCB
 Vial Number: G7
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/19/2022 03:50
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



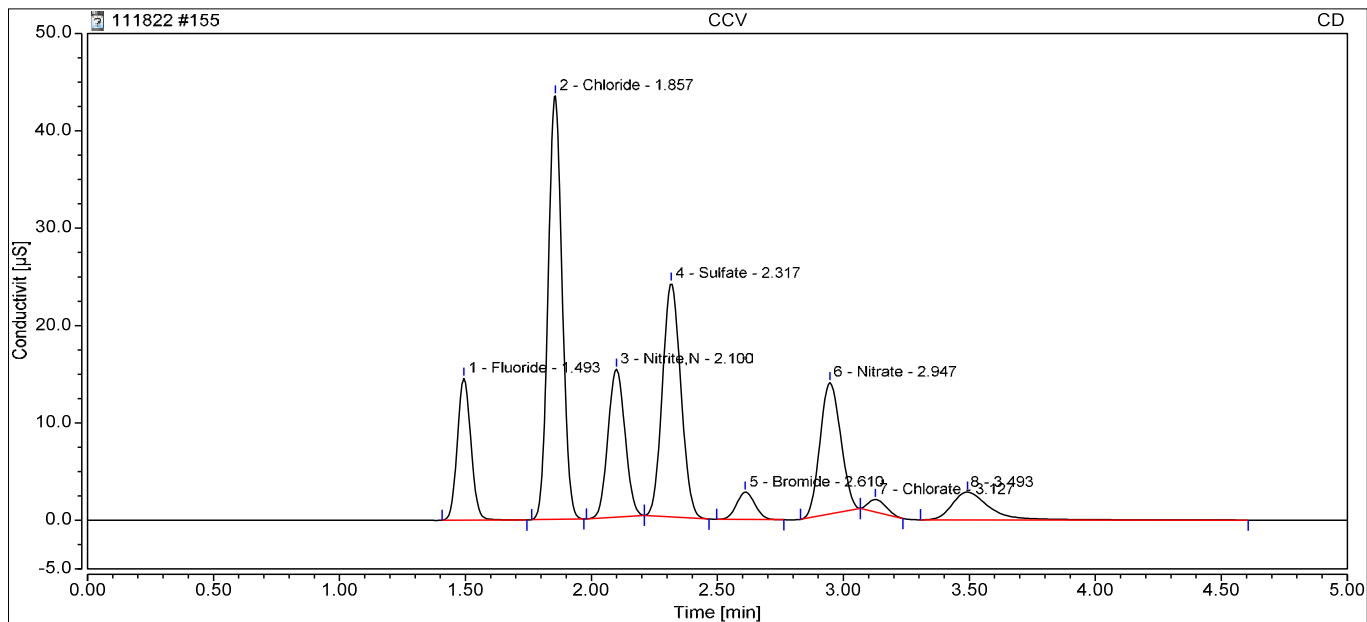
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.85	Chloride	BMB	0.003	0.0171	0.0171	1.0000
n.a.	n.a.	Nitrite,N	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.003	0.02		

155 CCV

Sample Name: CCV
 Vial Number: R1
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/19/2022 06:51
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



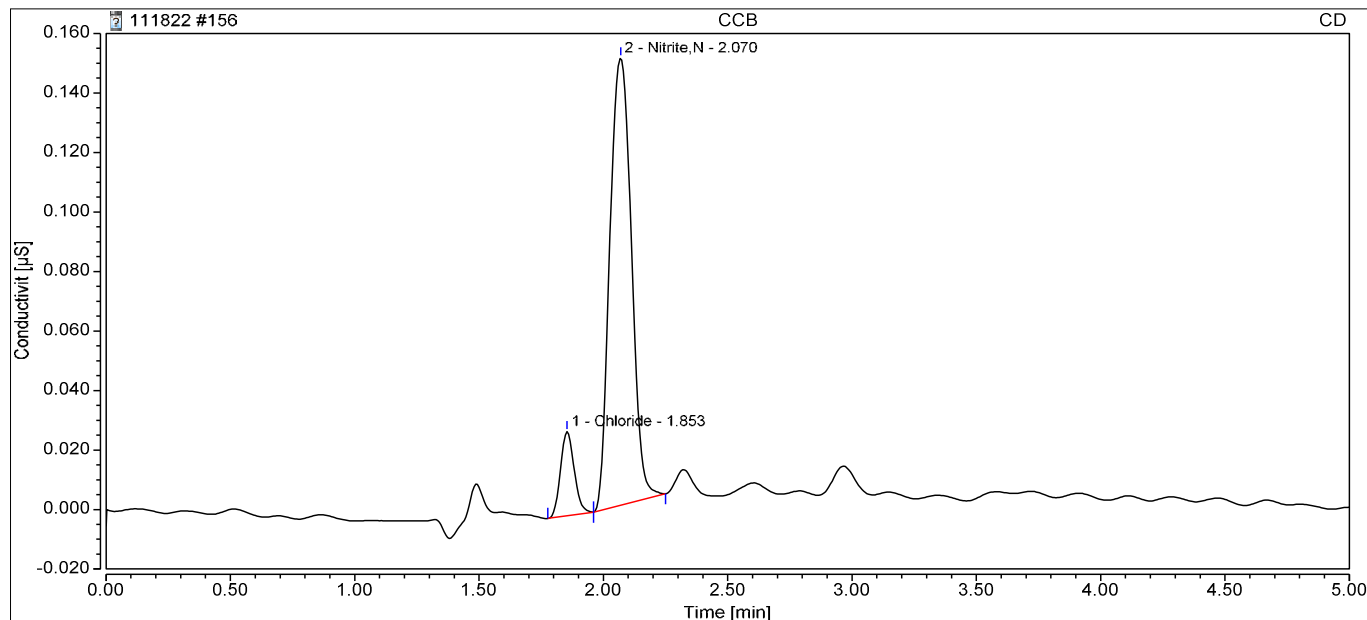
Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Amount ppm	Concentration ppm	Dilution
1	1.49	Fluoride	BMB	0.915	4.1647	4.1647	1.0000
2	1.86	Chloride	BMB	2.799	19.4709	19.4709	1.0000
3	2.10	Nitrite, N	BMB	1.190	3.9132	3.9132	1.0000
4	2.32	Sulfate	BMB	2.031	19.7938	19.7938	1.0000
5	2.61	Bromide	BMB	0.237	3.7936	3.7936	1.0000
6	2.95	Nitrate	BMB	1.283	3.9156	3.9156	1.0000
7	3.13	Chlorate	BMB	0.106	3.7211	3.7211	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	8.562	58.77		

156 CCB

Sample Name: CCB
 Vial Number: R6
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/19/2022 07:07
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



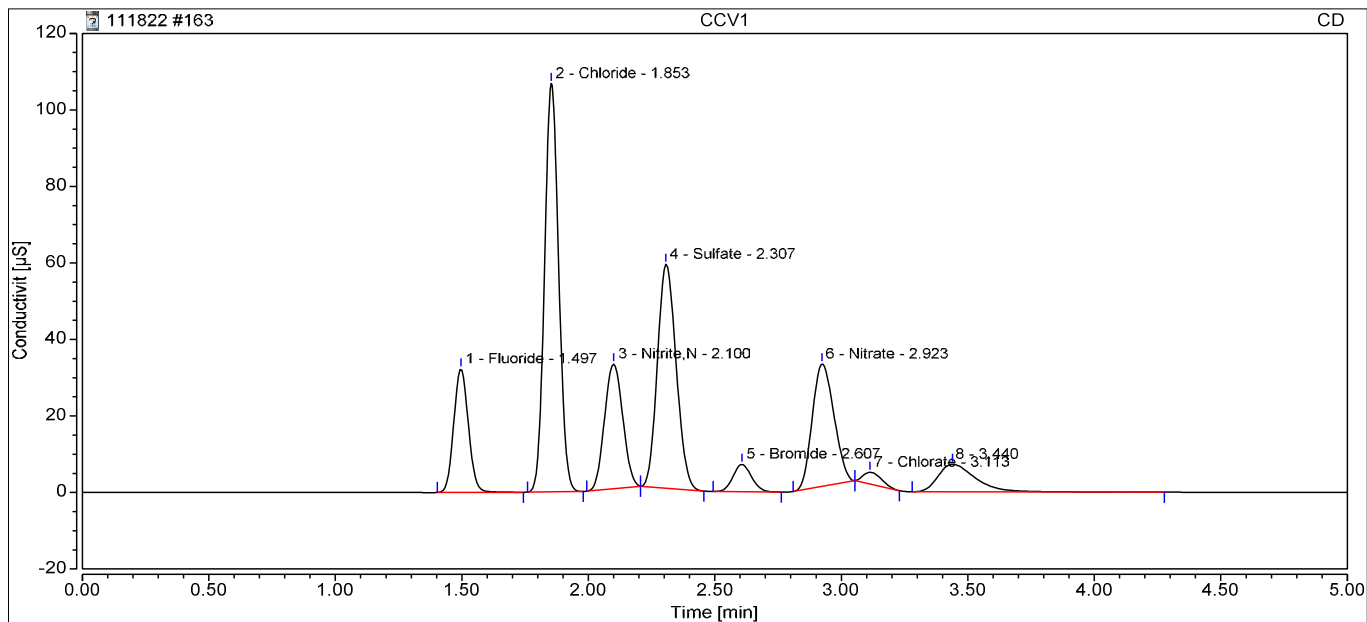
Integration Results							
No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S}\cdot\text{min}$	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.85	Chloride	BMB	0.002	0.0106	0.0106	1.0000
2	2.07	Nitrite,N	BMB	0.015	0.1077	0.1077	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.017	0.12		



163 CCV1

Sample Name: CCV1
 Vial Number: R3
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/19/2022 07:44
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



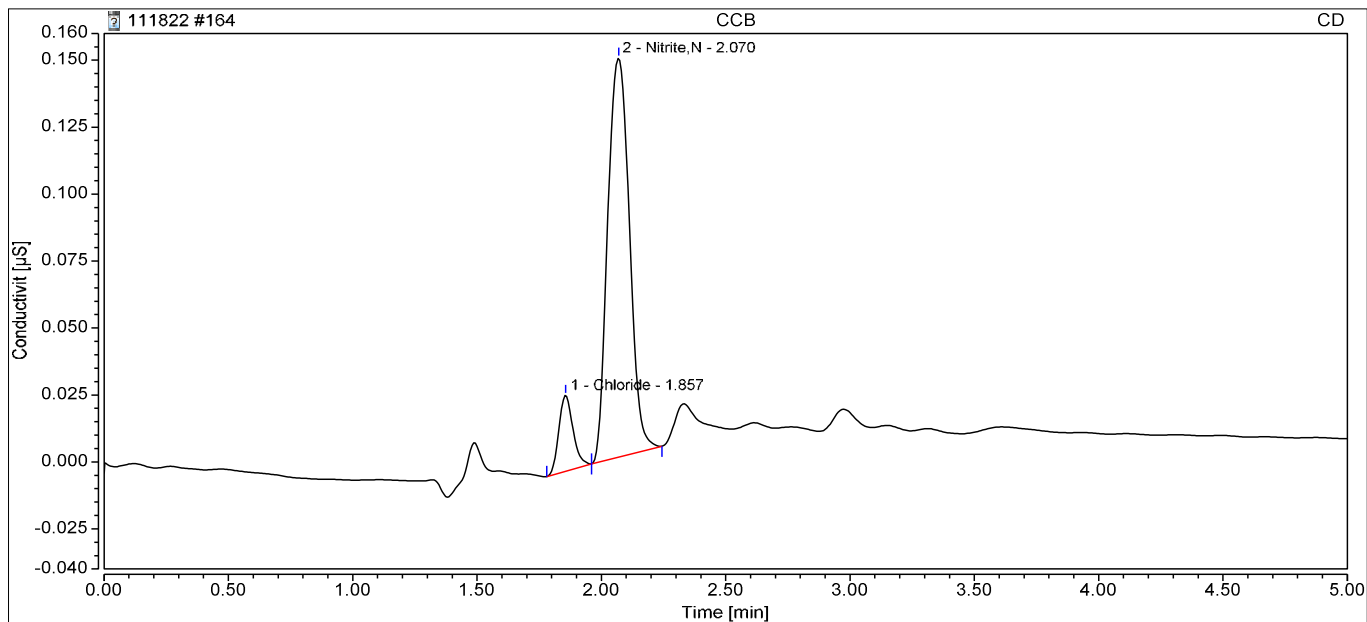
Integration Results

No.	Retention min	Peak Name	Peak Type	Area µS*min	Amount ppm	Concentration ppm	Dilution
1	1.50	Fluoride	BMB	2.173	9.9301	9.9301	1.0000
2	1.85	Chloride	BMB	6.891	47.9478	47.9478	1.0000
3	2.10	Nitrite,N	BMB	2.721	9.5198	9.5198	1.0000
4	2.31	Sulfate	BMB	5.025	48.9968	48.9968	1.0000
5	2.61	Bromide	BMB	0.603	9.6160	9.6160	1.0000
6	2.92	Nitrate	BMB	3.181	9.6535	9.6535	1.0000
7	3.11	Chlorate	BMB	0.264	9.5546	9.5546	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	20.858	145.22		

164 CCB

Sample Name: CCB
 Vial Number: R7
 Sample Type: Unknown
 Control Program: Anions Program ISO37mM 150mm short 0.4 Constant current
 Quantif. Method: Anions Processing Method ISO
 Recording Time: 11/19/2022 08:05
 Run Time:

Injection Volume: 5.00
 Channel: CD
 Wavelength: n.a.
 Bandwidth: n.a.
 Dilution Factor: 1.0000
 Sample Weight: 1.0000



Integration Results

No.	Retention min	Peak Name	Peak Type	Area $\mu\text{S} \cdot \text{min}$	Amount ppm	Concentration ppm	Dilution
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	1.0000
1	1.86	Chloride	BMB	0.002	0.0110	0.0110	1.0000
2	2.07	Nitrite, N	BMB	0.015	0.1077	0.1077	1.0000
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Nitrate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	1.0000
n.a.	n.a.	Phosphate	n.a.	n.a.	n.a.	n.a.	1.0000
Total:			0.000	0.017	0.12		

HS22110582 Eurofin Lab J105413-1 Std_Tal_L4 Final Report

ALS WO# HS22110582





ANALYTICAL REPORT

PREPARED FOR

Attn: Dane Wacasey
ALS Group USA, Corp
10450 Stancliff Rd.
Suite 210
Houston TX 77099

Generated 2/13/2023 4:10 PM Revision 1

JOB DESCRIPTION

HS22110582

JOB NUMBER

410-105413-1

Eurofins Lancaster Laboratories Environment Testing, LLC

Job Notes

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Authorized for release by
Kelly Bauer, Project Manager
Kelly.Bauer@et.eurofinsus.com
717 556-7262

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Revision 1

Eurofins Lancaster Laboratories Environment Testing, LLC

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Definitions/Glossary

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-105413-1REVISION

The report being provided is a revision of the original report sent on 11/30/2022. The report (revision 1) is being revised due to only the cover page, ToC and COC pulled into the report.

Report revision history

Receipt

The samples were received on 11/11/2022 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

Client Sample ID: HS22110582-03

Lab Sample ID: 410-105413-1

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil	Fac	D	Method	Prep Type
Carbon dioxide	81000		12000		2600	ug/L		1		RSK-175	Total/NA

Client Sample ID: HS22110582-04

Lab Sample ID: 410-105413-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil	Fac	D	Method	Prep Type
Carbon dioxide	90000		12000		2600	ug/L		1		RSK-175	Total/NA

Client Sample ID: HS22110582-05

Lab Sample ID: 410-105413-3

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil	Fac	D	Method	Prep Type
Carbon dioxide	80000	J1	12000		2600	ug/L		1		RSK-175	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

Client Sample ID: HS22110582-03

Lab Sample ID: 410-105413-1

Date Collected: 11/09/22 08:40

Matrix: Water

Date Received: 11/11/22 10:10

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	81000		12000		2600	ug/L		11/17/22 09:46	1

Client Sample ID: HS22110582-04

Lab Sample ID: 410-105413-2

Date Collected: 11/09/22 08:40

Matrix: Water

Date Received: 11/11/22 10:10

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	90000		12000		2600	ug/L		11/17/22 09:54	1

Client Sample ID: HS22110582-05

Lab Sample ID: 410-105413-3

Date Collected: 11/09/22 07:10

Matrix: Water

Date Received: 11/11/22 10:10

Method: RSK-175 - Dissolved Gases (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	80000	J1	12000		2600	ug/L		11/17/22 10:02	1

Default Detection Limits

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

Method: RSK-175 - Dissolved Gases (GC)**Prep: RSK-175**

Analyte	LOQ	DL	Units
Carbon dioxide	12000	2600	ug/L

QC Sample Results

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 410-318466/1-A

Matrix: Water

Analysis Batch: 318495

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 318466

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Carbon dioxide	2600	U	12000		2600	ug/L		11/17/22 09:24	1

Lab Sample ID: LCS 410-318466/2-A

Matrix: Water

Analysis Batch: 318495

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 318466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	35800	38200		ug/L		107	80 - 122

Lab Sample ID: 410-105413-3 MS

Matrix: Water

Analysis Batch: 318495

Client Sample ID: HS22110582-05

Prep Type: Total/NA

Prep Batch: 318466

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon dioxide	80000	J1	35800	108000	J1	ug/L		77	80 - 122

Lab Sample ID: 410-105413-3 MSD

Matrix: Water

Analysis Batch: 318495

Client Sample ID: HS22110582-05

Prep Type: Total/NA

Prep Batch: 318466

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon dioxide	80000	J1	35800	121000		ug/L		113	80 - 122	11	30

QC Association Summary

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

GC VOA

Prep Batch: 318466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-105413-1	HS22110582-03	Total/NA	Water	RSK-175	
410-105413-2	HS22110582-04	Total/NA	Water	RSK-175	
410-105413-3	HS22110582-05	Total/NA	Water	RSK-175	
MB 410-318466/1-A	Method Blank	Total/NA	Water	RSK-175	
LCS 410-318466/2-A	Lab Control Sample	Total/NA	Water	RSK-175	
410-105413-3 MS	HS22110582-05	Total/NA	Water	RSK-175	
410-105413-3 MSD	HS22110582-05	Total/NA	Water	RSK-175	

Analysis Batch: 318495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-105413-1	HS22110582-03	Total/NA	Water	RSK-175	318466
410-105413-2	HS22110582-04	Total/NA	Water	RSK-175	318466
410-105413-3	HS22110582-05	Total/NA	Water	RSK-175	318466
MB 410-318466/1-A	Method Blank	Total/NA	Water	RSK-175	318466
LCS 410-318466/2-A	Lab Control Sample	Total/NA	Water	RSK-175	318466
410-105413-3 MS	HS22110582-05	Total/NA	Water	RSK-175	318466
410-105413-3 MSD	HS22110582-05	Total/NA	Water	RSK-175	318466

Lab Chronicle

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

Client Sample ID: HS22110582-03

Lab Sample ID: 410-105413-1

Date Collected: 11/09/22 08:40

Matrix: Water

Date Received: 11/11/22 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			318466	LXF2	ELLE	11/17/22 05:48
Total/NA	Analysis	RSK-175		1	318495	LXF2	ELLE	11/17/22 09:46

Client Sample ID: HS22110582-04

Lab Sample ID: 410-105413-2

Date Collected: 11/09/22 08:40

Matrix: Water

Date Received: 11/11/22 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			318466	LXF2	ELLE	11/17/22 05:48
Total/NA	Analysis	RSK-175		1	318495	LXF2	ELLE	11/17/22 09:54

Client Sample ID: HS22110582-05

Lab Sample ID: 410-105413-3

Date Collected: 11/09/22 07:10

Matrix: Water

Date Received: 11/11/22 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	RSK-175			318466	LXF2	ELLE	11/17/22 05:48
Total/NA	Analysis	RSK-175		1	318495	LXF2	ELLE	11/17/22 10:02

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-20-22

Method Summary

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

Method	Method Description	Protocol	Laboratory
RSK-175	Dissolved Gases (GC)	RSK	ELLE
RSK-175	Dissolved Gases Prep	RSK	ELLE

Protocol References:

RSK = Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

01191610

Client: ALS Group USA, Corp
Project/Site: HS22110582

Job ID: 410-105413-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-105413-1	HS22110582-03	Water	11/09/22 08:40	11/11/22 10:10
410-105413-2	HS22110582-04	Water	11/09/22 08:40	11/11/22 10:10
410-105413-3	HS22110582-05	Water	11/09/22 07:10	11/11/22 10:10

GC VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-105413-1

SDG No.: _____

Instrument ID: 19506-B Analysis Batch Number: 318495Lab Sample ID: IC 410-318495/7 Client Sample ID: _____Date Analyzed: 11/17/22 08:27 Lab File ID: 312022_11_17B.0007.d GC Column: HP Plot ID: 0.53 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon dioxide	1.87	Peak not integrated	LXF2	11/17/22 08:40

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-105413-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
EPH_CO2ICV_00002	09/29/23	09/29/22	DI Water, Lot In House	1 mL	EPH_CO2XX_00002	0.0018 g	Carbon dioxide	547000 ppb
.EPH_CO2XX_00002	09/29/23		Air Products, Lot A214157		(Purchased Reagent)		Carbon dioxide	30.3889 %
EPH_CO2MS_00004	07/16/23	07/18/22	DI Water, Lot In House	1 g	EPH_CO2CRV_00002	0.0018 g	Carbon dioxide	1791000 ppb
.EPH_CO2CRV_00002	07/16/23		Praxair, Lot 4-11-18		(Purchased Reagent)		Carbon dioxide	99.5 %

Method RSK-175 CO2 DOD

Dissolved Gases (GC) by Method
RSK_175_CO2 DOD

FORM III
GC VOA LAB CONTROL SAMPLE RECOVERYLab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 410-105413-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: 312022_11_17B.0012.d

Lab ID: LCS 410-318466/2-A

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Carbon dioxide	35800	38200	107	80-122	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE RECOVERYLab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 410-105413-1

SDG No.:

Matrix: Water

Level: Low

Lab File ID: 312022_11_17B.0016.d

Lab ID: 410-105413-3 MS

Client ID: HS22110582-05 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Carbon dioxide	35800	80000	108000	77	80-122	J1

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM III
GC VOA MATRIX SPIKE DUPLICATE RECOVERYLab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 410-105413-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: 312022_11_17B.0017.d

Lab ID: 410-105413-3 MSD

Client ID: HS22110582-05 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Carbon dioxide	35800	121000	113	11	30	80-122	

Column to be used to flag recovery and RPD values

FORM III RSK-175

FORM IV
GC VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-105413-1
Environment Testing, LLC

SDG No.: _____

Lab File ID: 312022_11_17B.0011.d Lab Sample ID: MB 410-318466/1-A

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: 19506-B Date Analyzed: 11/17/2022 09:24

GC Column: HP Plot ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-318466/2-A	312022_11_1 7B.0012.d	11/17/2022 09:31
HS22110582-03	410-105413-1	312022_11_1 7B.0013.d	11/17/2022 09:46
HS22110582-04	410-105413-2	312022_11_1 7B.0014.d	11/17/2022 09:54
HS22110582-05	410-105413-3	312022_11_1 7B.0015.d	11/17/2022 10:02
HS22110582-05 MS	410-105413-3 MS	312022_11_1 7B.0016.d	11/17/2022 10:09
HS22110582-05 MSD	410-105413-3 MSD	312022_11_1 7B.0017.d	11/17/2022 10:17

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0013.d
Lims ID: 410-105413-B-1-A
Client ID: HS22110582-03
Sample Type: Client
Inject. Date: 17-Nov-2022 09:46:00 ALS Bottle#: 0 Worklist Smp#: 13
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 410-105413-B-1-A
Misc. Info.: 410-0071380-013
Operator ID: Instrument ID: 19506-B
Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
Limit Group: GCV - RSK175 CO2
Last Update: 17-Nov-2022 13:11:20 Calib Date: 17-Nov-2022 08:27:00
Integrator: Genie
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
Column 1 : HP Plot (0.00 mm) Det: 0FIDA
Process Host: CTX1648

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.924	1.936	-0.012	291518969H	80902	

Report Date: 17-Nov-2022 15:13:03

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0013.d

Injection Date: 17-Nov-2022 09:46:00

Instrument ID: 19506-B

Operator ID:

Lims ID: 410-105413-B-1-A

Lab Sample ID: 410-105413-1

Worklist Smp#: 13

Client ID: HS22110582-03

Purge Vol: 1.000 mL

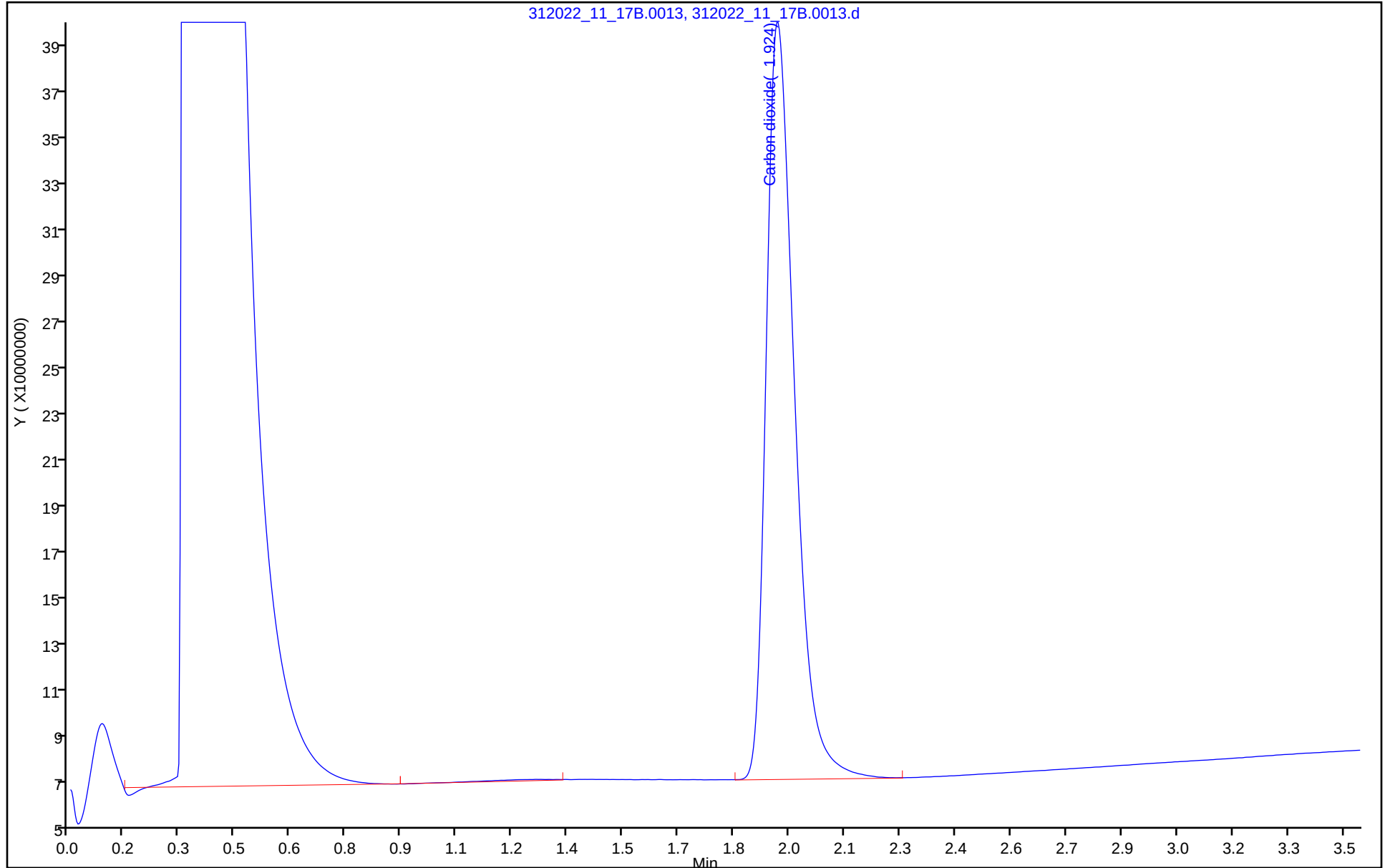
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0014.d
 Lims ID: 410-105413-B-2-A
 Client ID: HS22110582-04
 Sample Type: Client
 Inject. Date: 17-Nov-2022 09:54:00 ALS Bottle#: 0 Worklist Smp#: 14
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: 410-105413-B-2-A
 Misc. Info.: 410-0071380-014
 Operator ID: Instrument ID: 19506-B
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 15:13:12 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1648

First Level Reviewer: LXF2

Date: 17-Nov-2022 15:15:32

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.928	1.936	-0.008	323482788H	89773	

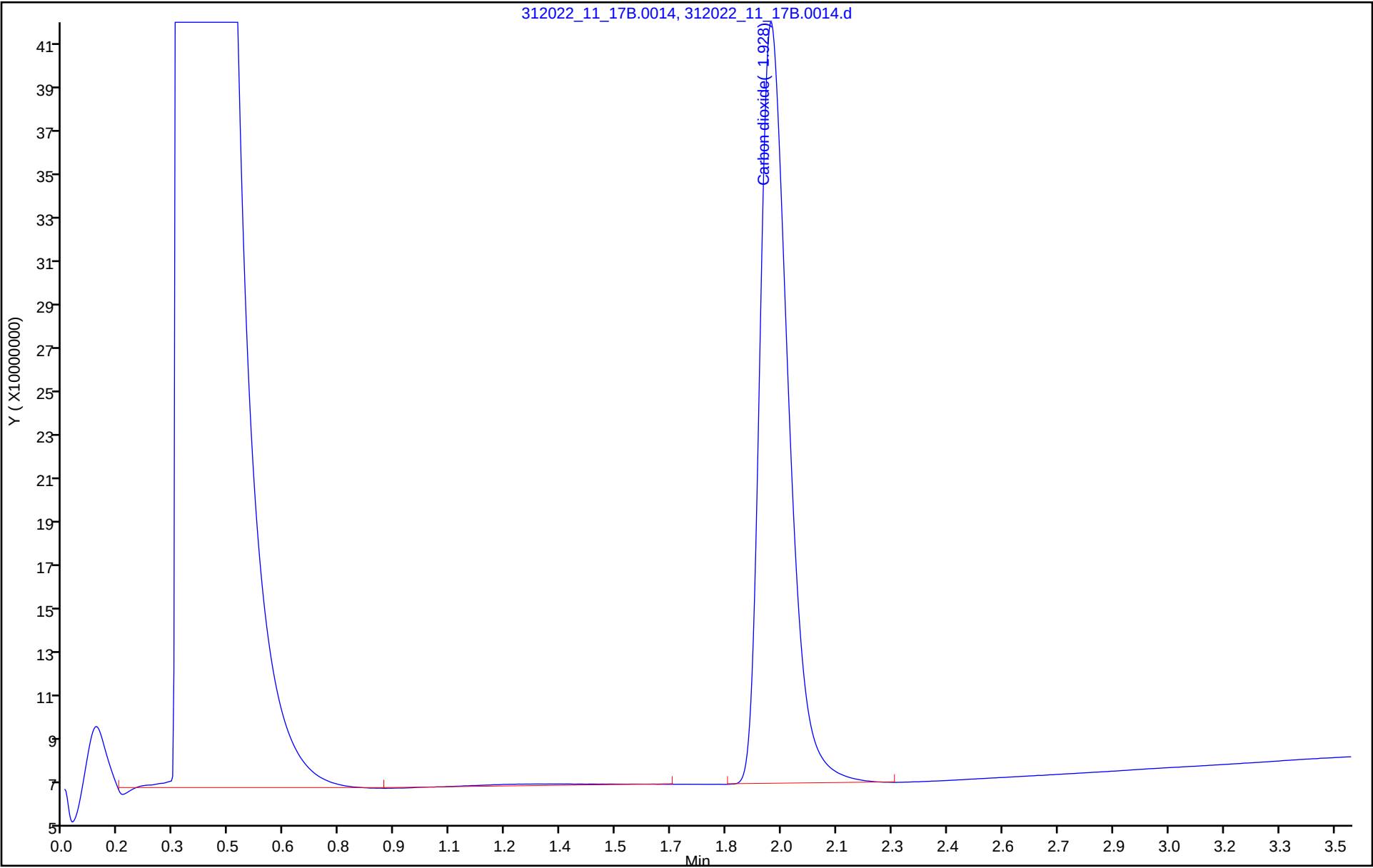
QC Flag Legend

Processing Flags

H - Response Measured by Height

Report Date: 17-Nov-2022 15:15:35 Chrom Revision: 2.3 11-Nov-2022 14:30:00
Eurofins Lancaster Laboratories Environment Testing, LLC
Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0014.d
Injection Date: 17-Nov-2022 09:54:00 Instrument ID: 19506-B
Lims ID: 410-105413-B-2-A Lab Sample ID: 410-105413-2
Client ID: HS22110582-04
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot (0.00 mm)

Operator ID:
Worklist Smp#: 14
ALS Bottle#: 0



Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	80000	J1	12000	2600

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0015.d
 Lims ID: 410-105413-B-3-A
 Client ID: HS22110582-05
 Sample Type: Client
 Inject. Date: 17-Nov-2022 10:02:00 ALS Bottle#: 0 Worklist Smp#: 15
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: 410-105413-B-3-A
 Misc. Info.: 410-0071380-015
 Operator ID: Instrument ID: 19506-B
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 15:13:12 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1648

First Level Reviewer: LXF2

Date: 17-Nov-2022 15:15:45

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.929	1.936	-0.007	289044048H	80216	

QC Flag Legend

Processing Flags

H - Response Measured by Height

Report Date: 17-Nov-2022 15:15:45

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0015.d

Injection Date: 17-Nov-2022 10:02:00

Instrument ID: 19506-B

Operator ID:

Lims ID: 410-105413-B-3-A

Lab Sample ID: 410-105413-3

Worklist Smp#: 15

Client ID: HS22110582-05

Purge Vol: 1.000 mL

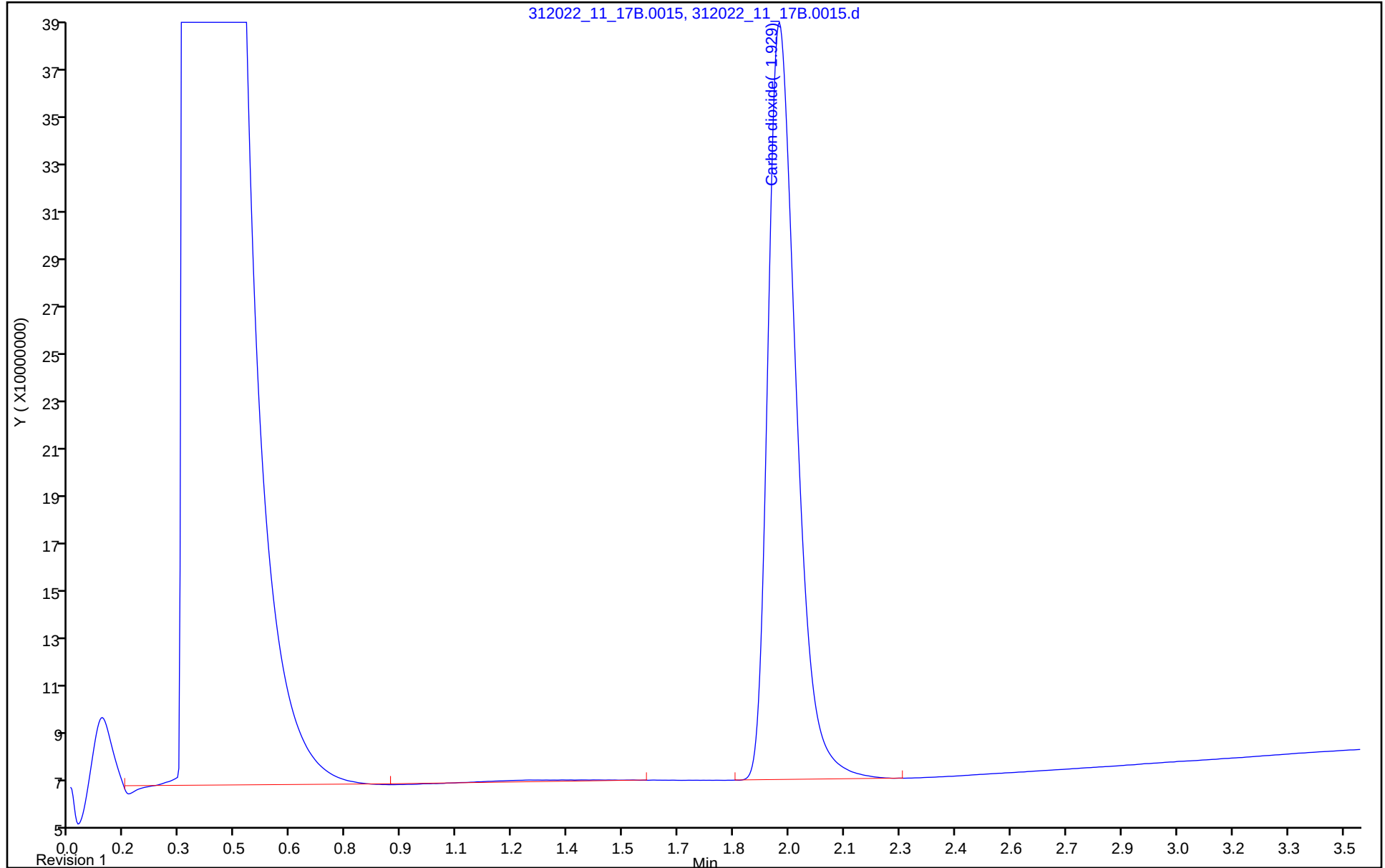
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-105413-1 Analy Batch No.: 318495

SDG No.: _____

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/17/2022 07:47 Calibration End Date: 11/17/2022 08:27 Calibration ID: 44187

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-318495/2	312022_11_17B(1).0002.d
Level 2	IC 410-318495/3	312022_11_17B(1).0003.d
Level 3	ICRT 410-318495/4	312022_11_17B(2).0004.d
Level 4	IC 410-318495/5	312022_11_17B(1).0005.d
Level 5	IC 410-318495/6	312022_11_17B(1).0006.d
Level 6	IC 410-318495/7	312022_11_17B.0007.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Carbon dioxide	1.942	1.941	1.936	1.921	1.908	1.867					1.906 - 1.966	1.919

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-105413-1 Analy Batch No.: 318495
Environment Testing, LLC

SDG No.: _____

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/17/2022 07:47 Calibration End Date: 11/17/2022 08:27 Calibration ID: 44187

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-318495/2	312022_11_17B(1).0002.d
Level 2	IC 410-318495/3	312022_11_17B(1).0003.d
Level 3	ICRT 410-318495/4	312022_11_17B(2).0004.d
Level 4	IC 410-318495/5	312022_11_17B(1).0005.d
Level 5	IC 410-318495/6	312022_11_17B(1).0006.d
Level 6	IC 410-318495/7	312022_11_17B.0007.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Carbon dioxide	4212.9 3177.6	3979.8 2879.6	3814.0	3556.1	Ave		3603.3384 0				14.0		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC VOA BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-105413-1 Analy Batch No.: 318495

SDG No.: _____

Instrument ID: 19506-B GC Column: HP Plot ID: 0.53 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/17/2022 07:47 Calibration End Date: 11/17/2022 08:27 Calibration ID: 44187

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-318495/2	312022_11_17B(1).0002.d
Level 2	IC 410-318495/3	312022_11_17B(1).0003.d
Level 3	ICRT 410-318495/4	312022_11_17B(2).0004.d
Level 4	IC 410-318495/5	312022_11_17B(1).0005.d
Level 5	IC 410-318495/6	312022_11_17B(1).0006.d
Level 6	IC 410-318495/7	312022_11_17B.0007.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Carbon dioxide	Ave	45271466 103148071 4	85534534	136617180	318446669	569115629	10746 358200	21492	35820	89550	179100

Curve Type Legend

Ave = Average by Height

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(1).0002.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 17-Nov-2022 07:47:00 ALS Bottle#: 0 Worklist Smp#: 2
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: 1
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 08:44:29 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1666

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.942	1.936	0.006	45271466H	10746	12564	

Reagents:

EPH_CO2MS_00004

Amount Added: 30.00

Units: uL

Report Date: 17-Nov-2022 08:44:29

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(1).0002.d

Injection Date: 17-Nov-2022 07:47:00

Instrument ID: 19506-B

Operator ID:

Lims ID: IC

Worklist Smp#: 2

Client ID:

Purge Vol: 1.000 mL

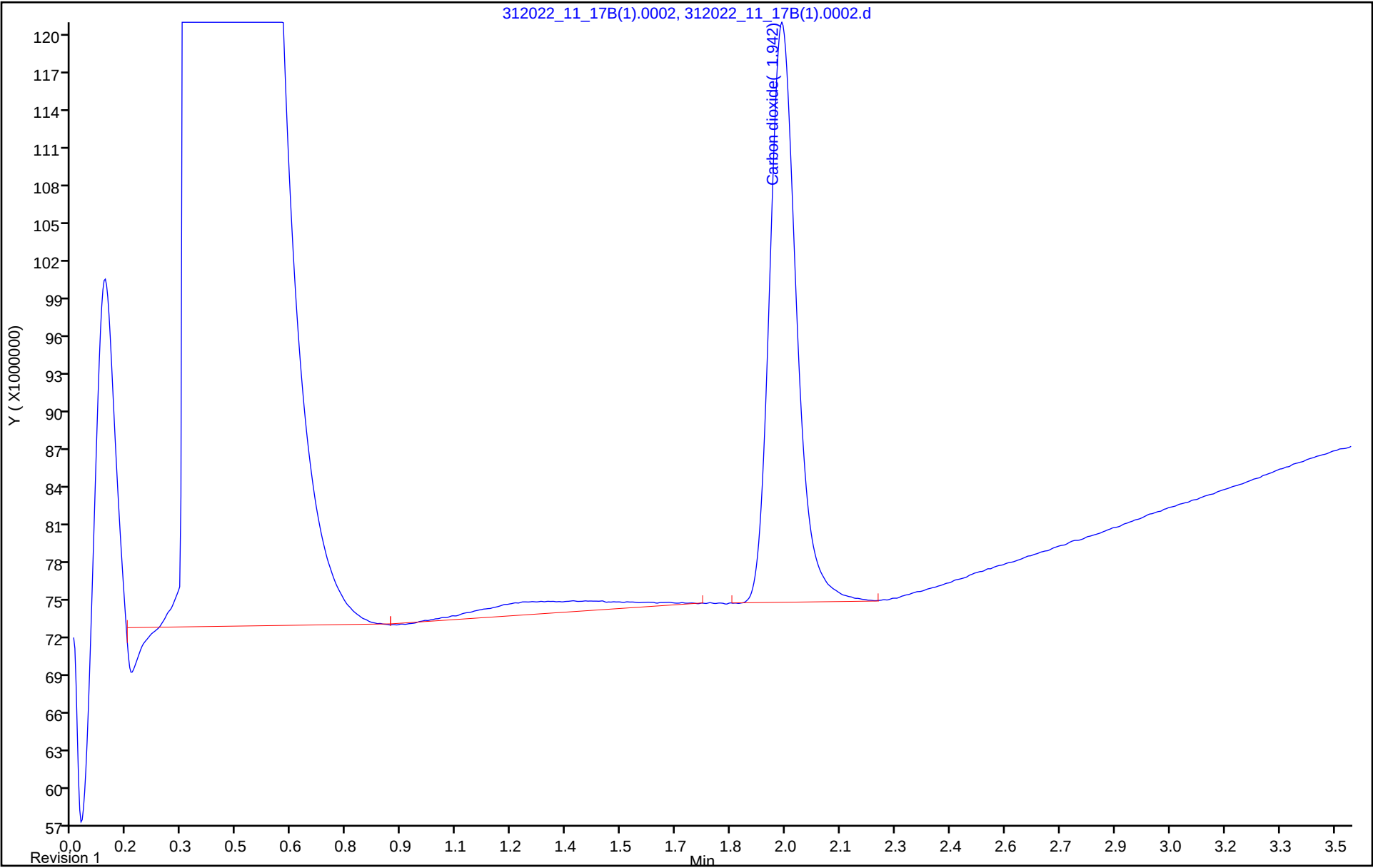
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(1).0003.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 17-Nov-2022 07:55:00 ALS Bottle#: 0 Worklist Smp#: 3
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: 2
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 08:44:30 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1666

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.941	1.936	0.005	85534534H	21492	23738	

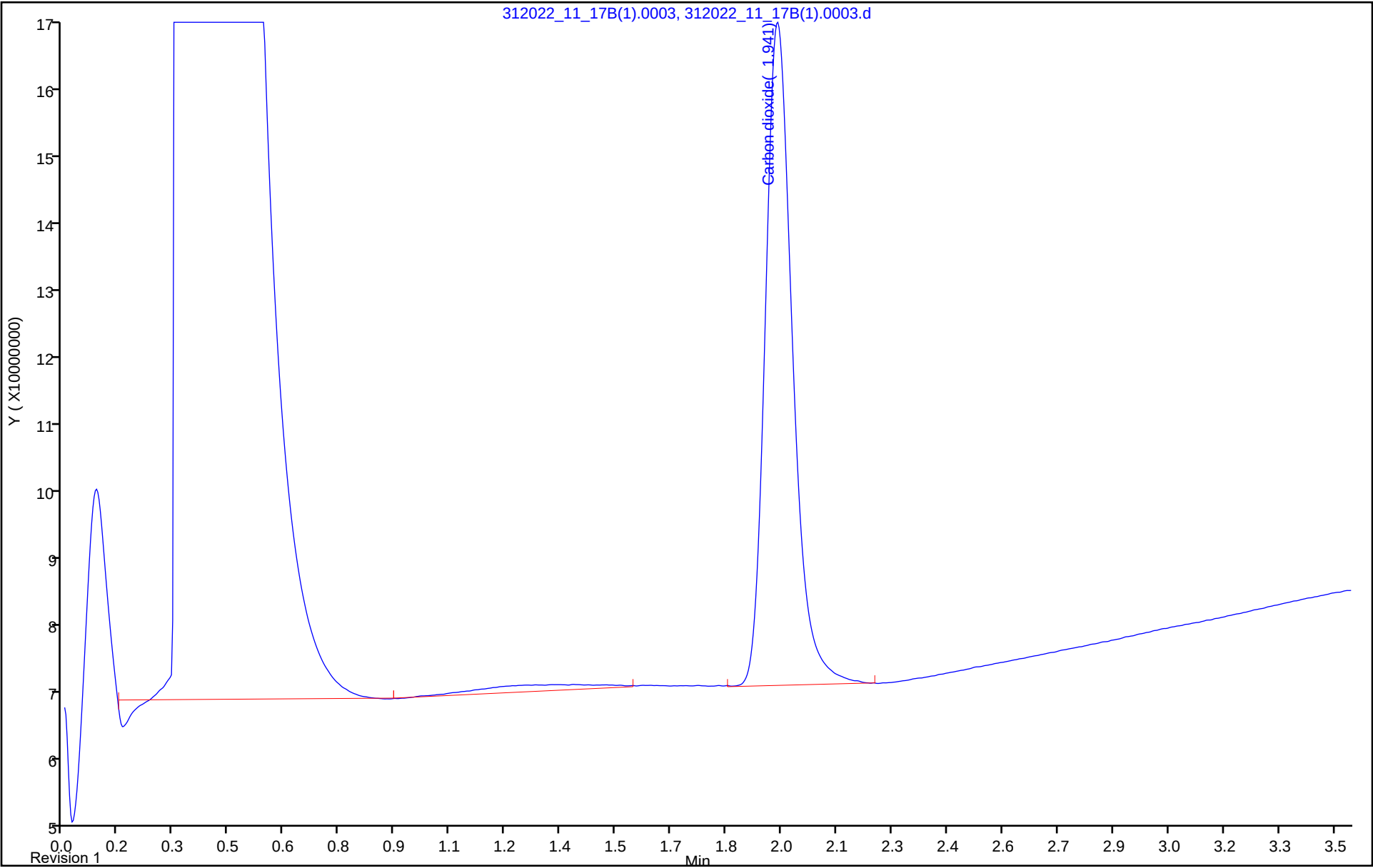
Reagents:

EPH_CO2MS_00004

Amount Added: 60.00

Units: uL

Report Date: 17-Nov-2022 08:44:30 Chrom Revision: 2.3 11-Nov-2022 14:30:00
Eurofins Lancaster Laboratories Environment Testing, LLC
Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(1).0003.d
Injection Date: 17-Nov-2022 07:55:00 Instrument ID: 19506-B
Lims ID: IC Operator ID:
Client ID: Worklist Smp#: 3
Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 0
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(2).0004.d
 Lims ID: ICRT
 Client ID:
 Sample Type: ICRT Calib Level: 3
 Inject. Date: 17-Nov-2022 08:03:00 ALS Bottle#: 0 Worklist Smp#: 4
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: 3
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 08:44:31 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1666

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.936	1.936	0.000	136617180H	35820	37914	

Reagents:

EPH_CO2MS_00004

Amount Added: 100.00

Units: uL

Report Date: 17-Nov-2022 08:44:31

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(2).0004.d

Injection Date: 17-Nov-2022 08:03:00

Instrument ID: 19506-B

Operator ID:

Lims ID: ICRT

Worklist Smp#: 4

Client ID:

Purge Vol: 1.000 mL

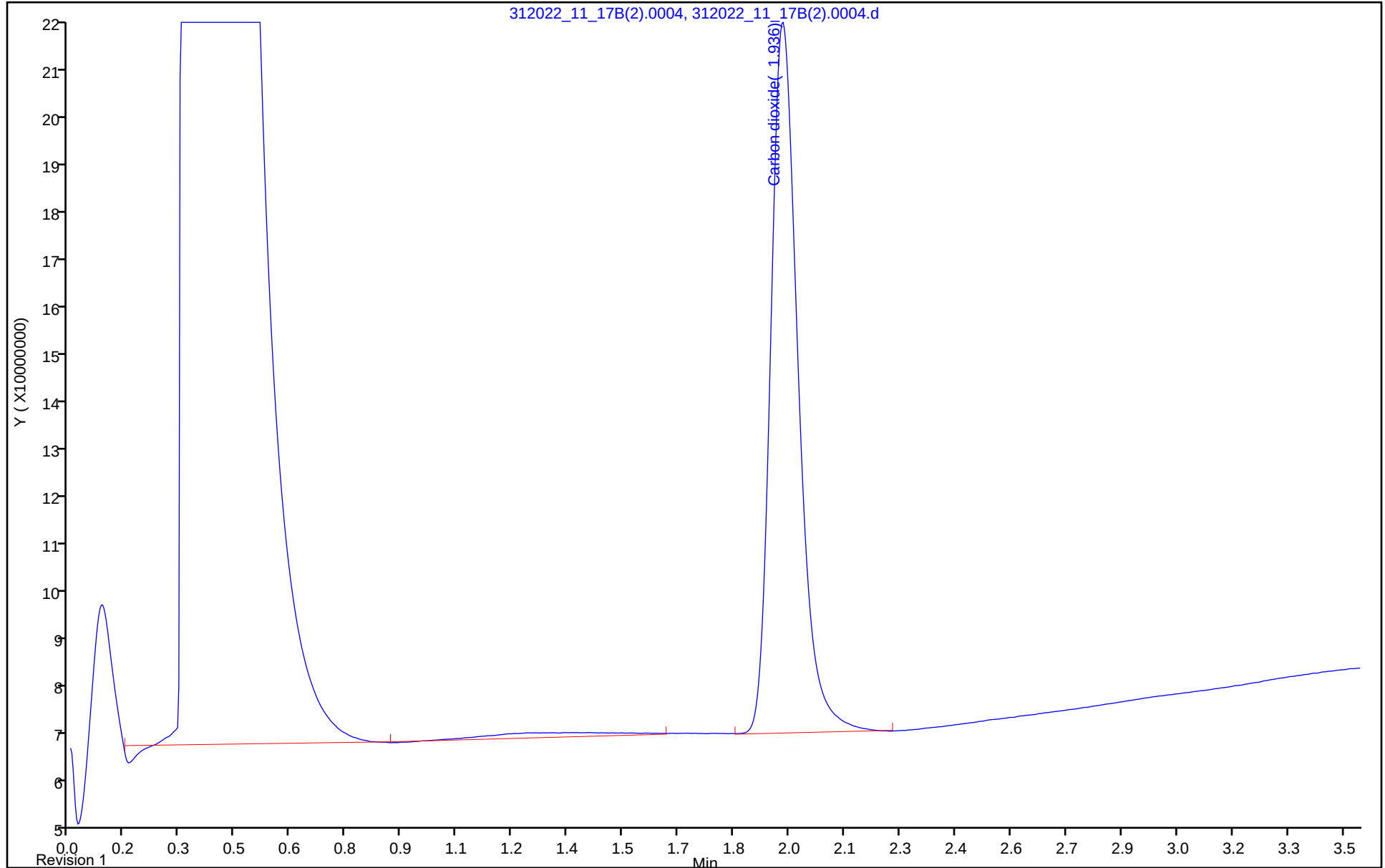
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(1).0005.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 17-Nov-2022 08:11:00 ALS Bottle#: 0 Worklist Smp#: 5
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: 4
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 08:44:32 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1666

First Level Reviewer: LXF2

Date: 17-Nov-2022 08:44:08

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.921	1.936	-0.015	318446669H	89550	88375	

QC Flag Legend

Processing Flags

H - Response Measured by Height

Reagents:

EPH_CO2MS_00004

Amount Added: 250.00

Units: uL

Report Date: 17-Nov-2022 08:44:32

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(1).0005.d

Injection Date: 17-Nov-2022 08:11:00

Instrument ID: 19506-B

Operator ID:

Lims ID: IC

Worklist Smp#: 5

Client ID:

Purge Vol: 1.000 mL

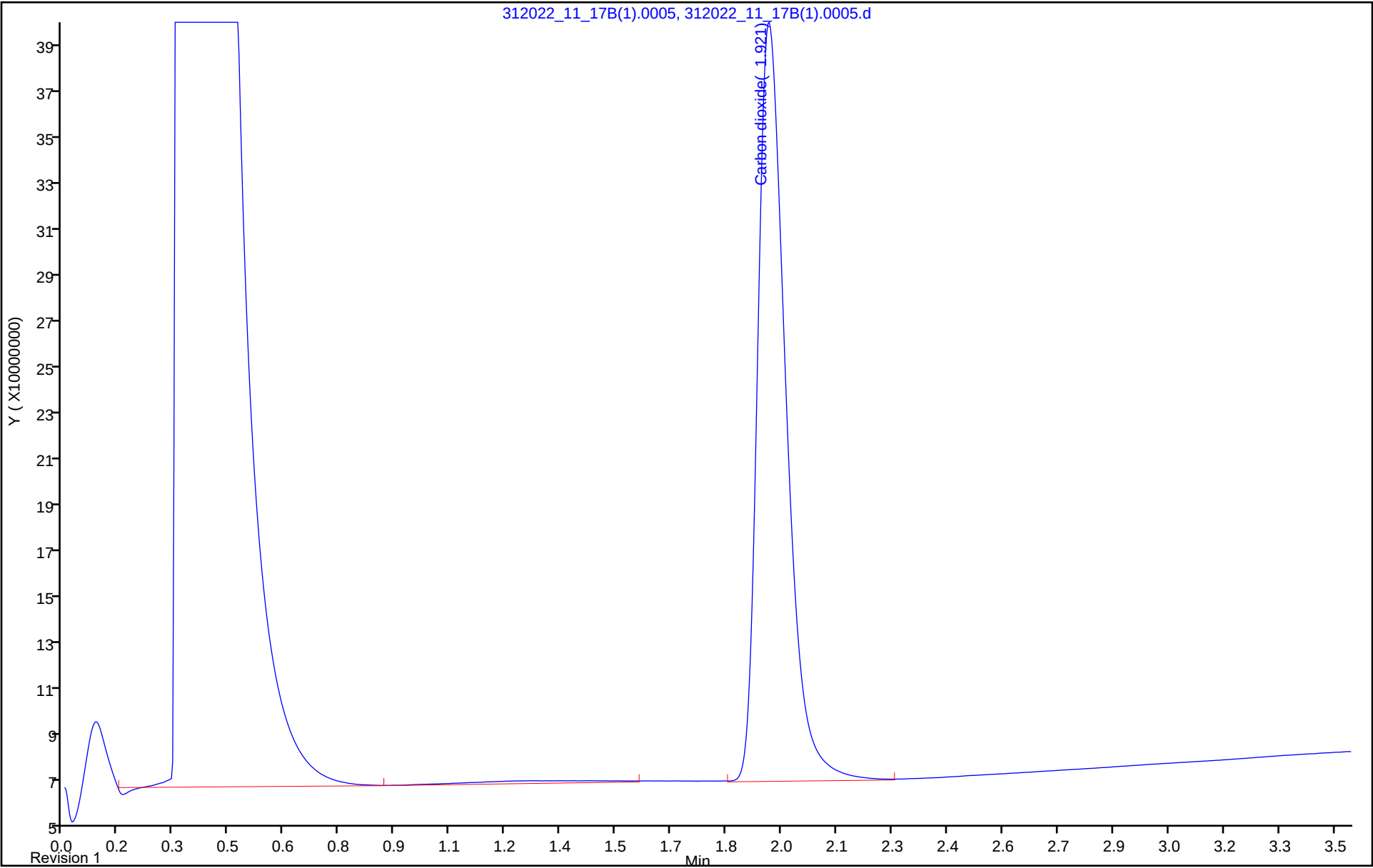
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(1).0006.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 17-Nov-2022 08:19:00 ALS Bottle#: 0 Worklist Smp#: 6
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: 5
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 08:44:33 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1666

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.908	1.936	-0.028	569115629H	179100	157941	

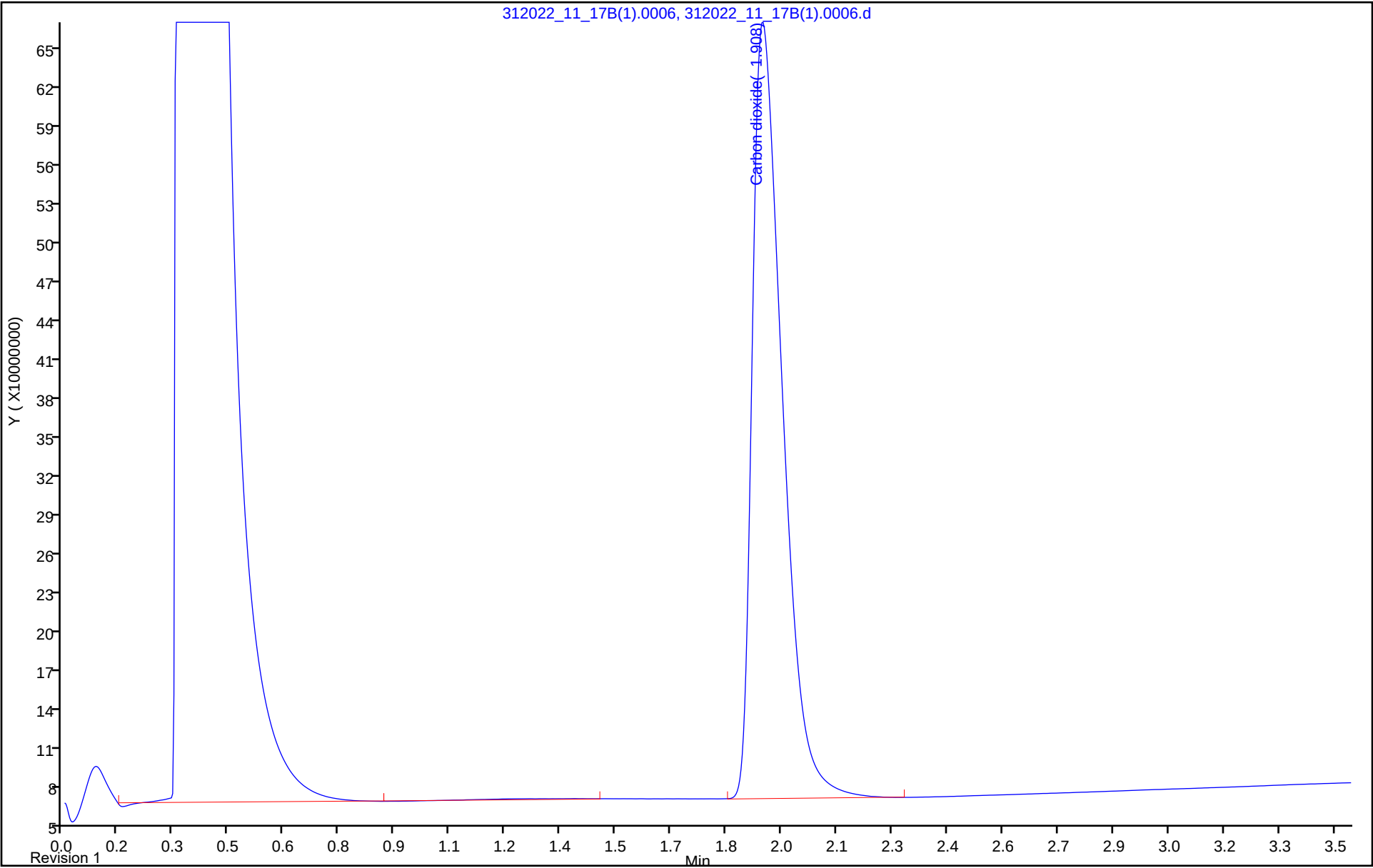
Reagents:

EPH_CO2MS_00004

Amount Added: 500.00

Units: uL

Report Date: 17-Nov-2022 08:44:33 Chrom Revision: 2.3 11-Nov-2022 14:30:00
Eurofins Lancaster Laboratories Environment Testing, LLC
Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B(1).0006.d
Injection Date: 17-Nov-2022 08:19:00 Instrument ID: 19506-B
Lims ID: IC Operator ID:
Client ID: Worklist Smp#: 6
Purge Vol: 1.000 mL Dil. Factor: 1.0000 ALS Bottle#: 0
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Lims ID: IC
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 17-Nov-2022 08:27:00 ALS Bottle#: 0 Worklist Smp#: 7
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: 6
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 08:44:34 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1666

First Level Reviewer: LXF2

Date: 17-Nov-2022 08:41:09

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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1 Carbon dioxide	1.867	1.936	-0.069	1031480714H	358200	286257	Ma
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QC Flag Legend

Processing Flags

H - Response Measured by Height

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

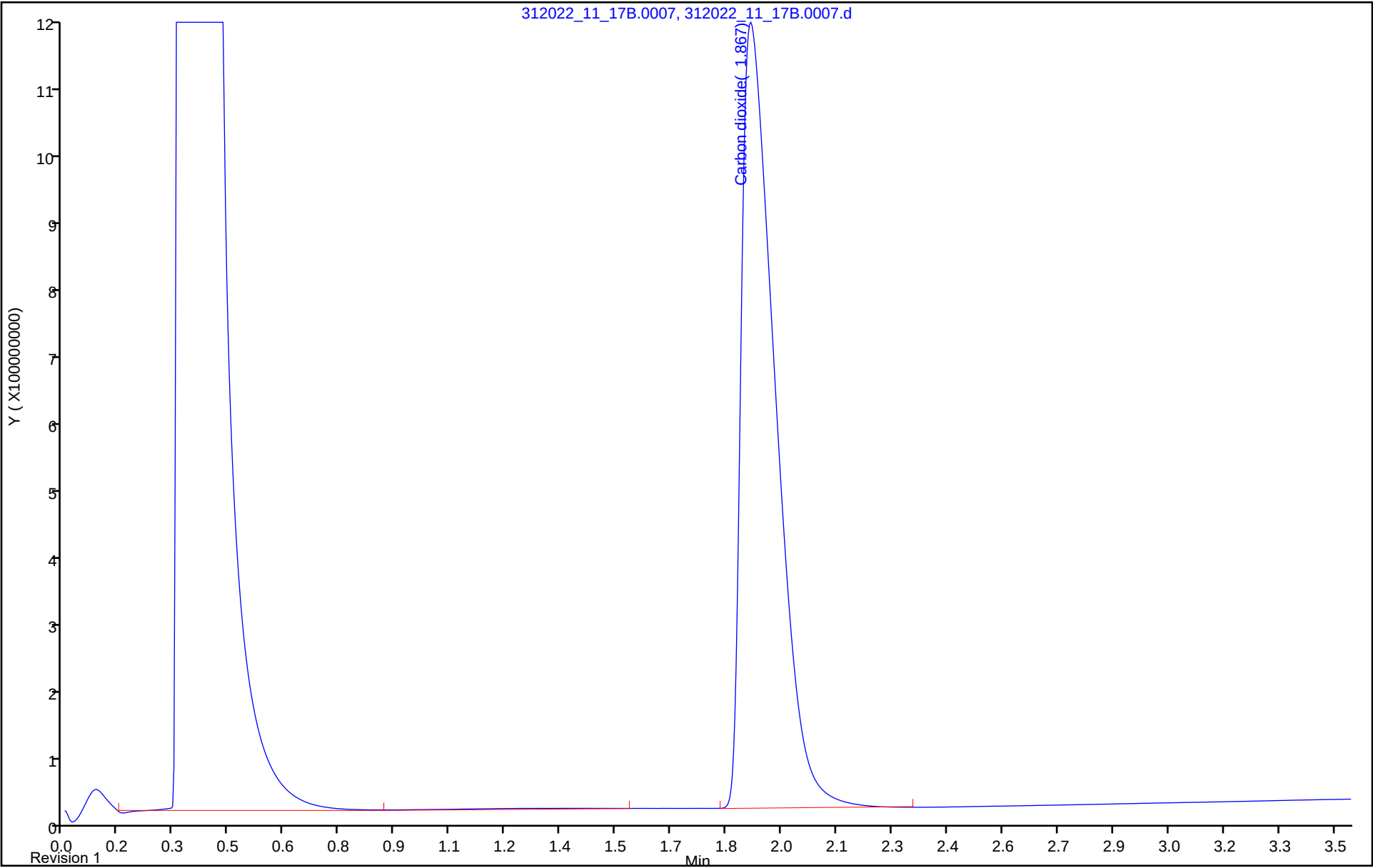
EPH_CO2MS_00004

Amount Added: 1000.00

Units: uL

Report Date: 17-Nov-2022 08:44:34 Chrom Revision: 2.3 11-Nov-2022 14:30:00
Eurofins Lancaster Laboratories Environment Testing, LLC
Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
Injection Date: 17-Nov-2022 08:27:00 Instrument ID: 19506-B
Lims ID: IC
Client ID:
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot (0.00 mm)

Operator ID:
Worklist Smp#: 7
ALS Bottle#: 0



Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
Injection Date: 17-Nov-2022 08:27:00 Instrument ID: 19506-B
Lims ID: IC
Client ID:
Operator ID:
Purge Vol: 1.000 mL
Method: RSK_CO2_19506B
Column: HP Plot (0.00 mm)

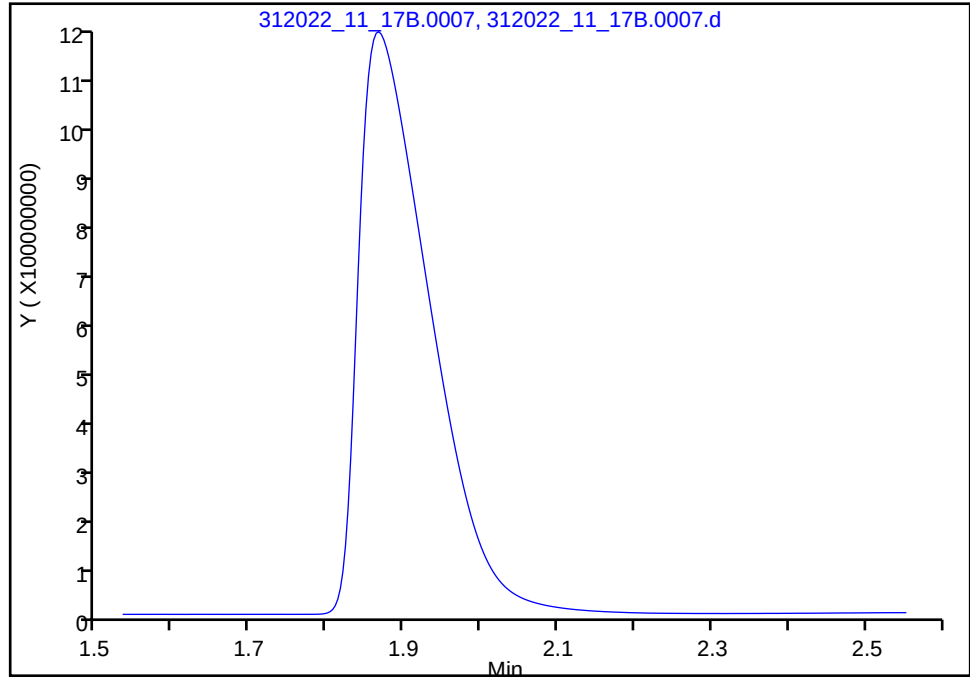
ALS Bottle#: 0 Worklist Smp#: 7
Dil. Factor: 1.0000
Limit Group: GCV - RSK175 CO2
Detector 0FIDA

1 Carbon dioxide, CAS: 124-38-9

Signal: 1

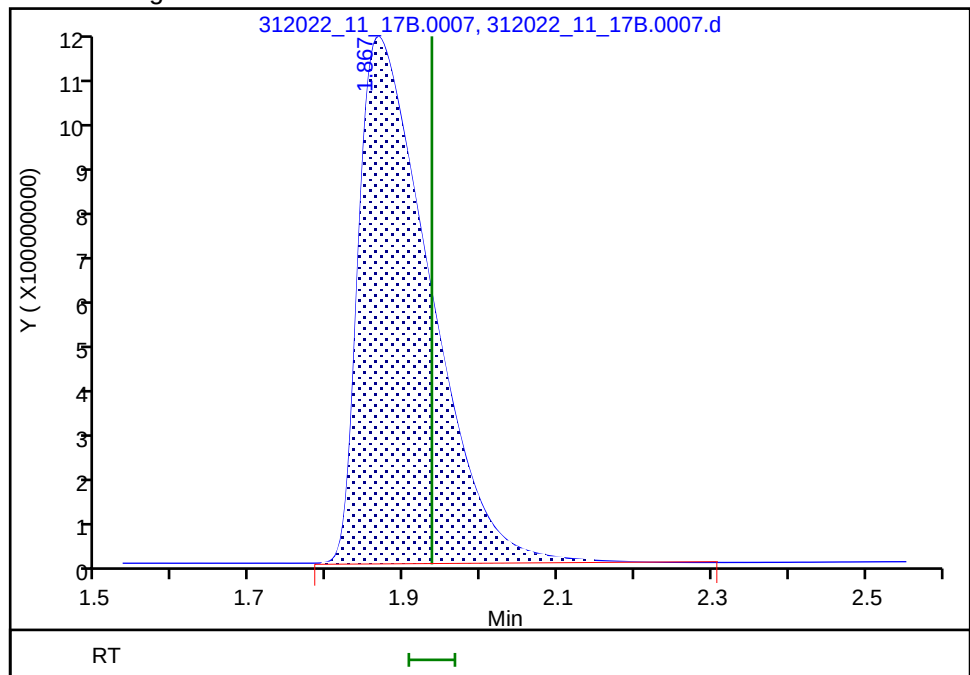
Not Detected
Expected RT: 1.94

Processing Integration Results



RT: 1.87
Height: 1031480714
Amount: 286257
Amount Units: ug/l

Manual Integration Results



Reviewer: LXF2, 17-Nov-2022 08:40:59

Audit Action: Manually Integrated
Revision 1

Audit Reason: Peak not integrated

Calibration

/ Carbon dioxide

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ESTD
Response Base: HEIGHT
RF Rounding: 0

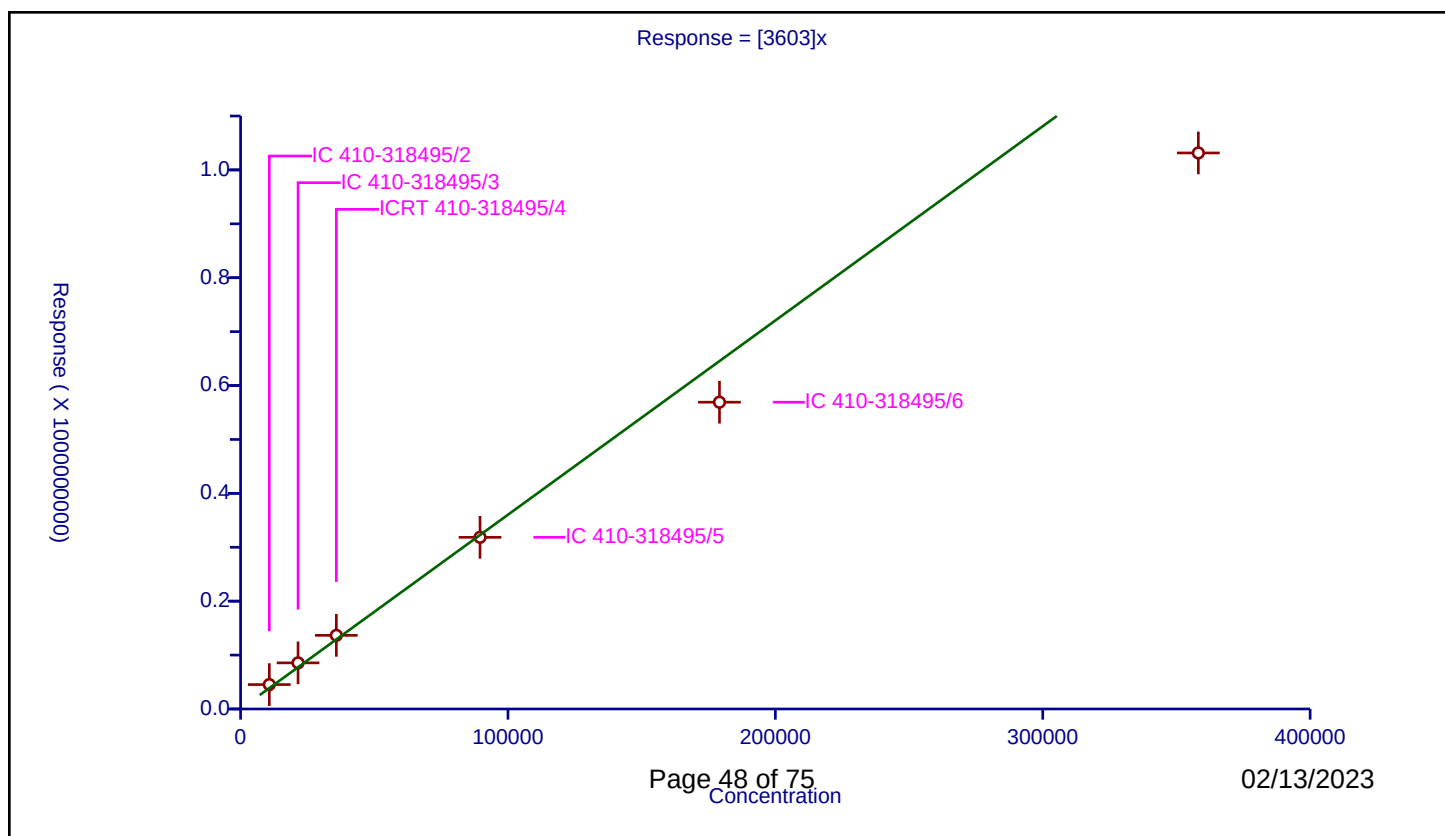
Curve Coefficients

Intercept: 0
Slope: 3603

Error Coefficients

Standard Error: 121000000
Relative Standard Error: 14.0
Correlation Coefficient: 0.997
Coefficient of Determination (Adjusted): 0.960

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 410-318495/2	10746.0	45271466.0			4212.866741	Y
2	IC 410-318495/3	21492.0	85534534.0			3979.831286	Y
3	ICRT 410-318495/4	35820.0	136617180.0			3813.991625	Y
4	IC 410-318495/5	89550.0	318446669.0			3556.076706	Y
5	IC 410-318495/6	179100.0	569115629.0			3177.641703	Y
6	IC 410-318495/7	358200.0	1031480714.0			2879.622317	Y



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-105413-1
SDG No.: _____
Lab Sample ID: ICV 410-318495/10 Calibration Date: 11/17/2022 08:52
Instrument ID: 19506-B Calib Start Date: 11/17/2022 07:47
GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 11/17/2022 08:27
Lab File ID: 312022_11_17B.0010.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	3603	3589		34900	35000	-0.4	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-105413-1
SDG No.: _____
Lab Sample ID: ICV 410-318495/10 Calibration Date: 11/17/2022 08:52
Instrument ID: 19506-B Calib Start Date: 11/17/2022 07:47
GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 11/17/2022 08:27
Lab File ID: 312022_11_17B.0010.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	1.94	1.91	1.97

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0010.d
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 17-Nov-2022 08:52:00 ALS Bottle#: 0 Worklist Smp#: 10
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: ICV
 Misc. Info.: 410-0071380-010
 Operator ID: Instrument ID: 19506-B
 Sublist:
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 13:11:20 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1648

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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1 Carbon dioxide	1.937	1.936	0.001	125651977H	35008	34871	
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Reagents:

EPH_CO2ICV_00002

Amount Added: 320.00

Units: uL

Report Date: 17-Nov-2022 15:13:01

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0010.d

Injection Date: 17-Nov-2022 08:52:00

Instrument ID: 19506-B

Operator ID:

Lims ID: ICV

Worklist Smp#: 10

Client ID:

Purge Vol: 1.000 mL

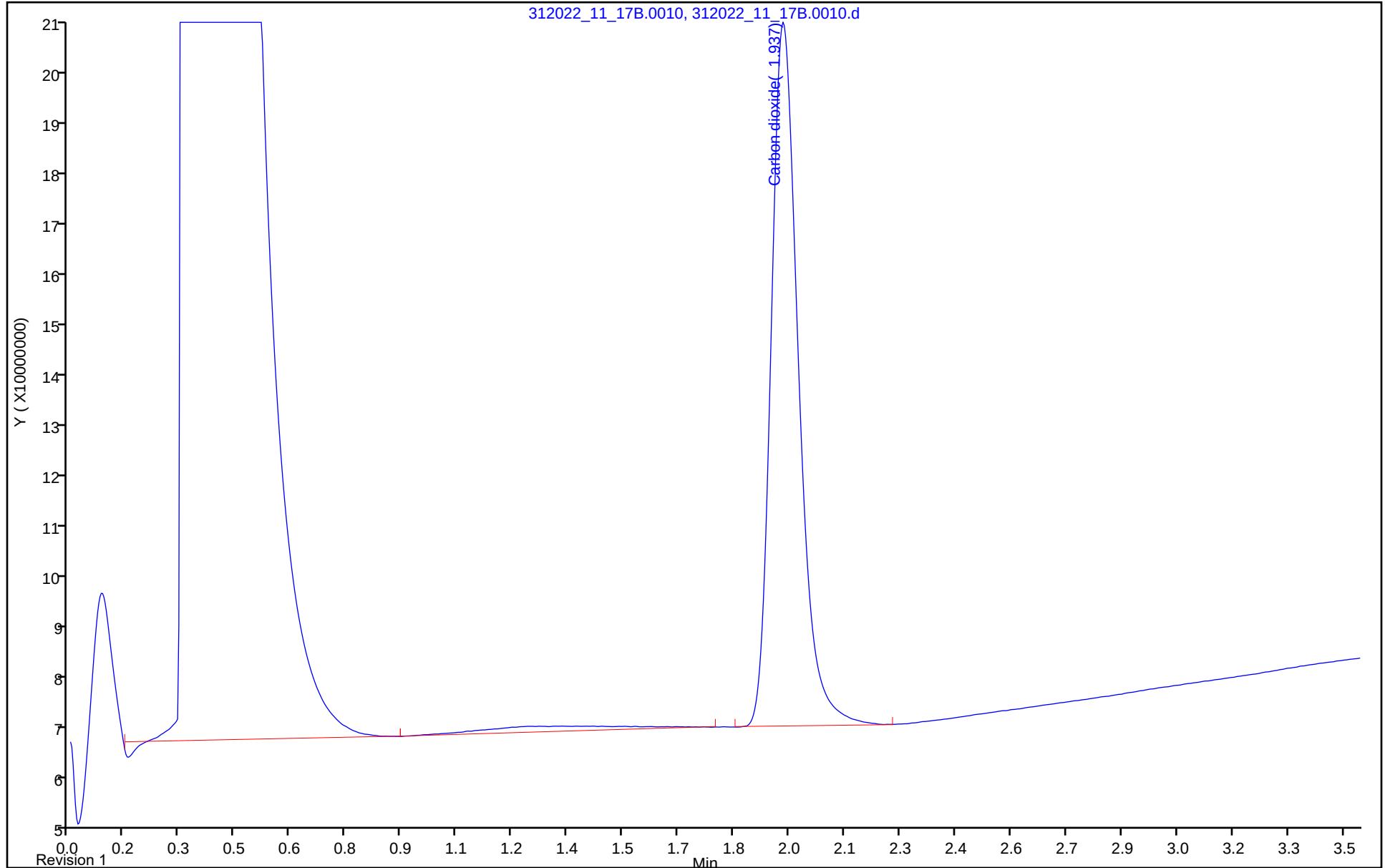
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



FORM VII
GC VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-105413-1
SDG No.: _____
Lab Sample ID: CCV 410-318495/21 Calibration Date: 11/17/2022 10:47
Instrument ID: 19506-B Calib Start Date: 11/17/2022 07:47
GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 11/17/2022 08:27
Lab File ID: 312022_11_17B.0021.d Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon dioxide	Ave	3603	3793		37700	35800	5.3	15.0

FORM VII
GC VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-105413-1
SDG No.: _____
Lab Sample ID: CCV 410-318495/21 Calibration Date: 11/17/2022 10:47
Instrument ID: 19506-B Calib Start Date: 11/17/2022 07:47
GC Column: HP Plot ID: 0.53 (mm) Calib End Date: 11/17/2022 08:27
Lab File ID: 312022_11_17B.0021.d Heated Purge: (Y/N) N

Analyte	RT	RT WINDOW	
		FROM	TO
Carbon dioxide	1.94	1.91	1.97

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0021.d
 Lims ID: ccv
 Client ID:
 Sample Type: CCV
 Inject. Date: 17-Nov-2022 10:47:00 ALS Bottle#: 0 Worklist Smp#: 21
 Purge Vol: 1.000 mL Dil. Factor: 1.0000
 Sample Info: ccv
 Misc. Info.: 410-0071380-021
 Operator ID: Instrument ID: 19506-B
 Sublist: chrom-RSK_CO2_19506B*sub1
 Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
 Limit Group: GCV - RSK175 CO2
 Last Update: 17-Nov-2022 15:13:06 Calib Date: 17-Nov-2022 08:27:00
 Integrator: Genie
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
 Column 1 : HP Plot (0.00 mm) Det: 0FIDA
 Process Host: CTX1648

First Level Reviewer: LXF2

Date: 17-Nov-2022 10:55:34

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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1 Carbon dioxide	1.941	1.936	0.005	135880829H	35820	37710	
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QC Flag Legend

Processing Flags

H - Response Measured by Height

Reagents:

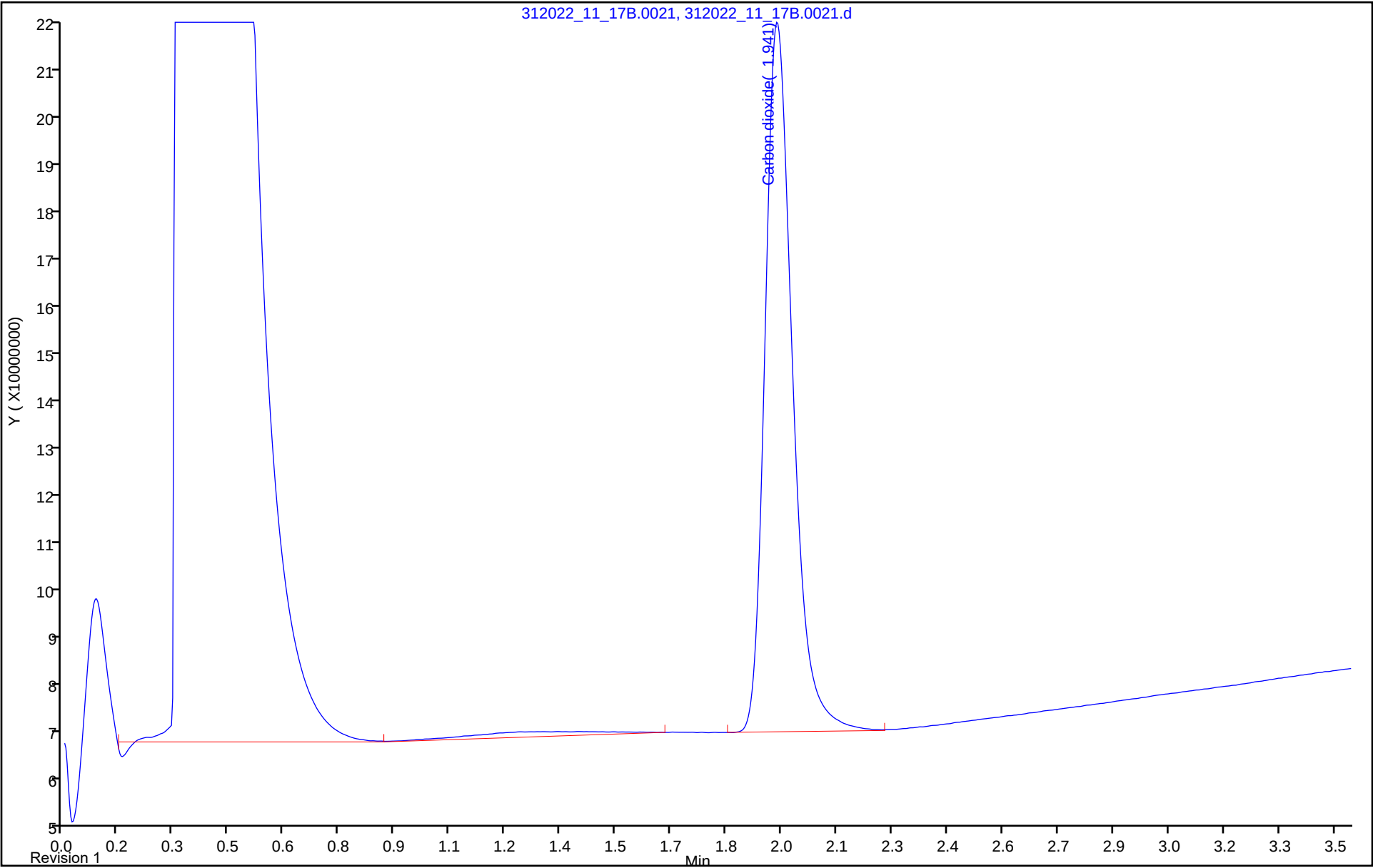
EPH_CO2MS_00004

Amount Added: 0.10

Units: mL

Report Date: 17-Nov-2022 15:13:07 Chrom Revision: 2.3 11-Nov-2022 14:30:00
Eurofins Lancaster Laboratories Environment Testing, LLC
Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0021.d
Injection Date: 17-Nov-2022 10:47:00 Instrument ID: 19506-B
Lims ID: ccv
Client ID:
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot (0.00 mm)

Operator ID:
Worklist Smp#: 21
ALS Bottle#: 0



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-105413-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MB 410-318466/1-A

Matrix: Water Lab File ID: 312022_11_17B.0011.d

Analysis Method: RSK-175 Date Collected: _____

Sample wt/vol: 5 (mL) Date Analyzed: 11/17/2022 09:24

Soil Aliquot Vol: _____ Dilution Factor: 1

Soil Extract Vol.: _____ GC Column: HP Plot ID: 0.53 (mm)

Purge Volume: _____ Heated Purge: (Y/N) N pH: _____

% Moisture: _____ % Solids: _____ Level: (low/med) Low

Analysis Batch No.: 318495 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	2600	U	12000	2600

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0011.d
Lims ID: MB 410-318466/1-A
Client ID:
Sample Type: MB
Inject. Date: 17-Nov-2022 09:24:00 ALS Bottle#: 0 Worklist Smp#: 11
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: MB 410-318466/1-A
Misc. Info.: 410-0071380-011
Operator ID: Instrument ID: 19506-B
Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
Limit Group: GCV - RSK175 CO2
Last Update: 17-Nov-2022 13:11:20 Calib Date: 17-Nov-2022 08:27:00
Integrator: Genie
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
Column 1 : HP Plot (0.00 mm) Det: 0FIDA
Process Host: CTX1648

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.945	1.936	0.009	5213538H		1446.9	

Report Date: 17-Nov-2022 15:13:02

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0011.d

Injection Date: 17-Nov-2022 09:24:00

Instrument ID: 19506-B

Operator ID:

Lims ID: MB 410-318466/1-A

Worklist Smp#: 11

Client ID:

Purge Vol: 1.000 mL

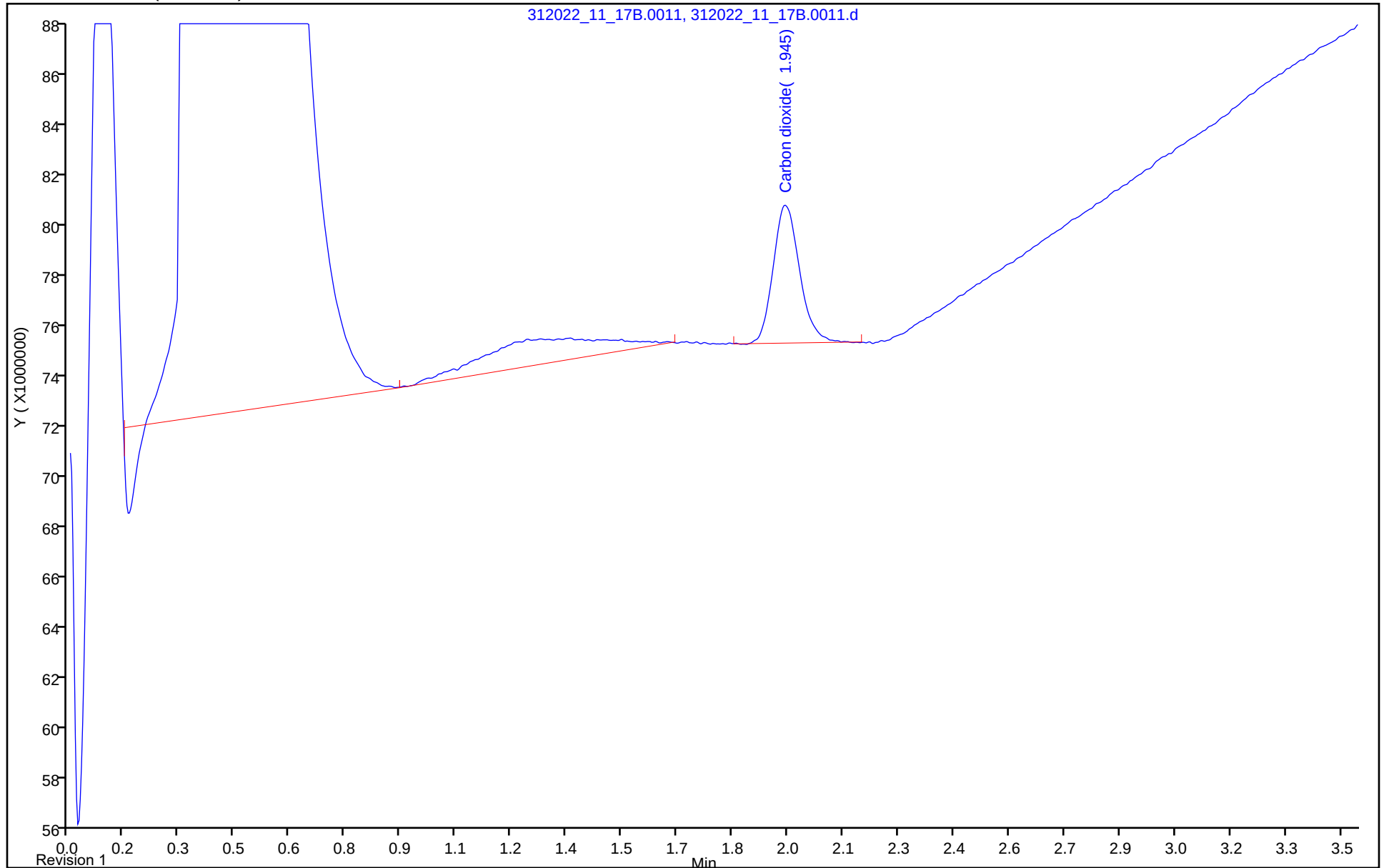
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0012.d
Lims ID: LCS 410-318466/2-A
Client ID:
Sample Type: LCS
Inject. Date: 17-Nov-2022 09:31:00 ALS Bottle#: 0 Worklist Smp#: 12
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: LCS 410-318466/2-A
Misc. Info.: 410-0071380-012
Operator ID: Instrument ID: 19506-B
Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
Limit Group: GCV - RSK175 CO2
Last Update: 17-Nov-2022 13:11:20 Calib Date: 17-Nov-2022 08:27:00
Integrator: Genie
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
Column 1 : HP Plot (0.00 mm) Det: 0FIDA
Process Host: CTX1648

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.937	1.936	0.001	137542332H	35820	38171	

Report Date: 17-Nov-2022 15:13:02

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0012.d

Injection Date: 17-Nov-2022 09:31:00

Instrument ID: 19506-B

Operator ID:

Lims ID: LCS 410-318466/2-A

Worklist Smp#: 12

Client ID:

Purge Vol: 1.000 mL

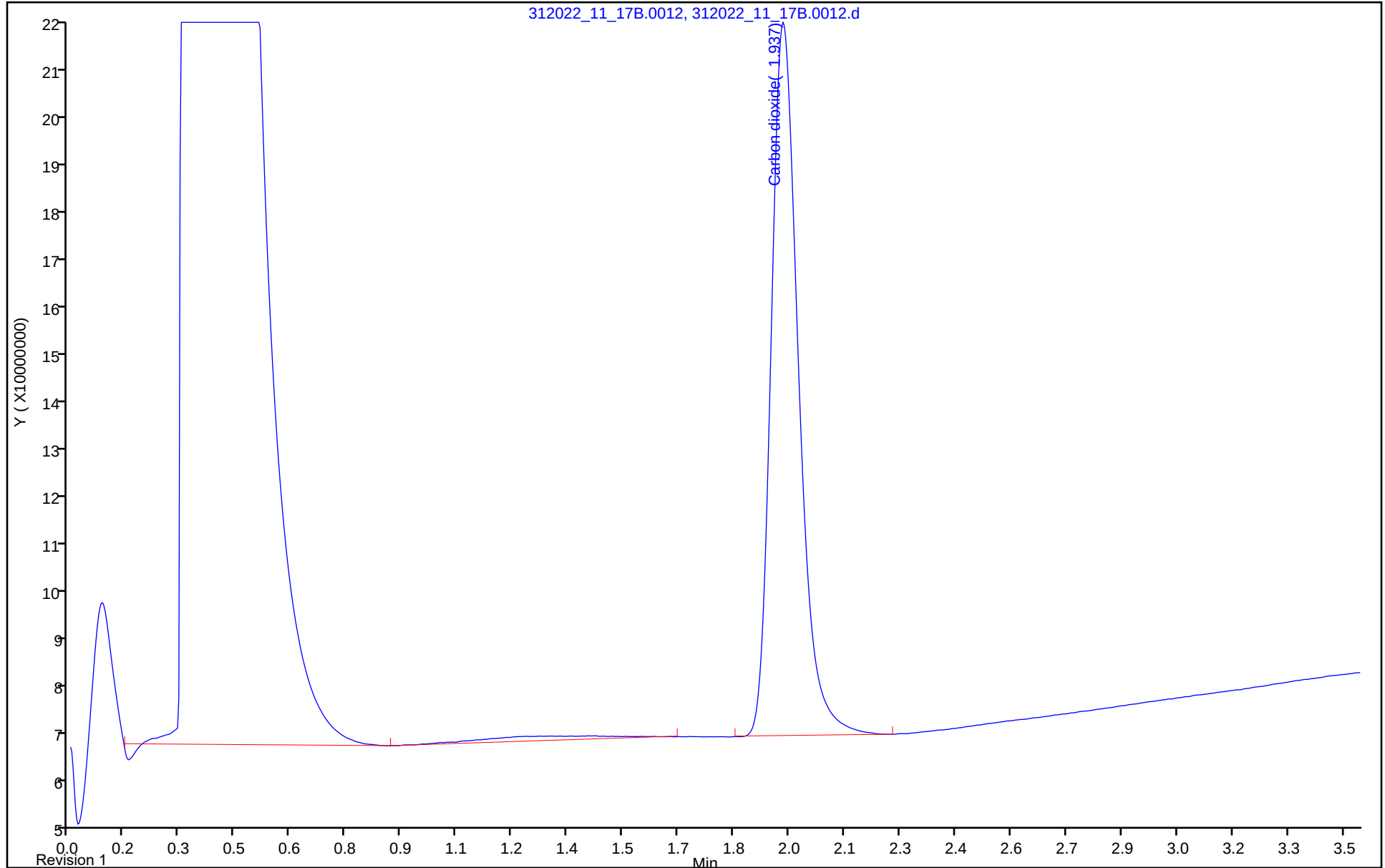
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0016.d
Lims ID: 410-105413-B-3-B MS
Client ID: HS22110582-05
Sample Type: MS
Inject. Date: 17-Nov-2022 10:09:00 ALS Bottle#: 0 Worklist Smp#: 16
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 410-105413-B-3-B MS
Misc. Info.: 410-0071380-016
Operator ID: Instrument ID: 19506-B
Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
Limit Group: GCV - RSK175 CO2
Last Update: 17-Nov-2022 13:11:20 Calib Date: 17-Nov-2022 08:27:00
Integrator: Genie
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
Column 1 : HP Plot (0.00 mm) Det: 0FIDA
Process Host: CTX1648

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.923	1.936	-0.013	389026801H	35820	107963	

Report Date: 17-Nov-2022 15:13:04

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0016.d

Injection Date: 17-Nov-2022 10:09:00

Instrument ID: 19506-B

Operator ID:

Lims ID: 410-105413-B-3-B MS

Worklist Smp#: 16

Client ID: HS22110582-05

Purge Vol: 1.000 mL

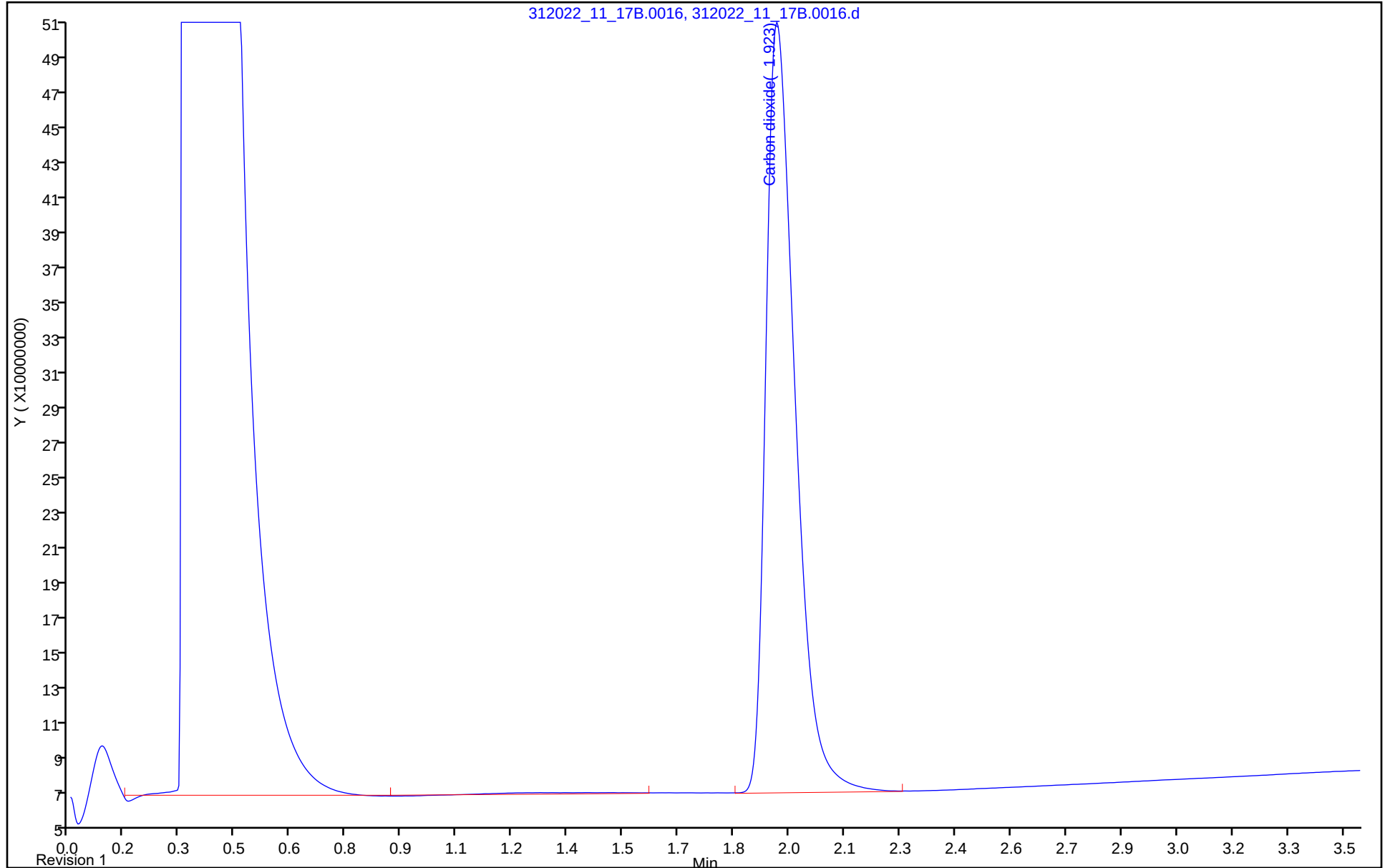
Dil. Factor: 1.0000

ALS Bottle#: 0

Method: RSK_CO2_19506B

Limit Group: GCV - RSK175 CO2

Column: HP Plot (0.00 mm)



FORM I
GC VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-105413-1
Environment Testing, LLC

SDG No.: _____

Client Sample ID: HS22110582-05 MSD Lab Sample ID: 410-105413-3 MSD

Matrix: Water Lab File ID: 312022_11_17B.0017.d

Analysis Method: RSK-175 Date Collected: 11/09/2022 07:10

Sample wt/vol: 5 (mL) Date Analyzed: 11/17/2022 10:17

Soil Aliquot Vol: _____ Dilution Factor: 1

Soil Extract Vol.: _____ GC Column: HP Plot ID: 0.53 (mm)

Purge Volume: _____ Heated Purge: (Y/N) N pH: 7.0

% Moisture: _____ % Solids: _____ Level: (low/med) Low

Analysis Batch No.: 318495 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	DL
124-38-9	Carbon dioxide	121000		12000	2600

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0017.d
Lims ID: 410-105413-B-3-C MSD
Client ID: HS22110582-05
Sample Type: MSD
Inject. Date: 17-Nov-2022 10:17:00 ALS Bottle#: 0 Worklist Smp#: 17
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Sample Info: 410-105413-B-3-C MSD
Misc. Info.: 410-0071380-017
Operator ID: Instrument ID: 19506-B
Method: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\RSK_CO2_19506B.m
Limit Group: GCV - RSK175 CO2
Last Update: 17-Nov-2022 13:11:20 Calib Date: 17-Nov-2022 08:27:00
Integrator: Genie
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0007.d
Column 1 : HP Plot (0.00 mm) Det: 0FIDA
Process Host: CTX1648

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Carbon dioxide	1.917	1.936	-0.019	435113566H	35820	120753	

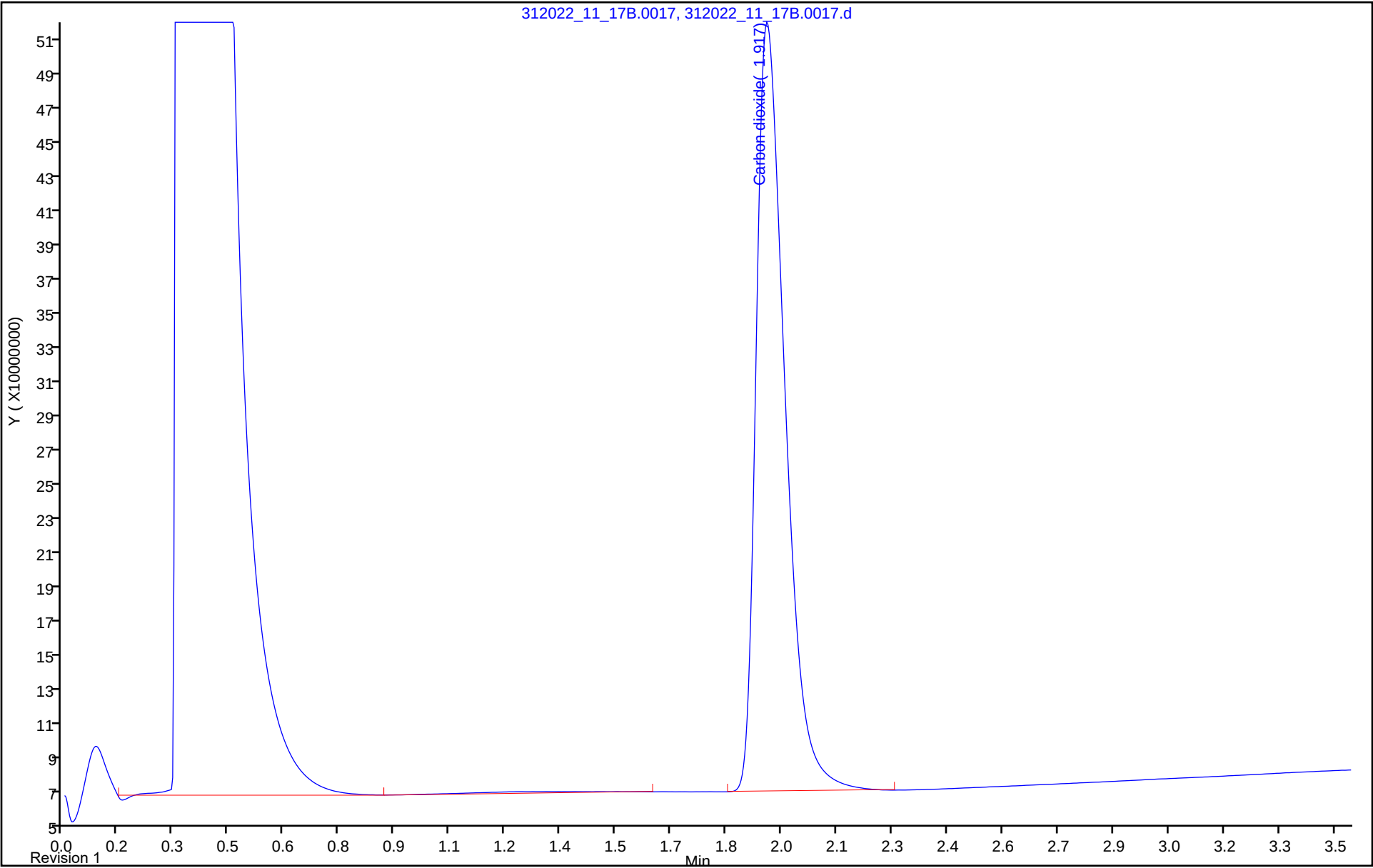
Report Date: 17-Nov-2022 15:13:05

Chrom Revision: 2.3 11-Nov-2022 14:30:00

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19506-B\20221117-71380.b\312022_11_17B.0017.d
Injection Date: 17-Nov-2022 10:17:00 Instrument ID: 19506-B
Lims ID: 410-105413-B-3-C MSD
Client ID: HS22110582-05
Purge Vol: 1.000 mL Dil. Factor: 1.0000
Method: RSK_CO2_19506B Limit Group: GCV - RSK175 CO2
Column: HP Plot (0.00 mm)

Operator ID:
Worklist Smp#: 17
ALS Bottle#: 0



GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-105413-1

SDG No.: _____

Instrument ID: 19506-BStart Date: 11/17/2022 07:39Analysis Batch Number: 318495End Date: 11/17/2022 18:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 410-318495/1		11/17/2022 07:39	1		HP Plot 0.53 (mm)
IC 410-318495/2		11/17/2022 07:47	1	312022_11_17B(1) .0002.d	HP Plot 0.53 (mm)
IC 410-318495/3		11/17/2022 07:55	1	312022_11_17B(1) .0003.d	HP Plot 0.53 (mm)
ICRT 410-318495/4		11/17/2022 08:03	1	312022_11_17B(2) .0004.d	HP Plot 0.53 (mm)
IC 410-318495/5		11/17/2022 08:11	1	312022_11_17B(1) .0005.d	HP Plot 0.53 (mm)
IC 410-318495/6		11/17/2022 08:19	1	312022_11_17B(1) .0006.d	HP Plot 0.53 (mm)
IC 410-318495/7		11/17/2022 08:27	1	312022_11_17B.0 007.d	HP Plot 0.53 (mm)
PIBLK 410-318495/8		11/17/2022 08:36	1		HP Plot 0.53 (mm)
ICVL 410-318495/9		11/17/2022 08:44	1		HP Plot 0.53 (mm)
ICV 410-318495/10		11/17/2022 08:52	1	312022_11_17B.0 010.d	HP Plot 0.53 (mm)
MB 410-318466/1-A		11/17/2022 09:24	1	312022_11_17B.0 011.d	HP Plot 0.53 (mm)
LCS 410-318466/2-A		11/17/2022 09:31	1	312022_11_17B.0 012.d	HP Plot 0.53 (mm)
410-105413-1	HS22110582-03	11/17/2022 09:46	1	312022_11_17B.0 013.d	HP Plot 0.53 (mm)
410-105413-2	HS22110582-04	11/17/2022 09:54	1	312022_11_17B.0 014.d	HP Plot 0.53 (mm)
410-105413-3	HS22110582-05	11/17/2022 10:02	1	312022_11_17B.0 015.d	HP Plot 0.53 (mm)
410-105413-3 MS	HS22110582-05 MS	11/17/2022 10:09	1	312022_11_17B.0 016.d	HP Plot 0.53 (mm)
410-105413-3 MSD	HS22110582-05 MSD	11/17/2022 10:17	1	312022_11_17B.0 017.d	HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 10:25	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 10:32	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 10:40	1		HP Plot 0.53 (mm)
CCV 410-318495/21		11/17/2022 10:47	1	312022_11_17B.0 021.d	HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 11:01	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 11:08	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 11:16	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 11:23	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 12:06	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 12:25	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 12:43	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 13:01	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 13:20	1		HP Plot 0.53 (mm)
CCV 410-318495/31		11/17/2022 13:38	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 13:57	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 14:09	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 14:17	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 14:25	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 14:34	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 14:46	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 14:54	1		HP Plot 0.53 (mm)

GC VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-105413-1

SDG No.: _____

Instrument ID: 19506-BStart Date: 11/17/2022 07:39Analysis Batch Number: 318495End Date: 11/17/2022 18:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		11/17/2022 15:02	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 15:11	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 15:19	1		HP Plot 0.53 (mm)
CCV 410-318495/42		11/17/2022 15:27	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 15:35	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 15:44	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 15:52	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 16:00	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 16:08	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 16:16	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 16:25	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 16:33	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 16:41	1		HP Plot 0.53 (mm)
CCV 410-318495/52		11/17/2022 16:49	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 16:57	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 17:06	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 17:14	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 17:22	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 17:30	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 17:38	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 17:47	1		HP Plot 0.53 (mm)
CCV 410-318495/60		11/17/2022 17:55	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 18:03	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 18:11	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 18:19	1		HP Plot 0.53 (mm)
ZZZZZ		11/17/2022 18:28	1		HP Plot 0.53 (mm)
CCV 410-318495/65		11/17/2022 18:36	1		HP Plot 0.53 (mm)

GC VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-105413-1

SDG No.: _____

Batch Number: 318466 Batch Start Date: 11/17/22 05:48 Batch Analyst: Kennedy, Johanna CBatch Method: RSK-175 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial pH	InitialAmount	FinalAmount	Headspace	EPH_CO2MS 00004	
MB 410-318466/1		RSK-175, RSK-175		n/a SU	5 mL	5 mL	n/a		
LCS 410-318466/2		RSK-175, RSK-175		n/a SU	5 mL	5 mL	n/a	0.1 mL	
410-105413-B-1	HS22110582-03	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no		
410-105413-B-2	HS22110582-04	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no		
410-105413-B-3	HS22110582-05	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no		
410-105413-B-3 MS	HS22110582-05	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no	0.1 mL	
410-105413-B-3 MSD	HS22110582-05	RSK-175, RSK-175	T	7 SU	5 mL	5 mL	no	0.1 mL	

Batch Notes	
Pipette/Syringe/Dispenser ID	7105
pH Indicator ID	10BDH1521

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents



410-105413 Chain of Custody

10450 Stancliff Rd, Ste 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

Subcontract Chain of Custody

SAMPLING STATE: Dept of Defense

COC ID: 20312

SUBCONTRACT TO:

Eurofins Lancaster Laboratories Env't Testing
2425 New Holland Pike
Lancaster, PA 17601

Phone: +1 717 656 2300

CUSTOMER INFORMATION:

Company: ALS Houston
Contact: Dane J. Wacasey
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Email: Dane.Wacasey@alsglobal.com
Alternate Contact: Jumoke M. Lawal
Email: jumoke.lawal@alsglobal.com

INVOICE INFORMATION:

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Stancliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: HS22110582
TSR: Ron Martino

	LAB SAMPLE ID	CLIENT SAMPLE ID	MATRIX	COLLECT DATE
	ANALYSIS REQUESTED			DUE DATE
1.	HS22110582-03	67WW08-221109	Groundwater	09 Nov 2022 08:40
	RSK - CO2; Level II & IV, LHAAP EQUIS EDD			28 Nov 2022
2.	HS22110582-04	67WW08-221109-FD	Water	09 Nov 2022 08:40
	RSK - CO2; Level II & IV, LHAAP EQUIS EDD			28 Nov 2022
3.	HS22110582-05	67WW13-221109	Groundwater	09 Nov 2022 07:10
	RSK - CO2; Level II & IV, LHAAP EQUIS EDD			28 Nov 2022

Comments: HS22110582-05 designate as MS/MSD

Please analyze for the analysis listed above.
Send report to the emails shown above.

QC Level: DOD IV (DoD Data Package)

Relinquished By:

[Signature]

Cooler ID(s): _____

Date/Time:

11/14/22 18:00

Date/Time: *11/14/22 1010*

Temperature(s): _____

Purchase Order

PO: HS22110582

VENDOR:

Eurofins Lancaster Laboratories Env't Testing
2425 New Holland Pike
Lancaster, PA 17601

Phone: +1 717 656 2300

**CUSTOMER
INFORMATION:**

Company: ALS Houston
Contact: Dane J. Wacasey
Address: 10450 Standcliff Rd, Ste 210
Phone: +1 281 530 5656
Email: Dane.Wacasey@alsglobal.com
Alternate Contact: Jumoke M. Lawal
Email: jumoke.lawal@alsglobal.com

**INVOICE
INFORMATION:**

Company: ALS Houston
Contact: Accounts Payable
Address: 10450 Standcliff Rd, Ste 210
Phone: +1 281 530 5656
Reference: 20312
TSR: Ron Martino

Item	Catalog No	Unit Price	Quantity	Ext Price
1. RSK - CO2; Level II & IV, LHAAP EQUIS EDD	NA	\$115.25	3	\$345.75

Order Total: \$345.75

W

Login Sample Receipt Checklist

Client: ALS Group USA, Corp

Job Number: 410-105413-1

Login Number: 105413**List Source: Eurofins Lancaster Laboratories Environment Testing, LLC****List Number: 1****Creator: McCaskey, Jonathan**

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace $> 6\text{mm}$ in diameter (none, if from WV)?	True	

Eurofins Lancaster Laboratories Environment Testing, LLC